CITY OF WICHITA, KANSAS

STORM WATER DRAIN NO. 42

PROJECT NO. 468-76-245-80915-000-000-001

BENCH MARKS

B.M.- City Standard Brass Cap, in conc, 25' North & 30' East of S¼ Corner, Sec. 7, T27S, R1W
MSL Elev. = 1345.30
City Elev. = 1317.00

INDEX OF SHEETS

1	TITLE SHEET
2-4	PLAN & PROFILES
5-7	CROSS SECTIONS

GENERAL NOTES

1. FIELD ENGINEER SHALL TAKE TIES TO ALL IRONS AND THIMBLES WHICH MAY BE DESTROYED. FIELD ENGINEER SHALL REPLACE ALL IRONS AND THIMBLES WHICH ARE DESTROYED.
2. ALL METAL PIPE SHALL BE HELICALLY CORRUGATED METAL PIPES FOR SIZES 21" IN DIAMETER (OR EQUIVALENT ARCH PIPE) OR SMALLER, AND FULLY PAVED CORRUGATED METAL PIPES FOR SIZES 24" IN DIAMETER (OR EQUIVALENT ARCH PIPE) OR LARGER.
3. THE RIP-RAP ON THIS PROJECT SHALL BE TYPE 3. THE TYPE 3 RIP-RAP SHALL BE 12" RIP-RAP ON 6" SAND AND GRAVEL BEDDING. THE ROCK FOR RIP-RAP AND GRAVEL PROTECTION SHALL BE HARD, DENSE, DURABLE AND SHALL BE REASONABLY WELL GRADED. THE SIZE RANGE OF ROCK USED SHALL HAVE A MAXIMUM SIZE OF ONE CUBIC FOOT AND A MINIMUM SIZE OF 1 1/2 INCH. THE 6 INCH SAND AND GRAVEL BEDDING FOR RIP-RAP SHALL BE A CONTINUOUS LAYER OF SAND AND GRAVEL OR SAND AND CRUSHED ROCK REASONABLY WELL GRADED TO A MAXIMUM OF 1 1/2 INCHES IN SIZE.
4. FOR ADDITIONAL LAYOUT INFORMATION SEE PLAT OF ECHO HILLS ADDITION.
5. TREE REMOVAL SHALL BE LIMITED TO THOSE TREES MARKED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
6. CONTRACTOR TO WASTE EXCESS EXCAVATION ON LOTS 27 THRU 31, BLOCK 3 TO AN ELEVATION NO GREATER THAN 1.5 FEET BELOW MINIMUM PAD ELEVATION SHOWN ON THE PLANS, AND ON LOTS 1 THRU 7, BLOCK 17 TO AN ELEVATION 0.5 FEET ABOVE ACCESS ROAD OR AS DIRECTED BY THE ENGINEER.
7. AREAS AS SHOWN ON PLANS SHALL BE SEEDED ACCORDING TO CITY SPECIFICATIONS AND OTHER AREAS AS DIRECTED BY THE ENGINEER.
8. REMOVAL OF EXISTING RIP-RAP SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE SUBSIDIARY TO "RIP-RAP (TYPE 3)".
9. REMOVAL AND RESETTING OF EXISTING END SECTIONS SHALL BE SUBSIDIARY TO PIPE EXTENSIONS.

ECHO HILLS

AN ADDITION TO WICHITA SEDGWICK COUNTY, KANSAS

SCALE 1"=200'



APRIL, 1980

No.	Revision	By	Date

CITY OF WICHITA, KANSAS

TITLE SHEET

STORM WATER DRAIN NO. 42
PROJ. NO. 468-76-245-80915-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by CMB, CSB | Job No. 80089-4 | Sht. 1 of 7
Drawn by GH | Date

Remove Approx. 600 L.F. Fence

Sta. 100+11.5 to Sta. 101+00 Transition proposed channel

Top MH Elev.= 152.0

Top MH Elev.= 152.0

℄ 13th Street North

Fence to Remain

Clean & Remove all Silt, debris and vegetation out of existing box culvert. Sta. 9+74±. Remove exist. tree. Shape Channel 15' downstream from existing box.

Sta. 100+00 SWD No. 42 = ℄ 13th Street

El = 152.0

℄ 10' Util. Esmt.

8' Util. Esmt. 8' San. S.

5' Util. Esmt.

℄ 30' Drainage & Storm Sewer Easement

15" Sanitary Sewer

℄ 10' Util. Esmt.

Top MH Elev.= 155.4

15' Utility Easement

15" Sanitary Sewer Easement

10" Sanitary Sewer

15' Maintenance Access Road

Top MH Elev.= 152.7

Grading & Seeding Limits (Typ.)

Fill to Drain

℄ Channel

SEE SHEET NO. 13 FOR CONTINUATION

SCALE 1" = 40'

All Cut & Fill shall be brought to the elev. & contours as shown on Plan & Profile Sheets an Cross Sections before any material is wasted.

See Cross Sections for additional Shaping Information.

15' Maintenance Access Road shall be a minimum of 12" above Design High Water (DHW) or as shown by spot Elevations. (See Cross Sections)

℄ Curve Data
Δ = 29° 22' 56"
D = 14° 19' 26"
R = 400.00'
T = 104.87'
L = 205.13'

El = 154.8

El = 154.8

El = 153.0

El = 153.7

℄ 30' Drainage & Storm Sewer Easement

Storm Sewer Esmt.

℄ 10' Util. Esmt.

Top MH Elev.= 153.8

Top MH Elev.= 153.1

20' Utility Easement

Top MH Elev.= 154.3

Top MH Elev.= 154.9

15' Maintenance Access Road

15' Utility Easement

℄ Exist. Swale

Exist. Contour (Typ.)

Min. Pad (Typ.) Based on DHW

DHW = 150.07

DHW = 150.05

DHW = 150.07

DHW = 150.06

DHW = 150.06

DHW = 150.09

DHW = 150.08

DHW = 150.07

DHW = 150.07

Exist. Ground @ ℄

≤100 Yr. High Water Surface

+0.10%

℄ Proposed Channel

145.76 ℄

145.91 ℄

145.91 ℄

146.00 ℄

146.11 ℄

146.31 ℄

146.31 ℄

146.41 ℄

146.51 ℄

100+00 1 2 3 4 105+00 6 7 8

155 150 145

No	Revision	By	Date

CITY OF WICHITA, KANSAS
STORM WATER DRAIN NO. 42
STA. 100+00 TO STA. 108+00
PROJ. NO. 468-76-245 - 80915-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by DD CSS
Drawn by DH, BS
Job No. 80085-4
Date

Sht. 2 of 7

SCALE 1" = 40'

℄ Curve Data
Δ = 29° 22' 56"
D = 14° 19' 26"
R = 400.00'
T = 104.87'
L = 205.13'

SEE SHEET NO. 4 FOR CONTINUATION

Sta. 113+33± Install 15"x20' CMP Temp. pipe. Match Exist. FL ℄ Center in 15' Easement Cover to a min. El. of 152.00

Top MH Elev.± 152.4
15' Utility Easement

Top MH Elev.± 152.9

Top MH Elev.± 153.0

15" Sanitary Sewer Easement

15" Sanitary Sewer

15' Maintenance Access Road

3"-12" / 14 — 12"+ / 1 — Remove 15 Trees 14 @ 3"-12", 1 @ 12"+

Hedge Trees

Remove Exist. End Sec. & Riprap Install 16 L.F. 24" CMP (Fully Paved) Reinstall End Section & Install 40 S.Y. Type 3 Riprap

24" CMP (Paved)

℄ Channel

Grading & Seeding Limits (Typ.)

Remove Hedge across Limits of Drainage Dedication

Sta. 117+76 Remove Exist. End Section and Riprap Add 62 L.F. 21" CMP, Reinstall End Section & Install 34 S.Y. Type 3 Riprap

FL Out = 148.40

℄ Exist Swale

Exist. Contour (Typ.)

20' Util. Esmt.

15' Maintenance Access Road

Hedge to Remain

8" Sanitary Sewer

℄ 10' Util. Esmt.

30' Utility Easement

20.5' Drain. & Storm S. Esmt.

15' Util. Esmt.

DHW = 150.96 | DHW = 150.97 | DHW = 150.98 | DHW = 151.00 | DHW = 151.02 | DHW = 151.03 | DHW = 151.06 | DHW = 151.08 | DHW = 151.22

Exist. Ground ℄

100 Yr. High Water Surface

+0.10%

+0.20%

FL Out = 146.67 24" CMP

FL Proposed Channel

FL Out = 149.11 21" CMP (Exist.)

146.51 FL | 146.61 FL | 146.95 FL | 147.20 FL | 147.60 FL | 147.90 FL | 148.25 FL | 148.60 FL | 148.90 FL | 149.50 FL

8 | 9 | 110+00 | 11 | 12 | 13 | 14 | 115+00 | 16 | 17 | 18

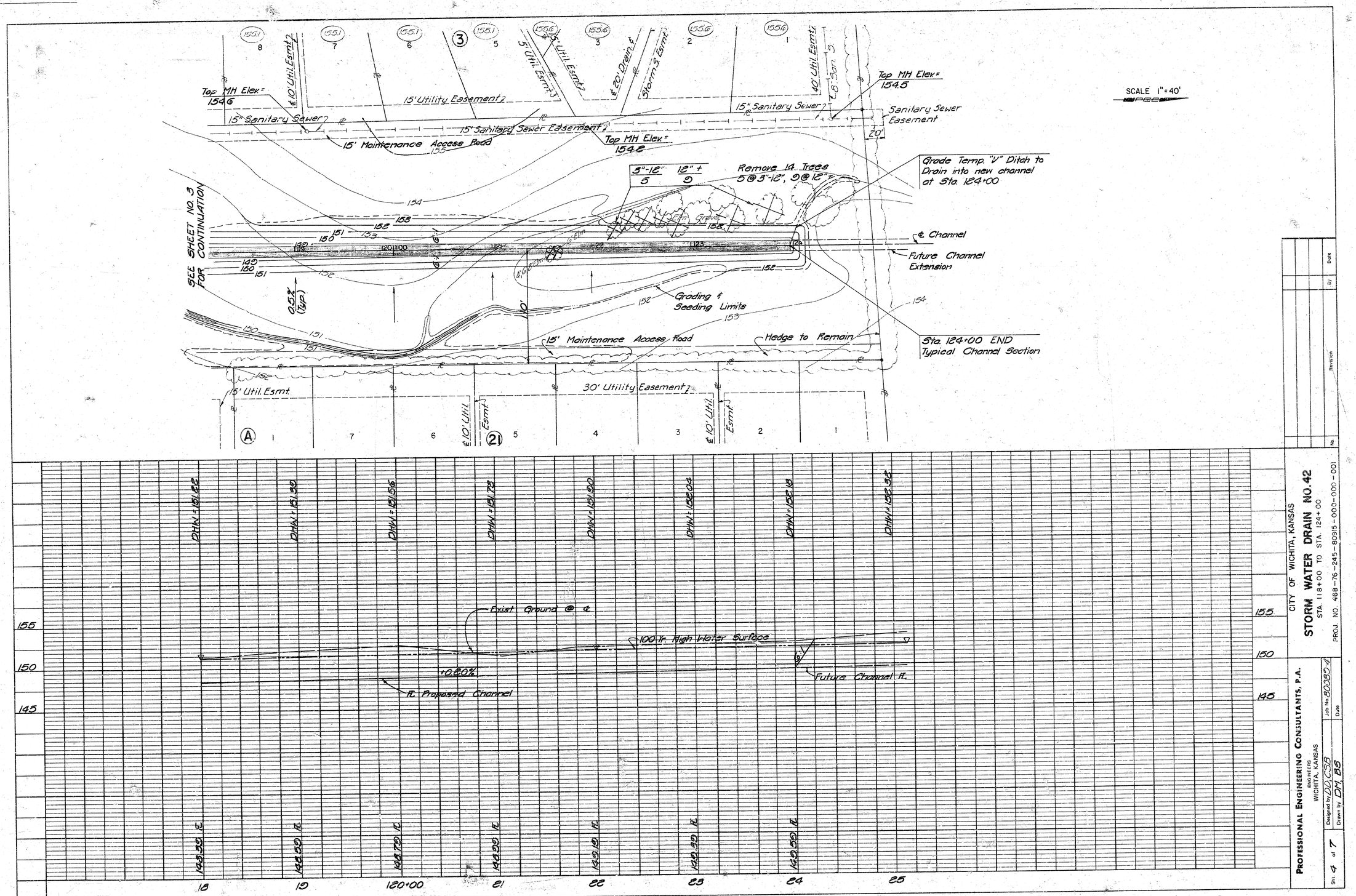
155 / 150 / 145

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

CITY OF WICHITA, KANSAS
STORM WATER DRAIN NO. 42
STA. 108+00 TO STA. 118+00
PROJ. NO. 468-76-245-80915-000-000-001

Job No. 80085.04
Date
Designed by DD CSB
Drawn by DM BS
Sht. 3 of 7

No. | Revision | By | Date


SCALE 1"=40'
Top MH Elev.= 1546
15" Sanitary Sewer
10' Util. Esmt.
15' Utility Easement
15" Sanitary Sewer Easement
15' Maintenance Access Road
Top MH Elev.= 1542
5' Util. Esmt.
20' Drain. E
Storm Sewer Esmt.
40' Util. Esmt.
8" Storm Sewer
Top MH Elev.= 1545
Sanitary Sewer Easement
20'
3"-12" 5
12"+ 2
Remove 14 Trees 5@3"-12", 2@12"+
Grade Temp. "V" Ditch to Drain into new channel at Sta. 124+00
SEE SHEET NO. 3 FOR CONTINUATION
Rip Rap
0.5% (Typ.)
10'
℄ Channel
Future Channel Extension
Grading & Seeding Limits
Hedge to Remain
Sta. 124+00 END Typical Channel Section
30' Utility Easement
DHW=151.88
DHW=151.20
DHW=151.56
DHW=151.72
DHW=151.90
DHW=152.04
DHW=152.18
DHW=152.32
Exist Ground @ ℄
100 Yr. High Water Surface
+0.20%
Ft. Proposed Channel
Future Channel Ft.
148.35 E
148.50 E
148.70 E
148.85 E
149.00 E
149.20 E
149.35 E
149.50 E
120+00
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS
Designed by DD CSB
Drawn by DM BS
Job No. 80285-A
Date
Sht. 4 of 7
CITY OF WICHITA, KANSAS
STORM WATER DRAIN NO. 42
STA. 118+00 TO STA. 124+00
PROJ. NO. 468-76-245-80915-000-000-001
No.
Revision
By
Date