CMC
MDN

MAIN LAID BY: J-Mark Construction Company

DATE STARTED: 4/15/68
DATE FINISHED: 8/27/68

JOB NO: 416
ACCT NO: 343

30" - 24" - 16" RUNNING FROM LITTLE MESA TANK SOUTH ON LIMIT to 8th ST AND SOUTH ON 8TH ST TO INTERSECTION ON CHEYENNE BLVD

CONSUTLTING ENGINEERS: Black and Veatch

Job started at Cheyenne Blvd and 8th St, laying 16"-24"-30" North to 30" effluent line at Little Mesa Tank. Started job by setting 16x16x16 tee in intersection of Cheyenne Blvd and 8th St. The run to the South plugged and the branch to the west plugged. A reaction block poured at plugs and back side tee. Laid 5' of 16" out of run North and set 16x16x10 tee with 10" branch looking East. Laid 5' of 10" East out of branch and set 10" 90° bend. Laid 3' of 10" North and set 11¼° bend. Laid 2' of 10" and tied into 10" tapping valve #7395 on existing 10" main running east and west in Cheyenne Blvd. Laid 22' of 16" North out of run and set 16" Butterfly Valve #7398. Laid 3' of 16" North out of valve and set 16x16x16 tee with 6" branch looking East. Laid 3' of 6" East out of branch and set 6" 11¼° bend. Laid 2' of 6" and set 6" 45° bend. Laid 2' of 6" South out of bend and tied into 6" tapping valve #7396 on existing 6" main running East and West in Cheyenne Blvd. Laid 25' of 16" North out of run and set 16x16x16 tee 6" branch looking West. A 6" valve was set on branch for hyd #97D. Laid 735' of 16" North out of run and 16x16x8 tee in intersection of 8th St and Oxford La with 8" branch looking West on Oxford a 8" flanged Valve #7397 was set on branch for future use. Laid 825' of 16" North out of run and set 16x16x16 tee with branch looking up. A 16" blind flange tapped out 2½" and a 2½" Crane valve set on branch. Blow Off #7428 a pit and manhole cover were built over this BOV. Laid 468' of 16" North out of run and set 16x16x10 tee in intersection of 8th St and Arcturs with branch looking West on Arcturus. A 10" flanged Valve #7429 was set on branch for future use. Laid 1397' of 16" North out of run to intersection of 8th St and Brookside and set 16x16x16 tee with 16" branch looking West. A 16" blind flange was put on branch for future use. Laid 8' of 16" North out of run and set 16x16x16 tee with branch looking west. A 6" valve was set on branch for hyd #101-D. The north run of tee is flanged and a 24" flanged butterfly valve #7447 was set on North run of tee. Laid 7' of 16" North out of valve and set 16" check valve #7450. A pit and man hole cover were built over check valve. Laid 16' of 16" North out of check valve and set a 16x24 reducer. On North flange of reducer a flanged 24x24 cross was set. A 24" blind flange was put on branch looking West for future use. A 24" Butterfly valve #7449 was set on East Flange of Branch. Laid 46' of 24" East from valve and set a 24x24x6" tee with 6" branch looking south. A 6" flanged valve #7451 was set on branch for future use. Laid 28' of 24" East out of run and line plugged and reaction block poured at East property line of 8th St. for future line running East on Brookside. Set 24" flanged Butterfly valve #7448 on north run. Laid 1105' of 24" north from valve and set 24" Butterfly valve #7299. Laid 13' of 24" north from valve and set

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a 24x24x6 tee with branch looking West. A 6" valve was set on branch for Hyd #78D. Laid 2,252' of 24" North out of run to intersection 8th St and Fountain Creek Blvd and set a 24x24x8 tee with branch looking east on Fountain Creek Blvd. A 8" flanged valve #7315 was set on branch for future use. Laid 333' of 24" North out of run under Bear Creek and set 24x24x16 tee with branch looking UP. A 16" blind flange tapped out 2½" and 2½" Crane Blow Off Valve #7365 was set on branch. A pit and Man Hole Cover were built over BOV. The 24" line under Bear Creek was encased on concrete for 170 linear feet. Laid 22' of 24" out of north run and set a 24" 11¼° bend. Laid 33' of 24" northeast out of bend and set 24x24x6" tee 6" branch looking East. A 6" valve was set on branch for Hyd #94D. Laid 38' of 24" North from bend to intersection of 8th St and County Farm Rd and set 24x24x6" tee with 6" branch looking West. A 6" valve was set on branch for hyd #95D. Laid 84' of 24" North out of run and set 24x24x16" tee with 6" branch looking West. A 6" valve was set on branch for Hyd #95D. Laid 84' of 24" north out of run and set 24x24x16" tee with 16" branch looking West on County Farm Rd. A 16" blind flange was set on branch for future use. Laid 650' of 24" North out of run through intersection 8th St and Moreno and set 24x24x16" tee with branch looking West. A 6" valve was set on branch for hyd 98D. Laid 256' of 24" north out of run to intersection of 8th St and Costilla and set a 24x24x6" tee with branch facing West. On Costilla a 6" flanged valve #7430 was set on branch for future use. Laid 358' of 24" north out of run to intersection of 8th St and un-named street running West on south side of Fountain Creek and set 24x24x6" tee with 6" branch looking west. A 6" valve was set on branch for Hyd #99D. Laid 65' of 24" North out of run and set 24" style 162 Insulated Dresser 24" Ductile Iron to 24" O.D. Steel. Ladi 9'4" of 24" steel north through south bridge abuttment and set 24" Style 38 Dresser. Hung 76'2" length of 24" steel under bridge north out of Dresser and set 24" style 38 Dresser. Laid 9'4" of steel 24" north out of Dresser through North bridge abuttment and set 24" Style 162 Insulated Dresser 24" O.D. Steel to 24" Ductile Iron. Laid 25' of 24" Ductile north out of Dresser and set 24x24x16" tee with branch looking West. A 6" valve #7464 was set on branch for Blow Off. Laid 24' of 6" West and daylighted Blow Off in concrete box on North bank of Fountain Creek. Laid 223' of 24" North out of run and set 24" flanged Butterfly valve #7431. Laid 125' of 24" North out of valve and set a 24x24x16 tee with 16" branch looking up. A 16" blind flange tapped out 2½" x2½" Crane Valve #7432 Blow Off was set on branch. A pit and manhole cover were built over this Blow Off. Laid 86' of 24"North out of run and set a 24x24x6" tee with 6" branch looking West. A 6" valve was set on branch for hyd #100D. Laid 8' of 24" North out of run and set a 24" Style 38 Dresser. Laid 54' of 24" North out of Dresser and set a 24" 11¼° bend. Laid 350' of 24" North out of bend going through 200' long 54" galv tunnel liner under By-Pass 24 and D&RGW Railroad, to intersection of Limit and Vermijo and set 24x24x6" tee with 6" branch looking West. A 6" valve was set on branch for Hyd 103-D. Laid 485' of 24" North out of run through intersection of Limit and Cucharras and set a 24x24x6" tee with 6" branch looking West. A 6" valve was set on branch for Hyd 100D. Laid 365' of 24" North out of run to intersection of Limit and Colo Ave and set a 24" Butter Fly valve #7490. Laid 4' of 24" North out of valve and set 24x24x6" tee with 6" branch looking east. A 6" valve was set on branch for Hyd 745-C. Laid 43' of 24" North out of run and set a 24x24x16" tee with 16" branch looking East. Laid a13' piece of 16" East out of branch and set 16" 11¼° bend. Laid 2' of 16" out of bend and set 16" 45° bend. Laid 2' of 16" pi pe north out of bend and tied into 16" tapping valve #7492 on existing 16" main running East and West in Colo Ave. Laid 6' of 24" North out of run and set a 24" flanged Butterfly valve #7491 on North Flange of Butterfly valve

of 30" North out of Dresser and with another 30" Style 38 Dresser. Tied

MEASUREMENTS VALVES AND FITTINGS 8th ST AND ARCTURUS

16x16x10" tee - 29' EWL of 8th St - 33' SNL of Arcturus
10" Iowa flanged Valve #7429 - 28' EWL of 8th St - 33' SNL of Arcturus

MEASUREMENTS VALVES AND FITTINGS 8th ST AND BROOKSIDE

16x16x16 Tee blind flange on branch looking West - 22' EWL of 8th St - 12' SSL of Brookside or 12' S of Hyd Tee 101-D.
16" A.C.Butterfly Valve #7447 Closing South - 1' SOSL of Brookside - 24' EWL of 8th St
16" Mission Check Valve #7450 in pit 7' NOfSL of Brookside - 22' EWL of 8th St
24x16" Reducer - 18' NSL of Brookside - 22' EWL of 8th St
24x24 Cross blind flange on branch looking west - 20' NSL of Brookside - 22' EWL of 8th St
24" A.C. Butterfly valve #7449 Closing East - 20' NSL of Brookside - 24' EWL of 8th St
6" Iowa flanged gate valve #7451 closing south - 30' WEL of 8th St - 20' NSL of Brookside.
Slip joint plug at end of 24" line running East on Brookside - 1' WEL of 8th St - 20' NSL of Brookside or 1' N and 29' E of Valve #7451
24" A.C. Butterfly valve #7448 closing North. - 25½' NSL of Brookside - 24' EWL of 8th St

MEASUREMENT ON VALVE APPROX 1000' N. of Brookside on West side 8th street

24" Henry Pratt Butterfly Valve #7299 - 11' E of hyd #78D - 16' S of Hyd 78-D.

MEASUREMENTS ON VALVES AND FITTINGS FOUNTAIN CREEK BLVD AND 8TH ST

24x24x8" tee flanged branch 7' E of Rail marker
8" Iowa flanged gate valve #7315 - 8' E of rail marker on W side of 8th St

MEASUREMENTS ON VALVES AND FITTINGS WEST SIDE OF 8th ST NORTH SIDE OF BEAR CREEK

24x24x16" Tee and 2½" Crane BOV #7365 in pit 5' E of Rail marker
24" 11¼° Bend - 23' N of BOV #7365
24" 22½° bend - 40' N of Hyd #94D, 7' E of Hyd #94D

MEASUREMENTS ON FITTINGS 8TH ST AND COUNTY FARM ROAD

24x24x16" Tee Blind flange looking West - 8' E of hyd #95-D - 86' N of Hyd #95D

MEASURMENTS ON VALVES AND FITTINGS 8TH ST AND COSTILLA

24x24x6" Tee - 30' EWL of 8th St - 16' SNL of Costilla
6" Iowa flanged gate valve #7430 - 29' EWL of 8th St - 16' SNL of Costilla

MEASUREMENTS ON VALVES AND FITTING AT 8TH ST AND FOUNTAIN CREEK BRIDGE

24" Style 162 Insulated Dresser Ductile Iron to Steel
5' SS end of Bridge Abuttment - 11'9" E W Bridge Rail
24" Style 38 on steel line hanging under bridge
2' NS bridge abuttment
24" Style 38 on steel linehanging under bridge
2' SN bridge abuttment
24" Style 162 Insulated Dresser Ductile Iron to Steel
5' NN end bridge abuttment - 11'9" EW bridge rail

24x24x6" Tee
10½' EW Concrete rail on bridge - 24' NN end of concrete rail on bridge
6" Iowa flange to M.J. Valve Blow Off #7464
9½' EW Concrete rail on bridge
24' NN end of concrete rail on bridge
Blow Off Daylights 24' W of valve in concrete box on N bank ofFountain Creek

MEASUREMENTS ON VALVES AND FITTINGS ON 8TH ST SOUTH OF BY PASS 24

24" A.C. Butterfly valve #7431
255' SSL of By Pass 24
29' EWL of 8th St
24x24x16" Tee & 2½" Crane Blow Off valve #7432 in pit 126' SSL of By Pass 24
29' EWL of 8th St
24" Style 38 Dresser
8' N of Hyd #100-D
20' EWL of 8th St
24" 11¼° Bend
62' N of Hyd #100-D
20' EWL of 8th St

MEASUREMENTS ON SLEEVE BY PASS 24 and 8th ST

54" galv tunnel liner 200' long
S end of sleeve 70' N of hyd #100-D
20' EWL of 8th St
N End of sleeve 7' NNL of RR Right of Wa
35' EWL of Limit St

MEASUREMENTS ON VALVES AND FITTINGS LIMIT AND COLORADO AVE

24" A.C. Butterfly valve #7490 Closing south
24' WEL of Limit
8' SSL of Colo Ave
24x24x16 tee 15' NSL of Colo Ave- 28' WEL of Limit
16" 45° Bend - 2' S of Valve #7492
16" 11¼° bend 4' S and 3' W of valve #7492
16x16 tapping sleeve 27' WEL of Limit - 26' NSL of Colo Ave
16" Tapping valve #7492 - 29½' WEL Limit - 25' NSL of Colo Ave
4" By Pass Valve #7492 - 25' WEL of Limit - 25' NSL of Colo Ave
24" A.C. Butterfly Valve #7491 Closing North - 28' WEL of Limit - 38' NSL Colo Ave
24x30 Reducer - 39' NSL of Colo Ave - 29' WEL of Limit
30" 22½° Bend measured from NE Property corner
11' EEL of Limit - 20' SNL Colo Ave
30" 22½° Bend measured from NE Property corner
8' EEL of Limit - 18' SNL of Colo Ave
30" 45° Bend - 12' SNL of Colo Ave - 9' WEL of Limit

MEASUREMENTS ON FITTINGS AND VALVES LIMIT AND PIKES PEAK

30" 22½° Bend 4' WEL of Limit - 37' NSL of Pikes Peak
30" 11¼° Bend - 19' EWL of Limit - 2' SNL of Pikes Peak

MEASUREMENTS ON VALVES AND FITTINGS LIMIT AND BIJOU

30" A.C. Butterfly Valve #7538 - 13' WEL of Limit - 24' SNL of Bijou

Measurements on fittings and Blow off valve - 900' S of Manitou Blvd in limit Street Right of Way
30x30x6" Tee 17' W of Rail Marker
6" Iowa flanged to M.J. Gate Valve #7539 - 18' W of rail marker, blow off daylights 100' W of valve on concrete slab

MEASURMENTS ON FITTINGS AND BLOW OFF VALVE JUST SOUTH OF GATE TO LITTE MESA

30x30x6" tee - 11' W of rail marker
6" Iowa flange to M.J. G te Valve #7541 - 12½' W of rail marker, Blow Off daylights 200' West of Valve in South ditch of Manitou Blvd

MEASUREMENTS ON TIE IN SOUTH OF LITTLE MESA TANK

Used 2 30" Style 38 Dresser to tie into existing 30"
1st 30" Style 38 Dresser 18' N of BOV #7541 - 1' E of BOV #7541
2nd 30" Style 38 Dresser 30' N of BOV 7541 - 1' E of BOV #7541