

CITY OF WICHITA, KANSAS
 MICHAEL E. LINDEBAK, P.E., CITY ENGINEER
SANITARY SEWER IMPROVEMENTS
 TO SERVE
WAL-MART #1507 EXPANSION
 CITY OF WICHITA PRIVATE PROJECT NO. 664PPS (607861)

1996

GENERAL NOTES

UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR AND APPROVED AS NOTED BELOW.

ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DEPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED LOCATION.

CONTRACTOR SHALL SATISFY HIMSELF OF SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL PROVIDE A MINIMUM FORTY-EIGHT (48) HOUR ADVANCE NOTICE (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO BEGINNING ANY EXCAVATION TO KANSAS ONE-CALL SYSTEM. A UTILITY LOCATION SERVICE AT (316) 987-8470 TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ALL EXISTING LINES WITHIN THE PROJECT AREA: K.G.B.E. GAS, K.G.B.E. ELECTRIC, SOUTHWESTERN BELL TELEPHONE, MULTIMEDIA CABLEVISION, CITY OF WICHITA SEWER MAINTENANCE, AND CITY OF WICHITA WATER DEPARTMENT.

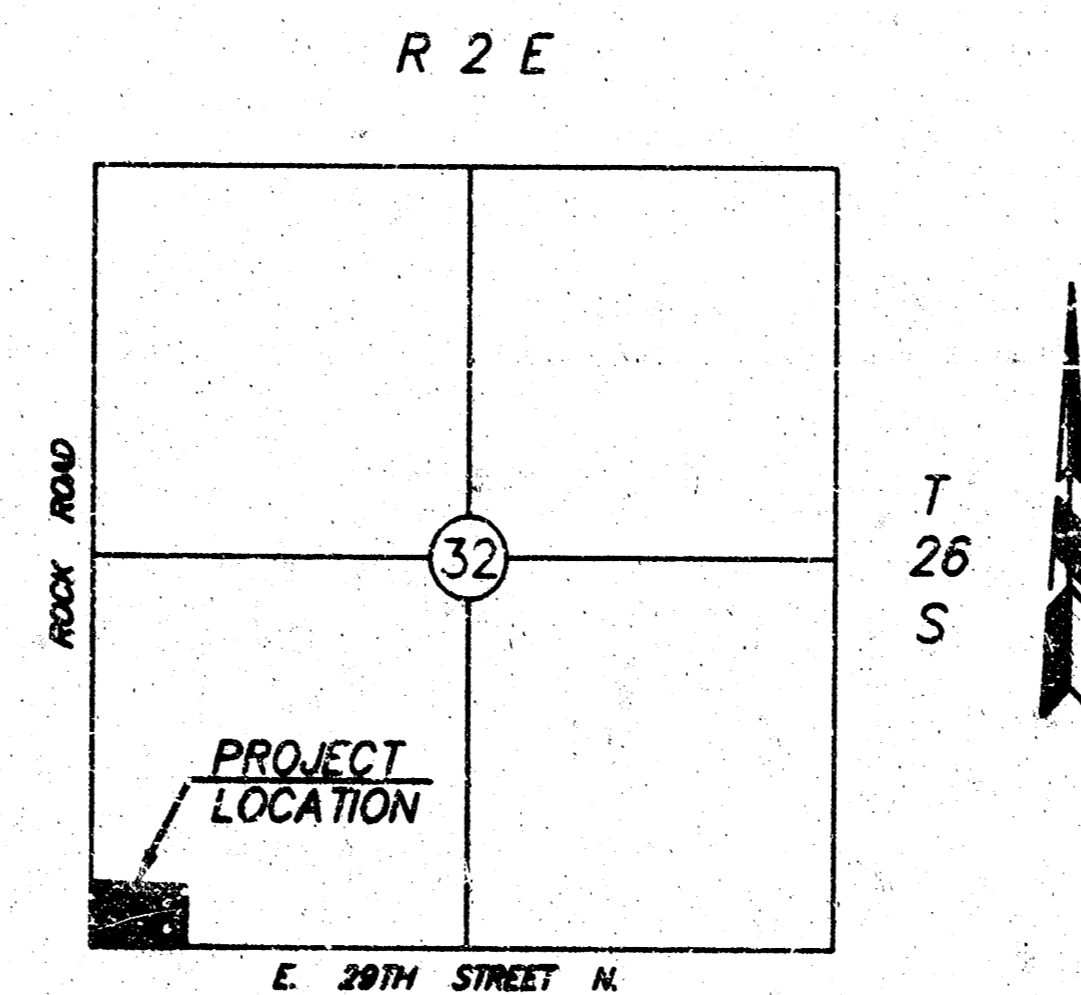
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

THE WATER DEPARTMENT SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, WATER VALVE BOXES, OR THE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE CONTRACTOR SHALL ADJUST WATER VALVE BOXES AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL SEED, FERTILIZE AND MULD ALL DISTURBED GROUND IN CITY RIGHT-OF-WAY ACCORDING TO STANDARDS AND SPECIFICATIONS.

INDEX OF SHEETS

1. Title Sheet
2. Sanitary Sewer Plan & Profile
3. Precast Sanitary Sewer Manholes & Details
4. Sanitary Sewer Details -B-



LOCATION MAP
SCALE: 1"=2000'

NOTE TO CONTRACTOR

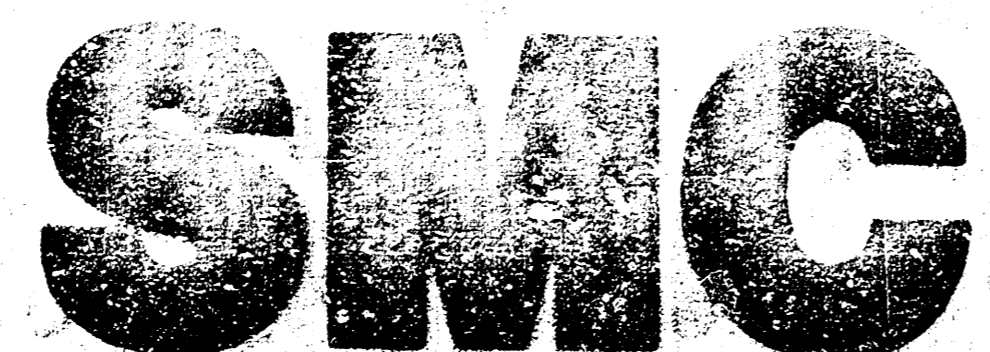
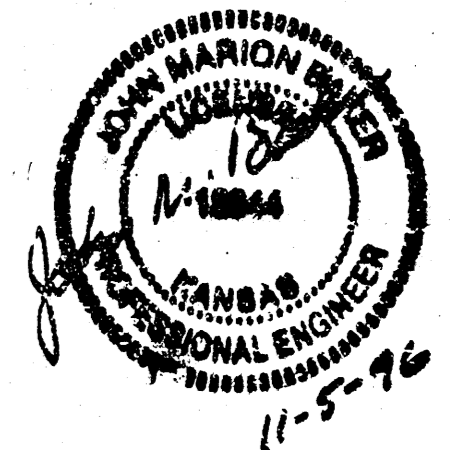
INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

CITY ENGINEER OF WICHITA
 Michael E. Lindebak, P.E. 12/6/96

Sanitary Sewers _____
 Approaches _____
 Manholes _____

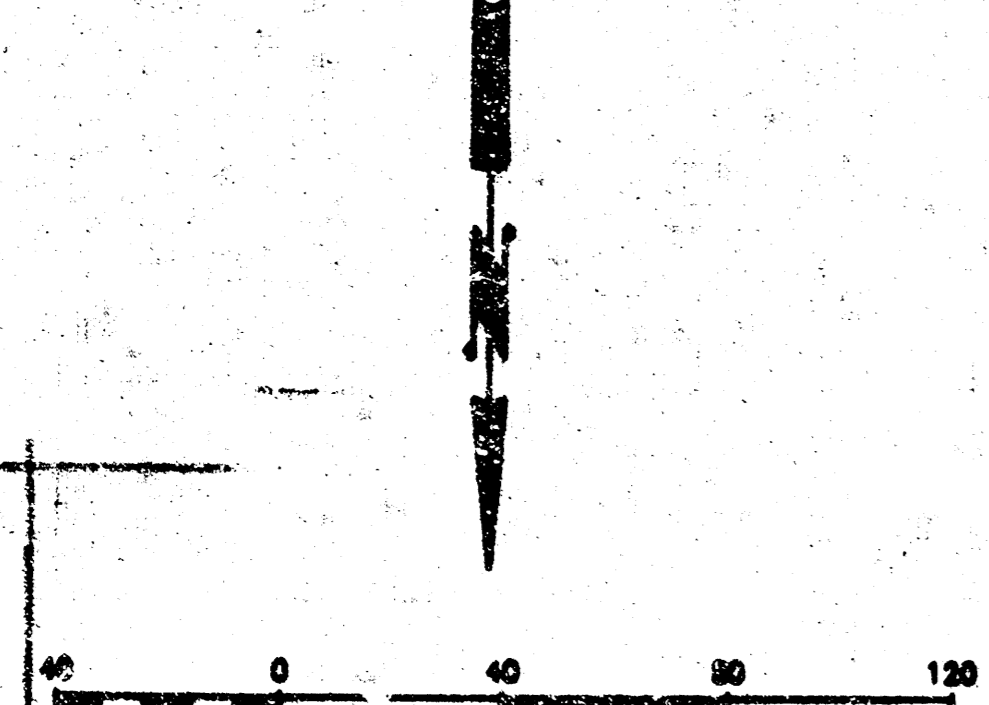
Booked
 4/24/97
 N-252
 RCL

As Builts
 4-21-97



SPEAR & McCALEB CO., INC.
 Consulting Engineers - Oklahoma City, Oklahoma
 815 W. Main - 73106 (405)232-7715

SANITARY SEWER IMPROVEMENTS TO SERVE		
WAL-MART #1507 EXPANSION 3030 ROCK ROAD WICHITA, KANSAS		
SPEAR & McCALEB CO., INC. OKLAHOMA CITY, OKLAHOMA		
DATE: 10/26/96	SCALE: N/A	SHEET NO.
DRAWN BY: BB		1
ENGINEER: JOHN M. BAKER P.E. # 12844		



NOTE: THE GENERAL CONTRACTOR IS RESPONSIBLE FOR MAKING ALL ADJUSTMENTS OF EXISTING UTILITIES TO ALLOW THE DESIGN TO BE BUILT.

ALL ELEVATIONS BASED ON CITY OF WICHITA DATUM. ADD 1000 FEET TO THE GIVEN ELEVATION TO MATCH SITE DEVELOPMENT PLAN ELEVATIONS. BENCHMARK INFORMATION BY SMITH-ROBERTS AND ASSOCIATES, INC., SURVEY DATED 5-15-96. SUBTRACT 1000 FEET FROM REFERENCED BENCHMARK ELEVATIONS TO COMPLY WITH CITY DATUM.

BM #1
CUT "X"
CENTER OF STORM DRAIN
45' E & S. OF NW PROP. COR.
ELEV=1219.12

BM #2
CUT "Y" 1/2"
NW P.I. OF SE ENTRANCE
ELEV=1225.52

BM #3
CUT "X" 1/2"
W. SIDE OF PENSTEMON
BY 1/4" SE. COR. LOT 5
ELEV=1222.20

S.E. CORNER OF HOME
DESIGN CENTER ADDITION
LOT 2, BLOCK 2

STA 10 + 00.00 LINE "A"
CONNECT TO EXIST. SSWH
T.R. = 224.04
P.L. = 212.50 (PROP. 8" W)
P.L. = 212.70 (EXIST. P.L. N)
P.L. = 212.10 (EXIST. P.L. S)

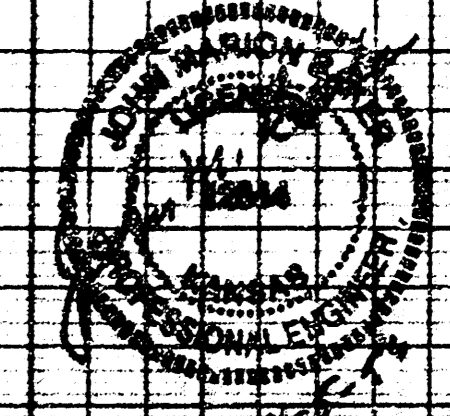
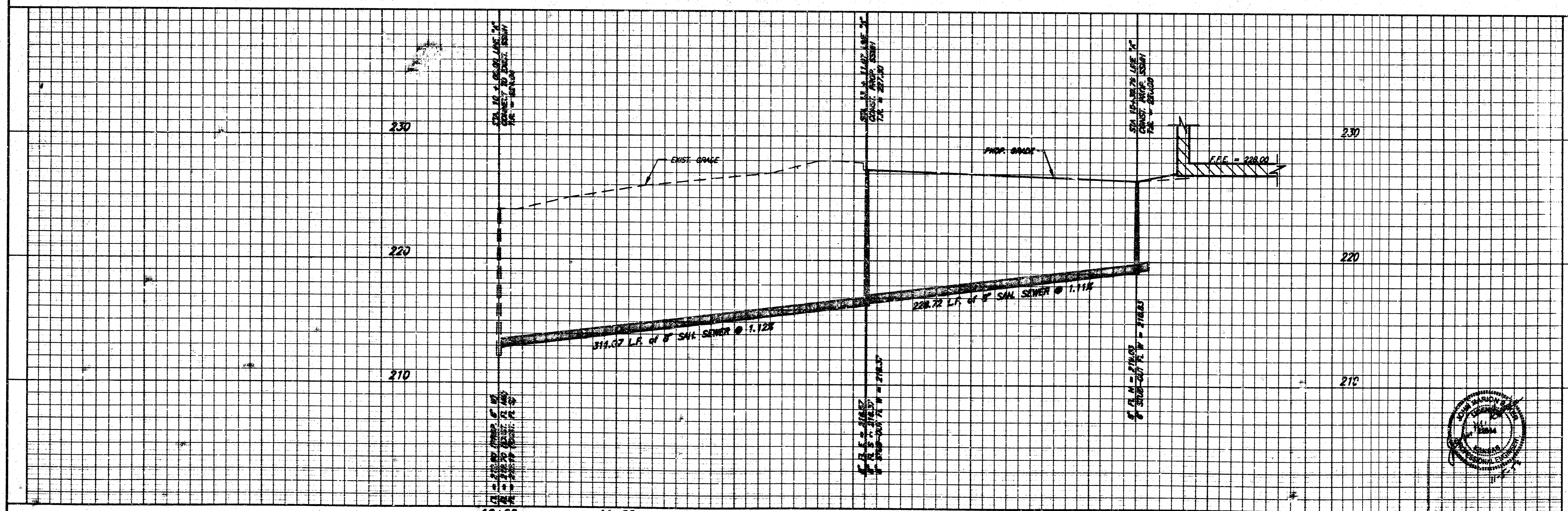
STA 13 + 15.07 LINE "A"
CONST. PROP. SSWH
T.R. = 227.30
P.L. E = 218.37
P.L. S = 218.57
P.L. W = 218.37

LINE "A"
311.07 L.F. OF 8" SAN SEWER
S 890.740°

STA 18 + 38.78 LINE "A"
CONST. PROP. SSWH
T.R. = 228.20
P.L. N = 218.03
P.L. W = 218.83

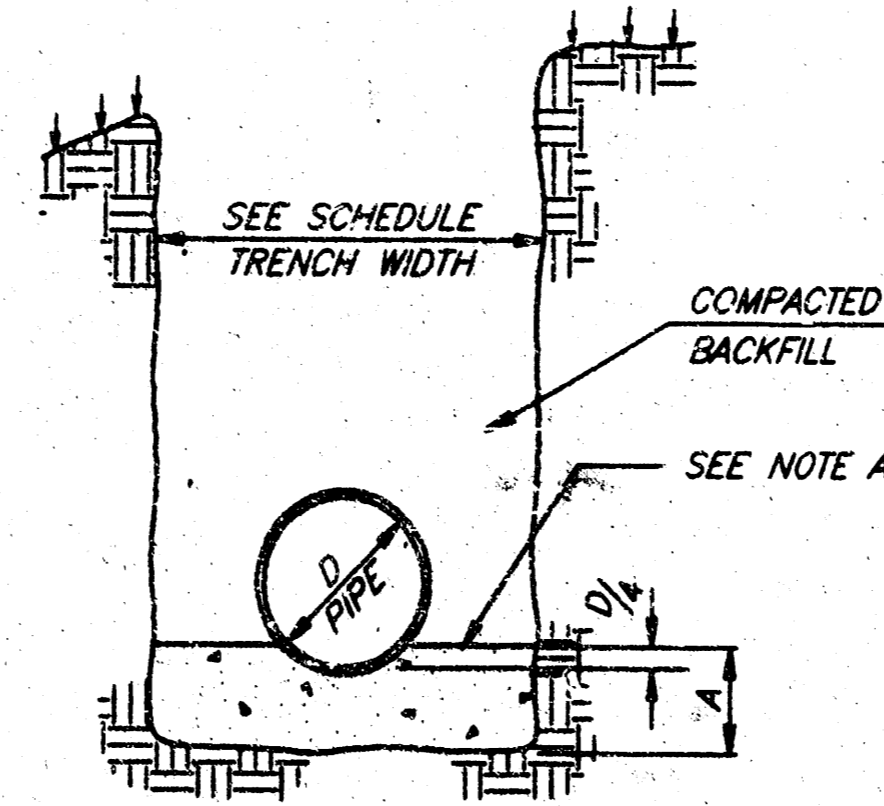
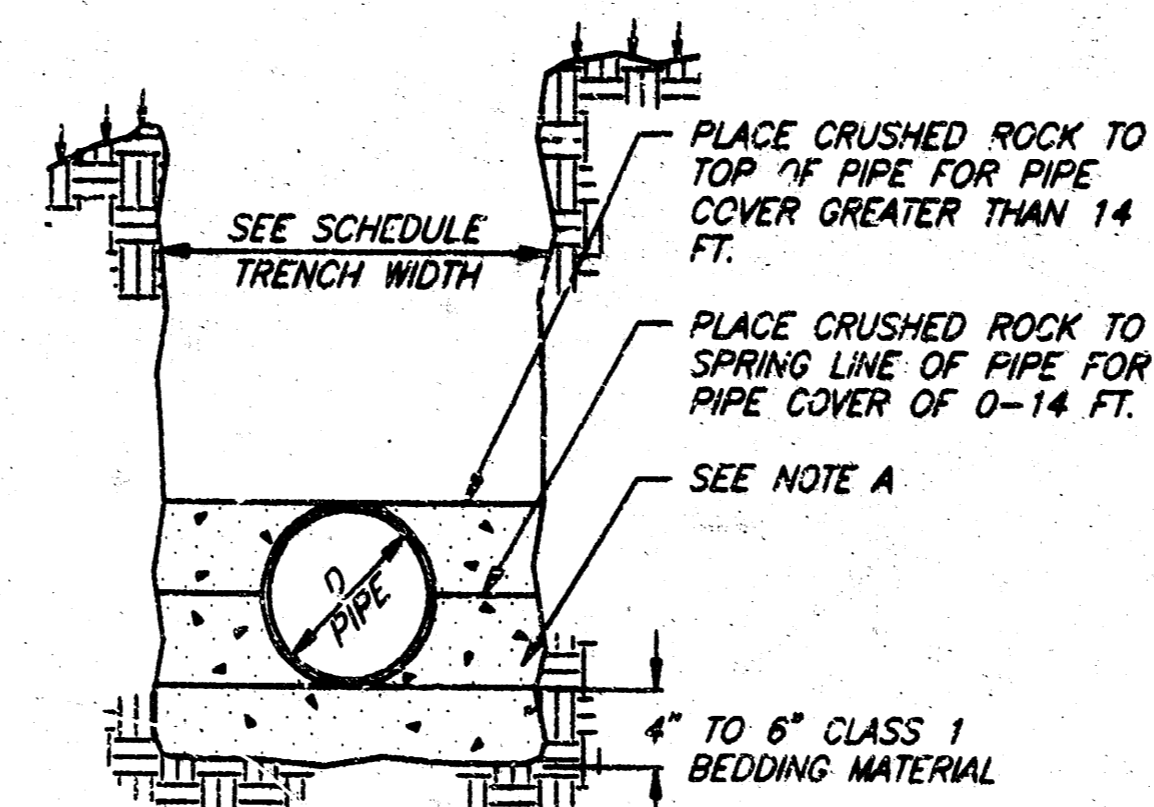
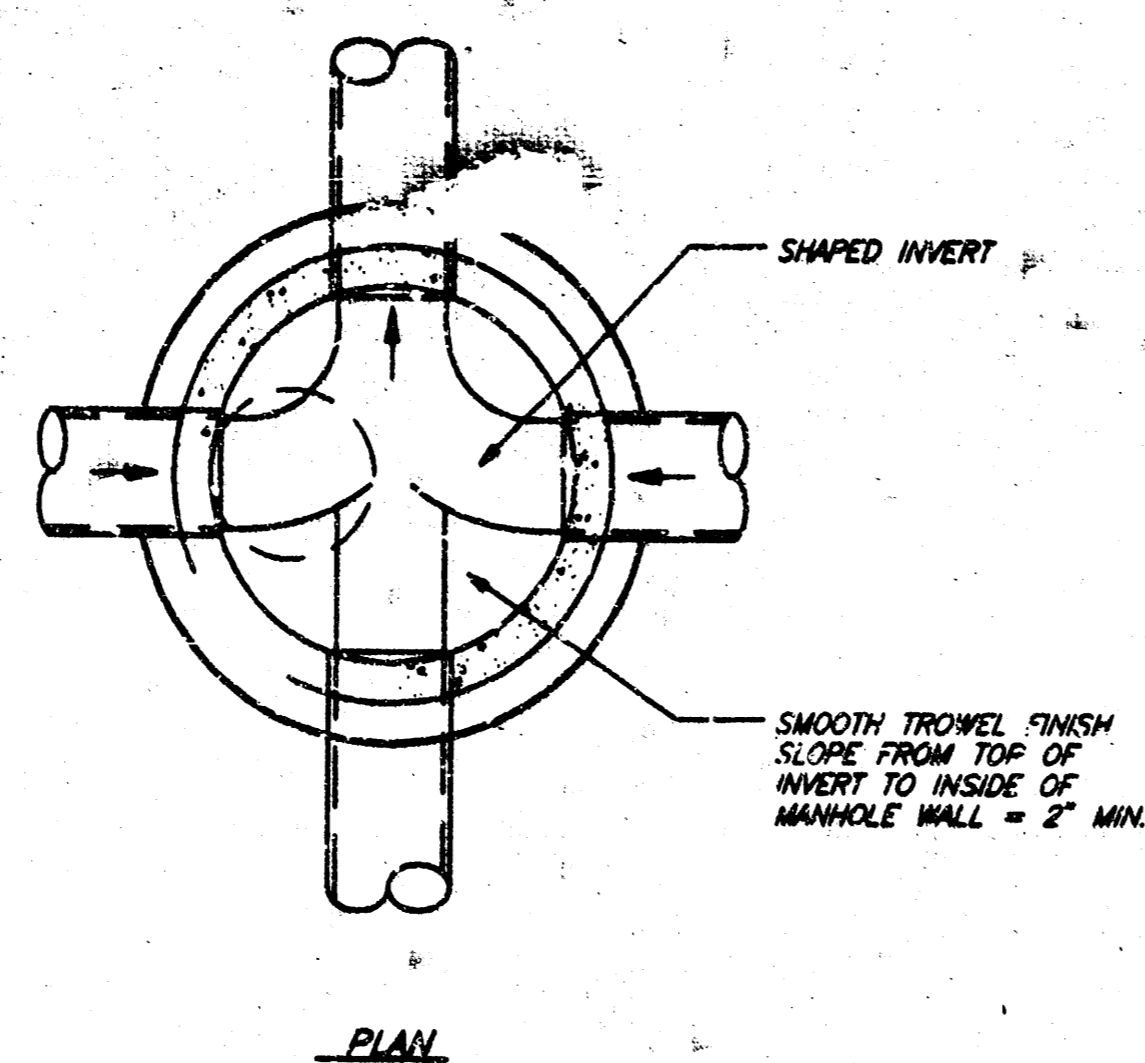
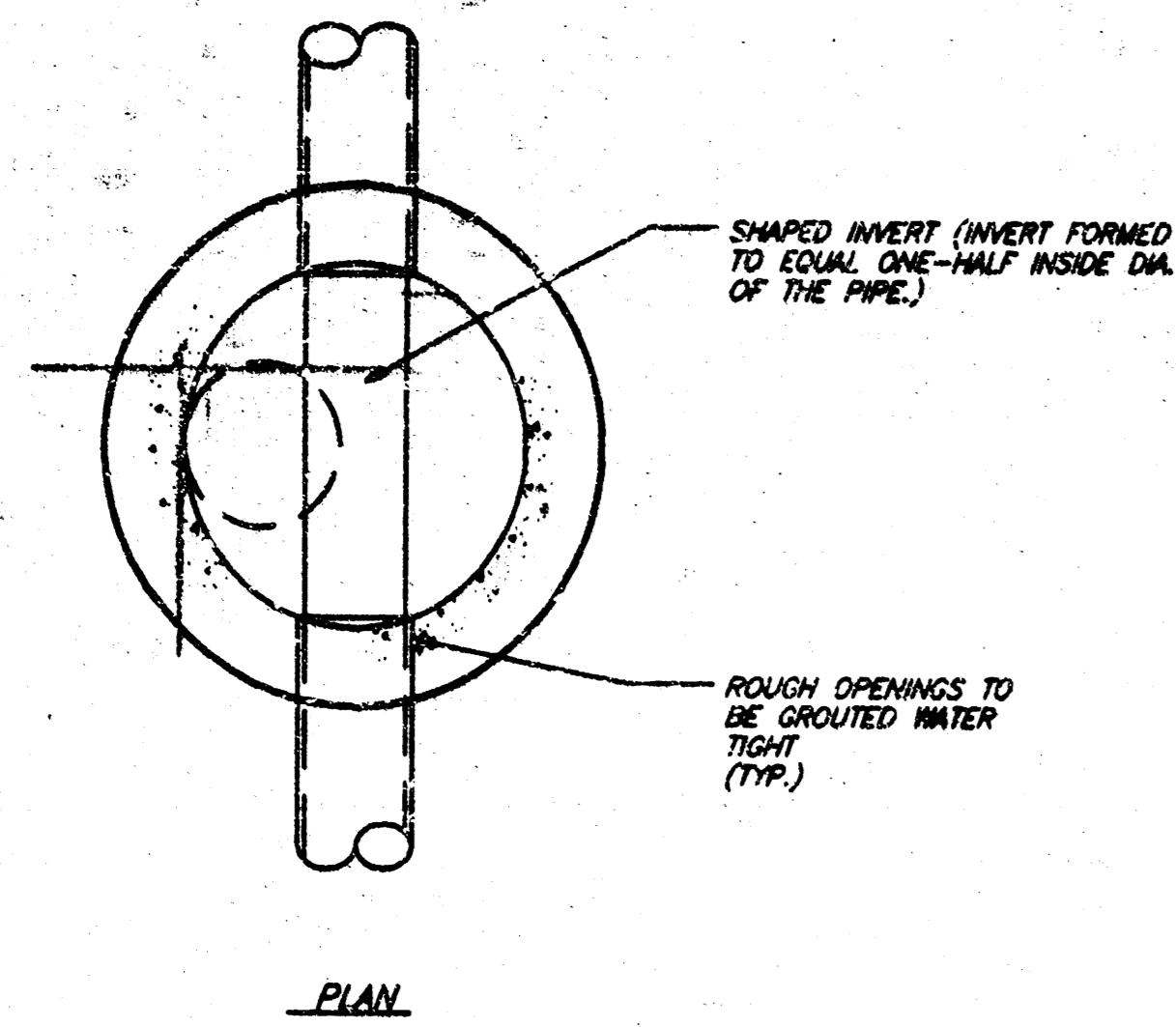
LINE "A"
228.72 L.F. OF 8" SAN SEWER
S 0730°

MEDITEK
PLAZA COMMERCIAL
SECOND ADDITION
BLOCK 1, LOT 7



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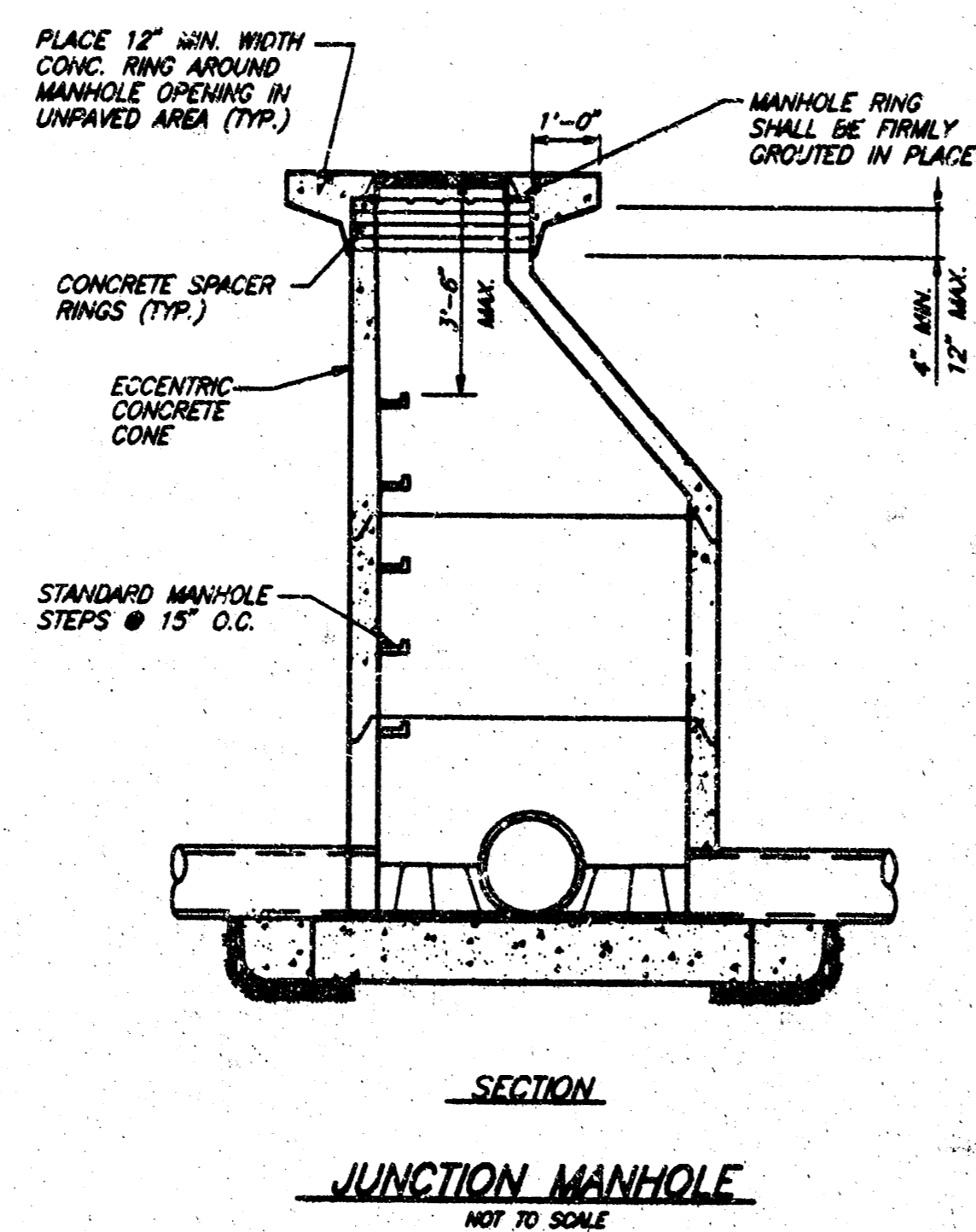
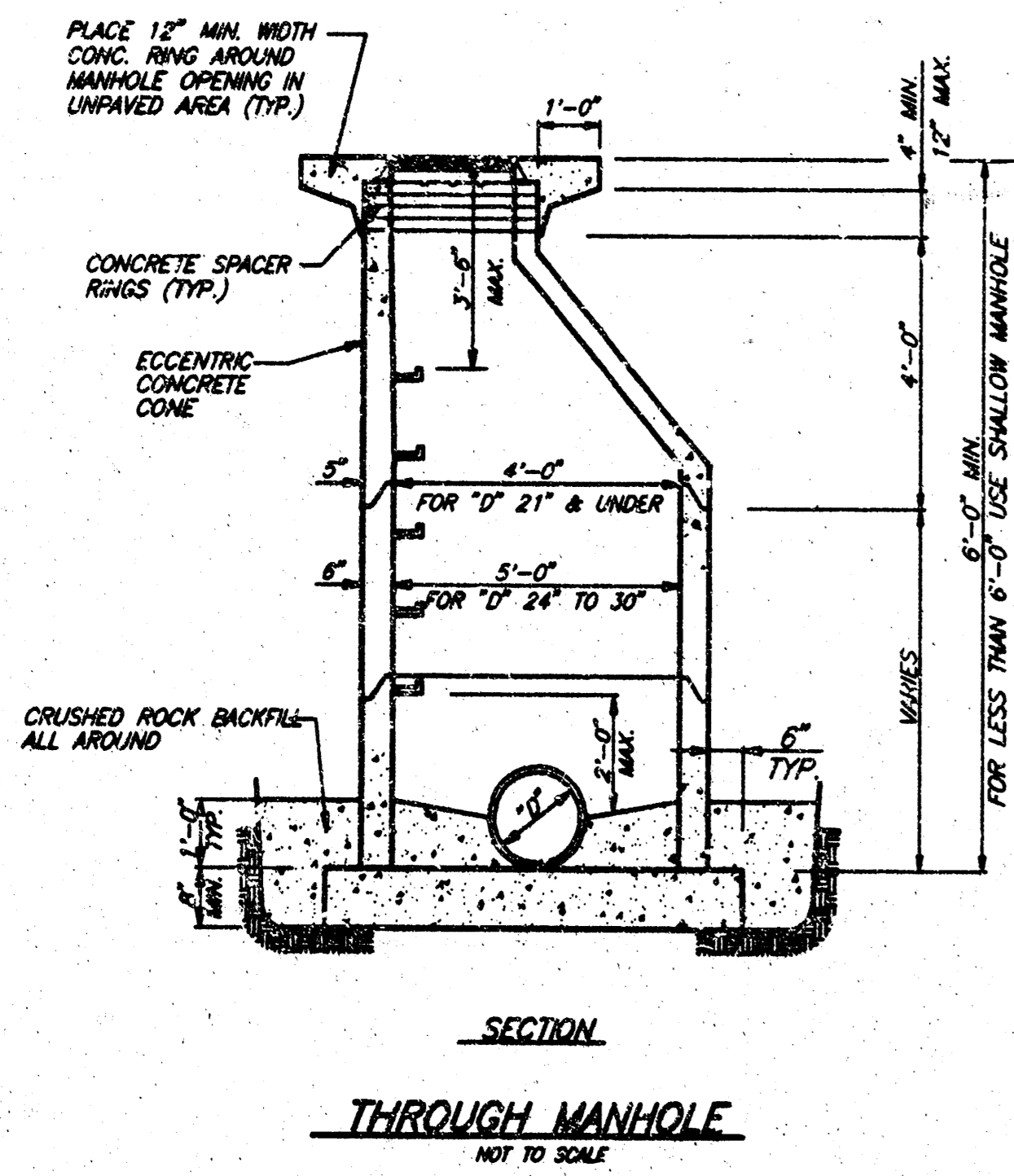
REV 10/21/98 SHEET 2
REV 5 - 10/21/98 REVISED 10/14/98
SHEET 17



NOTE A:
BEDDING MATERIAL SHALL BE WELL GRADED, CLEAN GRAVEL OR CRUSHED STONE WITH 65% PASSING THE 1/2" SIEVE, AND 5% PASSING THE NO. 4 SIEVE WITH A MAXIMUM SIZE OF 3/4".

GENERAL CONSTRUCTION NOTES: SEWER

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS FOR CONSTRUCTION OF SANITARY SEWERS AND APPURTENANCES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL UTILITIES, EITHER PUBLIC OR PRIVATE.
- WATER-TAMP OR WATER-FLUSH ALL BACKFILL.
- BACKFILL WITH RIVERSAND AROUND ALL EXISTING WATER LINES EXPOSED DURING CONSTRUCTION.
- THE COST OF REMOVING OR MOVING AND REPLACING ALL FENCES, TREES, STRUCTURES OR OTHER OBSTRUCTION NECESSARY FOR CONSTRUCTION WILL NOT BE PAID FOR AS SUCH, BUT SHALL BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS.
- ONLY THOSE ITEMS DETAILED IN THIS SHEET THAT ARE REQUIRED IN THE PLANS & SPECIFICATIONS SHALL BE USED.
- ALL SEWERS CONSTRUCTED OF RIGID OR SEMI-RIGID PIPE EXTENDING FROM ALL MANHOLES SHALL BE ENCASED WITH CONCRETE FOR A DISTANCE OF 3 FEET (0.9 M) FROM THE OUTSIDE WALL OF THE MANHOLE. THIS SUPPORT MAY BE DELETED IF A FLEXIBLE, WATERTIGHT GASKET IS USED TO CONNECT THE SEWER TO THE MANHOLE. NO SUPPORT IS REQUIRED FOR SEWERS CONSTRUCTED OF FLEXIBLE PIPE.
- THE MANHOLE RING AND LID SHALL BE CLAY & BAILEY 200B BY (OR EQUAL) AND SHALL COMPLY WITH ASTM A-48.
- ALL SANITARY SEWER PIPE SHALL BE IN ACCORDANCE WITH ASTM D3034. THE JOINTS SHALL BE RUBBER GASKET TYPE IN ACCORDANCE WITH ASTM D3212 AND ASTM F477. THE MINIMUM WALL THICKNESS SHALL COMPLY WITH SDR-35.
- ALL SANITARY SEWER PIPE IS TO BE MARKED WITH WARNING TAPE.
- THE USE OF POURED IN PLACE MANHOLES IS NOT ACCEPTABLE. ALL SANITARY SEWER SEWER MANHOLES SHALL CONFORM TO ASTM C76. THE JOINTS SHALL BE RUBBER RING GASKET IN ACCORDANCE WITH ASTM C443. THE PIPE BLOCKOUTS SHALL BE FACTORY FABRICATED.
- MANHOLE STEPS SHALL BE M.A. PS2-PF, CLAY & BAILEY 2102, OR EQUAL.
- ALL MANHOLES SHALL BE VACUUM TESTED AS PER THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT RECOMMENDED METHODS.
- ALL SANITARY SEWER PIPE SHALL BE PRESSURE TESTED. IN ADDITION, A SEVEN SPINE MANDREL OF CORRESPONDING DIAMETER SHALL BE PULLED THROUGH ALL PVC SANITARY SEWER PIPE TO CHECK FOR PIPE DEFLECTION.

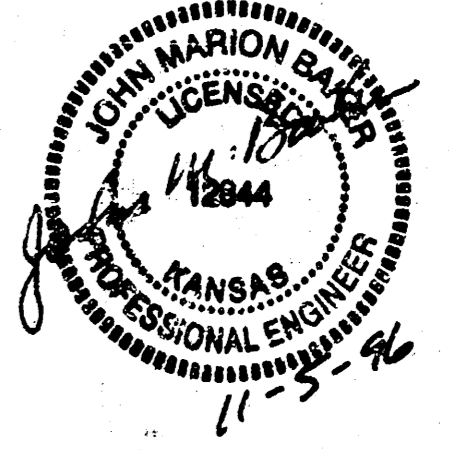
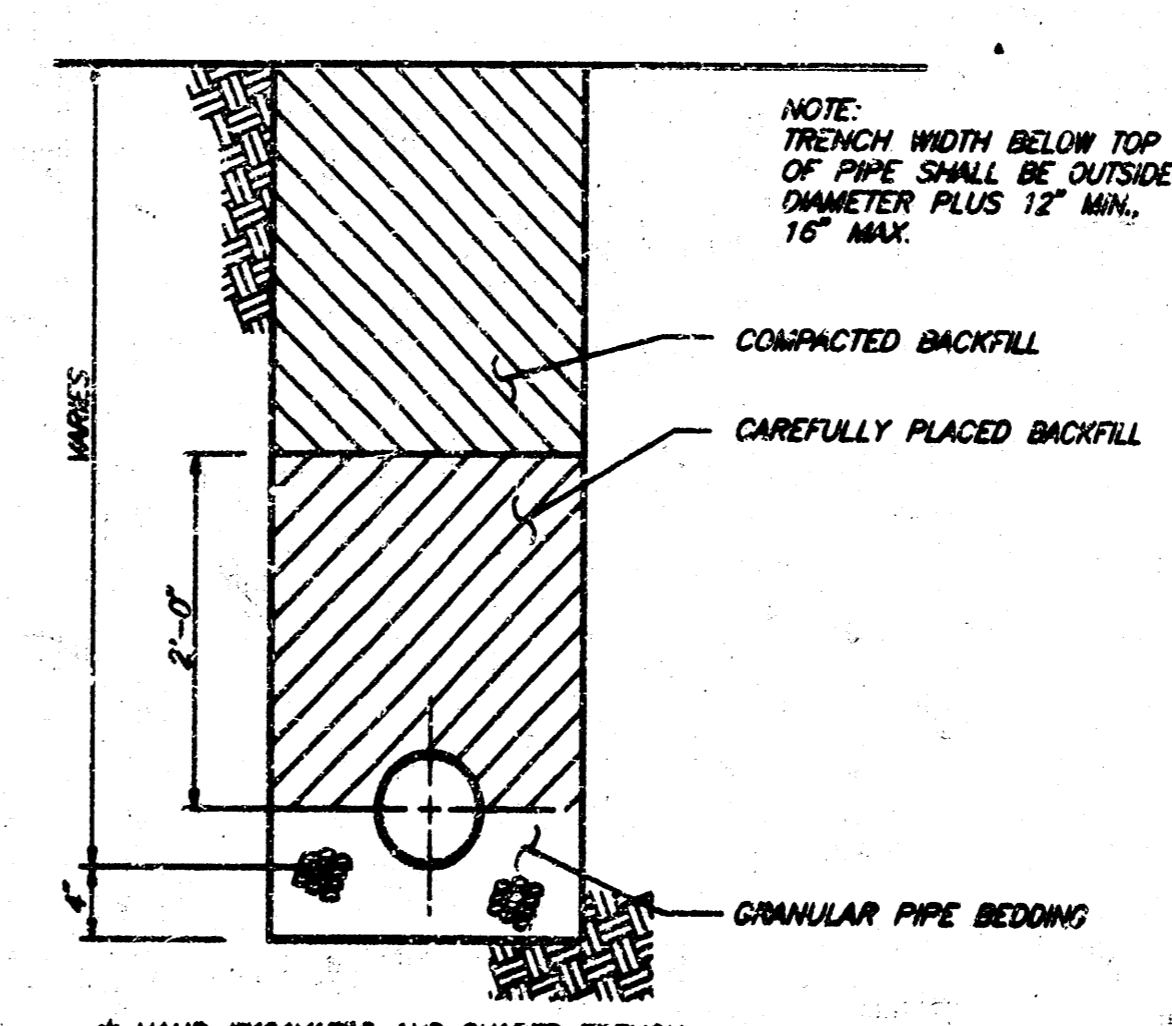
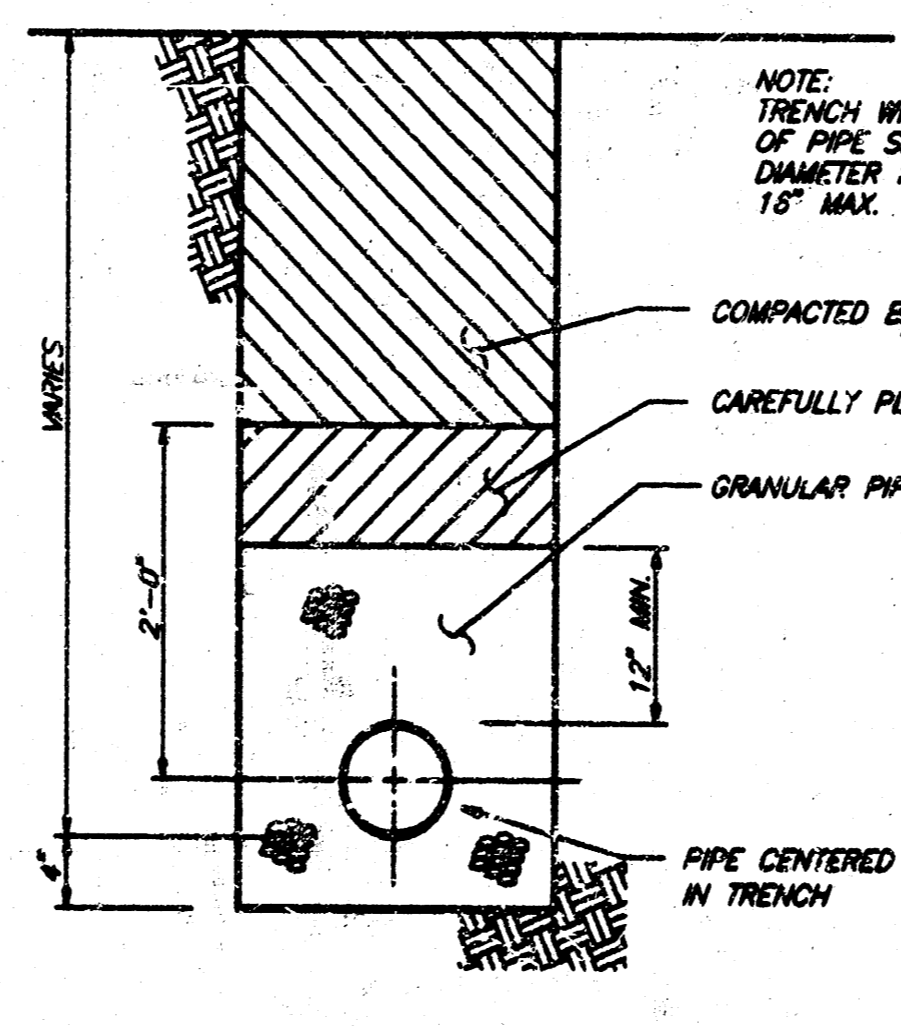
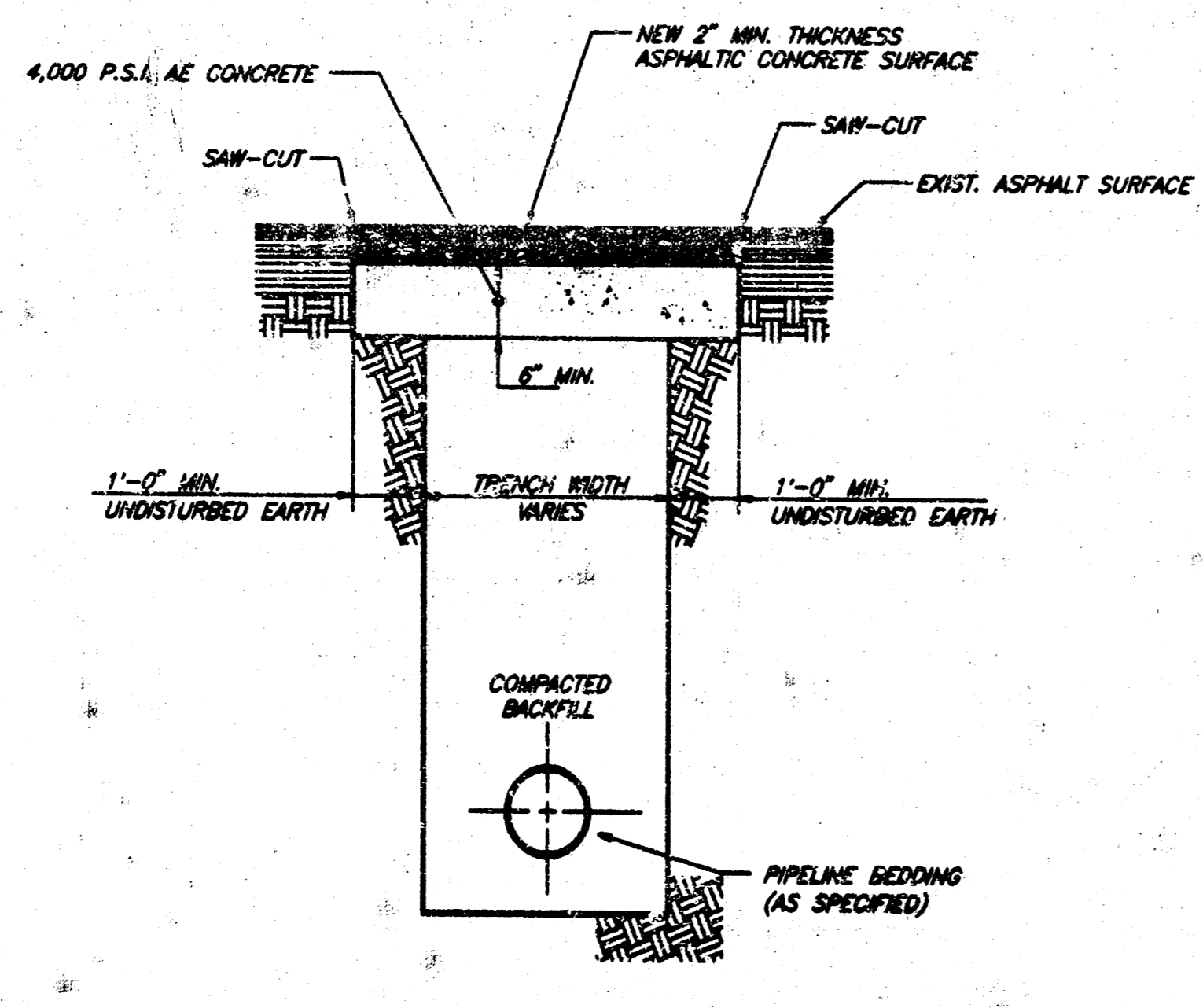
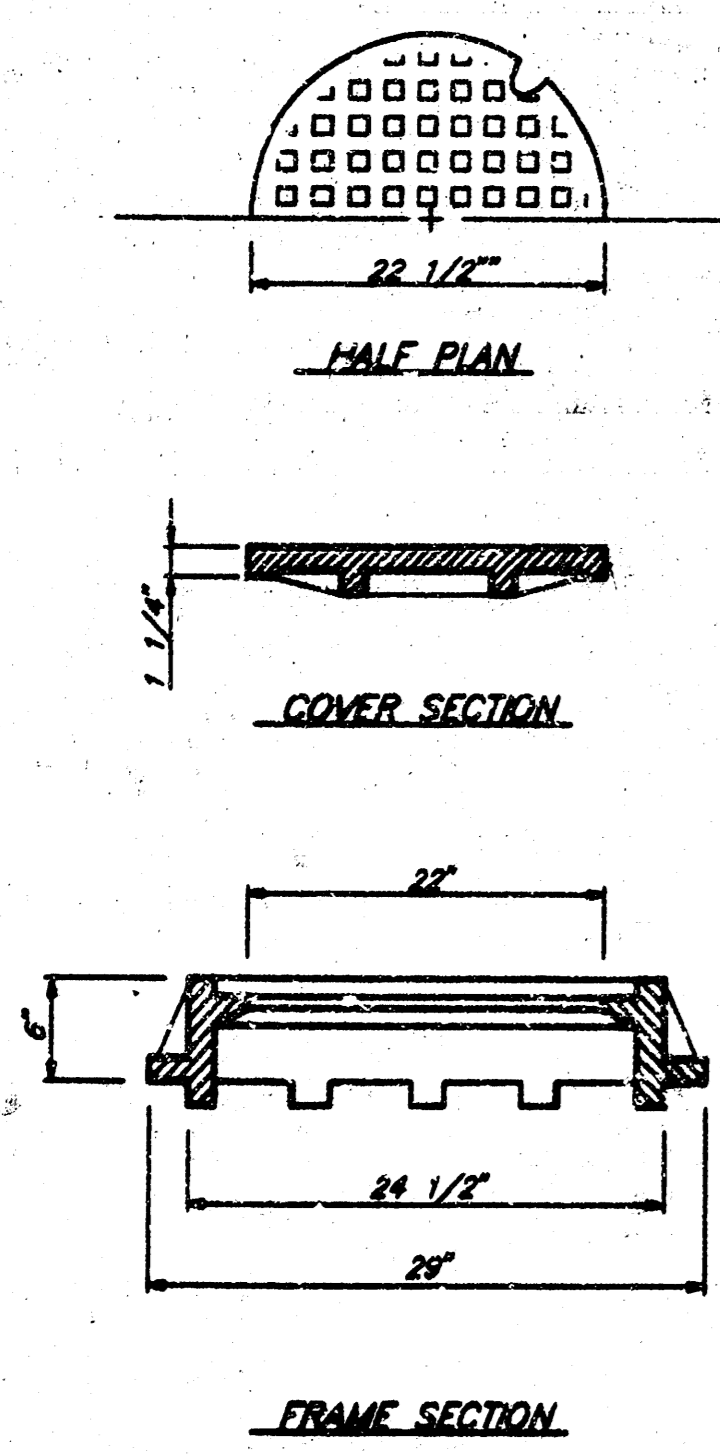


TRENCH WIDTH	D	A	C.Y. CRUSHED ROCK PER L.F.
2.2'	8"	8"	.052
2.2'	10"	9"	.058
2.2'	12"	10"	.063
2.6'	15"	11"	.082
2.9'	18"	12"	.099
3.3'	21"	13"	.121
3.8'	24"	14"	.149
4.2'	27"	15"	.175
4.5'	30"	16"	.199
4.9'	33"	17"	.229
5.2'	36"	18"	.256

NOTE: STONE SHALL BE HAND OR MECHANICALLY TAMPED.

TRENCH WIDTH	D	C.Y. CRUSHED ROCK PER L.F. GREATER THAN 14 FT.	C.Y. CRUSHED ROCK DEPTHS GREATER THAN 14 FT.
2.2'	8"	.062	.082
2.2'	10"	.065	.088
2.2'	12"	.070	.093
2.6'	15"	.086	.123
2.9'	18"	.102	.149
3.3'	21"	.124	.186
3.8'	24"	.153	.236
4.2'	27"	.180	.281
4.5'	30"	.242	.318
4.9'	33"	.230	.370
5.2'	36"	.254	.412

NOTE: STONE SHALL BE HAND OR MECHANICALLY TAMPED.



PRECAST SANITARY SEWER MANHOLES & DETAILS

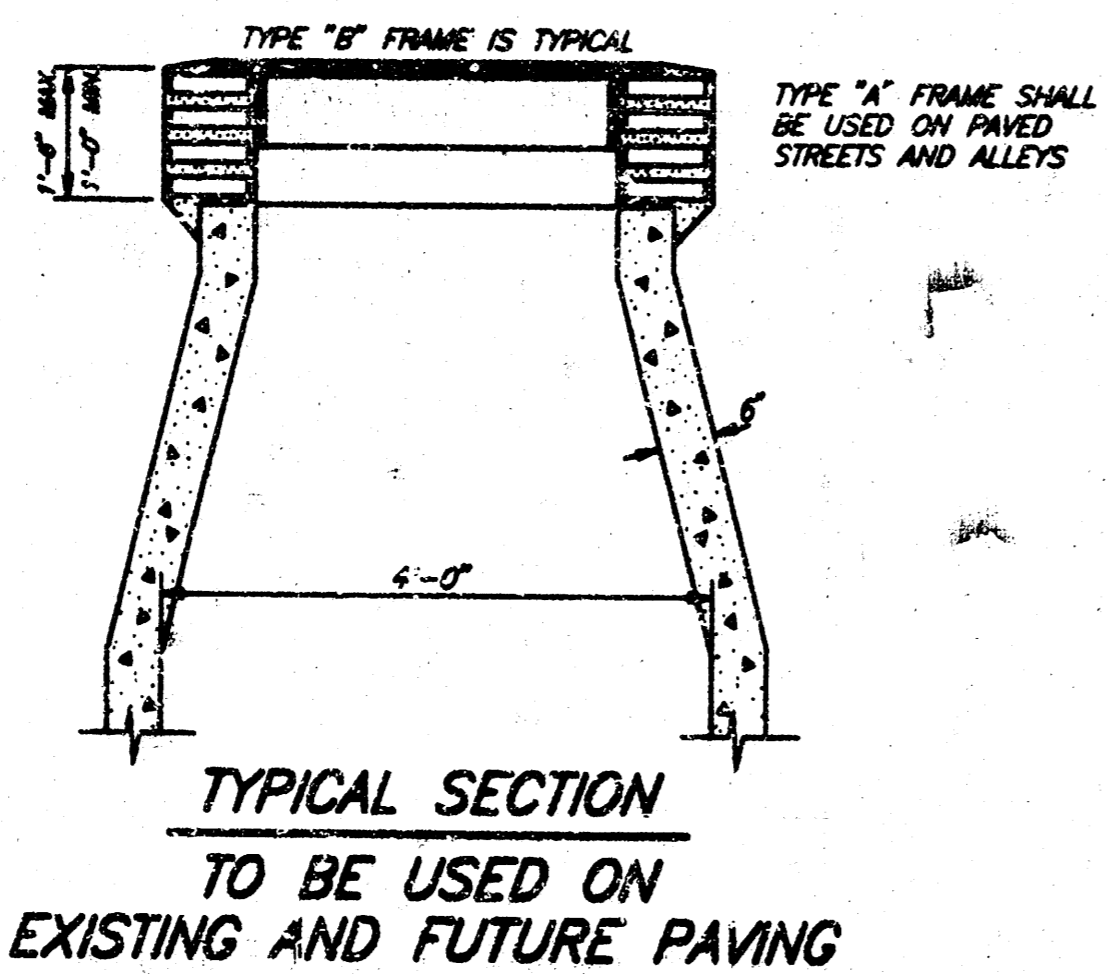
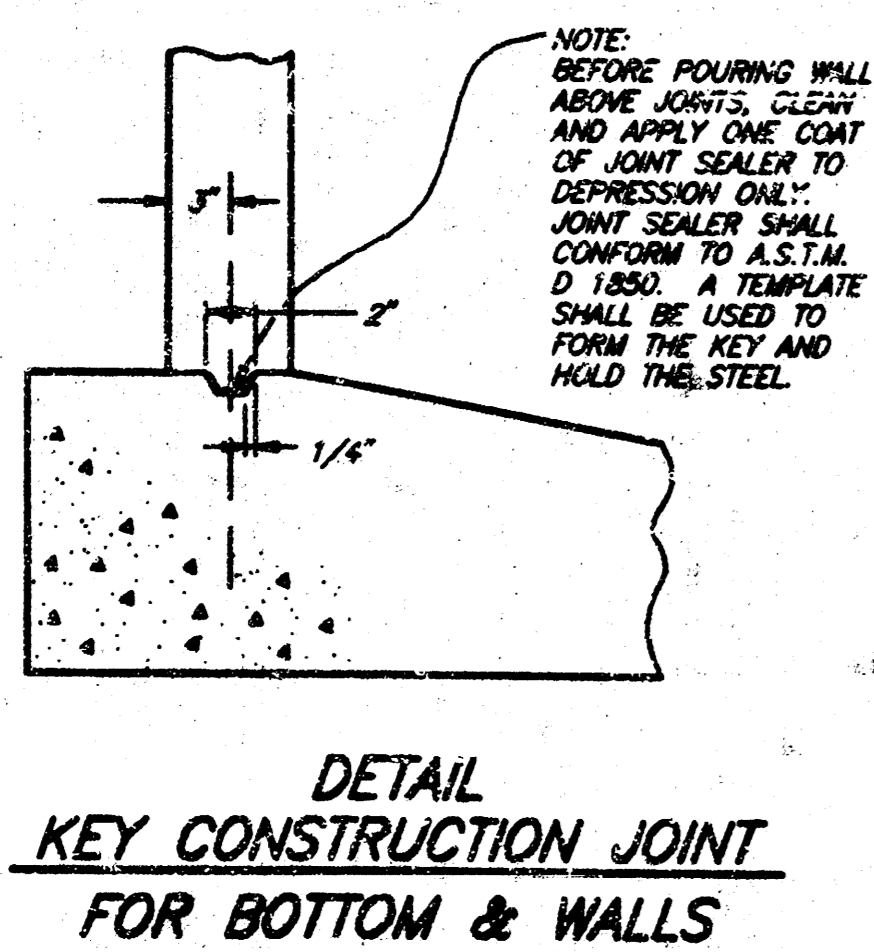
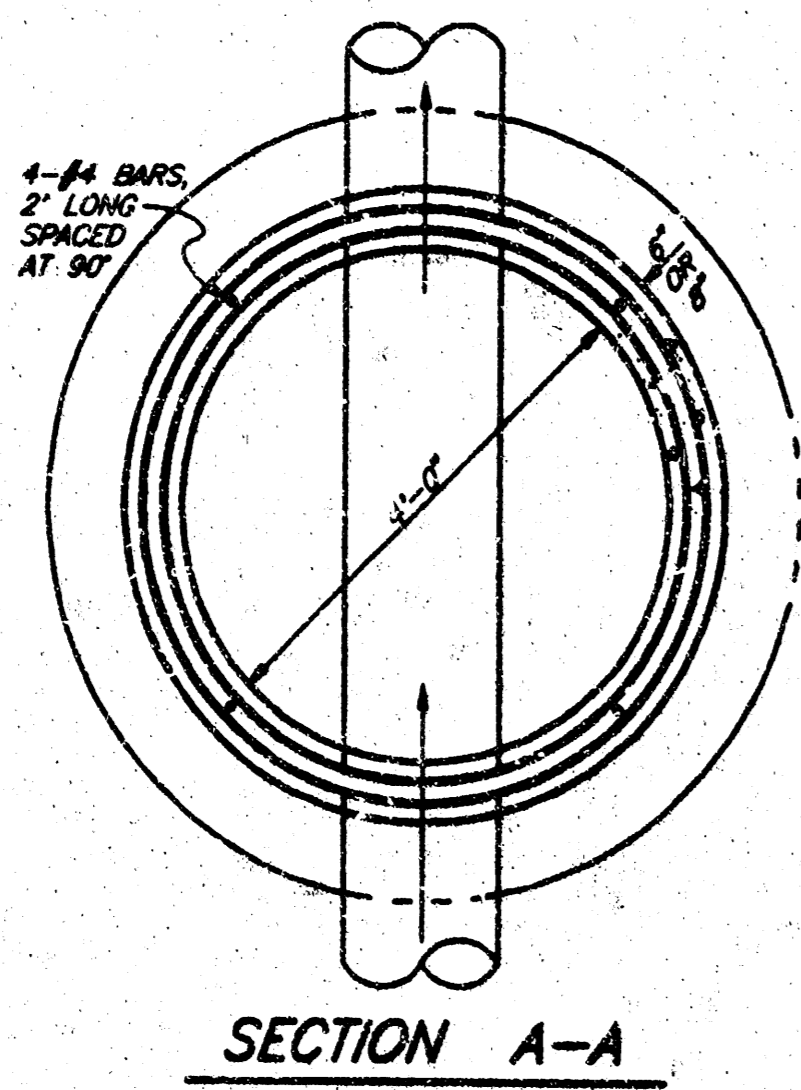
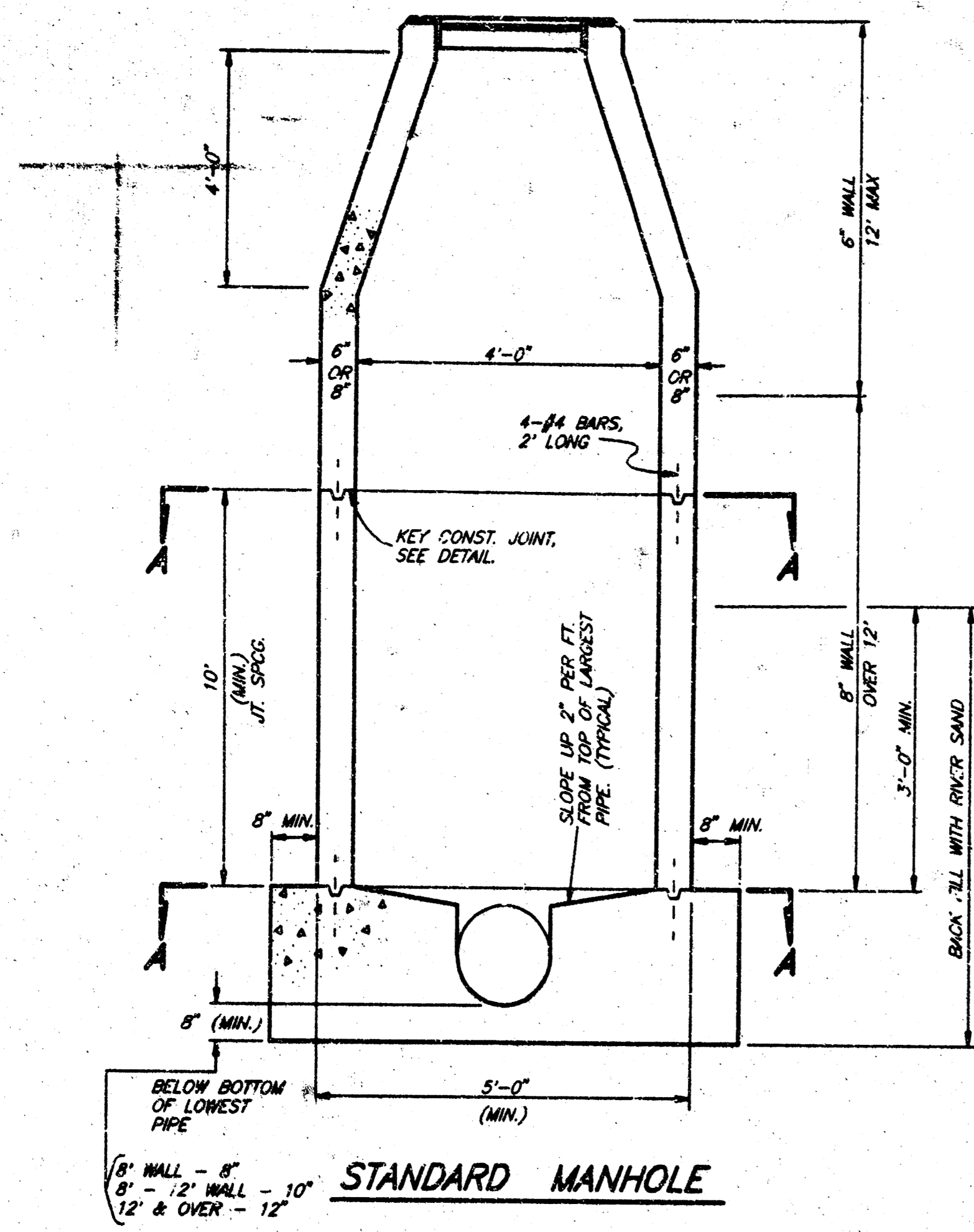
WAL-MART #1507 EXPANSION WICHITA, KANSAS

SPEAR & McCALEB CO., INC. OKLAHOMA CITY, OKLAHOMA

DATE: 9/23/88 SCALE: N/A SHEET NO. 3

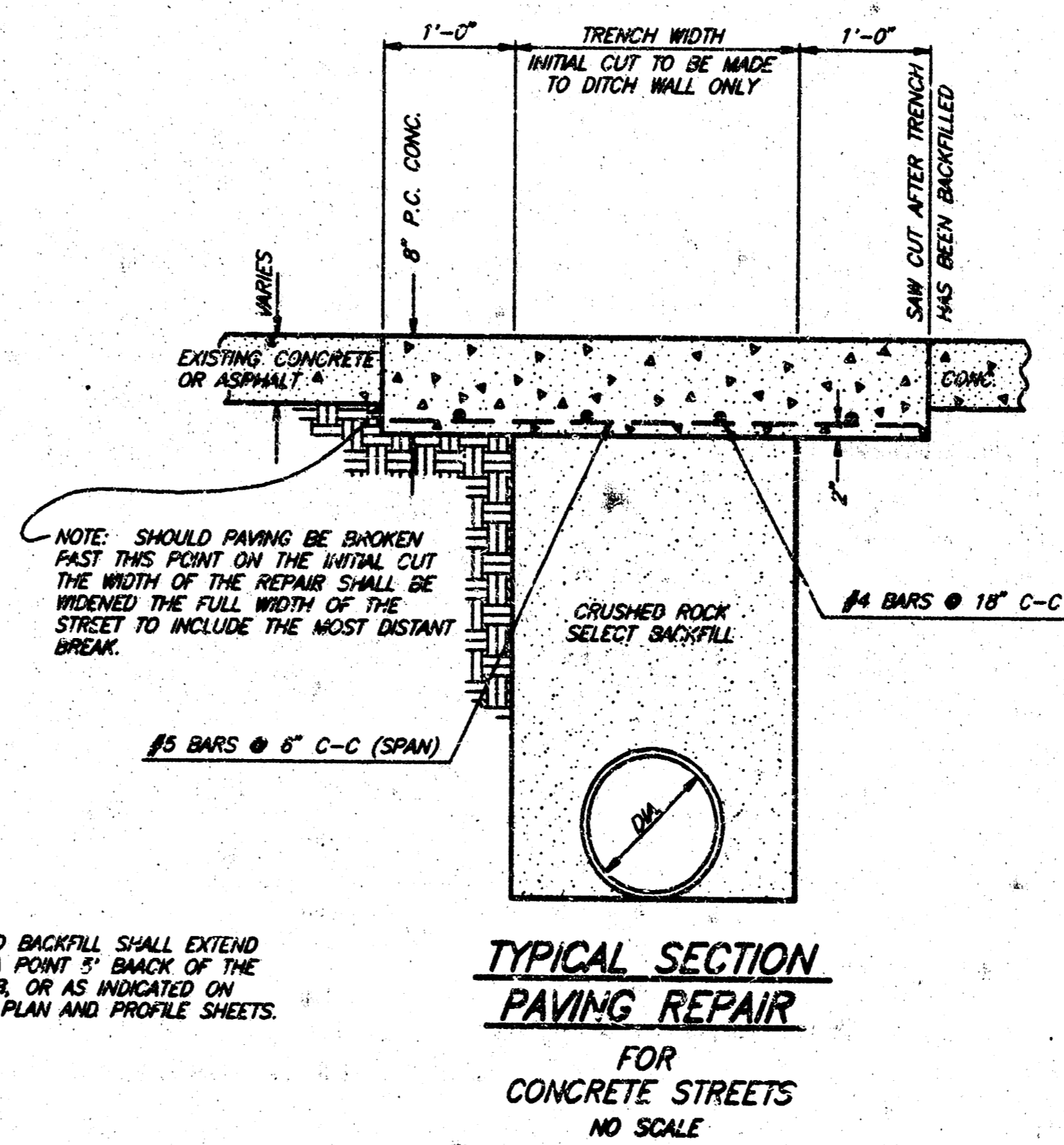
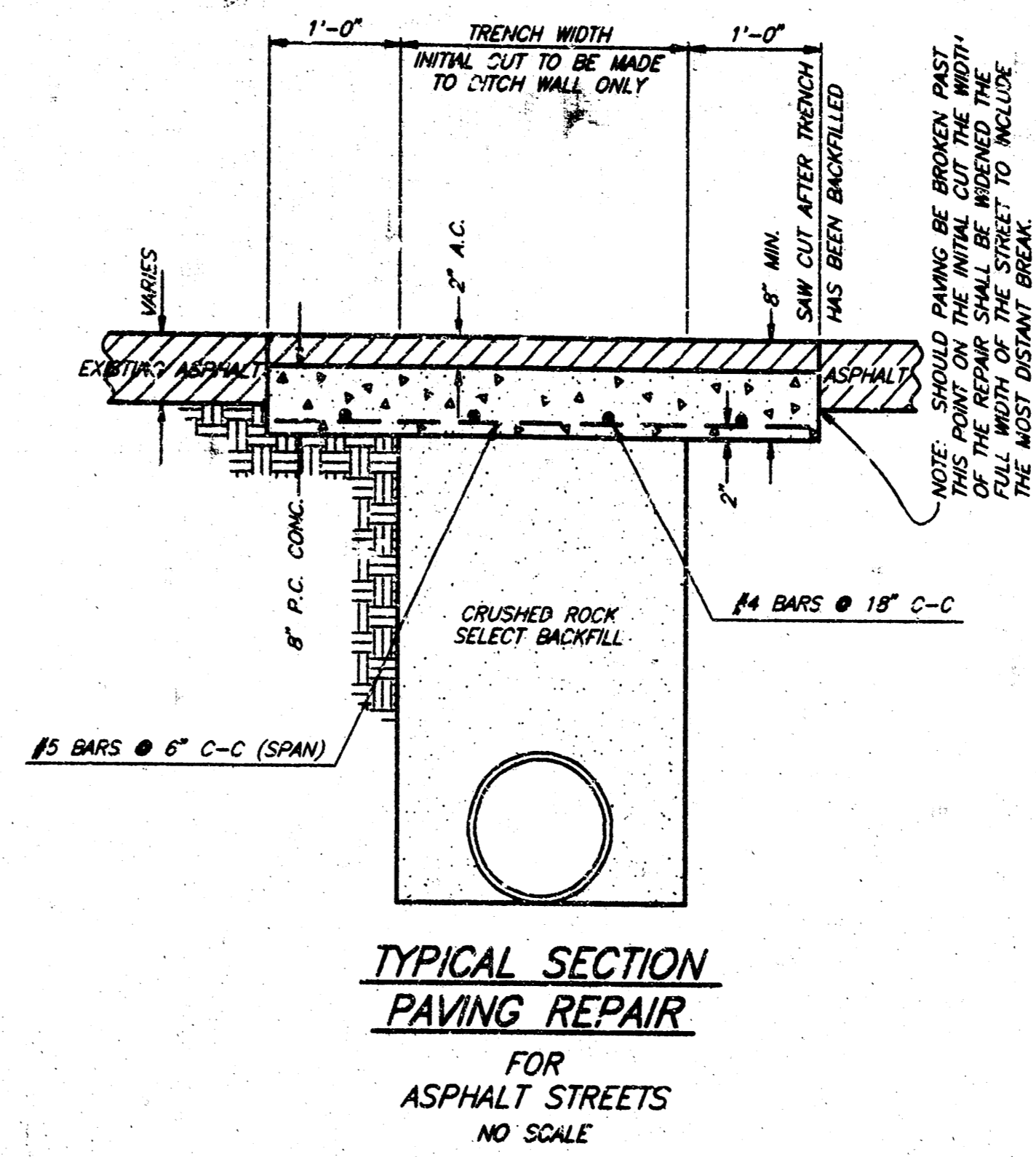
DRAWN BY: GB

ENGINEER: JOHN N. BARKER P.E. # 12844



POURED-IN-PLACE MANHOLE DETAILS

SPECIAL NOTE:
 TEE & RISER SHALL BE INSTALLED IMMEDIATELY AFTER
 FORMS ARE REMOVED & P.C. CROUTED IN WHILE
 CONCRETE IS GREEN TO INSURE A WATER TIGHT JOINT.



NOTE: SAND BACKFILL SHALL EXTEND
 TO A POINT 5' BACK OF THE
 CURB, OR AS INDICATED ON
 THE PLAN AND PROFILE SHEETS.

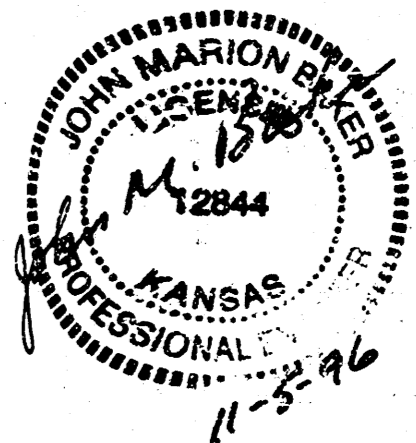
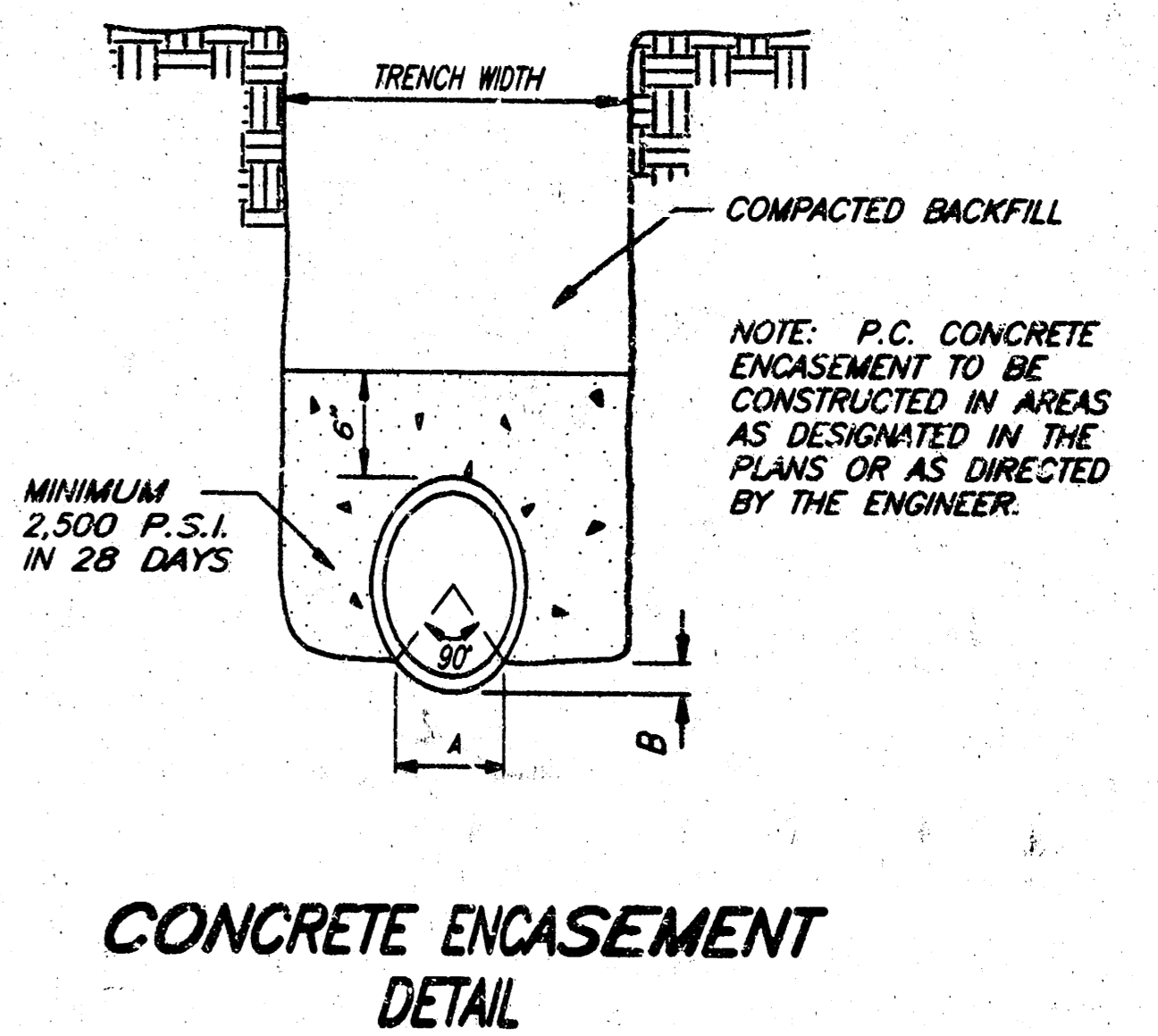
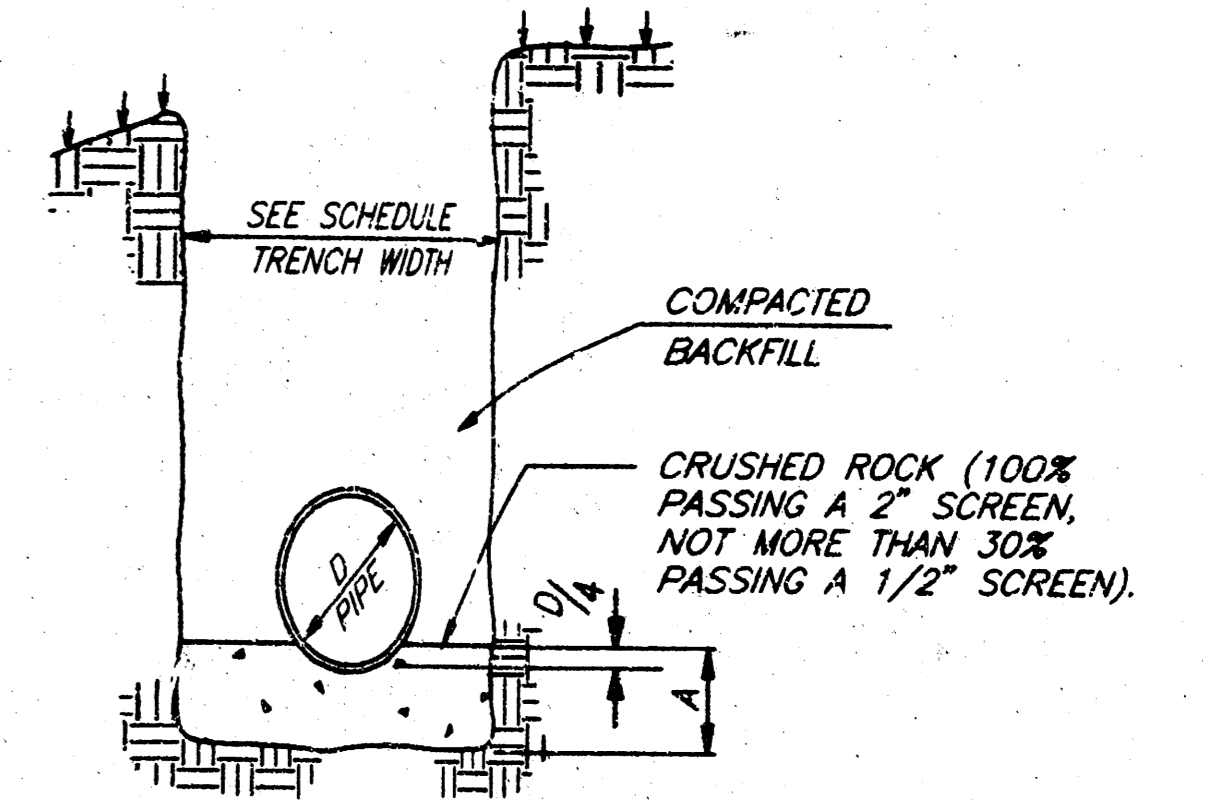
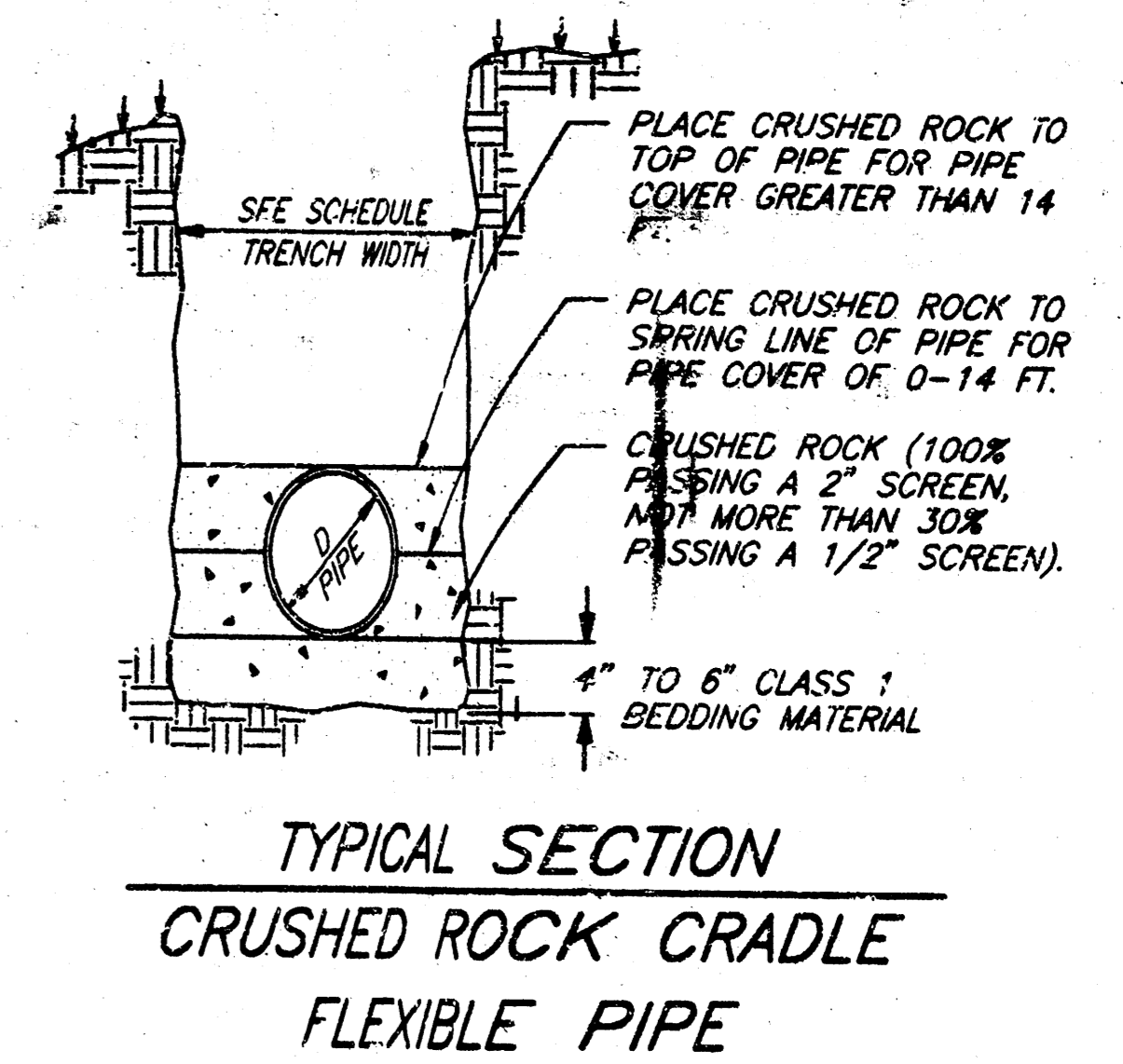
PIPE SIZE	TRENCH WIDTH	A (FT.)	B (FT.)	C.Y. CONC. PER L.F. ENCASEMENT
8"	2.2'	0.574	0.119	0.079
10"	2.2'	0.707	0.146	0.083
12"	2.2'	0.843	0.174	0.086
15"	2.6'	1.049	0.217	0.111
18"	2.9'	1.263	0.261	0.133
21"	3.3'	1.473	0.305	0.163
24"	3.8'	1.679	0.347	0.206
27"	4.2'	1.882	0.392	0.243
30"	4.5'	2.089	0.434	0.272
33"	4.9'	2.294	0.479	0.314
36"	5.2'	2.489	0.515	0.347

TRENCH WIDTH	D	C.Y. CRUSHED ROCK PER L.F. 0-14 FT.	C.Y. CRUSHED ROCK PER L.F. 14 FT.
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2.2'	10"	.065	.086
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 MECHANICALLY TAMPED.

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SANITARY SEWER DETAILS -B-

WAL-MART #1507 EXPANSION
 WICHITA, KANSAS

SPER & McCaleb Co., Inc.
 OKLAHOMA CITY, OKLAHOMA

DATE: 11/18/96 SCALE: N.T.S. SHEET NO. 17

DRAWN BY: J.M.B. DESIGNED BY: J.M.B. P.E. # 12844

JOHN M. BAKER
 PROFESSIONAL ENGINEER
 STATE OF KANSAS
 NO. 12844