

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, P.E., CITY ENGINEER

SANITARY SEWER IMPROVEMENTS

IN

CROWN CHASE APARTMENTS

PRIVATE PROJECT NO. 787PPS

INDEX CODE 607861

LEGAL DESCRIPTION

Lot 1, Block 1, & Reserve A, in Silver Springs, an addition to the City of Wichita, Sedgewick County, Kansas

GENERAL NOTES

- The Contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these Construction Drawings are based upon records of the various utility companies. This information is not to be relied upon as being exact or complete. It shall be the responsibility of the respective Contractor to notify ONE-CALL at (316) 687-2470, a minimum of 48 hours in advance of any excavation to request the exact field locations of the existing underground utilities. It shall be the responsibility of the respective Contractor to relocate all existing utilities which conflict with the proposed improvements as shown on the Construction Drawings.
- The Contractor must notify the following in case of an emergency:

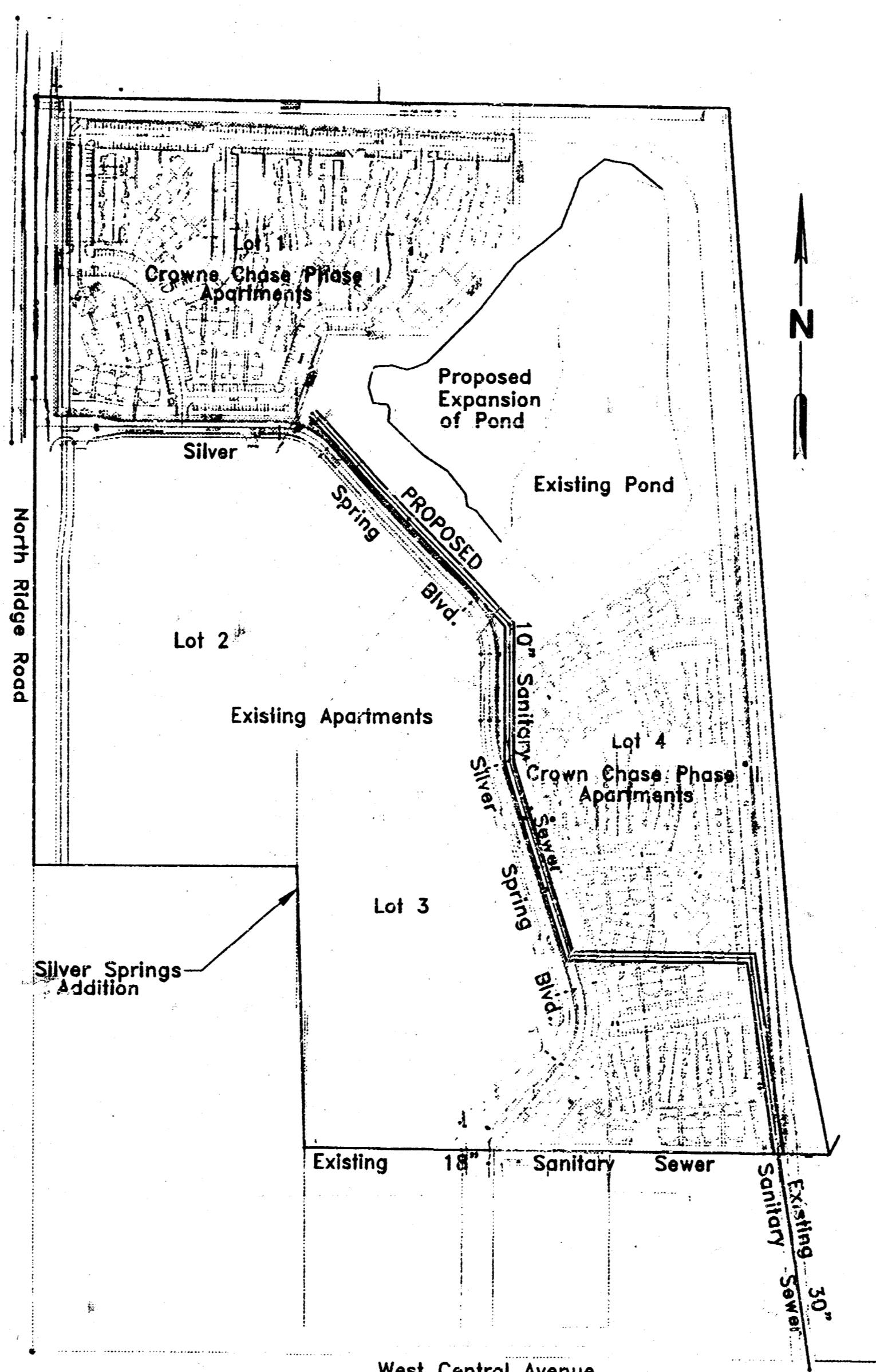
Cablevision	(316) 262-4270 or (316) 263-2061
KGE - Gas	(316) 263-7511
KGE - Electric	(316) 264-1141
People's Natural Gas	(316) 942-8350 or (316) 263-8161
Southwestern Bell Telephone Co.	1-(316) 571-2611
City of Wichita Water Department	(316) 268-4908
City of Wichita Sewer Maintenance	(316) 268-4071
- City of Wichita Benchmark:

Brass Cap in Northeast corner of Concrete Headwall
Approximately 675' North of Intersection of Silver Spring Blvd. and Ridge Road.

Elevation: 1317.54 (U.S.G.S. Datum)
130.14 (City of Wichita Datum)
- Preliminary Surveys: ROSS ENGINEERING, INC.
- Trench excavation and backfill shall be mechanically tamped and tested. Compaction requirements shall be in accordance with the Sitework Specifications.
- Cost of barricades, flashers and all items necessary for safe and efficient movement of traffic shall be considered subsidiary to the construction of the pavement and utilities.
- The Contractor shall use extreme caution in the area of existing trees which are to remain, existing manholes, power poles, fences, pavement and utilities, and shall be responsible for any damages.
- It will be the Contractor's responsibility to inform the Engineer of any control points including street centerline and lot corners that may be destroyed during construction so that these points may be offset. The cost of resetting points that have not been offset will be paid for by the Contractor. Requests for offsets must be made 48 hours in advance.

SCHEDULE OF APPROX. QUANTITIES		
DESCRIPTION	UNITS	QUANT.
10" PVC Sanitary Sewer Pipe, SDR 35	LF	2182
Standard Sanitary Sewer Manhole, Type 'P'	Ea	6
Standard Sanitary Sewer Manhole, Type 'P'	VF	71
8" Sanitary Sewer Service Pipe, Sch 40 PVC	LF	4
8" Plug	Ea	2
Concrete Encasement	LF	31

AS BUILT
Date: 3/25/98
Signed: [Signature]



LOCATION MAP

SHEET INDEX

	NO.
COVER SHEET	1 of 6
SANITARY PLAN AND PROFILE	2 of 6
SANITARY PLAN AND PROFILE	3 of 6
DETAIL SHEET	4 of 6
SILVER SPRINGS PLAT	5 of 6
GRADING PLAN	6 of 6

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Sanitary Sewers VRH 4/3/98

Storm Sewers _____

Driveways/Approaches _____

Water Mains _____

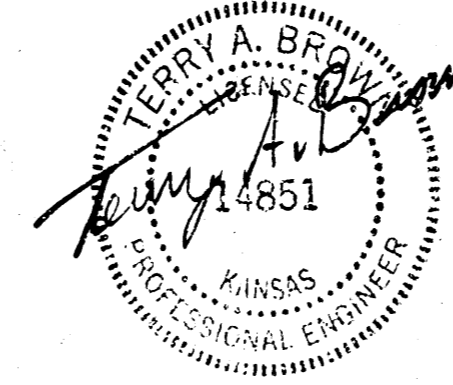
Paving _____

NOTE TO CONTRACTORS

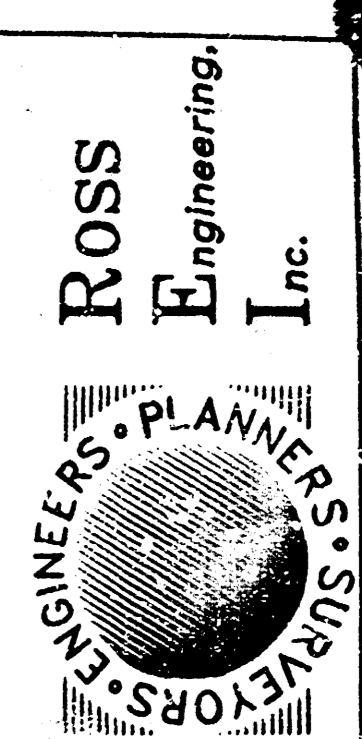
PUBLIC PROPERTY: Inspection and testing for the Waterline is to be provided by a Licensed Consulting Engineering Firm under contract with the records of the Owner/Developer. Said inspection to be in upon as accordance with the City of Wichita standard construction engineering practices and certified 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 without written authorization by the City Engineer. All construction and materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

ENGINEER'S CERTIFICATE

I hereby certify that these Construction Drawings were prepared by me or under my direct supervision and that I am a Registered Professional Engineer under the laws of the State of Kansas. These Construction Drawings meet the requirements of subdivision approval and the City Engineer's Office design requirements as they apply to construction at the time of this certificate.



Michael E. Lindebak 3/27/98
 Date

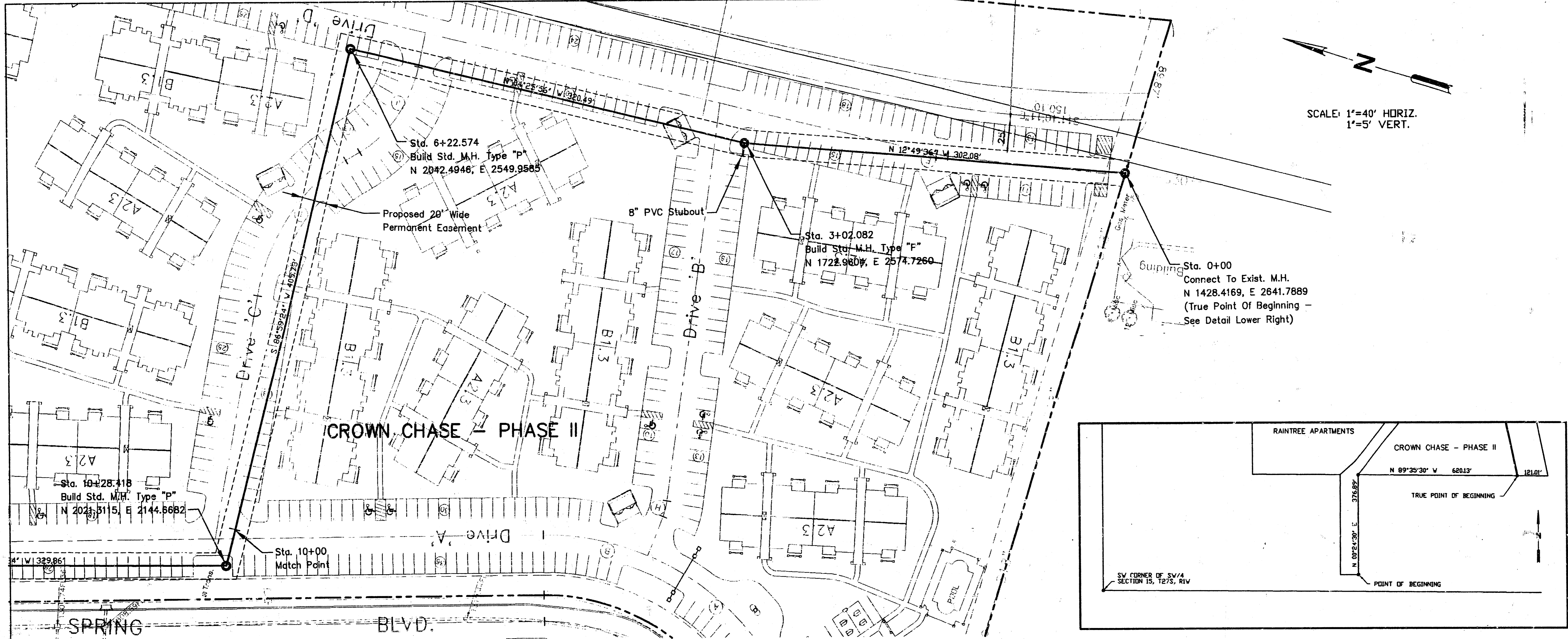


345 N. Street Suite 201 Lincoln, NE 68508 Phone 402-747-7077 FAX 402-747-7078	Rev. Date No. Revisions	Scale: NONE Drawn: RFO Checked: RFO Approved: TDB	Job: 98B-3D File: 98B03652 Date: 3/27/98 Plate: 3/27/98
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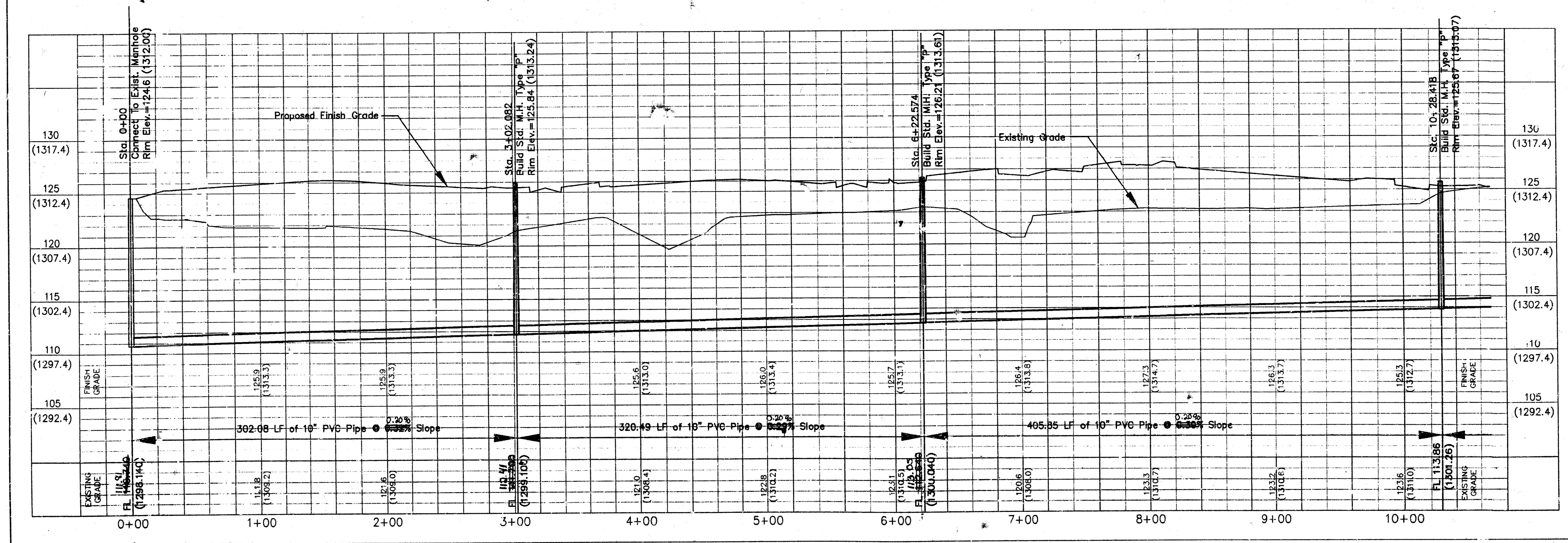
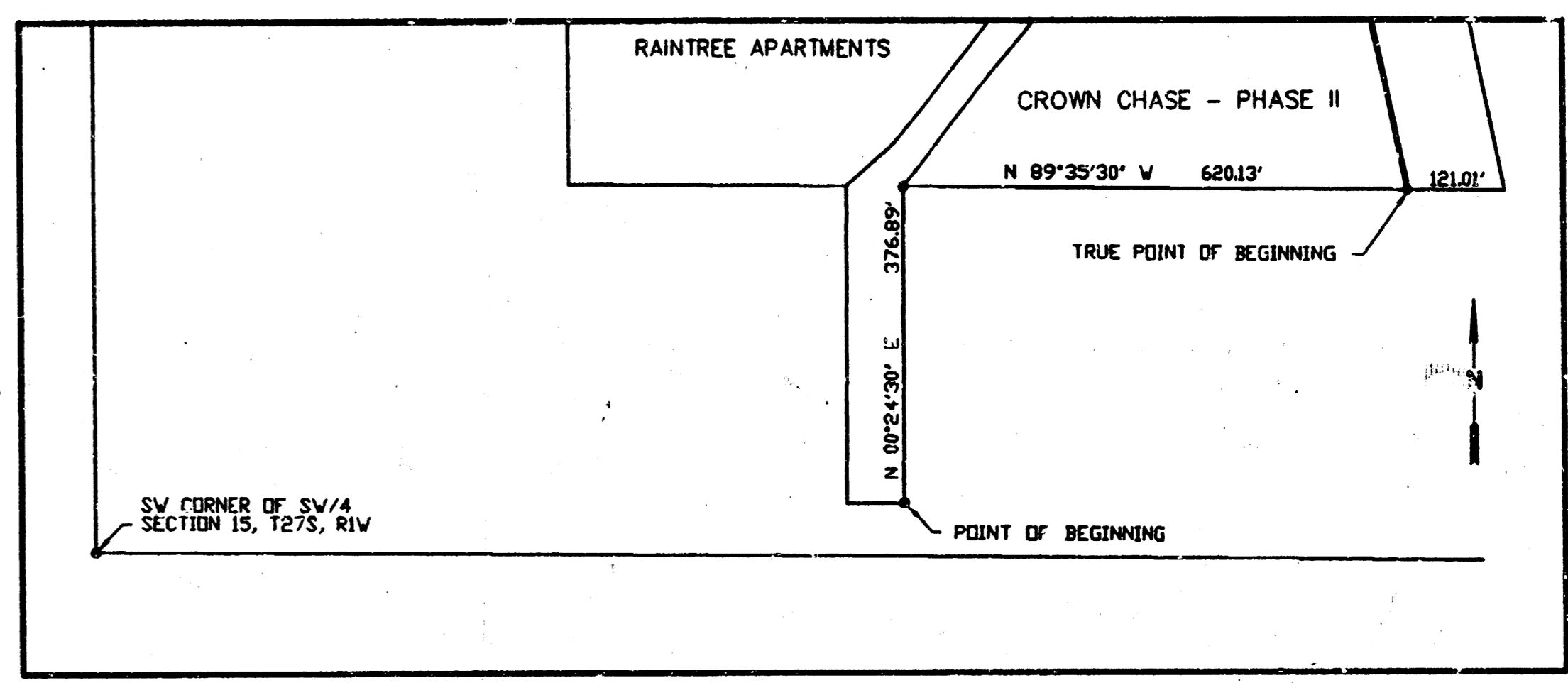
CROWN CHASE
 RIDGE ROAD & SILVER SPRING BOULEVARE
 WICHITA, KANSAS

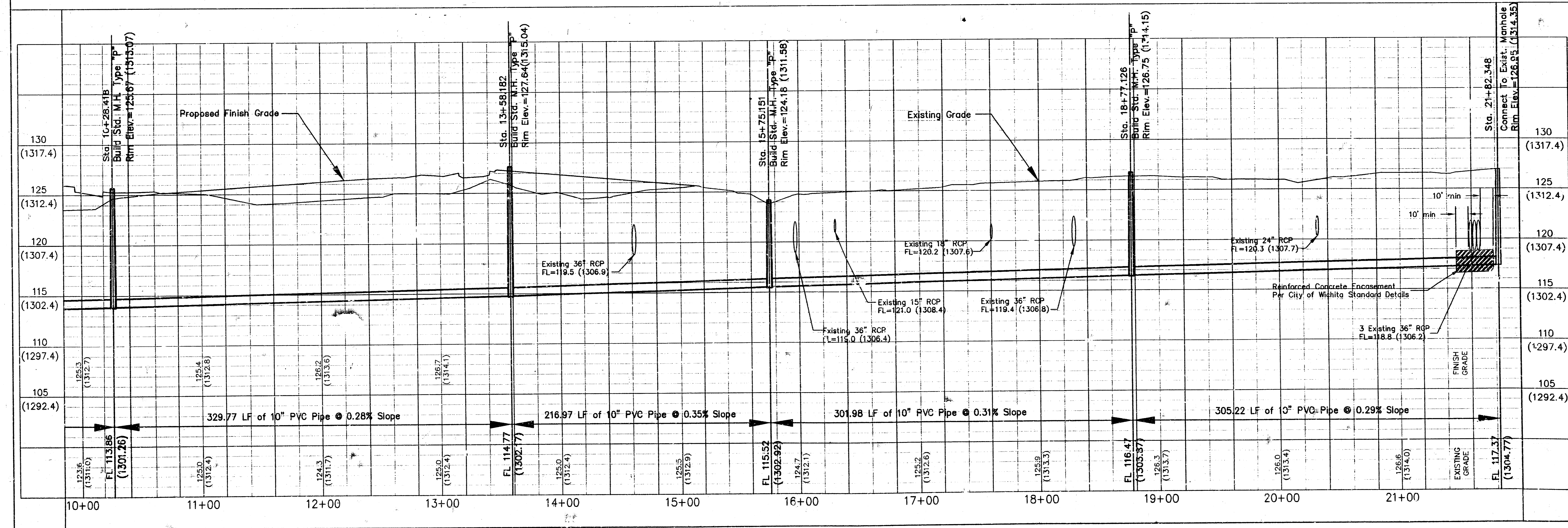
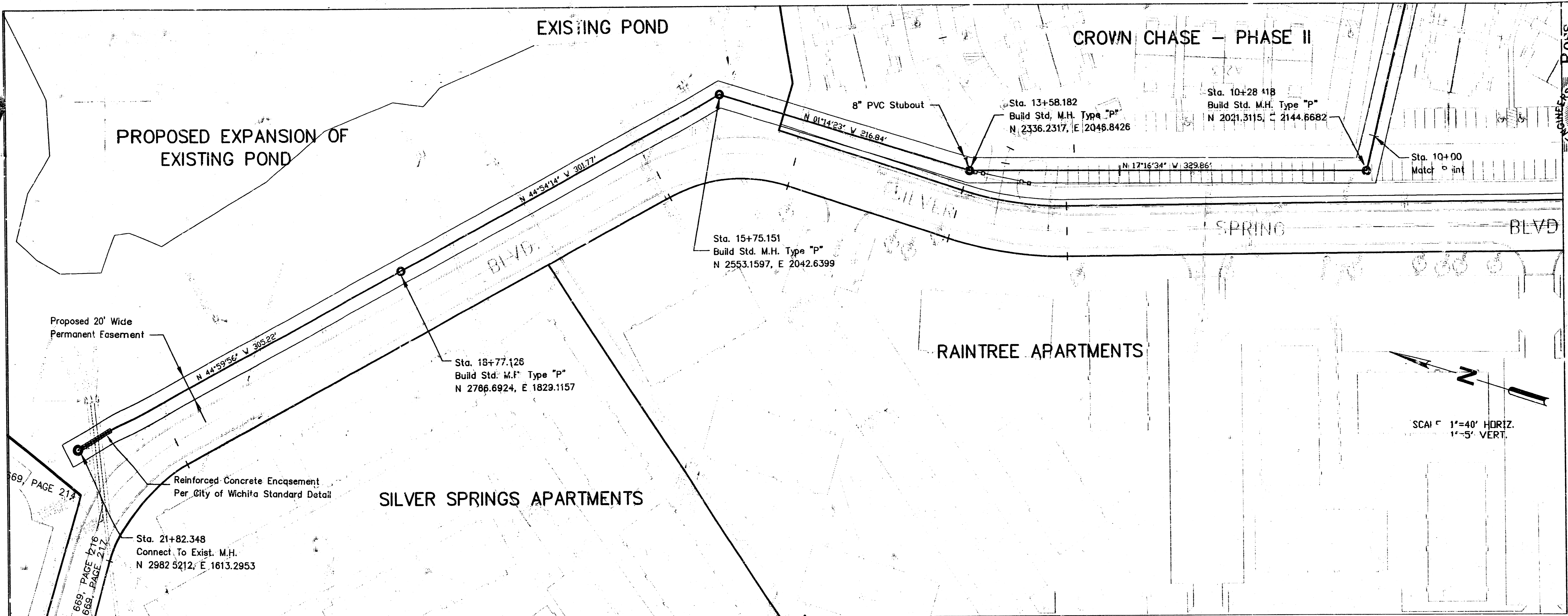
COVER SHEET

Sheet No.
 1
 OF
 6



SCALE: 1"=40' HORIZ.
1"=5' VERT.





69, PAGE 21A
 869, PAGE 1718
 869, PAGE 217

Scale 1"=40'
 Drawn GIN
 Checked RAO
 App. dated JAS

Scale 1"=40' HORIZ.
 1"=5' VERT.

ROSS Engineering, Inc.
 ENGINEERS, PLANNERS, SURVEYORS

445 N. Street
 Suite 201
 Lincoln, NE 68508
 Phone 402-474-7077
 Fax 402-474-7078

Job# 988-30
 File 98803PP1
 Date 12/16/97
 Date 3/27/98

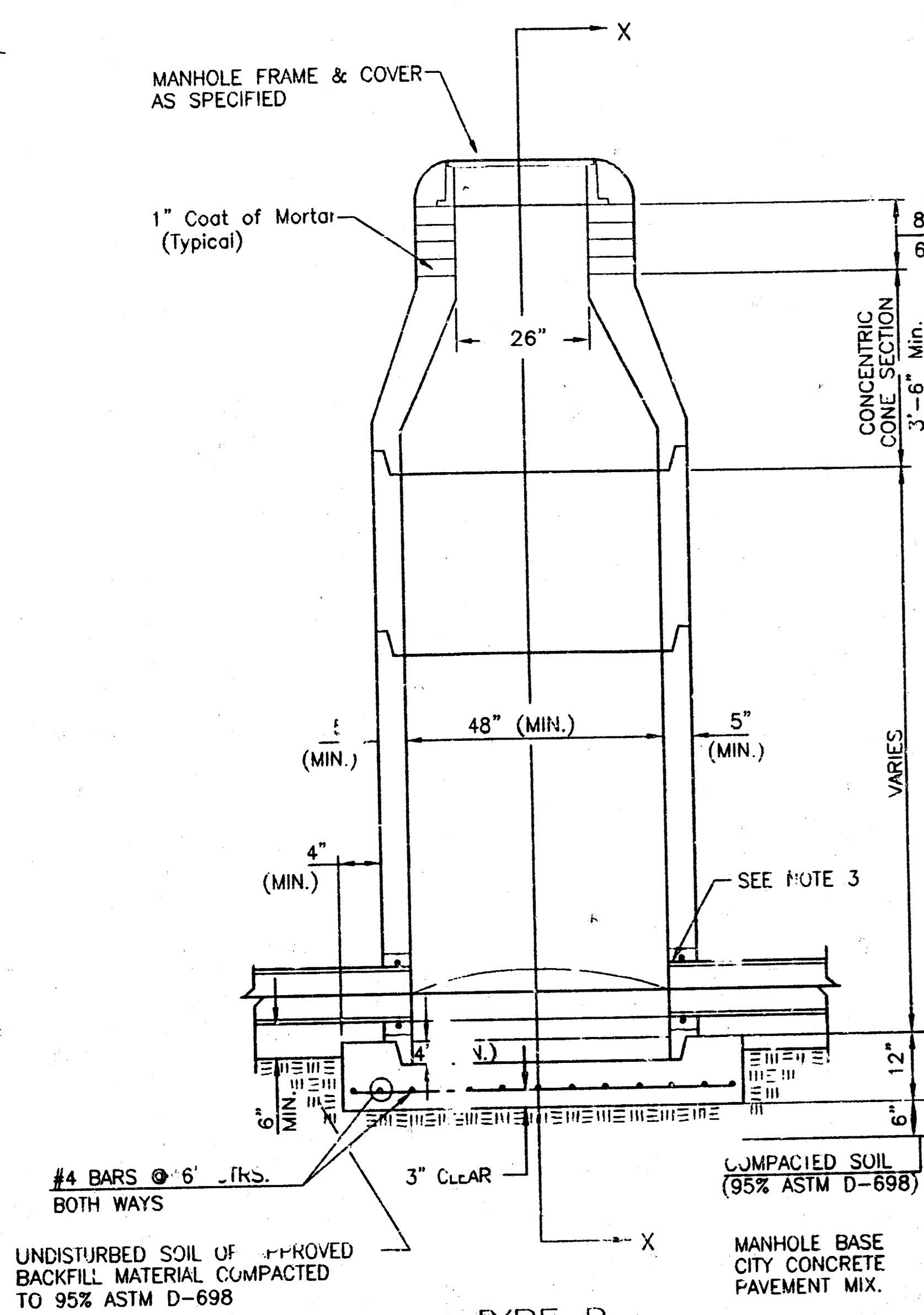
CROWN CHASE
 SANITARY SEWER DISTRICT

WICHITA KANSAS

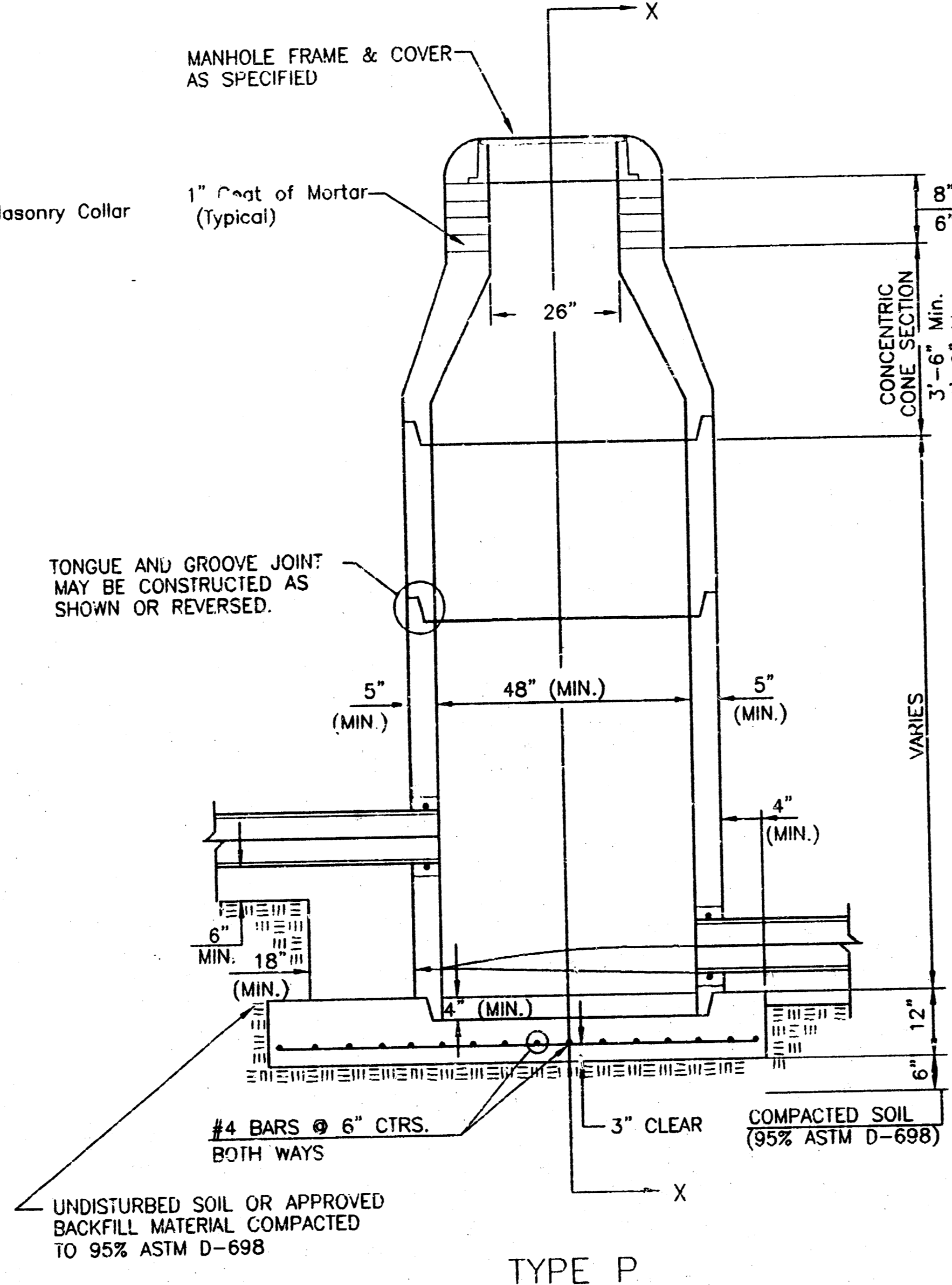
SANITARY SEWER MAIN
 PLAN & PROFILE

Sheet No. 3 OF 6

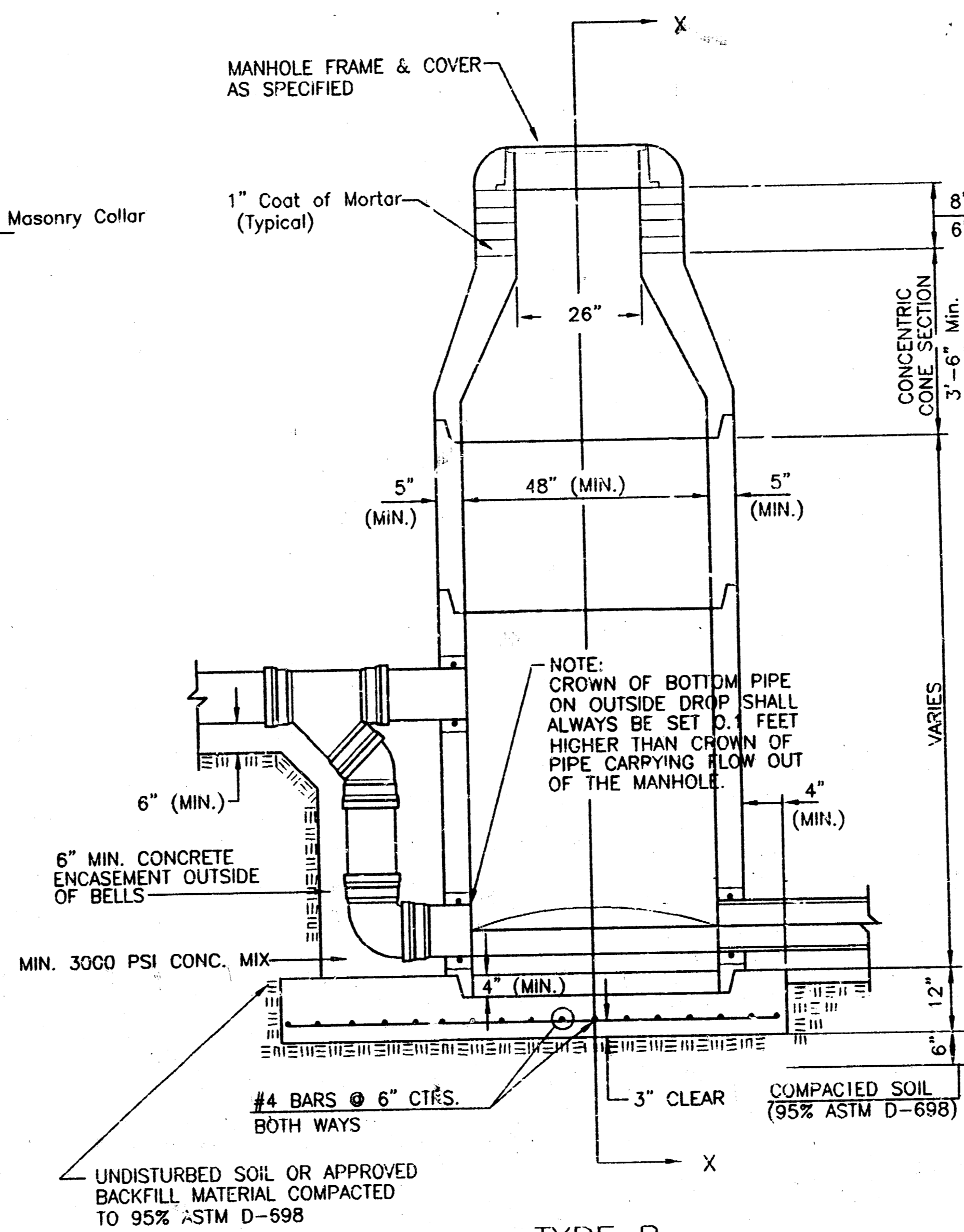
SEWER APPURTENANCES DETAILS



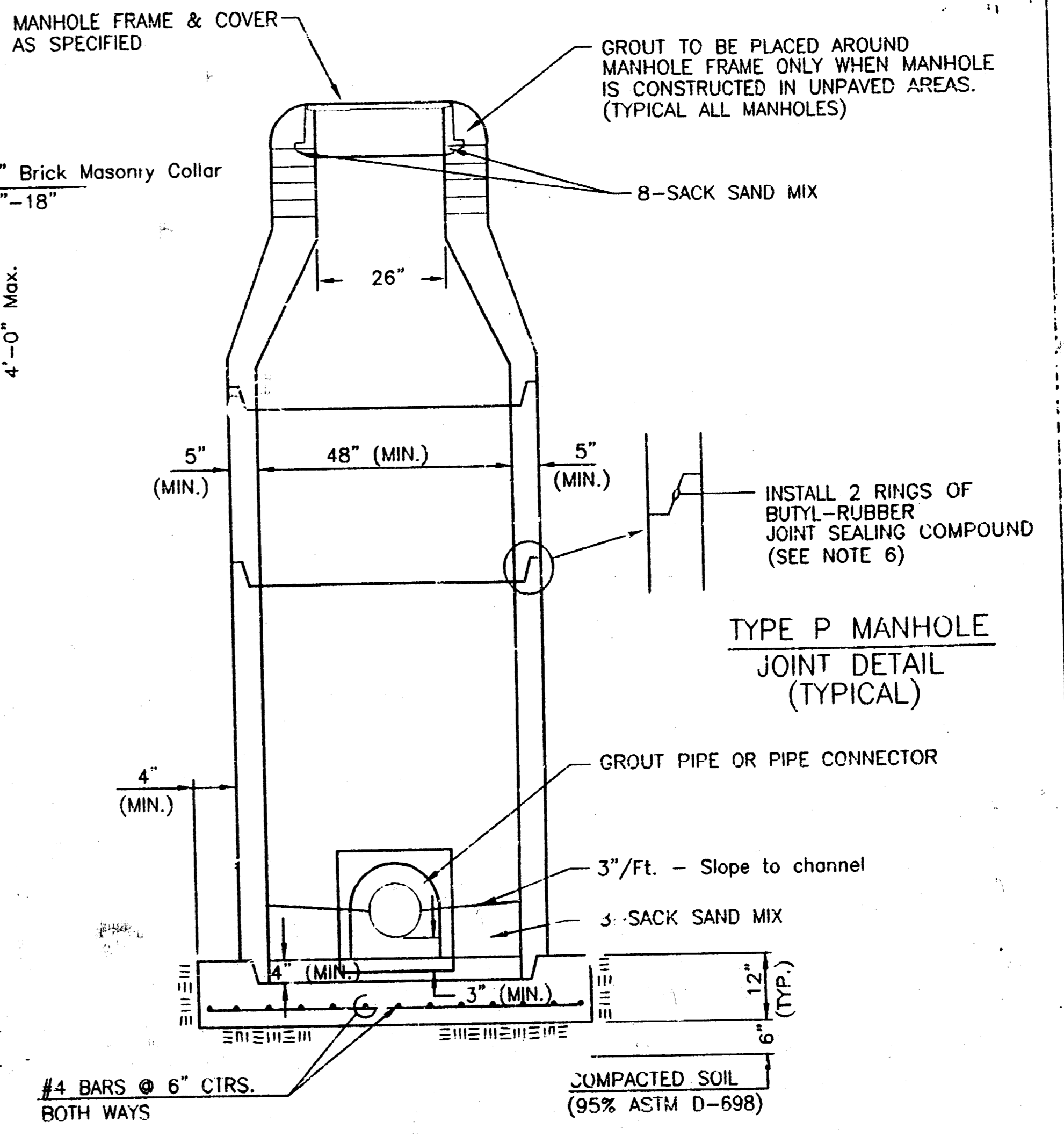
TYPE P STANDARD MANHOLE



TYPE P INSIDE DROP MANHOLE



TYPE P OUTSIDE DROP MANHOLE



SECTION X (TYPICAL)

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 WATER STOP 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 GROUDED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED BY CONCRETE CASING WITH A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR J.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
 - ALL INSIDE SURFACES OF THE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS OF MEMBRANE SERIES 66 HI-BUILD EPOXYLINE, ERT THICKNESS OF 8 MILS (MIN.).
 - EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT OF MEMBRANE 633 BITUMINOUS COATING.
 - JOINT SEALING COMPOUND SHALL BE JOINT 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 AGGREGATE. JOINTS SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPES 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.

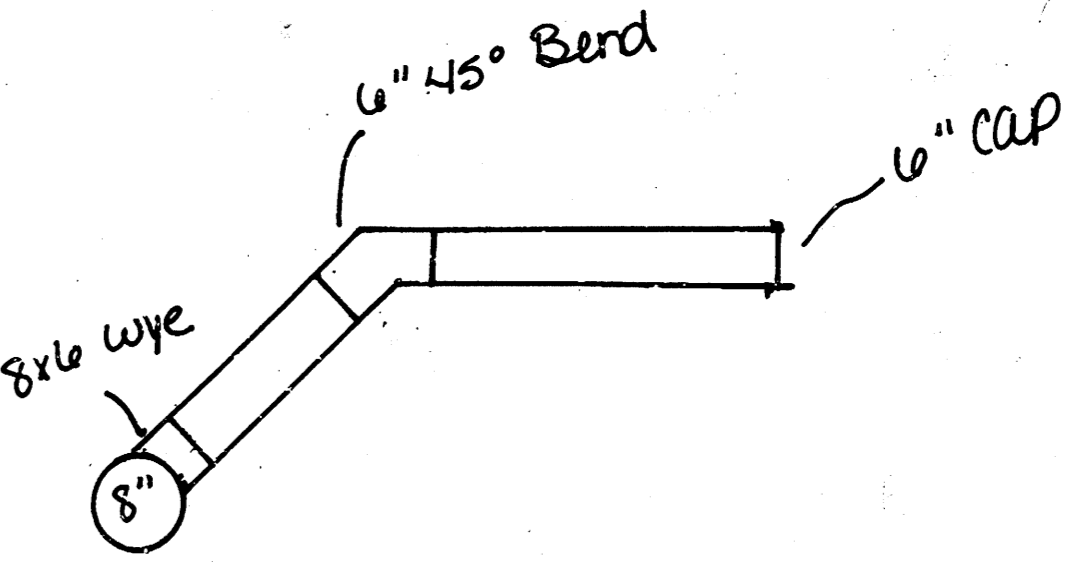
- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED 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 NON-SHRINK 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. INSIDE 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.

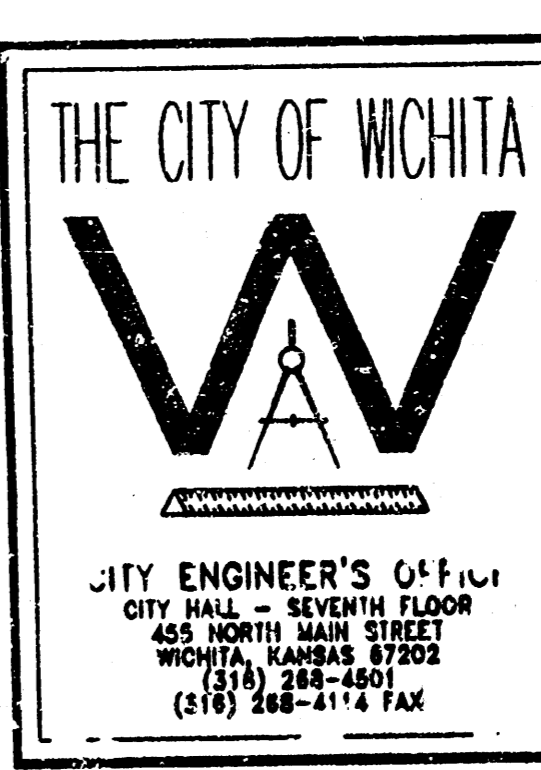
Sanitary Sewer Services

Manhole	Station	Lt. Rht.
0+00	1+19	Left
0+00	1+90	Left
3+02	5+42	Right
1+32	7+30	Right
1+32	9+45	Right
1+32	9+51	Left
1+32	9+11	Right
13+58		0
15+15	0	0
15+17	0	0
21+32	0	0

See drawing to the right.



Riser Assemblies



STANDARD TYPE 'P' MANHOLES

M. E. LINDEBAK P.E. - CITY ENGINEER

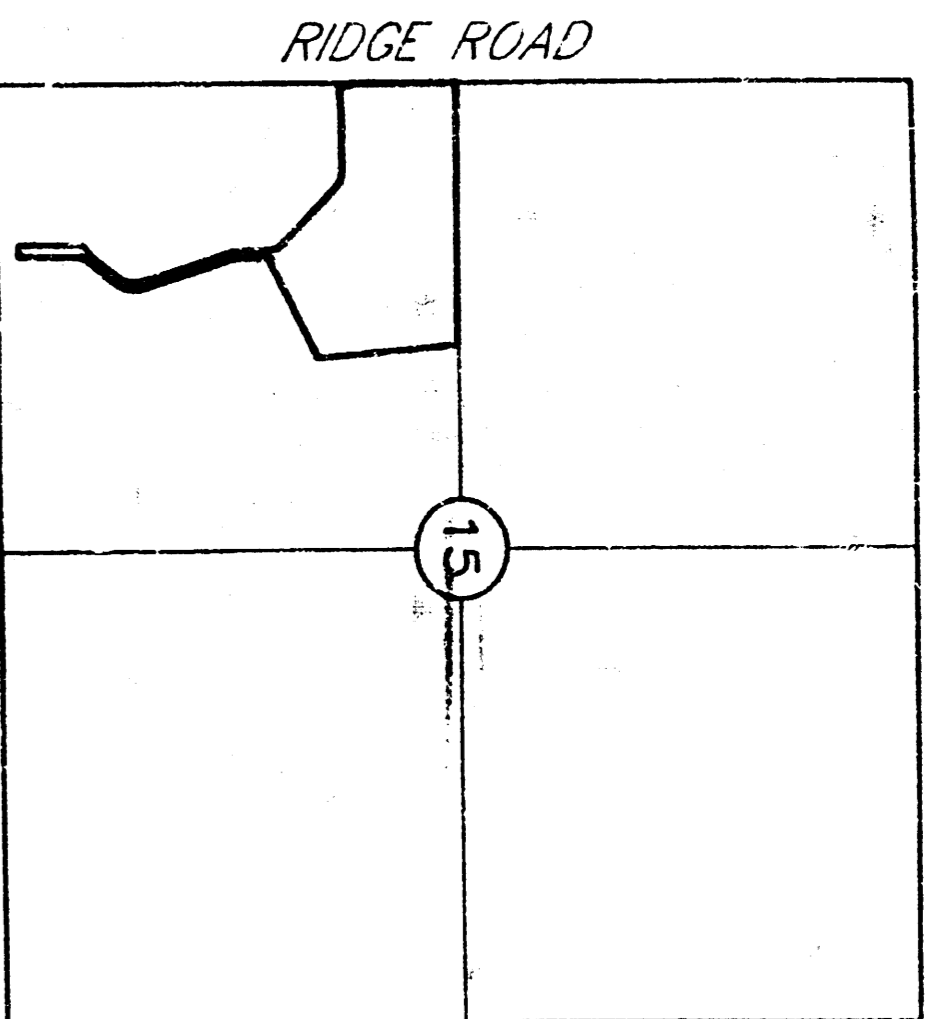
PROJECT NUMBER	INDEX CODE
XXX-XXXX	XXXXXX
DATE	SHEET 4 OF 6
MAR 96	

R 1 W

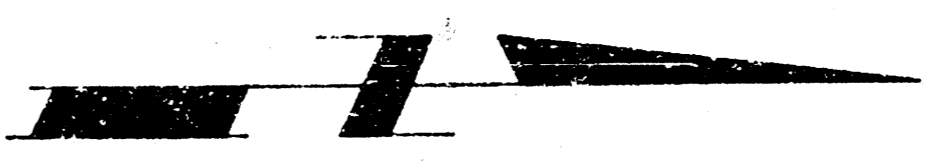
ALTA/ACSM SURVEY

PLAT OF SURVEY

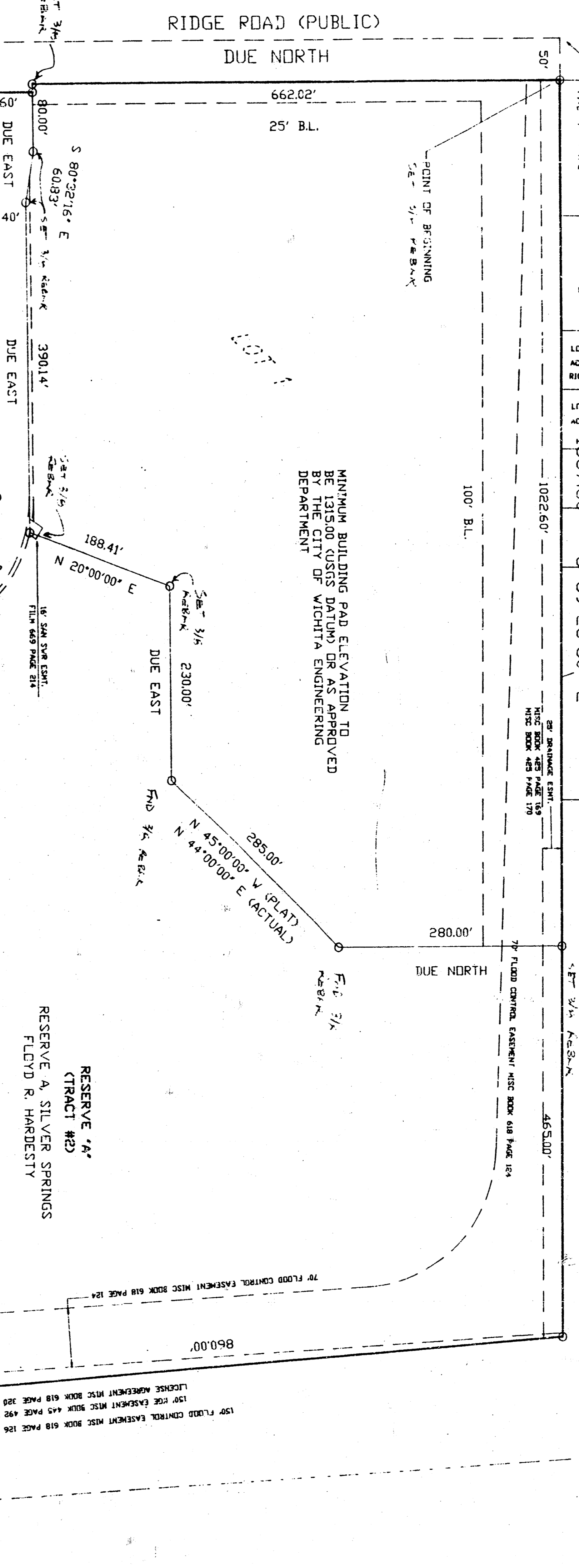
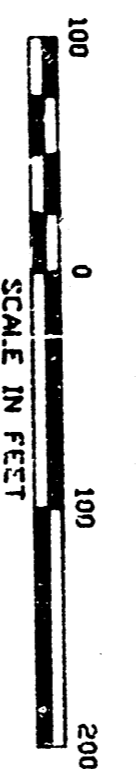
LOT 1, BLOCK 1, & RESERVE A, IN SILVER SPRINGS
AN ADDITION TO THE CITY OF WICHITA, SEDGWICK COUNTY, KANSAS



CENTRAL AVENUE
683.611 S.F.
15.69 ACRES



SCALE 1" = 100'



OWNER
FLOYD R. HARDESTY
 401 S. BOSTON, SUITE 3500
 TULSA, OKLAHOMA 74105
 PHONE: (918) 585-3100

ENGINEER
TUTTLE & ASSOCIATES, INC.
 9718 E. 55TH PL
 TULSA, OKLAHOMA 74146
 PHONE: (918) 663-5567

SURVEYOR'S CERTIFICATE

THE UNDERSIGNED, BEING A REGISTERED ENGINEER OF THE STATE OF KANSAS, CERTIFIED TO FLOYD R. HARDESTY, AS THE OWNER OF THE ABOVE DESCRIBED SURVEY, THAT HE IS THE SUCCESSOR AND ASSIGNS ALL RIGHTS AND INTERESTS IN THE SURVEY TO THE UNDERSIGNED, AND THAT HE IS THE SUCCESSOR AND ASSIGNS ALL RIGHTS AND INTERESTS IN THE SURVEY TO THE UNDERSIGNED, AND THAT HE IS THE SUCCESSOR AND ASSIGNS ALL RIGHTS AND INTERESTS IN THE SURVEY TO THE UNDERSIGNED.

1. THE MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JUNIATA ESTABLISHED AND ADOPTED BY THE AMERICAN LAND TITLE ASSOCIATION AND THE AMERICAN SURVEYING AND MAPPING SOCIETY, INC., AND THE SURVEY MEETS THE REQUIREMENTS FOR AN URBAN SURVEY AS DEFINED IN SECTION 10-1-1 OF THE KANSAS STATUTES.

2. THE SURVEY WAS MADE UPON THE GROUND ON THE 14TH DAY OF OCTOBER 1997, AND CORRECTLY SHOWS (A) THE BOUNDARIES AND AREA OF THE SUBJECT PROPERTY; (B) THE LOCATION AND TYPE OF ALL EASEMENTS, RIGHTS OF WAY AND BUILDING RESTRICTIONS OF RECORD AND OF RECORDS; (C) THE LOCATION AND TYPE OF ALL ENCROACHMENTS OF RECORD AND OF RECORDS; (D) ALL ADJOINING EXISTING PAVEMENT ADJACENT TO THE SUBJECT PROPERTY, TOGETHER WITH THE WIDTH AND NAME THEREOF; (E) THE SCALE OF THE PLAT OF SURVEY AND THE NORTH AND MERIDIAN THEREOF; (F) THE LOCATION AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (G) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (H) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (I) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (J) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (K) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (L) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (M) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (N) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (O) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (P) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (Q) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (R) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (S) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (T) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (U) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (V) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (W) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (X) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (Y) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED; (Z) LOTS AND PLANS OF VEHICLES ON THE SUBJECT PROPERTY IS COMPLETED.

3. THERE ARE NO ENCROACHMENTS, WALLS OR PARTY WALLS ON THE BOUNDARY LINES OF THE SUBJECT PROPERTY.

4. THERE ARE NO RAILROAD TRACKS, SPURS OR RAILWAY RIGHTS-OF-WAY AFFECTING THE SUBJECT PROPERTY.

5. THERE ARE NO POWER, CABLES, GUY WIRES OR OTHER UTILITY LINES OR POLES WHICH CROSS, ENTER OR EXIT THE SUBJECT PROPERTY, UNLESS IDENTIFIED ON THE SURVEY.

6. THERE ARE NO OBSERVABLE ABOVE GROUND ENCROACHMENTS (A) BY ANY IMPROVEMENTS ON THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (B) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (C) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (D) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (E) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (F) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (G) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (H) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (I) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (J) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (K) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (L) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (M) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (N) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (O) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (P) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (Q) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (R) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (S) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (T) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (U) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (V) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (W) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (X) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (Y) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS; OR (Z) BY THE SUBJECT UPON ADJOINING PROPERTIES, STREETS OR ALLEYS.

7. THE RECORD DESCRIPTION OF THE SUBJECT PROPERTY FORMS A MATHEMATICALLY CLOSED FIGURE.

8. THE LOCATION OF EACH EASEMENT, RIGHT OF WAY, SERVITUDE, AND OTHER MATTER AFFECTING THE SUBJECT PROPERTY WAS DETERMINED BY FIELD MEASUREMENTS AND BY THE EXAMINATION OF RECORDS AND OF RECORDS. THE SURVEYING ENGINEER HAS BEEN SHOWN ON THE SURVEY, TOGETHER WITH APPROPRIATE RECORDING REFERENCES, THE PROPERTY SHOWN ON THE SURVEY IS THE PROPERTY DESCRIBED IN THE TITLE INSURANCE COMMITMENT.

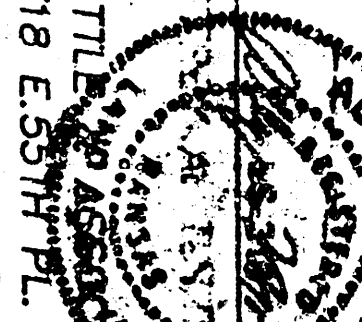
9. THE SUBJECT PROPERTY HAS ACCESS TO AND FROM THE DULY DEDICATED AND ACCEPTED PUBLIC STREETS, CENTRAL AVENUE AND RIDGE ROAD, VIA SILVER SPRINGS BOULEVARD, A PRIVATE STREET WHICH IS IN PLACE.

10. THE SUBJECT PROPERTY DOES NOT SERVE ANY ADJOINING PROPERTY FOR DRAINAGE, UTILITIES, OR EGRESS OR EGRESS.

11. THE RECORD DESCRIPTION OF THE SUBJECT PROPERTY FORMS A MATHEMATICALLY CLOSED FIGURE.

12. NO PORTION OF THE PROPERTY SHOWN ON THE SURVEY LIES WITHIN A SPECIAL HAZARD AREA AS DESCRIBED ON THE FLOOD INSURANCE RATE MAP OF THE SUBJECT PROPERTY APPEARING ON THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 80028 D003B AS PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY ON 10-18-89. THE PANEL INDICATES THAT THE PROPERTY IS LOCATED BETWEEN THE 100 YEAR AND 500 YEAR FLOOD ZONE (ZONE 9).

13. THE PARTIES LISTED ABOVE ARE ENTITLED TO RELY ON THE SURVEY AND THIS CERTIFICATE, IN CONNECTION WITH THE SURVEY AND RECORDS.

BY: 
 TUTTLE & ASSOCIATES, INC.
 9718 E. 55TH PL
 TULSA, OKLAHOMA 74146
 (918) 663-5567
 RECEIVED
 DEC 2 1997
 Tulsa Engineering Inc.

PARCEL #1
 LOT 1, BLOCK 1, SILVER SPRINGS, AN ADDITION TO THE CITY OF WICHITA, SEDGWICK COUNTY, KANSAS.

PARCEL #2
 A NONEXCLUSIVE EASEMENT FOR THE BENEFIT OF PARCEL #1 FOR INGRESS AND EGRESS AND UTILITIES OVER THAT PORTION OF RESERVE A, SILVER SPRINGS, AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS, DESCRIBED AS SILVER SPRINGS BOULEVARD, AS SHOWN ON THE SURVEY AND BY THE DECLARATION OF CONVENANTS, CONDITIONS AND RESTRICTIONS FILED APRIL 29 1991, IN FILM 474, PAGE 415.

TRACT #1 LEGAL DESCRIPTION
 A TRACT OF LAND IN THE SOUTHWEST QUARTER (SW/4) OF SECTION 15, TOWNSHIP 27 SOUTH, RANGE 1 WEST, SEDGWICK COUNTY, STATE OF KANSAS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
 COMMENCING AT THE SOUTHWEST CORNER OF SUCH SOUTHWEST QUARTER (SW/4); THENCE S 89°35'30" EAST ALONG THE SOUTH LINE OF SUCH SW/4 A DISTANCE OF 1800.00 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00°24'30" WEST ALONG THE NORTH LINE OF SUCH SW/4 A DISTANCE OF 70.00 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00°24'30" WEST ALONG THE NORTH LINE OF SUCH SW/4 A DISTANCE OF 70.00 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00°24'30" WEST ALONG THE NORTH LINE OF SUCH SW/4 A DISTANCE OF 70.00 FEET TO THE POINT OF BEGINNING.

CERTIFICATE #1 SPECIAL ASSESSMENT IN MISC BOOK 618, PAGE 423 COVERS THE VACATED QUEENS LAKE PLAT AND INCLUDES THIS PROPERTY.

CERTIFICATE #2 SPECIAL ASSESSMENT IN FILM 118, PAGE 301 COVERS THE VACATED QUEENS LAKE PLAT AND INCLUDES THIS PROPERTY.

CERTIFICATE #3 SPECIAL ASSESSMENT IN FILM 118, PAGE 302 COVERS THE VACATED QUEENS LAKE PLAT AND INCLUDES THIS PROPERTY.

CERTIFICATE #4 SPECIAL ASSESSMENT IN FILM 118, PAGE 303 COVERS THE VACATED QUEENS LAKE PLAT AND INCLUDES THIS PROPERTY.

CERTIFICATE #5 SPECIAL ASSESSMENT IN FILM 118, PAGE 304 COVERS THE VACATED QUEENS LAKE PLAT AND INCLUDES THIS PROPERTY.

CERTIFICATE #6 SPECIAL ASSESSMENT IN FILM 118, PAGE 305 COVERS THE VACATED QUEENS LAKE PLAT AND INCLUDES THIS PROPERTY.

CERTIFICATE #7 SPECIAL ASSESSMENT IN FILM 118, PAGE 306 COVERS THE VACATED QUEENS LAKE PLAT AND INCLUDES THIS PROPERTY.

TRACT #1
 JOINT ACCESS AGREEMENT
 FILM 474 PAGE 433

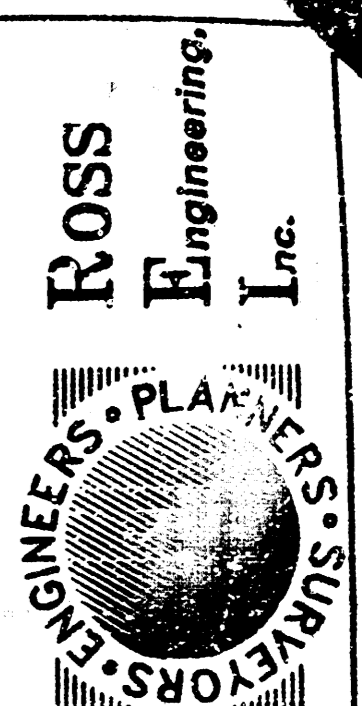
TRACT #2
 JOINT ACCESS AGREEMENT
 FILM 474 PAGE 433

TRACT #3
 JOINT ACCESS AGREEMENT
 FILM 474 PAGE 433

ESMT.
 NORTH
 SOUTH
 EAST
 WEST

UTILITY EASEMENT

LEGEND



ROSS ENGINEERS, PLANNERS, SURVEYORS, INC.
 646 N. Street
 Suite 201
 Lincoln, NE 68503
 Phone 402-442-9077
 FAX 402-442-5086

No.	Revisions	Rev. Date

Scale 1" = 50'
 Drawn PJB
 Checked PJB
 Approved

Job# 988-3D
 File 98803SAG
 Date 3/19/98
 Page 3/19/98

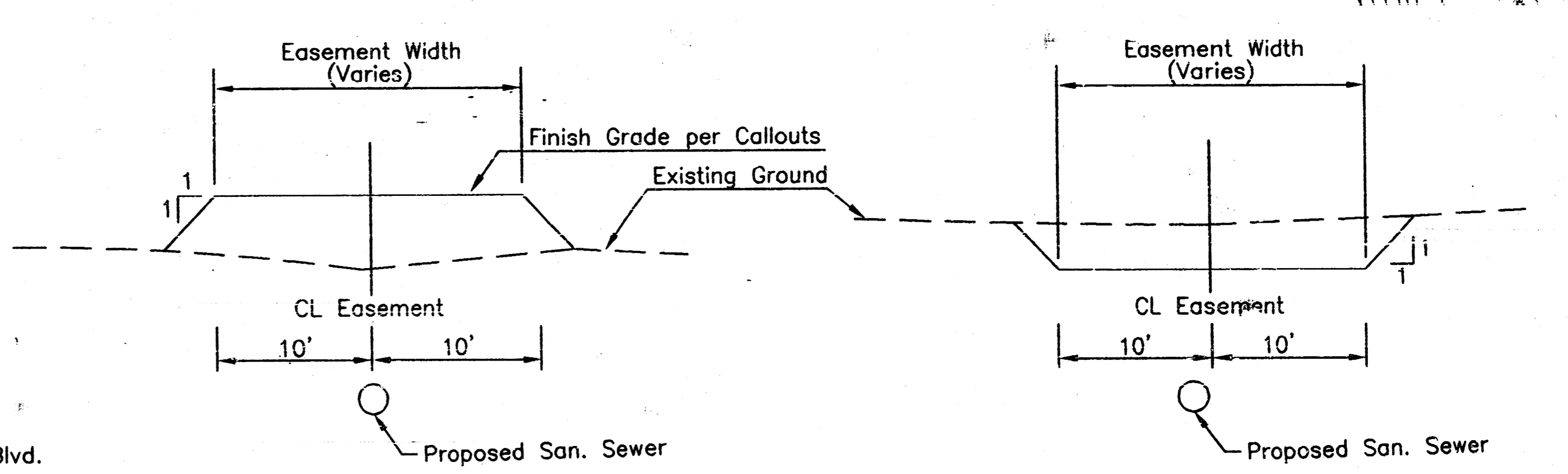
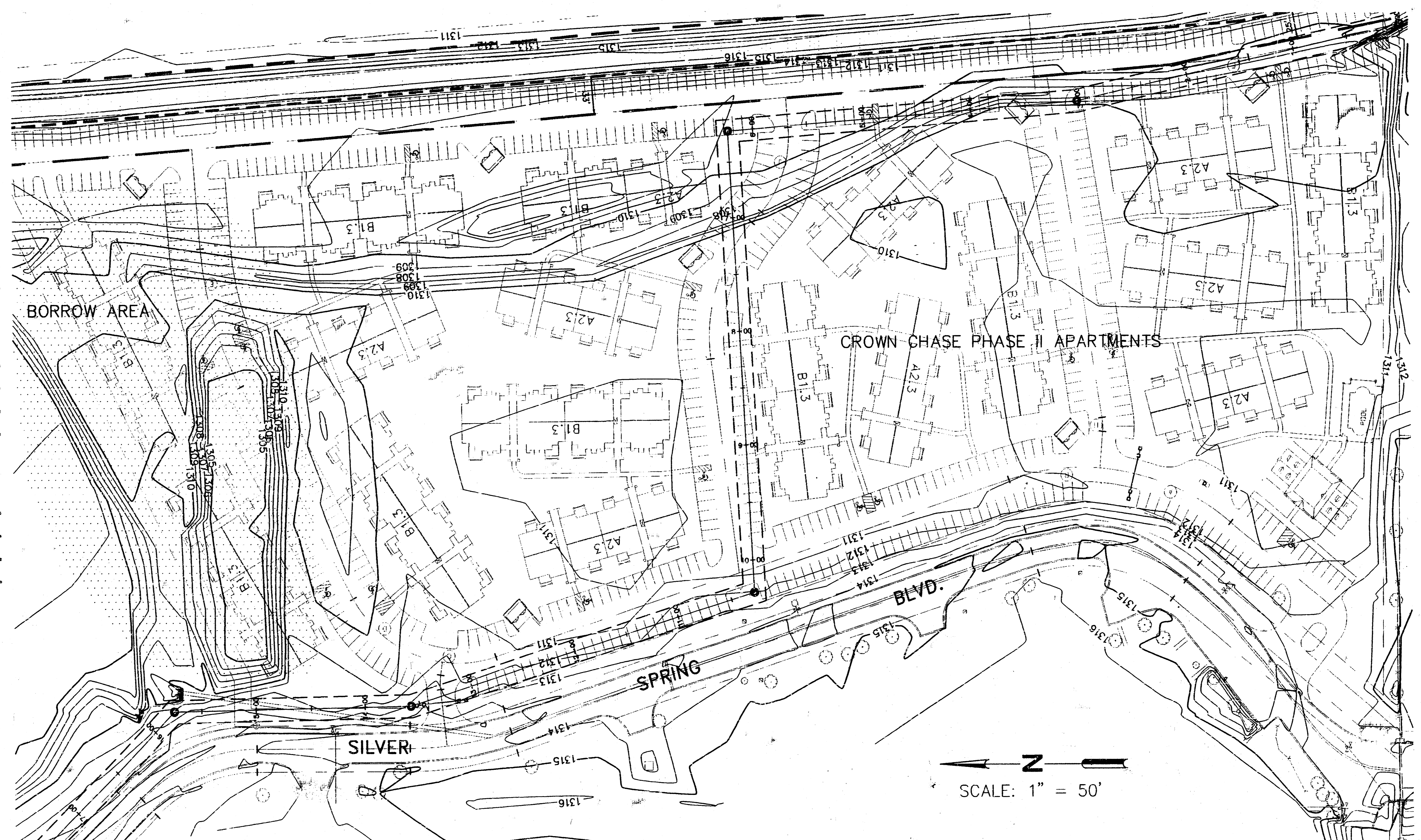
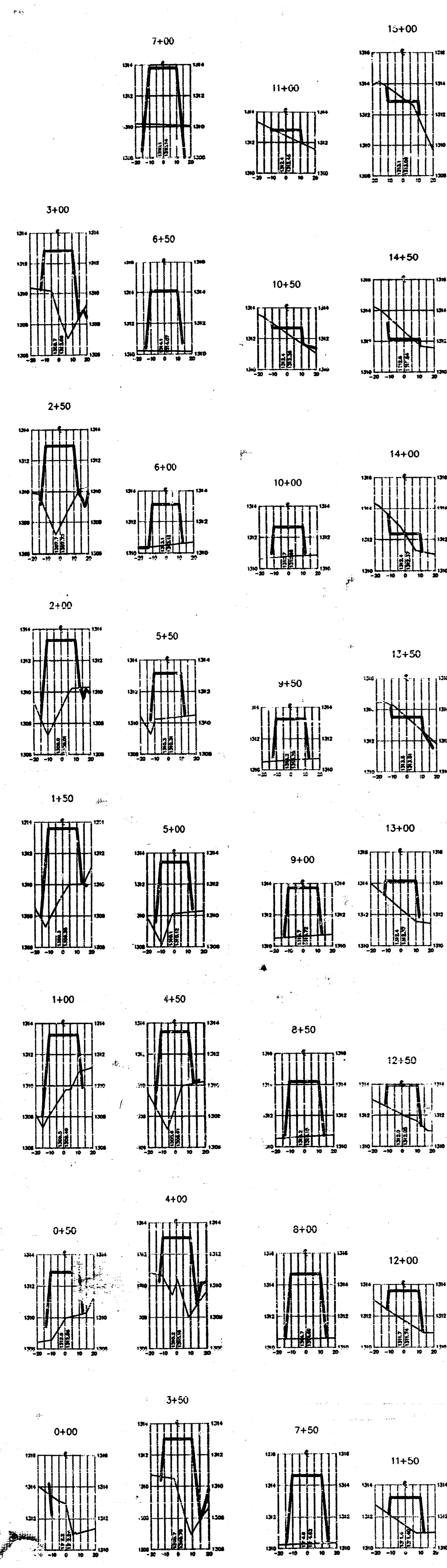
KANSAS

**CROWN CHASE
 SANITARY SEWER DISTRICT**

WICHITA

**SANITARY SEWER
 EASEMENT GRADING PLAN**

Sheet #
 6
 OF
 6



BENCHMARK:
 City of Wichita Benchmark:
 Brass Cap in Northeast corner of Concrete Headwall
 Approx. 675' North of Intersection of Silver Blvd.
 and Ridge Road.
 Elevation: 1317.54 (U.S.G.S.)
 130.14 (City Datum)

EXCAVATION: 42CY
 COMPACTED FILL: 3,287CY
 OFF SITE BARROW: 3,245CY

NOTE: A COMPACTION FACTOR OF x1.25 USED

SANITARY SEWER EASEMENT GRADING SECTIONS
 VERTICAL SCALE: 1" = 5'
 HORIZONTAL SCALE: 1" = 50'