

# Street Cut Standards and Implementation – Update on Ordinance Amendments

Transportation and Telecommunications  
Committee

June 28, 2004

# Purpose

- **To update Council on two amendments to ROW management ordinance approved November and December 2003**
- **To recommend revisions and to explain implementation guidelines**
- **To provide an update on cut permit and enforcement activity**
- **To inform Council about the Utilicor Method of excavation**

# Background

- **Right-of-Way ordinance approved by City Council January 24, 2001, effective March 1, 2001**
- **1<sup>st</sup> ordinance amendment effective November 2003**
  - Performance bond required for large projects
  - Slurry Seal treatment (or equivalent method) required to be applied to street surface where “new” asphalt street has been cut
  - Permittee required to perform appropriate materials tests to ensure quality control for the trench backfill and pavement construction phases of street repair

# Background

- **2<sup>nd</sup> ordinance amendment effective December 2003**
  - Prohibits the use of non-washable substances to mark the location of existing underground utilities
  - Markings are in violation if they remain visible after 30 days

# 1<sup>st</sup> Ordinance Amendment Effective November 2003

## ● Performance Bonds

- Performance bond required for large projects
- Large project is defined as pavement excavation or boring for installation of a new facility or for a significant relocation other than an excavation or boring for a localized new service line installation or facility repair.
- Letter of Credit and Escrow Fund are acceptable alternatives
- Bond can be
  - Per project – value of project
  - Aggregate basis – value of projects at any one time
- Bond amount to cover work associated with temporary and permanent repairs of the City's infrastructure
- Bond premiums vary from one Surety to another, but can range from 0.5% to 2% of construction cost

# 1<sup>st</sup> Ordinance Amendment Effective November 2003

## ● Performance Bonds

- All City projects performed under contract required bonds prior to the amendment and continue to require contractors to obtain a performance bond
- Bonds furnished by Comcast in their franchise agreement provide acceptable coverage to meet ordinance requirement
- Electric, gas, and telecom permit applications are reviewed for bond requirement
- Since November 1, 2003, only 3 projects have been submitted for a cut permit that require a performance bond
  - 1 SBC
  - 2 TXU Gas
- 9-10 TXU Gas projects requiring bonds will be submitted for pipe upgrade work in advance of City resurfacing projects

# 1<sup>st</sup> Ordinance Amendment Effective November 2003

- **Performance Bonds**

- **SBC and TXU Electric Delivery have requested the City to waive the bonding requirement for their projects. Their projects are on hold**
- **A bond waiver provision was not included in the November 2003 amendment**
- **A bond waiver provision would require an ordinance amendment approved by Council**

# 1<sup>st</sup> Ordinance Amendment Effective November 2003

## ● Performance Bonds

- During development of the 2001 ROW management ordinance, Public Service Providers (PSP) opposed bonds, citing:
  - Minimal contractors problems
  - Rectified problems when requested
  - Undue administrative burden
- Since implementation of the ROW management ordinance, only 1 PSP has failed to complete repairs to a street cut. PSP went out of business
- PSP that bought the failed company's assets was required by PWT to make the street repairs before approval of new permits
- Since November 1, 2003, only 3 projects and potentially 10 more permits require a bond



# 1<sup>st</sup> Ordinance Amendment Effective November 2003

## ● Performance Bonds

- PWT & CAO met with SBC for discussion of proposed bond waiver
- Proposed Bond Waiver Terms and Conditions
  - Public Service Provider (PSP) has an acceptable performance history in the City of Dallas
  - PSP must provide documentation that demonstrates it has unencumbered assets or reserves sufficient to cover the amount of the bonds
  - PSP has an acceptable record of compliance with the Right-of-Way Management Ordinance
  - Bond waiver application would be required annually
  - A refusal to comply with the Right-of-Way Management Ordinance would be grounds for termination of any application and any existing waiver
  - If waiver is terminated, PSP shall cease all work in the right-of-way until a bond is provided

# 1<sup>st</sup> Ordinance Amendment Effective November 2003

- **Performance Bonds**

- Recommend an ordinance amendment establishing the terms and conditions of granting a bond waiver
  - **Performance history**
    - no documented failure to perform within last 2 years
  - **Acceptable record of compliance**
    - compliance with all administrative responsibilities such as company registration
    - timely corrections to noted violations regarding street repair
    - No refusal to comply with any provision of the ROW management ordinance

# 1<sup>st</sup> Ordinance Amendment Effective November 2003

- **Sealer treatment required when cutting “new” asphalt street**
  - A “new” street is defined as being newly constructed, reconstructed, or resurfaced within the last 5 years
  - Since November 1, 2003, 92 cut permits on “new” asphalt streets have been approved and repairs completed, approximately 1.0 % of all cuts permitted. These streets will be slurry sealed or equivalent treatment
  - The responsible excavators are provided the opportunity to utilize the City’s slurry seal contract (See next slide for timeline)
  - To date, all locations have been added to the City’s contract
  - Locations not included in City contract are responsibility of PSP
  - Sealer treatment is not required if the required repairs are made to match pavement color and are approved by the Director of PWT
  - PWT has approved the Utilicor method (See Appendix B) as an acceptable method of excavation and repair to waive the sealer treatment requirement

# 1<sup>st</sup> Ordinance Amendment Effective November 2003

- **Sealer treatment required when cutting “new” asphalt street**
  - **Implementation timeline utilizing City contract**
    - **Permits completed September 1 thru July 31 are submitted in intervals to Street Services (STS) for evaluation to add to the March to September contract**
    - **Permits completed thru July 31 not included in City contract are responsibility of the PSP to complete before the end of the current year**
    - **Permits completed after July 31 may be slurry sealed during the next year’s paving season**

# 1<sup>st</sup> Ordinance Amendment Effective November 2003

- **Construction materials testing required**
  - Ensures trench backfill meets required compaction specifications
  - Materials testing is performed on all City projects to ensure that contract specifications are being met
  - Non-city permittees are now required to provide material tests to show compliance when requested
  - TXU Gas, SBC, and others are utilizing “flowable” backfill as an alternative to the materials testing requirement
  - Flowable backfill is a blend of cement, fly ash, sand and water that is mixed to a flowable, self-leveling consistency that does not require tamping or vibration to achieve consolidation. It is a controlled density material and therefore does not require testing to prove compliance
  - Flowable backfill is an acceptable alternative to soil backfill, however, is more expensive

# 2<sup>nd</sup> Ordinance Amendment Effective December 2003

- **Prohibits non-washable substances for utility locate markings**
- **Markings are in violation if they remain visible after 30 days**
  - **Contractors are required by State Law to call a notification center in advance of planned excavations. Utilities are required to mark the location of their existing underground lines when notified by the call center**
  - **Amendment to limit visible markings to 30 days was prompted by a circumstance where a company hired to locate and mark underground utilities for multiple projects in an isolated area in north Dallas on streets including Richwater, Fallsview, Still Forest, Glenheather, and Preston Fairways used indelible paint**

# 2<sup>nd</sup> Ordinance Amendment Effective December 2003

- **Markings are in violation if they remain visible after 30 days**
  - Obtained an opinion from CAO that the ordinance amendment could be enforced upon utility locate markings made prior to the effective date
  - Written Notices of Violation were issued in February 2004 to SBC, Comcast, DWU and TXU Electric Delivery for the markings made by their locate company
  - All markings were removed by March 2004. No further action taken
  - Most citizen calls received are requests for information on the purpose of the markings
  - No other enforcement actions have been taken

# Other Issues and Challenges

- **Inspection resources**

- Capable of proactively inspecting new non-City projects and providing reactive oversight to City projects
- 1 inspector position added mid-year to add emphasis to inspection oversight to street cut repairs on City projects
- Budget Enhancement submitted for Council consideration to add 7 inspectors to enhance inspection oversight to street cut repairs on City projects



# Appendix A

## Cut Control Activity

# Cut Control Activity Since October 2003

- **Cut Control inspection group (All funded positions currently filled)**
  - Cut Control Supervisor
  - 9 Inspectors
  - Cut Control clerk
- **The following slides reflect permit, inspection, and enforcement activity by the Cut Control group**

# Permits recorded October 1, 2003 – May 31, 2004

Type of Utility	# of Permits	% of Total	“New” Asphalt Pavement Cuts
Water/Wastewater	4,124	42.0%	54
Gas	4,076	41.5%	38
Telecom	149	1.5%	0
Electric	123	1.3%	0
Cable	73	0.7%	0
Other*	1,274	13.0%	0
<b>Total</b>	<b>9,819**</b>	<b>100%</b>	<b>92</b>

\*Other includes PWT contracts, Street Services, DART, development activity and other miscellaneous cuts

\*\*Projects to 14,728 permits for one year, the most recorded for one year.

# Cut Control Inspections and Enforcement Summary

	Oct 2003	Nov 2003	Dec 2003	Jan 2004	Feb 2004	Mar 2004	Apr 2004	May 2004
<b>Permit Locations Inspected</b>	533	476	756	812	1022	1270	1262	960
<b>Violations Noted</b>	36	36	93	31	53	47	23	17
<b>Enforcement Actions</b>	VC – 8 NOV – 7 Citation - 1	VC – 8 NOV – 14 Citation - 1	VC – 8 NOV – 36 Citation - 0	VC – 15 NOV – 6 Citation - 1	VC – 17 NOV – 10 Citation – 2	VC – 9 NOV – 26 Citation – 12	VC – 6 NOV – 6 Citation - 3	VC – 8 NOV – 9 Citation - 0
<b>Violations Resolved</b>	36	36	93	31	53	47	23	17
<b>CRMS/ Damage Claim Investigation</b>	4	6	4	9	4	3	2	9
<b>After hours/ Weekend Call-outs</b>	5	4	2	5	3	7	8	6

One enforcement action may account for more than one violation. Voluntary Compliance means the violation was corrected following a verbal request by the inspector.

# Computer System Enhancements Underway

- **Link GIS to permit database to provide the capability to view street cut information graphically on Internet**
- **Automatically determine if permit applications are being requested for “new” streets by integrating with the street condition database**
- **Adding an “Inspector” page to the database to track inspections, enforcement actions, acceptance, etc.**



# Appendix B

## Utilicor Method of Excavation

# Utilicor Method for Excavation and Repair

- **Unique coring and pavement re-installation system**
- **18-inch diameter keyhole can be used for**
  - Pipe repair
  - New service installation
  - Utility locates (pot-holing)
- **Compatible with vacuum excavation**
- **Core is replaced (patch matches pavement color)**
- **Open to traffic in 30 minutes**

# Utilicor Rotary Cutter





# Utilicoring

- **Dramatic savings in maintenance and repair costs**
- **Faster, Cleaner, Safer and less disruptive than other methods**
- **Environmentally friendly and aesthetically pleasing**
- **Reinstated road performs in accordance with original design specifications and construction**

# Conventional Utility Cut



# 18" diameter core precision cut through pavement

- Easily cuts through up to 22" deep of asphalt, asphalt-concrete, and reinforced concrete roadway and sidewalks
- Very robust, intrinsically-safe, hydraulically-driven Rotary Cutter
- Fast and clean road opening process -- no spoil
- Typical coring time 15 minutes (depending on depth and composition)



Core or “coupon” is removed and set aside for reuse in reinstatement





# Underground plant exposed by vacuum excavation



Photo Credit Omega Servac



# Repair made using long handled tools



Photo Credit Omega Servac

# After repair -- backfill hole and add pea gravel layer





Utilibond is mixed with water and poured into hole





# Core is Inserted Back into the Hole ...

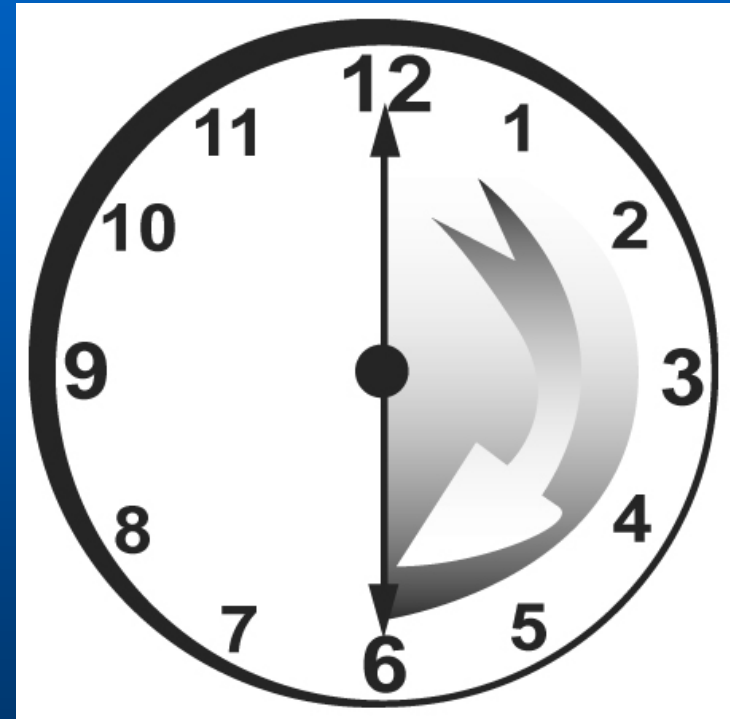


# Finished Repair Almost Invisible



# ... 30 Minutes Later -- Open for Traffic!

- Completed repair almost invisible.
- No overnight road plating
- Restoration is traffic bearing in 30 minutes



# Utilicor Method for Excavation and Repair

- TXU Gas has purchased 1 coring truck and 1 vacuum rig. Have funds to purchase 2 additional trucks and 3 additional vacuum rigs. Plan to use as much as possible when cutting new streets
- TXU Gas has used the Utilicor method of cutting and repairing pavement at the following locations in Dallas, thus far

5800 Victor

5600 Victor

5600 Beacon

3500 Travis

5300 Terry

400 S Henderson

3300 Oak Lawn – New Asphalt, 4 cores and coupon replacements

1300 Fairview

2500 Lenway

3400 Latimer

3900 Hatcher

- 49 cores and coupon replacements were completed in these blocks