

ORDINANCE NO. 445

AN ORDINANCE REGULATING THE EXCAVATION AND REPAIRS OF UTILITY CUTS IN THE PUBLIC STREETS IN THE CITY OF ADDISON; ESTABLISHING GENERAL REQUIREMENTS; ESTABLISHING GENERAL CONSTRUCTION REQUIREMENTS; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY; AND DECLARING AN EMERGENCY.

WHEREAS, the purpose of this document is to establish provisions pertaining to standard requirements for excavation and repair of utility cuts in the public streets in the City of Addison;

WHEREAS, the requirements specified herein are based on City of Addison specifications for general construction;

WHEREAS, the term "Contractor" as used herein shall be interpreted to mean any public or private person or organization, including the City of Addison work forces engaged in cutting and/or replacing street surfaces;

WHEREAS, the term "Engineer" as used herein shall be the Director of Public Works or his authorized representative;

WHEREAS, the responsibility and control for final acceptance of each job shall rest with the utility (public or private) having the work done. Restoration work must be completed to the satisfaction of the Director of Public Works.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ADDISON,  
TEXAS:

SECTION 1. GENERAL REQUIREMENTS.

A. Permits - Any person making a pavement cut or pavement excavation or placing an embankment on a public street, alley or sidewalk must first obtain a permit from the Director of Public Works. A person must apply for a permit at least 48 hours prior to the proposed activity unless an emergency exists in which case immediate notice must be given to the Director of Public Works. Permit fee shall be \$5.00.

B. Barricades, Warning Signs, Signal Lights - A person who makes a pavement cut or excavation or places an embankment in or along a public street, alley or sidewalk shall place barricades, warning signs and signal lights at the location, sufficient to warn the public of the hazard of the cut, excavation, or embankment, and which are in compliance with the Uniform Traffic Control Devices-Part V. The person shall attach to each barricade, warning sign, and signal light, the name, street address, and 24-hour telephone number of the person responsible for the warning device.

C. Marking of Concrete Cut Repairs - All concrete cut repairs including replaced curbs, curb with gutter, sidewalks, alleys, driveways and structures shall be marked. Marking may be means of tape as described in Section 1-D or by a substantial stamp or die designed to make an impression in the finish of the concrete. The stamp or die shall designate the firm name or contractor, and year in which the work was done. The design of the stamp or die shall be approved by the Director of Public Works.

D. Marking of Asphalt Street Repairs - All cut repairs in asphalt surfaces shall be marked to identify the utility or department involved. The markings will be made with marking tape of distinctive shapes and colors as defined to relate to particular organizations.

Each marker shall have approximately 10 square inches of surface area and shall be placed out of the wheel path, but near the center line of the trench at each end and every 300 linear feet. For repairs less than 40 linear feet in length, marker should be placed in the approximate center of the patch. In all cases the location of the marker shall be selected to avoid being in heavy traffic areas if possible. Shapes selected by the departments and utilities for their identification shall be subject to the approval of the Director of Public Works.

E. Sawed Breakout Grooves - The removal and replacement of portions of existing concrete pavement, drives, slabs, sidewalks, etc., shall require breakout grooves to be sawed by the use of an approved power driven concrete saw in accordance with this specification and details shown on the plans and as directed by the Director of Public Works.

Location shown on the plans are indicative only of the need for grooves, and where designated locations coincide with or fall within 3 feet of the present location of either dummy joints, construction joints, or expansion joints, breakout shall be existing joint; then there will be no necessity for cutting additional grooves. The grooves shall be cut perpendicular to the surface and as directed by the Director of Public Works and shall be sawed to a minimum depth of 1 1/2 inches.

F. Thoroughfares - No interference with traffic flow on thoroughfares shall be permitted during the hours of 6:30 a.m. to 9:30 a.m. and 3:30 p.m. to 6:30 p.m., Mondays thru Fridays. Emergency closures during these hours shall be with the approval of the Director of Public Works.

When work is stopped for the day, all lanes of a major or collector street shall be opened to traffic. A traffic lane shall be considered satisfactorily open if it is paved with hot mix or cold mix asphalt paving.

If the cut is to be covered, the contractor shall use steel plates of sufficient strength and thickness to support all traffic.

Any exceptions to these provisions must be approved by the Director of Public Works.

G. Minimum Size of Repairs for Sidewalks - Removal and replacement will be to appropriate existing joints.

H. Minimum Size of Repairs for Street and Alley Paving - No horizontal dimension of any cut shall be less than 3 feet.

## SECTION 2. GENERAL CONSTRUCTION REQUIREMENTS.

The intent of this section is to provide guidelines for replacement of street surfaces in a manner that will not degrade the existing improvements and that will be accomplished with minimum inconvenience to the users.

Repairs are to be made as rapidly as is consistent with high quality workmanship and materials. Use of fast setting concrete and similar techniques are encouraged insofar as possible without sacrifice of the quality of repair. Completion of the job including replacement of pavement and cleanup shall normally be accomplished within ten (10) working days after the repair work or other activity involving the cut is done. Extensions of time to complete shall be with the approval of the Director of Public Works.

All permanent patches and repairs shall be appropriate to the surface; for example, concrete patches in concrete surfaces, con-

crete base with asphalt overlay patches will be expected in "over-layed" streets, etc. In no case is there to be an asphalt patch in concrete streets or concrete patch in asphalt street. Any repair not meeting these requirements will be removed and replaced at contractor's expense.

Removal of unsatisfactory work shall start within 15 days and replacement shall be completed within thirty days of written notification of the deficiency.

In the event that it is necessary to place a temporary surface on any cut opening, it shall be composed of permanent type paving material, specifically excluding gravel and flexbase as surface material. Temporary surfaces will be adequately compacted and sealed to prevent degradation of repair during the temporary period.

Any temporary surface that fails to provide a nondegraded riding surface or fails to meet the requirements of these specifications will be removed and replaced on a priority basis at contractor's expense.

Any temporary repairs not in compliance with the above, will require approval of the Director of Public Works, and must be placed to his full satisfaction.

A. Bore Holes (Openings less than 6" in Dia.) - Bore holes shall be filled with grout material to prevent entry of moisture. Grout material used shall in all cases be compatible with the existing surface. Subgrade shall be replaced and tamped to provide necessary support to the surface repair.

The completed job shall have no indentations, pockets or recesses that may trap and hold water, nor shall there be bumps or high places due to these activities.

B. Replacing Curb and Gutter, Sidewalks, Driveways, etc. - Curb, curb with gutter, sidewalks and driveways shall be replaced with concrete unless otherwise indicated. Replacement shall conform to the specifications for new construction.

C. Street and Alley Crossing - The construction of any cut repair activity of across street and alley rights of way and the removal and replacement of pavement, curb and gutter, etc. shall be in accordance with the following requirements:

1. Construction Requirements - The contractor shall protect the street and alley surface, drainage facilities, and all existing improvements from excavated materials, equipment operations, and other construction operations. Adequate provisions must be made to assure that traffic and adjacent property owners experience a minimum of inconvenience.

2. Excavation - The construction of any repair activity within the street or alley rights of way shall be accomplished by open cut, jacking, boring, tunneling, or a combination of these methods, as indicated on the plans or in the special provisions.

3. Backfill - Backfill is divided into three major categories; initial, intermediate, and final lifts as defined below.

a. Initial Lift - The initial lift consists of the section from the bottom of the excavation to a point either 6" or 12" above the top of the pipe. Placement and compaction of the initial lift shall be as specified by the City of Addison.

b. Intermediate Lift - The intermediate lift consists of the section above the initial lift to a point within 12" of the ground level or the base of the pavement.

Excavated material may be used in intermediate lift provided that all hard rock, stones, or boulders, having any dimensions greater than 6" and frozen earth, debris, and roots larger than 2" are removed. If trench excavation materials are not suitable, then granular fill material will be used, consisting of free flowing sand, mixed sand and gravel or fine crushed rock.

The intermediate lift in existing or proposed streets or alleys shall be compacted to the degree necessary to avoid settlement after paving is replaced. As a guide, the contractor shall secure at least an apparent dry density of 90% to 95% depending on the moisture, of the maximum dry density at not less than the optimum moisture of samples of the material as determined by the "maximum density optimum moisture test" ASTM designation D698. The backfill material shall be moistened when required to obtain satisfactory compaction. Compaction of any backfill material by flooding will not be permitted.

If compaction by settling is elected by the contractor, the procedure shall be as follows: After sufficient time has elapsed for removal of free moisture from the embedment material, the remaining backfill shall then be placed and thoroughly settled by jetting with water. Water jetting shall be placed by using a minimum 1" pipe of sufficient length to reach the bottom of the layer being compacted, connected to a jetting hose which will have a minimum inside dimension of 2" and capable of delivering water at the volume and pressure as required by the Engineer to complete the work thoroughly and promptly. The jetting pipe shall be applied to the backfill on each side of the pipe at intervals of not more than 5'.

The jetting pipe shall be forced to within one foot of the bottom layer of backfill and slowly removed to insure complete compaction of the material. Jetting shall be done in such a manner as not to displace the material around the conduit. Sufficient water shall be introduced into the backfill to cause complete subsidence of the backfill and develop free standing water at the surface of each lift. After jetting, the top crust shall be broken down and the resulting void shall be filled with good sound material and compacted.

The compaction of the intermediate lift on wide trenches, (defined as any trench width greater than 5') in a paved street will be compacted by mechanical compaction. If hand pneumatic tampers are used, the backfill shall be placed in layers not exceeding 3" and thoroughly tamped in place. If heavier tampers are used, that is, operated by combustion engines, electric motors, or hydraulic cylinder, the thickness of the layers may be increased to a maximum of 30", providing the required density is obtained. Such backfill shall be placed in uniform layers completely across the trench and compaction shall progress in an orderly and uniform manner. Utmost care must be taken in tamping in this manner to prevent injury to the pipe. If compaction by use of a sheeps foot roller is elected, the backfill shall be placed in lifts not exceeding 8" in thickness. In lieu of the hand or mechanical tamped material, the contractor may if he so elects, procure sand and place as above specified. At the time of placement the sand shall be damp with a moisture content of approximately 5%.

c. Final Lift - The final lift consists of that section above the intermediate lift to the ground elevation or the base of the pavement.



The final lift will be made in uniform layers with relatively dry excavated material. Rock or rock cuttings shall not be placed in the section of the trench unless approved by the Engineer.

In existing or proposed streets or alleys, the final lift shall be dry excavated material.

The final lift shall be compacted to secure an apparent dry density of not less than 95% of the maximum dry density at not less than optimum moisture of samples of the material as determined by the "maximum density optimum moisture test" ASTM designation D 698. The backfill material shall be moistened when required to obtain satisfactory compaction.

D. Removal - The removal of pavement, driveways, sidewalks, curb and gutter, etc. shall conform to the requirements of 1.4 "Sawed Breakout Grooves."

E. Replacement - Replacement of street and alley surfaces shall be completed as rapidly as possible to minimize inconvenience to the public.

In general, streets and alleys must remain in service; it is therefore necessary to schedule repairs one lane at a time, if possible, and barricade in accordance with Uniform Traffic Control Devices-Part V. Street and alley replacement activities will be performed according to the requirements of the following paragraphs.

1. Replacing Concrete Pavement - The existing pavement shall be sawed in accordance with Section 1.4, and removed to a line at least twelve inches back of the firm banks of the trench. The backfill shall be brought up to the elevation of the bottom of the existing pavement and satisfactorily densified in accordance with Section 2-C (3). Reinforcing bars shall be replaced with like-size bars lapping thirty diameters on splices. The concrete pavement shall be replaced with

concrete of not less than five (5) sacks of cement per cubic yard (3000 psi concrete of not less than five (5) sacks of cement per cubic yard (3000 psi concrete) to match the finish and thickness of the existing pavement, but not less than six (6) inches thick.

All concrete construction specified herein shall be protected from vehicular traffic, including vehicles of the contractor, until the concrete is not less than 7 days old.

Barricading shall be in conformance with the manual of the Uniform Traffic Control Devices-Part V.

See Exhibit "A".

2. Replacing Asphaltic Concrete Pavement with Concrete Base - The existing pavement shall be removed to a neat line at least twelve (12) inches back of the firm banks of trench. The backfill shall be brought up to the bottom of the pavement and satisfactorily densified in accordance with Section 2-C (3). Reinforcing bars shall be replaced with likesize bars lapping thirty diameters on splices. The concrete base shall be replaced with not less than a six (6) inch thickness of five sacks per cubic yard of cement (3000 psi concrete) to a line one and one-half inches below the asphaltic concrete surface of the street. The installation of the final one and one-half inch thickness of asphaltic concrete surface over the concrete base will be in accordance with new construction.

Barricading shall be in conformance with the manual of Uniform Traffic Control Devices-Part V.

See Exhibit "B".

3. Replacing Asphaltic Concrete Pavement on Natural Soil Base - Unless otherwise indicated or specified, when a street surfaced with asphaltic concrete on natural soil base is cut, the pave-

ment shall be replaced as follows. The backfill shall be brought up to the bottom of the pavement and satisfactorily densified in accordance with Section 2-C (3). The edges of the existing asphaltic concrete paving shall be cut back so as to produce a vertical edge for the full depth of the paving. The cut shall then be based with five (5) sacks per cubic yard of cement (3000 psi concrete) to a line one and one-half inches below the top of the asphaltic concrete surface. The installation of the final one and one-half inch thickness of asphaltic concrete surface over this concrete base will be in accordance with new construction.

Barricading shall be in conformance with the manual of Uniform Traffic Control Devices-Part V.

See Exhibit "C".

4. Replacing Asphaltic Concrete Pavement on Flexible Base (Overlay) - Unless otherwise indicated or specified when a street surfaced with asphaltic concrete on flexible base is cut, the pavement shall be replaced as follows. The backfill shall be brought up to the bottom of the flexible base and satisfactorily densified in accordance with Section 2 C (3). The edges of the existing asphaltic concrete paving shall be cut back so as to produce a vertical edge for the full depth of the paving. The cut shall be based with a compacted thickness of gravel or rock conforming to the requirements of M 29, "Rock for Flexible Base," of not less than six (6) inches. The installation of the final surface course will be in accordance with new construction.

Barricading shall be in conformance with the manual of Uniform Traffic Control Devices-Part V.

See Exhibit "D".

5. Replacing Penetration Type Pavement on Flexible Base - Unless otherwise indicated or specified when a street surfaced with penetration type pavement on flexible base is cut, the pavement shall be replaced as follows: The backfill shall be satisfactorily densified in accordance with Section 2 C (3) and a compacted thickness of gravel or rock conforming with the requirements of M 29, "Rock for Flexible Base," shall be placed to a thickness of not less than six (6) inches. The installation of the final surface will be in accordance with new construction.

Barricading shall be in conformance with the manual of Uniform Traffic Control Devices-Part V.

See Exhibit "E".

SECTION 3. It is hereby declared to be the intention of the City Council of the City of Addison that the section, paragraphs, sentences, clauses and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared unconstitutional, and such unconstitutionality or invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs or sections of this ordinance, since the same would have been enacted by the City Council without the incorporation in this ordinance of any such unconstitutional or invalid phrase, clause, sentence, paragraph or section.

SECTION 4. Any person violating or failing to comply with any provisions of this ordinance shall be fined upon conviction not less than One Dollar (\$1.00) nor more than Two Hundred Dollars (\$200.00).

SECTION 5. The fact that the present ordinances and regulations of the city are inadequate to properly safeguard the health, safety, morals, peace and general welfare of the inhabitants of the City creates an emergency for the immediate preservation of the public business, property, health, safety and general welfare of the public which requires that this ordinance shall become effective from and after the date of its passage, as provided by law, and it is accordingly so ordained.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF ADDISON, TEXAS, this the 14<sup>th</sup> day of November, 1978.

MAYOR *James Redding*

ATTEST:

*Jacquie Sharp*  
CITY SECRETARY

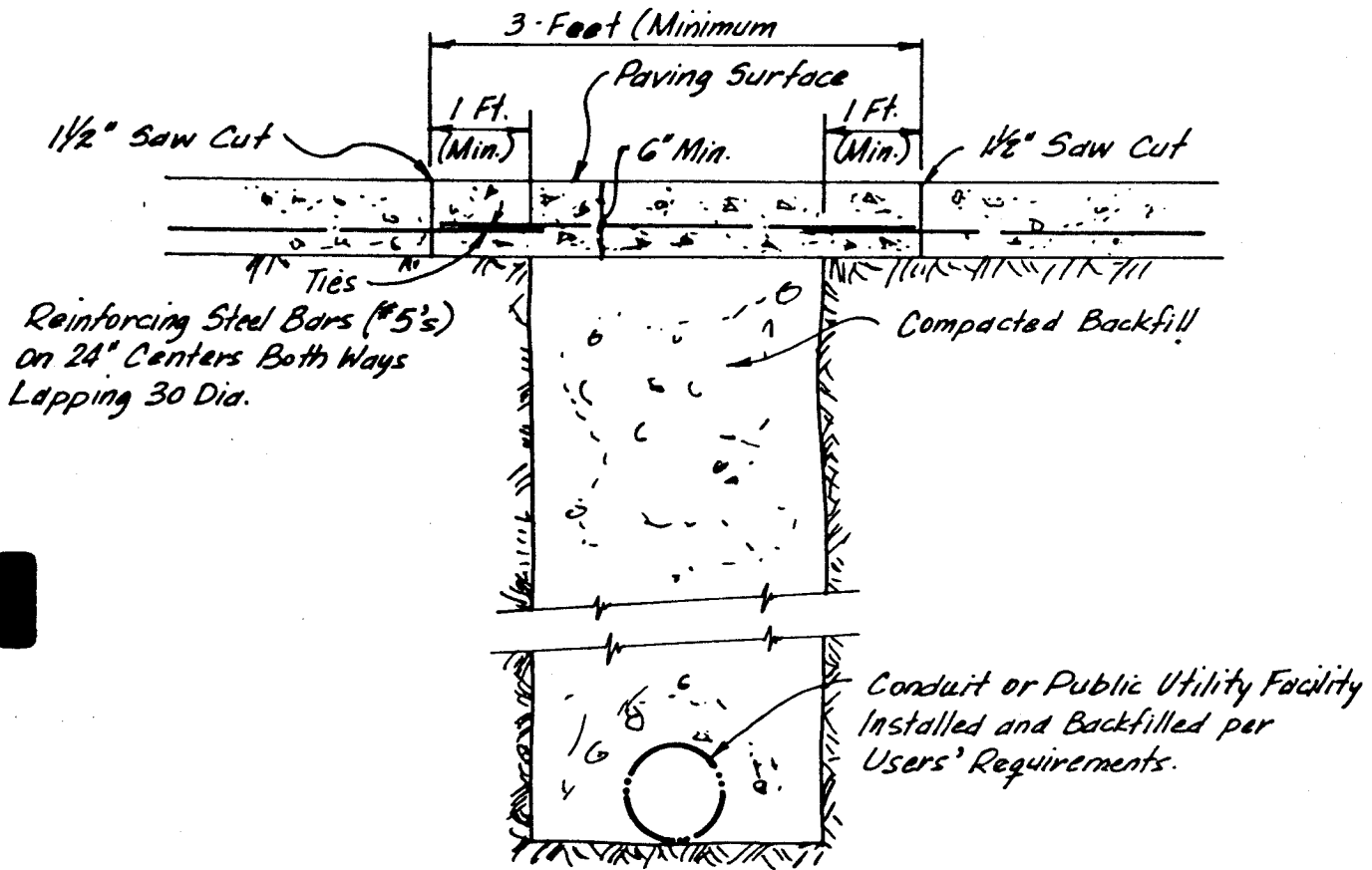


EXHIBIT "A"

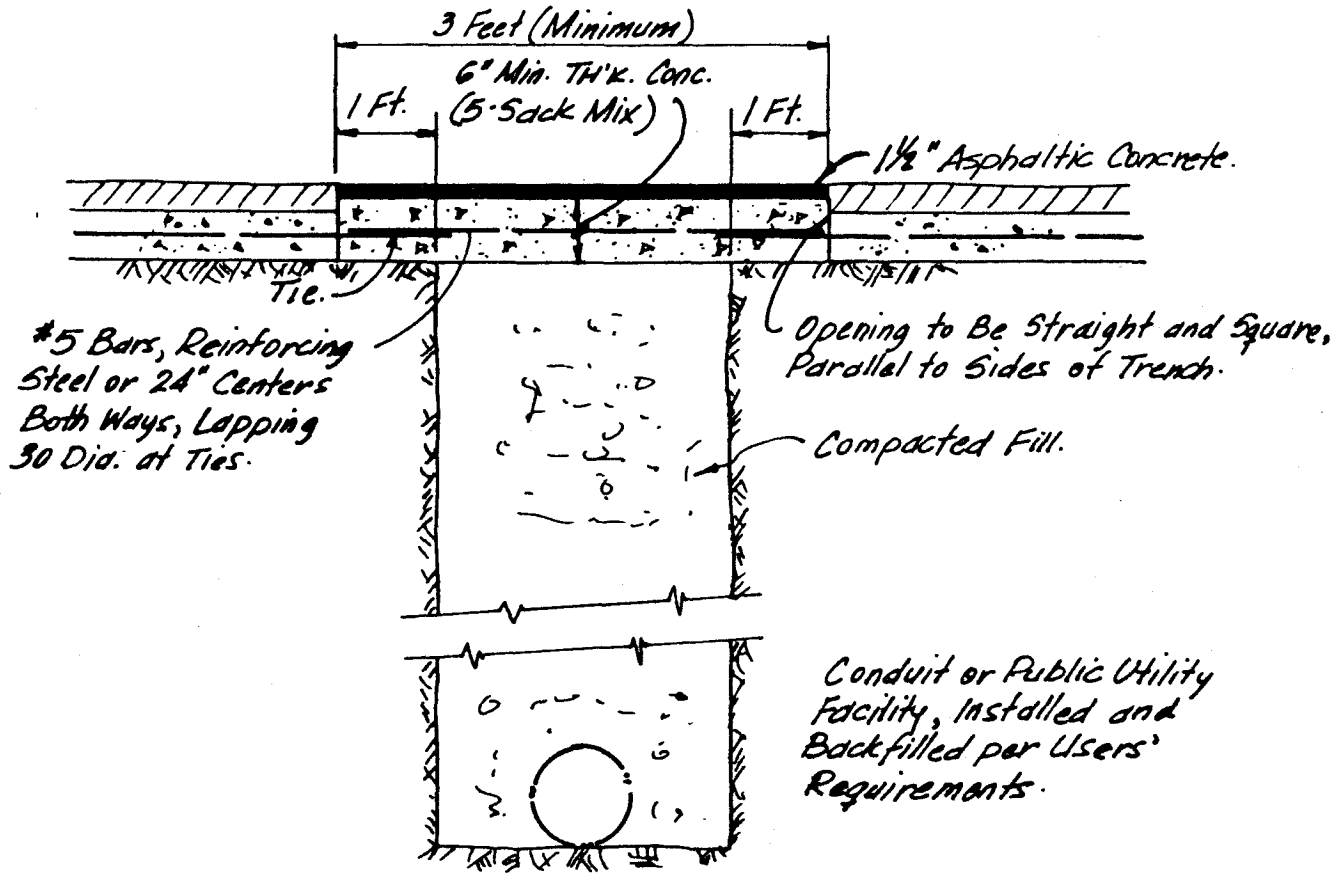


EXHIBIT "B"

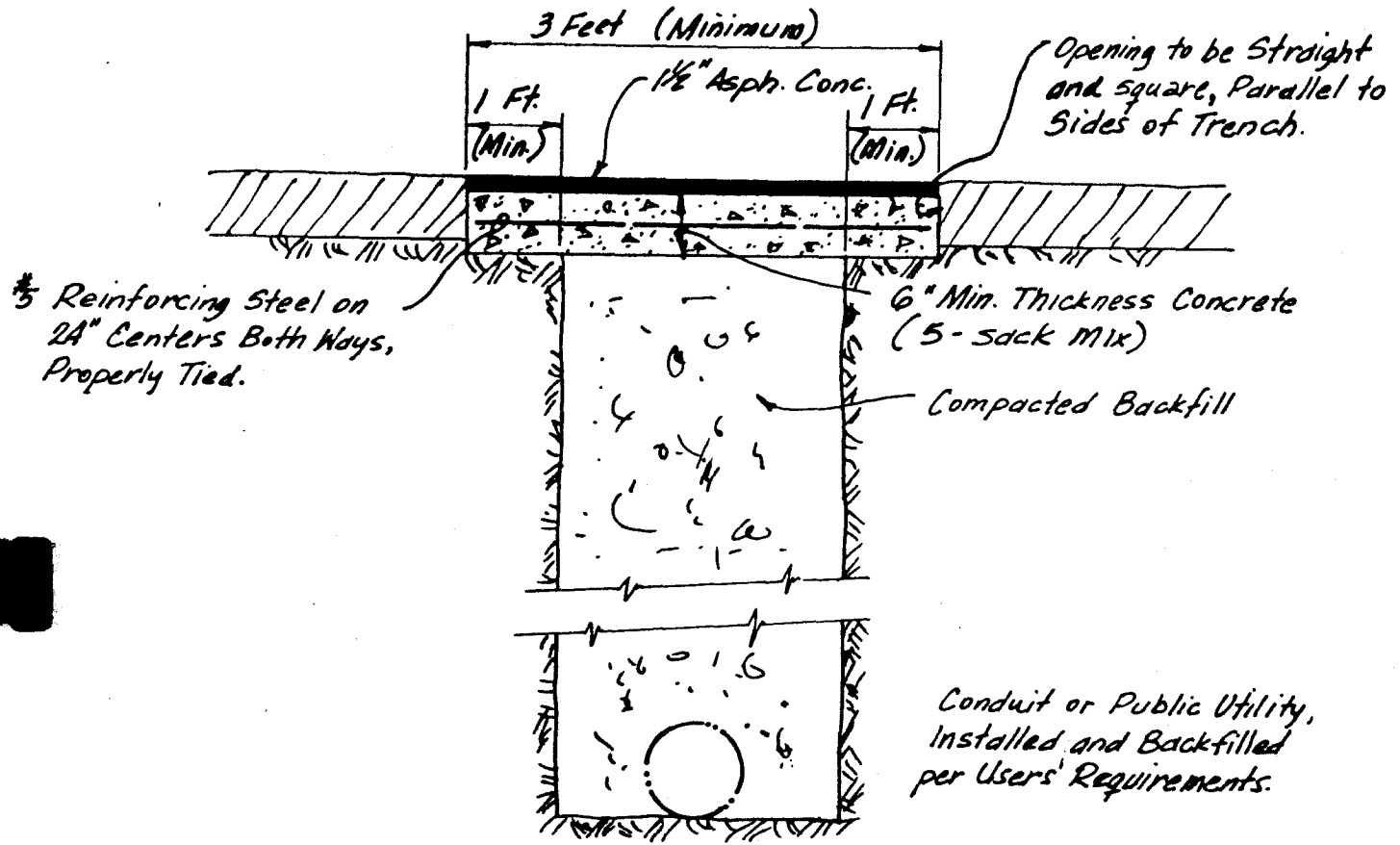


EXHIBIT "C"



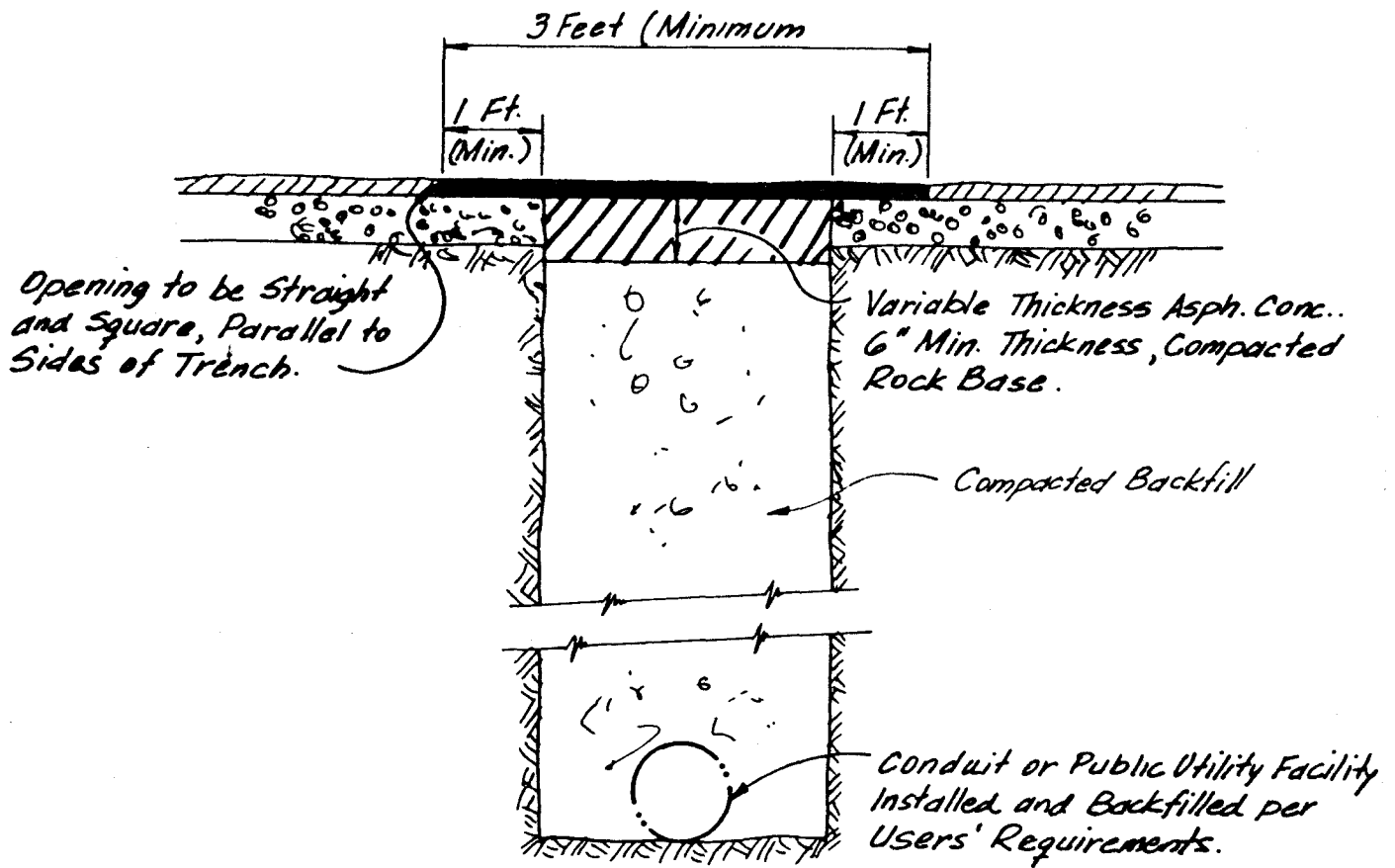


EXHIBIT "D"

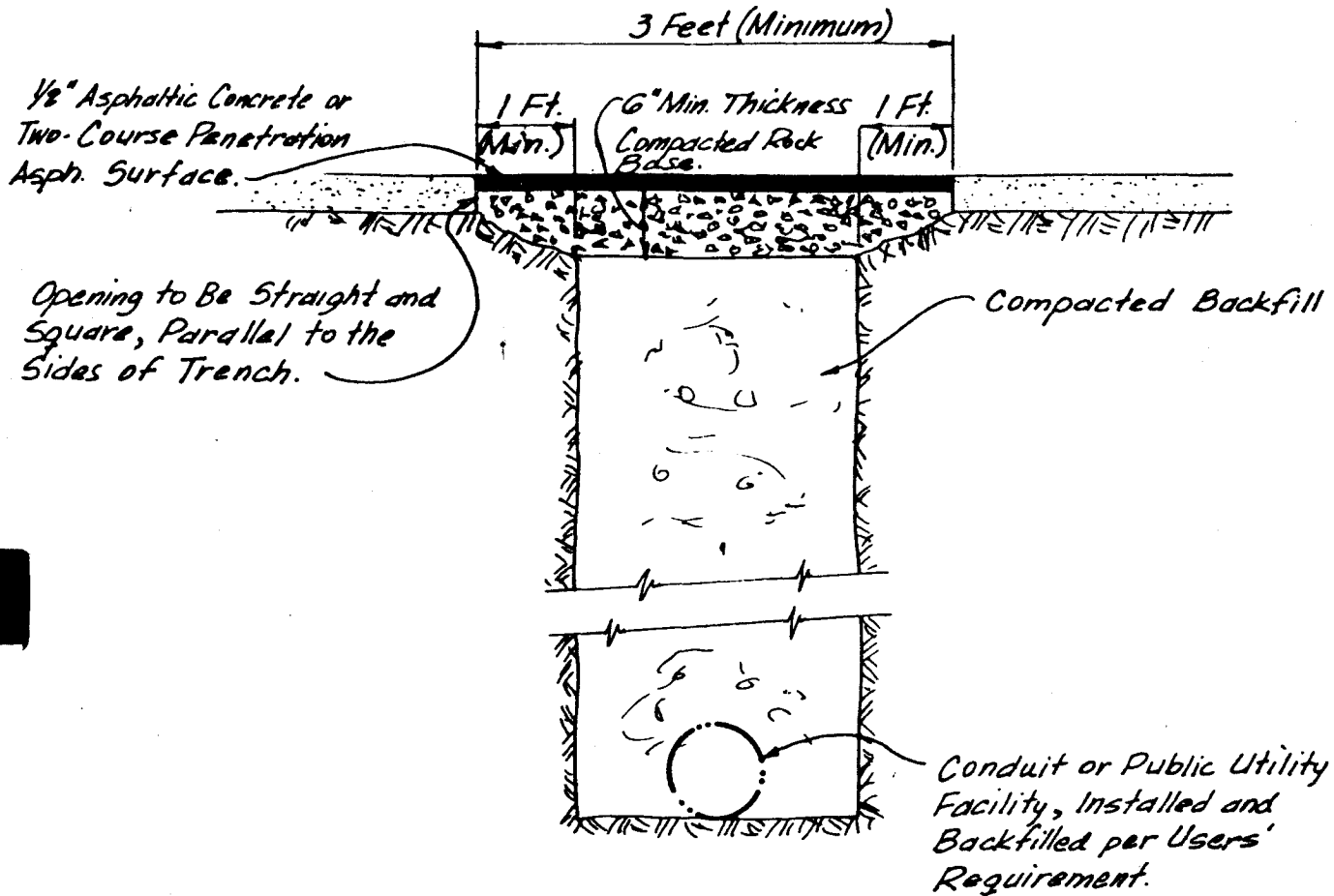


EXHIBIT "E"