

Roadway Encroachment Policy

Summary:

This document outlines the City of High Point's roadway encroachment policy regarding pavement cuts, bores under City maintained streets, and addresses excavation problems, construction requirements, warranties, and other related aspects of working within the public right of way. Any street will remain available to cut provided that all provisions within this policy are adhered to. The utility shall attempt to use other innovative ideas for servicing customers other than cutting into the public Right-of-Way, while not diminishing safety standards.

*Encroachments for State owned roadways shall be obtained from the NCDOT.

Performance of Utility Cut Repairs:

Pavement cuts are a necessary operation that cannot be avoided because utility providers need to serve new customers and repair existing facilities. There is a common good for utilities to be placed in the Public Right of Way, and all parties shall strive to reduce the burden to the taxpayer/ratepayer, and minimize damage to City streets.

Studies conducted by multiple groups and organizations have determined that poorly restored pavement cuts cause permanent structural and functional damage which increases maintenance costs, reduces the level of service of the street, increases future rehabilitation costs, and produces a rough ride.

This causes an additional burden to maintenance departments and taxpayers/ratepayers. A poorly constructed pavement cut usually requires repair before the street needs to be resurfaced, with problems typically appearing in the first two years. Studies also reveal that patch areas may require thicker overlays compared to the rest of the pavement in the area.

In 2002, the Construction Practices Subcommittee of the APWA was assigned to research available documents related to pavement degradation caused by utility cuts. A summary of the major findings of their literature review follows:

- Factors influencing the performance of a patch include the pavement material, soil conditions, climate, traffic and repair techniques. These roughly correlate with the same factors influencing the life of a new pavement.
- Poor construction techniques can damage the area adjacent to the cut and further degrade the patch and surrounding pavement. Studies showed this zone of influence to be 1.5 to 6 feet beyond the patch.
- Pavement cut repairs made using quality materials and sound engineering and construction techniques tend to perform as well as the surrounding pavement.
- Poor performance of the patch tends to be a result of inadequate compaction of the materials, insufficient thickness of materials, poor quality of materials, and damage to the side of the cut.
- The estimated reduction in pavement life due to a utility cut was found to be from 20 to 56% of the original life of the pavement.

Definitions:

Assignee: The Contractor who is taking out the permit.

Emergency excavations: Defined as an incident that is highly probable, already caused, or immediately threatens life, health, environment, and loss of property.

Engineer: Shall mean the duly authorized engineer, or representative, acting within the scope of the duties assigned/given to him/her by the City Manager.

Length of Patch: The length of all patches is the patch dimension parallel to the street. This is also known as the longitudinal direction.

New Street: Any new street, or any street that has had a rehabilitation in the permitted excavation location that is less than or equal to three years.

Patch: Cut in the pavement as part of the current permitted job.

Permittee: The utility company or contractor who submits an application for a permit to obstruct and/or conduct construction operations in the public right-of-way. The City and their contractors shall be considered permittees for application of this policy even though the City and/or their contractors may not take out permits.

Project Completion: Date when the final permanent restoration of street is complete and approved by the inspector.

Standard Specifications: Most current version of the City of High Point Standard Specifications and Standard Drawings.

Utility: Owner of the utility. May be either the City or privately operated entity.

Width of Patch: The width of all patches is the patch dimension perpendicular to the street. This is also known as the transverse direction.

T-Patches:

T-Patches are pavement cuts made outside the trench boundaries so there is not a continuous vertical shear plane from the edge of the trench to the pavement surface. Research shows that the zone of influence is at least 1 foot from the edge of the trench. To take advantage of the layering effects of a flexible pavement, the compacted base and the surface course should be extended at least 1 foot from the edge of the trench. This design minimizes the reflective cracking due to excessive strains at the bottom of each layer at the edge of the trench and allows better compaction of the material.

No skim patches will be allowed on any City street. The T-Patch is the only approved patch on City streets.

Appearance of Utility Cut Repairs:

The final appearance of the street after the repairs are made should be acceptable with an engineered appearance. Street repairs that are satisfactory from a functional point of view may produce a negative reaction from the public if they give the appearance of being poorly planned or executed. The public's perception of street repairs is based primarily on shape, size, orientation, and the geometry of the patch.

Street repairs should leave a pavement in a condition at least as good as, if not better than, the condition prior to the repairs. The contractor shall survey the existing pavement condition with an Engineering Services Department construction inspector prior to the work. After completion of the work, the pavement condition shall be surveyed again to verify that the pavement condition has been maintained or improved. In the case of minor repairs, these pavement surveys can be made by visual observation.

In the case of major projects that involve excessive haul of materials or unusually heavy construction equipment or activity, non-destructive testing of the pavement condition before and after construction may be required at the City's discretion.

Excavations and street repairs, even well-constructed street repairs, shorten a pavement's life. Several types of street distress, settlement, alligator cracking, and potholes, often show up around patches. Quality street repairs should attempt to reduce the occurrence of these types of distress.

Avoid weakening or destroying the existing pavement around an excavation with heavy construction equipment, stockpiling, or delivery of materials, etc. When damage does occur, remove the damaged pavement, extending the limits of the street repair, before replacing the pavement. No stockpiling of backfill or road building materials is permitted on the pavement.

Utility Cut Repair Details:

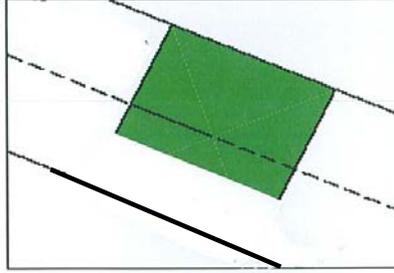
Example 1

Existing pavements should be removed to clean, straight lines parallel and perpendicular to the flow of traffic. Do not construct patches with angled sides and irregular shapes. All patches that exceed fifty percent of the transverse pavement width shall be full lane width and the non-patched areas shall be milled and resurfaced.

NOT ACCEPTABLE



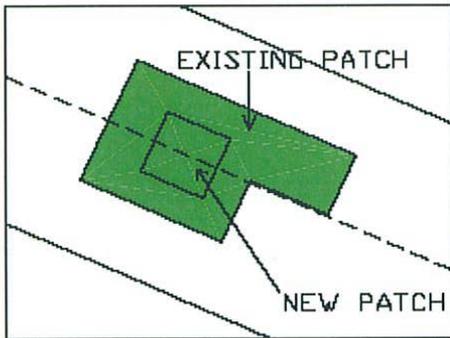
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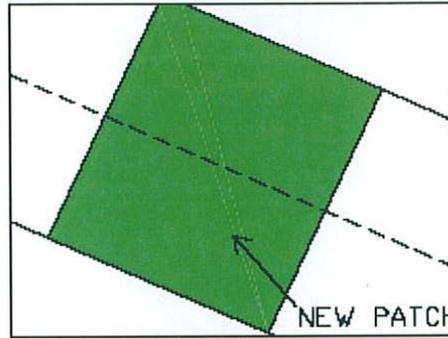
Example 2

Avoid patches within existing patches. If this cannot be avoided, make the boundaries of the patches coincide. All repairs should be full lane width.

NOT ACCEPTABLE



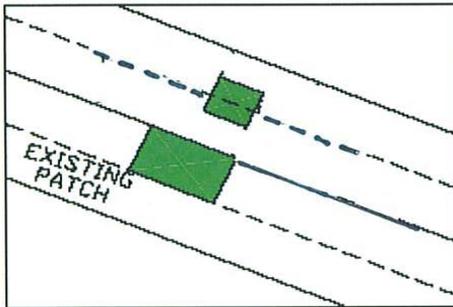
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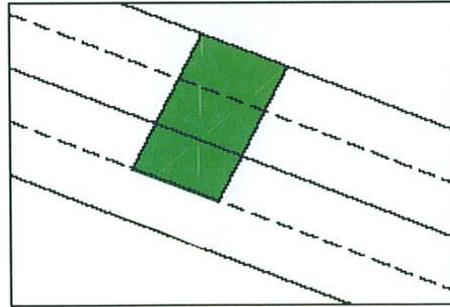
Example 3

Do not leave strips of pavement less than one-half lane in width from the edge of the new patch to the edge of an existing patch or the lip of the gutter.

NOT ACCEPTABLE



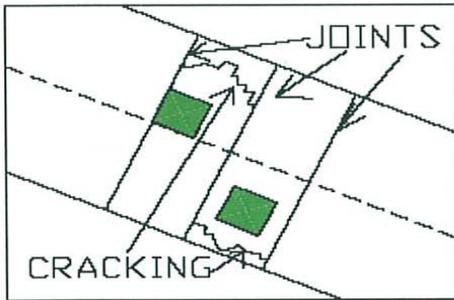
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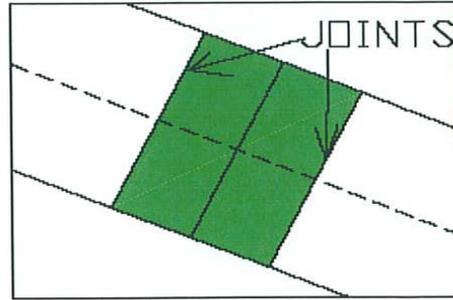
Example 4

In concrete pavements, remove sections to existing joints, or new saw cut joints at midslab, that is in good repair. In damaged concrete, the limits of removal should be determined in the field by City Inspector.

NOT ACCEPTABLE



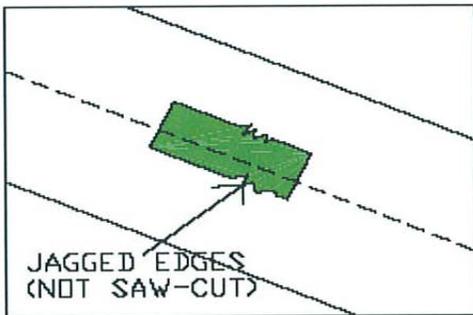
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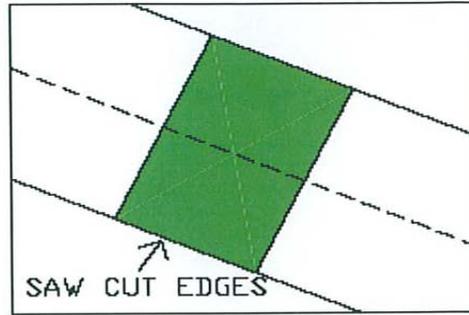
Example 5

Asphalt and concrete pavements should be removed by saw cutting or grinding. Avoid breaking away the edges of the existing pavement or damaging the remaining pavement with heavy construction equipment. Patches should have a smooth longitudinal grade consistent with the existing roadway. Patches should also have a cross slope or cross section consistent with the design of the existing roadway.

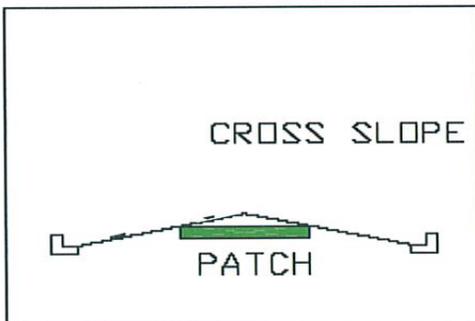
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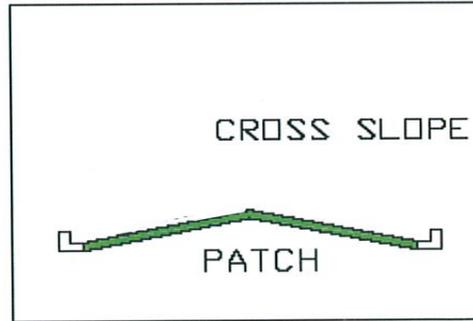
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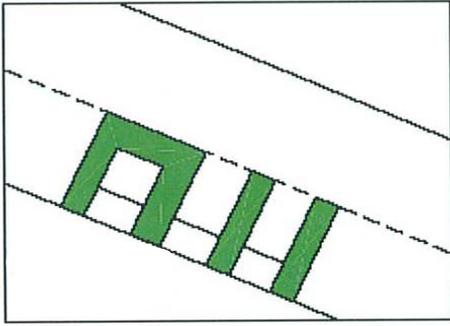
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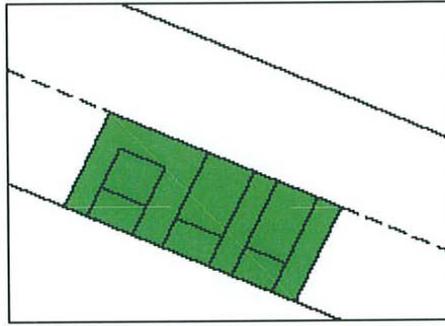
Example 6

In the case of a series of patches or patches for service lines off a main trench, repair the pavement over the patches by grinding and overlay when the spacing between the patches is less than 10 feet. In cases where the existing pavement is in poor condition (in the upcoming years resurfacing contract) and may require overlay within the next few years, this requirement may be modified or waived by the Director.

NOT ACCEPTABLE



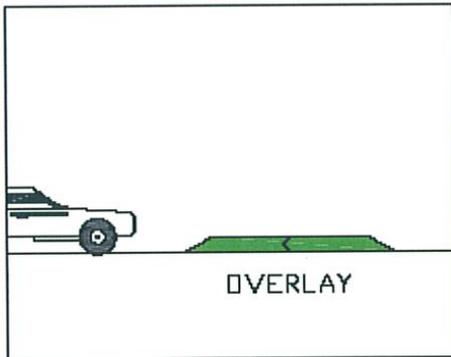
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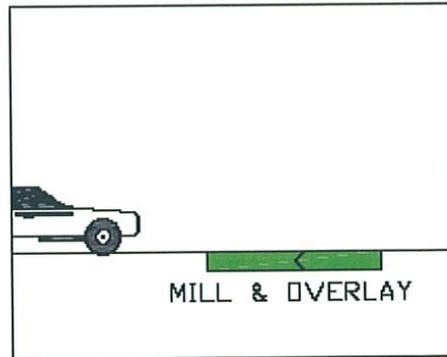
Example 7

A patch should provide a smooth ride with smooth transitions on and off the repair and all joints should be located outside the wheel path. Overlays should be placed by first removing the existing pavement to the desired depth by grinding or milling, and then placing the pavement flush with the adjacent surfaces.

NOT ACCEPTABLE



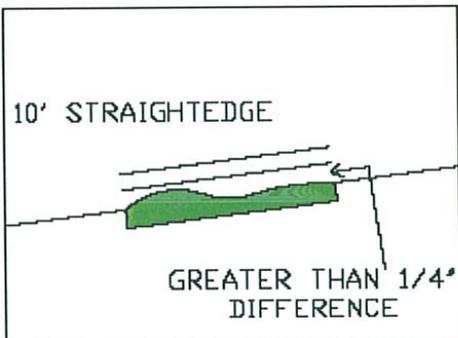
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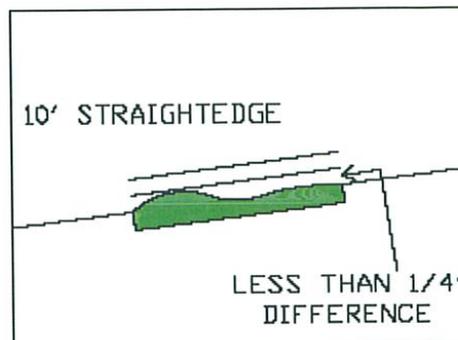
Example 8

Surface tolerances for street repairs shall meet the standards for new construction. The finished surface of the pavement repair should be tested with a ten (10') foot straightedge parallel to the centerline or perpendicular across joints. Variations measured from the testing face of the straightedge to the surface of the street repair should not exceed one-quarter (1/4") inch.

NOT ACCEPTABLE



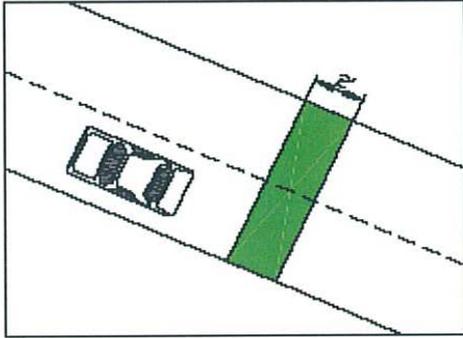
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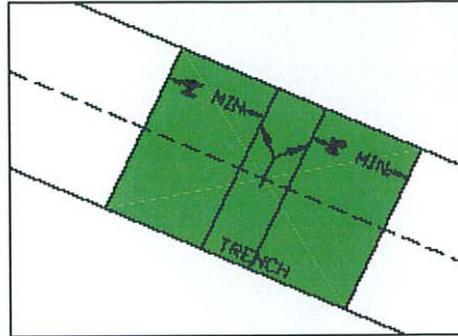
Example 9

Transverse patches on arterial and collector streets shall be overlaid across the entire street width for a distance of two (2') feet minimum on all sides of the trench using a T-Patch.

NOT ACCEPTABLE



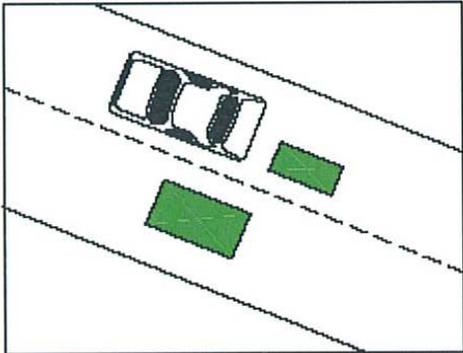
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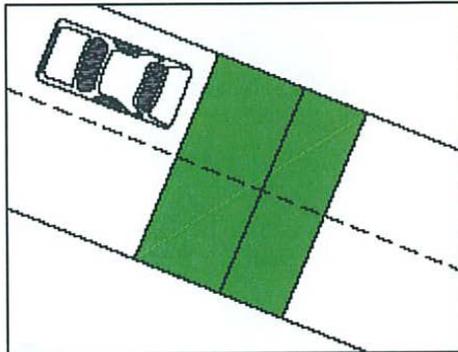
Example 10

Do not allow the edges of patches to fall in existing wheel paths. The edges of patches parallel to the direction of traffic shall be limited to the boundaries of lanes or to the centerline of travel lanes.

NOT ACCEPTABLE



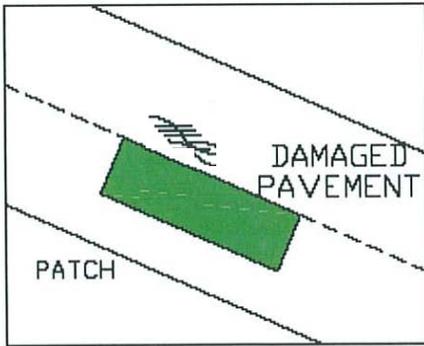
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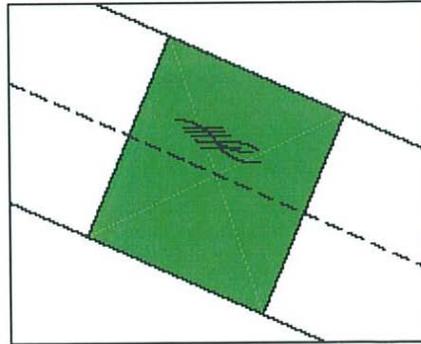
Example 11

When the proposed excavation falls within 10 feet of a section of pavement damaged during the utility repair, the failed area shall be removed to sound pavement and patched. Scarring, gouging, or other damaged pavement adjacent to a patch shall be removed and the pavement repaired to the satisfaction of the City Inspector. Damaged pavement within 10 feet of a patch must also be patched.

NOT ACCEPTABLE



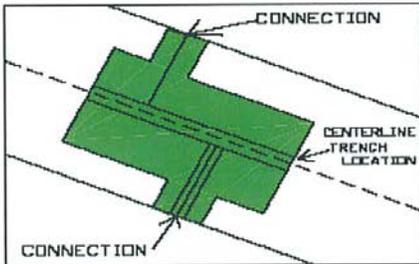
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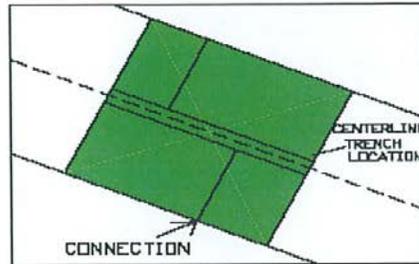
Example 12

Patches must avoid frequent width changes.

NOT ACCEPTABLE



ACCEPTABLE



Construction Requirements:

All work shall conform to the latest editions of the City of High Point's Standard Specifications for Water and Sewer Line Construction, Standard Drawings for City Construction, and the Standard Specification for Roads and Structures for the North Carolina Department of Transportation manuals.

If any part of the excavation, patch, or damaged area intrudes into an adjacent lane, that lane shall be incorporated into one large overlay. All new patch edges shall extend to the nearest edge of an existing patch. For new patches adjacent to any existing patch, all attempts will be made to install the utility at the existing patch line. When this is not feasible, no gap of 10 feet or less shall exist.

The permittee shall be allowed to make emergency repairs to a utility provided a more reasonable alternative does not exist. Every reasonable effort will be made to restore the street quickly. All requirements of this policy shall be adhered to.

The only approved methods for pavement removal for utilities are saw cutting, jack hammering, milling, or approved grinding device. All pavement cuts shall be parallel and perpendicular to the centerline of the road. No jagged, broken or undermined edges.

Potholing to find utilities shall be allowed and the use of innovative technologies, such as small-diameter vacuum excavation and non-destructive methods, are highly encouraged.

All temporary traffic control for the work zone shall conform to the MUTCD and is subject to the approval of the City's Department of Transportation. All existing traffic control markings will be replaced as soon as possible after

permanent paving is completed. Temporary markings for lane lines and stop lines shall be in place prior to the street opening for traffic. All remaining temporary striping will be completed within seven days of new pavement completion and shall be maintained by permittee until permanently restored. All traffic markings will be replaced per normal work practices.

All areas outside of the street that are affected by the work shall be restored to their original condition. All shoulders shall be restored to their original condition

Patched Surface Smoothness Requirements:

The patched surface shall be of uniform texture with uniform crown and grade, and free from defects. The completed surface of the wearing course shall not vary more than ¼ inch from the lower edge of a ten foot straightedge placed parallel to the centerline. Recognition and consideration will be made for existing street conditions. The Engineer must approve corrective measures.

Warranty Requirements:

All pavement cuts and later construction performed on City streets shall have a warranty period of two years. The permittee/assignee should be aware that the patch in the street shall be repaired as directed until the warranty has passed. All warranties shall become void if rehabilitation work is performed to the street within the patching limits.

For street cuts performed by a Utility using its internal capability, that Utility or assignee will be responsible for repairs required during the warranty period. All curb, sidewalks and structures that are affected by the excavation shall be included in this policy and have a warranty for two years.

All restoration work shall meet the following criteria and the end of the warranty period:

- Sunken pavement patches equal to or less than to one-quarter inch (Measured by a ten foot straight edge).
- Visual rating of patch. Patch is in good condition and is satisfactory. Ride quality is rated as low severity or better.
- Visual inspection of the construction joints. Non-filled crack width is equal to or less than 3/8 of an inch or filled crack of any width. (filler in satisfactory condition)
- Good workmanship with little or no deterioration. Compaction requirements met City Standards.
- No sunken or damaged curb and sidewalks in excavation work area.

Repairs of Failed Pavement Cuts:

If emergency repairs are needed due to safety concerns, the permittee/assignee shall have twenty four hours in which to make such repairs from time of verbal notice by the City.

For non-emergency repairs on arterial and collector streets the permittee/assignee shall have seventy-two hours to make such temporary repairs.

Residential streets, the permittee/assignee shall have up to seven calendar days to make such temporary repairs.

If these repairs are not accomplished within the specified timeframe, the City shall have the needed repairs made and the permittee/assignee will be assessed for all costs associated with the repairs. The costs shall be based on time and materials necessary to make the repairs.

Temporary Patching:

When the final surface is not immediately installed, it shall be necessary to place a temporary asphalt surface on any street cut opening. The temporary surface installation and maintenance shall be the responsibility of the Permittee until the permanent surface is completed and accepted. It shall be either a hot mix or cold mix asphalt paving material. Temporary surfaces shall be compacted, rolled smooth, and sealed to prevent degradation of the repair and existing structures during the temporary period. Permanent patching shall occur within one (1) weeks except as outlined by the City in the Permit.

The temporary patch shall consist of at a minimum two inches of hot or cold-mix asphalt pavement over the required

backfill material. Steel plates may be used but for a period not to exceed seventy-two hours. Alternatively, upon approval of the Director, crushed surfacing top coarse may be used for local access streets but for a period not to exceed two weeks. When a temporary patch is required for more than two months on arterial or collector streets, concrete shall be used. The permittee shall maintain the temporary patch until the patch can be permanently restored.

During winter asphalt concrete paving plant closures or outside of allowable temperature specifications, the permittee shall install and maintain the temporary patch until it can construct a permanent patch. A temporary patch will be required if the street must be opened to traffic before a permanent patch can be made.

Responsible Party:

The permittee/assignee shall be responsible for all construction and warranty requirements for this policy. The City will attempt to get permittee/assignee to correct warranty defects. If permittee is a subcontractor for utilities and can/will not make repairs, the utilities will assume responsibility. A Bond or Surety may be required before issuance of permit.

Testing:

Density and thickness tests are required to ensure compaction requirements are met and the appropriate compacted thickness of repair material has been placed. The costs of any testing, as required, shall be borne by the contractor. The testing firm chosen to perform this work for the Contractor must be qualified and identified on the Permit application.

Compaction requirements and testing frequencies shall conform to Section 105 of the "Standard Specifications for Water and Sewer Line Construction Manual."

If sections with deficient thickness or density are found, the full section for a reasonable distance on each side of the deficiency shall be refused. All such sections shall be removed and reinstalled.

Protection of Existing Utilities:

Protection of existing utilities shall conform to the "Standard Specifications for Water and Sewer Line Construction Manual," Latest Edition.

The permitte/assignee shall at all times take proper precautions and be responsible for the protection of existing street and alley surfaces, driveway culverts, street intersection culverts or aprons, irrigation systems, mail boxes, driveway approaches, curb, gutter and sidewalks and all other identifiable installations that may be encountered during construction.

The permitte/assignee shall contact the NC 811 Call Center at 1-800-632-4949 or 811 a minimum of two (2) working days prior to the proposed start of work.

Existing improvements to adjacent property such as landscaping, fencing, utility services, driveway surfaces, etc., which are not to be removed shall be protected from injury or damage resulting from the contractor's operations.

The permitte/assignee shall at all times take proper precautions for the protection of property pins/corners and survey control monuments encountered during construction. Any damaged or disturbed survey markers shall be replaced by a registered land surveyor at the contractor's expense.

The repair of any damaged improvements as described above shall be the responsibility of the permit holder. The contractor shall make adequate provisions to assure that traffic and adjacent property owners experience a minimum of inconvenience. All work shall be done in an expedient manner. Repairs shall be made as rapidly as is consistent with high-quality workmanship and materials. Use of fast-setting concrete and similar techniques is encouraged whenever possible without sacrificing the quality of repair. For repairs 12 feet or less in length, completion of the work including replacement of pavement and cleanup shall normally be accomplished within two (2) weeks after the repair work or activity involving the cut is done. For repairs greater than 12 feet in length, the final surface shall not be placed for a minimum of 42 days from the placement of the binder material. Extension of time for completion,

including winter and other weather delays, shall be with the written approval of CITY. If the repairs are not completed in the allotted time, CITY has the right to repair the street at the contractor's expense.

Removal and Replacement of Unsatisfactory Work:

Removal and replacement of unsatisfactory work shall be completed within fifteen (15) days of written notification of the deficiency unless deemed an emergency requiring immediate action. In the event the replacement work has not been completed, the City will take action upon the contractor's bond to cover all related costs.

Remove and Replace Concrete Flatwork:

The removal and replacement of concrete sidewalks, driveways, and miscellaneous slabs that are removed for the installation of pipelines and appurtenances shall be constructed in accordance with the "Standard Drawings for City Construction" Manual and applicable provisions of the NCDOT's Standard Specifications for Roads and Structures, Latest Edition.

The Contractor will be required to furnish a neat edge along the concrete pavement retained by sawing a neat line approximately two inches deep, with a concrete saw, before breaking the adjacent concrete pavement away. Concrete forms shall be constructed to shape, line, and dimension as indicated in the drawings or directed by the Engineer. The forms shall be braced and tied together to prevent displacement during the concrete pouring and finishing operations. The Contractor shall provide a finish on the replacement concrete that matches the adjacent concrete retained.

When curb and gutter is replaced, it will be restored in full five-foot (5') sections. Match existing curb elevations and ensure constant grade and positive drainage. Expansion material will be used at cold joints. Should the work include removal of a section which was finished with a dummy joint, the Contractor will saw cut the joint prior to forming and pouring the new section.

Select Backfill Material:

Select backfill materials shall meet the requirements of the Standard Specification for Roads and Structures for the North Carolina Department of Transportation, latest edition.

Bore Holes - Vertical and Horizontal:

For openings less than or equal to 6 inches in diameter, bore holes shall be filled with patching material (cold mix is not acceptable) to prevent entry of moisture. Patching material used shall be in all cases compatible with the existing surface. Subgrade shall be replaced with flowable fill to provide necessary support to the surface. The sealing of bore holes is the responsibility of the contractor or persons making the bore. For openings greater than 6 inches in diameter, the limits of repair shall be identified in the permit. The completed job shall be flush with the surrounding pavement and have no indentations, pockets, or recesses that may trap and hold water.

Subgrade:

Prior to the placement of aggregate base course or sub-course, the subgrade should be properly prepared. The subgrade should be scarified to a minimum depth of six (6) inches, moisture adjusted as necessary, and recompacted.

Prior to approval to place the base or sub-base course, all utility main and service trenches shall be compacted. The density requirement also applies to all utility trenches within the public rights-of-way from a point four (4) feet beyond the edge of asphalt and descending at 1:1 outward.

Work Within the Pavement:

Arterial Streets:

Arterial streets are those in the City designated as principal or minor arterials (see attached listing). Being essential to the safe movement of the majority of citizens, these streets require stricter regulation to maintain the orderly and safe flow of traffic. Therefore, at minimum, no work will be performed on arterial streets during the peak traffic hours

of 6:00 - 9:00 a.m. and 4:00 - 7:00 p.m., except emergency work to restore services. Because of higher traffic volumes, no new (i.e. open cuts) major work will be started on Fridays, and no road plates are to be in place over the weekend or holidays. Lane closures will be restricted to the working lane only and two-way traffic will be maintained at all times. Arterials shall be opened to traffic each night with all openings covered by a road plate with cold mix "ramps" or an asphalt patch. The permanent asphalt patch shall be placed within one day after the work is completed. When notified by the City of an unsafe or unsatisfactory opening, the responsible utility company shall respond and repair said patch within four (4) hours.

Collector Streets:

These are all streets which connect local streets to arterial streets. Note: restrictions such as those for arterial Streets may apply depending on peak traffic hour activity. Generally, there will be no restrictions on work hour or work days; construction shall be limited to 7 a.m. - 8 p.m. Monday through Friday (emergency work excluded). Two-way traffic shall be maintained at all times during peak traffic times; one lane closure will be allowed between 9 a.m. and 3:30 p.m. with flaggers.

All patches in collector streets shall be closed each night and covered by a road plate with cold mix "ramps" or be surfaced with a temporary asphalt patch. The repair shall receive a permanent asphalt patch no later than seventy-two (72) hours after work is completed. When notified by the City of an unsafe or unsatisfactory opening, the responsible utility company shall respond and repair said patch within twenty-four (24) hours.

Local/Residential Streets:

These are those streets and cul-de-sacs which provide direct access to adjacent property or individual homes. Generally, there will be no restriction on work hours or workdays. Construction hours shall be limited to 7 a.m. - 8 p.m. Monday through Friday (emergency work excluded). At least a single lane shall be provided for two-way traffic with a flagman available for control. Excavations in residential streets shall be protected each night; this may be achieved by using a temporary asphalt patch or a steel plate with cold mix "ramps", both with lighted barricades. The permanent asphalt repair shall be made no later than five (5) days after work completion. When notified by the City of an unsafe or unsatisfactory opening, the responsible utility company shall respond and repair said patch within twenty-four (24) hours.

Work Outside the Pavement:

All work areas outside the pavement shall be restored to their original condition or better after work completion. No pits/trenches shall remain open overnight. In no case shall any work area outside of the pavement be left in a disturbed state longer than (five) 5 days. When notified of a failure in the work area (i.e. pothole, patch failure, or cave-in), the responsible utility company shall respond and repair said work within twenty-four (24) hours.

Work Site:

Disturbed areas shall be limited to no more than 100 linear feet of open trench before temporary repairs are initiated. Care should be taken in job site parking to avoid damage to sidewalks and landscaping. Any curb, gutter, sidewalk or landscaping damaged by the utility shall be removed and replaced within thirty (30) days after the damage has occurred. Parked vehicles and equipment shall not restrict private property access for both pedestrians and traffic, nor hinder sight distances for traffic.

All traffic control around construction sites shall be in accordance with the Manual for Uniform Traffic Control Devices (MUTCD) and are subject to approval by the City.

Inlet protection shall be provided at curb inlets and yard drains. Under no circumstances shall material be washed into storm drains. Excess material/sediment shall be allowed to dry and then be removed by vacuum sweeper or shovel and hauled away. Street washing shall be allowed only after sediment is removed in this manner. Effluent from dewatering operations shall be filtered or passed through an approved sediment-trapping device, or both, and discharged in a manner that does not adversely affect adjacent property. Saw cutting effluent and waste shall not enter the storm system and the contractor conducting the saw cutting shall be prepared to collect the Utility Policy effluent and waste before starting the work. Upon notification of excessive erosion or sediment around work sites, the responsible utility must take corrective action within 12 hours.

Remove and Replace Pavement:

The pavement replacement structure shall be constructed in accordance with Standard Drawing # 500 in the "Standard Drawings for City Construction" manual. The Contractor shall trim or saw a neat edge along the pavement to be retained using methods approved by the Engineer. All pavement replacement shall be completed within a maximum of 7 calendar days after backfilling or 500 linear feet of pipe installation, whichever comes first.

The materials and construction methods used for the pavement structure replacement shall meet all requirements of the NCDOT's Standard Specifications for Roads and Structures, Latest Edition.

Overlay Requirements:

All public streets will be overlaid when any of the following conditions apply:

When any utility is installed in the roadway and is perpendicular to the right-of-way centerline, and, if there are three such crossings within 10 feet of each other, the roadway must be overlaid from the curb line to either the centerline or the opposite curb line, depending upon the location of the utility mainline which connects the crossings.

When any utility is installed in the roadway and is at an oblique angle to the right-of-way centerline, the roadway must be milled and overlaid from the centerline to the curb line for the entire length of the utility extension.

When the permit conditions require street improvements, and the existing pavement is alligator cracked, the existing pavement must be milled and overlaid from the centerline to the new curb line.

Incidental ABC Stone Base:

The furnishing and placing of graded stone material for use in driveways, pavement cuts, temporary maintenance of traffic, and at locations directed by the Engineer shall meet the requirements of the NCDOT's Standard Specifications for Roads and Structures, Latest Edition.

The graded stone material shall be uniformly spread over the area required and then shaped and dressed to the satisfaction of the Engineer. The stone material shall be maintained until final acceptance of the individual project by reshaping and by addition of stone material when directed by the Engineer.

Signalized Intersections:

In no case shall a utility company or their contractor cut into the pavement within 500' of a signalized intersection without having contacted the City of High Point Department of Transportation. Staff will locate buried loop detection devices so as to protect them from damage. Any permittee/assignee who damages a loop detector will have the loop repaired or be charged for the replacement of the device.

Pavement Marking:

Lane striping or other painted and affixed delineators which are removed by utility companies shall be replaced by the utility company before restoration will be considered complete. The inspector will notify the utility company of the product (traffic paint, thermoplastic, raised pavement markers, lane tape) and applications, and the City Traffic Engineer will approve all traffic delineation materials.

Sidewalk:

Sidewalks damaged by utility companies shall be removed and replaced in full sections. A section's size will be determined by the adjacent sections or the City inspector, but in any case no section shall be less than 5' in length. All edges of concrete to be removed shall be saw cut and then formed from construction (or dummy) joint to joint. Any sections of sidewalk which have been undermined as work progressed will also be cut out and replaced with suitable backfill prior to replacement.

Should damage to the City sidewalks be observed after the work has been completed, the utility company shall be notified to perform the repairs within 5 days. Where sidewalk sections are removed at street corners, the sidewalk and adjacent curb shall be restored as a curb cut handicapped ramp. Construction of the ramp shall be in accordance with City of High Point standards.

Right-of-way Permits:

The City monitors utility work through the utility permitting process. This process allows the City to coordinate activities between City forces and other utilities, to maintain a record of street cuts and patches and to identify specific City requirements.

Permits are required when any work within the right-of-way disturbs the pavement, curb and gutter, driveway entrances, sidewalk, landscaping or grassed areas. This work may include, but is not limited to: utility main and/or lateral replacement and repair, valve replacement and repair, installation of new underground mains or laterals, structures or accessories, splices, buried drops (under pavement or sidewalks), pole changes for height, cathodic protection, boxes and vault installations, and jacking or boring under the right-of-way where disturbance within the right-of-way may occur.

Obtaining Permits:

Before work within the right-of-way is started the necessary permit shall be obtained from the Engineering Services Department. Unless otherwise agreed, emergency work requires that a permit be obtained as soon as possible but not later than 48 hours after the onset of work. Permits are usually issued for the time period requested by the utility company.

However, when situations warrant, the permit expiration date may be extended when prior notification is received. If work on an existing permit has not been started by the expiration date, the permit will be cancelled and a new permit then required to initiate the work.

The permittee/assignee receiving the permit is held responsible for the work performed and the City will contact the Permit Holder for required adjustments or corrections regardless of whether the Permit Holder performed the work itself or subcontracted and assigned the work. The permit is issued to the utility company or contractor and that company is solely responsible for the work performed. The utility company or contractor shall have a copy of the permit on the job site at all times.

Right of Way Encroachment Policy and Procedures

I. Permit Application And Approval Procedure:

A. Where to Apply:

Application for right of way encroachments shall be made to the Engineering Services Department.

B. Authority to Approve:

The Engineer, or designee, will have full authority to approve permits for routine installations which are in accordance with this manual. No pavement cuts will be allowed on streets that have been resurfaced within the last five (5) years without the approval of the Public Services Director.

II. Allocation Of Costs:

A. Permit Fee:

A permit fee shall be charged for each pavement cut, bore, or pot hole dug, and other excavation within the City right of way as follows:

Residential Base Fee:	\$ 50
Commercial Base Fee:	\$150

Pavement Cut Fees are added to the permit fee as follows:

Trenches between 0 – 400 SF add \$0.25/ SF to the permit fee.

Trenches greater than 400 SF add \$0.50/ SF that exceeds 400 SF to the permit fee.

Example for a commercial pavement cut:

Area= 500 SF

Permit fee=		\$150.00
0-400 SF=	400 SF @ \$0.25/ SF=	\$100.00
500 SF- 400 SF =	100 SF \$0.50=	<u>\$ 50.00</u>

TOTAL FEE= \$300.00

B. Installation Costs:

The entire cost of installing, maintaining, repairing, operating, or using the pole line, buried cable, pipeline, or miscellaneous utility facility, performing miscellaneous operations and any other expense whatsoever incidental to the facilities or operations authorized by the permit, shall be paid by the Applicant.

C. Penalties:

Violation of this policy will result in a civil penalty of \$250 per occurrence in accordance with the City of High Point Development Ordinance.

III. Liability And Control:

A. Damages Resulting from Installation:

The Applicant shall indemnify and hold harmless the City and its' employees against any and all damages, claims, demands, actions, causes of action, costs and expenses of whatsoever nature, which may result from any injury to, or the death of, any persons or from the loss of, or damages to property of any kind or nature, including the highway and highway facilities or structures, property or equipment used or owned by the City, and facilities which now or may hereafter occupy the right-of-way of the said highway, when such injury, death, loss or damages arises out of the construction, installation, maintenance, repair, removal, relocation, operation or use of the pole line, buried cable, pipeline, or miscellaneous utility facility covered by the permit, or out of miscellaneous operations authorized by the permit.

B. Injury or Damage to Utilities:

The City and its' employees shall not be held responsible or liable for injury or damage that may occur to facilities covered by the permit, or to any connection or connections thereto, by reason of highway maintenance and construction activities or highway contractor or permittee operations.

C. Pavement Repair Liability:

Following the patching or tunneling underneath of any paved surface, the applicant shall be responsible for the condition of said pavement, shoulders and patches, and shall upon request from the Engineer, repair to the Engineer's satisfaction any of the said pavement shoulders or patches which become settled, cracked, broken or otherwise faulty.

D. Protection of Public:

The Applicant shall employ any and all methods in performing the operations authorized by the permit which the Engineer may require in order to properly protect the public from injury and the highway from damage. The utility

owner shall have sole responsibility for the adequacy and safety of the design and engineering of its facilities.

E. Inspection of Work:

The City will inspect the work during such periods as the Engineer deems necessary to check compliance with the terms of the permit by the Applicant, and to require the Applicant to correct all deviations from the approved permit. If the Department is required to incur additional or unusual expense to insure compliance with the terms of the permit due to inadequate control procedures by Applicant, Applicant shall reimburse the Department for such additional cost of inspection and any repairs the Department must make to the highway. Any supervision or control exercised by the Engineer shall in no way relieve the Applicant of any duty or responsibility to the general public, nor shall such supervision or control relieve the Applicant from any such liability for loss, damage or injury to persons or property as provided in Section III, paragraph A, above.

F. Work by Utility Contractors:

When the Applicant shall contract for any work to be performed on the public right-of way under authority of the permit, the contractor shall agree in writing prior to beginning work, that such work, will be performed in accordance with the Department's current Utility Standards and Specifications and be subject to inspection by the Department to insure compliance therewith. The written agreement shall further provide that the Department shall be held harmless for any extra expense or damages to the contractor as a result of any action the Department may require to correct all deviations from the said Standards and Specifications. This agreement may be made a part of continuing contracts or bid contract documents. If not included in the contract, it shall be completed prior to work beginning. When any contractor develops a history of poor performance, the Department reserves the right to require the contractor to furnish amount specified by the Engineer in accordance with Section IV, paragraph B., below.

Upon continued refusal of a contractor to comply with these rules, regulations and standards, the City may ban said contractor from working within the public right-of- way.

G. Final Permit Authority:

The decision of the Engineer shall be final and conclusive with respect to any of the conditions, terms, stipulations and provisions of the permit. This shall not foreclose applicant's right of appeal.

H. Stop Work Orders:

The Engineer may issue a stop work order when violations have occurred.

IV. Insurance and Bonds:

When requested in writing by the Engineer, the Applicant or his contractor shall obtain and carry, for the period of time required for the complete installation of the facilities authorized by the permit, including the repair and restoration of the highway facilities, and also during such future periods of time when operations are performed involving the repair, relocation or removal of said facilities authorized by the permit, a liability and property damage insurance policy, or policies, holding the Department harmless from any damages arising out of operations performed or authorized by the permit. The said insurance shall provide, as a minimum, coverage in the following amounts: \$200,000.00 property damage resulting from any single occurrence, and \$1,000,000.00 for the death or injury of any person, subject to a limit of \$2,000,000.00 for injuries or deaths resulting from any single occurrence.

The said insurance company authorized shall be licensed to do business in the State of North Carolina. A copy of the policy, or policies, or certificate evidencing same, shall be submitted to the Department's Engineer having jurisdiction over the area in which the proposed work is located, and must be approved by him, before any work is commenced under the permit.

When requested in writing by the Engineer, the Applicant or his contractor shall be subject to provide a Performance Bond when the Public or the City's infrastructure is subject to repair. A Bond must be provided, for the period of time required for the complete installation of the facilities authorized by the permit, including the repair and restoration of the highway facilities, and also during such future periods of time when operations are performed involving the

repair, relocation or removal of said facilities authorized by the permit, a surety bond in the amount specified in the Special Provisions of the permit. The bond shall be written by a Surety Company duly qualified and licensed to do business in the State of North Carolina. No work shall be commenced under the permit until the said bond has been submitted to and approved by the Department.

V. Installation Details:

The Applicant shall submit with his permit application letter size prints of a satisfactory plan showing in detail the location of his proposed facility or operations as described in the said permit application. The plans shall show the size or capacity of facilities to be installed; their relationship to highway features such as right-of-way lines, pavement edge, structures, etc., horizontal and vertical clearance to critical elements of the roadway and any other information necessary to evaluate the impact on the highway and its operation. Four prints of the plan are normally required.

VI. Construction and Work Requirements:

Compliance with Plans:

The Applicant's completed facility shall be in conformance with the plans required by Section I, paragraph A, above. When changes are required and approved on construction, the Applicant shall prepare revised "as-builts" plans and furnish two copies for the Department's permit record files.

Work Standards:

All Work in connection with the facility authorized by the permit shall be done in a neat and workmanlike manner to the satisfaction of the Engineer. All utility installations shall also conform with the applicable sections of this manual and current editions of the Standard Specifications, rules and regulations of the State Public Service, Commission the National Electrical Safety Code, the American Water Works Association standards, the recognized ANSI Standard Code for the type of facility to be installed, and any specifications or Special Provisions which may be made a part of the permit by the Department.

Notice of Work Beginning:

Applicant shall notify the Construction Inspector Supervisor at least 24 hours before starting any work under the permit. Applicants must present their work schedule and plan for traffic control for approval by Department's representative. They shall provide the Construction Supervisor name and a 24 hour contact person and number.

Notice to Engineering Services:

The utility shall give 24 hours advance notice to the Construction Inspector Supervisor prior to undertaking any of the following maintenance activities within the City right-of-way:

1. Any work which requires the blocking of one or more traffic lanes for a period of time in excess of 2 hours.
2. Installation of any temporary structures which are to remain on the right-of-way.
3. The cutting, trimming or spraying of any trees or shrubs within the right-of-way.
4. Making any pavement cut except in an emergency.
5. Making any excavation within the roadbed which may remain open overnight.

Notice of Work Completion:

When the installation authorized by the permit has been completed, the applicant shall notify the Department Department's Inspector to ensure that provisions of the permit have been met and that all areas within the right-of-way have been adequately restored.

VII. Traffic Control:

The Applicant must comply with the Manual on Uniform Traffic Control Devices (MUTCD). A written traffic control plan shall be submitted with each permit application for work requested within the rights-of-way. Companies who

have a written traffic control plan approved by the Transportation Department may meet this requirement by reference to the appropriate parts of the plan in their permit application.

During the initial installation or construction of the facilities authorized by the permit, or during any future repair, removal or relocation thereof, or during any miscellaneous operations, the Applicant shall, at all times, maintain

flaggers, signs, lights, flares, barricades, and other safety devices as approved by the permit or as the Applicants Engineer may deem necessary to properly safeguard the public against injury or damage. The Applicant shall provide a watchman, as required, to maintain said signs, lights, flares, barricades and other safety devices in accordance with the MUTCD standards and approved by the Department of Transportation. Safety must be provided by the Applicant during non-work hours, and shall, upon request furnish the Applicant's Engineer the telephone number and/or address of such watchman.

The Applicant shall so conduct his operations that there will be a minimum of interference with or interruption of traffic upon and along the highway. This applies to both the initial installation and the continuing maintenance and operation of facilities. Except in emergencies, there shall be no interference with or interruption of traffic upon and along the highway until a plan for the satisfactory handling of traffic has been worked out and approved by the local Department Engineer or other person named in the Permit. In emergencies the Applicant shall notify the local Department Engineer or inspector as soon as practical. The Department reserves the right to prohibit any work which may interfere with traffic movement during times of peak traffic flow.

VIII. Maintenance:

Applicant shall at all times keep facilities authorized by the permit in a good state of repair from the standpoint of both structure and appearance. The Department may revoke the permit and order removal of any facilities which become a hazard to the public or the roadway due to improper maintenance practices.

VIX. Minimum Information Required for Utility Permit Application:

The following information is required:

- Name, address, E-Mail address, and phone number of applicant and applicant's Construction Supervisor.
- Location and description of proposed utility (include size, type and length).
- Notarized signature and phone number of the authorized representative.
- Call before you dig ticket conformation or the ticket number _____.
- Date (Actual date you mail or deliver permit to our office).
- Pavement Cut Permit Number _____.
- Detailed explanation for any installation other than in back of right-of-way.
- Letter of explanation as to why open cut is necessary rather than boring. Submit four Copies of the construction drawings on minimum 8-1/2" x 11" paper that shall include:
 - Dimensions of the roadway, right of way width, pavement width from centerline, distance to curb and/or ditch, grass strip, and sidewalk, if applicable
 - North Arrow, and location of proposed installation with distances to nearest intersecting street.
 - Length, size and type of utility.
 - Posted Speed Limit.
 - Distance of encroachment from edge of pavement or curb and right of way.
 - Depth of cover of facility on backslope and under ditches, shoulders and pavement.
 - Boring or tunnel detailed cross section.
 - Size of pavement cuts.
 - Method of installation.
 - Location of fire hydrants, manholes, etc., including distance from pavement and right of way.
 - Pot-holing locations.