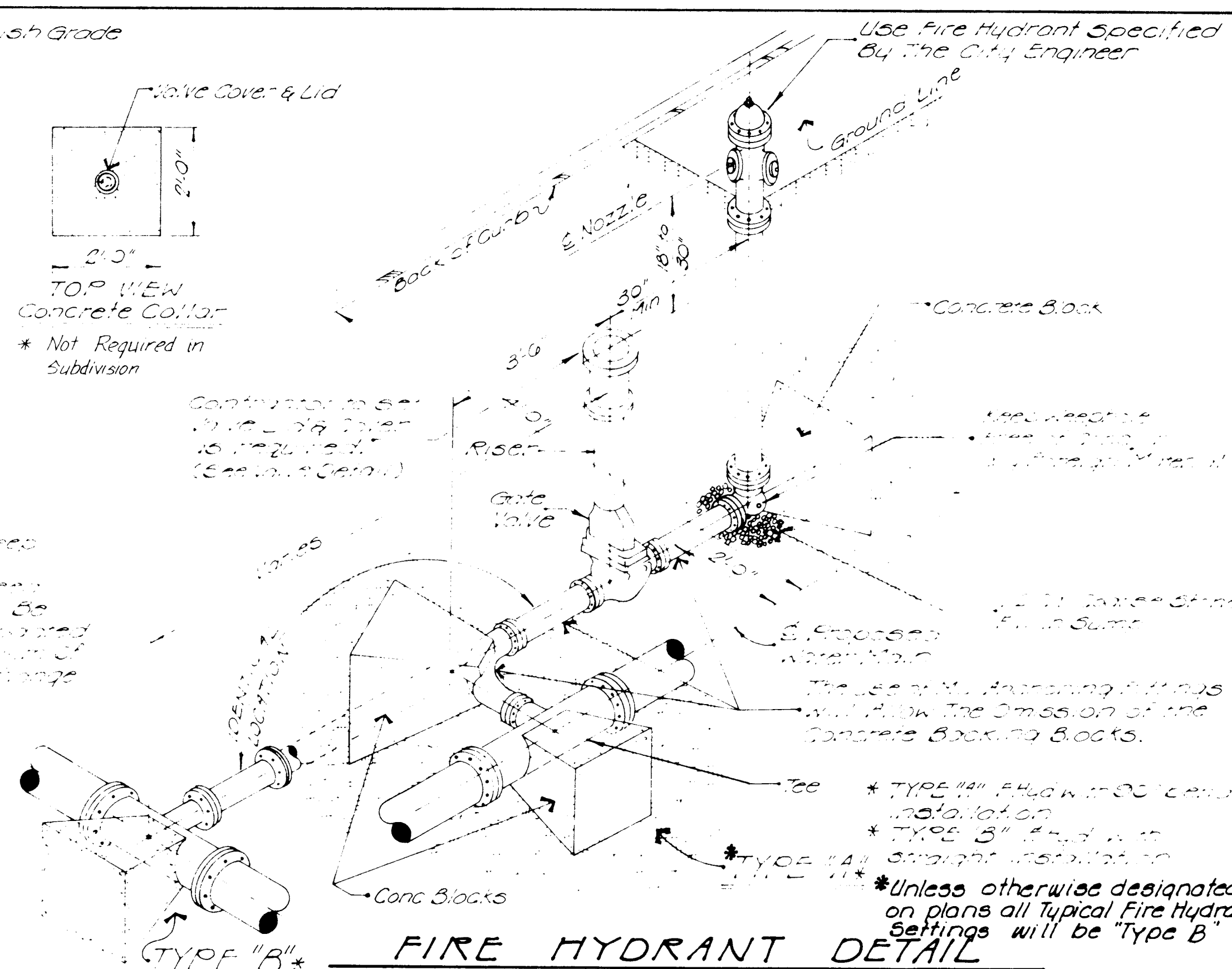
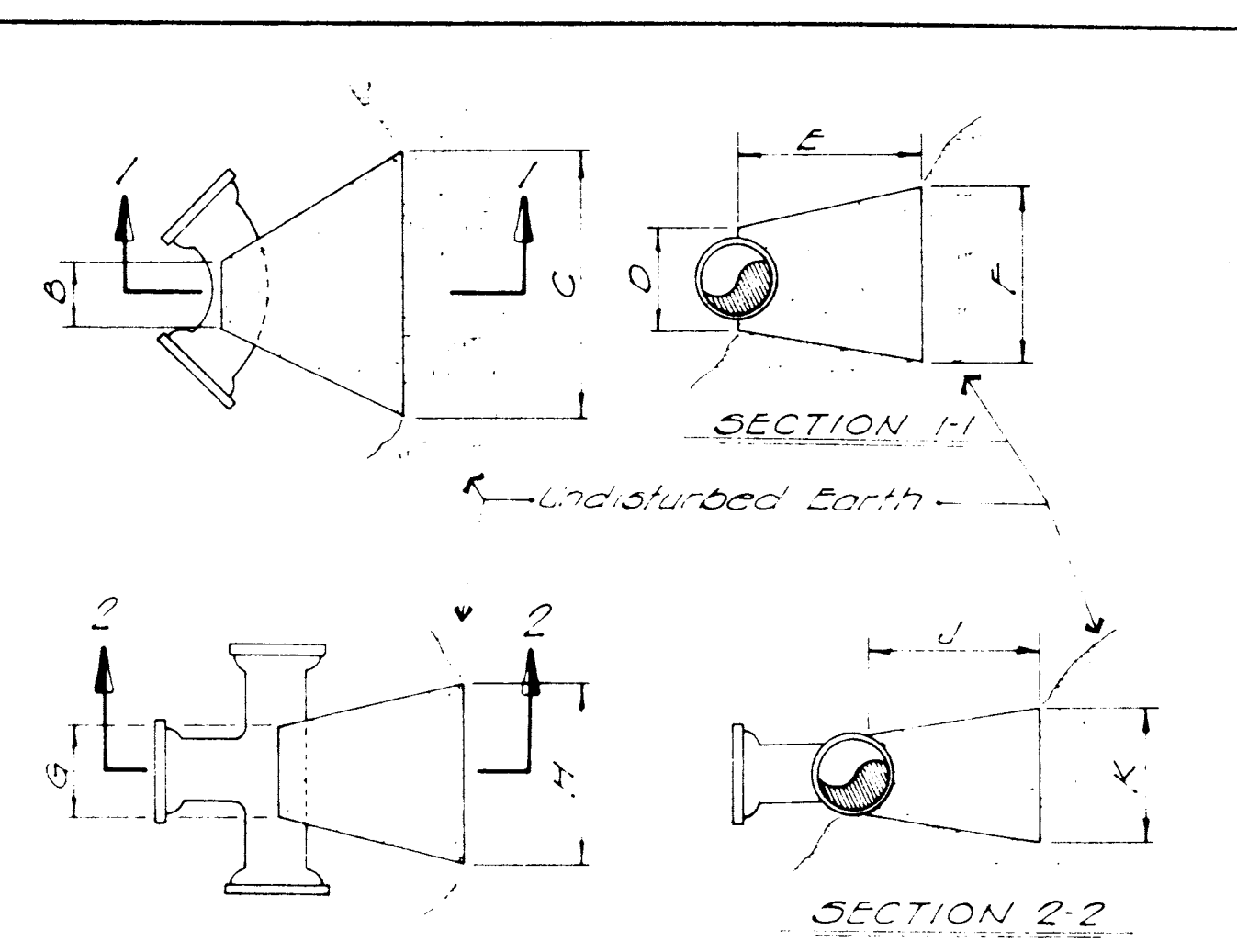


WATER VALVE DETAIL



FIRE HYDRANT DETAIL

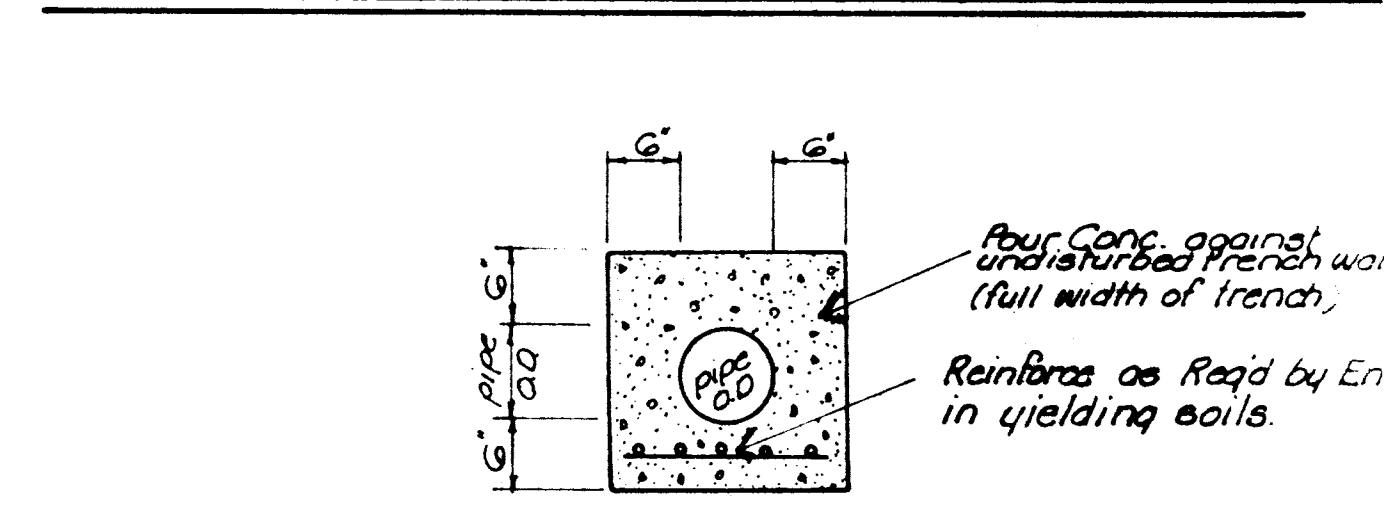


BENDS						TEES					CUBIC FEET OF CONCRETE REQUIRED				
B	C	D	E	F		G	H	J	K	BEND					
6" 1/4"	8"	10"	12"	14"	16"	1 1/4"	2"	3"	4"	45°	90°	11 1/4"	22 1/2"	45°	90°
6" 1/2"	8"	10"	12"	14"	16"	1 1/2"	2"	3"	4"	45°	90°	1 1/4"	2 1/4"	3 1/4"	4 1/4"
6" 3/4"	8"	10"	12"	14"	16"	1 3/4"	2"	3"	4"	45°	90°	1 1/2"	2 1/2"	3 1/2"	4 1/2"
6" 1"	8"	10"	12"	14"	16"	2"	2 1/2"	3 1/2"	4 1/2"	45°	90°	1 3/4"	2 3/4"	3 3/4"	4 3/4"
6" 1 1/4"	8"	10"	12"	14"	16"	2 1/4"	2 1/2"	3 1/2"	4 1/2"	45°	90°	2"	3"	4"	5"
6" 1 1/2"	8"	10"	12"	14"	16"	2 1/2"	2 1/2"	3 1/2"	4 1/2"	45°	90°	2 1/4"	3 1/4"	4 1/4"	5 1/4"
6" 1 3/4"	8"	10"	12"	14"	16"	2 3/4"	2 1/2"	3 1/2"	4 1/2"	45°	90°	2 1/2"	3 1/2"	4 1/2"	5 1/2"
6" 2"	8"	10"	12"	14"	16"	3"	2 1/2"	3 1/2"	4 1/2"	45°	90°	2 3/4"	3 3/4"	4 3/4"	5 3/4"
6" 2 1/4"	8"	10"	12"	14"	16"	3 1/4"	2 1/2"	3 1/2"	4 1/2"	45°	90°	3"	4"	5"	6"
6" 2 1/2"	8"	10"	12"	14"	16"	3 1/2"	2 1/2"	3 1/2"	4 1/2"	45°	90°	3 1/4"	4 1/4"	5 1/4"	6 1/4"
6" 2 3/4"	8"	10"	12"	14"	16"	3 3/4"	2 1/2"	3 1/2"	4 1/2"	45°	90°	3 1/2"	4 1/2"	5 1/2"	6 1/2"
6" 3"	8"	10"	12"	14"	16"	4"	2 1/2"	3 1/2"	4 1/2"	45°	90°	3 3/4"	4 3/4"	5 3/4"	6 3/4"

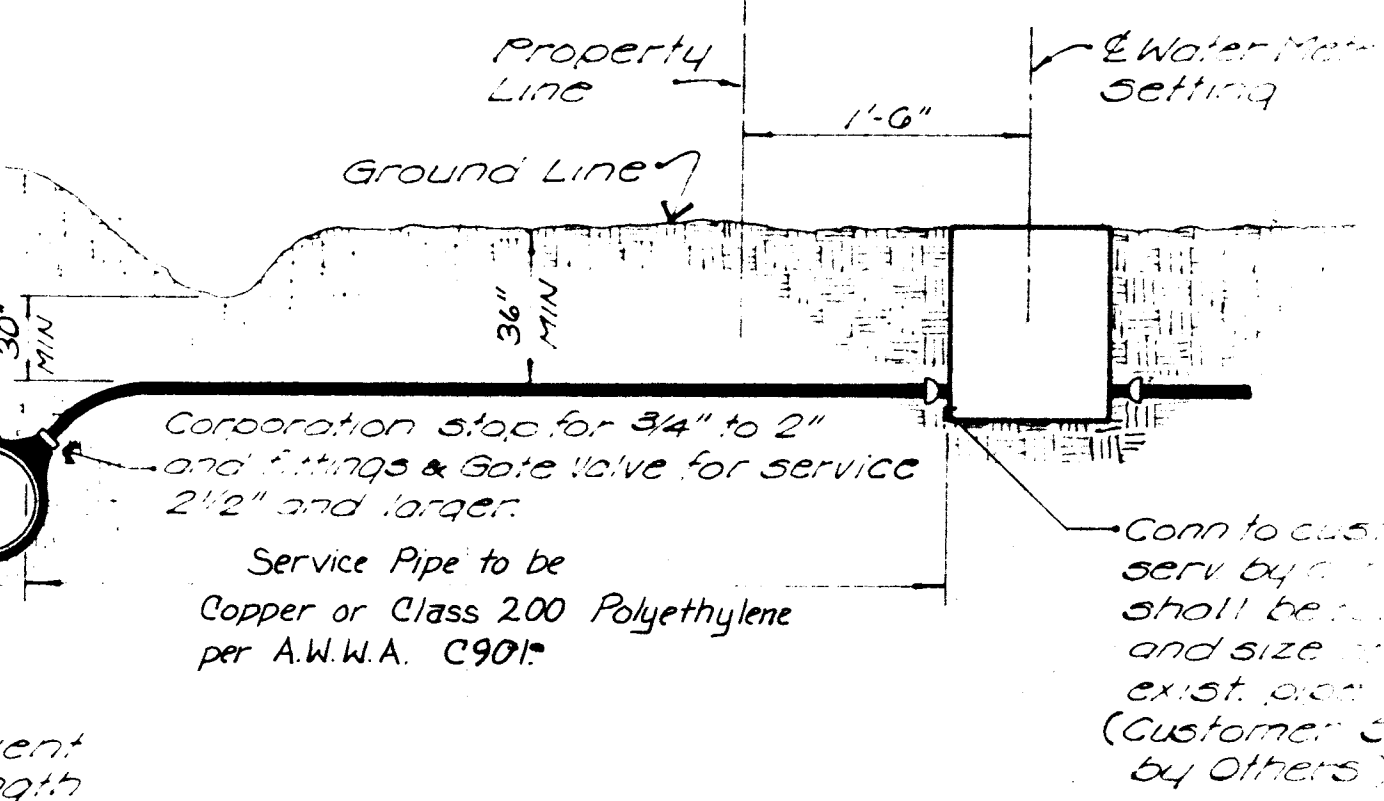
BACKING BLOCKS

- GENERAL NOTES:**
- All construction shall be done in accordance with the standards set forth by the City and installation shall be done under the supervision of the City Engineer.
 - Water Main Pipe to be Class 200 P.V.C.
 - All fittings shall be mechanical joint, cast iron.
 - All fire hydrants shall have 5-1/4" valve opening, pump nozzle and 2 hose nozzles with 6" inlet connection, as specified by City Engineer.
 - Bids for fire hydrants shall include 6" valve and box.
 - Water and sewer main crossings shall conform to the Missouri Clean Water Commission Standards.
 - Trench backfill shall be granular material through street crossings. All trench backfill to be compacted to 95% maximum density.
 - Testing, sterilization and flushing shall be performed to the satisfaction of the City Engineer.
 - All house service connections are to be done in a manner prescribed by the City Engineer.
 - The price for the construction items shall include the cost for labor and materials for installation.
 - All bends, tees and hydrants shall be blocked with concrete per the detail.

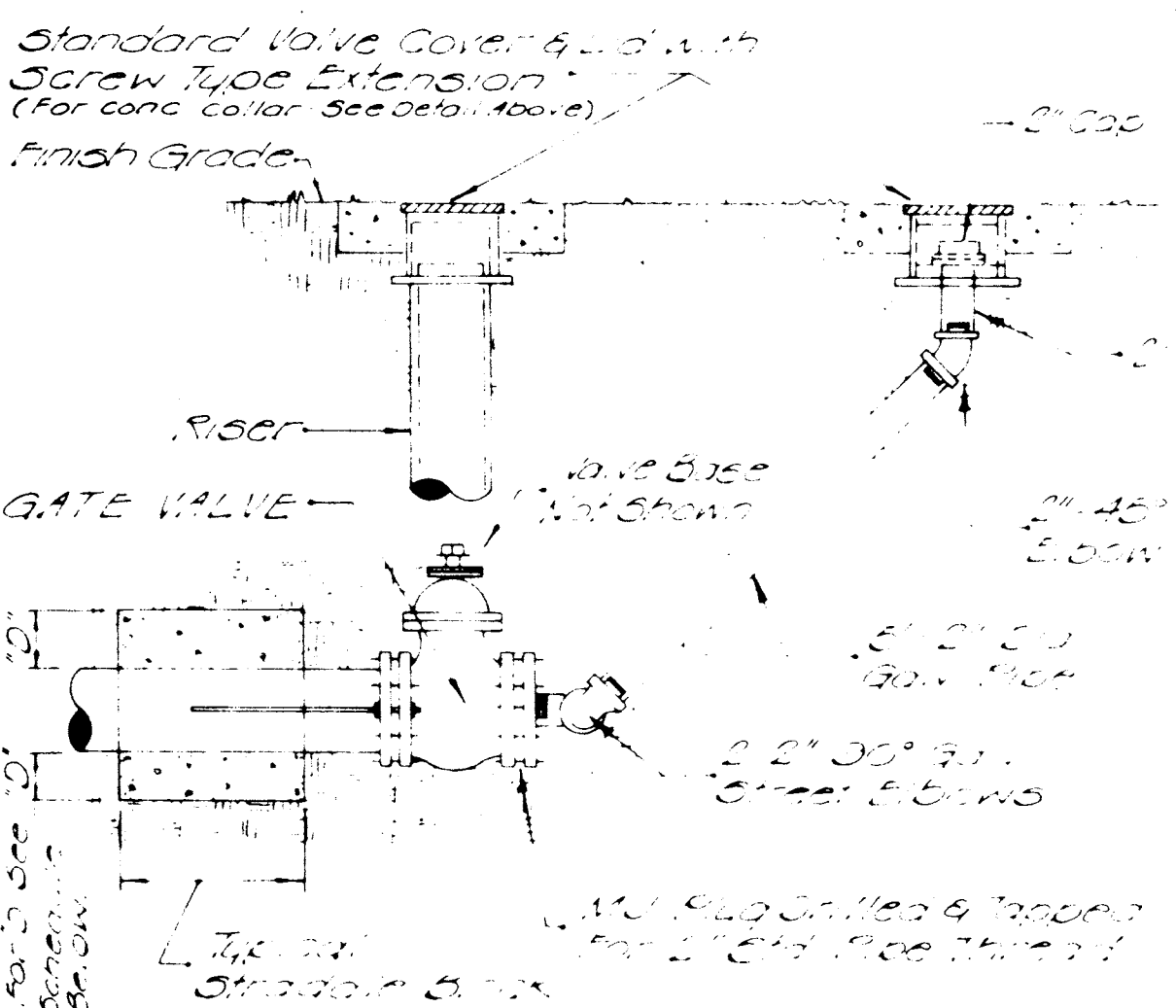
WATER MAIN EMBEDMENT



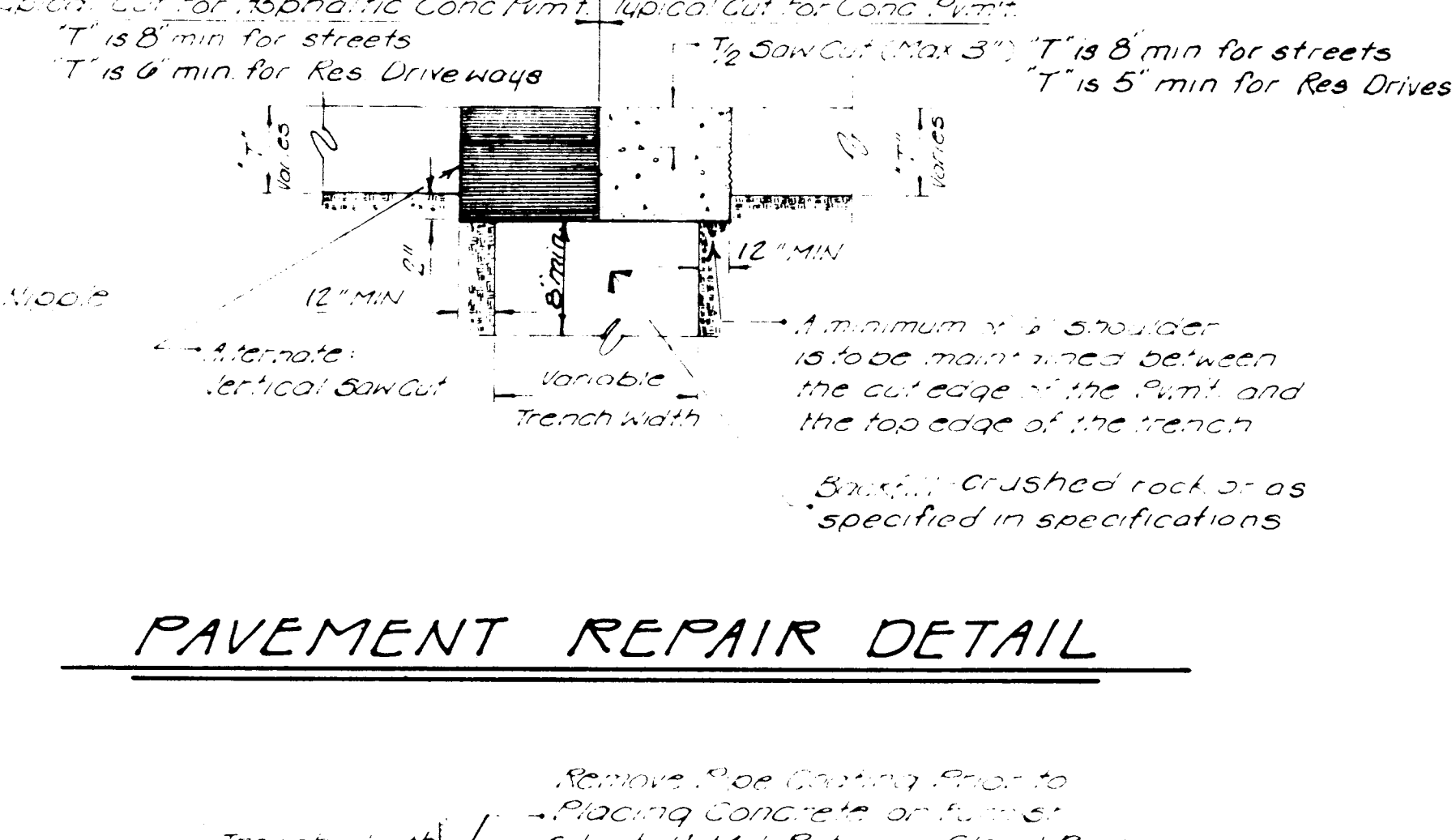
CONCRETE ENCASEMENT



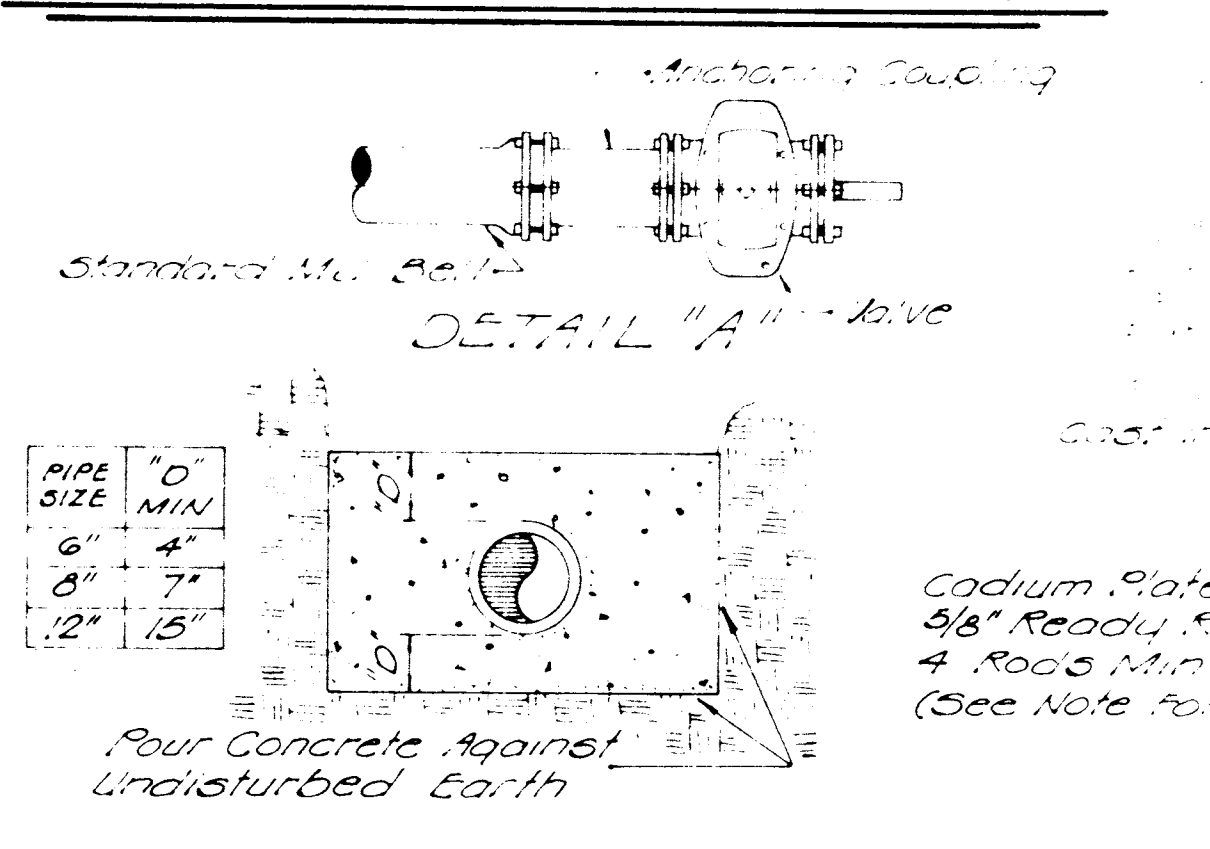
TYPICAL SERVICE ASSEMBLY



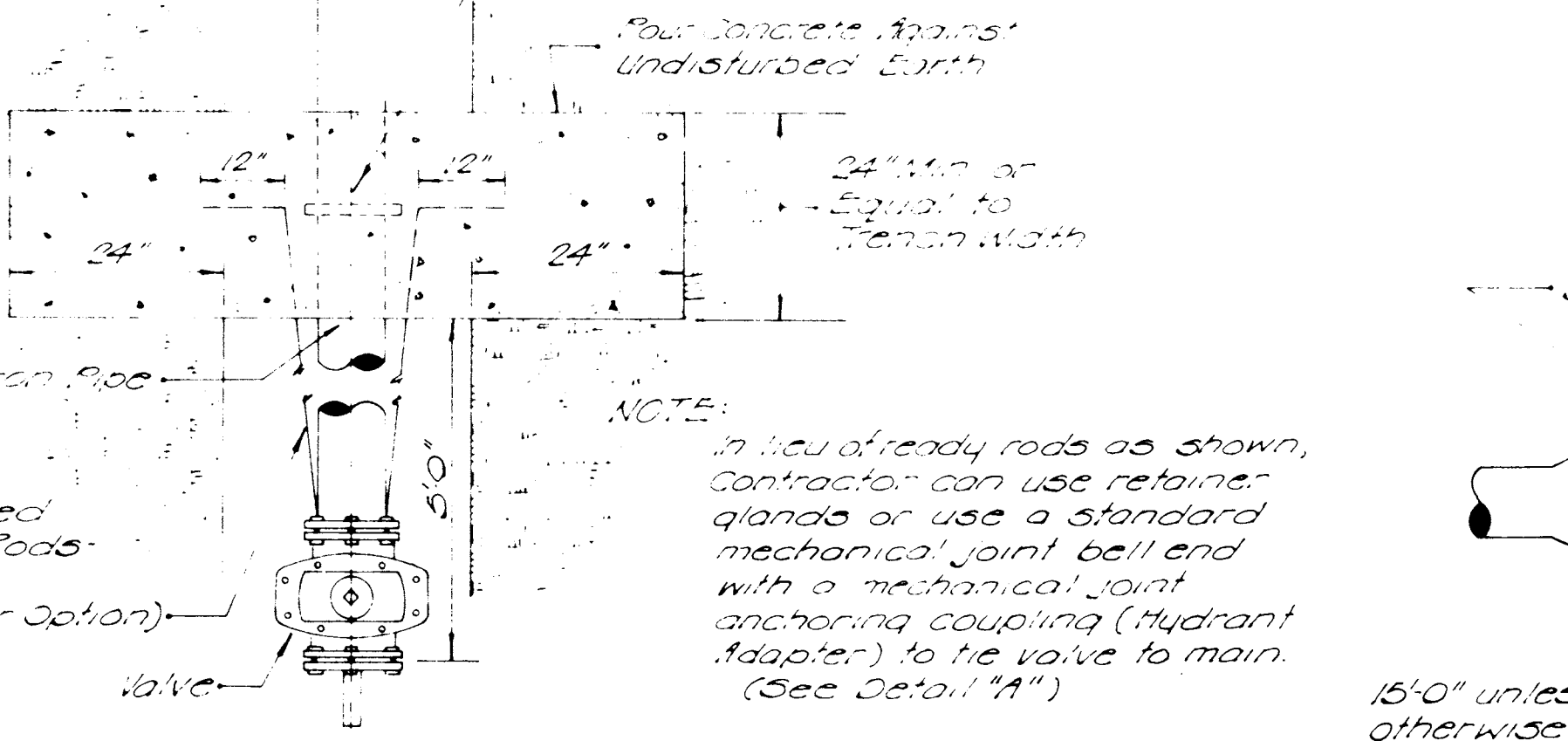
FLUSHING ASSEMBLY



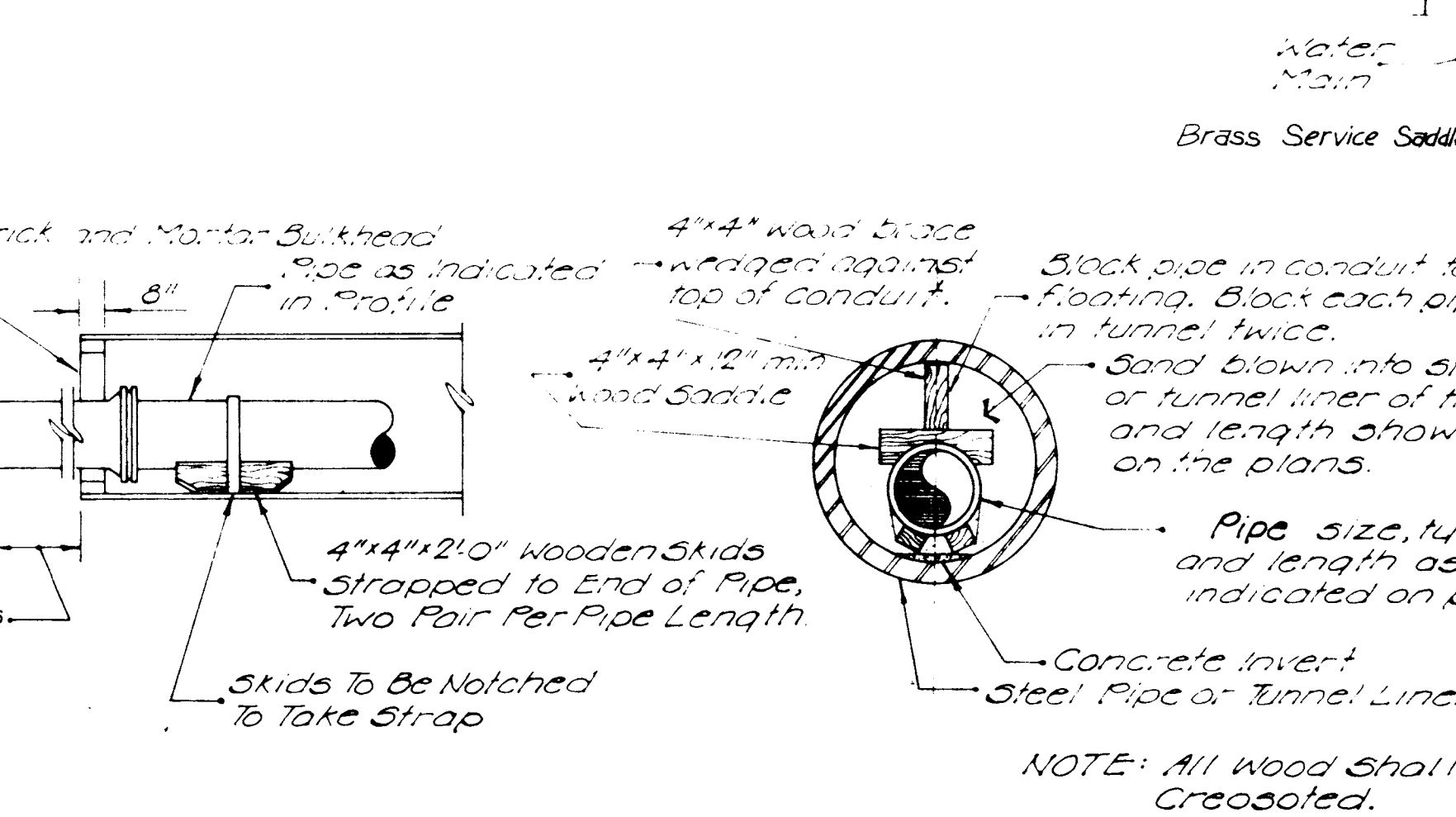
PAVEMENT REPAIR DETAIL



STRADDLE BLOCK DETAIL



TUNNEL LINER DETAIL



TUNNEL LINER DETAIL

GBA
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 LANDSCAPE ARCHITECTS PLANNERS
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 O'Fallon, Missouri 63366

ROYAL OAKS PHASE #2
WATER MAIN
CONSTRUCTION DETAILS
 PREPARED FOR
MR. EDWARD C. KREUTZ

DESIGNED BY **FLK** DRAWN BY **S.A.S.** CHECKED BY **G.R.H.**

JOB NO. 87-485
 DATE Sept. 1986
 SCALE As-Shown
 SHEET NO. 1112

PROFESSIONAL ENGINEER
 GERALD R. HURLBERT
 NUMBER E-19844