SANITARY SEWER IMPROVEMENTS TO SERVE

BIG DOG MOTORCYCLE COMPANY
1520 E. DOUGLAS AVE.

Project Number

1302 FPB (307301)

CITY OF WICHITA, KANSAS

Neil D. Cable, P. E., City Engineer

GENERAL NOTES

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   Kansas One-Call 687-2470

   The Contractor must notify the following in case of an emergency:

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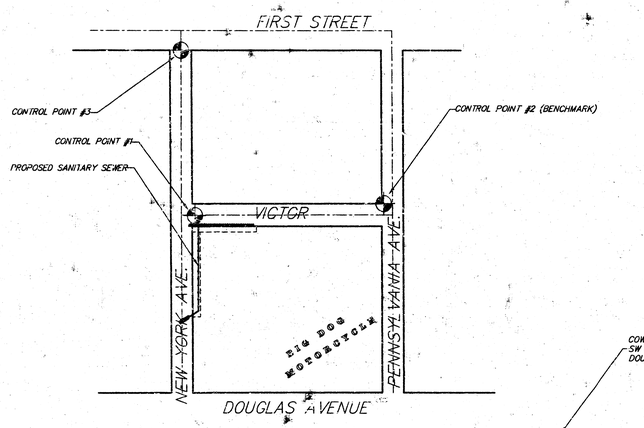
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6. Traffic affected by the construction of this project shall be handled in accordance with the latest edition of the Manual on Uniform Traffic Control Devices.

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8. Contractor shall reconnect existing life services.

9. Contractor shall maintain existing sewage service until construction is completed.



ON-SITE BENCHMARK:

"□" Cut TC NW Corner
Pennsylvania & Victor
Elev.=108.35

OFF-SITE BENCHMARK:

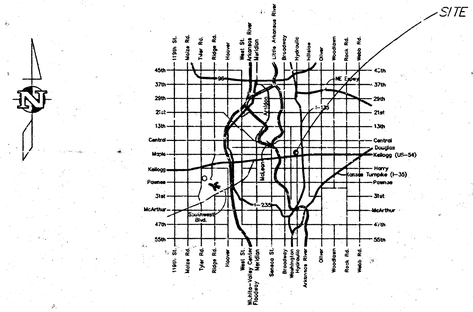
COW Benchmark. SW Corner intersection.
NW corner concrete base, traffic signal light.
Elev.=108.91 (City Datum)

INDEX

1 Cover
2 SS Plan and Profile
3 Manhole Details

CONTROL POINTS

CP #1, THIMBLE-VICTOR & NEW YORK, N=9713.03, E=20019.96
CP #2, BENCHMARK, N=9729.65, E=20382.79
CP #3, THIMBLE-FIRST & NEW YORK, N=10000.00, E=20000.00



LOCATION MAP

AS-BUILT
Date: 6/16/03
Signed: Timothy R. Rooney

7/2/03
RDL
PDF

APPROVED AS NOTED BY CITY ENGINEER OF WICHITA

SANITARY SEWERS VRH 5/28/03

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TIMOTHY R. ROONEY LICENSED 11453 KANSAS PROFESSIONAL ENGINEER 4/10/03

FILENAME: V:\BTB-CS\PPS\CVR

AM CONSULTING Inc.
ENGINEERING SERVICES
142 N. Emporia Wichita, KS 67202
316/265-2870 fax: 316/265-2839

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Control Point #1

10' Util. Esmt.

VICTOR

90°0'

89°49'

90°0'

90°0'

Remove and Replace
117.96 L.F. 4' Sidewalk

100.83 L.F. 8" PVC Pipe

Sta. 1+89.38, Line 1
Construct Std. Type P Manhole
Top=109.15
8" FL=~~104.36~~(S) 104.37
8" FL=~~104.36~~(E) 104.37
8" Stub FL=~~104.36~~(N) 104.37
N=9696.40
E=20030.80

Exist. SS to be Abandoned

Sta. 2+90.21, Line 1
Connect to Exist. MH
Cap and abandon 8" to the South
Top=109.46
8" FL=~~104.56~~(W) 104.58
Exist. 8" FL=104.61(N)
Exist. 8" FL=104.66(E)
Exist. 8" FL=104.56(S)
N=9698.40
E=20131.83

ST'RONGS LITTLE SUBDIVISION

NEW YORK

Ex. 6" WL

153.42 L.F. 8" PVC Pipe

15' Util. Esmt.

TIFFANYS SUBDIVISION

Remove and Replace
20 L.F. Asphalt Pavement

Sta. 0+35.96, Line 1
Remove and Replace Exist. MH
Top=109.29
8" FL=104.05(SW)
8" FL=104.05(N)
Exist. 8" FL=104.77(SW)
Exist. 8" FL=104.87(E)
N=9542.99
E=20030.80

Sta. 0+00, Line 1
Connect to Exist. MH
Top=109.37
8" FL=103.95(NE)
Exist. 8" FL=103.95(NE)
Exist. 8" FL=103.97(NW)
Exist. 8" FL=103.87(S)
N=9524.86
E=19999.74

90°32'

120°16'

Exist. SS to be Remain

Exist. SS to be Remain

MH

MH

35.96 L.F. 8" PVC Pipe
Remove and Replace Exist. Pipe

SCALE

20' 0 20' 40'

5' 0 5'

Sidewalk Removal and Replacement

Asphalt Removal and Replacement

Connect to Exist. MH

Install Sta. MH

Install Sta. MH

Connect to Exist. MH

Exist. Ground

Top MH=109.29

Top MH=109.15

35.96 L.F. 8" PVC Pipe
@ 0.20%

153.42 L.F. 8" PVC Pipe
@ ~~0.20%~~ 0.11%

100.83 L.F. 8" PVC Pipe
@ ~~0.20%~~ 0.21%

8" FL=103.87(S)
8" FL=103.97(NW)
8" FL=103.95(NE)
8" FL=103.95(NE)

8" FL=104.05(SW) +153.96
8" FL=104.05(N)
8" FL=104.87(E)

8" FL=104.18

~~104.37~~
8" FL=104.37(S) +89.38
~~104.37~~
8" FL=104.37(E)
~~104.37~~
8" Stub FL=104.37(N)

~~104.58~~
8" FL=104.58(W) +92.21
8" FL=104.61(N)
8" FL=104.66(E)
8" FL=104.56(S)

125 120 115 110 105 100 95 90 85

0 1 2 3

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316/265-3870

A-e-M

PROJECT NUMBER 1332 PPS (607861)

AM. NO. 03035

DESIGN MP | DRAWN MP | FILE P:\SPROF | DATE 4/3/03 | SCALE 1"=20'

BIG DOG MOTORCYCLE

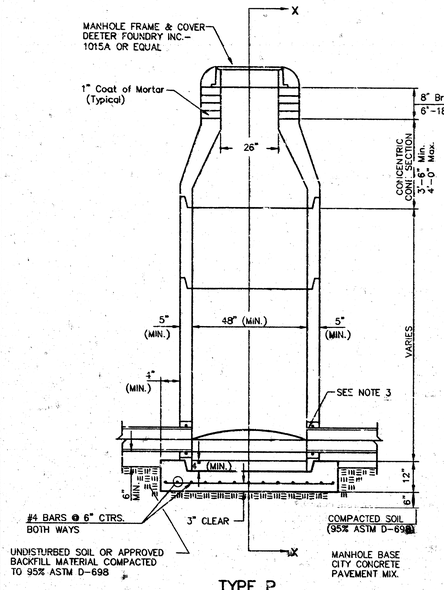
PLAN & PROFILE

WICHITA, KANSAS

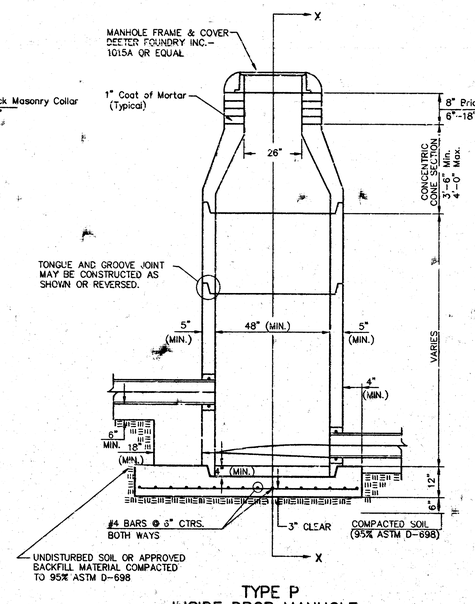
SHEET 2 OF 3

REVISED

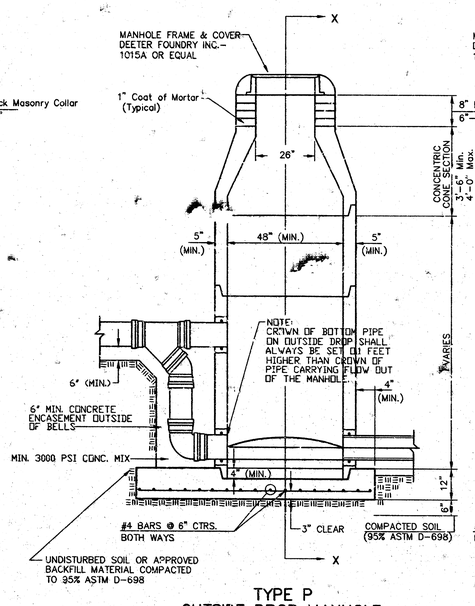
SEWER APPURTENANCES DETAILS



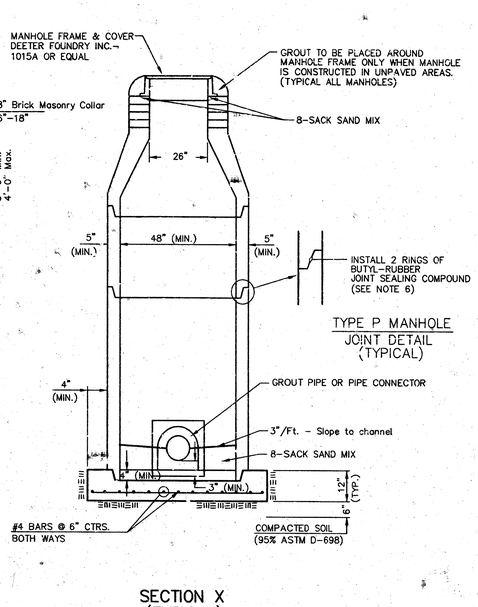
TYPE P STANDARD MANHOLE



TYPE P INSIDE DROP MANHOLE



TYPE P OUTSIDE DROP MANHOLE



TYPE P MANHOLE JOINT DETAIL (TYPICAL)

SECTION X (TYPICAL)

GENERAL NOTES

PRECAST MANHOLE NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON–SHRINK GROUT SHALL BE NON–METALLIC TYPE.
3. 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.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS THEMEC SERIES 66 HI–BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
8. 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.
9. LIFTING HOLES SHALL BE FILLED WITH NON–SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
10. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 3 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. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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 CROWN OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
17. 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.
18. 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.

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL – SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4691
(316) 268-4174 FAX

STANDARD TYPE 'P' MANHOLES

M. E. LINDEBAK P.E. – CITY ENGINEER

PROJECT NUMBER	INDEX CODE
XXX–XXXXX	XXXXXX
DATE: MAR 96	SHEET X OF X

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PROJECT NUMBER	AM NO.	SHEET
1332 PPS (607881)	03035	3

DESIGN	DRAWN	FILE	DATE	SCALE	OF
COW	COW	PMH	4/3/03		3

MANHOLE DETAILS

BIG DOG MOTORCYCLE

WICHITA, KANSAS

REVISED

SANITARY SEWER IMPROVEMENTS TO SERVE

BIG DOG MOTORCYCLE COMPANY
1520 E. DOUGLAS AVE.

Project Number

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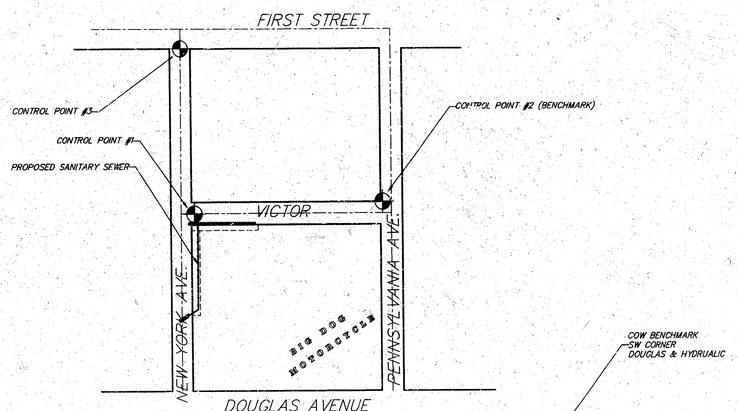
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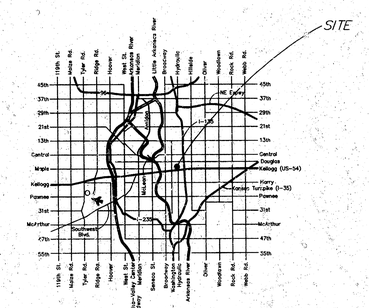
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LOCATION MAP

AS-BUILT
Date: 6/16/03
Signed: Timothy R. Klaus

7/2/03
R.D.L
PDF

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TIMOTHY R. KLAUS
LICENSED
11-EE-0
KANSAS
PROFESSIONAL ENGINEER
4/10/03

FILENAME: 00337-DR SHEET1

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A-M CONSULTING Inc.
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