S.W.S. NO. 154
STORM SEWERS IN COTTONWOOD VILLAGE
THIRD ADDITION

PROJECT NO.

468-76-245-80727-000-000-001

CITY OF WICHITA, KANSAS

DEAN SELLERS - ACTING CITY ENGINEER

GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE WORK WITH PAVING AND SANITARY CONTRACTORS AND CONTACT RELEVANT UTILITY COMPANIES AND OTHER AGENCIES INVOLVED WITH THIS PROJECT SITE DEVELOPMENT.

2. FIELD ENGINEER SHALL TAKE TIES TO ALL [illegible] AND THIMBLES IN THE PROJECT AREA BEFORE CONSTRUCTION BEGINS. FIELD ENGINEER SHALL REPLACE ALL SUCH [illegible]IONS AND THIMBLES DISTURBED DURING CONSTRUCTION.

3. 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.

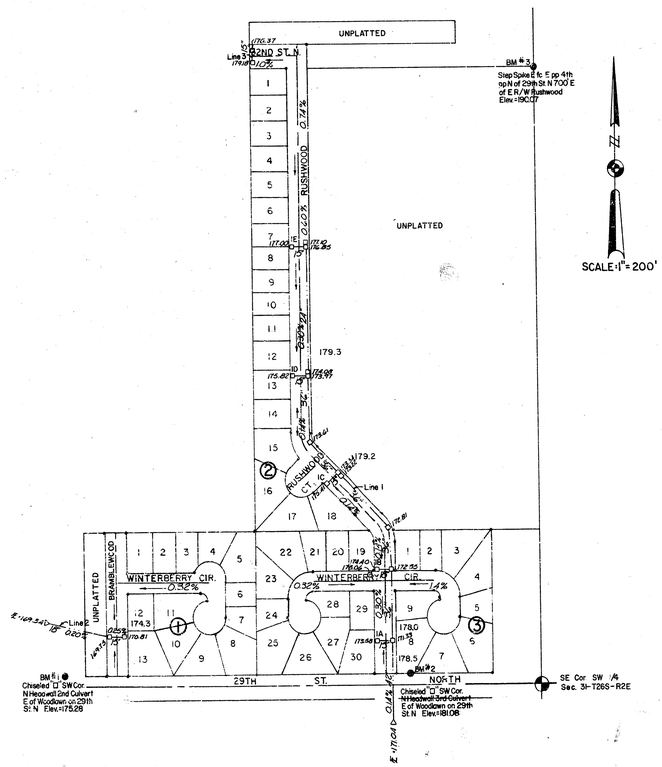
4. ALL METAL PIPES SHALL BE HELICALLY CORRUGATED PIPE FULLY COATED BOTH INSIDE AND OUTSIDE. THE COATING MAY BE BITUMINOUS OR POLYMERIC AS SPECIFIED IN AASHTO DESIGNATION: M246 - 78, TYPE B. ALL SUCH COATED CORRUGATED PIPE SHALL BE SMOOTH FLOW PIPES FOR SIZES 24" DIAMETER & LARGER. ALL CONNECTIONS FOR THESE FULLY COATED OR FULLY PAVED AND FULLY COATED PIPES SHALL BE CONSTRUCTED USING HUGGER TYPE COUPLER OR EQUAL.

5. ALL CONCRETE SHALL BE "6 - SACK CONCRETE" UNLESS OTHERWISE NOTED.

6. THE RIPRAP FOR THIS PROJECT SHALL BE TYPE 3. THE TYPE 3 RIPRAP SHALL BE 12" RIPRAP ON 6" SAND AND GRAVEL BEDDING. 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 INCH. THE 6 INCH SAND AND GRAVEL BEDDING FOR RIPRAP 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.

7. CONTRACTOR SHALL AVOID UNCOVERING EXISTING WATER LINES UNLESS ABSOLUTELY NECESSARY. UNCOVERING SHALL BE DONE ONLY IN THE PRESENCE OF A WATER DEPARTMENT ENGINEER.

8. CONTRACTOR SHALL HAVE THE OPTION OF INSTALLING PRECAST CONCRETE TYPE IA CURB INLETS IN LIEU OF THE BRICK TYPE STRUCTURE. SEE STANDARD DETAIL PRECAST TYPE IA CURB INLET, DATED AUGUST, 1979.



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SHEET NO.	DESCRIPTION
1.	TITLE SHEET
2.	LINE 1, LINE 2
3.	LINE 1, 1A, 1B
4.	LINE 1, 1C, LINE 3
5.	LINE 1, 1D, 1E
6.	TYPE 1A INLET DETAIL

Van Doren - Hazard - Stallings

Architects • Engineers • Planners

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Sheet 1 of 6

Existing Lake

UNPLATTED

Sta 7+75.4 - Line E
Install 18" End Section

18" SWS.

18" x 60' RCP

18" x 85.2' RCP

BM 1: Chiseled "□" SW cor. N Headwall 2nd culvert E of Woodlawn on 29th St N. Elev. = 178.68

BM 2: Chiseled "□" SW cor N Headwall 3rd Culvert E of Woodlawn on 29th St N. Elev = 181.08

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

37' 66

70' R/W

BRAMBLEWOOD

0.32%

162'

15" SWS.

Sta 9+78.9 - Line E
Const Std Type IA inlet
W=4'-2" Sta 118.00 Lt
Bramblewood

Sta 10+01.6 - Line E
Const Std Type IA inlet
W=4'-2" Sta 1+15.00-Rt
Bramblewood

Sta 9+00.5 Line 1
Install 42" End Section

70'

30'

10'

R.O.W.

20'

15'

B-wire fence

Remove & Replace
20 LF B-wire fence

42" SWS.

29TH ST N.

60'

20'

45'

Remove 20 LF
Hedge

See Sht 3

RUSHWOOD

15" SWS.

0.32%

8'-5S

Sta 11+04.5 - Line 1-
Sta 0+00 - Line 1A
Const Std Type IA inlet
W=6'-0" 5Rd 1+00-Rt
Rushwood

Note: Contractor shall expose 4" Water Line to determine exact Location

Sta 7+25.3 - Install
18" End Section

203 LF 18" RCP @ +0.20% or
203 LF 18" CMP @ +0.20%
(fully coated)

Sta 9+78.4 - Line E
Const Std Type IA inlet
W=4'-2" Sta 1+18.00-Lt
Bramblewood TC=174.05

12 LF 15" RCP @ +0.25%
or 40 LF 15" CMP @ +0.25%
(fully coated)

Sta 10+01.4 - Line E
Const Std Type IA inlet
W=4'-2" Sta 1+15.00-Rt
Bramblewood TC=174.05

Sta 8+89.5 ℄ Channel

Sta 9+00.5 Line 1
Install 42" End Section

Sta 11+04.5 - Line 1-
Sta 0+00 - Line 1A
Const Std Type IA inlet
W=6'-0" 5Rd 1+00-Rt
Rushwood TC=176.61

204 LF 42" RCP @ +0.14% or
204 LF 42" CMP @ +0.14%
(fully paved & fully coated)

185
180
175
170
165

Existing Ground

6:1 Side Slope

proposed Street

Type 3 Rip Rap
See Note Sht 1

8" Water

8" San Sew

142.50'

R/W

℄ 29th St N

Sand & Gravel Road surface

0.32%

Top of Curb Profile

Channel by Others

6" Water Line

8'-5S R=168.17'

E ext (8) = 169.36
169.39
169.44
169.49
169.54
169.59
169.64
169.69
E out (1W) = 169.20
E in (EHW) = 170.20
170.26
E out (1e) = 170.21
E ext (9) = 171.07
171.11
171.14
171.18
171.21
171.25
171.28
E ext (10) = 171.39
E out (1) = 171.63
E in (W) = 172.20

8 9 10 9 10 11

2

Block 8

30'

Lot 30

Lot 29

Sta 0+42.6 - Line 1A
Const Std Type 1A inlet
W=6'-2" Sta 1400-Lt
Rushwood TC=178.01

129.00'

115.00'

58' R/W

22' b.b.

CIRCLE

Sta 0+76.9 - Line 1B
Const Std Type 1A inlet
W=6'-2" Sta 1+08.13-Lt
Winterberry Cir
TC=178.36

Lot 19
Block 8

Sta 0+41.6 - Line 1B
Const Std Type 1A inlet
W=4'-2" Sta 3+40.74-Lt
Rushwood TC=178.64

Drainage Easmt

10'

10'

86.95'

37.51'

1.7%

8" W

8" W

Sta 0+00 - Rushwood
℄ 29th St N.

40 LF 15" RCP@+1.0% or
40 LF 15" CMP@+1.0%
(fully coated)
U.S.E.=179.0 D.S.E.=178.50

35 LF 15" RCP@+1.0% or
35 LF 15" CMP@+1.0%
(fully coated)
U.S.E.=175.41 D.S.E.=175.06

40 LF 18" RCP@+1.0% or
40 LF 18" CMP@+1.0%
(fully coated)
U.S.E.=174.80 D.S.E.=174.40

29TH STREET NORTH

RUSHWOOD

44' R/W

35' b.b.

℄ Line 1A

℄ Line 1B

0.32%

0.32%

0.32%

0.265%

36" S.W.S.

36" S.W.S.

0.32%

154.00'

90.00'

87.12'

34.41'

55.13'

8'SS

Remove 60 L.F. of Hedge
(See Sht 2)

Sta 1+10.65 - Line 1 =
Sta 0+00 - Line 1A
Const Std Type 1A inlet
W=6'-0" Sta 1+00-Rt
Rushwood (See Sht 2)

Sta 13+45.2 - Line 1
Const Std Type 1A inlet
W=6'-0" Sta 3+40.74-Rt
Rushwood

Lot 1
Block 3

Sta 14+63.3 - Line 1
Const Std Type 1A inlet
W=6'-0" Sta 6+51.84
Rt Rushwood

Unplatted

South line Sec. 31,
T26S, R22E

8'SS

Hedge Row

Lot 8

Lot 9

29' b.b.

6'W

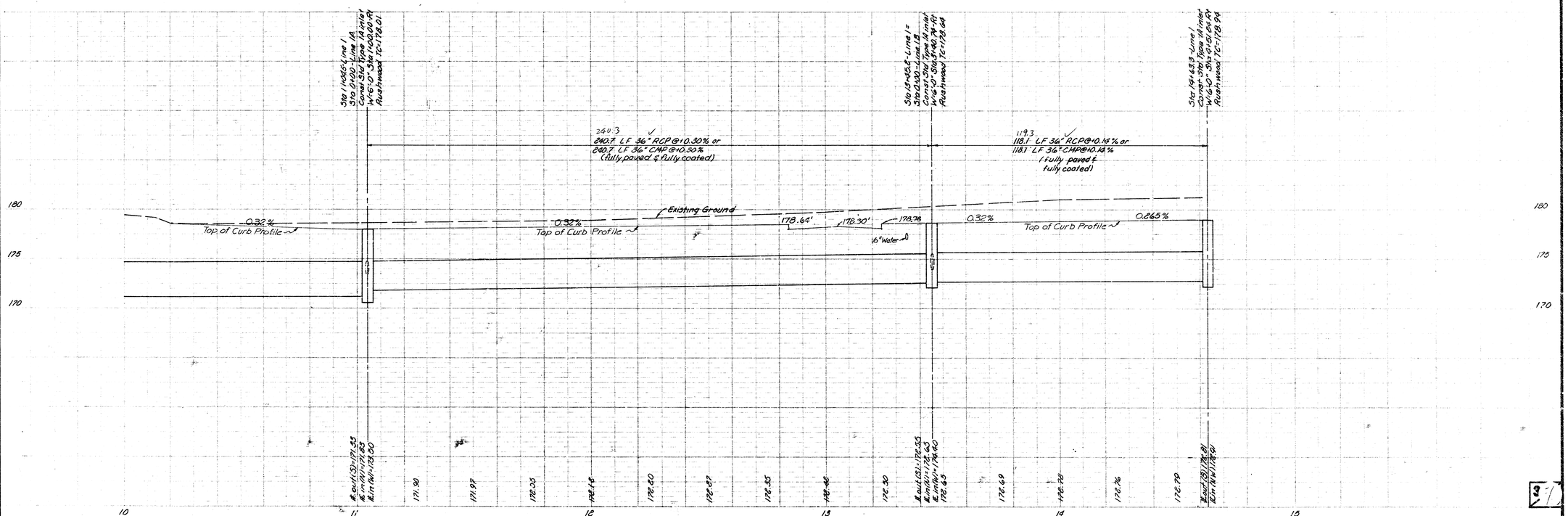
58' R/W

WINTERBERRY

BM 2 Chiseled "6" SW cor N Headwall 31d culvert
E of Woodlawn on 29th Street North
Elev = 181.06

Block 3

Scale: 1"=60' Horiz.
1"=5' Vert



Block 6

Lot 19

Lot 18

Lot 1
Block 3

RUSHWOOD COURT

RUSHWOOD

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

32.51'

1.76'

199.60'

8" W

72.62'

21.21'

34.41'

35.13'

688.75'

35.27'

0.32%

0.063%

0.404%

36" S.W.S.

15" S.W.S.

Line 1C

5

7

8

Sta 0+98.1 - Line 1C
Const Std Type 1A inlet
W=4'-2" Sta 6+74.60 Lt
Rushwood TC=179.66

28.4
90 LF 15" RCP @ 11.0% or
90 LF 15" CMP @ 11.0%
(fully coated)
DS. IE=174.99 US.E=175.61

Sta 14+63.3 - Line 1
Const Std Type 1A inlet
W=6'-0" Sta 4+51.04 Rt
Rushwood (See Sht 3)

Sta 16+85.3 - Line 1
Const Std Type 1A inlet
W=6'-0" Sta 6+66.20 Rt
Rushwood

Sta 16+93.3 - Line 1=
Sta 0+00 - Line 1C
Const Std Type 1A inlet
W=6'-0" Sta 6+74.20 Rt
Rushwood

Sta 18+15.5 - Line 1
Const Std Type 1A inlet
W=6'-0" Sta 8+05.39 Rt
Rushwood

Sta 0+00 - Line 3
Const Std Type 1A
inlet W=4'-2"
Sta 16+02.14 - Lt
30 nd St. N.

5 LF 21" RCP @ 10.63% or
5 LF 21" CMP @ 10.63%
(fully coated)
connect to existing Pipe
US.E=178.97 DS.E=178.94

Sta 0+31.2 - Line 3
Const Std Type 1A
inlet W=4'-2"
Sta 16+02.14 - Rt
30 nd St. N.

10%

10%

N.

30TH ST.

12' W.

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

Sta 16+63.3 - Line 1
Const Std Type 1A inlet
W=6'-0" Sta 4+51.04 Rt
Rushwood TC=178.04

220.6
221.9 LF 36" RCP @ +0.14% or
221.9 LF 36" CMP @ +0.14%
(fully paved & fully coated)

Existing Ground

0.32%

Top of Curb Profile

Sta 16+85.3 - Line 1
Const Std Type 1A inlet
W=6'-0" Sta 6+66.20 Rt
Rushwood TC=179.25

Sta 16+93.3 - Line 1=
Sta 0+00 - Line 1C
Const Std Type 1A inlet
W=6'-0" Sta 6+74.20 Rt
Rushwood TC=179.28

8.6
8 LF 36" RCP @ +0.14% or
8 LF 36" CMP @ +0.14%
(fully paved & fully coated)

123
122.8 LF 36" RCP @ +0.14% or
122.8 LF 36" CMP @ +0.14%
fully paved & fully coated)

0.32%

Top of Curb Profile

0.404%

Sta 18+15.5 - Line 1
Const Std Type 1A inlet
W=6'-0" Sta 8+05.39 Rt
Rushwood RIM=179.40

180
175
170

IE out (S) = 178.61
IE in (W) = 178.91

178.83
178.96
179.00
179.03
179.07
179.10
179.14
179.17
179.21
IE out (E) = 178.08
IE in (W) = 178.38
IE out (E) = 178.33
IE in (W) = 178.64
IE in (S) = 178.99
179.48
179.51
179.55
179.58
IE out (E) = 178.64
IE in (W) = 178.91

16
17
18

Sta 0+00 - Line 3
Const Std Type 1A inlet
W=4'-2" Sta 16+02.14 - Lt
30 nd St. N. IE=183.83

Sta 0+31.2 - Line 3
Const Std Type 1A inlet
W=4'-2" Sta 16+02.14 - Rt
30 nd St. N. IE=183.93

28.3
30 LF 15" RCP @ +1.0% or
30 LF 15" CMP @ +1.0%
(fully coated)

IE out (W) = 178.57
IE in (S) = 178.83

IE out (N) = 178.18

185
180
175

4

Lot 15 | Lot 14 | Lot 13 | Lot 12 | Lot 11 | Lot 10 | Lot 9 | Lot 8

21.91' | 85.00' | 85.00' | 85.00' | 75.00' | 67.00' | 67.00' | 67.00'

8"W | 8"W

Sta 0+98.1-Line 1D
Const Std Type 1A inlet
W=9'-5" Sta 10+00.00-Lt
Rushwood TC=179.30

39
40 LF 15" RCP@+1.0% or
40 LF 15" CMP@+1.0%
(Fully Coated)
U.S.IE=176.84 D.S.IE=175.82

36" H.W.
40 LF 15" RCP@+1.0% or
40 LF 15" CMP@+1.0%
(Fully coated)
U.S.IE=177.42 D.S.IE=177.00

Sta 0+91.6-Line 1E
Const Std Type 1A inlet
W=9'-2" Sta 14+00.00-Lt
Rushwood TC=180.34

8 | 9 | 10 | 11 | 12 | 13 | 14

Line 1D | Line 1E

36½" | 64" R/W

0.40% | 0.32% | 0.32% | 0.32% | 0.60%

36" S.W.S. | 36" S.W.S. | 24" S.W.S. | 18" S.W.S.

Sta 18+15.5-Line 1
Const Std Type 1A inlet
W=6'-0" Sta 9+08.39-Rt
Rushwood. (See Sht 4)

Sta 20+01.1-Line 1*
Sta 0+00 - Line 1D
Const Std Type 1A inlet
W=6'-0" Sta 10+00.00-Rt
Rushwood

Sta 20+09.1-Line 1
Const Std Type 1A inlet
W=6'-0" Sta 10+08.00-Rt
Rushwood

UNPLATTED

Sta 24+01.1-Line 1*
Sta 0+00-Line 1E
Const Std Type 1A inlet
W=5'-0" Sta 14+00.00-Rt
Rushwood

Sta 24+09.1-Line 1
Const Std Type 1A inlet
W=6'-5"-Sta 14+08.00-Rt
Rushwood

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

BM 3: Step Spike E f.c. E pp 4th pp
N of 29th St. N. 700' E of
E R/W Rushwood
Elev: 190.07

Sta 18+15.5-Line 1
Const Std Type 1A inlet
W=6'-0" Sta 9+08.39-Rt
Rushwood TC=179.60

Sta 20+01.1-Line 1*
Sta 0+00 - Line 1D
Const Std Type 1A inlet
W=6'-0" Sta 10+00.00-Rt
Rushwood

Sta 20+09.1-Line 1
Const Std Type 1A inlet
W=6'-0" Sta 10+08.00-Rt
Rushwood TC=179.30

Sta 24+01.1-Line 1*
Sta 0+00-Line 1E
Const Std Type 1A inlet
W=5'-0" Sta 14+00.00-Rt
Rushwood

Sta 24+09.1-Line 1
Const Std Type 1A inlet
W=6'-5"-Sta 14+08.00-Rt
Rushwood TC=180.59

1/6
185.4 LF 36" RCP@+0.14% or
185.4 LF 36" CMP@+0.14%
(Fully paved & fully coated)

8.5
8 LF 36" RCP@+0.14% or
8 LF 36" CMP@+0.14%
(Fully paved & fully coated)

39.1.7
392 LF 24" RCP@+1.03%, or
392 LF 24" CMP@+0.30%
(Fully paved & fully coated)

7.7
4 LF 15" RCP@+1.25% or
4 LF 15" CMP@+1.25%
(Fully coated)

185 | 180 | 175 | 170

0.40% | Top of Curb Profile | 0.32% | Existing Ground | 0.32% | Top of Curb Profile

E Equip(2)=173.64
E Inlet=173.71

E Equip(3)=173.92
E Inlet=174.07

E Inlet=175.82

E Equip(3)=174.08
E Inlet=176.08

E Inlet=177.00

E Equip=176.25
E Inlet=176.31

E Inlet=177.10

173.32 | 173.75 | 173.79 | 173.82 | 173.86 | 173.89 | 173.93 | 175.12 | 175.80 | 175.87 | 175.95 | 175.42 | 175.50 | 175.57 | 175.65 | 175.72 | 175.80 | 175.87 | 175.95 | 176.02 | 176.10 | 176.17

18 | 19 | 20 | 21 | 22 | 23 | 24