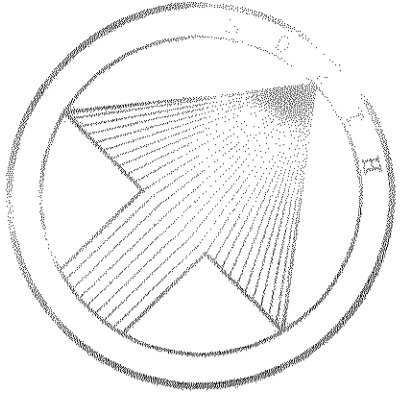


GENERAL NOTES

- All water lines shall be PVC Class 150 DR 18. Alternate may be D.I. Class 51 with Polywrap.
- All water lines to have 42" minimum cover below approved street grades as required to clear other utilities.
- All water services to be 1" polyethylene 200 PSI SDR located in the center of lot with cut-offs 3'-6" behind curb.
- All sanitary sewer laterals shall be 4" and located 10' downstream of water service, unless otherwise shown on plans.
- All water mains shall pass a four (4) hour 200 psi pressure test in accordance with the City of Rockwall Specifications. Test to be made by the Contractor.
- The Contractor shall record the location of all water and sewer services relative to lot corners. He shall also record any additions, deletions, or revisions to the plans which take place in the field. This information is to be furnished to the Engineer immediately after installation for the purpose of preparing "as-built" plans.
- Meter boxes will be supplied & installed by the Contractor.
- The Contractor shall be responsible for coordinating line and grade for all water, sanitary sewer, and storm sewer and appurtenances. The Engineer shall furnish this information upon request.
- Plastic tape for utility to be attached to the end of all water and sewer service lines, and extended above ground level. The tape shall meet the following specifications:
  - "Allen Marking Tape" or equal
  - Toll marked continuously "Caution - Water Line" or "Caution - Sewer Line"
  - Six (6) inches in width
  - Red tape for sewer services
  - Blue tape for water services
- All existing underground facilities, such as existing water lines, sanitary sewer lines, gas lines, storm sewer lines, telephone conduits, electrical conduits, etc., that might conflict with our proposed underground facilities must be uncovered and the location verified with the Contractor prior to any underground construction for this project. The Engineer shall assist the Contractor in determining locations and elevations of these existing underground facilities.
- Ductile iron pipe shall be used at all utility crossings, 10 feet on each side.
- Where ductile iron pipe is used at utility crossings, pipe shall be Class 51 with Polywrap.

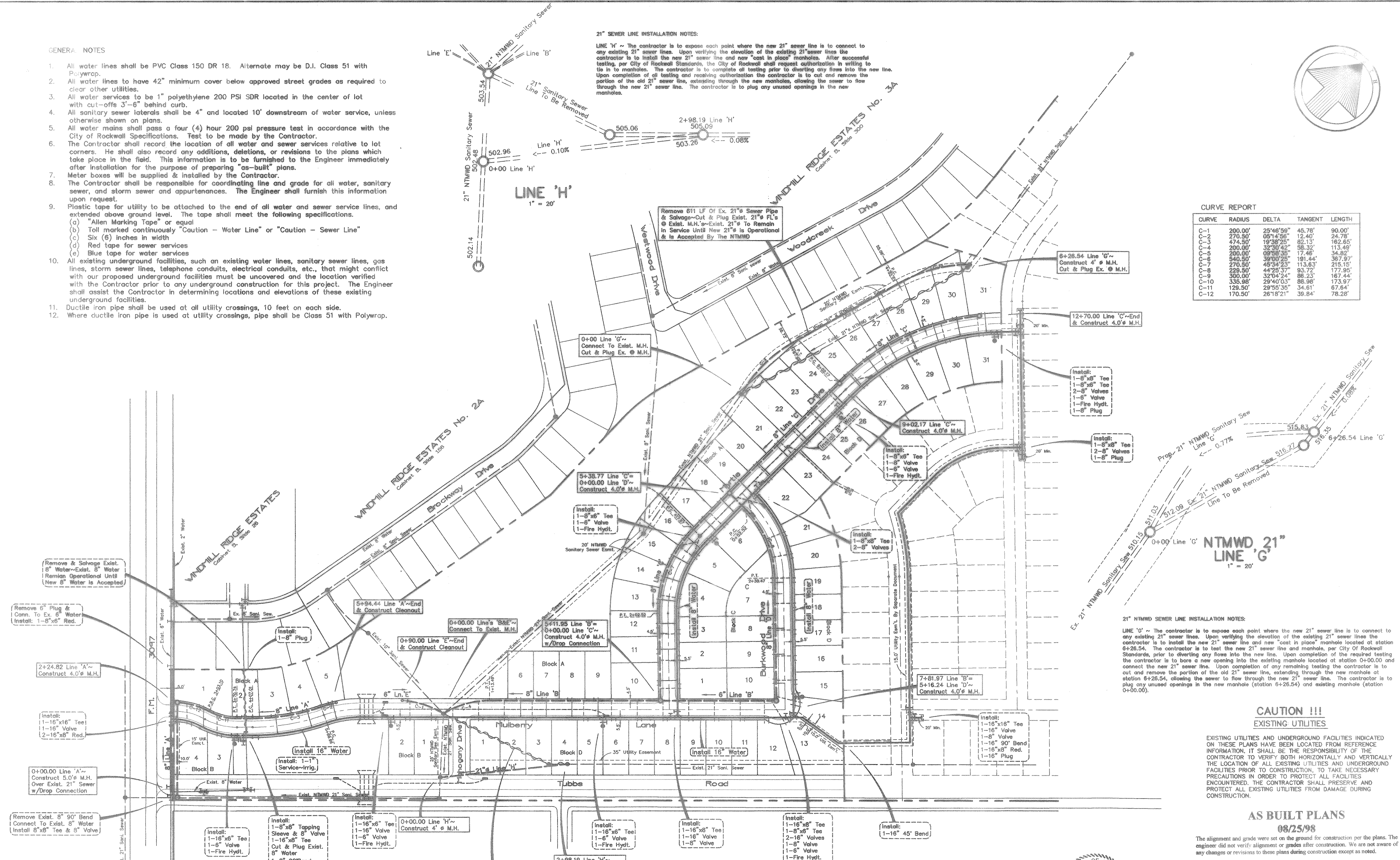
21" SEWER LINE INSTALLATION NOTES:

LINE 'H' ~ The contractor is to expose each point where the new 21" sewer line is to connect to any existing 21" sewer lines. Upon verifying the elevation of the existing 21" sewer lines the contractor is to install the new 21" sewer line and new "cast in place" manholes. After successful testing, per City of Rockwall Standards, the City of Rockwall shall request authorization in writing to tie in to manholes. The contractor is to complete all testing prior to diverting any flows into the new line. Upon completion of all testing and receiving authorization the contractor is to cut and remove the portion of the old 21" sewer line, extending through the new manholes, allowing the sewer to flow through the new 21" sewer line. The contractor is to plug any unused openings in the new manholes.



CURVE REPORT

CURVE	RADIUS	DELTA	TANGENT	LENGTH
C-1	200.00'	25°46'59"	45.78'	90.00'
C-2	270.90'	05°14'56"	12.40'	24.78'
C-3	474.50'	19°36'25"	82.13'	162.65'
C-4	200.00'	32°30'42"	88.32'	113.46'
C-5	200.00'	09°58'35"	17.46'	34.82'
C-6	540.50'	39°00'25"	181.44'	367.97'
C-7	270.90'	43°34'23"	115.63'	215.15'
C-8	229.50'	44°25'37"	93.72'	177.95'
C-9	300.00'	32°04'24"	86.23'	167.44'
C-10	335.96'	29°40'03"	88.96'	173.97'
C-11	128.50'	29°55'35"	34.61'	67.64'
C-12	170.50'	26°18'21"	39.84'	78.28'



21" NTMWD SEWER LINE INSTALLATION NOTES:  
 LINE 'G' ~ The contractor is to expose each point where the new 21" sewer line is to connect to any existing 21" sewer lines. Upon verifying the elevation of the existing 21" sewer lines the contractor is to install the new 21" sewer line and new "cast in place" manholes located at station 6+26.54. The contractor is to test the new 21" sewer line and manholes, per City of Rockwall Standards, prior to diverting any flows into the new line. Upon completion of the required testing the contractor is to bore a new opening into the existing manhole located at station 0+00.00 and connect the new 21" sewer line. Upon completion of any remaining testing the contractor is to cut and remove the portion of the old 21" sewer line, extending through the new manhole at station 6+26.54, allowing the sewer to flow through the new 21" sewer line. The contractor is to plug any unused openings in the new manhole (station 6+26.54) and existing manhole (station 0+00.00).

CAUTION !!!  
 EXISTING UTILITIES

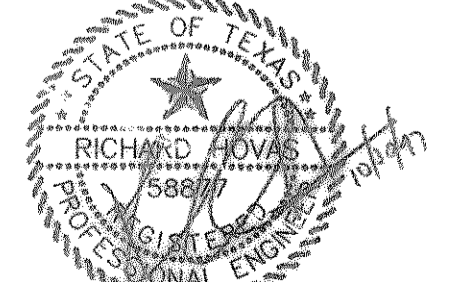
EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.

AS BUILT PLANS  
 08/25/98

The alignment and grade were set on the ground for construction per the plans. The engineer did not verify alignment or grades after construction. We are not aware of any changes or revisions to these plans during construction except as noted.

Note!  
 "The contractor shall contact Mr. Joe Stankiewicz, Engineering Officer, at (972) 442-5405, at least 48 hours prior to performing any work in the vicinity of NTMWD facilities."

ROCKWALL LAKE ESTATES No. ONE  
 Cabinet B, Side 241



**WATER & SEWER PLAN**  
 WINDMILL RIDGE ESTATES No. 4  
 City of Rockwall, Texas

**TIPTON ENGINEERING, INC.**  
 6330 Belt Line Rd. ~ Suite C ~ Garland, Texas 75043

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	Nr.
T.E. inc.	T.E. inc.	9-98	"=00"		4066	15