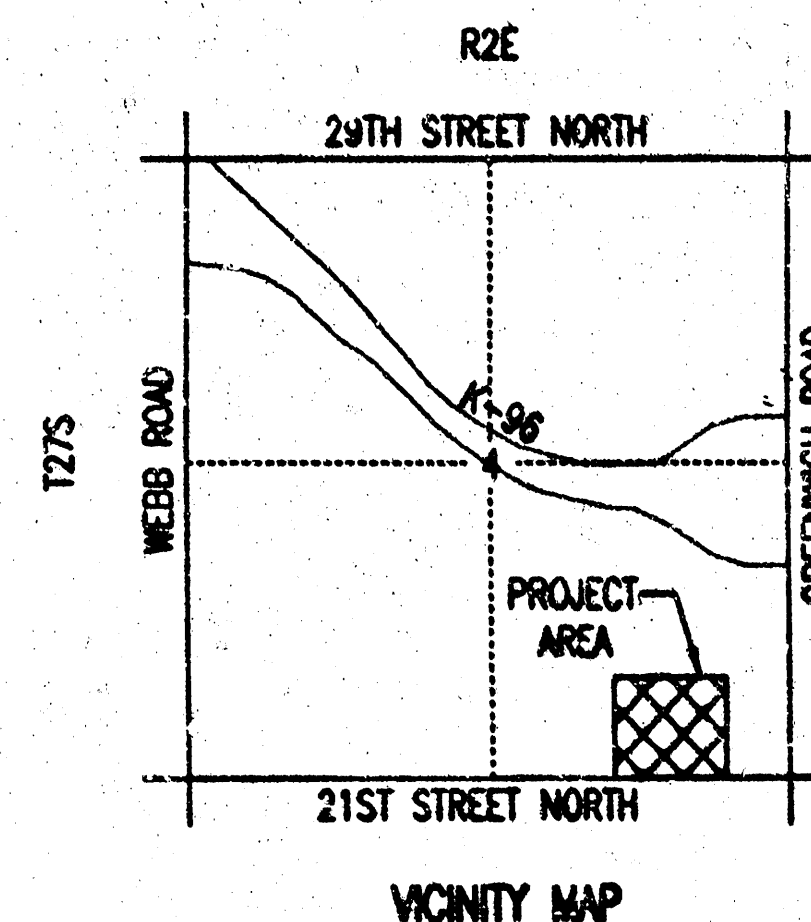


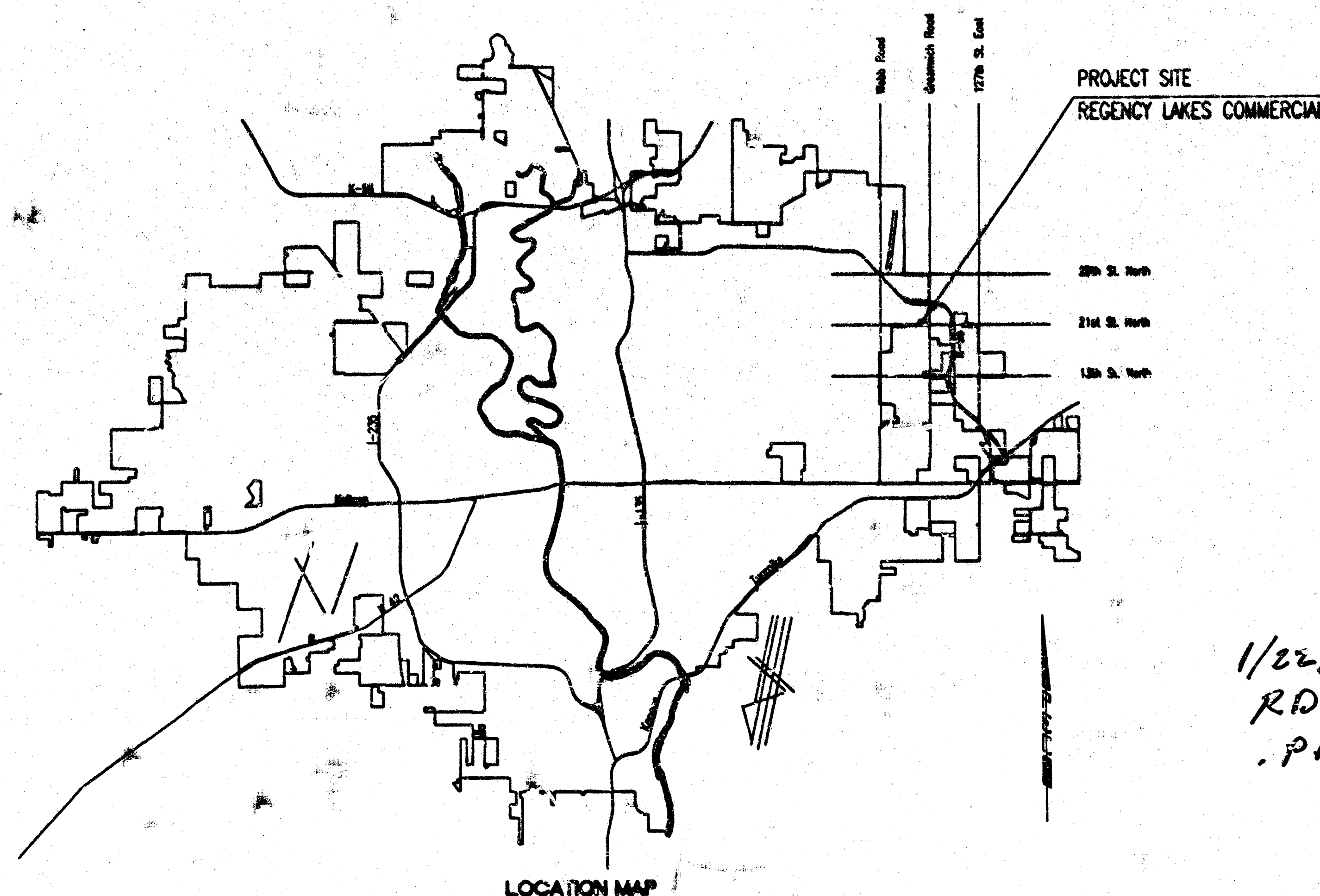
PRIVATE SANITARY SEWER EXTENSION TO SERVE TARGET NORTHEAST

PRIVATE PROJECT NO. 1390 PPS (607861)
CITY OF WICHITA, KANSAS
NEIL D. CABLE, P.E.-CITY ENGINEER



NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM CONTRACTED BY THE CONTRACTOR. 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 UNTIL SUCH INSPECTION IS ARRANGED FOR AND REQUIRED BOUNDS HAVE BEEN SUBMITTED TO AND APPROVED BY THE CITY. NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER. IMPROVEMENTS PERFORMED UNDER THIS PROJECT SHALL NOT BE ACCEPTED BY THE CITY UNTIL ALL APPLICABLE DOCUMENTATION HAS BEEN SUBMITTED TO THE CITY ENGINEER. THIS MAY INCLUDE: RECORD DRAWINGS, INSPECTION LOGS, TEST DOCUMENTATION, TV TAPES, AND A CERTIFICATE OF COMPLETION. THE ABOVE SHALL BE PERFORMED BY THE CONSULTING FIRM CONTRACTED TO INSPECT THIS PROJECT.



1/22/04
RDL
.PDF

INDEX OF SHEETS

SHEET NO. SU3.1	TITLE SHEET
SHEET NO. SU3.2	KEY MAP AND GENERAL NOTES
SHEET NO. SU3.3-SU3.4	PLAN/PROFILE
SHEET NO. SU3.5	STANDARD TYPE "P" MANHOLE DETAILS
SHEET NO. SU3.6	MANHOLE FRAME AND COVER DETAILS
SHEET NO. SU2.10	PLAN
SHEET NO. SG2.1-SG2.4	SOIL EROSION BMP DETAILS

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA

Sanitary Sewers VRH 12/3/03
Storm Sewers _____
Driveway Approaches _____
Water Mains _____
Paving _____

TARGET

REVIEWED BY:

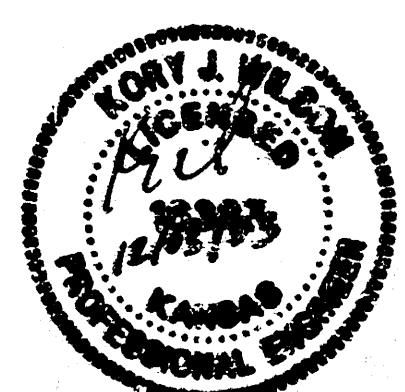
Site Development Manager	____	____	____	____
Project Architect	____	____	____	____
Project Engineer (M)	____	____	____	____
Project Engineer (E)	____	____	____	____
Project Engineer (S)	____	____	____	____

Approved only for conformance of the site construction documents to Target Developer Guide, Edition 2.3 and the Target building documents. Consultant is solely responsible for completeness, accuracy, and dimensions on the site construction documents.

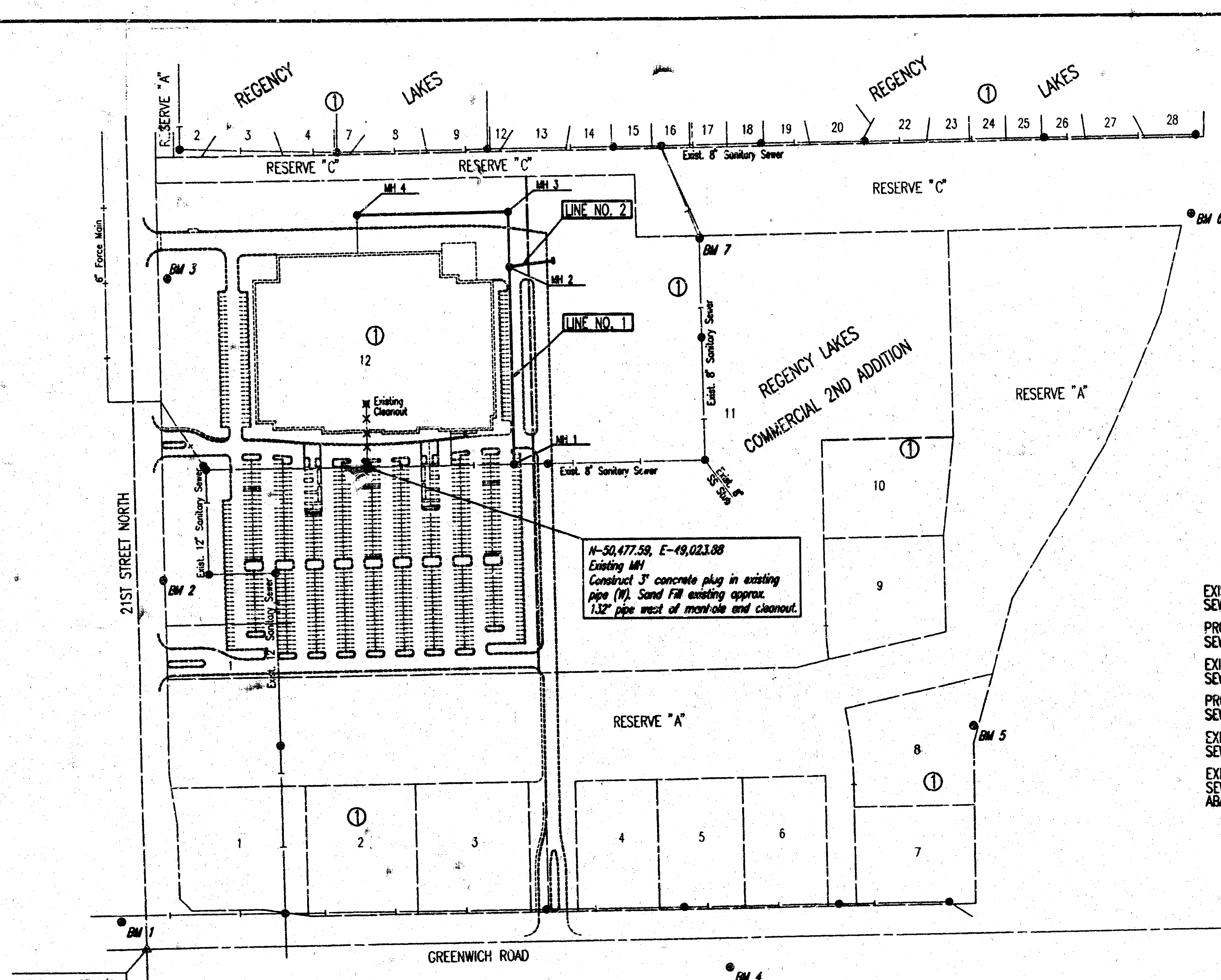
AS-BUILT
1/26/04
RDL
Signed

DECEMBER 2003

PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS



DSNR: KJM OPER: CSJ SCALE: 1"=150.0' 12-02-2003 11:31:50 am
Q:\2003\03419\PPS\SSKEYMAP



LEGEND

EXISTING SANITARY SEWER
PROPOSED SANITARY SEWER
EXISTING SANITARY SEWER w/MANHOLE
PROPOSED SANITARY SEWER w/MANHOLE
EXISTING SANITARY SEWER w/CLEANOUT
EXISTING SANITARY SEWER TO BE ABANDONED

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA SPECIFICATIONS AND STANDARDS.
- ALL ELEVATIONS SHOWN ARE BASED ON CITY OF WICHITA DATUM.
- THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- AT LEAST 72 HOURS PRIOR TO BEGINNING EXCAVATION (EXCLUDING WEEKENDS AND HOLIDAYS), THE CONTRACTOR SHALL CONTACT THE KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316) 687-2470 TO REQUEST THE LOCAL UTILITY COMPANIES MARK ANY EXISTING LINES WITHIN THE PROJECT AREA.
- 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 OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR THE DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING 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. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE RESTORATION".
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.
- MANHOLES SHALL BE TYPE "T" MANHOLES. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS.
- ALL LAWN/TURF AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS/SOD AS EXISTING. RESTORATION OF DISTURBED AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP SOIL PREPARATION, SEEDING, MULCH, AND/OR RESEEDING. ALL SEEDING/SODDING WORK SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. 4078 WHICH GOVERNS CLEANUP AND RESTORATION OR REPLACEMENT FOLLOWING CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE RESTORATION".
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED, TREE TRIMMINGS, AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL ALSO BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL 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 MAY REQUIRE ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED DISPOSAL LOCATION.
- THE CONTRACTOR SHALL AVOID REMOVAL OR TRIMMING OF ANY TREES OR SHRUBS WHERE POSSIBLE. WHERE THE CONTRACTOR BELIEVES THE REMOVAL OR TRIMMING IS UNAVOIDABLE, HE SHALL COORDINATE SUCH WORK WITH THE ENGINEER.
- THE CONTRACTOR SHALL PREVENT ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER DURING CONSTRUCTION.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ADJUTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.
- ALL APPROVED EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE STOCKPILED AS APPROVED BY THE DEVELOPER AND IN ACCORDANCE WITH GENERAL NOTE NO. 10 ABOVE.
- CONTRACTOR IS REQUIRED TO MAINTAIN CONTINUOUS FLOW OF SEWAGE IN EXISTING MAINS AT ALL TIMES.
- THE CONTRACTOR SHALL SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH TEMPORARY RYE GRASS. RYE GRASS SEED SHALL BE PLANTED AT A MINIMUM RATE OF 50 (50) POUNDS PER ONE THOUSAND (1,000) SQUARE FEET. THIS TEMPORARY SEEDING MAY BE OMITTED ONLY IF OTHER SEEDING IS REQUIRED IN ACCORDANCE WITH GENERAL NOTE NO. 9 ABOVE. TEMPORARY SEEDING OR PERMANENT SEEDING/SODDING SHALL BE APPLIED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED.
- THE CONTRACTOR SHALL NOT BURY MANHOLES THAT HAVE RIM ELEVATIONS WHICH ARE LOWER THAN EXISTING GROUND AT THE MANHOLE. THE GROUND AROUND SUCH MANHOLES AND ALONG THE SEWER ALIGNMENT SHALL BE BACKFILLED TO THE APPROXIMATE ELEVATION OF THE PROPOSED GROUND ELEVATION SHOWN ON THE PLAN/PROFILE SHEETS. THE CONTRACTOR SHALL PROVIDE DRAINAGE AWAY FROM THESE MANHOLES AND SEWER LINES BY CONSTRUCTION OF TEMPORARY DITCHES OR SLOPING THE GROUND AS REQUIRED.
- THE CONTRACTOR SHALL PROVIDE MOUNDLED EARTH AT MANHOLES AND CLEANOUTS THAT HAVE TOP ELEVATIONS GREATER THAN 1 FOOT ABOVE EXISTING GRADE, AS SHOWN ON THE PLANS.
- INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA AND LOCAL BUSINESS OR RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA ARE TO BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.
- IN AREAS WHERE FUTURE PAVEMENT IS ANTICIPATED, SUCH AS PARKING LOTS OR DRIVES, THE SANITARY SEWER TRENCH SHALL BE SAND FILLED AND FLUSHED WITH WATER PER THE REQUIREMENTS LAYED IN THE STANDARD SPECIFICATIONS FOR THE CITY OF WICHITA UNLESS FLOWABLE FILL IS SPECIFIED ON THE PLANS. ALL SANITARY SEWER TRENCHES ADJACENT TO STREET OR POND RIGHT-OF-WAY SHALL BE BACKFILLED WITH JETTED SAND UNLESS OTHERWISE SPECIFIED IN THE PLANS.
- ROUGH SITE EARTH WORK SHALL BE COMPLETED PRIOR TO SANITARY SEWER CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY ALL MANHOLE RIM ELEVATIONS WITH FINAL PAVEMENT ELEVATIONS. WHEN LOCATED IN PAVED AREAS, ALL MANHOLE RIMS ARE TO BE FLUSH WITH THE TOP FINAL PAVEMENT. WHERE MANHOLE IS SET OUTSIDE PROPOSED PAVEMENT THE RIM ELEVATION SHALL BE 0.4' ABOVE PROPOSED FINAL GRADE.

BENCHMARKS
Datum BM from Proj. No. 36-02146-5328, Kitch Property C.O.M. Use in Conc. Base R.R. Signal W. Side Greenwich ± 1/2 Mile S. of 21st St. N.

City Datum: 183.19
MSL: 1370.59

BM 1: Chiseled "d" Conc. base Traffic Signal at S.W. Corner 21st. H. and Greenwich

City: 176.16
MSL: 1362.56

BM 2: Chiseled "d" on headwall N.E. Corner RCBC under 21st. N. 750'± N. of Greenwich

City: 175.05
MSL: 1362.45

BM 3: R.R. Spike in 18' Locust tree, E. end row on N. Side 21st N. 1350'± W. of Greenwich

City: 180.14
MSL: 1367.54

BM 4: W. end Bolt in Power Pole 1'± above ground at Private Dr. 2400 N. Greenwich on E. side of Rd.

City: 183.80
MSL: 1371.20

BM 5: Chiseled "d" on W. wing wall at W. end of S. headwall RCBC under Bike Path just S. of K-96 E.B. Ramp to Greenwich 400'± from Greenwich

City: 179.87
MSL: 1367.27

BM 6: Chiseled "d" on S.E. Cor. RCBC under Bike Path just S. of K-96, near N.W. Cor. Property

City: 182.975
MSL: 1370.375

BM 7: Cut "+" on N. rim S.S. Manhole near N.W. Cor. Lot 10.

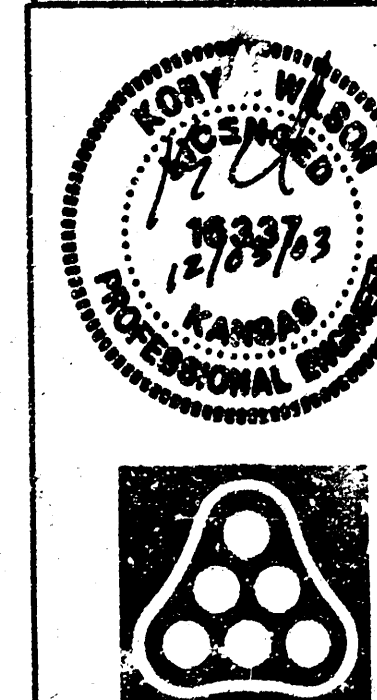
City: 182.06
MSL: 1368.46

FOR PLAT COORDINATES
SEE SHEET NO. SU2.10

TARGET

Site Development Manager: _____
Project Architect: _____
Project Engineer (M): _____
Project Engineer (E): _____
Project Engineer (S): _____

Approved only for conformance of the site construction documents to Target Developer Guide, Edition 2.3 and the Target building documents. Consultant is solely responsible for completeness, accuracy, and dimensions on the site construction documents.

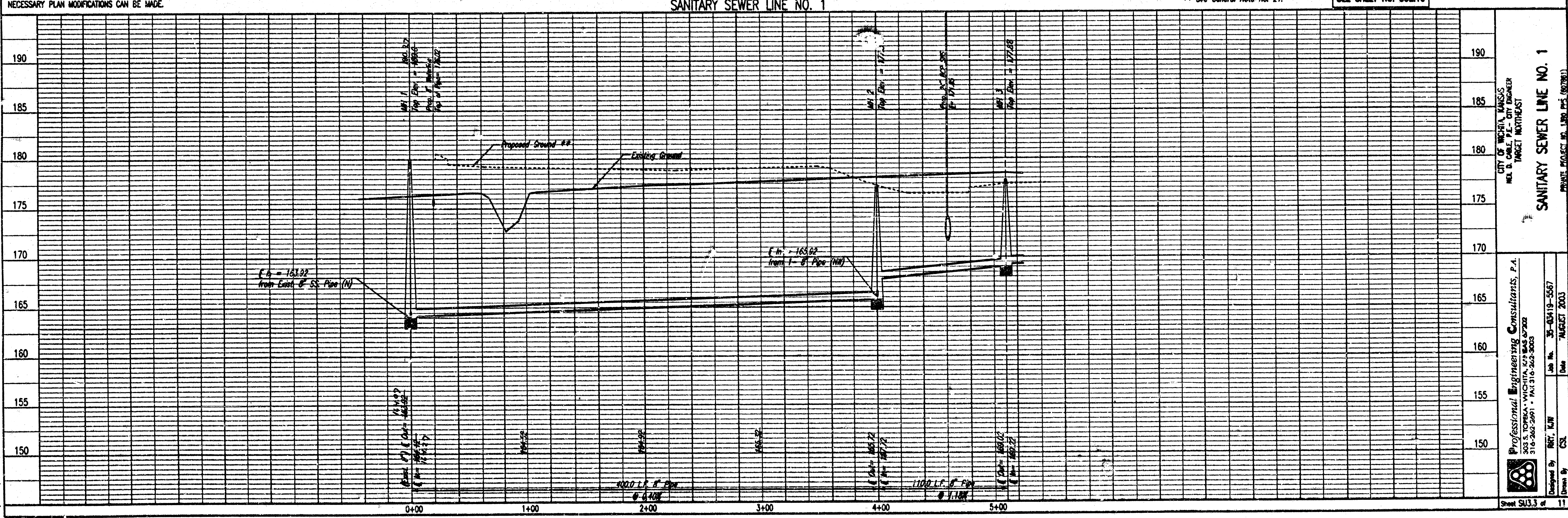
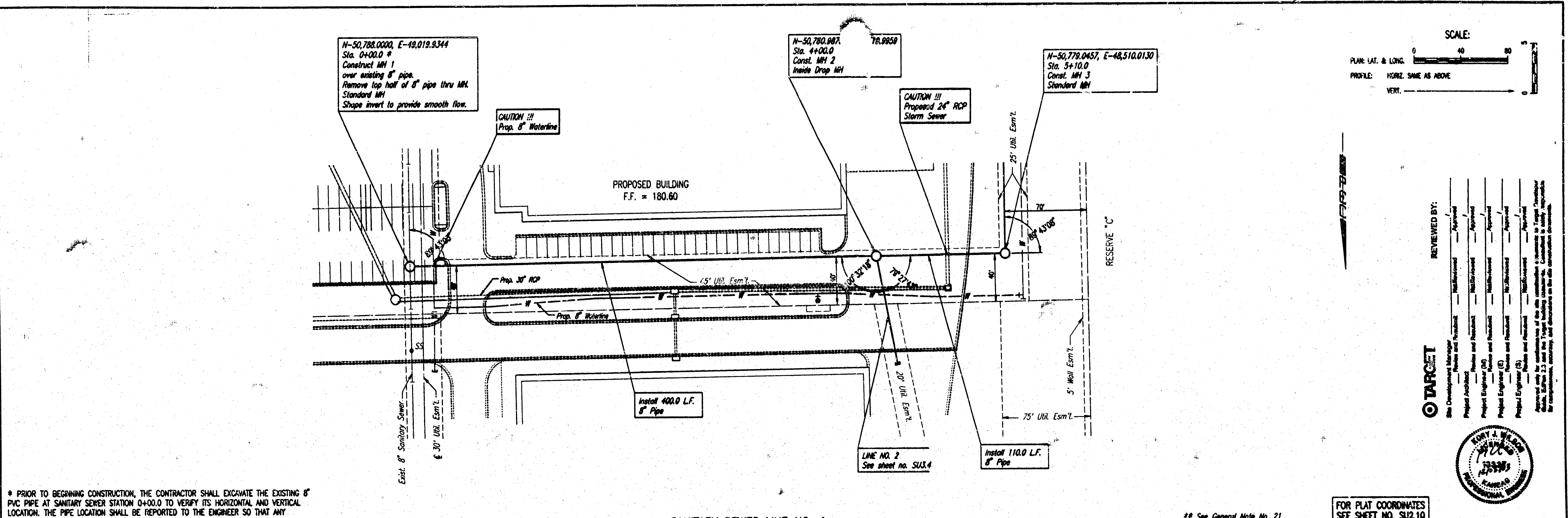


City of WICHITA, KANSAS R. J. W., P.E. - CITY ENGINEER TARGET NORTHEAST	
KEY MAP AND GENERAL NOTES	
PRIVATE PROJECT NO. 1390 PPS (02/881)	
Professional Engineering Consultants, P.A.	
303 S. 1st, KANSAS CITY, KANSAS 64108 316-262-2691 • FAX 316-262-3003	
Designed by: RRY, KJM	Job No. 35-03419-3567
Drawn by: CSJ	Date: AUGUST 2003
SHEET SU3.2 of 11	

PLAN	CHECKED	DATE

PROFILE	CHECKED	DATE

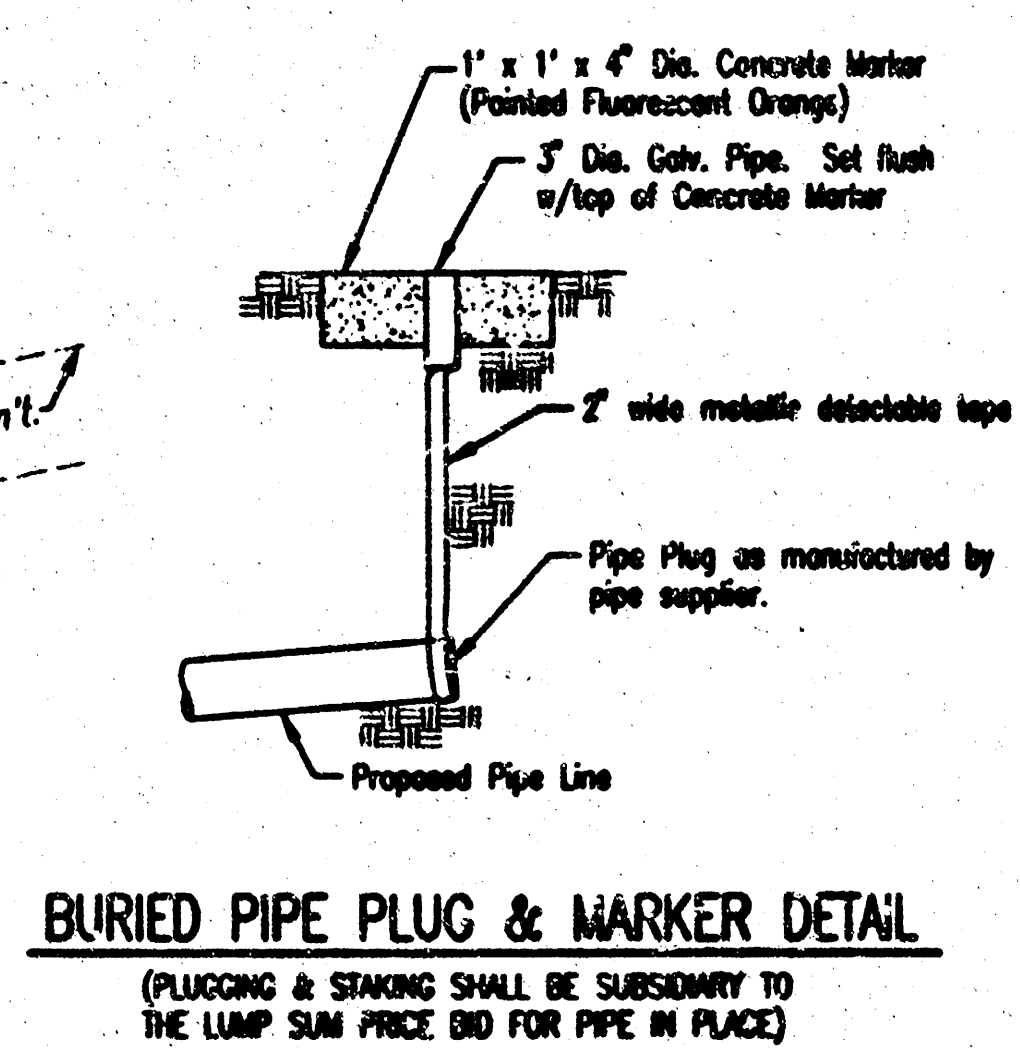
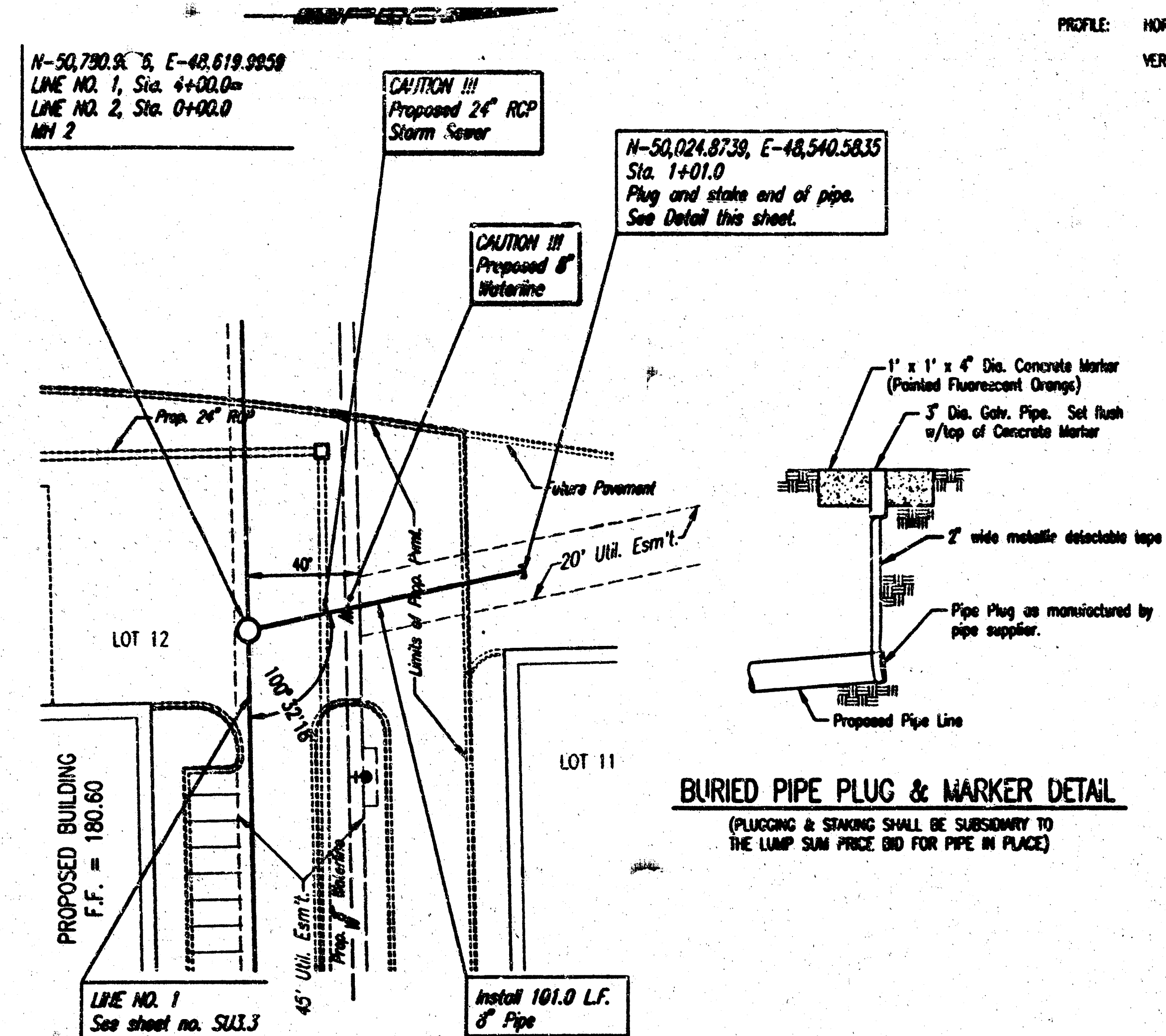
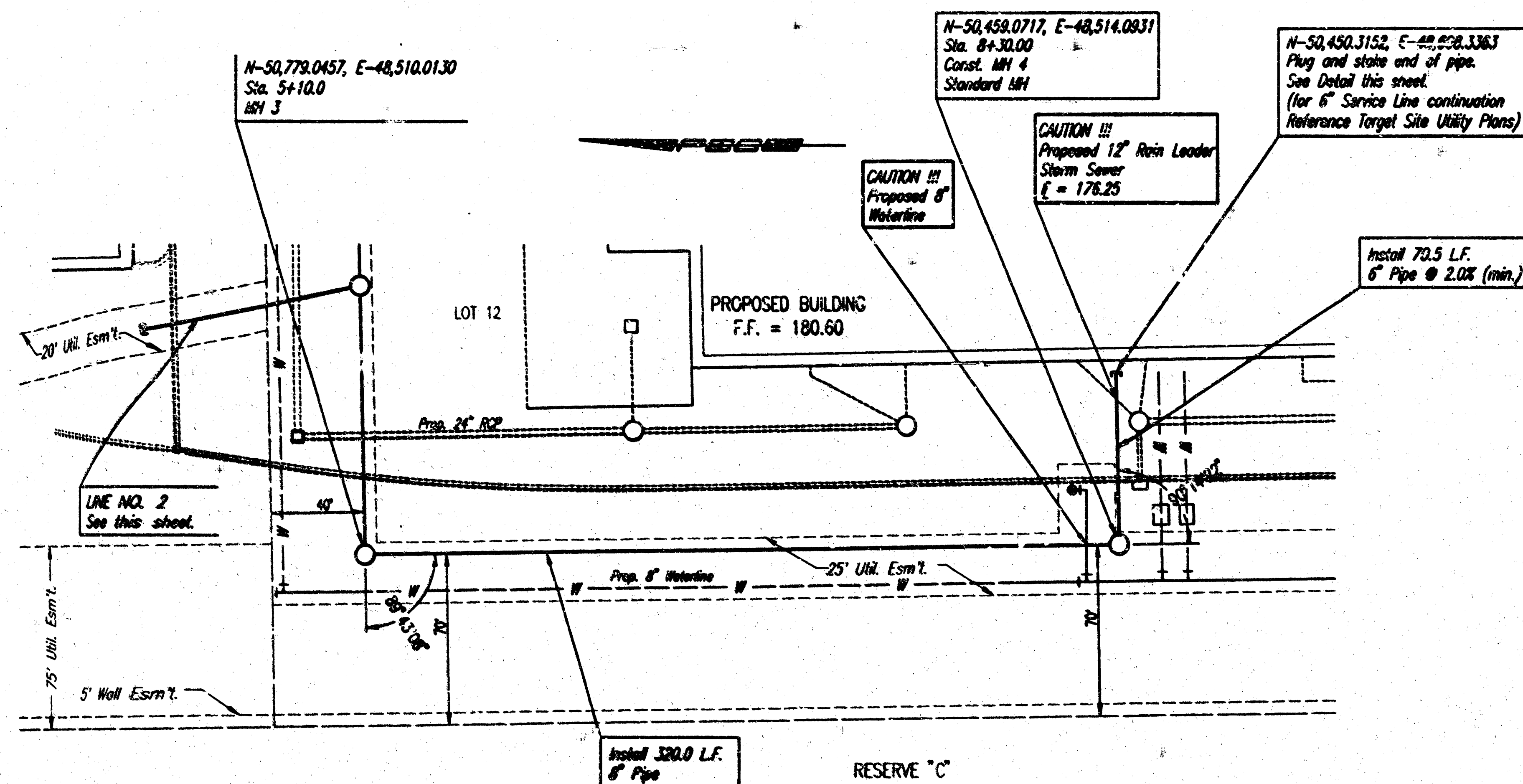
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PLAN	CHECKED	DATE

PROFILE	CHECKED	DATE

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 01/2003/03/13/PPSS/SSP02 12-02-2003 11:34:04 am



REVIEWED BY:	
Site Development Manager	Approved
Project Architect	Approved
Project Engineer (ME)	Approved
Project Engineer (E)	Approved
Project Engineer (S)	Approved
Project Engineer (C)	Approved

Noted only for compliance of the site conditions: Surveyors to Target Developer, Station 1.1 and the Target Building documents. Consultant is solely responsible for compliance, liability, and consequences on 01/2003.

TARGET

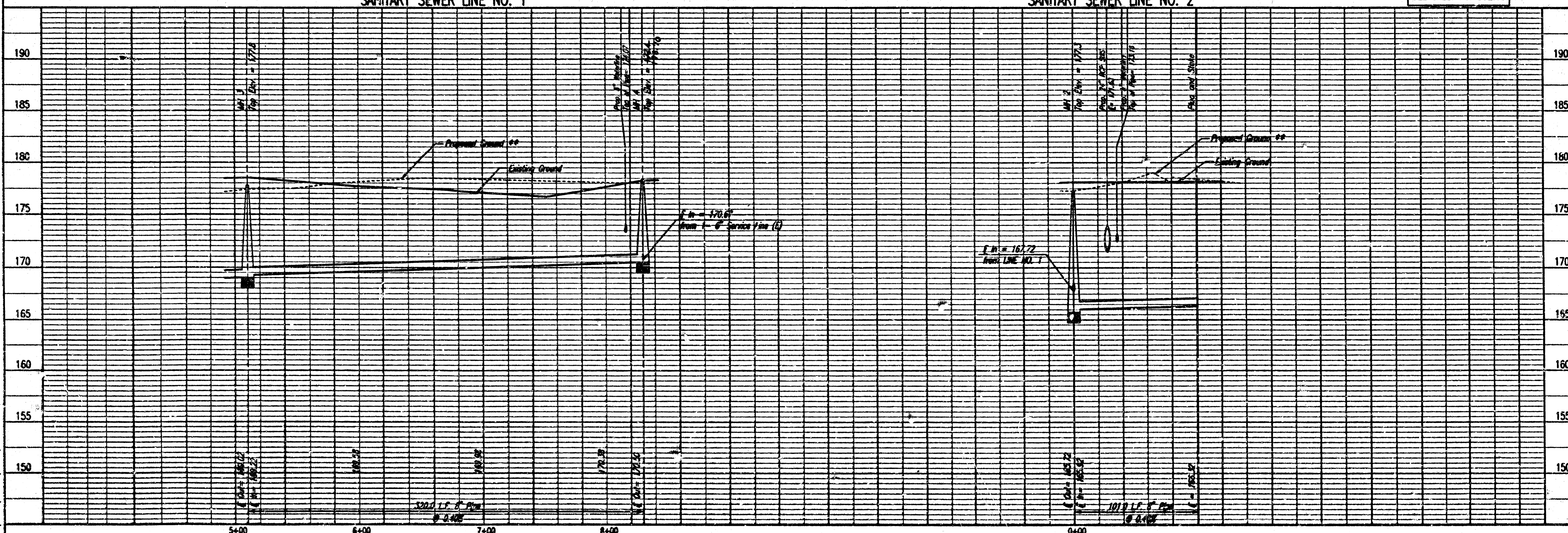
Professional Engineer
 State of Kansas
 License No. 12345

SANITARY SEWER LINE NO. 1

SANITARY SEWER LINE NO. 2

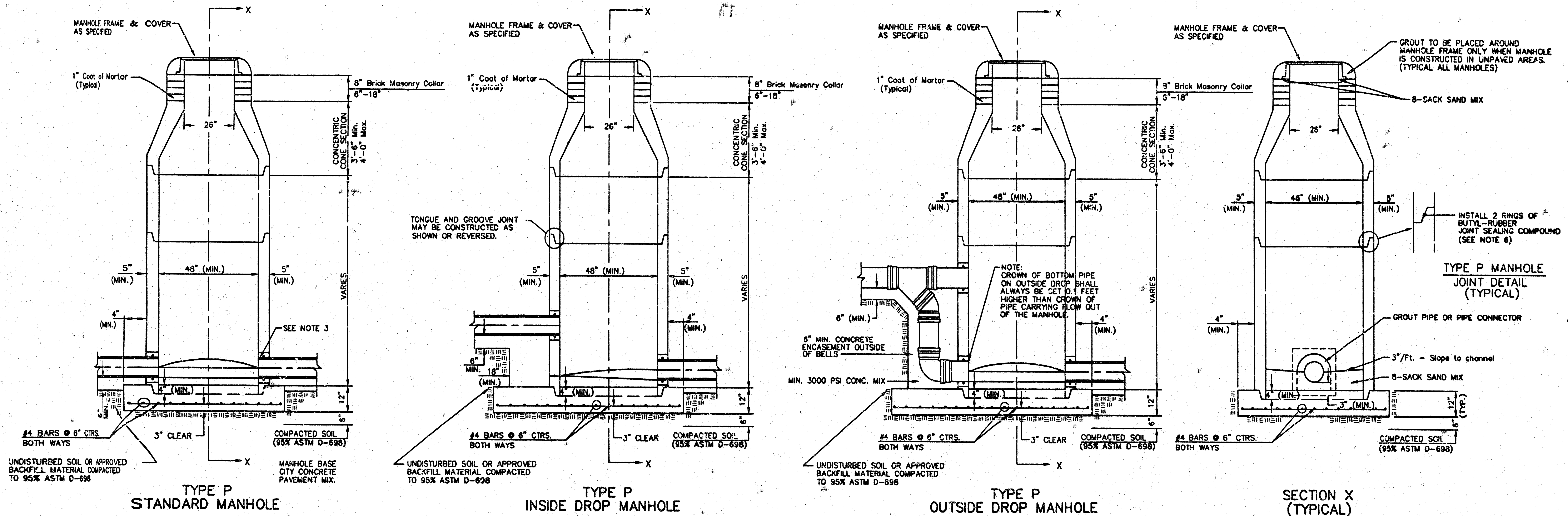
** See General Note No. 21.

FOR PLAT COORDINATES
 SEE SHEET NO. SU2.10



CITY OF WICHITA, KANSAS MEL B. CABLE P.E., CITY ENGINEER TARGET NORTHWEST	
Professional Engineering Consultants, P.A. 303 S. TORREY WICHITA, KANSAS 67202 316-265-5891 • FAX 316-265-5892	
Designed by: RRY, K.W.	Drawn by: CS
Job No. 39-03419-55/7	Date: AUGUST 2003
Sheet SU2.4 of 11	

SEWER APPURTENANCES DETAILS



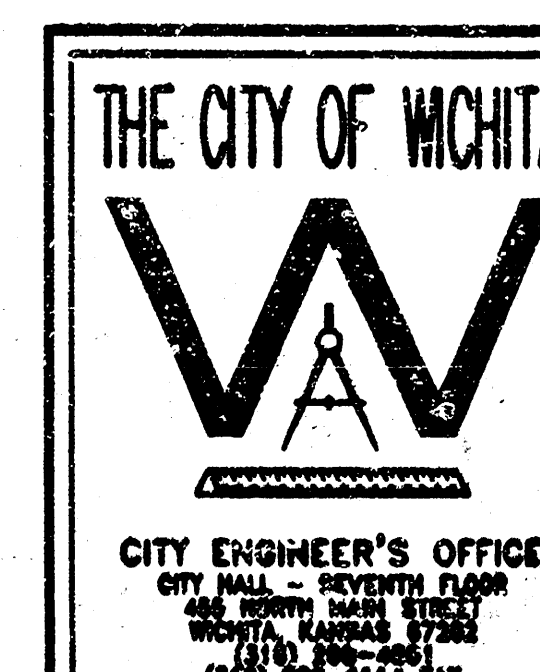
GENERAL NOTES PRECAST MANHOLE NOTES

- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
- NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
- APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
- ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS THEMEX SERIES 68 H-BUILD EPOXYLINE, DRY THICKNESS OF 8 MILS (MIN.)
- EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
- JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
- TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
- LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING AGENT. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF-CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
- PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
- THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 2' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
- STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
- A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.

● TARGET

Site Development Manager	Reviewed and Resubmit	Not Reviewed	Approved
Project Architect	Reviewed and Resubmit	Not Reviewed	Approved
Project Engineer (M)	Reviewed and Resubmit	Not Reviewed	Approved
Project Engineer (E)	Reviewed and Resubmit	Not Reviewed	Approved
Project Engineer (S)	Reviewed and Resubmit	Not Reviewed	Approved

Approved only for conformance of the site construction documents to Target Developer Guide, Edition 2.3 and the Target building department. Consultant is solely responsible for completeness, accuracy, and dimensions on the site construction documents.



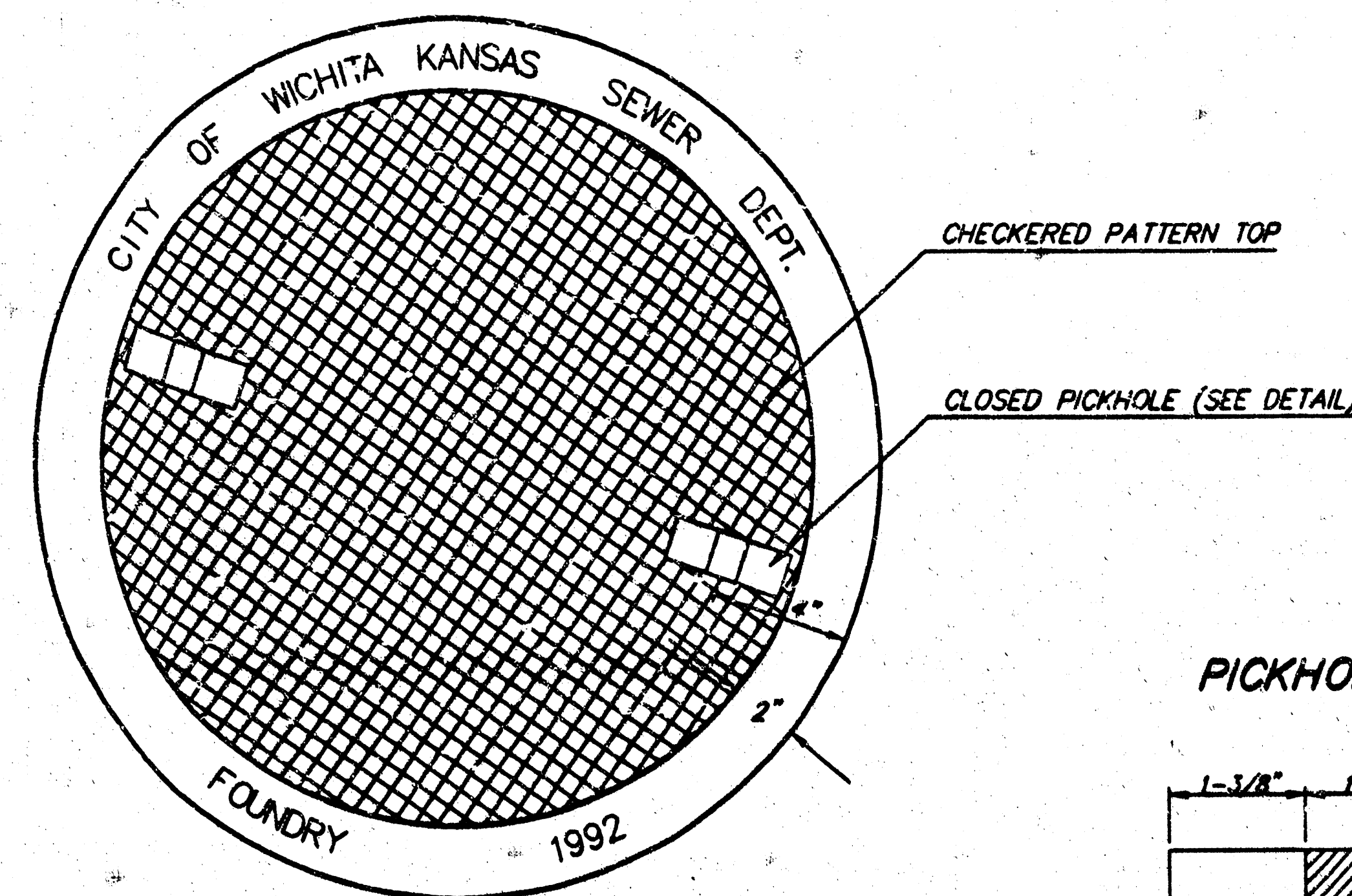
**STANDARD
TYPE 'P'
MANHOLES**

NEIL D. CABLE, P.E. - CITY ENGINEER

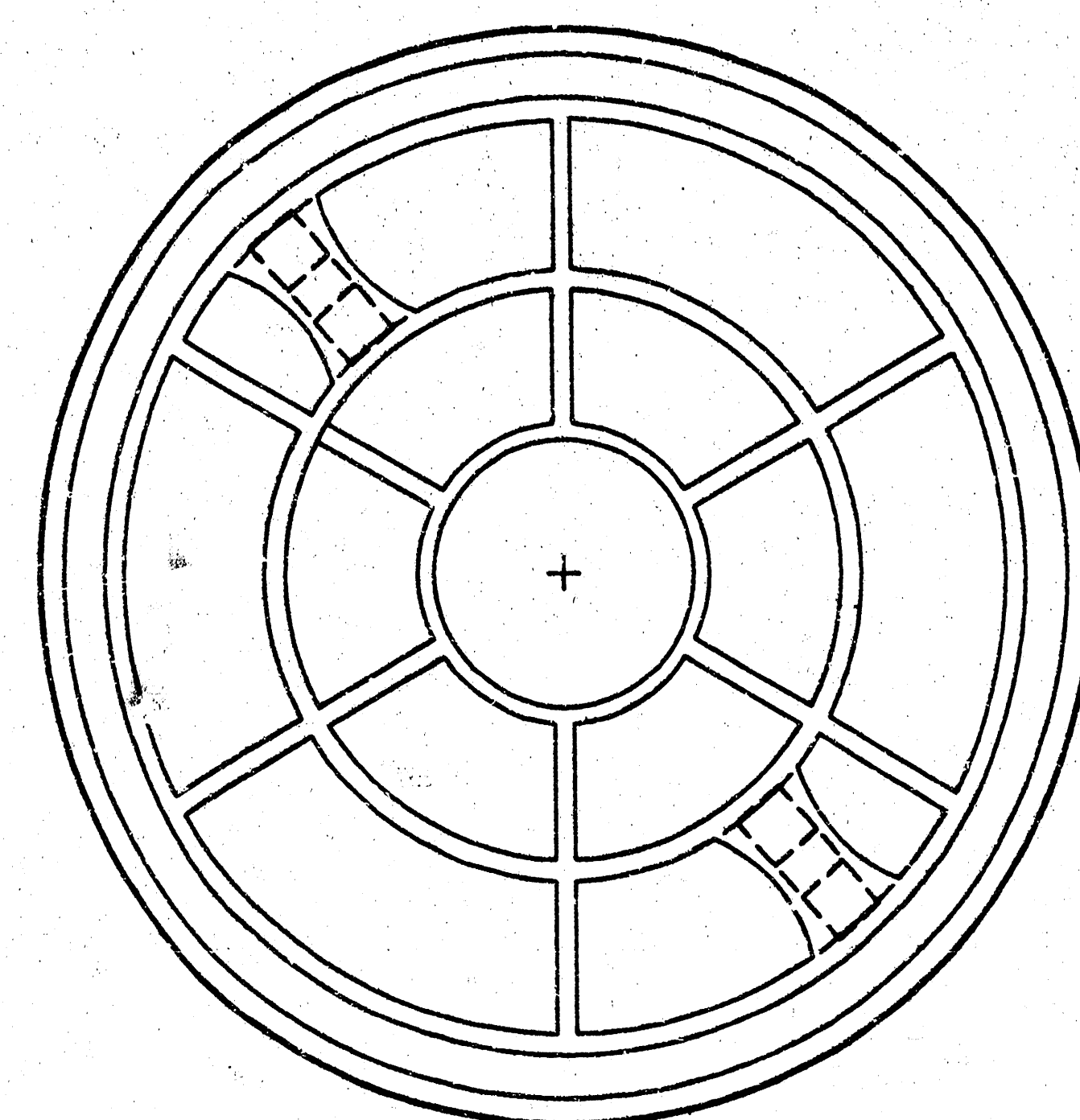
PROJECT NUMBER 1380 PPS DCA NO. (607861)

DATE MAR 96 SHEET SU3.5 OF 11

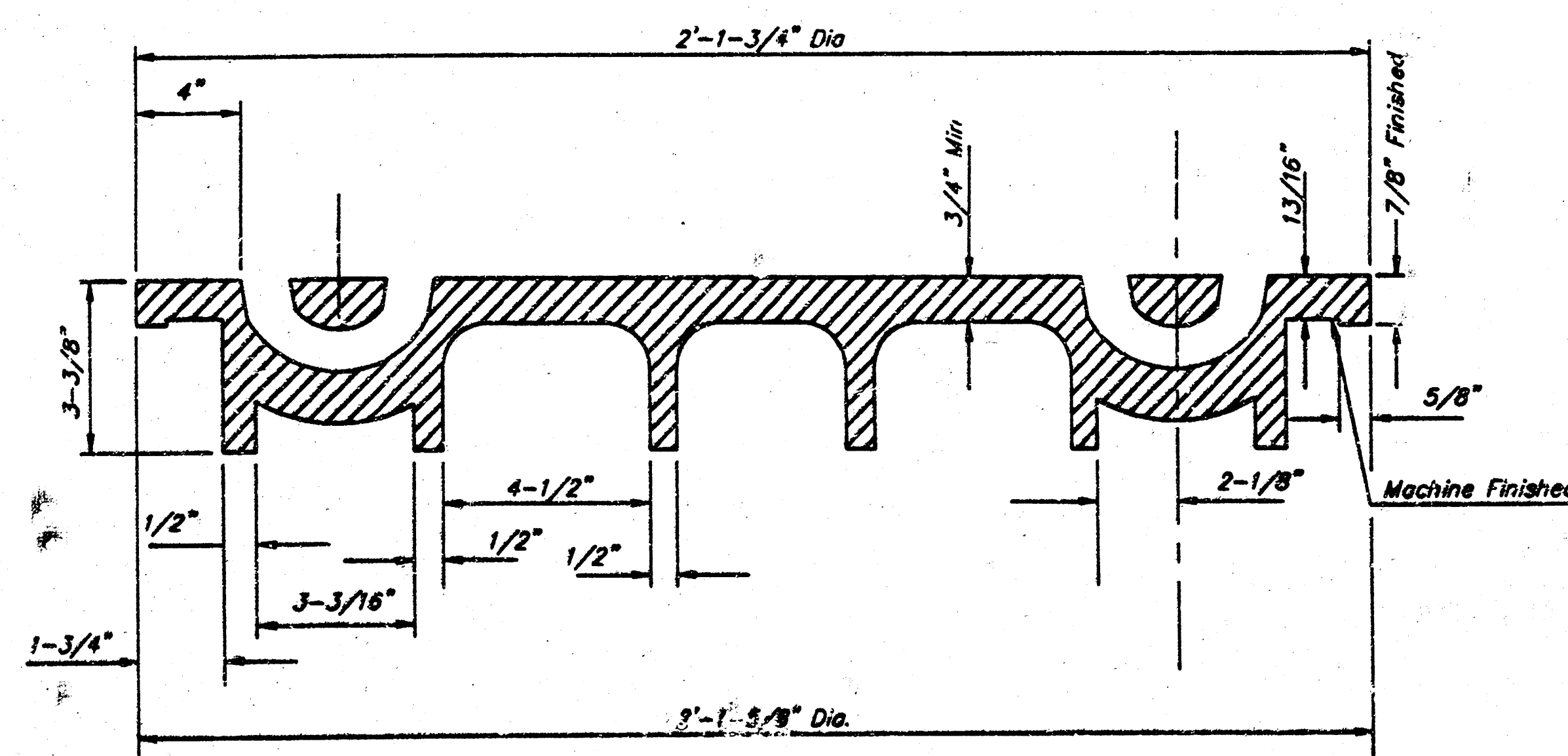
MANHOLE COVER
Weight = 180 Lbs.



TOP VIEW

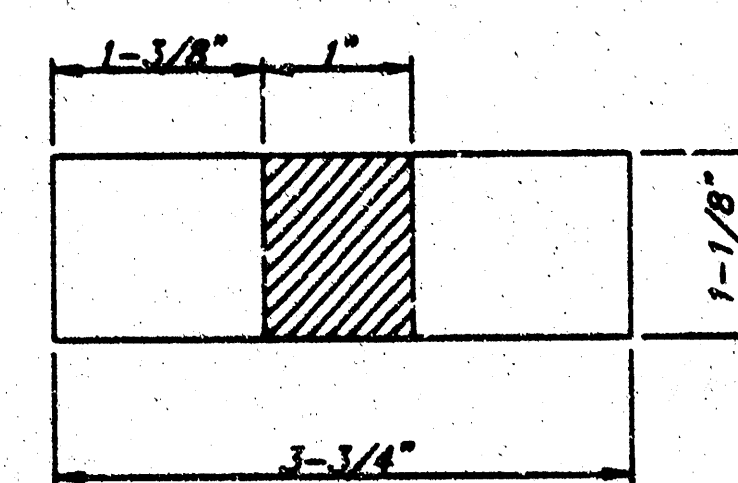


BOTTOM VIEW

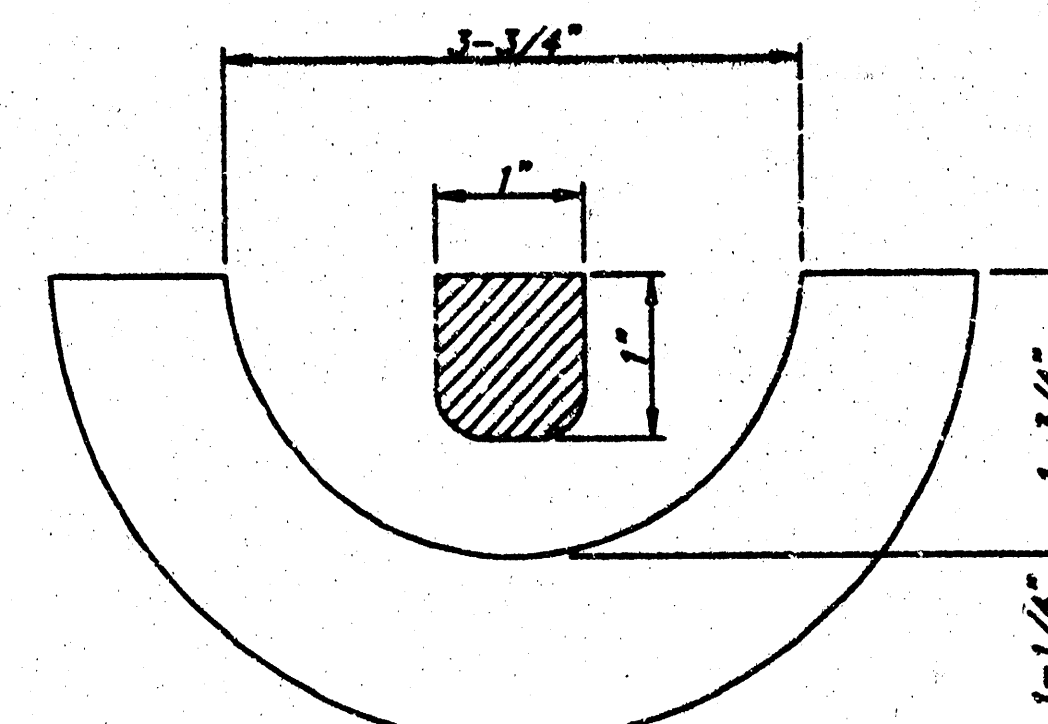


SECTION VIEW

PICKHOLE DETAIL



TOP VIEW

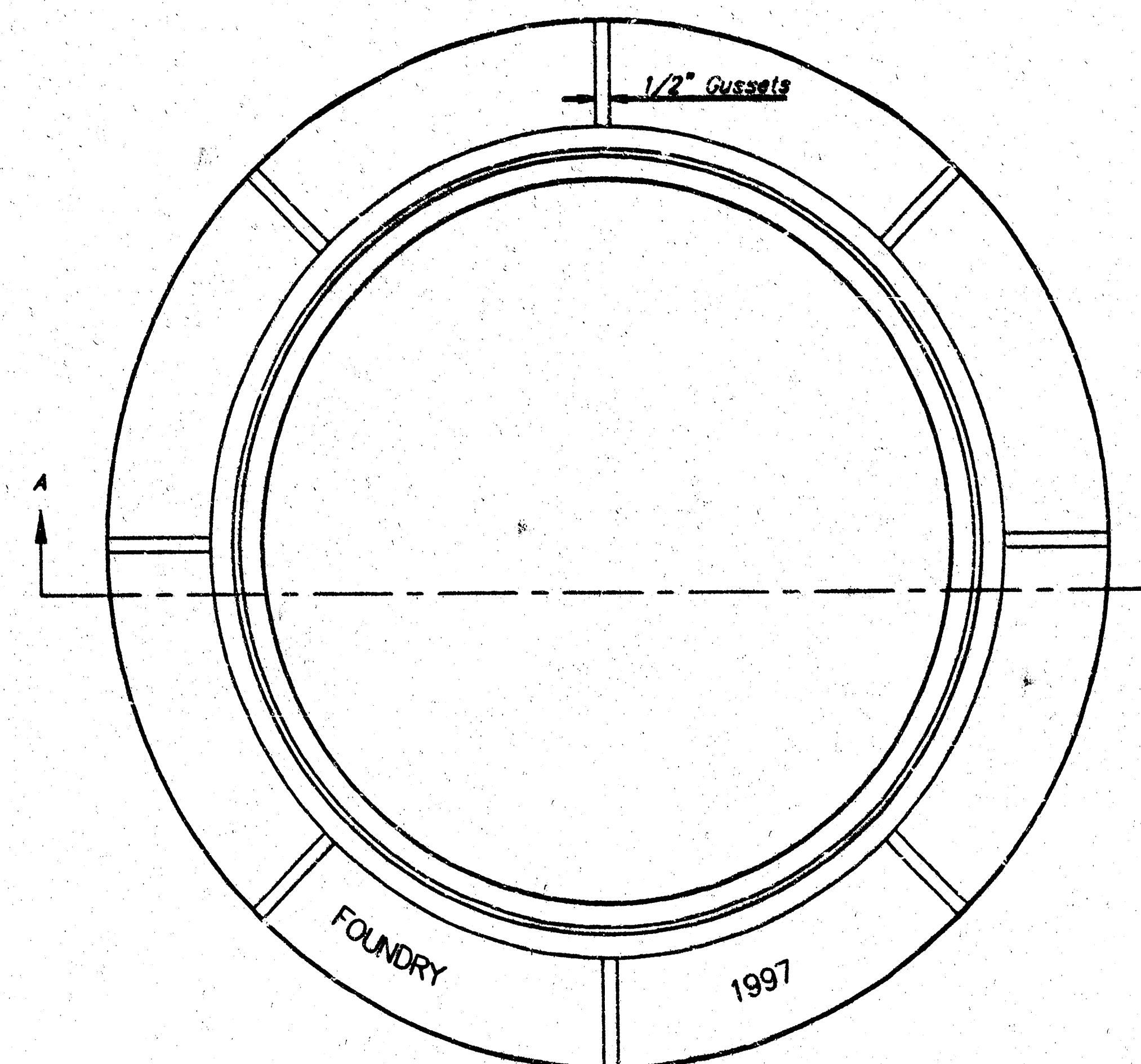


SECTION VIEW

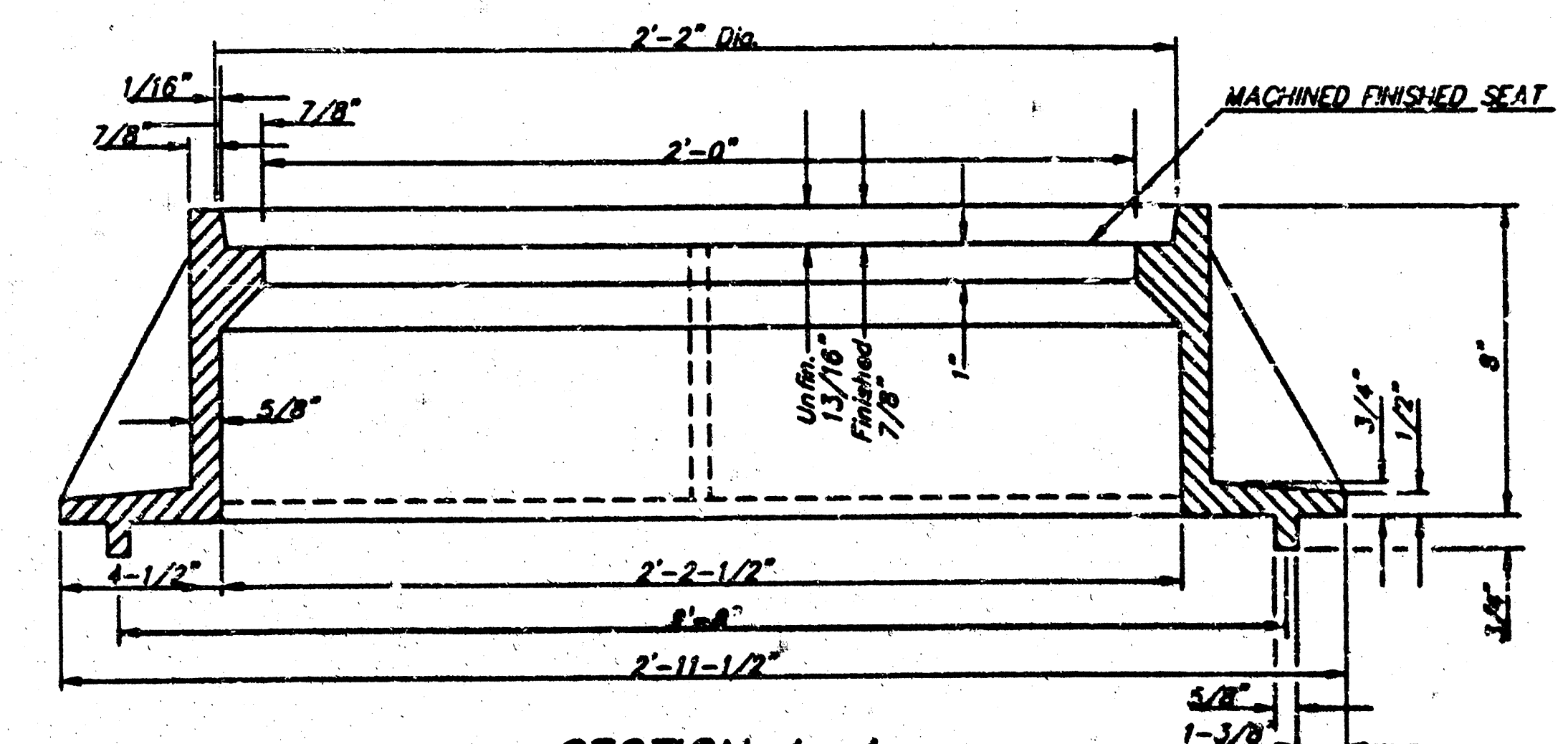
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

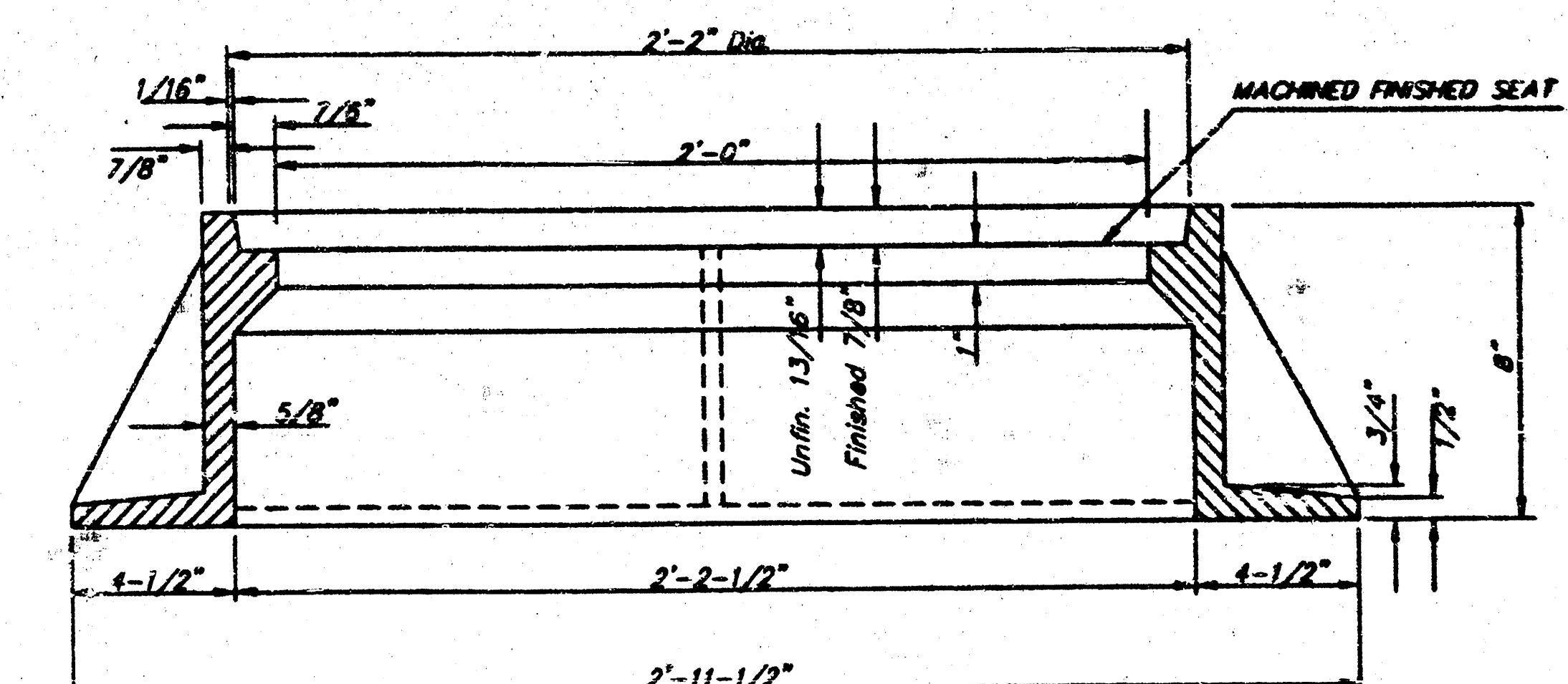
MANHOLE FRAME
Weight = 240 Lbs.



TOP VIEW



SECTION A-A
MUD RING



SECTION A-A

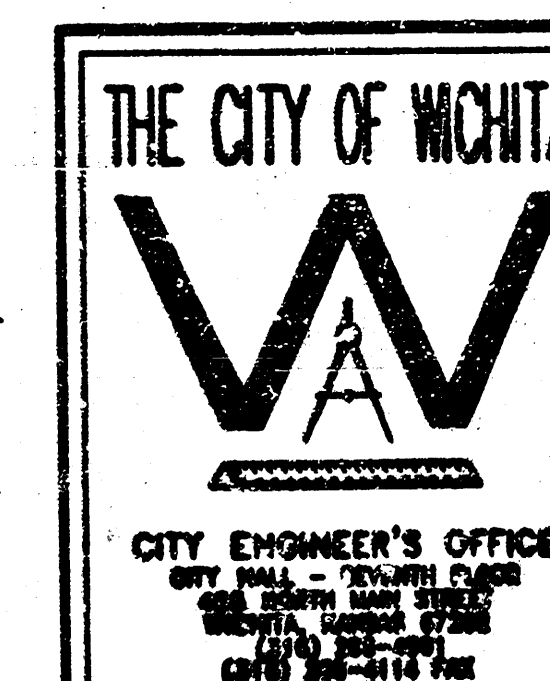
GENERAL NOTES

- MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.
- MANHOLE CASTINGS SHALL WEIGH A MINIMUM OF 180 POUNDS ON THE SOLID COVER AND 240 POUNDS ON THE MANHOLE RING. THIS IS A TOTAL OF 420 POUNDS ON A RING AND COVER SET. CASTINGS WEIGHING LESS THAN THE MINIMUM SPECIFICATIONS WILL NOT BE ACCEPTED.
- MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.
- THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SEATING SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.
- THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH SURFACE BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

TARGET

Site Development Manager	Reviewed and Rechecked	Not Reviewed	Approved
Project Architect	Reviewed and Rechecked	Not Reviewed	Approved
Project Engineer (M)	Reviewed and Rechecked	Not Reviewed	Approved
Project Engineer (E)	Reviewed and Rechecked	Not Reviewed	Approved
Project Engineer (S)	Reviewed and Rechecked	Not Reviewed	Approved

Approved only for construction of this site construction documents to Target Developer. Code, Section 1.3 and the Target Building Documents. Control and safety compliance for construction, accuracy, and dimensions on the site construction documents.



MANHOLE FRAME AND COVER

NEIL D. CABLE, P.E. - CITY ENGINEER

PROJECT NUMBER 1390 PPS

DATE MAR 98

SHEET SU3.6 OF 11

REGENCY LAKES COMMERCIAL 2ND ADDITION AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

N.W. COR. SE. 1/4
SEC. 4, T27S, R2E

COORDINATE LIST		
POINT	NORTH	EAST
1	50,850.4762	49,454.3154
2	50,332.9319	48,448.4588
3	50,817.8667	48,438.4485
4	51,054.8374	48,438.4369
5	51,057.0504	48,561.4074
6	50,535.4212	48,444.3064

① = COORDINATE POINT NO.

SCALE: 1"=100'

- FOUND (S) B/W W/NEED CAP (UNLESS OTHERWISE NOTED)
- SET 1/2" REBAR W/ PEC CAP (UNLESS OTHERWISE NOTED)

REMARKS:

C.O.M. Disc in Conc. Base R.R. Signal W. Side Greenitch
± 1/2 mile S. of 21st St. N. City Datum: 143.18
N.E.V.I.: 1370.29

BM 1: Chisled "f" Conc. base Traffic Signal at S.E.
Corner 21st. N. and Greenitch
City Datum: 178.18
N.E.V.I.: 1363.58

BM 2: Chisled "f" Conc. base Traffic Signal at S.E.
Corner 21st. N. 75th St. of Greenitch
City Datum: 175.05
N.E.V.I.: 1352.45

BM 3: R.R. Spike in 10' Locust tree, E. and
row on N. Side 21st N. 130th St. of
Greenitch
City Datum: 180.14
N.E.V.I.: 1367.34

BM 4: W. and Bolt in Power Pole 12' above
ground at Private Dr. 2450 N. Greenitch
on E. side of Rd.
City Datum: 189.80
N.E.V.I.: 1371.29

BM 5: Chisled "f" on W. wing wall of E. end of
S. footwall R.C.C. under the Path just S.
of K-96 E.B. Ramp to Greenitch 4002' from
Greenitch.
City Datum: 179.97
N.E.V.I.: 1367.27

BM 6: Chisled "f" on S.E. Cor. 10' from site
just S. of K-96, near N.E. Cor. Property
City Datum: 182.875
N.E.V.I.: 1380.325

REVIEWED BY:	
City Engineer	City Engineer
City Engineer	City Engineer
City Engineer	City Engineer
City Engineer	City Engineer
City Engineer	City Engineer
City Engineer	City Engineer
City Engineer	City Engineer
City Engineer	City Engineer
City Engineer	City Engineer
City Engineer	City Engineer

TARGET

CITY OF WICHITA, KANSAS
NEIL D. CARL, P.E. - CITY ENGINEER
TARGET NORTHEAST

PLAT

PRIVATE PROJECT NO. 1390 PPS (607861)

Professional Engineering Consultants, P.A.

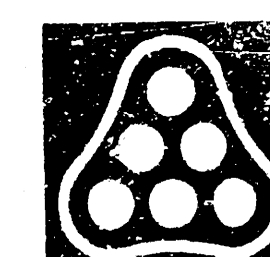
303 S. TOPERA - WICHITA, KANSAS 67202

316-262-2091 - FAX 316-262-3009

Designed by: RY, K/W Job No. 35-03418-5567

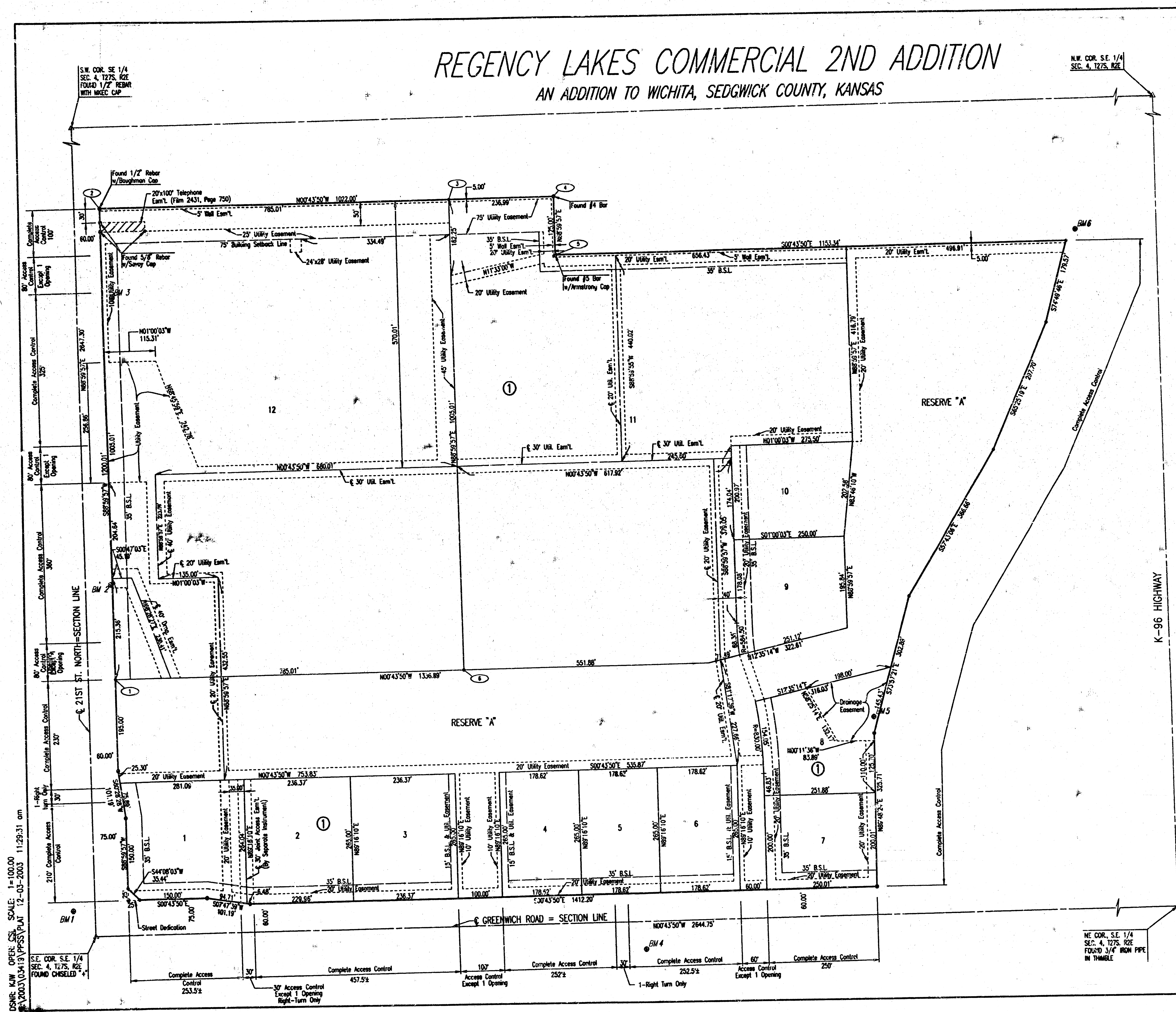
Drawn by: Date: AUGUST 2003

Sh. SU2.10 of 11



NE COR. SE. 1/4
SEC. 4, T27S, R2E
FOUNDED 3/4" IRON PFC
IN TRIMBLE

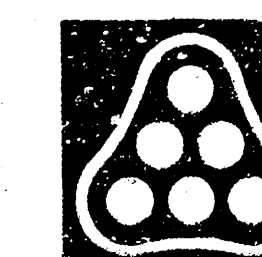
K-96 HIGHWAY



DSMR: K/W OPER. C/S. SCALE: 1"=100.00
12-03-2003 11:29:31 am
2003/03/14/PPSS/PLAT 12-03-2003 11:29:31 am

Site Development Manager	Review and Resubmit	Not Reviewed	Approved
Project Architect	Review and Resubmit	Not Reviewed	Approved
Project Engineer (M)	Review and Resubmit	Not Reviewed	Approved
Project Engineer (S)	Review and Resubmit	Not Reviewed	Approved
Project Engineer (S)	Review and Resubmit	Not Reviewed	Approved

Approved only for conformance of the site construction documents to Target Development Guide, Edition 2.3 and the Target building documents. Consultant is solely responsible for completeness, accuracy, and dimensions on the site construction documents.



No.	Revision			Date
CITY OF WICHITA, KANSAS NEIL D. CABLE, P.E. - CITY ENGINEER TARGET NORTHEAST SOIL EROSION BMPs COMMERCIAL DEVELOPMENT SITES PRIVATE PROJECT NO. 1390 PPS. (6/7/88)				
Professional Engineering Consultants, P.A. 503 S. TOPERA • WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003				
Designed by	RRY, KJW	Job No.	35-03419-5567	see SG2.1 of #11
Drawn by		Date	AUGUST 2003	