



## *Office of the City Auditor*

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TO: Mayor and Council Members

FROM: Stephen L. Morgan, City Auditor

DATE: December 11, 2007

SUBJECT: Austin Water Utility Easement Releases and Infrastructure Relocations

Our Office has completed work on the Austin Water Utility Easement Releases and Infrastructure Relocations audit. This work was undertaken as a result of our initial risk assessment conducted for the Austin Water Utility audit initiative. This report, in the form of the presentation to this committee and its attachments, transmits our findings.

Early work on this audit informed us as to the complexity of the processes involved in releasing the Utility's easements and relocating its infrastructure. There are three City departments which have major roles: the Austin Water Utility, Watershed Protection and Development Review, and Public Works. Within these departments, multiple divisions supply various services. Other City departments, such as the Law Department and the Economic Growth and Redevelopment Services Office, may also be involved, depending on the nature of the project. In addition, there are multiple processes with different process owners that cut across the departments involved. Through Control Self-Assessment (CSA) as part of this audit project, participants from these departments identified a number of significant risks that exist within these processes, along with controls to mitigate the risks.

We found that the authority and responsibility for these multiple functions are decentralized to the various departments without a centralized control to ensure that the various easement management processes are consistent and flow seamlessly among departments and workgroups involved. We also found that responsibility for easement-related records and information is fragmented, so that staff involved in easement management do not always have current and/or correct information with which to do their jobs.

We have issued one recommendation, with which management has concurred.

We would like to thank management and staff of the involved departments for their participation in the CSA process and for their assistance and cooperation with the audit work, along with the City Manager and the Assistant City Managers for their support of the work.

Stephen L. Morgan, CIA, CGAP, CFE, CGFM  
City Auditor





**Austin Water Utility (AWU)  
Utility Easement Releases & Infrastructure Relocations  
Audit Project  
Utilizing Control Self-Assessment (CSA)**

**Office of the City Auditor  
Report To  
Council Audit & Finance Committee  
December 11, 2007**

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Good Morning Mayor Pro-Tem, Council Members.

This presentation constitutes our report on the Austin Water Utility Easement Release and Relocation Audit.

## Background

### **Project Origin:**

AWU Risk & Vulnerability Assessment

→ Identification of Easement Releases  
& Relocations as risk issues

→ Audit/CSA Project

### **Importance of Easements:**

Legal Rights to use of real property to install,  
access, and maintain utility infrastructure

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This project arose from the initial risk assessment that was conducted under our Office's Austin Water Utility Initiative.

That assessment identified Water Utility Easement Releases and Relocations as risk issues.

When we selected this area to audit, we decided to pioneer the use of Control Self Assessment (CSA) as an audit methodology, because it is known to facilitate solution designs in cross-functional situations that benefit all parties to the process.

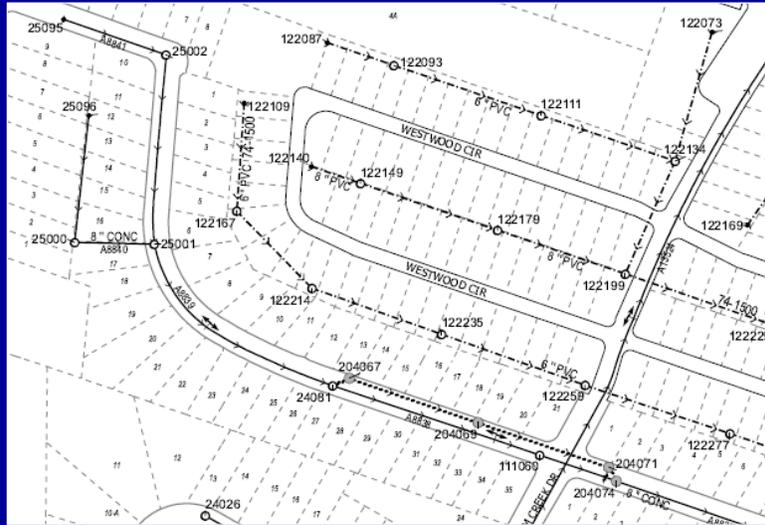
An Easement is the legal right to enter and use real property of others for a specific purpose. In this case the purpose is to install and maintain Utility infrastructure.

## Sewer Line Within Easement Bounds



This graphic displays the ideal state – the sewer line is fully within the metes and bounds of the easement.

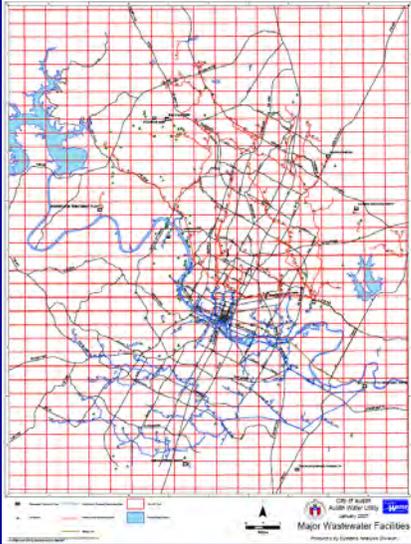
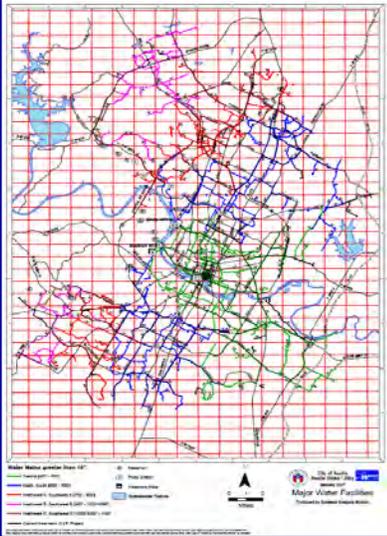
# Diagram of Neighborhood Wastewater Lines



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Easements must be acquired and maintained in contiguous configuration as they cross property lines within each neighborhood...

# Major Water/Wastewater Lines



and throughout the entire service area.

## Groups/Processes Involved

### Multiple Divisions of Multiple Departments

- AWU
- WPDR One-Stop Shop
- Public Works
- Law
- EGRSO
- And others

### Multiple Processes

- Planning & Design
- Review
- Construction
- Inspection
- Closeout
- Legal
- Info Management
- Records Management

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There are multiple departments involved in easement management and multiple groups within the departments.

Departments with major responsibilities for managing Water Utility Easements are:

- Austin Water Utility,
- Watershed Protection and Development Review, and
- Public Works.

Other Departments may be involved depending on the nature of the process or project. Examples include the Law Department and the Economic Growth and Redevelopment Services Office.

Multiple processes are involved, many of which are tied to development: Planning & Design, Review, Construction, Inspection, and Closeout (required for Certificate of Occupancy).

Other cross-cutting functions, such as legal services, are also indirectly involved.

Information Management and Records Management are handled separately by various work groups.





## Objective & Scope

- **Objective:** Assess Controls for Cost-Effective Management of Austin Water Utility Easement Release and Infrastructure Relocation
- **Scope:** Austin Water Utility (AWU) easements
  - Initial focus: easement release & infrastructure relocations
  - Also involved or affected:
    - easement acquisition and development processes that later have an effect on easement releases and relocations
    - other departments that use the same processes for easement management

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Our objective was to assess controls for cost-effective management of Austin Water Utility Easement Release and Infrastructure Relocations.

Our original scope included only Austin Water Utility Easement release and infrastructure relocations. However we found that easement acquisition, and both public and private development activities, later have an effect on issues related to easement releases and relocations.

And ultimately, the issues identified through the Control Self-Assessment steps could be applicable to other City departments that use or manage easements.

## Methodology

- **Control Self-Assessment (CSA)** which consisted of audit-facilitated group meetings of easement process participants for the purpose of identifying and prioritizing risks and controls associated with effective, efficient easement management
- **Corroborating interviews, electronic files, and documents for audit findings**

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We used Control Self Assessment as our primary survey phase methodology. The CSA sessions consisted of audit-facilitated group meetings of easement process management and staff. The purpose of these meetings was to identify and prioritize risks and then identify needed controls associated with effective, efficient easement management. Benefits of CSA include:

- capitalizing on direct knowledge of involved groups,
- providing a collaborative process for identifying needed controls, and
- facilitating communication among process participants.

We used corroborating interviews, electronic files, and documents to substantiate our audit findings.

## Audit Standards

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We conducted this audit in accordance with Generally Accepted Government Auditing Standards.

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We conducted this audit in accordance with Generally Accepted Government Auditing Standards.

# CSA Results

## CSA Results vs Audit Results

- Testimonial evidence
- From easement process management and staff

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Next we will present the Control Self-Assessment results. Audit results will be presented later in this report.

The results of the CSA are not audit findings. The results consist of issues identified by management and staff who participated in the CSA sessions. These findings are differentiated from audit findings only by the level and types of evidence collected. The CSA results represent testimonial evidence, which we normally would corroborate through other types of evidence to produce audit findings. Where we did invest the time to collect additional evidence, we present the results as audit findings.

Although we did not use additional audit steps to confirm all of the risks and control weaknesses identified, we have a high degree of confidence that we could do so with additional time and resources, because the issues were identified and discussed among the participating management and staff who actually deal with these problems as part of their jobs. In other words, the CSA as a tool supports the validity of testimonial evidence through immediate corroboration.

## CSA Results: Risks Identified

### Risk Overview

>131 Risks identified → 47 Groups → Focus on highest risk areas & underlying causes

>Rated for severity & probability, for combined risk/vulnerability ratings

>174 Controls identified to address the risks/issues

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- The CSA participants identified 131 risks, which are problems with easement management that they have encountered in the past or are now encountering. The problems they are encountering are likely to arise from weaknesses or gaps in controls.
- We then organized the risks into 47 risk groups for focus and rating.
- Participants then rated each risk group in terms of severity and probability, to produce combined risk and vulnerability ratings for each risk group.
- Finally, the participants identified 174 existing or needed controls to address the highest-rated risk groups.

# CSA Results Risks/Vulnerabilities Rated

AWU Examinations and Resolutions CSA

#	Risk Groups Identified by CSA	Max. Points	R/V	Actual Score	Points Earned	Points Available	Points %
1	Equipment Missing - Equipment Document not recorded	10	R	10	10	10	100
2	Construction Error	10	R	10	10	10	100
3	Workload Issues	10	R	10	10	10	100
4	Safe Working Conditions and Schedule for City	10	R	10	10	10	100
5	Incidents or Accidents etc.	10	R	10	10	10	100
6	Law Enforcement Obligations Lacked	10	R	10	10	10	100
7	Records Not Maintained/Incomplete	10	R	10	10	10	100
8	Inspection Incomplete	10	R	10	10	10	100
9	Local Impact Incomplete	10	R	10	10	10	100
10	Delays to Customer and Asset Costs	10	R	10	10	10	100
11	CA - All Elements in Place - Missing	10	R	10	10	10	100
12	Review Criteria - Incomplete or Inconsistent	10	R	10	10	10	100
13	New Hire Rates Incomplete	10	R	10	10	10	100
14	Reinstatement Issues	10	R	10	10	10	100
15	Time Impact of Resigns	10	R	10	10	10	100
16	Production Production Capabilities Imbalance	10	R	10	10	10	100
17	Review of Production Services/Requirements	10	R	10	10	10	100
18	Staffing of Divisions - Incomplete	10	R	10	10	10	100
19	Equipment Available	10	R	10	10	10	100
20	Local Agency Incomplete	10	R	10	10	10	100
21	Procedures Not Under	10	R	10	10	10	100
22	Training Needs	10	R	10	10	10	100
23	Off-Loading at Dispatch - Incomplete	10	R	10	10	10	100
24	Law Enforcement Requirements	10	R	10	10	10	100
25	Off-Loading Incomplete	10	R	10	10	10	100
26	Consent Procedures needed for alternative problems	10	R	10	10	10	100
27	Review Process - Incomplete/ Inconsistent	10	R	10	10	10	100
28	Review of Operations - Control of Production Development	10	R	10	10	10	100
29	New Hire Rates - Incomplete/ Inconsistent	10	R	10	10	10	100
30	Staffing of Divisions - Incomplete/ Inconsistent	10	R	10	10	10	100
31	Consent Procedures needed and unrecorded/ unapproved	10	R	10	10	10	100
32	Construction of Alternative Projects	10	R	10	10	10	100
33	Equipment Missing	10	R	10	10	10	100
34	Local Agency Incomplete	10	R	10	10	10	100
35	Access to Staff - Incomplete - Inconsistent	10	R	10	10	10	100
36	Access to Staff - Incomplete - Inconsistent	10	R	10	10	10	100
37	Review & Control - Incomplete/ Inconsistent	10	R	10	10	10	100
38	Legal Review of Staff	10	R	10	10	10	100
39	Legal Review of Operations (Cost of Revenue)	10	R	10	10	10	100
40	Legal Review of Staff	10	R	10	10	10	100
41	Procedures Incomplete	10	R	10	10	10	100
42	Procedures Incomplete	10	R	10	10	10	100
43	Emergency Procedures needed	10	R	10	10	10	100
44	Consent Procedures needed	10	R	10	10	10	100
45	Review of Staffing/ Operations	10	R	10	10	10	100
46	Review of Staffing/ Operations	10	R	10	10	10	100
47	License Agreements - Use of all Approp.	10	R	10	10	10	100

Risk Group: R = Review Process 1-100 and Resolved; C = Construction & Equipment; O = Other

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This shows an overview of the risk ratings in descending risk order, with highest-rated risks in red at the top, and the lower-rated risks in yellow and green at the bottom.

A copy of these ratings is included with this report as Attachment B.

Next, we'll discuss some of the highest-rated risk areas.

# CSA Results High Risk Areas

## Direct Risk Areas

- Missing easement documents
- Construction Errors
- Easement errors
- Delays that increase City costs
- Incomplete inspection
- Incomplete developer documentation

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For purposes of this report, we use the term “direct risk areas” to describe potential negative conditions directly pertaining to the easements or infrastructure.

The highest-rated direct risk areas were:

- Missing easement documents,
- Construction errors,
- Easement errors,
- Delays that increase City costs,
- Incomplete inspection, and
- Incomplete developer documentation.

# CSA Results

## High Risk Areas

### Causal Risk Areas

- Lack of coordination in the various roles in the easement process
- Incomplete or inaccurate information
- Inefficient/ineffective records management
- Process gaps
- Planning, funding, and coordination for infrastructure projects
- Workload, staffing, and turnaround times

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We use the term “causal risk areas” to refer to the potential causes of the direct risk areas.

Risk areas causal to the highest-rated direct risks were:

- Lack of coordination in the various roles in the easement process;
- Incomplete or inaccurate information;
- Inefficient and/or ineffective records management;
- Process gaps in easement management;
- Need for improved planning, funding, and coordination for infrastructure projects; and
- Workload, staffing, and turnaround times.

## CSA Results When Easements Go Wrong

CSA participants cited examples of what happens when robust controls are not in place.

### Construction examples:

- Construction changes that are not recorded or tracked
- Construction that is started without easement document
- A temporary easement that expires before construction is completed

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CSA participants cited examples of what happens when robust controls are not in place.

Examples of control weaknesses or gaps in easement management with regard to infrastructure construction include:

- Construction changes not recorded or tracked resulting in errors on the final drawings,
- Starting construction without easement documents in place, and
- Expired temporary easements.

## CSA Results When Easements Go Wrong

CSA participants cited examples of what happens when robust controls are not in place.

### **Annexation or purchase examples:**

- Annexation completed without obtaining infrastructure and easement documentation
- Lack of building permit controls in ETJ resulting in structures that are built on top of easements

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Examples of control weaknesses or gaps in easement management with regard to annexations include:

- Annexation being completed without obtaining infrastructure and easement documentation from the entity that has built or maintained it prior to annexation; and
- Structures being built on top of easements in the ETJ, where the City doesn't have building permit controls.

# CSA Results

## When Easements Go Wrong

CSA participants cited examples of what happens when robust controls are not in place.

### Inspection Examples:

- Inspectors arriving after infrastructure is already buried
- Inspection conducted without easement documentation under pressure to issue Certificate of Occupancy on Developer timelines

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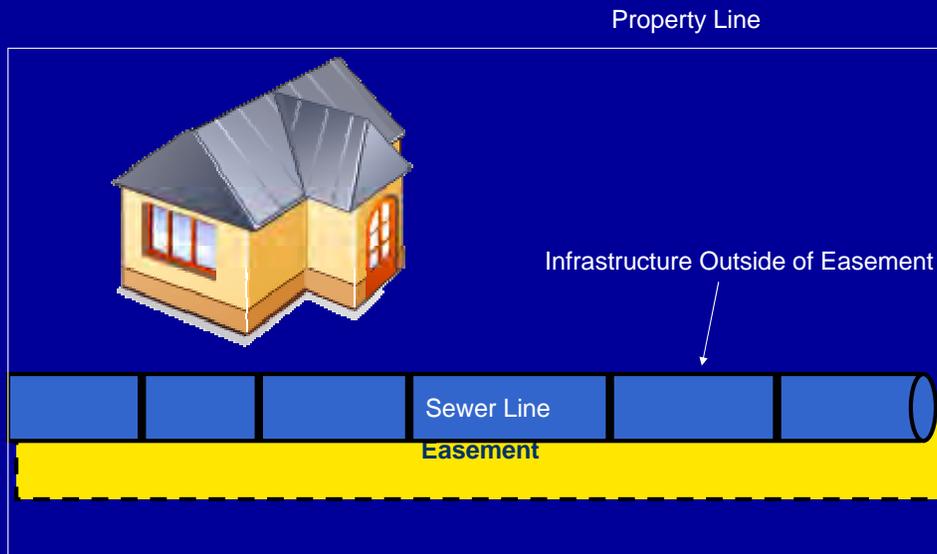
Poor inspection controls can also result in a disconnect between the documented easement and the infrastructure construction.

Examples include:

- Inability to verify that the infrastructure is within the easement after the infrastructure is already buried, or
- Inspection being conducted without easement documentation, under pressure to issue Certificate of Occupancy on Developer timelines.

The following are examples of what you can see on the ground when one of these problems occurs.

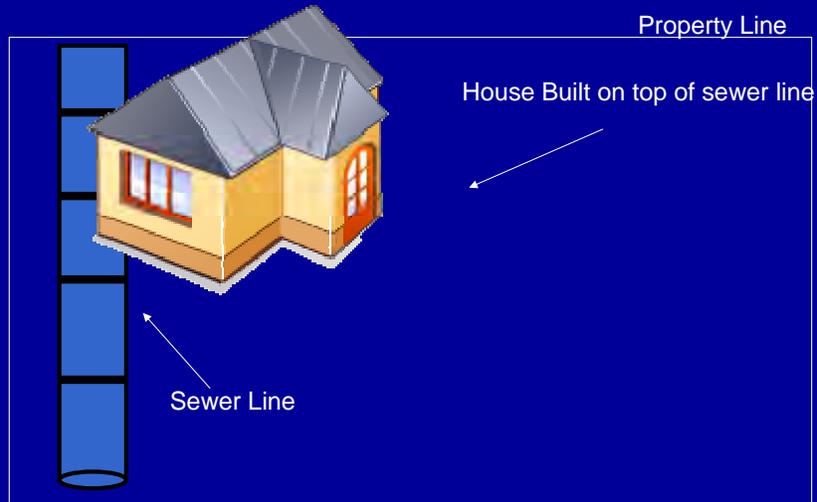
# Wastewater Line Outside Easement



20

In this case, the sewer line is outside of the documented easement. This could be the result of any of the control weaknesses that we just discussed.

## Structure Built on Sewer Line

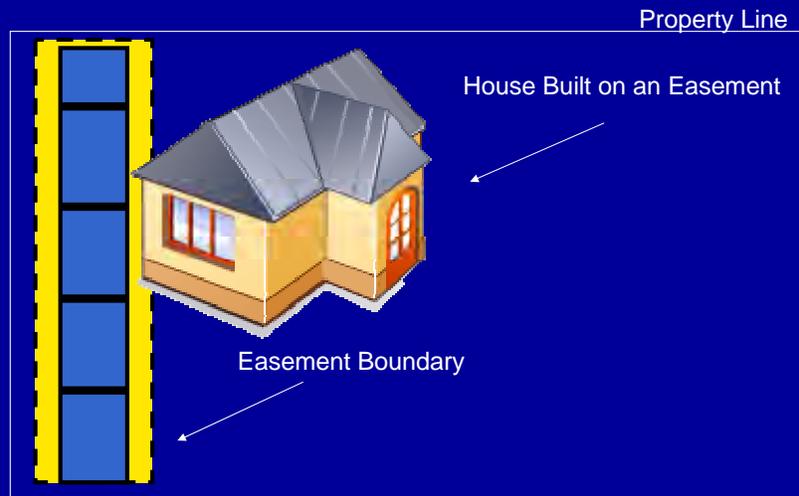


21

In this case, there is a structure built over an existing sewer line.

In addition to the control weaknesses already cited, this situation can result from missing, unidentified, uncorrected, or ignored easement documents.

## Structure Built on Easement



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The same control gaps or weaknesses may also result in a structure being built that encroaches on the easement metes and bounds without actually covering the infrastructure.

Problems can then occur when the easement is needed for maintenance or repair by the utility.

## Risk Exposure in Easement-Related Activities

<b>Reviewed</b> (Development One-Stop Shop)	FY05 Act.	FY06 Act.	FY07 Bud.
New Commercial Constr. Applic's	444	554	697
Subdivision & Site Plans	901	836	950
New Residential Applic's	4,623	4,991	5,067

*Source: COA ePerformance Measures, unaudited*

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Almost all construction projects, whether they are commercial, residential, or public CIP projects, require water and/or wastewater lines. Easements must be obtained for these lines that are contiguous with existing Utility infrastructure.

This information presents the volume of reviews coordinated by the City's One-Stop Shop in the following areas:

- New Commercial Construction Applications,
- Subdivisions and Site Plans reviews, and
- New Residential Applications.

For the most part, these numbers increased from FY05 to FY06 and were projected even higher for FY07.

## Risk Exposure in Easement-Related Activities

W/WW line Rehab & Constr:	FY05 Act.	FY06 Act.	FY07 Act.
No. of W/WW Projects	48	64	118
Linear ft. pipe installed (W/WW)	21,564	20,072	21,506

*Source: COA ePerformance Measures, unaudited.*

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Within the Water Utility, pipeline rehabilitation and construction also increased between FY05 and FY07, as shown by the following measures.

- The number of Water and Wastewater projects scheduled; and
- Linear feet of pipe installed, for both water and wastewater.

## Risk Exposure in Easement-Related Activities

- Increased volume of activity FY05 to FY07
- +
- Workforce turnover in easement-related activities
- =
- Increased exposure due to gaps/weaknesses in the control environment

Therefore, investment in control improvement is important.

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When you take the increased volume of activity flowing through the various easement processes and add that to the relatively high degree of turnover in easement-related jobs among the CSA participants, what you have is increased risk exposure.

The conclusion is that investment in control improvement is important.

## Related Management Efforts Reportedly Underway

1. Restructuring some CTM and WPDR GIS functions
2. Drainage Infrastructure GIS (DIG) project
3. Increasing survey and plat/plan accuracy
4. Strengthening inspection plans for CIP projects
5. Pursuing missing private development easement records
6. Restoring development processes / strengthening internal controls

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Different departmental managers have initiated a number of efforts that will strengthen easement management.

- CTM is restructuring its GIS base mapping function with WPDR's GIS group.
- WPDR's Drainage Infrastructure GIS project is a multi-million dollar, 5-year Capital Improvement Project to build a comprehensive drainage infrastructure GIS. It entails GPS field data collection using a number of methods, along with a massive data research and entry project using historical map documents and construction plans.
- PW Real Estate division is seeking to increase survey and plat/plan accuracy by evaluating procedural changes needed for the installation of systems that use GPS technology to pinpoint location data.
- Public Works will be requiring that the expiration dates of temporary easements be indicated in CIP inspection plans and that easements consistently be part of the CIP inspections.
- AWU is working to resolve pending developer project records that need to be submitted.
- The CMO has expressed support on the easement leadership issue, to improve easement management in particular, and in the context of other broader discussions on strengthening internal controls.

These are all efforts reported by management as the CSA project was in process.

# Audit Results

Easement management is inter-departmental and lacks:

- A coordinating authority with responsibility to see that easement management flows seamlessly between departments and work groups
- A central repository for easement-related information and records management which serves all City staff needing access to current and accurate easement information

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Up to now, we have been presenting the results of the Control Self-Assessment process. Now we are presenting audit findings. As we said before, audit findings require more robust evidence than required for the CSA findings.

We have two audit findings:

1. The first is that Easement Management is interdepartmental and lacks a coordinating authority with responsibility to see that easement management flows seamlessly between departments and work groups.
2. The second is that because of the fragmentation of responsibility for easement-related information and records management, no central repository currently exists on which staff needing access to current and accurate easement information can rely.

## Audit Recommendation

The City Manager should vest a member of her management team with both the authority and responsibility for strengthening easement management controls and monitoring their effectiveness. The City Manager should specify the following to be included among the duties of the assignee:

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We have issued one recommendation: that the City Manager should vest a member of her management team with both the authority and responsibility for strengthening easement management controls and monitoring their effectiveness. The City Manager should specify the following be included among the duties of the assigned party:

## Audit Recommendation (Continued)

### Duties to include:

1. Assembling a team of key easement process participants to prioritize and correct weaknesses and gaps in easement controls and to measure and monitor the effectiveness and efficiency of easement management.

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First – that the assigned party assemble a team of key easement process participants to prioritize and correct weaknesses and gaps in easement controls. The assigned party should also monitor the effectiveness and efficiency of easement management.

## Audit Recommendation (Continued)

### Duties to include:

2. Designating a process owner for centralized easement record management and transferring all easement record management functions to that owner, and
3. Establishing a centralized information management system
  - o To contain all information needed to effectively and efficiently manage all easement related activities, and
  - o To which all City management and staff with easement related duties have access.

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Second – that the assigned party designate a process owner for centralized easement record management and transfer all easement record management functions to that owner.

Finally – that the assigned party should be responsible for ensuring that easement information management is centralized so that all who need current, accurate information to perform their job duties have access to that information.

## Management Response

*Management concurs with your recommendation to strengthen City's easement management controls and to monitor its effectiveness. Under the leadership of Public Works Department, we plan to assemble a team of multidepartment staff from various City departments which deal with easements to review easement management controls for improvements and to evaluate establishing a centralized record management for easements. I expect this team to be in place by January 2008 to begin developing a coordinated implementation plan.*

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Management has agreed with this recommendation.

A copy of the management response is included with this report as Attachment A.

# Thank You

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- We would like to thank management and staff of the involved departments for their participation in the CSA process and for their assistance and cooperation with the audit work, along with the City Manager's Office and the Assistant City Managers for their support of the work.

# Auditors

## Audit Team

Joan Ewell, CISA, CCSA, Auditor-in-Charge

Jojo Cruz, Auditor

Naomi Marmell, Audit Intern

Amy Tripp, Audit Temp

## Assistant City Auditor

C'Anne Daugherty, CPA, CIA

## Deputy City Auditor

Taylor Dudley, CIA, CFE, CGAP

## City Auditor

Stephen L. Morgan, CIA, CGAP, CFE, CGFM





**Austin Water Utility (AWU)  
Utility Easement Releases & Infrastructure Relocations  
Audit Project  
Utilizing Control Self-Assessment (CSA)**

**Attachment A – Management Response**





RECEIVED  
DEC 06 2007

**MEMORANDUM**

CITY OF AUSTIN  
OFFICE OF THE CITY AUDITOR

**TO:** Stephen Morgan, City Auditor  
**FROM:** Rudy Garza, Assistant City Manager  
**DATE:** December 6, 2007  
**SUBJECT:** Management's Response on Utility Easements Assessment

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I appreciate the opportunity to provide City management's response on the Utility Easements & Infrastructure Relocations Control Self-Assessment project completed by your office.

Management concurs with your recommendation to strengthen City's easement management controls and to monitor its effectiveness. Under the leadership of Public Works Department, we plan to assemble a team of multidepartment staff from various City departments which deal with easements to review easement management controls for improvements and to evaluate establishing a centralized record management for easements. I expect this team to be in place by January 2008 to begin developing a coordinated implementation plan.

Please contact me if you should have any questions.

Rudy Garza  
Assistant City Manager

cc : Toby Hammett Futrell, City Manager  
Laura Huffman, Assistant City Manager  
Greg Meszaros, Director, AWU  
Joe Ramos, P.E., Acting Director, PW  
Victoria Li, P.E., Director, WPRD





**Austin Water Utility (AWU)  
Utility Easement Releases & Infrastructure Relocations  
Audit Project  
Utilizing Control Self-Assessment (CSA)**

**Attachment B – Risk Ratings**



#	Risk Groups Identified by CSA	Risk Group	R/V Rank	Severity Total Avg. Score	Proba-bility Total Avg. Score	Total Severity X Probabil-ity Avg. Score
18	Easement Missing - Easement Document not recorded	R,C	8	2.9	2.8	7.9
5	Construction Error	C	8	2.7	2.5	6.7
47	Workload issues	O	8	2.6	3.0	7.8
10	Delays increasing costs and schedule for City	R	8	2.6	2.8	7.0
26	Incomplete or inaccurate info	I	7	2.7	2.3	6.0
13	Developer Obligations Unmet	R,C	7	2.6	2.3	5.9
37	Records Mgt. ineffective/inefficient	I	7	2.6	2.3	5.8
30	Inspection incomplete	C	7	2.6	2.0	5.1
8	Cost Impact excessive	R	6	2.4	2.7	6.4
11	Delays to Customer (and assoc costs)	R	6	2.4	2.5	6.0
36	QA on Easements or plans - missing	R,C	6	2.4	2.8	6.5
39	Review Criteria - unclear or inconsistent	R	6	2.3	3.0	7.0
41	Review Parties incomplete	R	6	2.3	2.7	6.1
38	Reimbursement issues	O,R	6	2.3	3.0	6.8
45	Time Impact of Research	I	6	2.2	3.0	6.5
44	Production/ production capability Imbalance	O	6	2.1	3.0	6.2
25	Hiring delays increasing workload pressures	O,I	6	2.3	2.8	6.3
28	Info capture of Revisions - incomplete	O,I	6	2.2	2.8	6.1
20	Easements Multiple	R,I	6	2.2	2.7	6.0
9	Cost Sharing inconsistent	R	6	2.1	2.7	5.6
34	Prescriptive rights unclear	R,I	6	2.2	2.5	5.4
46	Training needed	O,I	6	2.1	2.5	5.3
27	Info Capture at Closeout - incomplete	I,C	6	2.4	2.8	6.7
19	Easement Space sharing issues	I	5	2.5	2.3	5.8
29	Info Linkage incomplete	I,R	5	2.4	2.3	5.6
6	Corrective procedures needed for easement problems	R,C	5	2.3	2.3	5.4
42	Review Process - inconsistent/ Incomplete	R	5	2.3	2.3	5.4
12	Design of relocation - control of private development	C	5	2.3	2.3	5.3
14	Developer/City Obligations Unclear	R,C	5	2.4	2.0	4.8
33	Platting of subdivision allowed w/o easements per LDC	O,R	5	2.3	2.0	4.6
3	Annexation - inherited and unidentified easement	R	5	2.3	2.0	4.6
23	Exceptions for City-partner projects	R,I	5	2.3	2.0	4.6
16	Easement Error	R	5	2.2	2.0	4.3
7	Cost Approval limited	R,O	5	2.1	2.0	4.1
1	Access to Info - External - incomplete	I	5	2.2	2.3	5.2
2	Access to Info - Internal - incomplete	I	5	2.4	2.3	5.4
43	Roles & coord. Clarity needed	R,O	5	2.0	2.0	4.0
31	Legal exposure or issue	O,I	4	2.8	1.8	5.0
4	Asset Protection provisions missing (Loss of Revenue)	O	2	1.8	2.0	3.6
15	Duplicate Effort	R,O	2	1.7	2.3	4.0
35	Priorities compromised	O	1	2.1	1.7	3.4
22	Enforcement incomplete	O	1	2.4	1.8	4.2
24	Exemptions for State/County/other projects	I	1	2.3	1.8	4.1
21	Emergency provisions needed	I	1	2.3	1.3	3.0
17	Easement Language issues	R	0	1.9	1.8	3.4
40	Review Packet Completeness	R	0	1.9	1.3	2.6
32	License Agreements - use of as approp	R	0	1.8	1.7	2.9

Risk Group: R = Review Process; I = Info and Records; C = Construction & Inspection; O = Other

HIGH	2.5 - 3.0
MEDIUM	2.0 - 2.4
LOW	1.5 - 1.9

