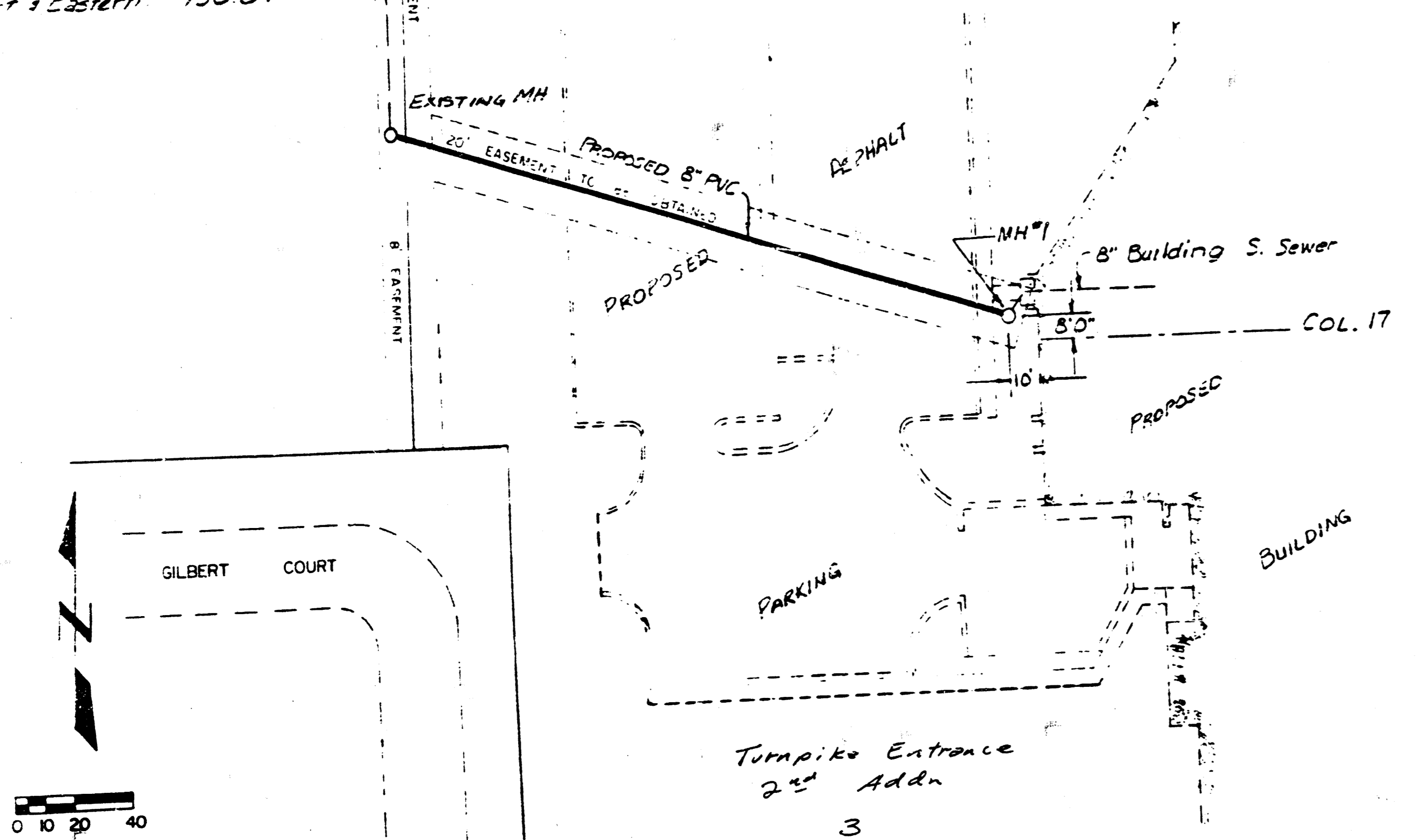


Note: Dimensions and locations to be field checked.

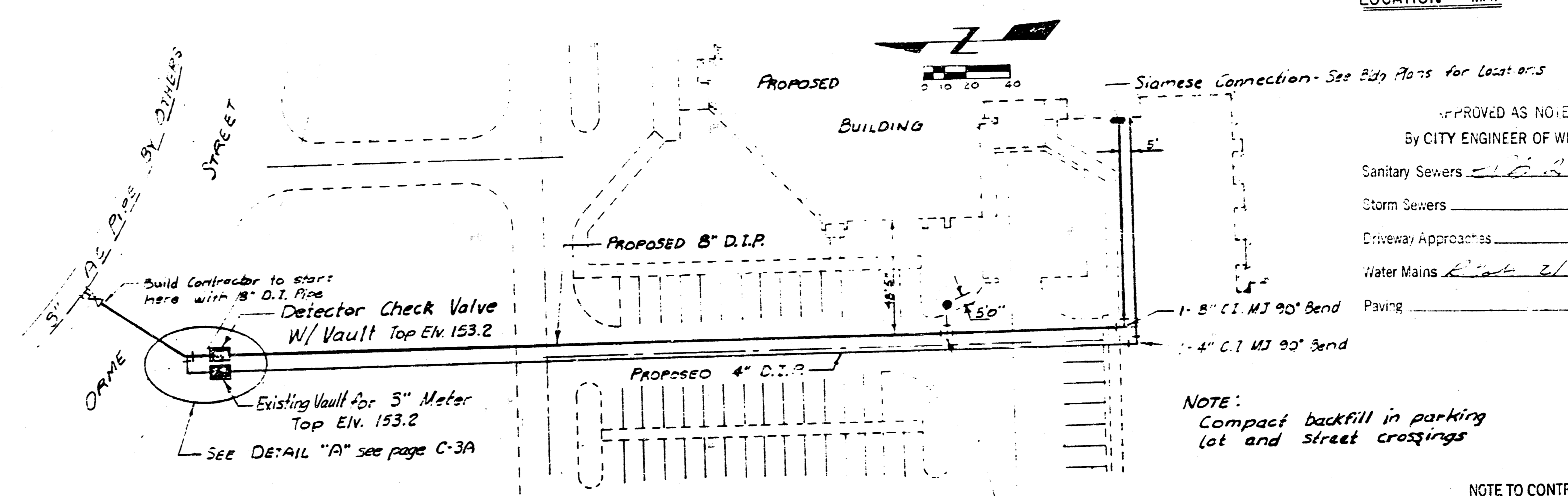
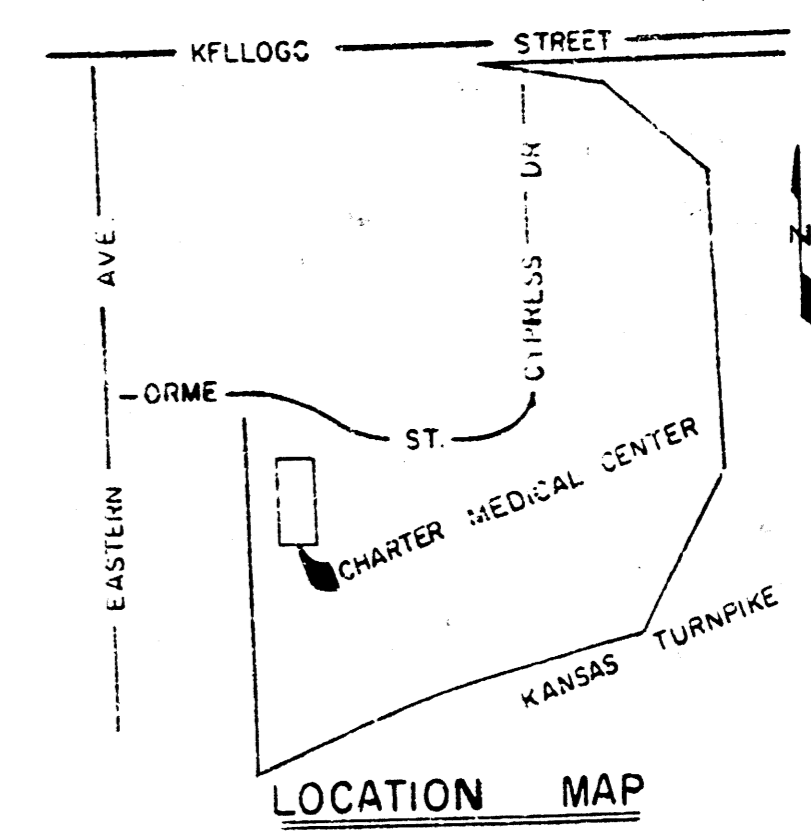
• Bench mark "M" in Muller on fire hydrant at NW corner Gilbert & Eastern 150.87

**SANITARY SEWER TO SERVE CHARTER MEDICAL CENTER
SANITARY SEWER INSTALLATION
PRIVATE PROJECT NO. 448-76-245-80001-000-000-127**



Note: See City of Wichita Sewer Specifications

**8" WATER MAIN CROSSING ORME STREET FOR CHARTER MEDICAL CENTER AND SANITARY SEWER
WATER MAIN INSTALLATION AND SANITARY SEWER INSTALLATION
PRIVATE PROJECT NO. 448-76-245-80001-000-000-127**



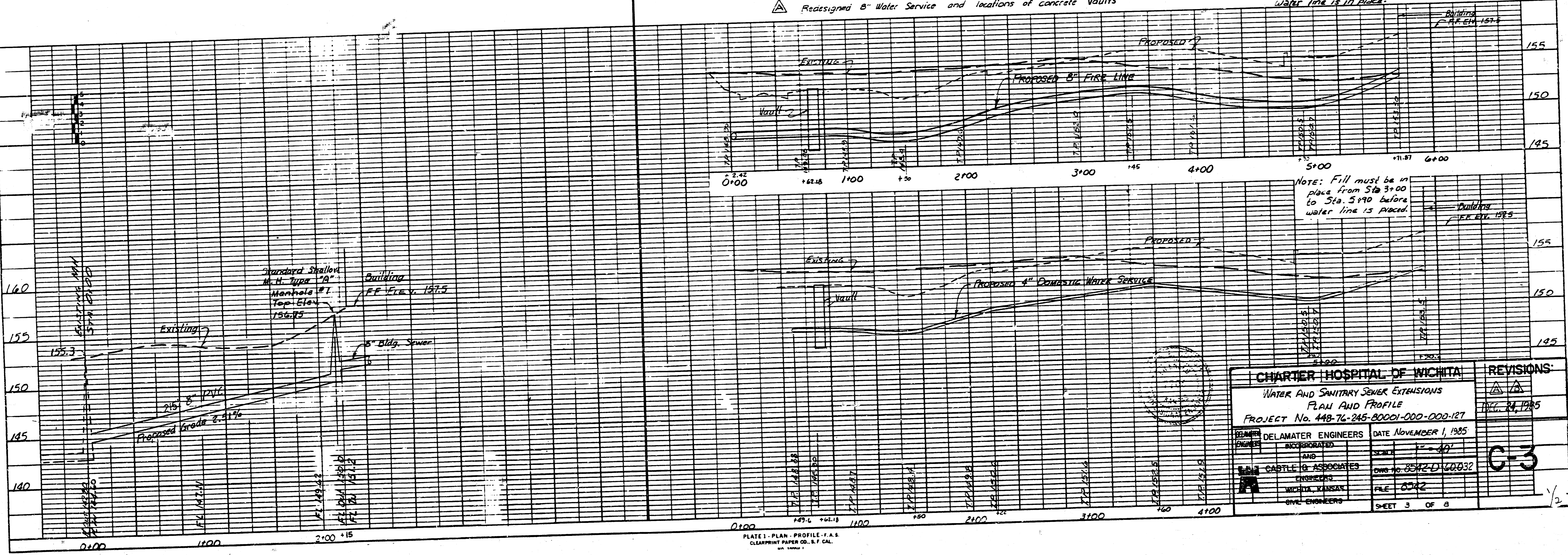
APPROVED AS NOTED
By CITY ENGINEER OF WICHITA
Sanitary Sewers *[Signature]*
Storm Sewers _____
Driveway Approaches _____
Water Mains *[Signature]*
Paving _____

NOTE: Compact backfill in parking lot and street crossings

NOTE TO CONTRACTOR
This project will be constructed under the supervision of the CITY ENGINEER and conforming to the SPECIFICATIONS of the CITY OF WICHITA. The CONTRACTOR will pay the City of Wichita for all costs of plan review, inspection and looking per contract.

- ▲ Redesigned 8" PVC Sanitary Sewer - Feb. 12, 1985
- ▲ Redesigned 8" Water Service and locations of concrete Vaults

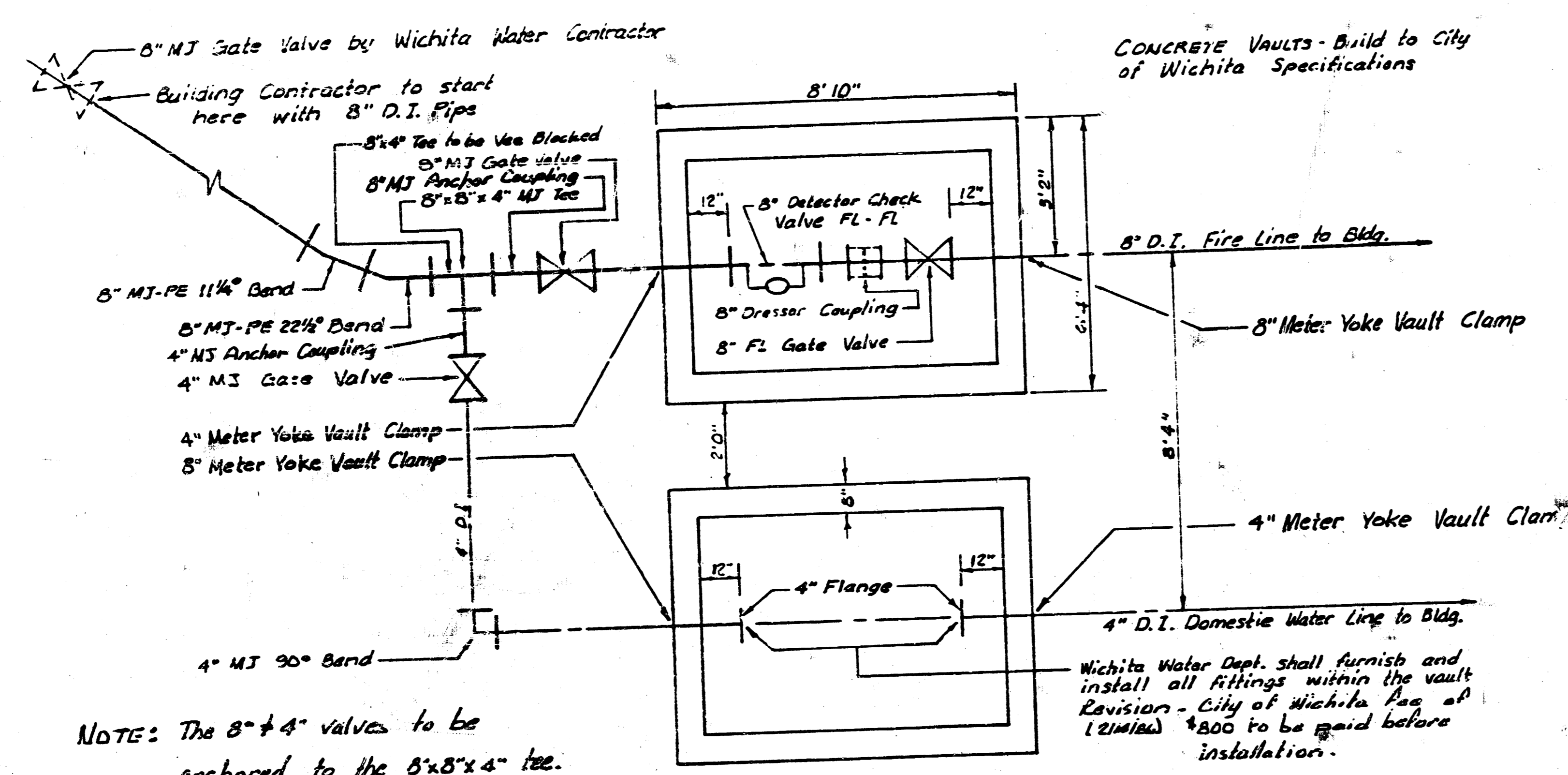
NOTE: Fill must be in place from Sta 3+00 to Sta 5+71 before water line is placed.



CHARTER HOSPITAL OF WICHITA		REVISIONS:	
WATER AND SANITARY SEWER EXTENSIONS PLAN AND PROFILE PROJECT NO. 448-76-245-80001-000-000-127		▲ ▲ MAY 24 1985	
DESIGNED BY DELAMATER ENGINEERS INCORPORATED	DATE NOVEMBER 1, 1985	C-3	
CHECKED BY CASTLE & ASSOCIATES ENGINEERS	OWNERS WICHITA HOSPITAL ENGINEERS	SHEET 3 OF 8	

PLATE 1 - PLAN - PROFILE - F.A.S.
CLEARPRINT PAPER CO. 8 1/2" x 11" 100001

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NOTE: The 8" & 4" valves to be anchored to the 8"x8"x4" tee. See City S.E.P. No. 103.5 for typical thrust blocks.

NOTE: 8" AND 4" WATER VALVES TO BE IN STREET R/W. VALVES SHALL NOT BE ON PRIVATE PROPERTY.

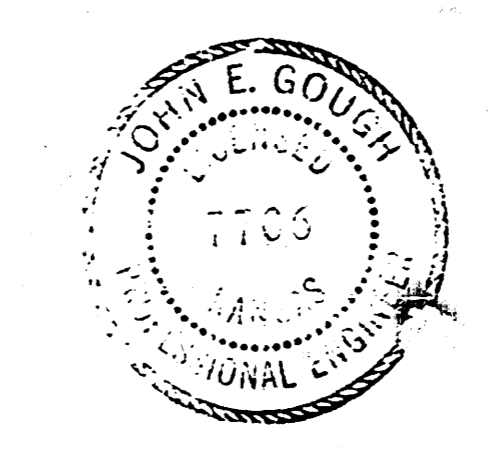
NOTE: Contractor to contact Water Dept. for Vault detail drawings for both Vaults.

WATER MAIN SPECIFICATIONS

- All water main construction to be in accordance with City of Wichita Standards and Specifications for water main installation.
- The contractor shall notify the Construction and Survey Section of the Department of Operations & Maintenance at least 24 hours in advance before starting construction to make arrangements for inspection and shut down existing water mains where required. All utilities shall be notified prior to start of construction for actual field location of any underground line.
- Water main pipe shall be:
 - Ductile Iron Pipe (DIP) shall conform in all respects to ANSI/AWWA C151/A21.51. Mechanical joint or push-on joints shall conform to ANSI/AWWA C111/A21.11. Cement-mortar lined shall conform to ANSI/AWWA C104/A21.4. Minimum wall thickness shall be class 51, Type 1 for the 4 inch DIP and Class 50, Type 1 for the 8 inch DIP, as defined by ANSI/AWWA C151/A21.51. The following products are acceptable:
American, Clow, U. S. Pipe and other approved equals as approved by Utility or its Engineer.
- All permits, including street and road cut permits, necessary for the construction of this water main shall be secured and paid for by the contractor and two copies furnished to the Water Engineering Department before construction starts.
- A minimum of 42 inches of cover shall be provided for all water mains from proposed grade.
- Hydrants shall conform to AWWA C-502 for 4-foot burial and be located on the property side of the main, and shall be approved by the Wichita Water Department.
- All water pipe shall be installed with Type 1 or Type 2 Pipe Bedding Material. Type 1 shall be crushed rock conforming to ASTM C-33 Gradation No. 67. Type 2 shall be a sand-gravel mix conforming to Kansas Department of Transportation Specifications for Type BD-2 underdrain aggregate. Type 2 may be used for the portion of the bedding below the bottom of the pipe (min. 4") only if the trenches are dry and stable and dewatering is not required. If the trenches are wet or unstable or dewatering is required, then Type 1 shall be used for the portion of the bedding below the bottom of the pipe and the depth of the bedding material shall be extended to a minimum depth of 12 inches below the bottom of the pipe. The width of the trench below the top of the pipe shall not exceed the outside diameter of the pipe plus 18 inches.
- All road crossings shall have the top two feet backfilled with excavated material mechanically compacted to a density equal to or greater than 95% of standard density.
- Gate valves shall conform to AWWA C-500, and be mechanical joint right-hand opening, have a cast iron body, bronze mounted, bronze seats, double disc, parallel set of bronze, and mechanical joint ends.
- Valve boxes shall be provided for all water valves and shall be screw type, 3 pieces, Buffalo, cast iron, with removable cast iron lid and be acted "WOOD".
- Unless otherwise approved in writing, all tees, plugs, deadends, and bends exceeding 1 1/4 degrees shall be restrained.
- Water main and sewer lines shall have a minimum horizontal separation of 10 feet. Whenever sewer line must cross under water main, a minimum separation of 24 inches is required between the top of the sewer and the bottom of the water main. If the above criteria cannot be met, then the sewer shall be reconstructed with mechanical joint ductile iron pipe, for a distance of 10 feet on each side of the water main. One full length of water main shall be centered over the sewer so that both joints will be as far from the sewer as possible.
- All water mains shall be disinfected in accordance with Kansas Department of Health and Environmental Standards.
- Certified as-built drawings showing location of valves and blow-offs shall be furnished to the Utility upon completion of construction and at time of final inspection.
- All installation, material and workmanship shall be guaranteed for a period of one year from the date of final acceptance.
- Notify the following companies before any excavation:
Bell Telephone Co. 1-316-571-2115
Kansas One-Call 1-800-344-7233

SANITARY SEWER SPECIFICATIONS

- All sanitary sewer construction to be in accordance with the City of Wichita standards and specifications for sanitary sewer installation, material and workmanship. Utility inspection required on all sewer line installation.
- Sanitary sewer pipe shall be polyvinyl chloride pipe. Polyvinyl chloride pipe under City specifications conforms to ASTM-D-3034, Type PSM SDR-35, with elastomeric gasket joints conforming to ASTM D-3212.
- Standard manholes shall be brick or shall be cast in place circular concrete manholes constructed to conform with requirements as shown by standard manhole detail.
- All sewer pipe shall be installed with Type 1 or Type 2 Pipe Bedding Material. Type 1 shall be crushed rock conforming to ASTM C-33 Gradation No. 67. Type 2 shall be a sand-gravel mix conforming to Kansas Department of Transportation Specifications for Type BD-2 underdrain aggregate. Type 2 may be used for the portion of the bedding below the bottom of the pipe (min. 4") only if the trenches are dry and stable and dewatering is not required. If the trenches are wet or unstable or dewatering is required, then Type 1 shall be used for the portion of the bedding below the bottom of the pipe and the depth of the bedding material shall be extended to a minimum depth of 12 inches below the bottom of the pipe. The width of the trench below the top of the pipe shall not exceed the outside diameter of the pipe plus 18 inches.
- All sewer trenches under roadways shall have the top two feet backfilled with excavated material mechanically compacted to a density equal to or greater than 95% of standard density.
- When sewer lines cross under water mains, a minimum of 24 inches is required between the top of the sewer and the bottom of the water main. If the above criteria cannot be met, then the sewer shall be constructed with mechanical joint ductile iron pipe for a distance of 10 feet on each side of the water main. One full length of water main should be centered over the sewer so that both joints will be as far from the sewer as possible.
- The maximum allowable infiltration into any section of sanitary sewer shall not exceed 200 gallons per inch diameter per mile of sewer line per 24 hours.
- A complete copy of record plans, specifications, copies of addenda and change orders shall be furnished to the city upon completion of construction and at the time of final inspection.
- All material and workmanship shall be guaranteed for a period of one year from date of final acceptance.



CHARTER HOSPITAL OF WICHITA		REVISIONS:
WATER AND SANITARY SEWER EXTENSIONS		Δ Δ
DETAIL AND SPECIFICATIONS		APR 24 1985
PROJECT No. 448-76-245-80001-000-000-127		
DESIGNED BY	DATE	
CHECKED BY	DATE	
APPROVED BY	DATE	
DATE	NOVEMBER 1, 1983	
SCALE	1" = 40'	
PROJECT NO.	85-2116-0333	
FILE NO.	85-2116	
SHEET	5A OF 8	

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