# STORM WATER SEWER 254 FOR

# PENSTEMON SECOND ADDITION

## PROJECT NO.
## 468·76·245·81292·000·000·001

**CITY OF WICHITA, KANSAS**

**MIKE LINDEBAK, CITY ENGINEER**

**NOVEMBER, 1983**

## GENERAL NOTES

1. The Contractor shall be responsible for preserving property irons. The Contractor shall 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 or a licensed professional engineer in accordance with state laws.

2. The tops of inlets and manholes as noted on the plans may vary so as to meet proposed top of curb elevations or pavement elevations. The Field Engineer shall locate inlets and manholes with reference to proposed paving plans of the pertinent streets.

3. All concrete shall be Standard Paving Mix unless otherwise noted.

4. The riprap for this project shall by type 3. The type 3 riprap shall be 12" rip[illegible]. The rock for riprap and gravel protection shall be hard, dense, durable, and shall be reasonably well graded. The size range of rock used shall be a maximum of one cubic foot and a minimum of 1 1/2".

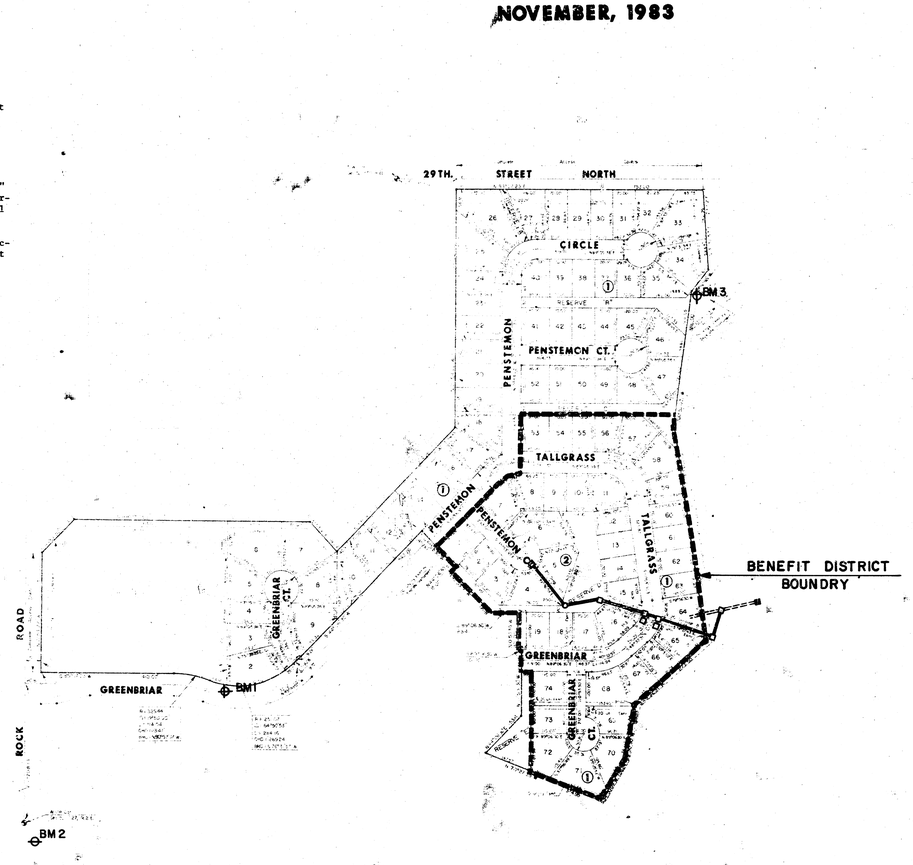
5. Contractor shall avoid uncovering existing water lines unless absolutely necessary. Uncovering shall be done only in the presence of a Water Department Engineer.

### BENCH MARKS

B.M. #1 "□" cut on top of north curb of Greenbriar near the southwest corner of Lot 2, Block 1.
ELEVATION = 219.15'

B.M. #2 Railroad spike in east face of power pole ± 200 feet south of Greenbriar Street on the east side of Rock Road.
ELEVATION = 222.44'

B.M. #3 "□" cut on top of 36" RCP at west end of south pipe near the southeast Lot 34, Block 1.
ELEVATION = 207.40'




N

Scale: 1" = 100'

## INDEX TO DRAWINGS


| SHEET NO. | DESCRIPTION |
|---|---|
| 1 | TITLE SHEET |
| 2 | LINE I |
| 3 | LINE I |
| 4 | DITCH & AREA INLET DETAILS |
| 5 | CURB INLET DETAILS |
| 6 | MANHOLE DETAILS |
| 7 | FINAL PLAT |


As Builts
6-25-84
MCG

WILFRED D. HARDING
LICENSED
9399
PROFESSIONAL ENGINEER

PENSTEMON SECOND ADDITION
S.W.S. 254
PROJECT NO.: 468·76·245·81292·000·000·001

Design: AMS
Drawn by: AMS
Checked by: DLM
Date: NOV. 1983
Job no.:

MID-KANSAS ENGINEERING CONSULTANTS PA
240 NORTH ROCK ROAD
SUITE 130
WICHITA, KANSAS 67206
682-6561

Sheet 1 of 7

1/7

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PENSTEMON SECOND
S.W.S. NO. 254
PROJ. NO. 468-76-245-8292-000-000-001

66 65 17 18 16 15

GREENBRIAR

8" Water Line

8" Sewer Service (TYP.)

Const. Std. Type I-A Curb Inlet, w=4'-3", L=7'-0" Tc = 209.75 TOP = 209.81 Install 4', 15" RCP ~~W.S.E. = 206.65~~ ~~E.G.P.C. = 205.65~~ CTR. FLO = 205.42

Const. Std. Type I-A Curb Inlet w=4'-3" Tc = 209.75 Install 4', 15" RCP ~~W.S.E. = 205.65~~ CTR FLO 205.96 TOP = 209.77 ~~E.G.P.C. = 205.65~~

Sta. 0+80 (See Detail Sht.) Const. Area Inlet (4X2) Tc = 206.65 $L_1$ = 5'-8" $W_1$ = 5'-1" H = 4'-6"

Sta. 0+00 (See Detail Sht.) Const. Area Inlet (4X2) Top = 205.70' $L_1$ = 5'-6" $W_1$ = 5'-0" H = 3'-10"

Sta. 2+38 Const. Type I-A Curb Inlet w=4'-3", L=7'-0" Tc = 209.71, Gf. Sta. 114+37.06

Sta. 2+80 Const. Std. Type I-A Curb Inlet w=4'-3", Tc = 209.71, Gf. Sta. 114+37.06

Sta. 4+16.7 (See Detail Sht.) Const. Ditch Inlet (Rein. Conc) (opening 3 sides) Top = ~~210.93~~ 210.35 S.W.W.

20' Drainage Easement

RESERVE "D"

By Separate Instrument

24 Ft. @ Ground

Remove Exist. 36" RCP

Scale: 1" = 20' Horiz. 1" = 5' Vert.

N

As Builts 6-25-84 MCG

## PLAN LINE 1

## PROFILE LINE 1

Existing Ground

Future Flow

Future Ground

Prop. Rein.

Future Elev.

81.4' 80 L.F. 30" RCP @ 0.30%

169.0' 169 L.F. 36" RCP @ 0.75%

14.4' 42 L.F. 36" RCP @ 0.5%

135.4' 135 L.F. 24" RCP @ 1.0%

128' L.F. 18" RCP @ 1.0%

215 210 205 200

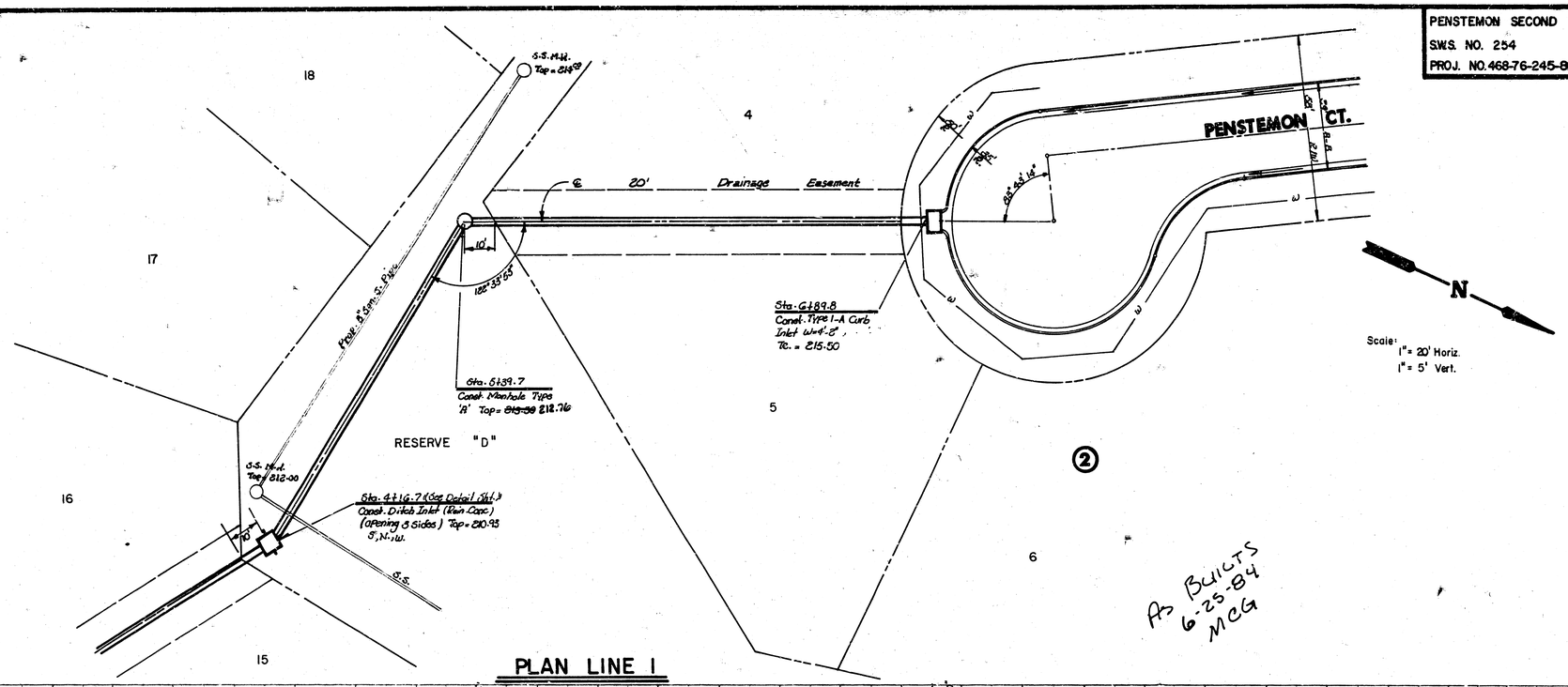
0 1 2 3 4 5

2/7

M.K.E.C.

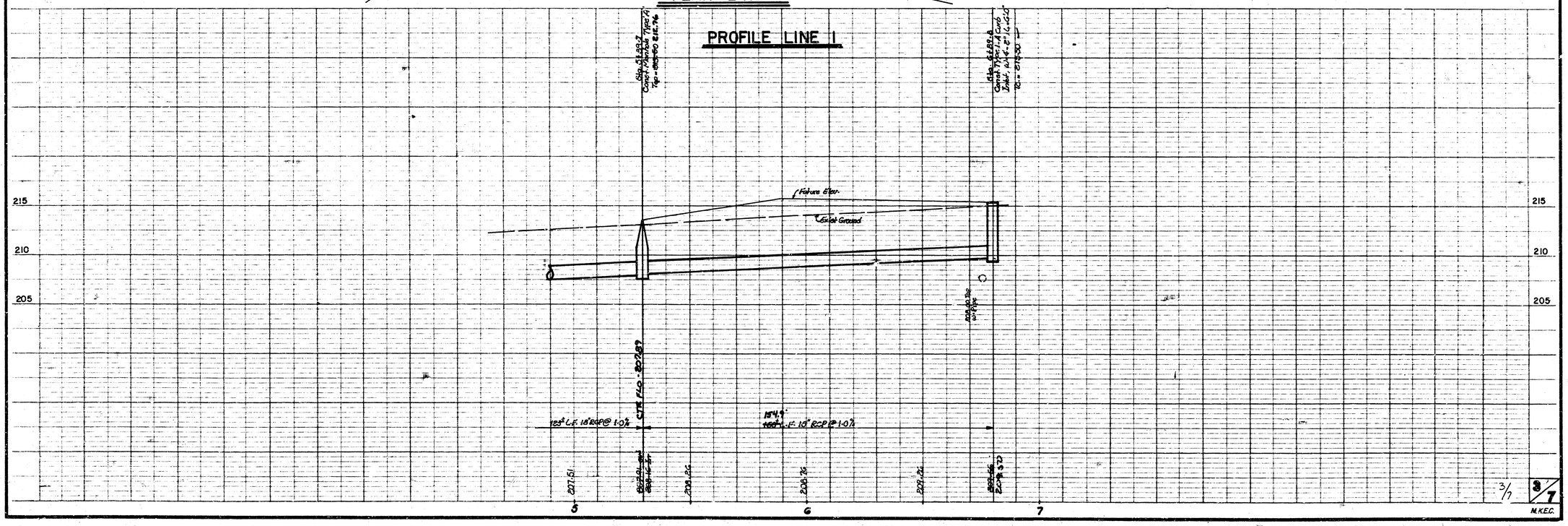
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PENSTEMON SECOND
S.W.S. NO. 254
PROJ. NO. 468-76-245-81292-000-000-001




## PLAN LINE 1

## PROFILE LINE 1

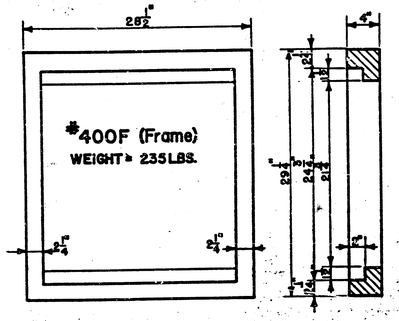


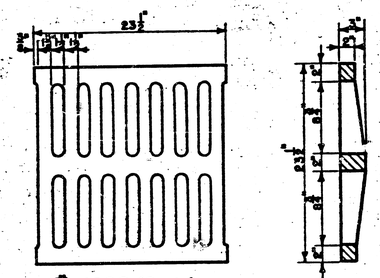

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M.K.E.C.

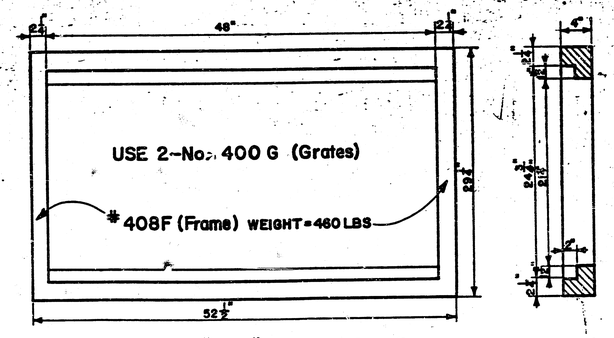
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NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1" in height. Other marking methods may be used only if approved by the engineer.

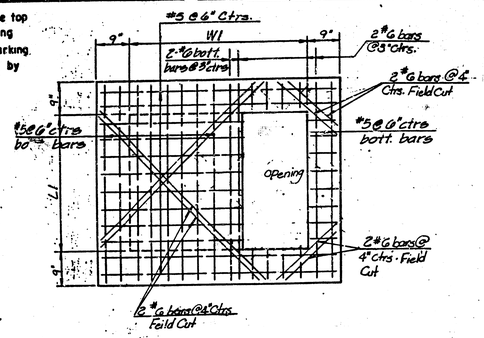


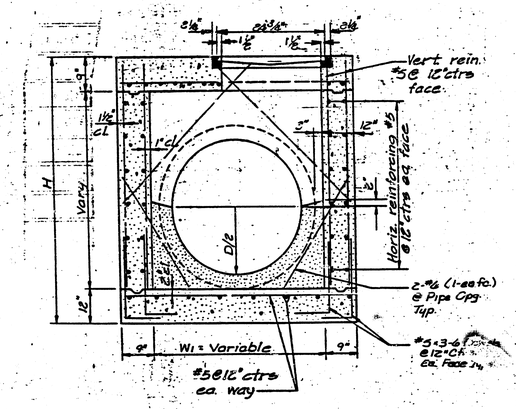

24"x24" Frame & Grate Detail

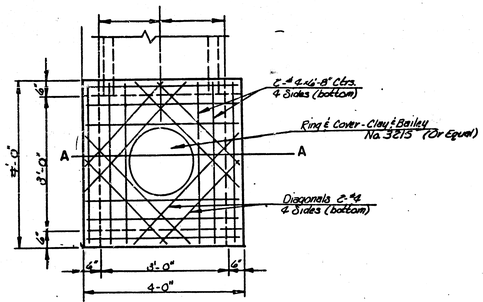



Double 24"x24" Frame Detail

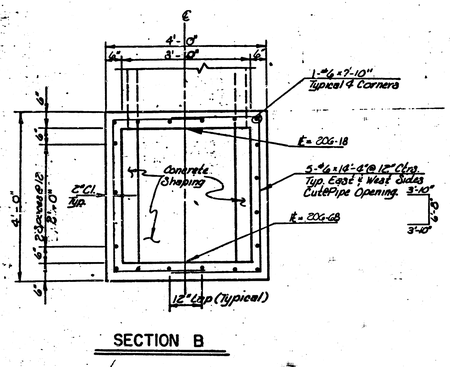



TOP SLAB REINFORCING

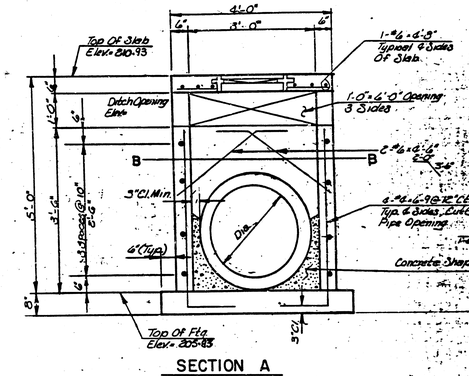



PLAN DITCH INLET




SECTION B




SECTION A

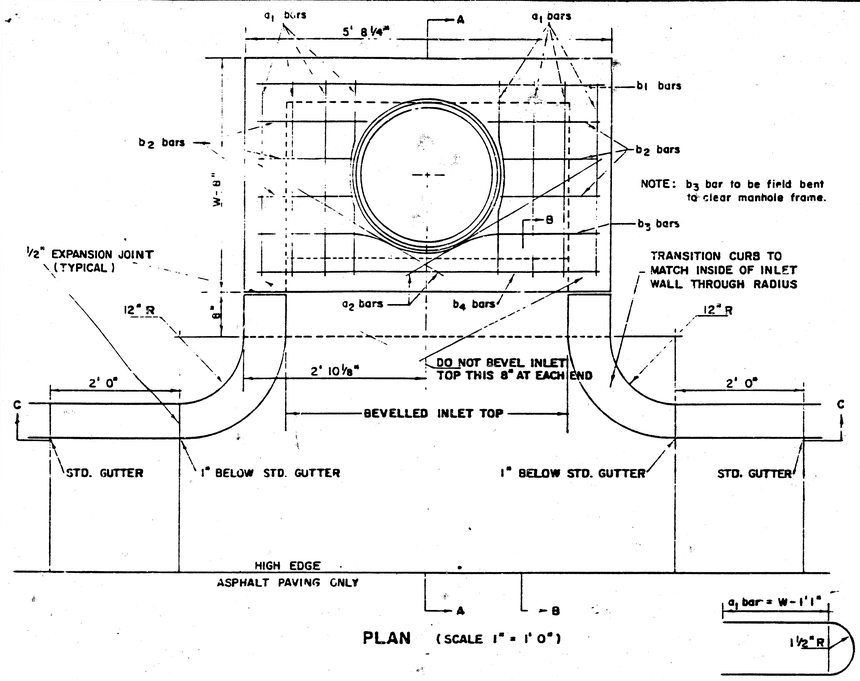
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Reinforced Concrete Ditch Inlet Detail &
Reinforced Concrete Area Inlet Detail

Mike Lindebak, City Engineer
City of Wichita, Kansas
Project Penstemon 2nd ADDITION
Project No. 468-76-245-81292-000-000-00
Date: 1/7

4/7

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PLAN (SCALE 1" = 1'0")




BENDING DIAGRAM

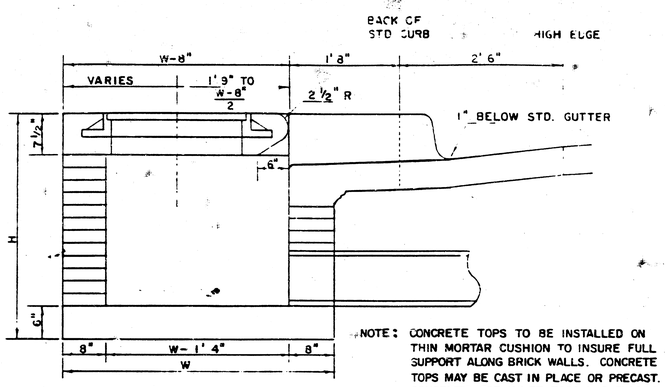
## STEEL SCHEDULE

| BAR | | $a_1$ | $a_2$* | $b_1$ W=4'2" | $b_1$ W=5'0" | $b_1$ W=6'0" | $b_1$ W=7'0" | $b_1$ W=8'0" | $b_2$ | $b_3$ | $b_4$ | WT. LBS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | | 8 | 2 | 1 | 3 | 5 | 7 | 9 | 6 | 1 | 1 | |
| SIZE | | #4 | #4 | #4 | #4 | #4 | #4 | #4 | #4 | #4 | #6 | |
| LENGTH | W=4'2" | 6'5" | 3'4" | 5'5" | – | – | – | – | 1'5" | 5'6" | 5'5" | 60# |
| | W=5'0" | 8' 1" | 4'4" | – | 5'5" | – | – | – | 1'5" | 5'6" | 5'5" | 77# |
| | W=6'0" | 10' 1" | 5'4" | – | – | 5'5" | – | – | 1'5" | 5'6" | 5'5" | 97# |
| | W=7'0" | 11' 1" | 6'4" | – | – | – | 5'5" | – | 1'5" | 5'6" | 5'5" | 111# |
| | W=8'0" | 12' 1" | 7'4" | – | – | – | – | 5'5" | 1'5" | 5'6" | 5'5" | 124# |

* NOTE: $a_2$ BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

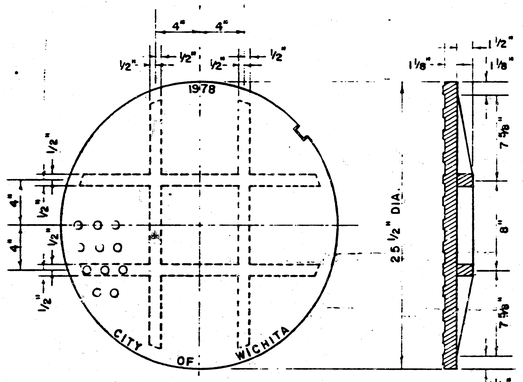
| STANDARD CURB INLET PRECAST TOPS | | | |
|---|---|---|---|
| W | PRE-CAST TOP SIZE | PIPE SIZE | CU. YD. CONC. |
| 4' 2" | 3'6"x5'8 1/4"x7 1/2" | 21" & SMALLER | 0.46 # |
| 5' 0" | 4'6"x5'8 1/4"x7 1/2" | 24" & 30" | 0.57 # |
| 6' 0" | 5'6"x5'8 1/4"x7 1/2" | 36" & 42" | 0.71 # |
| 7' 0" | 6'6"x5'8 1/4"x7 1/2" | 48" & 54" | 0.84 # |
| 8' 0" | 7'6"x5'8 1/4"x7 1/2" | 60" & 66" | 0.97 # |

# GROSS VOLUME

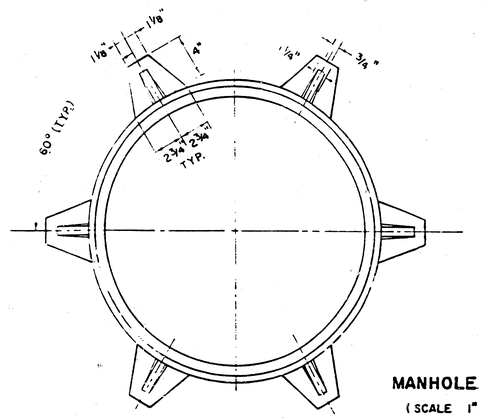



SECTION A-A
(SCALE 1" = 1'0")

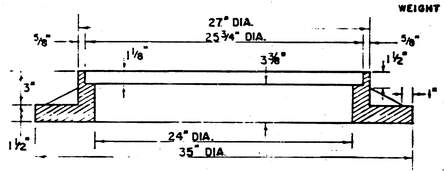
NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE FOR INLET TOPS AND FLOORS SHALL BE *STANDARD* PAVING MIX.

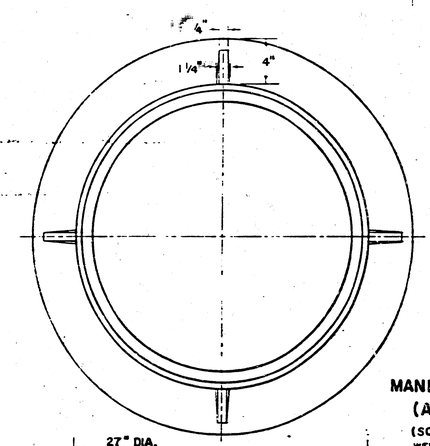



MANHOLE COVER
(SCALE 1" = 6")
WEIGHT = 170 LBS.

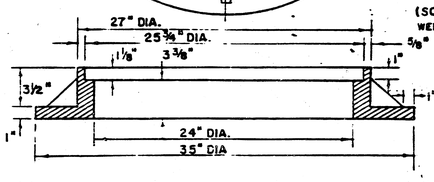


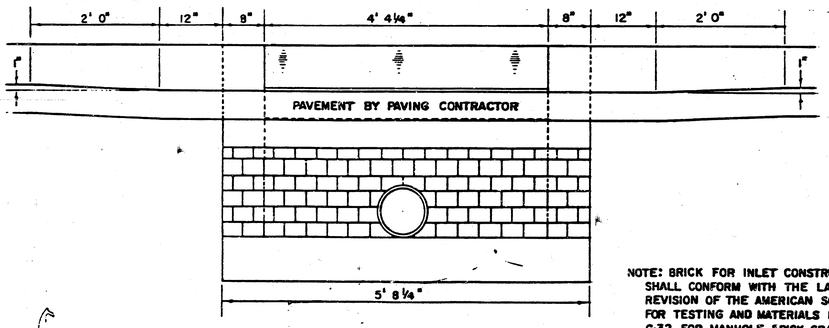

MANHOLE FRAME
(SCALE 1" = 6")
WEIGHT = 180 LBS.



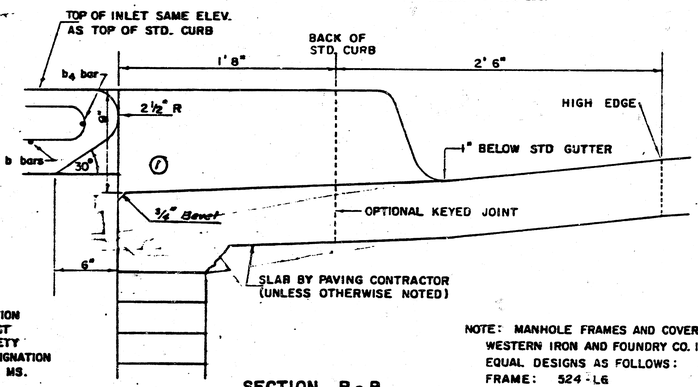

MANHOLE FRAME (ALTERNATE)
(SCALE 1" = 6")
WEIGHT = 180 LBS.




SECTION C-C
(SCALE 1"=1'0")

NOTE: BRICK FOR INLET CONSTRUCTION SHALL CONFORM WITH THE LATEST REVISION OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS DESIGNATION C-32 FOR MANHOLE BRICK GRADE MS.




SECTION B-B
(SCALE 1" = 6")

NOTE: MANHOLE FRAMES AND COVER ARE WESTERN IRON AND FOUNDRY CO. INC. OR EQUAL DESIGNS AS FOLLOWS:
FRAME: 524-L6
FRAME (ALTERNATE): 500 A4
COVER: 222 S4 "NOBBY"

1 Rev. 5-18-81

# DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

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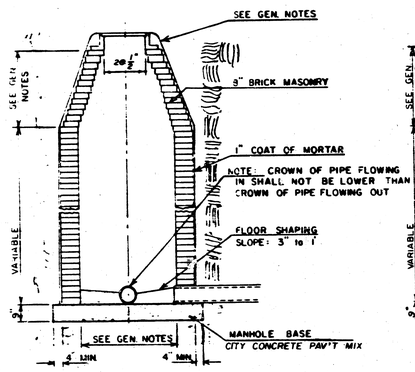
REVISED SEPTEMBER 1980
REVISED DECEMBER 1981

# SEWER APPURTENANCES DETAILS

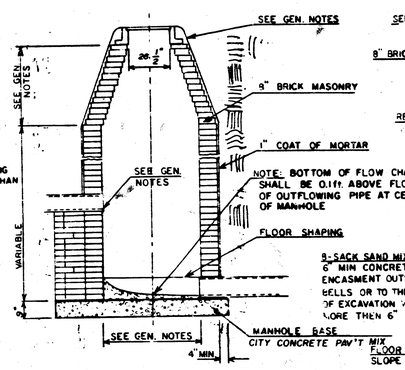
## ADOPTED AS STANDARD DESIGN BY

## CITY of WICHITA, KANSAS

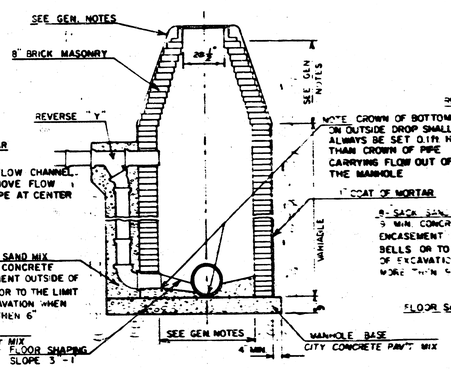
TYPE "A" MANHOLE



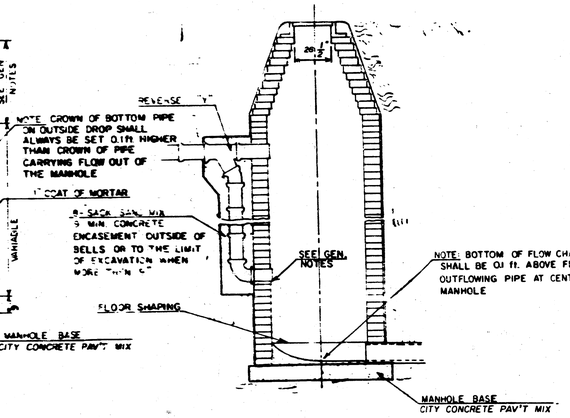

TYPE "A" INSIDE DROP MANHOLE




TYPE "A" OUTSIDE DROP MANHOLE




DETAIL OF OUTSIDE DROP CONSTRUCTED ON EXISTING MANHOLE




### GENERAL NOTES

1. 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 ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "A" MANHOLES CAN BE USED ON SEWERS UP TO 16' IN DEPTH WHEN THE MANHOLE IS NOT LOCATED WITHIN PUBLIC STREET PAVEMENT. 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'. THE HEIGHT OF THE CORBELS ON 4' DIAMETER MANHOLES SHALL BE 4'. MANHOLES HAVING A DIAMETER OF 5' SHALL HAVE CORBELS 6' IN HEIGHT. COMPLTED MANHOLE SHALL BE WITHOUT LSAKS AND WATER TIGHT.

2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO.4 BARS PLACED 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED 6" 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.

3. 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. THE VERTICAL DROP FROM THE LOWER PIPE ON SUCH OUTSIDE DROP CONNECTIONS SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES SIZED LARGER THAN 12", EXCEPT THE CROWN OF THE LOWER PIPE SHALL NEVER BE SET BELOW THE CROWN OF ANY LARGER OUTFLOWING PIPE. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.

4. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLUTION 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.

5. 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 THE CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

6. 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.

7. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4' 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.

8. STANDARD MANHOLES TYPE "A" AND STANDARD INSIDE DROP MANHOLES TYPE "A" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "A" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.



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T-E T-S

# FINAL PLAT OF

# PENSTEMON SECOND ADDITION

## AN ADDITION TO WICHITA, SEDGWICK COUNTY KANSAS

I, Kenneth H. Bengtson, a Civil Engineer in Kansas, do hereby certify that I have been in responsible charge of surveying and platting of "Penstemon Second Addition", an addition to Wichita, Sedgwick County, Kansas, into lots, blocks, streets and reserves, the same being accurately set forth in the accompanying plat and described as follows:

A tract of land in the northwest quarter of Section 5, Township 27 south, Range 2 east of the 6th P.M.: a part of which has been platted as Reserve "A" Penstemon, and a portion of Central Christian Second Addition; described as oeginning at the intersection of the north line of Greenbriar and the east line of Rock Road; thence northerly along the east line of Rock Road bearing N 0° 54' 22" W, 345.00 feet; thence N 44° 06' 30" E, 141.39 feet; thence N 89° 07' 23" E, 725.00 feet; thence S 45° 53' 30" E, 118.49 feet: thence N 44° 06' 30" E, 514.98 feet; thence N 0° 54' 22" W, 694.52 feet: thence N 89° 07' 23" E, 753.00 feet: thence S 4° 32' 53" E, 237.27 feet: thence S 39° 43' 46" W, 81.14 feet: thence S 6° 51' 07" W, 386.00 feet: thence S 10° 03' 30" E, 641.08 feet; thence S 48° 32' 31" W, 277.50 feet: thence S 9° 30' 30" W, 169.53 feet; thence S 34° 50' 09" W, 136.24 feet: thence N 70° 27' 35" W, 374.95 feet; thence N 44° 06' 30" E, 153.14 feet: thence N 0° 53' 30" W, 192.16 feet; thence S 89° 06' 30" W, 10.00 feet: thence N 0° 53' 30" W, 110.00 feet: thence S 89° 06' 30" W, 83.41 feet: thence N 45° 53' 30" W, 166.18 feet: thence N 44° 06' 30" E, 15.00 feet: thence N 45° 53' 30" W, 149.00 feet: thence S 44° 06' 30" W, 542.75 feet to a point on a curve to the right having a central angle of 64° 50' 53", a radius of 251.07 feet, a long chord of 269.24 feet bearing S 76° 31' 57" W, thence along said curve 284.16 feet to a point on a curve to the left having a central angle of 19° 50' 00", a radius of 329.44 feet, a long chord of 113.47 feet bearing N 80° 57' 37" W, thence along said curve 114.04 feet; thence S 89° 07' 23" W, 410.02 feet to the Point of Beginning.

I hereby certify that the details of this plat are correct to the best of my knowledge and belief this 23rd of June, 1983.

Kenneth H. Bengtson
Kenneth H. Bengtson, Professional Engineer
Mid-Kansas Engineering Consultants, P.A.
240 North Rock Road, Suite 130
Wichita, Kansas 67206

Know all men by these presents that we the undersigned property owners of the land as above set forth in the Engineer's Certificate, have caused the same to be surveyed and platted into lots, blocks, streets and reserves, the same to be known as "Penstemon Second Addition", an addition to Wichita, Sedgwick County, Kansas. The streets are hereby dedicated to and for the use of the public. Easements are hereby granted as indicated for the construction and maintenance of all public utilities and drainage. Reserves are platted for construction and maintenance of utilities, drainage, cart paths, recreation, buffer zones and open space and shall be owned and maintained by the Homeowners Association. Reserve "A" is also platted for an emergency access easement. The building setbacks shall be in accordance with the Tallgrass Community Unit Plan (D.P. - 96) on file in the City of Wichita, Sedgwick County Metropolitan Area Planning Department Office.

Tallgrass Company

By: William F. Bixler
WILLIAM F. BIXLER

STATE OF KANSAS
ss:
COUNTY OF SEDGWICK

Be it remembered that on this 1st day of July, 1983, before me, a Notary Public in and for said State and County, came Tallgrass Company by William F. Bixler, to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same. In testimony whereof I have hereunto set my hand and affixed my notarial seal the day and year above written.

Linda S. Graham
Notary Public Linda S. Graham

LINDA S. GRAHAM NOTARY PUBLIC STATE OF KANSAS

Appointment Expires: 2/1/86

This plat approved and all dedications shown hereon, if any, accepted by the Board of County Commissioners of Sedgwick County, Kansas, this 6th day of July, 1983.

Jack Sprague, Chairman

Donald E. Gragg, Commissioner

Tom Scott, Commissioner

Attest: Dorothy K. White, County Clerk
Dorothy E. White

20.00

Entered on transfer record this 6th day of July, 1983.

Dorothy K. White, County Clerk
Dorothy K. White

STATE OF KANSAS
ss:
COUNTY OF SEDGWICK

This is to certify that this instrument was filed for record in the Register of Deeds Office at 3:00 PM on the 11TH day of JULY, 1983.

Bette F. McCart, Register of Deeds
Bette F. McCart

Pat Kettler, Deputy
Pat Kettler

#640692

This plat of "Penstemon 2nd Addition" has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 2nd day of June, 1983.

Wichita-Sedgwick County Metropolitan Area Planning Commission

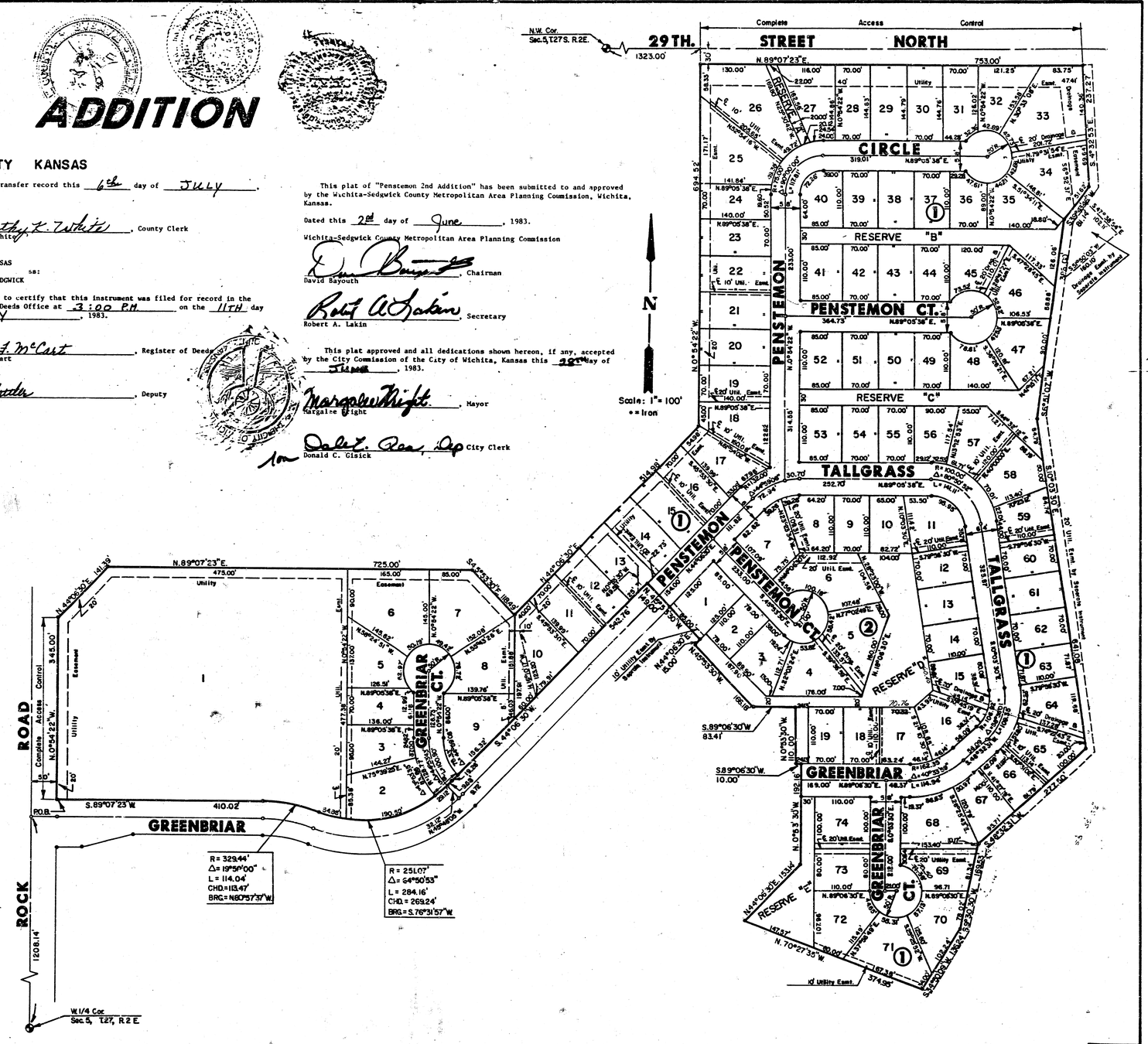
David Bayouth, Chairman

Robert A. Lakin, Secretary

This plat approved and all dedications shown hereon, if any, accepted by the City Commission of the City of Wichita, Kansas this 28th day of June, 1983.

Margaret Wright, Mayor

Donald C. Gisick, City Clerk




Restrictive Covenant F. 594 Pg 1537

REVISION | JULY, 1983 | M.K.E.C.

Sheet 7 of 7

S-2 3-26

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