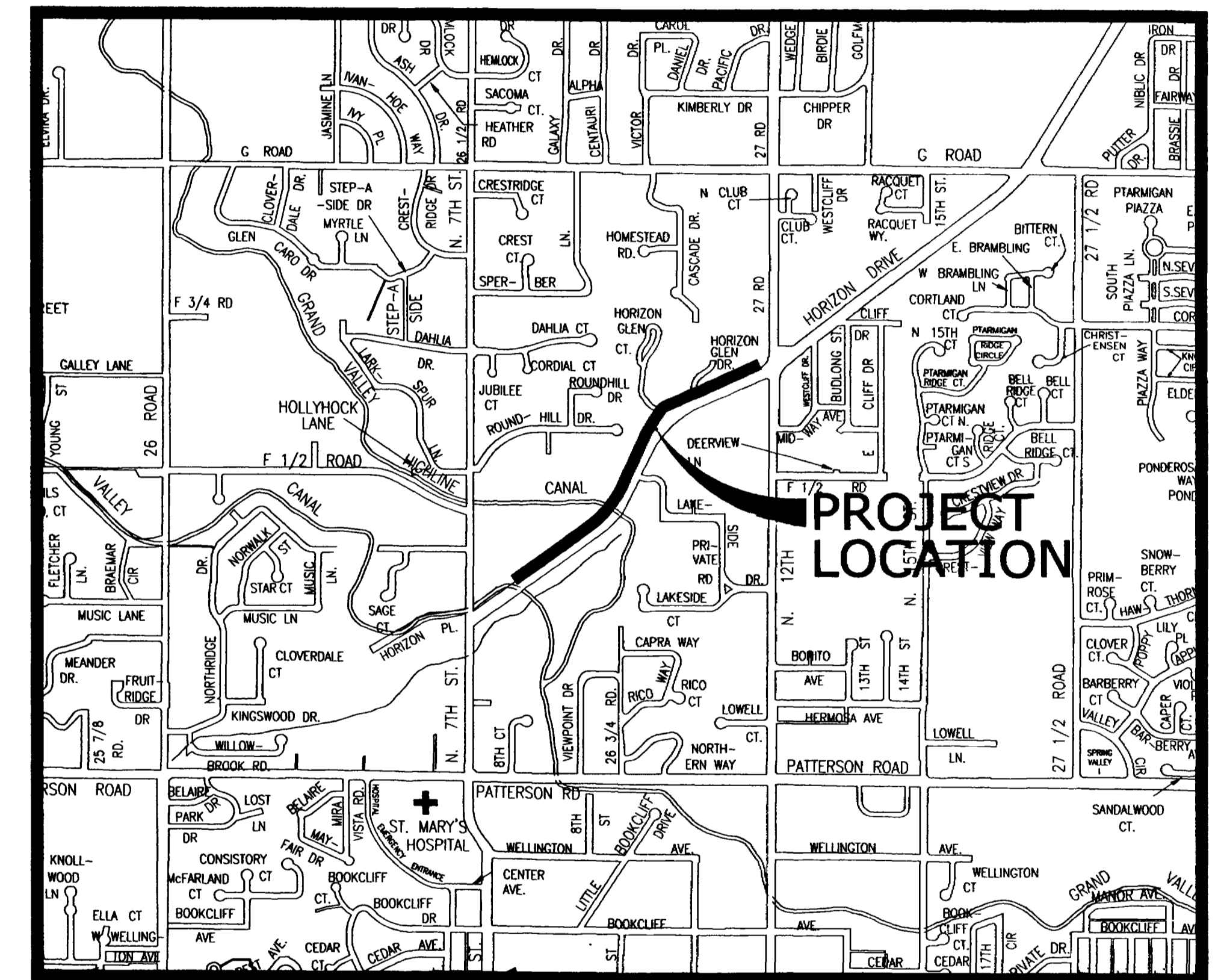


HORIZON DRIVE SANITARY SEWER 7TH STREET TO 12TH STREET 2000

1. Cover Sheet
2. Drafting Standards & Abbreviations
3. Summary of Approximate Quantities
- ~~4-9. Plan and Profile - Option "A"~~
- 10-12. Plan and Profile - Option "B" **CURED IN PLACE**

VICINITY MAP



City of Grand Junction, Colorado
Department of Public Works & Utilities *Engineering Division*

CITY OF GRAND JUNCTION DRAFTING STANDARDS AND ABBREVIATIONS

ENTITY DESCRIPTION

	LAYER	LINE TYPE	BLOCK	SPACING
PROPERTY OR TRACT LINE	PROP	ROW	-	-
RAILROAD	EXIST/NEW	CONTINUOUS	RAIL	4
EDGE OF PAVEMENT	EXIST/ASPH	DASHED	-	-
RIGHT OF WAY	ROW	ROW	-	-
BARBED WIRE FENCE	EXIST/NEW	CONTINUOUS	BARB	15
CHAIN LINK FENCE	EXIST/NEW	CONTINUOUS	CHAIN	15
BARRIER TYPE FENCE	EXIST/NEW	CONTINUOUS	BARRIER	15
WOVEN WIRE FENCE	EXIST/NEW	CONTINUOUS	WOVEN	15
WOOD FENCE	EXIST/NEW	CONTINUOUS	WOOD	15
EXISTING GUARD RAIL	EXIST	CONTINUOUS	GUARD	5
NEW GUARD RAIL	NEW	CONTINUOUS	NEWGUARD	5
RETAINING WALL	EXIST	CONTINUOUS	RETAIN	6
SIDEWALK	EXIST/CONC	CONTINUOUS	-	-
CURB & GUTTER	EXIST/CONC	CONTINUOUS	-	-
CURB, GUTTER & SIDEWALK	EXIST/CONC	CONTINUOUS	-	-
BURIED TELEPHONE CABLE	UTIL	CONTINUOUS	-	-
BURIED ELECTRIC CABLE	UTIL	CONTINUOUS	-	-
GAS LINE	UTIL	CONTINUOUS	-	-
WATER LINE	UTIL/WATER	CONTINUOUS	-	-
SANITARY SEWERS	UTIL/SEWER	CONTINUOUS	AROW	-
STORM SEWERS	UTIL/STORM	CONTINUOUS	AROW	-
UNDERGROUND IRRIG. PIPE	UTIL/NEW	CONTINUOUS	AROW	-
SIPHON PIPE	UTIL/NEW	CONTINUOUS	AROW	-
EARTH DITCH	EXIST/NEW	DIVIDE	-	-
CONCRETE DITCH	EXIST/CONC	CONTINUOUS	-	-
CULVERT	EXIST/NEW	DASHED	-	-
CULVERT WITH HEADWALL	EXIST/NEW	DASHED	-	-
CULVERT WITH END SECTION	EXIST/NEW	DASHED	-	-
MONUMENT LINE	0	CONTINUOUS	-	-
CONTROL LINE	0	CONTINUOUS	-	100
MATCH LINE	0	CONTINUOUS	-	-

LIST OF ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS	FB	FULL BODY	PC	POINT OF CURVATURE
AC	ASBESTOS CEMENT	FL	FLANGE	PI	POINT OF INTERSECTION
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	FTG	FOOTING	PR	PROPOSED
AWWA	AMERICAN WATER WORKS ASSOCIATION	FS	FAR SIDE	PRC	POINT OF REVERSE CURVATURE
BC	BACK OF CURB	FL	FACE OF CURB	PT	POINT OF TANGENCY
BF	BUTTERFLY	FG	FINISHED GRADE	PVC	POLYVINYL CHLORIDE
BOW	BACK OF WALK	GV	GATE VALVE	PCC	PORTLAND CEMENT CONCRETE
BCR	BEGIN CURB RETURN	IRRIG	IRRIGATION	R	RADIUS
BOT	BOTTOM	L	LENGTH OF ARC LEFT	RG	RESTRAINED GLANDS
CH	CHORD	LT	LENGTH OF ARC LEFT	RP	RADIUS POINT
CAP	CORRUGATED ALUMINUM PIPE	LF	LINEAR FEET	RR	RAIL ROAD
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION	LS	LONG ARC	RCP	REINFORCED CONCRETE PIPE
CI	CAST IRON	LS	LONG ARC	REQ'D	REQUIRED
CL	CENTER LINE	LS	LONG ARC	RT	RIGHT
CL or CI	CLEAR	LS	LONG ARC	ROW	RIGHT OF WAY
CONC	CONCRETE	MH	MANHOLE	RL	LONG RADIUS
CMP	CORRUGATED METAL PIPE	MJ	MECHANICAL JOINT	RS	SHORT RADIUS
CSP	CORRUGATED STEEL PIPE	MW	MILL WRAP	SCH	SCHEDULE
CG & SW	CURB, GUTTER & SIDEWALK	N/A	NOT APPLICABLE	S	SLOPE
CU	COPPER	NS	NEAR SIDE	STA	STATION
CL	LONG CHORD	NIC	NOT IN CONTRACT	STL	STEEL
CS	SHORT CHORD	NRCP	NON-REINFORCED CONCRETE PIPE	(TYP)	TYPICAL
DI	DUCTILE IRON DRIVEWAY	NOP	NO ONE PERSON NOT TO SCALE	T	LENGTH OF TANGENT
DR	DRIVEWAY	NTS	NOT TO SCALE	TC	TOP OF CURB
ELEC	ELECTRIC			VC	VERTICAL CURVE
EL or ELEV	ELEVATION			VCP	VERTIFIED CLAY PIPE
ECR	END CURB RETURN			VPC	VERTICAL POINT OF CURVATURE
EP	EDGE OF PAVEMENT			VPI	VERTICAL POINT OF INTERSECTION
EX	EXISTING			VPT	VERTICAL POINT OF TANGENCY
				Δ	DELTA ANGLE

BLOCKS

BLOCK NAME	BLOCK NAME
REDUCER FITTING	REDUCER
CURB STOP	CURBSTOP
PULL BOX	PULL
TRAFFIC SIGNAL POLE	SIGNAL
SIGN OR POST	SIGN
TELEPHONE MANHOLE	TELEMAN
MANHOLE	MANHOLE
BENCH MARK	BENCH
SPRINKLER HEAD	HEAD
MAILBOX	MAILBOX
IRRIGATION PUMP	IRRIPUMP
TREE STUMP	STUMP
LIGHT STANDARD	LITE
FIRE HYDRANT	HYDRANT
EXISTING WATER VALVE	OVALVE
NEW WATER VALVE	VALVE
TELEPHONE CONTROL BOX	TELEBOX
POWER POLE	POWER
GUY WIRE ANCHOR	GUY
TREE	TREE
HEDGE OR BUSH	BUSH
SURVEY MARKER	MCSM
WATER METER	WATERMETER
WATER HYDRANT	WATERHYDRANT
PROPERTY PIN	PIN
YARD LIGHT	YLITE
CATCH BASIN	GRATE
ARROW HEAD	AROW
BARB WIRE FENCE SYMBOL	BARB
CHAIN LINK FENCE SYMBOL	CHAIN
BARRIER FENCE SYMBOL	BARRIER
WOVEN FENCE SYMBOL	WOVEN
WOOD FENCE SYMBOL	WOOD
EXISTING GUARD RAIL POST	GUARD
NEW GUARD RAIL POST	NEWGUARD
RAILROAD TIE SYMBOL	RAIL
NORTH ARROW	SEE THIS SHEET
BAR SCALE	SEE THIS SHEET

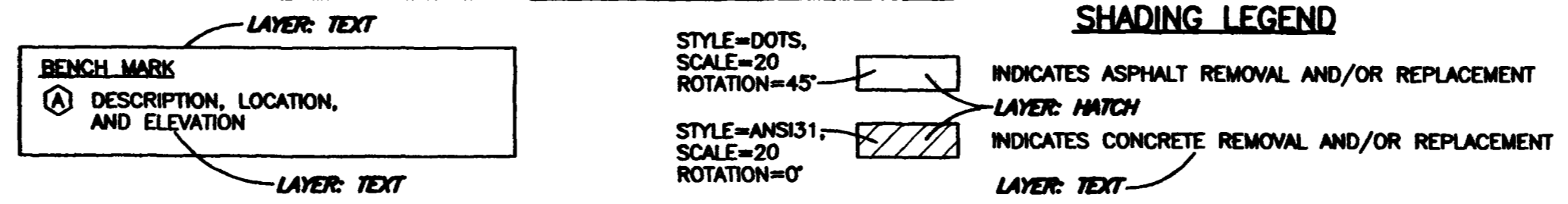
ENTITY CHARACTERISTICS

ENTITY	LAYER	COLOR	TEXT STYLE	LINE TYPE
DIMENSION LINES	0	WHITE	-	CONTINUOUS
TEXT	TEXT	YELLOW	TEXT	-
SHEET TITLE	TITLE	CYAN	TITLE	-
STREET NAMES	TITLE	CYAN	TITLE	-
SUBTTILES	TITLE	CYAN	HEADINGS	-
AS BUILT INFO.	ASBLT	RED	ASBLT	-
ROW LINES	ROW	RED	-	PHANTOM
EXISTING TOPO	EXIST	251	-	CONTINUOUS
NEW CONCRETE	CONC	GREEN	-	CONTINUOUS
NEW ASPHALT	ASPH	YELLOW	-	DASHED
PROPERTY LINES	PROP	BLUE	-	PHANTOM
SHADING	HATCH	WHITE	-	HATCH
EXISTING PROFILE	EXPRO	WHITE	-	DASHED
NEW PROFILE	PROFILE	GREEN	-	CONTINUOUS
SOLID GRID	GRID1	253	-	CONTINUOUS
DOTTED GRID	GRID2	7	-	L1
EXISTING UTILITY	AS SHOWN ON PROF1999 SHEET	251	-	CONTINUOUS
NEW SEWER	SEWER	15	-	CONTINUOUS
NEW STORM SEWER	STORM	9	-	CONTINUOUS
NEW WATER	WATER	9	-	CONTINUOUS
NEW MISC.	NEW	MAGENTA	-	CONTINUOUS
SHEET BORDER	BORDER	GREEN	-	PLINE (WIDTH=1)

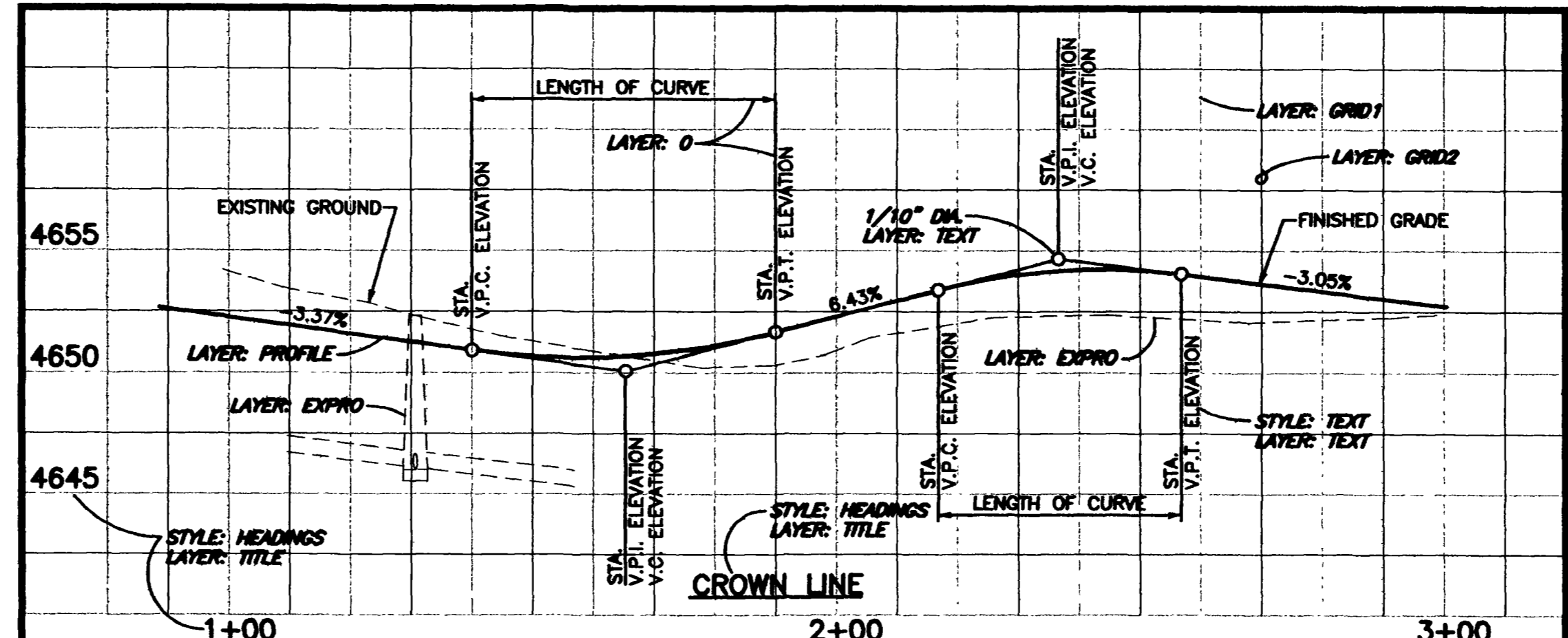
PLOTTING PARAMETERS

COLOR NAME	LINE WEIGHT (INKJET PLOTTERS)	PEN SIZE (PEN PLOTTERS)
RED	0.035	0.50
YELLOW	0.015	0.35
GREEN	0.035	0.70
CYAN	0.025	0.50
BLUE	0.010	0.25
MAGENTA	0.025	0.50
WHITE	0.015	0.25
8	0.010	0.25
9	0.035	0.70
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	0.035	0.70
16	0.035	0.70
251	0.015	-
253	0.015	-

SHADING LEGEND

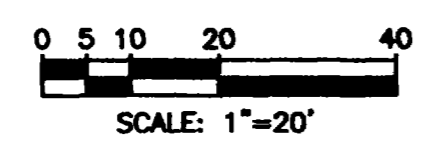


VERTICAL CURVE DETAIL



TEXT STYLE DESCRIPTIONS

TEXT	- FONT=ROMANS, HEIGHT=2.0, WIDTH FACTOR=1.0, OBLIQUE ANGLE=0°
HEADINGS	- FONT=ROMANS, HEIGHT=3.0, WIDTH FACTOR=1.0, OBLIQUE ANGLE=0°
TITLE	- FONT=COMPLEX, HEIGHT=4.0, WIDTH FACTOR=1.2, OBLIQUE ANGLE=0°
ASBLT	- FONT=ROMANS, HEIGHT=2.0, WIDTH FACTOR=1.0, OBLIQUE ANGLE=20°



STYLE: TEXT
LAYER: TEXT

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REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALE
REVISION Δ			KADEL	7/28/92	PLAN 1"=20'
REVISION Δ			DESIGNED BY	DATE	HORIZ. 1"=20'
REVISION Δ			CHECKED BY KADEL	DATE 7/28/92	VERT. 1"=5'
REVISION Δ			APPROVED BY T.A.B.	DATE 7/28/92	

DEPARTMENT OF PUBLIC WORKS AND UTILITIES
 ENGINEERING AND TECHNICAL SERVICES DIVISIONS
 CITY OF GRAND JUNCTION, COLORADO

MAIN PROJECT TITLE
 SUB-PROJECT TITLE
 Sheet Description

STYLE: TITLE
LAYER: TITLE

2 OF 12

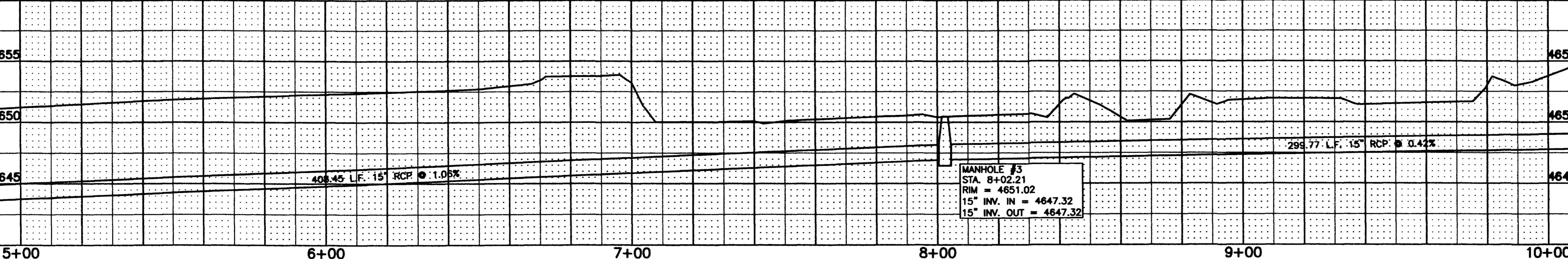
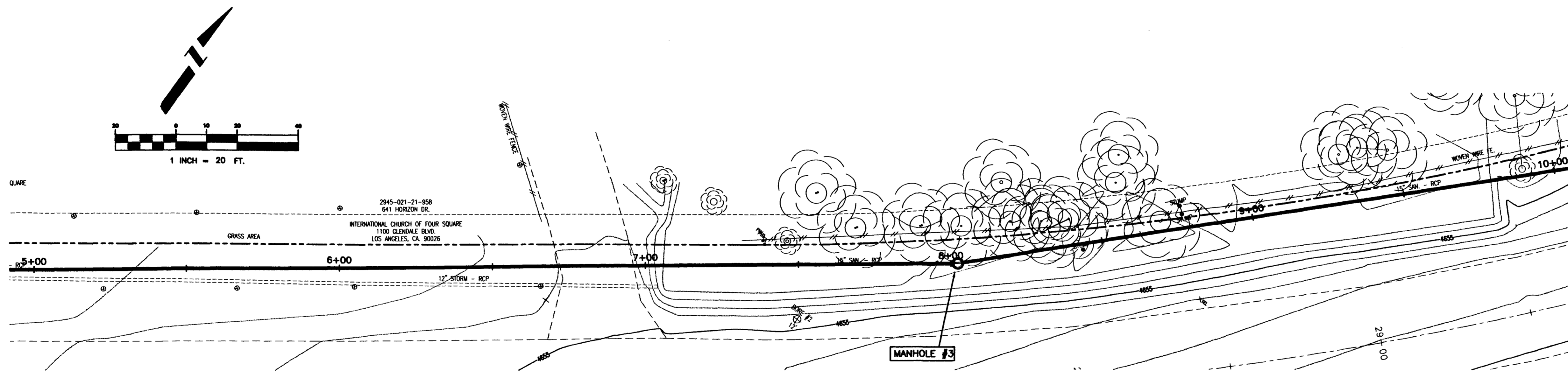
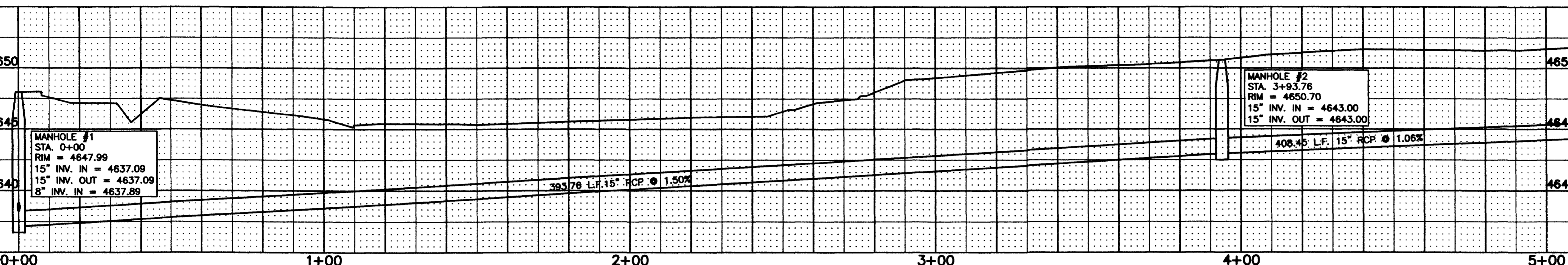
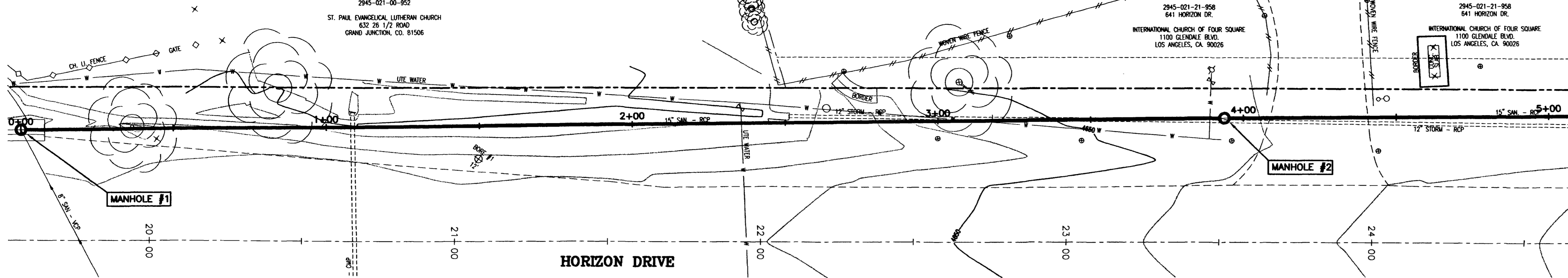
ITEM NO.	REF. NO.	CONTRACT ITEM	UNIT	QUANTITY	ITEM NO.	REF. NO.	CONTRACT ITEM	UNIT	QUANTITY
<u>OPTION "A"</u>									
1	102.9a 103	8" SDR 35 PVC WITH NATIVE BACKFILL. (INCLUDES CUT-OFF WALLS)	L.F.	68	21	630.10	TRAFFIC CONTROL SUPERVISOR.	DAYS	63
2	102.9a 107	15" SDR 35 PVC WITH NATIVE BACKFILL. (INCLUDES CUT-OFF WALLS)	L.F.	2,965	22	630.10	FLAGGER.	HOURS	720
3	102.11	STANDARD 4' DIAMETER SANITARY SEWER MANHOLE, 4'-6' DEPTH. (INCLUDES BY-PASS PUMPING)	EA.	4	23	630.10	TRAFFIC CONTROL. (COMPLETE IN PLACE)	DAYS	42
4	102.11	STANDARD 4' DIAMETER SANITARY SEWER MANHOLE, 6'-8' DEPTH.	EA.	1	24	630.10	TRAFFIC CONTROL PLAN.	LUMP SUM	
5	102.11	STANDARD 4' DIAMETER SANITARY SEWER MANHOLE, 8'-10' DEPTH.	EA.	3	25	620	SANITARY FACILITY.	EA.	1
6	102.11	STANDARD 4' DIAMETER SANITARY SEWER MANHOLE, 10'-12' DEPTH.	EA.	2	26	625	CONSTRUCTION SURVEYING.	LUMP SUM	
7	102.11	STANDARD 4' DIAMETER SANITARY SEWER DROP MANHOLE, 6'-8' DEPTH. (INCLUDES CORROSION PROTECTION AND BY-PASS PUMPING)	EA.	1	27	626	MOBILIZATION.	LUMP SUM	
8	102.11	STANDARD 4' DIAMETER SANITARY SEWER DROP MANHOLE, 8'-10' DEPTH. (INCLUDES CORROSION PROTECTION AND BY-PASS PUMPING)	EA.	1	28		MINOR CONTRACT REVISIONS.	DOLLARS	10,000
9	102.11	CONNECT TO EXISTING MANHOLE	EA.	4	<u>OPTION "B"</u>				
10	608	CANAL CROSSING. (INCLUDES CONCRETE CAP AND CUT-OFF ASSEMBLIES)	EA.	1	1	SPEC.	CURED-IN-PLACE PIPE (INSERTED IN EXISTING 15" RCP, COMPLETE IN PLACE)	2,972	L.F.
11	103	PLUG EXISTING 15" PVC.	EA.	4	2	630.10	TRAFFIC CONTROL SUPERVISOR.	DAYS	35
12	102.11	ADJUST MANHOLE TO GRADE.	EA.	1	3	630.10	FLAGGER.	HOURS	400
13		GRANULAR STABILIZATION. (INCLUDES OVEREXCAVATION)	TONS	400	4	630.10	TRAFFIC CONTROL. (COMPLETE IN PLACE)	LUMP SUM	
14	201	CLEARING AND GRUBBING. (INCLUDES TREE REMOVAL)	LUMP SUM		5	630.10	TRAFFIC CONTROL PLAN.	EA.	1
15	203	EXCAVATE, REMOVE AND HAUL URANIUM MILL TAILINGS TO CITY SHOPS.	C.Y.	300	6	620	SANITARY FACILITY.	EA.	1
16	103.16	IMPORT BACKFILL MATERIAL.	TONS	180	7	625	MOBILIZATION.	LUMP SUM	
17	304	CLASS 6 ABC. (COMPLETE IN PLACE ON CANAL ROAD)	TONS	2.6	8	626	MINOR CONTRACT REVISIONS.	DOLLARS	10,000
18	103.18 401	REMOVE AND REPLACE ASPHALT DRIVE INCLUDING CUTTING EXISTING ASPHALT TO A NEAT LINE, DISPOSAL OF OLD ASPHALT AND FURNISH, PLACE AND COMPACT 6" OF CLASS 6 ABC AND 3" OF HOT BITUMINOUS PAVEMENT.	S.Y.	105					
19	608	REMOVE AND REPLACE CONCRETE CURB, GUTTER AND SIDEWALK.	S.Y.	14					
20	608	REMOVE AND REPLACE 4" THICK CONCRETE CANAL AND SLOPE PAVING.	S.Y.	56					

REVISION Δ _____	DATE _____	DRAWN BY <u>DW</u> DATE <u>5-00</u>	SCALE _____
REVISION Δ _____	DATE _____	DESIGNED BY <u>JS</u> DATE <u>5-00</u>	PLAN _____ PROFILE _____
REVISION Δ _____	DATE _____	CHECKED BY <u>JS</u> DATE <u>5-00</u>	HORIZ. _____ HORIZ. _____
REVISION Δ _____	DATE _____	APPROVED BY _____ DATE _____	VERT. _____

DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING AND TECHNICAL SERVICES DIVISIONS
CITY OF GRAND JUNCTION, COLORADO

HORIZON DRIVE SANITARY SEWER
7TH STREET TO 12TH STREET
SUMMARY OF APPROXIMATE QUANTITIES

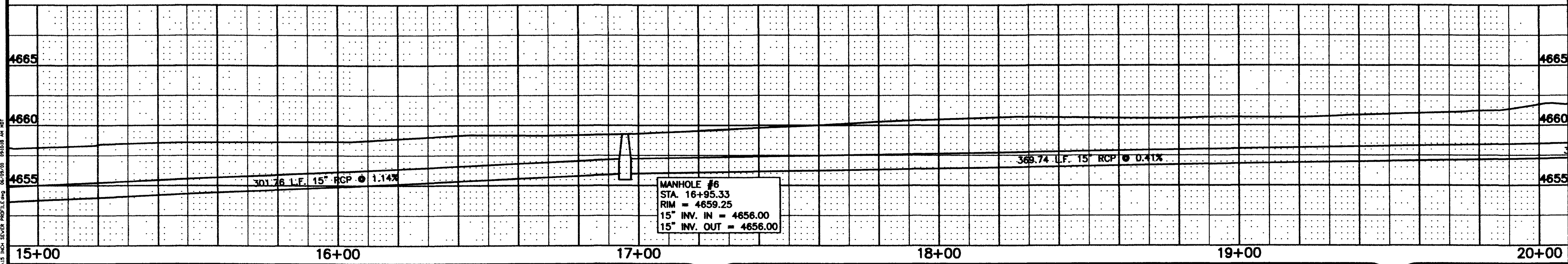
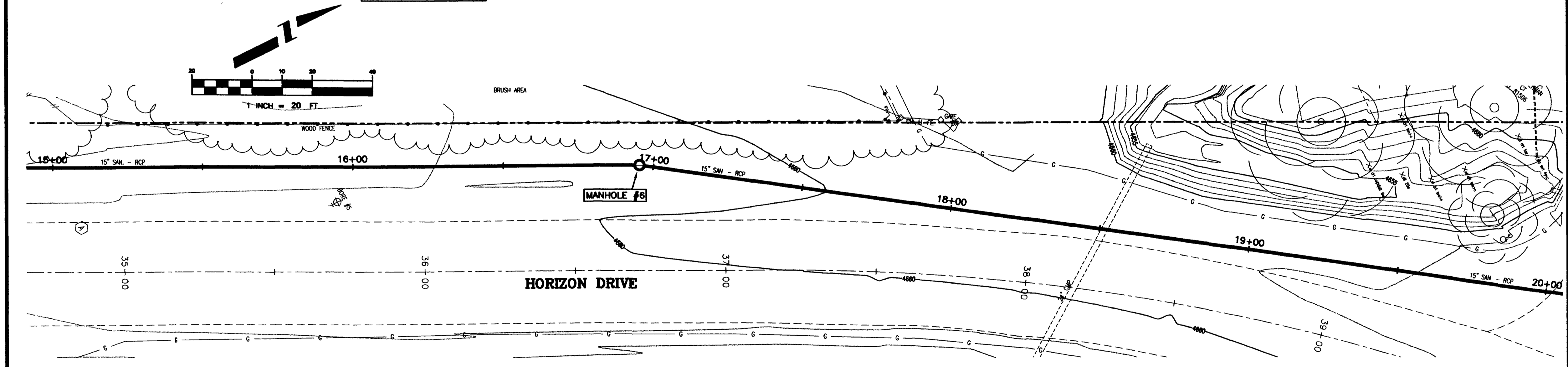
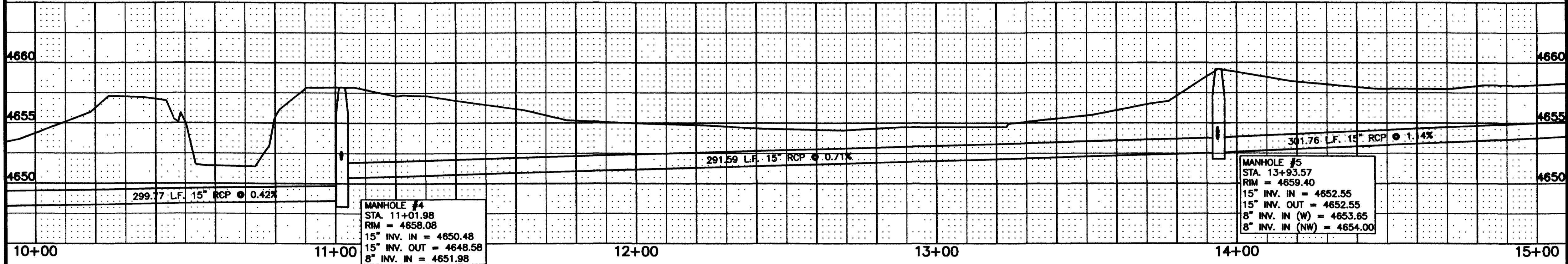
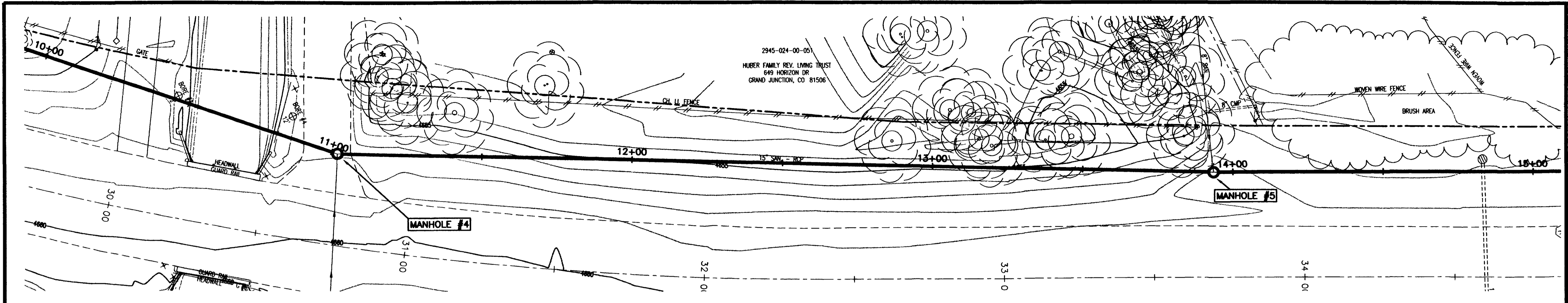
3 OF 12



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALE

DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING AND TECHNICAL SERVICES DIVISIONS
CITY OF GRAND JUNCTION, COLORADO

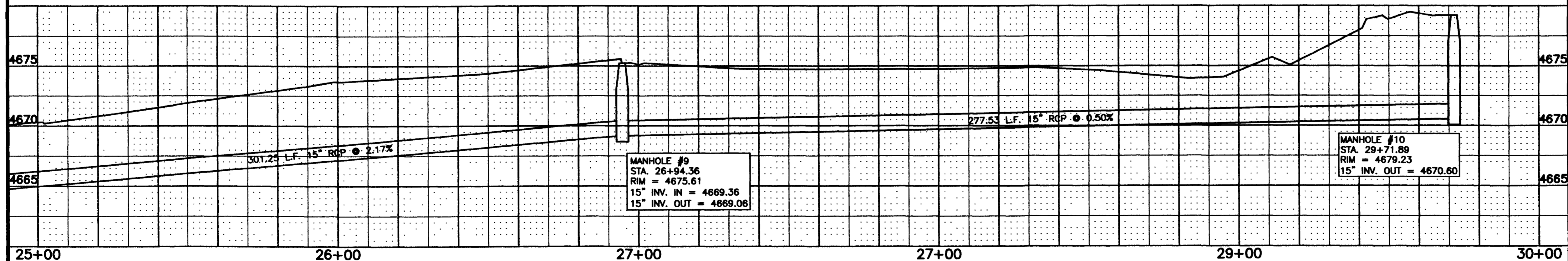
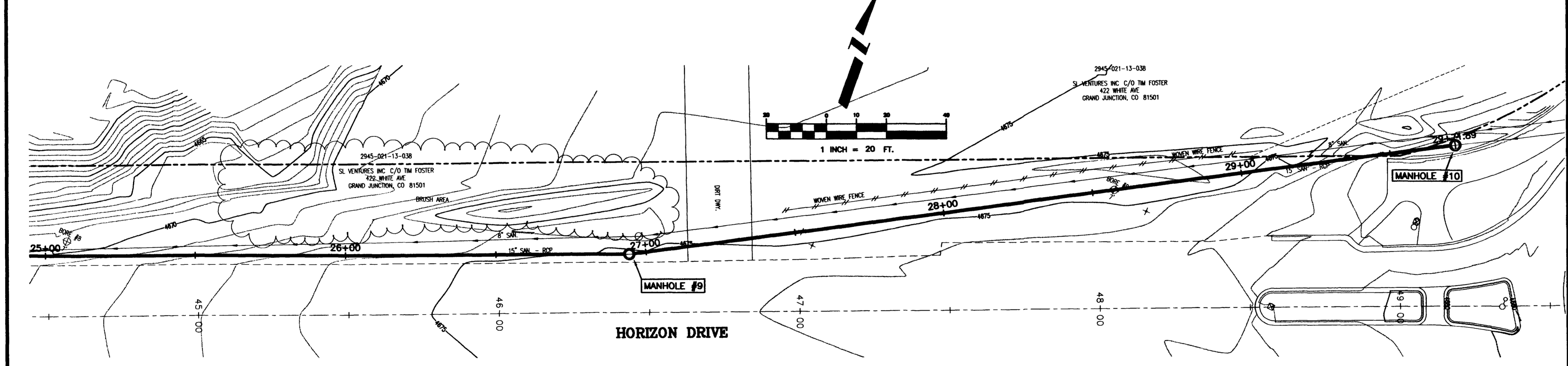
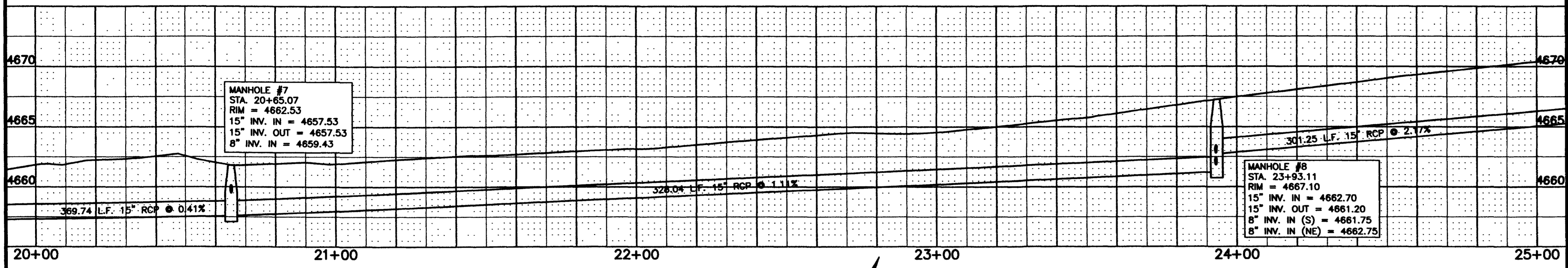
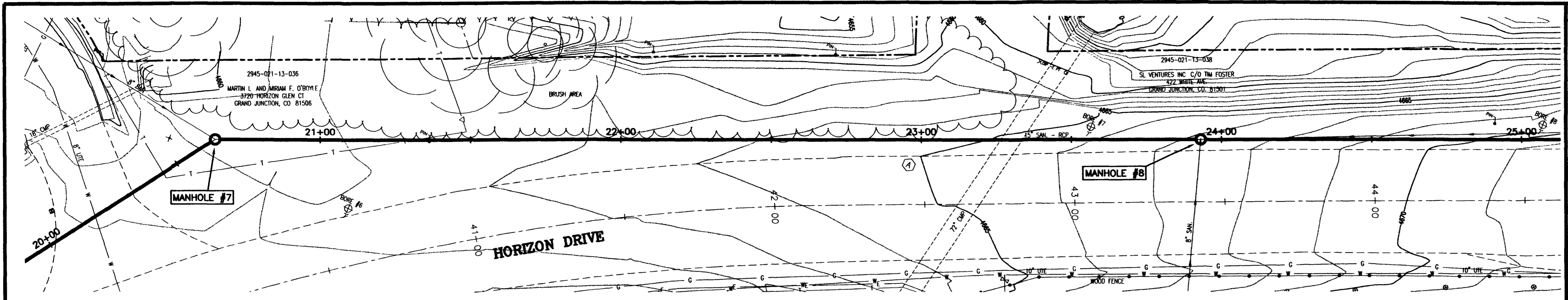
HORIZON DRIVE SANITARY SEWER
7TH STREET TO 12TH STREET
PLAN AND PROFILE - OPTION "B"



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE

**DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING AND TECHNICAL SERVICES DIVISIONS
CITY OF GRAND JUNCTION, COLORADO**

**HORIZON DRIVE SANITARY SEWER
7TH STREET TO 12TH STREET
PLAN AND PROFILE - OPTION "B"**



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALE
REVISION			DESIGNED BY	DATE	PLAN 1"=20'
REVISION			CHECKED BY	DATE	PROFILE 1"=20'
REVISION			APPROVED BY	DATE	VERT. 1"=5'

**DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING AND TECHNICAL SERVICES DIVISIONS
CITY OF GRAND JUNCTION, COLORADO**

**HORIZON DRIVE SANITARY SEWER
7TH STREET TO 12TH STREET
PLAN AND PROFILE - OPTION "B"**