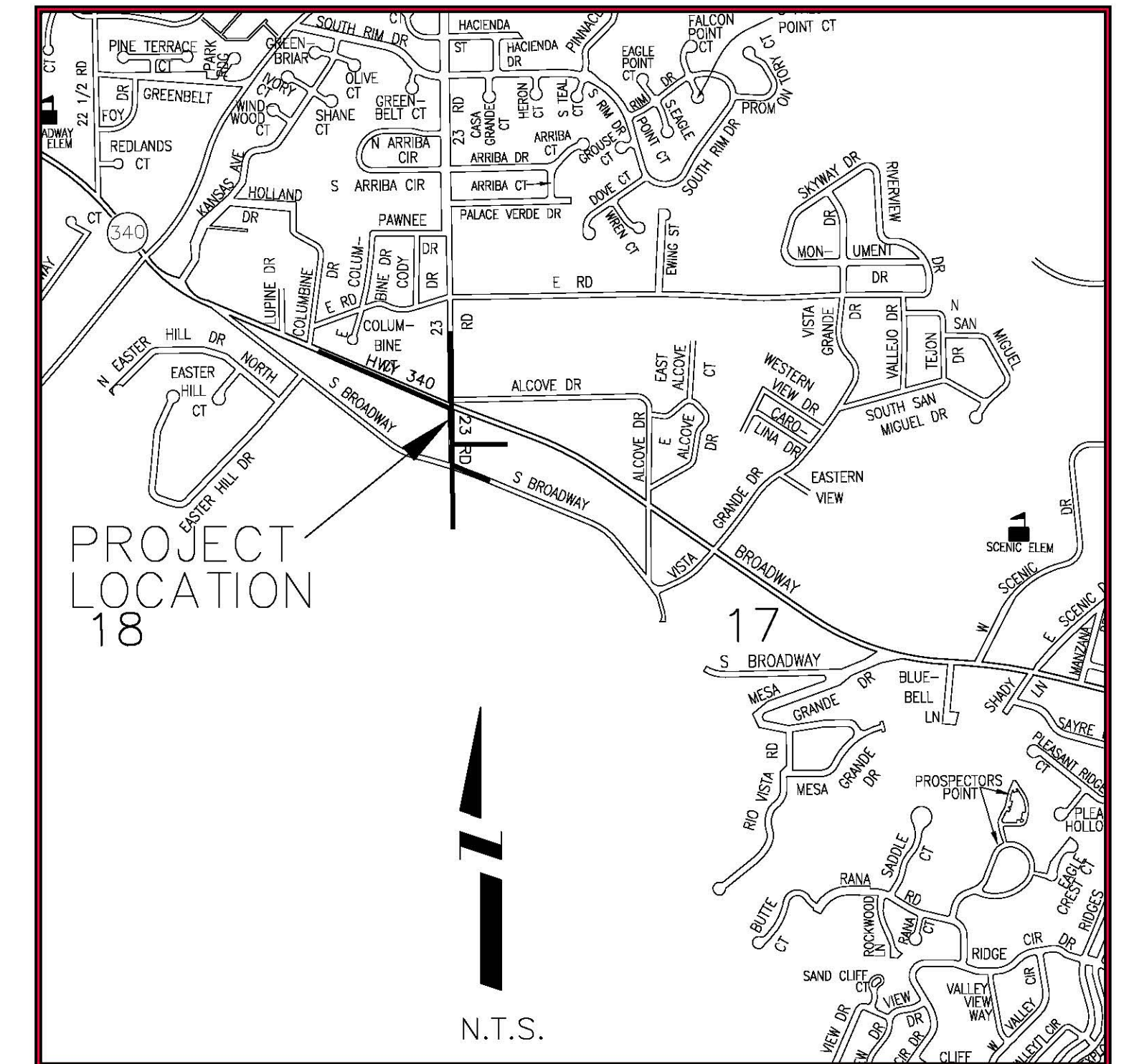
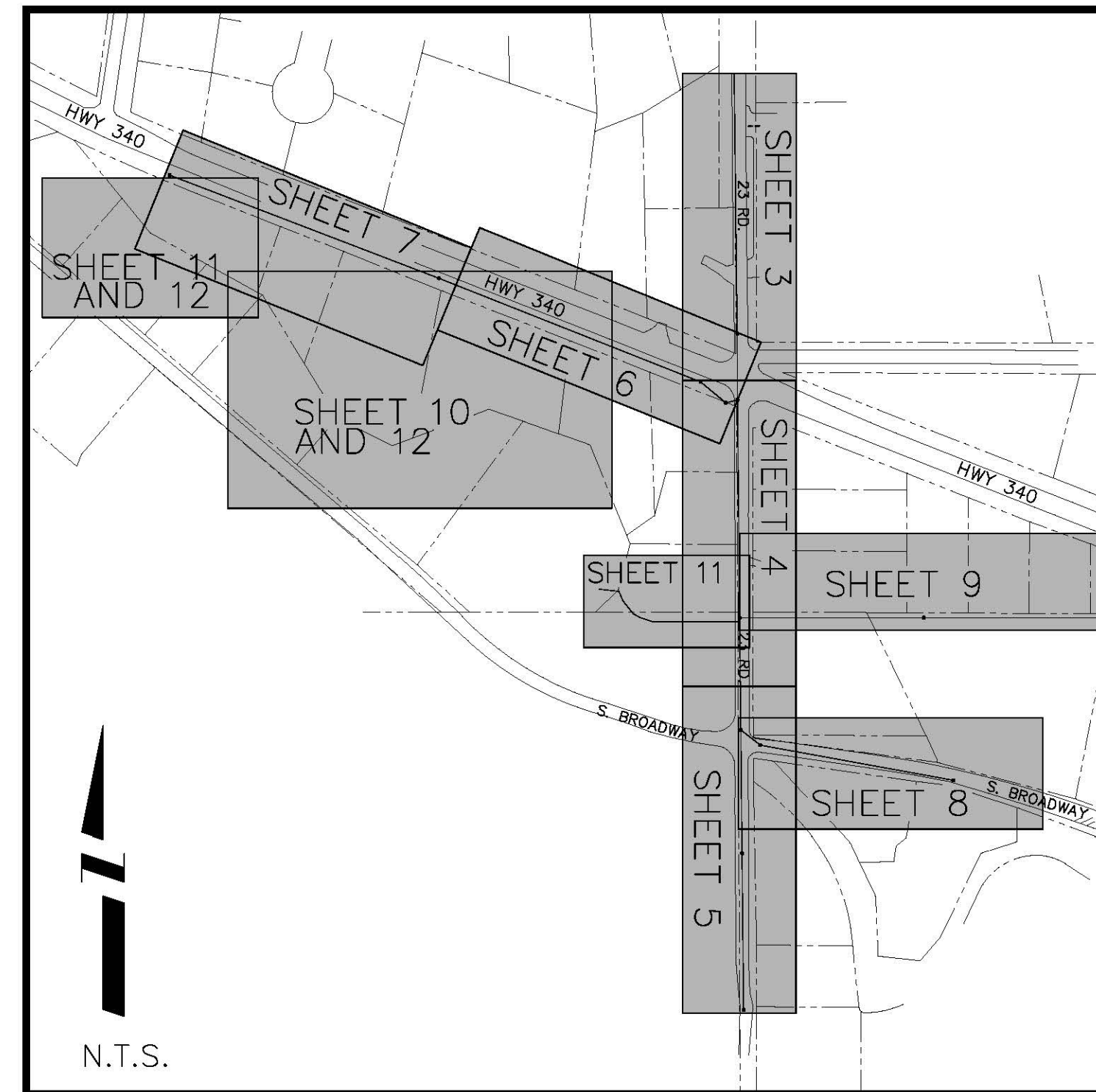


# 23 ROAD SEWER IMPROVEMENT DISTRICT NOVEMBER, 2007

(MESA COUNTY LOCAL IMPROVEMENT DISTRICT)

## AS BUILT AUGUST, 2008

1	—	Cover Sheet
2	—	Drafting Standards
2B	—	Summary of Approximate Quantities
3	—	Plan and Profile Line "A"
4	—	Plan and Profile Line "A"
5	—	Plan and Profile Line "A"
6	—	Plan and Profile Line "B"
7	—	Plan and Profile Line "B"
8	—	Plan and Profile Line "C"
9	—	Plan and Profile Line "D"
10	—	Plan and Profile Services
11	—	Plan and Profile Services
12	—	Plan View Services



VICINITY MAP

*Department of Public Works & Utilities  
Engineering and Technical Services Divisions  
City of Grand Junction, Colorado*

02112700.PDF

DRAWING STATUS:	
○	PROGRESS
●	BID SET
○	FINAL CONSTRUCTION DRAWINGS
○	ASBUILT DRAWINGS
APPROVED FOR CONSTRUCTION	
CITY OF GRAND JUNCTION	DATE
ACCEPTED AS CONSTRUCTED	
CITY OF GRAND JUNCTION	DATE

**ABBREVIATIONS**

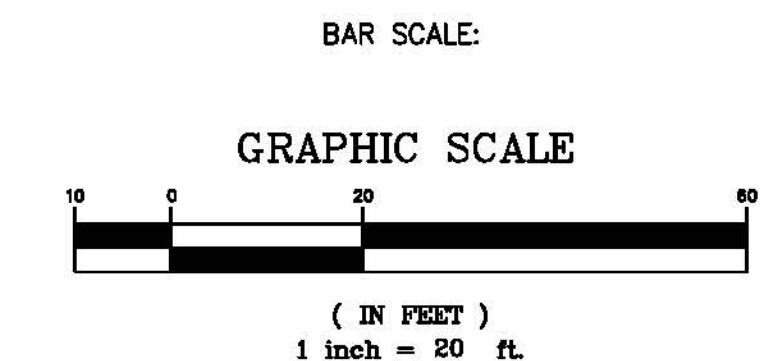
AA-SHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
ABC	AGGREGATE BASE COURSE
AC	ASBESTOS CEMENT
AP	ANGLE POINT
ASB	ANCHORED STRAW BALES
ASP	ALUMINIZED STEEL PIPE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BACK OF CURB
BF	BUTTERFLY VALVE
BOW	BACK OF WALK
BCR	BEGIN CURB RETURN
BOT	BOTTOM
BSWMP	BETTER STORM WATER MANAGEMENT PRACTICES
CH	CHORD
CAP	CORRUGATED ALUMINUM PIPE
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION
CI	CAST IRON
C,G,& SW	CURB, GUTTER & SIDEWALK
CL	CENTER LINE
CL	CLEAR
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COMB	COMBINATION (AS IN STORM SEWER AND SANITARY SEWER)
CONC	CONCRETE
CSM	CITY SURVEY MONUMENT
CSP	CORRUGATED STEEL PIPE
CJ	COPPER
DJ	DUCTILE IRON
DWY	DRIVEWAY
E	ELECTRIC
ECR	END CURB RETURN
EG	EDGE OF GUTTER
EL	ELEVATION
EP	EDGE OF PAVEMENT
EX	EXISTING
FB	FULL BODY
FC	FACE OF CURB
FC	FINISHED GRADE
E	FLOW LINE
FL	FLANGE
FM	FORCE MAIN
FO	FIBER OPTICS
FS	FAR SIDE
FTG	FOOTING
G	GAS
GB	GRADE BREAK
GM	GAS METER
GV	GATE VALVE
HBP	HOT BITUMINOUS PAVEMENT
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
IRR	IRRIGATION
L	LENGTH OF ARC
LC	LONG CHORD
LF	LINEAR FEET
LL	LONG ARC
LS	SHORT ARC
LT	LEFT
MB	MAILBOX
MCSM	MESA COUNTY SURVEY MONUMENT
MH	MANHOLE
MJ	MECHANICAL JOINT
MW	MILL WRAP
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOP	NO ONE PERSON
NRCP	NON-REINFORCED CONCRETE PIPE
NS	NEAR SIDE
NTS	NOT TO SCALE
OHP	OVERHEAD POWER
OHT	OVERHEAD TELEPHONE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PE	POLYETHYLENE
PERF	PERFORATED
PI	POINT OF INTERSECTION
PIP	PLASTIC IRRIGATION PIPE
POC	POINT ON CURVE
POT	POINT ON TANGENT
PR	PROPOSED
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
RG	RESTRAINED GLANDS
RL	LONG RADIUS
ROW	RIGHT OF WAY
RP	RADIUS POINT
RR	RAIL ROAD
RS	SHORT RADIUS
RT	RIGHT
S	SLOPE
SAN	SANITARY
SC	SHORT CHORD
SCD	STANDARD CONTRACT DOCUMENTS
SCH	SCHEDULE
SF	SILT FENCE
SL	SECTION LINE
SSRB	STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION
SSUU	STANDARD SPECIFICATIONS FOR CONSTRUCTION OF UNDERGROUND UTILITIES
STA	STATION
STL	STEEL
STM	STORM
T	TELEPHONE
TAN	LENGTH OF TANGENT
TC	TOP OF CURB
TH	TEST HOLE
TV	TELEVISION
(TYP)	TYPICAL
UU	UNDERGROUND UTILITIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VPC	VERTICAL POINT OF CURVATURE
VPCC	VERTICAL POINT OF COMPOUND CURVATURE
VPRC	VERTICAL POINT OF REVERSE CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WATER
Δ	DELTA ANGLE

**LEGEND**

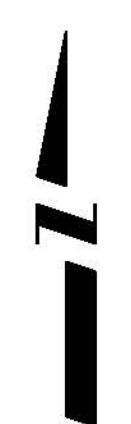
BSWMP DRAINAGE BASIN BOUNDARY	
BSWMP ANCHORED STRAW BALES	
BSWMP SILT FENCE	
BUILDING	
CONCRETE CURB AND GUTTER	
CONCRETE CURB, GUTTER, & SIDEWALK	
CONCRETE DITCH	
CONCRETE SIDEWALK	
CULVERT	
EARTH DITCH	
EDGE OF GRAVEL	
EDGE OF PAVEMENT	
FENCE (BARBED WIRE)	
FENCE (CHAIN LINK)	
FENCE (IRON)	
FENCE (PLASTIC)	
FENCE (TEMPORARY CONSTRUCTION)	
FENCE (WOOD)	
FENCE (WOVEN WIRE)	
GUARD RAIL	
HATCHING: INDICATES ASPHALT REMOVAL	
HATCHING: INDICATES CONCRETE REMOVAL	
HATCHING: INDICATES STAGING AREA	
LINE (CENTER OF IMPROVEMENTS)	
LINE (CITY LIMITS)	
LINE (CONTROL)	
LINE (EASEMENT)	
LINE (MONUMENT/SECTION)	
LINE (PROPERTY)	
LINE (RIGHT OF WAY)	
MATCH LINE	
PIPE (IRRIGATION)	
PIPE (SIPHON)	
PROPOSED CONCRETE CURB AND GUTTER	
PROPOSED CONCRETE CURB, GUTTER, & SIDEWALK	
PROPOSED CONCRETE SIDEWALK	
PROPOSED "WET" UTILITIES (CONSTRUCTION NOTE WILL INDICATE TYPE, SIZE, AND MATERIAL OF NEW MAIN)	
ALL PROPOSED FEATURES NOT SHOWN IN LEGEND WILL BE SHOWN THE SAME AS THEIR EXISTING COUNTERPART, BUT INDICATED BY BOLDER LINETYPE	
RAIL ROAD	
RETAINING WALL	
STRIPING (CONTINUOUS WHITE)	
STRIPING (DASHED WHITE)	
STRIPING (CONTINUOUS YELLOW)	
STRIPING (DASHED YELLOW)	
TOP OF SLOPE	
CONTOUR LINES (SHOWN BETWEEN TOP & TOE)	
TOE OF SLOPE	
TRAFFIC DETECTOR LOOP	
UTILITY LINE (ABANDON) (THIS CASE A WATER LINE)	
UTILITY LINE (CABLE TV)	
UTILITY LINE (ELECTRIC)	
UTILITY LINE (FIBER OPTIC)	
UTILITY LINE (GAS)	
UTILITY LINE (HIGH VOLTAGE OVERHEAD POWER)	
UTILITY LINE (OVERHEAD POWER)	
UTILITY LINE (OVERHEAD TELEPHONE)	
UTILITY LINE (SANITARY SEWER)	
UTILITY LINE (SANITARY SEWER FORCE MAIN)	
UTILITY LINE (SANITARY SEWER SERVICE)	
UTILITY LINE (STORM SEWER)	
UTILITY LINE (STORM SEWER, PERFORATED)	
UTILITY LINE (STORM/SANITARY SEWER SEWER COMBINATION)	
UTILITY LINE (TELEPHONE)	
UTILITY LINE (WATER)	

**SYMBOLS**

BENCH MARK	
CATCH BASIN	
CLEAN OUT	
CURB STOP	
FIRE HYDRANT	
GUY WIRE ANCHOR	
HEADGATE	
IRRIGATION PUMP	
MAILBOX	
MANHOLE (ELECTRIC)	
MANHOLE (GAS)	
MANHOLE (SANITARY/STORM)	
MANHOLE (TELEPHONE)	
MANHOLE (TV)	
MANHOLE (WATER)	
METER (GAS)	
METER (WATER)	
PEDESTAL (TELEPHONE)	
PEDESTAL (TV)	
PROPERTY PIN	
PULL BOX	
REDUCER FITTING	
SIGN OR POST (SIGN TYPE NOTED)	
SPRINKLER HEAD	
STREET LIGHT	
SURVEY MONUMENT (CITY)	
SURVEY MONUMENT (TYPE NOTED)	
TEST HOLE	
TRAFFIC PAINT MARKING	
TRAFFIC SIGNAL POLE AND MAST ARM	
UTILITY POLE	
VALVE (GAS)	
VALVE (IRRIGATION)	
VALVE (WATER)	
VEGETATION (HEDGE OR BUSH)	
VEGETATION (TREE STUMP)	
VEGETATION (TREE) (CALIPER SIZE NOTED)	
WATER HYDRANT	
WEIR	
YARD LIGHT	



NORTH ARROW:



REVISION Δ	DESCRIPTION	DATE	DRAWN BY	JCS	DATE	4-02
REVISION Δ			DESIGNED BY		DATE	
REVISION Δ			CHECKED BY		DATE	
REVISION Δ			APPROVED BY		DATE	

SCALE	
PLAN	PROFILE
HORIZ. 1"=20'	HORIZ. _____
VERT. _____	VERT. _____



**PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION**

**CITY OF GRAND JUNCTION STANDARD ABBREVIATIONS, LEGEND, AND SYMBOLS SHEET**

Item No.	CDOT, City Ref.	Description	Quantity	Units
1	108.2	15" Culvert (CMP)	40.	LF
2	108.2	15" Culvert End Sections (CMP)	2.	EA
3	108.2	10" Gravity Sewer Pipe (SDR 35 PVC)	1,397.	LF
4	108.2	10" Gravity Sewer Pipe (SDR 21 PVC)	108.	LF
5	108.2	16" Casing Pipe □	108.	LF
6	108.2	6" Gravity Sewer Pipe (SDR 35 PVC)	1,438.	LF
7	108.2	6" Gravity Sewer Pipe (SDR 21 PVC)	623.	LF
8	108.2	4" Gravity Sewer Pipe (SDR 35 PVC)(Include Tracing Wire and Cleanout Per Standard Detail SS-06)	1,058.34	LF
9	108.2	4" Gravity Sewer Pipe (SDR 35 PVC)(Include Tracing Wire and Cleanout Per Standard Detail SS-06) (4 Pipe in One Trench)	150.	LF
10	108.2	4" Gravity Sewer Pipe (SDR 35 PVC)(Include Tracing Wire and Cleanout Per Standard Detail SS-06) (3 Pipes in One Trench)	58.	LF
11	108.2	4" Gravity Sewer Pipe (SDR 35 PVC)(Include Tracing Wire and Cleanout Per Standard Detail SS-06) (2 Pipes in One Trench)	55.	LF
12	108.2	10" X 4" Sewer Service Tap (Full Body Wye w/ 45 Degree Bend)	13.	
13	108.5	6"X4" Sewer Service Tap (Full Body Wye w/ 45 Degree Bend)	13.	
14	108.5	Inserta-Tee 4"	3.	
15	108.2	Sewer Service Cleanout (Std Detail SS-07)	37.	EA
16	108.5	Connect Manhole to Existing Sanitary Sewer (10" Pipe)	1.	EA

Item No.	CDOT, City Ref.	Description	Quantity	Units
17	108.5	Sanitary Sewer Basic Manhole Components (48" I.D.)	11.	EA
18	108.5	Manhole Barrel Section (D>5') (48" ID)	38.6	VF
19	108.5	Sanitary Sewer Basic Drop Manhole Components (48" I.D.)	3.	EA
20	108.5	Drop Manhole Barrel Section (D>5' 48" I.D.)	14.77	VF
21	201	Clearing and Grubbing	1.	LS
22	202	Removal of Asphalt Mat (planning)	1,400.	SY
23	203	Embankment Material (Complete in Place)	50.	CY
24	208	Erosion Control Logs	20.	LF
25	208	Concrete Wash Facility	Lump	sum
26	209	Dust Abatement	65.	Day
27	210	Remove and Reset Mailbox	1.	EA
28	210	Reset Fence (All Types)	20.	LF
29	210	Reset Culvert (All Sizes)	2.	EA
30	201	Reset Landscape Appurtenances (per Each Property)	20.	EA
31	304	Aggregate Base Course (Class 6)(6" Thick)	1,680.	SY
32	401	Hot Bituminous Pavement (Patching) (3" Thick)(Grading SX Binder 64-22)	1,400.	SY
33	401	Hot Bituminous Pavement ( 1 1/2" Thick) (Grading SX Binder 64-22)	100.	TONS
34	625	Construction Surveying	Lump	sum
35	626	Mobilization	Lump	sum
36	629	Reference and Reset Survey Monument	1.	EA
37	630	Traffic Control (Complete in Place)	Lump	sum
38	630	Traffic Control Plan	Lump	sum
199				
MCR		Minor Contract Revisions	---	---

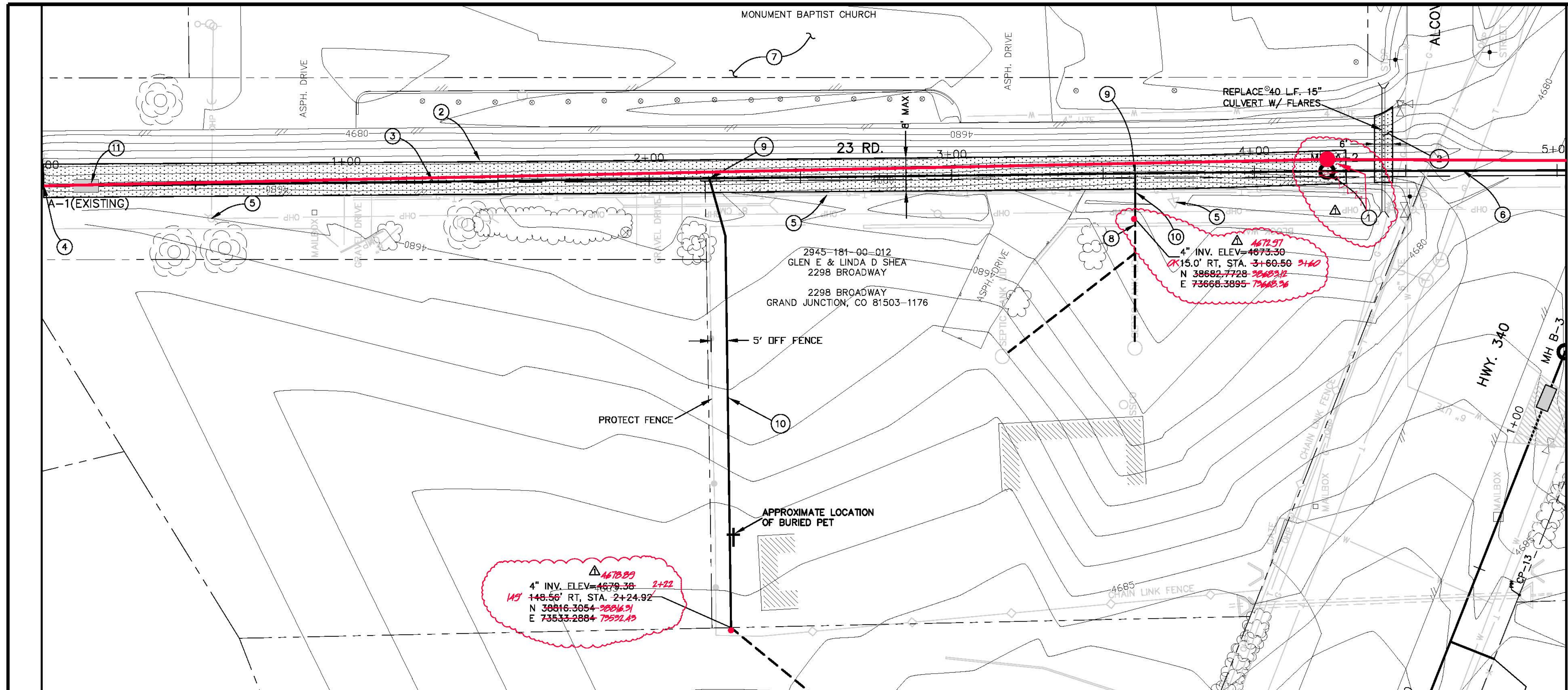
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REVISION ▲	DESCRIPTION	DATE	DRAWN BY JAH	DATE 2002	SCALES:
REVISION ▲			DESIGNED BY SBG	DATE 2002	
REVISION ▲			CHECKED BY SBG	DATE 2002	
REVISION ▲			APPROVED BY	DATE	



**PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION**

**23 ROAD SEWER IMPROVMENT DISTRICT SUMMARY OF APPROXIMATE QUANTITIES**



PROJECT NO. 906-F48210



CONTROL DATA

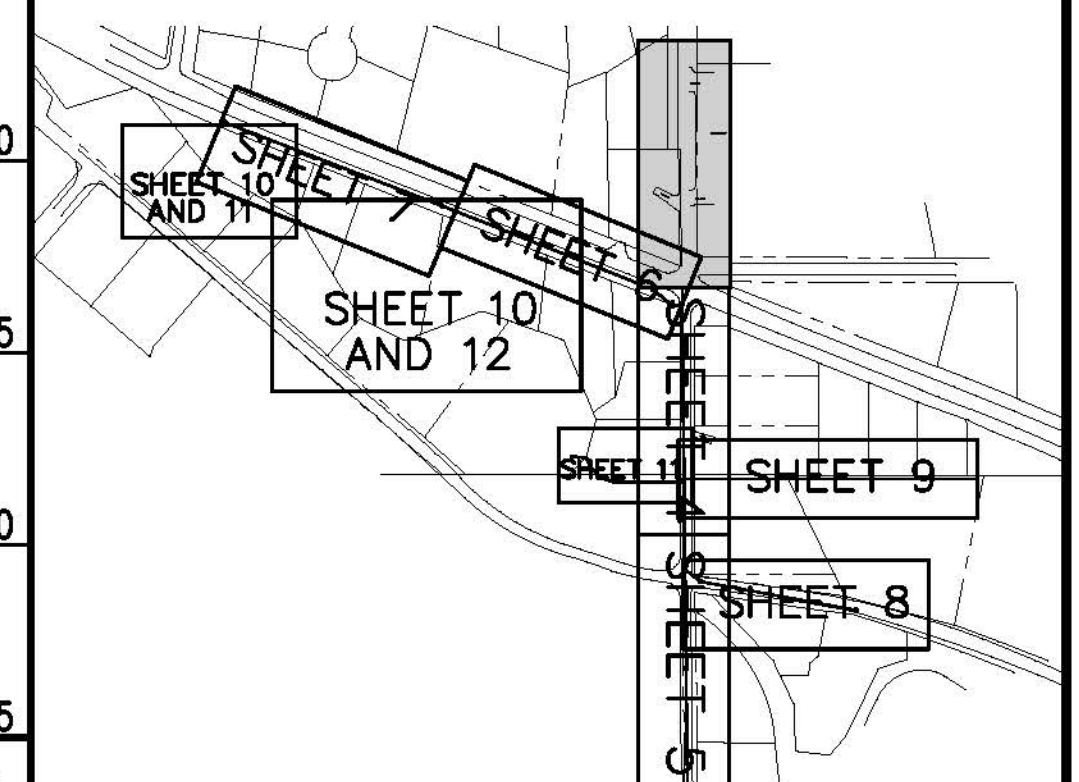
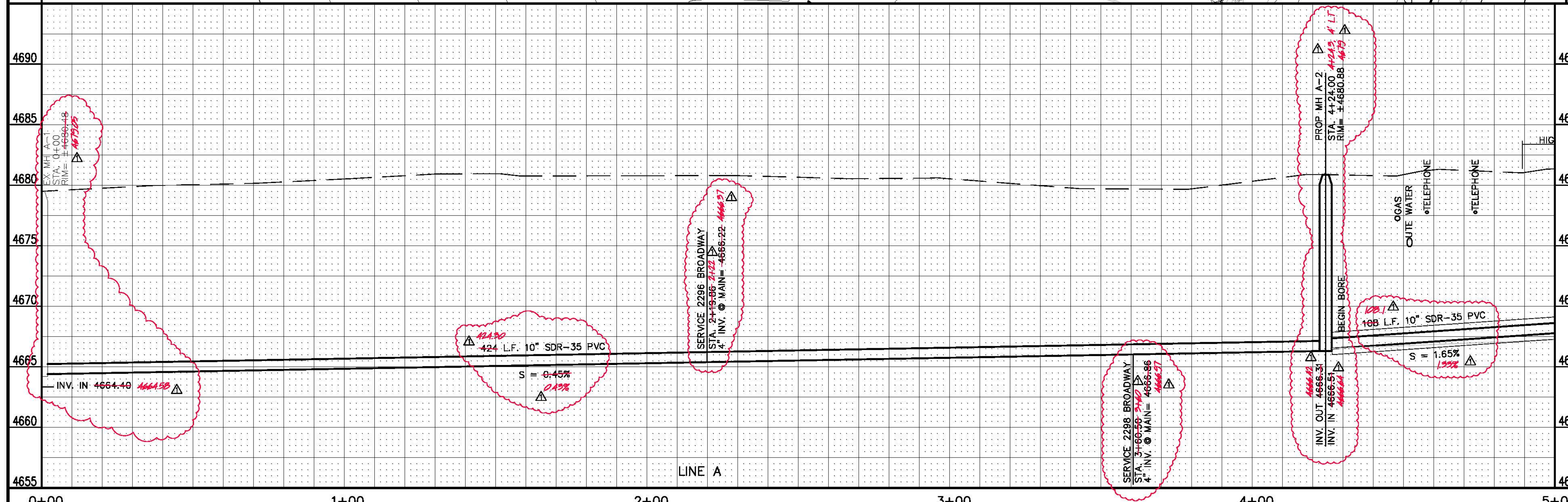
MANHOLE NUMBER	NORTHING	EASTING
A-1(EXISTING)	39043.3560	73679.1480
A-2	38619.3853	73684.1363

POINT NUMBER	DESCRIPTION	NORTHING	EASTING
CP-1	PIN 24943	38556.0080	73758.3600
CP-2	PK SW COR 23/H ELEV.=4681.39	38525.4370	73675.3440

CONSTRUCTION NOTES

- ① 102/103/104 CONSTRUCT STANDARD 48" MANHOLE. COMPLETE IN PLACE.
- ② 202 ASPHALT REMOVAL AS SHOWN 8" MAX.
- 304 AGGREGATE BASE COURSE(CL-6)(6" DEPTH). COMPACT TO 95% AASHTO T-99. COMPACT SUBGRADE TO 95% AASHTO T-99.
- 401 HOT BITUMINOUS PAVEMENT PATCH. (SX BINDER 64-22) (3" DEPTH) PAVEMENT SHALL BE APPLIED IN 2- 1 1/2" LIFTS.
- ③ 102/103/104 INSTALL 10" SDR-35 PVC SEWER MAIN BACKFILL. TRENCH WITH NATIVE MATERIAL COMPACTED TO 95% MEETING AASHTO T-99.
- ④ 102/104.2 TIE TO EXISTING MH-1. UTILIZE EXISTING PSX BOOT. GROUT AROUND BOOT TO PROVIDE SMOOTH INVERT THROUGH EXISTING MANHOLE.
- ⑤ 107 CONTRACTOR SHALL PROTECT EXISTING UTILITIES IN PLACE.
- ⑥ INSTALL 10" SDR-35 PVC W/ SPACER INSIDE 16", 0.25" WALL CASING PIPE. CASING PIPE TO BE INSTALLED BY DIRECTIONAL BORING METHODS.
- ⑦ THE CONTRACTOR SHALL NOT ENCROACH ON THE MONUMENT BAPTIST CHURCH PROPERTY UNLESS WRITTEN, SIGNED AGREEMENT IS PROVIDED TO THE CITY PROJECT ENGINEER PRIOR TO UTILIZING CHURCH PROPERTY.
- ⑧ PROTECT EXISTING BLOCK WALL IN PLACE.
- ⑨ 102/103/104 10" x 4" D3034 FULL BODY WYE AND 45° ELBOW. PAID BY EACH INSTALLED.
- ⑩ 102/103/104 4" SDR-35 PVC SERVICE. PAID BY LINEAL FOOT INSTALLED. INCLUDES GLUE CAP, LOCATION MARKED, TRACER WIRE AND CLEANOUT BOX PER CITY STD. DETAIL SS-06.
- ⑪ CLAY CUTOFF WALL SHALL BE PLACED 10' UPSTREAM OF EXISTING MH. CUTOFF WALL SHALL EXTEND FROM 6" BELOW TO 6" ABOVE IMPORTED BACKFILL MATERIAL FOR THE FULL WIDTH OF THE TRENCH. IF NATIVE MATERIAL IS NOT SUITABLE, THE CONTRACTOR SHALL IMPORT MATERIAL IN ACCORDANCE WITH SECTION 103.10 OF THE STANDARD CONTRACT DOCUMENTS.



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
AS BUILT		8-08	JAH	2002
			SBG	2002
			SBG	2002

SCALE:	PLAN	PROFILE
	HORIZONTAL 1" = 20'	HORIZONTAL 1" = 10'
		VERTICAL 1" = 2'

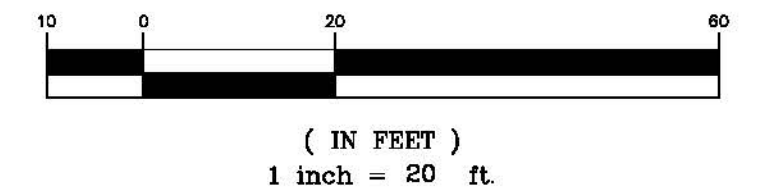


**PUBLIC WORKS  
AND UTILITIES  
ENGINEERING DIVISION**

**23 ROAD SEWER IMPROVMENT DISTRICT  
23 RD. SANITARY SEWER PLAN AND PROFILE  
STA. 0+00 TO STA. 5+00**



GRAPHIC SCALE



CONTROL DATA

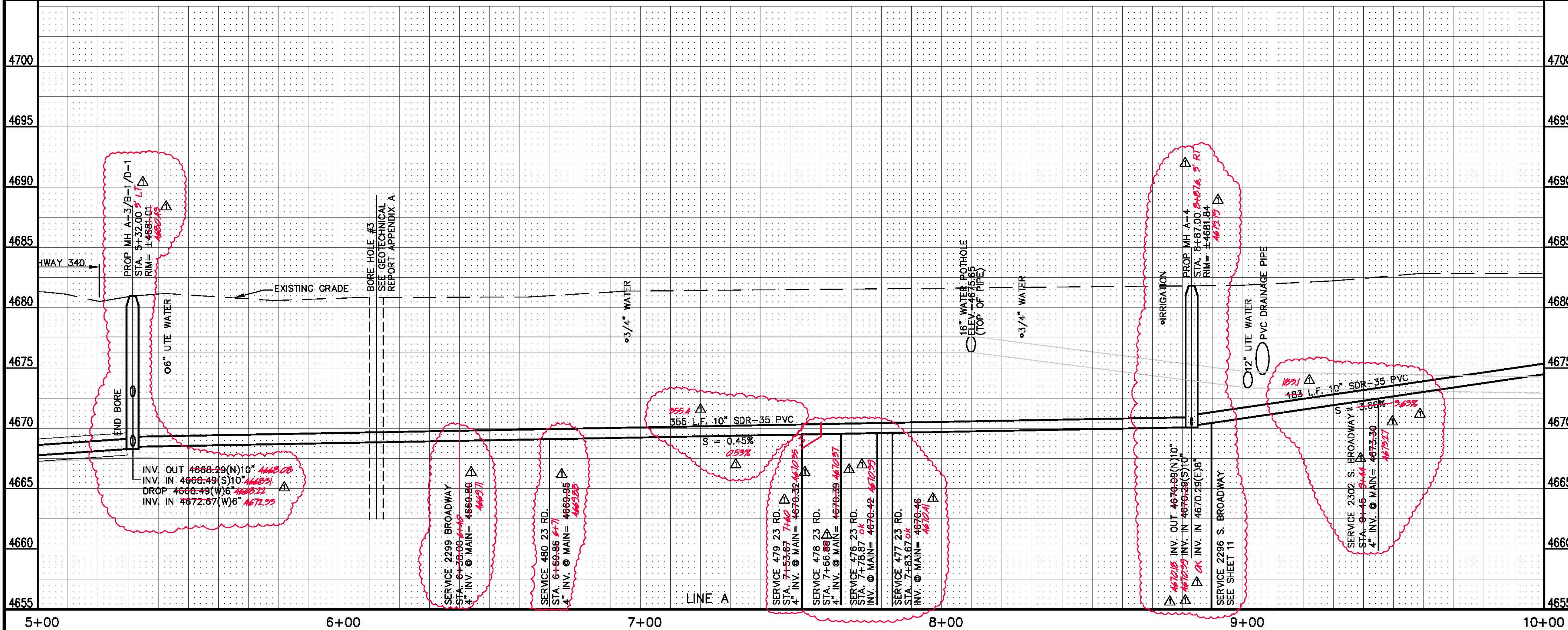
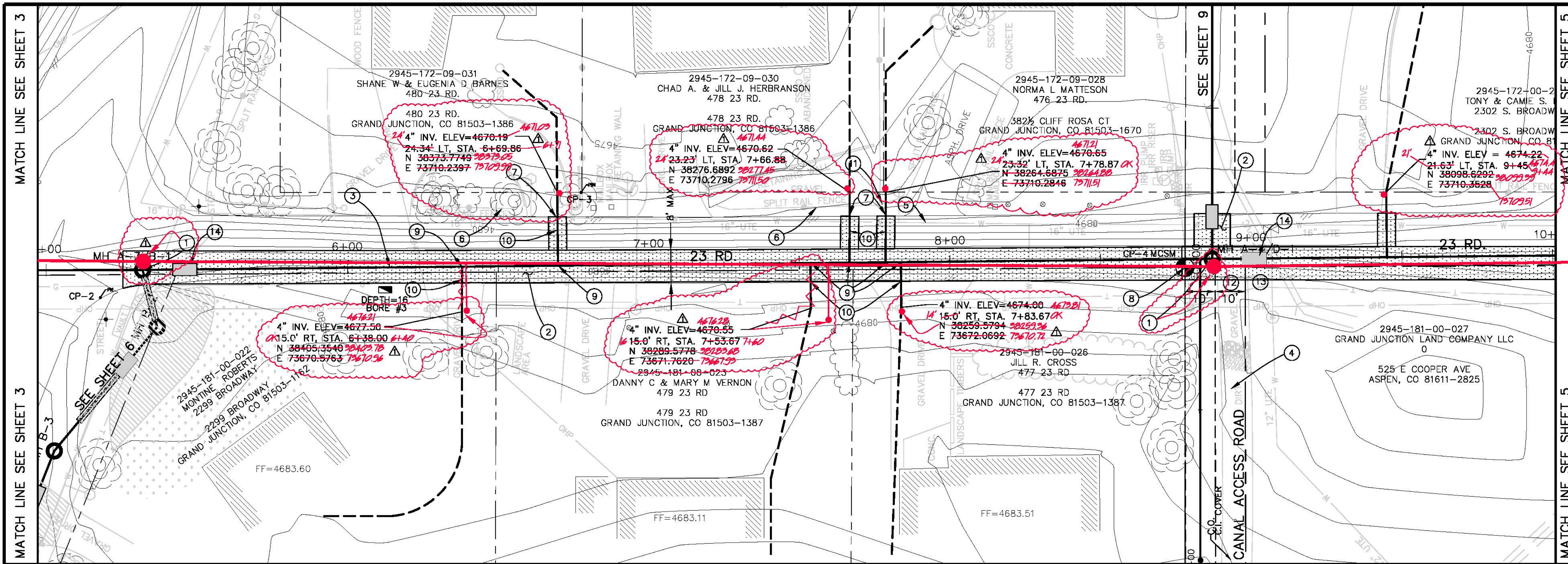
MANHOLE NUMBER	NORTHING	EASTING
MH A-3/B-1	38511.3859	73684.4911
MH A-4	38156.4045	73688.1258

POINT NUMBER	DESCRIPTION	NORTHING	EASTING
CP-2	PK SW COR 23/H ELEV.=4681.39	38525.4370	73675.3440
CP-3	PIN	38365.8210	73710.1860
CP-4	MCSM ELEV.= 4679.45	38165.4360	73685.2880

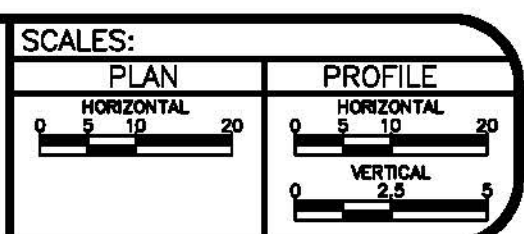
CONSTRUCTION NOTES

- ① 102/103/104 CONSTRUCT STANDARD 48" MANHOLE. COMPLETE IN PLACE.
- ② 202 ASPHALT REMOVAL AS SHOWN 8" MAX.
- 304 AGGREGATE BASE COURSE(CL-6)(6" DEPTH). COMPACT TO 95% AASHTO T-99. COMPACT SUBGRADE TO 95% AASHTO T-99.
- 401 HOT BITUMINOUS PAVEMENT PATCH. (5X BINDER 64-22) (3" DEPTH) PAVEMENT SHALL BE APPLIED IN 2- 1/2" LIFTS.
- ③ 102/103/104 INSTALL 10" SDR-35 PVC SEWER MAIN BACKFILL TRENCH WITH NATIVE MATERIAL COMPACTED TO 95% MEETING AASHTO T-99.
- ④ SEE SHEET 11 FOR SERVICE TO 2296 S. BROADWAY.
- ⑤ CONTRACTOR SHALL PROTECT EXISTING UTILITIES IN PLACE.
- ⑥ PROTECT EXISTING SPLIT RAIL FENCE IN PLACE.
- ⑦ CONTRACTOR SHALL USE CAUTION WHILE EXCAVATING UNDER EXISTING UTE WATER LINE. WORKING PRESSURE IS ±160 P.S.I.
- ⑧ RESET MCSM PER CITY OF GRAND JUNCTIONS STANDARD SPECIFICATIONS. PAID FOR BY EA.
- ⑨ THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING ADDITIONAL SURVEY CONTROL IF NEEDED. THERE WILL BE NO ADDITIONAL PAYMENT FOR ADDITIONAL CONTROL SET BY THE CONTRACTOR.
- ⑩ 10" x 4" D3034 FULL BODY WYE AND 45" ELBOW. PAID BY EACH INSTALLED.
- ⑪ 4" SDR-35 PVC SERVICE. PAID BY LINEAL FOOT INSTALLED. INCLUDES GLUE CAP AND LOCATION MARKED PER CITY STD. DETAIL SS-06.
- ⑫ REMOVE AND RESET FENCE 20 L.F.
- ⑬ PERMANENT 10' EASEMENT.
- ⑭ ADDITIONAL 10' TEMPORARY CONSTRUCTION EASEMENT.
- CLAY CUTOFF WALL SHALL BE PLACED 10' UPSTREAM OF EXISTING MH. CUTOFF WALL SHALL EXTEND FROM 6" BELOW TO 6" ABOVE IMPORTED BACKFILL MATERIAL FOR THE FULL WIDTH OF THE TRENCH. IF NATIVE MATERIAL IS NOT SUITABLE, THE CONTRACTOR SHALL IMPORT MATERIAL IN ACCORDANCE WITH SECTION 103.10 OF THE STANDARD CONTRACT DOCUMENTS.



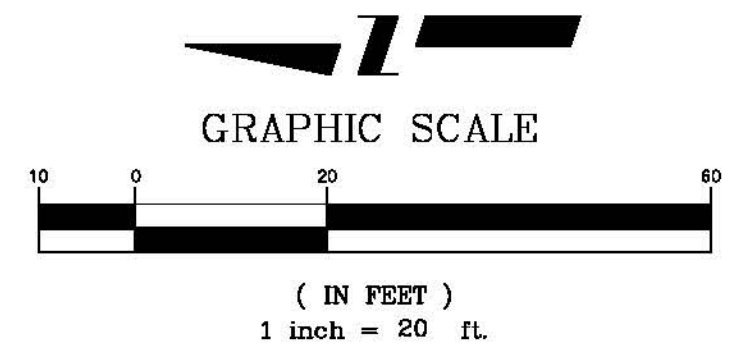
REVISION	DESCRIPTION	DATE
AS BUILT		8-08

DRAWN BY	JAH	DATE	2002
DESIGNED BY	SBG	DATE	2002
CHECKED BY	SBG	DATE	2002
APPROVED BY		DATE	



**PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION**

**23 ROAD SEWER IMPROVMENT DISTRICT  
23 RD. SANITARY SEWER PLAN AND PROFILE  
STA. 5+00 TO STA. 10+00**



**CONSTRUCTION NOTES**

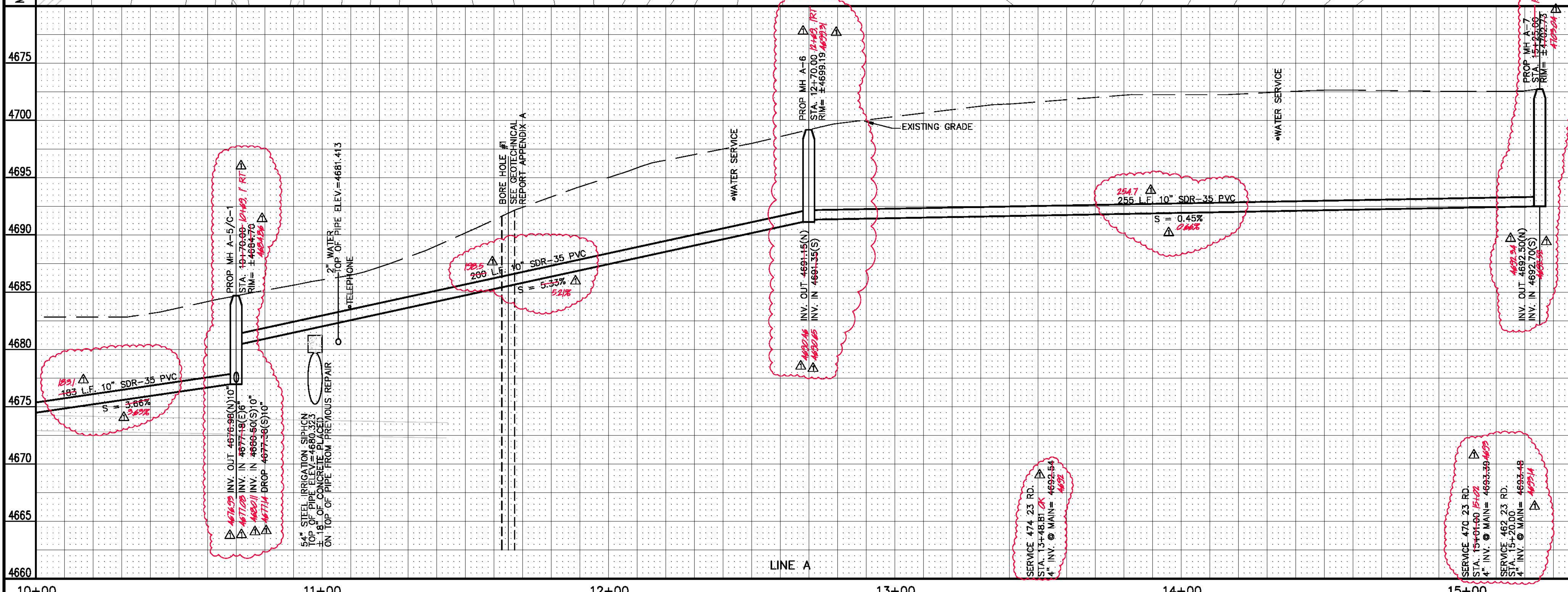
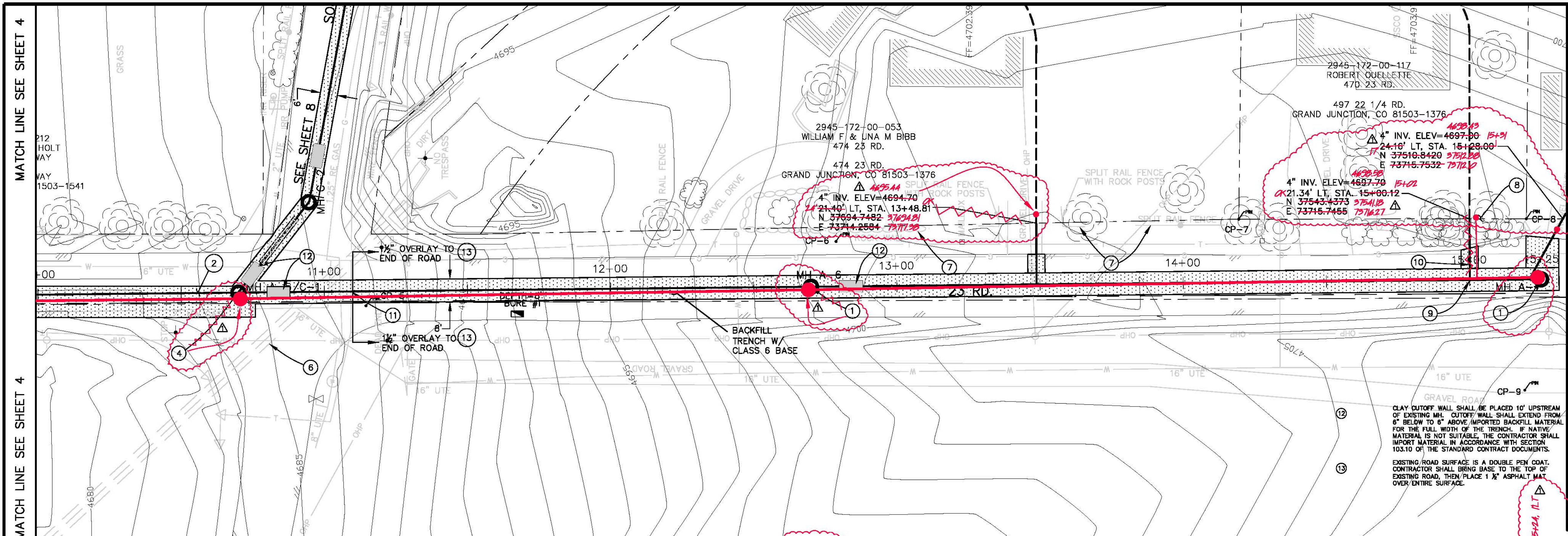
- ① 102/103/104 CONSTRUCT STANDARD 48" MANHOLE. COMPLETE IN PLACE.
- ② 202 ASPHALT REMOVAL AS SHOWN 8" MAX
- 304 AGGREGATE BASE COURSE(6" DEPTH). COMPACT TO 95% AASHTO T-99. COMPACT SUBGRADE TO 95% AASHTO T-99.
- 401 HOT BITUMINOUS PAVEMENT PATCH. (GR-C, 75 BLOW MARSHALL) (3" DEPTH) PAVEMENT SHALL BE APPLIED IN 2- 1/2' LIFTS.
- ③ 102/103/104 INSTALL 10" SDR-35 PVC SEWER MAIN BACKFILL TRENCH WITH NATIVE MATERIAL COMPACTED TO 95% MEETING AASHTO T-99.
- ④ 102/103/104 CONSTRUCT 48" DROP MANHOLE. INCLUDES ALL DROP FITTINGS, FLOWMILL BACKFILL AND INTERIOR COATING.
- ⑤ CONTRACTOR SHALL PROTECT EXISTING UTILITIES IN PLACE.
- ⑥ CONTRACTOR SHALL NOTIFY REDLANDS WATER AND POWER 72 HOURS PRIOR TO EXCAVATION OVER THE SIPHON. THE EXISTING CONCRETE CAP REPAIR MAY NEED TO BE REMOVED TO FACILITATE CONSTRUCTION OF THE NEW SEWER MAIN. REDLANDS WATER AND POWER FIELD SUPERINTENDANT, OREG STRONG CAN BE REACHED AT (970)243-2173 TO COORDINATE DRAINING THE SIPHON.
- ⑦ PROTECT FENCE, ROCKWALL AND LANDSCAPE FEATURES IN PLACE.
- ⑧ CONTRACTOR SHALL USE CARE TO INSURE THAT TREES AND SHRUBS ARE NOT DAMAGED.
- ⑨ 10" x 4" D3034 FULL BODY WYE AND 45° ELBOW. PAID BY EACH INSTALLED.
- ⑩ 4" SDR-35 PVC SERVICE. PAID BY LINEAL FOOT INSTALLED. INCLUDES GLUE CAP AND LOCATION MARKED PER CITY STD. DETAIL SS-08.
- ⑪ CONTRACTOR MAY NEED TO CLEAR SOIL FROM THE TELEPHONE LINE EAST AND WEST OF THE TRENCH TO ALLOW INSTALLATION OF THE NEW SEWER LINE. THIS WORK, IF REQUIRED, SHALL BE INCIDENTAL TO CONTRACT PRICE.

**CONTROL DATA**

MANHOLE NUMBER	NORTHING	EASTING
MH A-5/C-1	37973.4141	73689.9994
MH A-6	37773.4246	73692.0471
MH A-7	37518.4380	73694.6579

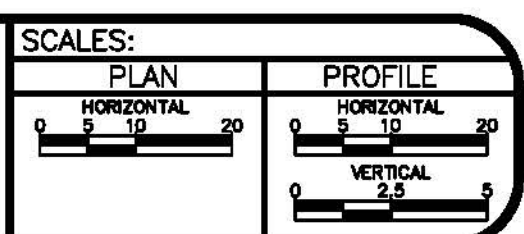
  

POINT NUMBER	DESCRIPTION	NORTHING	EASTING
CP-5	PIV	37928.9430	73685.3660
CP-6	PIV	37784.8800	73707.8910
CP-7	PIV	37824.0170	73715.8500
CP-8	PIV	37923.5870	73715.7880
CP-9	PIV	37824.1020	73665.9370



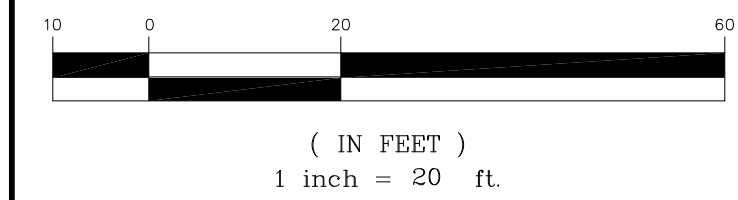
REVISION	DESCRIPTION	DATE
AS BUILT		8-08

DRAWN BY	JAH	DATE	2002
DESIGNED BY	SBG	DATE	2002
CHECKED BY	SBG	DATE	2002
APPROVED BY		DATE	



**PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION**

**23 ROAD SEWER IMPROVMENT DISTRICT  
23 RD. SANITARY SEWER PLAN AND PROFILE  
STA. 10+00 TO STA. 15+25**



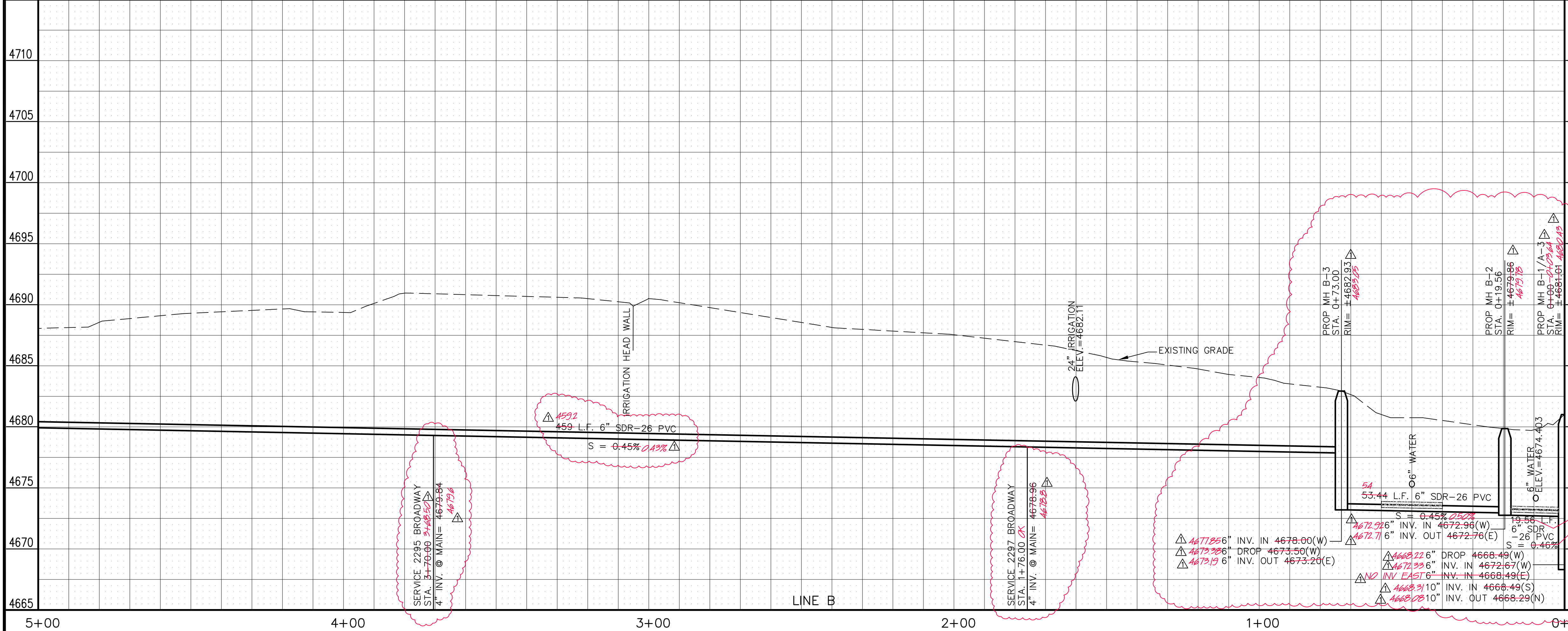
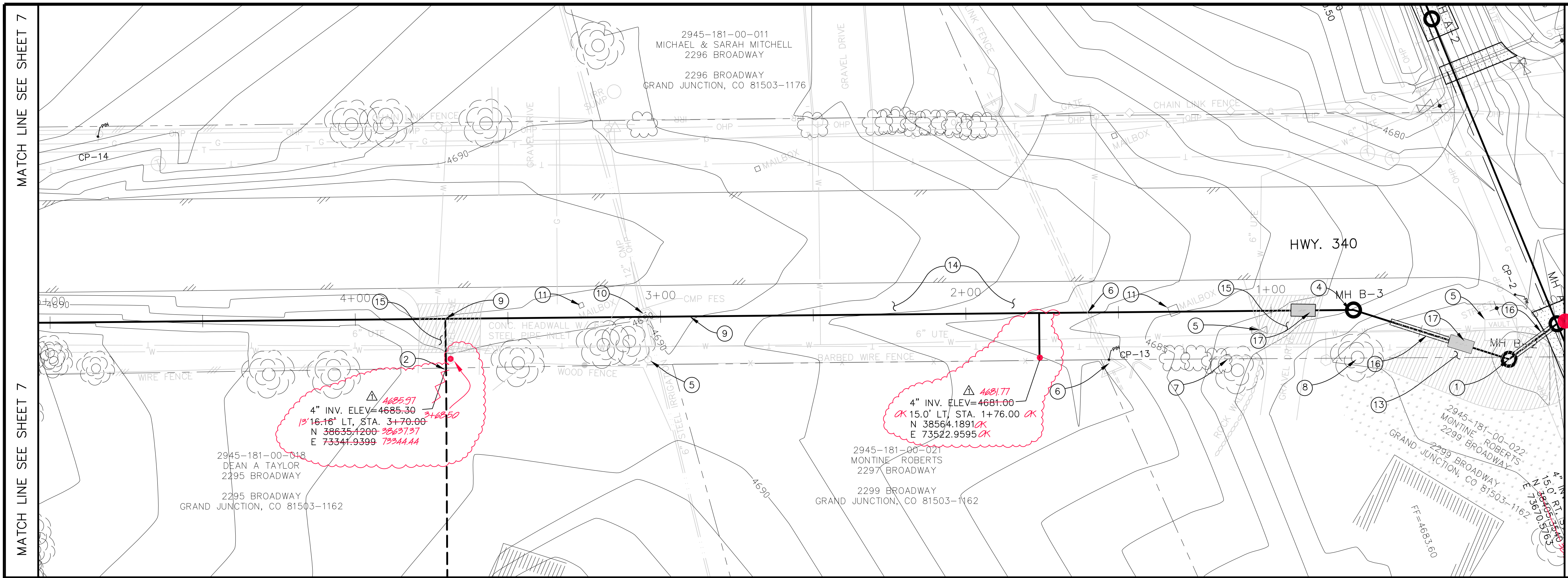
CONTROL DATA

MANHOLE NUMBER	NORTHING	EASTING
MH B-1/A-3	38511.3859	73684.4911
MH B-2	38506.548	73665.5387
MH B-3	38540.7583	73624.3645

POINT NUMBER	DESCRIPTION	NORTHING	EASTING
CP-2	PK SW COR 23/H ELEV.=4681.39	38525.4370	73675.3440
CP-13	CAP ON HEADWALL ELEV.=4687.70	38555.8100	73544.0930
CP-14	TBM	38748.3520	73264.8950

CONSTRUCTION NOTES

- ① 102/103/104 CONSTRUCT STANDARD 48" MANHOLE. COMPLETE IN PLACE.
- ② 4" SDR-35 PVC SERVICE. PAID BY LINEAL FOOT INSTALLED. INCLUDES GLUE CAP AND LOCATION MARKED PER CITY STD. DETAIL SS-06.
- ③ 102/103/104 INSTALL 6" SDR-26 PVC SEWER MAIN BACKFILL TRENCH WITH NATIVE MATERIAL COMPACTED TO 95% MEETING AASHTO T-99.
- ④ CONSTRUCT 48" DROP MANHOLE. INCLUDES ALL DROP FITTINGS, FLOWFILL BACKFILL AND INTERIOR COATING.
- ⑤ CONTRACTOR SHALL PROTECT EXISTING UTILITIES IN PLACE.
- ⑥ PROTECT EXISTING REDLANDS WATER AND POWER.
- ⑦ PROTECT FENCE, ROCKWALL AND LANDSCAPE FEATURES IN PLACE.
- ⑧ CONTRACTOR SHALL USE CARE TO INSURE THAT TREES AND SHRUBS ARE NOT DAMAGED.
- ⑨ 6" x 4" D3034 FULL BODY WYE AND 45° ELBOW. PAID BY EACH INSTALLED.
- ⑩ CONTRACTOR SHALL CAREFULLY REMOVE AND RE-USE EXISTING 12" CMP FLAIED END SECTION AND SHALL RECONSTRUCT ± 12" x 24" CONCRETE HEADWALL TO MATCH PRE-CONSTRUCTION CONDITION.  
  
COORDINATE WITH REDLANDS WATER AND POWER FOR CONTROL OF HEADGATE FEEDING 6" STEEL LINE. STRUCTURE MUST BE RECONSTRUCTED WITH IRRIGATION FLOW RETURNED TO THE PIPE WITHIN 2 CALENDAR DAYS.
- ⑪ REMOVE AND RESET MAIL BOX.
- ⑫ DIRECTIONAL BORE FOR 4" SDR-17 HDPE SERVICE LINE. CONTRACTOR SHALL COUPLE SDR-35 PVC TO SDR-17 HDPE UTILIZING SMITH BLAIR MODEL 413 COUPLING WITH STAINLESS STEEL STIFFNERS.
- ⑬ REMOVE AND REPLACE SOD TO MATCH ORIGINAL CONTOURS. CONTRACTOR MAY CUT AND RE-USE EXISTING SOD. SOD MUST BE KEPT WET AND REPLACED WITHIN 4 DAYS OF REMOVAL.
- ⑭ ALL WORK WITHIN THE HIGHWAY 340 RIGHT-OF-WAY SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE CDOT UTILITY PERMIT REQUIREMENTS.  
  
THE CDOT UTILITY IS INCLUDED IN THE PROJECT SPECIFICATIONS APPENDIX B.
- ⑮ 4" CLASS-6 AGGREGATE BASE COURSE. RESTORE DRIVEWAY; COMPACTED TO 95% AASHTO T-99.
- ⑯ INSTALL CONCRETE CAP ON SEWER MAIN. 20 L.F. CENTERED ON WATER LINE CROSSING.
- ⑰ CLAY CUTOFF WALL SHALL BE PLACED 10' UPSTREAM OF EXISTING MH. CUTOFF WALL SHALL EXTEND FROM 6" BELOW TO 6" ABOVE IMPORTED BACKFILL MATERIAL FOR THE FULL WIDTH OF THE TRENCH. IF NATIVE MATERIAL IS NOT SUITABLE, THE CONTRACTOR SHALL IMPORT MATERIAL IN ACCORDANCE WITH SECTION 103.10 OF THE STANDARD CONTRACT DOCUMENTS.



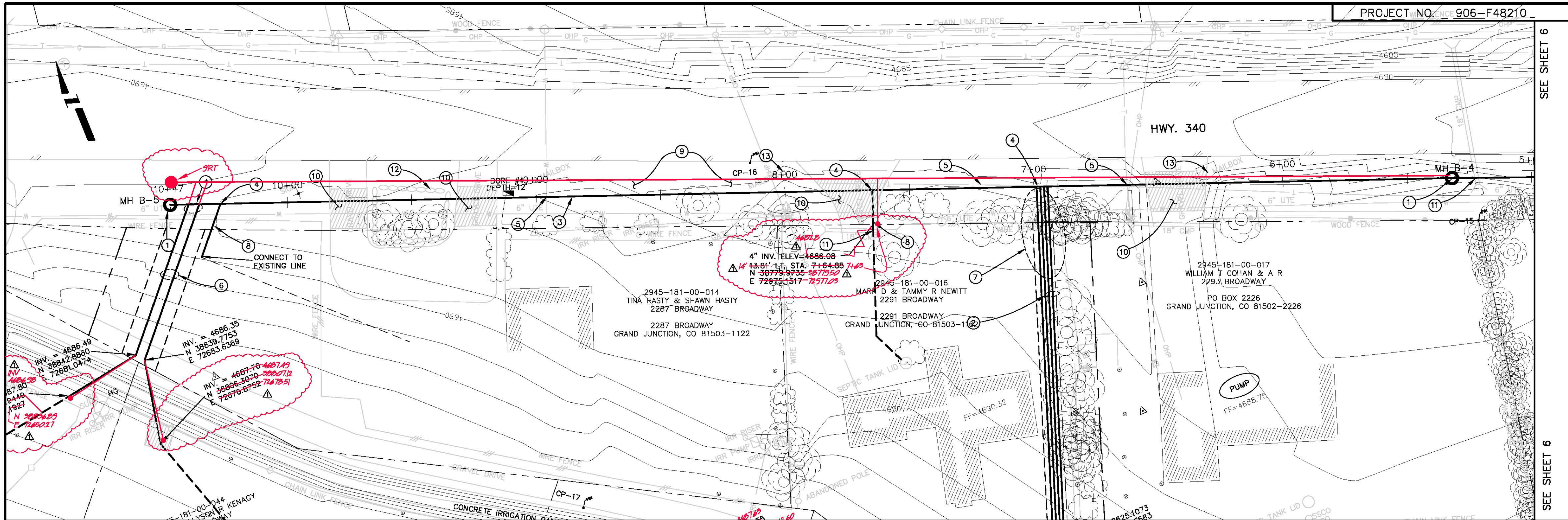
REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
AS BUILT		8-08	JAH	2002
			SBG	2002
			SBG	2002

SCALES:

PLAN	1" = 20'
PROFILE	1" = 5'

**PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION**

**23 ROAD SEWER IMPROVEMENT DISTRICT  
HWY. 340 SANITARY SEWER PLAN AND PROFILE  
STA. 0+00 TO STA. 5+00**



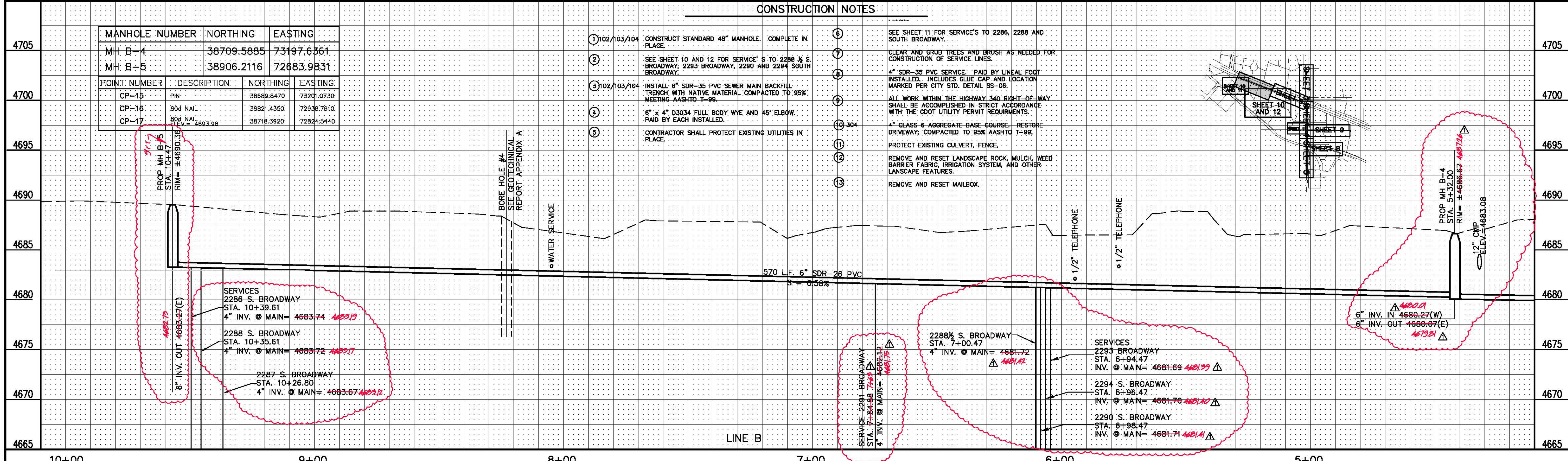
CONSTRUCTION NOTES

- ① 102/103/104 CONSTRUCT STANDARD 48" MANHOLE. COMPLETE IN PLACE.
- ② SEE SHEET 10 AND 12 FOR SERVICE S TO 2288 S. BROADWAY, 2293 BROADWAY, 2290 AND 2294 SOUTH BROADWAY.
- ③ 102/103/104 INSTALL 6" SDR-35 PVC SEWER MAIN BACKFILL TRENCH WITH NATIVE MATERIAL COMPACTED TO 95% MEETING AASHTO T-99.
- ④ 6" x 4" D3034 FULL BODY WYE AND 45" ELBOW. PAID BY EACH INSTALLED.
- ⑤ CONTRACTOR SHALL PROTECT EXISTING UTILITIES IN PLACE.
- ⑥ SEE SHEET 11 FOR SERVICE'S TO 2286, 2288 AND SOUTH BROADWAY.
- ⑦ CLEAR AND GRUB TREES AND BRUSH AS NEEDED FOR CONSTRUCTION OF SERVICE LINES.
- ⑧ 4" SDR-35 PVC SERVICE. PAID BY LINEAL FOOT INSTALLED. INCLUDES GLUE CAP AND LOCATION MARKED PER CITY STD. DETAIL SS-06.
- ⑨ ALL WORK WITHIN THE HIGHWAY 340 RIGHT-OF-WAY SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE CDD UTILITY PERMIT REQUIREMENTS.
- ⑩ 304 4" CLASS 6 AGGREGATE BASE COURSE. RESTORE DRIVEWAY; COMPACTED TO 95% AASHTO T-99.
- ⑪ PROTECT EXISTING CULVERT, FENCE.
- ⑫ REMOVE AND RESET LANDSCAPE ROCK, MULCH, WEED BARRIER FABRIC, IRRIGATION SYSTEM, AND OTHER LANDSCAPE FEATURES.
- ⑬ REMOVE AND RESET MAILBOX.

MANHOLE NUMBER	NORTHING	EASTING
MH B-4	38709.5885	73197.6361
MH B-5	38906.2116	72683.9831

POINT NUMBER	DESCRIPTION	NORTHING	EASTING
CP-15	PIN	38689.8470	73201.0730
CP-16	80d NAIL	38821.4350	72638.7810
CP-17	80d NAIL ELEV. = 4693.98	38718.3920	72824.5440



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
AS BUILT		8-08	JAH	2002
			SBG	2002
			SBG	2002

SCALES:	PLAN	PROFILE
	HORIZONTAL 1" = 20'	HORIZONTAL 1" = 10'
	VERTICAL 1" = 10'	VERTICAL 2" = 5'

CITY OF  
**Grand Junction**  
COLORADO

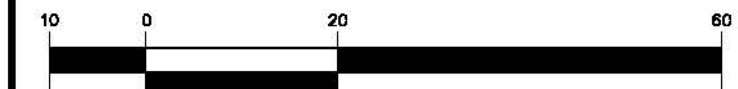
**PUBLIC WORKS  
AND UTILITIES  
ENGINEERING DIVISION**

**23 ROAD SEWER IMPROVMENT DISTRICT  
HWY. 340 SANITARY SEWER PLAN AND PROFILE  
STA. 5+00 TO STA. 10+25**

7  
OF  
12



GRAPHIC SCALE



( IN FEET )  
1 inch = 20 ft.



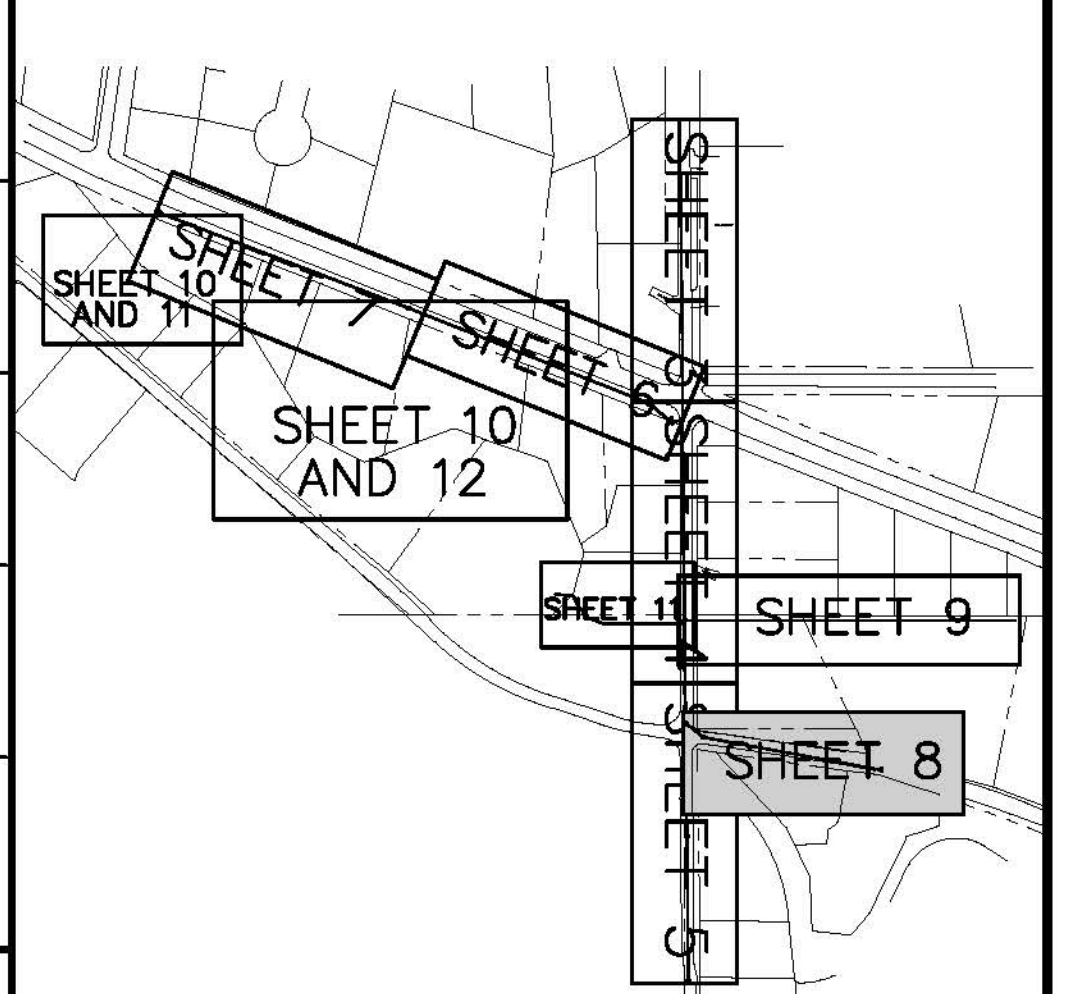
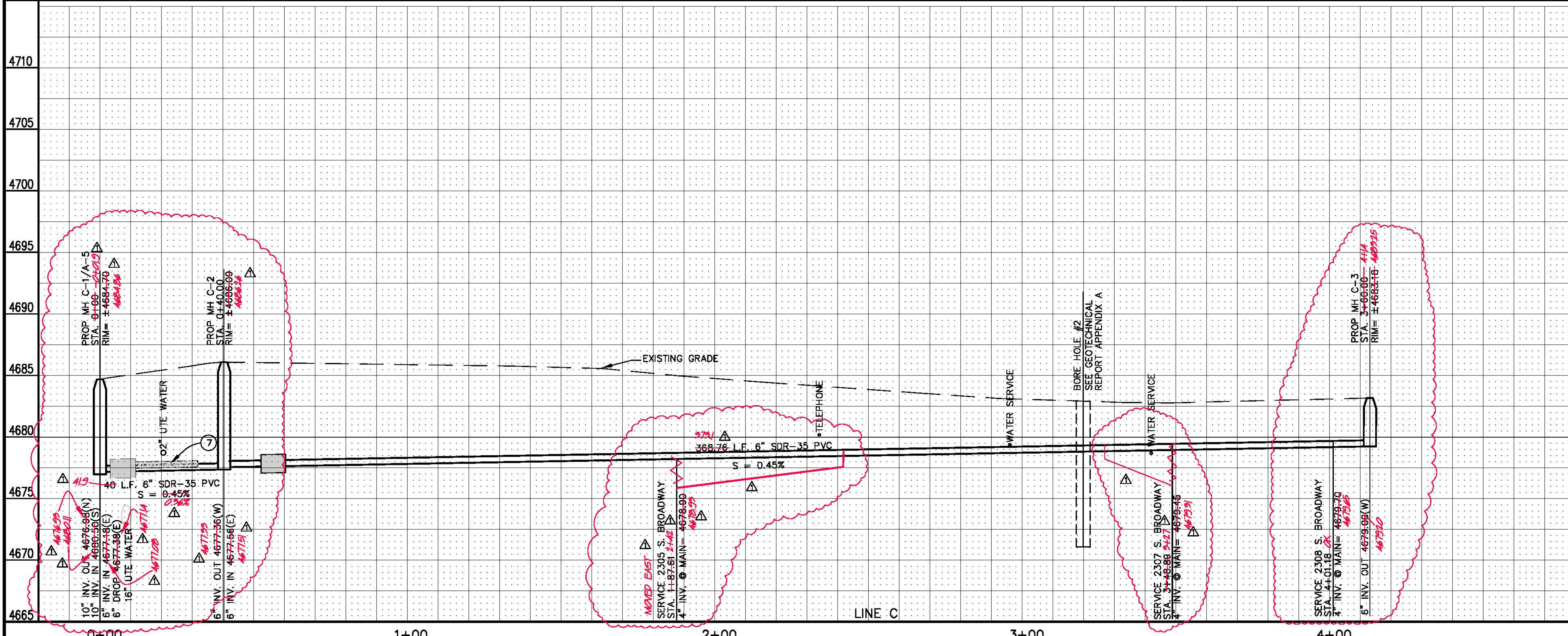
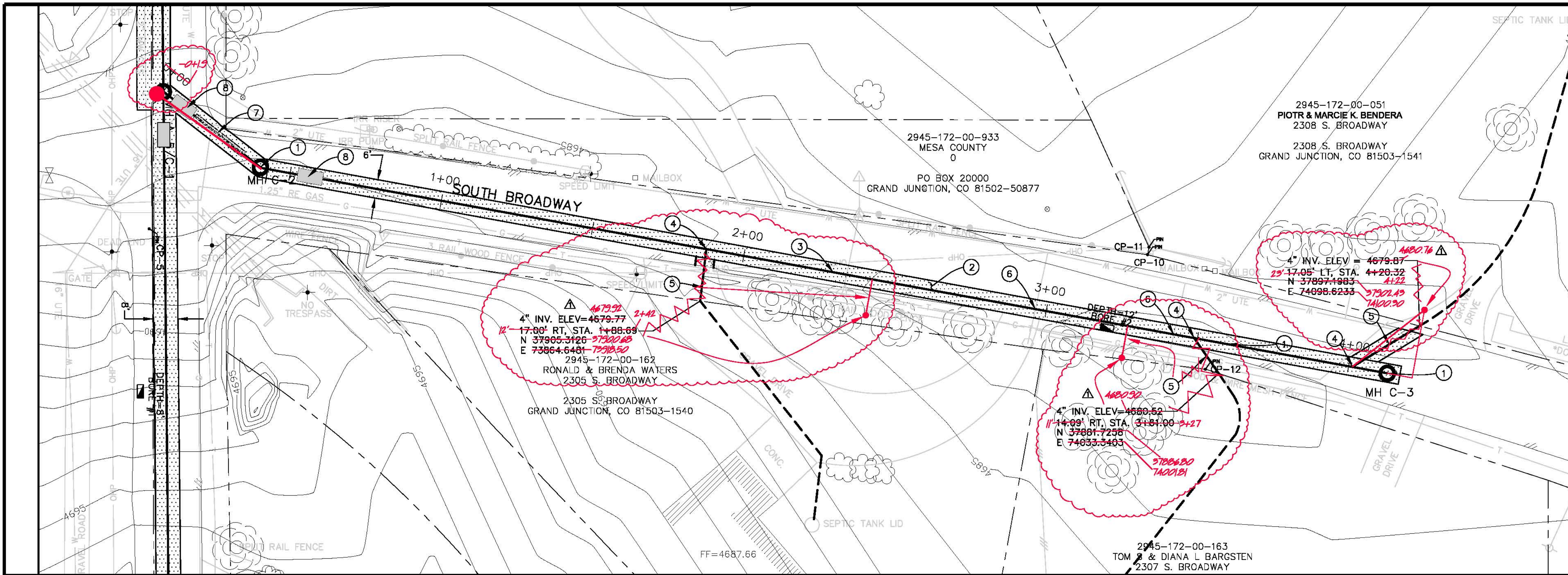
CONTROL DATA

MANHOLE NUMBER	NORTHING	EASTING
MH C-1/A-5	37973.4141	73689.9994
MH C-2	37948.8379	73721.5590
MH C-3	37881.7800	74088.1400

POINT NUMBER	DESCRIPTION	NORTHING	EASTING
CP-5	PIN 17485 FINV = 4686.79	37928.8430	73685.3950
CP-10	PIN 4307 ELEV = 4682.20	37920.3990	74010.1740
CP-11	PIN	37922.8420	74010.6360
CP-12	PIN	37883.1280	74029.0180

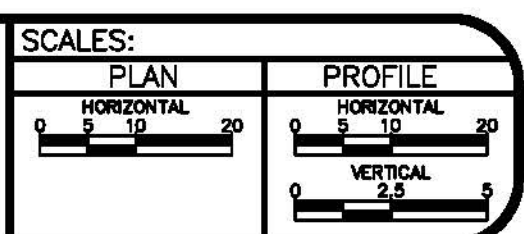
CONSTRUCTION NOTES

- ① 102/103/104 CONSTRUCT STANDARD 48" MANHOLE. COMPLETE IN PLACE.
- ② 202 ASPHALT REMOVAL AS SHOWN 8' MAX.
- 304 AGGREGATE BASE COURSE (CL-6) (6" DEPTH). COMPACT TO 95% AASHTO T-99. COMPACT SUBGRADE TO 95% AASHTO T-99.
- 401 HOT BITUMINOUS PAVEMENT PATCH. (SX BINDER 64-22) (3" DEPTH) PAVEMENT SHALL BE APPLIED IN 2- 1/2" LIFTS.
- ③ 102/103/104 INSTALL 6" SDR-35 PVC SEWER MAIN BACKFILL TRENCH WITH NATIVE MATERIAL COMPACTED TO 95% MEETING AASHTO T-99.
- ④ 102/103/104 6" x 4" D3034 FULL BODY WYE AND 45° ELBOW. PAID BY EACH INSTALLED.
- ⑤ 102/103/104 4" SDR-35 PVC SERVICE. PAID BY LINEAL FOOT INSTALLED. INCLUDES GLUE CAP AND LOCATION MARKED PER CITY STD. DETAIL SS-06.
- ⑥ CONTRACTOR MAY NEED TO ADJUST DEPTH OF WATER SERVICE TO ALLOW INSTALLATION OF SEWER MAIN.
- ⑦ INSTALL CONCRETE CAP ON SEWER MAIN. 20 L.F. CENTERED ON WATER LINE CROSSING.
- ⑧ CLAY CUTOFF WALL SHALL BE PLACED 10' UPSTREAM OF EXISTING MH. CUTOFF WALL SHALL EXTEND FROM 6" BELOW TO 6" ABOVE IMPORTED BACKFILL MATERIAL FOR THE FULL WIDTH OF THE TRENCH. IF NATIVE MATERIAL IS NOT SUITABLE, THE CONTRACTOR SHALL IMPORT MATERIAL IN ACCORDANCE WITH SECTION 103.10 OF THE STANDARD CONTRACT DOCUMENTS.



REVISION	DESCRIPTION	DATE
AS BUILT		2-08

DRAWN BY	JAH	DATE	2002
DESIGNED BY	SBG	DATE	2002
CHECKED BY	SBG	DATE	2002
APPROVED BY		DATE	

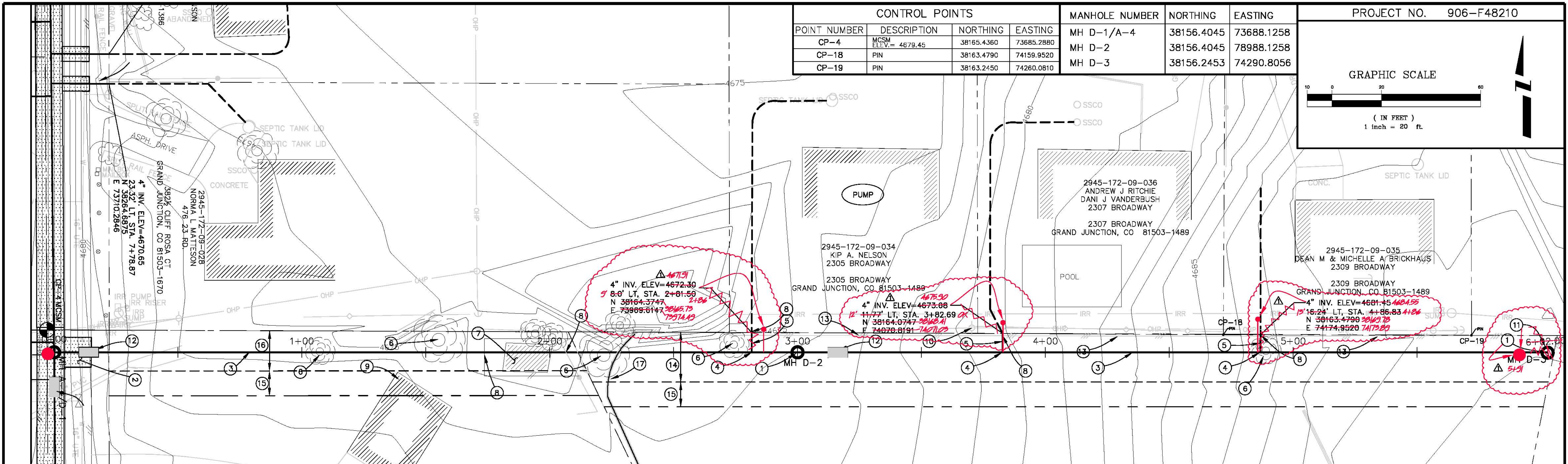
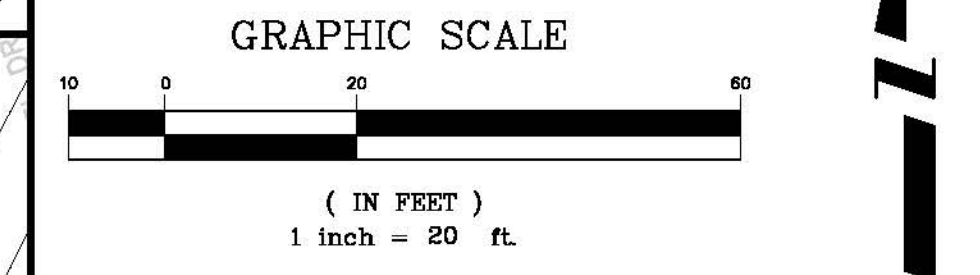


**PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION**

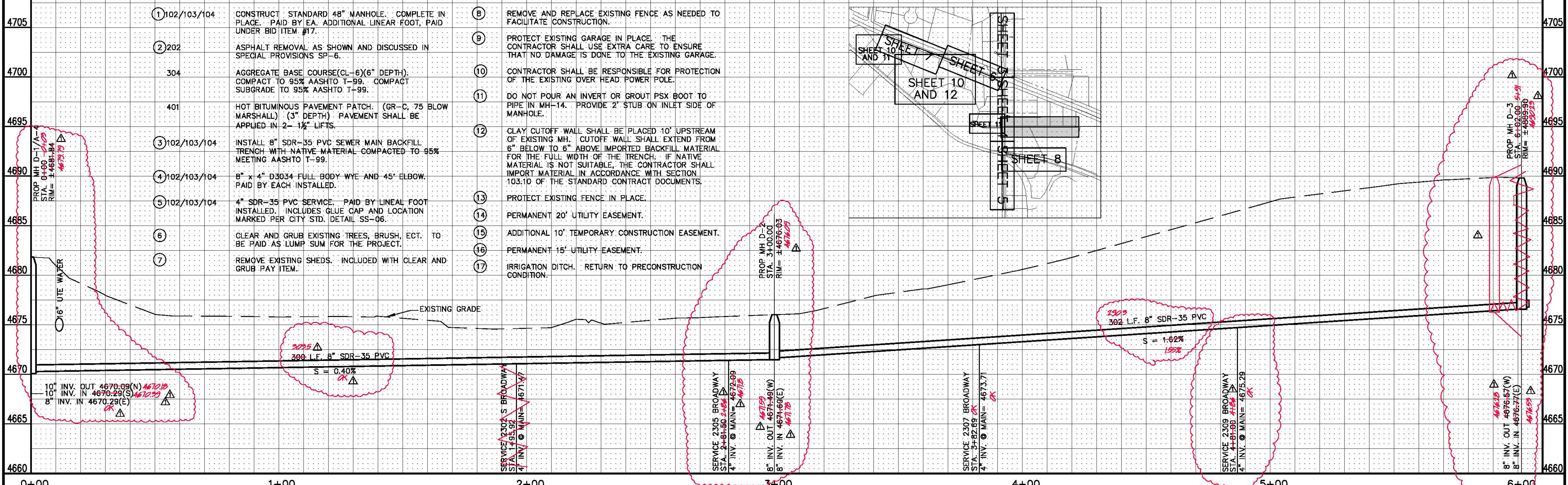
**23 ROAD SEWER IMPROVEMENT DISTRICT  
S. BROADWAY PLAN AND PROFILE  
STA 0+00 TO STA 3+60**

CONTROL POINTS			
POINT NUMBER	DESCRIPTION	NORTHING	EASTING
CP-4	MCSV = 4679.45	38165.4360	73685.2880
CP-18	PIN	38163.4790	74159.9520
CP-19	PIN	38163.2450	74260.0810

MANHOLE NUMBER	NORTHING	EASTING
MH D-1/A-4	38156.4045	73688.1258
MH D-2	38156.4045	78988.1258
MH D-3	38156.2453	74290.8056

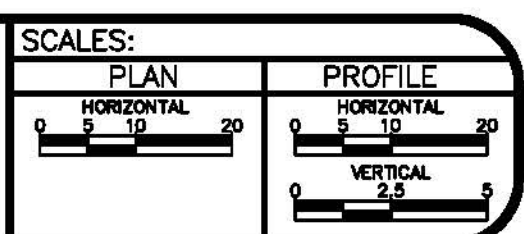


CONSTRUCTION NOTES



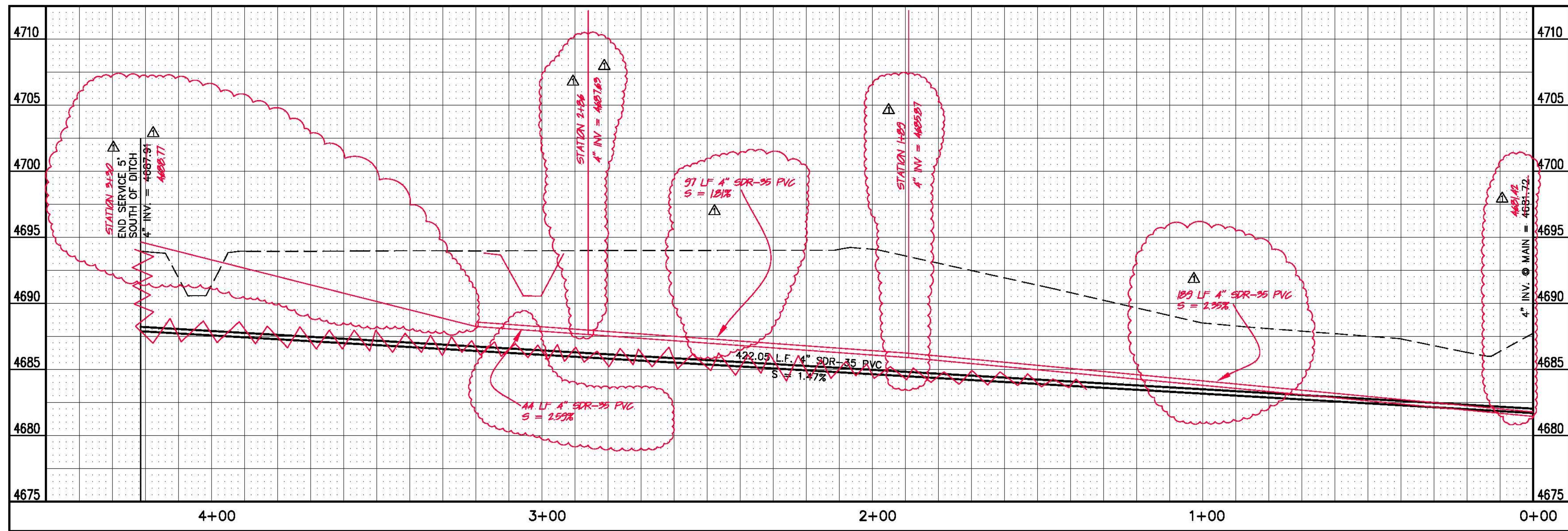
REVISION	DESCRIPTION	DATE
AS BUILT		2-08

DRAWN BY	JAH	DATE	2002
DESIGNED BY	SBG	DATE	2002
CHECKED BY	SBG	DATE	2002
APPROVED BY		DATE	

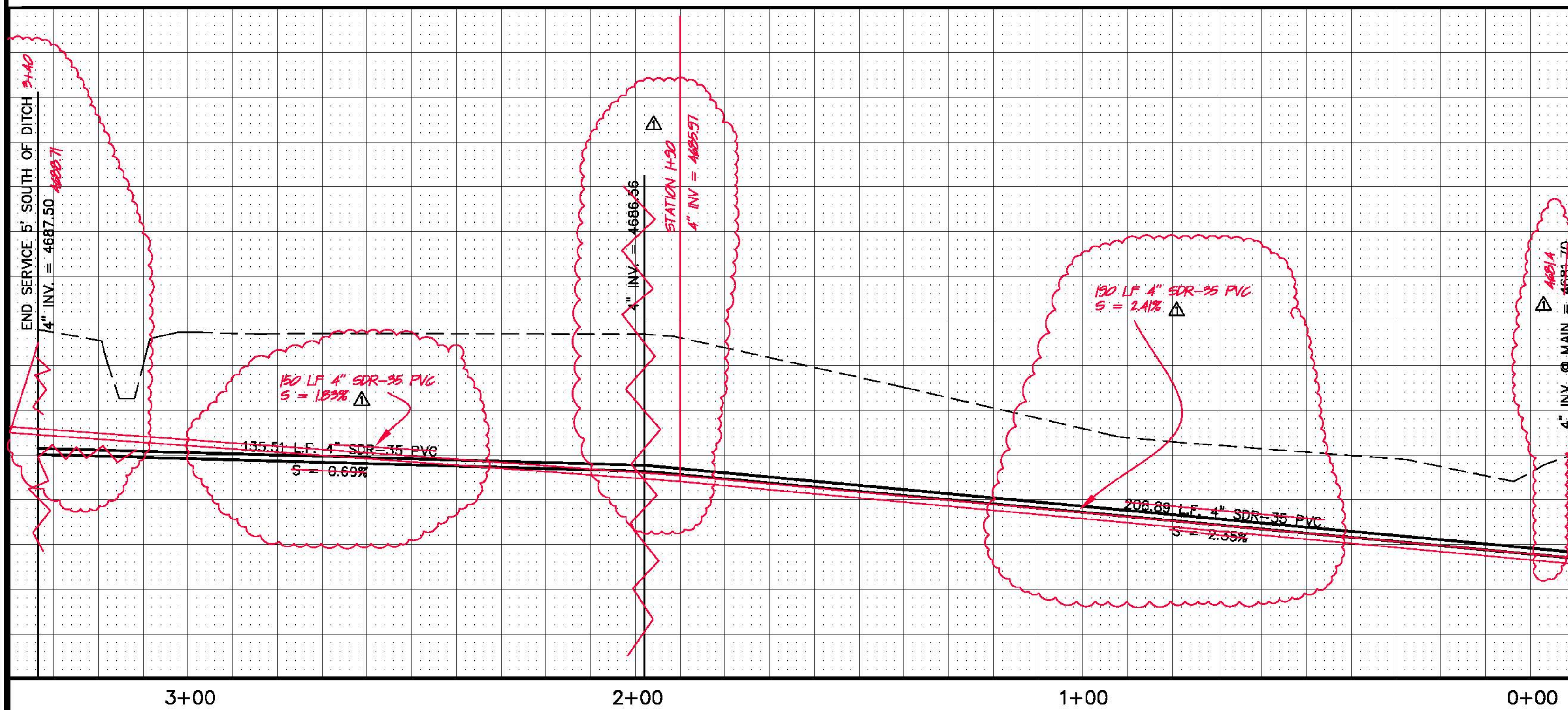


PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

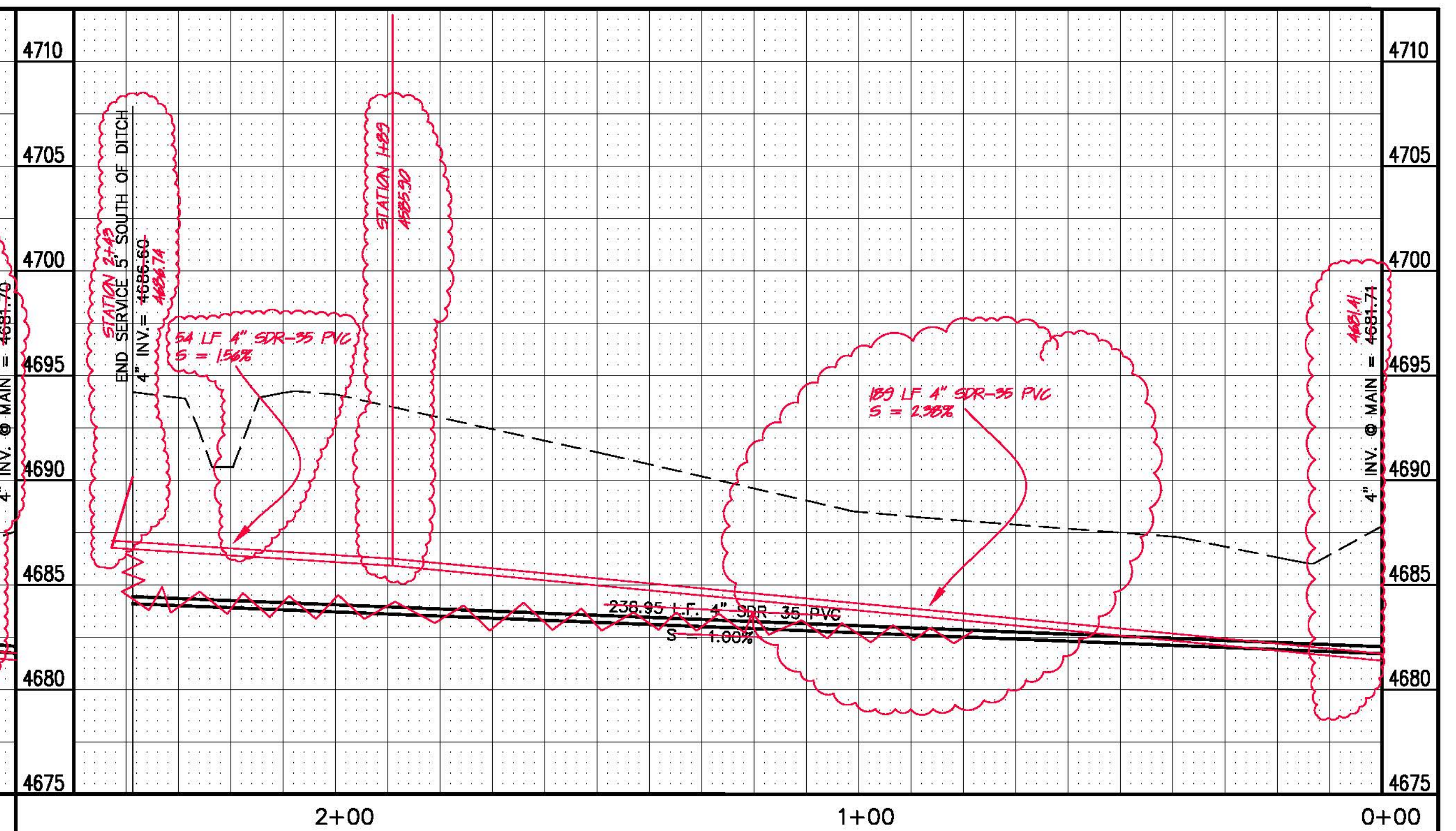
23 ROAD SEWER IMPROVEMENT DISTRICT  
MH-4 TO MH-14 PLAN AND PROFILE  
STA 0+00 TO STA 6+02.00



SEWER SERVICE  
2288.5 SOUTH BROADWAY  
SEE SHEET 11 FOR PLAN VIEW



SEWER SERVICE  
2294 S. BROADWAY  
SEE SHEET 12 FOR PLAN VIEW



SEWER SERVICE  
2290 S. BROADWAY  
SEE SHEET 12 FOR PLAN VIEW

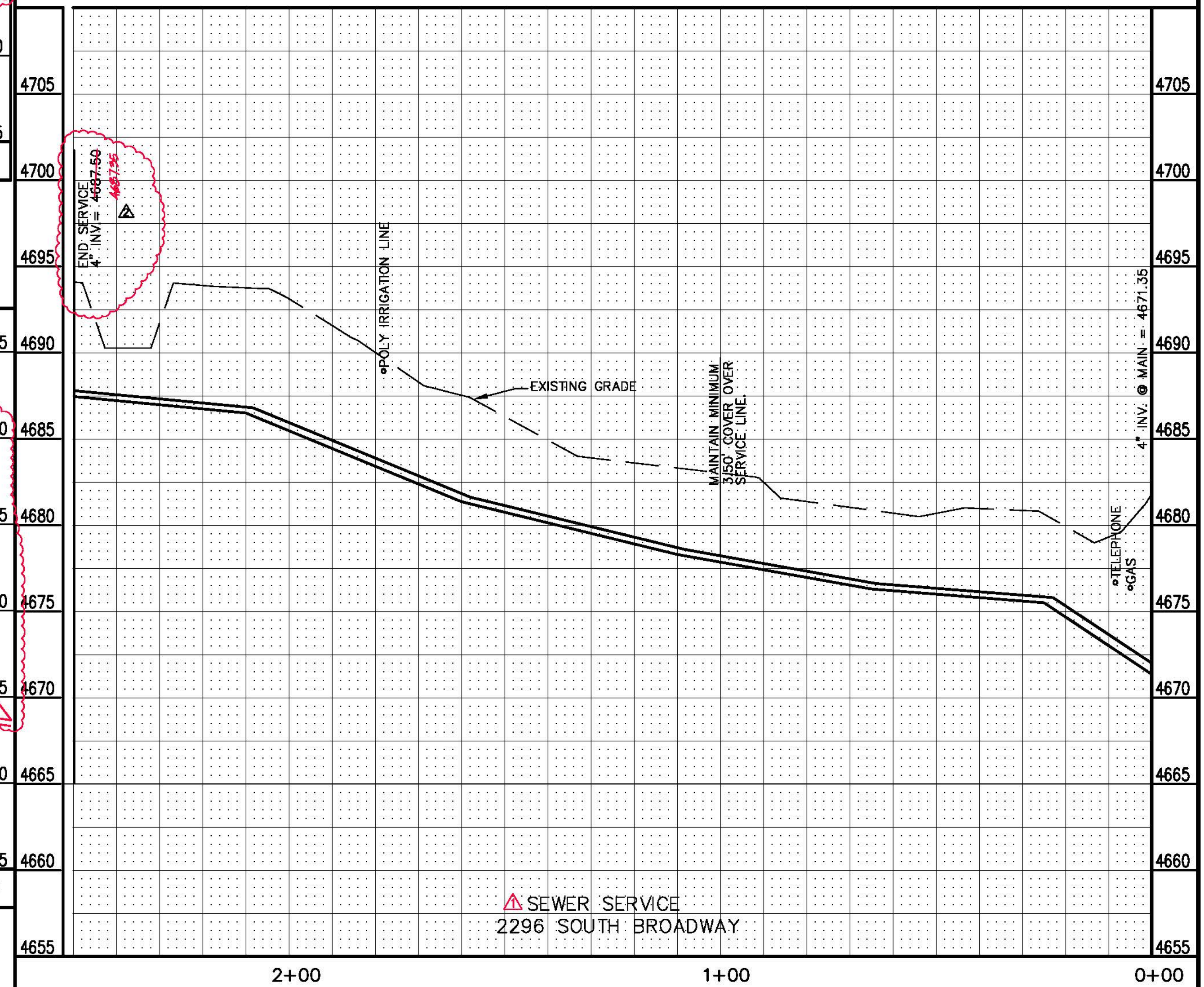
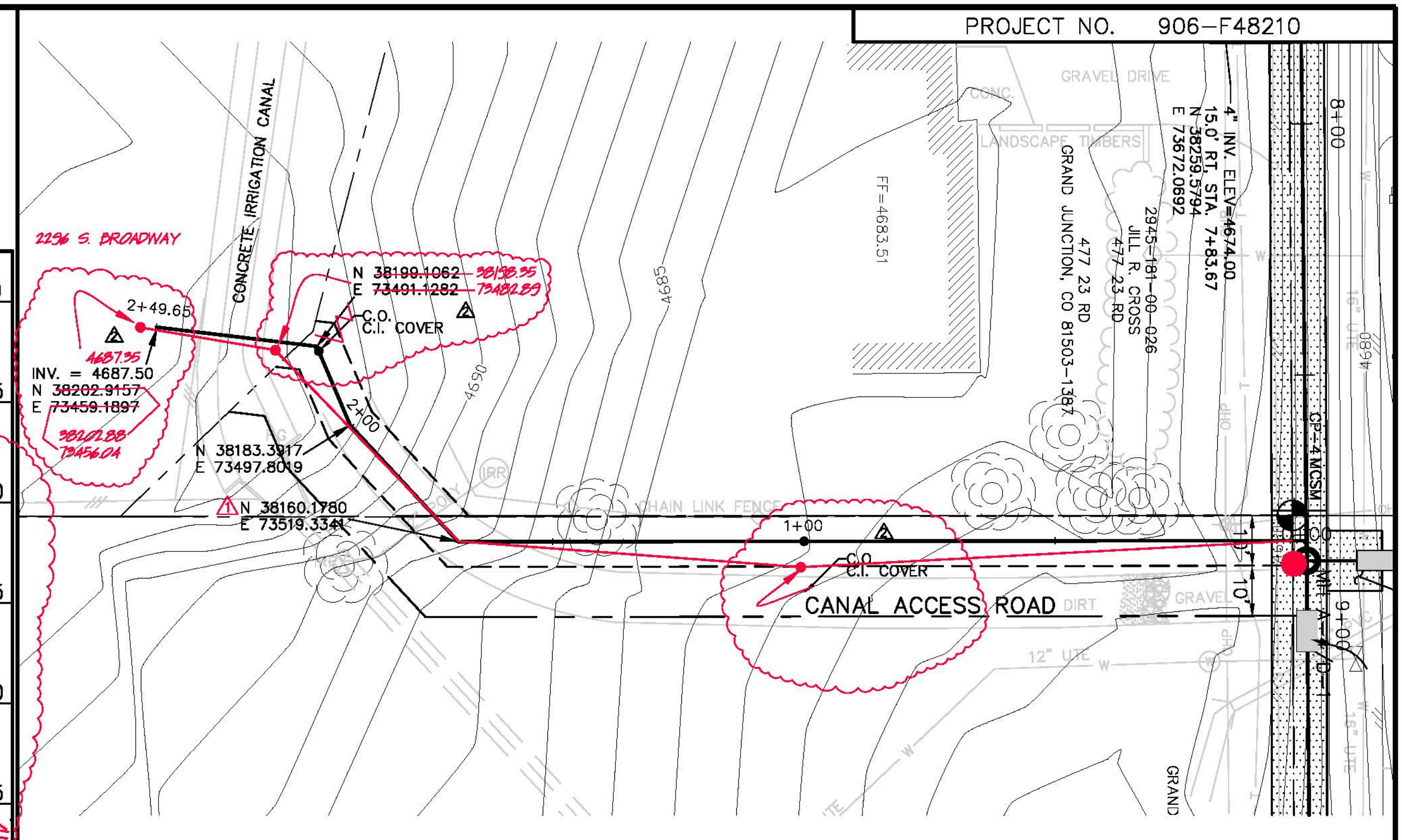
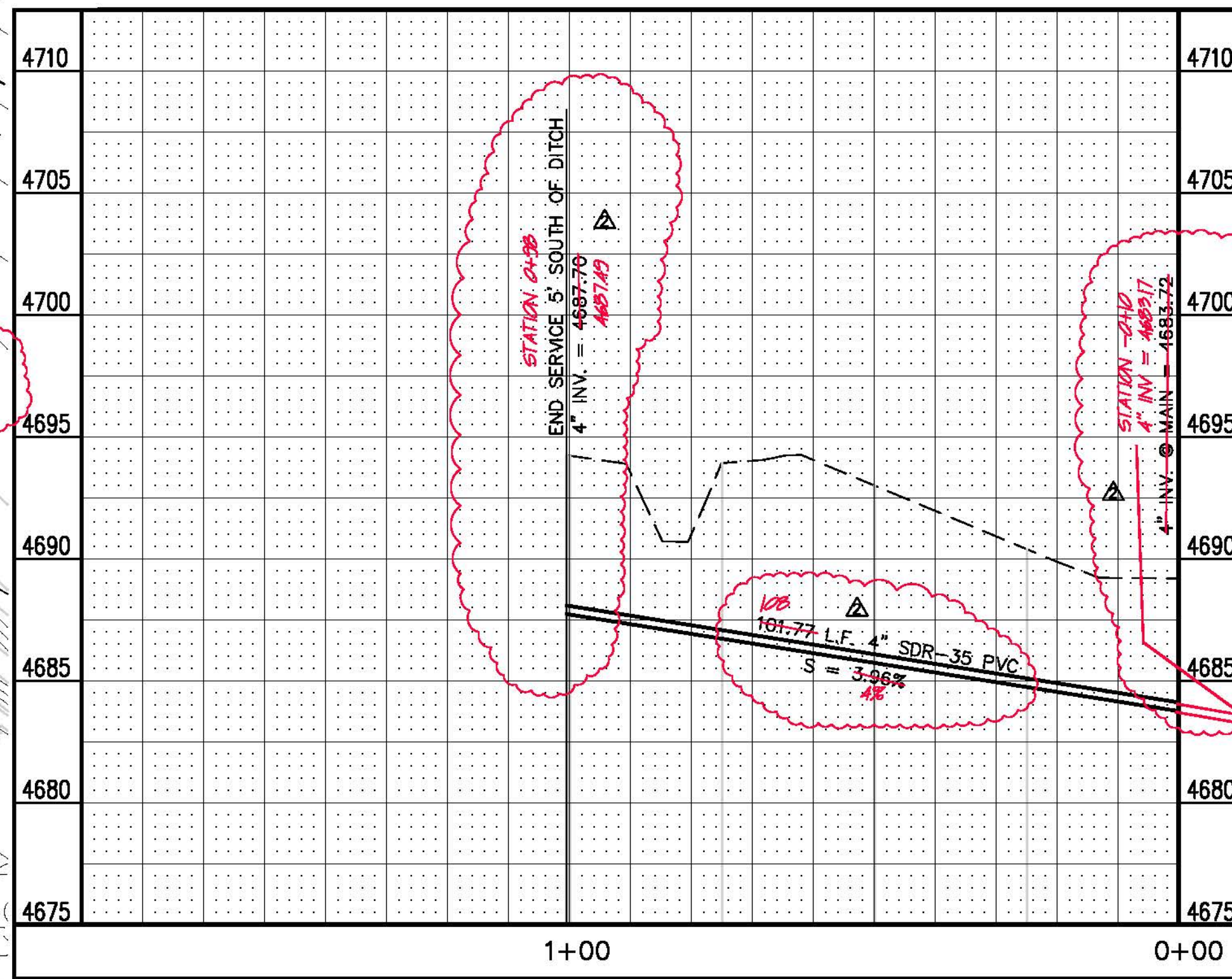
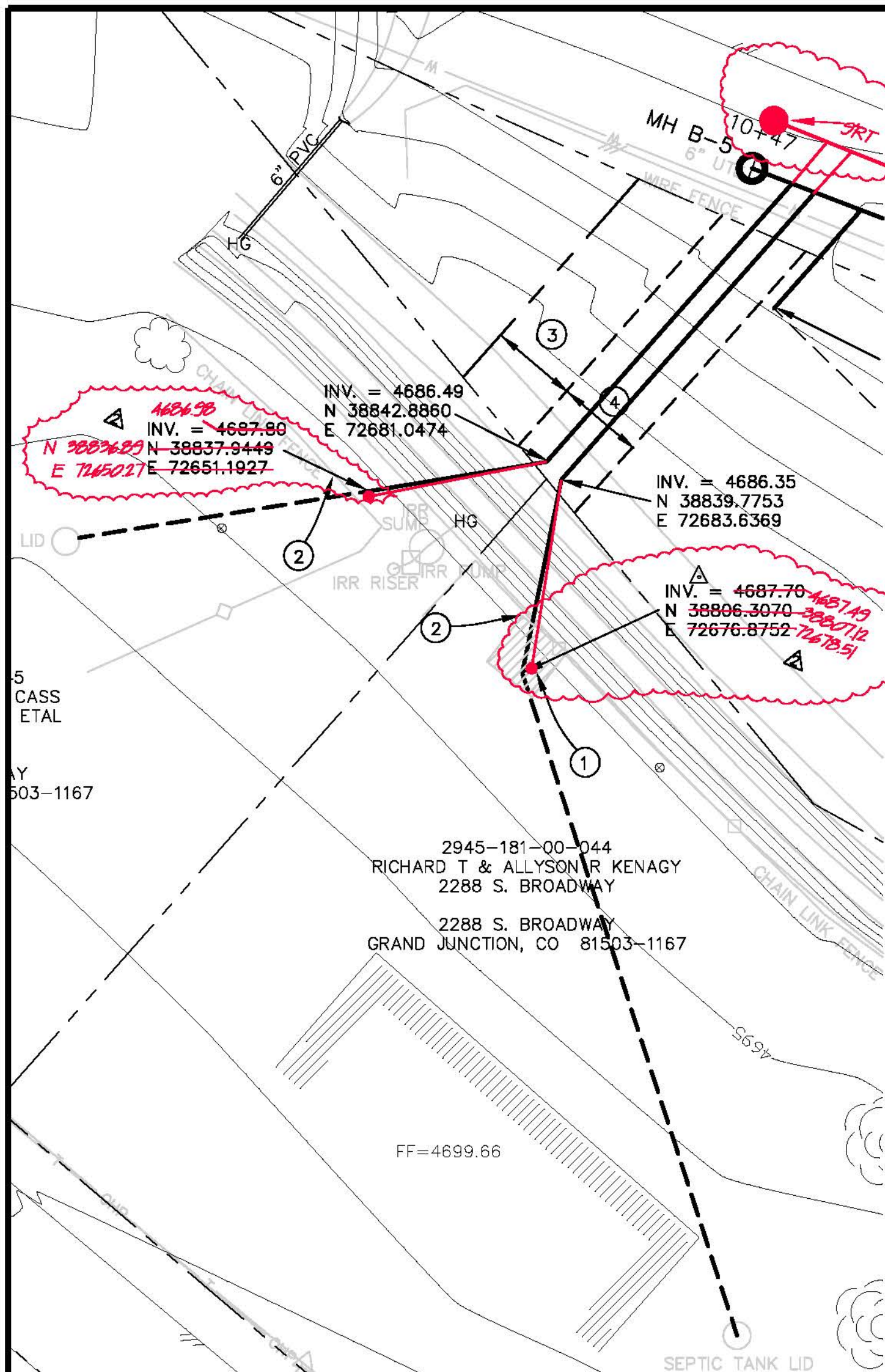
REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
AS BUILT		8-08	JAH	2002
			DESIGNED BY	DATE
			SBG	2002
			CHECKED BY	DATE
			SBG	2002
			APPROVED BY	DATE

SCALES:	
PLAN	1" = 20'
PROFILE	1" = 2'



**PUBLIC WORKS  
AND UTILITIES  
ENGINEERING DIVISION**

**23 ROAD SEWER IMPROVMENT DISTRICT  
SANITARY SEWER SERVICE PROFILES**



**CONSTRUCTION NOTES**

- ① REMOVE AND REPLACE ±100 S.F. OF SOD FOR POTHOLE.
- ② REMOVE AND REPLACE 15 L.F. OF EXISTING FENCE TO ALLOW ACCESS FOR POTHOLE.
- ③ 15' TEMPORARY CONSTRUCTION EASEMENT.
- ④ PERMANENT 15' UTILITY EASMENT.



REVISION	DESCRIPTION	DATE
REVISION $\Delta$	REVISED SERVICE ALIGNMENT	2/10/08
REVISION $\Delta$	AS BUILT	8-08
REVISION $\Delta$		
REVISION $\Delta$		

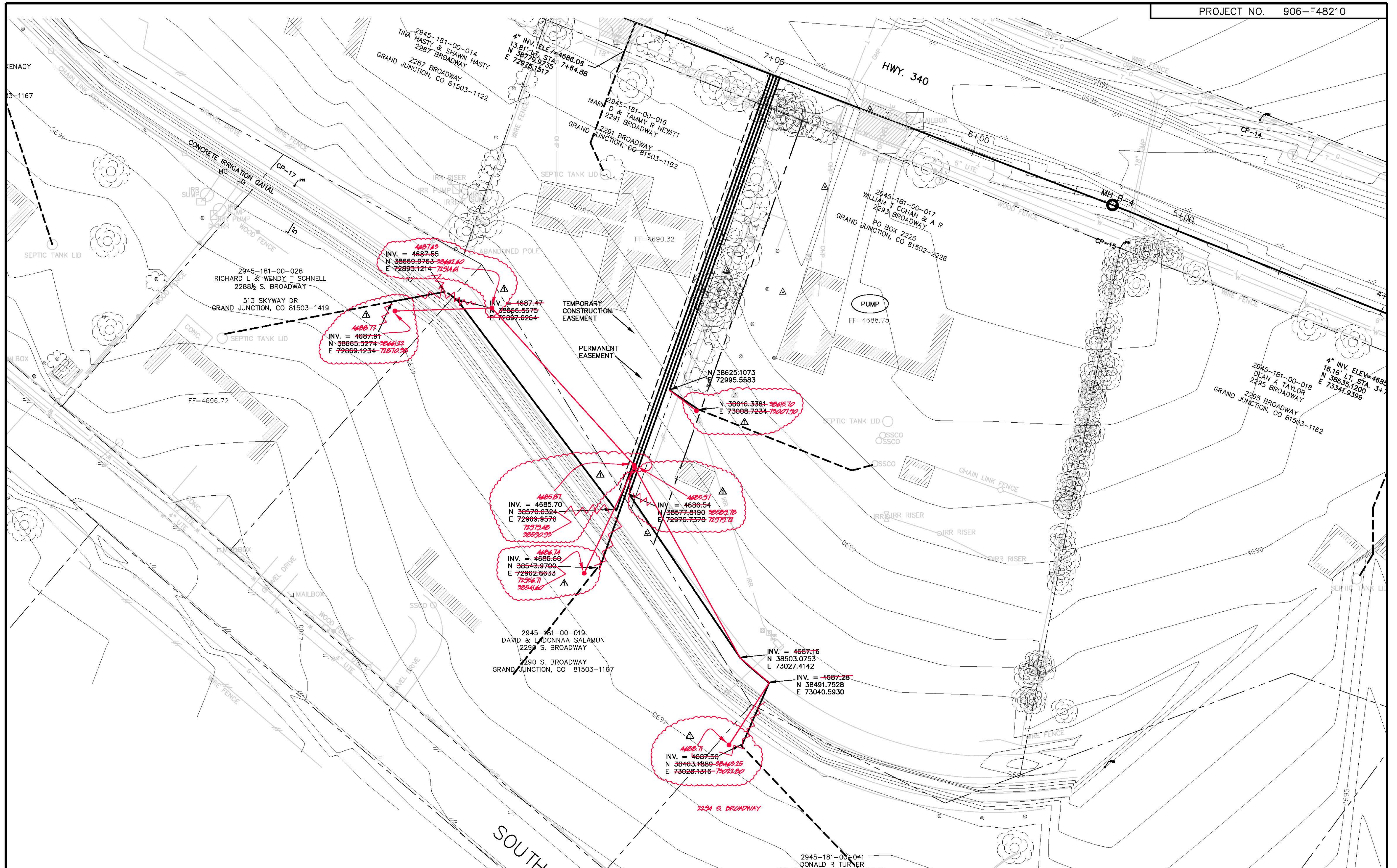
DRAWN BY	JAH	DATE	2002
DESIGNED BY	SBG	DATE	2002
CHECKED BY	SBG	DATE	2002
APPROVED BY		DATE	

SCALES:	
PLAN	1" = 20'
PROFILE	1" = 2'



**PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION**

**23 ROAD SEWER IMPROVMENT DISTRICT SANITARY SEWER SERVICE PROFILES**



REVISION	DESCRIPTION	DATE
AS BUILT		8-08

DRAWN BY	JAH	DATE	2002
DESIGNED BY	SBG	DATE	2002
CHECKED BY	SBG	DATE	2002
APPROVED BY		DATE	

SCALES:	
PLAN	PROFILE
HORIZONTAL	HORIZONTAL
VERTICAL	VERTICAL



**PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION**

**23 ROAD SEWER IMPROVMENT DISTRICT SANITARY SEWER SERVICE PLAN**