

Claims Analysis Nested in Schedule Updates

PS.06

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This presentation presents a logical case for preparing contemporaneous claims analysis and entitlement determination as part of regular schedule updates.

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Background – The Players Responsible for Schedule Updates

Who actually performs schedule updates?

Claims Specialists?

Construction Attorneys?

Analytical Schedulers?

None of the Above! It's usually Project Managers or Schedulers working under Project Managers!



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Background – The Players Responsible for Schedule Updates

Other Responsibilities of Scheduler?

- Review submittals
- Research RFI's
- Budgeting
- Invoicing
- Invoice Approvals
- Materials Procurement
- Scope Development
- Resource Planning
- Personnel Management
- Communications
- Information Dissemination
- Meetings
- Quality Control
- Senior Management Reporting
- Subcontract Awards



Background – The Players Responsible for Schedule Updates

External Pressures on Scheduler?

- Need to be Team Player
- Fear of Alienating Owner
- Need to Please Owner
- Time Management
- GC Corporate Culture
 - Get Job Done on Time
 - Minimize Paperwork
 - Aggressive Scheduling
- Scheduler's Experience
 - Little Analytical Scheduling
 - Little Claims Preparation
 - Little Claims Defense
 - Little Dispute Resolution
 - Little Litigation
 - Not Schedule-Driven



Rationale & Motivation for Paper

Provide Better Schedule Management Tools

- Subcontractor Management – GC Often Asking Favors When Subcontractor Contributed to Delays
- Delay & Disruption Management – Deal with Issues while Fresh in Everyone’s Mind
- Help Owners - Minimize After-the-Fact Backwards Looking Claims Disputes
- Help the “Good” Contractors who Generally Ignore the Paperwork in Order to Get the Job Done at Their Expense
- Encourage Schedule Mitigation to Occur at the Time Needed & by the Responsible Party



Rationale & Motivation for Paper

Sources of Ideas

- Experience Working as a Scheduling Project Manager
- Experience Managing other Scheduling Project Managers
- Creating “Dashboards” for Senior Management Reports – “What Happened and Why?”
- Requiring Senior Management Reports “Tell me What & Why?”
- Training Schedulers and Project Managers “Lessons Learned”
- Preparation of Time Impact Analyses
- Providing Claims Analyses – Identifying Causal Activities, Driving Delays, Concurrent Delays, & Entitlement
- Separating Progress from Logic Changes in Schedule Reviews

The Typical Schedule Maintenance Routine

The Data Collection Process

- Collect Progress Data from Field Personnel
- Gather Submittal & Approval Status
- Gather Status of Administrative Tasks – Utility Paperwork Status, Permits, Environmental Releases, etc.
- Gather Status of Owner Controlled Activities – Owner Utility Applications, Delivery Dates Owner Equipment, etc.
- Collect Status of Purchase Orders & Subcontracts
- Collect Status of Materials Fabrication or “Lead Times”
- Collect Status of Subcontractor Lead Times
 - Verify Availability of Scheduled Resources



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The Typical Schedule Maintenance Routine

Schedule Statusing

- Simple Stage of Process
 - Input Actual Dates
 - Input Remaining Durations, Expected Finish Dates, or Percent Complete
- Calculate Schedule
- Verify & Test for Reasonableness
- Compare to Baseline (Most Current)



The Typical Schedule Maintenance Routine

Schedule Updating

If the Schedule shows on-time completion, schedule is submitted.

Everyone is happy; there are no documented delays.

The Invoice gets approved quickly, no extra paperwork is done, later claims are generally not generated from a schedule showing no manipulation on-time completion.



The Typical Schedule Maintenance Routine

Schedule Analysis

If the Schedule shows late completion, or when constrained, negative float, the project is scheduled to complete late.

At this point, the Scheduler generally takes a number of steps to protect the schedule.

- Keep GC senior management happy
- Minimize confrontation with Owner
- Minimize paperwork
- Get the schedule submitted



The Typical Schedule Maintenance Routine

Schedule Analysis – Typical Next Steps

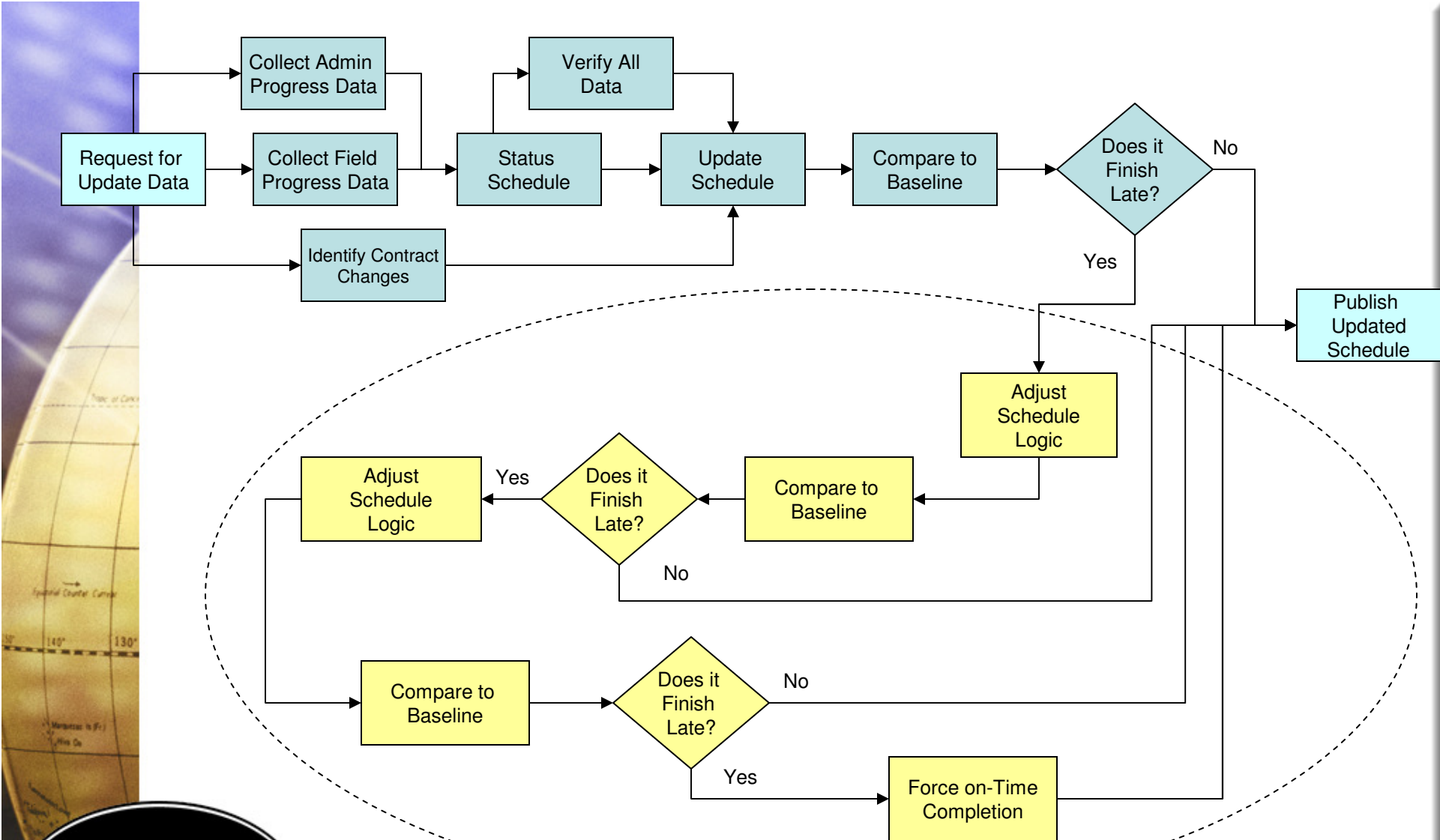
- Review & Verify Immediate Dates for Field Use
- Run Critical Path Report (based on whatever criterion is set in software)
- Identify Non-Work Activities Showing Critical (Procurement, Lead Times, Submittal Times, Delivery Times)
- Remove Non-Work Critical Activities, Based on Gut Feelings that Only Work Activities Should be Critical
- Suggest that PM Expedite these Activities, but Remove them from Affecting Critical Path, Removing them from Scrutiny
- Recalculate Schedule, Compare to Baseline, if on-Time, Submit

The Typical Schedule Maintenance Routine

Schedule Analysis –Logic Manipulation

- If Schedule Still Shows Late, Review “Soft Logic” (Non Physical Restrictions)
- Identify Activities that have Finish-to-Start Relationships that Can be Changed to Finish-to-Finish, or Change Predecessor
- Focus on Separate Trades, so Resource Need will not Increase
- Look at Calendar Work-Weeks to Change to Work Weekends
- Look at Original Durations and Attempt to Shorten
- Recalculate Schedule and Compare to Baseline
- If on-Time, Submit Schedule
 - If Late, Force Timely Completion





Typical Contractor Schedule Update - Carson Paper/Presentation

This Cycle is a Recovery Schedule, with GC Assuming Responsibility for All Delays & Waiving Entitlement Rights by Eliminating Delays



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The Typical Schedule Maintenance Routine

Dealing With Obvious Owner Delays & Changes

- When Obvious Conditions Change or Owner Causes Delay, the GC Generally Provides a “Delay Analysis”
- GC Analyses Generally have Numerous Weaknesses:
 - Focused on Owner Delay – Already Identified, No Research Needed
 - Rarely Identifies or Examines GC Concurrent Delays
 - Rarely Identifies or Examines Subcontractor Concurrent Delays
 - No Examination of Potential Mitigation Efforts
 - Time Impact Analysis Generally Minor Part of Change Order Preparation
 - Rarely Reaches the Level of “Claims Analysis”

The Typical Schedule Maintenance Routine

Risks Associated With The Typical Routine

- Submission of an On-Time Update Effectively Mitigates all Potential Delays to that Point
- The “Minor” Adjustments to the Schedule Can:
 - Remove Contingency Float that May Be Needed Later
 - Assume Subcontractor Mitigation without Subcontractor Buy-in
 - Make GC liable for Subcontractor Constructive Acceleration
 - Loss of Ability to Encourage Subcontractor Participation in Mitigation (When Delays are Caused by Subcontractor)
 - Cause GC to Take on All Costs of Mitigation
 - Ignore Resource Availability, GC or Subcontractor



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The Typical Schedule Maintenance Routine

More Risks Associated With The Typical Routine

- Decisions Made While Rushing to Submit Updated Schedule for Invoicing are Not Carefully Analyzed
- The GC Often Misses Owner Caused Delays and Takes on Mitigation at GC's Expense and Risk
- By Unintentional Recovery, Delay Claims Become Disruption Claims Which are Harder to Prove, Show Entitlement, and Price
- Owner and Subcontractor Concurrent Delays are Often Not Detected, so Subcontractor is Not Involved in Mitigation Efforts
- Claims Documentation is Not Maintained, Increasing Costs for Later Research and Analysis



The Proposed Schedule Maintenance Routine

Consider Vehicle Longevity and Maintenance.

Without Proper Maintenance of a Vehicle, More Breakdowns and Higher Repair Costs Occur. The Life-Cycle Costs of a Vehicle are Higher when Regular Maintenance is Ignored.

Schedule Maintenance is Similar to Vehicle Maintenance, and Project Health and Success is Similar to Vehicle Longevity.

If Good Schedule Maintenance is Not Performed, Projects Have More Breakdowns (Delays, Disruption) and Life-Cycle Costs of the Project are Higher (Claims).



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The Proposed Schedule Maintenance Routine

Instituting a Regular, Detailed, and Documented Claims Analysis During Each Update Has Benefits Which Far Outweigh the Costs of Preparation.

Let's Take a Look at the Proposed Process



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The Proposed Schedule Maintenance Routine

Data Collection and Schedule Statusing

- Data Collection Process Does Not Change
- Good, Detailed and Accurate Capture of Current Progress is More Essential Than Ever
- Recognition that a Technical Schedule/Claims Analysis is Performed at Each Update Tends to Promote Accuracy



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The Proposed Schedule Maintenance Routine

Analysis and Schedule Updating – Critical Path

- Identify Previous Period Critical Path, Verify Accuracy
- Identify Current Period Critical Path, Verify Accuracy
- Compare to Current Baseline (With this Routine, Current Baseline is the Last Analyzed Schedule)
- If Project is On-Time, Simply Record Critical Paths for Historical Documentation
- If Project has Slipped, Identify any Changes to Critical Path
- Identify Causal Activities
- Identify & Calculate Four Values for Each Causal Activity – Start Delay, Start Gain, Production Delay, Production Gain



The Proposed Schedule Maintenance Routine

Analysis and Schedule Updating – Causal Activities

- Quantify Four Delay/Gain Changes for Each Causal Activity by Working From the Beginning of the Period, Using a Standard Layout with Current Baseline as Schedule Target
- Verify That the Totals Add Up to the Total CP Change
- Research the Issues that Caused the Changes to the Causal Activities
 - Interview Project Management Team
 - Review Project Documents; Issue Files, Minutes, RFI/Submittal Logs, Field Reports, Photographs
 - This Research is Usually a Discussion About Reasonably Current Problems – Quick, Painless, and Easy



The Proposed Schedule Maintenance Routine

Analysis and Schedule Updating – Driving Issues

- Identify the Driving Issues that Affect the Causal Activities
- Assess Responsibility for Driving Issues
- Review Concurrency of Driving Issues– Can Be Delay and/or Acceleration/Mitigation
- Work Through Concurrent Driving Issues from the Beginning of the Period, Identifying First Driving Issue, Establishing any Concurrency with Next Driving Issue
- Perform a Careful Concurrent Delay Analysis, Record in Clear Graphical Format
- Assign Responsibilities for All Driving Concurrent Delays



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The Proposed Schedule Maintenance Routine

Analysis and Schedule Updating – Collaboration

- If Subcontractors are Responsible for any Driving Delays, or Portions of Concurrent Delay, Meet Face-to-Face
 - Provide Clear Documentation with Approximate Costs for Delays
 - Discuss Ramifications & Options
 - Collaborate and Gain Commitment for Mitigation/Acceleration
- If Owner is Responsible for Any Driving Delays, or Portions of Concurrent Delay, Meet Face-to-Face
 - Provide Clear Documentation with Approximate Costs for Delays
 - Discuss Ramifications & Options
 - Collaborate and Determine Best Approach; Owner Mitigation, Contractor Mitigation, or Time Extension



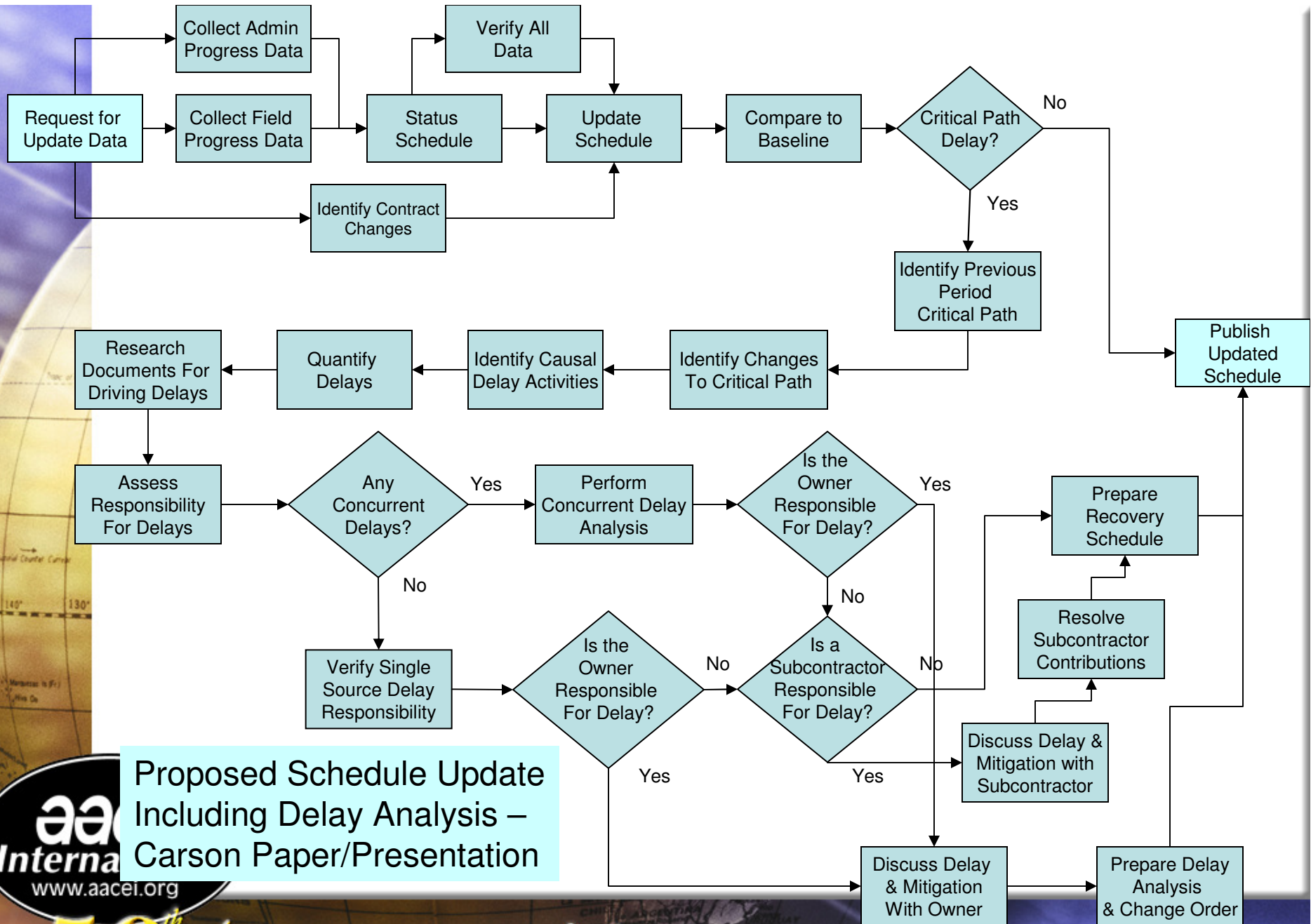
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The Proposed Schedule Maintenance Routine

Analysis and Schedule Updating – Resolution

- If GC is Responsible for any Driving Delays, or Portions of Concurrent Delay, Use Formal Recover Scheduling Meeting with Project Staff to Prepare Recovery Schedule
- Have Recovery Information Ready for Meetings with Owner and Subcontractors
- Take Open and Objective Stance in All Analyses and Meetings
 - Finally, Revise the Schedule to Reflect the Solutions Determined during Collaboration, and Publish Revised Schedule





Proposed Schedule Update
Including Delay Analysis –
Carson Paper/Presentation

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The Proposed Schedule Maintenance Routine

Benefits From Proposed Process – Issue Understanding

- Issues are Dealt With Immediately, Minimal Misunderstandings, Minimal Memory Problems
- Research, if Needed, is Quicker, Easier, More Readily Understood
- Often, The Research is Simple as Walking the Job and Looking at the Missing Bearing Plate, Verifying that Joists are on Site
 - Documentation is Produced as Part of the Investigation, is More Issue Focused and Extensive



The Proposed Schedule Maintenance Routine

Benefits From Proposed Process – Subcontractors

- Subcontractors Participate in Problem Identification
- Subcontractors Have Opportunity to Help Mitigate Their Own Problems without Surprise Backcharges
- Subcontractors Contribute to Resolution Only when They Share Responsibility for Delays
- Subcontractors Get Credit for Their Own Mitigation Effort
- Subcontractors Get Timely Time Extensions when Warranted
- Subcontractors are Given Immediate Notice to Improve Performance



The Proposed Schedule Maintenance Routine

Benefits From Proposed Process – Owner

- Owner is Involved in Identification of Problem
- Owner has Input into Mitigation Solutions & Efforts
- Owner can Determine Importance of Delays and Can Help Minimize Delay Costs or Impacts
- Priorities for Mitigation Can Be Set by Owner
- Owner Gains More Accurate Predictions for Completion
- Owner Understands Delay Issues Better; Less Likely that Bogus/Inaccurate Claims will Result
- Time Extensions Provided in Timely Manner, Allowing for Pacing Delay Advantages



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The Proposed Schedule Maintenance Routine

Benefits From Proposed Process – Costs

- Solutions are Collaborative Efforts of the Construction Team with Minimal Attorney Costs
- Schedule Analyses, When Showing Delays, are Part of Change Order Costs
- Other Work on Site can Be Re-sequenced or Paced to Accommodate Revised Official Schedule
- Minimal Formal Dispute Resolution & Claims Costs at End of Project



The Proposed Schedule Maintenance Routine

Benefits From Proposed Process – Conflicts

- If Subcontractors are Claims-Oriented, Better Contemporaneous Documentation is Produced and Approved
- If Owner is Uncooperative, GC is More Persuasive and Better Protected with Good Contemporaneous Documents
- If Owner and Owner's Representative are Uncooperative, Process Puts Everyone on Notice and Documents Delays
- Smaller Time Extensions and Change Orders are More Palatable to Owner
- GC can Look to Other Options such as Work Stoppage

The Proposed Schedule Maintenance Routine

Benefits From Proposed Process – Legalities

- Smaller Time Period Window Analysis Promotes Better Understanding and More Detailed Look into Issues
- Documentation is Critical Path Delay Specific
- Resolution is Underway Before Relationships are Damaged
- Less Ego Involvement in Problems
- Complicated Concurrent Delays Issues are Confined to Single Period at a Time
 - No Confusion from Later Period Progress Mitigating Unresolved Critical Path Delays in Earlier Periods



The Proposed Schedule Maintenance Routine

Benefits From Proposed Process – Teamwork

- Better Partnering Opportunities
- Minimal Confrontational Aspect to Problem Resolution
- Each Party Can Help Mitigate Their Own Delay Responsibility Costs
- Happier Owner Due to Better Informed Owner
- No One is Left out of Loop
- Team Members Collaborate as a Team, not Individual Risk Members
- Project More Likely to Meet Owner's Anticipation of a Successful Project



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The Proposed Schedule Maintenance Routine

Risks Associated With Proposed Process

- Reduced Claims Business and Profits
- Process Requires More Highly Trained Analytical Scheduler
- Schedule is More Expensive to Maintain
- Process Takes More Time During Each Update
- Process Does not Eliminate Conflict; Especially in the Case of Uncooperative Owner, Subcontractor or Agent



The Proposed Schedule Maintenance Routine

Conclusion

- Use of Schedule as Analytical Tool Provides Many More Benefits than Disadvantages
- CPM Scheduling is Used At Its Best Advantage
- Analysis of Contemporaneous Time Impact Helps Promote Awareness of Delay & Mitigation
- Reduction in Disruption Due to Better Analytical Information
- Put the Power of the Claims Industry to Work in Claims Avoidance

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The Proposed Schedule Maintenance Routine

Questions?

War Stories?

Suggestions?

Complaints?



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Claims Analysis Nested in Schedule Updates

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Thank You



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