Enhancing Project Scheduling with AI Driven Analysis: A Case Study on Helipad Construction

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EXECUTIVE SUMMARY

This paper demonstrates how Artificial Intelligence (AI) can be used to improve the quality and reliability of construction project scheduling, using Primavera P6 as the primary planning tool. The paper focuses on a real-world case study involving the construction of a new helipad, which requires accurate coordination of construction activities, timely resource management, and risk control. The goal is to show how AI tools, such as ChatGPT, can assist project planners in identifying scheduling errors, improving logic, optimizing timelines, and enhancing the overall planning process.

The helipad construction consists of several main phases: site preparation, sub-base and concrete pad construction, surface finishing and painting, installation of lighting and other equipment, and the final inspection and handover. These phases are translated into a detailed Work Breakdown Structure (WBS), which serves as the foundation for creating a full project schedule in Primavera P6. Each activity is assigned realistic durations, logical dependencies, and resources based on construction experience and project needs.

AI is used as a supporting tool throughout the scheduling process. Since AI cannot be integrated directly within Primavera P6, the schedule is exported into Excel format for review. Using AI, the exported schedule data is checked for missing links, scheduling logic errors, excessive float, over assigned resources, and unrealistic durations. AI also supports the analysis of project risks, helping to identify where delays could occur and recommending time buffers or adjustments to critical activities. This review process strengthens the schedule and helps avoid common planning mistakes.

The methodology follows a structured sequence: (1) defining the project scope and goals, (2) creating the WBS, (3) building the initial schedule in Primavera P6, (4) exporting the schedule for AI review, (5) applying AI feedback to refine the schedule, and (6) documenting the entire process. By following this method, the schedule evolves from a basic plan to a more optimized and reliable tool that project managers can trust for decision-making and project control.

Key findings from the study highlight the benefits of combining human scheduling knowledge with AI support. The AI not only helps verify logic and timelines but also acts as a quality control layer by reviewing the schedule from an unbiased, analytical perspective. This integration of AI with traditional planning software increases the planner's confidence and reduces the risk of costly delays or rework during construction.

This paper demonstrates how AI can act as a helpful assistant in construction scheduling, without replacing the scheduler's role, and provides a repeatable method that can be applied to similar construction projects in the future. By using AI as a support tool, this paper contributes to the growing use of smart technology in construction management and provides practical value to professionals aiming to improve schedule quality, reduce risk, and plan with greater confidence.

INTRODUCTION

The construction of helipads is essential for improving access to emergency services, transportation logistics, and medical or military operations, especially in locations where rapid aerial access is needed. A well-constructed helipad ensures the safe landing and takeoff of helicopters by meeting specific structural, surface, and safety standards. While smaller in scale, helipad construction still demands precision in planning and scheduling compared to larger infrastructure projects, it still requires detailed planning, accurate coordination, and reliable scheduling to ensure timely completion and high-quality results.

In any construction project, accurate scheduling is critical for success. A well-developed schedule helps project teams manage resources, avoid delays, and keep activities aligned with deadlines and budgets. Poor scheduling can lead to wasted time, cost overruns, and confusion during execution. This is especially important in compact projects like helipads, where each task must be coordinated precisely to avoid conflicts and delays.

To manage the schedule of the helipad construction, this study uses Primavera P6, a widely used project management and scheduling software in the construction industry. Primavera P6 allows planners to create detailed activity sequences, assign durations, link dependencies, and allocate resources. It also provides tools for tracking progress and identifying critical path activities. The software is especially effective for managing large numbers of tasks and coordinating complex schedules.

However, even experienced planners can make errors in logic, duration estimates, or resource assignments. For this reason, Artificial Intelligence (AI) tools such as ChatGPT are introduced as a support system. Although AI cannot be directly embedded into Primavera P6, it can be used to review exported schedule data (e.g., in Excel format) to identify issues, simulate risks, and suggest improvements. AI tools bring added value by acting as a second set of "eyes" to validate the quality of the plan and help avoid overlooked errors.

The objective of this paper is to demonstrate how AI tools can be used to improve a Primavera P6 construction schedule for a helipad project. This includes identifying schedule logic issues, improving accuracy in activity durations and sequences, supporting resource planning, and highlighting potential risks. The final goal is to create a more reliable and optimized schedule by combining the strengths of Primavera P6 with the analytical power of AI tools. Through this process, the paper contributes to the growing interest in using digital technologies to support modern construction project management.

AI-Enhanced Scheduling for Rotary Wing Helipad Construction

This paper focuses on the construction of a new Rotary Wing Helipad located within a controlled site, designed to meet the operational needs of rotary aircraft, particularly for military, medical, and emergency logistics. This case study reflects project standards typically used by the U.S. Army Corps of Engineers and built according to Unified Facilities Guide Specifications (UFGS), the helipad is a critical infrastructure component. The study also explores how Artificial Intelligence (AI) tools, specifically external platforms like ChatGPT, can be applied to enhance construction scheduling practices. By integrating AI with the Primavera P6 software used for schedule creation and management, it aims to improve accuracy, detect inefficiencies, and support better-informed planning decisions.

The construction work is divided into five key phases. The first phase is Site Preparation, which includes activities such as demolition of existing materials, clearing and grubbing, excavation, and grading. These tasks are fundamental in preparing a level, stable platform for construction to proceed. The second phase, Sub-base and Concrete Pad Construction, involves building the structural base using lime-treated subgrade and aggregate layers, followed by the casting of the reinforced concrete helipad slab. This phase also includes the installation of expansion joints, curing treatments, and compressive strength testing.

Following the structural works, the third phase is Surface Finishing and Painting, where pavement grinding, final surface tolerances, and reflective markings are applied to meet FAA and military visibility standards. The fourth phase, Lighting and Equipment Installation, covers the setup of lighting systems for night operations, including obstruction lighting, constant current regulators, wind cones, and auxiliary power units such as stationary engine-generators. These elements ensure safe operation during all environmental conditions. Finally, the project concludes with the Final Inspection and Handover, where all systems are tested, documentation such as O&M manuals and as-built drawings are completed, and the facility is formally turned over to the client after quality assurance reviews.

To support this complex schedule, Primavera P6 was used to develop a comprehensive Work Breakdown Structure (WBS), define relationships among tasks, assign durations, and estimate resource needs. The initial schedule was then exported to Excel and uploaded into an AI tool for evaluation. The AI provided feedback on logic inconsistencies, unrealistic durations, resource

conflicts, and overlooked dependencies. Based on these insights, refinements were made to the original Primavera schedule to improve accuracy and efficiency. This feedback loop demonstrates how AI can serve as a quality-checking and optimization companion to human schedulers without replacing core project management software.

This paper aims to contribute both to construction practice and academic knowledge by showcasing a real-world application of AI in construction management. It demonstrates the potential of AI-assisted tools to minimize planning risks, validate schedule assumptions, and provide early warning signals on potential issues. Through this study, schedulers and construction managers can gain practical insights into how AI can be leveraged to support decision-making, reduce rework, and improve project delivery outcomes.

Objectives

- Integrate AI with Primavera P6
- Identify and correct logic/resource/duration errors
- Optimize task sequencing and risk identification
- Demonstrate practical use of AI tools

LITERATURE REVIEW

The use of Artificial Intelligence (AI) in construction scheduling has become increasingly relevant, especially for improving the quality of detailed project plans created in software like Primavera P6. In this paper, AI was applied to enhance the planning and execution process related to a helipad construction project, where traditional scheduling alone was not sufficient to catch potential issues in logic and resource allocation. After the full schedule was developed in Primavera P6, the data was exported to Microsoft Excel for AI processing. Because AI tools like ChatGPT cannot directly access Primavera, this conversion step was necessary. The exported Excel file was uploaded to ChatGPT and used to ask targeted questions about the schedule. These questions focused on checking the logical relationships between activities, identifying any missing or incorrect links, reviewing resource assignments (including labor, equipment, materials, and tools), and detecting any gaps or errors in the activity flow. This approach aligns with the findings of Zhang et al. (2020), who emphasize AI's ability to assist with schedule analysis when used in coordination with traditional project tools.

The AI-generated insights helped uncover several logic inconsistencies and resource overloads that had not been visible within Primavera. These findings were not automatically corrected but were manually reviewed and applied to the P6 schedule by the planner activity by activity. This confirms prior research showing that while AI is not yet fully integrated with construction scheduling software, it serves as a powerful external reviewer (Khosrowshahi & Arayici, 2012).

This method also supports guidelines issued by agencies like the U.S. Army Corps of Engineers (USACE) and Unified Facilities Guide Specifications (UFGS), which emphasize the importance of accurate, logic-based scheduling and field-level risk detection. By verifying activity sequences, resource distribution, and material needs, AI tools align with best practices for high-risk, mission-critical infrastructure projects like helipads (USACE, 2023; UFGS, n.d.).

Supporting details are provided in the appendices, which include a fully detailed, resource-loaded schedule with all materials, labor, tools, and equipment needed. The appendices also contain daily activity logs exported from Primavera P6 to help with project tracking. These logs were updated after fixing problems found by the AI review. Together, these documents clearly show how the project was planned, checked, and improved using both traditional scheduling and AI support.

In summary, this paper demonstrates how AI can assist in reviewing and improving construction schedules, even without full integration into software like Primavera P6. The results show AI is valuable for checking logic, resources, and risks, especially when used by experienced schedulers who understand scheduling and Primavera well.

METHODOLOGY

This study employed a structured, step-by-step approach to demonstrate how Artificial Intelligence (AI) tools can be effectively integrated with Primavera P6 to optimize the planning and scheduling of a real-world construction project. The methodology was designed to mirror practical project controls processes while enhancing them using intelligent technology. The tools used throughout this study include Primavera P6, a widely recognized software for professional project scheduling and control, and AI tools such as ChatGPT, which served as external assistants for reviewing, validating, and improving schedule data and logic.

The process began with a clear definition of the project scope. The goal was to construct a rotary wing helipad that meets U.S. Army Corps of Engineers standards. Once the objective and deliverables were established, a Work Breakdown Structure (WBS) was developed to divide the entire project into manageable components. phases such as site preparation, sub-base and concrete pad construction, surface finishing, lighting and equipment installation, and final handover along with their respective sub-activities.

After finalizing the WBS, the initial schedule was developed in Primavera P6. Each activity was entered into the software along with corresponding WBS codes. Following this, durations were estimated based on industry standards, past project data, and construction norms. Logical relationships were assigned between tasks using dependency types such as Finish-to-Start (FS), Start-to-Start (SS), and others where applicable. This created a draft network logic that defined the sequence in which activities would occur.

In the next step, resources such as labor categories (e.g., Site Supervisor, Quality Control Manager), equipment, and materials were assigned to each activity. Resource allocation considered both availability and productivity rates to ensure the schedule reflected realistic project performance expectations. Cost loading and crew assignment were also considered during this phase for better planning control.

Once the preliminary schedule was complete, it was exported from Primavera P6 to Microsoft Excel format. This allowed for easier interaction with AI tools, which currently cannot access or operate directly within Primavera's native environment. The exported data included activity names, WBS levels, durations, logic relationships, start and finish dates, and resource assignments.

The AI tool (ChatGPT) was then used to conduct a thorough review of the exported schedule data. The AI assisted in identifying potential scheduling issues, such as missing or illogical activity relationships, unrealistic duration estimates, and over-allocated resources. It also flagged float problems and gaps in the critical path. Furthermore, the AI generated suggestions based on common construction sequencing norms and past project performance indicators, improving the overall logic and structure of the schedule.

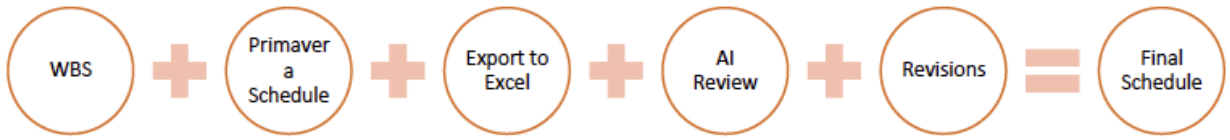


Figure 1 Study Methodology Summary

A critical part of the methodology was risk analysis. The AI simulated possible risks, such as weather-related delays, equipment breakdowns, or staffing shortages. It analyzed the impact of these risks on the critical path and overall project duration, highlighting the most vulnerable areas of the schedule. Based on the AI's recommendations, contingency buffers and revised sequencing were introduced where necessary.

Finally, the revised feedback was used to update and finalize the schedule in Primavera P6. Logic corrections, resource smoothing, and reallocation were implemented. The result was a more robust and risk-aware project schedule. This final version reflects both human planning expertise and AI-assisted optimization, representing a collaborative method for enhancing construction scheduling accuracy.

RESULTS AND DISCUSSION

1. AI Integration Process

The integration of Artificial Intelligence (AI) into this construction scheduling project served as a strategic enhancement tool rather than a replacement for human expertise or scheduling software. AI was used at multiple stages of the project planning cycle to assist with review, validation, and

improvement of the Primavera P6 schedule. Since Primavera P6 does not support embedded AI functionality, the exported schedule was analyzed using external AI tools, such as ChatGPT, through structured and iterative prompt-based interactions.

AI was first used during the WBS review phase, where prompts were crafted to assess the structure and completeness of the Work Breakdown Structure. For instance, the AI was asked: *"Does this WBS structure reflect a complete helipad construction project? What key phases or activities may be missing or miscategorized?"* The AI suggested clearer hierarchical breakdowns, identified missing components like utility coordination or surface finishing, and flagged redundant entries.

In the schedule logic phase, AI helped examine the sequencing of tasks. Prompts such as *"Please identify illogical or missing relationships in this activity list"* or *"Are there float or logic issues in this schedule based on the following FS and SS dependencies?"* enabled the AI to identify flaws such as concurrent dependencies where sequential logic was expected. For good example, it flagged that 'Lighting Installation' was set to start before 'Concrete Curing' had finished, which was technically infeasible.

In the duration estimation phase, the AI was prompted with: *"Review these activity durations and suggest if any are too short or long based on industry norms for helipad construction."* It then pointed out that some tasks, like 'Surface Finishing,' had durations that were too tight and didn't reflect realistic curing and inspection times. After implementing this feedback, revised durations were more aligned with site conditions and resource capacities.

When reviewing resource assignments, the AI was asked: *"Are the assigned resources reasonable for these activities? Suggest if the manpower or equipment seems over/underestimated."* The tool pointed out instances of over-allocation and recommended spreading resources or adjusting task overlaps to avoid crew conflicts.

Below are simplified examples of AI feedback before and after corrections:

- Before AI Review: "Install lighting system" started two days before "Concrete Pad Curing" ended.
- After AI Correction: The logic was revised to start lighting installation after the full curing duration, resolving a sequencing flaw.
- Before AI Review: "Marking and Painting" was assigned 1 day, without accounting for drying or rework.
- After AI Suggestion: Duration extended to 3 days, with added float for weather risk.

The benefits of AI feedback included improved activity sequencing, more realistic duration assignments, enhanced identification of logic gaps, and early recognition of potential risks. AI served as a digital assistant that provided a second layer of review and verification, helping the scheduler see issues that may have been missed during manual checks. It also facilitated more efficient decision-making by quickly processing complex logic and offering solutions based on best practices and prior project data.

However, AI also presented some limitations in this context. The AI tool could not access Primavera P6 directly, requiring data to be manually exported to Excel for review. Its feedback was only as accurate as the information provided, meaning that poorly formatted or incomplete data could lead to inaccurate suggestions. Additionally, while AI could simulate common construction logic and risks, it lacked real-time context such as on-site conditions, weather forecasts, or team-specific productivity rates, which are crucial in practical scheduling.

Despite these constraints, the integration of AI in the scheduling process added measurable value. It helped refine the schedule and improved overall confidence in the plan's logic and feasibility positioning AI as a reliable companion tool for construction planning professionals.

2. Project Schedule and Analysis

The project schedule for the rotary-wing helipad construction was developed using Primavera P6, following a structured and hierarchical Work Breakdown Structure (WBS) that captured all essential phases and activities. The baseline schedule spans from December 1, 2025, to April 2, 2027, covering 334 working calendar days. The project is organized into four main phases:

a. Preconstruction Activities
b. Procurement and Documentation: including submittals, manufacturing, supply, and onsite storage
c. Construction Execution – all physical work required by the scope
d. Project Closeout – testing, training, site cleanup, and final handover

A total of 505 activities is included in the baseline schedule, out of which 414 are on the critical path, indicating zero float and a direct impact on the project's completion date. The schedule also includes three major milestones and one Level of Effort (LOE) activity to support continuous tracking and coordination among teams.

See Appendix A for the full Baseline Schedule, including activity IDs, durations, start and finish dates, relationships, and calendar settings.

2.1. Phase-by-Phase Breakdown of the Project Schedule

The entire schedule is divided into four key project phases, each with detailed activities, resource assignments, and milestone targets.

I. Preconstruction Activities

This phase includes:

- Site assessments
- Permitting and regulatory clearance
- Preconstruction meetings
- Initial mobilization of personnel

These activities set the foundation for all downstream work. All required roles—such as the Project Manager, Site Safety Officer, and Quality Control Manager—are engaged during this period through LOE assignments to support upcoming submittals and coordination.

II. Procurement and Documentation

This phase is divided into two major components:

- Submittals and Approvals
- Manufacturing, Supply, and On-site Storage

Over 100 submittals including test reports, technical specifications, shop drawings, and product data must be prepared and approved before procurement begins. Once submittals are approved, the schedule supports manufacturing and delivery, especially for long-lead items (such as electrical components or lighting systems), which are scheduled early to ensure availability before construction needs arise.

Important Note:

Documentation is not a one-time task. It is an ongoing process that runs in parallel with construction, continuing from project start to final closeout. This includes ongoing coordination of as-built drawings, quality reports, and inspections.

Some documentation and procurement activities may appear without cost in the schedule because they fall under LOE activities assigned to support staff who manage the process rather than execute physical work.

III. Construction Execution

This phase includes all physical site activities such as:

- Excavation
- Subgrade preparation
- Concrete pad installation
- Airfield lighting and visual aids
- Painting, signage, and surface finishing

The critical path flows through several key construction elements, including Concrete Pad Pouring and Lighting System Installation, meaning delays in these tasks would directly impact project completion. All construction activities are fully cost-loaded with labor, equipment, and material assignments.

In many cases, construction tasks are sequenced based on the availability of materials tied to procurement and approved submittals ensuring just-in-time delivery and avoiding storage or delay issues.

IV. Project Closeout

This final phase involves:

- System testing and calibration
- Pre punch list and final punch list
- Demobilization and cleanup
- Final inspections and turnover

Though this phase comes last in sequence, its activities were scheduled with buffer time to handle punch lists, warranty reviews, and documentation finalization. As-built drawings, O&M manuals, and project certifications are also finalized during this phase, with oversight by the same personnel who were engaged from the beginning.

2.2. Cost-Loaded Schedule and Resource Assignment

The total project budget is $7,428,283.32, composed of three primary components: Labor, Equipment and Tools, and Materials. This cost estimate was developed through detailed resource assignments in Primavera P6, aligning resource hours with activity durations and scope requirements.

Layout: Labor+Nonlabor Remaining Units

Ac	Activity Name	Original Duration	Start	Finish	Budgeted Units	Budgeted Cost
⊞	Labor	334,00d	Dec-01-25	Apr-01-27	16275,00h	855.716,34 $
⊞	Material	334,00d	Dec-01-25	Apr-01-27	---	4.507.958,98 $
⊟	Nonlabor	334,00d	Dec-01-25	Apr-01-27	34114,40h	2.064.608,00 $

Figure 2 Cost-Loaded Schedule Summary

Labor Cost and Assignment

The labor cost totals $855,716.34, covering 16,275 total labor hours. These hours were assigned across all relevant activities in the project schedule and represent the combined effort of multiple key personnel, technicians, skilled tradespeople, and general workers.

Each labor resource was:

- Assigned directly to applicable activities based on scope and required effort.
- Measured by the number of working hours allocated per task.
- Evaluated using standard wage rates tied to role categories.

The labor cost was not based on a single value but was compiled from a filtered list of labor resources assigned to all scheduled activities. This data includes:

- Activity ID
- Assigned role
- Hourly rate
- Total hours
- Cumulative cost per labor type

See Appendix B for the Filtered Labor Assignment Report, including all individual labor roles, hourly costs, and hours worked.

Equipment and Tools Cost

The total cost for equipment and tools is $2,064,608.00, with a cumulative 43,114.40 working hours assigned across the schedule. This includes heavy construction equipment (e.g., excavators, compactors, pavers) and supporting tools (e.g., lighting systems, safety gear, testing devices).

The following approach was used to determine equipment costs:

- Each piece of equipment was assigned to tasks requiring its use, based on the scope of work and sequence.
- Hourly usage was calculated based on activity durations.
- Cost per hour was applied using a standardized equipment rate sheet.
- Filters in Primavera were applied to extract exact usage by task, machine type, and timeline.

See Appendix C for the Equipment Usage Report, which details each machine, total assigned hours, hourly rate, and total cost per equipment type.

Material Costs

The total material cost amounts to $4,507,958.98, compiled from all items required for submittals, construction, lighting systems, concrete works, safety infrastructure, and site installations.

Material costs were calculated through:

- Assignments made in the Primavera P6 schedule based on quantity takeoffs and task needs.
- Linkage of materials to specific activities and procurement schedules.
- Inclusion of long-lead items that required early ordering and on-site storage coordination.
- Separate tracking for submittal-approved materials and items tied directly to execution phases.

The material list was filtered to extract:

- Material name and specification
- Unit of measure
- Quantity required
- Unit price
- Total cost per item

See Appendix D for the Detailed Material Cost Breakdown, including assigned activities, quantities, unit costs, and supplier references.

Personnel Assignment and Oversight

Key personnel such as the Quality Control Manager, Site Safety and Health Officer (SSHO), Project Superintendent, and administrative roles were assigned to a Level of Effort (LOE) activity spanning the entire project duration. These team members support not only physical work, but also documentation, coordination, and regulatory compliance.

See Appendix E for the Assigned Personnel Report, listing all assigned project staff with their roles, durations of engagement, and areas of responsibility.

By combining traditional scheduling with AI-based review, the project team achieved a more reliable and data-validated schedule. This process highlighted the value of integrating AI tools in construction planning not for automation alone, but for enhanced logic checks, pattern recognition, and informed decision-making.

2.3.Project Implementation Strategy and Cost Tracking

As the construction phase begins, it becomes essential to manage day-to-day site operations in alignment with the Primavera P6 schedule. For each activity running on-site, real-time updates are required—not only for tracking progress, but also for recording actual usage of labor, equipment, and materials.

To manage this, a three-journal tracking system has been developed, based entirely on the existing Primavera P6 schedule for the project. These journals are exported from P6 and printed (or distributed electronically) for use on-site each day.

The three types of journals are:

a. Labor Journal

This journal includes:

- Activity ID
- Activity Name
- List of workers assigned for the activity

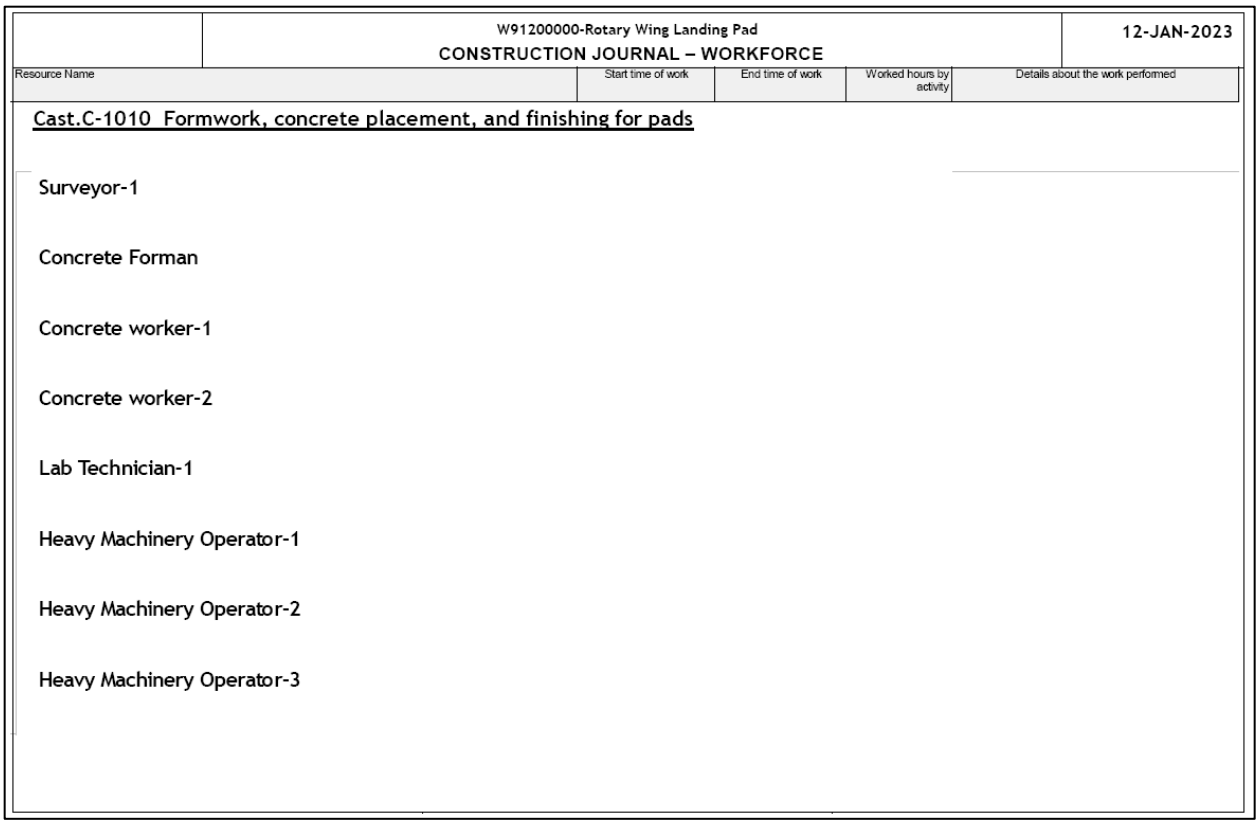


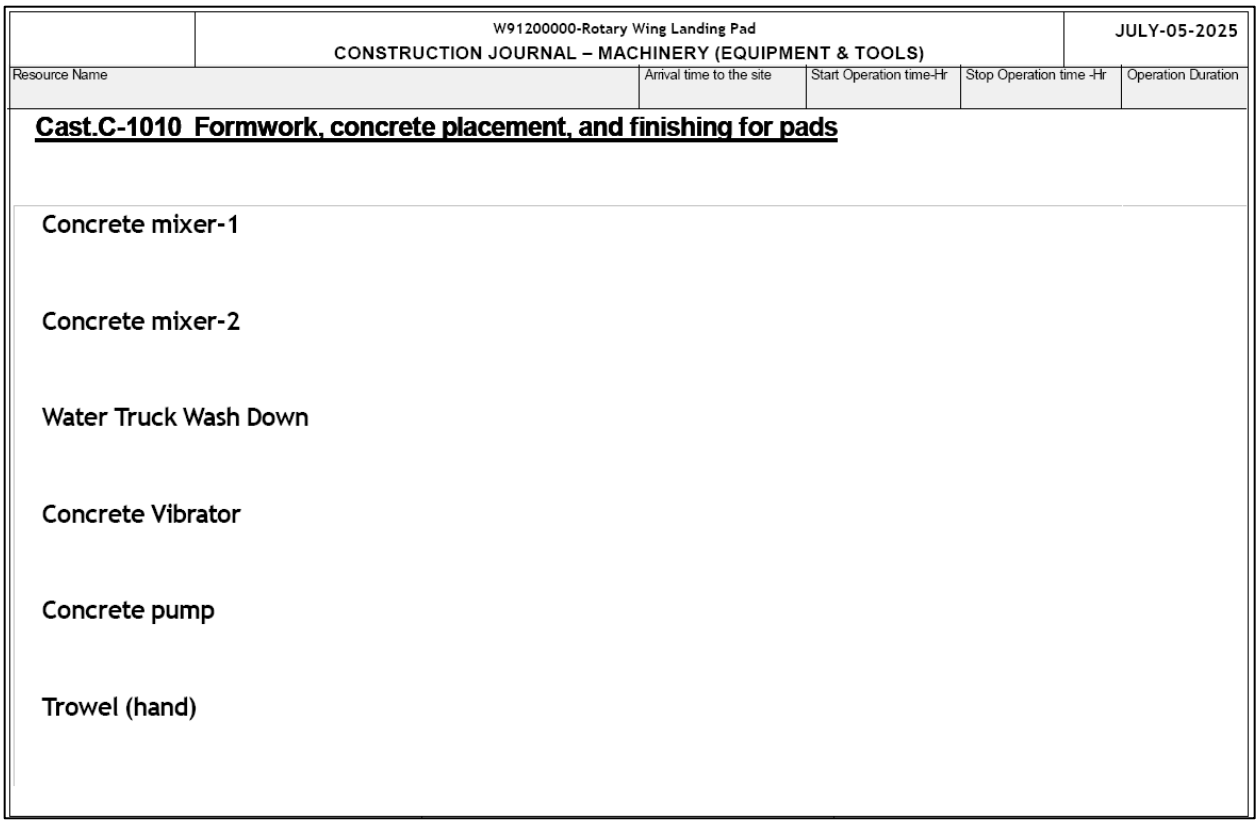
Figure 3 Labor Journal sample generated from Primavera P6, showing activity and assigned personnel

The journal does not include planned labor hours, intentionally. From experience, showing planned hours can sometimes cause workers to stretch tasks to fill that time. By removing the planned hours, workers are encouraged to focus on efficient and timely execution.

b. Equipment Journal

This journal includes:

- Activity ID
- Activity Name
- List of equipment used for the activity
- Daily Equipment Working Hours with Detail



W91200000-Rotary Wing Landing Pad
CONSTRUCTION JOURNAL – MACHINERY (EQUIPMENT & TOOLS)
JULY-05-2025

Resource Name	Arrival time to the site	Start Operation time-Hr	Stop Operation time -Hr	Operation Duration
Cast.C-1010 Formwork, concrete placement, and finishing for pads				
Concrete mixer-1				
Concrete mixer-2				
Water Truck Wash Down				
Concrete Vibrator				
Concrete pump				
Trowel (hand)				

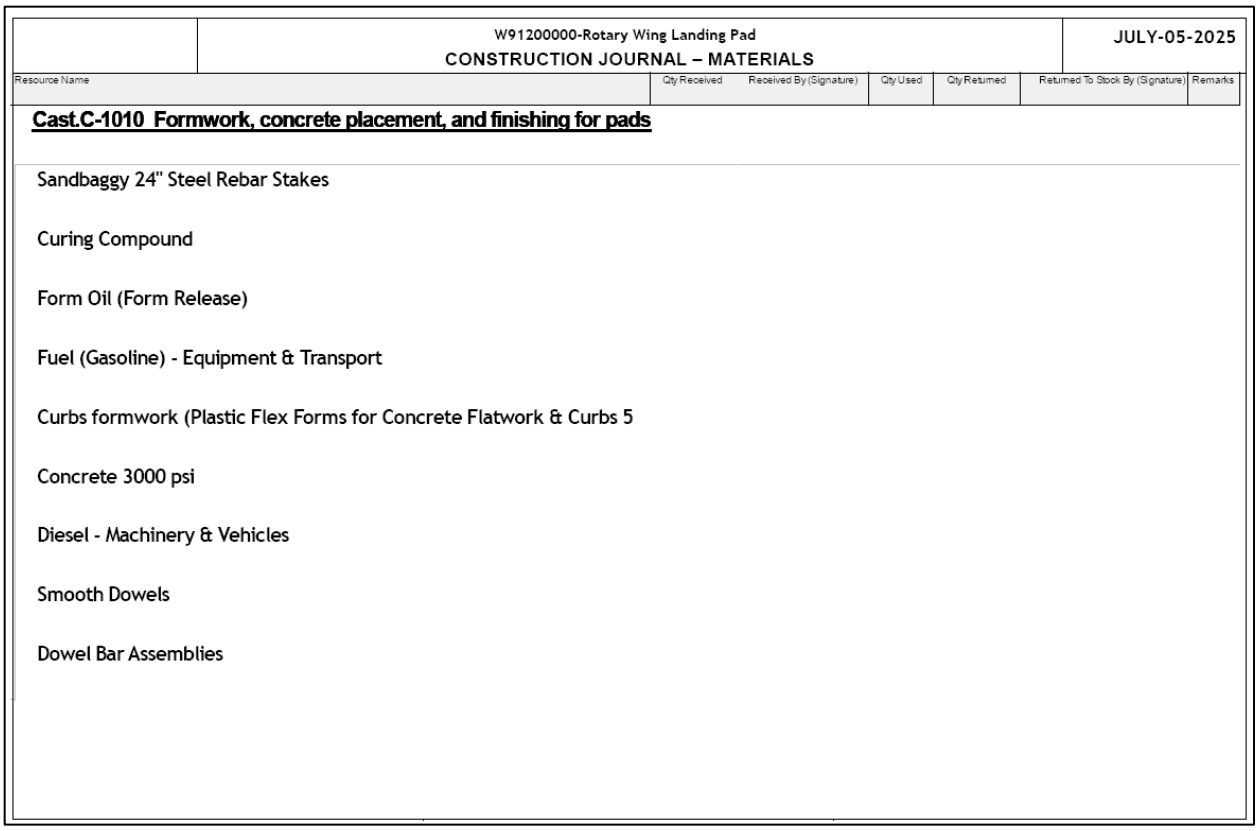
Figure 4 Equipment Journal sample from Primavera P6 showing actual usage per activity.

Again, planned equipment hours are excluded for the same reason—to promote actual usage based on field needs, not what's shown on the plan. However, a column for planned hours can be added if needed later.

c. Material Journal

This journal includes:

- Activity ID
- Activity Name
- List of materials used
- Quantities received, quantities consumed, and quantities returned to storage at the end of the day.



W91200000-Rotary Wing Landing Pad
CONSTRUCTION JOURNAL – MATERIALS
JULY-05-2025

Resource Name	Qty Received	Received By (Signature)	Qty Used	Qty Returned	Returned To Stock By (Signature)	Remarks
Cast.C-1010 Formwork, concrete placement, and finishing for pads						
Sandbaggy 24" Steel Rebar Stakes						
Curing Compound						
Form Oil (Form Release)						
Fuel (Gasoline) - Equipment & Transport						
Curbs formwork (Plastic Flex Forms for Concrete Flatwork & Curbs 5						
Concrete 3000 psi						
Diesel - Machinery & Vehicles						
Smooth Dowels						
Dowel Bar Assemblies						

Figure 5 Material Journal sample from Primavera P6 capturing daily material usage per activity

Planned material quantities are also excluded. The goal is to let site teams work according to actual needs and conditions without being influenced by pre-estimated amounts.

See Appendix F for the Working-Journals of Labors, Materials, Equipment and tools for Activity, detailing assigned resources for each activity across the full project schedule.

2.4.Field Execution Workflow – Based on Real Project Experience

Based on the author's previous experience as a scheduler, the person responsible for planning coordination is typically in charge of preparing and printing the field journals for upcoming site activities. These journals are often prepared in advance ranging from one day to up to a week before the planned work depending on the company's internal process, logistics timeline, and material procurement needs.

Before printing the journals, the scheduler initiates coordination with the logistics department to ensure the availability of all required materials, equipment, and tools. This step is essential and often occurs as soon as the weekly or multi-day work plan is confirmed. Labor is usually already available on-site, but the timely provision of materials and equipment must be secured.

The author was responsible for the weekly coordination of materials and equipment. At the start of each week, a list of required materials and quantities were submitted to the logistics team, based

on the planned activities in Primavera P6. Once the logistics team confirmed availability or initiated procurement, the author began coordinating with the field supervisors.

Each day, the activity-specific journals were printed one day in advance. For example, if the task was scheduled for tomorrow, the relevant journal would be handed over at the end of the current workday to the responsible field supervisor. Each journal included:

- The assigned activity name and number
- The names of the workers scheduled for that task
- The list of required equipment (e.g., excavators, loaders, graders)
- Confirmation of material availability in storage

The supervisor was instructed to:

1. Pick up materials from storage with their team and driver before starting the task
2. Record the quantity of material brought to site, used during the day, and any remainder returned to storage
3. Ensure that all material movements are signed off
4. Record labor details (start time, finish time, total hours, breaks, etc.)
5. Track equipment usage, including operating hours and idle/break times

At the end of each day, the completed journals were returned to the author's office and the actual data was entered into Primavera P6 to update the schedule and monitor progress and costs.

Why This Process Matters

By following this process daily, everyone involved in the project from field teams to managers can clearly understand:

- How much material has been consumed
- What percentage of the planned work is completed
- How much work and resource usage remains

All calculations and records are visible and traceable, allowing real-time control of both progress and cost.

DISCUSSION AND SIGNIFICANCE

This study provided valuable insights into the emerging practice of integrating Artificial Intelligence (AI) with traditional construction scheduling tools like Primavera P6. One of the key lessons learned was that AI can serve as an effective companion tool in identifying planning issues that may go unnoticed through manual review alone. While human expertise remains essential for interpreting context and making judgment-based decisions, AI can add tremendous value by rapidly detecting inconsistencies, recommending logic corrections, and highlighting scheduling risks early in the process.

The benefits of using AI alongside traditional tools became clear at various stages of the study. AI assisted in validating activity sequences, estimating more realistic durations, flagging resource over-allocations, and analyzing float and critical path issues. The result was a more refined and risk-aware schedule. Instead of replacing Primavera, AI tools like ChatGPT complemented it offering an additional layer of analytical intelligence without requiring complex integration or software customization. This makes the approach highly accessible, especially for planners who may not have access to more expensive scheduling risk tools.

From a practical standpoint, this method holds strong potential for real-world construction projects. Many small to mid-sized firms rely on human schedulers and limited validation tools, often missing hidden delays or logic flaws until the project is underway. By incorporating AI early in the scheduling process, teams can identify and address issues before they cause downstream impacts. This leads to better decision-making, more reliable timelines, and reduced project risk particularly in critical infrastructure work such as military helipads, airports, or utility facilities.

The study also faced several challenges, the most significant being the manual effort required to export Primavera P6 data to Excel for AI review. Since AI tools cannot directly access Primavera, this step requires careful formatting and interpretation. In addition, AI responses were sometimes too general or context-neutral, requiring follow-up prompts to clarify or refine suggestions. These challenges were addressed by developing structured prompts, testing outputs iteratively, and verifying suggestions against engineering judgment and project standards.

Overall, the integration of AI proved to be a valuable enhancement to traditional scheduling workflows. It offered fast, intelligent feedback, promoted deeper review of critical planning decisions, and increased confidence in the final schedule. The experience also showed that while AI has limitations, its proper use can significantly elevate the quality and reliability of construction project planning, marking a meaningful advancement in how modern infrastructure is delivered.

CONCLUSION

This study explored the integration of Artificial Intelligence (AI) tools with traditional scheduling software, specifically Primavera P6, in the context of constructing a rotary-wing helipad. The process involved defining a detailed Work Breakdown Structure (WBS), developing a baseline schedule in Primavera, and then enhancing that schedule using AI tools to detect logic errors, optimizing durations, and simulating risks. Through this combined approach, the final schedule became more robust, accurate, and risk aware.

Throughout the process, several key lessons were learned. AI tools like ChatGPT proved capable of identifying scheduling flaws that often go unnoticed in manual planning. The AI offered valuable feedback on activity logic, resource leveling, and float analysis, contributing to a higher quality schedule. Importantly, the project demonstrated that AI is not a replacement for traditional software or human expertise is a supportive tool that strengthens the decision-making process.

In terms of the broader impact, this project provides a strong case for using AI in construction scheduling to improve accuracy, reduce risk, and support smarter planning. AI-assisted scheduling can be especially helpful for complex or high-stakes projects where errors in planning can have significant consequences.

Looking ahead, future recommendations include developing automated workflows to streamline the exchange of data between Primavera P6 and AI platforms. Additional improvements could involve training AI models on historical schedule data to provide even more tailored suggestions. Further study is also recommended to explore how AI can assist with live schedule updates during project execution, not just during the planning phase.

In conclusion, this paper successfully demonstrated how blending AI capabilities with traditional scheduling tools can result in smarter, more reliable construction project planning. It sets a foundation for future innovations in the field and encourages construction professionals to embrace AI as an asset in their planning toolkit.

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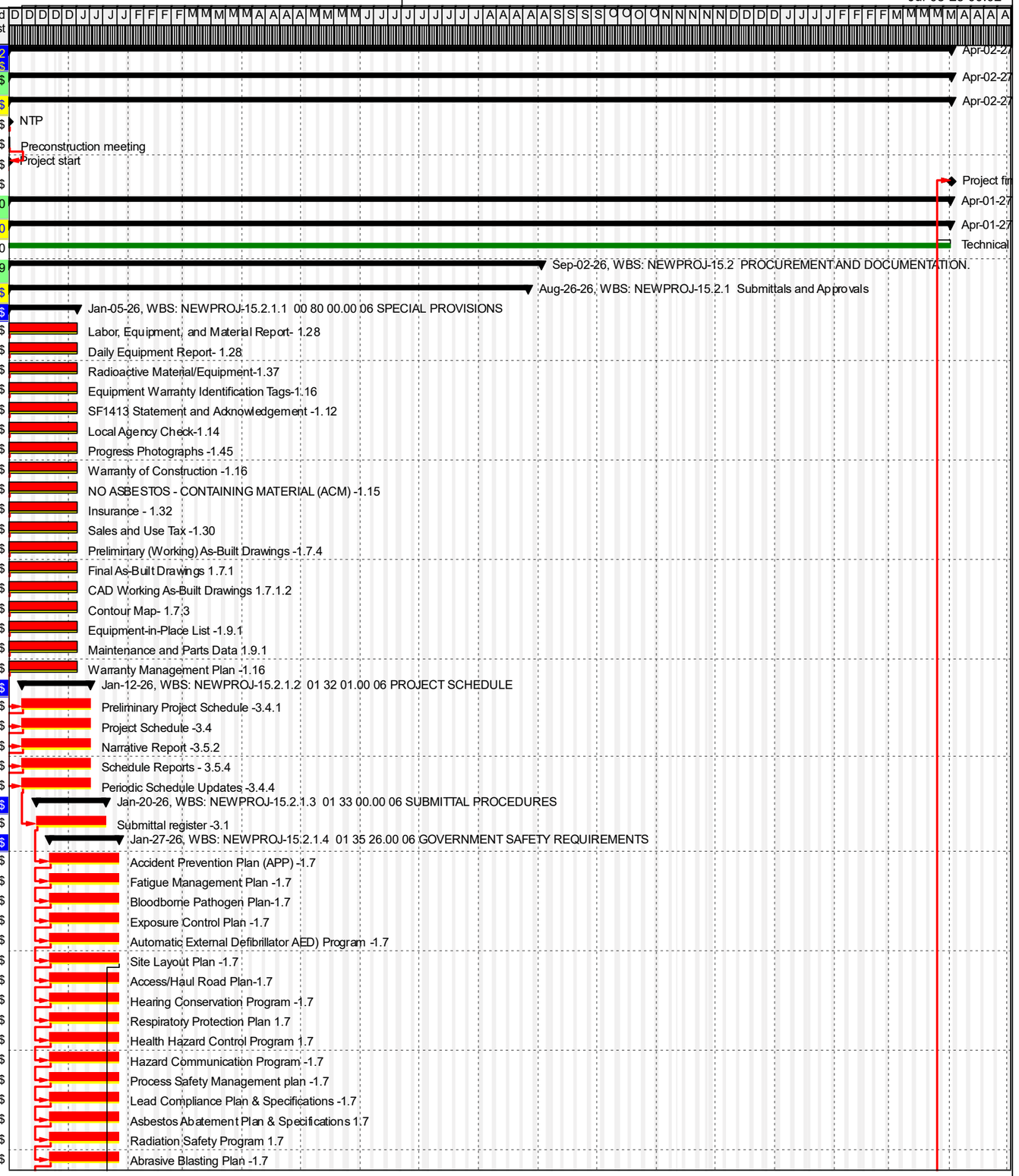
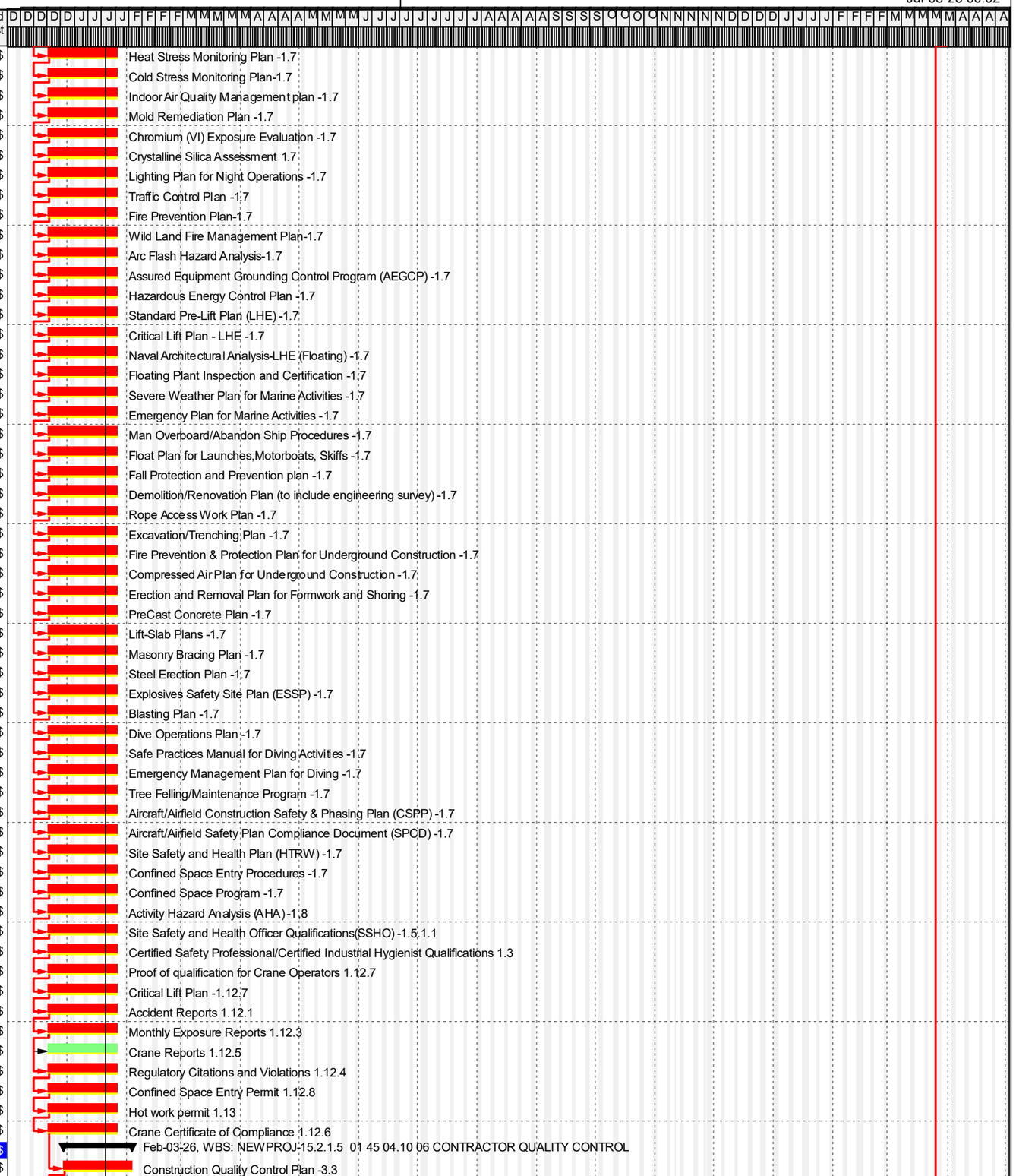
Appendix A

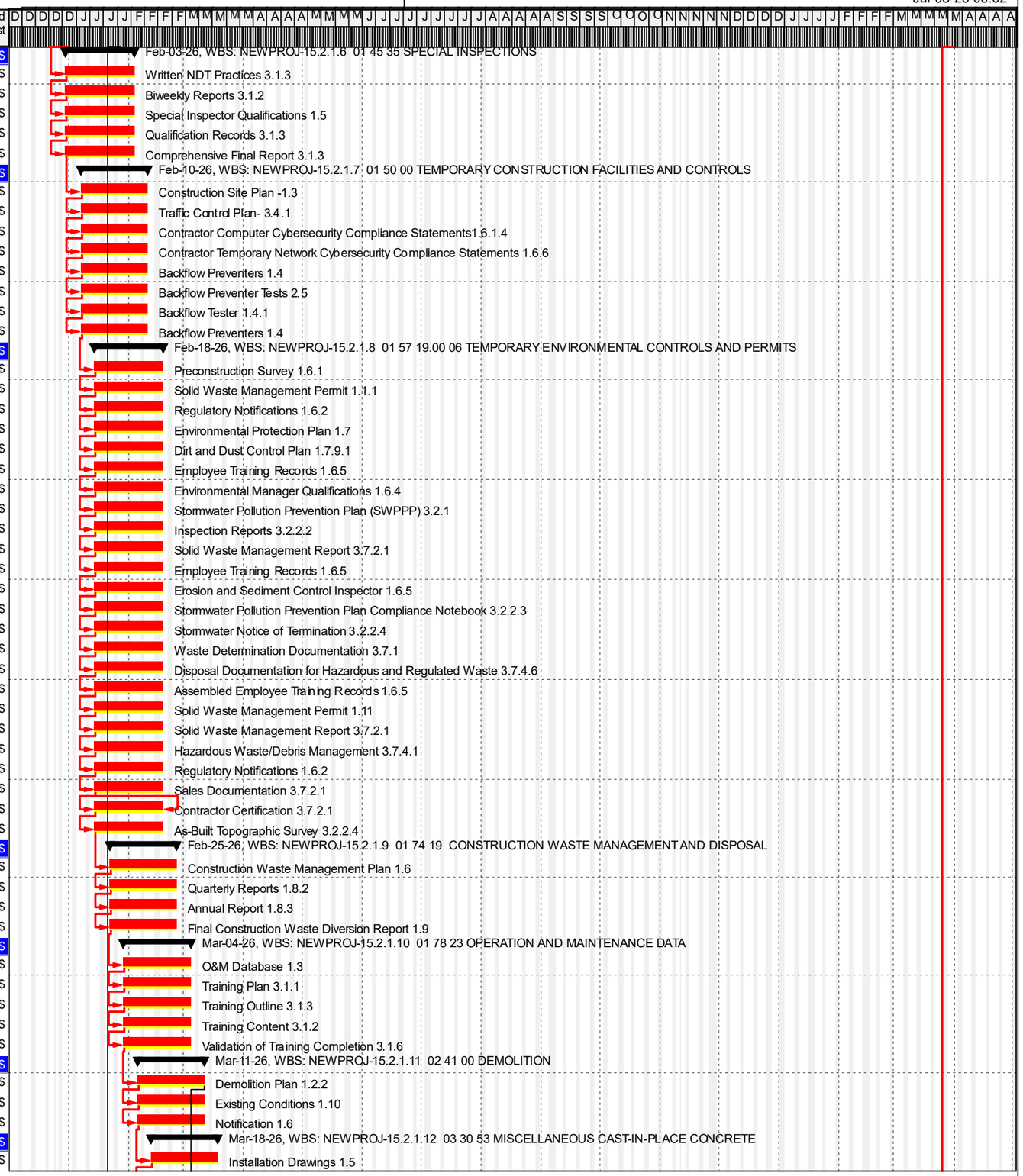
Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
Project: NEWPROJ-15 W91200000-Rotary Wing Landing Pad		334,00d	Dec-01-25	Apr-02-27	7.428.283,32 $
WBS: NEWPROJ-15.1 PRECONSTRUCTION		334,00d	Dec-01-25	Apr-02-27	0,00 $
WBS: NEWPROJ-15.1.1 General project activities		334,00d	Dec-01-25	Apr-02-27	0,00 $
GPA-1000	NTP	0,00d	Dec-01-25		0,00 $
GPA-1010	Preconstruction meeting	1,00d	Dec-01-25	Dec-01-25	0,00 $
GPA-1020	Project start	0,00d		Dec-01-25	0,00 $
GPA-1030	Project finish	0,00d	Apr-02-27		0,00 $
WBS: NEWPROJ-15.5 MANAGEMENT TEAM		334,00d	Dec-01-25	Apr-01-27	1.429.595,60 $
WBS: NEWPROJ-15.5.1 Technical Personnel on the project		334,00d	Dec-01-25	Apr-01-27	1.429.595,60 $
MT-1000	Technical personnel (QCM, SSHO, Site superintendence)	334,00d	Dec-01-25	Apr-01-27	1.429.595,60 $
WBS: NEWPROJ-15.2 PROCUREMENT AND DOCUMENTATION.		191,00d	Dec-01-25	Sep-02-26	1.849.700,59 $
WBS: NEWPROJ-15.2.1 Submittals and Approvals		186,00d	Dec-01-25	Aug-26-26	0,00 $
WBS: NEWPROJ-15.2.1.1 00 80 00.00 06 SPECIAL PROVISIONS		24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1000	Labor, Equipment, and Material Report- 1.28	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1010	Daily Equipment Report- 1.28	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1020	Radioactive Material/Equipment-1.37	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1030	Equipment Warranty Identification Tags-1.16	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1040	SF1413 Statement and Acknowledgement -1.12	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1050	Local Agency Check-1.14	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1060	Progress Photographs -1.45	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1070	Warranty of Construction -1.16	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1080	NO ASBESTOS - CONTAINING MATERIAL (ACM) -1.15	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1090	Insurance - 1.32	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1100	Sales and Use Tax -1.30	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1110	Preliminary (Working) As-Built Drawings -1.7.4	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1120	Final As-Built Drawings 1.7.1	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1130	CAD Working As-Built Drawings 1.7.1.2	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1140	Contour Map- 1.7.3	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1150	Equipment-in-Place List -1.9.1	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1160	Maintenance and Parts Data 1.9.1	24,00d	Dec-01-25	Jan-05-26	0,00 $
SP-1170	Warranty Management Plan -1.16	24,00d	Dec-01-25	Jan-05-26	0,00 $
WBS: NEWPROJ-15.2.1.2 01 32 01.00 06 PROJECT SCHEDULE		24,00d	Dec-08-25	Jan-12-26	0,00 $
PS-1000	Preliminary Project Schedule -3.4.1	24,00d	Dec-08-25	Jan-12-26	0,00 $
PS-1010	Project Schedule -3.4	24,00d	Dec-08-25	Jan-12-26	0,00 $
PS-1020	Narrative Report -3.5.2	24,00d	Dec-08-25	Jan-12-26	0,00 $
PS-1030	Schedule Reports - 3.5.4	24,00d	Dec-08-25	Jan-12-26	0,00 $
PS-1040	Periodic Schedule Updates -3.4.4	24,00d	Dec-08-25	Jan-12-26	0,00 $
WBS: NEWPROJ-15.2.1.3 01 33 00.00 06 SUBMITTAL PROCEDURES		24,00d	Dec-15-25	Jan-20-26	0,00 $
Sub.P-1000	Submittal register -3.1	24,00d	Dec-15-25	Jan-20-26	0,00 $
WBS: NEWPROJ-15.2.1.4 01 35 26.00 06 GOVERNMENT SAFETY REQUIREMENTS		24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1000	Accident Prevention Plan (APP) -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1010	Fatigue Management Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1020	Bloodborne Pathogen Plan-1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1030	Exposure Control Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1040	Automatic External Defibrillator AED) Program -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1050	Site Layout Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1060	Access/Haul Road Plan-1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1070	Hearing Conservation Program -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1080	Respiratory Protection Plan 1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1090	Health Hazard Control Program 1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1100	Hazard Communication Program -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1110	Process Safety Management plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1120	Lead Compliance Plan & Specifications -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1130	Asbestos Abatement Plan & Specifications 1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1140	Radiation Safety Program 1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1150	Abrasive Blasting Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $



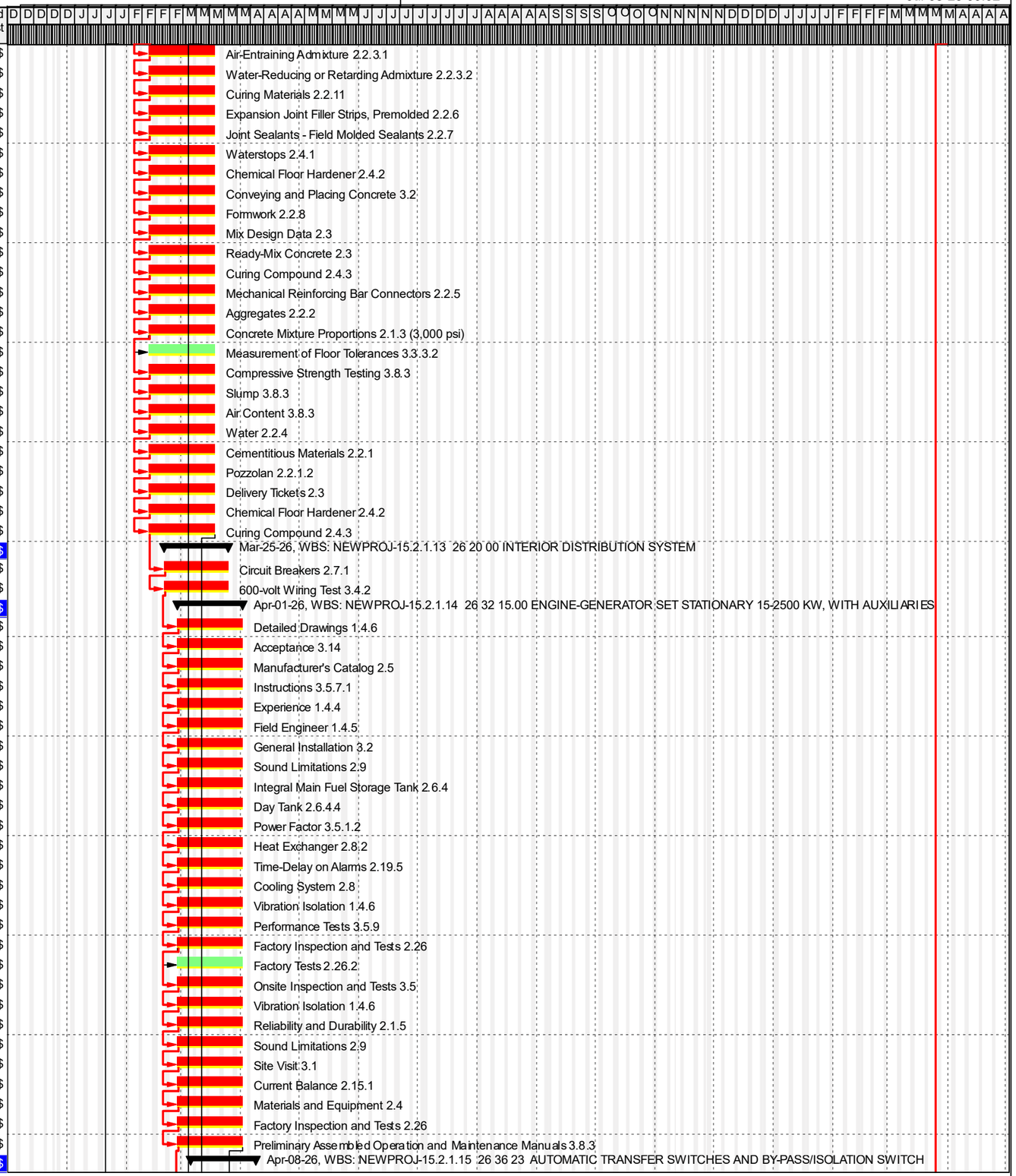
Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
GSR-1160	Heat Stress Monitoring Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1170	Cold Stress Monitoring Plan-1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1180	Indoor Air Quality Management plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1190	Mold Remediation Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1200	Chromium (VI) Exposure Evaluation -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1210	Crystalline Silica Assessment 1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1220	Lighting Plan for Night Operations -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1230	Traffic Control Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1240	Fire Prevention Plan-1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1250	Wild Land Fire Management Plan-1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1260	Arc Flash Hazard Analysis-1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1270	Assured Equipment Grounding Control Program (AEGCP) -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1280	Hazardous Energy Control Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1290	Standard Pre-Lift Plan (LHE) -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1300	Critical Lift Plan - LHE -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1310	Naval Architectural Analysis-LHE (Floating) -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1320	Floating Plant Inspection and Certification -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1330	Severe Weather Plan for Marine Activities -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1340	Emergency Plan for Marine Activities -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1350	Man Overboard/Abandon Ship Procedures -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1360	Float Plan for Launches,Motorboats, Skiffs -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1370	Fall Protection and Prevention plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1380	Demolition/Renovation Plan (to include engineering survey) -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1390	Rope Access Work Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1400	Excavation/Trenching Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1410	Fire Prevention & Protection Plan for Underground Construction -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1420	Compressed Air Plan for Underground Construction -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1430	Erection and Removal Plan for Formwork and Shoring -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1440	PreCast Concrete Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1450	Lift-Slab Plans -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1460	Masonry Bracing Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1470	Steel Erection Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1480	Explosives Safety Site Plan (ESSP) -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1490	Blasting Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1500	Dive Operations Plan -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1510	Safe Practices Manual for Diving Activities -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1520	Emergency Management Plan for Diving -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1530	Tree Felling/Maintenance Program -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1540	Aircraft/Airfield Construction Safety & Phasing Plan (CSPP) -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1550	Aircraft/Airfield Safety Plan Compliance Document (SPCD) -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1560	Site Safety and Health Plan (HTRW) -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1570	Confined Space Entry Procedures -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1580	Confined Space Program -1.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1590	Activity Hazard Analysis (AHA) -1 ,8	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1600	Site Safety and Health Officer Qualifications(SSHO) -1.5.1.1	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1610	Certified Safety Professional/Certified Industrial Hygienist Qualifications 1.3	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1620	Proof of qualification for Crane Operators 1.12.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1630	Critical Lift Plan -1.12.7	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1640	Accident Reports 1.12.1	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1650	Monthly Exposure Reports 1.12.3	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1660	Crane Reports 1.12.5	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1670	Regulatory Citations and Violations 1.12.4	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1680	Confined Space Entry Permit 1.12.8	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1690	Hot work permit 1.13	24,00d	Dec-22-25	Jan-27-26	0,00 $
GSR-1700	Crane Certificate of Compliance 1.12.6	24,00d	Dec-22-25	Jan-27-26	0,00 $
WBS: NEWPROJ-15.2.1.5 01 45 04.10 06 CONTRACTOR QUALITY CONTROL		24,00d	Dec-30-25	Feb-03-26	0,00 $
CQC-1000	Construction Quality Control Plan -3.3	24,00d	Dec-30-25	Feb-03-26	0,00 $



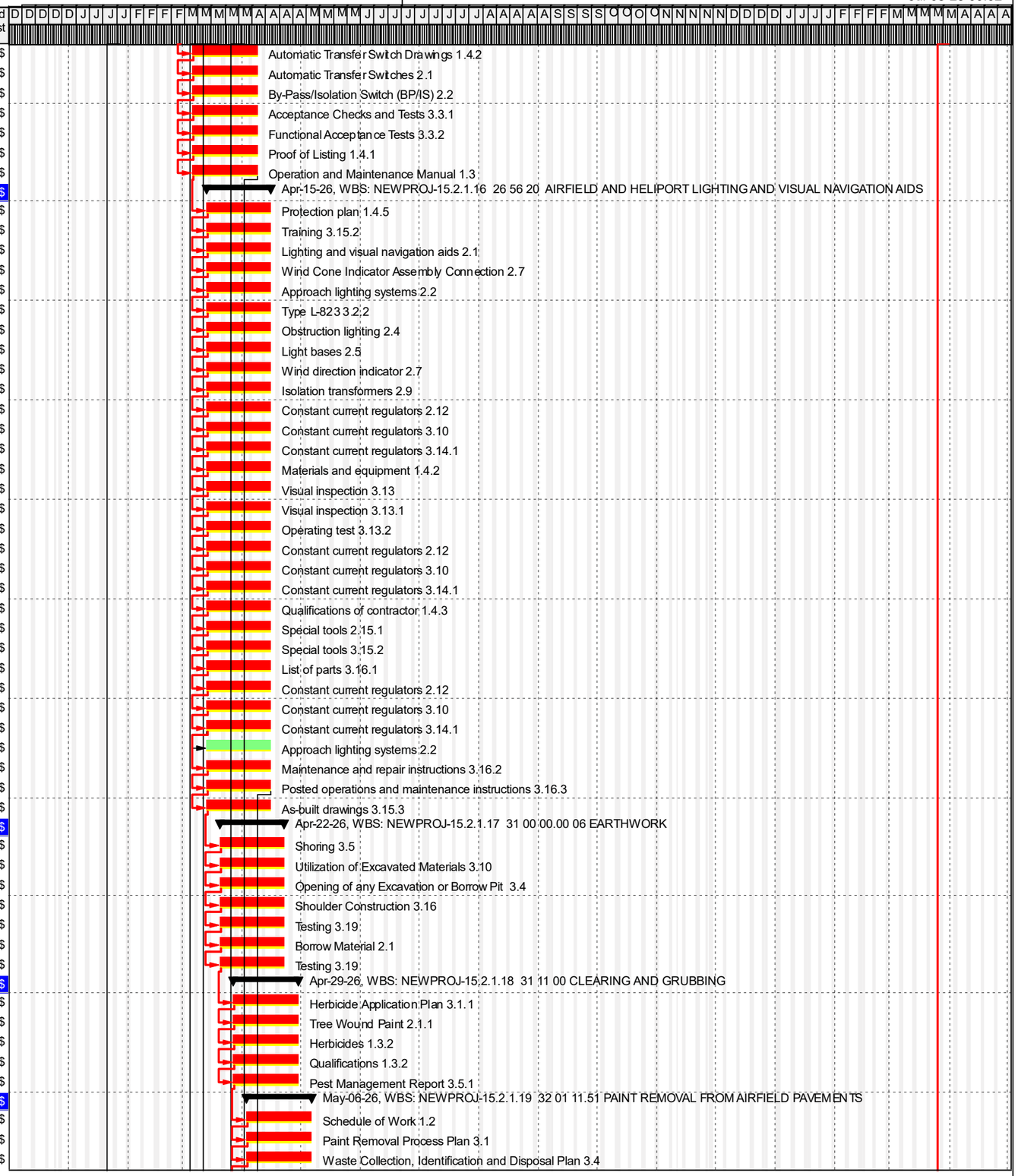
Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
WBS: NEWPROJ-15.2.1.6 01 45 35 SPECIAL INSPECTIONS		24,00d	Dec-30-25	Feb-03-26	0,00 $
SI-1000	Written NDT Practices 3.1.3	24,00d	Dec-30-25	Feb-03-26	0,00 $
SI-1010	Biweekly Reports 3.1.2	24,00d	Dec-30-25	Feb-03-26	0,00 $
SI-1020	Special Inspector Qualifications 1.5	24,00d	Dec-30-25	Feb-03-26	0,00 $
SI-1030	Qualification Records 3.1.3	24,00d	Dec-30-25	Feb-03-26	0,00 $
SI-1040	Comprehensive Final Report 3.1.3	24,00d	Dec-30-25	Feb-03-26	0,00 $
WBS: NEWPROJ-15.2.1.7 01 50 00 TEMPORARY CONSTRUCTION FACILITIES AND		24,00d	Jan-07-26	Feb-10-26	0,00 $
TCFI-1000	Construction Site Plan -1.3	24,00d	Jan-07-26	Feb-10-26	0,00 $
TCFI-1010	Traffic Control Plan- 3.4.1	24,00d	Jan-07-26	Feb-10-26	0,00 $
TCFI-1020	Contractor Computer Cybersecurity Compliance Statements1.6.1.4	24,00d	Jan-07-26	Feb-10-26	0,00 $
TCFI-1030	Contractor Temporary Network Cybersecurity Compliance Statements 1.6.6	24,00d	Jan-07-26	Feb-10-26	0,00 $
TCFI-1040	Backflow Preventers 1.4	24,00d	Jan-07-26	Feb-10-26	0,00 $
TCFI-1050	Backflow Preventer Tests 2.5	24,00d	Jan-07-26	Feb-10-26	0,00 $
TCFI-1060	Backflow Tester 1.4.1	24,00d	Jan-07-26	Feb-10-26	0,00 $
TCFI-1070	Backflow Preventers 1.4	24,00d	Jan-07-26	Feb-10-26	0,00 $
WBS: NEWPROJ-15.2.1.8 01 57 19.00 06 TEMPORARY ENVIRONMENTAL CONTROI		24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1000	Preconstruction Survey 1.6.1	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1010	Solid Waste Management Permit 1.1.1	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1020	Regulatory Notifications 1.6.2	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1030	Environmental Protection Plan 1.7	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1040	Dirt and Dust Control Plan 1.7.9.1	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1050	Employee Training Records 1.6.5	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1060	Environmental Manager Qualifications 1.6.4	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1070	Stormwater Pollution Prevention Plan (SWPPP) 3.2.1	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1080	Inspection Reports 3.2.2.2	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1090	Solid Waste Management Report 3.7.2.1	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1100	Employee Training Records 1.6.5	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1110	Erosion and Sediment Control Inspector 1.6.5	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1120	Stormwater Pollution Prevention Plan Compliance Notebook 3.2.2.3	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1130	Stormwater Notice of Termination 3.2.2.4	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1140	Waste Determination Documentation 3.7.1	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1150	Disposal Documentation for Hazardous and Regulated Waste 3.7.4.6	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1160	Assembled Employee Training Records 1.6.5	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1170	Solid Waste Management Permit 1.11	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1180	Solid Waste Management Report 3.7.2.1	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1190	Hazardous Waste/Debris Management 3.7.4.1	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1200	Regulatory Notifications 1.6.2	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1210	Sales Documentation 3.7.2.1	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1220	Contractor Certification 3.7.2.1	24,00d	Jan-14-26	Feb-18-26	0,00 $
TEC-1230	As-Built Topographic Survey 3.2.2.4	24,00d	Jan-14-26	Feb-18-26	0,00 $
WBS: NEWPROJ-15.2.1.9 01 74 19 CONSTRUCTION WASTE MANAGEMENT AND D		24,00d	Jan-22-26	Feb-25-26	0,00 $
CWM-1000	Construction Waste Management Plan 1.6	24,00d	Jan-22-26	Feb-25-26	0,00 $
CWM-1010	Quarterly Reports 1.8.2	24,00d	Jan-22-26	Feb-25-26	0,00 $
CWM-1020	Annual Report 1.8.3	24,00d	Jan-22-26	Feb-25-26	0,00 $
CWM-1030	Final Construction Waste Diversion Report 1.9	24,00d	Jan-22-26	Feb-25-26	0,00 $
WBS: NEWPROJ-15.2.1.10 01 78 23 OPERATION AND MAINTENANCE DATA		24,00d	Jan-29-26	Mar-04-26	0,00 $
O&M-1000	O&M Database 1.3	24,00d	Jan-29-26	Mar-04-26	0,00 $
O&M-1010	Training Plan 3.1.1	24,00d	Jan-29-26	Mar-04-26	0,00 $
O&M-1020	Training Outline 3.1.3	24,00d	Jan-29-26	Mar-04-26	0,00 $
O&M-1030	Training Content 3.1.2	24,00d	Jan-29-26	Mar-04-26	0,00 $
O&M-1040	Validation of Training Completion 3.1.6	24,00d	Jan-29-26	Mar-04-26	0,00 $
WBS: NEWPROJ-15.2.1.11 02 41 00 DEMOLITION		24,00d	Feb-05-26	Mar-11-26	0,00 $
Dem-1000	Demolition Plan 1.2.2	24,00d	Feb-05-26	Mar-11-26	0,00 $
Dem-1010	Existing Conditions 1.10	24,00d	Feb-05-26	Mar-11-26	0,00 $
Dem-1020	Notification 1.6	24,00d	Feb-05-26	Mar-11-26	0,00 $
WBS: NEWPROJ-15.2.1.12 03 30 53 MISCELLANEOUS CAST-IN-PLACE CONCRETE		24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1000	Installation Drawings 1.5	24,00d	Feb-12-26	Mar-18-26	0,00 $



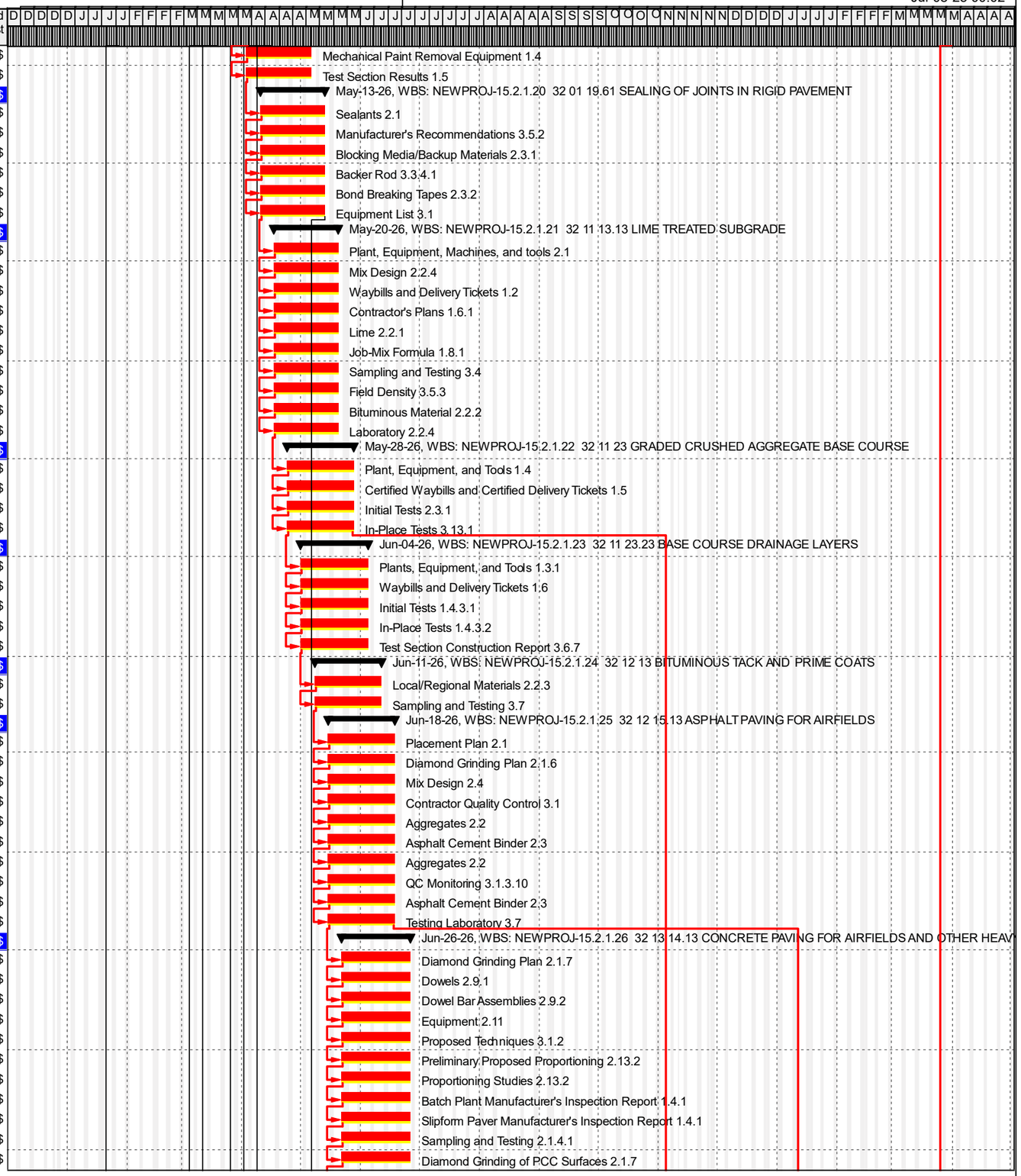
Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
MCC-1010	Air-Entraining Admixture 2.2.3.1	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1020	Water-Reducing or Retarding Admixture 2.2.3.2	24,00d	Feb-12-26*	Mar-18-26	0,00 $
MCC-1030	Curing Materials 2.2.11	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1040	Expansion Joint Filler Strips, Premolded 2.2.6	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1050	Joint Sealants - Field Molded Sealants 2.2.7	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1060	Waterstops 2.4.1	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1070	Chemical Floor Hardener 2.4.2	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1080	Conveying and Placing Concrete 3.2	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1090	Formwork 2.2.8	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1100	Mix Design Data 2.3	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1110	Ready-Mix Concrete 2.3	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1120	Curing Compound 2.4.3	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1130	Mechanical Reinforcing Bar Connectors 2.2.5	24,00d	Feb-12-26*	Mar-18-26	0,00 $
MCC-1140	Aggregates 2.2.2	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1150	Concrete Mixture Proportions 2.1.3 (3,000 psi)	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1160	Measurement of Floor Tolerances 3.3.3.2	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1170	Compressive Strength Testing 3.8.3	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1180	Slump 3.8.3	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1190	Air Content 3.8.3	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1200	Water 2.2.4	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1210	Cementitious Materials 2.2.1	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1220	Pozzolan 2.2.1.2	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1230	Delivery Tickets 2.3	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1240	Chemical Floor Hardener 2.4.2	24,00d	Feb-12-26	Mar-18-26	0,00 $
MCC-1250	Curing Compound 2.4.3	24,00d	Feb-12-26	Mar-18-26	0,00 $
WBS: NEWPROJ-15.2.1.13 26 20 00 INTERIOR DISTRIBUTION SYSTEM		24,00d	Feb-20-26	Mar-25-26	0,00 $
ID-1000	Circuit Breakers 2.7.1	24,00d	Feb-20-26	Mar-25-26	0,00 $
ID-1010	600-volt Wiring Test 3.4.2	24,00d	Feb-20-26	Mar-25-26	0,00 $
WBS: NEWPROJ-15.2.1.14 26 32 15.00 ENGINE-GENERATOR SET STATIONARY 15-		24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1000	Detailed Drawings 1.4.6	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1010	Acceptance 3.14	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1020	Manufacturer's Catalog 2.5	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1030	Instructions 3.5.7.1	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1040	Experience 1.4.4	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1050	Field Engineer 1.4.5	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1060	General Installation 3.2	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1070	Sound Limitations 2.9	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1080	Integral Main Fuel Storage Tank 2.6.4	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1090	Day Tank 2.6.4.4	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1100	Power Factor 3.5.1.2	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1110	Heat Exchanger 2.8.2	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1120	Time-Delay on Alarms 2.19.5	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1130	Cooling System 2.8	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1140	Vibration Isolation 1.4.6	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1150	Performance Tests 3.5.9	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1160	Factory Inspection and Tests 2.26	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1170	Factory Tests 2.26.2	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1180	Onsite Inspection and Tests 3.5	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1190	Vibration Isolation 1.4.6	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1200	Reliability and Durability 2.1.5	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1210	Sound Limitations 2.9	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1220	Site Visit 3.1	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1230	Current Balance 2.15.1	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1240	Materials and Equipment 2.4	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1250	Factory Inspection and Tests 2.26	24,00d	Feb-27-26	Apr-01-26	0,00 $
EG-1260	Preliminary Assembled Operation and Maintenance Manuals 3.8.3	24,00d	Feb-27-26	Apr-01-26	0,00 $
WBS: NEWPROJ-15.2.1.15 26 36 23 AUTOMATIC TRANSFER SWITCHES AND BY-P		24,00d	Mar-06-26	Apr-08-26	0,00 $



Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
AT-1000	Automatic Transfer Switch Drawings 1.4.2	24,00d	Mar-06-26	Apr-08-26	0,00 $
AT-1010	Automatic Transfer Switches 2.1	24,00d	Mar-06-26	Apr-08-26	0,00 $
AT-1020	By-Pass/Isolation Switch (BP/IS) 2.2	24,00d	Mar-06-26	Apr-08-26	0,00 $
AT-1030	Acceptance Checks and Tests 3.3.1	24,00d	Mar-06-26	Apr-08-26	0,00 $
AT-1040	Functional Acceptance Tests 3.3.2	24,00d	Mar-06-26	Apr-08-26	0,00 $
AT-1050	Proof of Listing 1.4.1	24,00d	Mar-06-26	Apr-08-26	0,00 $
AT-1060	Operation and Maintenance Manual 1.3	24,00d	Mar-06-26	Apr-08-26	0,00 $
WBS: NEWPROJ-15.2.1.16 26 56 20 AIRFIELD AND HELIPORT LIGHTING AND VISU		24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1000	Protection plan 1.4.5	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1010	Training 3.15.2	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1020	Lighting and visual navigation aids 2.1	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1030	Wind Cone Indicator Assembly Connection 2.7	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1040	Approach lighting systems 2.2	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1050	Type L-823 3.2.2	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1060	Obstruction lighting 2.4	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1070	Light bases 2.5	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1080	Wind direction indicator 2.7	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1090	Isolation transformers 2.9	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1100	Constant current regulators 2.12	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1110	Constant current regulators 3.10	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1120	Constant current regulators 3.14.1	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1130	Materials and equipment 1.4.2	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1140	Visual inspection 3.13	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1150	Visual inspection 3.13.1	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1160	Operating test 3.13.2	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1170	Constant current regulators 2.12	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1180	Constant current regulators 3.10	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1190	Constant current regulators 3.14.1	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1200	Qualifications of contractor 1.4.3	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1210	Special tools 2.15.1	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1220	Special tools 3.15.2	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1230	List of parts 3.16.1	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1240	Constant current regulators 2.12	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1250	Constant current regulators 3.10	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1260	Constant current regulators 3.14.1	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1270	Approach lighting systems 2.2	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1280	Maintenance and repair instructions 3.16.2	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1290	Posted operations and maintenance instructions 3.16.3	24,00d	Mar-13-26	Apr-15-26	0,00 $
ALig-1300	As-built drawings 3.15.3	24,00d	Mar-13-26	Apr-15-26	0,00 $
WBS: NEWPROJ-15.2.1.17 31 00 00.00 06 EARTHWORK		24,00d	Mar-20-26	Apr-22-26	0,00 $
Eart-1000	Shoring 3.5	24,00d	Mar-20-26	Apr-22-26	0,00 $
Eart-1010	Utilization of Excavated Materials 3.10	24,00d	Mar-20-26	Apr-22-26	0,00 $
Eart-1020	Opening of any Excavation or Borrow Pit 3.4	24,00d	Mar-20-26	Apr-22-26	0,00 $
Eart-1030	Shoulder Construction 3.16	24,00d	Mar-20-26	Apr-22-26	0,00 $
Eart-1040	Testing 3.19	24,00d	Mar-20-26	Apr-22-26	0,00 $
Eart-1050	Borrow Material 2.1	24,00d	Mar-20-26	Apr-22-26	0,00 $
Eart-1060	Testing 3.19	24,00d	Mar-20-26	Apr-22-26	0,00 $
WBS: NEWPROJ-15.2.1.18 31 11 00 CLEARING AND GRUBBING		24,00d	Mar-27-26	Apr-29-26	0,00 $
C&G-1000	Herbicide Application Plan 3.1.1	24,00d	Mar-27-26	Apr-29-26	0,00 $
C&G-1010	Tree Wound Paint 2.1.1	24,00d	Mar-27-26	Apr-29-26	0,00 $
C&G-1020	Herbicides 1.3.2	24,00d	Mar-27-26	Apr-29-26	0,00 $
C&G-1030	Qualifications 1.3.2	24,00d	Mar-27-26	Apr-29-26	0,00 $
C&G-1040	Pest Management Report 3.5.1	24,00d	Mar-27-26	Apr-29-26	0,00 $
WBS: NEWPROJ-15.2.1.19 32 01 11.51 PAINT REMOVAL FROM AIRFIELD PAVEMEN		24,00d	Apr-03-26	May-06-26	0,00 $
PR-1000	Schedule of Work 1.2	24,00d	Apr-03-26	May-06-26	0,00 $
PR-1010	Paint Removal Process Plan 3.1	24,00d	Apr-03-26	May-06-26	0,00 $
PR-1020	Waste Collection, Identification and Disposal Plan 3.4	24,00d	Apr-03-26	May-06-26	0,00 $

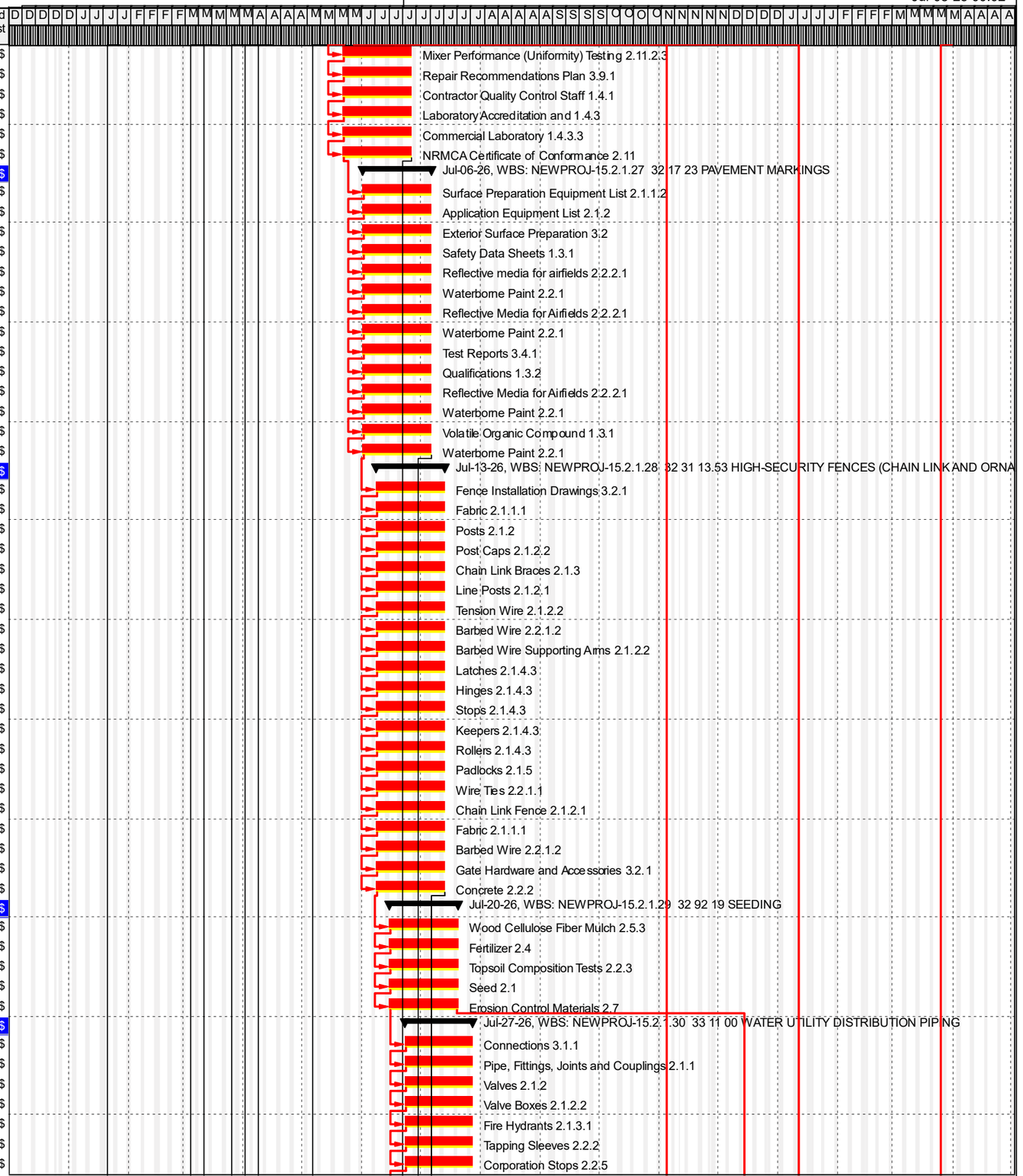


Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
PR-1030	Mechanical Paint Removal Equipment 1.4	24,00d	Apr-03-26	May-06-26	0,00 $
PR-1040	Test Section Results 1.5	24,00d	Apr-03-26	May-06-26	0,00 $
WBS: NEWPROJ-15.2.1.20 32 01 19.61 SEALING OF JOINTS IN RIGID PAVEMENT		24,00d	Apr-10-26	May-13-26	0,00 $
S.Joint-10(	Sealants 2.1	24,00d	Apr-10-26	May-13-26	0,00 $
S.Joint-10'	Manufacturer's Recommendations 3.5.2	24,00d	Apr-10-26	May-13-26	0,00 $
S.Joint-10:	Blocking Media/Backup Materials 2.3.1	24,00d	Apr-10-26	May-13-26	0,00 $
S.Joint-10:	Backer Rod 3.3.4.1	24,00d	Apr-10-26	May-13-26	0,00 $
S.Joint-10-	Bond Breaking Tapes 2.3.2	24,00d	Apr-10-26	May-13-26	0,00 $
S.Joint-10:	Equipment List 3.1	24,00d	Apr-10-26	May-13-26	0,00 $
WBS: NEWPROJ-15.2.1.21 32 11 13.13 LIME TREATED SUBGRADE		24,00d	Apr-17-26	May-20-26	0,00 $
Lime-1000	Plant, Equipment, Machines, and tools 2.1	24,00d	Apr-17-26	May-20-26	0,00 $
Lime-1010	Mix Design 2.2.4	24,00d	Apr-17-26	May-20-26	0,00 $
Lime-1020	Waybills and Delivery Tickets 1.2	24,00d	Apr-17-26	May-20-26	0,00 $
Lime-1030	Contractor's Plans 1.6.1	24,00d	Apr-17-26	May-20-26	0,00 $
Lime-1040	Lime 2.2.1	24,00d	Apr-17-26	May-20-26	0,00 $
Lime-1050	Job-Mix Formula 1.8.1	24,00d	Apr-17-26	May-20-26	0,00 $
Lime-1060	Sampling and Testing 3.4	24,00d	Apr-17-26	May-20-26	0,00 $
Lime-1070	Field Density 3.5.3	24,00d	Apr-17-26	May-20-26	0,00 $
Lime-1080	Bituminous Material 2.2.2	24,00d	Apr-17-26	May-20-26	0,00 $
Lime-1090	Laboratory 2.2.4	24,00d	Apr-17-26	May-20-26	0,00 $
WBS: NEWPROJ-15.2.1.22 32 11 23 GRADED CRUSHED AGGREGATE BASE COUR		24,00d	Apr-24-26	May-28-26	0,00 $
Gra-1000	Plant, Equipment, and Tools 1.4	24,00d	Apr-24-26	May-28-26	0,00 $
Gra-1010	Certified Waybills and Certified Delivery Tickets 1.5	24,00d	Apr-24-26	May-28-26	0,00 $
Gra-1020	Initial Tests 2.3.1	24,00d	Apr-24-26	May-28-26	0,00 $
Gra-1030	In-Place Tests 3.13.1	24,00d	Apr-24-26	May-28-26	0,00 $
WBS: NEWPROJ-15.2.1.23 32 11 23.23 BASE COURSE DRAINAGE LAYERS		24,00d	May-01-26	Jun-04-26	0,00 $
Base-1000	Plants, Equipment, and Tools 1.3.1	24,00d	May-01-26	Jun-04-26	0,00 $
Base-1010	Waybills and Delivery Tickets 1.6	24,00d	May-01-26	Jun-04-26	0,00 $
Base-1020	Initial Tests 1.4.3.1	24,00d	May-01-26	Jun-04-26	0,00 $
Base-1030	In-Place Tests 1.4.3.2	24,00d	May-01-26	Jun-04-26	0,00 $
Base-1040	Test Section Construction Report 3.6.7	24,00d	May-01-26	Jun-04-26	0,00 $
WBS: NEWPROJ-15.2.1.24 32 12 13 BITUMINOUS TACK AND PRIME COATS		24,00d	May-08-26	Jun-11-26	0,00 $
Bitu-1000	Local/Regional Materials 2.2.3	24,00d	May-08-26	Jun-11-26	0,00 $
Bitu-1010	Sampling and Testing 3.7	24,00d	May-08-26	Jun-11-26	0,00 $
WBS: NEWPROJ-15.2.1.25 32 12 15.13 ASPHALT PAVING FOR AIRFIELDS		24,00d	May-15-26	Jun-18-26	0,00 $
Asph-1000	Placement Plan 2.1	24,00d	May-15-26	Jun-18-26	0,00 $
Asph-1010	Diamond Grinding Plan 2.1.6	24,00d	May-15-26	Jun-18-26	0,00 $
Asph-1020	Mix Design 2.4	24,00d	May-15-26	Jun-18-26	0,00 $
Asph-1030	Contractor Quality Control 3.1	24,00d	May-15-26	Jun-18-26	0,00 $
Asph-1040	Aggregates 2.2	24,00d	May-15-26	Jun-18-26	0,00 $
Asph-1050	Asphalt Cement Binder 2.3	24,00d	May-15-26	Jun-18-26	0,00 $
Asph-1060	Aggregates 2.2	24,00d	May-15-26	Jun-18-26	0,00 $
Asph-1070	QC Monitoring 3.1.3.10	24,00d	May-15-26	Jun-18-26	0,00 $
Asph-1080	Asphalt Cement Binder 2.3	24,00d	May-15-26	Jun-18-26	0,00 $
Asph-1090	Testing Laboratory 3.7	24,00d	May-15-26	Jun-18-26	0,00 $
WBS: NEWPROJ-15.2.1.26 32 13 14.13 CONCRETE PAVING FOR AIRFIELDS AND O		24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1000	Diamond Grinding Plan 2.1.7	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1010	Dowels 2.9.1	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1020	Dowel Bar Assemblies 2.9.2	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1030	Equipment 2.11	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1040	Proposed Techniques 3.1.2	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1050	Preliminary Proposed Proportioning 2.13.2	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1060	Proportioning Studies 2.13.2	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1070	Batch Plant Manufacturer's Inspection Report 1.4.1	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1080	Slipform Paver Manufacturer's Inspection Report 1.4.1	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1090	Sampling and Testing 2.1.4.1	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1100	Diamond Grinding of PCC Surfaces 2.1.7	24,00d	May-22-26	Jun-26-26	0,00 $



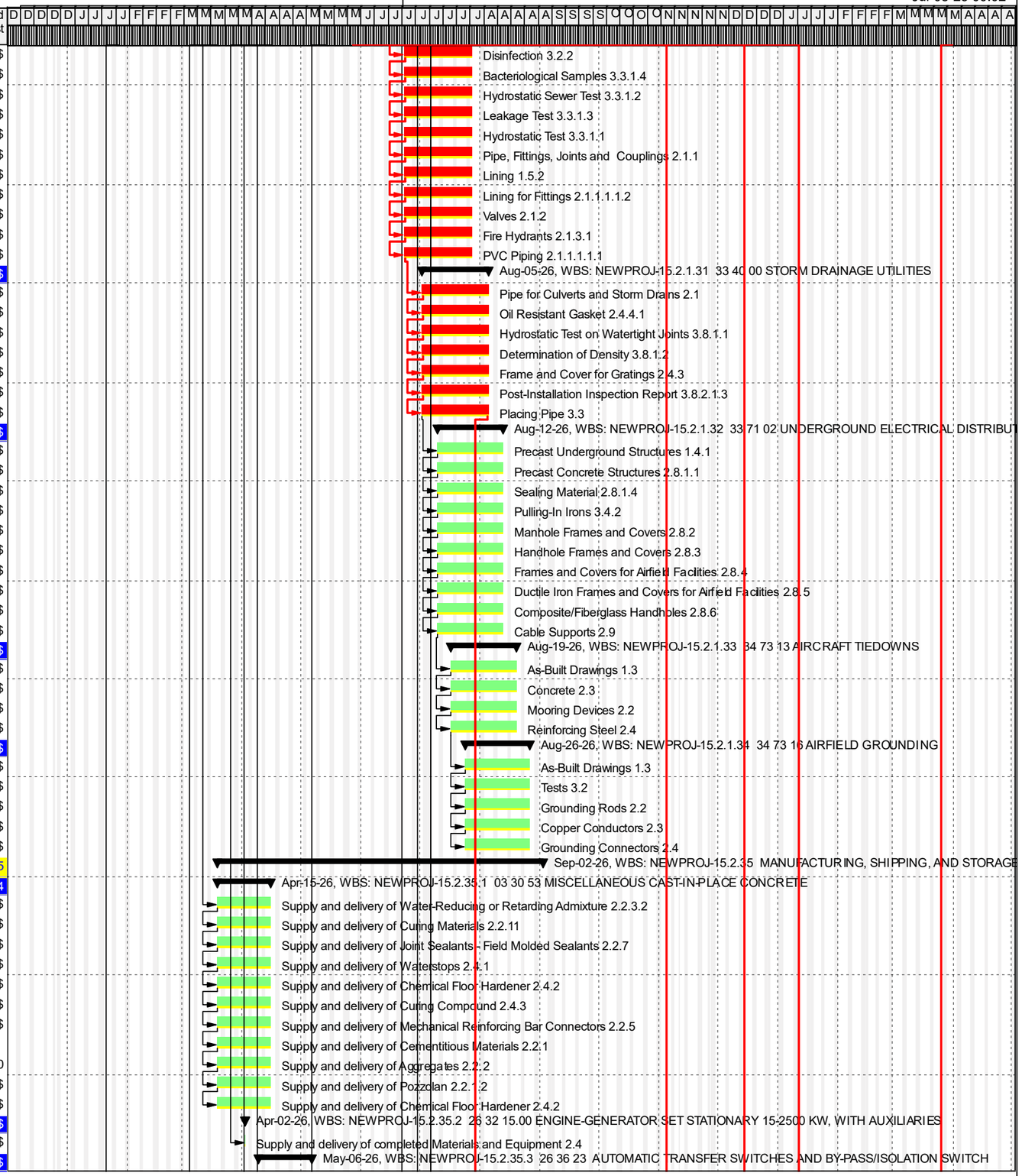
Remaining Level of Effort | Project Baseline Bar | Rema...
Actual Level of Effort | Actual Work | Critica...

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
C.Pav-1110	Mixer Performance (Uniformity) Testing 2.11.2.3	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1120	Repair Recommendations Plan 3.9.1	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1130	Contractor Quality Control Staff 1.4.1	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1140	Laboratory Accreditation and 1.4.3	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1150	Commercial Laboratory 1.4.3.3	24,00d	May-22-26	Jun-26-26	0,00 $
C.Pav-1160	NRMCA Certificate of Conformance 2.11	24,00d	May-22-26	Jun-26-26	0,00 $
WBS: NEWPROJ-15.2.1.27 32 17 23 PAVEMENT MARKINGS		24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-100	Surface Preparation Equipment List 2.1.1.2	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-101	Application Equipment List 2.1.2	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-102	Exterior Surface Preparation 3.2	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-103	Safety Data Sheets 1.3.1	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-104	Reflective media for airfields 2.2.2.1	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-105	Waterborne Paint 2.2.1	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-106	Reflective Media for Airfields 2.2.2.1	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-107	Waterborne Paint 2.2.1	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-108	Test Reports 3.4.1	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-109	Qualifications 1.3.2	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-110	Reflective Media for Airfields 2.2.2.1	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-111	Waterborne Paint 2.2.1	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-112	Volatile Organic Compound 1.3.1	24,00d	Jun-01-26	Jul-06-26	0,00 $
Pav.M-113	Waterborne Paint 2.2.1	24,00d	Jun-01-26	Jul-06-26	0,00 $
WBS: NEWPROJ-15.2.1.28 32 31 13.53 HIGH-SECURITY FENCES (CHAIN LINK AN		24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-100	Fence Installation Drawings 3.2.1	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-101	Fabric 2.1.1.1	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-102	Posts 2.1.2	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-103	Post Caps 2.1.2.2	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-104	Chain Link Braces 2.1.3	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-105	Line Posts 2.1.2.1	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-106	Tension Wire 2.1.2.2	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-107	Barbed Wire 2.2.1.2	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-108	Barbed Wire Supporting Arms 2.1.2.2	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-109	Latches 2.1.4.3	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-110	Hinges 2.1.4.3	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-111	Stops 2.1.4.3	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-112	Keepers 2.1.4.3	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-113	Rollers 2.1.4.3	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-114	Padlocks 2.1.5	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-115	Wire Ties 2.2.1.1	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-116	Chain Link Fence 2.1.2.1	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-117	Fabric 2.1.1.1	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-118	Barbed Wire 2.2.1.2	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-119	Gate Hardware and Accessories 3.2.1	24,00d	Jun-08-26	Jul-13-26	0,00 $
Fence-120	Concrete 2.2.2	24,00d	Jun-08-26	Jul-13-26	0,00 $
WBS: NEWPROJ-15.2.1.29 32 92 19 SEEDING		24,00d	Jun-15-26	Jul-20-26	0,00 $
Seed-1000	Wood Cellulose Fiber Mulch 2.5.3	24,00d	Jun-15-26	Jul-20-26	0,00 $
Seed-1010	Fertilizer 2.4	24,00d	Jun-15-26	Jul-20-26	0,00 $
Seed-1020	Topsoil Composition Tests 2.2.3	24,00d	Jun-15-26	Jul-20-26	0,00 $
Seed-1030	Seed 2.1	24,00d	Jun-15-26	Jul-20-26	0,00 $
Seed-1040	Erosion Control Materials 2.7	24,00d	Jun-15-26	Jul-20-26	0,00 $
WBS: NEWPROJ-15.2.1.30 33 11 00 WATER UTILITY DISTRIBUTION PIPING		24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1000	Connections 3.1.1	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1010	Pipe, Fittings, Joints and Couplings 2.1.1	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1020	Valves 2.1.2	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1030	Valve Boxes 2.1.2.2	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1040	Fire Hydrants 2.1.3.1	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1050	Tapping Sleeves 2.2.2	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1060	Corporation Stops 2.2.5	24,00d	Jun-23-26	Jul-27-26	0,00 $



Remaining Level of Effort | Project Baseline Bar | Rema...
Actual Level of Effort | Actual Work | Critica...

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
WUD-1070	Disinfection 3.2.2	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1080	Bacteriological Samples 3.3.1.4	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1090	Hydrostatic Sewer Test 3.3.1.2	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1100	Leakage Test 3.3.1.3	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1110	Hydrostatic Test 3.3.1.1	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1120	Pipe, Fittings, Joints and Couplings 2.1.1	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1130	Lining 1.5.2	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1140	Lining for Fittings 2.1.1.1.1.2	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1150	Valves 2.1.2	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1160	Fire Hydrants 2.1.3.1	24,00d	Jun-23-26	Jul-27-26	0,00 $
WUD-1170	PVC Piping 2.1.1.1.1.1	24,00d	Jun-23-26	Jul-27-26	0,00 $
WBS: NEWPROJ-15.2.1.31 33 40 00 STORM DRAINAGE UTILITIES		24,00d	Jul-02-26	Aug-05-26	0,00 $
SDU-1000	Pipe for Culverts and Storm Drains 2.1	24,00d	Jul-02-26	Aug-05-26	0,00 $
SDU-1010	Oil Resistant Gasket 2.4.4.1	24,00d	Jul-02-26	Aug-05-26	0,00 $
SDU-1020	Hydrostatic Test on Watertight Joints 3.8.1.1	24,00d	Jul-02-26	Aug-05-26	0,00 $
SDU-1030	Determination of Density 3.8.1.2	24,00d	Jul-02-26	Aug-05-26	0,00 $
SDU-1040	Frame and Cover for Gratings 2.4.3	24,00d	Jul-02-26	Aug-05-26	0,00 $
SDU-1050	Post-Installation Inspection Report 3.8.2.1.3	24,00d	Jul-02-26	Aug-05-26	0,00 $
SDU-1060	Placing Pipe 3.3	24,00d	Jul-02-26	Aug-05-26	0,00 $
WBS: NEWPROJ-15.2.1.32 33 71 02 UNDERGROUND ELECTRICAL DISTRIBUTION		24,00d	Jul-10-26	Aug-12-26	0,00 $
UED-1000	Precast Underground Structures 1.4.1	24,00d	Jul-10-26	Aug-12-26	0,00 $
UED-1010	Precast Concrete Structures 2.8.1.1	24,00d	Jul-10-26	Aug-12-26	0,00 $
UED-1020	Sealing Material 2.8.1.4	24,00d	Jul-10-26	Aug-12-26	0,00 $
UED-1030	Pulling-In Irons 3.4.2	24,00d	Jul-10-26	Aug-12-26	0,00 $
UED-1040	Manhole Frames and Covers 2.8.2	24,00d	Jul-10-26	Aug-12-26	0,00 $
UED-1050	Handhole Frames and Covers 2.8.3	24,00d	Jul-10-26	Aug-12-26	0,00 $
UED-1060	Frames and Covers for Airfield Facilities 2.8.4	24,00d	Jul-10-26	Aug-12-26	0,00 $
UED-1070	Ductile Iron Frames and Covers for Airfield Facilities 2.8.5	24,00d	Jul-10-26	Aug-12-26	0,00 $
UED-1080	Composite/Fiberglass Handholes 2.8.6	24,00d	Jul-10-26	Aug-12-26	0,00 $
UED-1090	Cable Supports 2.9	24,00d	Jul-10-26	Aug-12-26	0,00 $
WBS: NEWPROJ-15.2.1.33 34 73 13 AIRCRAFT TIEDOWNS		24,00d	Jul-17-26	Aug-19-26	0,00 $
Airc-1000	As-Built Drawings 1.3	24,00d	Jul-17-26	Aug-19-26	0,00 $
Airc-1010	Concrete 2.3	24,00d	Jul-17-26	Aug-19-26	0,00 $
Airc-1020	Mooring Devices 2.2	24,00d	Jul-17-26	Aug-19-26	0,00 $
Airc-1030	Reinforcing Steel 2.4	24,00d	Jul-17-26	Aug-19-26	0,00 $
WBS: NEWPROJ-15.2.1.34 34 73 16 AIRFIELD GROUNDING		24,00d	Jul-24-26	Aug-26-26	0,00 $
AirF-1000	As-Built Drawings 1.3	24,00d	Jul-24-26	Aug-26-26	0,00 $
AirF-1010	Tests 3.2	24,00d	Jul-24-26	Aug-26-26	0,00 $
AirF-1020	Grounding Rods 2.2	24,00d	Jul-24-26	Aug-26-26	0,00 $
AirF-1030	Copper Conductors 2.3	24,00d	Jul-24-26	Aug-26-26	0,00 $
AirF-1040	Grounding Connectors 2.4	24,00d	Jul-24-26	Aug-26-26	0,00 $
WBS: NEWPROJ-15.2.35 MANUFACTURING, SHIPPING, AND STORAGE		117,00d	Mar-19-26	Sep-02-26	1.833.741,05
WBS: NEWPROJ-15.2.35.1 03 30 53 MISCELLANEOUS CAST-IN-PLACE CONCRETE		20,00d	Mar-19-26	Apr-15-26	1.540.769,44
MCost-100	Supply and delivery of Water-Reducing or Retarding Admixture 2.2.3.2	20,00d	Mar-19-26	Apr-15-26	15.138,00 $
MCost-101	Supply and delivery of Curing Materials 2.2.11	20,00d	Mar-19-26	Apr-15-26	15.950,00 $
MCost-102	Supply and delivery of Joint Sealants - Field Molded Sealants 2.2.7	20,00d	Mar-19-26	Apr-15-26	4.550,00 $
MCost-103	Supply and delivery of Waterstops 2.4.1	20,00d	Mar-19-26	Apr-15-26	6.671,40 $
MCost-104	Supply and delivery of Chemical Floor Hardener 2.4.2	20,00d	Mar-19-26	Apr-15-26	3.990,00 $
MCost-105	Supply and delivery of Curing Compound 2.4.3	20,00d	Mar-19-26	Apr-15-26	4.507,04 $
MCost-106	Supply and delivery of Mechanical Reinforcing Bar Connectors 2.2.5	20,00d	Mar-19-26	Apr-15-26	27.639,00 $
MCost-107	Supply and delivery of Cementitious Materials 2.2.1	20,00d	Mar-19-26	Apr-15-26	103.900,00
MCost-108	Supply and delivery of Aggregates 2.2.2	20,00d	Mar-19-26	Apr-15-26	1.280.568,00
MCost-109	Supply and delivery of Pozzolan 2.2.1.2	20,00d	Mar-19-26	Apr-15-26	6.816,00 $
MCost-110	Supply and delivery of Chemical Floor Hardener 2.4.2	20,00d	Mar-19-26	Apr-15-26	71.040,00 $
WBS: NEWPROJ-15.2.35.2 26 32 15.00 ENGINE-GENERATOR SET STATIONARY 15-		0,00d	Apr-02-26	Apr-02-26	227,08 $
Genr-1000	Supply and delivery of completed Materials and Equipment 2.4	0,00d	Apr-02-26	Apr-02-26	227,08 $
WBS: NEWPROJ-15.2.35.3 26 36 23 AUTOMATIC TRANSFER SWITCHES AND BY-P		20,00d	Apr-09-26	May-06-26	21.923,61 $



Remaining Level of Effort
Actual Level of Effort
Project Baseline Bar
Actual Work
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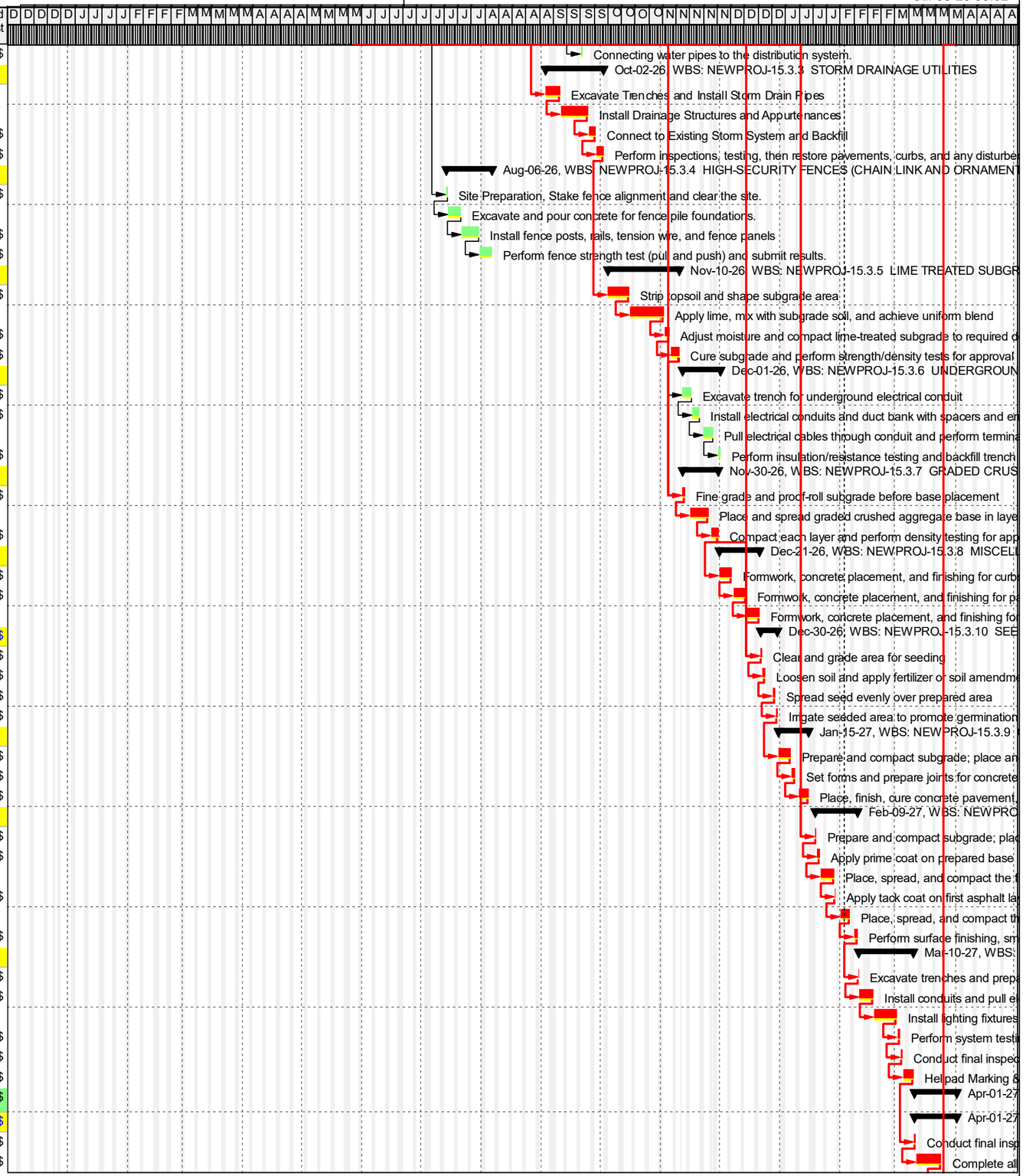
Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
Auto-1000	Supply and delivery of Automatic Transfer Switches 2.1	20,00d	Apr-09-26	May-06-26	20.398,00 $
Auto-1010	Supply and delivery of By-Pass/Isolation Switch (BP/IS) 2.2	20,00d	Apr-09-26	May-06-26	1.525,61 $
WBS: NEWPROJ-15.2.35.4 26 56 20 AIRFIELD AND HELIPORT LIGHTING AND VISU		20,00d	Apr-16-26	May-13-26	97.428,01 $
Air.F-1000	Supply and delivery of Lighting and visual navigation aids 2.1	20,00d	Apr-16-26	May-13-26	51.000,00 $
Air.F-1010	Supply and delivery of Approach lighting systems 2.2	20,00d	Apr-16-26	May-13-26	3.684,10 $
Air.F-1020	Supply and delivery of Type L-823 3.2.2	20,00d	Apr-16-26	May-13-26	5.106,55 $
Air.F-1030	Supply and delivery of Obstruction lighting 2.4	20,00d	Apr-16-26	May-13-26	3.343,92 $
Air.F-1040	Supply and delivery of Light bases 2.5	20,00d	Apr-16-26	May-13-26	1.977,77 $
Air.F-1050	Supply and delivery of Wind direction indicator 2.7	20,00d	Apr-16-26	May-13-26	47,70 $
Air.F-1060	Supply and delivery of Isolation transformers 2.9	20,00d	Apr-16-26	May-13-26	16.511,86 $
Air.F-1070	Supply and delivery of Special tools 2.15.1	20,00d	Apr-16-26	May-13-26	14.872,28 $
Air.F-1090	Supply and delivery of Approach lighting systems 2.2	20,00d	Apr-16-26	May-13-26	883,83 $
WBS: NEWPROJ-15.2.35.5 32 01 19.61 SEALING OF JOINTS IN RIGID PAVEMENT		20,00d	May-14-26	Jun-11-26	14.798,06 $
Joint-1000	Supply and delivery of Sealants 2.1	20,00d	May-14-26	Jun-11-26	483,56 $
Joint-1010	Supply and delivery of Bond Breaking Tapes 2.3.2	20,00d	May-14-26	Jun-11-26	14.314,50 $
WBS: NEWPROJ-15.2.35.6 32 13 14.13 CONCRETE PAVING FOR AIRFIELDS AND O		20,00d	Jun-29-26	Jul-27-26	4.290,78 $
C.Pave-10	Supply and delivery of Dowels 2.9.1	20,00d	Jun-29-26	Jul-27-26	2.481,18 $
C.Pave-10	Supply and delivery of Dowel Bar Assemblies 2.9.2	20,00d	Jun-29-26	Jul-27-26	1.809,60 $
WBS: NEWPROJ-15.2.35.7 32 17 23 PAVEMENT MARKINGS		20,00d	Jul-07-26	Aug-03-26	31.629,60 $
Pave.M-1(	Supply and delivery of Waterborne Paint 2.2.1	20,00d	Jul-07-26	Aug-03-26	29.790,00 $
Pave.M-1(	Supply and delivery of Volatile Organic Compound 1.3.1	20,00d	Jul-07-26	Aug-03-26	1.839,60 $
WBS: NEWPROJ-15.2.35.8 32 31 13.53 HIGH-SECURITY FENCES (CHAIN LINK AND		20,00d	Jul-14-26	Aug-10-26	103.150,16
Chin Link-'	Supply and delivery of Fabric 2.1.1.1	20,00d	Jul-14-26	Aug-10-26	6.007,32 $
Chin Link-'	Supply and delivery of Posts 2.1.2	20,00d	Jul-14-26	Aug-10-26	67.747,38 $
Chin Link-'	Supply and delivery of Post Caps 2.1.2.2	20,00d	Jul-14-26	Aug-10-26	5.948,50 $
Chin Link-'	Supply and delivery of Chain Link Braces 2.1.3	20,00d	Jul-14-26	Aug-10-26	1.172,50 $
Chin Link-'	Supply and delivery of Tension Wire 2.1.2.2	20,00d	Jul-14-26	Aug-10-26	1.533,40 $
Chin Link-'	Supply and delivery of Barbed Wire 2.2.1.2	20,00d	Jul-14-26	Aug-10-26	3.222,00 $
Chin Link-'	Supply and delivery of Barbed Wire Supporting Arms 2.1.2.2	20,00d	Jul-14-26	Aug-10-26	5.395,00 $
Chin Link-'	Supply and delivery of Latches 2.1.4.3	20,00d	Jul-14-26	Aug-10-26	846,40 $
Chin Link-'	Supply and delivery of Hinges 2.1.4.3	20,00d	Jul-14-26	Aug-10-26	142,20 $
Chin Link-'	Supply and delivery of Stops 2.1.4.3	20,00d	Jul-14-26	Aug-10-26	87,84 $
Chin Link-'	Supply and delivery of Keepers 2.1.4.3	20,00d	Jul-14-26	Aug-10-26	9.104,00 $
Chin Link-'	Supply and delivery of Rollers 2.1.4.3	20,00d	Jul-14-26	Aug-10-26	631,12 $
Chin Link-'	Supply and delivery of Wire Ties 2.2.1.1	20,00d	Jul-14-26	Aug-10-26	1.312,50 $
WBS: NEWPROJ-15.2.35.10 33 40 00 STORM DRAINAGE UTILITIES		20,00d	Aug-06-26	Sep-02-26	19.524,31 $
S.D.U-1000	Supply and delivery of Pipe for Culverts and Storm Drains & Oil Resistant Ga	20,00d	Aug-06-26	Sep-02-26	19.524,31 $
WBS: NEWPROJ-15.2.2 MOBILIZATION DIVISION		8,00d	Jan-28-26	Feb-06-26	15.959,54 $
Mob-1000	Site Access Preparation	3,00d	Jan-28-26	Jan-30-26	1.639,10 $
Mob-1020	Set up temporary utilities (power, water, internet)	1,00d	Feb-02-26	Feb-02-26	2.768,74 $
Mob-1030	Install safety fencing and signage	1,00d	Feb-03-26	Feb-03-26	4.574,22 $
Mob-1040	Provide portable restrooms	1,00d	Feb-04-26	Feb-04-26	5.632,04 $
Mob-1060	Arrange material delivery storage areas	1,00d	Feb-05-26	Feb-05-26	658,48 $
Mob-1070	Create laydown areas and access paths	1,00d	Feb-06-26	Feb-06-26	686,96 $
WBS: NEWPROJ-15.3 CONSTRUCTION		271,00d	Feb-09-26	Mar-10-27	4.105.147,13
WBS: NEWPROJ-15.3.1 GENERAL ACTIVITIES		49,00d	Feb-09-26	Apr-17-26	631.788,50
Gen-1000	Site Clearing & Grubbing	4,00d	Feb-09-26	Feb-12-26	743,20 $
Gen-1010	Demolish existing structures, foundations, pavements	5,00d	Mar-12-26	Mar-18-26	66.989,56 $
Gen-1020	Stripping and Stockpiling Topsoil	1,00d	Mar-19-26	Mar-19-26	10.456,28 $
Gen-1030	Cut and fill to achieve design grade	15,00d	Mar-20-26	Apr-09-26	471.453,38
Gen-1040	Compact subgrade for structural areas	2,00d	Apr-10-26	Apr-13-26	69.941,08 $
Gen-1050	Install project benchmarks and control points	1,00d	Apr-14-26	Apr-14-26	4.542,50 $
Gen-1070	Stake out building corners, limits of excavation	3,00d	Apr-15-26	Apr-17-26	7.662,50 $
WBS: NEWPROJ-15.3.2 WATER UTILITY DISTRIBUTION PIPING		12,00d	Sep-03-26	Sep-21-26	174.588,89
WDP-1000	Installation valve, disconnect water, and disposal of old pipes	1,00d	Sep-03-26	Sep-03-26	4.158,27 $
WDP-1010	Excavation of trench along the new water pipe and installation of pipe	5,00d	Sep-04-26	Sep-11-26	107.427,70
WDP-1020	Filling water, pressure and all required test on new water pipe	5,00d	Sep-14-26	Sep-18-26	58.944,65 $

Remaining Level of Effort | Project Baseline Bar | Rema...

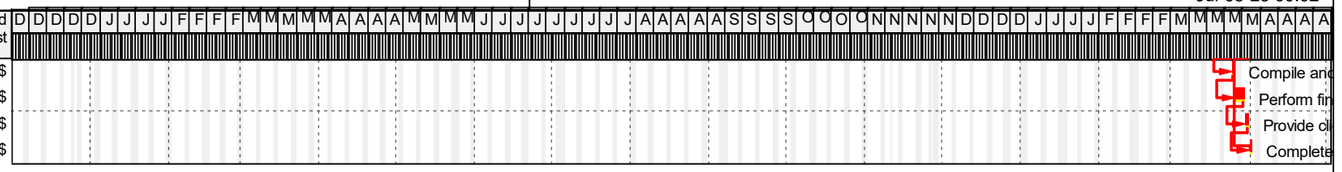
Actual Level of Effort | Actual Work | Critica...

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
WDP-1030	Connecting water pipes to the distribution system.	1,00d	Sep-21-26	Sep-21-26	4.058,27 $
WBS: NEWPROJ-15.3.3 STORM DRAINAGE UTILITIES		21,00d	Sep-03-26	Oct-02-26	650.078,49
SD.U-1000	Excavate Trenches and Install Storm Drain Pipes	5,00d	Sep-03-26	Sep-10-26	303.288,23
SD.U-1010	Install Drainage Structures and Appurtenances	10,00d	Sep-11-26	Sep-24-26	315.372,03
SD.U-1020	Connect to Existing Storm System and Backfill	2,00d	Sep-25-26	Sep-28-26	24.538,23 $
SD.U-1030	Perform inspections, testing, then restore pavements, curbs, and any disturb	4,00d	Sep-29-26	Oct-02-26	6.880,00 $
WBS: NEWPROJ-15.3.4 HIGH-SECURITY FENCES (CHAIN LINK AND ORNAMEN		18,00d	Jul-14-26	Aug-06-26	237.580,42
Fence.C-10	Site Preparation, Stake fence alignment and clear the site.	1,00d	Jul-14-26	Jul-14-26	2.911,37 $
Fence.C-10	Excavate and pour concrete for fence pile foundations.	5,00d	Jul-15-26	Jul-21-26	217.900,85
Fence.C-10	Install fence posts, rails, tension wire, and fence panels	7,00d	Jul-22-26	Jul-30-26	13.751,80 $
Fence.C-10	Perform fence strength test (pull and push) and submit results.	5,00d	Jul-31-26	Aug-06-26	3.016,40 $
WBS: NEWPROJ-15.3.5 LIME TREATED SUBGRADE		26,00d	Oct-05-26	Nov-10-26	362.686,24
Lime.S-1000	Strip topsoil and shape subgrade area	8,00d	Oct-05-26	Oct-15-26	83.913,60 $
Lime.S-1010	Apply lime, mix with subgrade soil, and achieve uniform blend	12,00d	Oct-16-26	Nov-02-26	236.886,00
Lime.S-1020	Adjust moisture and compact lime-treated subgrade to required density	3,00d	Nov-03-26	Nov-05-26	40.076,80 $
Lime.S-1030	Cure subgrade and perform strength/density tests for approval	3,00d	Nov-06-26	Nov-10-26	1.809,84 $
WBS: NEWPROJ-15.3.6 UNDERGROUND ELECTRICAL DISTRIBUTION		13,00d	Nov-12-26	Dec-01-26	223.817,57
Un.E-1000	Excavate trench for underground electrical conduit	3,00d	Nov-12-26	Nov-16-26	21.646,54 $
Un.E-1010	Install electrical conduits and duct bank with spacers and encasement	4,00d	Nov-17-26	Nov-20-26	60.221,17 $
Un.E-1020	Pull electrical cables through conduit and perform terminations	4,00d	Nov-23-26	Nov-27-26	136.910,02
Un.E-1030	Perform insulation/resistance testing and backfill trench	2,00d	Nov-30-26	Dec-01-26	5.039,84 $
WBS: NEWPROJ-15.3.7 GRADED CRUSHED AGGREGATE BASE COURSE		12,00d	Nov-12-26	Nov-30-26	619.938,46
Base.C-100	Fine grade and proof-roll subgrade before base placement	2,00d	Nov-12-26	Nov-13-26	15.741,68 $
Base.C-101	Place and spread graded crushed aggregate base in layers	8,00d	Nov-16-26	Nov-25-26	591.151,80
Base.C-102	Compact each layer and perform density testing for approval	2,00d	Nov-27-26	Nov-30-26	13.044,98 $
WBS: NEWPROJ-15.3.8 MISCELLANEOUS CAST-IN-PLACE CONCRETE		15,00d	Dec-01-26	Dec-21-26	419.779,20
Cast.C-1000	Formwork, concrete placement, and finishing for curbs	5,00d	Dec-01-26	Dec-07-26	58.826,20 $
Cast.C-1010	Formwork, concrete placement, and finishing for pads	5,00d	Dec-08-26	Dec-14-26	73.914,50 $
Cast.C-1020	Formwork, concrete placement, and finishing for storm water collection chan	5,00d	Dec-15-26	Dec-21-26	287.038,50
WBS: NEWPROJ-15.3.10 SEEDING		6,00d	Dec-22-26	Dec-30-26	51.723,89 $
Seeding-10	Clear and grade area for seeding	1,00d	Dec-22-26	Dec-22-26	7.318,87 $
Seeding-10	Loosen soil and apply fertilizer or soil amendments	2,00d	Dec-23-26	Dec-24-26	21.619,21 $
Seeding-10	Spread seed evenly over prepared area	2,00d	Dec-28-26	Dec-29-26	16.612,26 $
Seeding-10	Irrigate seeded area to promote germination	1,00d	Dec-30-26	Dec-30-26	6.173,55 $
WBS: NEWPROJ-15.3.9 CONCRETE PAVING FOR AIRFIELDS AND OTHER HEA		11,00d	Dec-31-26	Jan-15-27	162.534,00
Con.P-1000	Prepare and compact subgrade; place and compact base course material	4,00d	Dec-31-26	Jan-06-27	29.265,22 $
Con.P-1010	Set forms and prepare joints for concrete paving	2,00d	Jan-07-27	Jan-08-27	38.105,88 $
Con.P-1020	Place, finish, cure concrete pavement, and perform quality tests	5,00d	Jan-11-27	Jan-15-27	95.162,90 $
WBS: NEWPROJ-15.3.11 ASPHALT PAVING FOR AIRFIELDS		16,00d	Jan-19-27	Feb-09-27	280.469,24
Asphalt-100	Prepare and compact subgrade; place and compact base course material	1,00d	Jan-19-27	Jan-19-27	9.604,40 $
Asphalt-101	Apply prime coat on prepared base	2,00d	Jan-20-27	Jan-21-27	3.087,40 $
Asphalt-102	Place, spread, and compact the first asphalt layer	5,00d	Jan-22-27	Jan-28-27	137.706,40
Asphalt-103	Apply tack coat on first asphalt layer before second layer	1,00d	Jan-29-27	Jan-29-27	2.887,40 $
Asphalt-104	Place, spread, and compact the second asphalt layer	5,00d	Feb-01-27	Feb-05-27	125.206,40
Asphalt-105	Perform surface finishing, smoothness checks, and density testing	2,00d	Feb-08-27	Feb-09-27	1.977,24 $
WBS: NEWPROJ-15.3.12 AIRFIELD AND HELIPORT LIGHTING AND VISUAL NA		20,00d	Feb-10-27	Mar-10-27	290.162,23
Lighting-100	Excavate trenches and prepare sites for lighting conduit and equipment	1,00d	Feb-10-27	Feb-10-27	7.136,80 $
Lighting-10	Install conduits and pull electrical wiring for lighting and visual aids	4,00d	Feb-11-27	Feb-17-27	42.932,13 $
Lighting-102	Install lighting fixtures, visual navigation aids, and control cabinets	8,00d	Feb-18-27	Mar-01-27	144.857,71
Lighting-103	Perform system testing, calibration, and verification of lighting and navigatior	2,00d	Mar-02-27	Mar-03-27	5.090,74 $
Lighting-104	Conduct final inspection and handover system for operation	1,00d	Mar-04-27	Mar-04-27	1.160,00 $
Lighting-105	Helipad Marking & Channelization – Paint & Safety Setup	4,00d	Mar-05-27	Mar-10-27	88.984,85 $
WBS: NEWPROJ-15.4 PROJECT CLOSE-OUT		16,00d	Mar-11-27	Apr-01-27	43.840,00 $
WBS: NEWPROJ-15.4.1 GENERAL		16,00d	Mar-11-27	Apr-01-27	43.840,00 $
Clos.G-1000	Conduct final inspections and prepare punch list of incomplete or deficient it	1,00d	Mar-11-27	Mar-11-27	2.240,00 $
Clos.G-1010	Complete all punch list items and corrective work	9,00d	Mar-12-27	Mar-24-27	32.720,00 $



Remaining Level of Effort | Actual Level of Effort | Project Baseline Bar | Actual Work | Rema... | Critica...

Activity ID	Activity Name	Original Duration	Start	Finish	Budgeted Total Cost
Clos.G-1020	Compile and submit all project documentation, manuals, and as-built drawin	1,00d	Mar-25-27	Mar-25-27	1.680,00 $
Clos.G-1030	Perform final system tests and commissioning activities	2,00d	Mar-26-27	Mar-29-27	2.880,00 $
Clos.G-1040	Provide client training and formally hand over the project	2,00d	Mar-30-27	Mar-31-27	2.880,00 $
Clos.G-1050	Complete contract close-out procedures and process final payment	1,00d	Apr-01-27	Apr-01-27	1.440,00 $



Appendix B

Acti	Activity Name	Original Duration	Start	Finish	Budgeted Units	Budgeted Cost	Remaining Units	Mar 18 T	W	T	F	S	S
	Labor	334,00d	Dec-01-25	Apr-01-27	16275,00h	855.716,34 $							
	ASPHALT Forman	45,85d	Jan-20-27	Mar-24-27	192,00h	13.440,00 $							
	Asphalt worker-1	43,85d	Jan-22-27	Mar-24-27	152,00h	7.600,00 $							
	Asphalt worker-2	43,85d	Jan-22-27	Mar-24-27	152,00h	7.600,00 $							
	Concrete Forman	186,85d	Jul-15-26	Apr-01-27	424,00h	25.440,00 $							
	Concrete worker-1	132,85d	Jul-15-26	Jan-15-27	216,00h	6.696,00 $							
	Concrete worker-2	132,85d	Jul-15-26	Jan-15-27	216,00h	9.720,00 $							
	Electrical Forman	303,85d	Feb-02-26	Apr-01-27	368,00h	23.920,00 $							
	Electrical worker -2	91,85d	Nov-17-26	Mar-24-27	272,00h	10.880,00 $							
	Electrical worker-1	297,85d	Feb-02-26	Mar-24-27	256,00h	10.240,00 $							
	Fence Skill worker-1	127,85d	Feb-03-26	Jul-30-26	104,00h	2.184,00 $							
	Fence Skill worker-2	127,85d	Feb-03-26	Jul-30-26	64,00h	1.344,00 $							
	Fence Skill worker-3	6,85d	Jul-22-26	Jul-30-26	56,00h	1.176,00 $							
	Fence Skill worker-4	6,85d	Jul-22-26	Jul-30-26	56,00h	1.176,00 $							
	General Forman	297,85d	Feb-03-26	Mar-25-27	700,00h	21.000,00 $							
	Heavy Machinery Operator-1	270,85d	Jan-28-26	Feb-10-27	810,00h	19.237,50 $							
	Heavy Machinery Operator-2	254,85d	Jan-28-26	Jan-19-27	794,00h	16.674,00 $							
	Heavy Machinery Operator-3	221,85d	Mar-12-26	Jan-15-27	632,00h	13.272,00 $							
	Heavy Machinery Operator-4	176,85d	Mar-19-26	Nov-20-26	224,00h	4.704,00 $							
	Lab Technician-1	137,85d	Jul-31-26	Feb-09-27	368,00h	7.510,88 $							
	Lab Technician-2	137,85d	Jul-31-26	Feb-09-27	176,00h	4.400,00 $							
	Painter / Striping Crew	3,85d	Mar-05-27	Mar-10-27	32,00h	1.760,00 $							
	Plumber Forman	150,85d	Sep-03-26	Apr-01-27	251,00h	13.805,00 $							
	Plumber-1	297,85d	Feb-02-26	Mar-24-27	200,00h	8.000,00 $							
	Plumber-2	143,85d	Sep-04-26	Mar-24-27	160,00h	6.400,00 $							
	Quality control manager	348,85d	Dec-01-25	Apr-01-27	2672,00h	213.760,00 $							
	Skill worker-1	77,85d	Sep-11-26	Dec-29-26	136,00h	3.856,96 $							
	Skill worker-2	83,85d	Sep-03-26	Dec-29-26	176,00h	9.680,00 $							
	SSHO	348,85d	Dec-01-25	Apr-01-27	2672,00h	146.960,00 $							
	Superintendent	348,85d	Dec-01-25	Apr-01-27	2672,00h	200.400,00 $							
	Surveyor-1	263,85d	Feb-03-26	Feb-05-27	920,00h	36.800,00 $							
	Surveyor-2	153,85d	Apr-14-26	Nov-13-26	80,00h	3.200,00 $							
	Surveyor-3	165,85d	Apr-14-26	Dec-01-26	72,00h	2.880,00 $							

Appendix C

Acti	Activity Name	Original Duration	Start	Finish	Budgeted Units	Budgeted Cost	Remaining Units	Mar 18 T	W	T	F	S	S
	Nonlabor	334,00d	Dec-01-25	Apr-01-27	34114,40h	2.064.608,00 $							
	2-Person Washing Station with Direct Water Hookups a	348,85d	Dec-01-25	Apr-01-27	2672,00h	8.016,00 $							
	75 kVA Mobile Temporary Power Distribution System	0,90d	Feb-02-26	Feb-02-26	10,00h	600,00 $							
	Asphalt paver	10,85d	Jan-22-27	Feb-05-27	80,00h	0,00 $							
	Asphalt Rakes-2	10,85d	Jan-22-27	Feb-05-27	80,00h	0,00 $							
	Asphalt truck-1	10,85d	Jan-22-27	Feb-05-27	80,00h	3.200,00 $							
	Asphalt truck-2	10,85d	Jan-22-27	Feb-05-27	80,00h	24.000,00 $							
	Backhoe Loader	1,85d	Feb-05-26	Feb-06-26	16,00h	880,00 $							
	Bitumen Distributor Truck	7,85d	Jan-20-27	Jan-29-27	16,00h	1.120,00 $							
	BOBCAT ATTACH, AUGER	4,85d	Jul-15-26	Jul-21-26	8,00h	136,00 $							
	Boom Truck Crane	278,90d	Feb-04-26	Mar-01-27	128,00h	7.040,00 $							
	Boundary markers	0,85d	Mar-19-26	Mar-19-26	8,00h	0,00 $							
	Brush	17,90d	Sep-03-26	Sep-28-26	96,00h	0,00 $							
	Bulldozer	150,85d	Mar-19-26	Oct-15-26	72,00h	7.200,00 $							
	Cable Puller Machine	4,85d	Nov-23-26	Nov-27-26	32,00h	0,00 $							
	Cable Rollers and Guides	0,00d	Nov-23-26	Nov-23-26	32,00h	0,00 $							
	Camera (for visual documentation or CCTV inspection	3,85d	Sep-29-26	Oct-02-26	32,00h	2.080,00 $							
	CBR Test Equipment set	2,85d	Nov-06-26	Nov-10-26	24,00h	0,00 $							
	Chlorine test kit (for residual chlorine testing if disinfec	4,85d	Sep-14-26	Sep-18-26	40,00h	20.000,00 $							
	Compaction Meter	0,00d	Nov-12-26	Nov-12-26	16,00h	0,00 $							
	Compactor Jumping Jack Tamper	46,85d	Nov-16-26	Jan-19-27	131,20h	656,00 $							
	Concrete broom	29,00d	Dec-01-26	Jan-11-27	160,00h	0,00 $							
	Concrete float (steel)	33,85d	Dec-01-26	Jan-15-27	160,00h	0,00 $							
	Concrete float (wood)	33,85d	Dec-01-26	Jan-15-27	160,00h	11.200,00 $							
	Concrete mixer-1	132,85d	Jul-15-26	Jan-15-27	240,00h	0,00 $							
	Concrete mixer-2	132,85d	Jul-15-26	Jan-15-27	200,00h	0,00 $							
	Concrete pump	33,85d	Dec-01-26	Jan-15-27	160,00h	0,00 $							
	Concrete Vibrator	122,00d	Jul-15-26	Jan-11-27	200,00h	0,00 $							
	Conduit benders	0,90d	Feb-02-26	Feb-02-26	8,00h	0,00 $							
	Container for site office-20ft-1	334,00d	Dec-01-25	Apr-01-27	2672,00h	32.064,00 $							
	Container for site office-20ft-2	348,85d	Dec-01-25	Apr-01-27	2672,00h	32.064,00 $							
	Core Hole Patching tools/Material	1,85d	Feb-08-27	Feb-09-27	16,00h	0,00 $							
	Crack width gauge (for measuring any visible cracks)	3,85d	Sep-29-26	Oct-02-26	32,00h	1.280,00 $							

Acti	Activity Name	Original Duration	Start	Finish	Budgeted Units	Budgeted Cost	Remaining Units	Mar 18 T	W	T	F	S	S
	Crane 20 ton	283,90d	Jan-28-26	Mar-01-27	81,60h	8.160,00 $							
	Crimper	4,85d	Nov-23-26	Nov-27-26	32,00h	0,00 $							
	Data logger	4,85d	Sep-14-26	Sep-18-26	40,00h	0,00 $							
	Dewatering pump 2 inch	12,90d	Sep-03-26	Sep-21-26	56,00h	0,00 $							
	Double Drum Vibratory Compactors 3 760 kg	1,90d	Apr-10-26	Apr-13-26	16,00h	800,00 $							
	Drills and drivers	237,85d	Feb-02-26	Dec-30-26	16,00h	0,00 $							
	Dump truck-1	239,85d	Mar-12-26	Feb-10-27	504,00h	50.400,00 $							
	Dump truck-2	184,85d	Mar-12-26	Nov-25-26	369,60h	48.048,00 $							
	Dump truck-3	162,90d	Mar-19-26	Nov-02-26	240,00h	14.400,00 $							
	Dump truck-4	1,90d	Apr-10-26	Apr-13-26	16,00h	960,00 $							
	Edger and jointer	33,85d	Dec-01-26	Jan-15-27	160,00h	0,00 $							
	Excavator Crawler-1	17,90d	Sep-03-26	Sep-28-26	96,00h	91.200,00 $							
	Excavator Crawler-2	142,90d	Mar-12-26	Sep-28-26	256,00h	17.920,00 $							
	Excavator Crawler-3	0,85d	Mar-19-26	Mar-19-26	8,00h	0,00 $							
	Excavator rubber-tired-1	150,85d	Mar-19-26	Oct-15-26	248,00h	9.920,00 $							
	Excavator rubber-tired-2	76,85d	Oct-05-26	Jan-19-27	72,00h	3.816,00 $							
	Flashlight	3,85d	Sep-29-26	Oct-02-26	32,00h	0,00 $							
	Form stakes/pins	0,00d	Jan-07-27	Jan-07-27	16,00h	0,00 $							
	Generator 120V	348,85d	Dec-01-25	Apr-01-27	2784,00h	1.392,00 $							
	Grader-1	218,85d	Mar-19-26	Jan-19-27	320,00h	0,00 $							
	Grader-2	234,85d	Jan-28-26	Dec-22-26	250,00h	0,00 $							
	Hammer (Dead Blow)	33,85d	Dec-01-26	Jan-15-27	176,00h	19.360,00 $							
	Hand tools (shovel, rake for fine adjustment)	234,85d	Mar-19-26	Feb-10-27	496,00h	0,00 $							
	Hydrostatic test pump	4,85d	Sep-14-26	Sep-18-26	40,00h	2.600,00 $							
	Insulation Stripper & Cutter/for prepping cable ends.	0,00d	Nov-23-26	Nov-23-26	32,00h	0,00 $							
	Ladder	6,85d	Jul-22-26	Jul-30-26	56,00h	0,00 $							
	Laser Level	209,00d	Apr-14-26	Feb-01-27	224,00h	0,00 $							
	Mason's Hammer	1,85d	Jan-07-27	Jan-08-27	16,00h	0,00 $							
	Measuring tape	216,85d	Mar-19-26	Jan-15-27	576,00h	0,00 $							
	Measuring Tools (bucket)	7,00d	Jan-20-27	Jan-29-27	0,00h	0,00 $							
	Megger / Insulation Tester	6,85d	Nov-23-26	Dec-01-26	48,00h	0,00 $							
	Mini Excavator 13.5 HP	239,85d	Mar-12-26	Feb-10-27	256,00h	166.400,00 $							
	Moisture-Density Testing Kit	1,90d	Nov-27-26	Nov-30-26	16,00h	0,00 $							
	Multimeter / Circuit Tester	72,85d	Nov-23-26	Mar-03-27	48,00h	3.120,00 $							

Acti	Activity Name	Original Duration	Start	Finish	Budgeted Units	Budgeted Cost	Remaining Units	Mar 18 T	W	T	F	S	S
	Multimeter/tester	281,00d	Feb-02-26	Mar-02-27	32,00h	0,00 $							
	Nuclear Density Gauge	1,90d	Nov-27-26	Nov-30-26	16,00h	0,00 $							
	Paint Line Striping Machine	0,00d	Mar-05-27	Mar-05-27	32,00h	2.560,00 $							
	Pipe cutter	84,85d	Sep-03-26	Dec-30-26	64,00h	0,00 $							
	Pipe wrenches	12,90d	Sep-03-26	Sep-21-26	96,00h	0,00 $							
	Pliers for cutting rebar	33,85d	Dec-01-26	Jan-15-27	160,00h	0,00 $							
	Pneumatic-Tired Roller-16t	6,00d	Jan-22-27	Feb-01-27	80,00h	9.600,00 $							
	Pressure gauge (accurate to test range)	4,85d	Sep-14-26	Sep-18-26	40,00h	0,00 $							
	Pull rope for electrical conduit	0,00d	Nov-23-26	Nov-23-26	32,00h	0,00 $							
	Roller Vibratory 2 Ton	37,85d	Nov-16-26	Jan-06-27	96,00h	960,00 $							
	Roller-Soil Compactor15 ton-1	208,85d	Mar-20-26	Jan-06-27	304,00h	15.200,00 $							
	Roller-Soil Compactor15 ton-2	178,85d	Mar-20-26	Nov-25-26	296,00h	15.688,00 $							
	Rototiller	4,85d	Dec-23-26	Dec-29-26	32,00h	480,00 $							
	Rubber hammer	33,85d	Dec-01-26	Jan-15-27	160,00h	11.200,00 $							
	Sand Cone Test Kit	1,90d	Nov-27-26	Nov-30-26	16,00h	0,00 $							
	Screed Aluminum 4-in x 0.75-in x 14-ft	65,85d	Oct-16-26	Jan-15-27	272,00h	0,00 $							
	Screed Aluminum 4-in x 0.75-in x 6-ft	46,90d	Oct-16-26	Dec-21-26	232,00h	0,00 $							
	Screed board	14,90d	Dec-01-26	Dec-21-26	120,00h	0,00 $							
	Self-tapping	194,00d	Apr-14-26	Jan-11-27	216,00h	0,00 $							
	Set of Portable toilet (3 for Mean and 1 for women)	348,85d	Dec-01-25	Apr-01-27	2672,00h	80.160,00 $							
	Shovels-4	10,85d	Jan-22-27	Feb-05-27	80,00h	0,00 $							
	Skid Steer Loader	0,00d	Nov-12-26	Nov-12-26	16,00h	240,00 $							
	Small compactor cylinder 2 ton	160,85d	Apr-10-26	Nov-20-26	88,00h	3.520,00 $							
	Steel Concrete Formwork	1,85d	Jan-07-27	Jan-08-27	16,00h	0,00 $							
	Steel Drum Vibratory Roller-1	80,85d	Oct-16-26	Feb-05-27	200,00h	10.000,00 $							
	Steel Drum Vibratory Roller-2	61,85d	Nov-12-26	Feb-05-27	160,00h	8.000,00 $							
	Stopwatch	4,85d	Sep-14-26	Sep-18-26	40,00h	0,00 $							
	Test plugs for water test	4,85d	Sep-14-26	Sep-18-26	40,00h	0,00 $							
	Thermometer (to check water temperature for test accu	0,00d	Sep-14-26	Sep-14-26	40,00h	0,00 $							
	Thermometer / Gauge	7,85d	Jan-20-27	Jan-29-27	16,00h	0,00 $							
	Topcon RL-H5A Self Leveling	231,85d	Mar-19-26	Feb-05-27	928,00h	69.600,00 $							
	Trafific Signs for Traffic managment.	208,85d	Apr-14-26	Jan-29-27	48,00h	0,00 $							
	Trencher	0,85d	Dec-30-26	Dec-30-26	8,00h	88,00 $							
	Trowel (hand)	33,85d	Dec-01-26	Jan-15-27	160,00h	0,00 $							

Acti	Activity Name	Original Duration	Start	Finish	Budgeted Units	Budgeted Cost	Remaining Units	Mar 18 T	W	T	F	S	S
	Truck Crew Cab 4WD Pickup-1	348,85d	Dec-01-25	Apr-01-27	2672,00h	213.760,00 $							
	Truck Crew Cab 4WD Pickup-2	348,85d	Dec-01-25	Apr-01-27	2672,00h	240.480,00 $							
	Truck Crew Cab 4WD Pickup-3	348,85d	Dec-01-25	Apr-01-27	2672,00h	240.480,00 $							
	Utility Locator / Scanner	2,80d	Nov-12-26	Nov-16-26	24,00h	360,00 $							
	Vibratory Truss Screed - 30 Ft	4,85d	Jan-11-27	Jan-15-27	40,00h	1.800,00 $							
	Water Truck Wash Down	223,85d	Mar-12-26	Jan-19-27	832,00h	540.800,00 $							
	Welding Machine	0,00d	Jul-22-26	Jul-22-26	56,00h	0,00 $							
	Wheel loader 1,4 yd³	5,85d	Sep-04-26	Sep-11-26	40,00h	9.600,00 $							
	Wheelbarrow	29,00d	Dec-01-26	Jan-11-27	192,00h	0,00 $							
	Wire cutters/strippers	268,00d	Feb-02-26	Feb-11-27	32,00h	0,00 $							
	Wire Stretcher	146,00d	Jul-22-26	Feb-11-27	88,00h	0,00 $							
	Wrenches	0,00d	Jul-22-26	Jul-22-26	56,00h	0,00 $							

Appendix D

Activity ID	Resource Name	Resource ID	Price / Unit	Budgeted Units	Actual Units	Budgeted Cost
Total				—	—	4.507.958,98 $
Resource Type: Material				—	—	4.507.958,98 $
	1.5 Mw diesel Generator 1800 Kva Generador Generator			1,00EA	0,00EA	227,08 $
	105-B Epoxy Resin			35,00GAL	0,00GAL	3.990,00 $
	2000 Amp ASCO 300 Automatic Transfer Switch 3 Phase 4 Pole			1,00EA	0,00EA	20.398,00 $
	48" manhole (ID 1220 mm) for 18" RCP			4,00EA	0,00EA	2.200,00 $
	60" manhole (ID 1220 mm) for 22" RCP			4,00EA	0,00EA	2.600,00 $
	75 kVA 3PH Isolation Transformer, 208V Delta Primary, 400V			1,00EA	0,00EA	16.511,86 $
	Airfield-Grade Marking Paint			12,00GAL	0,00GAL	5.757,60 $
	Backflow Preventer (1")			1,00EA	0,00EA	121,00 $
	By-Pass/Isolation Switch (Weg SSW07 Soft Starter)			1,00EA	0,00EA	1.525,61 $
	Cable and Wire Pulling Lubricant			2,00Pail	0,00Pail	73,14 $
	Cable ties (Heavy Duty 24 Inch Industrial Strength Nylon Zip)			2,00SET	0,00SET	91,34 $
	Cable Ties set of 100 pise			7,00Pack	0,00Pack	158,90 $
	Cement			415610,00to	0,00to	103.902,50 $
	Chain Link Fence 1/2" x 3 3/4" Concrete Wedge Anchor Bolt (Carbon Steel)			608,00EA	0,00EA	554,68 $
	Chain Link Fence 170 ft. 9-Gauge Galvanized Steel Tension Wire			22,00R	0,00R	1.686,74 $
	Chain Link Fence 2 1/2" [2 3/8" OD] Zero Way Bullet Cap (Aluminum)			304,00EA	0,00EA	5.472,00 $
	Chain Link Fence 2" [1 7/8" OD] x 1 3/8" One Way Bullet Post Cap (Aluminum)			24,00EA	0,00EA	288,00 $
	Chain Link Fence 2" [1 7/8" OD] x 1 3/8" Two Way Bullet Post Cap (Aluminum)			29,00EA	0,00EA	357,86 $
	Chain Link Fence 2-3/8 in. Galvanized Steel Post Hinge			58,00EA	0,00EA	458,20 $
	Chain Link Fence 70 in. Galvanized Steel Tension Bar			802,00EA	0,00EA	9.126,76 $
	Chain link fence braces			362,00EA	0,00EA	1.212,70 $
	Chain Link Fence Fabric, Galvanized, 12.5-Ga., 60-In. x 50-Ft.			395,00EA	0,00EA	71.905,80 $
	ChemMasters Silencure-A Cure and Seal			150,00GAL	0,00GAL	15.138,00 $
	Chlorine			1,00lit	0,00lit	34,78 $
	Clean Crushed Gravel Bulk Landscape Rock			45800,00ft³	0,00ft³	1.280.568,00 $
	Clean water (for filling the pipe)			2730,00GAL	0,00GAL	2.730,00 $
	Concrete 3000 psi			295,00Yd³	0,00Yd³	39.825,00 $
	Concrete 4000 psi			220,00Yd³	0,00Yd³	31.900,00 $
	Conduit Fittings - bends			34,00EA	0,00EA	238,00 $
	Control Wire (14 AWG 500 ft).			2,00Roll	0,00Roll	179,90 $
	Controller (Timer)			1,00EA	0,00EA	50,00 $
	Couplers (1") pvc			100,00EA	0,00EA	91,00 $

Activity ID	Resource Name	Resource ID	Price / Unit	Budgeted Units	Actual Units	Budgeted Cost
	Curbs formwork (Plastic Flex Forms for Concrete Flatwork & Curbs 5 inch)			50,00R	0,00R	4.950,00 $
	Cure & Seal WB			50,00Roll	0,00Roll	15.950,00 $
	Curing Compound			38,00Pail	0,00Pail	2.964,00 $
	Deisel for Motor Grader-2			30,00GAL	0,00GAL	106,80 $
	Deisel for Wheel Excavator-2			50,00GAL	0,00GAL	178,00 $
	Diesel - Machinery & Vehicles			8155,00GAL	0,00GAL	29.031,80 $
	Dowel Bar Assemblies			2210,00EA	0,00EA	5.127,20 $
	Duct Spacer, 3 Inch X 2 Inch Base Spacer			220,00EA	0,00EA	783,20 $
	Elbows (1")PVC			120,00EA	0,00EA	177,60 $
	Electrical cable 10-Gauge 4 Conductor 600-Volt Black			15350,00Ft	0,00Ft	30.239,50 $
	Electrical cables (SOOW) 6/4-Gauge (AWG) 100 ft.			4,00R	0,00R	2.700,00 $
	Electrical Conduits Flexible Corrugated Orange HDPE 2 in. x 100 ft.			16,00R	0,00R	2.139,36 $
	Erosion control blanket 4 ft. x 135 ft			8,00R	0,00R	399,92 $
	Fertilizer N-P-K			5,00Pack	0,00Pack	270,00 $
	Filling material (approved soil)			25890,00Yd³	0,00Yd³	92.168,40 $
	Filter Unit (1")			1,00EA	0,00EA	10,27 $
	Form Oil (Form Release)			90,00GAL	0,00GAL	1.080,00 $
	Formwork for culverts			50,00EA	0,00EA	750,00 $
	Fuel (Gasoline) - Equipment & Transport			6936,00GAL	0,00GAL	20.738,64 $
	Galvanized Metal Fork Latch with Nut and Bolts 2-3/8 in. x 1-3/8 in.			80,00EA	0,00EA	846,40 $
	Galvanized Steel Barbed Wire Line Arm (10-Pack) 2-3/8 in.			65,00EA	0,00EA	5.395,00 $
	Galvanized Steel Chain Link Fence Cane Bolt Assembly 36 in.			28,00EA	0,00EA	307,44 $
	Gate valve 8 inch			4,00lit	0,00lit	820,72 $
	Geo-textile fabric (15' x 300')			38,00R	0,00R	57.601,16 $
	Graded Crushed Aggregate Base (Class 2, ABC)			47000,00to	0,00to	510.420,00 $
	Granular Base Course (Class 5 | ABC)			188,00Yd³	0,00Yd³	2.820,00 $
	Grid Couplings - Couplings - Flexible Shaft Connectors			1245,00EA	0,00EA	27.639,00 $
	Grounding rods and clamps			12,00SET	0,00SET	300,00 $
	GZ 155LED Aviation Obstruction Light 360° Horizontal Angle AC 220V			35,00EA	0,00EA	3.684,10 $
	Handheld Seed Spreader			1,00EA	0,00EA	45,00 $
	HDPE 90° Elbow, 8" OD (DN 125)			6,00lit	0,00lit	702,00 $
	HDPE Pipe, OD 8", SDR 17, PN 10, PE100			1350,00Ft	0,00Ft	47.520,00 $
	Headwall for RCP pipe-18 inch			2,00EA	0,00EA	900,00 $
	Headwall for RCP pipe-22 inch			2,00GAL	0,00GAL	1.100,00 $

Activity ID	Resource Name	Resource ID	Price / Unit	Budgeted Units	Actual Units	Budgeted Cost
	High-Tensile Galvanized Steel Barbed Wire 1,320 ft. 15-1/2-Gauge 4-Point Class 3			18,00R	0,00R	3.222,00 $
	Hot Mix Asphalt (HMA) Surface Course)			700,00to	0,00to	87.500,00 $
	Hot Mix Asphalt (HMA)			800,00to	0,00to	100.000,00 $
	Hydrated Lime - 40 lb			1456,00EA	0,00EA	50.960,00 $
	Infinity Drain 5" x 5" QD 5 High Flow Center			4,00EA	0,00EA	2.680,00 $
	IP68 Waterproof Runway/taxiway Incursion Mitigation			255,00EA	0,00EA	51.000,00 $
	Knipex 00 21 37. Tool case "Robust45 Move" electric, 63 pieces			4,00SET	0,00SET	5.464,28 $
	Labels and Tags Printer for cable identification.			2,00EA	0,00EA	1.799,98 $
	Lateral Poly Pipe (1") 1 in. x 100 ft. Polyethylene Pipe			60,00Roll	0,00Roll	216,60 $
	LED Canopy Light 50W, 6000lm, 100-277VAC, ETL Listed, 5000K Daylight White			17,00EA	0,00EA	883,83 $
	LEDMyplace 80W LED Wall Pack Light			23,00EA	0,00EA	1.977,77 $
	Light Pole Kit with Two LED			100,00EA	0,00EA	123.600,00 $
	LION HARD Concrete Densifier, Hardener, & Sealer			240,00GAL	0,00GAL	71.040,00 $
	Liquid Thermoplastic Traffic Marking Paint - 5 Gal White			8,00EA	0,00EA	1.839,60 $
	Long 11-Gauge Aluminum Fence Ties (30-Pack) 6-1/2 in.			190,00Pack	0,00Pack	1.662,50 $
	Lucas L823 Front Lamp Lens			235,00EA	0,00EA	5.106,55 $
	Lugs for Electrical cable			50,00EA	0,00EA	178,00 $
	Miracle Sealants 511 Impregnator (16 fluid ounces)			22,00EA	0,00EA	483,56 $
	Pipe bedding material			1200,00Yd³	0,00Yd³	34.044,00 $
	Pipe Clamps/Stakes (1")			500,00EA	0,00EA	115,00 $
	Pipe Joint Lubricant			3,00EA	0,00EA	176,34 $
	Plywood for Formwork (8 feet by 4 feet)			275,00EA	0,00EA	412.500,00 $
	Portable restroom units			4,00EA	0,00EA	3.583,72 $
	Power Distribution Panel			1,00EA	0,00EA	5.480,00 $
	Pozzolan			960,00EA	0,00EA	6.816,00 $
	Pressed Steel Ground Mount Floor Flange (Pressed Steel)			150,00EA	0,00EA	3.486,00 $
	Pressure Regulator (1")			1,00EA	0,00EA	104,00 $
	Prime Coat - MC-30			150,00GAL	0,00GAL	600,00 $
	PVC Pipe (1 in. x 100 ft)			30,00Roll	0,00Roll	1.796,70 $
	PVC Waterstop Ribbed Centerbulb 4" Wide 3/16" Thick 100ft Roll			15,00R	0,00R	2.684,70 $
	RCP Pipe 18 in			1030,00Ft	0,00Ft	227.176,80 $
	RCP Pipe 22 in			1035,00Ft	0,00Ft	277.152,30 $
	Red Incandescent Obstruction Lights			8,00EA	0,00EA	3.343,92 $
	Rubber-Gaskets 12 in			36,00EA	0,00EA	2.043,36 $

Activity ID	Resource Name	Resource ID	Price / Unit	Budgeted Units	Actual Units	Budgeted Cost
	Rubber-Gaskets 8 in			100,00EA	0,00EA	4.565,00 $
	Sand			54,00to	0,00to	2.700,00 $
	Sandbaggy 24" Steel Rebar Stakes			28,00Pack	0,00Pack	4.452,00 $
	Sealant			67,00EA	0,00EA	5.270,89 $
	SEED (40lb Ryegrass/Fescue Seed)			12,00Pack	0,00Pack	2.208,00 $
	Sign Boards / Barrier			200,00EA	0,00EA	77.800,00 $
	Sika Greenstreak PVC Waterstop Flat			31,00Roll	0,00Roll	8.239,18 $
	Sikaflex 1A Polyurethane Premium			66,00	0,00	6.006,00 $
	Smooth Dowels			1958,00EA	0,00EA	62.283,98 $
	Soil amendments			230,00Yd³	0,00Yd³	6.670,00 $
	Soil stabilizers			1148,00Yd³	0,00Yd³	105.616,00 $
	Sprinkler Heads (pop-up)			200,00EA	0,00EA	1.788,00 $
	Stake Flags for Survey			350,00EA	0,00EA	2.782,50 $
	STOP sign including pole			16,00EA	0,00EA	2.960,00 $
	Subgrade Soil-Approved			580,00Yd³	0,00Yd³	14.500,00 $
	Survey markers			595,00EA	0,00EA	8.895,25 $
	Synthetic resin compound			34,00GAL	0,00GAL	4.507,04 $
	Tack Coat (SS-1, CSS-1h)			115,00GAL	0,00GAL	460,00 $
	TCA100STN - Assorted Tool Kits			4,00SET	0,00SET	9.408,00 $
	Tees (1") Branch connections			180,00EA	0,00EA	268,20 $
	Temporary Marking Paint			151,00EA	0,00EA	889,39 $
	Temporary Power Outlet Panel with a 20, 30, and 50-Amp Breaker Box			1,00EA	0,00EA	85,00 $
	Toilet paper rolls (Toilet Tissue)			12,00SET	0,00SET	1.062,72 $
	Valve Boxes 12" round, protect underground valves			4,00EA	0,00EA	27,28 $
	Valves (1")			4,00EA	0,00EA	140,00 $
	Warning tape (for underground utilities)			41,00R	0,00R	246,00 $
	Warning Tape (Red and White)			22,00R	0,00R	1.407,78 $
	Waterborne Traffic and Zone Water Based Marking Paint			10,00EA	0,00EA	29.790,00 $
	Wheel Caster for Metal Swing Gate for Chain Link Fence			10,00EA	0,00EA	788,90 $
	Whitlam Blue Lube Polymer-Based Pipe Gasket Lube			5,00EA	0,00EA	76,70 $
	Wind Direction Measurement Sock Bag with Reflective Belt			6,00EA	0,00EA	47,70 $
	Wire Cable Cord - SOOW Jacket, 30 Amps, 3 Wire, 600v			11100,00Ft	0,00Ft	162.060,00 $

Appendix E

	W91200000-Rotary Wing Landing Pad MANOPERA	JULY-05-2025

Resource Name	Start time of work	End time of work	Worked hours by activity	Details about the work performed

Cast.C-1010 Formwork, concrete placement, and finishing for pads

Surveyor-1

Concrete Forman

Concrete worker-1

Concrete worker-2

Lab Technician-1

Heavy Machinery Operator-1

Heavy Machinery Operator-2

Heavy Machinery Operator-3

	W91200000-Rotary Wing Landing Pad CONSTRUCTION JOURNAL – MACHINERY (EQUIPMENT & TOOLS)	JULY-05-2025

Resource Name	Arrival time to the site	Start Operation time-Hr	Stop Operation time -Hr	Operation Duration

Cast.C-1010 Formwork, concrete placement, and finishing for pads

Concrete mixer-1

Concrete mixer-2

Water Truck Wash Down

Concrete Vibrator

Concrete pump

Trowel (hand)

	W91200000-Rotary Wing Landing Pad CONSTRUCTION JOURNAL – MACHINERY (EQUIPMENT & TOOLS)	JULY-05-2025

Resource Name	Arrival time to the site	Start Operation time-Hr	Stop Operation time -Hr	Operation Duration
Hammer (Dead Blow)				
Rubber hammer				
Concrete float (wood)				
Concrete float (steel)				
Pliers for cutting rebar				
Wheelbarrow				
Screed board				

	W91200000-Rotary Wing Landing Pad CONSTRUCTION JOURNAL – MACHINERY (EQUIPMENT & TOOLS)	JULY-05-2025

Resource Name	Arrival time to the site	Start Operation time-Hr	Stop Operation time -Hr	Operation Duration
Edger and jointer				
Concrete broom				
Measuring tape				
Self-tapping				
Topcon RL-H5A Self Leveling				
Screed Aluminum 4-in x 0.75-in x 14-ft				
Screed Aluminum 4-in x 0.75-in x 6-ft				

W91200000-Rotary Wing Landing Pad

CONSTRUCTION JOURNAL – MATERIALS

JULY-05-2025

Resource Name	Qty Received	Received By (Signature)	Qty Used	Qty Returned	Returned To Stock By (Signature)	Remarks

Cast.C-1010 Formwork, concrete placement, and finishing for pads

Sandbaggy 24" Steel Rebar Stakes

Curing Compound

Form Oil (Form Release)

Fuel (Gasoline) - Equipment & Transport

Curbs formwork (Plastic Flex Forms for Concrete Flatwork & Curbs 5

Concrete 3000 psi

Diesel - Machinery & Vehicles

Smooth Dowels

Dowel Bar Assemblies