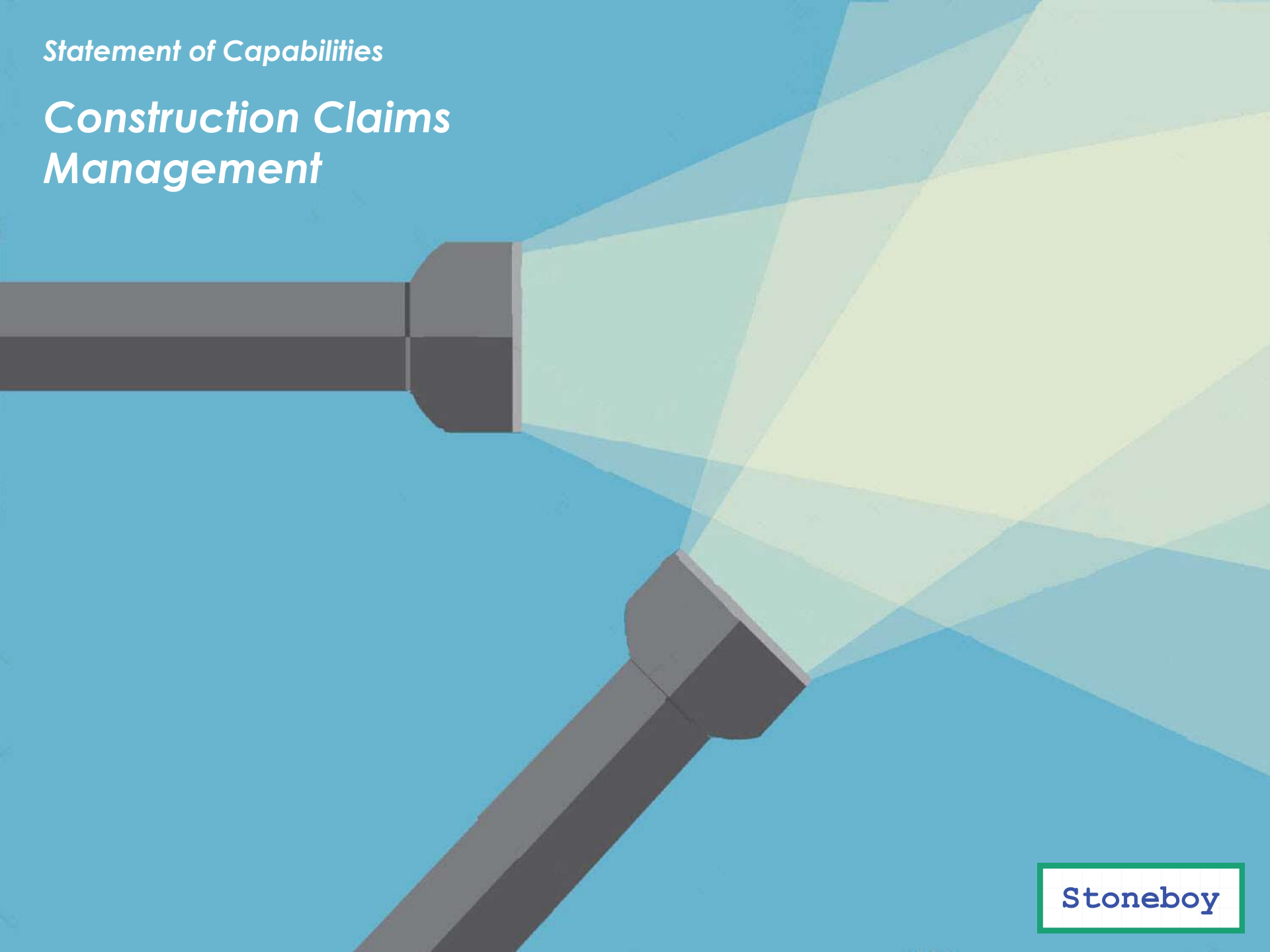
Statement of Capabilities

Construction Claims Management



Stoneboy

Services for the Project Lifecycle - *Scheduling & Claims Management*

Stoneboy

Project Start

Schedule Development

- Bid Schedules, Design Schedules
- Estimate Schedules
- Preliminary Schedules
- Baseline Schedules
- Cost Loaded Schedules
- Resource Loaded Schedules
- Integrated Master Schedules

Schedule Management

- Schedule Monitoring
- Schedule Review and Analysis
- Critical Path, and Near Critical Path Analysis
- Schedule Update
- Schedule Reporting
- Schedule Maintenance and Upgrade

Project Administration, Change Management

- Impact Assessment due to Scope Change, Scope Extension, Accepted Delay, or Accepted Time Extension
- Change Order Impact Management – Integration with Baseline Schedule
- Recovery Schedule (Re-baseline)
- What-if Scenario Schedule
- Schedule Adjustment, Schedule Acceleration
- Recovery Schedule (Reconfigure baseline)

Construction Claims / Construction Dispute Management (CDM)

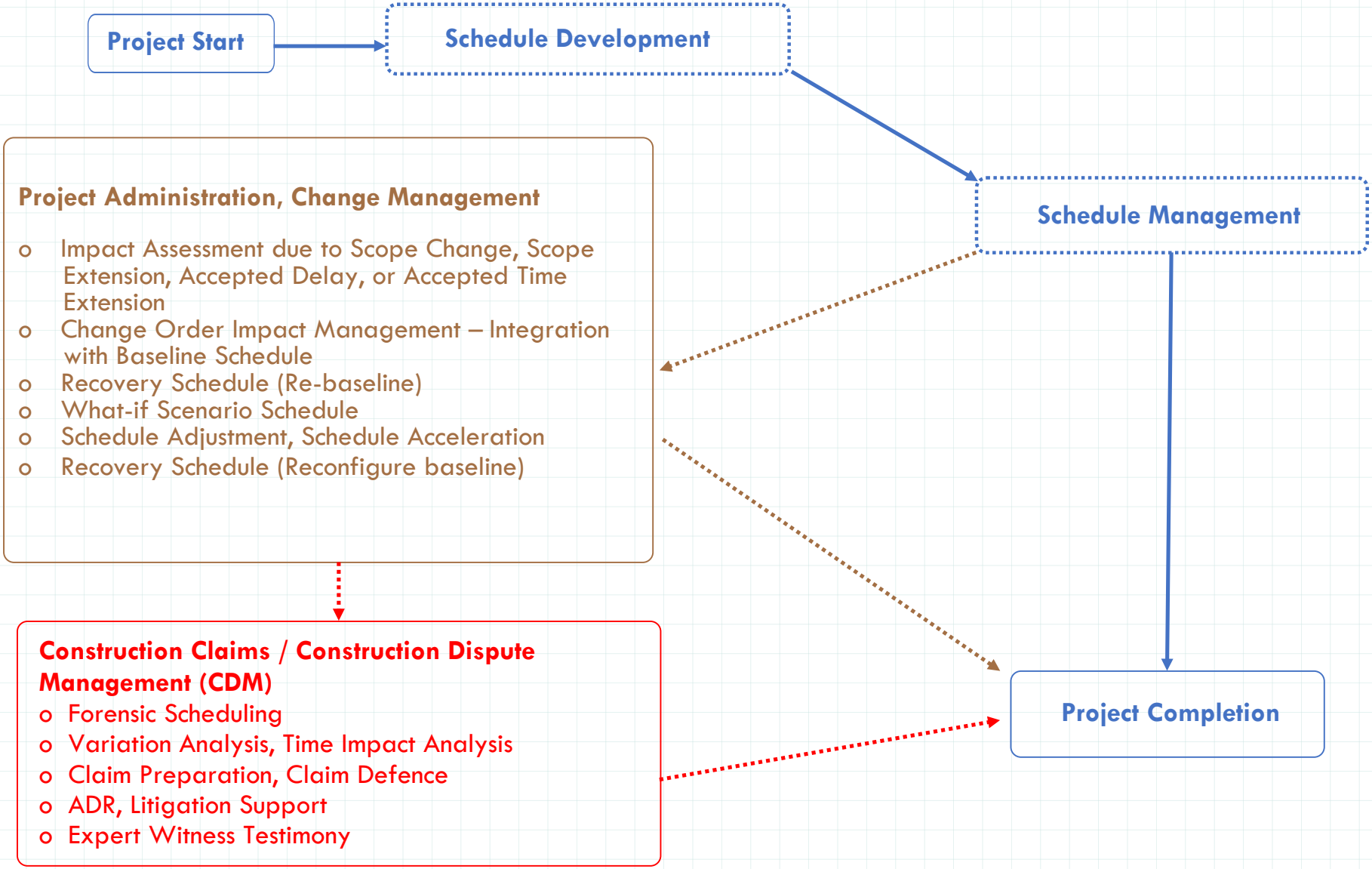
- Forensic Scheduling
- Variation Analysis, Time Impact Analysis
- Claim Preparation, Claim Defence
- ADR, Litigation Support
- Expert Witness Testimony

Project Completion

Simple Useful Meaningful

Services for *Claims Management / Construction Dispute Management (CDM)*

Stoneboy



Simple Useful Meaningful

Common issues in construction projects

Stoneboy

1. Unanticipated site conditions
2. Late scope/ design/ project definition
3. Insufficient planning/ inaccurate estimating; unrealistic duration/ timeline
4. Inadequate communication and slow decision making
5. Ineffective project governance, management and oversight
6. Work/ ambiguous contract terms; lack of incentives to control the schedule
7. Poor risk identification management and response strategy
8. Imposed cash constraints and delayed payment
9. Design errors and omissions leading to scope growth and/or re-work
10. Ineffective decision-making process
11. Inexperienced management team
12. Availability of skilled resources
13. Poor project controls (cost & schedule)
14. Lack of 3rd party stakeholder involvement

Simple Useful Meaningful

A conducive approach to the Construction Dispute Management process

Stoneboy

At Stoneboy, we use industry best practice methods, such as CPM scheduling (Critical Path Method) to identify the relationships between change management events and delay events, and their impacts on a project. Once all change management and delay events are identified and their impacts assessed, responsibility is assigned for each such event which has caused delays, disruption, and inefficiency to the project.

We thoroughly study all issues pertaining to scope, contract, schedule, cost, quality, communication, and any other relevant function; develop dispute resolution strategies; assist in negotiations, mediation, or arbitration; and provide dependable expert witness testimony should the case go to trial.

Our deep, and thorough understanding of the design, construction, litigation processes, blended with our innovative problem solving approach, assists clients in successfully resolving claims and disputes.

Types of Claims Resolved

Stoneboy

At Stoneboy, we help resolve the following types of claims:

- Construction Delay Claims
- Force Majeure Claims
- Differing Site Conditions Claims
- Construction Defects and Design Defects Claims
- Change Management Claims
- Project Administration Claims
- Inefficiency Claims
- Acceleration Claims
- Substitution, Suspension, and Termination Claims

End-to-end support for Construction Dispute Management process

Stoneboy

- **Claim Avoidance Planning**
- **Claim Evaluation**
  - Change Management and Control
  - Document Management and Control
- **Claim Preparation**
  - Forensic Scheduling
  - Time Impact Analysis
  - Schedule Analysis and Schedule Delay Analysis
- **Expert Reports and Testimony**
  - Quantification of Delays, Disruption, and Inefficiency
- **Assistance to Owners, Contractors and Legal Counsel**
  - Mediation
  - Alternative Dispute Resolution
  - Preparation of Graphics for Negotiation, as well as Litigation

Overview of the Construction Dispute Management process at Stoneboy

Stoneboy

Initial Assessment

- Claims Scope review
- Document Archive review
- Issue identification
- Prognosis
- For an ongoing project, create claim
- Avoidance, Claims Mitigation Procedures
- Analysis Process outline

Organization of Data

- Document organization
- Project Logs development
- Schedule Model creation
- Forensic Scheduling

Analysis

- Time Impact Analysis
- Schedule Delay Analysis
- Quantification of Disruption and Damage

Conclusion, and Expert Opinion

- Expert Report on Findings
- Rebuttal Reports

Dispute Resolution

- Negotiation
- Mediation/ DRB presentation
- Expert Testimony
- Litigation Graphics presentation
- Pre Trial assistance
- Post Trial assistance

Simple Useful Meaningful

Time Variation Analysis
- Forensic Scheduling, Delay Analysis, Impact Analysis

Stoneboy

- *Time Impact Analysis (TIA)*
- *Windows Analysis or Contemporaneous Period Analysis*
- *Collapsed As-Built Analysis (CAB)*
- *Impacted As-Planned Analysis (IAP)*
- *As-Built vs As-Planned Analysis (ABAP)*

Stoneboy's custom built solutions for construction claims management

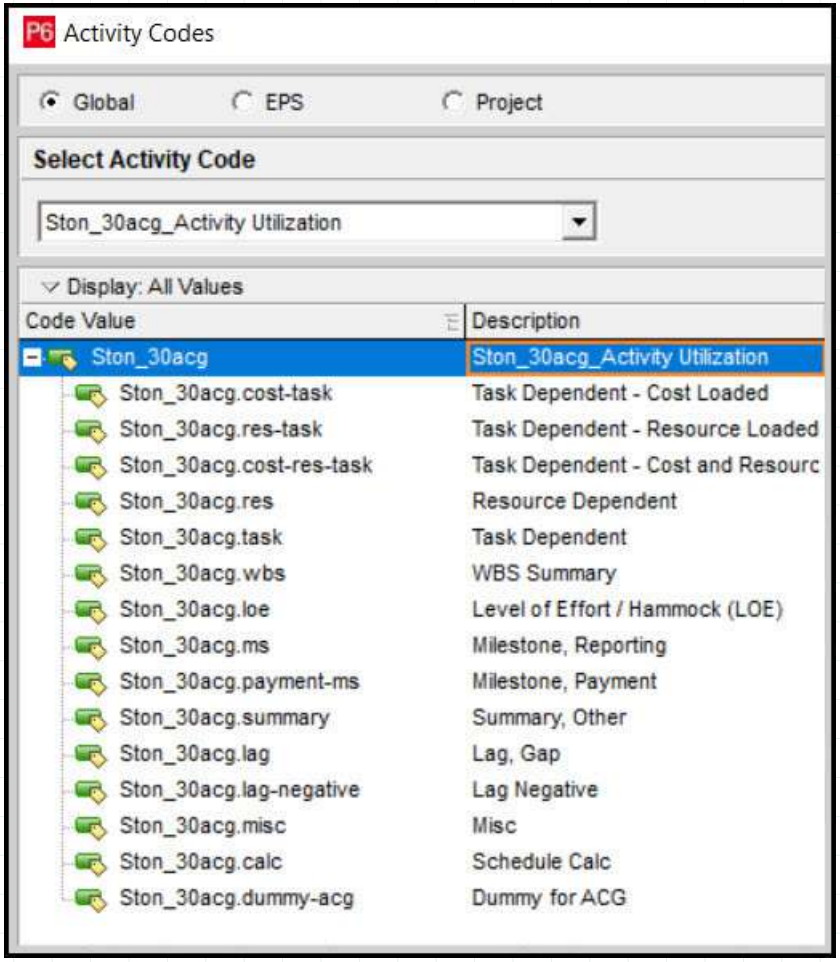
Construction disputes related to schedule impacts (claims) are one of the most common yet complex types of construction disputes. These disputes arise due to unforeseen circumstances or events which prevent work from being performed as planned.

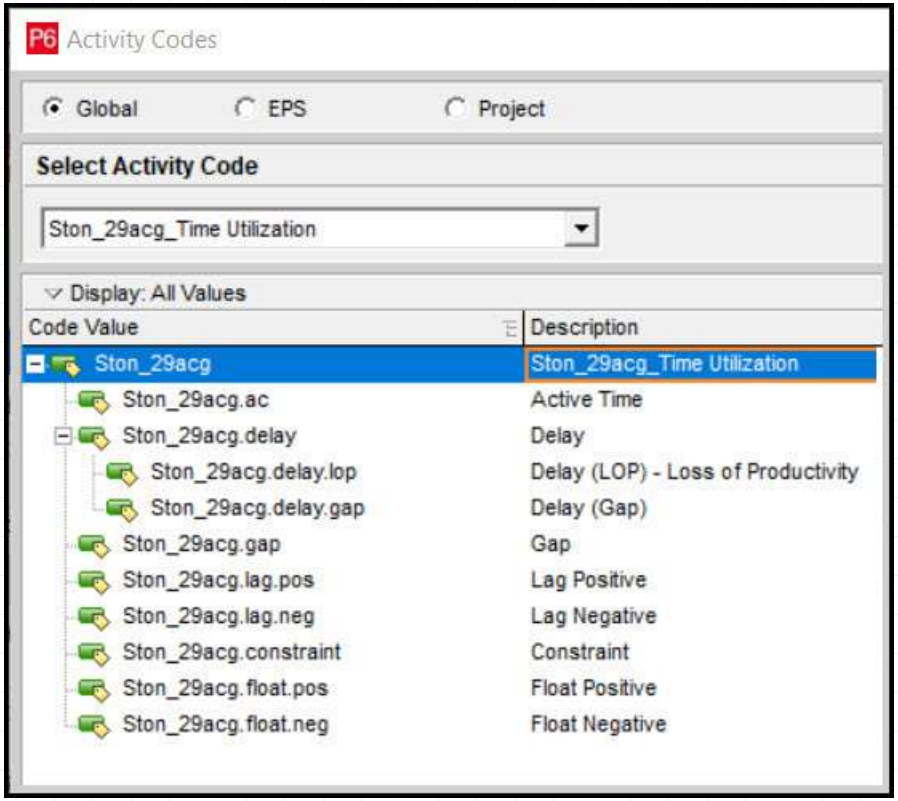
Stoneboy specializes in creating customized solutions based on proven methodologies to address each project's unique requirements.

Time Variation Analysis
- Organization of Project Data

Stoneboy

Project data's inventory control, and organization are some of the first steps in Variation Analysis or Forensic Scheduling process. Starting right at this step also brings an advantage of situational awareness, which in turn leads to a sharper claims management strategy.





Stoneboy's industry acclaimed Project Data Management practices ensure that the process for Forensic Scheduling, or Variation Analysis starts correctly, and stays on course.

Shown here are two examples of activity codes from Stoneboy's Code Dictionary which are commonly used for Forensic Scheduling.

Optimized and efficient delivery

Stoneboy

Stoneboy's delivery is powered by processes, and driven by innovation.
At Stoneboy, lean management, simplification, and standardization of work products and templates help towards an optimized, and efficient delivery.

- **Architecture**
  - *SMoSA (Stoneboy Modular Schedule Architecture)*
- **Methodology**
  - *SRM (Stoneboy Reconfiguration Methodology)*
  - *VMP (Variation Management Protocol)*
- **Framework & Application**

MS100 Reporting Framework	modular reporting
Stoneboy Shell	WBS
SCT (Schedule Change Tracker)	variation management framework
VET (Variation Event Tracker)	variation management framework
CO Tracker	document tracker

- **Document**
  - *Project Register* ● *Project Basics* ● *Schedule Counter* ● *Schedule Mgmt Plan* ● *Workflow* ● *Crunch Sheet*
  - *Constructibility* ● *Typical Sequence* ● *Activity Relationship Inventory* ● *Schedule Report*
  - *Schedule Narrative* ● *Graphics* ● *Schedule Quality Report* ● *Schedule Update Form* ● *Notification*
  - *As Received Data Log* ● *Risk Sheet* ● *Archive Sheet* ● *Schedule User Guide* ● *Schedule Features*
- **Work Management**
  - *Roadmap*
- **Software Product**
  - *Novologic* — purpose built software product for construction & heavy engineering industries* (under development)
- **Knowledge Center**
  - *Brown Book*
  - *Lexicon*

Shown here is a select list of academic frameworks, document templates, and workflows developed in-house at Stoneboy.

Optimized and efficient delivery

Stoneboy

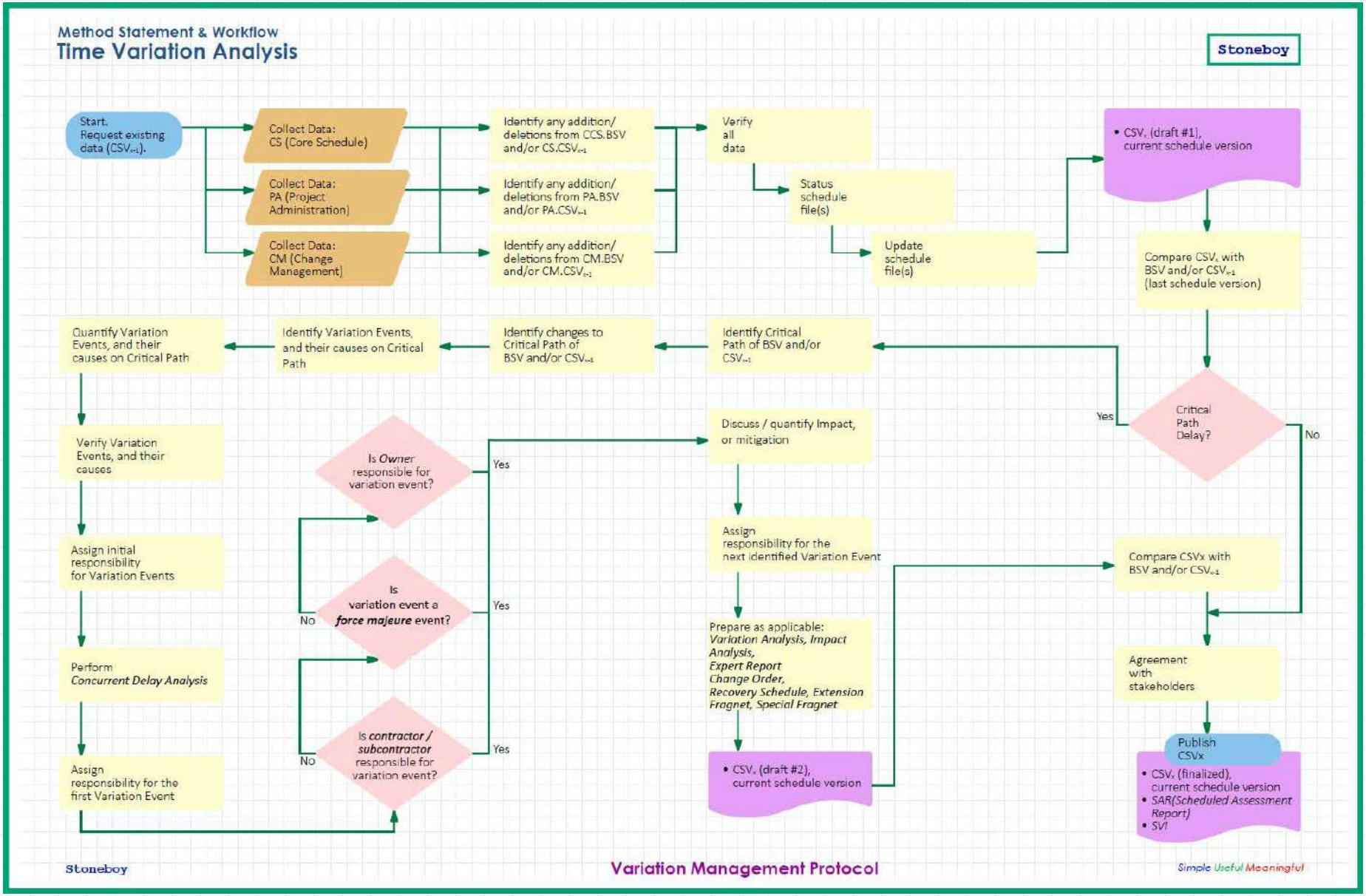
Standardization of workflows, templates, and work products has meant ease of use, transparency, and peace of mind for our clients.

Powered by processes, Stoneboy's delivery has offered superior user experiences to clients over conventional peer firms.

- **Standardized Scope and Delivery**
  Service Modules - Modular, flexible, efficient, transparent
- **Standardized Workflows**
  SPP (Standard Practice & Process) - Well defined, provide clarity of scope, and progress tracking
- **Standardized WBS**
  Stoneboy Shell, part of *SMoSA* - Modular architecture translates in to stackability, portability, and infinite scalability for project / program / enterprise controls
- **Standardized Narrative**
  Schedule Report - Standardized for articulate monitoring, and reporting
- **Standardized Assessment and Review**
  SQR (Schedule Quality Report) - Structured,brief, and objective. In two formats, *SQR Basic* and *SQR Advanced*
- **Print Layouts**
  Standardized for easy identification of information, effortless navigation, conductive user experience

Sample Process / Workflow

Stoneboy



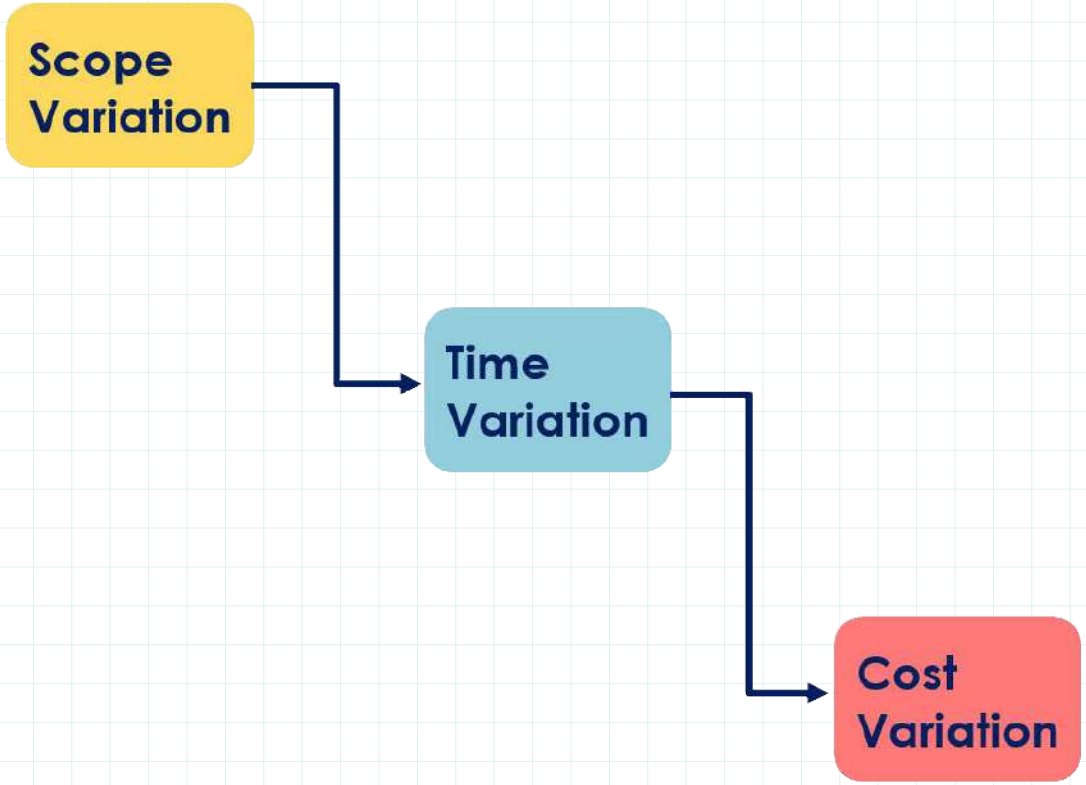
A new perspective for *Variation*

Stoneboy

Variation Management Protocol (VMP) is a lean methodology developed in-house at Stoneboy.

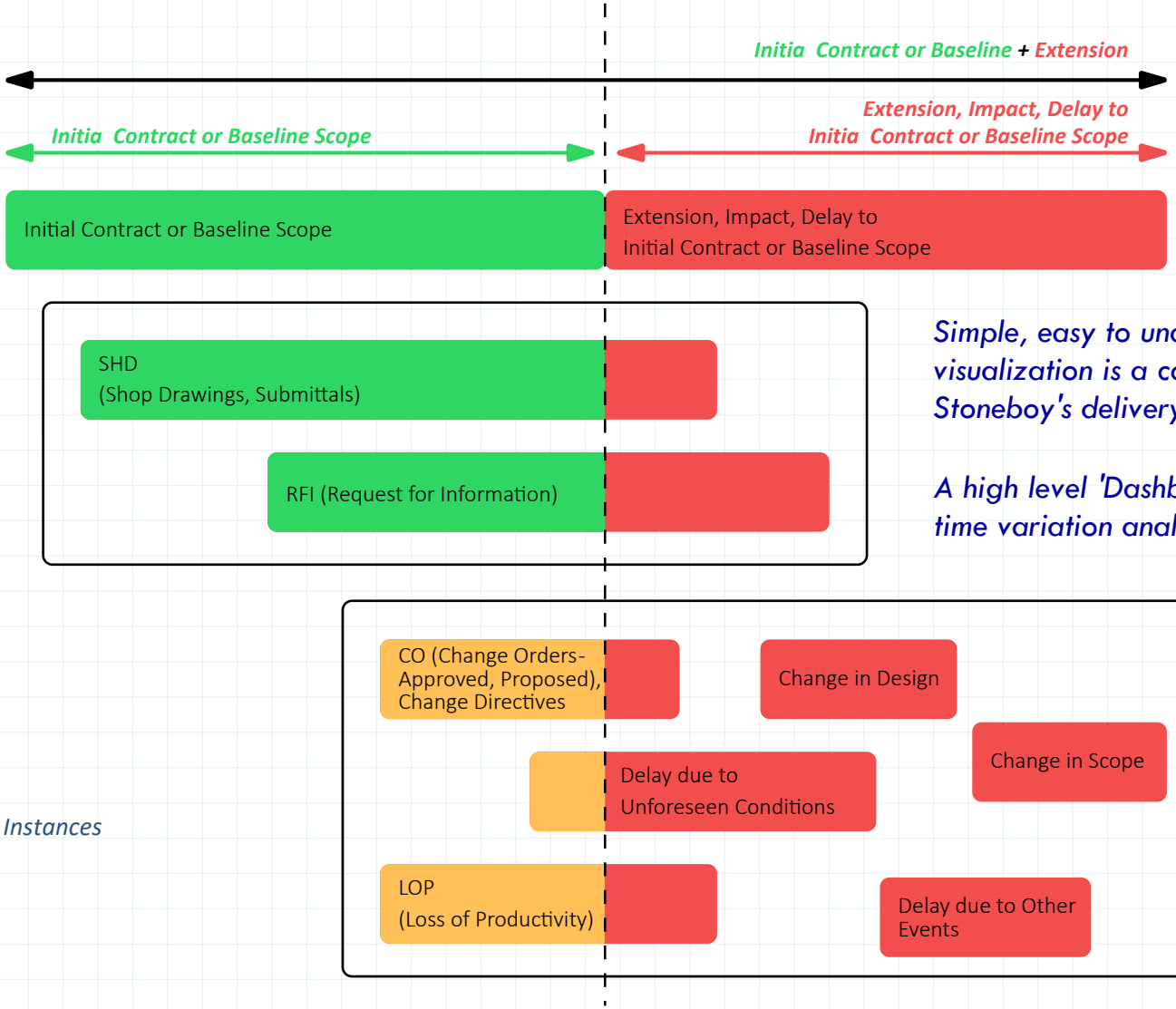
VMP is utilized for quantification of Scope Variation, Time Variation, and Cost Variation corresponding to the Baseline Scope, Baseline Time (Project Schedule), and Baseline Cost (Project Budget).

VMP is a comprehensive methodology which utilizes calculus, and advanced data analytics for construction project reporting and analysis. A potential game changer in the field of Variation Analysis, Impact Analysis, Construction Dispute Management (CDM) / Construction Claims Management; VMP is a spin off of Stoneboy's holistic Project Data Management approach.



Project Data Visualization

Stoneboy



Simple, easy to understand data visualization is a cornerstone of Stoneboy's delivery.

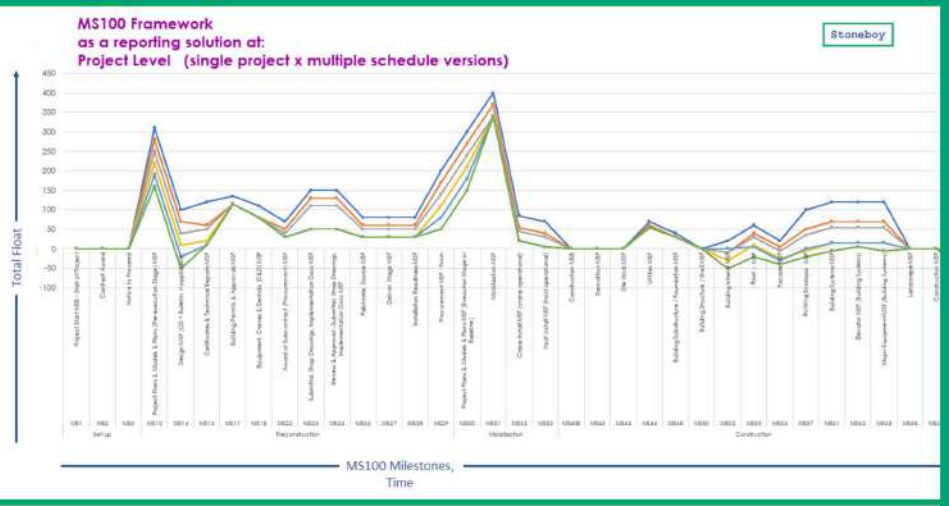
A high level 'Dashboard View' of a time variation analysis is shown here.

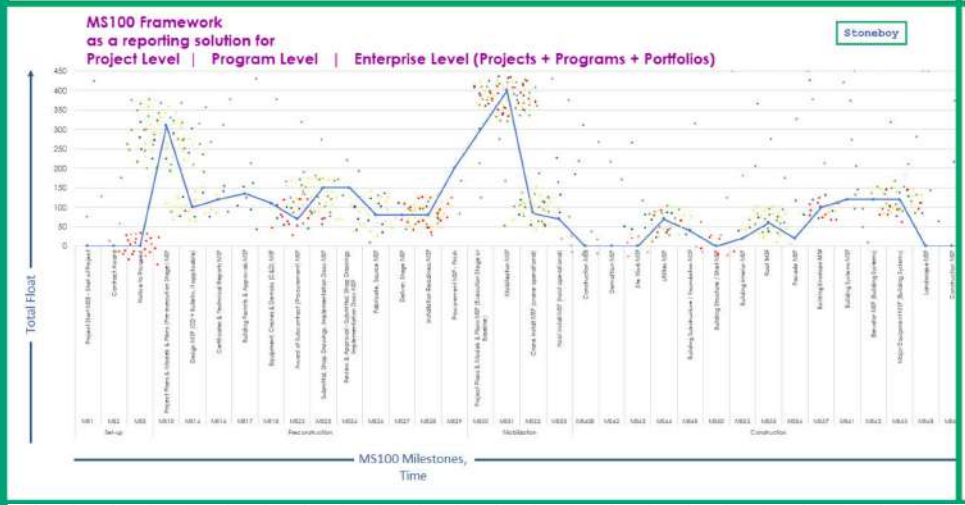
MS100 (modular reporting framework)

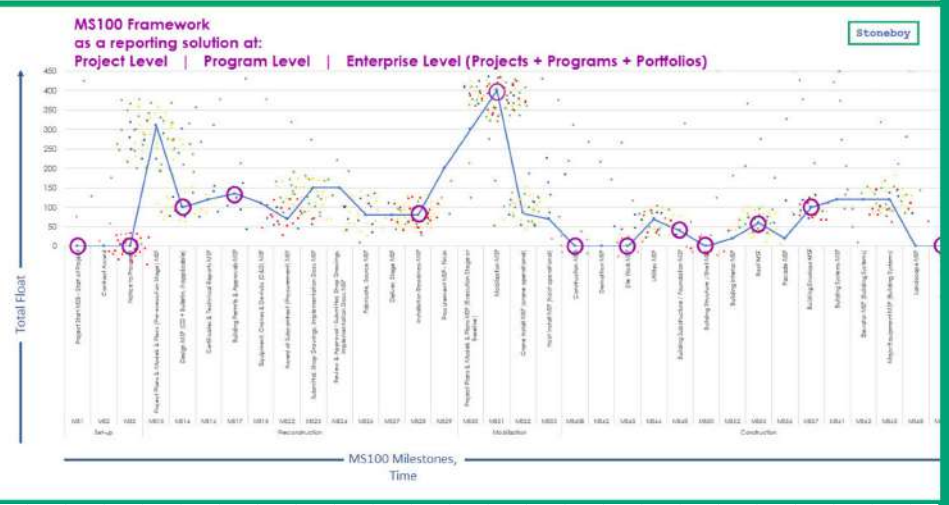
Stoneboy

Stoneboy's emphasis on simple, easy to understand data visualization, combined with its groundbreaking work in Project Data Management provides a host of customizable solutions.

Shown here is the MS100 'modular' reporting framework which is a scalable solution for scheduling , as well as variation analysis - at Project, Program, and Enterprise Levels. MS100 can be used for higher order statistical analytics using systems such as SAS, and R Programming.

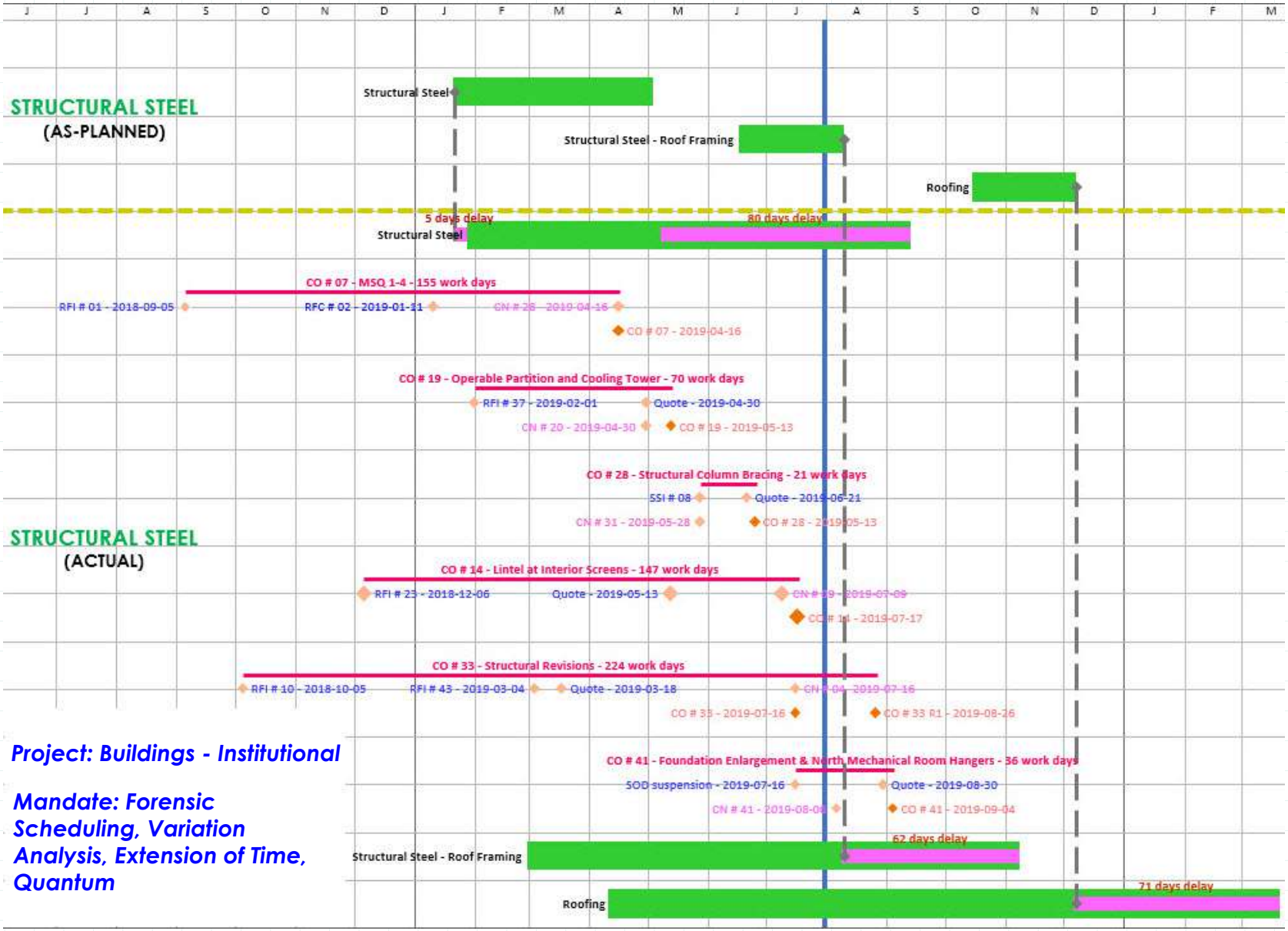






Work Sample

Stoneboy



Project: Buildings - Institutional

Mandate: Forensic Scheduling, Variation Analysis, Extension of Time, Quantum

Simple Useful Meaningful

Work Sample

Stoneboy

Project: Buildings - Institutional

Mandate: Forensic Scheduling, Variation Analyis, Extension of Time, Quantum

3 SUMMARY OF VARIATION ANALYSIS

Schedule Versions

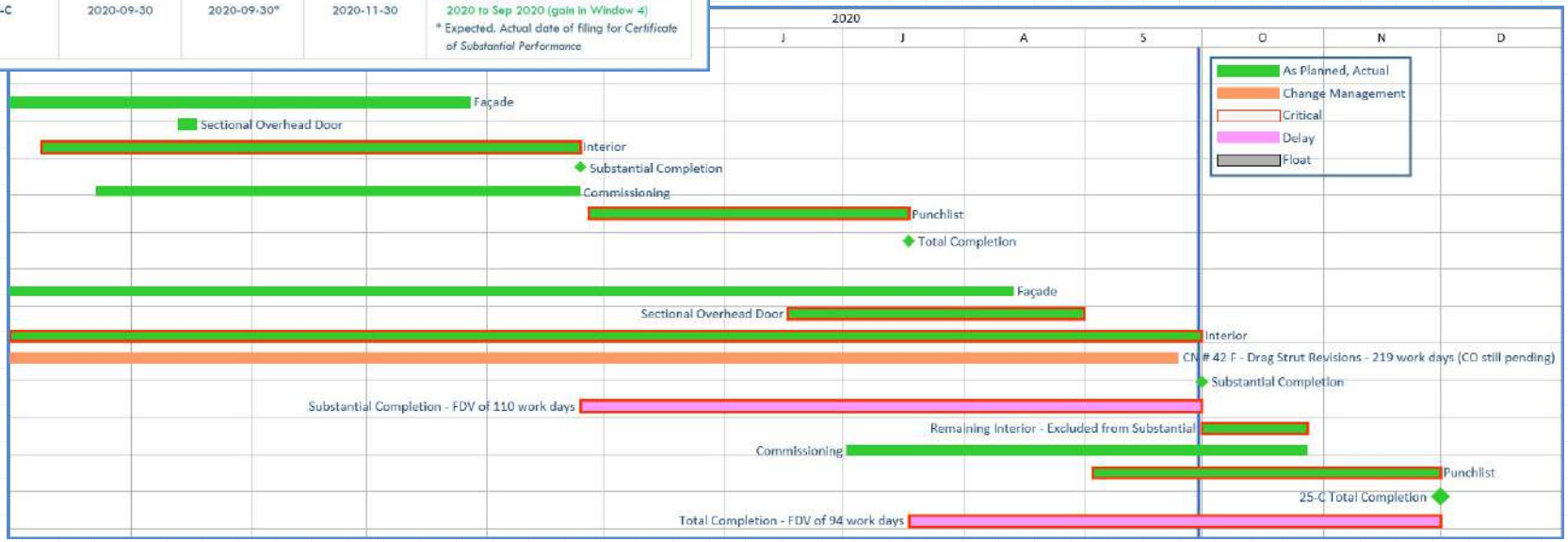
Schedule Version	Data Date	Substantial Completion (MS85)	Total Completion (MS100)	Note
1-A	2018-09-17	2020-04-24	2020-07-17	
1-C	2018-09-12	2020-04-24	2020-07-17	
11-C	2019-07-31	2020-07-10	2020-10-01	• Delay of 53 work days from baseline (delay in Window 1)
19-C	2020-03-31	2020-10-27	2021-01-20	• Delay of 128 work days from baseline • Delay of 75 work days from Jul 2020 to Mar 2020 (delay in Window 2)
22-C	2020-06-30	2020-12-08	2021-03-04	• Delay of 158 work days from baseline • Delay of 30 work days from Mar 2020 to Jun 2020 (delay in Window 3)
25-C	2020-09-30	2020-09-30*	2020-11-30	• Delay of 110 work days from baseline • Schedule gain of 48 work days from Jun 2020 to Sep 2020 (gain in Window 4) * Expected. Actual date of filing for *Certificate of Substantial Performance*

8 PROJECT TIME (SCHEDULE)

8.1 Project Date & Time Summary

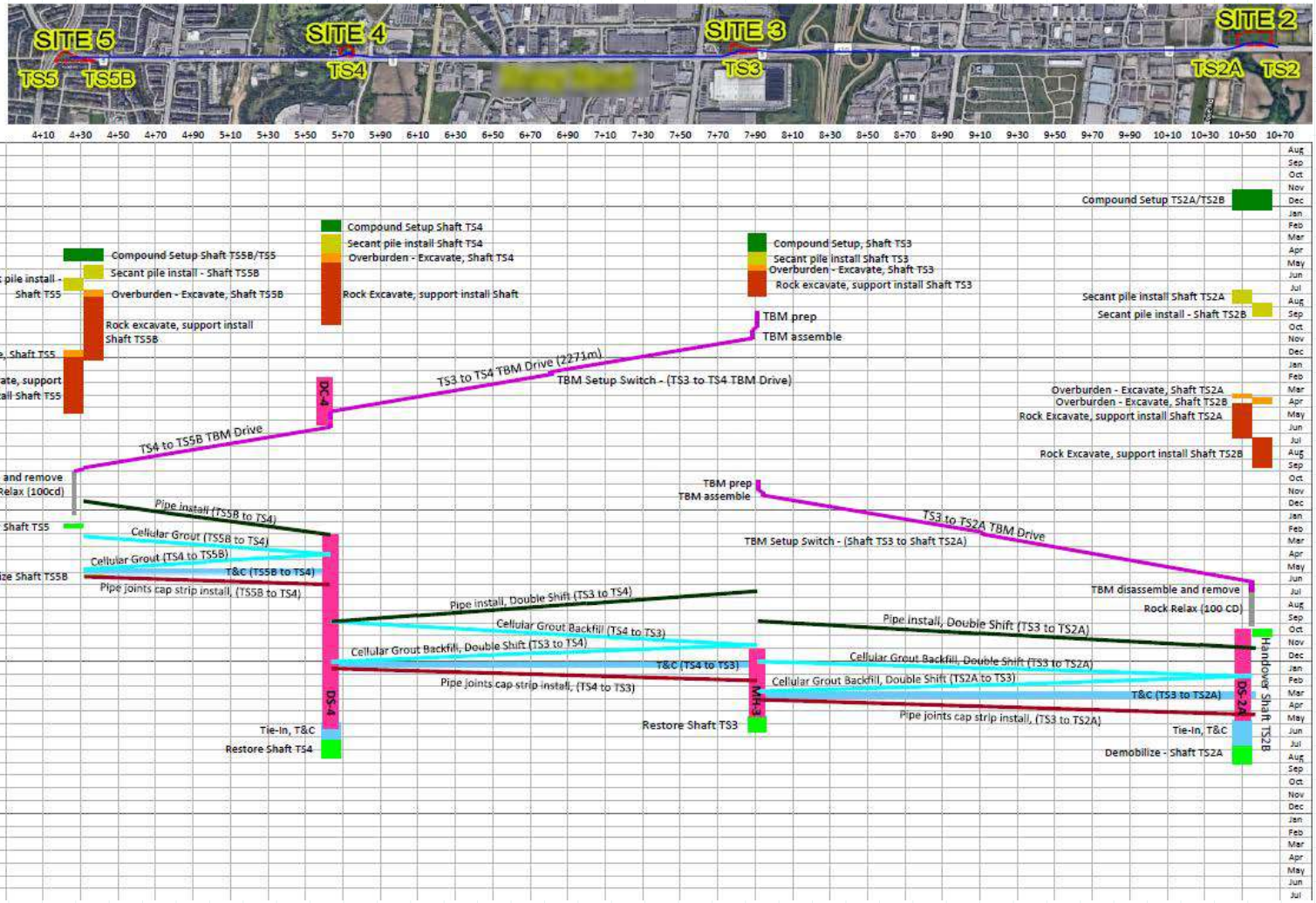
Project Timeline

- **Project Time** ***As-Planned Duration*** **(contract time)**
  - At the beginning of project (1-C, Baseline) — 408 work days (591 calendar days including 15 holidays) (19 months and 13 days including 15 holidays)
- **Project Time** ***Actual Duration***
  - At the end of Sep 2020 (25-C) — 518 work days, actual delay of 110 work days (750 calendar days including 18 holidays)
- **Project Time** ***At Completion Duration (Actual Duration + Remaining Duration)***
  - On 2019-07-31 (11-C, Window 1) — 461 work days, cumulative delay of 53 work days
  - On 2020-03-31 (19-C, Window 2) — 536 work days, cumulative delay of 128 work days
  - On 2020-06-30 (22-C, Window 3) — 566 work days, cumulative delay of 158 work days
  - On 2020-09-30 (25-C, Window 4) — 518 work days, schedule gain of 48 work days



Work Sample

Stoneboy



Project: Infrastructure - Trunk Sewer

Mandate: Scheduling, Cost Controls, Claims Management

Simple Useful Meaningful

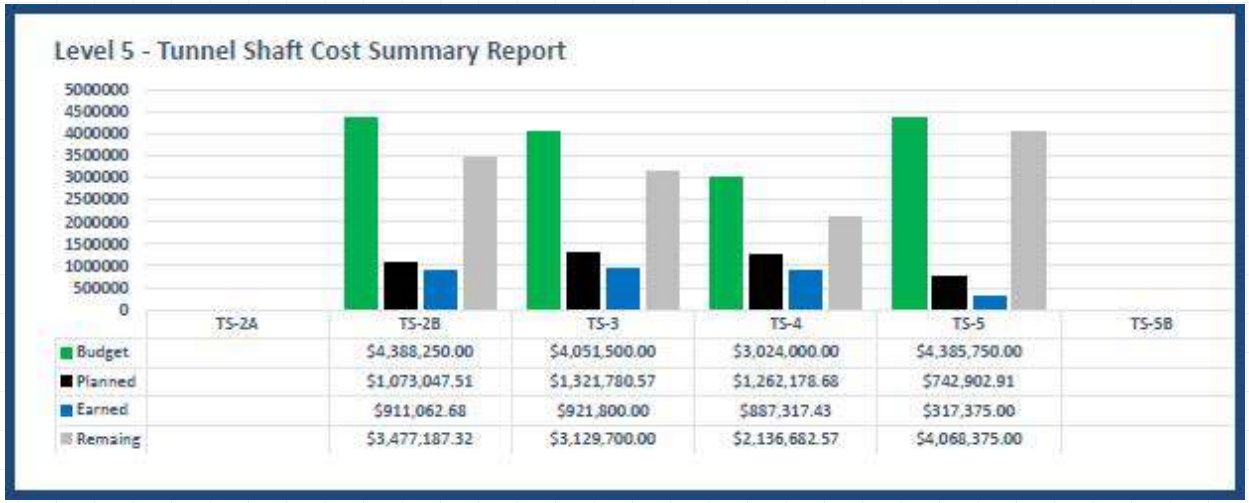
Work Sample

Stoneboy

	Tunnel Shaft	Tunnel Drive	Pipe	Cellular Grout	Cap Strips	Chambers	Testing & Comms	Procurement	Others
Budget	$15,849,500.00	$37,646,850.00	$6,866,059.20	$3,961,188.00	$2,376,712.80	$14,029,800.00	$195,000.00	$29,866,100.00	$10,388,741.50
Planned	$4,399,909.67	$-	$-	$-	$-	$-	$-	$-	$1,531,788.34
Earned	$3,037,555.11	$-	$-	$-	$-	$-	0	0	$1,463,000.00
Remaing	$12,811,944.89	$37,646,850.00	$6,866,059.20	$3,961,188.00	$2,376,712.80	$14,029,800.00	$195,000.00	$29,866,100.00	$8,925,741.50

Project: Infrastructure - Trunk Sewer

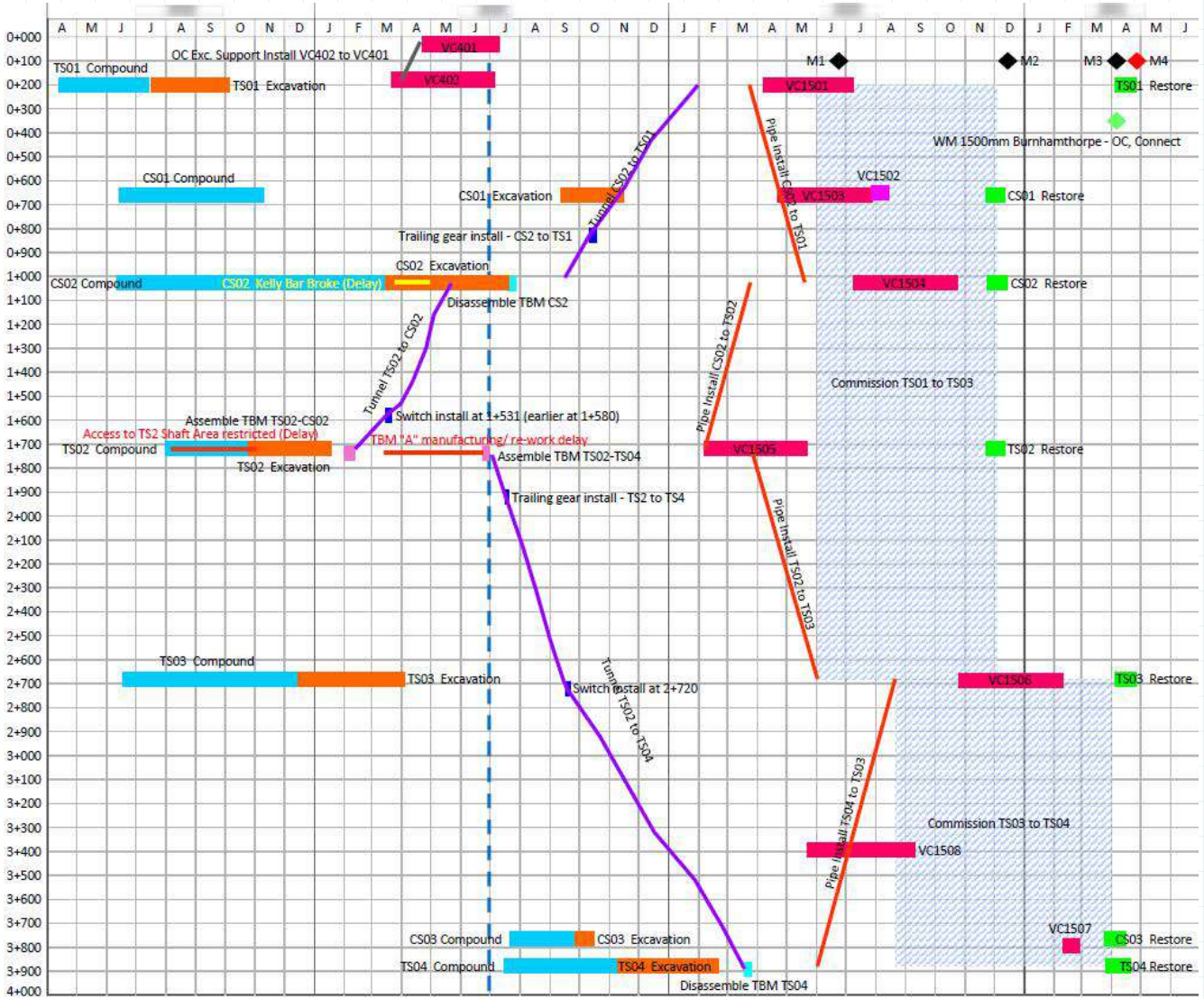
Mandate:
Scheduling,
Cost Control,
Claims Management



	TS-2A	TS-2B	TS-3	TS-4	TS-5	TS-5B
Budget		$4,388,250.00	$4,051,500.00	$3,024,000.00	$4,385,750.00	
Planned		$1,073,047.51	$1,321,780.57	$1,262,178.68	$742,902.91	
Earned		$911,062.68	$921,800.00	$887,317.43	$317,375.00	
Remaing		$3,477,187.32	$3,129,700.00	$2,136,682.57	$4,068,375.00	

Work Sample

Stoneboy



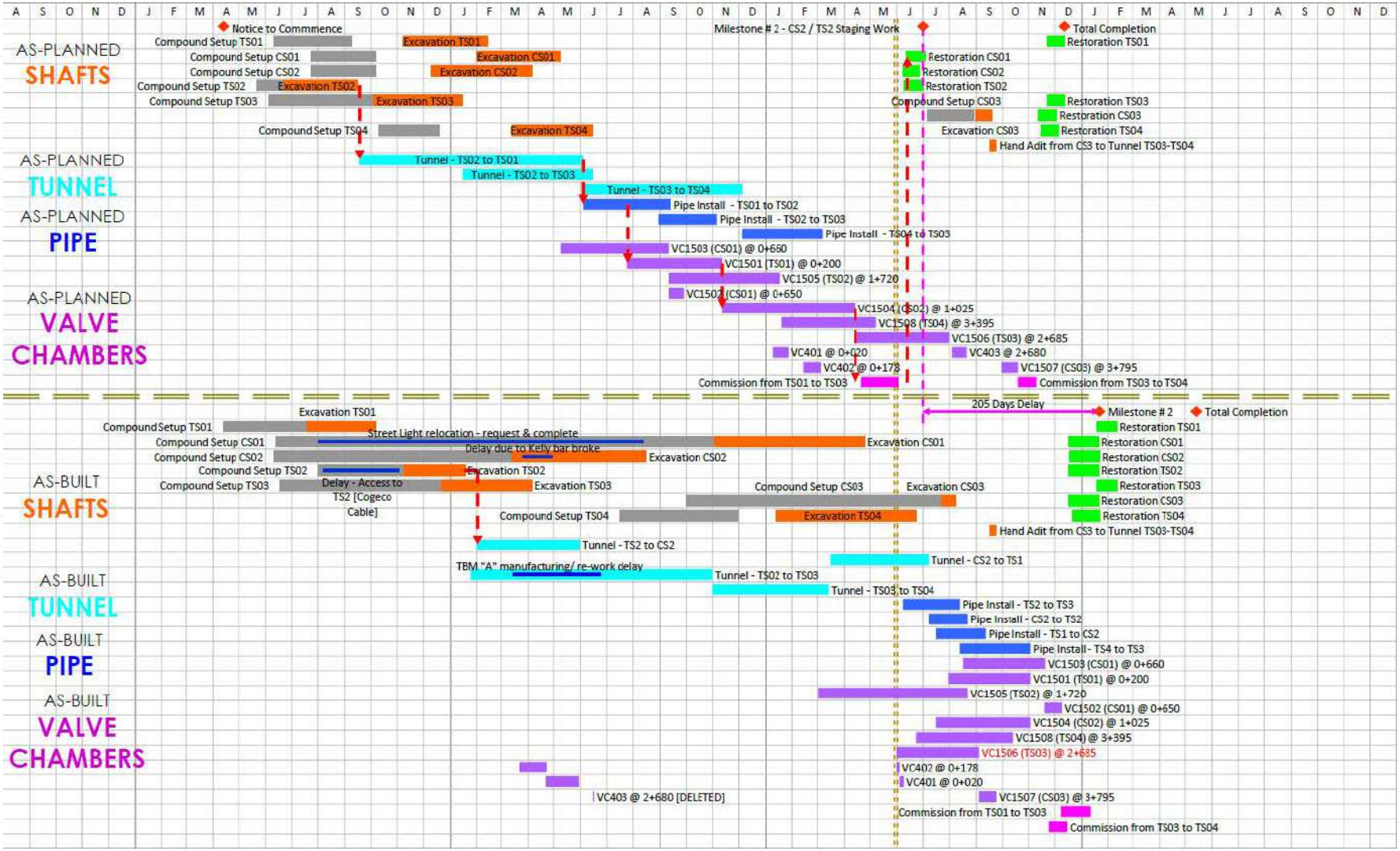
Project: Infrastructure - Trunk Sewer

Mandate: Scheduling, Forensic Scheduling, Variation Analysis, Extension of Time

Simple Useful Meaningful

Work Sample

Stoneboy



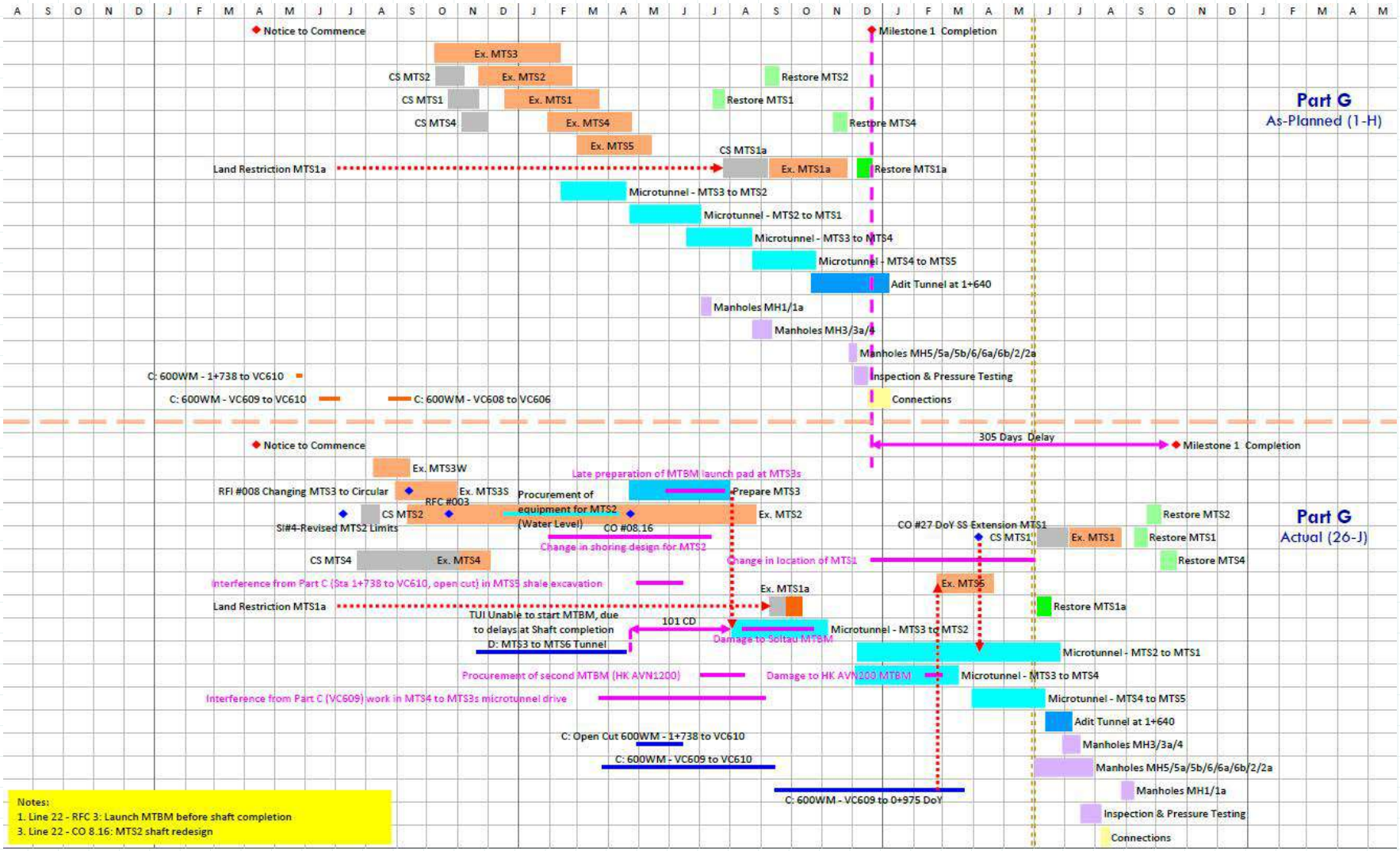
Project: Infrastructure - Trunk Sewer

Mandate: Scheduling, Forensic Scheduling, Variation Analysis, Extension of Time

Simple Useful Meaningful

Work Sample

Stoneboy



Project: Infrastructure - Trunk Sewer

Mandate: Scheduling, Forensic Scheduling, Variation Analysis, Extension of Time

Simple Useful Meaningful

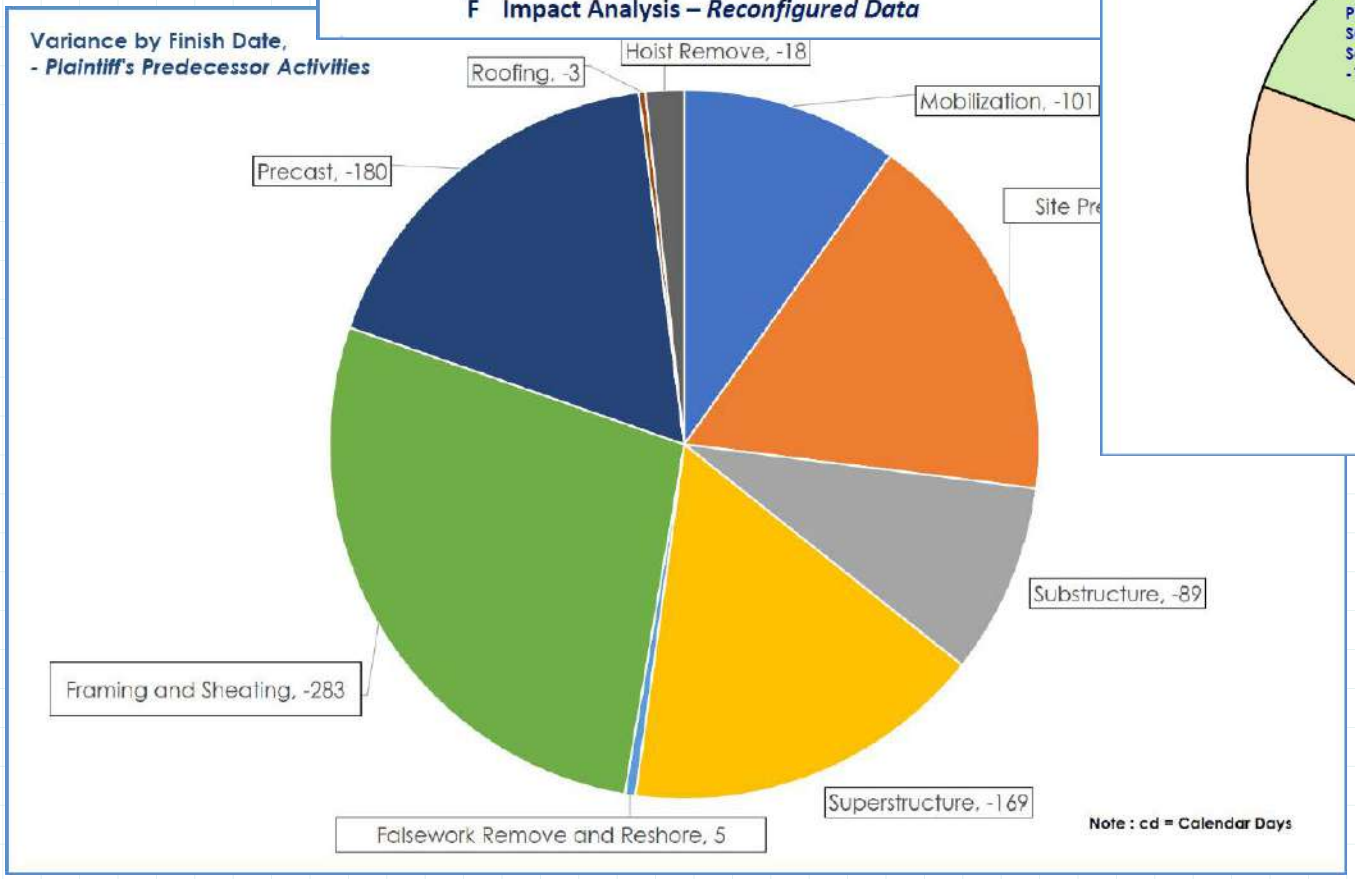
Work Sample

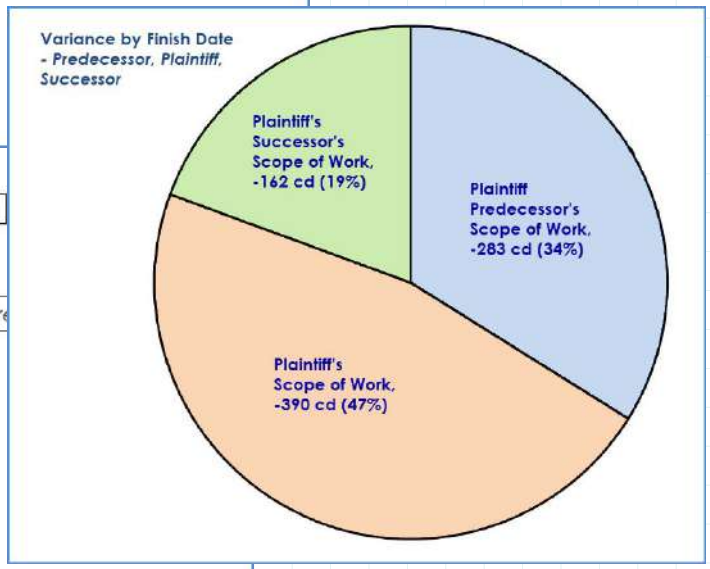
Stoneboy

Schedule Assessment Report

The Schedule Assessment Report (SAR) is configured with the following tracks of enquiry:

- A **Schedule Integrity**
- B **Constructability, and Schedule Reliability**
- C **Variation Management**
- D **Process & Transaction Management**
- E **Impact Analysis – *As Received Data***
- F **Impact Analysis – *Reconfigured Data***





Project: Buildings - Institutional

Mandate: Scheduling, Forensic Scheduling, Variation Analysis, Extension of Time, Quantum

Work Sample

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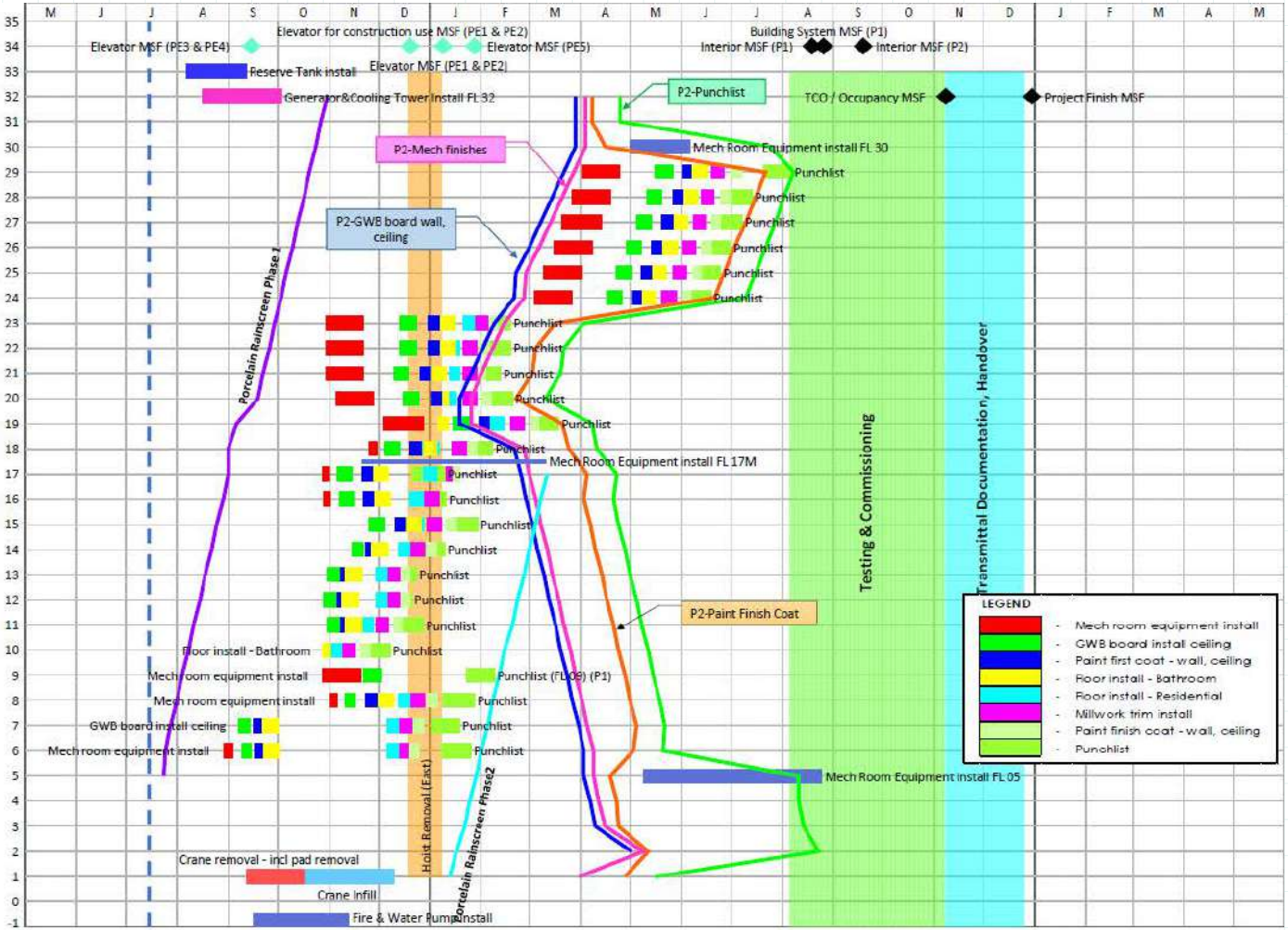

Project: Buildings - Mixed Use High Rise

Mandate: Scheduling, Forensic Scheduling, Variation Analysis, Extension of Time

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Toronto-York Spadina Subway Extension

World Trade Center Reconstruction, New York

Burnhamthorpe Water Project,
Mississauga, Ontario

LaGuardia Airport Modernization, New York

Second Ave Subway, New York

Interested in learning more about
Stoneboy ?

Please contact us at projects@stoneboy.co