

**UTSouthwestern**  
Medical Center.™

Office of Institutional Compliance  
and Audit Services

# Construction Audit Program Assessment

Internal Audit Report 24:04

April 24, 2024



## Executive Summary

Internal Audit (IA) conducted a risk assessment in FY23 Q4 that included construction and capital planning risks including delivering construction projects on schedule and within budget, which identified the need for an audit of current third-party construction auditors. The Facilities, Planning, and Construction department is responsible for managing and delivering major capital projects. All capital projects that have a budget greater than or equal to \$10M are subject to third-party construction audits to provide assurance on the project’s overall health. While these ongoing audits address the risks identified in the risk assessment, Protiviti was engaged to validate the effectiveness of the current Construction Audit Program.

As of February 2024, 3 capital projects had been subject to an audit in the past 3 years. This included the Clements University Hospital (CUH) 3<sup>rd</sup> Tower, audited by Marsh USA, Inc. (Marsh); the Brain and Cancer Center Building (NCP6), audited by Moss Adams LLP (Moss Adams); and the Biomedical Engineering Sciences (BMES) Project, audited by Weaver and Tidwell, LLP (Weaver). The third-party auditors are engaged with UT Southwestern via a *Technical Services Agreement (TSA)* with the UT System that outlines the scope and requirements pertaining to their audit.

### Audit Results

The Office of Institutional Compliance & Audit Services (OICAS) conducted a Construction Audit Program Assessment focusing on the performance of engaged third-party auditors (Marsh, Moss Adams, & Weaver). Overall, we recognized multiple strengths for the construction audit processes, including requiring all projects greater than or equal to \$10M to be subject to a construction audit. However, several control gaps were identified that require management to improve the consistency and depth of construction audits, regardless of the auditor, which serves to improve UT Southwestern’s transparency into the health of their ongoing projects. A summary of observations is outlined below:

AREA	Opportunities	
<b><i>Audit Data Control</i></b>	<ul style="list-style-type: none"> <li>• Audit data control</li> <li>• Document retention requirements</li> <li>• Supporting documentation requirements</li> </ul>	<b>MEDIUM</b>
<b><i>Contract Management</i></b>	<ul style="list-style-type: none"> <li>• Construction audit contract consistency</li> <li>• Scope gaps</li> <li>• Contractual requirements</li> </ul>	<b>LOW</b>
<b><i>Cost Management Review</i></b>	<ul style="list-style-type: none"> <li>• Project cost auditing</li> <li>• Project monitoring</li> </ul>	<b>LOW</b>
<b><i>Project Reporting</i></b>	<ul style="list-style-type: none"> <li>• Continuous Reporting</li> <li>• Deliverable consistency</li> </ul>	<b>LOW</b>

Further details are outlined in the Detailed Observations section. Less significant issues were communicated to management.

**Management Summary Response:**

Management agrees with the observations and recommendations and has developed action plans to be implemented on or before 9/31/2024.

**Appendix A** outlines the objective, scope, methodology, stakeholder list, and audit team for the engagement.

**Appendix B** outlines the Risk Rating Classifications and Definitions.

The courtesy and cooperation extended by the personnel in Facilities, Planning, and Construction are appreciated.

*Natalie A. Ramello*

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Natalie A. Ramello, JD, CHC, CHPC, CHRC, CHIAP  
Vice President, Chief Institutional Compliance Officer & Interim Chief Audit Executive  
Office of Institutional Compliance & Audit Services  
April 24, 2024

## DETAILED OBSERVATIONS

### Audit Data Control

*Internal Audit was unable to review all work papers and related audit documentation by Marsh and Moss Adams due to issues related to data control and document retention requirements in UT System’s service agreements with construction audit vendors, which reduced the ability of Facilities, Planning, and Construction stakeholders to confirm audit activities performed.*

**MEDIUM**

1. Audit data control	Recommendation	Management Action Plan
<p>Neither Facilities, Planning, and Construction, nor Marsh, were able to produce audit work papers for the Clements University Hospital 3<sup>rd</sup> Tower (CUH) project that were stored in the e-Builder Project Management Information System (PMIS) software. The contract with e-Builder expired, losing all documentation saved within the PMIS program.</p>	<p>Management should develop a data transfer plan to retain all documentation when a third-party software contract is expiring.</p>	<p>Action Plan Owner[s]: Stephen Staie Action Plan Executive[s]: Juan Guerra Due Date: completed</p> <p><i>Facilities Management implemented a new Project management software system called Project Mates in 2019 subsequent to the CUH 3<sup>rd</sup> Tower project. Capital project documentation is stored in Project Mates and lessons learned from the eBuilder transition have been applied regarding records retention criteria. Also, we are utilizing a shared storage drive as a backup to store documentation as required by the records retention criteria.</i></p>
2. Document retention requirements	Recommendation	Management Action Plan
<ul style="list-style-type: none"> <li>• Marsh’s delivered reports were sent to UT Southwestern via email, but the Senior Project Manager involved with the project could not recover any of the requested samples; however, they were able to provide 7 reports from the CUH project that were not included in our requested sample.</li> <li>• Facilities, Planning, and Construction was unable to identify and connect with a member of Marsh’s project team, which may or may not have been successful due to a lack of contractual obligation to retain audit documentation (work</li> </ul>	<p>Management should consider maintaining audit deliverables from third parties in their shared drive environment, so it is accessible.</p>	<p>Action Plan Owner[s]: Stephen Staie Action Plan Executive[s]: Juan Guerra Due Date: completed</p> <p><i>See response to observation #1.</i></p>

<p>papers and final reports) for a specific period, to gather missing audit work papers.</p> <p><i>See Appendix C for a summary of audit documentation requested, collected, and provided to internal audit.</i></p>		
3. Supporting documentation requirements	Recommendation	Management Action Plan
<p>Moss Adams was unwilling to provide work papers related to their work on the Brain and Cancer Center Building (NCP6) audit due to no contractual obligation to provide supporting documentation related to the audit.</p> <p><i>See Appendix C for a summary of audit documentation requested, collected, and provided to internal audit.</i></p>	<p>Management should notify UT System of data and document ownership gaps in the current construction audit contracts for amendment. Specifically, UT System should amend Technical Service Agreements (TSA) related to vendor document retention and data ownership and require all work papers and test sheets as support for each report.</p>	<p>Action Plan Owner: Juan Guerra Action Plan Executive[s]: Juan Guerra Due Date: 5/31/2024</p> <p><i>UT Southwestern will notify UT System in writing of the observations for their remediation.</i></p>

<b>Contract Management</b> <i>UT System’s construction audit agreements contain inconsistent, incomplete, and unnecessary scope, which increases the potential that construction audits do not adequately mitigate risks related to capital projects or meet the objectives of construction audit engagements.</i>		
<b>LOW</b>		
4. Construction audit contract consistency	Recommendation	Management Action Plan
Inconsistent scopes exist between the Marsh agreement and the Moss Adams & Weaver agreements. <i>(See Appendix D for a summary of noted contract inconsistencies).</i> <ul style="list-style-type: none"> <li>Example: Marsh’s agreement includes requirements for validating lien waivers, while Moss Adams &amp; Weaver agreements do not. The Moss Adams &amp; Weaver agreements require change order scope and pricing to be reviewed, while Marsh’s agreement does not.</li> </ul>	Management should notify UT System of these observations for their consideration to standardize their contract agreement scopes to promote consistency across audit engagements.	Action Plan Owner: Juan Guerra Action Plan Executive[s]: Juan Guerra Due Date: 5/31/2024  <i>UT Southwestern will notify UT System in writing of the observations for their remediation.</i>
5. Scope gaps	Recommendation	Management Action Plan
15 scope gaps in contractual requirements that should be included in UT System’s standard construction audit agreements. Identified scope gaps may lead to missing testing attributes that fail to consistently identify related risks to cost, schedule, project management, etc. on a capital project.  <i>(See Appendix D for a summary of noted gaps in contract scopes).</i>	UT System should review the identified gaps in audit requirements and consider adding scope gaps into their TSA contract templates.	Action Plan Owner: Juan Guerra Action Plan Executive[s]: Juan Guerra Due Date: 5/31/2024  <i>UT Southwestern will notify UT System in writing of the observations for their remediation.</i>
6. Contractual requirements	Recommendation	Management Action Plan
5 contractual requirements Moss Adams and Weaver were obligated to perform that are considered atypical for a construction auditor. These are in the categories of verifying unit prices of competitively bid items and opining on schedule of values and vendor selections. The atypical construction audit scope may cause the auditor to incur additional burn of hours unrelated to a successful audit outcome. <i>(See Appendix E for a summary of noted atypical contractual requirements).</i>	UT System should consider removing or adjusting requirements that are not typically performed by a construction auditor. A review of the buyout and vendor selection process as a project closeout activity will provide value in future vendor selection activities.	Action Plan Owner: Juan Guerra Action Plan Executive[s]: Juan Guerra Due Date: 5/31/2024  <i>UT Southwestern will notify UT System in writing of the observations for their remediation.</i>

### Cost Management Review

*Inconsistencies and exceptions were observed in third-party auditors' cost management testing (i.e., payment application, project monitoring, change order management, and miscellaneous).*

**LOW**

7. Project cost auditing	Recommendation	Management Action Plan
<p>Payment Application:</p> <ul style="list-style-type: none"> <li>• Marsh did not satisfy 2 of 10 payment application audit requirements. As noted in Observation 1, Internal Audit was unable to validate Marsh's testing for all samples.</li> <li>• Moss Adams did not satisfy 6 of 11 payment application audit requirements. As noted in Observation 1, Moss Adams was unwilling to provide their work papers, which required Internal Audit to rely on final reports for verification of activities.                             <ul style="list-style-type: none"> <li>○ 3 of 6 exceptions while required, Internal Audit does not view the requirements as typical activities conducted by an auditor.</li> </ul> </li> <li>• Weaver did not satisfy 7 of 11 payment application audit requirements.                             <ul style="list-style-type: none"> <li>○ 3 of 7 exceptions while required, Internal Audit does not view the requirement as typical activities conducted by an auditor.</li> </ul> </li> </ul> <p><i>(See Appendix F for a summary of payment application testing results)</i></p>	<p>Management should notify UT System and request that current cost management testing attributes are reviewed for appropriateness.</p>	<p>Action Plan Owner: Juan Guerra Action Plan Executive[s]: Juan Guerra Due Date: 5/31/2024</p> <p><i>UT Southwestern will notify UT System in writing of the observations for their remediation.</i></p>

8. Project monitoring	Recommendation	Management Action Plan
<p>Project Monitoring:</p> <ul style="list-style-type: none"> <li>Moss Adams did not satisfy 3 of 5 project monitoring audit requirements. As noted in Observation 1, Moss Adams was unwilling to provide their work papers, therefore verifying activities was done by reviewing reports in place of work papers.                             <ul style="list-style-type: none"> <li>2 of 3 exceptions while required, Internal Audit does not view the requirements as typical activities conducted by an auditor.</li> </ul> </li> <li>Weaver did not satisfy 5 of 5 project monitoring audit requirements.                             <ul style="list-style-type: none"> <li>2 of 5 exceptions while required, Internal Audit does not view the requirement as typical activities conducted by an auditor.</li> </ul> </li> </ul> <p><i>(See Appendix G for a summary of project monitoring testing results).</i></p> <p>Change Order Management:</p> <ul style="list-style-type: none"> <li>Weaver did not satisfy any contractually required change order management audit requirements.</li> </ul> <p><i>(See Appendix H for a summary of change order management testing results).</i></p> <p>Miscellaneous:</p> <ul style="list-style-type: none"> <li>Internal Audit was unable to validate if Marsh fulfilled the agreed upon “Special Audit” activities. As noted in Observation 1, missing documentation between Marsh and UT Southwestern would not allow Internal Audit to adequately review work product.</li> </ul> <p><i>(See Appendix I for a summary of miscellaneous testing results).</i></p>	<p>Management should validate that all activities an auditor is contracted to perform is completed by reviewing the work papers against a construction audit checklist. The checklist should be populated with all in-scope activities included in the TSA with the auditor.</p>	<p>Action Plan Owner[s]: Stephen Staie Action Plan Executive[s]: Juan Guerra Due Date: 9/31/2024</p> <p><i>Facilities Management and will develop an audit checklist to verify that audit activities are consistent with the TSA.</i></p>

**Project Reporting**

*Internal Audit could not verify that all auditors met project reporting requirements.*

**LOW**

9. Continuous reporting	Recommendation	Management Action Plan
<p>Internal Audit was unable to validate if Marsh fulfilled the agreed upon reporting audit requirements for each audit.</p> <ul style="list-style-type: none"> <li>Marsh did not satisfy 2 of 6 reporting audit requirements. As noted in Observation 1, missing documentation between Marsh and Facilities, Planning, and Construction stakeholders would not allow Internal Audit to adequately review deliverables, which increases potential risks of recurring issues / impacts to future projects.</li> </ul> <p><i>(See Appendix J for a summary of all reporting testing results).</i></p>	<p>Management should verify audit activities are consistently performed by reviewing deliverables against a construction audit checklist. The checklist should be populated with all in-scope activities included in the TSA with the auditor. Auditor reporting in real time is critical to implementing recommendations while a capital project is ongoing.</p>	<p>Action Plan Owner[s]: Stephen Staie Action Plan Executive[s]: Juan Guerra Due Date: 9/31/2024</p> <p><i>Facilities Management and will develop an audit checklist to verify that audit activities are consistent with the TSA.</i></p>
10. Deliverable consistency	Recommendation	Management Action Plan
<p>Discrepancies between Marsh and Moss Adams service agreements, as noted in Observation 2, provided a detailed outline for reporting requirements that need to be considered for the other vendors:</p> <ul style="list-style-type: none"> <li>Marsh was required to include: (i) an executive summary, (ii) detailed discussion, (iii) tables with financial and qualitative data, and (iv) conclusions and recommendations.</li> <li>Moss Adams and Weaver were required to include: (i) project expenditure progress and (ii) findings or reviews and potential cost recovery items.</li> </ul>	<p>UT Southwestern should notify UT System to consider standardizing deliverables from construction audit engagements.</p>	<p>Action Plan Owner: Juan Guerra Action Plan Executive[s]: Juan Guerra Due Date: 5/31/2024</p> <p><i>UT Southwestern will notify UT System in writing of the observations for their remediation.</i></p>

## Appendix A

### Objective, Scope, and Methodology:

The objective of the review is to assess the overall management of the Construction Audit Program and to assess performance and contractual compliance of engaged third-party construction auditors. This was a risk-based audit and part of the FY 2024 Audit Plan. All capital projects subject to construction audits in the past 3 years were selected for testing. This included the Clements University Hospital (CUH) 3<sup>rd</sup> Tower, audited by Marsh; Brain and Cancer Center Building (NCP6), audited by Moss Adams; and the Biomedical Engineering Sciences (BMES) Project, audited by Weaver. Notably, the Marsh and Moss Adams audits recovered over \$1M.

The audit scope period included activities of the three auditors and the Facilities, Planning, and Construction department from January 2021 to January 2024. The audit included a review of third-party auditors' construction audit contracts, overall programs, test papers, and reporting deliverables. The review did not include conducting cost recovery activities; re-performing testing, activities, procedures, etc.; or auditing of any additional construction audit vendors.

Our procedures included but were not limited to the following:

- Interviewed key personnel as needed and reviewed relevant organizational policies.
- Reviewed governing contract documents.
- Reviewed third party auditors' work programs / test papers (as allowable).
- Reviewed third party auditors' reporting deliverables (when able to receive).

We conducted our examination according to guidelines set forth by the Institute of Internal Auditors' International Standards for the Professional Practice of Internal Auditing.

### Executive Sponsors:

Juan Guerra, Vice President, Facilities Management

### Key Stakeholder List:

Kevin Bailey, Senior Project Manager, Capital Improvements Program

Juan Guerra, Vice President, Facilities Management

David Gwie, Senior Project Manager, Capital Improvements Program

Karl Schneider, Senior Project Manager, Capital Improvements Program

Stephen Staie, Director, Major Capital Improvement Projects

Ann Tate, Director, General Services

**Audit Team:**

Jarod Baccus, Director, Oversight and Quality Assurance, Protiviti

Tripp Chandler, Associate Director, Engagement Manager, Protiviti

Abby Jackson, Assistant Vice President, Compliance & Audit Operations & Privacy Officer

Matt Jackson, Managing Director, Executive and Engagement Oversight, Protiviti

Philippa Krauss, Senior Project Manager, Audit

Eric Portlock, Managing Director, Subject Matter Expert, Protiviti

Natalie Ramello, J.D., Vice President of Compliance and Chief Institutional Compliance Officer & Interim Chief Audit Executive

Jake Wiest, Senior Consultant, Engagement Lead, Protiviti

## Appendix B

### Risk Classifications and Definitions

Each observation has been assigned a risk rating according to the perceived degree of risk that exists based upon the identified deficiency combined with the subsequent priority of action to be undertaken by management. The following chart is intended to provide information with respect to the applicable definitions, color-coded depictions, and terms utilized as part of our risk ranking process:

Degree of Risk and Priority of Action	
<b>Priority</b>	An issue identified by Internal Audit that, if not addressed immediately, has a high probability to directly impact achievement of a strategic or important operational objective of a UT institution or the UT System as a whole.
<b>High</b>	A finding identified by Internal Audit that is considered to have a high probability of adverse effects to the UT institution either as a whole or to a significant college / school / unit level. As such, immediate action is required by management to address the noted concern and reduce risks to the organization.
<b>Medium</b>	A finding identified by Internal Audit that is considered to have a medium probability of adverse effects to the UT institution either as a whole or to a college / school / unit level. As such, action is needed by management to address the noted concern and reduce the risk to a more desirable level.
<b>Low</b>	A finding identified by Internal Audit that is considered to have minimal probability of adverse effects to the UT institution either as a whole or to a college / school / unit level. As such, action should be taken by management to address the noted concern and reduce risks to the organization.

It is important to note that considerable professional judgment is required in determining the overall ratings. Accordingly, others could evaluate the results differently and draw different conclusions. It is also important to note that this report provides management with information about the condition of risks and internal controls at one point in time. Future changes in environmental factors and actions by personnel may significantly and adversely impact these risks and controls in ways that this report did not and cannot anticipate.

## Appendix C

### Audit Document Request Summary

Internal Audit requested governing contract agreements between UT Southwestern and the third-party auditors, audit work papers, and issued reports for the three in-scope projects. The table below outlines documents that Internal Audit was able to obtain and highlights exceptions in receiving the requested items.

Requested Item	Marsh		Moss Adams		Weaver	
	# Requested	# Received	# Requested	# Received	# Requested	# Received
Governing Contract	All Related Contracts	3	All Related Contracts	1	All Related Contracts	1
Work Papers	23	3	16	0	11	11
Reports	23	7	16	16	11	11

As noted in Observation 1, Facilities, Planning, and Construction was not able to provide the requested sample of 23 work papers and reports provided by Marsh delivered during the CUH audit. Moss Adams was unwilling to provide work papers behind their reports, citing an internal policy that does not permit the sharing of their work product.

## Appendix D

### Contract Inconsistencies Summary

Internal Audit’s review of construction audit contracts identified good overall contractual requirements, but there were inconsistencies in scope between the Marsh agreement and the Moss Adams & Weaver agreements. The table below notes gaps in contractual requirements and sample verbiage in instances with no scope in any current agreement. Sample verbiage is to be used as a starting point when working with legal to implement changes in future agreements.

Focus Area	Marsh	Moss Adams	Weaver	Sample Verbiage / Comments
Schedule Review	✘	✘	✘	Service provider should analyze monthly schedule updates from the General Contractor to provide guidance and input on upcoming milestones and risk mitigation efforts.
Change Order Review	✘	✔	✔	Leverage verbiage from Moss Adams & Weaver agreement.
Allowance Log Monitoring	✘	✔	✔	Leverage verbiage from Moss Adams & Weaver agreement.
Contingency Log Monitoring	✘	✔	✔	Leverage verbiage from Moss Adams & Weaver agreement.
Buyout Log Monitoring	✘	✔	✔	Leverage verbiage from Moss Adams & Weaver agreement.
Retainage Recalculation	✔	✘	✘	Leverage verbiage from Marsh agreement.
Lien Waiver Validation	✔	✘	✘	Leverage verbiage from Marsh agreement.
Change Order - SOV Reconciliation	✔	✘	✘	Leverage verbiage from Marsh agreement.
Risk Register Review & Monitoring	✘	✘	✘	Service provider should review General Contractor’s risk log to verify appropriate risks are identified, adequately monitored, and mitigated throughout the project.

Change Log Monitoring	x	x	x	Service provider should review General Contractor's change log to ensure potential changes are being communicated to the Owner timely.
Project Safety Review	x	x	x	Service provider should review the project to ensure the General Contractor's established safety criteria complies with and follows: <ul style="list-style-type: none"> <li>a. OSHA Regulations.</li> <li>b. Industry best practices and guidelines.</li> <li>c. UT System safety policies and procedures.</li> <li>d. UT Southwestern safety policies and procedures.</li> </ul>
Contract Analysis	x	x	x	Service provider should review and develop an abstract of all relevant contract agreements between Owner and General Contractor to establish audit criteria.
Competitive Bidding	x	x	x	Service provider shall review all bid tabulations and proposals submitted by subcontractors on the project to ensure the General Contractor appropriately bid out the project in compliance with the contract.
Stored Materials & Equipment Billings	x	x	x	Service provider should review and analyze support for billings of stored materials & equipment included with monthly payment applications.
Document Retention & Ownership	x	x	x	Service provider should retain developed documents and provide to Owner for up to the number of years required by UT system and/or UT Southwestern, after closeout of Project. Service provider shall provide all developed audit work papers, upon request of Owner.

## Appendix E

### Contract Scope Exclusion Summary

Internal Audit’s review of the TSA agreements with Moss Adams and Weaver noted 5 contractual requirements asked of the two auditors that Internal Audit considers to be outside the area of expertise for a construction auditor. The table below outlines the 5 clauses and provides reasoning for potentially removing these clauses as scope from future agreements.

Contract Language	Section	Explanation
<p>Confirmation of unit pricing to R.S. Means estimating manuals or other recognized sources with appropriate adjustments for applicable year, location, production rate, etc.</p> <p>1. Consideration shall be given to the labor rates, crew mix, and include analysis of overtime and/or double time, or an increase in resources, which may be imposed by the proper schedule or by Owner request.</p> <p>2. Applicability of estimate pricing methodology in relation to prime contract terms and conditions.</p>	3.1.5a	Comparing unit prices to a reputable source is good practice, but this should be limited to change orders. Initial pricing is obtained through a competitive bidding process, which results in the best rate UT Southwestern would receive.
Confirmation of competitive unit pricing with third party vendors of the same discipline.	5.1.5b	It is a redundant effort for a construction auditor to receive unit price quotes from other vendors. This activity is not in an auditor’s area of expertise and is best performed by architects, engineers, general contractors, or construction managers.
Confirmation of unit prices to costs on related or similar projects.	3.1.5c	It will be a big lift and difficult to get information specific to similar projects.
Provide input to Owner regarding the establishment of acceptable schedule of values for Project.	3.1.1b	This activity is not in an auditor’s area of expertise and is best performed by architects, engineers, general contractors, or construction managers.
Assist Project Manager (PM) in determination of “best value” subcontract selections.	3.1.2c	This activity is not in an auditor’s area of expertise and is best performed by architects, engineers, general contractors, or construction managers.

## Appendix F

### Payment Application Testing Summary

Internal Audit reviewed and validated the payment application testing activities of Marsh, Moss Adams, and Weaver against the requirements stated in their governing contract agreements. The table below details testing requirements and the auditors' performance.

Testing Attributes	Marsh	Moss Adams	Weaver
Review each monthly billing (For contractual compliance)	M1	✓	✓
Review and confirm appropriate support for general conditions and reimbursable payments	✓	✓	W1
Review vendors records to ensure subcontractor and PO amounts align with SOV	✓	✓	✓
Validate markups on pay apps are accurate	✓	✗	W2
Reviewed contractor records to ensure HUB costs are accurate	✓	✗	✗
Earned value billed amount is reconciled to supporting documentation (% Complete)	✓		
Total value on pay app was validated	✓		
Proof of payment and lien waivers were validated	✓		
Validate the payment applications reconcile with subcontractor change orders	✓		
Validated GC labor hours and burdens	✗	✓	W3
Assist PM in monthly application review		✓	✓
Verify labor costs against a reputable source (analyze overtime, extra resources, etc.)		✗*	✗
Confirm competitive unit pricing with other vendors		✗*	✗
Confirm unit prices to other projects		✗*	✗

Analyze contingency use for reasonableness			
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Key	Description
	Not a contractual requirement for the auditor.
	Present in all sampled work programs, test sheets, reports, etc.
	Not present in any sampled work programs, test sheets, reports, etc.
*	These activities are noted in Appendix E as activities that are atypical for an auditor to perform.
M1	Unable to receive all requested documents to validate requirement satisfied.
W1	Pay App 16 (1 of 11 tested) does not satisfy this requirement.
W2	Pay Apps 16 & 28 (2 of 11 tested) do not satisfy this requirement.
W3	Pay App 16 (1 of 11 tested) does not satisfy this requirement.

## Appendix G

### Project Monitoring Testing Summary

Internal Audit reviewed and validated the project monitoring activities of Marsh, Moss Adams, and Weaver against the requirements stated in their governing contract agreements. The table below details testing requirements and the auditors' performance.

Testing Attributes	Marsh	Moss Adams	Weaver
Guide Owner on project accounting & tracking		✓	✗
Assist Owner in establishing SOV		✗*	✗*
Provide recommendations regarding efficient and effective project cost monitoring		✓	✗
Assist PM with "best value" subcontractor selections		✗*	✗*
Track and confirm contingency, allowance, buyout, and recoverable statuses		MA1	W1

Key	Description
	Not a contractual requirement for the auditor.
✓	Present in all sampled work programs, test sheets, reports, etc.
✗	Not present in any sampled work programs, test sheets, reports, etc.
*	These activities are noted in Appendix E as activities that are atypical for an auditor to perform.
MA1	Moss Adams monitored recoverables, but not contingency, allowances, or buyout.
W1	Weaver monitored recoverables, but not contingency, allowances, or buyout.

## Appendix H

### Change Order Management Testing Summary

Internal Audit reviewed and validated the change order testing activities of Marsh, Moss Adams, and Weaver against the requirements stated in their governing contract agreements. The table below details testing requirements and the auditors' performance.

Testing Attributes	Marsh	Moss Adams	Weaver
Confirm changes are appropriate in scope		✓	✗
Validate change order markups are appropriate		✓	✗
Validate pricing for reasonableness		✓	✗
Ensure change orders reconcile with the corresponding schedule of values	✓		

Key	Description
	Not a contractual requirement for the auditor.
✓	Present in all sampled work programs, test sheets, reports, etc.
✗	Not present in any sampled work programs, test sheets, reports, etc.

## Appendix I

### Miscellaneous Testing Summary

Internal Audit reviewed and validated miscellaneous testing request required of Marsh, Moss Adams, and Weaver against the requirements stated in their governing contract agreements. The table below details testing requirements and the auditors' performance.

Testing Attributes	Marsh	Moss Adams	Weaver
(If requested) Attend monthly meetings		✓	N/A
(If requested) Resolve issues with General Contractor, Subs, Designers, or Consultants		✓	✓
(If requested) Meet to brief UTSW management on project		N/A	N/A
(CUMMINGS AUDIT) Review associated contracts	✗		
(CUMMINGS AUDIT) Review change management contract requirements	✗		
(CUMMINGS AUDIT) Review design / change process	✗		
(CUMMINGS AUDIT) Review labor estimates and backup	✗		
(CUMMINGS AUDIT) Review equipment, tool, safety estimates and backup	✗		
(CUMMINGS AUDIT) Review overhead and GC estimates and backup	✗		
(AUSTIN AUDIT) Review contract requirements for GCs	✗		
(AUSTIN AUDIT) Validate general conditions payments made in claim period via pay apps	✗		
(AUSTIN AUDIT) Review backup for overhead and general conditions costs	✗		

Key	Description
	Not a contractual requirement for the auditor.
✓	Present in all sampled work programs, test sheets, reports, etc.
✗	Not present in any sampled work programs, test sheets, reports, etc.
N/A	Per correspondence with Senior PM, auditor was not asked to assist with process.

## Appendix J

### Reporting Testing Summary

Internal Audit reviewed and validated the reporting activities of Marsh, Moss Adams, and Weaver against the requirements stated in their governing contract agreements. The table below details testing requirements and the auditors' performance.

Testing Attributes	Marsh	Moss Adams	Weaver
Each monthly pay app has a corresponding report	M1		
Report includes executive summary	M2		
Report includes detailed discussion	✓		
Report includes summary tables with financial and qualitative data	✓		
Report documents conclusions and recommendations for each pay app	✓		
(SPECIAL AUDIT) Report includes contractual assessment	✓		
Report that documents project expenditure progress		✓	✓
Provide report to PM on findings and cost recovery items		✓	✓

Key	Description
	Not a contractual requirement for the auditor.
✓	Present in all sampled work programs, test sheets, reports, etc.
✗	Not present in any sampled work programs, test sheets, reports, etc.
M1	Per conversation with Senior PM, Marsh tested and issued a report for each payment application, but Internal Audit was not able to receive and validate the population.
M2	Of the 7 reports observed, 4 did not include an executive summary.

