STANDARDS TO BE EMPLOYED BY PUBLIC UTILITY OPERATORS WHEN RESTORING ANY OF THE STREETS, LANES AND HIGHWAYS IN PROVIDENCE

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1.0 Purpose and Scope

1.1 All aspects of rendering utility service -- new installations, repair/maintenance and upgrading -- are critical to the public welfare. The purpose of these Standards to be Employed by Public Utility Operators When Restoring Any of the Streets, Lanes and Highways in Providence (the "Standards") is to ensure that a Utility, after excavating in any municipal street, lane or highway ("public way"), restores that portion of the public way that is altered to the same condition or better than it was found before the excavation.

1.2 The Standards set forth herein, including specific performance requirements for excavation, backfilling and resurfacing of roads, are intended to establish uniform statewide requirements for utility work in public ways in the State of Rhode Island. These Standards shall apply only to excavations within streets and sidewalks, and shall not apply to cable pulling or other work within manholes and subsurface ducts.

1.3 These Standards shall supersede any previously existing ordinance, rule or regulation to the extent bearing upon the work of a Utility installing, repairing, maintaining or upgrading its facilities in any public way.

1.4 The Utility is responsible for ensuring compliance, by itself and its contractors, with these Standards. Utility work may be inspected by the Municipality to assure that the Standards are followed. In the event a Utility fails to comply with these Standards, the Utility shall, at its own expense, correct such failures.

IN CITY COUNCIL
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WHEREUPON IT IS ORDERED THAT
THE SAME BE RECEIVED.
CLERK

1.5 The Utilities shall work with the Municipality to minimize the impact of utility roadwork and specifically to reduce the incidence of non-emergency utility excavation in newly-paved streets.

1.6 Nothing in these Standards is intended to create a contractual relationship between a Municipality and a Utility.

1.7 The obligations of the Providence Water Supply Board for restoration of roads in municipalities other than Providence are subject to the provisions of its enabling act (P.L. 1915, ch. 1278, as amended.)

2.0 Definitions

a. AASHTO means The American Association of State Highway and Transportation Officials.

b. Clay means very finely textured soil which, when moist, forms a cast which can be handled freely without crumbling/breaking; that exhibits plasticity; and when dried, breaks into very hard lumps (*i.e.*, high dry strength) and is difficult to pulverize into a soft, flour-like powder.

c. Cold Patch means a bituminous concrete made with slow curing asphalts and used primarily as a temporary patching material when hot mix plants are closed.

d. Compaction means compressing of suitable material and gravel that has been used to backfill an excavation by means of mechanical tamping to within 95% of maximum dry density as determined by the modified Proctor test in accordance with AASHTO, T180.

e. Controlled Density Fill ("CDF"), also called flowable fill, means a mixture of portland cement, fly ash, sand and water. High air (25% plus) may be used instead of fly ash with an adjustment in sand content. CDF is hand-tool excavatable.

f. DPW shall mean the municipal Department of Public Works.

g. Division shall mean the Rhode Island Division of Public Utilities and Carriers.

h. Emergency shall mean a situation that presents a risk of injury, loss of life, or damage to property or public welfare, including, without limitation, a Utility service outage.

i. Emergency Repair Work shall mean street opening or excavation work which is subject to these Standards and in response to or necessitated by an Emergency.

j. Gravel means coarse to very coarse-grained soil ranging from approximately 0.1 inch to 3.0 inches. Gravel exhibits no plasticity.

k. Infrared Process means a restorative procedure whereby an infrared heater plasticizes the surface of an asphalt pavement, preparatory to the introduction of additional compatible paving materials uniformly re-worked to achieve a density and profile consistent and thoroughly integrated within the adjacent pavement.

l. Municipality means the City of Providence, Rhode Island.

m. Organic Soil means soil high in organic content, usually dark (brown or black) in color. When considerable fibrous material is the principal constituent, it is generally classified as "peat." Plant remains or a woody structure may be recognized and the soil usually has a distinct odor. Organic soil may exhibit little (or a trace of) plasticity.

n. Permanent Patch means a final repair of street opening work to be performed in accordance with these standards and intended to permanently return the opened portion of the roadway to as good a condition as or better than it was prior to the performance of the street opening work.

o. Permit means a permit granted by a Municipality to a Utility for permission to do street opening work in a public way.

p. Plasticity means that property of soil that allows it to be deformed or molded without crumbling (*e.g.*, like dough or soft rubber). This property reflects the capacity of soil to absorb moisture.

q. Poorly Graded Soil means soil that contains a large percentage of its constituent particles within a relatively narrow range; also referred to as "uniform" soil.

r. Protected Street means a road or street whose pavement surface is less than 5 years old and which was on the Municipality's paving list for a period of eighteen *(18)* months or more before it was paved.

s. PUC means the Rhode Island Public Utilities Commission.

t. RIDOT means the Rhode Island Department of Transportation.

u. RI Highway Standards means the "Rhode Island Department of Transportation Standards for Road and Bridge Construction, 2004", as amended from time to time.

v. Same Day Hot Patching means the installation of a permanent patch ("same day patch") on an excavation within one (1) business day of completion of the utility work.

w. Sand means coarse grained soil in which the individual grains can be visually detected. When moist it forms a cast which will crumble when lightly touched; when dry, it will not form a cast and will fall apart when confining pressure is released. Sand exhibits no plasticity.

x. Silt means finely-textured soil. When moist, it forms a cast which can be freely handled; when wet, it readily puddles; when dry, it may be cloddy and readily pulverizes into powder with a soft flour-like feel (*i.e.*, low dry strength). Silt exhibits little or no plasticity.

y. Street Opening Work means any cutting, excavating, compacting, construction, repair or other disturbance in or under a public way together with restoration of the public way in accordance with these standards, municipal ordinances, and any other applicable law following such disturbance.

z. Temporary Patch means the interim application of either cold patch or Class I-1 bituminous concrete.

aa. Utility means any person or entity subject to the supervision or regulation by the PUC or by the Division. For the purposes of these Standards, a Utility shall also mean any person or entity engaged by or on behalf of a Utility to perform Street Opening Work.

bb. Well Graded Soil means soil having its constituent particles within a wide range, also referred to as "non-uniform" soil.

3.0 Permit and Notice Requirements

The issuance of a permit by a Municipality for Utility installation, repair, maintenance or upgrade work in any public way within the Municipality's jurisdiction shall be subject to the Standards. A permit may be issued with the stipulation that it may be modified or revoked with just cause at any time at the discretion of the Municipality without rendering the Municipality liable in any way; and the Director of the DPW shall have discretion in the enforcement of the permit program. Whether with respect to an explicit stipulation in a permit or otherwise, such discretion shall be exercised by the Director of the DPW on the basis of valid, reasonable factors affecting safety and health. It is recognized that each Municipality shall have the authority to inspect work in progress and the Utility shall correct any deviations from the Standards identified during said inspections. The following are the requirements that a Municipality may require of a Utility when granting Permits.

3.1 Except for Emergency Repair Work, a Utility shall submit to the Municipality, having jurisdiction of the public way in which work is to be done, an application for a permit for such work, including a plan for the work proposed. For Emergency Repair Work, the Utility shall apply for a permit as soon as practicable, and not more than five (5) business days following completion of the repairs.

3.2 Pursuant to R.I. Gen. Laws §5-8-21(5), a Municipality shall not require a PE stamp on the Utility's plan.

3.3 Permits for work within sidewalks will be issued to the utility without signature by or notice to abutting "owners of record."

3.4 The Municipality shall issue permits promptly, and shall make its best efforts to issue a permit within seven (7) days after submission of a completed application.

3.5 As conditions for the granting of a permit, a Municipality may impose financial requirements in compliance with the following Standards.

(a) The Municipality may impose a permit fee which shall not exceed $75 per excavation unless authorized by the PUC. No other or greater fee may be imposed.

(b) The Municipality shall not impose the requirements of a performance bond on entities which are subject to the supervision of or regulation by the PUC or the Division.

(c) A Utility applying for a road opening permit or its contractor shall provide a certificate of general liability insurance or appropriate evidence of self-insurance of not less than Five Hundred Thousand Dollars ($500,000) naming the Municipality as an additional insured.

(d) The Municipality shall not require any other municipal license, permit, easement or qualification from the Utility performing an excavation pursuant to a permit hereunder.

3.6 Reasonable workday, and time constraints may be conditions of the permit.

3.7 The Utility shall endeavor to conform its work to the plan submitted with its permit application. If it becomes necessary to open the roadway surface in a larger area than specified in the permit, or if otherwise the work performed is appreciably different from that shown on the plan provided with the permit application, the Utility shall provide a revised plan to the DPW after completion of the work.

3.8 A copy of the permit must be on the job site at all times for inspection (except for Emergency Repair Work). Repeated failure to have the permit available may result in suspension of the Permit.

3.9 Except in case of Emergency Repair Work, the Utility shall notify the Municipality at least two (2) business days prior to the start of work. No work shall be authorized or proceed without said notification. For Emergency Repair Work, the Utility shall provide verbal notice of such work to the DPW within one (1) business day of commencing such work. For projects with a long duration, the Municipality must be notified when work is suspended for more than three business days. At the time of such notification, the Utility shall also provide to the Municipality its best estimate of the date upon which work will be resumed.

3.10 The Utility shall be responsible for contacting the Municipality regarding the field location of any underground traffic control devices in the vicinity of the project.

3.11 The Utility shall notify the Municipality of the date of completion of the physical work pursuant to a permit. Such notification may, at the Utility's option, be a quarterly report of all work completed in the prior quarter, or a permit by permit report.

4.0 Work Standards, General

4.1 Section 24-5-1.1 of the Rhode Island General Laws requires any entity that alters a roadway to "restore that portion of the roadway which is altered to the same or better condition that existed prior to alteration."

4.2 All work performed by a Utility shall be in compliance with these Standards, and with any applicable RI Highway Standards to the extent consistent with these Standards.

4.3 Utilities are responsible for using appropriate materials and crews on projects.

4.4 A Utility excavating or performing other work in a public way subject to these Standards shall guarantee the patch to the roadway against settling for a period of five (5) years from completion of the work. This guarantee shall not extend to cracking resulting from use of infrared sealing technology if such technology has been specified by the Municipality.

5.0 Safety

5.1 A Utility shall comply with Dig Safe and street closing procedures at the time of performing work, not at the time of permit application.

5.2 Provisions shall be made for the safety and protection of pedestrian traffic during the construction period.

5.3 The Utility shall be responsible to furnish and erect all required temporary signs and traffic safety devices.

5.4 Excavations shall be marked with signs in accordance with standards prescribed by the 1988 edition, Revision 3, or subsequent current edition, of the *Manual on Uniform Traffic Control Devices* (the "MUTCD"). Traffic control signs and devices shall likewise conform to MUTCD standards.

5.5 Cones and non-reflecting warning devices shall not be left in operating position on the highway when the daytime operations have ceased. If the Utility should fail to remove such devices from the work site, and if the Municipality should remove them, all costs of such removal may be charged to the Utility.

5.6 Trenches may remain open overnight with appropriate protection provided by the Utility (e. g. barrels, barricades, jersey barriers or steel plates and appropriate lighting.)

5.7 Efforts shall be made to maintain normal traffic flow. Interruptions or obstructions to traffic may be defined by the conditions of the permit.

5.8 If, in the exercise of its discretion pursuant to Section 3.0 above, the Municipality should determine on the basis of factors affecting safety and health that the work constitutes a hazard to traffic in any area, it may require the Utility to suspend operations during certain hours and to remove any equipment from the roadway.

5.9 When a snow or ice condition exists during the progress of this work, the Utility shall keep the area affected by the work safe for travel. The Municipality may restrict work during snow, sleet, or ice storms and subsequent snow removal operations, except for emergency repair work.

5.10 The Utility shall be responsible for the ponding of water that may develop within the roadway as a result of its work.

5.11 During the course of work, and upon its completion, the Utility shall comply with applicable requirements of Section 10 below with respect to cleaning of the work area and roadway surface.

5.12 Blasting, if necessary, shall be done in accordance with state law and local ordinance.

5.13 The Utility shall comply with all federal, state, and local safety regulations.

5.14 In performing work under a permit, the Utility shall assume no greater responsibility for risks and casualties of every description, for loss or injury to persons and property arising out of the nature of the work, from the action of the elements or from any unforeseen or unusual difficulty, than is otherwise imposed by law.

5.15 If, in the exercise of its discretion pursuant to Section 3.0 above, the Municipality should determine on the basis of factors affecting safety and health that a street opening failure presents a nuisance or a public safety problem, the Utility shall respond to a request by the Municipality for repair within 48 hours. Non-response within the specified time may result in the required restoration work being done by the Municipality, with all expenses to be paid by the Utility. The Utility shall reimburse the Municipality for the invoiced amount within thirty (30) days. In the event (i) the Municipality deems the failure to be an immediate hazard to the public and (ii) the Utility is unable to respond within an acceptable period of time after notification, then the Municipality may take necessary action to restore the area to a safe condition with the cost of the repairs to be paid by the Utility. The Utility shall reimburse the Municipality for such costs within thirty (30) days.

5.16 Failure to respond to trench restoration requests may result in denial of future permit requests.

6.0 Protection of Adjoining Facilities

6.1 If directed by a Municipality in a permit, a Utility shall take photographs prior to the start of work to ensure restoration of designated areas to their former conditions within the limits of the work areas. Copies of the photographs shall be delivered to a place designated in the permit.

6.2 The Utility shall take care not to interfere with underground structures that exist in the area.

6.3 The Utility shall take care not to disturb (a) any subsurface traffic duct system, or (b) any traffic detector. In case of any such disturbance, the Utility shall immediately notify the Municipality so that repairs can be made. If any such damage is the fault of the Utility, the Utility shall be responsible for the repair or the cost of repair.

6.4 The Utility shall be responsible to replace all pavement markings in kind which have been disturbed as a result of work done in accordance with the Permit. Pavement markings shall be restored within ten (10) days after permanent paving is performed or as deemed necessary by the Municipality.

6.5. Existing guardrail that is removed or damaged shall be reset or replaced to current R.I. Highway Standards.

6.6 The Utility will be responsible for any damage caused by its work to curbing, structures, or roadway.

6.7 The Utility shall take reasonable measures to protect highway bound markers. However, if it becomes necessary to remove and reset any bound marker, the Utility shall hire a Rhode Island Registered Professional Land Surveyor to perform this work. It shall be the responsibility of this land surveyor to submit to the Municipality a statement in writing and a plan containing his stamp and signature showing that said work has been performed.

7.0 Excavations

7.1 The surface of a roadway to be excavated for utility work shall be cut in reasonably straight and parallel lines using a jack hammer, saw or other accepted method to insure the least amount of damage to the roadway surface. The pavement, including reinforcing steel on concrete roadways, shall be cut the full depth of surfacing. The excavation shall only be between these lines. The cutting operation shall not be done with a backhoe, gradall or any type of ripping equipment.

7.2 If steel plates are used by a Utility to protect an excavation, they shall be of sufficient thickness to resist bending and vibration under traffic loads and shall be anchored securely to prevent movement.

7.3 If a Utility uses steel sheeting, shoring, or bracing and elects to leave it in place, it shall be cut off two (2) feet below the surface.

8.0 Backfill and Compaction

The following provisions set forth general guidelines and criteria to determine whether a soil is suitable as backfill for Utility excavations in roadways. They prescribe proper procedures for backfilling and compaction to achieve soil density values of 95% modified Proctor density. The ultimate objective is to obtain a finished road surface repair which will undergo settlements only within acceptable performance limits as defined within these standards for the functional life of the existing road. The guidelines are based on good engineering practice and testing of both materials and equipment. Compliance with these Standards will promote satisfactory backfill compaction.

8.1 In restoring Municipal streets, Utilities shall use appropriate fill for excavations, in compliance with the Standards set forth below with respect to backfill suitability, and shall compact all fill to achieve soil density values of ninety-five percent (95%) modified Proctor density (as described in AASHTO T180).

8.2 The Utilities are concerned about public health and safety issues related to the use of flowable fill. The Municipality shall not require any Utility to use flowable fill (or "controlled density fill") in any work in public ways. If CDF is the selected option of the Utility, when backfilling excavations within which there are natural gas lines, the Utility shall backfill with sand and compact to a level six inches above the gas line before adding CDF to the trench.

8.3 Suitability of Backfill Material

8.3.1 Suitable backfill material is free of stones larger than half the size of the compacted lift as provided for in RI Highway Standards, construction debris, trash, frozen soil and other foreign material. It consists of the following:

a. Well graded gravel and sand;
b. Poorly graded gravel and sand;
c. Gravel-sand mixtures with a small amount of silt;
d. Gravel-sand mixtures with a small amount of silt and trace amounts of clay.

8.3.2 Unsuitable backfill materials consist of the following:

a. Inorganic silts and clays;
b. Organic silts;
c. Organic soils including peat, humus, topsoil, swamp soils, mulch, and soils containing leaves, grass, branches, and other fibrous vegetable matter.

8.4 Evaluation of Excavated Soil

8.4.1 The soil excavated from a trench shall be evaluated by the Utility and may be evaluated by the Municipality to determine whether or not it is suitable as a backfill in accordance with Section 8.3.

8.4.2 An excavated soil that has been evaluated and found suitable for backfill may be used to backfill the excavation upon completion of the Utility's work.

8.4.3 An excavated soil that has been evaluated and found unsuitable for backfill shall be removed from the site and disposed of properly. New material, which meets the requirements of Subsection 8.3, shall be brought in to replace excavated soil found to be unsuitable.

8.5 Backfill and Compaction of Excavations

8.5.1 Backfill and compaction shall be performed in accordance with RI Highway Standards, Section 301.03.2.

8.5.2 All leak detection holes (*i.e.*, bar holes) shall be filled in lifts with an appropriate mineral filler and compacted to the bottom of the pavement.

8.6 A color coded marking tape shall be placed in an appropriate location below final grade above all underground utility installations except sewers and drains running in straight lines between surface catch basins, manholes, or posts identifying the underground installation. Marking tape shall not be required for installations using trenchless technology. Tape shall be durable, non-degradable plastic, not less than two (2) inches wide and in the following colors for the particular underground utility:

Blue	-	Water
Red	-	Electric Cable
Yellow	-	Gas
Orange	-	Telephone
Green	-	Sewer

8.7 Compaction Verification

If required by the Municipality, compaction verification shall be performed by the Utility to assure that 95% modified Proctor density has been achieved; provided, however, that in the event 95% compaction has been achieved, the Municipality shall be responsible for the cost of the testing. In the event of test failure, the Utility shall be responsible for removal of trench material at the discretion of the Municipality and for recompacting the excavation to meet the required standard.

9.0 Pavement Restoration

9.1 The Utility shall be responsible to replace all pavement disturbed by work under the permit with homogeneous and in-kind pavement using (i) same day hot patch, (ii) grind and inlay, or (iii) temporary patch followed by permanent patch, all as specified herein, to at least the original strength and condition unless otherwise agreed.

9.2 After performance of the procedures prescribed by the Standards relating to backfilling and compaction, the adjacent pavement shall be cut back, full depth, to encompass all disturbed pavement areas and underlying cavities associated with the excavation. All cutbacks shall be done in reasonably straight, continuous, and parallel lines. Existing pavement surfaces shall be swept clean of dirt, dust, and debris prior to patching. The existing vertical pavement surfaces shall be tack coated with an appropriate asphalt tacking material prior to patching and subsequent to cleaning.

9.3 Utilities shall comply with the following standards in restoring pavement:

9.3.1 Single gradation (Class I-1, surface course) bituminous concrete patches may be used when the existing pavement depth is three inches or less, provided that the new patch is installed to a depth 1 inch greater than the surrounding pavement.

9.3.2 Single gradation (Class I-1, binder course) bituminous concrete may be used where post grind and inlay method is the chosen option for the permanent repair by the Utility or as a condition of the permit. Minimum allowable depth of pavement shall be four inches when utilizing the grind and inlay method. When the grind and inlay method is performed, the surface of the pavement shall be uniformly ground and removed to a minimum depth of 1.5 inches for subsequent pavement replacement. The grinding procedure shall provide a 12 inch cutback into existing undisturbed pavement and shall encompass all disturbed pavement areas of the excavation. Grinding shall be done in reasonably straight lines.

9.3.3 Pavement repair depths shall equal or exceed adjoining pavement depths. When existing pavement depths including penetrated stone base are greater than 3 inches, pavement repairs shall be made utilizing Class I-1, binder course in the underlying patch courses. The wearing surface shall be a minimum 1.5 inches of Class I-1, surface course. Pavement courses shall not exceed two inches. All pavement courses shall be placed in accordance with RI Highway Standards prior to placement of subsequent courses.

9.4 After backfilling and compaction, the Utility shall either install a permanent patch (same day hot patching) or a temporary patch. If a temporary patch is installed, the Utility may, subject to the provisions of this section, allow up to forty-five (45) days for settling before final patching.

9.4.1 Any temporary patch installed prior to September 1 in any year shall be replaced with a permanent patch no later than December 15 of that year.

Temporary patches made between September 1 and March 30 shall be maintained by the Utility until a permanent patch can be installed, and not later than June 15.

9.4.2 All excavation, backfilling, and compaction work associated with temporary patches shall be performed in accordance with these Standards.

9.4.3 Temporary patches shall be made with high-performance cold patch or Type 1, bituminous concrete to a minimum depth of two (2) inches.

9.4.4 The Utility shall be responsible to maintain temporary patches in a safe condition for all types of travel until a permanent pavement repair has been made. To ensure proper maintenance, the Utility shall perform periodic inspection, at reasonable intervals, of each temporary patch until it is replaced with a permanent patch.

9.5 Same day patches installed in conformance with these standards will not require re-excavation and may utilize the grind and inlay method or another method agreed to by the Municipality to correct subsequent settling.

9.6 Permanent patches on streets that are not Protected Streets (pursuant to Section 12.3 below) shall be sealed with hot asphalt crack sealer or other appropriate means instead of with infrared technology. The Municipality may require as a permit condition that restoration in a Protected Street be by grind and inlay to the nearest curb.

9.7 When the utility work involves a longitudinal installation or repair, and the pavement remaining between the excavation and the edge of the roadway is less than two feet, the remaining area to such edge of the roadway shall be removed and replaced in conjunction with the permanent pavement repair.

9.8 All leak detection holes (*i.e.*, bar holes) shall be filled to refusal with an appropriate asphalt filler to a depth equal to the surrounding pavement depth.

9.9 All excavations made within concrete roadways shall be repaired with concrete in depths equal to the existing concrete. Concrete used for repairs shall conform to the requirements of RI Highway Standards for concrete roadway construction. Steel dowels or other approved method of shear transfer between the patch and remaining roadway shall be included in the restoration.

9.10 Completed pavement repairs shall not deviate more than 0.25 inches from the existing street surface.

9.11 No less than thirty (30) days and no more than ninety (90) days from the completion of the permanent pavement repair, the Utility shall inspect the excavation for settling, cracking and other pavement defects. Any such excavation which requires repair shall then be reinspected no less than thirty (30) days and no more than ninety (90) days from the completion of the subsequent repair. Patches that deviate more than 0.25 inches

from the existing street surface shall be repaired consistent with Section 9.6. Surface or joint cracking 0.125 (1/8) inches wide or greater shall be repaired utilizing a modified asphalt pavement sealant.

9.12 The Utility shall prepare and maintain records of these inspections and shall make them available to the Municipality and the Division upon request.

10.0 Clean-Up

10.1 The Utility shall at all times keep the roadway surface clean of any debris that may result from its work, and upon completion of the work shall thoroughly clean the roadway surface of any debris or matter deposited there as a result of the work.

10.2 Areas adjacent to the work area shall be kept clean. Upon completion of the work, all rubbish, surplus materials and unneeded construction equipment shall be removed from the work site and adjacent areas.

10.3 Upon completion of the work, the Utility shall restore all disturbed areas, including areas adjacent to the work site, to a condition equal in kind or better than that which existed prior to the work, including any necessary driveway, highway, front walk and landscaping work, using suitable materials, equipment and methods. To the extent practicable prior to completion of the work, the Utility shall promptly repair any damage accidentally caused to adjacent areas so as to minimize inconvenience to the general public and to property owners.

10.4 Material or debris from the contractor's operations which have washed into, flowed into, or been placed in water courses, ditches, gutters, sanitary sewers, drains, catch basins, or elsewhere, shall be removed entirely and properly disposed of during the progress of the work and upon its completion.

11.0 Sidewalks and Driveways

All work shall comply with the Americans with Disabilities Act (ADA), and RI Highway Standards, Section 904.

12.0 Street Paving Program

12.1 The Municipality shall develop and maintain a comprehensive plan for categorizing the condition of city streets and a projected schedule for street repaving.

12.2 By March 1 of each year, the Municipality shall provide, to each Utility which operates and maintains facilities within the public streets of the Municipality, an update of the plan including a good faith listing of streets and segments of streets that are scheduled for repaving, subject to budgetary constraints, during the ensuing twenty-four (24) months. Such list shall identify streets or segments of streets scheduled for repaving in the current paving season and those scheduled for subsequent seasons.

12.3 Any Utility anticipating major work in any of the streets which are scheduled for repaving in the ensuing eighteen (18) months shall notify the Municipality of the Utility's plans by May 1 of each year.

13.0 Compliance with these Standards

13.1 Utilities shall track the success and failures of their programs to include the restorations and the inspections of such restorations pursuant to Section 9.11. Utilities shall specify the number of failed restorations compared to the total number of restorations made during the preceding calendar year, the number of failures reported by a party other than a utility inspector and the age of the failed restoration.

13.2 Each Utility shall record the number of failed restorations encountered during the inspections required in Section 9.11. It shall also document the cause of the failure and measures taken to remedy it.

13.3 Each Utility shall record the number of failed restorations and costs incurred when a Municipality performs the corrective action in accordance with Section 5.15.

14.0 Utility Coordinating Committee

14.1 The Utility Coordinating Committee ("UCC") shall be established as a mechanism for Utilities and the Municipality to coordinate street excavations and restorations.

14.2 The UCC will be comprised of representatives from appropriate Municipal departments and the Utilities that participate in street excavation and restoration activities in the Municipality. The UCC may, at the option of the Municipality, be organized on a multi-town basis and consist of representatives from more than one Municipality.

14.3 The UCC shall meet regularly at the call of the chair or of the Director of DPW to review planned street excavation activities and to coordinate schedules, except in Emergencies. The purpose is to enable the Utilities and the Municpality to consult on road repair technologies and to work together on similar timetables to perform work on public ways within the Municipality in a coordinated fashion and prior to major repairing efforts.

14.4 The Municipality may impose a moratorium on planned excavation projects from November 15 to April 15. The moratorium shall not apply in the event of an Emergency or when otherwise authorized by the DPW and may be lifted at the discretion of the Municipality if hot asphalt is available. Any entity undertaking work during a moratorium shall be responsible for maintaining the temporary patch in good condition until the permanent repair is completed.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

PETITION FOR REVIEW PURSUANT TO §39-1-30 OF ORDINANCES ADOPTED BY THE CITY OF CRANSTON AND BY THE CITY OF PROVIDENCE	:	**DOCKET NO. 2641**

ORDER

WHEREAS, on August 21, 2008, the Narragansett Electric Company d/b/a National Grid ("National Grid"), the Providence Water Supply Board ("PWSB"), Cox Rhode Island Telcom L.L.C. ("Cox") and Verizon New England Inc. ("Verizon," and collectively the "Utilities") and the City of Providence filed a petition with the Public Utilities Commission ("Commission") requesting entry of a Supplemental Order in the above-captioned docket approving (i) the Settlement Stipulation and Consent Order ("2008 Stipulation") and (ii) "Standards to be Employed by Public Utility Operators when Restoring any of the Streets, Lanes and Highways in Municipalities"[1] (June 2008)("Standards") both replacing the July 2003 Partial Settlement Agreement and the Settlement Stipulation and Consent Order which was filed on November 18, 2003.

WHEREAS, the Utilities filed an appeal of a 1997 enactment of a City of Providence ordinance and subsequent regulations that regulated street excavation by the Utilities seeking nullification of such ordinance pursuant to R.I. Gen. Laws §39-1-30.

WHEREAS, after nullification of all of the ordinance except for a forty dollar application fee, the City appealed the Commission's Order to the Rhode Island Supreme

[1] The Settlement Stipulation and Consent Order and the "Standards to be Employed by Public Utility Operators when Restoring any of the Streets, Lanes and Highways in Municipalities" are incorporated by reference as "Appendix A"

Court which affirmed in part and reversed in part the Order and remanded the case back to the Commission.

WHEREAS, in 2003, the Parties reached and filed a Partial Settlement Agreement which the Commission approved.

WHEREAS, in 2004, the Parties negotiated the Consent Order which the Commission approved.

WHEREAS, since the approval of both the Partial Settlement Agreement and the Consent Order, the Parties have engaged in further negotiations and developed a revised set of standards that incorporates many of the provisions that were included in the prior agreements, in a more comprehensive form.

WHEREAS, on October 6, 2008 at an open meeting the Commission by unanimous vote approved the 2008 Stipulation and the Standards.

"APPENDIX A"

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

RE: Petition for Review Pursuant to § 39-1-30 of Ordinances Adopted by the City of Cranston and by the City of Providence — **Docket No. 2641**

Settlement Stipulation and Consent Order

1. Introduction

The parties to this Settlement Stipulation and Consent Order ("Stipulation") are The Narragansett Electric Company d/b/a National Grid ("National Grid"), Providence Water Supply Board ("PWSB"), Cox Rhode Island Telcom L.L.C. ("Cox") and Verizon New England Inc. ("Verizon," and collectively the "Utilities") and The City of Providence ("Providence" or "City.")

In October, 1997, Providence enacted an ordinance (Chapter 1997-64) (the "Ordinance") to regulate street excavation by the Utilities within Providence. In December, 1997, the former DPW Director promulgated "Rules and Regulations for Street Openings" ("Regulations"). Certain of the Utilities filed appeals to the PUC pursuant to R.I.G.L. § 39-1-30 and Rule 1.10 of the PUC Rules seeking review and nullification of the Ordinance and Regulations.

During the summer of 1998, the Commission conducted four (4) days of hearings during which it heard testimony from seven witnesses on behalf of the utilities and three witnesses on behalf of Providence. The PUC's Report and Order ("PUC Order") was issued on September 7, 1999 and nullified the Ordinance and the Regulations except for a forty dollar ($40) application fee.[1] Providence appealed the PUC Order to the Rhode Island Supreme Court, which affirmed in part and reversed in part the PUC Order and remanded the case to the PUC.[2]

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1 In re: Petitions for Review of Ordinances adopted by the City of Cranston and the City of Providence Pursuant to R.I.G.L. § 39-1-30, Docket Nos. 2624 and 2641, Report and Order (Order No. 15919, September 7, 1999.)

2 In re: Petition for Review Pursuant to Section 39-1-30 of Ordinance Adopted by the City of Providence, 745 A.2d 769 (R.I. 2000).

In its decision, the Court offered this guidance to the parties: "[w]e remand this case to the Commission for further proceedings consistent with this Order, with our encouragement that the parties engage in fruitful settlement negotiations." 745 A.2d at 777. Within a few months of the remand, the Utilities and Providence met but were not able to settle the case.

2. Partial Settlement Agreement and Consent Order

Early in 2003, mediation was suggested in an attempt to comply with the Supreme Court's guidance and, with the agreement of all parties, the case was mediated by Patrick C. Coughlin, Esq. on March 18, 2003. During this and subsequent meetings, the Utilities, Providence and the Division of Public Utilities and Carriers ("Division") reached a partial settlement which was memorialized in a Partial Settlement Agreement.

The parties filed the Partial Settlement Agreement with the Commission on July 7, 2003. After conducting a hearing on the reasonableness of the Partial Settlement Agreement, the PUC voted unanimously to approve the Partial Settlement Agreement. The Partial Settlement Agreement provided that:

> There are a few important issues on which the Parties could not reach settlement. The Parties request that the Commission schedule hearings to take evidence and testimony from the Parties in order to decide the outstanding issues.
>
> Partial Settlement Agreement, pp. 2-3.

Thereafter, the Parties negotiated a Consent Order and submitted it to the Commission for approval. At its open meeting on December 4, 2003, the Commission unanimously approved the Consent Order. By Report and Order dated May 28, 2004 (Order No. 17857), the Commission approved the Partial Settlement Agreement and Consent Order.

3. Revised Standards

Subsequently, Providence and the Utilities have engaged in further negotiations regarding the Standards applicable to street excavations in Providence and have developed a revised set of

standards that incorporate many of the provisions that were included in the Partial Settlement Agreement, in a more comprehensive form.

The "Standards to be Employed by Public Utility Operators When Restoring Any of the Streets, Lanes and Highways of Providence" (June, 2008) ("Standards") which are attached hereto and incorporated herein by reference, provide a comprehensive framework for Utilities' use of the streets of the City of Providence for their underground facilities.

Under the Standards, Utilities are required to obtain permits for work in City streets and guarantee the work for a period of Five (5) years. The Standards impose a permit fee of Seventy Five Dollars ($75) per excavation and include work standards and safety requirements. They include provisions governing excavation, backfill and compaction, and pavement restoration. Finally, the Standards include two provisions that are designed to lead to better coordination between the Utilities and Providence. The first is the Street Paving Program under which the Utilities will receive advance notice of Providence's paving plans. The second is the Utility Coordinating Committee which will be composed of representatives of City departments and the Utilities and will meet regularly to coordinate utility work in City streets.

The Parties seek the Commission's approval of the Revised Standards, in replacement of the provisions of the 2003 Partial Settlement Agreement and Consent Order.

4. Other Matters

A. Unless expressly stated herein, the making of this Stipulation establishes no principles and shall not be deemed to foreclose any party from making any contention in any other proceeding.

B. This Stipulation is the product of settlement negotiations. The content of those negotiations is privileged and all offers of settlement shall be without prejudice to the position of any party.

C. The parties hereto agree that this Settlement Stipulation and Consent Order is fair, reasonable and in accordance with regulatory policy.

D. This Stipulation is submitted on the condition that it be approved in full by the Commission, and on the further condition that if the Commission does not approve it in its entirety, it shall be deemed withdrawn and shall not constitute a part of the record in any proceeding or used for any purpose.

ASSENTED TO IN FORM AND SUBSTANCE THIS THE 23 DAY OF JULY, 2008:

THE CITY OF PROVIDENCE
By Its Attorneys,

Adrienne G. Southgate, Esq.
Deputy City Solicitor
City of Providence
Law Department
275 Westminster Street, Suite 200
Providence, RI 02903

THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
By Its Attorneys,

Peter V. Lacouture
Nixon Peabody LLP
One Citizens Plaza
Suite 500
Providence, RI 02903

VERIZON NEW ENGLAND INC.
By Its Attorneys,

Alexander W. Moore, Esq.
Verizon Communications
185 Franklin Street
Boston, MA 02110

PROVIDENCE WATER SUPPLY BOARD
By Its Attorneys,

Michael R. McElroy, Esq.
Schacht & McElroy
P. O. Box 6721
Providence, RI 02940-6721

COX RHODE ISLAND TELCOM L.L.C.
By Its Attorneys,

Alan D. Mandl, Esq. (R.I. Bar #6590)
Smith & Duggan LLP
Lincoln North
55 Old Bedford Road
Lincoln, MA 01773

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Order 15919 - Petitions for Review of Ordinances by Cranston & Providence

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

IN RE: PETITIONS FOR REVIEW OF ORDINANCES ADOPTED BY THE CITY OF CRANSTON AND BY THE CITY OF PROVIDENCE, PURSUANT TO R.I.G.L., SECTION 39-1-30.

DOCKET NO. 2641
DOCKET NO. 2624

REPORT AND ORDER

I. INTRODUCTION

a. Filing Dates, Petitioners and Intervenors

On September 12, 1997, the Providence Gas Company ("Providence Gas") filed a petition with the Rhode Island Public Utilities Commission ("Commission"), pursuant to the provisions of Rhode Island General Laws, Section 39-1-30, seeking relief from an ordinance enacted by the City of Cranston. Providence Gas' petition was docketed by the Commission and given the designation -- Docket No. 2624.

Subsequently, on October 9, 1997, Providence Gas filed another petition with the Commission, also pursuant to the provisions of Rhode Island General Laws, Section 39-1-30, seeking relief from certain regulations of the "Protected Street Policy" of the City of Providence. Providence Gas' second petition was docketed by the Commission and given the designation -- Docket No. 2630.

Subsequently, on October 31, 1997, Providence Gas, the Narragansett Electric Company ("Narragansett") and Bell Atlantic -- Rhode Island ("Bell Atlantic") filed independent petitions with the Commission, pursuant to the provisions of Rhode Island General Laws, Section 39-1-30 and Rule 1.10 of the Commission's Rules of Practice and Procedure, seeking review and nullification of an ordinance adopted by the City of Providence. The three petitions were docketed by the Commission and given the designation -- Docket No. 2641.

Brooks Fiber Communications of Rhode Island ("Brooks Fiber") filed a comparable petition against the City of Providence on November 3, 1997. The Brooks Fiber petition was consolidated into Docket No. 2641.

Cox Rhode Island Telecom, Inc. ("Cox") filed a motion to intervene in Docket No. 2641 on November 14, 1997. This motion raised no objections, and was granted by the Commission.

On December 2, 1997, the Kent County Water Authority ("Kent County") filed a motion to intervene in Docket No. 2624. This motion similarly raised no objections, and was granted by the Commission.

On February 5, 1998, the Valley Gas Company ("Valley Gas") and the Bristol & Warren Gas Company ("Bristol & Warren Gas") filed a joint motion to intervene in Docket Nos. 2624, 2630 and

Order 15919 - Petitions for Review of Ordinances by Cranston & Providence

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
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Subsequently, on October 9, 1997, Providence Gas filed another petition with the Commission, also pursuant to the provisions of Rhode Island General Laws, Section 39-1-30, seeking relief from certain regulations of the "Protected Street Policy" of the City of Providence. Providence Gas' second petition was docketed by the Commission and given the designation -- Docket No. 2630.

Subsequently, on October 31, 1997, Providence Gas, the Narragansett Electric Company ("Narragansett") and Bell Atlantic -- Rhode Island ("Bell Atlantic") filed independent petitions with the Commission, pursuant to the provisions of Rhode Island General Laws, Section 39-1-30 and Rule 1.10 of the Commission's Rules of Practice and Procedure, seeking review and nullification of an ordinance adopted by the City of Providence. The three petitions were docketed by the Commission and given the designation -- Docket No. 2641.

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On February 5, 1998, the Valley Gas Company ("Valley Gas") and the Bristol & Warren Gas Company ("Bristol & Warren Gas") filed a joint motion to intervene in Docket Nos. 2624, 2630 and

2641. The motion also raised no objections, and was granted by the Commission.

Subsequently, on February 12, 1998, Providence Gas filed a motion to consolidate Docket Nos. 2641 and 2630. In its motion, Providence Gas noted that Docket Nos. 2641 and 2630 relate to petitions for appeal from an ordinance enacted by the City of Providence, and regulations enacted by the Providence Public Works Department. Providence Gas maintained that both City actions are designed to regulate and affect the mode and manner of operation; and the placement and maintenance of public utility plant and equipment. Accordingly, Providence Gas opined that it would be appropriate for the dockets to be merged and consolidated into Docket No. 2641. The Commission agreed, and Providence Gas' motion was granted.

Also on February 12, 1998, Narragansett filed a motion to intervene in Docket No. 2624. This motion was not opposed and consequently granted by the Commission.

Lastly, on July 30, 1998, Consolidated Concrete Corporation ("Consolidated") and PRM Concrete Corporation ("PRM") filed a joint motion to intervene out of time. These companies sought intervention for the limited purpose of placing testimony and a prepared statement on the record to refute a Boston Gas report relating to flowable fill. *[1 Providence Gas relied on this Boston Gas report in its assertion that the Ordinances' mandates regarding flowable fill created safety concerns when used around gas pipes, infra.]* The Commission considered and approved the motion on July 31, 1998.

b. Subject Matter of Petitions

The petitions filed in this consolidated docket all seek relief from ordinances enacted by the City of Providence or the City of Cranston. Narragansett Electric, Bell Atlantic, Brooks Fiber, Cox and Providence Gas specifically seek relief from a City of Providence ordinance. Providence Gas, Kent County, and Narragansett Electric specifically seek relief from a City of Cranston ordinance. *[2 Although not directly connected to their service territories, Valley Gas and Bristol & Warren Gas opted to intervene in these ordinance appeal dockets.]*

i. The Cranston Ordinance (Docket No. 2624)

The Providence Gas petition included a copy of the Cranston ordinance in issue, along with related "specifications for utility company repairs to streets within the City of Cranston." Providence Gas provides the following summary of the Ordinance and related specifications, and its opposition thereto:

On June 23, 1997, the City Council passed the Ordinance, which amended Chapter 27 of the Code of the City of Cranston, 1970, entitled "Streets and sidewalks" in certain respects. In particular, the Ordinance prohibits utility companies from making any opening or excavating on any public roadway or property without the prior written consent of the Director of Public Works. See Cranston City Code Section 27-26(B)(1), Roadway Excavation Permits. The Ordinance further requires the payment of the following "Administrative and Engineering Inspection Fees" prior to the issuance of any roadway excavation permit: (a) $75.00 per opening of 30 linear feet or less; (b) for openings in excess of 30 linear feet, $75.00 plus $1.00 pet linear foot in excess of 30 linear feet. See Cranston City Code section 27-26(B)(3). The Ordinance also requires all utility work to conform to the Specifications. See Cranston City Code Section 27-26(C). Finally, the Ordinance permits the Director of the City's Department of Public Works to promulgate such rules and regulations necessary to effectuate the purposes of the Ordinance. *[3 These rules and regulations were the basis of Providence Gas' Docket No. 2630 petition, now consolidated into Docket No. 2641.]*

The Specifications require, among other things, the following:

All permits are valid for thirty (30) days from date of issue. If the initial utility installation is not complete in that timeframe, a new application must be submitted or an extension requested in writing (Specifications, Section 2(D).)

All applications for street opening permits must be accompanied by a check in an appropriate amount as proscribed [sic] by City Ordinance 97-24. (Specifications, Section 2(F).)

Trench backfill to three (3) inches below adjacent pavements shall be by use of flowable fill. This cemetitious backfill material shall be self-compacting to 95% optimum density, have a unit weight of between 90 and 135 pounds per cubic foot and a compressive strength of between 500 and 1200 pounds per square inch. (Specifications, Section 3(A).)

Edges of all asphalt trench and patch restorations shall be sealed using Infra-red equipment suitable to ensure old and new asphalt are fused to eliminate perimeter cracking of joints. In special cases, this requirement may be waived by the Director of Public Works. (Specifications Section 4(E).)

The Director of Public Works may direct curb-to-curb street resurfacing where he deems necessary or appropriate for proper restoration. (Specifications Section 10.) (Providence Gas 9/12/97 petition, pp. 3-4).

Providence Gas and the Intervenors in Docket No. 2624 maintain that Cranston's Ordinance and related Specifications affect the mode and manner of their operations and the placing and maintenance of their equipment. They assert that the Ordinance is invalid insofar as it attempts to impose fees on utility companies. They further assert that the Specifications have a negative effect upon public health, safety, welfare, comfort and convenience.

The Cranston Ordinance and Specifications are attached to this report and order as appendices "2" and "3", respectively. These appendices are incorporated by reference.

ii. The Providence Ordinance (Docket No. 2641)

The Narragansett petition included a copy of the Providence Ordinance ("Ordinance") in issue. Narragansett relates that the Providence Ordinance requires utility companies to seek and obtain:

...the prior written consent and approval of the Director of Public Works ("Director") prior to making any "opening or excavation on, in, upon or under [or laying] any pipe, wire, line or conduit, cable or the like, on, in, across or under any public roadway or sidewalks in the City, [or] upon any public lands. (Narragansett Electric 10/31/97 Petition, p. 2).

The Petitioners and Intervenors in Docket No. 2641 maintain that Providence's Ordinance and related Regulations also affect the mode and manner of their operations and the placing and maintenance of their equipment. As such, these parties maintain that the Ordinance and Regulations interfere with, increase the cost of, frustrate and adversely affect their right, ability and duty to operate, place and maintain their plant and equipment within the City.

The Providence Ordinance and Regulations are attached to this report and order as appendices "4" and "5", respectively. These appendices are incorporated by reference.

c. Jurisdiction

The Petitioners and Intervenors seek Commission review of the aforementioned Cranston and Providence ordinances under the provisions of Rhode Island General Laws, Section 39-1-30, which in pertinent part reads:

Every ordinance enacted, or regulation promulgated by any town or city affecting the mode or manner of operation or the placing or maintenance of the plant and equipment of any company under the supervision of the commission, shall be subject to the right of appeal by any aggrieved party to the commission within ten (10) days from the enactment or promulgation. The commission, after hearing, upon notice to all parties in interest, shall determine the matter giving consideration to its effect upon the public health, safety, welfare, comfort, and convenience.

The Commission has determined that the instant fact patterns and arguments do indeed fall under the purview conferred through Section 39-1-30 above, and the Rhode Island Supreme Court's decisions related thereto (See Town of East Greenwich v. O'Neil, 617 A.2d 104 (R.I. 1992)), infra.

d. Prehearing Phase

In response to the various petition and motion filings, the Commission scheduled and conducted a prehearing conference on January 20, 1998. Representatives and attorneys for the Petitioners, Intervenors and Respondent Cities were in attendance. During this conference the Commission established procedural schedules for the completion of discovery, the filing of prefiled direct testimony, status conferences, and public hearings. Status conferences were subsequently conducted on February 12, March 5 and 19, and April 2 and 16, 1998. A number of prehearing issues were raised and resolved during this prehearing phase leading up to the public hearings conducted on July 7 and 8, and August 4 and 5, 1998.

e. Stipulation in Docket No. 2624

On July 17, 1998, the parties to Docket No. 2624 (the Cranston Ordinance docket) filed an executed Settlement Agreement with the Commission. This settlement agreement is attached to this report and order as "Appendix 1", and is incorporated by reference.

The agreement states that the city of Cranston and the Petitioners and Intervenors involved in Docket No. 2624 have reached an accord on the previously disputed issues germane to Docket No. 2624. The parties have asked the Commission to approve the agreement.

f. Hearings

The Commission conducted public hearings in this consolidated proceeding on July 7 and 8, and August 4 and 5, 1998. The following attorneys entered appearances in these dockets and/or appeared for the public hearings:

FOR PROVIDENCE GAS

AND BELL ATLANTIC:	Dennis J. Duffy, Esq., and Kevin J. McNeely, Esq.
FOR NARRAGANSETT ELECTRIC:	Peter Lacouture, Esq., and Kathryn S. Holley, Esq.
FOR BROOKS FIBER:	George E. Lieberman, Esq.,and Scott Sawyer, Esq.
FOR THE KCWA:	Francis. X. Flaherty, Esq., and Nicolle Flaherty, Esq.
FOR VALLEY GAS & BRISTOL & WARREN GAS:	Wallis M. Koutsogiane, Esq.
FOR COX:	Brian T. Fitzgerald, Esq., and Noelle Kinsch, Esq.
FOR THE CITY OF PROVIDENCE:	John T. D'Amico, Jr., Esq. and Patrick Conley, Esq.
FOR THE CITY OF CRANSTON:	William F. Holt, Esq.[4]
FOR THE DIVISION OF PUBLIC UTILITIES & CARRIERS:	Elizabeth Kelleher, Esq.
FOR CONSOLIDATED AND PRM:	James M. Sloan, III, Esq.
FOR THE COMMISSION:	John Spirito, Jr., Esq.

[4 Attorney Holt did not actually appear for these hearings due to the fact that the parties involved in Docket No. 2624 had reached a tentative settlement, prior to August 7, 1998. A written settlement agreement, signed by all parties to Docket No. 2624 was filed with the Commission on July 17, 1998, supra.]

Collectively, the parties proffered ten witnesses in support of their respective positions. The witnesses were identified as follows:

- Testifying on behalf of Narragansett Electric:

1. Mr. Christopher H. Worme, P.E.
Lead Planning Engineer
Narragansett Electric Company; and

2. Dr. Tahar El-Korchi, Ph.D
Professor of Civil Engineering
Worcester Polytechnic Institute
Worcester, Massachusetts.

- Testifying on behalf of Providence Gas:

1. Mr. Mario G. Carlino
Director of Distribution
Providence Gas Company; and

2. Dr. Tahar El-Korchi, supra.

- Testifying on behalf of Brooks Fiber:

1. Mr. Robert McDonough
Operations Manager
Brooks Fiber Communications of Rhode Island.

- Testifying on behalf of Cox:

1. Ms. Jennifer A. Johns
Director or Regulatory Affairs -- Eastern and Central Regions
Cox Rhode Island Telecom II, L.L.C.

- Testifying on behalf of Valley Gas:

1. Mr. Robert A. Young
Vice President and Chief Engineer
Valley Gas Company and Bristol & Warren Gas Company

- Testifying on behalf of Consolidated and PRM:

1. Mr. Robert B. Barton, P.E.
Barton Engineering
Needham, Massachusetts

- Testifying on behalf of the city of Providence:

1. Mr. Robert Christman, P.E.
Director of Pavement Engineering Services
Vanassett Hangen Brustlin, Inc.
530 Broadway
Providence, Rhode Island;

2. Mr. Ferdinand C. Ihenacho, P.E.
Public Works Director
City of Providence; and

3. Dr. Kang-Won Wayne Lee, Ph.D., P.E.
Professor and Director of Graduate Studies
Department of Civil and Environmental Engineering
University of Rhode Island.

Mr. Christopher Worme described Narragansett Electric's facilities in Providence. He also explained how the Providence Ordinance, and its associated Regulations ("Regulations"), will interfere with

Narragansett Electric's ability to serve its customers, increase costs and cause serious compliance problems (Narr. Elec. Exh. 3).

Mr. Worme testified that Narragansett Electric's underground distribution system in Providence is exclusively located in a manhole/conduit system (Id., p. 3). He noted that Narragansett Electric also maintains numerous vaults under sidewalks in Providence to house transformers for the network grid.

Mr. Worme described the conduits and manholes used by Narragansett Electric as follows:

> A conduit or duct is basically a pipe, which holds electrical cables or circuits. Conduit systems are typically surrounded by a concrete envelope for mechanical protection as well as providing a path for heat transfer away from the cable in transmission systems. Conduit systems have been built with a combination of steel, tile, fiber and PVC pipes. The conduit systems in the city, which were installed at the end of the nineteenth century, are mostly clay tile (Id., p. 4).
>
> Early manholes were constructed of brick and were required at intersecting streets. Other manholes were required at intermediate locations to keep the pulling tension on the cables within their design limits during installation and to ensure that the service pipes to buildings were kept within a reasonable length.... Today, where possible, standard precast concrete manholes are used. If site conditions do not permit the use of a standard precast manhole or the manhole used requires a special manhole size or design, then it may be necessary to construct a cast-in-place concrete manhole (Id., pp. 4-5).

Mr. Worme related that the installation of the manhole and conduit system requires Narragansett Electric to excavate streets. He explained however, that once the conduits and manholes are installed, the system's cable circuits are generally operated and maintained without additional excavation (Id., p. 6).

Mr. Worme testified that Narragansett Electric has excavated streets when installing new services, upgrading existing services, during planned infrastructure additions or relocations, and during emergency repair work to conduit systems and manhole and vault structures (Id., p. 8). Mr. Worme provided descriptions and examples of these type projects (Id., pp. 8-10).

Mr. Worme further testified that Narragansett Electric uses "qualified outside contractors with significant experience in the construction of electric facilities" to do its excavation work in the city of Providence (Id., p. 10). Mr. Worme related that Narragansett Electric prequalifies contractors according to established criteria, including the ability to safely work around its energized cables (Id.). Mr. Worme also related that Narragansett Electric receives set bid prices from several contractors for many different types of work. He stated that when the need arises for a particular service, one of these contractors is selected to do the work (Id., pp. 11-12).

Mr. Worme testified that Narragansett Electric objects to the Providence Ordinance and Regulations because they:

> ...create administrative barriers which may cause delay and confusion, make no or inadequate provision for emergency work, create other compliance issues, lack fixed standards, rely too greatly on the discretion of the Director, require expensive restoration methods of questionable benefit and impose burdensome fees on Narragansett and its customers (Id., p. 12).

Mr. Worme contended that the Ordinance and Regulations will cause delay in almost every instance.

Mr. Worme expressed the following concerns over these anticipated delays:

> The Ordinance is not clear as to what or how many permits are required to do a job. Section 2 of the Ordinance states that the Company will not be able to "make any opening or excavation on, in, upon or under nor lay any pipe, wire, line or conduit, cable or the like, on, in, across or under any public roadway or sidewalk in the city nor upon any public lands without the prior written permission of the Director of Public Works or his or her designee." This Section thus suggests that cable pulling is an activity, which requires a permit -- even though excavation is not required.
>
> Ordinance Section 5 states that "Permits for the installation of any pipe, wire, line, conduit, cable or the like under any roadway or sidewalk...are distinct from roadway excavation permits." Therefore, it appears that multiple permits may be required for any conduit/manhole installation undertaken by the Company. Further, the Prelude to the Regulations states that a permit may be issued within fourteen (14) days. Because the Ordinance has such a broad scope, Narragansett apparently must apply for a permit and wait up to fourteen (14) days before doing any type of work.
>
> The Ordinance appears to prevent Narragansett from obtaining a permit for future vault installation as its requires written applications for sidewalk openings only by the "owner of record." Narragansett Electric constructs sidewalk transformer vaults in Providence in order to supply the downtown a-c network grid. These vaults which are typically 10' X 30' are constructed under the sidewalk in order to enable Narragansett to place removable sections in the roof to facilitate getting equipment in and out of the vault. Ventilation stacks are also located on the sidewalks. Obtaining the permission of the owner of record of the abutting real estate in all such cases would delay Narragansett's ability to serve new customers in the downtown area. If sidewalk owners do not cooperate, Narragansett will be forced to redesign vaults and/or insist that all customers provide space on their properties for this equipment regardless of the size of their electrical requirements. This will make it extremely expensive or impossible for customers to obtain a new service or to upgrade their services and would surely be an economic disincentive to redevelopment within the downtown district. Even something as simple as the installation of a new service lateral will apparently require multiple permit applications from Narragansett and the property owner because the lateral must cross the sidewalk (Id., pp. 12-14).

Mr. Worme also contended that additional delays will result from the winter moratorium on excavations imposed under the Regulations. The witness related that although Narragansett Electric attempts to avoid winter excavations, due to the higher costs, sometimes these excavations become necessary "to meet deadline requests from customers" (Id., p. 24).

Mr. Worme voiced distress that the Ordinance has no provision to allow emergency excavations and requires a permit in all cases. He testified that although the Regulations allow for emergencies, so long as certain information is submitted on the next business day, the emergency must first be considered dangerous to "life or property" (Id., p. 15). Mr. Worme observed that there are many situations where customers will be demanding the restoration of service, "yet we will be unable to make the judgment as to whether life or property is endangered" (Id.). The witness also criticized the Regulations for requiring "a complete and thorough written explanation of the nature of the emergency" and the estimated time for job competition (Id.).

Mr. Worme asserted that when a failure occurs between a manhole and a customer's property and requires the replacement of a service conduit, the Regulations become even more onerous. Under this scenario, Mr. Worme related, Narragansett Electric would be required to submit information for the

work to be done in the street, seek sidewalk opening permits to install the new service conduit, and search land evidence records to determine the owners of the property adjacent to the sidewalk (Id., p. 16).

Mr. Worme related that Narragansett Electric would have difficulty complying with many of the requirements of the Ordinance and Regulations. As an example, Mr. Worme noted the mandatory requirement contained in the Regulations which provides that all trenches be covered or backfilled at the end of each work shift. Mr. Worme testified that although this practice is reasonable for small jobs, on larger construction jobs this practice "is not possible or practicable" (Id., p. 16). Mr. Worme subsequently cited scenarios supporting this opinion (Id., pp. 16-17).

Mr. Worme also objected to the provision in the Ordinance, which states that a permit can be canceled for "any appreciable deviation". He explained that this provision would prevent Narragansett Electric from deviating from its own plans in the event unknown obstructions or incorrect records necessitate a change (Id., p. 18).

Mr. Worme further objected to having to file Dig Safe permits and street/sidewalk closing permits at the time of the excavation permit application. He contended that Dig Safe requirements are the responsibility of Narragansett's contractors. He similarly contended that closing permits should likewise be filed by the contractors, who best know their construction schedules (Id.).

Mr. Worme also voiced concern over the "virtually unbridled discretion" the Ordinance and Regulations give the Public Works Director. He maintained that "without clear standards", Narragansett will have difficulty being consistent and effective in its planning (Id., pp. 19-21).

In closing, Mr. Worme testified that he is unaware of any situation where a Narragansett "permanent patch" has failed in Providence during the past five years (Id., p. 23). He also related that Rhode Island law requires Narragansett to restore the roadway it alters "to the same or better condition that existed prior to alteration" (Id., p. 24, quoting from R.I.G.L. Section 24-5-1.1). Mr. Worme opined that Providence's Regulations are inconsistent with State law. He asserted that the infrared bituminous surface repair; curb-to-curb cold planning and resurfacing; and degradation fees; all imposed under the regulations, unreasonably exceed the current State road restoration requirements (Id., pp. 24-25).

Mr. Mario G. Carlino discussed the impact that Providence's Ordinance and Regulations will have on Providence Gas. He began by testifying that the Ordinance "would dramatically increase the cost of performing road excavation and restoration above our costs today" (Prov. Gas Exh. 4, p. 3). Mr. Carlino also opined that complying with the Ordinance and Regulations "will not significantly improve the life or performance of the roadways" (Id.). He also voiced safety concerns regarding the mandate of having to use "flowable fill" around gas mains (Id.).

Mr. Carlino explained that Providence Gas considers street construction (excavation) and street restoration as two distinct operations. He related that construction starts by removal of the asphalt in the area where an excavation will be made and trenching in and around the gas main facilities. Mr. Carlino testified that once the trenching is completed, work is performed for the maintenance, repair or improvement of the gas facilities. He related that the trench is then back-filled and compacted to a 95% standard in lifts to the bottom edge of the road surface to ensure against settlement. He stated that a temporary pavement patch is then installed to cover the excavated area.

Mr. Carlino explained that the permanent restoration is performed at a later date by pavement contractors retained by Providence Gas. He related that the permanent restoration begins with the

temporary pavement patch being removed and then replaced by a final asphalt application. He explained the trench includes a one-foot cutback area down to the gravel base, which prevents undermining of the subsurface materials. Mr. Carlino testified that the cutback increases the length and width of the trench by one foot on all sides. He related that the materials selected for final application are typically the same type of materials that were originally excavated from the work site (Id.).

Mr. Carlino related that the settlement period before the permanent restoration phase usually takes a minimum of six weeks. According to this witness, the two step restoration is designed "to ensure that the best result is obtained" (Id., p. 4). Mr. Carlino opined that Providence Gas "does a fine job of repairing roads" (Id., p. 5). He also related that "we have made it known that we will stand behind our road repairs" (Id.).

Mr. Carlino identified four areas of concern that Providence Gas has relative to Providence's Ordinance and Regulations, specifically: infrared treatment requirements, the use of flowable fill, requirements for extensive inlays and overlays, and concrete road base repair requirements (Id., p. 6).

Mr. Carlino testified that based on reports from his field supervisors, he has determined that the use of infrared equipment on street repairs cannot prevent surface cracking over time. Consequently, he believes "that the appeal of infrared is only aesthetic and temporary" (Id., p. 7). He further opined that its associated extra costs, 400% for smaller excavations to approximately 250% for larger excavations, is not cost effective (Id.).

Regarding "flowable fill", Mr. Carlino testified that a study produced by the Boston Gas Company concluded that there are:

> ...safety issues relating to gas leak detection and gas migration patterns, and problems with plastic gas pipes crushing during normal expansion and contraction of the plastic material (Id., p. 6).

Mr. Carlino further related that flowable fill has also been known to increase corrosion to steel and cast iron mains and services (Id., p. 6).

Mr. Carlino testified that the overlay/inlay requirements could result in significant additional costs. *[5 An overlay is the application of an asphalt course over the existing asphalt. An inlay is performed by cold-planing or grinding the existing wearing asphalt surface down to approximately an inch and a half below its existing height and then applying a new asphalt wearing surface (Prov. Gas Exh. 4, p. 8).]* He offered the following example:

> ...an excavation, which was originally a four-foot by four-foot opening, would normally require a six by six-foot opening with the additional one-foot cutback area. The restoration would consist of a 36 square foot area with a 24 linear foot seam. However, the director of public works may require a 30 foot wide overlay or inlay in order to resurface the road from curb to curb. This would result in a 180 square foot restoration area with a 60 linear foot seam running perpendicular to the roadway. This adds significantly to the expense of the restoration job as well as more than doubling the seam length. So, instead of making the excavation as small as possible to avoid potential performance problems with the roadway, the requirements of the ordinances and regulations appear to be more concerned with aesthetics (Id., p. 8).

Mr. Carlino also took exception to the Regulations' requirement that road inlays be "milled down to

three inches in depth" (Id.). He testified that one and one-half inches is customary, and the additional milling only adds cost, without increasing roadway performance (Id. 8-9).

Mr. Carlino next explained his objections to the Regulations' concrete road base repair requirements. He related that when an excavation is made on an older road with a concrete base, the City requires that the road base be reconstructed with poured concrete and reinforcement doweling. Mr. Carlino testified that in theory, the dowels should anchor the new concrete to the old concrete. However, Mr. Carlino related, "the dowels serve no purpose when the concrete base has lost its structural integrity" (Id., p. 9). He recommended that the requirement to pour cement and use dowels for road base restoration be eliminated and, instead, concrete base repairs be made by using full depth asphalt replacement (Id., p. 9).

Mr. Carlino next addressed the permit fee structure in the Providence Ordinance. He explained that previously, excavation permits in the City of Providence cost $25. He related that the new Administrative and Engineering ("A & E") Fee for excavations that are up to 50 square feet is $40. For excavations greater than 50 square feet, the A & E Fee increases to $0.25 per square foot (Id., p. 10). He further related that the Providence Ordinance also includes a pavement degradation fee, which is indexed according to the age of the roadway. He related that the degradation fee for street repairs is assessed as follows: $1.00 per square foot for a street up to 1 year old; $0.75 per square foot for a street more than 1 year old and up to and including two years old; $0.50 for a street more than two years old and up to and including three years old; [and] $0.25 per square foot for a street greater than three years old (Id.).

Mr. Carlino testified that these fees will have a significant affect on Providence Gas' cost of doing business. He offered the following illustration:

> In the past, the permit fee in the City of Providence would generally be $25 for the City's cost of processing the permit. The new Providence Ordinance fees are calculated based on the square footage of the excavation. Our typical trench opening for construction is approximately two feet wide. Based on a 20,000 square foot excavation, the Administrative & Engineering Fee would be $5,027.50.
>
> The Degradation Fee calculation also includes the one-foot cutback from the original opening of the trench for a 40,000 square foot area. A five year old street is subject to a $0.25/sq. ft. charge, which, when applied to the 40,000 square foot area is $10,000. The total permit charge would be in excess of $15,000 (and this does not include the expense incurred if the City were to require the entire street to be resurfaced as a "Protected Street") (Id., p. 11).

Mr. Carlino also echoed Mr. Worme's concerns over the discretion the Ordinance and Regulations give to the City's Public Works Director. Mr. Carlino testified that this discretion relative to the imposition of standards and methods will make designing projects and determining their cost "problematic" (Id.). He added that it would also be difficult to award construction jobs since a large cost variable would be unknown (Id.).

In his final comments Mr. Carlino also criticized the Ordinance's winter moratorium on excavation projects between November 15 and April 15. Mr. Carlino asserted that Providence Gas:

> ...must be allowed to excavate for repair, maintenance and other service work as needed throughout the year (Id., p. 13).

Mr. Carlino reasoned that Providence Gas has both a public service obligation and an obligation under federal law to perform certain activities (Id.).

Professor Tahar El-Korchi was proffered jointly by Providence Gas and Narragansett as an expert witness on roadway construction and road maintenance techniques.

Dr. El-Korchi prefaced his testimony with a discussion on pavement design and construction techniques. During this discussion Dr. El-Korchi explained the process by which public streets are built and rebuilt (Narr. Elec./Prov. Gas Exh. 1, pp. 3-4). He also discussed the factors that must be considered when designing a street or road pavement (Id., p. 4-5). Dr. El-Korchi additionally explained the differences between flexible and rigid pavements; and the conditions under which roads ought to be rebuilt (Id., p. 5-7).

Dr. El-Korchi testified that a pavement (roadway) is usually designed for a certain life expectancy, usually 20 to 25 years (Id., p. 7). He related, however, that during its lifetime it is anticipated that the pavement will require preventive maintenance (i.e. crack filling and sealing, chip seals, slurry seals, or thin overlays) or corrective maintenance (i.e. hot or cold patching) and possibly rehabilitation (i.e. thick overlay) (Id.).

Dr. El-Korchi opined that for a municipality to maintain its streets and roads efficiently, it should have a good road and pavement management program. He provided the following maintenance program as a typical example:

- 5-7 years - crack cleaning and filing, crack sealing
- 10-12 years - crack cleaning and filling, patching, chip seal or thin overlay
- 15-17 years - thick overlay (Id., pp. 8-9).

Dr. El-Korchi related that if a regular maintenance protocol is not followed, then the pavement will deteriorate faster and a more expensive rehabilitation option will become necessary (Id., p. 9).

Dr. El-Korchi testified that when excavation work on underground utilities is required the restoration is crucial if the functionality of the pavement is to be maintained. He recommended the following restoration methodology:

> The excavation should be backfilled with good material and compacted to the required density. A temporary patch should be constructed, compacted and allowed to densify under traffic load for optimal compaction. After the temporary settlement period, the temporary patch should be squared, cut and removed. The base should be recompacted, a tack coat should be applied to enhance the bond between old and new material, and a permanent patch should be properly constructed and compacted using adequate HMA [hot mix asphalt] (Id., pp. 9-10).

Dr. El-Korchi emphasized that good compaction and good quality materials are critical to the longevity of the patch (Id., p. 10).

Dr. El-Korchi next offered an opinion on several of the provisions contained in the Providence Ordinance and Regulations. A summary of Dr. El-Korchi's comments on various provisions of Providence's Ordinance and Regulations is reflected below:

- Ordinance Section VIII(2) which requires binder and surface courses to extend twelve inches beyond the width of the trench:

Dr. El-Korchi called this a reasonable requirement. He related that the added area allows for proper compaction of the backfill material given the potential for undermining that could occur during the excavation process (Id., p. 11).

- Ordinance Section IX(3) gives Public Works Director the authority to require curb-to-center line or curb-to-curb cold planing and resurfacing:

Dr. El-Korchi contended that this requirement is an unreasonable imposition on utility companies. He stated that although the larger paved area will be more pleasing to look at, this requirement will not improve the functionality of the pavement over a well-constructed utility patch. He also questioned the requirement in view of its high cost (Id.). Dr. El-Korchi also noted that cold planing and resurfacing will not compensate for a poor job of compaction. He opined that if a utility cut is not properly backfilled and constructed, even cold planing and resurfacing a larger surrounding pavement will not prevent ultimate failure (Id., pp. 11-12).

- Regulations Section X, which provides for infrared bituminous surface repairs:

Dr. El-Korchi testified that the infrared technology/methodology is not appropriate for use in repairing utility excavations on a general basis. He stated that "we do not have a track record to prove that it will perform better than good quality traditional methods" (Id., p. 13). He agreed, however, that infrared technology will improve the initial aesthetics of the new patch (Id.). Nevertheless, Dr. El-Korchi contended that the higher cost of infrared patching has not been proven to be cost effective (Id., pp. 13-14). Dr. El-Korchi recommended that a "tack coat" or "joint sealer" be used as an alternative to infrared patching (Id., p. 15).

- Regulations Section VII, which requires the use of flowable fill backfill:

Dr. El-Korchi testified that there are many advantages to using flowable fill or "controlled density fill" ("CDF") as a backfill material. However, he explained that a recent study conducted by the Boston Gas Company showed that serious issues exist with use of flowable fill materials around gas lines (Id., p. 16). He identified the "serious issues," as follows:

(1) Experiments conducted at Boston Gas in 1995 showed that the cured CDF material was impermeable to gas migration. CDF materials distort the normal gas leak migration common with a granular backfill material. The gas appears to migrate around the CDF layer and along the gas pipe. This may be hazardous if gas migrates horizontally towards adjacent buildings and because of the increase in leak detection time.

(2) Resistivity tests showed that the CDF materials have a low electrical resistivity. This increases the potential for corrosion damage to bare steel mains and service lines and cast iron mains. This could also increase the number of corrosion leaks in steel and cast iron mains and service lines.

(3) The high pH and high alkaline environments resulting from fly ash chemistry and portland cement may increase the corrosion potential of copper mains and services. The pH of fly ash

mixtures can exceed 11, which is highly corrosive for some non-ferrous pipes.

(4) Stray current activity will increase the number of corrosion sites along cast iron mains and increases the frequency of corrosion leaks and breaks.

(5) The rigidity of CDF materials will also restrain the movement of cast iron mains as well as plastic pipes due to normal expansion and contraction associated with temperature changes. This increases the stresses on joints and may result in added gas leaks and may create risks of cracking or crushing plastic pipes.

Further, CDF materials need time to set and cure which adds to the time and expense of completing a project. Finally, high density/high strength CDF materials are not excavatable by hand. This may cause delays in closing trenches and potential safety problems where excavation machinery is necessary for repair or maintenance, concerns equally applicable to the use of CDF in the vicinity of gas, electric, water and telecommunications lines (Id., pp. 16-17).

For the reasons enumerated above, Dr. El-Korchi concluded that CDF materials are not appropriate as a backfilling material around utility lines (Id., p. 17).

- Regulations Section VIII(Z)(C) which requires special measures in restoring roads with a concrete road base:

Dr. El-Korchi testified that restoring concrete-base roads with Portland cement and doweling (as required) is "very costly" (Id., p. 18). He acknowledged that this cost can be double or triple the cost of using only asphalt (Id., pp. 18-19). He also related that if the concrete road base is in poor condition, the required restoration methodology "may not be any more effective than a full depth HMA [asphalt] repair" (Id., p. 19). Dr. El-Korchi recommended that instead of it being a mandate, an assessment of the structural integrity of the concrete base should be made to determine whether there is any benefit to using a dowel and concrete repair method (Id.). He opined that if there would be no benefit, than a HMA repair should be used instead.

Mr. Robert McDonough testified that he is responsible for maintaining Brooks Fiber's network in Rhode Island. He related that Brooks Fiber has intervened in the consolidated dockets to express its perception of how the Providence (and Cranston) ordinance "adversely and unfairly" affects Brooks Fiber.

Mr. McDonough testified that the Ordinance imposes fees, practices and regulations that are excessive and discriminatory and which create a barrier to entry of companies that wish to compete to provide local telephone service in Providence (Brooks Fiber Exh. 2, p. 2). He also opined that the Ordinance further "directly and unlawfully contravenes the Telecommunications Act of 1996" (Id., pp. 2-3). Mr. McDonough contended that if the Ordinance is allowed to stand it will "substantially impede competition" in the Providence local exchange market (Id. p. 3).

Mr. McDonough objected to the Providence Ordinance's A & E fees. He concluded that the fees are not cost based. He stated that these fees will "greatly increase our cost of doing business" (Id.). To illustrate the additional costs, Mr. McDonough proffered and example where the cost associated with the installation of 10,000 feet of conduit would increase from $5,000 to $75,000 (Id.).

Mr. McDonough also objected to the degradation fees imposed under the Ordinance. He found theses fees excessive and unrelated to the City's costs for administering permit applications. Mr. McDonough

asserted that a more reasonable approach would be for the City to require utilities to restore roadways to their previous condition and to guarantee the work for a reasonable period (Id., pp. 3-4).

Mr. McDonough also objected to Section 11 of the Ordinance, which provides that utilities obtain a performance bond in an amount of not less than $100,000 per excavation (Id., p. 4). He called this requirement "excessive and unnecessary" (Id.). He contended that performance bonds should only be required for companies "that are not likely to have the resources or the expertise to restore a street to its previous condition" (Id.). Mr. McDonough recommended that utilities subject to Commission regulation be exempted from this requirement (Id.). As an alternative recommendation, Mr. McDonough suggested that utilities be permitted to provide a single bond, without surety, for work to be performed throughout the year (Id.).

Mr. McDonough further disagreed with the Director's authority to require infrared patching, pursuant to the Ordinance. He testified that this requirement also increases costs unnecessarily. He opined that "hot asphalt crack sealing" be used instead during the restoration process (Id.).

Brooks Fiber further takes the position that the Ordinance's November 15 to April 15 excavation moratorium discriminates against competitive local exchange carriers. Mr. McDonough testified that this moratorium would effectively prevent Brooks Fiber from connecting new customers to their network "for over forty percent of the year" (Id.) Similarly, Mr. McDonough related that the city of Providence has extended the moratorium indefinitely over certain "protected streets" (Id.). He explained that for these protected streets, the City will only allow excavations during an "emergency" (Id.). Mr. McDonough testified that the City equates an emergency to a situation where a lack of service would result in danger to "life or property" (Id., p. 5). He called this restriction discriminatory as well (Id.).

As an additional obstacle relative to Brooks Fiber's ability to compete with other telephone companies, Mr. McDonough explained that Section 14 of the Ordinance gives too much discretion to the Director of Public Works, who may deny a permit application if there are "pipes, conduits, etc. already in place" (Id.). Mr. McDonough contended that this type of discretion "will strengthen the incumbent's monopoly" by frustrating customer choice in Providence (Id.).

Mr. McDonough concluded that the Ordinance's regulations and fees will have a more severe effect on market entrants who intend to construct or who are expanding new networks than it will have on incumbents who already have ubiquitous networks in place. He also concluded that the Ordinance favors resellers of telephone service over facilities-based telephone service providers (Id.).

Cox's contentions in this proceeding generally paralleled those of Brooks Fiber. For example, Ms. Jennifer Johns testified that the Ordinance and Regulations:

> ...will raise significant barriers to entry into the local service market,...are not competitively neutral and...will have a discriminatory impact on new entrants (Cox Exh. 1, p. 3).

Ms. Johns further opined that the fees proposed in the Regulations "are neither reasonable nor fair and are discriminatory in nature" (Id.). She concludes that the Ordinance and Regulations are "anti-competitive" (Id.).

In support of Cox's position, Ms. Johns voiced several concerns. Ms. Johns testified that a winter moratorium on street cuts, and the associated fees:

"...could severely harm...[Cox's] ability to install new facilities and, correspondingly, its ability to provide service to new customers" (Id., p. 5).

Ms. Johns contended that the Telecommunications Act of 1996 protects new entrants from state or local requirements of this type (Id.).

Ms. Johns asserted that if Cox is going to compete, it must be able to respond to all service requests in a timely manner. She stated that delays would invariably benefit the incumbent provider (Id., p. 7). For this reason, Ms. Johns characterized the moratorium as the "most troubling" of the Ordinance's provisions (Id., p. 9).

Additionally, Ms. Johns testified that the city of Providence has failed to demonstrate that the level of fees in the Ordinance and Regulations are cost-based and appropriate (Id., p. 12). She related that these fees "are likely to harm new facilities-based entrants..." (Id.). She reasoned that the fees will have a far greater negative impact on new entrants. Ms. Johns also questioned the City's legal authority for imposing degradation fees (Id., p. 14).

Finally, Ms. Johns objected to the Ordinance and Regulations for the negative impact they will have on competitive local exchange companies. She related that new facilities-based entrants, like Cox, must continually upgrade or build their telephone plant to serve new customers. She explained that by blocking the ability of new entrants to construct their facilities, the Ordinance and Regulations "create a tremendous barrier to competitive entry" (Id., pp. 15-17).

Mr. Robert Young articulated the positions of Valley Gas and Bristol & Warren Gas. Mr. Young addressed nine issues, which testimony is summarized below:

1. Performance Bond Requirement

Mr. Young contended that performance bonds are unnecessary for public utilities. He maintained that a performance bond should only be required when there is reason to believe that a permit applicant will not live up to its obligation to restore the street to as good or better condition.

2. Granting of permits subject to discretion of Public Works Director

Mr. Young called this discretion "excessive" (Valley Gas/Bristol & Warren Gas Exh. 1, p. 2). He opined that such discretion could lead to "absurd" results (Id.). Mr. Young testified that a public works director is not the appropriate party to evaluate or prioritize the needs and service obligations of the utilities within the community (Id.).

3. Who may apply for permits

Mr. Young objected to Section 14 of the Ordinance, which required the real estate owner abutting the sidewalk to apply for the sidewalk excavation permit. He related that this restriction severely limits the utilities' ability install certain facilities such as service stubs or non-payment valves unless the owner requests those installations (Id., p. 3).

4. Fees

Mr. Young described the A & E fees to be excessive and not representative of the actual costs incurred

in processing a permit.

Mr. Young also opined that the City's "Pavement Degradation Index Fee" is "fatally flawed" (Id.). He based his conclusion on two factors. First, he related that the degradation fee does not define the reasonable life expectancy of a given road. Second, Mr. Young characterized the fee as a "double recovery" inasmuch as the Ordinance also requires that a road surface be restored to a condition equal to or better than the pre-excavation condition (Id.). He asserted that if this fee is to be required, then all the expensive restoration requirements should be eliminated (Id., p. 4).

5. Replacement requirements

Mr. Young contended that if the city of Providence is truly seeking only quality restoration and prevention of degradation, then replacement-in-kind should be required. He related that the current provisions, however, provide for "utility-subsidized road improvement, not restoration" (Id., p. 4).

6. Keyhole excavation

Mr. Young testified that the technique of keyholing was undertaken to save on degrading the road/road base and to minimize paving costs by minimizing the excavated area. He explained that the Ordinance requirement for temporary hot patching, saw cutting, and overlay/inlay restoration will only serve to significantly increase costs to a point where the formerly least-cost-option of keyholing will now offer no advantages over traditional replacement options (Id.).

7. Infrared repairs

Mr. Young testified that the utilization of the infrared restoration technique has not produced good results. He related that "reflective cracking" usually reestablishes the presence of the seam within a year or two. He recommended hot asphalt crack sealers instead (Id., p. 5).

8. Flowable fill

Mr. Young identified a number of reasons why Valley Gas and Bristol & Warren Gas must object to the mandated use of flowable fill. The reasons are summarized below:

- Can't be distinguished from a telephone or electric cable duct system;

- Conventional digging equipment cannot be used to remove it;

- Requires extensive use of steel plates to cover the flowable fill while it cures;

- Can hamper an adjacent utility's ability to safely excavate around its own facility;

- Can hamper the investigation of and emergency response to a gas leak by distorting the gas migration pattern, and cause leaking gas to migrate horizontally toward buildings;

- Can prevent normal expansion and contraction of cast iron mains and plastic pipes, resulting in main breaks and joint leaks;

- May increase corrosion damage to bare steel and cast iron mains and services; and

- Will necessitate the disposal of excavated material, which will increase costs for utilities and ratepayers (Id., pp. 5-7).

9. Prohibition against cold patch

Mr. Young contended that with the advent of "high-tech cold patching materials" cold patching should remain appropriate for smaller excavations, such as keyholes, service installations and repairs (Id., p. 7).

In his concluding comments, Mr. Young related that the Ordinance and Regulations will have a dramatic financial impact on Valley Gas and Bristol & Warren Gas if allowed to remain in effect. He also related that this financial impact will significantly affect "our ability to compete with other fuels" (Id., p. 10).

Mr. Robert Barton was proffered by Consolidated and PRM to rebut the 1996 Boston Gas Company study, utilized by Dr. El-Korchi as the basis for opposing the use of flowable fill (controlled density fill) around gas mains. Mr. Barton was qualified by the Commission as an expert on flowable fill.

Mr. Barton testified that the Boston Gas Company study contains errors, which have given people "wrong impressions" about flowable fill (8/4/98, Tr. 87). Mr. Barton offered the following opinion regarding the use of flowable fill:

My professional opinion is that flowable fill in 95 percent of the instances is far superior in every way to the compacted gravel. In the 5 percent it is equal to the gravel in all aspects, including the safety. The thing that has come up with the Boston Gas report is the permeability; and we have proven through the research that the permeability of the high air mix is equal or better than that of compacted gravel. And the other aspect of it is the compacted gravel is not always compacted gravel. Many times it's the stuff that comes out of the trench that's put back in, has a lot of clay in it and it is less permeable than the flowable fill using the high air.

The other aspect of safety, with the flowable fill you don't have people in the trench, you don't have the chance of them being caved in on, especially when they're using vibratory material -- equipment in the trench. So we're much safer in every aspect (8/4/98, Tr. 99-100).

In defense of its Ordinance and Regulations, the city of Providence proffered three witnesses and several exhibits.

Mr. Ferninand Ihenacho, Providence's Director of Public Works, sponsored copies of the City's Ordinance and Regulations. The copies were appended to his pre-filed testimony (Providence Exh. 4, exhibits 2 and 3).

Mr. Ihenacho testified that he relied on his experience in the field of roadway management when he drafted the Regulations now in issue. He noted that he also consulted with Mr. Robert Christman, infra, Dr. Wayne Lee, infra, and fellow public works directors in different cities and towns within Rhode Island (Providence Exh. 4, pp. 6-7).

Mr. Robert Christman was identified as the Director of Pavement Engineering Services for Vanasse Hangen Brustlin, Inc., an engineering firm in Providence. Mr. Christman was hired by the city of Providence in 1997 to assist the City in developing pavement and utility cut policies.

Mr. Christman testified that subsequent to the City's enactment of the Ordinance and Regulations, his firm was hired to examine existing street cuts to identify any pavement deficiencies. He related that:

Our object was to get a[n] historical, factual record of how these permanent utility patches aged over their time" (Providence Exh. 3, p. 9).

Mr. Christman testified that he looked at 10 to 12 years of data encompassing 265 permanent patch reports. He explained, however, that out of the 265 patch reports, his team was only able to rate 24.5 percent of the patches "because of potential biases in the location of these patches" (Id.).

Mr. Christman stated that after the data was established, he broke the City's streets down into two classifications, namely, arterial collector streets, carrying high traffic; and local/residential streets, carrying low traffic. He also researched the dates on which those streets received major rehabilitation or reconstruction. Mr. Christman related that his team next rated the condition of each street. From this aggregate data, Mr. Christman testified that he then developed a "performance curve" for each of the aforementioned three performance measurements. Mr. Christman explained that the performance curve "gives us an ability...to evaluate comparisons of performances" (Id., p. 12). He further explained that these comparisons are plotted on a "pavement condition index", where zero stands for "failed" and 100 stands for "excellent" (Id., pp. 13-14). Mr. Christman related that the actual pavement condition index ("PCI") is obtained from rating nine different surface distresses (Id., p. 15). Mr. Christman testified that the PCI is then used to determine which roadway maintenance or rehabilitation option is appropriate for a given street.

Predicated on this analysis, Mr. Christman opined that:

> Permanent patches only have a performance life of approximately one quarter to that of an uncut arterial collector roadway...[and] approximately one-sixth to that of an uncut, local roadway" (Id., p. 20).
>
> As a consequence of this performance deficiency, Mr. Christman opined that a degradation fee is justified. He likened this fee to the "difference between the two performance curves" (Id., p. 23).

Mr. Christman testified that he translated this performance deficiency into a degradation fee by starting with the average cost to reconstruct arterial and local roadways. He related that his studies have shown that the cost for the rehabilitation of arterial and local roadways are $32 and $21 per square yard, respectively (Id., p. 24). He explained that as the pavement ages, the asset value declines "so depending on when one cuts a particular street, it has a particular asset value assigned to it, based on the age" (Id., p. 27). Mr. Christman concluded that:

> Based upon the findings of our recent study, the city of Providence is more than justified in applying this fee structure. As the VHB pavements study shows, that even with this new levy of fees and expected revenue increase, the city is still not being properly reimbursed for the loss in asset value to their streets, based upon the actual performance of the permanent utility patches.

Dr. Kang-Won Wayne Lee testified that he was retained by the city of Providence to examine its regulations regarding street restoration and utility patch requirements (Providence Exh. 5, p. 7).

Dr. Wayne Lee began his testimony by asserting that a utility patch is considered a "defect" in pavement engineering (Id., p. 8). He related that once the continuity of the pavement's structure has been disturbed its original continuity cannot be restored (Id.). He based this contention on his opinion

that a utility patch will deteriorate differently than the street as a whole (Id., p. 9). He maintained that this is true regardless of the means employed to install the patch (Id.).

Dr. Wayne Lee testified that he utilized a pavement management system which operates on "MicroPaver Pavement Management System" ("MicroPaver") software, originally developed by the Army Corps of Engineers (Id., p. 10). He explained that MicroPaver uses a database containing information on the types of pavement distress, the severity of the distress, and the size of the distress (Id., p. 11). He related that the utility cut and patching in this matter constitutes the distress for purposes of running the software program. Dr. Wayne Lee explained that from the three above-identified criteria, MicroPaver generates a "Pavement Condition Index" ("PCI"), supra (Id., p. 12).

Dr. Wayne Lee related that a PCI valve of 0-10 represents a pavement failure; 11-25 represents very poor pavement; 26-40 represents poor pavement; 41-55 represents fair pavement; 56-70 represents good pavement; 71-85 represents very good pavement; and 86-100 represents excellent pavement (Id., p. 13).

Dr. Wayne Lee also testified that reconstruction cost for arterial collector roadways is approximately $32 per square yard. For local roadways, he quantified reconstruction cost to be $21 per square yard (Id., pp. 22-23). He related that for his work in the Providence case he used an average construction cost value, wherein he added the $32 and $21 and then divided by two to arrive at a square foot cost of $2.94 (Id., p., 23).

Dr. Wayne Lee next testified that by using the above construction cost average he "tried to determine the pavement degradation index fee" (Id., p. 24). To do this, Dr. Wayne Lee calculated the area of the patch involved, and established a construction cost associated with restoring the roadway to its existing general PCI level. He adopted at $.88 per square foot construction cost for roads three years old or less, and $.81 per square foot for roads older than three years. *[6 Based on bringing road condition back up to PCI level of 55, which Dr. Wayne Lee stated is "generally perceived as the lowest acceptable PCI Index" (Id., p. 26).]* Dr. Wayne Lee reported that his study produced a degradation fee schedule, which exceeded the one adopted by the city of Providence (Id., p. 28). Dr. Wayne Lee proffered a copy of his study, entitled: "Pavement Degradation Analysis Due to the Utility Cut and Patching for the city of Providence" in support of his findings and conclusions (Id., "Exhibit B").

FINDINGS

The Commission has carefully examined the record in this consolidated docket and has reached several findings. Our findings are divided into four sections: Jurisdiction; the Cranston Ordinance and Specifications; the Providence Ordinance and Regulations; and Miscellaneous. They are represented below:

A. Jurisdiction

The petitions in these consolidated dockets were filed with the Commission pursuant to Rhode Island General Laws, Section 39-1-30. This section in pertinent part provides as follows:

Every ordinance enacted, or regulation promulgated by any town or city affecting the mode or manner of operation or the placing or maintenance of the plant and equipment of any company under the supervision of the commission, shall be subject to the right of appeal by any aggrieved party to the commission within ten (10) days from the enactment or promulgation. The commission, after hearing, upon notice to all parties in interest, shall determine the matter giving consideration to its effect upon

the public health, safety, welfare, comfort, and convenience.

In its legal brief, the city of Providence asserts that the Commission lacks the necessary jurisdiction to act on the several petitions filed in Docket No. 2641. The City contends that the Commission is empowered to hear appeals under Section 39-1-30 only if the ordinance at issue either: (1) directly or indirectly affects the mode or manner of operation of a public utility; or (2) directly or indirectly affects the placing or maintenance of the plant and equipment of any public utility. The City argues that its Ordinance and Regulations do neither.

The City maintains that its Ordinance and Regulations do not "affect the actual operation" of any public utility (trial memorandum, p. 4). Instead, the City observes that the objections to its Ordinance and Regulations "are reducible almost exclusively to the financial impact of the Ordinance [and Regulations] on the petitioners" (Id.). The City further observes that:

The increase in permit fees and imposition of degradation fees would increase the costs of doing business. In effect, the petitioners herein are asking the Commission to maintain for them the long-term cost of road repair caused by the loss of integrity of the roadway when opened (Id.).

The City contends that its Ordinance and Regulations do not attempt to regulate the mode and manner of operation of the Petitioners. The City relates that "how they [the public utilities] deliver their various products or conduct their businesses is entirely left to them" (Id., p. 8). The City concludes that the Commission has no jurisdiction over matters to do with the City's roadways.

The Commission has considered the arguments proffered by the city of Providence. We do not agree with the City's assessment of our jurisdiction.

Notwithstanding the City's interpretation of Section 39-1-30, the plain wording of the statute indicates that the jurisdictional standard rests on whether the Ordinance or Regulation "affects" utility operations. The City's contention that its Ordinance and Regulations do not "attempt to regulate" the mode and manner of the Petitioners' operations is irrelevant.

The record in Docket No. 2641 unambiguously reflects that the operations of the Petitioners and Intervenors will be affected by the City's Ordinance and Regulations. The most lucid example of this affect is in the excavation moratorium mandated under the City's Regulations. This memorandum prohibits excavations between November 15 and April 15. For telecommunications carriers like Brooks Fiber and Cox, this moratorium would seriously impair their ability to provide service and compete with the incumbent carrier.

The Commission also agrees with Cox's and Brooks Fiber's fear that the imposition of degradation fees will disproportionately affect new market entrants and will thereby increase the cost of market entry. This result would certainly affect the operations of Cox and Brooks Fiber and clearly not be in the public interest. Accordingly, the Commission finds that the City's Ordinance and Regulations will affect the operations of Brooks Fiber and Cox in the jurisdictional context of Section 39-1-30.

Indeed, the Commission finds that the operations of all of the Petitioners and Intervenors would be adversely affected by the City's Ordinance and Regulations. The requirements imposed under the City's Ordinance and Regulations will, in the opinion of this Commission, dramatically impact the mode and manner of operation for the utilities who are party to this proceeding, which will invariably result in a diminution of service quality and an increase in utility rates.

The Commission additionally reviewed the Rhode Island Supreme Court case of Town of East Greenwich v. O'Neil (hereinafter, the "O'Neil" case). *[7 617 A.2d 104 (R.I. 1992).]* The Petitioners universally represented this case as being the definitive case regarding the Commission's jurisdiction over local laws (i.e. ordinances) affecting public utilities.

In O'Neil, the Rhode Island Supreme Court recognized that the regulation of public utilities is vested exclusively with the State. Discussing the necessary preemption of a town of East Greenwich ordinance, the Court held as follows:

[T]he Town's ordinance has been preempted because it invaded a field that the state has intentionally occupied...In our examination of title 39 as a whole, and Sections; 39-1-1 and 39-1-30 in particular, it is our opinion that the General Assembly has expressed its intent to cover the field of public-utilities regulation. The Legislature has declared that the PUC has exclusive power to regulate public utilities and vested it with the authority to carry out that regulation. *[8 617 A.2d at 110.]*

In short, the Court affirmed the Legislature's decision to confer upon the Commission the exclusive authority to regulate and supervise public utilities. Specifically, the Court held that Section 39-1-30 authorizes the Commission to review any city or town ordinance, when such ordinance affects the mode, manner of operation or the placing or maintenance of plant and equipment of any public utility.

In conclusion, since we find that the city of Providence's Ordinance and Regulations do affect the Petitioners and Intervenors in the ways specified in Section 39-1-30, we conclude that the Commission possesses the requisite jurisdiction to hear and decide the issues presented.

A. Cranston Ordinance and Specifications

The parties to Docket No. 2624 averted a hearing on the merits of Providence Gas' September 12, 1997 petition by reaching a settlement agreement. The "settlement agreement" is attached to this report and order as "Appendix 1", and is incorporated by reference (Joint Exh. 1).

The Commission has thoroughly examined the stipulation proffered by the parties and finds that it represents a fair and reasonable resolution to the issues previously in dispute. The Commission also finds the stipulated agreement to be in the best interest of ratepayers. Consequently, we shall adopt the "settlement agreement" in its entirety, and approve its terms as a dispositive conclusion to the issues raised in the context of Docket No. 2624.

B. Providence Ordinance and Regulations

The Commission has already found and stated in this report and order that the city of Providence's Ordinance and related Regulations do indeed affect "the mode or manner of operation or the placing or maintenance of the plant and equipment" of the Petitioners and Intervenors. Consequently, Section 39-1-30 now requires the Commission to:

> [D]etermine the matter giving consideration to its effect upon the public health, safety, welfare, comfort, and convenience.

After a thorough examination of the record, the Commission finds that the city of Providence has exceeded its authority by enacting and promulgating the Ordinance and Regulations in issue. Further, the Commission finds that the public health, safety, welfare, comfort, and convenience would be better served through the nullification of the City's Ordinance and Regulations as requested by the

Petitioners.

Under Rhode Island General Laws, Section 24-5-1, cities and towns are required to maintain their highways, at their own expense. *[9 See Also: Eaton v. Follett 136 A. 437 (1927); Barroso v. Pepin, 261 A.2d 277 (1970); and Wrobleski v. Clark, 146 A.2d 164 (1958).]* Public utilities are permitted to alter roadways, but are required to "restore that portion of the roadway which was altered to the same or better condition that existed prior to alternation" (R.I.G.L. Section; 24-5-1.1).

The Petitioners and Intervenors in Docket No. 2641 contend that these provisions preempt the city of Providence from imposing a degradation fee and specific restoration requirements on them. We agree. We find that the "same or better condition" standard contained in Section 24-5-1.1 establishes the proper statewide roadway restoration Ostandard to be applied by public utilities. The City's attempt to transcend this standard is inimical to State interests, the public utilities laboring in the public roadways and the ratepayers they serve.

The most contested issue in Docket No. 2641 related to the City's implementation of a "degradation fee" schedule. In short, public utilities excavating in Providence streets would be required to pay fees in accordance with the size of the excavation project and the age of the street. The parties vehemently disagreed on the propriety of these fees.

We find that the City's degradation fees are unreasonable and unjustified. We predicate this finding on a number of factors. First, as stated above, we find that State law requires cities and towns to maintain their own roadways. The City's imposition of a degradation fee is an impermissible attempt to shift this cost to public utility ratepayers.

Additionally, State law requires that roadways be returned to the same or better condition that existed prior to alternation (Section; 24-5-1.1). This restoration standard applies to the Petitioners and Intervenors in this docket. If public utilities were required to satisfy both the State's restoration standard and the city of Providence's restoration standard, they would in effect be facing a duplicative burden with duplicative costs. In other words, a public utility excavating in a Providence street would be required not only to pay a degradation fee to the City, but also pay for a restoration job that restores the roadway to a "same or better condition." This redundant expense is not in the public interest. In the Commission's opinion, it clearly does not promote the requisite public health, safety, welfare, comfort, and convenience.

Next, the Commission finds that the City failed to substantiate the need for degradation fees. The record reflects that the City's expert witness, Mr. Robert Christman, conducted a study over an approximately two-week period wherein he reviewed data on 265 street patches, which were installed between 1986 and 1998. However, due to perceived "biases", Mr. Chirstman related that his team was only able to rate 65 patches. It is this limited study that concerns the Commission. Basing the need for degradation fees on a rating of only 65 patches, out of hundreds, inadequately substantiates the claims asserted by the city of Providence and the magnitude of the fees sought.

Moreover, in contravention to the City's assertion of need for degradation fees, Narragansett and Providence Gas proffered an expert witness, Professor Tahar El-Korchi, who testified that appropriately patched and constructed utility cuts will not accelerate the deterioration of roadways (7/8/98, Tr. 13). Professor El-Korchi maintained that when a utility patch is:

> ...constructed, using very good, quality materials, then the utility cut repair should be as good as the surrounding pavement and deteriorate in approximately the same manner (Id.).

The Commission found Professor El-Korchi's testimony very persuasive. Based primarily on this testimony, we were not able to find merit in the city of Providence's rationale for degradation fees.

Another point of contention between the parties was the magnitude of the City's new A & E fees. The City's A & E fee schedule requires a minimum fee of $40 for excavations that are up to 50 square feet; and $0.25 per square foot for excavations in excess of 50 square feet. The Petitioners and Intervenors contend that the City's A & E fee for excavations over 50 square feet is excessive and not cost-based; as for a minimum fee, they opine that the record supports a minimum A & E fee of between $29.02 and $40.00.

The Commission finds that the city of Providence has proffered a sufficient amount of supporting evidence to justify an A & E fee of $40. We base this on the testimony of Director Ihenacho (8/4/98, Tr. 141-149). However, we cannot approve the City's new A & E fee for excavations over 50 square feet. According to Director Ihenacho, this fee was established based solely on what is prevailing in "other cities and towns in New England and across the country" (Id., Tr. 151). In order for this fee to be reasonable it must be cost-based. The record offers no cost correlation between the city of Providence and these other cities, which have purportedly adopted this higher A & E fee schedule. As such, the Commission finds this second-tier A & E fee unreasonable and not in the public interest.

The Commission's decision to nullify the city of Providence's Ordinance and Regulations is also based on a number of miscellaneous restoration mandates contained in the Ordinance and Regulations which exceed the requirements of Section 24-5-1, supra, and whose cost-effectiveness is highly questionable.

Examples are provided below:

1. cable installation permits

Sections 2 and 5 of the Ordinance require permits for cable installations even when no excavations are involved (i.e. running cable between manholes).

The Commission finds this expense and delay unnecessary, especially when the work is being done within facilities for which permits have already been issued.

2. sidewalk permits

Section 5 of the Ordinance requires separate permits for work in sidewalks. The record owner abutting the sidewalk must seek the permit.

The Commission finds that this provision would cause unnecessary delay. Public utilities will be compelled to determine ownership and seek the owner's permission and signature.

3. penalties for deviation

Section 8 of the Ordinance allows the Director to cancel a permit for an "appreciable deviation from the plans."

The Commission finds this penalty unreasonable in that the term "appreciable" is overly vague. The provision also ignores those times when a utility encounters unknown obstructions, which may necessitate a deviation from the original plans.

4. bond requirements

Section 11 of the Ordinance requires public utilities to post a performance bond in an amount to be determined by the Director.

The Commission finds this requirement to be unnecessary for public utilities. Public utilities are generally fiscally sound; adequately insured and experienced in the excavation work contemplated under this section. Therefore, the expense of posting a bond would be burdensome and not be in the public interest.

5. Director's ability to disallow permit applications

Section 14 of the Ordinance authorizes the Director to disallow a permit application:

... based upon a consideration of the totality of the circumstances surrounding such proposal. He or she shall assign significant weight to the fact that such wire, pipe, conduit, etc. is already in place.

The commission finds that this provision lacks sufficient standards and guidelines. This deficiency could lead to arbitrary and unpredictable permit application rejections. This authority also allows the Director to usurp the decisions of public utilities on matters to do with the installation and maintenance of utility facilities.

6. dig safe

Section II(9) of the Regulations require the permittee to obtain a dig safe identification number prior to the issuance of a permit.

The Commission finds this requirement unreasonable for two reasons. First, it is the actual excavator who must seek a dig safe identification number under Rhode Island law (See R.I.G.L. Chap. 39-1.2). Therefore, it is illogical to require the permittee to obtain a dig safe identification number in cases where the permittee has hired an independent excavator (contractor) to do the excavation work.

Furthermore, under Rhode Island's dig safe law, the dig safe identification number (notice of excavation) is only valid for thirty days. In view of this limitation, the actual excavator would be better suited to determine the best time to obtain the dig safe identification number.

7. winter moratorium

Section III(1) of the Regulations establishes a moratorium on planned excavation projects from November 15 to April 15.

The Commission finds the imposition of this moratorium on public utilities to be unreasonable and contrary to the needs, comfort and convenience of the public. Installing and maintaining utility infrastructure is a year-round activity.

Moreover, this impediment could, arguably, constitute a violation of the U.S. Telecommunications Act of 1996.*[10 47 U.S.C. Section 253.]* The U.S. Telecommunications Act of 1996 provides in pertinent part that:

No state or local statute or regulation, or other state or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service. *[11 Id.]*

The Federal Communications Commission ("FCC") has considered this prohibition in the context of determining whether municipal requirements have the effect of prohibiting market entry. The FCC has stated that a proper evaluation must determine whether the local requirement "materially inhibits or limits the ability of any competition or potential competitor to compete in a fair and balanced legal and regulatory environment." *[12 In the Matter of TCI Cablevision of Oakland County, Inc. Petition for Declaratory Ruling, Preemption and Other Relief Pursuant to 47 U.S.C. Sections 541, 544(e) and 253, Memorandum Opinion and Order, 98.]* In the instant matter, the Commission finds that the city of Providence's Ordinance and Regulations will limit Cox's and Brooks Fiber's ability to compete.

8. flowable fill

Section VI of the Regulations provides that the Director may require "flowable fill repairs."

The Commission finds that the city of Providence failed to prove the superiority and cost-effectiveness of flowable-fill backfill. Furthermore, in view of the perceived safety concerns voiced by Providence Gas, Valley Gas and Bristol & Warren Gas, the final decision to use flowable fill should be left to the utilities and not the City.

9. special restoration requirements

Section IX of the Regulations requires the following repair methodology for trench restorations within a "protected street" (a street that was reconstructed or resurfaced within the last five years):

A minimum of curb to centerline cold planing, resurfacing, and all items necessary to repair these guaranteed streets. The limits of repair shall be no less than the length of the trench. Based upon the location of the trench within the roadway, the Director may however require curb to curb cold planing and resurfacing.

The Commission finds the cost-effectiveness of this requirement to be extremely questionable. Further, the record reflects that the benefit of this requirement is more aesthetic than functional.

10. infrared treatment

Section VIII of the Regulations provide that the Director may require "infra-red treatment."

The Commission finds that there is a great deal of evidence on the record refuting the purported benefits of infrared treatment. The Commission finds that the City has failed to justify the use and concomitant expense of infrared treatment.

D. Miscellaneous

Through their intervention in this proceeding, Consolidated and PRM have endeavored to dispel any notion that flowable fill poses a safety risk when used in proximity to gas pipelines. Based on the evidence they have proffered, these intervenors assert that:

> [t]he only conclusions to be drawn by the Commission as a matter of law based upon the evidence

require that no negative determination can be made on the use of flowable fill, but only that flowable fill has had positive experience in all tests conducted in Massachusetts and Rhode Island (Brief, p. 5).

The Commission can not agree with this assertion. The record reflects that the gas utilities have a genuine mistrust of flowable fill products. Whether their safety concerns are justified or not is not for this Commission to decide. This is a management decision, which ought to be left to the individual utilities involved.

Accordingly, we will not modify the Settlement Agreement submitted by the parties in Docket No. 2624. Further, as we have nullified the city of Providence's Ordinance and Regulations we find the issue of flowable fill in Docket No. 2641 to be moot.

Conclusion

In conclusion, the Commission finds that the city of Providence's Ordinance and Regulations do affect the mode and manner of operation and the placing and maintenance of the plant and equipment of the public utilities involved in this docket. The Commission additionally finds that in the interest of public health, safety, welfare, comfort and convenience, the city of Providence's Ordinance and Regulations must be nullified, with the one exception of the A & E fees discussed in the text of our findings, supra.

Accordingly, it is

(15919) ORDERED:

1. That the collective petition filings, filed by the various public utilities in Docket No. 2641, seeking the nullification of the city of Providence Ordinance and Regulations in issue, are hereby granted, with the exception of that portion of the Ordinance and Regulations establishing the City's Administrative and Engineering fee, which is hereby approved in an amount not to exceed $40 per permit application filing.

2. That the "Settlement Agreement" filed by the parties in Docket No. 2624 is hereby approved and adopted.

EFFECTIVE AT PROVIDENCE, RHODE ISLAND ON JUNE 14 (DOCKET NO. 2624) AND JUNE 29 (DOCKET NO. 2641), 1999. WRITTEN ORDER ISSUED ON SEPTEMBER 7, 1999.

PUBLIC UTILITIES COMMISSION

James J. Malachowski, Chairman

Kate F. Racine, Commissioner

Brenda K. Gaynor, Commissioner

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APPENDIX 1

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

PUBLIC UTILITIES COMMISSION

PROVIDENCE GAS COMPANY, ET AL.
VS.
CITY OF CRANSTON

DOCKET NO. 2624

SETTLEMENT AGREEMENT

The City of Cranston ("Cranston") and the undersigned public utilities and other parties (together, the "Settling Parties") have reached agreement on the attached terms of settlement in the above-referenced proceeding, and hereby request the Rhode Island Public Utilities Commission (the "Commission") to approve this Settlement Agreement.

I. PREAMBLE

A. Introduction

This Settlement Agreement is a result of the Settling Parties' efforts to address the interests, concerns and statutory restrictions facing the affected utilities and Cranston with respect to the appeal of the Ordinance of the Cranston City Council No. 97-24 (the "Ordinance") and the "Specifications for Utility Company Repairs to Streets Within the City of Cranston" enacted by the City of Cranston, acting through its Department of Public Works ("DPW") ("Regulations"). The Settling Parties believe that this Settlement Agreement is in the interest of the public, including utility ratepayers, and represents a reasonable means of addressing the issues of all parties. This Settlement Agreement is based on extensive discovery and negotiations among the Settling Parties concerning all aspects of the Ordinance. The Settling Parties do not necessarily agree on every item of the Settlement Agreement, but the Settling Parties agree that the outcome of the Settlement Agreement, as a whole, is just and reasonable and jointly move for its approval by the Commission.

II. TERMS OF SETTLEMENT

Settling Parties agree that Cranston, acting through its City Council, shall revise the Ordinance and Regulations so as to conform with the Proposed Terms of Settlement attached hereto as Exhibit A, and the Settling Parties agree to work in good faith to arrive at a mutually-agreeable form of revised Ordinance and Regulations to such effect. The terms of this Settlement Agreement are thus expressly subject to such action by the Cranston City Council, which action would render moot the issues now pending in this Docket, and it is acknowledged that the Assistant Solicitor does not have authority to unilaterally bind the City to revise an Ordinance. If the Cranston City Council fails to take such action within one hundred and twenty (120) days, proceedings herein would resume without prejudice.

III. EFFECT OF SETTLEMENT AGREEMENT

This Agreement is the result of a negotiated settlement among the Settling Parties. The discussions which have produced this Settlement have been conducted on the explicit understanding that all offers of settlement and discussion relating hereto are and shall be privileged, shall be without prejudice to the position of any party or participant presenting such offer or participating in any such discussion. In the event that the Commission (i) rejects this Agreement, (ii) fails to accept this Agreement as filed, or (iii) accepts this Agreement subject to conditions unacceptable to any party hereto, then this

Agreement shall be deemed withdrawn with respect to such party.

IN WITNESS WHREOF, the parties agree that this agreement is reasonable and have caused this document to be executed by their respective representatives, each being fully authrized to do so. Dated at Providence this 6th day of July, 1998.

Resepectfully Submitted,

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