

Approval Form
Online version 11/2005

APPROVAL

To Bruce Hanby
City of Rockwall
385 S. Goliad Street
Rockwall, TX 75087

Date 1/24/2014
Application No. DAL20140124104049
District App. No. DAL20140124104049
Highway SH 0276
Control Section 129003
Maintenance Section Kaufman/Rockwall County Maintenance
County Rockwall

TxDOT offers no objection to the location on the right-of-way of your proposed utility installation, as described by Notice of Proposed Utility Installation No. DAL20140124104049 (District Application No. DAL20140124104049) dated 1/24/2014 and accompanying documentation, except as noted below.

Not applicable

When installing utility lines on controlled access highways, your attention is directed to governing laws, especially to Texas Transportation Code, Title 6, Chapter 203, pertaining to Modernization of State Highways; Controlled Access Highways. Access for serving this installation shall be limited to access via (a) frontage roads where provided, (b) nearby or adjacent public roads or streets, (c) trails along or near the highway right-of-way lines, connecting only to an intersecting roads; from any one or all of which entry may be made to the outer portion of the highway right-of-way for normal service and maintenance operations. The Installation Owner's rights of access to the through-traffic roadways and ramps shall be subject to the same rules and regulations as apply to the general public except, however, if an emergency situation occurs and usual means of access for normal service operations will not permit the immediate action required by the Utility Installation Owner in making emergency repairs as required for the safety and welfare of the public, the Utility Owners shall have a temporary right of access to and from the through-traffic roadways and ramps as necessary to accomplish the required emergency repairs, provided TxDOT is immediately notified by the Utility Installation Owner when such repairs are initiated and adequate provision is made by the Utility Installation Owner for convenience and safety of highway traffic.

The installation shall not damage any part of the highway and adequate provisions must be made to cause minimum inconveniences to traffic and adjacent property owners. In the event the Installation Owner fails to comply with any or all of the requirements as set forth herein, the State may take such action as it deems appropriate to compel compliance.

It is expressly understood that the TxDOT does not purport, hereby, to grant any right, claim, title, or easement in or upon this highway; and it is further understood that the TxDOT may require the Installation Owner to relocate this line, subject to provisions of governing laws, by giving thirty (30) days written notice.

If construction has not started within six (6) months of the date of this approval, the approval will automatically expire and you will be required to submit a new application. You are also requested to notify this office prior to commencement of any routine or periodic maintenance which requires pruning of trees within the highway right-of-way, so that we may provide specifications for the extent and methods to govern in trimming, topping, tree balance, type of cuts, painting cuts and clean up. These specifications are intended to preserve our considerable investment in highway planting and beautification, by reducing damage due to trimming.

Special Provisions:

Bore water sewer lines General Trench Pit Location Backfill

You are required to notify TxDOT 48 hours (2 business days) before you start construction to allow for proper inspection and coordination of work days and traffic control plans. Use the UIR website for the 48-hour notification. DO NOT start construction until you have coordinated the construction start date and inspection with TxDOT. You are also required to keep a copy of this Approval, the Notice of Proposed Installation, and any approved amendments at the job site at all times.

By Terry Carter
Title Permit Approval
District Dallas
Texas Department of Transportation

Construction of Highway Crossing by Bore

- 1. GENERAL - WATER JETTING OR JACKING WILL NOT BE PERMITTED.** All paved streets which are maintained by TxDOT must be bored & encased unless it is specifically stated on the permit that an exception for open cutting and/or no encasement is granted.

At no time shall the boring operation interfere with the traveling public. The safety of the traveling public and maintaining the integrity of the roadway is the primary concern.

- 2. BORE PIT LOCATIONS** - No excavations for bore pits will be allowed to be any closer to the edge of the pavement (travel lane) than as outlined in the "TRENCH EXCAVATIONS AND PIT LOCATION" specification. If the required clear zoned distance is closer than outlined in the above mentioned specification, then appropriate traffic control devices such as barricades, signs, barrel mounted guard fence and/or concrete traffic barriers will be required as deemed necessary by the TxDOT inspector.

No excavated material will be stored closer to the traveled way than the bore pit. All pits and trenches shall be backfilled immediately after the encasement and carrier pipes have been installed. Upon completion of the backfill, all excess material will be removed from the right of way.

- 3. METHOD OF INSTALLATION** - Crossings are to be installed by the AUGER or "DRY" BORE method and shall be accomplished by use of a laser sighted bore machine or a bore machine requiring a pilot hole. The pilot hole will serve as the centerline of the large diameter hole to be bored. The user of water or fluids in the boring operation will only be allowed for lubricating the cutting head.

The boring operation shall be performed from the low or downstream end. Lateral or vertical variation of the encasement pipe from the proposed line and grade will be permitted only to the extent of one (1) inch in ten (10) feet, provided that such a variation shall be regular and only in one direction.

The encasement pipe shall be approximately the same diameter as the bore hole. Over cutting in excess of one (1) inch shall be remedied by pressure grouting the entire length of the installation with a mixture consisting of two (2) sacks of cement per yard of sand.

- 4. OPTIONAL WET BORE** - The utility or contractor may request installation by the Slurry or "Wet" bore method. The approval to wet bore is granted by the Area Engineer or his designated representative on an individual permit basis. If the area office allows wet bores in their designated area, approval will be based on bore size and soil conditions. Wet bores should be restricted to areas of rock or other suitable material which will prevent the sides of the bore hole from "caving in". A geotechnical report may be required prior to approval. In no instance will wet bores be allowed to exceed eighteen (18) inches in diameter.

The amount of water used for creating the slurry will be such that little or no runoff is encountered. If, in the opinion of the TxDOT inspector, at any time during the boring operation inadequate conditions are encountered for performing the wet bore, the process will be stopped and the bore will be completed by Auger bore.

The slurry material removed from the bore may not be used in the backfilling of the bore pit.

Water & Sanitary Sewer Lines

- 1. GENERAL** - Longitudinal water and sanitary sewer pipelines shall be placed on uniform alignment three (3) to ten (10) feet from the right of way line. The minimum depth of cover shall be twenty-four (24) inches for non-plastic lines and thirty (30) inches for plastic lines. If a nonmetallic line is installed, a durable metal wire or other device shall be concurrently installed for detection purposes.

Each line may be installed with enough vertical flexibility to prevent stresses; however, horizontal "snaking" of the line is prohibited.

The utility agency shall place identification markers at the right of way line in sufficient number for longitudinal installations and at each highway crossing.

All paved side streets crossed by a longitudinal line within TxDOT right of way must be installed as outlined in item #2 below.

- 2. CROSSING** - Highway crossings are to be installed at or near right angles to highway and must be installed with an encasement pipe. Encasement pipe is also to be installed under normal center medians, extend from the top of back slope for cut sections, and five (5) feet beyond the toe of slope for fill sections, unless an additional length is required as outlined in the "TRENCH EXCAVATION AND PIT LOCATION" specification.

All crossings under existing pavement must be installed as outlined in the "CONSTRUCTION OF HIGHWAY CROSSINGS BY BORE" specification.

The depth of cover for crossings shall be twenty-four (24) inches for non-plastic pipe and thirty (30) inches for plastic pipe under ditches. The encasement pipe must be a minimum of eighteen (18) inches or ½ the diameter of the pipe, whichever is greater, below the bottom of the pavement structure.

The encasement shall consist of a steel pipe around and outside the carrier pipe and support the load of the ground above the pipe, the highway, and the superimposed loads there on, including construction equipment. HDPE pipe with a SDR ratio of 11 or greater may be used for encasement of water service lines. The HDPE pipe must be a single continuous piece with no joints. The strength of the encasement pipe shall equal or exceed the structural requirements for highway drainage culverts covered under ASTM specifications.

- 3. ABOVE GROUND APPURTENANCES** - Fire hydrants, air release valves, and other similar appurtenances should be located at or near the right of way line. All fire hydrants will be equipped with breakaway bases and should not be located in the sidewalk. Any appurtenances may not be located any closer than 3 ft from back of curb.

Pumps, wells, and other structures associated with lift stations and pump stations will not be permitted within the limits of TxDOT right of way.

- 4. MANHOLES** - The outside diameter of the manhole chimney at ground level shall not exceed thirty-six (36) inches. The inside diameter of the manhole for lines up to twelve (12) inches shall not exceed four (4) feet. For any increase in line size greater than twelve (12) inches the manhole may be increased a like amount. The manhole cover shall be installed flush with the ground, meet HS-20 load requirements, and weigh at least 175 pounds.

General Utility Installations

1. **GENERAL** - A copy of the approved notice must be kept onsite at all times during construction. Unless other arrangements are made with the designated Texas Department (TxDOT) inspector, no work will be performed on Saturday, Sunday, Holidays, or hours other than standard working hours. Utility lines shall be located to avoid or minimize the need for adjustments to accommodate future highway improvements.

All utility installations will be made without excavation or longitudinal placement being made any closer than three (3) feet from the back of curb. No pavement cuts are permitted unless specifically stated on the permit that approval is given to open cut the pavement.

No explosives shall be used within the limits of the TxDOT highway right of way for utility installations.

2. **COORDINATION OF WORK** - *Prior to the start of construction the local TxDOT Office MUST BE NOTIFIED at the number listed on the approval notice. Traffic control plans must be approved by the Area Office before work can begin.* If the installation is within the limits of an active highway construction project, the utility work must be coordinated with the TxDOT Contractor and Inspectors. The utility work shall not cause any delay or disruption to the TxDOT contractor or construction.

Location existing utility facilities and coordination with the owners is the responsibility of the utility agency.

3. **TRAFFIC SAFETY, BARRICADES, WARNING DEVICES** - Traffic control and protective devices shall be used and must conform to the TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES for streets and highways. All barricades, warning devices, signs, flashers, and flag persons shall be provided by the utility agency or contractor.

Traffic shall not be stopped at any time without the use of a flag person. Prior to beginning work, the traffic control plans must be approved by the Area Engineer or his designated representative. Lane closures for any utility work will not be permitted without prior approval of Area Engineer or his designated representative. Lane closures are not permitted during peak "rush hour" traffic times.

Vehicles, equipment, construction material and personnel not necessary to the timely installation of the facility shall be kept as far as possible from the traveling public. Any above ground obstruction or bore pit located closer than the clear zone distances outlined in the "Trench Excavation and Pit Locations" specification shall be protected by barricades, metal beam guard fence and/or concrete traffic barriers as deemed necessary by the TxDOT Inspector. At the end of every construction day, all equipment and materials shall be removed as far from the roadway edge as possible.

4. **SURVEYING AND STAKING OF UTILITIES** - All utility installations shall be staked by utility agency so that TxDOT may inspect the alignment prior to start of construction. The ROW line is to be staked and the utility installed based on a set distance from the ROW line. The utility is ultimately responsible for the accuracy of the installation.

5. **TIME PERIOD ALLOWED FOR INSTALLATION** - If the installation of the work covered by this utility permit has not started within twelve (12) months from the approval date, a written request for an extension must be submitted to the District Office. It is expected that the installation will progress to completion in an efficient manner. However, if the work is delayed or abandoned for a period of one (1) month or more, a written request must be submitted to continue under the authority of the original permit.

6. **FULL TIME SUPERVISION and INSPECTION** - The utility agency shall provide competent, full time inspectors or supervisors to be present on-site during the installation. Also, the utility may be required to provide a telephone number at which someone may be contacted 24 hours in case of an emergency. The utility construction may be delayed or stopped when it is observed by the TxDOT Inspector that there is not an agency inspector or supervisor present on the job site.

7. **DEPARTMENT INTERVENTION** - TxDOT has the right to take charge of an to remedy any immediate hazard to the traveling public when it is obvious the utility agency will not do so. Any costs associated with TxDOT's action will be charged to the utility agency.

8. **UTILITY ACCOMMODATION RULES** - Utility installations within the TxDOT Right of Way shall conform to the requirements contained in the TxDOT Utility Accommodation Rules, dated February 2, 2005, the Dallas District Utility Specifications and the following industry policies.

- A. Safety rules for the installation and maintenance of electric and communication lines - National Electrical Safety Code.
- B. Latest edition of the Rules and Regulations for Public Water Systems, published by the Texas Department of Health, Water Hygiene Division.
- C. Gas Pipelines - Title 49, C.F.R., Part 195, Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards and amendments.
- D. Liquid Petroleum Pipelines - Title 49, C.F.R., Part 195, Transportation of Liquids by Pipelines and amendments.
- E. Latest edition of the American Society for Testing and Materials (ASTM) Specifications.
- F. Latest edition of the AASHTO policy entitled "A Policy on the Accommodations of Utilities within Freeway Right of Way".
- G. Latest edition of the Occupational Safety and Health Administration (OSHA) Standards and Interpretations.

Trench Excavation and Pit Location

- 1. GENERAL** - No dirt from a trench or pit excavation shall be placed on the roadway or shoulders. All equipment and stockpiled dirt shall meet the safety clear zone distances listed below or have adequate barricades and warning devices to protect the traveling public.

Topsoil shall be kept separate from other excavation material, and be replaced in accordance with "BACKFILLING" specification.

All pits and trenches shall be kept free from standing water. If trenches and/or bore pits are left open for extended periods of time without a continuous progression of work, the utility will be required to backfill the trench and/or bore pits. Any other pit will not be left open for more than a forty eight (48) hour period.

In all excavations where sloughing is likely to occur, shoring will be utilized to prevent damage to the highway structure(s). The utility agency or contractor shall be responsible for maintaining trench excavation protections as required by provisions of Part 1926, Subpart P - Excavations, Trenching and Shoring of OSHA Standards.

- 2. TRENCHING** - Longitudinal installations must be placed as near a uniform alignment to the right of way line as possible. Trenching machine or backhoe may be used. A backhoe will be required if a uniform alignment can't be maintained by use of a trenching machine.
- 3. SAFETY CLEAR ZONE DISTANCES** - Minimum clear zone distances required for trench excavations and bore pit locations are as follows:

For UNCURBED Highways

- A. Thirty (30) ft. from the edge of pavement (traveled lane) of high-speed (more than 40 mph), high volume (more than 750 vehicles per day) highways.
- B. Sixteen (16) ft* from edge of pavement of high-speed, low volume (less than 750 vehicles per day) highways.
- C. Sixteen (16) ft* from ramps.
- D. Ten (10) ft* for low-speed (40 mph or less) highways.
- E. Ten (10) ft* for any paved intersections side streets.

* Five (5) ft MINIMUM from edge of any shoulder.

For CURBED Highways

- A. Thirty (30) ft from the back of curb for high-speed highways
- B. Five (5) ft from the back of curb, plus any additional distance to clear sidewalks, for low-speed highways
- C. Five (5) ft from the back of curb for intersecting side street.

Backfill Specifications

- 1. GENERAL** - As soon as practical, all portions of the excavation shall be backfilled. Trenches and pits shall be backfilled with the material obtained from the excavation or from other sources. Backfill material will be free from stones of such size as to interfere with compactions; free from large lumps which will not break down readily under compaction; and free from frozen lumps, wood or other extraneous material. The TxDOT inspector may reject any material containing more than twenty (20) percent by weight of material retained on a three (3) inch sieve.

The portion of top soil removed from the original excavation shall be replaced, as nearly as feasible, in its original position.

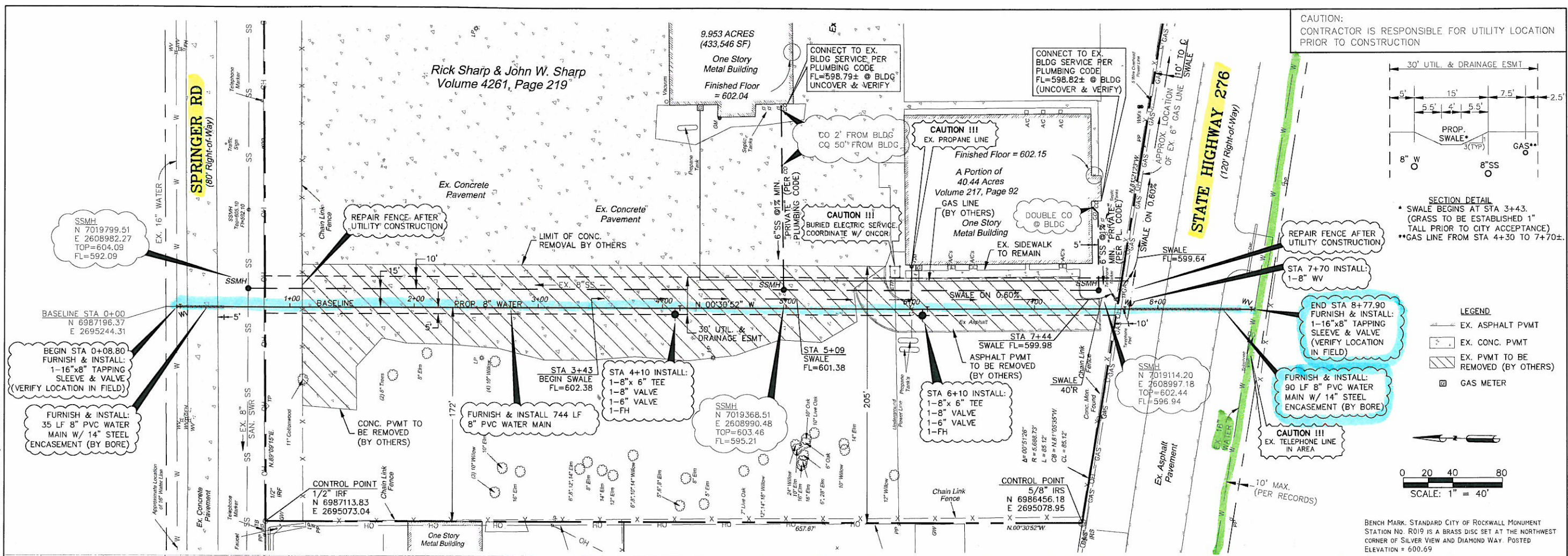
- 2. DEPTH OF LIFTS** - The portion of backfill below the top of pipe shall be placed in uniform layers not to exceed eight (8) inches in depth (loose measurement). Backfill above the top of the pipe shall be placed in layers not to exceed ten (10) inches in depth (loose measurement). If the backfill is to support a portion of roadway or embankment, then the material will be placed in uniform layers not to exceed eight (8) inches in depth (loose measurement).
- 3. PROCEDURE FOR COMPACTION** - Each layer of backfill material, if dry, shall be wetted uniformly to the moisture content required to obtain a density comparable with the adjacent undisturbed soil and shall be compacted to that density by means of mechanical tampers or rammers. The use of rolling equipment of the type generally used in compacting embankments will be permitted on portions that are accessible to such equipment. Water jetting or ponding will not be permitted.

Special care shall be taken to ensure thorough compaction of material placed under the haunches of the pipe.

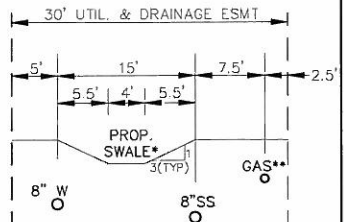
Cohesionless materials, such as sand, may be used for general backfilling purposes. Compaction of cohesionless materials shall be done with vibratory equipment.

- 4. RESTORATION OF RIGHT OF WAY** - Prompt replacement of sod, removal of debris, and any other restoration necessary to restore the right of way to a condition equal to that which existed prior to the utility installation will be required. In areas of erosion, the use of stabilized backfill may be required. Should settlement or erosion occur within six (6) months of the utility installation, the utility agency will be required to reshape, reseed, and/or resod the area.

S:\148100 (DFW INSULATION)\C1-SEWER NEW.dwg-Model Plotted Jan 22, 2014 at 6:09pm by kamderson | Last Saved by: kamderson



CAUTION: CONTRACTOR IS RESPONSIBLE FOR UTILITY LOCATION PRIOR TO CONSTRUCTION

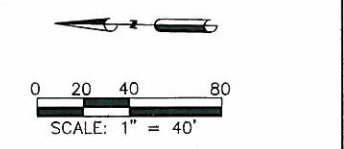


LEGEND

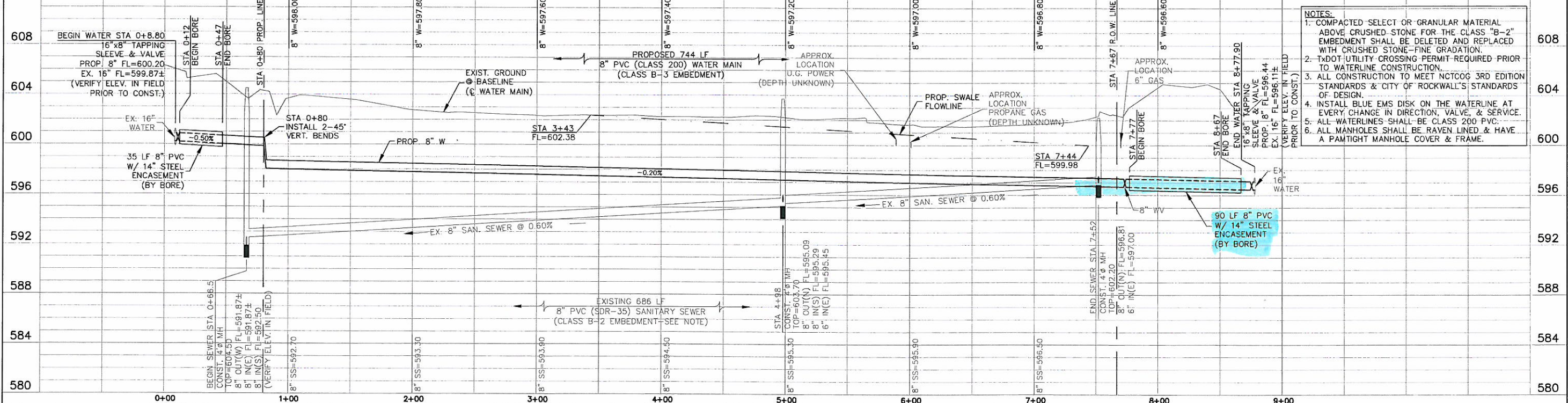
- EX. ASPHALT PVMT
- EX. CONC. PVMT
- EX. PVMT TO BE REMOVED (BY OTHERS)
- GAS METER

NOTES:

1. COMPACTED SELECT OR GRANULAR MATERIAL ABOVE CRUSHED STONE FOR THE CLASS "B-2" EMBEDMENT SHALL BE DELETED AND REPLACED WITH CRUSHED STONE-FINE GRADATION.
2. TxDOT UTILITY CROSSING PERMIT REQUIRED PRIOR TO WATERLINE CONSTRUCTION.
3. ALL CONSTRUCTION TO MEET NCTCOG 3RD EDITION STANDARDS & CITY OF ROCKWALL'S STANDARDS OF DESIGN.
4. INSTALL BLUE EMS DISK ON THE WATERLINE AT EVERY CHANGE IN DIRECTION, VALVE, & SERVICE.
5. ALL WATERLINES SHALL BE CLASS 200 PVC.
6. ALL MANHOLES SHALL BE RAVEN LINED & HAVE A PAINTIGHT MANHOLE COVER & FRAME.



BENCH MARK: STANDARD CITY OF ROCKWALL MONUMENT STATION NO. R019 IS A BRASS DISC SET AT THE NORTHWEST CORNER OF SILVER VIEW AND DIAMOND WAY. POSTED ELEVATION = 600.69



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Rev.	Date	Description	App.	Approved By:

Designed By: TPJ Job No.: 1400?
 Drawn By: JKA Date: 01/22/14
 Checked By: TPJ Scale: 1"=40'H(22"x34")
 1"=4'V(22"x34")

Binkley & Barfield | C&P
 consulting engineers

DFW INSULATION
 2578 HWY 276
 ROCKWALL, TEXAS

SITE IMPROVEMENTS
UTILITY PLAN & PROFILE

Sheet No. **C1**
 of ____