

WOOD
PATEL

**WASTEWATER COLLECTION SYSTEM
BASIS OF DESIGN REPORT
FOR
5TH & GOLDWATER**

September 25, 2025
WP# 245619

Prepared by
Bradon Schield, EIT

**FINAL Basis of Design
Report**

☐ APPROVED

☒ APPROVED AS NOTED

☐ REVISE AND RESUBMIT



Disclaimer: If approved; the approval is granted under the condition that the final construction documents submitted for city review will match the information herein. Any subsequent changes in the water or sewer design that materially impact design criteria or standards will require re-analysis, re-submittal, and approval of a revised basis of design report prior to the plan review submission.; this approval is not a guarantee of construction document acceptance. For questions or clarifications contact the Water Resources Planning and Engineering Department at 480-312-5685.

BY Levi Dillon

DATE 9/29/2025

Address comments below and herein during the improvement plan review phase:

- 1) Building plan reviewers are to confirm acceptable interceptor locations and configurations are per City applicable codes/ standards provided within the formal building plan submittal/ construction documents (CDs)
- 2) Water Resources acknowledges the development's plan for the site's existing public utility easement as follows: "We understand the PUE cannot be abandoned until all relocations occur (sewer, drys). We have obtained letters from the dry utility companies allowing work in the PUEs prior to abandonment and acknowledgement that the PUEs will be abandoned after relocations are completed. We will be submitting the letters along with our 1st Map of Easement Release (MOER) submittal that will be submitted concurrent with the 1st CD submittal for the project. Additionally, we will be submitting a separate abandonment application to the City for the 4' water easement abandonment over the existing 8" sewer line that traverses the site. Again, we understand that abandonment cannot occur until the relocation work (currently underway) is completed."



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1.0 INTRODUCTION

5th & Goldwater (Site) is a proposed mixed-use development located on five (5) parcels with an approximate net area of 4.8-acres within Scottsdale, Arizona (APN#173-48-047D, 173-48-047A, 173-48-056A, 173-48-055E, 173-48-050A). The Site was previously developed and has been demolished prior to the new development. The Site will include 232 dwelling units comprised of studio, one-bedroom, and two-bedroom apartments, as well as approximately 30,800 square feet of commercial space anticipated to be comprised of 18,800 square feet of restaurant space and 12,000 square feet of retail space. The project will include an onsite parking garage as well as associated landscape, hardscape, and utility services. The Site is located on the northwest corner of Indian School Road and Goldwater Boulevard within Section 22, Township 2 North, Range 4 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. Refer to Exhibit 1 – *Vicinity Map* for project location.

The design criteria used to estimate wastewater demands and evaluate system hydraulics are based on Wood, Patel & Associates, Inc’s (WOODPATEL’s) understanding of the requirements listed in the *City of Scottsdale Design Standards and Policies Manual, 2018*.

The following is a summary of the design criteria utilized:

Average Day Wastewater Demand, Commercial/Retail:	0.5 gpd / sf
Average Day Wastewater Demand, Restaurant:	1.2 gpd / sf
Average Day Wastewater Demand, High Density Condominium:.....	140 gpd / DU
Peak Factor, Commercial/Retail:	3.0
Peak Factor, Restaurant:	6.0
Peak Factor, High Density Condominium:	4.5
Minimum Mean Full Flow Velocity:	2.50 fps
Maximum Peak Full Flow Velocity:	10.0 fps
Maximum Peak Flow d/D Ratio (12-inch diameter or less sewers, Existing System):	d/D = 0.80
<u>Maximum Peak Flow d/D Ratio (12-inch diameter or less sewers, New System):.....</u>	<u>d/D = 0.65</u>
Abbreviations: gpd = gallons per day; fps = feet per second; gallons per capita per day = gpcpd	

2.0 EXISTING WASTEWATER INFRASTRUCTURE

The existing wastewater infrastructure adjacent to the Site includes a City of Scottsdale public 16-inch vitrified clay pipe (VCP) sewer line in Goldwater Boulevard, a City of Scottsdale public 8-inch VCP sewer line in East 5th Avenue, a City of Scottsdale public 10-inch VCP sewer line in Indian School Road, and a City of Scottsdale public 8-inch VCP sewer line that bisects the middle of the Site from 5th Avenue to Indian School Road and connects to a 10-inch VCP sewer line Indian School Road. Refer to Exhibit 2 – *Wastewater System Exhibit* for a depiction of the existing wastewater infrastructure surrounding the Site.

3.0 PROPOSED WASTEWATER INFRASTRUCTURE

The project will include both public and private sewer improvements. Public improvements will include the partial removal and relocation of the existing 8-inch public sewer line running through the Site. Relocation of the 8-inch public sewer line will be extended east from the project site in 5th Avenue to the 16-inch public sewer line in Goldwater Boulevard. A separate report, titled *Wastewater Collection System Basis of Design Report for 5th & Goldwater Public Sewer Relocation* has been submitted to the City of Scottsdale and further details this public sewer relocation. Additionally, the 5th & Goldwater Public Sewer Relocation Plan has been approved, permits have been acquired, and the relocation is currently underway. (Refer to Appendix E - *APPROVED 5th & Goldwater Public Sewer Relocation Plan*) Upon completion of the sewer relocation and acceptance by the City of Scottsdale, the existing public sewer line that traverses the Site will be removed and the associated Public Utility Easements (PUEs) abandoned by Map of Easement Release (MOER). The MOER will be submitted concurrently with the project's 1st construction document submittal to the City of Scottsdale, which is pending the scheduling of the project's DRB hearing.

Private sewer improvements for the project will include 6-inch and 8-inch private sewer lines. The development will gravity flow through private sewer lines to connections to the public sewer relocation in 5th Avenue, existing and proposed public manholes in Goldwater Boulevard, and the existing public manhole in Indian School Road. The total flow will be split between the 10-inch Indian School Road sewer line and the Goldwater Boulevard 16-inch sewer line, with the proposed flow to the 10-inch line closely matching the existing condition flow. The remainder of the proposed development flow and the existing flow from the upstream 8-inch sewer will be directed to the Goldwater sewer line. Private grease interceptors are proposed onsite to serve the grease waste lines for the proposed restaurant spaces prior to connection to the public sewer system. Refer to Exhibit 2 – *Wastewater System Exhibit* for the proposed wastewater layout of the Site.

4.0 WASTEWATER SYSTEM ANALYSIS

Before performing the wastewater system analysis for this project, WOODPATEL had a preliminary conversation with the City of Scottsdale Water Resources Department to discuss any anticipated City sewer capacity concerns for the project. The City Water Resources Department representative did not express concerns regarding sewer treatment capacity for the project; however, the City expressed concerns about two (2) downstream segments of public sewer line with limited capacity. Those segments were downstream of the Site, within a segment of 21-inch sewer line in Earll Drive that receives sewer flow from the 16-inch sewer line in Goldwater Boulevard, and within a segment of 10-inch sewer line within Indian School Road near Miller Road. Initial conversations with the City Water Resources representative indicated the Goldwater Boulevard 16-inch sewer line is the City's preferred sewer outfall for the project due to the more limited capacity anticipated to be available within the Indian School 10-inch sewer line. The City Water Resources Department requested that a sewer flow test be conducted upstream of the Site to determine incoming flows to maintain the flow contributing to the Indian School 10-inch sewer line with the proposed development. Additionally, the City Water Resources Department representative requested the sewer manholes at the intersection of Indian School Road and Goldwater Boulevard be surveyed to determine the interconnection condition between the Indian School and Goldwater sewer lines. Sewer flow testing, sewer video inspection, and manholes surveys requested have been completed. Please refer to

Appendix B – *Sewer Manhole Flow Test Data* for sewer flow test data, Appendix C – *Sewer Video Inspection Data* for existing 8-inch sewer main video inspection information and Exhibit 2 – *Wastewater System Exhibit* for sewer manhole survey information. The below sub-sections describe the analysis conducted for this project and the results of the analysis.

4.1 Existing Condition Wastewater System Analysis

Although portions of the existing Site are currently vacant, the entire existing development previously sewer to the Indian School 10-inch sewer line. Therefore, the existing flow from the development to the Indian School 10-inch sewer line includes projected wastewater flow from the entire existing development site and adjacent commercial development at the northeast corner of the Site. Wastewater flows for the existing development and adjacent commercial to the northeast corner of the Site were established using the flow criteria within the *City of Scottsdale Design Standards and Policies Manual, 2018* (DSPM) and land survey data for the Site. Sewer flow test data collected at the public sewer manhole at the northeast corner of the Site, on the south side of 5th Avenue, were then added to the DSPM flow rates for the existing onsite development to establish the total wastewater flow contributing to the Indian School 10-inch sewer line.

Calculations indicate that the existing onsite development and adjacent commercial peak wastewater flow is 120 gpm, according to the DSPM. A reduction of the DSPM peak wastewater flow rate for the existing onsite development and adjacent commercial was applied based upon the ratio of anticipated DSPM flow rate to measured flow rate for the upstream offsite contributing flow. This ratio, per Table 2 in Appendix A, was determined to be 24%. Therefore, the peak wastewater flow for the existing onsite development and adjacent commercial is conservatively estimated at 29 gpm. When adding the measured offsite peak wastewater flow of approximately 40 gpm, the total peak wastewater flow received by the Indian School 10-inch sewer line from the Site is 69 gpm in the adjusted existing condition. (Refer to Appendix A – *Wastewater System Analysis*)

4.2 Proposed Condition Wastewater System Analysis

Using the adjusted existing peak wastewater flow contributing to the Indian School 10-inch sewer line of 69 gpm, the maximum number of residential units allowed to contribute to the Indian School sewer line was determined to be 157 units ($69\text{gpm} = 99,360\text{ gpd}$, $99,360\text{ gpd} / 140\text{gpd/DU} / 4.5\text{ PF} = 157.7\text{ DU}$). Based upon the current internal building sewer design by the project's plumbing engineer, 126 residential units are proposed to contribute to the Indian School sewer connection, less than the maximum allowed of 157 units. 39 Residential units are proposed above the retail building on the east side of the Site and will contribute directly to the Goldwater Boulevard sewer line. The remaining 67 residential units and the north Flex building along with the existing offsite peak flows will contribute to the proposed 5th Avenue public sewer relocation. (Refer to Appendix E - *APPROVED 5th & Goldwater Public Sewer Relocation Plan*)

Survey of the existing sewer manholes within the intersection of Indian School and Goldwater Boulevard indicates that the Indian School sewer line splits flow between the downstream Goldwater Boulevard and Indian School sewer lines, which have similar downstream inverts at the connecting manhole.

The proposed sewer system improvements were modeled for the proposed and existing contributing wastewater flows. Below is a breakdown of the land use and wastewater flows contributing to each of the four (4) sewer outfalls for the project.

New 5th Avenue Public Sewer Relocation Outfall					
Land Use			Total ADD	Total Peak Flow*	
Commercial/Retail	Restaurant	Residential	(GPD)	(GPD)	(GPM)
16,384 sf**	2,573 sf	67 DU	39,861	142,915	99

*Includes existing offsite peak flow received by public sewer relocation, measured at approximately 40 gpm peak flow.

**Includes adjacent existing commercial development at the northeast corner of the Site.

Indian School Sewer Service Outfall					
Land Use			Total ADD	Total Peak Flow	
Commercial/Retail	Restaurant	Residential	(GPD)	(GPD)	(GPM)
0 sf	0 sf	126 DU	17,640	79,380	55

New Goldwater North Sewer Service Outfall					
Land Use			Total ADD	Total Peak Flow*	
Commercial/Retail	Restaurant	Residential	(GPD)	(GPD)	(GPM)
0 sf	6,159 sf	0 DU	7,391	188,345	131

*Includes 100 gpm peak flow for pool backwash.

New Goldwater South Sewer Service Outfall					
Land Use			Total ADD	Total Peak Flow	
Commercial/Retail	Restaurant	Residential	(GPD)	(GPD)	(GPM)
12,016 sf	10,108 sf	39 DU	18,138	115,372	80

Total Project Flows					
Land Use			Total ADD	Total Peak Flow	
Commercial/Retail	Restaurant	Residential	(GPD)	(GPD)	(GPM)
28,400 sf	18,840 sf	232 DU	83,030	526,012	365

The project will include a rooftop pool and spa. Details for the pool and spa plumbing, including the backwash rate, are not available at this time. Therefore, a rate of 100 gpm total backwash rate has been applied to the sewer outfall for the pool and spa. The pool backwash system will be required to be designed with a maximum backwash rate of 100 gpm.

Sewer model results indicate the proposed systems have sufficient capacity for the project projected peak flows, with d/D ratios less than 0.65 in all segments. The highest d/D values occur within the public sewer line flowing to 5th Avenue with a d/D value of 0.34. Please refer to the tables above for the proposed summary of the project's wastewater flow rates to the adjacent wastewater mains in Indian School Road and Goldwater Boulevard.

5.0 CONCLUSIONS

Based upon our analysis of the proposed sewer system improvements for the Site the following conclusions are made:

1. The design criteria used to estimate wastewater flows and evaluate system hydraulics are based upon WOODPATEL's understanding of the *City of Scottsdale's Design Standards and Policy Manual, 2018*.
2. The anticipated average day wastewater flow for the Site, existing adjacent commercial, and offsite existing contributing flows, to the 5th Avenue public sewer outfall is 39,861 gallons per day (gpd) or 28 gallons per minute (gpm). The anticipated peak wastewater flow to the 5th Avenue public sewer outfall is 142,915 gpd or 99 gpm.
3. The anticipated average day wastewater flow for the Site to Indian School Road is 17,640 gallons per day (gpd) or 12 gallons per minute (gpm). The anticipated peak wastewater flow for the Site to Indian School Road is 79,380 gpd or 55 gpm.
4. The anticipated average day wastewater flow for the Site to the north Goldwater Boulevard sewer outfall is 7,391 gallons per day (gpd) or 15 gallons per minute (gpm). The anticipated peak wastewater flow for the Site to the north Goldwater Boulevard sewer outfall is 188,345 gpd or 131 gpm. This peak flow accounts for an anticipated pool backwash rate of 100 gpm.
5. The anticipated average day wastewater flow for the south Goldwater Boulevard sewer outfall is 18,138 gallons per day (gpd) or 13 gallons per minute (gpm). The anticipated peak wastewater flow for the Site to the south Goldwater Boulevard sewer outfall is 115,372 gpd or 80 gpm.
6. Analysis of the proposed wastewater infrastructure improvements indicates that the proposed peak flows to Indian School Road are less than the existing flow conditions to Indian School Road, existing at 69 gpm and proposed at 55 gpm.
7. Analysis of the proposed wastewater infrastructure improvements indicates sufficient capacity for the proposed project, with d/D ratios under the required 0.65 ranging from 0.12 to 0.34.

6.0 REFERENCES

1. *City of Scottsdale Design Standards and Policies Manual, 2018*

APPENDIX A – WASTEWATER SYSTEM ANALYSIS

TABLE 1
WASTEWATER DESIGN CRITERIA

Project 5th & Goldwater
Location Scottsdale AZ
Project Number 245619
Project Engineer Bradon Schield, E.I.T.
References City of Scottsdale Design Standards and Policies Manual (2018)

WASTEWATER DEMANDS		
LAND USE	AVERAGE DAILY DEMAND (ADD)	
	VALUE	UNITS
Commercial/Retail	0.50	gpd/sf
Office	0.40	gpd/sf
Restaurant	1.20	gpd/sf
High Density Condominiums	140	gpd/DU
School: without Cafeteria	30	gpd/Student
School: with Cafeteria	50	gpd/Student
Resort Hotel	380	gpd/Room
Cultural	0.1	gpd/sf
Fitness Center/Spa/ Health Club	0.8	gpd/sf
Residential (2.5 persons per Dwelling Unit)	100.0	gpcpd

HYDRAULIC MODELING CRITERIA	
DESCRIPTION	VALUE²
PEAK FLOW	
Peak Flow = Peaking Factor (PF) x ADD	
Commercial/Retail/Office/Cultural	3.0
Fitness Center/Spa/Health Club	3.5
High Density Condominium/Resort Hotel	4.5
Clubhouse for Subdivision Golf Course	4.5
Restaurant/School: with cafeteria/School: without cafeteria	6.0
Residential	$[1 * (14 / (4 + P^{1/2}))]$
P=Population/1,000	
Population (DU/ac < 22)	2.5
Population (DU/ac > 22)	1.7
HYDRAULICS	
Minimum Service Line Diameter (in)	6
Manning's "n" value	0.013
Maximum d/D ratio at peak flow	0.65

PIPE SIZE	MEAN VELOCITY¹		DESIGN SLOPE¹	
	(in)	Minimum (ft/sec)	Maximum (ft/sec)	Maximum (%)
8		2.5	10.0	0.521
10		2.5	10.0	0.387
12		2.5	10.0	0.303

Notes

1. Per City of Scottsdale Design Standards and Policies Manual (2018)

TABLE 2
DSPM TO MEASURED PEAK FLOW RATIO

Project 5th & Goldwater
Location Scottsdale AZ
Project Number 245619
Project Engineer Bradon Schield, E.I.T.
References City of Scottsdale Design Standards and Policies Manual (2018)

COS Monitoring Results (MH3)	
Measures	Flow (gpm)
Max.	40
Min.	0
Average	2.9

Demands Using DSPM	
ADD (gpm)	Peak Flow (gpm)
45	167

Percentage of DSPM	
ADD	Peak Flow
6%	24%

Table 3
EXISTING WASTEWATER FLOWS

Project 5th & Goldwater
Location Scottsdale AZ
Project Number 245619
Project Engineer Bradon Schield, E.I.T.
References City of Scottsdale Design Standards and Policies Manual (2018)
 Arizona Administrative Code, Title 18, Chapter 9

		LAND USE								
FROM NODE	TO NODE	Commercial/ Retail (sf)	Restaurant (sf)	Residential (DU)	SEWER NODE ADD (gpd)	Total ADD (gpd)	PEAKING FACTOR	PEAK FLOW (gpd)	TOTAL PEAK FLOW (gpd)	TOTAL PEAK FLOW (gpm)
Existing Offsite										
EXISTING OFFSITE FLOW CONNECTION	SSMH#3	99,800	--	--	49,900	49,900	3.0	149,700	149,700	104
EXISTING OFFSITE FLOW CONNECTION	SSMH#3	--	12,600	--	15,120	65,020	6.0	90,720	240,420	167
Total		99,800	12,600	--	65,020	65,020	--	240,420	240,420	167

Measured / DSPM Ratio: 24% Measured Peak Flow: 40 gpm

Existing Onsite										
Onsite Commercial	Ex. Onsite Outfall	52,814	--	--	26,407	26,407	3.0	79,221	79,221	55
Adjacent Commercial	Ex. Onsite Outfall	16,386	--	--	8,193	34,600	3.0	24,579	24,579	17
Restaurant	Ex. Onsite Outfall	--	5,020	--	6,024	32,431	6.0	36,144	115,365	80
Travel Lodge*	Ex. Onsite Outfall	--	--	84	14,280	46,711	4.0	57,120	172,485	120
Total		69,200	5,020	84	54,904	46,711	--	197,064	172,485	120

Measured / DSPM Ratio: 24% Adjusted Peak Flow: 29 gpm

*The existing Travel Lodge was conservatively estimated using residential unit demands equating to 170 gpm/room (1.7 capita per room x 100 gpd/capita) rather than the higher rate of 380 gpd/room for Resort Hotel.

Table 4
PROPOSED WASTEWATER FLOWS

Project 5th & Goldwater
Location Scottsdale AZ
Project Number 245619
Project Engineer Bradon Schield, E.I.T.
References City of Scottsdale Design Standards and Policies Manual (2018)
 Arizona Administrative Code, Title 18, Chapter 9

		LAND USE								
FROM NODE	TO NODE	Commercial/ Retail (sf)	Restaurant (sf)	High Density Condominiums (DU)	SEWER NODE ADD (gpd)	Total ADD (gpd)	PEAKING FACTOR	PEAK FLOW (gpd)	TOTAL PEAK FLOW (gpd)	TOTAL PEAK FLOW (gpm)
5th Avenue Public Sewer Relocation (BLDG AREA A)										
EX. BLDG CONNECTION 1	SSMH#1	8,193	--		4,097	4,097	3.0	12,290	12,290	9
EX. BLDG CONNECTION 2	SSMH#2	8,193	--	--	4,097	8,193	3.0	12,290	24,579	17
RESIDENTIAL BLDG CONNECTION 1	SSMH#1	--	--	67	9,380	17,573	4.5	42,210	66,789	46
FLEX BLDG CONNECTION	SSMH#1	--	2,573	--	3,088	20,661	6.0	18,526	85,315	59
EXISTING OFFSITE FLOW CONNECTION	SSMH#3	--	--	--	19,200	39,861	3.0	57,600	142,915	99
Total		16,386	2,573	67	39,861	39,861	--	142,915	142,915	99
Indian School Sewer Service (BLDG AREA B)										
RESIDENTIAL BLDG CONNECTION 2	SSMH#8	--	--	126	17,640	17,640	4.5	79,380	79,380	55
Total		--	--	126	17,640	17,640	--	79,380	79,380	55
North Goldwater Sewer Service (BLDG AREA C)										
RETAIL BLDG CONNECTION 2	EX. SSMH#1	--	6,159	--	7,391	7,391	6.0	44,345	44,345	31
RETAIL BLDG CONNECTION 2, POOL BACKWASH ¹	EX. SSMH#1	--	--	--	--	--	--	144,000	188,345	131
Total		--	6,159	--	7,391	7,391	--	188,345	188,345	131
South Goldwater Sewer Service (BLDG AREA D)										
RETAIL BLDG CONNECTION 1	SSMH#7	--	10,108	--	12,130	12,130	6.0	72,778	72,778	51
RETAIL BLDG CONNECTION 1	SSMH#7	12,016	--	--	6,008	18,138	3.0	18,024	90,802	63
RETAIL BLDG CONNECTION 1	SSMH#7	--	--	39	5,460	23,598	4.5	24,570	115,372	80
Total		12,016	10,108	39	18,138	18,138	--	115,372	115,372	80

1. Pool Backwash estimated at 100 gpm.



TABLE 5
PIPE CAPACITIES

Project 5th & Goldwater
Location Scottsdale AZ
Project Number 245619
Project Engineer Bradon Schield, E.I.T.
References City of Scottsdale Design Standards and Policies Manual (2018)

						PEAK FLOW RESULTS					
FROM NODE	TO NODE	PIPE SIZE	MODELED PIPE SLOPE	PIPE CAPACITY (FULL)		PEAK FLOW	PEAK FLOW	d/D	MEAN VELOCITY (at d/D=0.70)	SURPLUS CAPACITY	PERCENT OF CAPACITY
		(in)	(ft/ft)	(gpd)	(gpm)	(gpd)	(gpm)		(ft/sec)	(gpd)	(%)
5th Avenue Public Sewer Relocation (BLDG AREA A)											
EX. BLDG CONNECTION 1	SSMH#1	6	0.0553	855,238	594	12,290	9	0.08	7.4	842,949	1%
EX. BLDG CONNECTION 2	SSMH#2	6	0.0105	371,825	258	12,290	9	0.13	6.9	359,536	3%
RESIDENTIAL BLDG CONNECTION 1	SSMH#1	6	0.0484	799,792	555	42,210	29	0.16	6.9	757,582	5%
FLEX BLDG CONNECTION	SSMH#1	6	0.0144	436,561	303	18,526	13	0.14	3.8	418,035	4%
SSMH#1	SSMH#2	8	0.0052	564,752	392	85,315	59	0.26	2.8	479,437	15%
SSMH#2	SSMH#3	8	0.0052	564,752	392	142,915	99	0.34	2.8	421,837	25%
SSMH#3	SSMH#4	8	0.0052	564,752	392	142,915	99	0.34	2.8	421,837	25%
SSMH#4	SSMH#5	8	0.0052	564,752	392	142,915	99	0.34	2.8	421,837	25%
SSMH#5	SSMH#6	8	0.0052	564,752	392	142,915	99	0.34	2.8	421,837	25%
Indian School Sewer Service (BLDG AREA B)											
RESIDENTIAL BLDG CONNECTION 2	SSMH#8	8	0.0615	1,942,946	1,349	79,380	55	0.14	9.5	1,863,566	4%
North Goldwater Sewer Service (BLDG AREA C)											
RETAIL BLDG CONNECTION 2	EX. SSMH#1	8	0.0425	1,382,951	960	115,372	80	0.20	7.9	1,267,579	8%
South Goldwater Sewer Service (BLDG AREA D)											
RETAIL BLDG CONNECTION 1	SSMH#7	8	0.0312	1,614,965	1,122	188,345	131	0.23	6.7	1,426,620	12%

APPENDIX B – SEWER MANHOLE FLOW TEST DATA

5th Ave. & Goldwater BLVD. 8in Flow				
Date	Maximum (gpm)	Minimum (gpm)	Average (gpm)	Total (gpm)
Wednesday, November 6, 2024	-	1.58	-	-
Thursday, November 7, 2024	8.85	0	3.91	5607.82
Friday, November 8, 2024	39.85	0	3.9	5558.35
Saturday, November 9, 2024	10.69	1.16	2.47	3560.35
Sunday, November 10, 2024	29.81	1.23	2.84	4085.78
Monday, November 11, 2024	13.24	1.14	2.32	3334.75
Tuesday, November 12, 2024	17.67	1.25	2.75	3965.01
Wednesday, November 13, 2024	16.57	1.54	2.93	4218.77
Thursday, November 14, 2024	5.07	1.73	2.65	3816.64
Friday, November 15, 2024	5.58	1.71	2.75	3957.73
Saturday, November 16, 2024	9.5	1.26	2.54	3653.16
Sunday, November 17, 2024	4.84	1.78	2.82	4060.33
Monday, November 18, 2024	10.15	1.39	2.98	4288.03
Tuesday, November 19, 2024	10.61	1.19	2.79	4020.8
Wednesday, November 20, 2024	6.47	1.5	2.39	3435.46
Thursday, November 21, 2024	7.92	1.55	3.48	-

5th Ave. & Goldwater BLVD. 8in Level (in)			
Date	Maximum	Minimum	Average
Wednesday, November 6, 2024	1.8	0.62	1.17
Thursday, November 7, 2024	1.71	0.8	1.16
Friday, November 8, 2024	1.37	0.55	0.89
Saturday, November 9, 2024	1.32	0.58	0.78
Sunday, November 10, 2024	1.72	0.6	0.91
Monday, November 11, 2024	1.15	0.5	0.77
Tuesday, November 12, 2024	1.32	0.64	0.89
Wednesday, November 13, 2024	1.42	0.43	0.84
Thursday, November 14, 2024	1.13	0.59	0.74
Friday, November 15, 2024	1.01	0.58	0.75
Saturday, November 16, 2024	1.41	0.6	0.77
Sunday, November 17, 2024	1.04	0.64	0.75
Monday, November 18, 2024	1.18	0.59	0.74
Tuesday, November 19, 2024	1.11	0.56	0.75
Wednesday, November 20, 2024	1.57	0.58	0.76
Thursday, November 21, 2024	1.69	0.65	1.16

5th Ave. & Goldwater BLVD. 8in Velocity (fsp)			
Date	Maximum	Minimum	Average
Wednesday, November 6, 2024	1.81	0.26	0.79
Thursday, November 7, 2024	1.07	0	0.28
Friday, November 8, 2024	2.54	0	0.4
Saturday, November 9, 2024	1.1	0.16	0.31
Sunday, November 10, 2024	1.2	0.16	0.28
Monday, November 11, 2024	1.34	0.16	0.29
Tuesday, November 12, 2024	1.61	0.19	0.28
Wednesday, November 13, 2024	0.89	0.21	0.33
Thursday, November 14, 2024	0.58	0.25	0.37
Friday, November 15, 2024	0.53	0.24	0.37
Saturday, November 16, 2024	0.73	0.21	0.33
Sunday, November 17, 2024	0.52	0.24	0.38
Monday, November 18, 2024	1.21	0.22	0.41
Tuesday, November 19, 2024	1.08	0.21	0.37
Wednesday, November 20, 2024	0.92	0.19	0.32
Thursday, November 21, 2024	0.39	0.19	0.25

*Data begins at 7:20 PM on November 6th and ends at 6:10 AM on November 21st.

5th Ave. & Goldwater BLVD. 8in Period Summary: Flow

Measures	Value	Unit	Date	Time
Max.	39.85	gpm	Wednesday, November 6, 2024	7:20 PM
Min.	0	gpm	Thursday, November 21, 2024	6:40 AM
Avg.	4,111.64	gpm		
Total	57,562.98	gal		

5th Ave. & Goldwater BLVD. 8in Period Summary: Level

Measures	Value	Unit	Date	Time
Max.	1.80	in	Wednesday, November 6, 2024	7:20 PM
Min.	0.43	in	Thursday, November 21, 2024	6:40 AM
Avg.	0.86	in		

5th Ave. & Goldwater BLVD. 8in Period Summary: Velocity

Measures	Value	Unit	Date	Time
Max.	2.54	fps	Wednesday, November 6, 2024	7:20 PM
Min.	0	fps	Thursday, November 21, 2024	6:40 AM
Avg.	0.36	fps		

Bradon Schield

From: Daniel Duarte <dduarte@weeci.com>
Sent: Thursday, November 21, 2024 8:58 AM
To: Derek Nichols
Cc: Aaron Morrison; Amy Gamache; Alan Gutierrez; 245619 NWC Indian School & Goldwater
Subject: RE: Sewer Flow Testing Proposal
Attachments: WoodPatel Goldwater and 5th 8in - MinMaxTotal.csv; WoodPatel Goldwater and 5th 8in - Raw Data.csv; Goldwater & 5th Ave Laser Install Form.pdf

Derek,

The raw and summary data are attached. Due to the low flows/velocities at this site, it was common for solids to become stuck in the channel. In some cases, the laser (measuring velocity) was hitting a static solid, which is why you'll see portions of the data with missed or repeating velocity readings. In other cases, the water may have been stagnant or below the LaserFlow sensor's lower velocity measurement limit.

Please let me know if you have any questions.

Thank you,

Daniel Duarte
Western Environmental Equipment
14455 N. 79th Street, Suite A
Scottsdale, AZ 85260
Office: 480-607-2884
Mobile: 310-425-4152

From: Derek Nichols <DNichols@WoodPatel.com>
Sent: Thursday, November 21, 2024 7:45 AM
To: Daniel Duarte <dduarte@weeci.com>
Cc: Aaron Morrison <amorrison@WoodPatel.com>; Amy Gamache <argamache@weeci.com>; Alan Gutierrez <agutierrez@weeci.com>; 245619 NWC Indian School & Goldwater <245619NWCIndianSchool&Goldwater@WoodPatelCE.onmicrosoft.com>
Subject: RE: Sewer Flow Testing Proposal

Excellent.

Please let me know when you anticipate having the results to us.

Thanks,



DEREK NICHOLS, PE | Principal

D: 602.335.8556 dnichols@woodpatel.com
M: 602.647.5374 woodpatel.com

From: Daniel Duarte <dduarte@weeci.com>
Sent: Thursday, November 21, 2024 7:44 AM

Site Name	WoodPatel Goldwater & 5 th Ave 8in	Level Calibration (inches)	
Installed Date	11/6/2024	At Installation	
Site Address/Coordinates	33.49645, -111.93119	Measured	Instrument
Pipe Diameter	8"	.625	.742
Pipe Shape	Round	.625	.665
Traffic Control	☐ Yes ☒ No	.625	.599
Structural Integrity	☒ Good/Safe ☐ Poor ☐ Critical	Level At Removal	
Silt?	☐ Yes ☒ No	Measured	Instrument
	If yes, type/depth: _____	.625	.685
Needs Cleaning	☐ Yes ☒ No	.625	.658
Backwater	☐ Yes ☒ No	.625	.665
Flow Path	☒ Straight ☐ Other _____		
Hydraulic Rating	☒ Good ☐ Fair ☐ Poor		
Equipment	DuraTracker with LaserFlow		
LaserFlow Position	☐ Upstream ☒ Downstream		
Antenna Position	☒ Above ground ☐ Below ground ☐ N/A		



APPENDIX C – SEWER VIDEO INSPECTION

Project Information

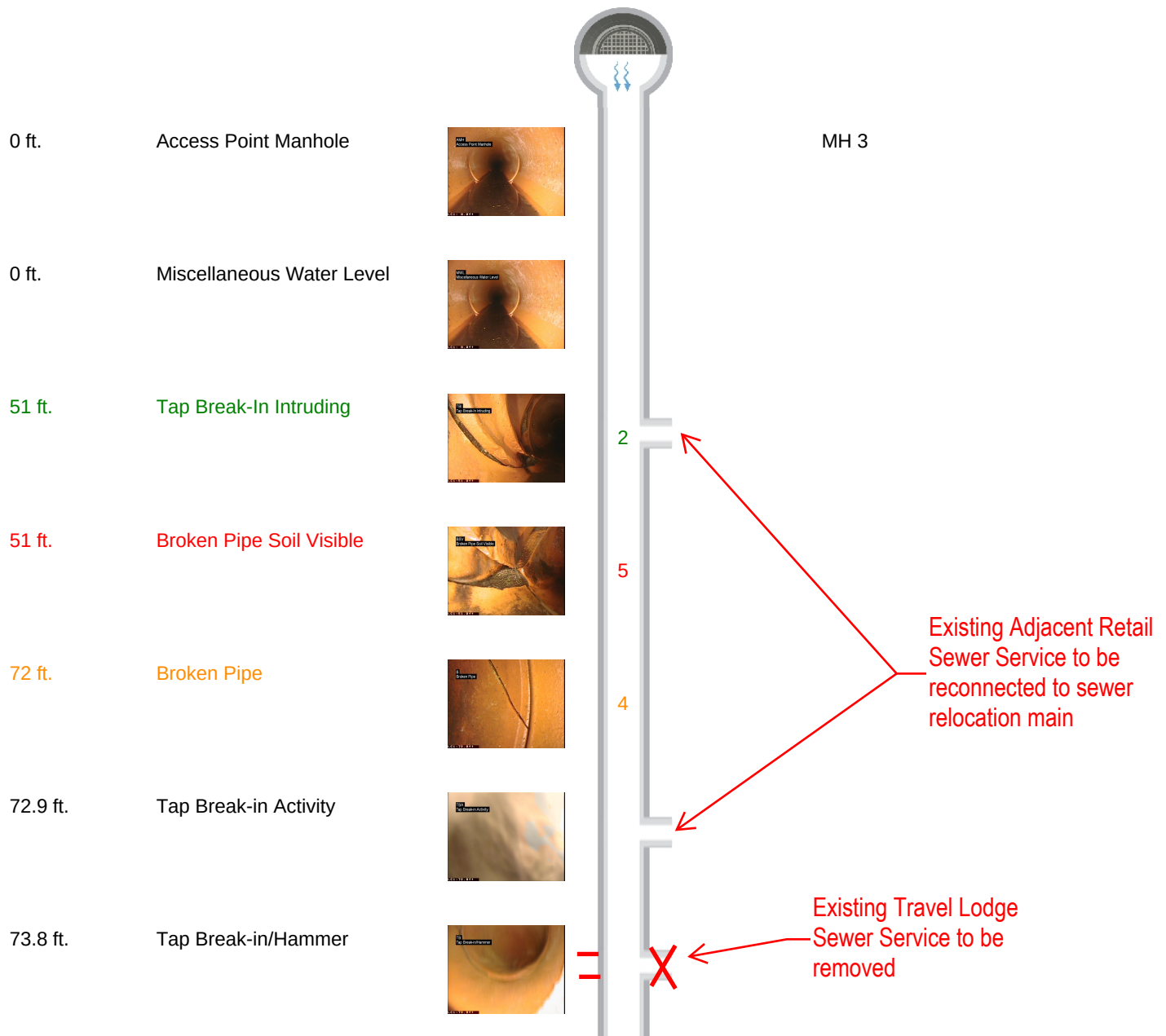
Project Name: ISG LOCATES	Project Number:	Date: 11/1/2024
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Notes:



Defect Listing Plot

Pipe Segment Reference	City SCOTTSDALE	Street E 5TH AVE & GOLDWATER	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH MH 3	Total Length	Year Constructed	Shape Circular		Location Details	
Downstream MH MH 2	Length surveyed 558.9	Year Renewed	Height 10	Width	Pipe Joint Length	
SPR 15	MPR 2	PO Number		Customer		
SPRI 3.8	MPRI 2	Work Order Number		Purpose		
QSR 5141	QMR 2100					
OPR 17	Surveyed By ClayM	Direction Downstream	Date 11/01/2024		Media label	
OPRI 3.4	Certificate Number U0419070305240	Pre-Cleaning Light Cleaning	Time 07:42		Weather	
Date Cleaned 11/01/2024			End Time 08:10		Additional Info	

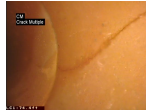




Defect Listing Plot

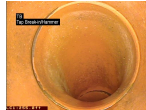
Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
Upstream MH MH 3	SCOTTSDALE	E 5TH AVE & GOLDWATER	Vitrified Clay Pipe			Sanitary Sewage Pipe
	Total Length	Year Constructed	Shape Circular		Location Details	
Downstream MH MH 2	Length surveyed 558.9	Year Renewed	Height 10	Width	Pipe Joint Length	

74.4 ft. Crack Multiple



3

255 ft. Tap Break-in/Hammer



419.7 ft. Tap Break-in/Hammer



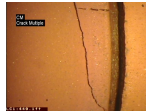
ROOT INTRUSION

447 ft. Tap Factory Made



Existing onsite sewer services to be removed

449.1 ft. Crack Multiple



3

558.9 ft. Access Point Manhole



MH 2



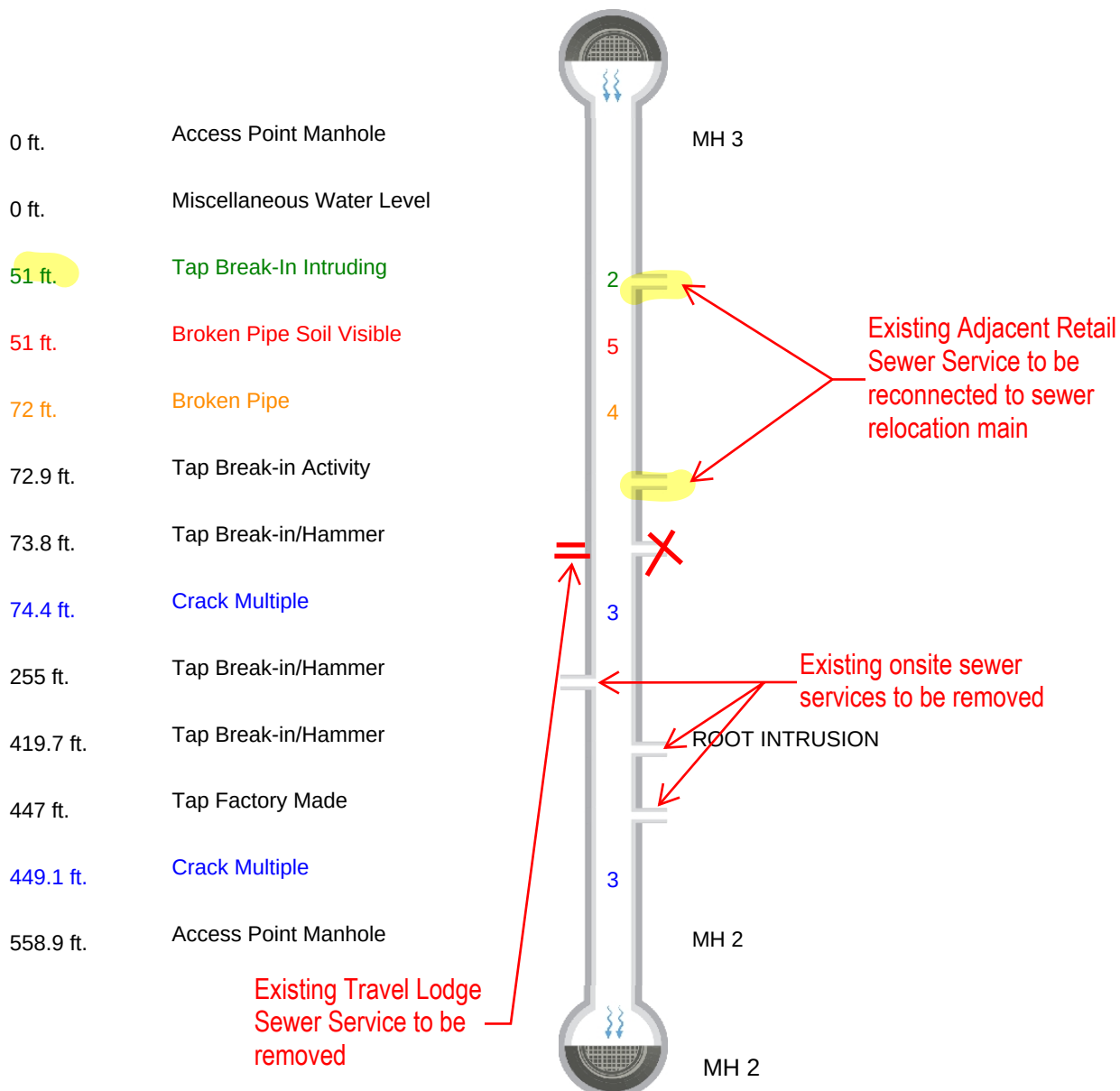
MH 2



Defect Listing Plot

Pipe Segment Reference	City	Street	Material	Location Code	Pipe Use
Upstream MH MH 3	SCOTTSDALE	E 5TH AVE & GOLDWATER	Vitrified Clay Pipe		Sanitary Sewage Pipe
Downstream MH MH 2	Total Length	Year Constructed	Shape Circular	Location Details	
	Length surveyed 558.9	Year Renewed	Height 10	Width	Pipe Joint Length

SPR 15	MPR 2	PO Number		Customer	
SPRI 3.8	MPRI 2	Work Order Number		Purpose	
QSR 5141	QMR 2100				
OPR 17	Surveyed By ClayM	Direction Downstream	Date 11/01/2024	Media label	
OPRI 3.4	Certificate Number U0419070305240	Pre-Cleaning Light Cleaning	Time 07:42	Weather	
Date Cleaned 11/01/2024			End Time 08:10	Additional Info	





Defect Listing

Pipe Segment Reference	City SCOTTSDALE	Street E 5TH AVE & GOLDWATER	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH MH 3	Total Length	Year Constructed	Shape Circular		Location Details	
Downstream MH MH 2	Length surveyed 558.9	Year Renewed	Height 10	Width	Pipe Joint Length	

SPR 15	MPR 2	PO Number		Customer		
SPRI 3.8	MPRI 2	Work Order Number		Purpose		
QSR 5141	QMR 2100					
OPR 17	Surveyed By ClayM	Direction Downstream	Date 11/01/2024		Media label	
OPRI 3.4	Certificate Number U0419070305240	Pre-Cleaning Light Cleaning	Time 07:42		Weather	
Date Cleaned 11/01/2024			End Time 08:10		Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	Access Point Manhole					☐			
Remarks: MH 3									
0	Miscellaneous Water Level				10	☐			
51	Tap Break-In Intruding		4	1		☐	10		2
51	Broken Pipe Soil Visible					☐	6	7	5
72	Broken Pipe					☐	12	3	4
72.9	Tap Break-in Activity		4			☐	12		
73.8	Tap Break-in/Hammer		4			☐	12		
74.4	Crack Multiple					☐	11	1	3
255	Tap Break-in/Hammer		4			☐	1		
419.7	Tap Break-in/Hammer		4			☐	11		
Remarks: ROOT INTRUSION									
447	Tap Factory Made		4			☐	12		
449.1	Crack Multiple					☐	10	2	3
558.9	Access Point Manhole					☐			
Remarks: MH 2									

APPENDIX D – 5th & GOLDWATER PRELIMINARY IMPROVEMENT PLAN

5TH & GOLDWATER
PRELIMINARY IMPROVEMENT PLAN
SCOTTSDALE, ARIZONA
A PORTION OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 4 EAST
OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA

OWNER / DEVELOPER

WOOD PARTNERS
8777 EAST VIA DE VENTURA, SUITE 201
SCOTTSDALE, ARIZONA 85258
CONTACT: TODD TAYLOR
PHONE: (480) 567-0069

ENGINEER

WOOD, PATEL & ASSOCIATES, INC.
2051 WEST NORTHERN AVENUE, SUITE 100
PHOENIX, ARIZONA 85021
CONTACT: DEREK C. NICHOLS, PE
PHONE: (602) 335-8500

ARCHITECT

NELSEN PARTNERS
15210 NORTH SCOTTSDALE ROAD
SUITE 300
SCOTTSDALE, ARIZONA 85254
CONTACT: JEFF BRAND
PHONE: (480) 949-6800

PROJECT SITE DATA

ASSESSOR PARCEL NUMBER(S):
173-48-055E, 173-48-056A, 173-48-047A,
173-48-047D, 173-48-050A
PROJECT SITE ADDRESS:
NWC INDIAN SCHOOL RD AND GOLDWATER BLVD
SCOTTSDALE, ARIZONA 85251
PROJECT SITE AREA(S):
NET AREA = 4.82 AC
DISTURBED AREA = 4.8± AC
ZONING:
D/OC-2 PBD DO (COS 12-ZN-2007)

PUBLIC UTILITIES

WATER CITY OF SCOTTSDALE
SEWER CITY OF SCOTTSDALE
ELECTRIC ARIZONA PUBLIC SERVICE
TELEPHONE LUMEN
NATURAL GAS SOUTHWEST GAS
CABLE TV COX COMMUNICATIONS

BENCHMARK

THE VERTICAL DATUM FOR THIS SURVEY IS BASED ON A 3-INCH
CITY OF SCOTTSDALE BRASS CAP IN HANDHOLE, LOCATED AT
THE INTERSECTION OF SCOTTSDALE ROAD AND INDIAN SCHOOL
ROAD, HAVING AN ELEVATION OF 1260.37, CITY OF SCOTTSDALE
NAVD 88 DATUM.
BRASS CAP IN HANDHOLE AT THE
EAST 1/4 COR. SEC. 27
MCDOT POINT #3892
GDACS 40089012
EL.=1260.37 NAVD '88

BENCHMARK CERTIFICATION STATEMENT

I HEREBY CERTIFY THAT ALL ELEVATIONS REPRESENTED
ON THIS PLAN ARE BASED ON NAVD 1988 AND MEET THE
FEMA BENCHMARK MAINTENANCE (BMM) CRITERIA.

BASIS OF BEARING

THE HORIZONTAL DATUM FOR THIS SURVEY IS BASED ON
INFORMATION OBTAINED FROM OPUS (ON-LINE POSITIONING USER
SERVICE) PROVIDED BY THE NATIONAL GEODETIC SURVEY (NGS)
WEBSITE WWW.NGS.NOAA.GOV. FOR OPUS SOLUTION 05072240.240
OP1724779219506 ON AUGUST 27, 2024.

PROJECTION: ARIZONA CENTRAL ZONE, NAD 83,
(EPOCH 2010)
DATUM: GRS-80
UNITS: INTERNATIONAL FEET
GEOID MODEL: GEOID 2018

LATITUDE: 33°29'43.83632"N
LONGITUDE: 111°55'52.97786"W
ELLIPSOID HEIGHT: 357.465 (METERS)
DESCRIPTION: WOODPATEL CONTROL POINT 100 -
SET 1/2-INCH REBAR WITH TRAVERSE CAP

MODIFIED TO GROUND AT (GRID) N: 907816.965, E: 695513.817, USING
A SCALE FACTOR OF 1.0001561118.

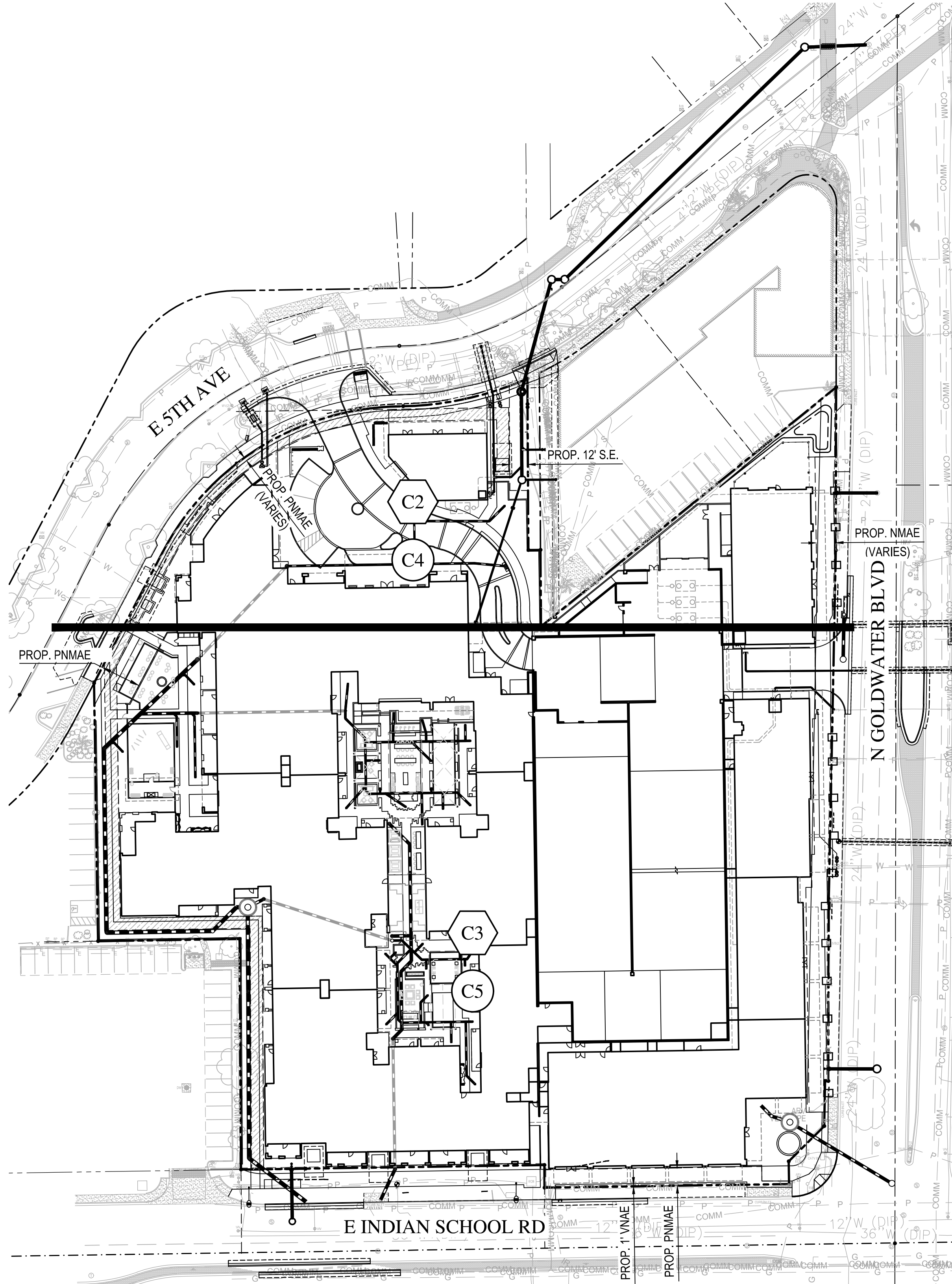
HORIZONTAL ADJUSTMENT: NONE
HORIZONTAL ROTATION: NONE

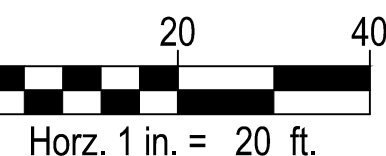
ABBREVIATIONS

AL	AREA LIGHT	MIN	MINIMUM
BB	BOTTOM OF BANK	N.T.S.	NOT TO SCALE
C	CONCRETE ELEVATION	NG	NATURAL GRADE
CB	CATCH BASIN	P	PAVEMENT ELEVATION
COS	CITY OF SCOTTSDALE	PL	PARKING LIGHT
CTR	CABLE TV RISER	PNMAE	NON-MOTORIZED ACCESS EASEMENT
CTV	CABLE TV	RD	ROOF DRAIN
DW	DRYWELL	RIM	RIM ELEVATION
E.S.V.A.E.	EMERGENCY VEHICLE ACCESS EASEMENT	S	SLOPE
ECB	ELECTRICAL CABINET BOX	SCO	SEWER CLEANOUT
EJB	ELECTRICAL JUNCTION BOX	SD	STORM DRAIN
EO	ELECTRICAL OUTLET	SE	SEWER EASEMENT
EVT	ELECTRICAL VAULT	SL	STREET LIGHT
EX	EXISTING	SLM	STREET LIGHT MAST ARM
FF	FINISH FLOOR	SS	SANITARY SEWER
FG	FINISH GRADE	STD	STANDARD
FH	FIRE HYDRANT	TB	TOP OF BANK
FL	FLOWLINE	TC	TOP OF CURB
G	GUTTER ELEVATION	TF	TOP OF FOOTING
GB	GRADE BREAK	TW	TOP OF WALL
GR	GAS REGULATOR	U.E.	UTILITY EASEMENT
IJB	IRRIGATION JUNCTION BOX	UG	UNDERGROUND
INV	INVERT	VNAE	VEHICLE NON-ACCESS EASEMENT
IRR	IRRIGATION	W.I.	WROUGHT IRON
IV	IRRIGATION VALVE	WF	WIRE FENCE
IVB	IRRIGATION VALVE BOX	WM	WATER METER
LF	LENIER FEET	WV	WATER VALVE
LFF	LOWEST FINISH FLOOR		

INDEX MAP LEGEND

CX GRADING & DRAINAGE
CX WATER & SEWER





Horz. 1 in. = 20 ft.

WOOD
PATEL

Wood, Patel & Associates, Inc.
Civil Engineering
Water Resources
Land Survey
Construction Management
602.335.8500
www.woodpatel.com

Contact Arizona 811 at least two full working days before you begin excavations.

ARIZONA811

Call 811 or click Arizona811.com

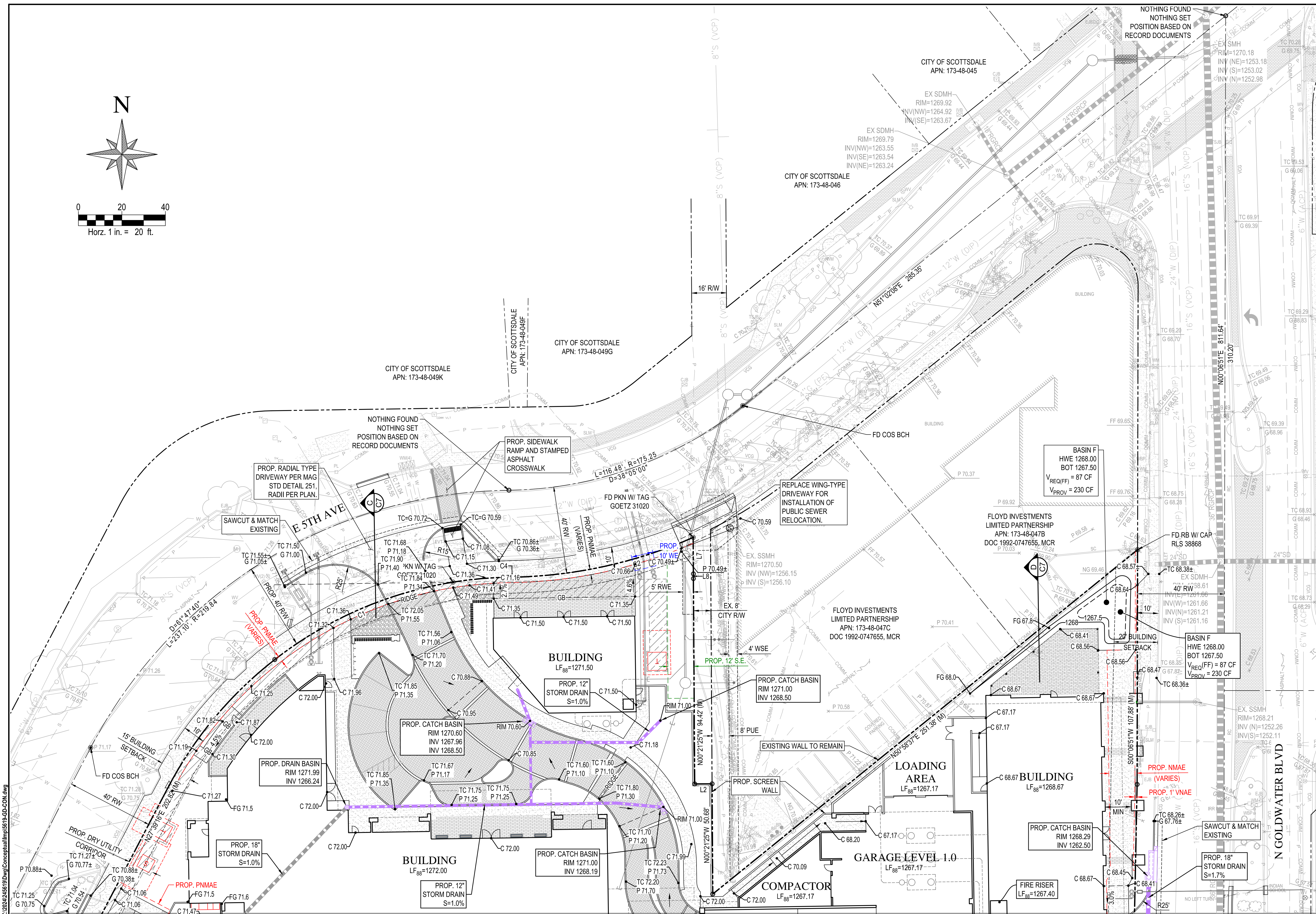
5TH & GOLDWATER
PRELIMINARY IMPROVEMENT PLAN
SCOTTSDALE, ARIZONA
PRELIMINARY GRADING AND DRAINAGE PLAN

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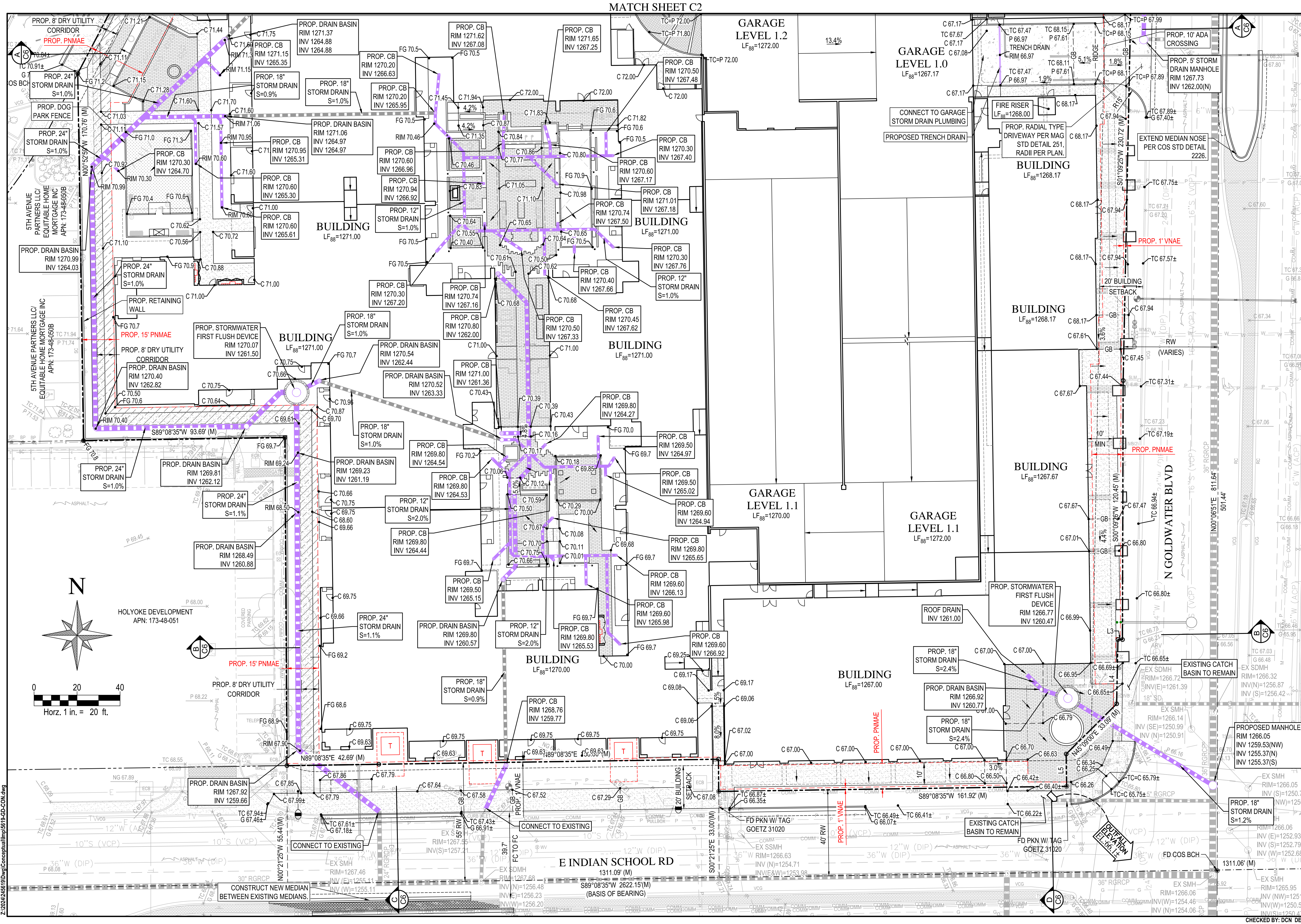
Registered Professional Engineer (Civil)
 CERTIFICATE NO.
 61601
 DEREK C.
 NICHOLS
 DATE SIGNED 08/05/2023
 ARIZONA
 EXPIRES 03-31-28

SCALE (HORIZ.)	1" = 2'
SCALE (VERT.)	N
DATE	09/05/20
JOB NUMBER	2456
SHEET	
C2	OF

CHECKED BY: DCN DESIGNED BY: APM DRAFTED BY: JR



MATCH SHEET C3



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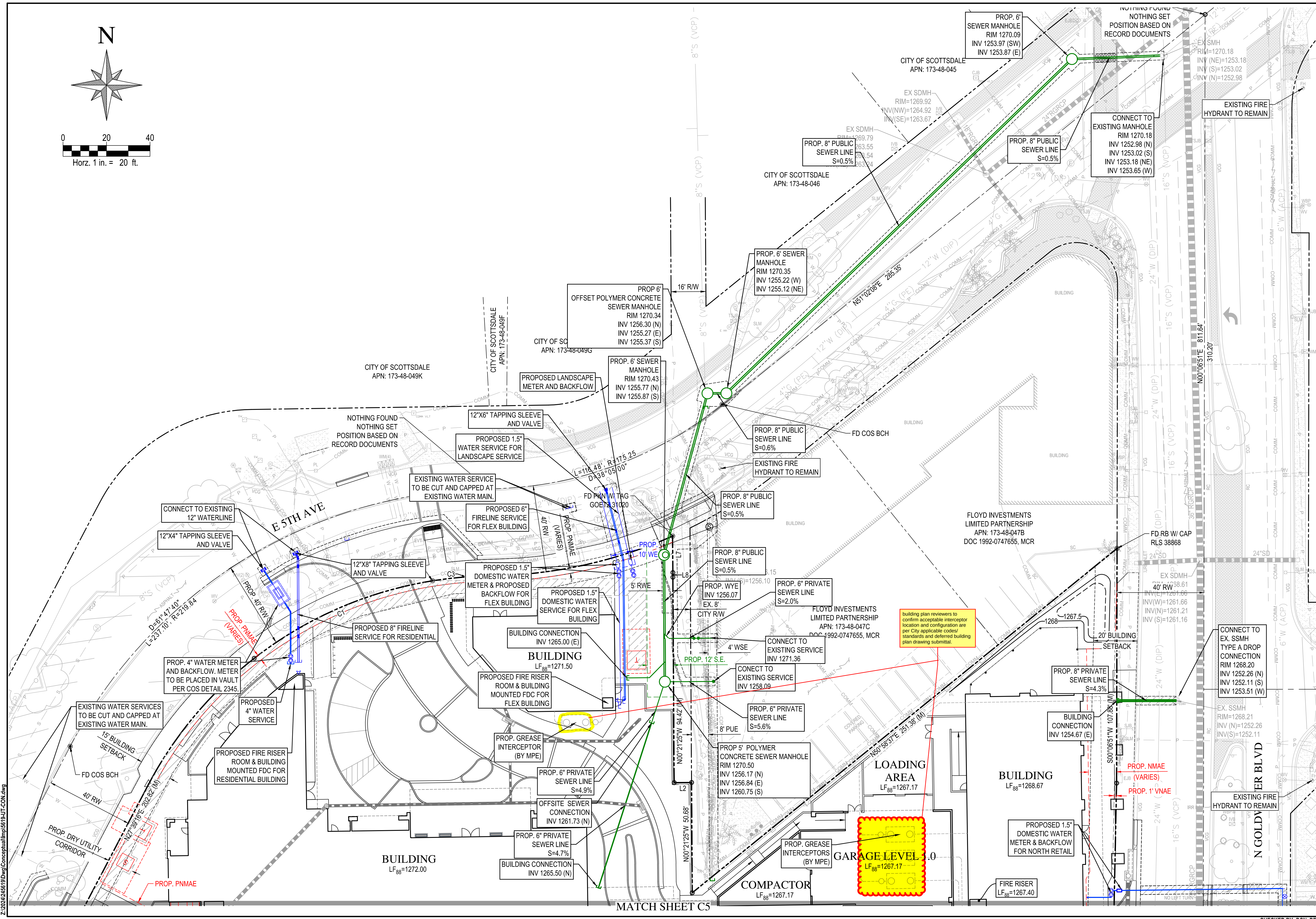
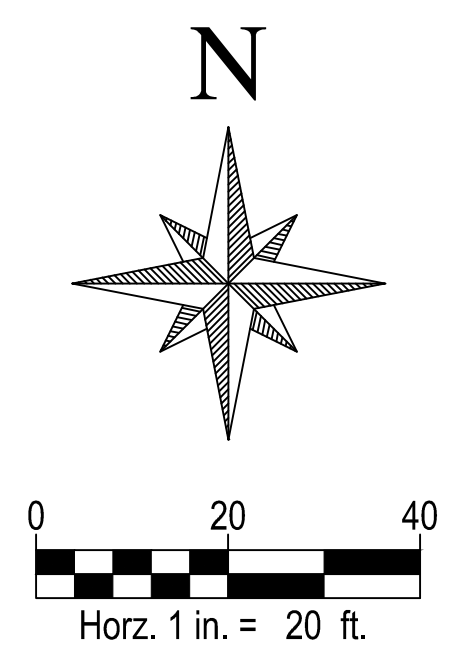


5TH & GOLDWATER
PRELIMINARY IMPROVEMENT PLAN
SCOTTSDALE, ARIZONA
PRELIMINARY GRADING AND DRAINAGE PLAN

REV	DATE	DESCRIPTION

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SCALE (VERT.) N/A
DATE 09/05/2025
JOB NUMBER 245619
SHEET C3 OF 7
CHECKED BY: DCN DESIGNED BY: APM DRAFTED BY: JRS

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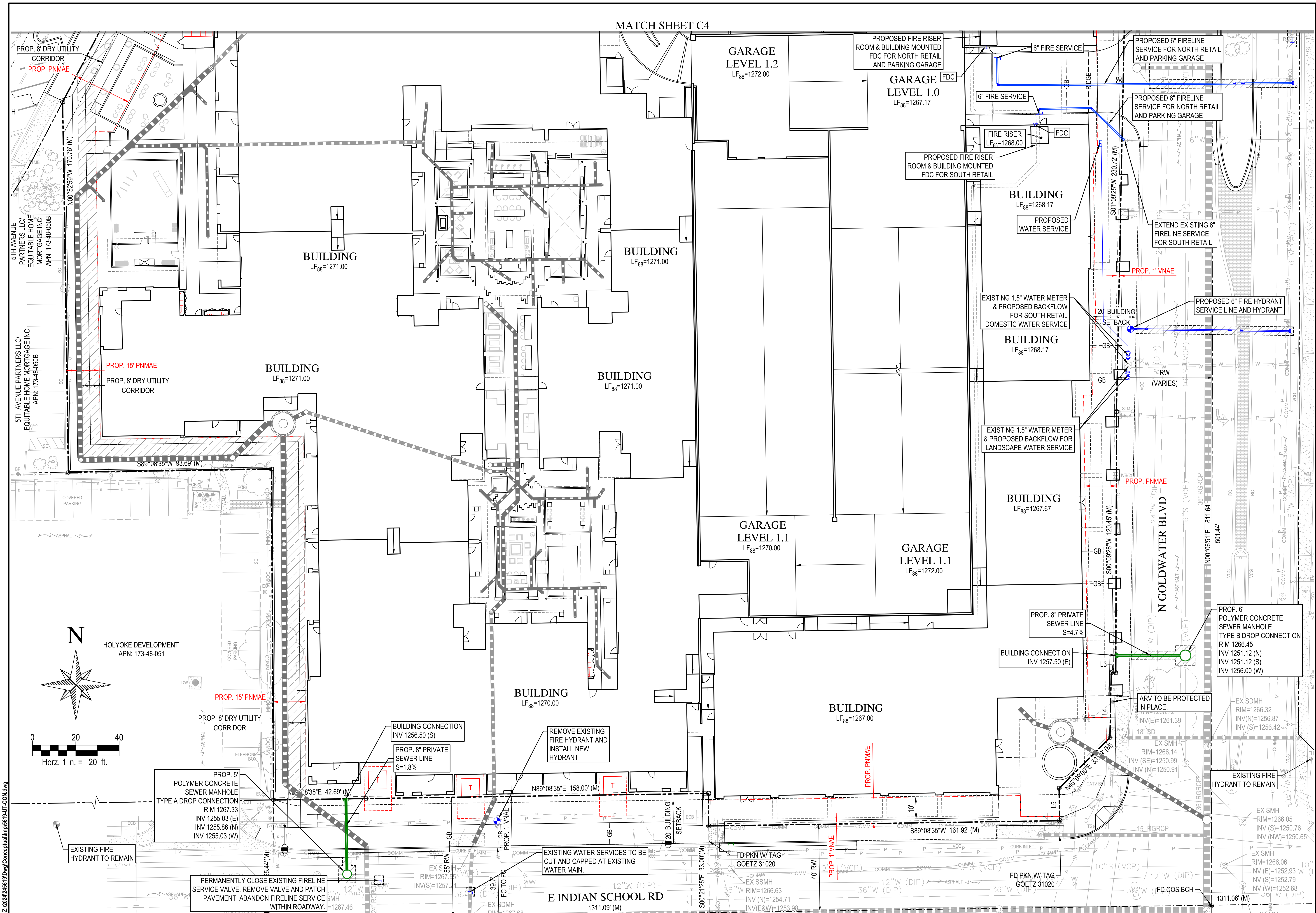
5TH & GOLDWATER
PRELIMINARY IMPROVEMENT PLAN
SCOTTSDALE, ARIZONA
PRELIMINARY WATER AND SEWER PLAN

DATE	
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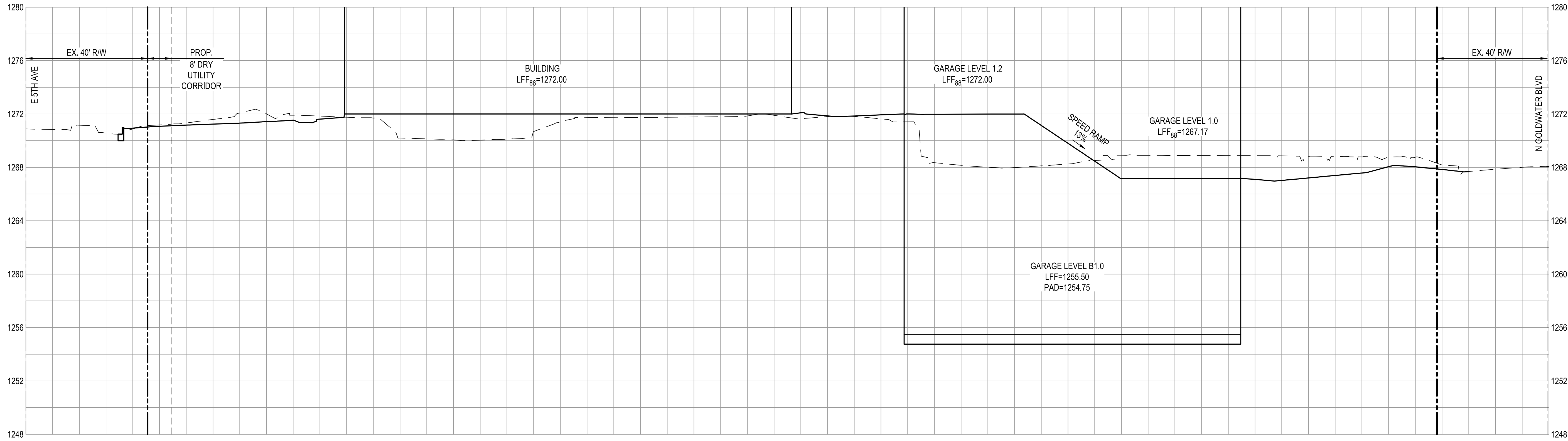
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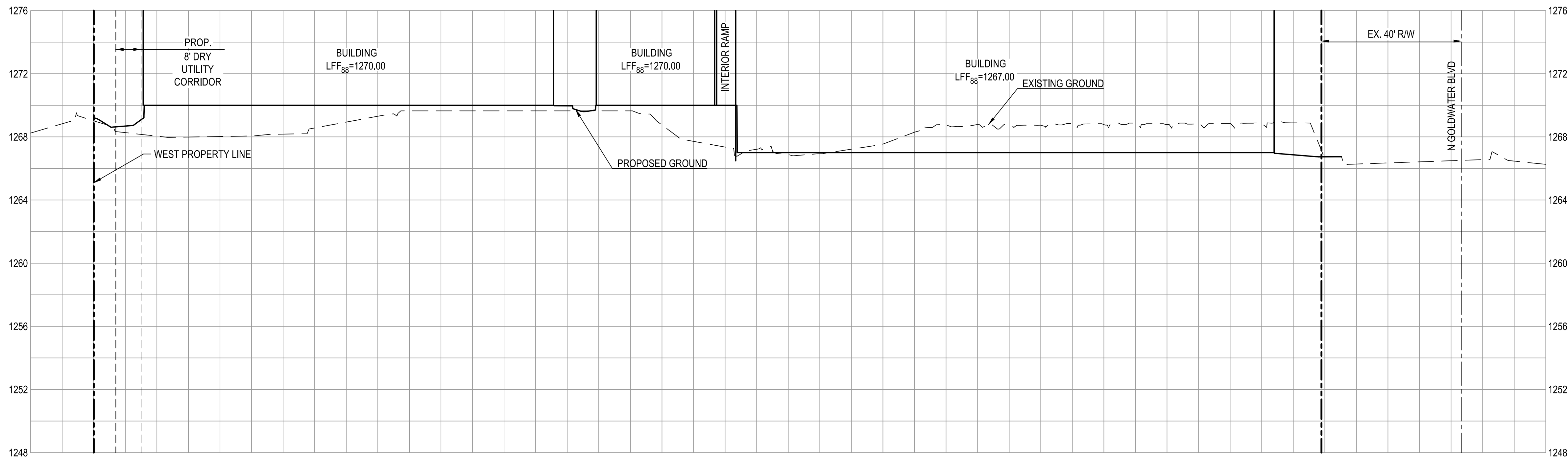


5TH & GOLDWATER
PRELIMINARY IMPROVEMENT PLAN
SCOTTSDALE, ARIZONA
PRELIMINARY WATER AND SEWER PLAN

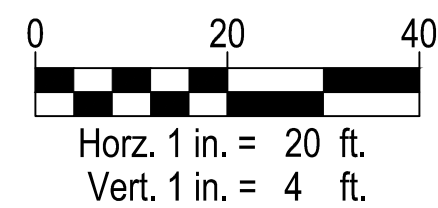
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SECTION 'A'



SECTION 'B'

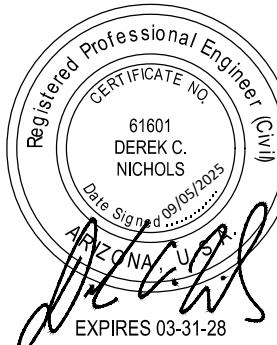


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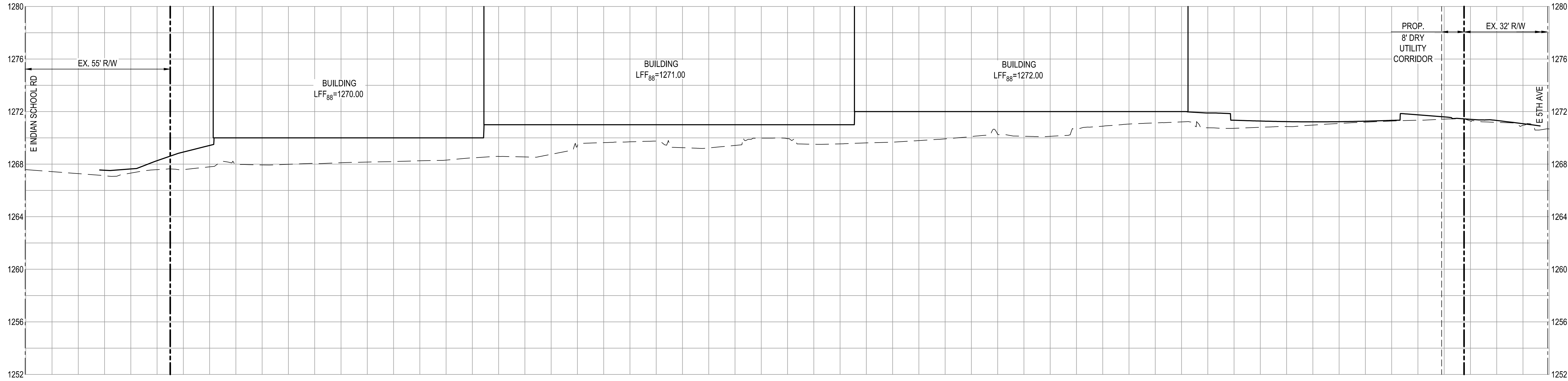
5TH & GOLDWATER
PRELIMINARY IMPROVEMENT PLAN
SCOTTSDALE, ARIZONA
PRELIMINARY SECTIONS

REV	DESCRIPTION	DATE

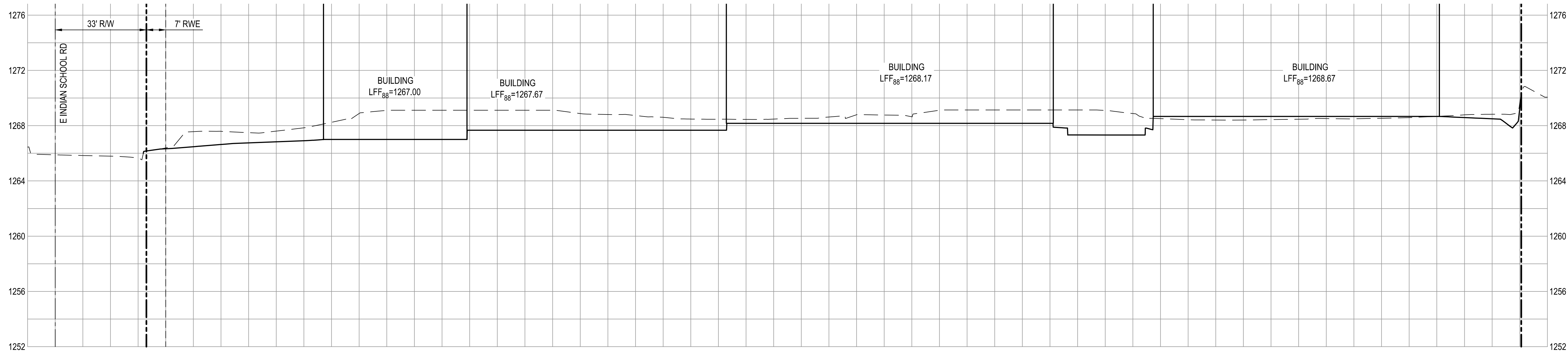


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SCALE (VERT.) 1" = 4'
DATE 09/05/2025
JOB NUMBER 245619
SHEET C6 OF 7

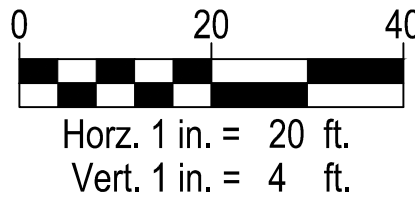
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SECTION 'C'



SECTION 'D'



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5TH & GOLDWATER
PRELIMINARY IMPROVEMENT PLAN
SCOTTSDALE, ARIZONA
PRELIMINARY SECTIONS

REV	DESCRIPTION	DATE



SCALE (HORIZ.) 1" = 20'
SCALE (VERT.) 1" = 4'
DATE 09/05/2025
JOB NUMBER 245619
SHEET C7 OF 7

APPENDIX E – APPROVED 5TH & GOLDWATER PUBLIC SEWER RELOCATION PLAN

ENGINEER'S NOTES

- MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION INCLUDING LATEST REVISION AND CURRENT SUPPLEMENTALS THEREOF PER THE LOCAL TOWN OR CITY) ARE INCORPORATED INTO THIS PLAN IN THEIR ENTIRETY.
- ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THIS PLAN SHALL BE IN ACCORDANCE WITH THE M.A.G. STANDARD SPECIFICATIONS AND DETAILS AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL CITY OR TOWN UNLESS SPECIFIED OTHERWISE IN THESE PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH ALL REQUIRED STANDARD SPECIFICATIONS, DETAILS AND SUPPLEMENTS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, SEQUENCING, AND SAFETY CONCERNS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION, UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THIS PLAN OR ELSEWHERE IN THE CONTRACT.
- THE CONTRACTOR IS TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION COVERED BY THIS PLAN.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
- THE QUANTITIES AND SITE CONDITIONS DEPICTED IN THESE PLANS ARE FOR GENERAL INFORMATIONAL PURPOSES ONLY AND MIGHT NOT REFLECT ACTUAL QUANTITIES AND SITE CONDITIONS. CONTRACTORS SHALL SATISFY THEMSELVES AS TO ACTUAL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
- A REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND/OR FACILITIES CAUSED DURING THEIR CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL CALL 48 HOURS IN ADVANCE FOR BLUE STAKE (1-800-STAKE-IT) PRIOR TO ANY EXCAVATION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK.
- ALL PAVING, GRADING, EXCAVATION, TRENCHING, PIPE BEDDING, CUT FILL AND BACKFILL SHALL COMPLY WITH THE RECOMMENDATIONS SET FORTH IN THE SOILS (GEOTECHNICAL) REPORT FOR THIS PROJECT IN ADDITION TO THE REFERENCED REQUIRED SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL BE AWARE THAT CERTAIN UTILITIES REQUIRE PROPER ATTENTION AND CAREFUL PLANNING DURING SITE CONSTRUCTION. PLEASE NOTE THAT UTILITIES ON THESE PLANS MAY NOT EXHIBIT THE FULL PROTECTIVE COVER REQUIRED DURING THE SUBGRADE PREPARATION PHASE OF THE CONSTRUCTION. IN SUCH INSTANCES, THE CONTRACTOR SHALL PROVIDE ADDITIONAL PROTECTION (SUCH AS RAMMING) OR INCREASED PIPE STRENGTH TO PROVIDE THE NECESSARY PROTECTION REQUIRED TO PREVENT DAMAGE DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL HOLD THE ENGINEER HARMLESS IN ALL CASES FOR DAMAGES TO UTILITIES WHERE INADEQUATE PROTECTIVE MEASURES OCCUR.
- THE CONTRACTOR IS TO VERIFY THE LOCATION AND THE ELEVATIONS OF ALL EXISTING UTILITIES AT POINTS OF TIE-IN PRIOR TO COMMENCING ANY NEW CONSTRUCTION. SHOULD ANY LOCATION OR ELEVATION DIFFER FROM THAT SHOWN ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE OWNER'S AGENT.
- CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND SITE LAYOUT WITH ARCHITECT'S FINAL SITE PLAN AND FINAL BUILDING DIMENSIONS BEFORE STARTING WORK. REPORT DISCREPANCIES TO OWNER'S AGENT.
- COORDINATION BETWEEN ALL PARTIES IS ESSENTIAL PART OF CONTRACT.
- CONTRACTOR IS RESPONSIBLE FOR PROJECT AND SITE CONDITIONS, AND TO WORK WITH WEATHER CONDITIONS AS THE PROJECT SITE MAY BE LOCATED IN A FLOOD PRONE AREA AND SUBJECT TO FLOODING AND ITS HAZARDS.
- THE CONTRACTOR IS TO VERIFY THE LOCATION, ELEVATION, CONDITION, AND PAVEMENT CROSS-SLOPE OF ALL EXISTING SURFACES AT POINTS OF TIE-IN AND MATCHING, PRIOR TO COMMENCEMENT OF GRADING, PAVING, CURB AND GUTTER, OR OTHER SURFACE CONSTRUCTION. SHOULD EXISTING LOCATIONS, ELEVATIONS, CONDITION, OR PAVEMENT CROSS-SLOPE DIFFER FROM THAT SHOWN ON THESE PLANS, RESULTING IN THE DESIGN INTENT REFLECTED ON THESE PLANS NOT ABLE TO BE CONSTRUCTED, THE CONTRACTOR SHALL NOTIFY THE OWNER'S AGENT IMMEDIATELY FOR DIRECTION ON HOW TO PROCEED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR ALL COSTS ASSOCIATED WITH CORRECTIVE ACTION IF THESE PROCEDURES ARE NOT FOLLOWED.
- CONTRACTOR IS RESPONSIBLE TO COORDINATE UTILITY CROSSINGS AT CULVERT CROSSINGS BEFORE STARTING WORK ON CULVERT. COORDINATE WITH OWNER REPRESENTATIVE. VERIFY UTILITY LINES AND/OR CONDUITS ARE IN PLACE BEFORE STARTING CULVERT WORK.
- CONSTRUCT RETENTION BASIN AS SHOWN. CONTRACTOR TO SCARIFY BOTTOM OF BASIN TWO FEET DEEP AND NOT ALLOW COMPACTION OVER 80%.
- THIS PROJECT REQUIRES A REGULAR ONGOING MAINTENANCE PROGRAM FOR THE DESIGNED DRAINAGE SYSTEM(S) TO PRESERVE THE DESIGN INTEGRITY AND THE ABILITY TO PERFORM ITS OPERATIONAL INTENT. FAILURE TO PROVIDE MAINTENANCE WILL JEOPARDIZE THE DRAINAGE SYSTEM(S) PERFORMANCE AND MAY LEAD TO ITS INABILITY TO PERFORM PROPERLY AND/OR CAUSE DAMAGE ELSEWHERE IN THE PROJECT.
- SEWER LINES DESIGNED IN PROFILE AND PUBLIC WATER LINES ARE REQUIRED TO BE ASBUILT AND THE INSTALLATION AND TESTING WITNESSED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH ARIZONA ADMINISTRATIVE CODES R18-3-E301 "4.01 GENERAL PERMIT: SEWAGE COLLECTIONS SYSTEMS" AND R18-5-507 AND 508 "APPROVAL OF CONSTRUCTION" AND "RECORD DRAWINGS", RESPECTIVELY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY OWNER 72 HOURS IN ADVANCE WHEN THOSE SYSTEMS ARE READY TO BE WITNESSED.
- THE WORK PRODUCT PRESENTED IS BELIEVED TO BE COMPLIANT WITH THE INTENT OF THE CURRENT AMERICANS DISABILITIES ACT (ADA) REQUIREMENTS AS INTERPRETED BY THE REVIEWING AGENCY(S). IF CONSTRUCTION OF THE PROJECT IS DELAYED, THIS WORK PRODUCT SHOULD BE UPDATED TO ACCOUNT FOR ANY RELEVANT ADA UPDATES BEFORE CONSTRUCTION BEGINS.
- LOWEST FLOOR (LF) REFERS TO EITHER FLOOR/SLAB ELEVATION OR TOP OF BASEMENT SLAB. LF ELEVATIONS ON THE GRADING AND DRAINAGE PLANS FOR RESIDENTIAL UNITS REFLECT SLAB ON GRADE CONDITIONS AND CANNOT BE LOWERED WITHOUT AGENCY APPROVAL IN LOCATIONS WHERE 'SPECIAL FLOOD HAZARD AREAS' EXIST. IN NON-FLOOD HAZARD LOCATIONS, TO ENSURE THAT ADEQUATE RESIDENTIAL LOT DRAINAGE CAN BE ACHIEVED, A PROFESSIONAL ENGINEER SHOULD BE CONSULTED IF THE LF FOR THE SLAB IS PROPOSED TO BE LOWERED, OR IF A BASEMENT IS TO BE CONSTRUCTED.

5TH & GOLDWATER
PUBLIC SEWER RELOCATION PLAN
SCOTTSDALE, ARIZONA
A PORTION OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 4 EAST
OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA

CITY OF SCOTTSDALE NOTES

GENERAL NOTES FOR PUBLIC WORKS CONSTRUCTION

- ALL CONSTRUCTION IN THE PUBLIC RIGHTS-OF-WAY OR IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO THE LATEST MAG UNIFORM STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION AS AMENDED BY THE LATEST VERSION OF THE CITY OF SCOTTSDALE SUPPLEMENTAL STANDARD SPECIFICATIONS AND SUPPLEMENTAL STANDARD DETAILS. IF THERE IS A CONFLICT, THE CITY'S SUPPLEMENTAL STANDARD DETAILS WILL GOVERN.
- THE CITY ONLY APPROVES THE SCOPE, NOT THE DETAIL, OF ENGINEERING DESIGNS; THEREFORE, IF CONSTRUCTION QUANTITIES ARE SHOWN ON THESE PLANS, THEY ARE NOT VERIFIED BY THE CITY. THE APPROVAL OF PLANS IS VALID FOR SIX (6) MONTHS. IF A RIGHT-OF-WAY PERMIT FOR THE CONSTRUCTION HAS NOT BEEN ISSUED WITHIN THIS TIME FRAME, THE PLANS MUST BE RESUBMITTED TO THE CITY FOR REAPPROVAL.
- THE APPROVAL OF PLANS IS VALID FOR SIX (6) MONTHS. IF A RIGHT-OF-WAY PERMIT FOR THE CONSTRUCTION HAS NOT BEEN ISSUED WITHIN SIX MONTHS, THE PLANS MUST BE RESUBMITTED TO THE CITY FOR REAPPROVAL.
- A PUBLIC WORKS INSPECTOR WILL INSPECT ALL WORKS WITHIN THE CITY RIGHTS-OF-WAY AND IN EASEMENTS. NOTIFY INSPECTION SERVICES 24 HOURS PRIOR TO BEGINNING CONSTRUCTION BY CALLING 480-312-5750.
- WHENEVER EXCAVATION IS NECESSARY, CALL THE BLUE STAKE CENTER, 811, TWO WORKING DAYS BEFORE EXCAVATION BEGINS. THE CENTER WILL SEE THAT THE LOCATION OF THE UNDERGROUND UTILITY LINES IS IDENTIFIED FOR THE PROJECT.
- RIGHT-OF-WAY PERMITS ARE REQUIRED FOR ALL WORK IN PUBLIC RIGHTS-OF-WAY AND EASEMENTS GRANTED FOR PUBLIC PURPOSES. A RIGHT-OF-WAY PERMIT WILL BE ISSUED BY THE CITY ONLY AFTER THE REGISTRANT HAS PAID A BASE FEE PLUS A FEE FOR INSPECTION SERVICES. COPIES OF ALL PERMITS MUST BE RETAINED ON-SITE AND BE AVAILABLE FOR INSPECTION AT ALL TIMES. FAILURE TO PRODUCE THE REQUIRED PERMITS WILL RESULT IN IMMEDIATE SUSPENSION OF ALL WORK UNTIL THE PROPER PERMIT DOCUMENTATION IS OBTAINED.
- ALL EXCAVATION AND GRADING THAT IS NOT IN THE PUBLIC RIGHTS-OF-WAY OR NOT IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO APPENDIX J, GRADING, OF THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE. A PERMIT FOR THIS GRADING MUST BE SECURED FROM THE CITY FOR A FEE ESTABLISHED BY THE CITY.

PARCEL DESCRIPTION

PLEASE REFER TO SHEET PS2 FOR PARCEL DESCRIPTION.

LEGEND

PLEASE REFER TO SHEET PS2 FOR LEGEND AND LIST OF ABBREVIATIONS.

QUANTITIES

PLEASE REFER TO SHEET PS2 FOR ESTIMATED QUANTITIES.

ENGINEER'S CERTIFICATION

ENGINEER'S CERTIFICATION: THE LOWEST FLOOR ELEVATION(S) AND/OR FLOOD PROOFING ELEVATION(S) ON THIS PLAN ARE SUFFICIENTLY HIGH TO PROVIDE PROTECTION FROM FLOODING CAUSED BY A ONE HUNDRED YEAR STORM, AND ARE IN ACCORDANCE WITH CITY OF SCOTTSDALE REVISED CODE, CHAPTER 37-FLOODPLAIN AND STORMWATER REGULATIONS.

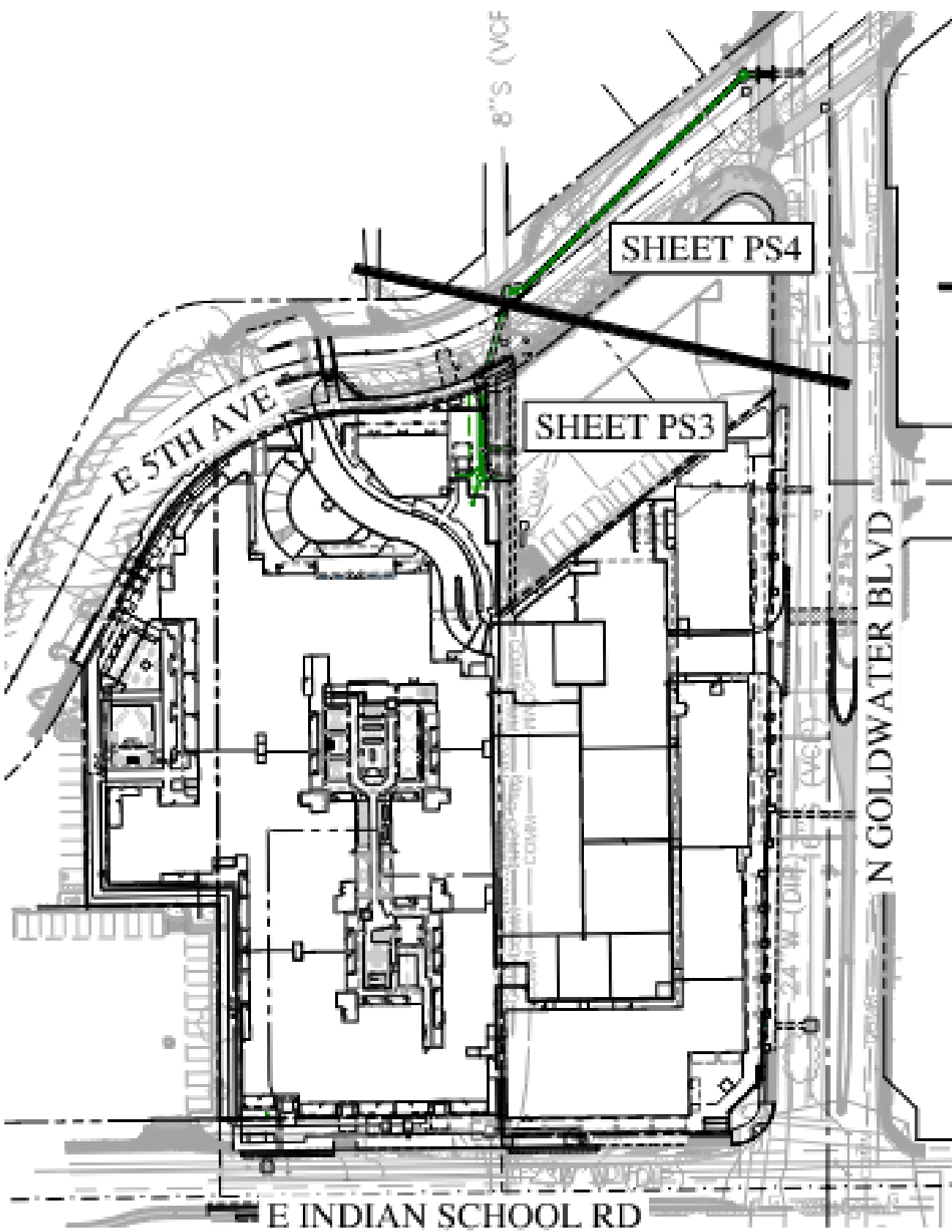
07-25-2025
DATE

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER/ LAND SURVEYOR DATE

SEAL



KEY MAP
N.T.S.

M.C.E.S.D. APPROVAL

ALL POTABLE WATERLINES AND FITTINGS SHALL HAVE A NSF-PW SEAL. ALL MATERIALS AND PRODUCTS USED IN THE POTABLE WATER SYSTEM SHALL CONFORM TO NSF STANDARDS 60 AND 61 IN ACCORDANCE WITH AAC R18-4-213. ALL MATERIALS SHALL BE LEAD FREE AS DEFINED IN AAC R18-5-504 AND R18-4-101. ALL PIPES, FITTINGS, VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES SHALL CONFORM TO CURRENT AWWA, ASTM, AND NSF STANDARDS.

By: E. Wheaton 06/26/2025
MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPT. DATE
PERMIT NUMBERS: WWR-25-00273

NO CONFLICT SIGNATURE BLOCK				
UTILITY	UTILITY COMPANY	NAME OF COMPANY REPRESENTATIVE	TELEPHONE NUMBER	DATE SIGNED
ELECTRIC	ARIZONA PUBLIC SERVICE	PHILIP SCHANBERGER	(602) 371-4544	07/25/2025
TELEPHONE	LUMEN	CHRIS NIELSEN	(702) 478-4450	07/18/2025
NATURAL GAS	SOUTHWEST GAS	ZACH STEVENSON	(480) 730-3665	07/25/2025
CABLE TV	COX COMMUNICATIONS	CONSTRUCTION SUPPORT	CONSTRUCTION SUPPORT@COX.COM	06/16/2025
VERIZON	VERIZON	FIBER ENGINEERING	VERIZON.ORG/ENGINEERING/ENGINEERING@VERIZON.COM	06/24/2025

ENGINEER'S CERTIFICATION
I, DEREK NICHOLS, P.E., AS THE ENGINEER OF RECORD FOR THIS DEVELOPMENT, HEREBY CERTIFY THAT ALL UTILITY COMPANIES LISTED ABOVE HAVE BEEN PROVIDED FINAL IMPROVEMENT PLANS FOR REVIEW, AND THAT ALL CONFLICTS IDENTIFIED BY THE UTILITIES HAVE BEEN RESOLVED. IN ADDITION, "NO CONFLICT" FORMS HAVE BEEN OBTAINED FROM EACH UTILITY COMPANY AND ARE INCLUDED IN THIS SUBMITTAL.

SIGNATURE DATE 07/25/2025

SHEET INDEX

- PS1 - COVER SHEET
- PS2 - NOTES
- PS3 - SEWER PLAN & PROFILE
- PS4 - SEWER PLAN & PROFILE
- PS5 - DETAILS

BENCHMARK

THE VERTICAL DATUM FOR THIS SURVEY IS BASED ON A 3-INCH CITY OF SCOTTSDALE BRASS CAP IN HANDHOLE, LOCATED AT THE INTERSECTION OF SCOTTSDALE ROAD AND INDIAN SCHOOL ROAD, HAVING AN ELEVATION OF 1260.37, CITY OF SCOTTSDALE NAVD 88 DATUM.
BRASS CAP IN HANDHOLE AT THE EAST 1/4 COR. SEC. 27
MCDOT POINT #3892
GDACS 40069012
EL. = 1260.37 NAVD '88

BENCHMARK CERTIFICATION STATEMENT
I HEREBY CERTIFY THAT ALL ELEVATIONS REPRESENTED ON THIS PLAN ARE BASED ON NAVD 1988 AND MEET THE FEMA BENCHMARK MAINTENANCE (BMM) CRITERIA.

BASIS OF BEARING

THE HORIZONTAL DATUM FOR THIS SURVEY IS BASED ON INFORMATION OBTAINED FROM OPUS (ON-LINE POSITIONING USER SERVICE) PROVIDED BY THE NATIONAL GEODETIC SURVEY (NGS) WEBSITE WWW.NGS.NOAA.GOV, FOR OPUS SOLUTION 05072240.240 OP1724779219506 ON AUGUST 27, 2024.

PROJECTION: ARIZONA CENTRAL ZONE, NAD 83,
(EPOCH 2010)
DATUM: GRS-80
UNITS: INTERNATIONAL FEET
GEIOD MODEL: GEIOD 2018

LATITUDE: 33°29'43.83632"N
LONGITUDE: 111°55'52.97786"W
ELLIPSOID HEIGHT: 357.465 (METERS)
DESCRIPTION: WOODPATEL CONTROL POINT 100 - SET 1/2-INCH REBAR WITH TRAVERSE CAP

MODIFIED TO GROUND AT (GRID) N: 907816.965, E: 695513.617, USING A SCALE FACTOR OF 1.0001561118.

HORIZONTAL ADJUSTMENT: NONE
HORIZONTAL ROTATION: NONE

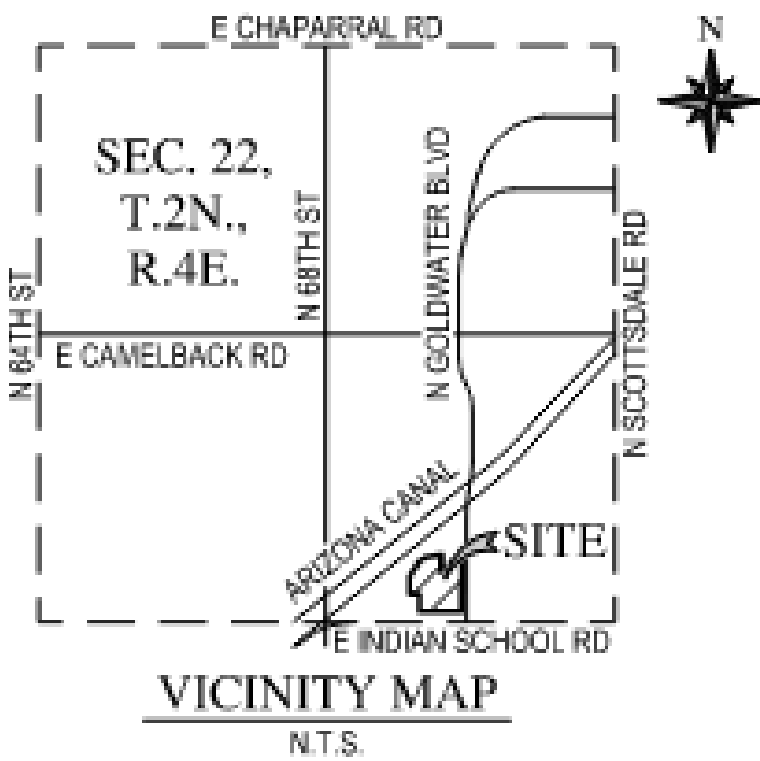
FEMA FIRM NOTE (ZONE X)

ACCORDING TO FEMA FLOOD INSURANCE RATE MAPPING, THE SUBJECT PROPERTY IS LOCATED IN 'OTHER FLOOD AREAS' "ZONE X" (ZONE X SHADED). ZONE X SHADED IS DESCRIBED AS: "AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD."

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

MAP NUMBER	COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM	FIRM ZONE	BASE FLOOD ELEVATION (IN AO ZONE, USE DEPTH)
04013C	045012	2235	M	09/18/2020	X	N/A

CITY OF SCOTTSDALE CIVIL APPROVAL			
REVIEW & RECOMMENDED APPROVAL BY:			
PAVING	✓	TRAFFIC	NA
GRADING & DRAINAGE	NA	PLANNING	NA
WATER & SEWER	✓	FIRE	NA
RETAINING WALLS	NA		
ENGINEERING COORDINATION MANAGER (OR DESIGNER)			DATE 08/19/2025



OWNER / DEVELOPER

WOOD PARTNERS
8777 EAST VIA DE VENTURA, SUITE 201
SCOTTSDALE, ARIZONA 85258
CONTACT: TODD TAYLOR
PHONE: (480) 567-0069

ENGINEER

WOOD, PATEL & ASSOCIATES, INC.
2051 WEST NORTHERN AVENUE, SUITE 100
PHOENIX, ARIZONA 85021
CONTACT: DEREK C. NICHOLS, PE
PHONE: (602) 335-8500

ARCHITECT

NELSEN PARTNERS
15210 NORTH SCOTTSDALE ROAD
SUITE 300
SCOTTSDALE, ARIZONA 85254
CONTACT: JEFF BRAND
PHONE: (480) 949-6800

PROJECT SITE DATA

ASSESSOR PARCEL NUMBER(S):
173-48-056E, 173-48-056A, 173-48-047A,
173-48-047D, 173-48-050A
PROJECT SITE ADDRESS:
NWC INDIAN SCHOOL RD AND GOLDWATER BLVD
SCOTTSDALE, ARIZONA 85251
PROJECT SITE AREA(S):
NET AREA = 4.82 AC
SEWER RELOCATION DISTURBED AREA = 0.05± AC
ZONING:
DIOC-2 PBD DO (COS 12-ZN-2007)

PUBLIC UTILITIES

WATER CITY OF SCOTTSDALE
SEWER CITY OF SCOTTSDALE
ELECTRIC ARIZONA PUBLIC SERVICE
TELEPHONE LUMEN
NATURAL GAS SOUTHWEST GAS
CABLE TV COX COMMUNICATIONS

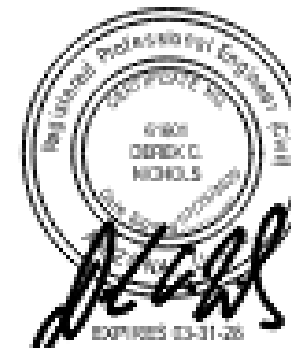


Wood, Patel & Associates, Inc.
Civil Engineering
Water Resources
Land Survey
Construction Management
602.335.8501
www.woodpatel.com



5TH & GOLDWATER
PUBLIC SEWER RELOCATION PLAN
SCOTTSDALE, ARIZONA
COVER SHEET

REV	DESCRIPTION	DATE



SCALE (HORIZ.) N/A
SCALE (VERT.) N/A
DATE 07/25/2025
JOB NUMBER 245619
SHEET
PS1 OF 5

CHECKED BY: DCN DESIGNED BY: APM DRAFTED BY: JRS

COS PLAN CHECK # 2594-25-1 COS CASE # 993-PA-2024

PARCEL NO. 1:
A PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN;
THENCE WEST 231.63 FEET;
THENCE NORTH 00 DEGREES 30 MINUTES 00 SECONDS EAST 55 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 00 DEGREES 30 MINUTES 00 SECONDS EAST 170.71 FEET;
THENCE NORTH 89 DEGREES 30 MINUTES 00 SECONDS WEST, 85.00 FEET;
THENCE NORTH 00 DEGREES 30 MINUTES 00 SECONDS EAST 32.50 FEET;
THENCE NORTH 89 DEGREES 30 MINUTES 00 SECONDS WEST 79.99 FEET;
THENCE SOUTH 00 DEGREES 30 MINUTES 00 SECONDS WEST 179.95 FEET;
THENCE SOUTH 15 DEGREES 21 MINUTES 38 SECONDS EAST 25.61 FEET;
THENCE EAST 158.00 FEET TO THE TRUE POINT OF BEGINNING.

AN EASEMENT FOR PARKING, WALKWAYS AND DRIVEWAYS LOCATED ADJACENT TO IMPROVEMENTS AS SET FORTH IN THAT CERTAIN COMMON USE AGREEMENT DATED OCTOBER 18, 1972, RECORDED OCTOBER 24, 1972 IN DOCKET 9774, PAGE 363, THEREAFTER AMENDMENT RECORDED JUNE 20, 1973 IN DOCKET 10188, PAGE 404 AND THEREAFTER ASSIGNMENT RECORDED JUNE 20, 1973 IN DOCKET 10188, PAGE 454.

THAT PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GLA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GLA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
THENCE WEST, 231.63 FEET;
THENCE NORTH 0 DEGREES 30 MINUTES 00 SECONDS EAST, 225.71 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 0 DEGREES 30 MINUTES 00 SECONDS EAST, 236.33 FEET;
THENCE NORTH 89 DEGREES 30 MINUTES 00 SECONDS WEST, 8 FEET;
THENCE NORTH 0 DEGREES 30 MINUTES 00 SECONDS EAST, 113.31 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 215.25 FEET; SAME BEING THE EXISTING SOUTHERLY RIGHT OF WAY LINE OF WESTERN PARK DRIVE, AS SAID RIGHT OF WAY LINE EXISTED ON OCTOBER 18, 1972;
THENCE SOUTHWESTERLY ALONG THE LAST DESCRIBED CURVE AND RIGHT OF WAY LINE THROUGH A CENTRAL ANGLE OF 22 DEGREES 52 MINUTES 09 SECONDS AND AN ARC DISTANCE OF 85.92 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 179.84 FEET;
THENCE SOUTHWESTERLY ALONG THE LAST DESCRIBED CURVE AND RIGHT OF WAY LINE THROUGH A CENTRAL ANGLE OF 37 DEGREES 16 MINUTES 04 SECONDS AND AN ARC DISTANCE OF 116.98 FEET TO ITS INTERSECTION WITH THE EAST LINE OF THAT CERTAIN PROPERTY DESCRIBED IN INSTRUMENT RECORDED IN DOCKET 9226, PAGE 341, RECORDS OF MARICOPA COUNTY, ARIZONA;
THENCE SOUTH 0 DEGREES 30 MINUTES 00 SECONDS WEST, ALONG THE EAST LINE OF SAID PROPERTY DESCRIBED IN DOCKET 9226, PAGE 341 AND THE SOUTHERLY PROLONGATION THEREOF, A DISTANCE OF 466.42 FEET;
THENCE EAST 42 FEET;
THENCE NORTH 15 DEGREES 21 MINUTES 38 SECONDS WEST, 25.61 FEET;
THENCE NORTH 0 DEGREES 30 MINUTES 00 SECONDS EAST, 179.95 FEET;
THENCE SOUTH 89 DEGREES 30 MINUTES 00 SECONDS EAST, 79.99 FEET;
THENCE SOUTH 0 DEGREES 30 MINUTES 00 SECONDS WEST 32.5 FEET;
THENCE SOUTH 89 DEGREES 30 MINUTES 00 SECONDS EAST, 85.00 FEET TO THE TRUE POINT OF BEGINNING;
EXCEPT THAT PORTION DEEDED TO THE COUNTY OF MARICOPA, A POLITICAL SUBDIVISION OF THE STATE OF ARIZONA BY QUIT CLAIM DEED RECORDED IN DOCKET 1906, PAGE 67, EXCEPTING THEREFROM THAT PORTION CONVEYED IN QUIT CLAIM DEED RECORDED IN DOCKET 4257, PAGE 191.

1. PERFORM A DEFLECTION TEST OF THE TOTAL LENGTH OF ALL SEWER LINES MADE OF FLEXIBLE MATERIALS TO ENSURE THAT THE INSTALLATION MEETS OR EXCEEDS THE MANUFACTURER'S RECOMMENDATIONS AND RECORD THE RESULTS. (R18-9-E301.D.2.I / MAG 611.4)
2. TEST EACH SEGMENT OF THE SEWER LINE FOR LEAKAGE USING THE APPROPRIATE ASTM TEST FOR THE PIPE MATERIAL. (R18-9-E301.D.2.J / MAG 611.4).
3. EACH MANHOLE WILL BE TESTED ACCORDING TO R18-9-E301.D.3.E AND F / MAG 611.5.

PARCEL NO. 3:
THAT PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 22;
THENCE SOUTH 89 DEGREES 58 MINUTES 48 SECONDS WEST, ALONG THE SOUTH LINE OF SAID SECTION 22, A DISTANCE OF 231.70 FEET;
THENCE NORTH 00 DEGREES 30 MINUTES 00 SECONDS EAST, A DISTANCE OF 33.00 FEET TO THE POINT OF BEGINNING;
THENCE CONTINUING NORTH 00 DEGREES 30 MINUTES 00 SECONDS EAST, A DISTANCE OF 378.36 FEET TO A POINT, 125.00 FEET MEASURED AT RIGHT ANGLE TO THE PROLONGATION OF THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF WESTERN PARK DRIVE, AS SHOWN ON THE PLAT OF WESTERN PARK PROPERTIES UNIT FOUR, RECORDED IN BOOK 62 OF MAPS, PAGE 25, RECORDS OF MARICOPA COUNTY, ARIZONA;
THENCE NORTH 51 DEGREES 48 MINUTES 50 SECONDS EAST, PARALLEL TO AND 125.00 FEET SOUTHEASTERLY FROM THE SAID SOUTHEASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 251.50 FEET TO A POINT 40.00 FEET WESTERLY FROM THE EAST LINE OF THE SAID SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22;
THENCE SOUTH 00 DEGREES 58 MINUTES 06 SECONDS WEST, PARALLEL TO THE EAST LINE OF THE SAID SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, A DISTANCE OF 521.84 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT HAVING A RADIUS OF NORTH 89 DEGREES 01 MINUTES 54 SECONDS WEST, A DISTANCE OF 12.21 FEET;
THENCE SOUTHWESTERLY, A DISTANCE OF 18.97 FEET ALONG THE ARC OF THIS CURVE THROUGH 89 DEGREES 00 MINUTES 42 SECONDS OF THE CENTRAL ANGLE;
THENCE SOUTH 89 DEGREES 58 MINUTES 48 SECONDS WEST, PARALLEL TO AND 33.00 FEET NORTHERLY THE SOUTH LINE OF THE SAID SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, A DISTANCE OF 179.96 FEET TO THE POINT OF BEGINNING;
EXCEPT THAT PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTHWEST CORNER OF WESTERN PARK PROPERTIES UNIT FOUR, ACCORDING TO BOOK 62 OF MAPS, PAGE 25;
THENCE NORTH 89 DEGREES 08 MINUTES 55 SECONDS EAST, ALONG THE SOUTH LINE OF SAID WESTERN PARK PROPERTIES UNIT FOUR, A DISTANCE OF 161.97 FEET TO THE POINT OF BEGINNING;
THENCE NORTH 00 DEGREES 51 MINUTES 05 SECONDS WEST, A DISTANCE OF 22.00 FEET;
THENCE NORTH 45 DEGREES 09 MINUTES 20 SECONDS EAST, A DISTANCE OF 33.09 FEET;
THENCE NORTH 01 DEGREES 09 MINUTES 45 SECONDS EAST, A DISTANCE OF 29.88 FEET;
THENCE SOUTH 89 DEGREES 50 MINUTES 14 SECONDS EAST, A DISTANCE OF 2.10 FEET;
THENCE NORTH 00 DEGREES 09 MINUTES 46 SECONDS EAST, A DISTANCE OF 120.45 FEET;
THENCE NORTH 01 DEGREES 09 MINUTES 45 SECONDS EAST, A DISTANCE OF 230.72 FEET TO THE EAST LINE OF WESTERN PARK PROPERTIES UNIT FOUR;
THENCE SOUTH 00 DEGREES 07 MINUTES 20 SECONDS WEST, ALONG SAID EAST LINE A DISTANCE OF 413.87 FEET TO A POINT OF CURVATURE FROM WHICH THE RADIUS BEARS NORTH 89 DEGREES 52 MINUTES 40 SECONDS WEST, A DISTANCE OF 12.21 FEET;
THENCE SOUTHWESTERLY ALONG SAID EAST LINE AND ALONG SAID CURVE WITH A TANGENT OF 12.00 FEET, THROUGH A CENTRAL ANGLE OF 89 DEGREES 01 MINUTES 35 SECONDS, A DISTANCE OF 18.97 FEET TO A POINT OF TANGENCY;
THENCE SOUTH 89 DEGREES 08 MINUTES 55 SECONDS WEST, ALONG THE SOUTH LINE OF SAID WESTERN PARK PROPERTIES UNIT FOUR, A DISTANCE OF 17.96 FEET TO THE POINT OF BEGINNING AS DESCRIBED IN THE DEED TO THE CITY OF SCOTTSDALE, RECORDED AT RECORDER'S NO. 92-403713 OF OFFICIAL RECORDS.

THAT PART OF THE SOUTHWEST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

FROM THE SOUTHWEST CORNER OF SAID SOUTHEAST QUARTER;

THENCE EAST (ASSUMED BEARING) ALONG THE SOUTH LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 878.17 FEET;

THENCE NORTH 00 DEGREES 30 MINUTES 00 SECONDS EAST, A DISTANCE OF 208.00 FEET TO THE TRUE POINT OF BEGINNING OF THE TRACT HEREIN DESCRIBED AND THE SOUTHEAST CORNER THEREOF;

THENCE NORTH 00 DEGREES 30 MINUTES 00 SECONDS EAST, A DISTANCE OF 349.00 FEET TO A POINT ON THE SOUTHEASTERLY LINE OF WESTERN PARK DRIVE, AS CONVEYED TO THE COUNTY OF MARICOPA BY DEED RECORDED IN DOCKET 1906, PAGE 67, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE SOUTH 28 DEGREES 30 MINUTES 00 SECONDS WEST ALONG THE SOUTHEASTERLY LINE OF WESTERN PARK DRIVE AFORESAID, A DISTANCE OF 232.44 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT HAVING A RADIUS OF 193.96 FEET AND A CENTRAL ANGLE OF 23 DEGREES 18 MINUTES 30 SECONDS;

THENCE ALONG SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 78.90 FEET;

THENCE SOUTH 51 DEGREES 48 MINUTES 30 SECONDS WEST, A DISTANCE OF 128.21 FEET;

THENCE SOUTH 38 DEGREES 11 MINUTES 30 SECONDS EAST, A DISTANCE OF 7.06 FEET;

THENCE EAST PARALLEL TO THE SOUTH LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 254.79 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THAT PORTION OF SAID PREMISES DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN;

THENCE EAST (ASSUMED BEARING) ALONG THE SOUTH LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 607.17 FEET;

THENCE NORTH A DISTANCE OF 205.01 FEET TO A POINT ON THE SOUTHEASTERLY RIGHT-OF-WAY OF WESTERN PARK DRIVE, AS CONVEYED TO MARICOPA COUNTY BY DEED RECORDED IN DOCKET 1906, PAGE 67, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE NORTH 51 DEGREES 57 MINUTES 58 SECONDS EAST, A DISTANCE OF 13.83 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 38 DEGREES 02 MINUTES 02 SECONDS EAST, A DISTANCE OF 6.94 FEET (MEASURED) SOUTH 38 DEGREES 11 MINUTES 30 SECONDS EAST, A DISTANCE OF 7.06 FEET (DEED);

THENCE ON A BEARING OF EAST, PARALLEL TO THE SOUTH LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 161.17 FEET TO A POINT;

THENCE NORTH A DISTANCE OF 170.04 FEET TO A POINT ON THE SOUTHEASTERLY RIGHT-OF-WAY OF WESTERN PARK DRIVE, AS CONVEYED TO MARICOPA COUNTY BY DEED RECORDED IN DOCKET 1906, PAGE 67, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE ON A BEARING OF SOUTH 28 DEGREES 30 MINUTES 29 SECONDS (MEASURED) SOUTH 28 DEGREES 30 MINUTES 00 SECONDS (DEED) ALONG THE SOUTHEASTERLY RIGHT-OF-WAY OF WESTERN PARK DRIVE, A DISTANCE OF 29.45 FEET;

THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 193.20 FEET (MEASURED), 193.96 FEET (DEED), AND HAVING A CENTRAL ANGLE OF 23 DEGREES 27 MINUTES 29 SECONDS (MEASURED) 23 DEGREES 13 MINUTES 30 SECONDS (DEED), A LENGTH OF 79.10 FEET (MEASURED), 78.90 FEET (DEED) TO A POINT;

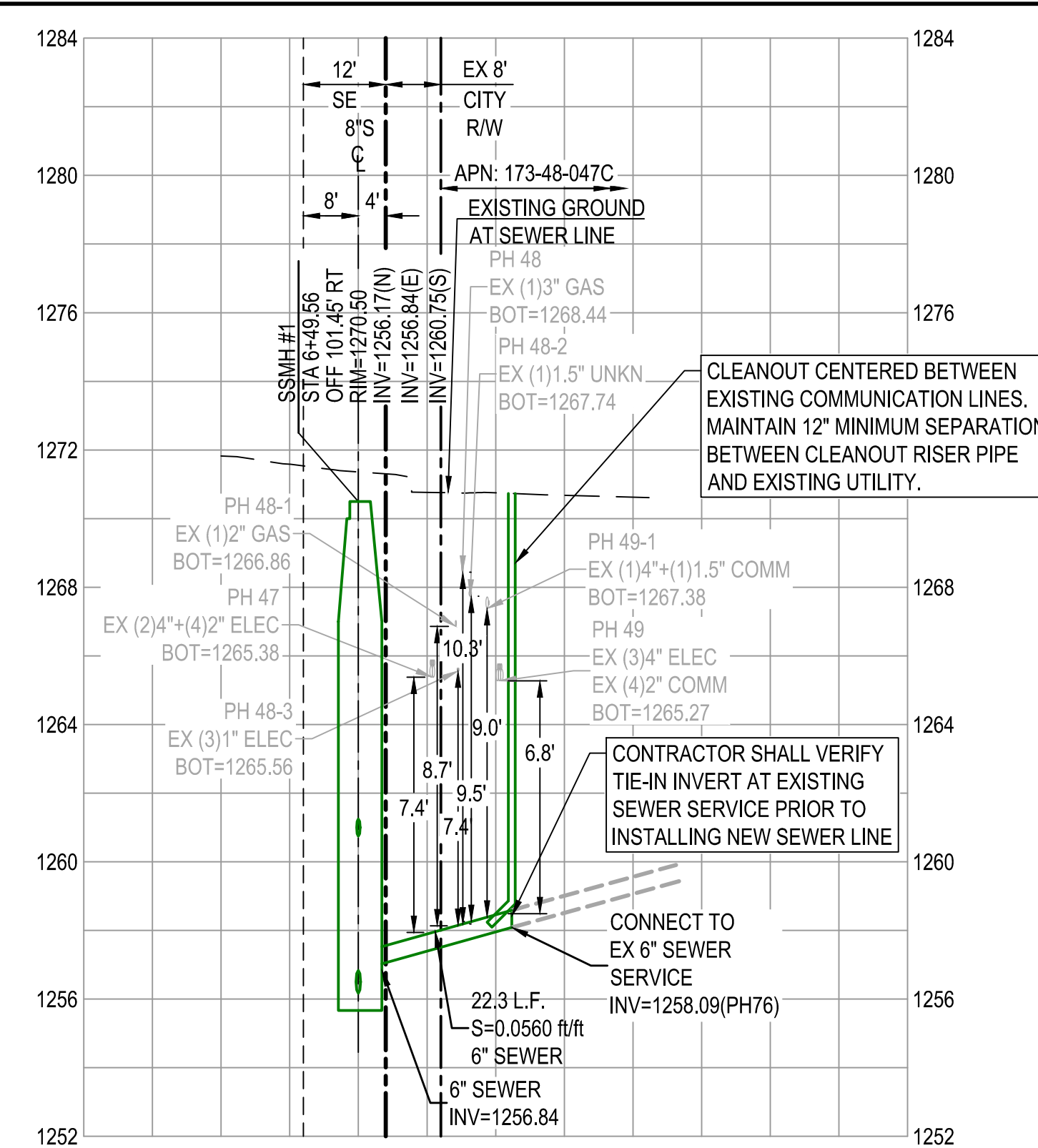
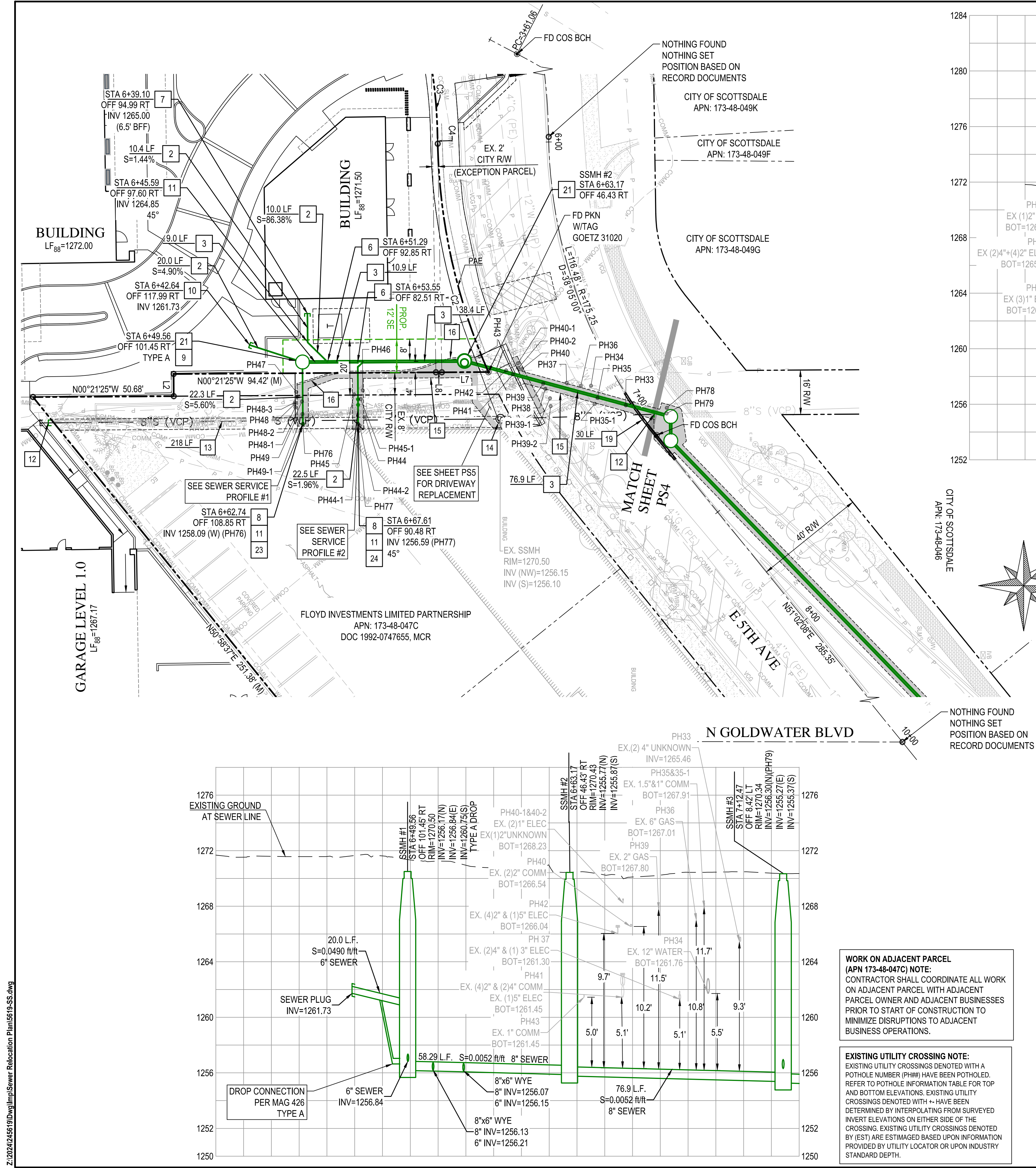
THENCE ON A BEARING OF SOUTH 51 DEGREES 57 MINUTES 58 SECONDS WEST, A DISTANCE OF 127.79 FEET (MEASURED) SOUTH 51 DEGREES 48 MINUTES 30 SECONDS WEST, A DISTANCE OF 128.21 FEET (DEED), THE LAST THREE COURSES BEING PARALLEL TO AND 40.00 FEET EASTERLY FROM THE CENTERLINE OF WESTERN PARK DRIVE TO POINT OF BEGINNING.

ESTIMATED QUANTITIES NOTE QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES FOR BIDDING PURPOSES.
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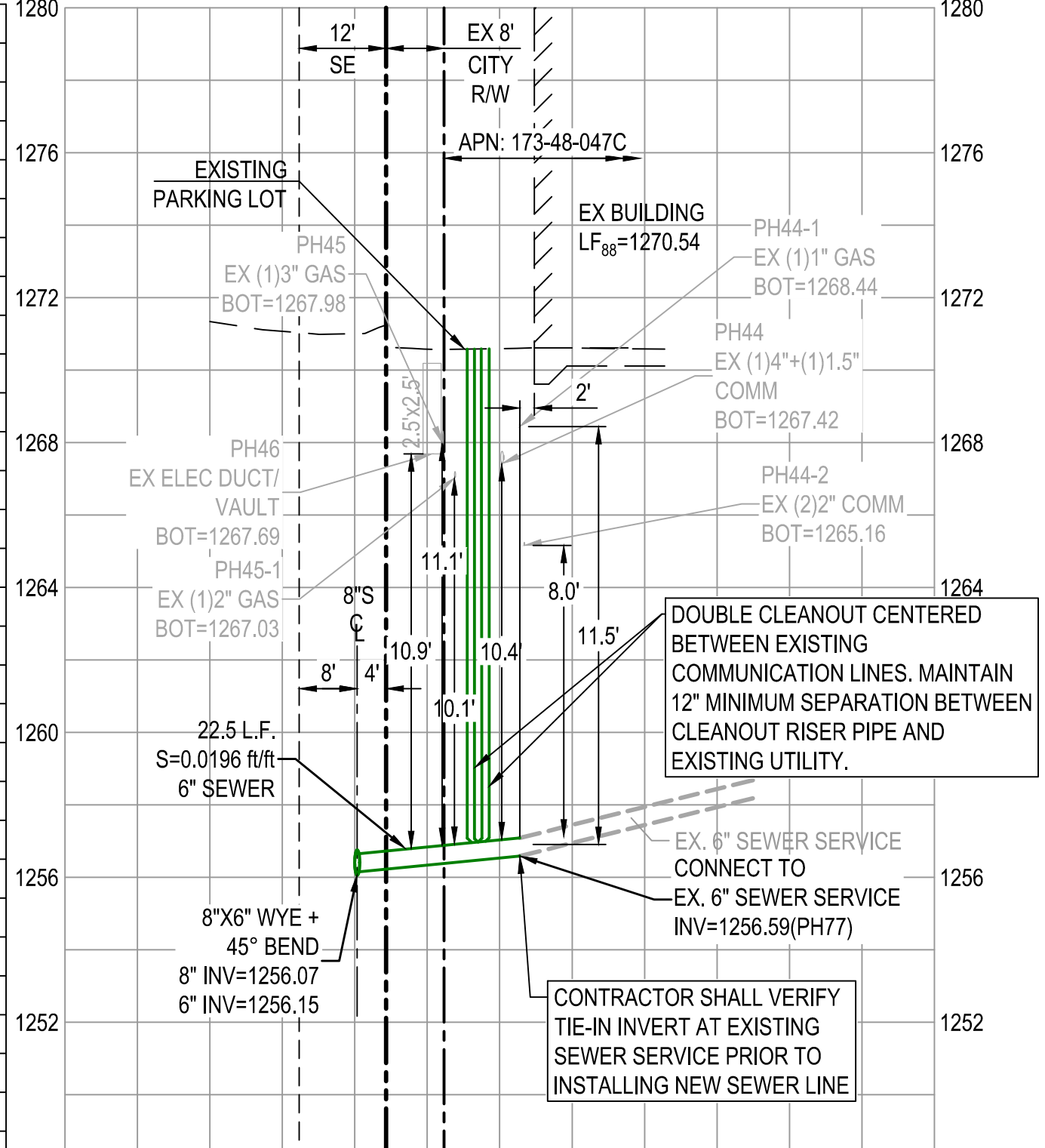
ABBREVIATIONS					
A.L.	AREA LIGHT	HWE	HIGH WATER ELEVATION	T.J.B.	TELEPHONE JUNCTION BOX
ARV	AIR RELEASE VALVE	INV	INVERT ELEVATION	TRW	TOP OF RETAINING
BB	BOTTOM OF BANK	I.V.	IRRIGATION VALVE		WALL ELEVATION
BC	BACK OF CURB	I.V.B.	IRRIGATION VALVE BOX	TW	TOP OF WALL ELEVATION
BF	BOTTOM OF	L.E.	LANDSCAPE EASEMENT	U.E.	UTILITY EASEMENT
	FOOTING ELEVATION	LF	LINEAR FEET	UG	UNDERGROUND
B.P.	BARRIER POST	LFF ₈₈	LOWEST FINISHED	U.P.	UTILITY POLE
BSL	BUILDING SETBACK ELEVATION		FLOOR ELEVATION	VCP	VITRIFIED CLAY PIPE
BW	BOTTOM OF WALL ELEVATION	M.U.E.	MULTI-USE EASEMENT	VG	VALLEY GUTTER
BFF	BELOW FINISHED FLOOR	NG	NATURAL GROUND ELEVATION	V _v	VOLUME PROVIDED
C	CONCRETE ELEVATION	P	PAVEMENT ELEVATION	V _g	VOLUME REQUIRED
C.B.	CATCH BASIN	PAD	FINISHED PAD ELEVATION	W.B.O.	WATER BLOW OFF
CF	CUBIC FEET	P.A.E.	PRIVATE ACCESS EASEMENT	WE	WATER EASEMENT
C.J.B.	CABLE TV JUNCTION BOX	P.L.	PARKING LIGHT	W.F.	WATER FAUCET
CL	CENTER LINE	PL	PROPERTY LINE	W.M.	WATER METER
C.O.	CLEAN OUT	P.M.	PARKING METER	WO	WALL OPENING
CO	CURB OPENING	P.P.	POWER POLE	W.S.	WATER SERVICE
C.T.R.	CABLE TV RISER	PUE	PUBLIC UTILITY EASEMENT	WSE	WATER SURFACE ELEVATION
DE	DRAINAGE EASEMENT	R.D.	ROOF DRAIN	W.V.	WATER VALVE
DG	DECOMPOSED GRANITE	RIM	RIM ELEVATION	W&S.E.	WATER & SEWER EASEMENT
DIP	DUCTILE IRON PIPE	R/W	RIGHT-OF-WAY		
D.W.	DRYWELL	S	SLOPE		
EE	ELECTRICAL EASEMENT	SD	STORM DRAIN		
E.M.	ELECTRICAL METER	S.D.E.	STORM DRAIN EASEMENT		
E.O.	ELECTRICAL OUTLET	SDMH	STORM DRAIN MANHOLE		
E.S.V.A.E.	EMERGENCY VEHICLE	SE	SEWER EASEMENT		
	ACCESS EASEMENT	S.J.B.	STREET LIGHT JUNCTION BOX		
FF	FINISHED FLOOR	S.L.	STREET LIGHT		
FG	FINISHED GROUND	S.L.E.	SLOPE EASEMENT		
FH	FIRE HYDRANT	S.L.M.	STREET LIGHT MAST ARM		
FT/FT	FOOT PER FOOT	SMH	SEWER MANHOLE		
FL	FLOW LINE ELEVATION	SS	SEWER SERVICE		
G	GUTTER ELEVATION	STA	STATION		
GB	GRADE BREAK	S.V.E.	SIGHT VISIBILITY EASEMENT		
G.M.	GAS METER	S.V.T.	SIGHT VISIBILITY TRIANGLE		
G.S.	GAS SERVICE	S.W.E.	SIDEWALK EASEMENT		
G.T.	GREASE TRAP	TB	TOP OF BANK		
G.V.	GAS VALVE	TC	TOP OF CURB		
HDPE	HIGH DENSITY POLYETHYLENE	TF	TOP OF FOOTING ELEVATION		

CURVE TABLE			
CURVE	DELTA	RADIUS	ARC
C1	28°46'17"	179.84'	90.31'
C2	22°33'17"	215.25'	84.73'
C3	8°23'06"	179.84'	26.32'
C4	0°31'55"	215.25'	2.00'

[illegible]



POT HOLE INFORMATION			
POT HOLE #	UTILITY TYPE	TOP	BOTTOM
PH 33	Unknown	1266.10	1265.46
PH 34	Water	1262.86	1261.76
PH 35	Comm	1268.18	1268.02
PH 35-1	Comm	1268.02	1267.91
PH 36	Gas	1267.58	1267.01
PH 37	Electric	1261.91	1261.30
PH 38	Gas	1267.37	1267.17
PH 39	Gas	1268.00	1267.80
PH 39-1	Comm	1268.08	1267.96
PH 39-2	Unknown	1266.49	1266.09
PH 40	Comm	1266.93	1266.54
PH 40-1	Electric	1268.34	1268.23
PH 40-2	Unknown	1268.75	1268.55
PH 41	Joint Trench	1264.07	1261.45
PH 42	Electric	1266.51	1266.04
PH 43	Comm	1268.93	1268.82
PH 44	Comm	1268.01	1267.42
PH 44-1	Gas	1268.55	1268.44
PH 44-2	Comm	1266.22	1265.76
PH 45	Gas	1268.27	1267.98
PH 45-1	Gas	1267.23	1267.03
PH 46	Electric	1270.28	1267.69
PH 47	Electric	1267.35	1265.38
PH 48	Gas	1268.73	1268.44
PH 48-1	Gas	1267.06	1266.86
PH 48-2	Unknown	1267.90	1267.74
PH 48-3	Electric	1265.67	1265.56
PH 49	Joint Trench	1265.67	1265.27
PH 49-1	Comm	1267.93	1267.38
PH 76	Sewer	1258.68	1258.01
PH 77	Sewer	1257.18	1256.51



- ### SEWER NOTES
- INSTALL 6" PVC SDR26 SEWER LINE PER MAG STD SPEC 615 AND 745. TRENCH, BEDDING AND BACKFILL PER MAG STD SPEC 601 AND COS STD DETAIL 2201.
 - INSTALL 8" PVC SDR26 SEWER LINE PER MAG STD SPEC 615 AND 745. TRENCH, BEDDING AND BACKFILL PER MAG STD SPEC 601 AND COS STD DETAIL 2201.
 - INSTALL WYE OR COMBINATION WYE AND BEND, SIZE PER ADJOINING PIPE DIAMETER, ANGLE PER PLAN.
 - CONNECT TO BUILDING SEWER. SEE PLUMBING PLAN FOR CONTINUATION AND DOUBLE CLEANOUT. VERIFY ELEVATION AND LOCATION WITH PLUMBING PLAN PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
 - CONNECT TO EXISTING SEWER. VERIFY ELEVATION AND LOCATION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
 - CONSTRUCT DROP SEWER CONNECTION PER MAG STD DETAIL 426, TYPE PER PLAN.
 - INSTALL PLUG. FUTURE EXTENSION PER ONSITE IMPROVEMENT PLAN.
 - INSTALL BEND, SIZE PER ADJOINING PIPE DIAMETER, ANGLE PER PLAN.
 - CUT AND CAP EXISTING SEWER LINE AFTER INSTALLATION OF NEW SEWER IMPROVEMENTS.
 - ABANDON EXISTING SEWER LINE IN PLACE AFTER INSTALLATION OF NEW SEWER IMPROVEMENTS.
 - ABANDON EXISTING MANHOLE IN PLACE AFTER INSTALLATION OF NEW SEWER IMPROVEMENTS. REMOVE MANHOLE FRAME AND COVER AND FILL EXISTING MANHOLE WITH 2 SACK CLSM SLURRY. REPLACE EXISTING CONCRETE DRIVEWAY PANEL IN KIND TO NEAREST JOINT.
 - SAWCUT, REMOVE AND REPLACE ASPHALT PAVEMENT PER COS STD DETAIL 2201.
 - SAWCUT, REMOVE AND REPLACE EXISTING CONCRETE SINGLE CURB. REPLACE PER MAG STD DETAIL 222, TYPE A.
 - RESTORE ASPHALT PAVEMENT STRIPING DISTURBED DURING SEWER INSTALLATION, MATCH EXISTING.
 - INSTALL 5" INSIDE DIAMETER PRECAST POLYMER CONCRETE SANITARY SEWER MANHOLE PER MAG STD DETAIL 419-1 WITH PRECAST POLYMER CONCRETE BASE PER MAG STD DETAIL 419-2 AND 419-3 AND INTEGRALLY CAST-IN-PLACE CONNECTION BOOTS. USE ALL 316SS HARDWARE TO CONNECT BOOT TO PIPE. INSTALL 30" WATERTIGHT MANHOLE FRAME AND COVER PER MAG STD DETAIL 424-2 AND COS STD DETAIL 2421. ADJUST FRAME AND COVER TO GRADE AND CONSTRUCT CONCRETE COLLAR AROUND FRAME PER MAG STD DETAIL 422-2. GRADE ADJUSTMENT RINGS SHALL BE EXPANDED POLYPROPYLENE (EPP) CAPABLE OF SUPPORTING THE MINIMUM REQUIREMENTS OF AASHTO M-306, H-25 AND HS-25, BE UV STABLE AND BE RESISTANT TO CHEMICALS AND CORROSION COMMONLY ASSOCIATED WITH THE SANITARY AND STORM SEWER ENVIRONMENT, CRETEX PRO-RING OR EQUAL.
 - INSTALL 1-WAY CLEANOUT PER MAG STD DETAIL 440-3. OMIT VALVE BOX AND INSTALL FRAME AND COVER PER MAG STD DETAIL 270.
 - INSTALL 2-WAY CLEANOUT PER MAG STD DETAIL 440-2. OMIT VALVE BOX AND INSTALL FRAME AND COVERS PER MAG STD DETAIL 270.

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5TH & GOLDWATER

PUBLIC SEWER RELOCATION PLAN
SCOTTSDALE, ARIZONA
SEWER PLAN & PROFILE

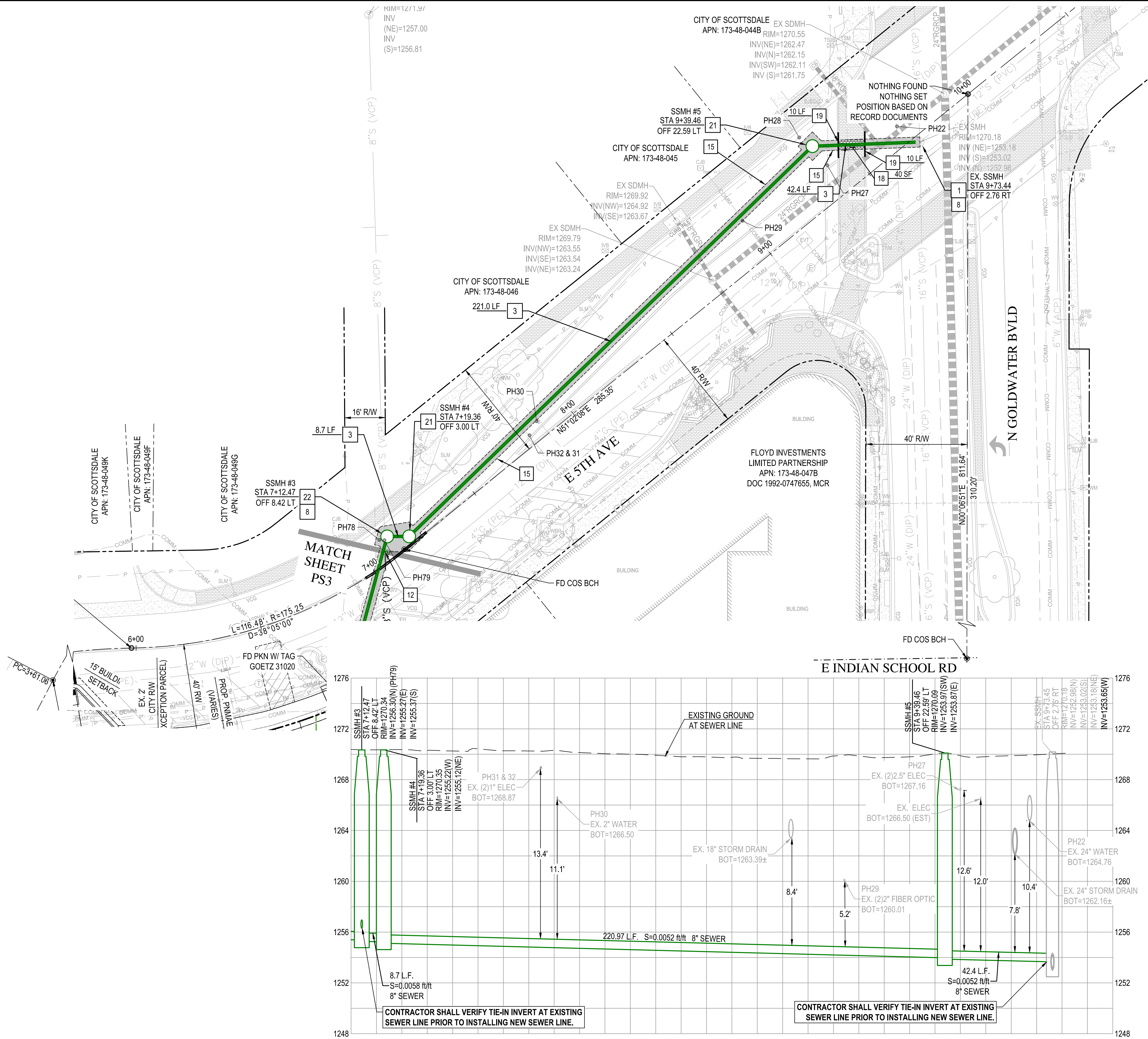
REV	DATE	DESCRIPTION

SCALE (HORIZ.) 1" = 20'
SCALE (VERT.) 1" = 4'
DATE 07/25/2025
JOB NUMBER 245619
SHEET PS3 OF 5

CHECKED BY: DCN DESIGNED BY: APM DRAFTED BY: JRS

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- SEWER NOTES**
- CONNECT TO EXISTING CONCRETE SANITARY SEWER MANHOLE. REFORM CONCRETE SHELF WITHIN MANHOLE PER MAG STD DETAIL 420-3. REAPPLY AGENCY APPROVED MANHOLE COATING.
 - INSTALL 8" PVC SDR26 SEWER LINE PER MAG STD SPEC 615 AND 745. TRENCH, BEDDING AND BACKFILL PER MAG STD SPEC 601 AND COS STD DETAIL 2201.
 - CONNECT TO EXISTING SEWER. VERIFY ELEVATION AND LOCATION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
 - CUT AND CAP EXISTING SEWER LINE AFTER INSTALLATION OF NEW SEWER IMPROVEMENTS.
 - SAWCUT, REMOVE AND REPLACE ASPHALT PAVEMENT PER COS STD DETAIL 2201.
 - RESTORE STAMPED ASPHALT CROSSWALK SURFACE IN KIND AFTER ASPHALT PAVEMENT REPLACEMENT. MATCH EXISTING CROSSWALK PATTERN AND COLOR.
 - RESTORE ASPHALT PAVEMENT STRIPING DISTURBED DURING SEWER INSTALLATION, MATCH EXISTING.
 - INSTALL 5' INSIDE DIAMETER PRECAST POLYMER CONCRETE SANITARY SEWER MANHOLE PER MAG STD DETAIL 419-1 WITH PRECAST POLYMER CONCRETE BASE PER MAG STD DETAIL 419-2 AND 419-3 AND INTEGRALLY CAST-IN-PLACE CONNECTION BOOTS. USE ALL 316SS HARDWARE TO CONNECT BOOT TO PIPE. INSTALL 30" WATERTIGHT MANHOLE FRAME AND COVER PER MAG STD DETAIL 424-2 AND COS STD DETAIL 2421. ADJUST FRAME AND COVER TO GRADE AND CONSTRUCT CONCRETE COLLAR AROUND FRAME PER MAG STD DETAIL 422-2. GRADE ADJUSTMENT RINGS SHALL BE EXPANDED POLYPROPYLENE (EPP) CAPABLE OF SUPPORTING THE MINIMUM REQUIREMENTS OF AASHTO M-306, H-25 AND HS-25, BE UV STABLE AND BE RESISTANT TO CHEMICALS AND CORROSION COMMONLY ASSOCIATED WITH THE SANITARY AND STORM SEWER ENVIRONMENT, CRETEX PRO-RING OR EQUAL.
 - CONSTRUCT 5' INSIDE DIAMETER OFFSET SANITARY SEWER MANHOLE PER DETAIL ON SHEET SP5. MANHOLE RISERS AND CONICAL TOP SHALL BE PRECAST POLYMER CONCRETE PER MAG STD DETAIL 419-1. MANHOLE BASE SHALL BE CAST-IN-PLACE CONCRETE PER MAG STD DETAIL 420-1 AND 420-3, WITH OFFSET ALIGNMENT FOR CONNECTION TO THE EXISTING 8" VCP SEWER LINE PER MAG STD DETAIL 421, AND COATED WITH AN AGENCY APPROVED MANHOLE COATING. INSTALL 30" WATERTIGHT MANHOLE FRAME AND COVER PER MAG STD DETAIL 424-2 AND COS STD DETAIL 2421. ADJUST FRAME AND COVER TO GRADE AND CONSTRUCT CONCRETE COLLAR AROUND FRAME PER MAG STD DETAIL 422-2. GRADE ADJUSTMENT RINGS SHALL BE EXPANDED POLYPROPYLENE (EPP) CAPABLE OF SUPPORTING THE MINIMUM REQUIREMENTS OF AASHTO M-306, H-25 AND HS-25, BE UV STABLE AND BE RESISTANT TO CHEMICALS AND CORROSION COMMONLY ASSOCIATED WITH THE SANITARY AND STORM SEWER ENVIRONMENT, CRETEX PRO-RING OR EQUAL.

POTHOLE INFORMATION			
POTHOLE #	UTILITY TYPE	TOP	BOTTOM
PH 22	Water	1266.91	1264.76
PH 27	Electric	1267.40	1267.16
PH 28	Electric	1267.98	1267.87
PH 29	Fiber	1260.21	1260.01
PH 30	Water	1266.70	1266.50
PH 31	Electric	1268.98	1268.87
PH 32	Electric	1268.98	1268.87
PH 78	Unknown	1265.55	1264.73
PH 79	Sewer	1257.06	1256.22

EXISTING UTILITY CROSSING NOTE:
EXISTING UTILITY CROSSINGS DENOTED WITH A POTHOLE NUMBER (PH##) HAVE BEEN POTHOLED. REFER TO POTHOLE INFORMATION TABLE FOR TOP AND BOTTOM ELEVATIONS. EXISTING UTILITY CROSSINGS DENOTED WITH + HAVE BEEN DETERMINED BY INTERPOLATING FROM SURVEYED INVERT ELEVATIONS ON EITHER SIDE OF THE CROSSING. EXISTING UTILITY CROSSINGS DENOTED BY (EST) ARE ESTIMATED BASED UPON INFORMATION PROVIDED BY UTILITY LOCATOR OR UPON INDUSTRY STANDARD DEPTH.

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SCOTTSDALE, ARIZONA
SEWER PLAN & PROFILE

DATE				
DESCRIPTION				
REV				

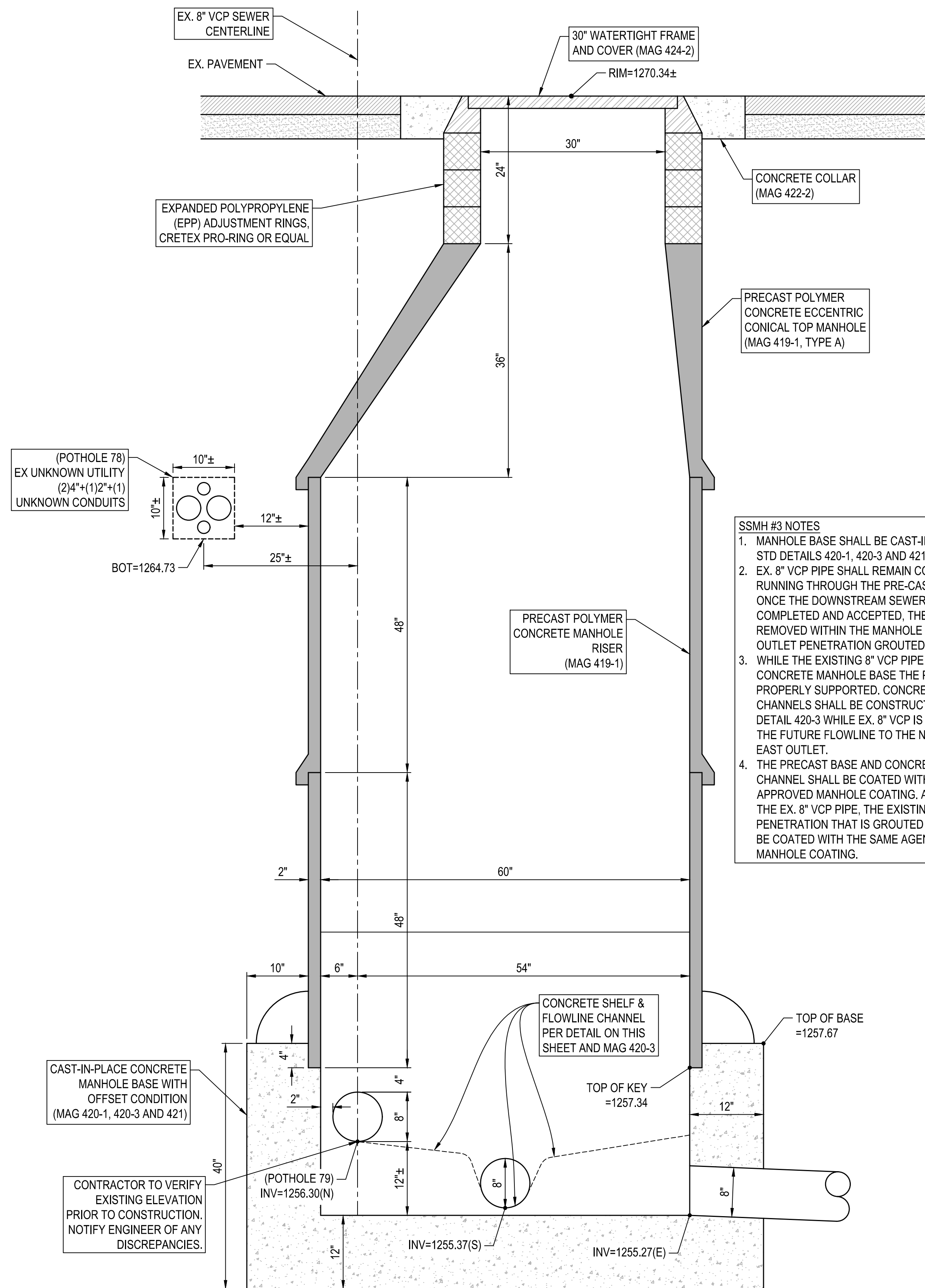
Professional Engineer (C.E.)
DEREK C. NICHOLS
EXPIRES 03-31-28

SCALE (HORIZ.) 1" = 20'
SCALE (VERT.) 1" = 4'
DATE 07/25/2025
JOB NUMBER 245619
SHEET PS4 OF 5

CHECKED BY: DCN DESIGNED BY: APM DRAFTED BY: JRS

COS PLAN CHECK # 2594-25-1 COS CASE # 993-PA-2024

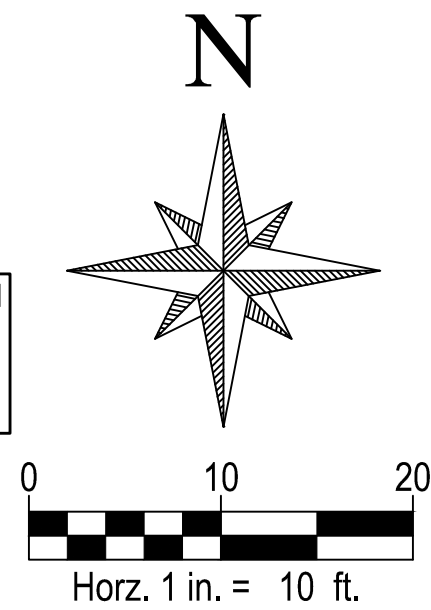
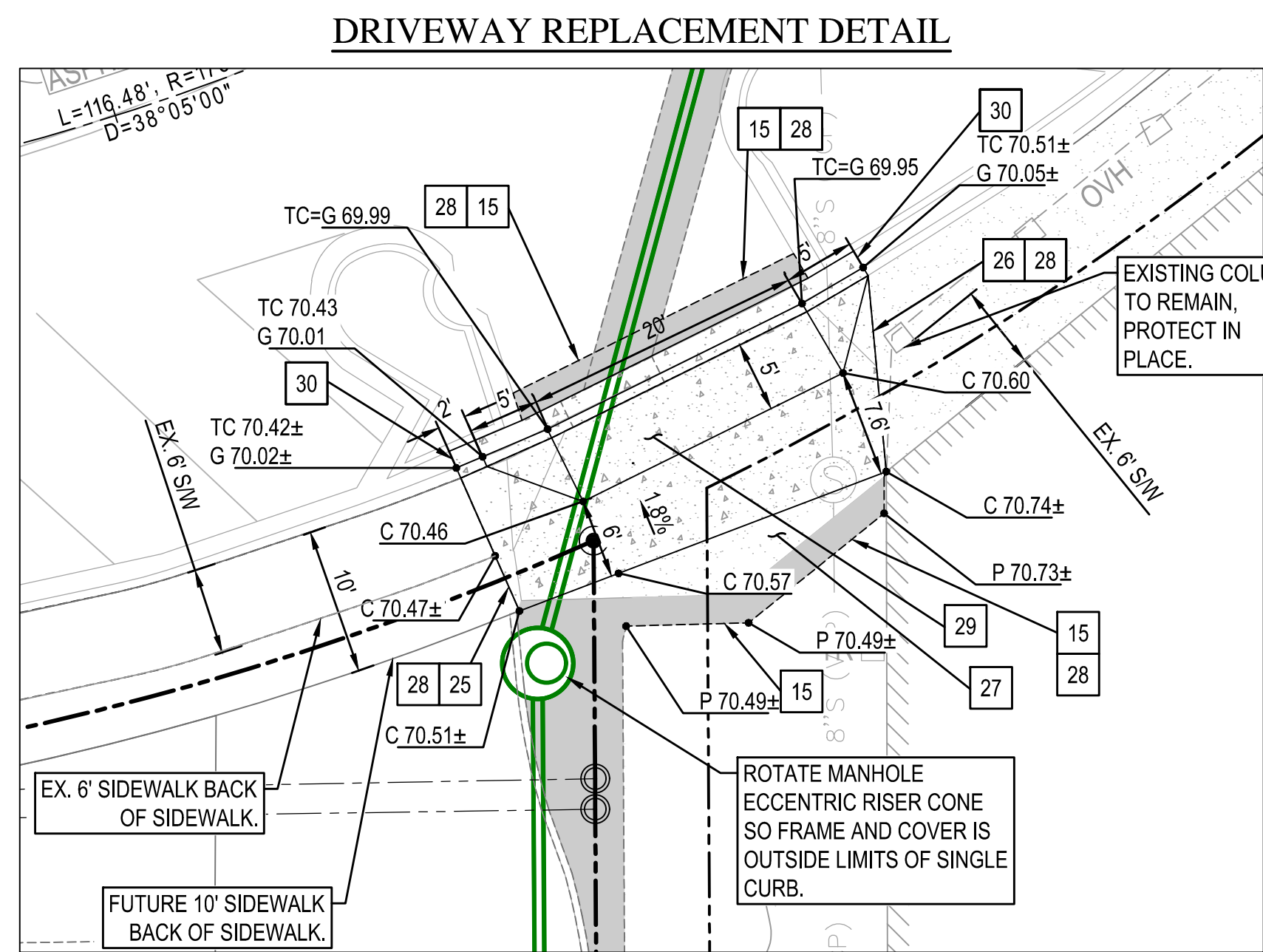
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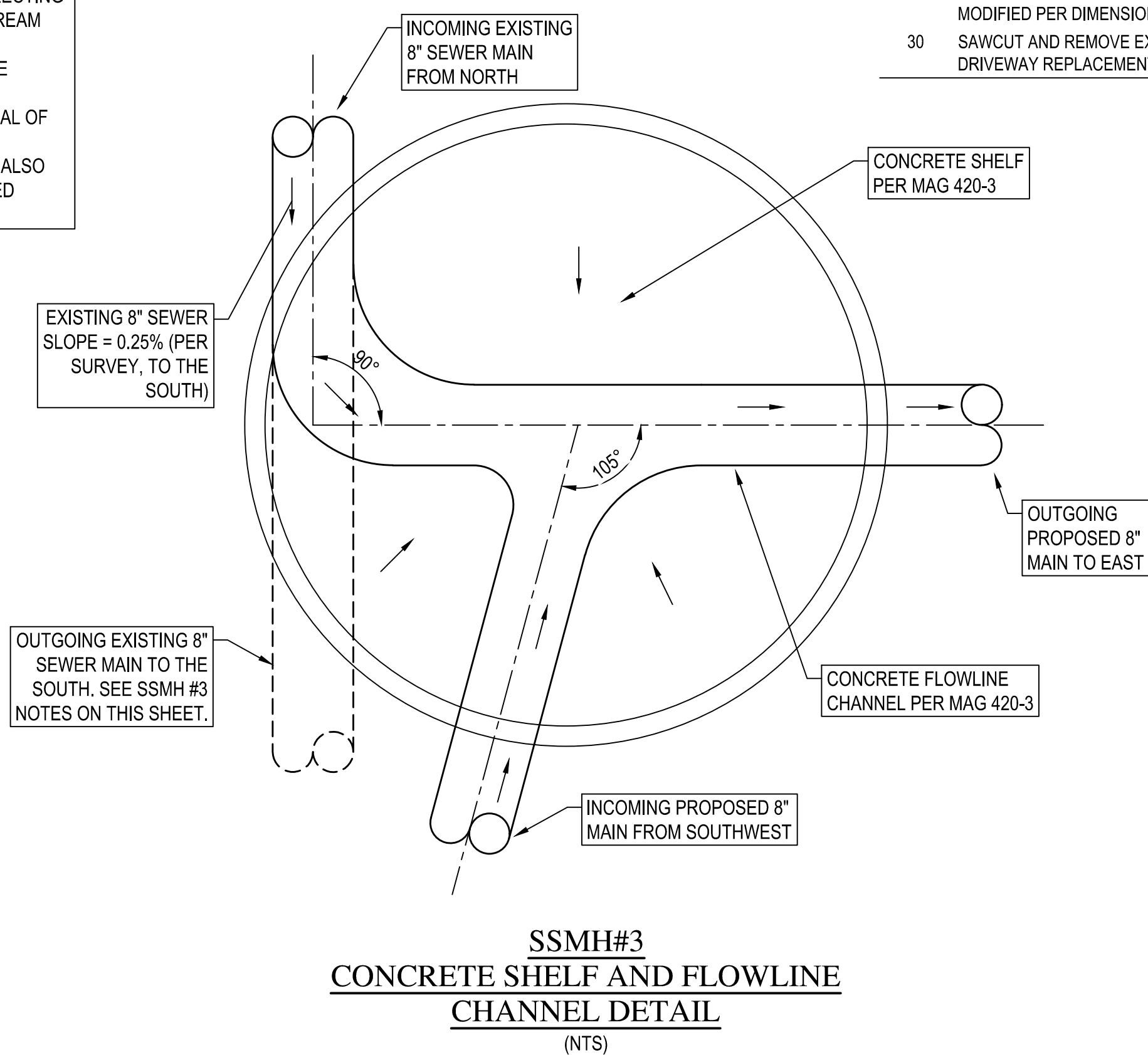
SSMH#3 DETAIL

SCALE: 1"=1'
(LOOKING NORTH)

- SSMH #3 NOTES
1. MANHOLE BASE SHALL BE CAST-IN-PLACE PER MAG STD DETAILS 420-1, 420-3 AND 421.
 2. EX. 8" VCP PIPE SHALL REMAIN CONTINUOUSLY ACTIVE RUNNING THROUGH THE PRE-CAST MANHOLE BASE. ONCE THE DOWNSTREAM SEWER RELOCATION IS COMPLETED AND ACCEPTED, THE 8" VCP CAN BE REMOVED WITHIN THE MANHOLE AND THE EXISTING OUTLET PENETRATION GROUTED SOLID.
 3. WHILE THE EXISTING 8" VCP PIPE REMAINS WITHIN THE CONCRETE MANHOLE BASE THE PIPE SHALL BE PROPERLY SUPPORTED. CONCRETE FLOW LINE CHANNELS SHALL BE CONSTRUCTED PER MAG STD DETAIL 420-3 WHILE EX. 8" VCP IS IN PLACE, DIRECTING THE FUTURE FLOWLINE TO THE NEW DOWNSTREAM EAST OUTLET.
 4. THE PRECAST BASE AND CONCRETE FLOW LINE CHANNEL SHALL BE COATED WITH AN AGENCY APPROVED MANHOLE COATING. AFTER REMOVAL OF THE EX. 8" VCP PIPE, THE EXISTING OUTLET PENETRATION THAT IS GROUTED SOLID SHALL ALSO BE COATED WITH THE SAME AGENCY APPROVED MANHOLE COATING.



- # SEWER NOTES
- 15 SAWCUT, REMOVE AND REPLACE ASPHALT PAVEMENT PER COS STD DETAIL 2201.
 - 25 SAWCUT AND MATCH NEW DRIVEWAY TO EXISTING SIDEWALK AT NEAREST JOINT.
 - 26 SAWCUT AND MATCH NEW DRIVEWAY TO EXISTING SIDEWALK AT EXISTING EXPANSION JOINT.
 - 27 REMOVE EXISTING CONCRETE DRIVEWAY.
 - 28 MATCH EXISTING LOCATION AND ELEVATION. VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
 - 29 CONSTRUCT NEW CONCRETE DRIVEWAY PER MAG STD DETAIL 262, MODIFIED PER DIMENSIONS ON PLAN TO MATCH EXISTING IMPROVEMENTS.
 - 30 SAWCUT AND REMOVE EXISTING CURB AND GUTTER WITHIN LIMITS OF NEW DRIVEWAY REPLACEMENT.



SSMH#3
CONCRETE SHELF AND FLOWLINE
CHANNEL DETAIL

(NTS)

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SCOTTSDALE, ARIZONA
DETAILS

REV	DESCRIPTION	DATE

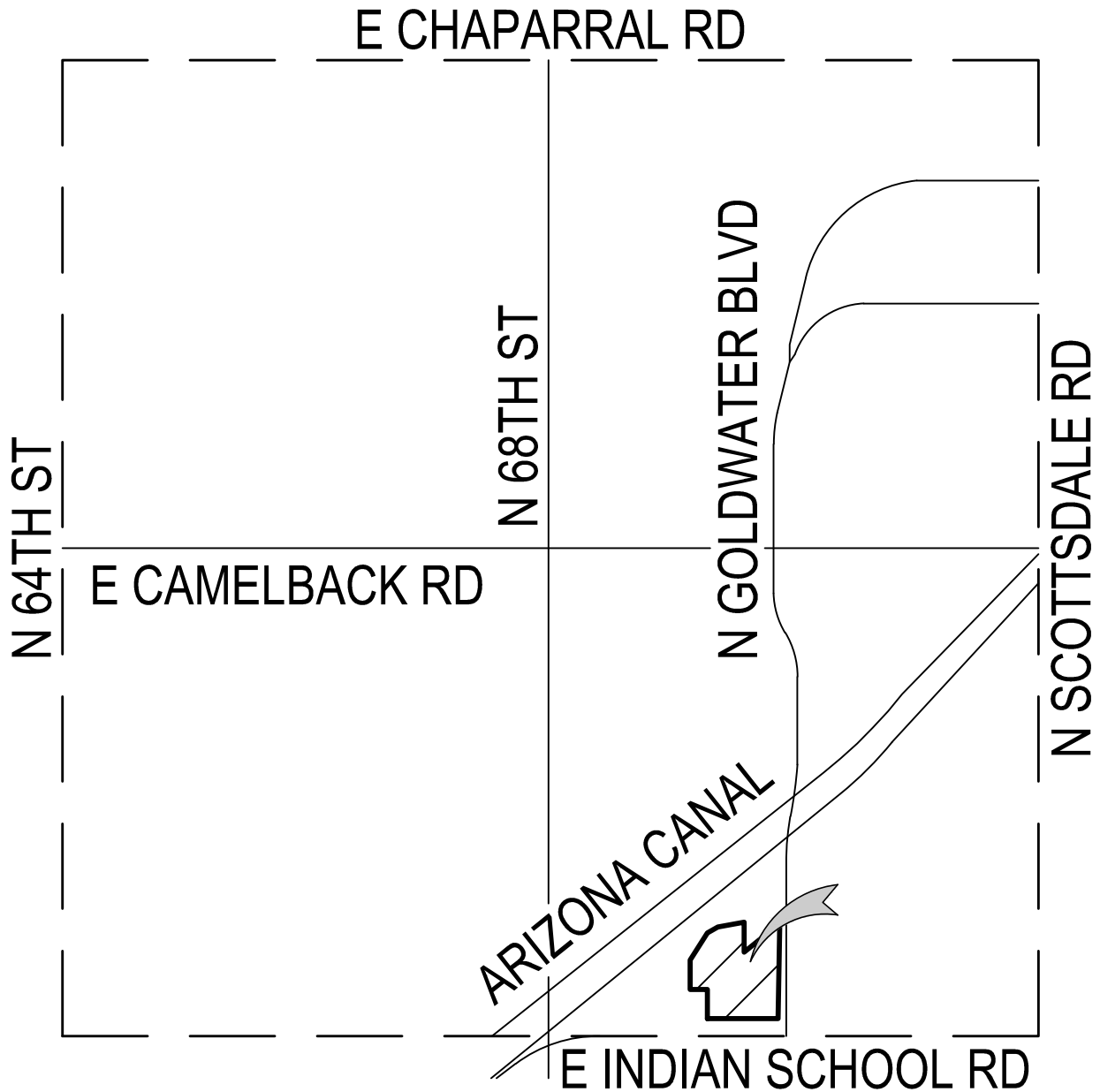


SCALE (HORIZ.) N/A
SCALE (VERT.) N/A
DATE 07/25/2025
JOB NUMBER 245619
SHEET PS5 OF 5

CHECKED BY: DCN DESIGNED BY: APM DRAFTED BY: JRS

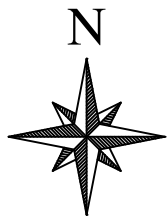
COS PLAN CHECK # 2594-25-1 COS CASE # 993-PA-2024

EXHIBIT 1 – VICINITY MAP



VICINITY MAP

N.T.S.



**NOT
FOR
CONSTRUCTION
OR RECORDING**

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5TH & GOLDWATER

VICINITY MAP

DATE	04-04-2025	SCALE	N/A	SHEET	1 OF 1
JOB NO.	245619	DESIGN	JS	CHECK	AM
		DRAWN	JS	RFI #	N/A

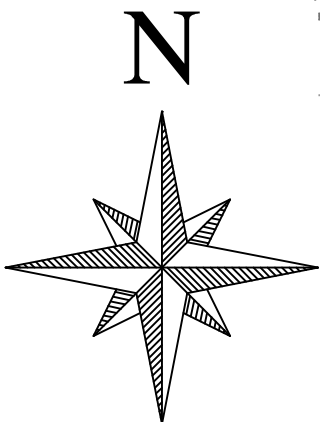
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EXHIBIT 2 – WASTEWATER SYSTEM EXHIBIT

 PROPOSED MANHOLE
 EXISTING MANHOLE
 EXISTING 16" SEWER
 EXISTING 10" SEWER
 EXISTING 8" SEWER
 PROPOSED 8" SEWER
 PROPOSED 6" SEWER
 PROPERTY BOUNDARY
 BUILDING SEWER OUTFALL AREAS

This plan illustrates the sanitary sewer system for the 10000 block of G Street. It details the connections for various buildings, including a residential building (A), a retail building (C), and a building with a roof-top pool and spa (B). The system includes several manholes (SSMH#1 through SSMH#8) and interceptors. Key features include:

- Building Connections:** Residential Bldg Connection 1 and 2, Retail Bldg Connection 1 and 2, and Flex Bldg Connection.
- Interceptors:** Grease interceptors by others and a roof-top pool & spa.
- Manholes:** SSMH#1, SSMH#2, SSMH#3, SSMH#7, and SSMH#8.
- Existing Manholes (EX. SSMH):** EX. SSMH#1, EX. SSMH, EX. SSMH, EX. SSMH, and EX. SSMH.
- Flow Test Manhole:** EX. SSMH Flow Test Manhole with RIM=1270.50, INV (NW)=1256.15, and INV (S)=1256.10.
- Pool Backwash:** Pool backwash discharges to Retail Bldg Connection 2.
- Street and Utility Information:** G Street, 30" RGRCP, 24" SD, 18" SD, 15" RGRCP, 48" RGRCP, 36" RGRCP, 24" W (DIP), 24" W (VCP), 18" W (VCP), 15" W (VCP), 12" W (VCP), 8" W (VCP), 6" W (VCP), 4" W (VCP), 3" W (VCP), 2" W (VCP), 1" W (VCP), 0" W (VCP).



**NOT
FOR
CONSTRUCTION
OR RECORDING**

**WOOD
PATEL**

WASTEWATER SYSTEM

DATE	09/25/2025	SCALE	1" = 80'	SHEET	1 OF 1
JOB NO	245619	DESIGN	DCN	DRAWN	KML

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