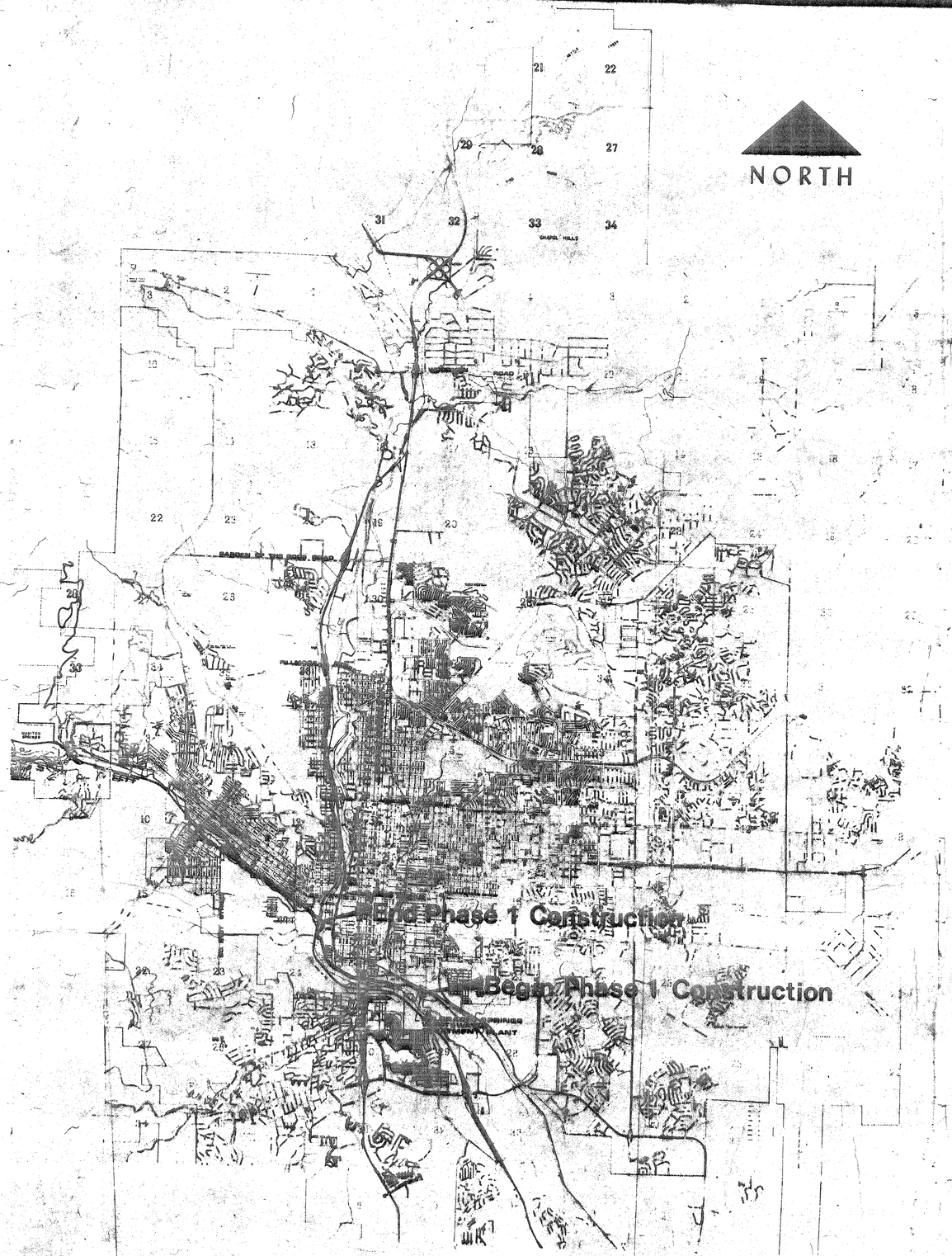


MONUMENT CREEK INTERCEPTOR SEWER PHASE 1

"AS BUILT"

WASTEWATER TREATMENT PLANT TO CIMARRON STREET

78-80

FOR
CITY OF COLORADO SPRINGS
DEPARTMENT OF PUBLIC UTILITIES
WASTEWATER DIVISION

R. KEITH HOOK & ASSOC., INC.
ARCHITECTS-PLANNERS-ENGINEERS-SURVEYORS
2545 E. PLATTE PLACE
COLORADO SPRINGS, COLORADO

P-1656

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE I

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H-L.V	Job No: 730423
Drawn By: dlb	File No: P-1656
Checked By: R SAMS	Sheet No: 1
Reference: X-860 & X-885	

APPROVED BY: _____
Wastewater Division
DATE: _____

Benchmark: SP-3 Brass Cap in Concrete approx. 33.4'+/- N.E. of M.H STA. 14+39 EL.= 5898.76 (U.S.G.S.)

Revision: Flow Line Elevations 2/77 WEM/dlb

M.H STA 10+23 (A.B) = "AS BUILT" INFORMATION 12-1-78 dlb

SCALE: 1" = 40' HORZ.
1" = 8' VERT.

GENERAL NOTES:

1. MANHOLE RIM ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR WILL ADJUST THE RIM ELEVATIONS OF MANHOLES LOCATED FROM STA. 0+10 TO STA. 24+51 FLUSH WITH EXISTING GRADE. NO ADJUSTMENT RINGS WILL BE USED ON MANHOLES LOCATED WITHIN STREAM BANKS AND RIM ELEVATION WILL BE A MINIMUM OF 1 FOOT AND A MAXIMUM OF 2 FEET ABOVE EXISTING OR FINISHED GRADE.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES AND DRAINAGE STRUCTURES. ALL UTILITIES SHOWN ARE FROM THE BEST AVAILABLE INFORMATION FROM UTILITIES DEPARTMENT RECORDS SUPPLEMENTED BY POTHOLING AT VARIOUS LOCATIONS.
3. FOR MANHOLE DETAILS, DETRITOR CHANNEL RECONSTRUCTION, AND ENCASEMENT DETAILS, SEE R.K.H. FILE NO. 6612.
4. THE TOPOGRAPHIC MANUSCRIPTS AND BASE MAPS HAVE BEEN PREPARED FROM AERIAL PHOTOGRAPHY TAKEN IN SEPTEMBER, 1975.
5. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OF ALL EXCESS EXCAVATED MATERIALS AND TREES, BUSHES, AND ETC; THAT ARE REMOVED DURING CONSTRUCTION, IN ACCORDANCE WITH CITY, COUNTY, STATE AND FEDERAL REQUIREMENTS.
6. THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE AND REPLACE THE FENCES, JUNK CARS, AND ETC; TO THE APPROVAL OF THE OWNER AND THE ENGINEER.
7. THE CONTRACTOR WILL LOCATE THE 1¼", 1½" AND 2" PVC WATER LINES AND THE 1½" PVC CHLORINE SOLUTION LINE AND RELOCATE THESE LINES UNDER AND TO THE SIDES OF THE 60" ⌀ SEWER LINE.

STA. 0+00 FACE OF WALL
E EL. = 5879.50
(SEE STRUCTURE DETAIL R.K.H. FILE NO. 6612.)

SEE STRUCTURE DETAIL R.K.H FILE NO 6612. FOR 92°34'00"(A.B) CHANNEL RECONSTRUCTION

4" NON-POTABLE 2" PVC WATER LINE.

THE CONTRACTOR WILL LOCATE THE 1¼", 1½" AND 2" PVC WATER LINES AND THE 1½" PVC CHLORINE SOLUTION LINE AND RELOCATE THESE LINES UNDER AND TO THE SIDES OF THE 60" ⌀ SEWER LINE.

1½" PVC CHLORINE SOLUTION LINE

DETRITOR

1¼" PVC WATER LINE — 153°58'32" — 155°38'40"(A.B)

1½" PVC CHLORINE SOLUTION LINE

10'-60" @ 0.066% — 10.15'(A.B)

TYPE I M.H
M.H STA. 0+10
E EL. IN = 79.31
E EL. OUT = 79.21

M.H STA. 0+10.15 (A.B)
E EL. IN = 79.28
E EL. OUT = 79.18

30.82'(A.B)
24'-60" @ 0.066%

TYPE I M.H
M.H STA. 0+44
E EL. = 79.33

M.H STA. 0+40.97 (A.B)
E EL. = 79.33

4" CAST IRON NON-POTABLE LINE - CONTRACTOR WILL LOCATE AND RELOCATE THIS LINE UNDER THE 60" ⌀ SEWER LINE.

TYPE I M.H
M.H STA. 1+39
E EL. IN = 79.49
E EL. OUT = 79.39

M.H STA. 1+35.35 (A.B)
E EL. IN = 79.45
E EL. OUT = 79.36

AERATION BASIN

94.39'(A.B)
98'-60" @ 0.066%

173°28'10"

2.068°=28'10"
267°18'30"(A.B)

23.6°=23°02'

* EXISTING SLOPES AND VEGETATION IN THIS AREA WILL BE RESTORED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR.

437.91'(A.B)
438'-60" @ 0.066%

H.S PRIMARY ELECTRICAL CABLE (DIRECT BURIAL)

EXISTING 48" SEWER

EXISTING 90" SEWER

4" CAST IRON NON-POTABLE LINE

EXISTING 6" WATER

EXISTING 4" GAS

LAS VEGAS ST.

M.H. STA. 5+73.26 (A.B)
E EL. = 79.32

TYPE II M.H
M.H STA. 5+71
E EL. = 79.17

155°49'45"(A.B)
(60°44'45")

4" CAST IRON NON-POTABLE LINE

EXISTING 16" ELECTRICAL SECONDARY CABLES (DIRECT BURIAL)

EXISTING 4" GAS

EXISTING 4" SEWER

INV. 6886.60

4" SEWER LINE

M.H STA. 8+82.44 (A.B)
E EL. = 79.81

TYPE II M.H
M.H STA. 8+67
E EL. = 79.96

U.S TELEPHONE CABLE IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT MOUNTAIN BELL TELEPHONE CO. PRIOR TO EXCAVATION FOR LOCATION OF TELEPHONE CABLE.

VACATED ALLEY

1½" WATER LINE

30'

289.18'(A.B)
290'-60" @ 0.066%

185°51'09"

2. FRED KILE

317.00'(A.B)
317'-60" @ 0.066%

320°32'42"

I. CITY OF COLORADO SPRINGS

3. I. IRVING HARRIS

OVERHEAD POWER LINE

8" ELECTRICAL PLASTIC CONDUIT

EXISTING 15" SEWER

M.H STA. 11+79.44 (A.B)
E EL. IN = 80.27
E EL. OUT = 80.17

TYPE II M.H
M.H STA. 11+84
E EL. IN = 80.27
E EL. OUT = 80.17

EL PASO ST.

2" WATER

1½" GAS

OVERHEAD POWER LINE

M.H STA. 12+89.68 (A.B)
E EL. IN = 80.30
E EL. OUT = 80.20

TYPE II M.H
M.H STA. 12+94
E EL. IN = 80.44
E EL. OUT = 80.34

¾" WATER SERVICE LINE

INV. 6881.20

5890
5880
5870

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00

M.H STA 0+10.15 (A.B)
RIM EL. = 87.73

TYPE I M.H
M.H STA. 0+10
RIM EL. = 88.60

(A.B)
10.15'(A.B)
13'-60" @ 0.066%

M.H STA. 0+40.97
RIM EL. = 88.39

TYPE I M.H
M.H STA. 0+44
RIM EL. = 86.70

M.H STA. 0+44
RIM EL. = 86.60

94.39'(A.B)
98'-60" @ 0.066%

30.82'
(A.B)

E IN = 79.91
E OUT = 79.21

E = 79.33

(A.B) E IN 79.28
E OUT 79.18

STA. 0+00
E = 79.20

1+04 APPROXIMATE LOCATION OF 4" CAST IRON NON-POTABLE LINE TO BE RELOCATED BY CONTRACTOR UNDER SEWER LINE.

TYPE I M.H
M.H STA. 1+39
RIM EL. = 89.60

MH STA. 1+35.35 (A.B)
RIM EL. = 90.38

E IN = 79.49
E OUT = 79.39

E = 79.33 (A.B)
E OUT = 79.35

5+71 APPROXIMATE LOCATION OF 4" CAST IRON NON-POTABLE LINE.

MH STA 5+73.26 (A.B)
RIM EL. = 92.38

TYPE II M.H
M.H STA. 5+71
RIM EL. = 90.00

E = 79.17
E = 79.32 (A.B)

6+36 APPROXIMATE LOCATION OF 1½" GAS LINE.

6+76 APPROXIMATE LOCATION OF 1½" WATER LINE.

6+87 APPROXIMATE LOCATION OF ELECTRICAL SECONDARY CABLES (DIRECT BURIAL)

6+96.5 24" SEWER
E EL. 86.70
BOTTOM OF PIPE = 82.49

7+67 APPROXIMATE LOCATION OF 8" ELECTRICAL PLASTIC CONDUIT

SEPTEMBER, 1976
EXISTING GROUND

TYPE II M.H
M.H STA. 8+67
RIM EL. = 97.60

M.H STA. 8+82.44 (A.B)
RIM EL. = 96.64

E = 79.96
E = 79.81 (A.B)

9+16 15" SEWER
E EL. = 84.42

317.00'(A.B)
317'-60" @ 0.066%

12+34 APPROXIMATE LOCATION OF ¾" WATER SERVICE LINE.

M.H STA. 12+89.68 (A.B)
RIM EL. = 95.58

TYPE II M.H
M.H STA. 12+94
RIM EL. = 95.50

12+71 APPROXIMATE LOCATION OF 1½" GAS LINE. TOP OF PIPE = 90.70

M.H STA 11+79.44 (A.B)
RIM EL. = 93.20

TYPE II M.H
M.H STA. 11+84
RIM EL. = 93.60

13+14 APPROXIMATE LOCATION OF 2" WATER LINE TOP OF PIPE = 90.00

110'-42" @ 0.066%

E IN = 80.27
E OUT = 80.17

E IN = 80.27 (A.B)
E OUT = 80.17

E IN = 80.44
E OUT = 80.34

P-1656 SHT. 1 OF 11

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE I

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H-L.V	Job No: 730423
Drawn By: dlb	File No: P-1656
Checked By: R.SAMS	Sheet No: 2
Reference: X-860 & X-885	

Benchmark: SP-6 Brass Cap in Concrete approx. 42.7'+/- N.W. of M.H STA. 19+25 EL.=5898.81 (U.S.G.S.)

Revision: 1. Flow Line Elevations 2/77 WEM/dlb
2. M.H @ 24+51 MOVED 100' EAST. 7/77 WEM/dlb

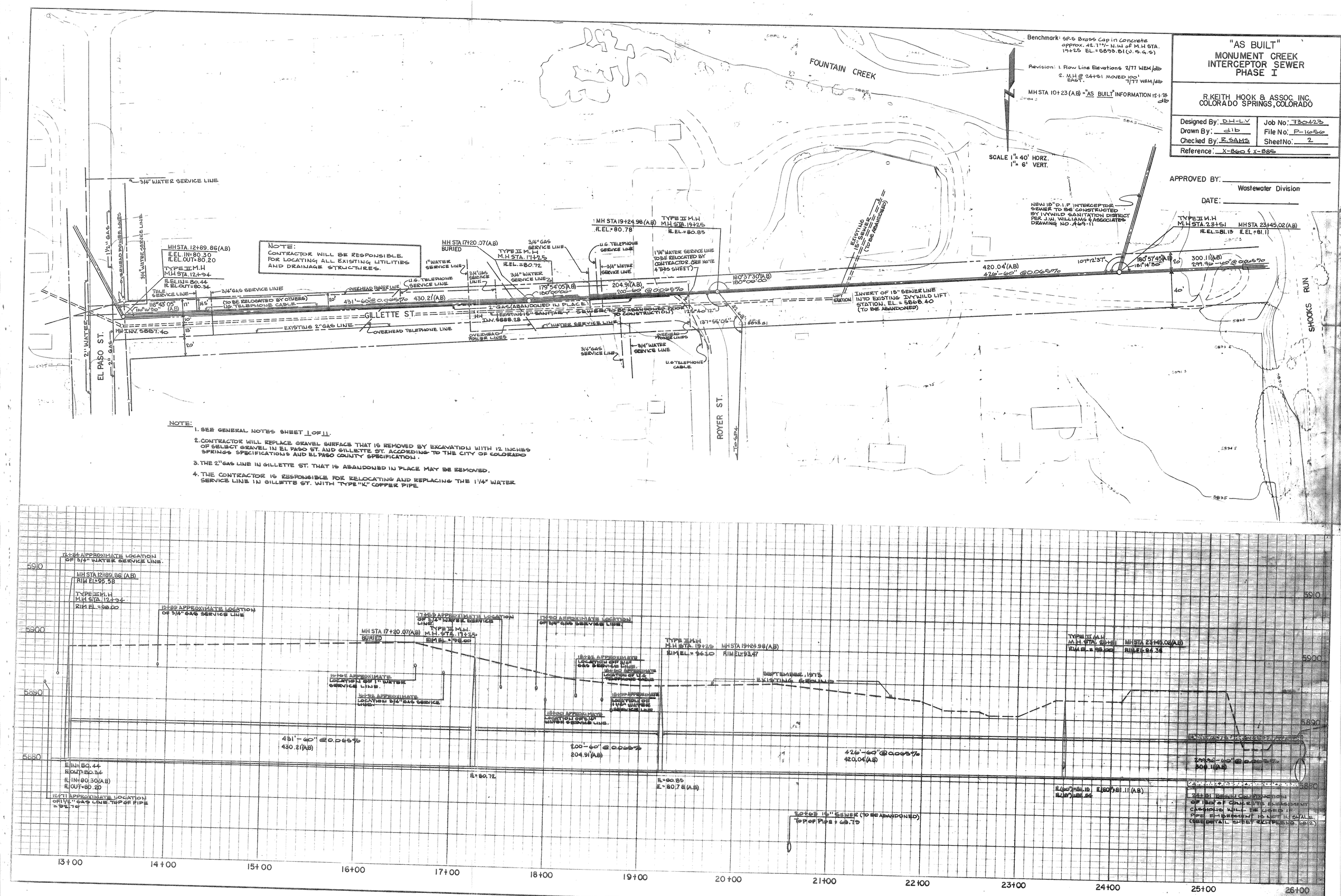
MH STA 10+23 (A.B) = "AS BUILT" INFORMATION 12-1-78 dlb

SCALE 1" = 40' HORZ.
1" = 6' VERT.

APPROVED BY: _____
Wastewater Division
DATE: _____

NOTE:
CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES AND DRAINAGE STRUCTURES.

NOTE:
1. SEE GENERAL NOTES SHEET 1 OF 11.
2. CONTRACTOR WILL REPLACE GRAVEL SURFACE THAT IS REMOVED BY EXCAVATION WITH 12 INCHES OF SELECT GRAVEL IN EL PASO ST. AND GILLETTE ST. ACCORDING TO THE CITY OF COLORADO SPRINGS SPECIFICATIONS AND EL PASO COUNTY SPECIFICATION.
3. THE 2" GAS LINE IN GILLETTE ST. THAT IS ABANDONED IN PLACE MAY BE REMOVED.
4. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATING AND REPLACING THE 1 1/4" WATER SERVICE LINE IN GILLETTE ST. WITH TYPE "K" COPPER PIPE.



Benchmark: SP-6 Brass Cap in Concrete approx. 95.6'+/- S.W. OF M.H STA. 30+11 EL.= 5893.76 (U.S.G.S.)

Revision: 1. Flow Line Elevations 2/77 WEM/dlb
2. M.H @ 24+51 MOVED 100' EAST. 7/77 WEM/dlb

MH STA. 10+23(A,B) = AS BUILT INFORMATION 12/17/dlb

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE I

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H-L.V	Job No: 730423
Drawn By: dlb	File No: P-1656
Checked By: R.SAMS	Sheet No: 3
Reference: X-860 & X-885	

APPROVED BY: _____
Wastewater Division

DATE: _____

SCALE: 1" = 40' HORZ.
1" = 6' VERT.

EXISTING 12" SEWER LINE

EXISTING 8" NON-POTABLE WATER LINE

OVERHEAD POWER LINES

TO SPS

MH STA. 30+23.27 (A,B)
R.EL = 82.98

TYPE III M.H
M.H STA. 30+11
R.EL. = 83.05

301°53'55"

SP-6
5893.76

4. EL PASO COUNTY

SHALE POTHOLE NO. 1

TYPE II M.H.
M.H STA. 26+50.96 BK. =
M.H STA. 26+51 AHD.
R.EL. IN = 81.82 (54")
R.EL. OUT = 81.32 (60")

MH STA. 26+45.13 (A,B)
R.EL IN = 81.65 (54")
R.EL OUT = 81.15 (60")

4:1

180°35'45" (A,B)
180°31'15"

378.14' (A,B)
360'-54" @ 0.20%

114°45'40"

185°40'30" (A,B)
185°31'28"

*BACKFILL AND PLACE 12" TO 24" DIA. RIP-RAP. STA. 29+10 TO STA. 33+05.

532.23' (A,B)
550'-54" @ 0.20%

TYPE III M.H
M.H STA. 35+61
R.EL. IN = 84.65 (48")
R.EL. OUT = 84.15 (54")

MH STA. 35+55.50 (A,B)
R.EL. IN = 84.34 (48")
R.EL. OUT = 83.84 (54")

198°52'00" (A,B)
199°06'01"

337.35' (A,B)
337.46' @ 0.32%

299.96'-60" @ 0.065%
300.11' (A,B)

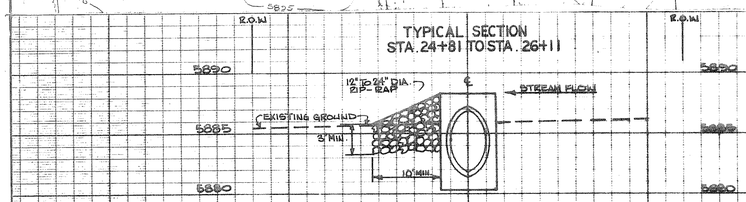
18'-0" CONCRETE ENCASEMENT

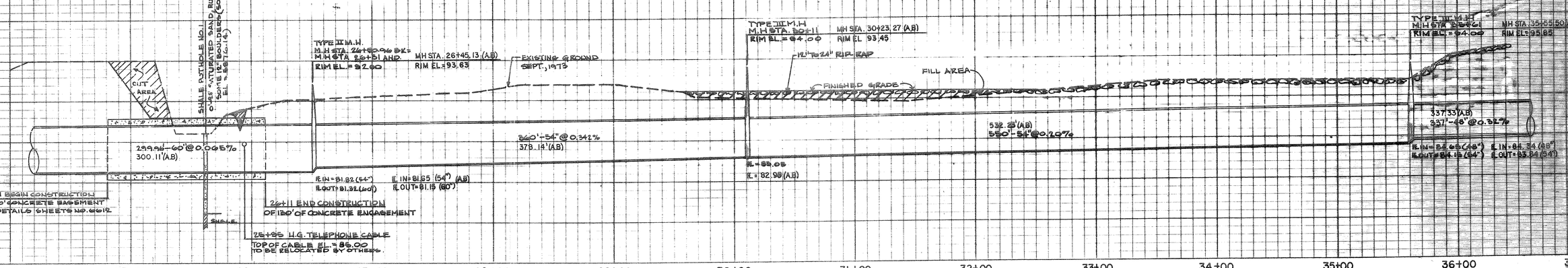
SHOOKS RUN

U.G. TELEPHONE CABLES (TO BE RELOCATED BY OTHERS)

5. FOREST HENDRICKS, ANITA HENDRICKS
HORACE HENDRICKS, ETTA VIOLA HENDRICKS

TYPICAL SECTION
STA. 24+81 TO STA. 26+11





"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE I

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: P.H.-L.V	Job No: 730423
Drawn By: dlb	File No: P-1656
Checked By: R.SAMS	Sheet No: 4
Reference: X-860-X-885	

APPROVED BY: _____ Wastewater Division
DATE: _____

SCALE 1"=40 HORZ. 1"=8 VERT.

Benchmark: SP-7 Brass Cap in Concrete approx. 169.0'± S.E. of M.H. STA. 43+58 EL.=6897.96 (0.5 ft. S)

MH STA. 10+23 (A.B) = "AS BUILT" INFORMATION 12,78 dlb

TYPE III M.H.
M.H STA. 35+61
R.EL. IN = 84.65 (48")
R.EL. OUT = 84.15 (54")

MH STA. 35+55.50 (A.B)
R.EL. IN = 84.34 (48")
R.EL. OUT = 83.84 (54")

199°06'01"
198°52'00" (A.B)

4. EL PASO COUNTY

337.33' (A.B)
337'-48" @ 0.32%

149°28'30" (A.B)
149°27'45"

9. DEPARTMENT OF HIGHWAYS

13. CITY OF COLORADO SPRINGS

FOUNTAIN CREEK

8" CONCRETE RETAINING WALL

EXISTING 8" NON-POTABLE WATER LINE

OVERHEAD POWER LINES

3-WIRE OVERHEAD POWER LINE

BRIDGE PIER

SOUTH NEVADA AVENUE

EXISTING 6" GAS LINE ON BRIDGE

TYPE III M.H.
M.H. STA. 43+60.71
R. EL. IN = 87.91 (42")
R. EL. OUT = 87.41 (48")

MH STA 43+55.00 (A.B)
R.EL IN = 87.81 (42")
R. EL OUT = 87.31 (48")

PLACE 24"-36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

173°27'31"
338°09'55"
462.17' (A.B)
462.71'-48" @ 0.32%
147.87'
518.42'
175°57'25" (A.B)
176°24'28"
392.00' (A.B)
393.61'-42" @ 0.72%

TELEPHONE CABLE ON BRIDGE (J.L.C.)

EXISTING 12" SEWER ON BRIDGE

TYPE III M.H.
M.H. STA. 47+54.32 +0.00
R.EL. = 90.76

MH STA 47+47.00 (A.B)
BURIED

67°44'42"
196°59'38"
197°55'50" (A.B)

515.61'-42" @ 0.67%
533.73' (A.B)

LIMIT OF CONSTRUCTION

PLACE 24"-36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

MH STA 38+92.83 (A.B)
R.EL IN = 86.02
R.EL OUT = 85.82

TYPE III M.H
M.H STA. 38+98
R.EL. IN = 85.93
R.EL. OUT = 86.73

SHALE PATHOLE NO. 2

18" CMP DRAIN

SOUTH TEJON STREET

EXISTING 12" WATER LINE

PARKING

14. EL PASO COUNTY

REVISION: 4-28-77 RELOCATED SEWER LINE BETWEEN M.H. STA. 39+98 TO M.H. STA. 41+93 dlb

TO TOP OF CREEK BANK

TYPICAL SECTION STA. 36+75 TO STA. 39+05

E.O.W.

5920
5915
5910
5905
5900
5895
5890
5885
5880

¢
14" TO 24" DIA. RIP-RAP
EDGE OF STREAM
EXISTING GROUND
VARIES
3' MIN.
20 20 10 0 10 20 20

MH STA. 35+55.50 (A.B)
RIM EL = 95.85

TYPE III M.H
M.H STA. 35+61
RIM EL. = 94.00

12" TO 24" RIP-RAP

550'-54" @ 0.90%
532.23' (A.B)

337'-48" @ 0.32%
337.33' (A.B)

E. IN = 84.65 (48")
E. OUT = 84.15 (54")

E. IN = 84.34 (48") (A.B)
E. OUT = 83.84 (54")

SOUTH NEVADA AVENUE BRIDGE

EXISTING 6" GAS LINE ON BRIDGE

TYPE III M.H
M.H STA. 38+98
RIM EL. = 98.00

LOW STEEL EL. = 5904.50

MH STA. 38+92.83 (A.B)
RIM EL. 95.87

E. IN = 86.93
E. OUT = 86.73

E. IN = 86.02 (A.B)
E. OUT = 85.82

SEPTEMBER, 1973 EXISTING GROUND

SHALE PATHOLE NO. 2

SANDY CLAY

SATURATED COARSE CLEAN SAND, SOME 12" BOULDERS.

SHALE

462.17' (A.B)
462.71'-48" @ 0.32%

SO. TEJON STREET BRIDGE

EXISTING 6" WATER & 12" LINE ON BRIDGE
EXISTING 12" SEWER LINE ON BRIDGE

EXISTING TELEPHONE CABLES ON BRIDGE

LOW STEEL EL. = 5910.50

TYPE III M.H
M.H STA. 43+60.71
RIM EL. = 93.00

MH STA 43+55.00 (A.B)
RIM EL 99.20

PLACE 24"-36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

TYPE III M.H
M.H STA. 47+54.32 +0.00
RIM EL. = 93.50

MH STA 47+47.00 (A.B)
BURIED

PLACE 24"-36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

392.00' (A.B)
393.61'-42" @ 0.72%

515.61'-42" @ 0.67%
533.73' (A.B)

E. IN = 87.91 (42")
E. OUT = 87.41 (48")

E. IN = 87.31 (42") (A.B)
E. OUT = 87.31 (48")

E. IN = 90.76 (42")
E. OUT = 90.26 (48")
E. IN = 91.76 (42")

35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE I

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H-L.V	Job No: 730423
Drawn By: dlb	File No: P-1656
Checked By: R.SAMS	Sheet No: 5
Reference: X-360 & X-885	

SCALE 1"= 40' HORZ.
1"= 6' VERT.

APPROVED BY: _____
Wastewater Division

DATE: _____

MH STA 10+23 (A.B) = "AS BUILT" INFORMATION 12-78 dlb

Benchmark: SP-B Brass Cap in Concrete approx. 350.5'+/- S.E. of M.H STA. 50+93 EL.=5917.48 (U.S.G.S.)

OVERHEAD POWER LINES

316°06'41" 218°18'06"

CONCRETE RETAINING WALL

TO 50+93

MH STA 52+80.73 (A.B) BURIED

TYPE III M.H. M.H. STA. 52+69.93 R.EL. = 94.21

193°45'07" (A.B) 194°26'17"

MH STA 57+86.24 (A.B) BURIED

TYPE III M.H. M.H. STA. 57+94.93 R.EL. = 97.73

FOUNTAIN CREEK

525'-42" @ 0.67%
505.51 (A.B)

LIMIT OF CONSTRUCTION

103°51'02" 203°28'35" (A.B)

533.73' (A.B) 515.61'-42" @ 0.67%

PLACE 24'-36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

PLACE 24'-36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

521.71' (A.B) 512.95'-42" @ 0.67%

SHALE POTHOLE NO. 3

14. EL PASO COUNTY

6. GERALD P. WAGNER and CARL W. JOSLYN

7. BILBURN INVESTMENT CO.

REVISION: 4-28-77 RELOCATED SEWER LINE BETWEEN M.H. STA. 52+98 TO M.H. STA. 61+93 JLP

MH STA 52+80.73 (A.B) BURIED

TYPE III M.H. M.H. STA. 52+69.93 RIM EL. = 04.90

PLACE 24'-36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

SHALE POTHOLE NO. 3

SANDY CLAY

COARSE SAND

SATURATED COARSE CLEAN SAND

SHALE

SEPTEMBER, 1978 EXISTING GROUND

MH STA. 57+86.24 (A.B) BURIED

TYPE III M.H. M.H. STA. 57+94.93 RIM EL. = 07.00

PLACE 24'-36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

533.73' (A.B) 515.61'-42" @ 0.67%

505.51' (A.B) 525'-42" @ 0.67%

521.71' (A.B) 512.95'-42" @ 0.67%

R.EL. = 94.21

R.EL. = 97.73

48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00

P-1656 SHT 5 OF 11

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE I

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H-L.V	Job No: 730423
Drawn By: dlb	File No: P-1656
Checked By: R.SAMS	Sheet No: 6
Reference: X-861 & X885	

APPROVED BY: _____
Wastewater Division

DATE: _____

Revision: 7-11-74 CHANGED NO.8 KENNETH L. SCHMIDT TO NO.8 HERMAN WALSKY. dlb

4-26-77 RELOCATED SEWER LINE BETWEEN M.H STA. 38+98 TO M.H STA. 61+93. dlb

11-20-77 REVISED GRADES dlb

Benchmark: SP-8 Brass Cap in concrete approx. 102.3, 2'+- S. of M.H STA. 64+63 EL= 5917.49 (U.S.G.S.)

MH STA 10+23 (A.B) "AS BUILT" INFORMATION IN HB#1b

SCALE 1"=40' HORZ.
1"= 6' VERT.

* BACKFILL AND PLACE 12" TO 24" DIA. RIP-RAP FROM STA. 64+53 TO STA. 69+45 (SEE TYPICAL SECTION THIS SHEET.)

OVERHEAD POWER LINES

TYPE III M.H
M.H STA. 61+93 (AHD) = STA. 63+14.28 (BK)
R.EL. = 01.21

(A.B) MH STA. 61+86.67 (AHD) =
MH STA. 63+07.95 (BK)
R.EL = 01.09

521.71' (A.B)
519.35' - 42" @ 0.67%

156°08'56" 156°29'43" (A.B)
260' - 42" @ 0.67%
265.49' (A.B)

LIMIT OF CONSTRUCTION

MH STA. 64+52.16 (A.B)
R.EL. IN = 03.08
R.EL. OUT = 02.98

TYPE III M.H
M.H STA. 64+53
R.EL. IN = 03.05
R.EL. OUT = 02.95

198°57'50" (A.B)
198°51'19"
132.77' (A.B)
131' - 42" @ 0.67%

TO SP-8

102.3 16'+

197°46'40" (A.B)
197°49'18"

TYPE III M.H
M.H STA. 65+90
R.EL. IN = 04.07
R.EL. OUT = 03.97

MH STA. 65+84.93 (A.B)
R.EL. IN = 03.98
R.EL. OUT = 03.88

355.51' (A.B)
355' - 42" @ 0.67%

RUBBLE & DEBRIS

14. EL PASO COUNTY

10. GEORGE A. DAWES
CHARLES H. BICKLEY
WALTER S. WHITE

11. SUSIE RUSSELL PERKINS

FOUNTAIN CREEK

TYPE III M.H
M.H STA. 69+45
R.EL = 06.45

MH STA. 69+40.44 (A.B)
R.EL = 06.33

8. HERMAN WALSKY

MH STA 72+73.28 (A.B)
R.EL = 07.36

TYPE III M.H
M.H STA. 72+79
R.EL. = 07.45

183°43'40" (A.B)
183°54'01"
400' - 42" @ 0.30%
400.98' (A.B)

332.84' (A.B)
334' - 42" @ 0.30%

MILL STREET

15. CITY OF COLORADO SPRINGS

STOR. P.W.

TYPICAL SECTION
STA. 64+53 TO STA. 69+45

TOP OF CREEK BANK

R.O.W.

12" TO 24" DIA. R.R.P.

FILL AREA

VARIES

2' MIN.

1:1

2' MIN.

FINISHED GRADE

12" TO 24" DIA. RIP-RAP

TYPE III M.H
M.H STA. 61+93 (AHD) = STA. 63+14.28 (BK)
RIM EL. = 12.00

(A.B) MH STA 61+86.67 (AHD) =
MH STA 63+07.95 (BK)
RIM EL = 12.72

EXISTING GROUND SEPTEMBER, 1973

MH STA 64+52.16 (A.B)
RIM EL = 13.56

TYPE III M.H
M.H STA. 64+53
RIM EL. = 14.40

MH STA. 65+84.93 (A.B)
RIM EL. = 15.20

TYPE III M.H
M.H STA. 65+90
RIM EL. = 15.60

TYPE III M.H
M.H STA. 69+45
RIM EL. = 12.00

MH STA. 69+40.44 (A.B)
RIM EL. = 17.79

MH STA 72+73.28 (A.B)
RIM EL. = 19.54

TYPE III M.H
M.H STA. 72+79
RIM EL. = 19.60

521.71' (A.B)
519.35' - 42" @ 0.67%

260' - 42" @ 0.67%
265.49' (A.B)

132.77' (A.B)
131' - 42" @ 0.67%

355' - 42" @ 0.67%
355.51' (A.B)

332.84' (A.B)
334' - 42" @ 0.30%

R.EL. 01.21
R.EL. = 01.09 (A.B)

R.EL. IN = 03.05
R.EL. OUT = 02.95

R.EL. IN = 03.08 (A.B)
R.EL. OUT = 02.98

R.EL. IN = 04.07
R.EL. OUT = 03.97

R.EL. IN = 03.98 (A.B)
R.EL. OUT = 03.88

℄ = 06.45 R.EL. = 06.33 (A.B)

℄ = 07.45
R.EL. = 07.36 (A.B)

5920
5910
5900

60+00 61+00 62+00 63+00 64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE I

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H.-L.V.	Job No: 730423
Drawn By: d.b.	File No: P-1656
Checked By: R.S.	Sheet No: 7
Reference: X-861, X-865 & X-866	

APPROVED BY: _____
Wastewater Division
DATE: _____

Revision : 7-11-74 CHANGED NO.8 KENNETH L. SCHMIDT TO NO.8 HERMAN WALSKY d.b.

Benchmark: SP-10 Brass Cap in Concrete approx. 419.61'+/- S. of M.H. STA. 83+54 EL.= 5951.91 (U.S.G.S.)

MH STA. 10+23 (A.B.) "AS BUILT" INFORMATION 12-4-70 d.b.

SCALE: 1" = 40' HORZ.
1" = 6' VERT.

FOUNTAIN CREEK

773.85'

229.05'

12.1°08'01"

49°12'03"

TYPE III M.H
M.H STA. 72+79
R.EL. = 07.45

MH STA. 72+73.28 (A.B)
R. EL. = 07.36

TYPE III M.H
M.H STA. 76+79
R.EL. = 09.29

MH STA. 76+74.26 (A.B)
R.EL. = 08.86

TYPE III M.H
M.H. STA. 80+17
R.EL. = 12.67

MH STA. 80+14.50 (A.B)
R.EL. = 12.63

MH STA. 83+51.23 (A.B)
R.EL. IN = 16.21
R.EL. OUT = 16.07

TYPE III M.H
M.H. STA. 83+54
R.EL. IN = 16.18
R.EL. OUT = 16.04

419.61'

SHALE POTHOLE NO.4

6" WATER

8. HERMAN-WALSKY

STREET

MILL

CITY OF COLORADO SPRINGS

188°59'30" (A.B.)
188°56'14"

338'-42" @ 1.00%

340.24' (A.B.)

86°05'08"

180°00'45" (A.B.)
180° 00' 00"

337'-42" @ 1.00%

336.73' (A.B.)

32°50'06"

200°29'25" (A.B.)
200°26'51"

400.98' (A.B.)
400'-42" @ 0.46%

183°43'40" (A.B.)
183°54'01"

13°02'43"

6" DRAIN V.C.T. - TO BE RESTORED TO ORIGINAL CONDITION.

220'-42" @ 0.67%

219.32' (A.B.)

dead trees

TYPE III M.H
M.H STA. 72+79
RIM EL. = 18.50

MH STA. 72+73.28 (A.B.)
RIM EL. = 19.54

SHALE POTHOLE NO.4

MOIST SAND

SATURATED SAND

SHALE

74+26 6" WATER LINE
TOP OF PIPE EL. = 13.57

400'-42" @ 0.46%
400.98' (A.B.)

E. = 07.45 R. EL. = 07.36 (A.B.)

TYPE III M.H
M.H STA. 76+79
RIM EL. = 23.60

MH STA. 76+74.26 (A.B.)
RIM EL. = 23.20

SEPTEMBER, 1973
EXISTING GROUND

340.24' (A.B.)
338'-42" @ 1.00%

E. = 09.29 R. EL. = 08.86 (A.B.)

TYPE III M.H
M.H STA. 80+17
RIM EL. = 26.70

MH STA. 80+14.50 (A.B.)
RIM EL. = 25.25

336.73' (A.B.)
337'-42" @ 1.00%

E. = 12.67 R. EL. = 12.63 (A.B.)

TYPE III M.H
M.H STA. 83+54
RIM EL. = 27.60

MH STA. 83+51.23 (A.B.)
RIM EL. = 27.60

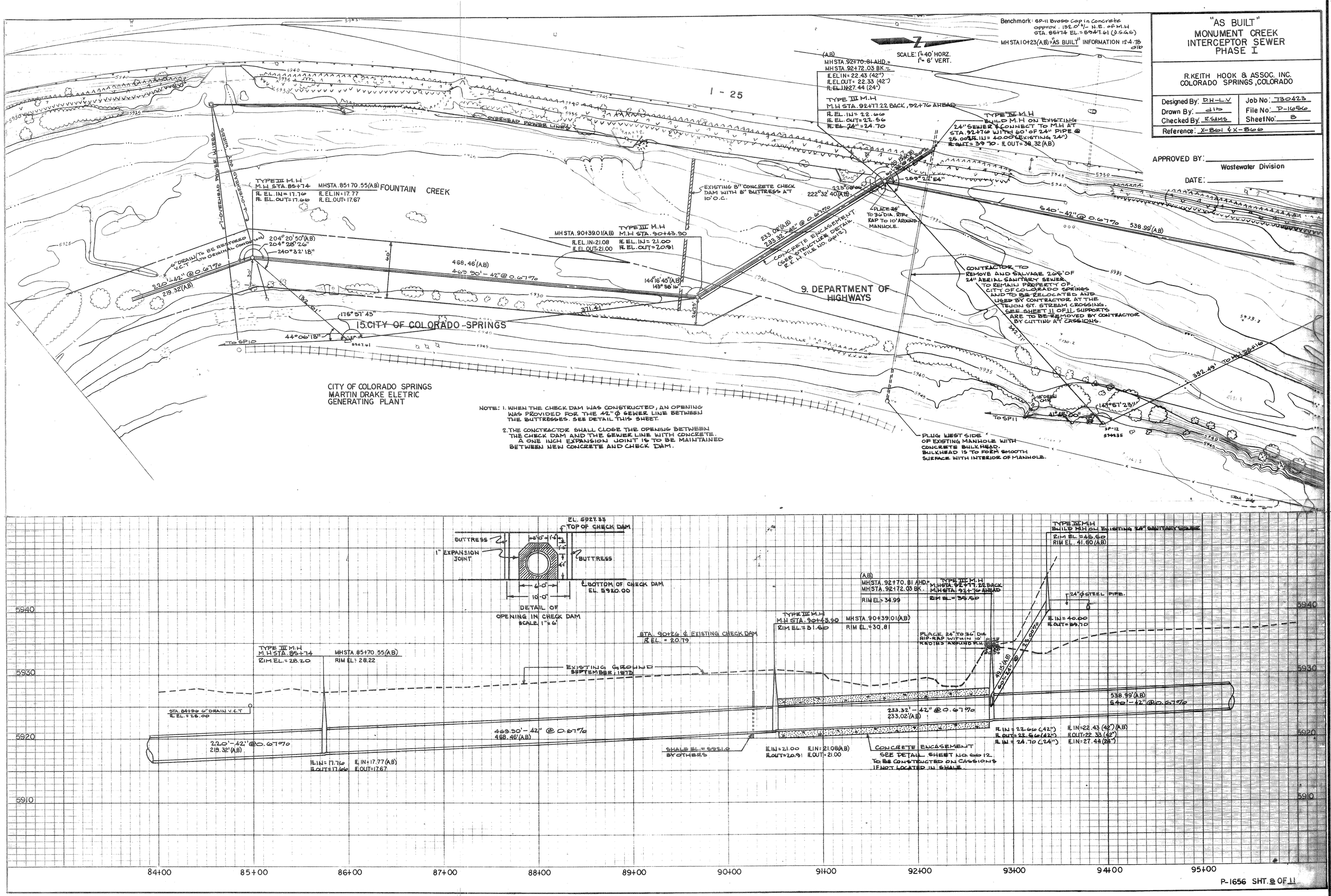
STA. 84+56 6" DIA. DRAIN V.C.T.
E. EL. = 25.60

219.32' (A.B.)
220'-42" @ 0.67%

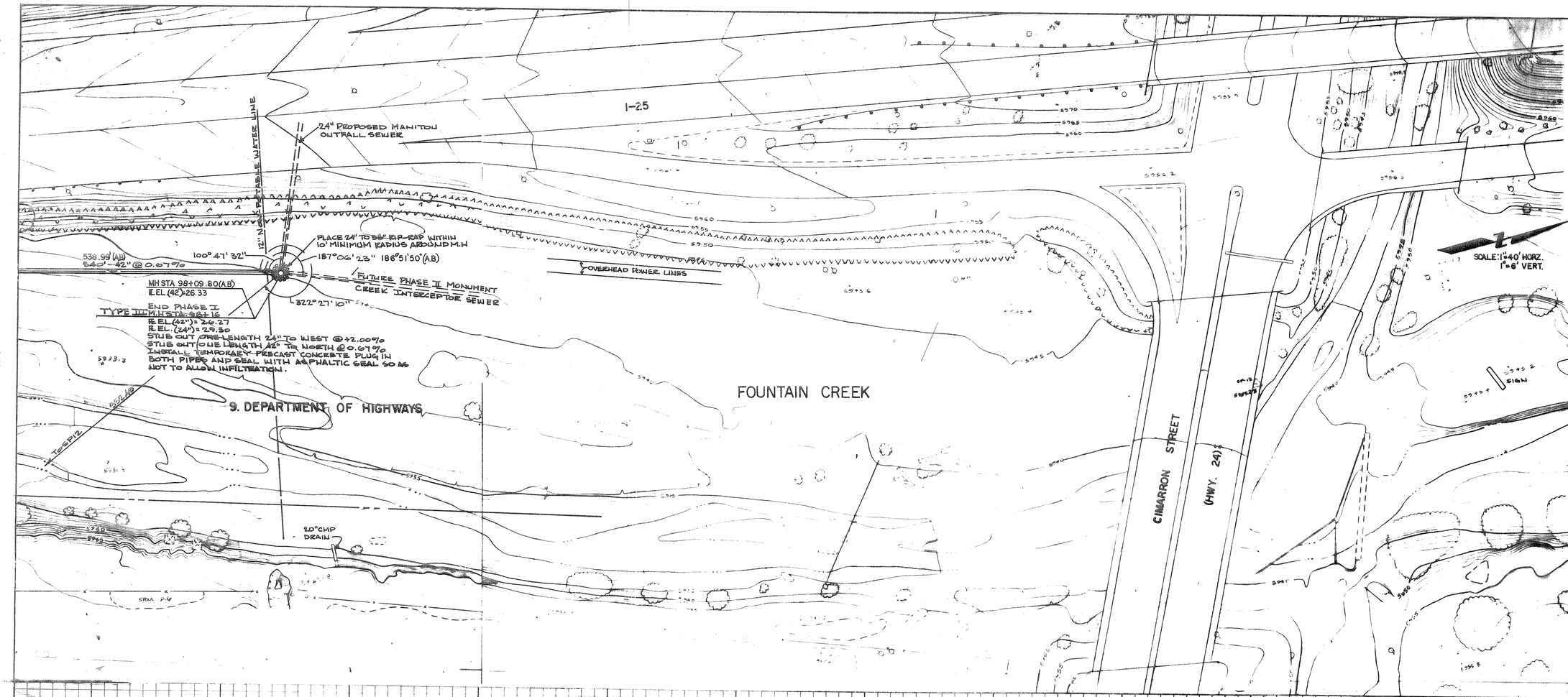
R. IN = 16.18 R. EL. IN = 16.21 (A.B.)
R. OUT = 16.04 R. EL. OUT = 16.07

5950
5920
5910
5900

73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00



"AS BUILT"
MONUMENT CREEK
INTERCEPTOR SEWER
PHASE I
R.KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO
Designed By: D.H-L.V
Drawn By: dlb
Checked By: R.SAMS
Job No: 730423
File No: P-1656
Sheet No: 8
Reference: X-861 & X-866
APPROVED BY:
Wastewater Division
DATE:
Benchmark: SP-11 Brass Cap in Concrete approx. 132.0'+/- N.E. of M.H STA. 85+74 EL.=5947.61 (U.S.G.S.)
MH STA 10+23(A.B)="AS BUILT" INFORMATION 12-4-78 dlb
SCALE: 1"=40' HORZ. 1"=6' VERT.
I - 25
FOUNTAIN CREEK
9. DEPARTMENT OF HIGHWAYS
15. CITY OF COLORADO SPRINGS
CITY OF COLORADO SPRINGS
MARTIN DRAKE ELETRIC
GENERATING PLANT
OVERHEAD POWER LINES
EXISTING 8" CONCRETE CHECK DAM WITH 8" BUTTRESS AT 10' O.C.
CONCRETE ENCASEMENT (SEE STRUCTURE DETAIL R.K.H. FILE NO. 6612)
CONTRACTOR TO REMOVE AND SALVAGE 265' OF 24" AERIAL SANITARY SEWER. TO REMAIN PROPERTY OF CITY OF COLORADO SPRINGS AND TO BE RELOCATED AND USED BY CONTRACTOR AT THE TEJON ST. STREAM CROSSING. SEE SHEET 11 OF 11. SUPPORTS ARE TO BE REMOVED BY CONTRACTOR BY CUTTING AT CASSIONS.
PLUG WEST SIDE OF EXISTING MANHOLE WITH CONCRETE BULKHEAD. BULKHEAD IS TO FORM SMOOTH SURFACE WITH INTERIOR OF MANHOLE.
NOTE: 1. WHEN THE CHECK DAM WAS CONSTRUCTED, AN OPENING WAS PROVIDED FOR THE 42" ϕ SEWER LINE BETWEEN THE BUTTRESSES. SEE DETAIL THIS SHEET.
2. THE CONCTRACTOR SHALL CLOSE THE OPENING BETWEEN THE CHECK DAM AND THE SEWER LINE WITH CONCRETE. A ONE INCH EXPANSION JOINT IS TO BE MAINTAINED BETWEEN NEW CONCRETE AND CHECK DAM.
EL. 5927.33 TOP OF CHECK DAM
BUTTRESS
1" EXPANSION JOINT
BUTTRESS
℄ BOTTOM OF CHECK DAM EL. 5920.00
DETAIL OF OPENING IN CHECK DAM SCALE 1"=6'
STA. 90+26 ℄ EXISTING CHECK DAM ℞ EL. = 20.79
EXISTING GROUND SEPTEMBER, 1973
STA. 84+96 6" DRAIN V.C.T ℞ EL. = 25.00
TYPE III M.H M.H STA. 85+74 RIM EL. = 28.20
MH STA. 85+70.55(A.B) RIM EL. = 28.22
TYPE III M.H M.H STA. 90+43.90 RIM EL. = 31.60
MH STA. 90+39.01(A.B) RIM EL. = 30.81
TYPE III M.H M.H STA. 92+77.22 BACK M.H STA. 92+76 AHEAD RIM EL. = 35.50
(A.B) MH STA. 92+70.81 AHD. MH STA. 92+72.03 BK. RIM EL. = 34.99
TYPE III M.H BUILD M.H ON EXISTING 24" SANITARY SEWER RIM EL. = 45.60 RIM EL. 41.60 (A.B)
24" ϕ STEEL PIPE.
PLACE 24" TO 36" DIA RIP-RAP WITHIN 10' RADIUS AROUND M.H.
220'-42" @ 0.67% 219.32'(A.B)
469.90'-42" @ 0.67% 468.46'(A.B)
233.32'-42" @ 0.67% 233.02'(A.B)
538.99'(A.B) 540'-42" @ 0.67%
SHALE EL. = 5921.0 BY OTHERS
CONCRETE ENCASEMENT SEE DETAIL SHEET NO. 6612 TO BE CONSTRUCTED ON CASSIONS IF NOT LOCATED IN SHALE.
5940
5930
5920
5910
84+00
85+00
86+00
87+00
88+00
89+00
90+00
91+00
92+00
93+00
94+00
95+00



"AS BUILT"

MONUMENT CREEK INTERCEPTOR SEWER PHASE I

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H-L.V	Job No: 730423
Drawn By: dlb	File No: P-1656
Checked By: R.SAMS	Sheet No: 9
Reference: X-861 & X-866	

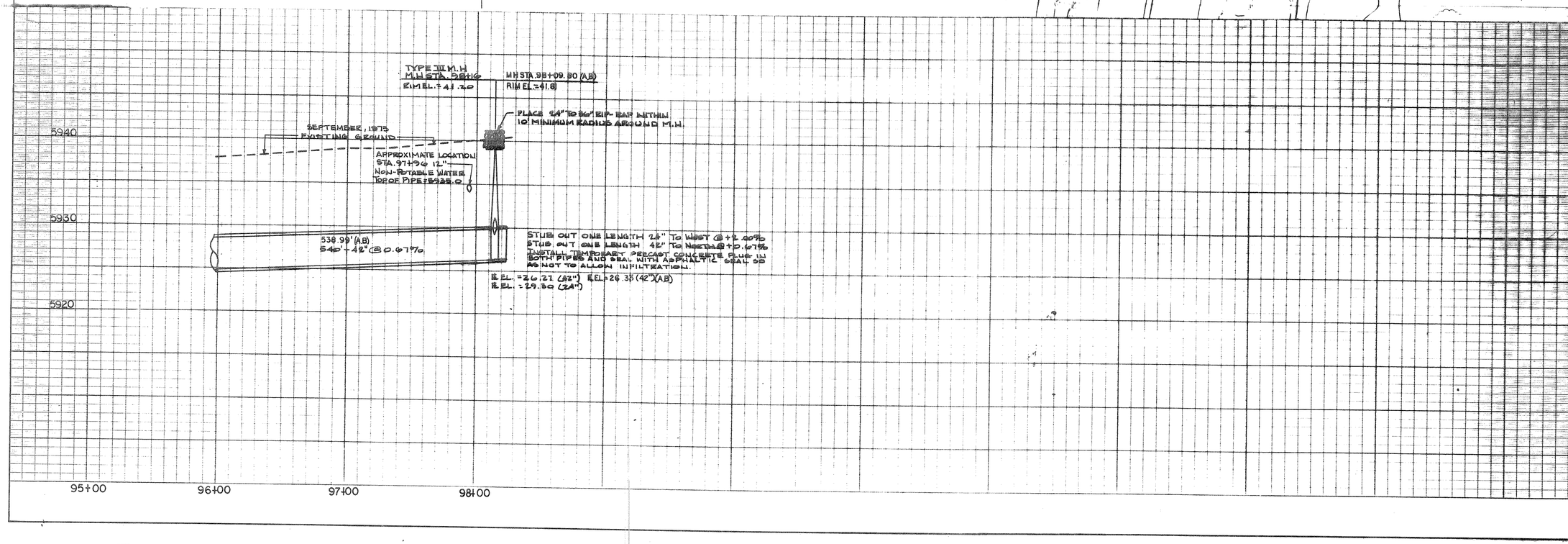
APPROVED BY: _____
Wastewater Division

DATE: _____

SCALE: 1"=40' HORZ. 1"=6' VERT.

Benchmark: SP-12 Brass Cap in Concrete approx. 332.5'+/- S. of M.H STA. 98+16 EL=5949.35 (U.S.G.S)

MH STA. 10+23 (A.B) = "AS BUILT" INFORMATION 12-4-78 dlb



"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE I

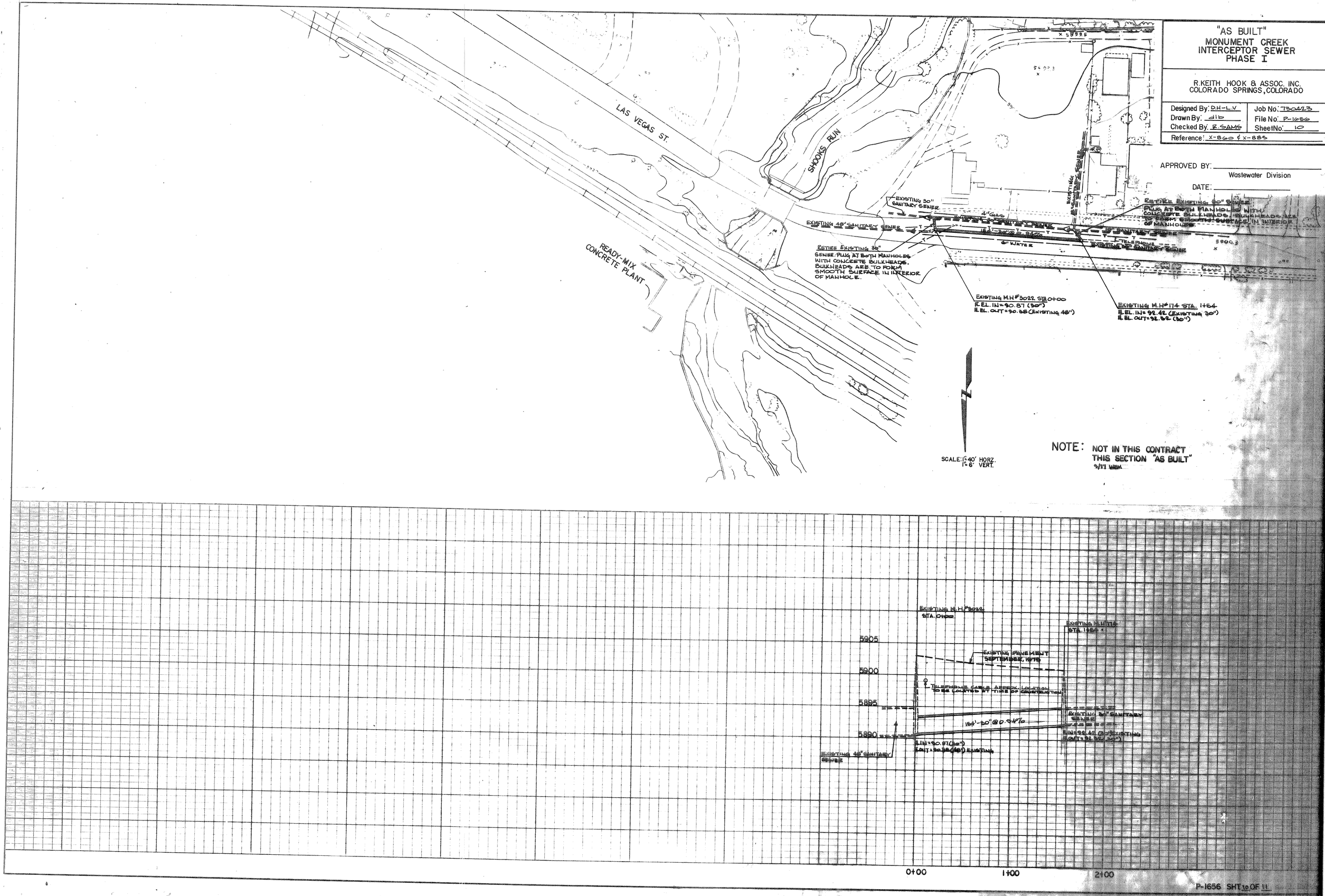
R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H-L.V	Job No: 730423
Drawn By: dlb	File No: P-1656
Checked By: R. SAMS	Sheet No: 10

Reference: X-860 & X-885

APPROVED BY: _____
Wastewater Division

DATE: _____



NOTE: NOT IN THIS CONTRACT
THIS SECTION "AS BUILT"
9/11 WEM

"AS BUILT"

MONUMENT CREEK INTERCEPTOR SEWER PHASE I

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: RH-L.V	Job No.: 730423
Drawn By: dlb	File No.: P-1656
Checked By: R.SAMS	Sheet No.: 11
Reference: X-8000 & X-885	

APPROVED BY: _____
Wastewater Division

DATE: _____

Benchmark: SP-7 Brass cap in concrete approx. 330 4'± N.E of M.H STA. 2+81 EL.=5891.36 (USGS)
MH STA. 10123 AB AS BUILT INFORMATION 12-21-78 dlb

SCALE 1"=40' HORIZ.
1"=6' VERT.

NOTE: CONTRACTOR WILL ADJUST MANHOLE RIM ELEVATION FLUSH WITH EXISTING PAVEMENT AT STA. 2+81, STA. 3+44 AND STA. 4+91.

FOUNTAIN CREEK

13. CITY OF COLORADO SPRINGS

12. NAOMI C. PADGETT
FLOYD S. PADGETT

EXISTING 8" NON-POTABLE WATER LINE

EXISTING CONCRETE RETAINING WALL

OVERHEAD POWER LINES

TYPE III M.H
M.H STA. 4+22.81
R.EL. IN = 87.91 (48")
R.EL. OUT = 87.41 (48")

PLACE 24"-36" RIP RAP WITHIN 10' MIN. RADIUS AROUND MANHOLES.

EXISTING 12" SAN. SEWER

EXISTING M.H STA. 4+22.81

TO BE ABANDONED

EXISTING 12" WATER LINE

UNDERGROUND TELEPHONE CABLE

TELEPHONE CABLE ON BRIDGE (U.G.)

BRIDGE PIERS

SOUTH TEJON STREET

EXISTING 12" WATER ON BRIDGE

EXISTING 12" SEWER ON BRIDGE

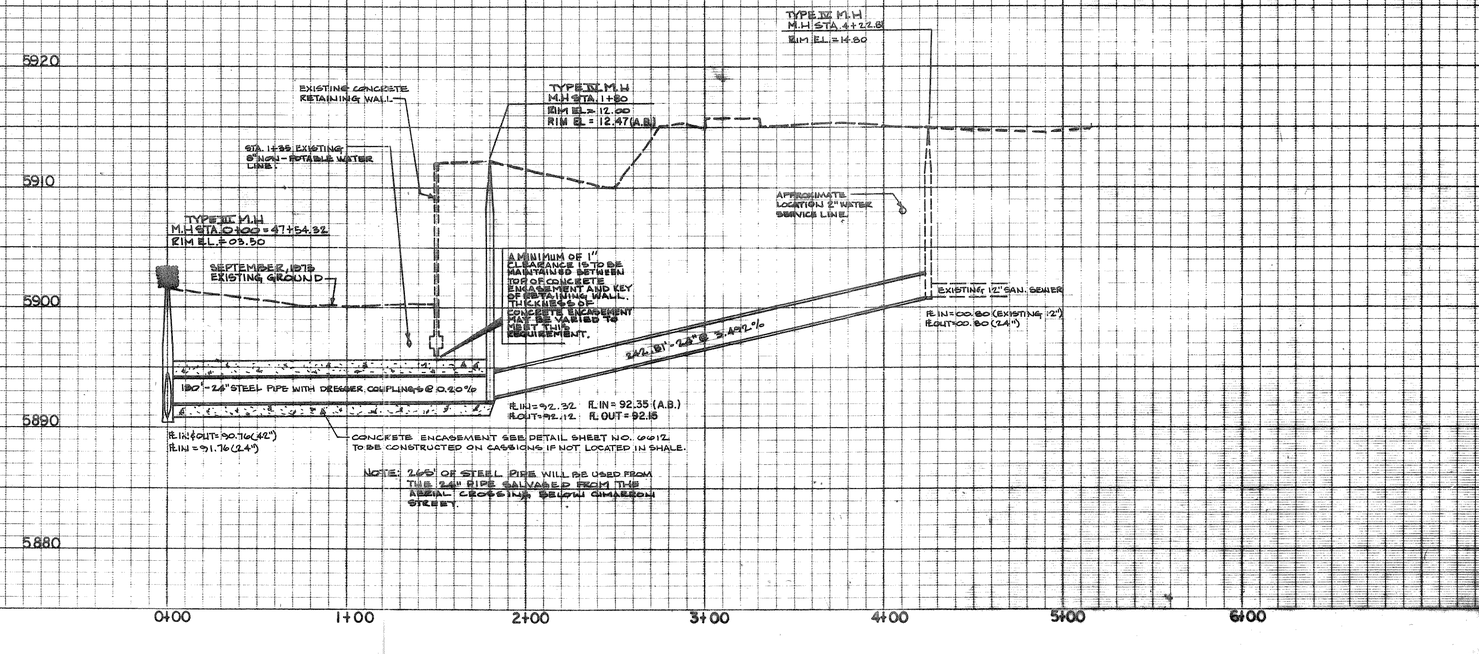
EXISTING 24" SAN. SEWER @ 3.47% ±

I-25

TYPE IV M.H
M.H STA. 1+80
R.EL. IN = 92.32
R.EL. OUT = 92.12

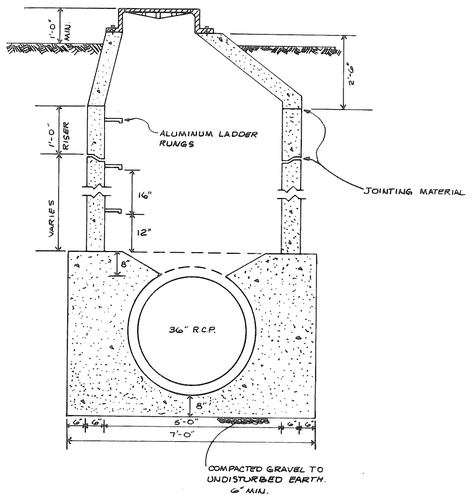
R. IN = 92.38 (A.B.)
R. OUT = 92.18

REVISION: 9-12-77 RELOCATED SEWER LINE BETWEEN M.H. STA. 0+00 = 47+54.32 TO M.H. STA. 4+22.81. dlb

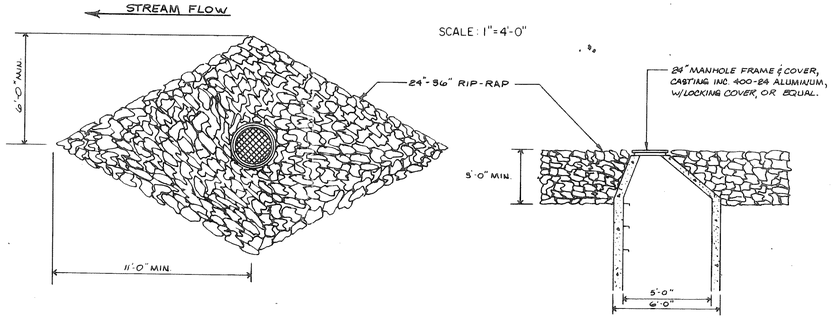


MANHOLE DETAILS

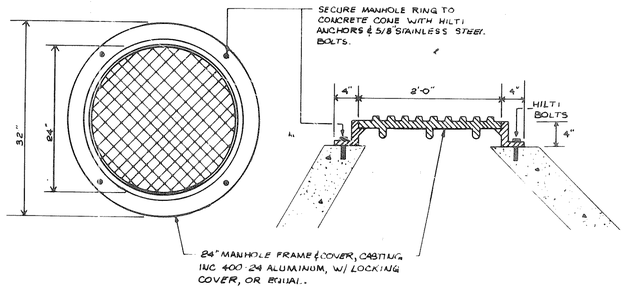
SCALE: 1"=2'-0"



SCALE: 1"=4'-0"

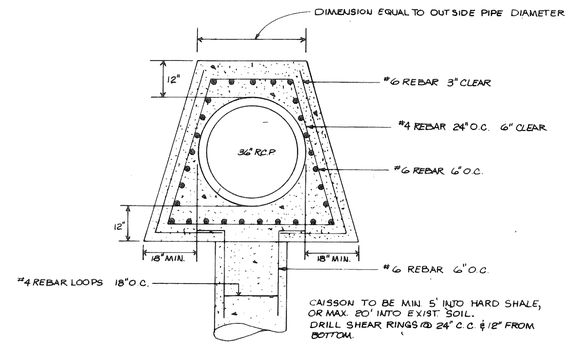


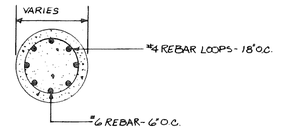
SCALE: 1"=1'-0"

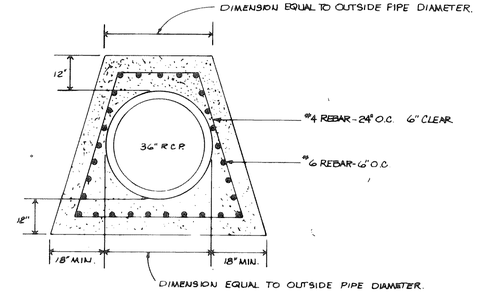


ENCASEMENT DETAILS

SCALE: 1"=2'-0"



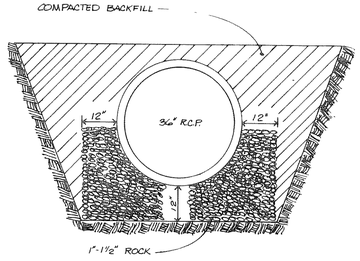




PIPE BEDDING DETAILS

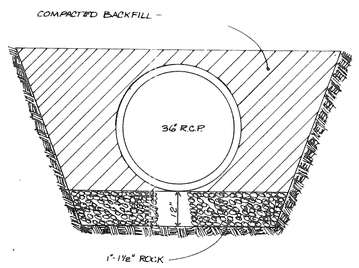
SCALE 1"=2'-0"

SATURATED OR UNSTABLE SOIL CONDITIONS

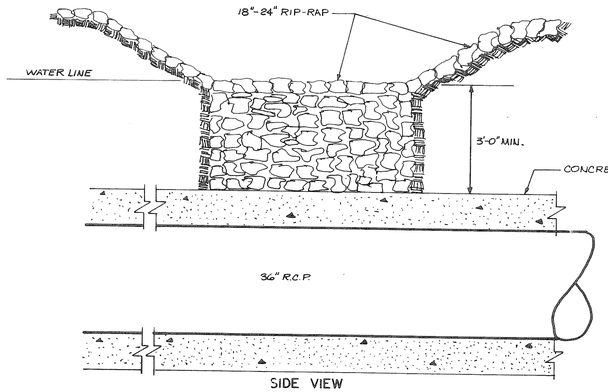


TO BE USED WITH ENGINEERS APPROVAL ONLY.

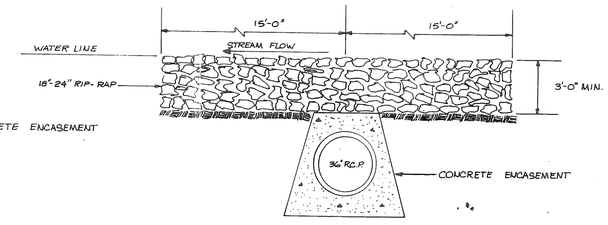
STABLE SOIL CONDITIONS



PERPENDICULAR STREAM CROSSING DETAILS



SIDE VIEW
SCALE: 1"= 2'-0"



FRONT VIEW
SCALE: 1"= 4'-0"

GENERAL NOTES

(1) NO ADJUSTMENT RINGS WILL BE USED ON MANHOLES LOCATED WITHIN STREAM BANKS.

(2) COVER FRAMES WILL BE BOLTED TO CONE SECTIONS BY FOUR "HILTI" ANCHORS AND FOUR 5/8" STAINLESS STEEL BOLTS.

(3) ALL MANHOLE RIM ELEVATIONS SHOWN ON PLAN AND PROFILES ARE APPROXIMATE. CONTRACTOR TO ADJUST RIM ELEVATIONS A MIN. OF 1'-0" ABOVE NATURAL GROUND, OR AS REQUIRED BY ENGINEER.

(4) "RAM-NEK" JOINT SEALER, OR APPROVED EQUAL, WILL BE USED BETWEEN COVER FRAME AND CONE SECTIONS.

(5) ALL MANHOLE JOINTS WILL BE SEALED WITH "RAM-NEK" JOINT SEALER OR APPROVED EQUAL, TO BE APPLIED TO THE TOP OF A SECTION BEFORE THE NEXT SECTION IS LOWERED INTO PLACE. EXCESS MATERIAL WILL BE TROWELED SMOOTHLY ALONG JOINT ON BOTH INSIDE & OUTSIDE OF MANHOLE WHEN NECESSARY.

(6) ALL MANHOLE JOINTS WILL BE HAND GROUTED ON INSIDE TO FORM A SMOOTH AND WATERTIGHT JOINT.

(7) ALL MANHOLE BOTTOM SLABS ARE TO BE FORMED BY CONVENTIONAL METHODS USING STANDARD FORMS. NO "FREE FORMING", "HAND FORMING", OR "STACKING" METHODS WILL BE USED WITHOUT APPROVAL OF ENGINEER.

(8) CONTRACTOR WILL BE RESPONSIBLE FOR ALL OFF-SITE ACCESS ROADS.

APPROVED:
CITY OF COLORADO SPRINGS
DEPT. OF UTILITIES MANAGER

r. keith hook & assoc. inc.
ARCHITECTS-ENGINEERS-PLANNERS-SURVEYORS

MONUMENT CREEK
INTERCEPTOR SEWER - PHASE IV A

CHECKED:
DESIGN:
REVIEWED:
DRAWN: LEH

ISSUED FOR:
STAFF & FRIENDLY APPLICATIONS
AS BUILT - CITY LOCO SIGNS

DATE:
10.10.79
6.2.81

13

JOB NO:
FILE NO: