

GENERAL NOTES

- ALL WATER LINES SHALL BE PVC C900, CLASS 200 OR 14. ALL 16" WATER LINES SHALL BE PVC CLASS 200.
- 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'-8" 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. THE CONTRACTOR SHALL 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 AND 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 AN EXISTING WATER LINE, 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.
- CONNECTIONS TO EXISTING 21" NTMWD SEWER LINE SHALL BE BY CONNECTING AND MATCHING TOP OF PIPE ELEVATION OF INCOMING 8" LINE WITH TOP OF NTMWD EXISTING 21" GRAVITY SEWER.

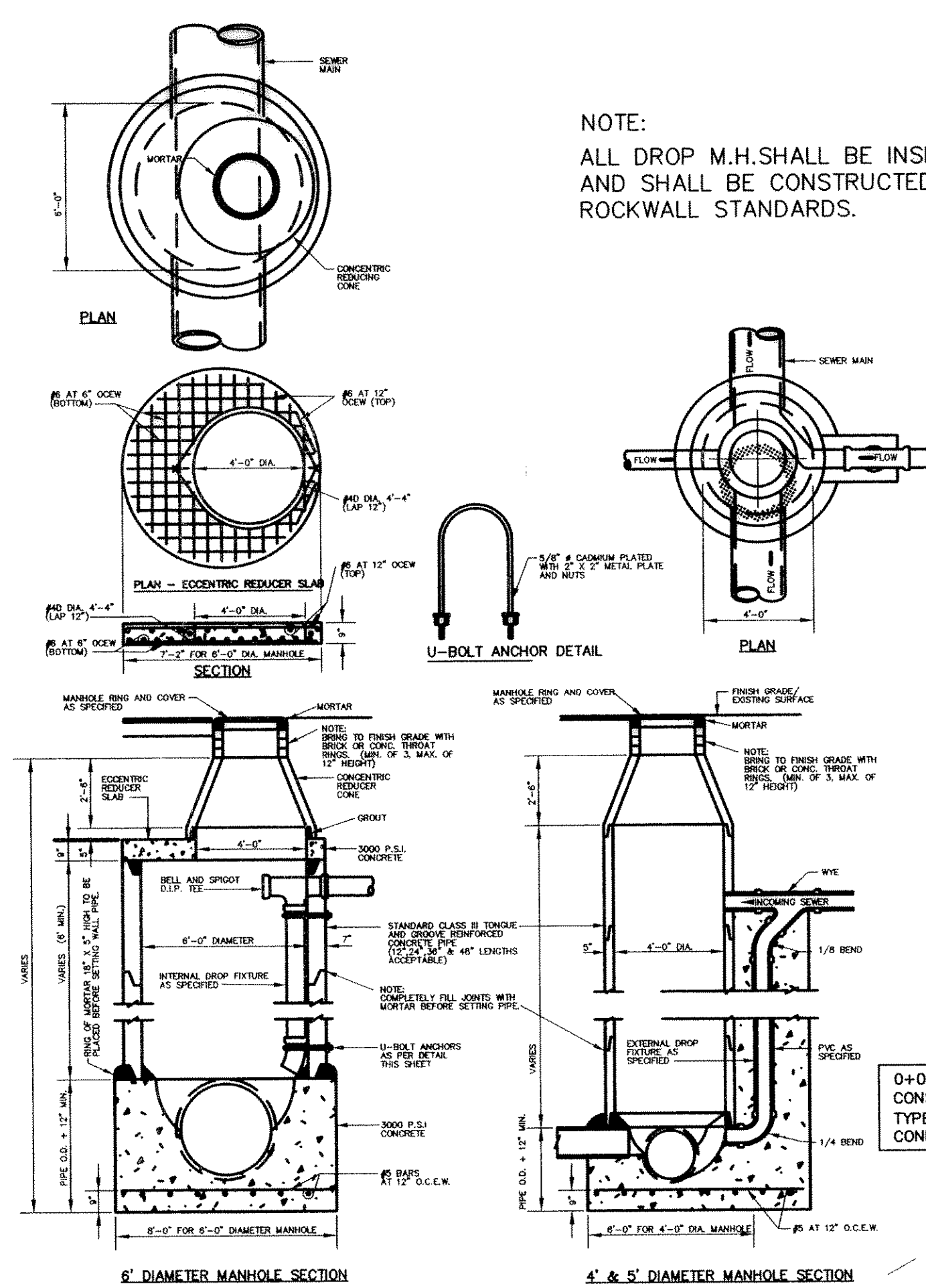
NOTE!
THE CONTRACTOR SHALL CONTACT MR. RANDEL DOBBS, ENGINEERING OFFICER, AT (972) 442-5405, AT LEAST 48 HOURS PRIOR TO PERFORMING ANY WORK IN THE VICINITY OF NTMWD FACILITIES."

CURVE TABLE FOR SANITARY SEWER

CURVE	RADIUS	DELTA	TANGENT	LENGTH
C1	499.50	123°03'	54.86	109.27
C2	309.52	43°06'43"	122.27	232.90
C3	270.50	19°25'59"	46.32	91.75
C4	279.50	14°35'39"	35.79	71.19
C5	279.50	28°22'42"	70.67	138.44
C6	320.50	16°21'36"	46.07	91.51
C7	479.50	02°27'28"	10.29	20.57
C8	200.00	20°03'22"	35.37	70.01
C9	329.50	06°40'13"	19.20	38.36

NTMWD NOTES:

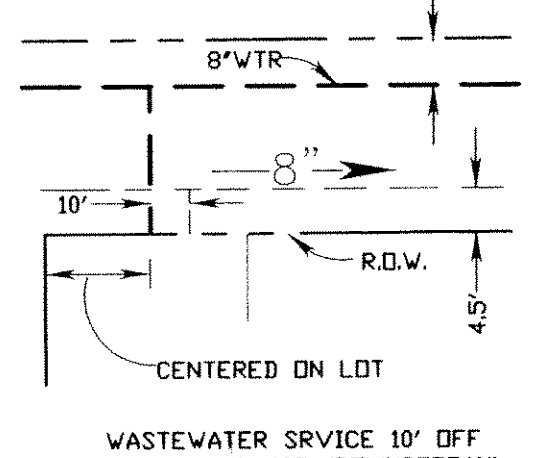
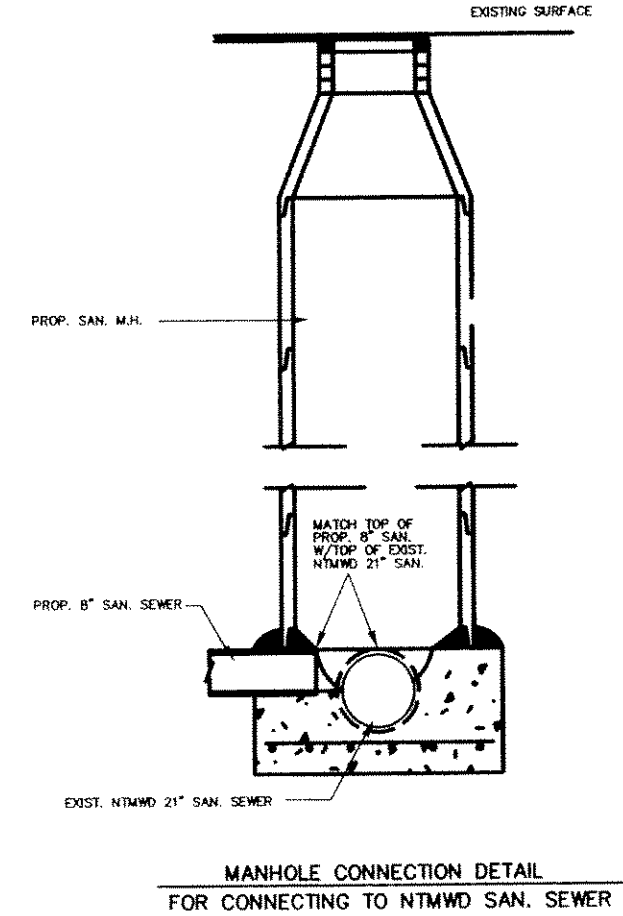
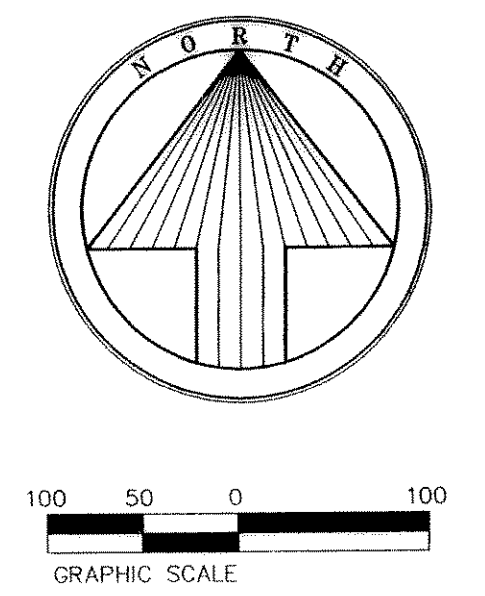
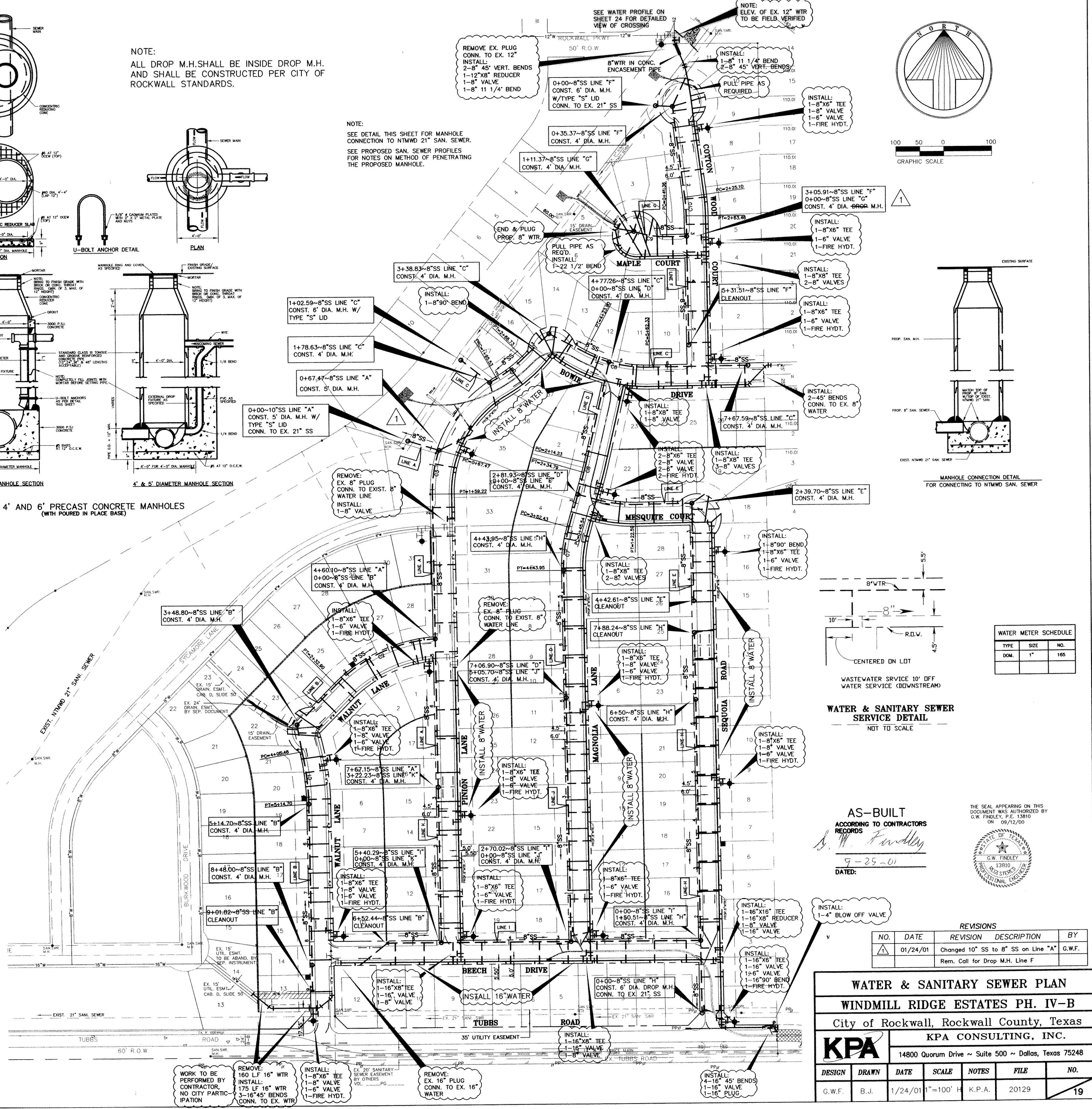
- NORTH TEXAS MUNICIPAL WATER DISTRICT (NTMWD) 21-INCH SANITARY SEWER GRAVITY TRUNK MAIN IS LOCATED WITHIN LIMITS OF CONSTRUCTION. THE PIPE MATERIAL IS CLAY TILE, WHICH IS EXTREMELY BRITTLE.
- OPERATION OF HEAVY EARTHMOVING EQUIPMENT, COMPACTION EQUIPMENT OR HEAVY CONSTRUCTION EQUIPMENT, SUCH AS CONCRETE TRUCKS, SHALL BE RESTRICTED TO SPECIFIC CROSSING POINTS ACROSS NTMWD EASEMENTS, AS APPROVED BY THE NTMWD. THE CROSSINGS SHALL BE DESIGNATED AND VERIFIED TO PROVIDE A MINIMUM OF FIVE FEET OF COVER.
- TO ASSURE THAT PLACING OF SIGNIFICANT LOADS OVER THE NTMWD PIPELINE DOES NOT DAMAGE THE EXISTING PIPELINE, NO MATERIALS SHALL BE STOCKPILED ON THE NTMWD EASEMENT WITHOUT AUTHORIZATION FROM NTMWD. IF THE CONTRACTOR DESIRES TO USE NTMWD'S EASEMENT FOR STOCKPILES OF MATERIALS, CONTACT NTMWD ENGINEERING AT (972) 442-5405 SO YOUR PLANS FOR USE OF NTMWD'S EASEMENT CAN BE REVIEWED.
- IN AREAS WHERE THE COVER BETWEEN THE TOP OF THE NTMWD PIPELINE AND THE BOTTOM OF THE SUB-GRADE IS THREE (3) FEET OR LESS, IT IS REQUESTED THAT THE SUBGRADE PREPARATION BE DELETED AND A THICKENED PAVEMENT SECTION BE USED TO LIMIT CONSTRUCTION ACTIVITIES OVER THE PIPELINE.
- CROSSING OF THE NTMWD EASEMENT WITH OTHER UTILITIES, SUCH AS TV CABLE, PHONE, GAS AND ELECTRIC, SHALL BE COORDINATED WITH THE NTMWD TO AVOID DAMAGE TO THE NTMWD FACILITIES.
- OUTDOOR LIGHTING, LANDSCAPING, SCREENING WALLS OR OTHER FACILITIES SHALL NOT BE INSTALLED IN NTMWD EASEMENTS WITHOUT WRITTEN APPROVAL OF THE NTMWD.
- UNLESS OTHERWISE SHOWN OR REQUIRED, A MINIMUM OF ONE-FOOT CLEARANCE SHALL BE PROVIDED FOR ALL UTILITIES CROSSING THE NTMWD PIPELINES.
- THE CONTRACTOR SHALL CONTACT NTMWD ENGINEERING AT (972) 442-5405 AT LEAST 48 HOURS PRIOR TO PERFORMING ANY WORK IN THE VICINITY OF THE NTMWD FACILITIES.



4' AND 6' PRECAST CONCRETE MANHOLES
(WITH POURED IN PLACE BASE)

NOTE:
ALL DROP M.H. SHALL BE INSIDE DROP M.H. AND SHALL BE CONSTRUCTED PER CITY OF ROCKWALL STANDARDS.

NOTE:
SEE DETAIL THIS SHEET FOR MANHOLE CONNECTION TO NTMWD 21" SAN. SEWER.
SEE PROPOSED SAN. SEWER PROFILES FOR NOTES ON METHOD OF PENETRATING THE PROPOSED MANHOLE.

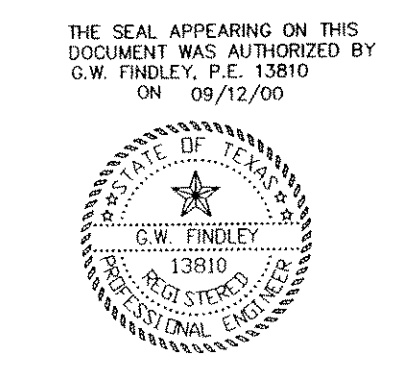


WATER METER SCHEDULE

TYPE	SIZE	NO.
DOM.	1"	165

WATER & SANITARY SEWER SERVICE DETAIL
NOT TO SCALE

AS-BUILT
ACCORDING TO CONTRACTOR RECORDS
Dated: 9-25-01



REVISIONS

NO.	DATE	REVISION	DESCRIPTION	BY
1	01/24/01	Changed 10" SS to 8" SS on Line "A"	G.W.F.	
		Rem. Call for Drop M.H. Line F		

WATER & SANITARY SEWER PLAN
WINDMILL RIDGE ESTATES PH. IV-B
City of Rockwall, Rockwall County, Texas

KPA CONSULTING, INC.
14800 Quorum Drive ~ Suite 500 ~ Dallas, Texas 75248

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
G.W.F.	B.J.	1/24/01	1"=100'		K.P.A.	20129

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