SITE AREA: 6.55 AC

FLOOD HAZARD STATEMENT: F.E.M.A FLOODWAY BOUNDARY AND FLOODWAY MAPS DATE NOVEMBER 04, 2016 (PANEL NO. 35001C0327J) INDICATES MINIMAL FLOOD HAZARD ZONES WITHIN THE SITE BOUNDARY.

EXISTING DRAINAGE CONDITION:

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH CHAPTER 6, ARTICLE 6-2, SECTION 6-2(A), ENTITLED "PROCEDURE FOR 40-ACRE AND SMALLER BASINS." THE DESIGN STORM USED FOR BOTH THE UNDEVELOPED AND DEVELOPED CONDITIONS IS THE 100-YEAR, 6-HOUR STORM EVENT FOR RUNOFF. THE SITE IS LOCATED IN ZONE 1 SO THE 100-YEAR, 6-HOUR STORM EVENT IS 2.17 INCHES. UNDER EXISTING CONDITIONS, THE PROPERTY IS PARTIALLY DEVELOPED WITH AN UNPAVED PARKING AREA.

PHASE 1 IS LOCATED ON THE SOUTHWEST CORNER OF GLENRIO RD AND COORS BLVD. THE TRACT IS MOSTLY VACANT AND HAS A GATED IN PARKING AREA THAT IS NOT PAVED. GLENRIO RD IS A CROWNED ROADWAY AND THE SOUTH HALF FLOWS INTO THE SITE. THE NORTHERN HALF OF GLENRO RD FLOWS WEST TO 64TH STREET. WEST MESA RIDGE HIGH SCHOOL IS THE PROPERTY WEST OF THE SITE. WEST MESA HIGH SCHOOL RETAINS ALL ON-SITE FLOWS IN A DETENTION POND THAT TIES INTO THE 84" STORM DRAIN THAT RUNS SOUTH TO NORTH ALONG 64TH STREET. THIS STORM DRAIN CONTINUES NORTH AND OUTLETS AT THE WEST MESA DIVERSION SYSTEM. THIS EXISTING SYSTEM IS AT CAPACITY. BOTH FORTUNA RD AND COORS BLVD FLOW TO THE SOUTH AND IS COLLECTED IN A STORM DRAIN THAT RUN EAST OF THE SITE.

DEVELOPED DRAINAGE CONDITION:

THE PROPERTY WILL BE DEVELOPED INTO A AN AFFORDABLE HOUSING APARTMENT COMPLEX. THIS TRACT IS NOT PART OF A MASTER DRAINAGE PLAN. THEREFORE ALL FLOWS WILL BE CONTAINED ON SITE. ALL THE NORTHERN AND HALF THE WESTERN PARKING AREAS WILL FLOW TO A SIDEWALK CULVERT THAT'S LOCATION HALFWAY OF THE NORTHERN PARKING AREA. THIS FLOW WILL CONTINUE TO POND 1, POND 1, 2, 3, AND 4 WILL ALL HAVE EQUALIZER PIPES THAT WILL OUTLET TO THE SOUTHERN PARKING AREA. THE REST OF THE PARKING AREAS WILL FLOW TO THE SOUTHERN PARKING AREA WHERE ALL THE FLOW WILL BE CAPTURED IN A STORM INLET AND STORED IN UNDERGROUND STORAGE.

VOLUME REQUIRED: 57,533 CF POND STORAGE: 26,999 CF UNDERGROUND STORAGE: 31,000 CF TOTAL VOLUME PROVIDED: 57,999 CF

THE FUTURE PHASES WILL BE CONTAINED WITH A MIXTURE OF UNDERGROUND STORAGE AND A DETENTION POND THAT OVERFLOWS TO THE EXISTING STORM INLET LOCATED ON 64TH ST.

WATER QUALITY VOLUME = $(0.42IN/12IN/FT) \times ((6.55 \times 7.17)) \times 43,560SF/AC) = 7,160 CF REQUIRED.$

WATER QUALITY VOLUME PROVIDED FROM BASIN 1 = 2,200 CF

WATER QUALITY VOLUME PROVIDED FROM BASIN 2 = 11,416 CF WATER QUALITY VOLUME PROVIDED FROM BASIN 3 = 11,416 CF

WATER QUALITY VOLUME PROVIDED FROM BASIN 4 = 1,967 CF

WATER QUALITY VOLUME PROVIDED FROM UNDERGROUND STORAGE = X CF

TOTAL WATER QUALITY VOLUME PROVIDED = CF.

SIDEWALK CULVERT CAPACITY, WEIR EQUATION = (2.7) x (2FT) x (5IN/12IN/FT)^1.5 = 1.45 CFS

100-YEAR HYDROLOGIC CALCULATIONS

				TOO- LEAK	HIDROLO	GIC CALCULATION	3					
		LAND TREATMENT					100-YEAR PRECIPITATION					
BASIN #	AREA (acre)	A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V (10-day) (acre-ft)	V (10-day) (cu-ft)	Q (cfs)	
				EX	(ISTING CO	ONDITIONS						
PHASE 1	6.55	82.43	0	16.69	0.88	0.63	0.34	15018.00	1.29	56151.34	10.09	
				FULL DE	VELOPME	NT CONDITIONS						
PHASE 1	6.55	8.64	0.00	24.31	67.05	1.78	0.97	42330.59	1.92	83463.94	10.09	
EXCESS PRECIP.		0.55	0.73	0.95	2.24	Ei (in)						
PEAK DISCHARGE		1.54	2.16	2.87	4.12	Qpi (cfs)		ZONE = 1				

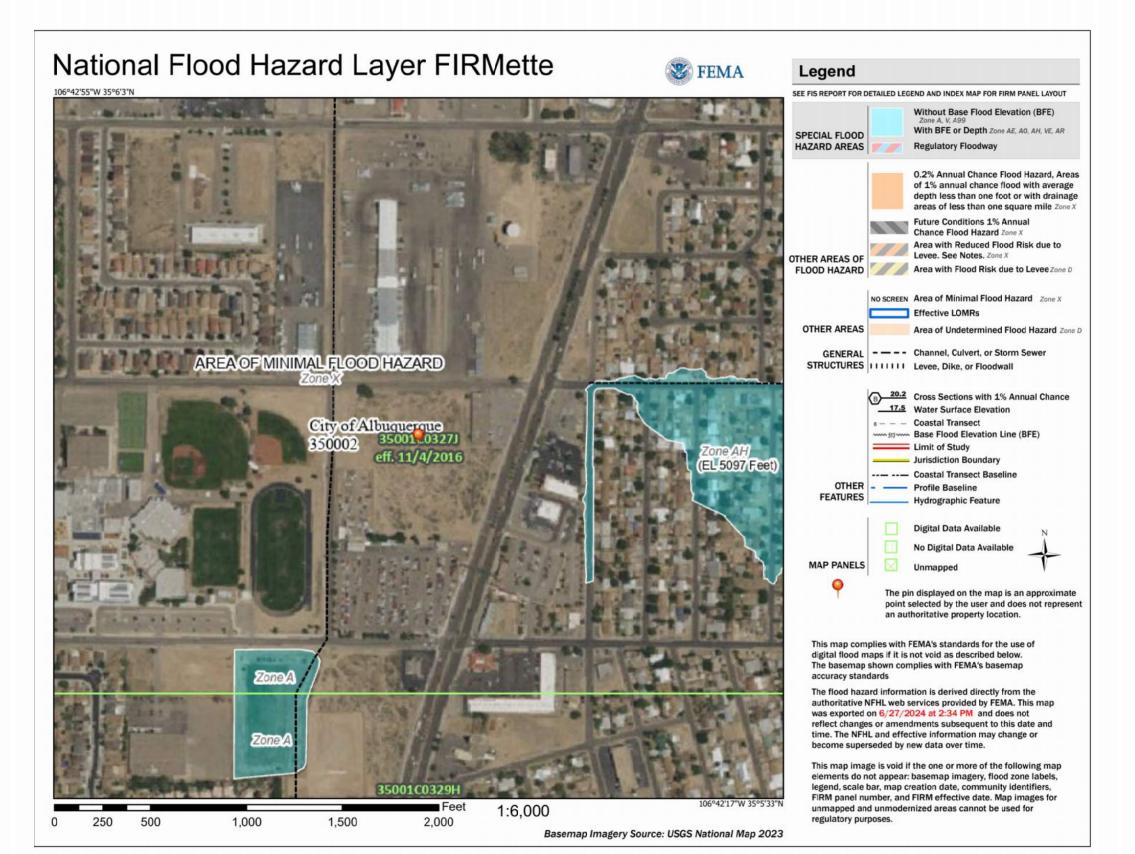
 P_{6HR} (in.) = 2.17

 P_{10DAY} (in.) = 3.9

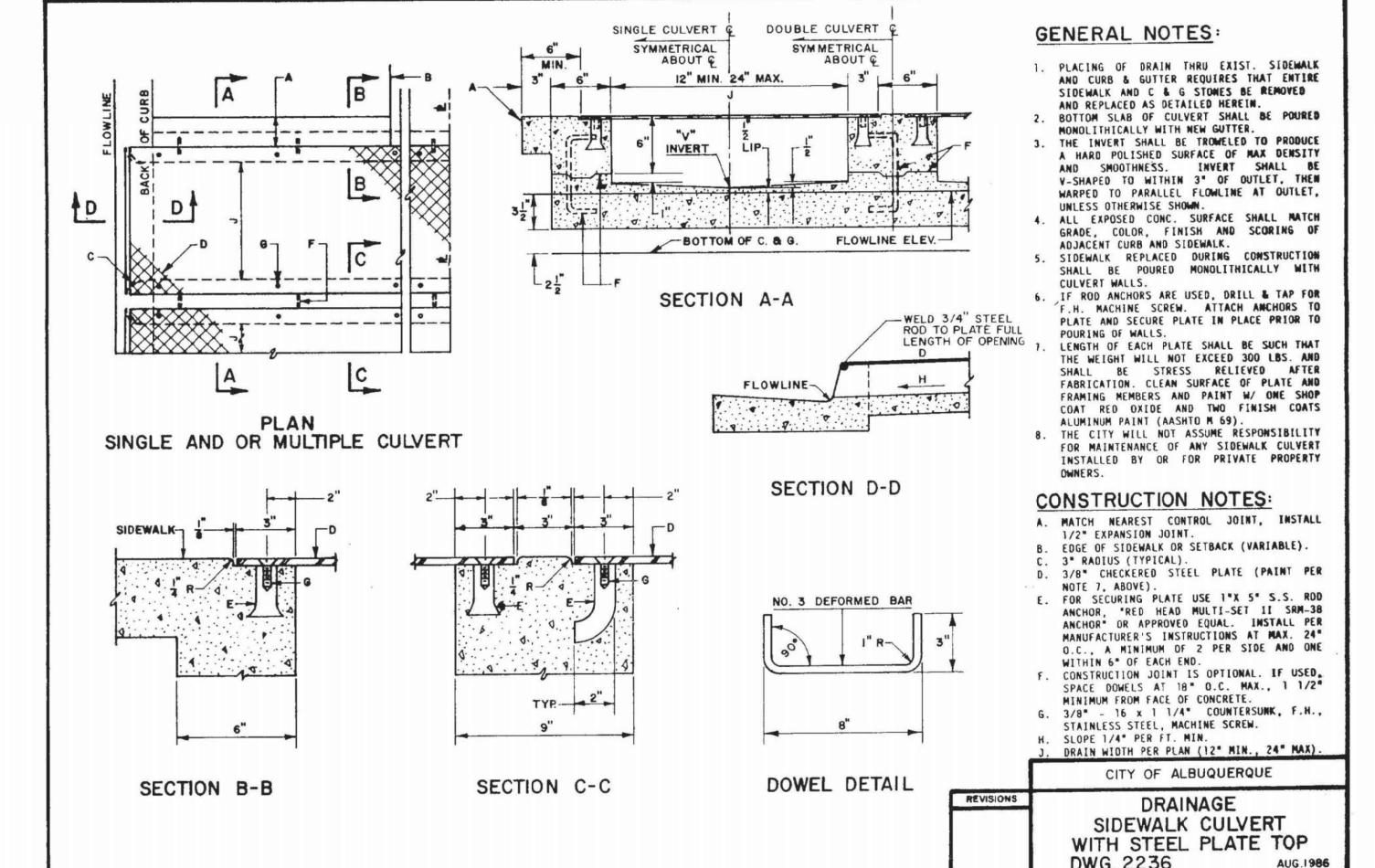
 V_{6HR} (acre-ft) = (WEIGHTED E)(AREA)/12 $V_{10^{-}DAY}$ (acre-ft) = $V_{6^{-}HR}$ + $(A_D)(P_{10^{-}DAY} - P_{6^{-}HR})/12$

 $Q (cfs) = (Q_{PA})(A_A) + (Q_{PB})(A_B) + (Q_{PC})(A_{C_j} + (Q_{PD})(A_D)$

WEIGHTED E (in) = $(E_A)(\%A) + (E_B)(\%B) + (E_C)(\%C) + (E_D)(\%D)$







PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

(505) 260-1990] FOR THE LOCATION OF EXISTING UTILITIES.

THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

8. WORK ON ARTERIAL STREETS MAY BE REQUIRED ON A 24-HOUR BASIS.

CONSTRUCTION SERVICES DIVISION.

BACKFILL COMPACTION SHALL BE 95%.

1. BUILD SIDEWALK CULVERT PER COA STD DWG 2236, WORK IS PERMITTED AND INSPECTED BY THE DMD

STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION HEALTH AND

4. PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL, DIAL "811" [OR

5. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL

MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY

FOR EXCAVATION AND BARRICADING INSPECTIONS, CONTACT DMD CONSTRUCTION SERVICES.

OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT

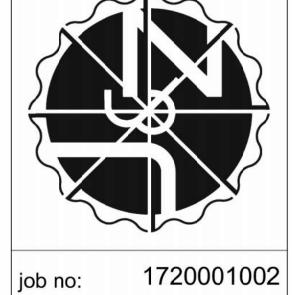
2. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY

3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL,

NOTICE TO CONTRACTOR

BEING SERVED.





drawn: checked: Oct. 8, 2024

WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT NM11 (811 OR 1-800-321-2537) AT LEAST 2 FULL BUSINESS DAYS IN ADVANCE (EXCLUDING HOLIDAYS AND WEEKENDS) FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLE, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

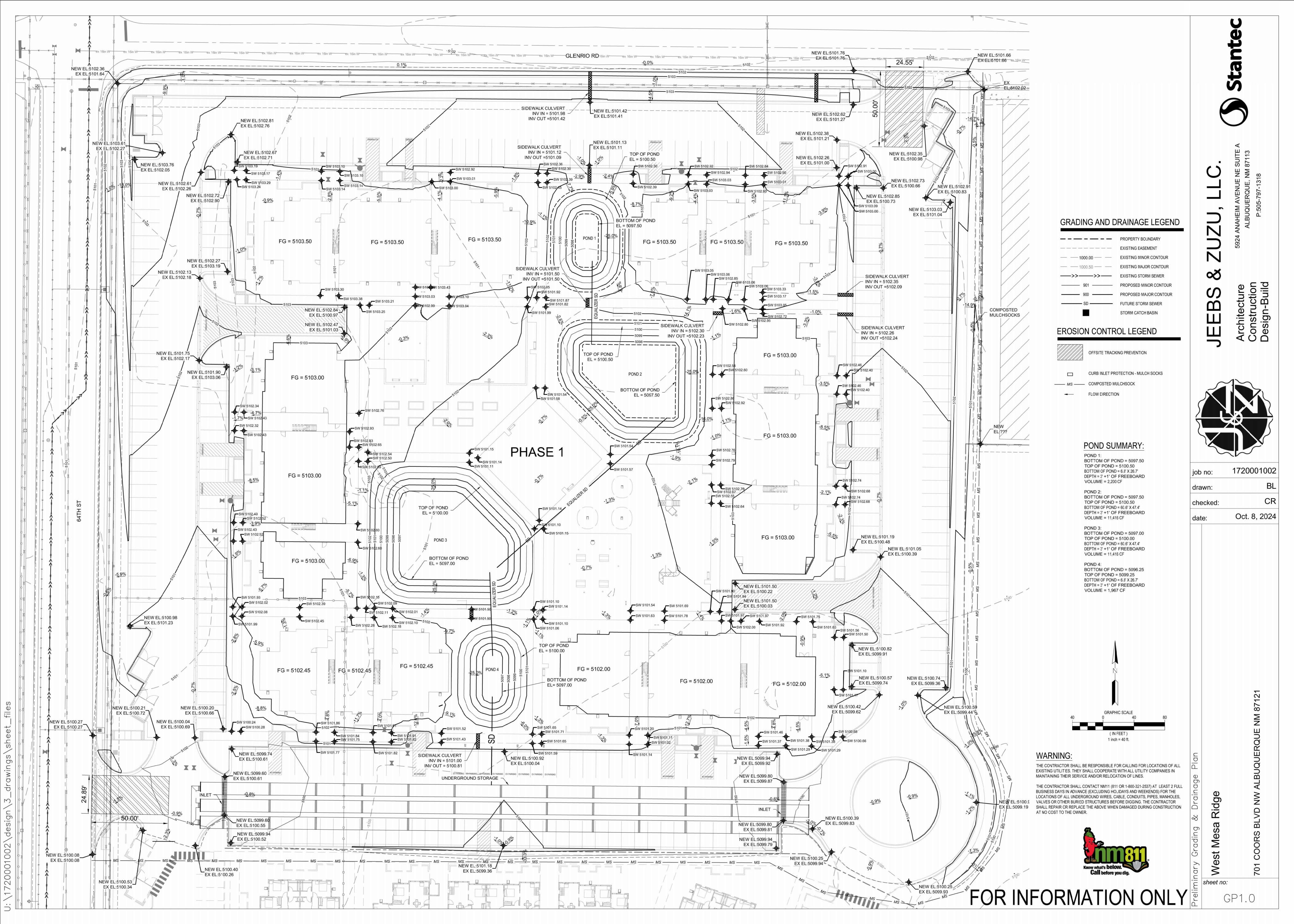


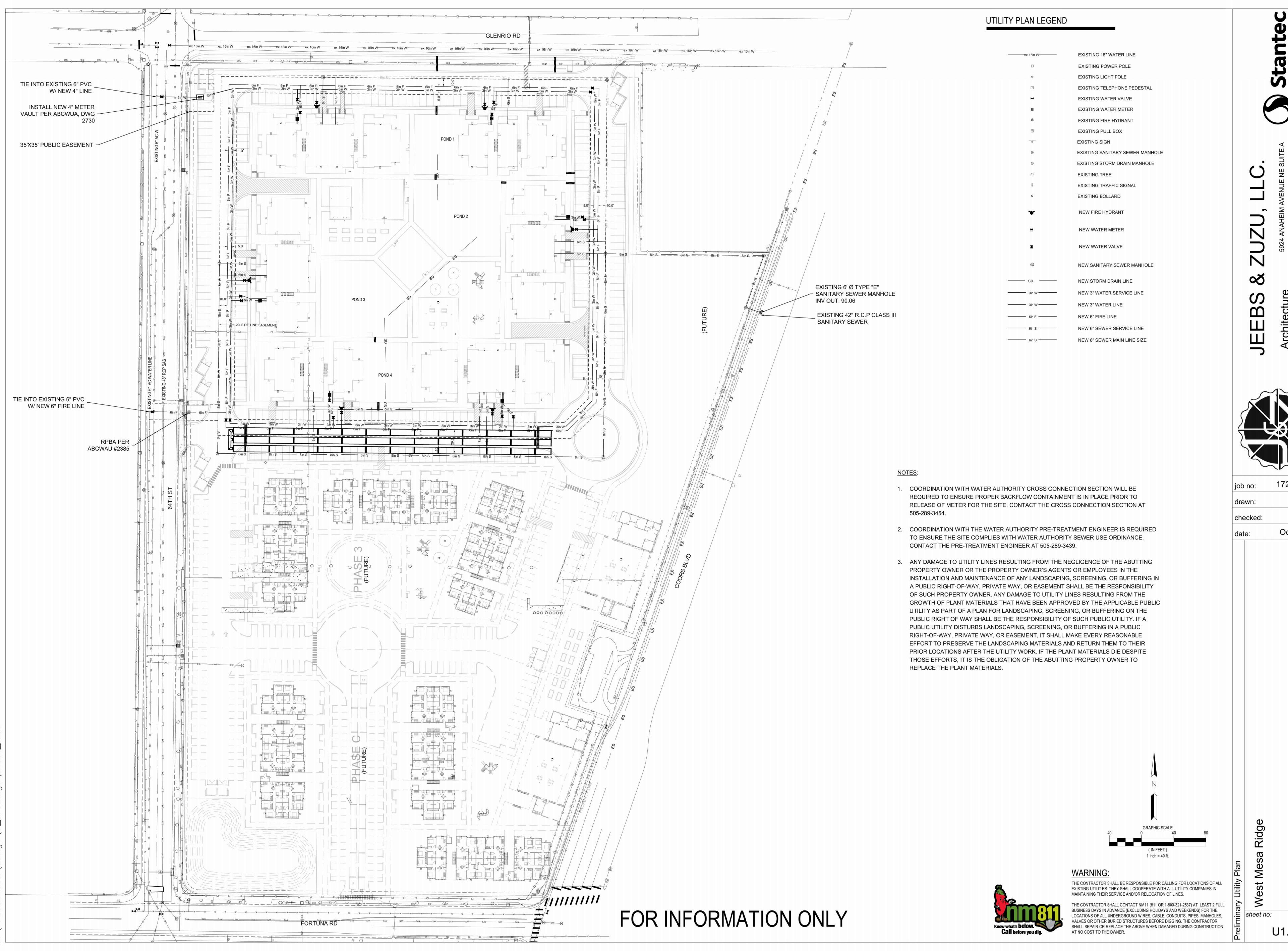






PROPOSED SITE VICINITY MAP - ZONE ATLAS MAPJ10 AND J11 ZONE

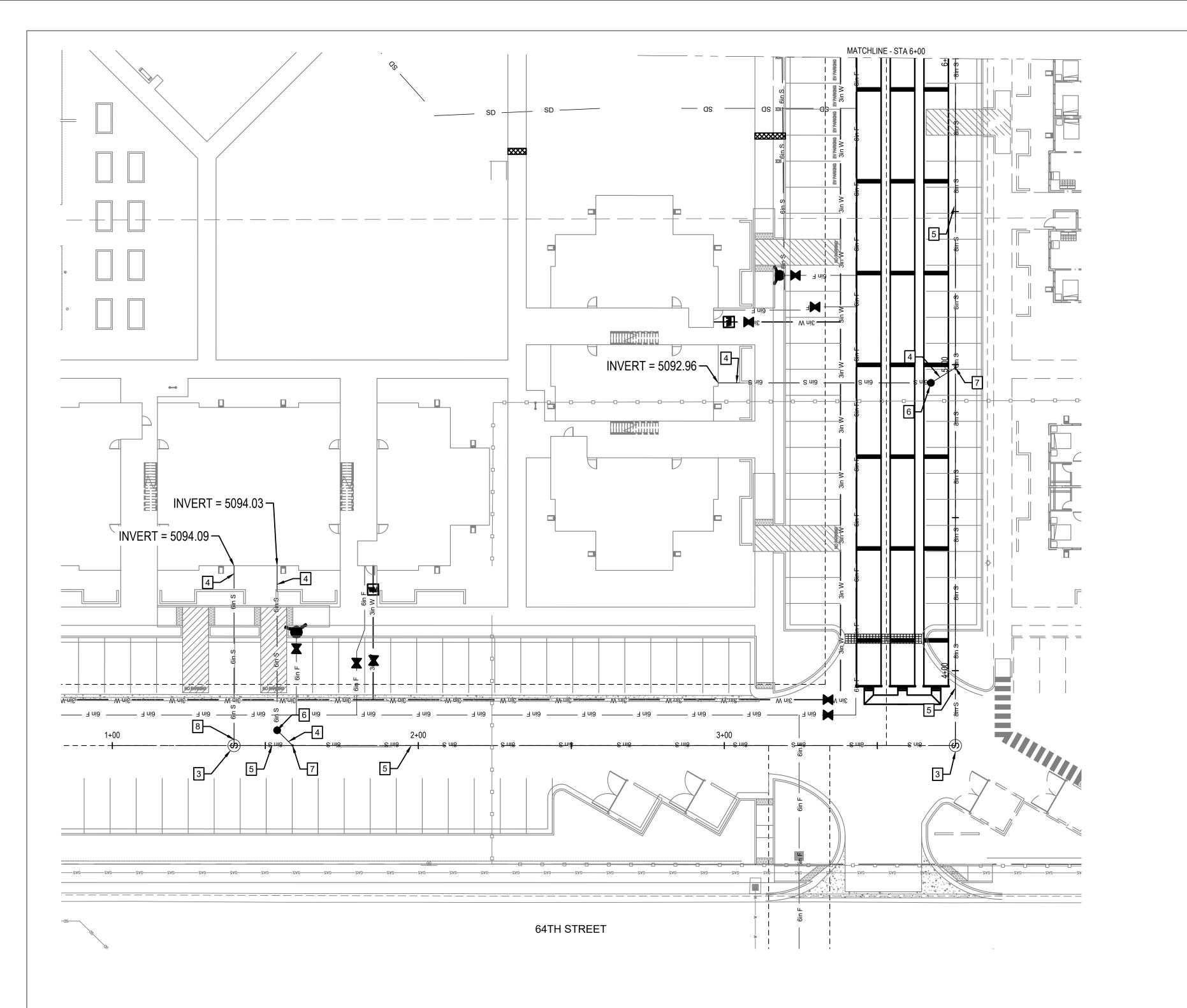


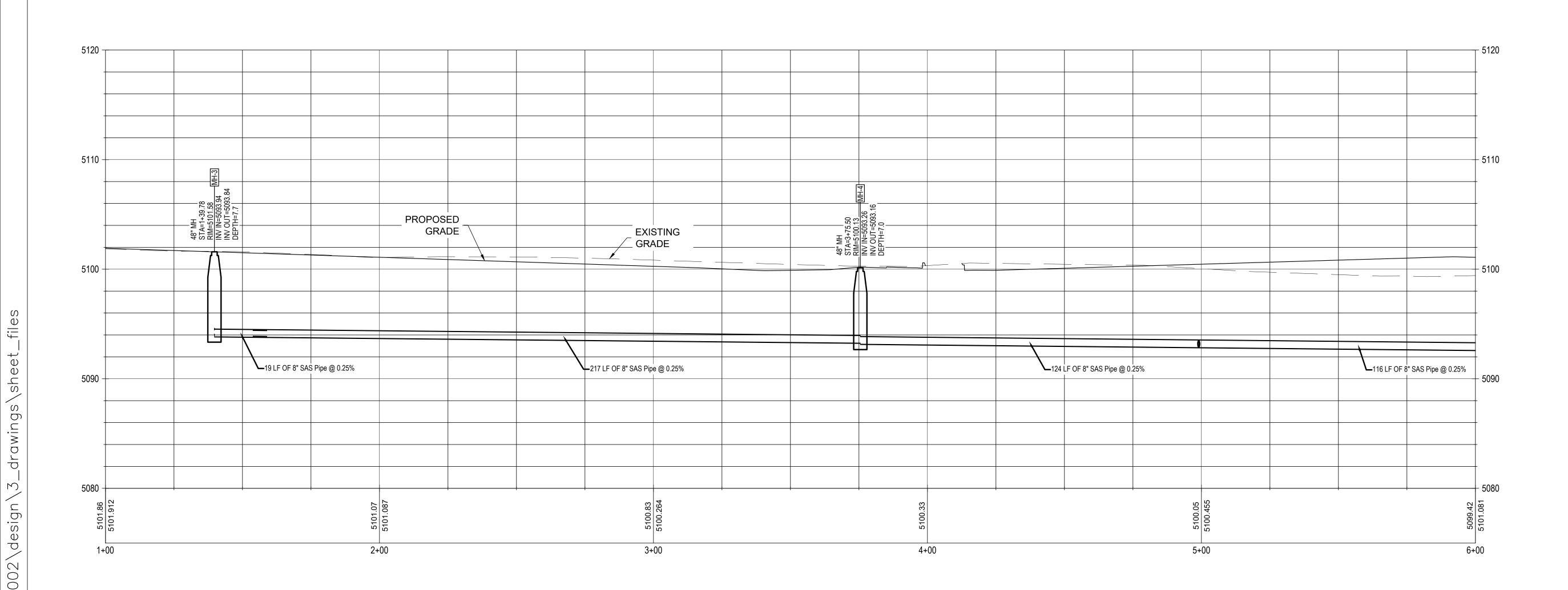


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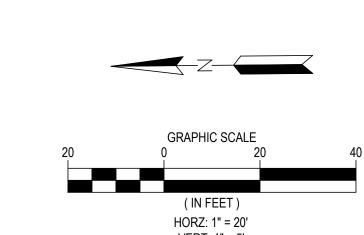


KEYNOTES

- 1. EXISTING 8" SEWER MAIN.
- 2. CONNECT TO EXISTING SANITARY MANHOLE
- 3. BUILD 4' DIAMETER SAS MANHOLE TYPE E PER COA STD DWG
- 4. INSTALL 6" SANITARY SEWER LINE.
- 5. INSTALL 8" SANITARY SEWER LINE.
- 6. INSTALL DOUBLE CLEANOUT.
- 7. INSTALL 6"x8" WYE.
- 8. CONNECT SERVICE LINE TO MANHOLE PER COA STD DWG 2118.

LEGEND

	PROPERTY BOUNDARY
	EXISTING EASEMENT
SD	EXISTING STROMDRAIN
w	EXISTING WATERLINE
	EXISTING OVERHEAD POWERLIN
ES	EXISTING SANITARY SEWER
8in S	PROPOSED 8" SANITARY SEWER
3in W	PROPOSED 3" WATERLINE
6in F	PROPOSED 6" FIRELINE
X	PROPOSED GATE VALVE
~	PROPOSED HYDRANT
S	PROPOSED SANITARY MANHOLE
S	EXISTING SANITARY MANHOLE
WM	PROPOSED WATER METER



CONTRACTOR SHALL VERIFY LOCATION, SIZE, INVERT, AND
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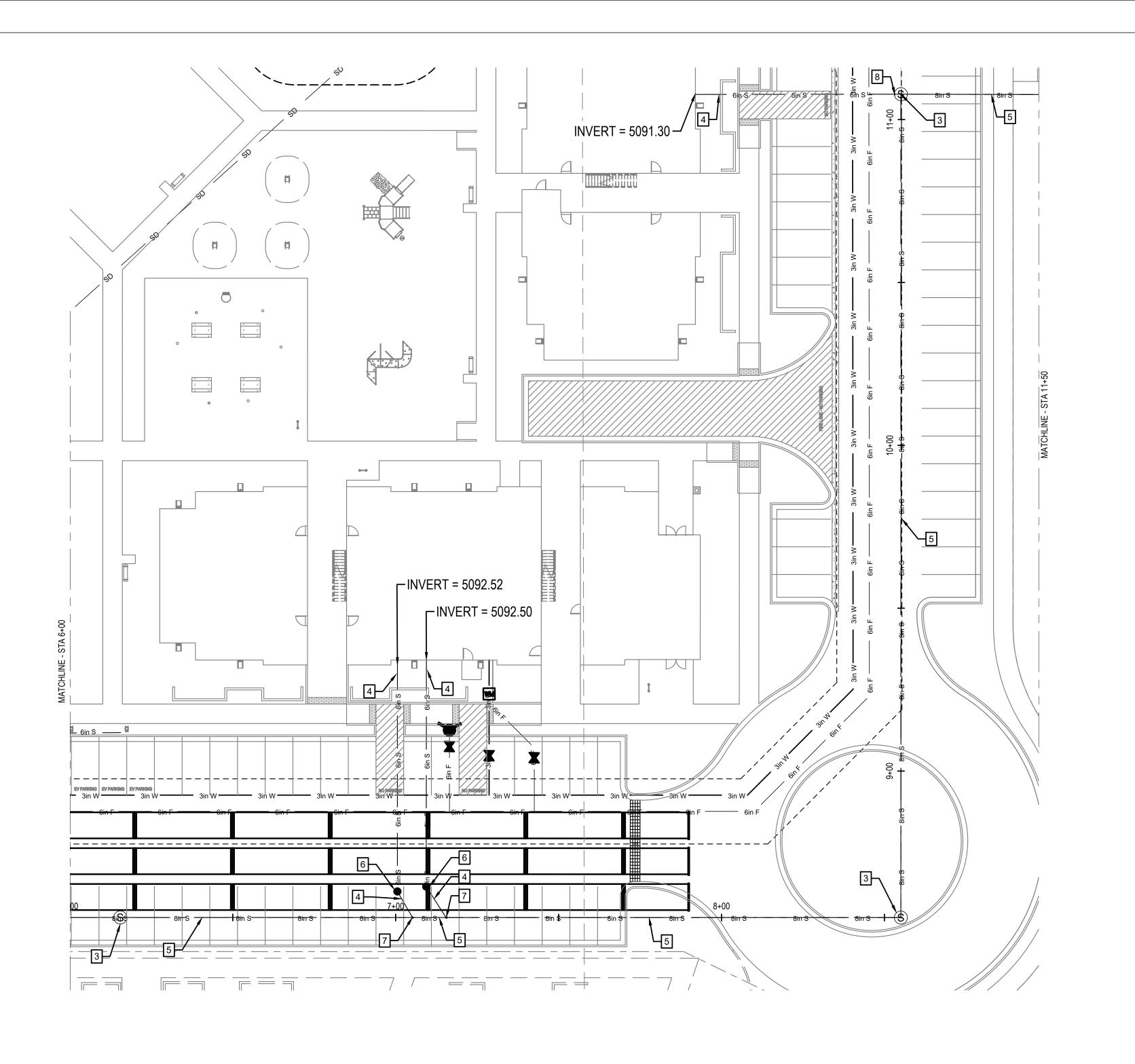


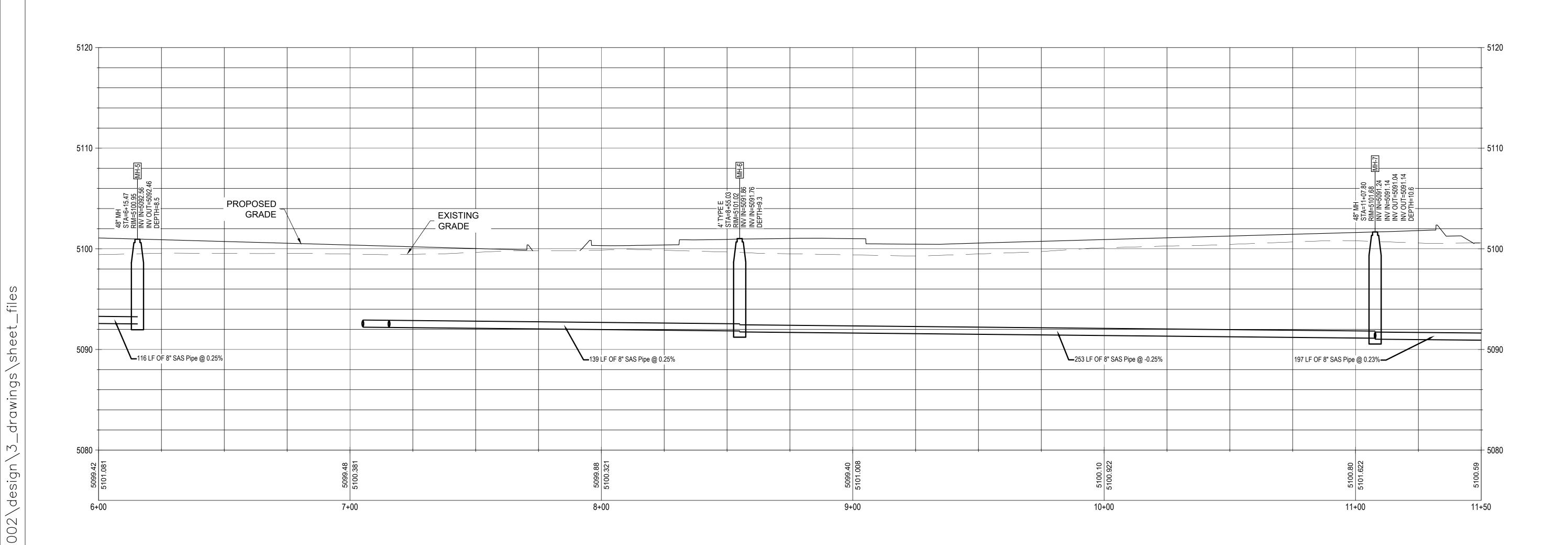
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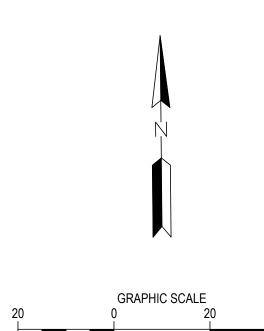




- 2. CONNECT TO EXISTING SANITARY MANHOLE
- 3. BUILD 4' DIAMETER SAS MANHOLE TYPE E PER COA STD DWG
- 4. INSTALL 6" SANITARY SEWER LINE.
- 5. INSTALL 8" SANITARY SEWER LINE.
- 6. INSTALL CLEANOUT PER COA STD DWG 2125.
- 7. INSTALL 6"x8" WYE.
- 8. CONNECT SERVICE LINE TO MANHOLE PER COA STD DWG 2118.

LEGEND

	PROPERTY BOUNDARY
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w	EXISTING WATERLINE
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WM	PROPOSED WATER METER



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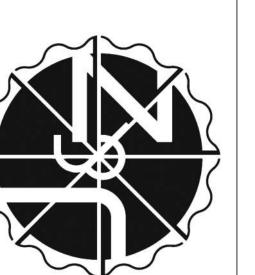
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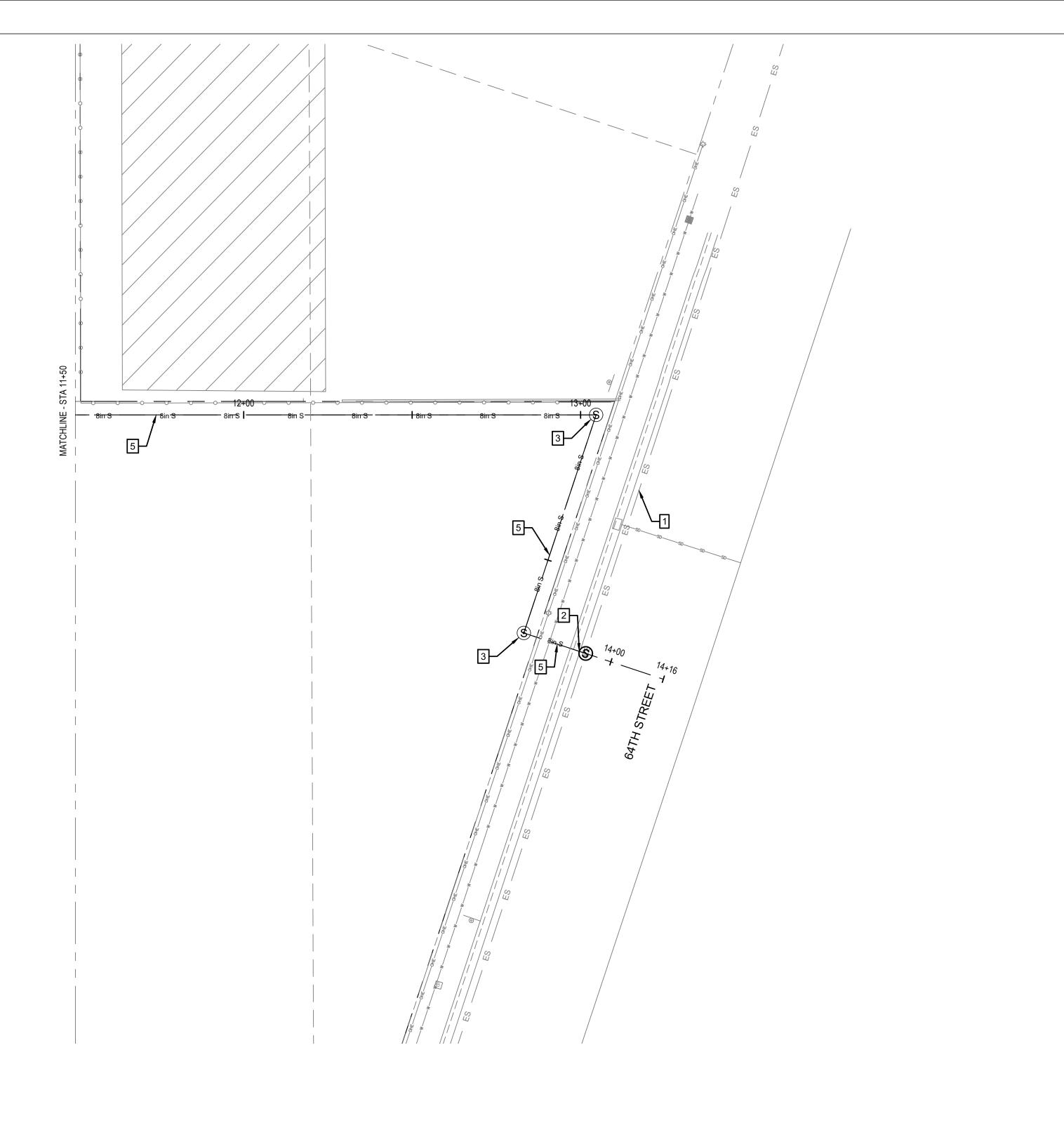


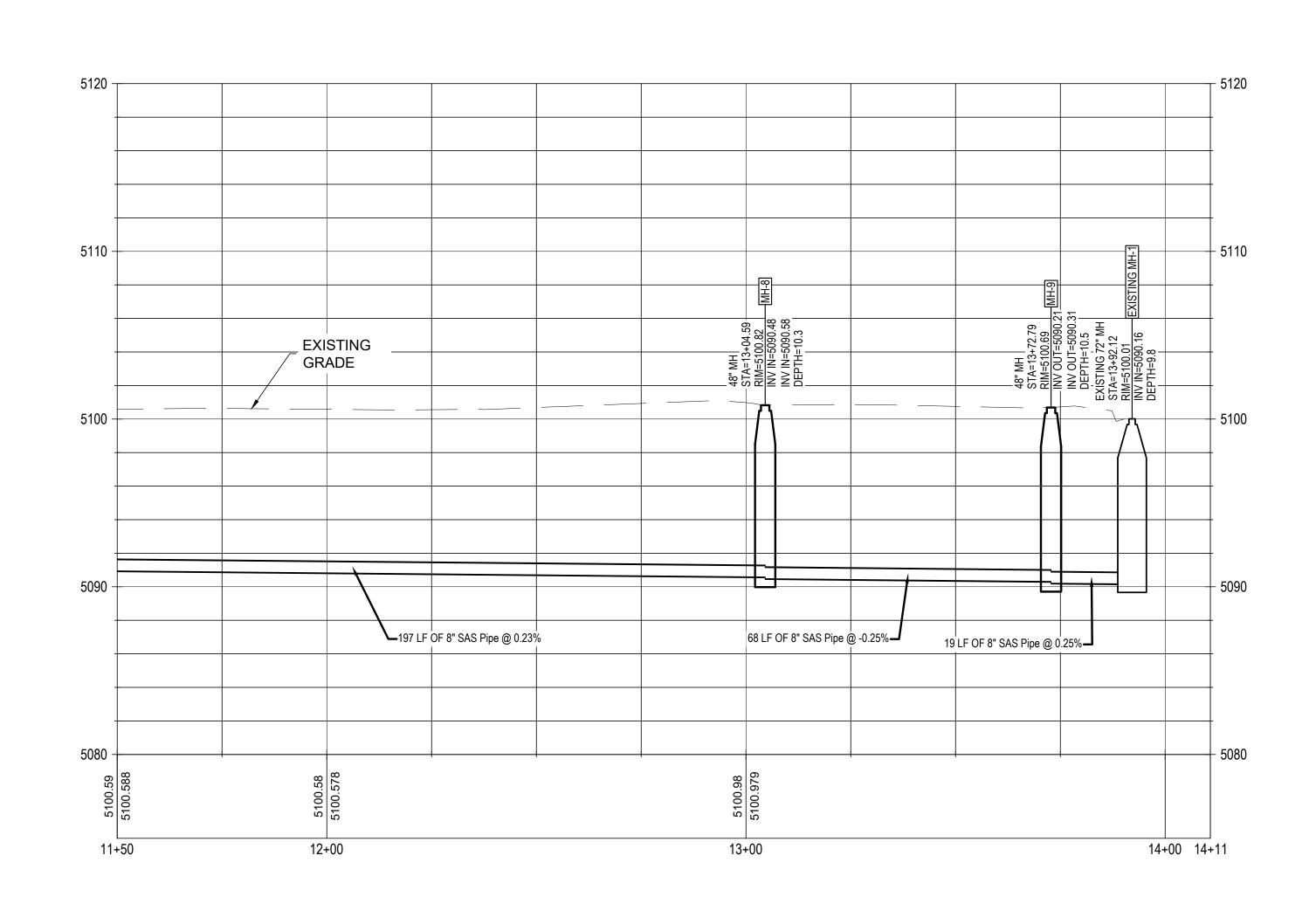
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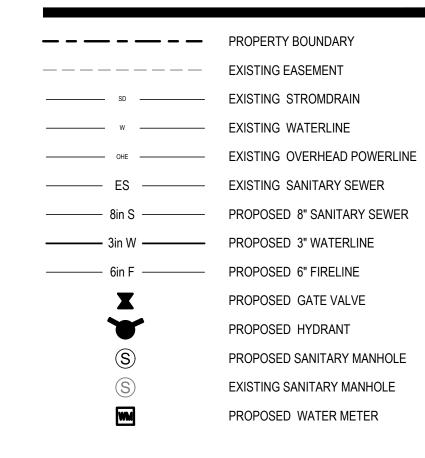
4. INSTALL 6" SANITARY SEWER LINE.

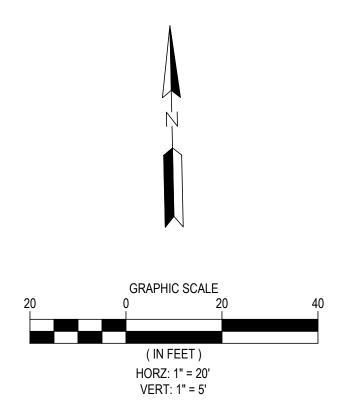
5. INSTALL 8" SANITARY SEWER LINE.

6. INSTALL CLEANOUT PER COA STD DWG 2125.

7. INSTALL 6"x8" WYE. 8. CONNECT SERVICE LINE TO MANHOLE PER COA STD DWG 2118.

LEGEND





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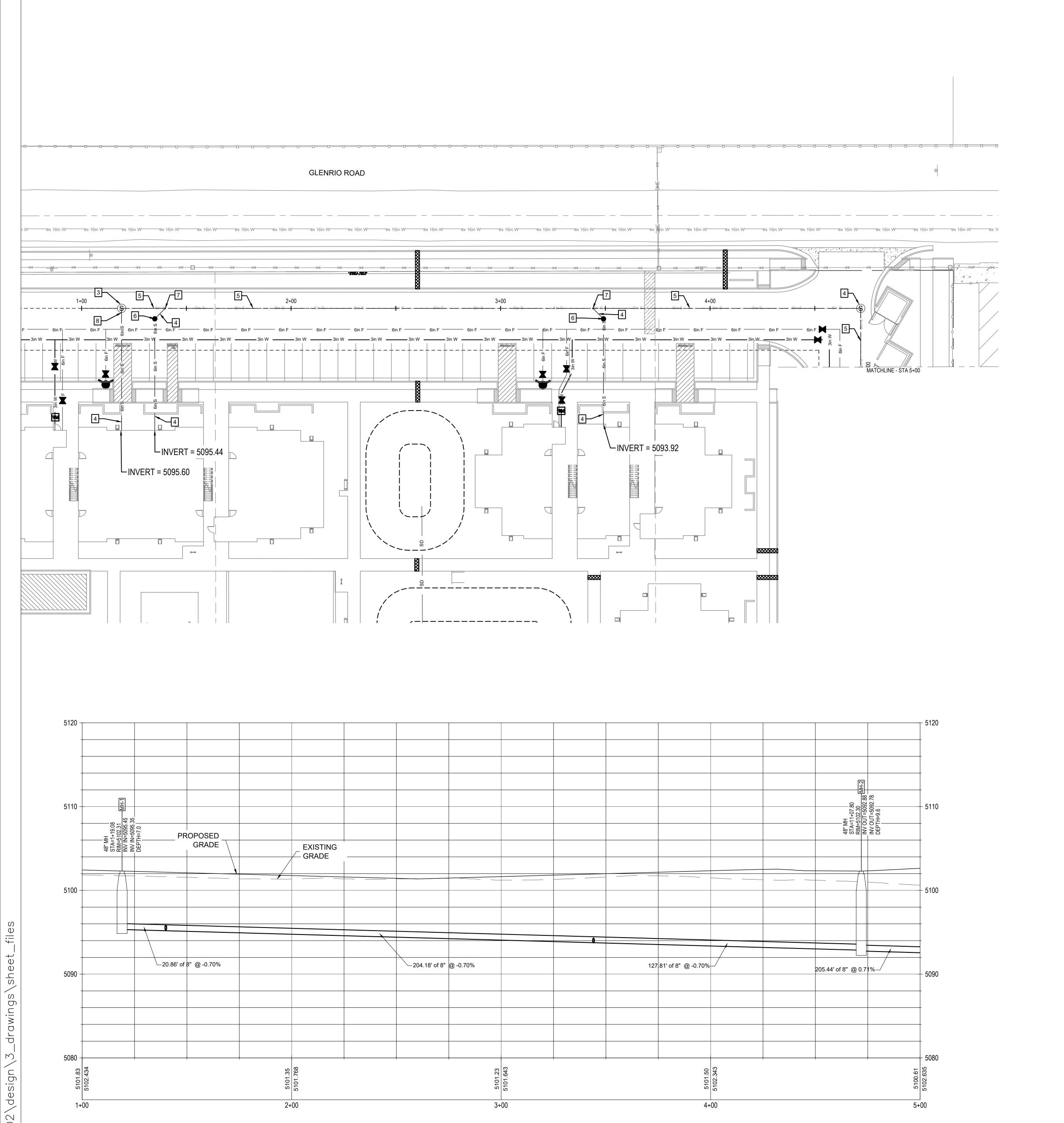


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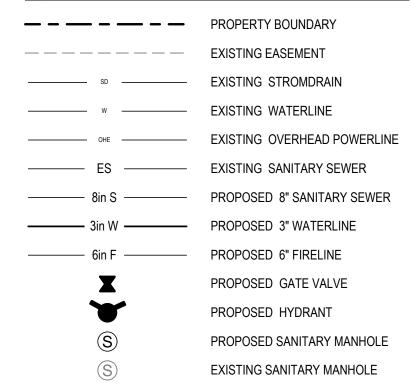
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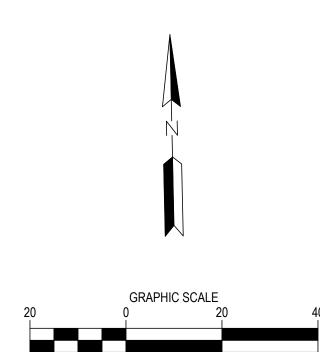
QUERQUE NM 87121



- 2. CONNECT TO EXISTING SANITARY MANHOLE
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PROPOSED WATER METER



HORZ: 1" = 20' VERT: 1" = 5'

		ı
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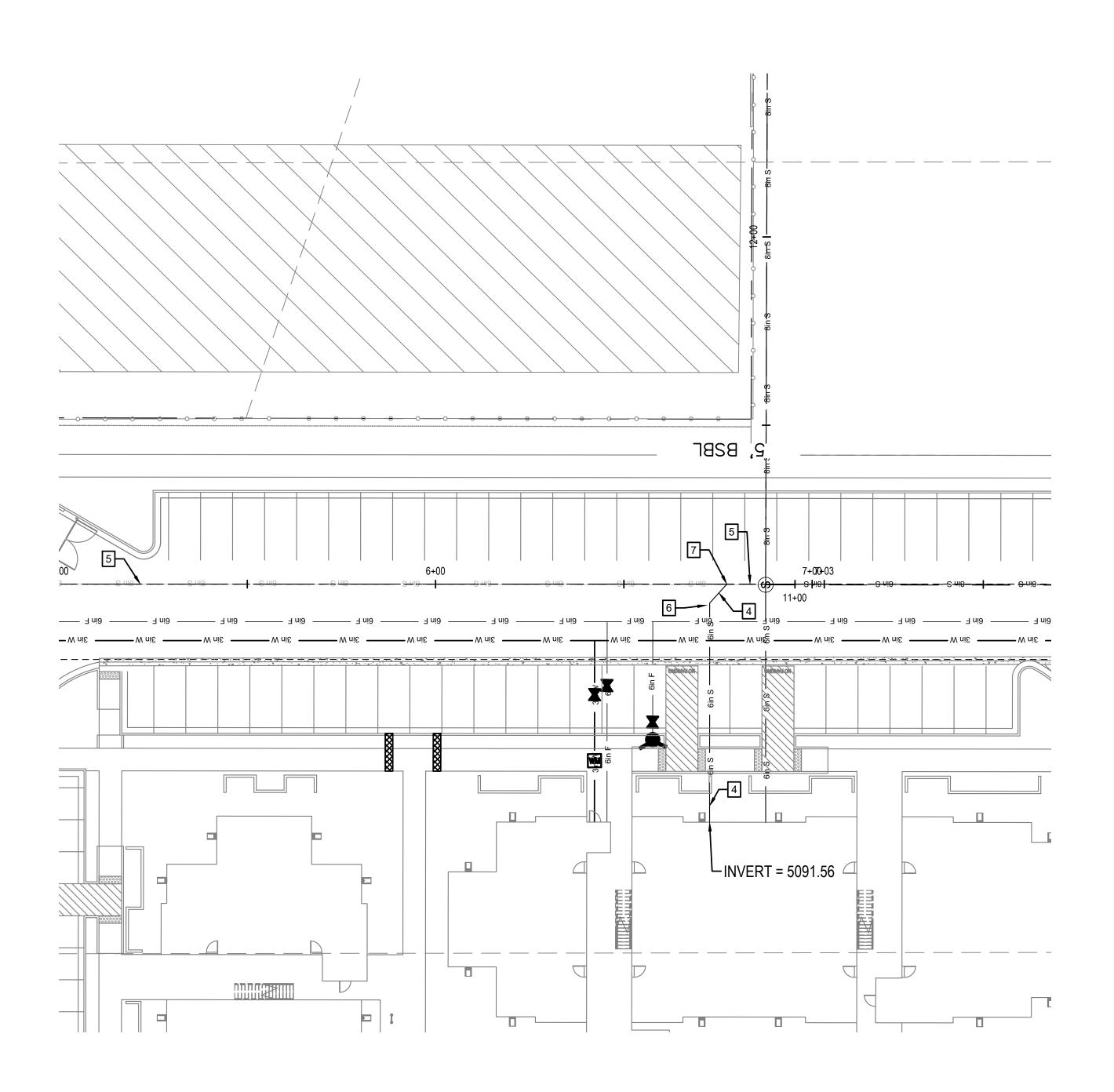
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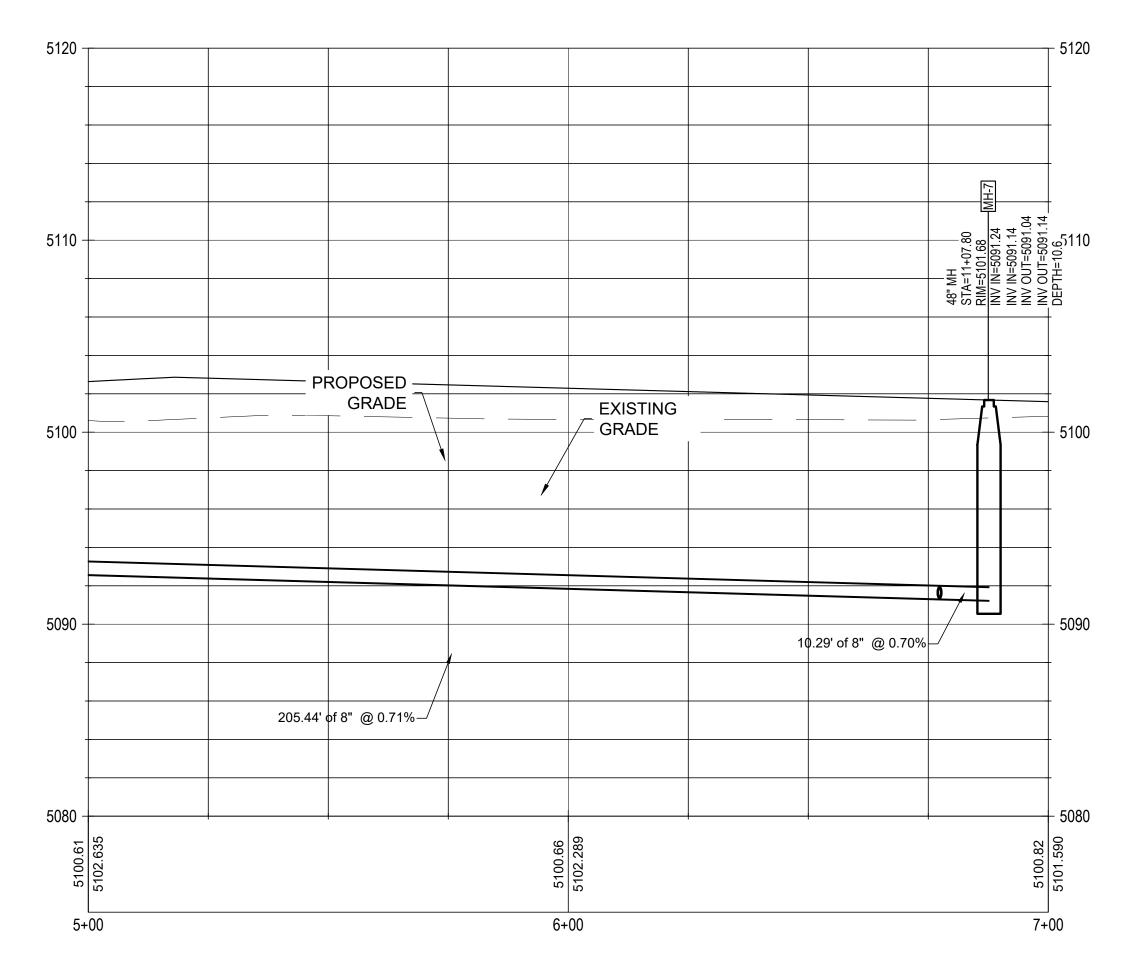


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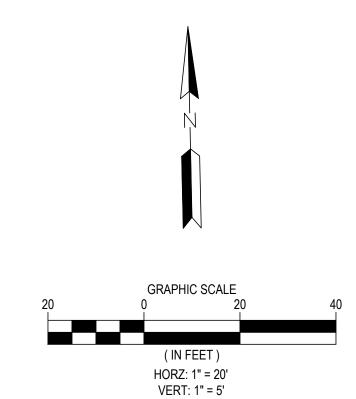
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EXISTING SANITARY MANHOLE
PROPOSED WATER METER



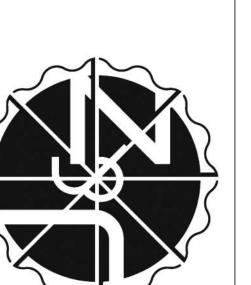
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