WOOD PATEL

FINAL Basis of Design Report

☐ APPROVED

☑ APPROVED AS NOTED

☐ REVISE AND RESUBMIT

CITY OF SCOTTSDALE

SCOTTSDALE WATER

9379 E San Salvador Dr.
Scottsdale, AZ 85258

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 ldillon **DATE** 9/8/2022

1) Refer to utility plan in Exhibit 2 at the end of this report for the interpreted extent of the sewer lines to be constructed prior to or along with this development. Conform to all previous master plans and related case stipulations.
2) All related sewer easements shall be provided.
3) Sewer services shall be min 6" and per MAG 440-3.

WASTEWATER COLLECTION SYSTEM
BASIS OF DESIGN REPORT
FOR
ONE SCOTTSDALE – LOT 3

July 21, 2022
WP# 225336

EXPIRES 6-30-24

30-DR-2021#3
8/12/2022

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APPENDICES

EXHIBITS

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EXPIRES 6-30-24

30-DR-2021#3
8/12/2022

1.0 INTRODUCTION

One Scottsdale – Lot 3 (Site) is comprised of an approximately 3.21-acre site and located within the One Scottsdale community development. It is located south of Legacy Boulevard and east of Scottsdale Road. The Site is located within Section 26, Township 4 North, Range 4 East of the Gila and Salt River Meridian. Refer to Exhibit 1 – *Vicinity Map*.

The proposed development for the One Scottsdale – Lot 3 parcel consists of 280-unit multi-family building that surrounds a 5.5 level parking garage. Proposed site improvements include associated landscape, hardscape, paving and utility services.

Prior to submittal of the Report, a Master Report titled *One Scottsdale (Stacked 40s) Master Onsite Wastewater Plan* (Appendix C) was approved by the City of Scottsdale. The proposed site improvements analyzed in this Report are included within the Planning Unit II portion of the Master Report. Specifically, the Site is proposed to align with sub-area 4C as denoted within Exhibit 3 – *Modeled On-Site Land Use Plan (From Master Report)* for a depiction of the phase areas.

The design criteria used to estimate wastewater flows and evaluate system hydraulics were based on the design criteria used in the *One Scottsdale (Stacked 40s) Master Onsite Wastewater Plan*. The following is a summary of the primary design criteria utilized:

Average Day Wastewater flows, 12-22 DU/ac:..... 100 gpd/person
Population Density, Onsite..... 2.00 persons/DU
Average Day Wastewater flows, Restaurant: .....1.2 gpd/sf
Peaking Factor, High Density Condominium: 4.0
Peaking Factor, Restaurant: 6.0
Minimum Mean Full Flow Velocity: .....2.50 fps
Minimum Peak Full Flow Velocity: .....10.0 fps
Minimum Peak Flow d/D Ratio (12-inch diameter or less):.....d/D = 0.65
Minimum Peak Full Flow Velocity: .....10.0 fps
Minimum Peak Flow d/D Ratio (12-inch diameter or greater): .....d/D = 0.70

Abbreviations: gpd = gallons per day; sf = square feet; fps = feet per second

2.0 EXISTING WASTEWATER INFRASTRUCTURE

The existing wastewater infrastructure adjacent to the Site includes a 12-inch sewer line extending east to west within the Legacy Boulevard alignment, and a public 15-inch sewer line in Scottsdale Road. The existing wastewater infrastructure also includes an existing 8-inch sewer line running east to west within Henkel Way. Two (2) existing 8-inch sewer stubs extend form the sewer line within Henkel Way into the Site. Please refer to Exhibit 2 – *Onsite Wastewater Collection System (From Master Report)* for a depiction of the existing wastewater infrastructure.

Per the One Scottsdale Private Drive Improvement Plan (30-DR-2021), a 10-inch sewer main that runs north to south will be constructed within the private drive located west of the Site. This sewer will upsize to a 12-inch main and extend west at a manhole located north of the Site. This sewer infrastructure will be constructed before construction of the Site begins; however, this infrastructure will not be used to provide sewer services to the Site.

Refer to utility plan in Exhibit 2 at the end of this report for the interpreted extent of the sewer lines to be constructed prior to or along with this development. Conform to all previous master plans and related case stipulations.

3.0 PROPOSED WASTEWATER INFRASTRUCUTRE

3.1 Onsite Infrastructure

As discussed in the introduction, a report was previously approved by the City of Scottsdale for a Master Report titled *One Scottsdale (Stacked 40s) Master Onsite Wastewater Plan.* This report analyzed the overall wastewater demands for the One Scottsdale project, including the proposed project site. Proposed wastewater infrastructure for the Site will connect into two (2) existing 8-inch sewer main stubs shown in Exhibit 2 – *Onsite Wastewater Collection System Exhibit (From Master Report)* within Henkel Way to the south of the Site.

The sewer stubs extending toward the Site will be extended to 5-feet outside the proposed structure to serve the Site. See Exhibit 4 – *One Scottsdale – Lot 3 Wastewater Exhibit*.

3.2 Modeling and Results

Based on the design criteria utilized within the Master Report, the projected average day flow for the Site is calculated to be 56,000 gallons per day (gpd) and the peak flow is projected to be 224,000 gpd. The previously approved *One Scottsdale (Stacked 40s) Master Onsite Wastewater Plan* calculated the peak flow for sub-area 4C to be 297,600 gpd. Additionally, a portion of sub-area 4B was to be served by the 8-inch sewer within Henkel Way, resulting in a total peak flow of 347,200 gpd for the Site. See Appendix A – *Wastewater Demand Calculations* and Appendix B – *Mater Report Calculations Relevant to One Scottsdale – Lot 3 Improvements* both the Master Report Calculations and the calculations for the project Site. Per these calculations, the calculated peak flow for the proposed Site is less than what was anticipated in the Master Report analysis. Therefore, it is our understanding that the overall One Scottsdale system will have sufficient capacity to serve the project.

It is assumed the infiltration and inflow from wet weather has been accounted for in the published design flow rates for the development and the maximum d/D. Therefore, those flows have not been added into the calculations. The proposed sanitary sewer collection system is designed to have adequate capacity to serve the proposed development.

4.0 CONCLUSIONS

Based on our analysis of the Site, the following conclusions can be made:

1. The design criteria used to estimate wastewater flows and evaluate system hydraulics are based on the approved *One Scottsdale (Stacked 40s) Master Onsite Wastewater Plan*.

2. The projected average-day flow for the proposed Site is calculated to be 56,000 gpd while the peak flow is projected to be 224,000 gpd. The proposed wastewater infrastructure is anticipated to have sufficient capacity for these flows, since they are less than the flows anticipated in the Master Report.

5.0 REFERENCES

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

APPENDIX A – WASTEWATER DEMAND CALCULATIONS

WOOD PATEL

TABLE 1
WASTEWATER MODEL

Project	One Scottsdale - Lot 3
Location	Scottsdale, AZ
Project Number	225336
Project Engineer	John "Gordy" Ritchie
References	City of Scottsdale Design Standards and Policies Manual
	Arizona Administrative Code, Title 18, Chapter 9

PROPOSED SITE IMPROVEMENTS

Multi-Family Residential (DU)	DEMAND VALUE (gpd/DU)	TOTAL ADD (gpd)	PEAKING FACTOR	PEAK FLOW (gpd)	PEAK FLOW (gpm)
280	200	56,000	4.0	224,000	156

MASTER PLAN DEMAND CALCULATIONS

			UNIT DAILY FLOW						
Sub-Area	Multi-Family Residential (DU)	Restaurant (SF)	Multi-Family Residential (GPD/DU)	Restaurant (GPD/SF)	TOTAL ADD (GPD)	PEAKING FACTOR (Multi-Family)	PEAKING FACTOR (Restaurant)[1]	PEAK FLOW (gpd)	PEAK FLOW (gpm)
4B	50	8,000	200	1.2	19,600	4.0	-	49,600	34
4C	372	-	200	-	74,400			297,600	207
TOTAL	**422**	**8,000**			**94,000**			**347,200**	**241**

NOTE:

1. Peak flows in the approved Master On-Site Wastewater Plan for One Scottsdale were calculated using the assumption that peak flows for residential building uses occurred at a different times of day than commercial uses. In said master wasterwater plan it was found that the residential uses generated larger peak flow for this portion of the system than commercial uses. This resulted in the peaking factors for commercial uses, such as Restaurant in this case, not being used.

APPENDIX B – MASTER REPORT CALCULATIONS RELEVANT TO ONE SCOTTSDALE – LOT 3 IMPROVEMENTS

Project: Master On-Site Wastewater Plan for One Scottsdale (Stacked 40s) Proj. Number: 154391
Location: Scottsdale, Arizona Proj. Engineer: JGR
Date: December 4, 2015

ONSITE WASTEWATER DESIGN CRITERIA

DESCRIPTION	VALUE	UNITS	Note
GENERAL			
Minimum Mean Full-Flow Velocity:	2.50	ft/s	1
Max. Peak Flow Depth-to-Diameter Ratio (8-12" Dia. Sewers):	0.65	---	1,3
Max. Peak Flow Depth-to-Diameter Ratio (>12" Dia. Sewers):	0.70	---	1
Max. Utilized Capacity:	90	%	---
Minimum Pipe Diameter:	8	in	1
RESIDENTIAL			
Average Day Wastewater Flow per Person, (8-12"Dia. Sewers):	100	gpd/person	2
Average Day Wastewater Flow per Person, (>12"Dia. Sewers):	100	gpd/person	2
Population Density, On-Site:	2.00	persons/DU	2
Population Density, Off-Site Condominiums:	1.70	persons/DU	2
Peaking Factor, Residential:	4.00	---	1
OFFICE			
Average Day Wastewater Flow, Office:	0.10	gpd/SF	2
Peaking Factor, Office:	3.00	n/a	2
RETAIL			
Average Day Wastewater Flow, Retail:	0.60	gpd/sf	2
Peaking Factor, Retail:	3.50	---	2
RESTAURANT			
Average Day Wastewater Flow, Restaurant:	1.20	gpd/sf	
Peaking Factor, Restaurant:	6.00		
HOTEL			
Average Day Wastewater Flow, Hotel:	100	gpd/room	
Peaking Factor, Hotel:	4.00	---	1

OFFSITE WASTEWATER DESIGN CRITERIA

DESCRIPTION	VALUE	UNITS	Note
MIXED USE DEVELOPMENT			
Average Day Wastewater Flow per Acre	1447	gpd/acre	2
Max. Day Wastewater Flow per Acre	2098	gpd/acre	2
Peaking Factor	4	---	2

Notes: 1 —

2 —

3 —

Project:	Master On-Site Wastewater Plan for One Scottsdale (Stacked 40s)	Proj. Number:	154391
Location:	Scottsdale, Arizona	Proj. Engineer:	JGR
Date:	December 4, 2015		

PLANNING UNIT II

PHASE 1

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL OFFICE AREA (SF)	COMMERCIAL RETAIL AREA (SF)	COMMERCIAL RESTAURANT AREA (SF)	COMMERCIAL AREA (SF)	HOTEL (ROOMS)
17 (Henkel Building)	—	325,156	—		325,156	—
SUBTOTAL	—	325,156	—	—	325,156	—

PHASE 2

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL OFFICE AREA (SF)	COMMERCIAL RETAIL AREA (SF)	COMMERCIAL RESTAURANT AREA (SF)	TOTAL COMMERCIAL (SF)	HOTEL (ROOMS)
2a	133	—	62,500	26,000	88,500	—
2b	266	—	23,831	—	23,831	—
2c	133	—	62,500	26,000	88,500	—
2d	266	—	23,831	—	23,831	—
SUBTOTAL	798	—	172,662	52,000	224,662	—

PHASE 3

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL OFFICE AREA (SF)	COMMERCIAL RETAIL AREA (SF)	COMMERCIAL RESTAURANT AREA (SF)	TOTAL COMMERCIAL (SF)	HOTEL (ROOMS)
3a	—	260,000	3,000	5,000	268,000	140
3b	—	140,000	2,000	—	142,000	—
3c	—	260,000	3,000	—	263,000	—
3d	—	140,000	2,000	—	142,000	—
SUBTOTAL	—	800,000	10,000	5,000	815,000	140

Project:	Master On-Site Wastewater Plan for One Scottsdale (Stacked 40s)	Proj. Number:	154391
Location:	Scottsdale, Arizona	Proj. Engineer:	JGR
Date:	December 4, 2015		

PHASE 4

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL				HOTEL (ROOMS)
		OFFICE AREA (SF)	RETAIL AREA (SF)	RESTAURANT AREA (SF)	TOTAL COMMERCIAL (SF)	
4a	279	—	—	---	—	260
4b	267	—	—	8,000	8,000	---
4c	372	---	---	—	---	—
SUBTOTAL	918	---	---	8,000	8,000	260

PHASE 5

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL				HOTEL (ROOMS)
		OFFICE AREA (SF)	RETAIL AREA (SF)	RESTAURANT AREA (SF)	TOTAL COMMERCIAL (SF)	
5a	—	127,834	21,074	2,500	151,408	---
5b	—	204,533	15,332	2,500	222,365	—
5c	—	204,533	15,332	---	219,865	---
SUBTOTAL	—	536,900	51,738	5,000	593,638	---

PHASE 6

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL				HOTEL (ROOMS)
		OFFICE AREA (SF)	RETAIL AREA (SF)	RESTAURANT AREA (SF)	TOTAL COMMERCIAL (SF)	
6	—	197,089	---		197,089	—
SUBTOTAL	—	197,089	---		197,089	---

PLANNING UNIT II TOTAL	1,716	1,859,145	234,400	70,000	2,163,545	400

WOOD/PATEL

MODELED WASTEWATER DESIGN FLOWS

CIVIL ENGINEERS • HYDROLOGISTS • LAND SURVEYORS

Project	Master On-Site Wastewater Plan for One Scottsdale (Stacked 40s)
Location	City of Scottsdale
Date	December 4, 2015
References	City of Scottsdale Design Standards and Policies Manual

Proj Number 153491

Proj Engineer JGR

				LAND USE TYPE																												
				RESIDENTIAL	COMMERCIAL				HOTEL	AVE. DAILY FLOW (ADF) PER SEGMENT (GPD)						CUMULATIVE AVERAGE DAY FLOW (GPD)							PEAK RESIDENTIAL & HOTEL FLOWS + AVE. DAY COMMERCIAL FLOWS (GPD)						PEAK COMMERCIAL FLOWS + AVE. DAY RESIDENTIAL & HOTEL FLOWS (GPD)							
				NO. OF DWELLING UNITS	AREA (SF)																												
UPSTREAM NODE	DOWNSTREAM NODE	LOCATION (PLANNING UNIT)	PLANNING UNIT SUB-AREAS CONTRIBUTING TO FLOW	OFF-SITE	ON-SITE	OFFICE	RETAIL	RESTAURANT	TOTAL	NO. OF ROOMS	RESID.	OFFICE	RETAIL	RESTAURANT	HOTEL	TOTAL (GPD)	RESID.	OFFICE	RETAIL	RESTAURANT	HOTEL	TOTAL ADF (GPD)	INFILT & INFLOW (GPD)	RESID. (PF=4.0)	OFFICE (ADF)	RETAIL (ADF)	RESTAURANT	HOTEL (PF=4.0)	TOTAL MAX DAY FLOW (GPD)	RESID. (ADF)	OFFICE (PF=3.0)	RETAIL (PF=3.5)	RESTAURANT (PF=6.0)	HOTEL (ADF)	TOTAL MAX DAY FLOW (GPD)	PEAK DESIGN FLOW[1] (GPD)	PIPE DIA. (IN)
A5	A4	II	4b 4c 6	---	422	197,089	---	8,000	205,089	---	84,400	19,709	---	9,600	---	113,709	84,400	19,709	---	9,600	---	113,709	---	337,600	19,709	---	9,600	---	366,909	84,400	59,127	---	57,600	---	201,127	366,909	8
A4	A3	II	5c	---	---	204,533	15,332	---	219,865	---	---	20,453	9,199	---	---	29,653	84,400	40,162	9,199	9,600	---	143,361	---	337,600	40,162	9,199	9,600	---	396,561	84,400	120,487	32,197	57,600	---	294,684	396,561	8
A3	A2	II	1	---	---	325,158	---	---	325,158	---	---	32,516	---	---	---	32,516	84,400	72,678	9,199	9,600	---	175,877	---	337,600	72,678	9,199	9,600	---	429,077	84,400	218,033	32,197	57,600	---	392,231	429,077	8
A2	A1 (OUTFALL # 1)	II	---	---	---	---	---	---	---	---	---	---	---	---	---	---	84,400	72,678	9,199	9,600	---	175,877	---	337,600	72,678	9,199	9,600	---	429,077	84,400	218,033	32,197	57,600	---	392,231	429,077	8
	TOTAL FOR OUTFALL #1			---	422	726,779	15,332	8,000	750,110	---	84,400	72,678	9,199	9,600	---	175,877	84,400	72,678	9,199	9,600	---	175,877	---	337,600	72,678	9,199	9,600	---	429,077	84,400	218,033	32,197	57,600	---	392,231	429,077	
B5	B4	II	3d 4a 3b	---	279	280,000	4,000	---	284,000	260	55,800	28,000	2,400	---	26,000	112,200	55,800	28,000	2,400	---	26,000	112,200	---	223,200	28,000	2,400	---	104,000	357,600	55,800	84,000	8,400	---	26,000	174,200	357,600	10
B4	B3	II	4b	---	217	---	---	---	---	---	43,400	---	---	---	---	43,400	99,200	28,000	2,400	---	26,000	43,400	---	396,800	28,000	2,400	---	104,000	531,200	99,200	84,000	8,400	---	26,000	217,600	531,200	10
B3	B2	II	5a, 5b	---	---	332,367	36,408	5,000	373,775	---	---	33,237	21,844	6,000	---	61,080	99,200	61,237	24,244	6,000	26,000	173,280	---	396,800	61,237	24,244	6,000	104,000	592,280	99,200	183,710	64,853	36,000	26,000	429,763	592,280	12
B2	B1 (OUTFALL #2)	II	2b 2d	---	532	---	47,662	---	47,662	---	106,400	---	28,197	---	---	134,597	205,600	61,237	52,841	6,000	26,000	308,278	---	822,400	61,237	52,841	6,000	104,000	1,046,478	205,600	183,710	184,943	36,000	26,000	636,253	1,046,478	12
	TOTAL FOR OUTFALL #2			---	1,028	612,367	88,068	5,000	705,435	260	205,600	61,237	52,841	6,000	26,000	351,678	205,600	61,237	52,841	6,000	26,000	351,678	---	822,400	61,237	52,841	6,000	104,000	1,046,478	205,600	183,710	184,943	36,000	26,000	636,253	1,046,478	
C2	C1 (OUTFALL #3)	II	2a 2c	---	286	---	125,000	52,000	177,000	---	53,200	---	75,000	62,400	---	190,600	53,200	---	75,000	62,400	---	190,600	---	212,800	---	75,000	62,400	---	350,200	53,200	---	262,500	374,400	---	690,100	690,100	10
	TOTAL FOR OUTFALL #3			---	286	---	125,000	52,000	177,000	---	53,200	---	75,000	62,400	---	190,600	53,200	---	75,000	62,400	---	190,600	---	212,800	---	75,000	62,400	---	350,200	53,200	---	262,500	374,400	---	690,100	690,100	
D2	D1 (OUTFALL #4)	II	3a 3c	---	---	520,000	6,000	5,000	531,000	140	---	52,000	3,600	6,000	14,000	75,600	---	52,000	3,600	6,000	14,000	75,600	---	---	52,000	3,600	6,000	56,000	117,600	---	156,000	12,600	36,000	14,000	218,600	218,600	10
	TOTAL FOR OUTFALL #4			---	---	520,000	6,000	5,000	531,000	140	---	52,000	3,600	6,000	14,000	75,600	---	52,000	3,600	6,000	14,000	75,600	---	---	52,000	3,600	6,000	56,000	117,600	---	156,000	12,600	36,000	14,000	218,600	218,600	
E4	E3	III	Offsite	1,295	---	---	---	---	---	---	220,150	---	---	---	---	220,150	220,150	---	---	---	---	220,150	---	880,600	---	---	---	---	880,600	220,150	---	---	---	---	220,150	880,600	12
E10	E3	III	---	---	121	---	---	---	---	---	24,200	---	---	---	---	24,200	24,200	---	---	---	---	244,350	---	96,800	---	---	---	---	96,800	24,200	---	---	---	---	24,200	96,800	8
E3	E2	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	244,350	---	---	---	---	244,350	---	977,400	---	---	---	---	977,400	244,350	---	---	---	---	244,350	977,400	12
E5	E2	III	---	---	121	---	---	---	---	---	24,200	---	---	---	---	24,200	24,200	---	---	---	---	268,550	---	96,800	---	---	---	---	96,800	24,200	---	---	---	---	24,200	96,800	8
E2	E1 (OUTFALL #5)	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	268,550	---	---	---	---	268,550	---	1,074,200	---	---	---	---	1,074,200	268,550	---	---	---	---	268,550	1,074,200	12
	TOTAL FOR OUTFALL #5			1,295	242	---	---	---	---	---	268,550	---	---	---	---	268,550	268,550	---	---	---	---	268,550	---	1,074,200	---	---	---	---	1,074,200	268,550	---	---	---	---	268,550	1,074,200	
F14	F12	III	---	---	194	---	---	---	---	---	38,800	---	---	---	---	38,800	38,800	---	---	---	---	38,800	---	155,200	---	---	---	---	155,200	38,800	---	---	---	---	38,800	155,200	8
F12	F11	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38,800	---	---	---	---	38,800	---	155,200	---	---	---	---	155,200	38,800	---	---	---	---	38,800	155,200	8
F17	F11	III	---	---	193	---	---	---	---	---	38,600	---	---	---	---	38,600	38,600	---	---	---	---	38,600	---	154,400	---	---	---	---	154,400	38,600	---	---	---	---	38,600	154,400	8
F11	F10	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	77,400	---	---	---	---	77,400	---	309,600	---	---	---	---	309,600	77,400	---	---	---	---	77,400	309,600	8
F10	F9	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	77,400	---	---	---	---	77,400	---	309,600	---	---	---	---	309,600	77,400	---	---	---	---	77,400	309,600	10
F19	F8	II	---	---	121	---	---	---	---	---	24,200	---	---	---	---	24,200	24,200	---	---	---	---	24,200	---	96,800	---	---	---	---	96,800	24,200	---	---	---	---	24,200	96,800	8
F9	F8	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	101,600	---	---	---	---	101,600	---	406,400	---	---	---	---	406,400	101,600	---	---	---	---	101,600	406,400	10
F5	F4	III	3a	---	---	159,275	17,750	15,000	192,025	---	---	15,928	10,650	18,000	---	44,578	---	15,928	10,650	18,000	---	44,578	---	---	15,928	10,650	18,000	---	44,578	---	47,783	37,275	108,000	---	193,058	193,058	8
F4	F6	III	3b	---	---	159,275	17,750	---	177,025	---	---	15,928	10,650	---	---	26,578	---	31,855	21,300	18,000	---	71,155	---	---	31,855	21,300	18,000	---	71,155	---	95,565	74,550	108,000	---	278,115	278,115	8
F6	F10	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	31,855	21,300	18,000	---	71,155	---	---	31,855	21,300	18,000	---	71,155	---	95,565	74,550	108,000	---	278,115	278,115	8
F10	F8	II	3d	---	---	159,275	---	---	159,275	---	---	15,928	---	---	---	15,928	---	47,783	21,300	18,000	---	131,660	---	---	47,783	21,300	18,000	---	87,083	---	143,348	74,550	108,000	---	325,898	325,898	8
F7	F6	III	3c	---	---	159,275	---	15,000	174,275	---	---	15,928	---	18,000	---	33,928	---	15,928	---	18,000	---	33,928	---	---	15,928	---	18,000	---	33,928	---	47,783	---	108,000	---	155,783	155,783	8
F8	F2	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	101,600	63,710	21,300	36,000	---	267,188	---	406,400	63,710	21,300	36,000	---	527,410	101,600	191,130	74,550	216,000	---	583,280	583,280	10
F2	F1 (OUTFALL #6)	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	101,600	63,710	21,300	36,000	---	267,188	---	406,400	63,710	21,300	36,000	---	527,410	101,600	191,130	74,550	216,000	---	583,280	583,280	10
	TOTAL FOR OUTFALL #6			---	506	637,100	35,500	30,000	702,600	---	101,600	63,710	21,300	36,000	---	222,610	101,600	63,710	21,300	36,000	---	222,610	---	406,400	63,710	21,300	36,000	---	527,410	101,600	191,130	74,550	216,000	---	583,280	583,280	
	FULL BUILDOUT TOTAL			1,295	2,466	2,496,245	269,900	100,000	2,866,145	400	713,350	249,625	161,940	120,000	26,000	1,284,915	713,350	249,625	161,940	120,000	40,000	1,284,915	---	2,853,400	249,625	161,940	120,000	160,000	3,544,965	713,350	748,873	566,790	720,000	40,000	2,789,014	4,041,735	

INFILTRATION & INFLOW

VALUE	UNITS
65	ACRES PU II
55	ACRES PU III
250	GPD/ACRE
16,250	GPD INFILTRATION / INFLOW PU II
13,750	GPD INFILTRATION / INFLOW PU III
11	PIPES IN MASTER PLAN MODEL PU II
18	PIPES IN MASTER PLAN MODEL PU III
1,477	GPD PER PIPE INFILTRATION & INFLOW PU II
764	GPD PER PIPE INFILTRATION & INFLOW PU III

NOTES

1 Utilizes the greater of peak flows from Residential/Hotel or Commercial

2 Assumes 50% of flow contributes to node

Allowances for offsite (State Land) flows

APPENDIX C – APPROVED MASTER WASTEWATER PLAN FOR ONE SCOTTSDALE (STACKED 40S BY WOOD, PATEL & ASSOCIATES, INC., REVISED JANUARY 28, 2016

Appendix C - For Reference Only

Accepted For:
City of Scottsdale
Water Resources Department
9379 E. San Salvador
Scottsdale, Arizona

By: _____
Date: 3.3.2016

20-ZN-2002#3
2/12/2016

WOOD/PATEL
MISSION: CLIENT SERVICE™

30-DR-2021#3
8/12/2022

Appendix C - For Reference Only

ONE SCOTTSDALE
(Stacked 40s)

MASTER ON-SITE WASTEWATER PLAN

Revised January 28, 2016
Revised February 10, 2012
Revised April 16, 2009
August 25, 2005
WP# 154391

Submitted to:

City of Scottsdale
7447 East Indian School Road
Suite 205
Scottsdale, Arizona 85251

Prepared for:

One Scottsdale Holdings, LLC
7600 East Doubletree Ranch Road
Suite 300
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Phone: (480) 367-7000
Fax: (480) 367-9788
Contact: Mr. Michael Burke

Prepared by:

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Suite 100
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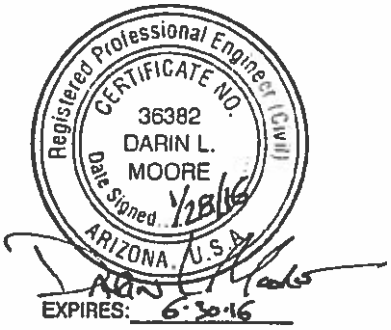
Contact: Mr. Darin L. Moore, P.E.



WOOD/PATEL
MISSION: CLIENT SERVICE℠

Appendix C - For Reference Only

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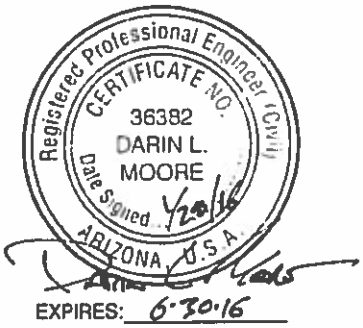

Appendix C - For Reference Only

1.0 INTRODUCTION

1.1 General Background

This plan has been prepared in accordance with Wood, Patel & Associates, Inc.'s (Wood/Patel's) understanding of City of Scottsdale technical requirements for wastewater collection systems and our understanding of the Master On-Site Wastewater Plan submission requirements as defined in the November 19, 2002 Development Agreement No. 2002-142-COS, between the Corrigan Land & Livestock Company, LLC, Corrigan Real Estate Investment, LLC, DMB Stacked 40s LLC, and the City of Scottsdale (Development Agreement), for the approximate 160-acre (gross) parcel of land formerly known as the Stacked 40s, currently known as One Scottsdale.

One Scottsdale is located at the northeast corner of Scottsdale Road and Union Hills Drive; south of Thompson Peak Parkway and east of Scottsdale Road. It is dissected by the Arizona Department of Transportation (ADOT) State Route 101 Freeway, and bound on the north by the Grayhawk Master Planned Community (hereafter referred to as Grayhawk), and on the east by both Grayhawk and Arizona State Trust Land. Specifically, One Scottsdale is located in the west half of Section 26, Township 4 North, Range 4 East of the Gila and Salt River Meridian. Plate 1 – *Vicinity Map* displays its specific location. Center Drive is now called Legacy Boulevard.

One Scottsdale will be developed on approximately 120 acres north of the State Route 101 Freeway, hereinafter referred to as the Project Area, and is anticipated to be a phased mixed-use development that may include single-family residential, multi-family residential, hotel, mixed-use office, retail, and commercial uses as applicable per the Development Agreement.

For the purposes of this plan, the scope of work per the Development Agreement stipulations is included as follows:

1. *MASTER ON-SITE WASTEWATER PLAN. The Master On-Site Wastewater Plan shall conform to the draft Water and Wastewater Report Guidelines available through the City Water Resources Department and shall include:*

   a. *A description of the wastewater system requirements for the Planning Unit and the phasing of such requirements.*

b. *A discussion of the timing of and parties responsible for construction of all wastewater facilities.*

c. *The conceptual location, size, type and capacity of the necessary wastewater collection, transmission, and treatment system components needed to serve the Planning Unit, and a preliminary analysis of the impact of the proposed development on the existing system with wastewater demand generation factors base upon land use.*

d. *The calculations necessary to substantiate the selection of the size, type, and capacity of the wastewater transmission and treatment facilities.*

e. *Compliance with the adopted City's Wastewater System Master Plan for the respective area.*

f. *Estimated peak flow from all contributions upstream of the proposed development that may flow through the on-site system shall be assessed for impacts to the entire system.*

2. *MASTER ON-SITE WASTEWATER PLAN APPROVAL. Before the submittal of any basis of design reports to the Plan Review and Permit Services Division, the Master Developer shall have obtained approval from the City Water Resources Department of the Master On-Site Wastewater Plan.*

The intent of this Master Plan revision is to support a proposed amendment to the One Scottsdale zoning. Refer to Section 1.2, Table 1.2 for the revised Conceptual Planning Areas land use budget.

1.2 Study Area and Planning Units

One Scottsdale is further described as containing "Planning Unit I", "Planning Unit II" and "Planning Unit III" as shown in Plate 2 – *Modeled On-Site Land Use Plans*. The scope of this Master On-Site Wastewater Plan includes the Project Area consisting of "Planning Unit II" and "Planning Unit III". Mr. John R. Lund and the City of Scottsdale are parties to a separate Development Agreement, Agreement Number 2002-143-COS, relating to the development of the South Parcel also known as Planning Unit I. **Therefore the Stacked 40s Development Agreement (Number 2002-142-COS) shall no longer apply to the South Parcel (Planning Unit I) upon the effective date of Agreement Number 2002-143-COS.** The original Stacked 40s Land Use Budget comparison is provided below in Table 1.1.

Appendix C - For Reference Only

Table 1.1:
Land Use Budget

Category	Zoning	Permitted Uses Within Planning Units		Original Total Allowed	Proposed Total Allowed
		II	III		
Residential[2]	PRC PCD	X	X	1,100 Units	2,466 Units
Commercial / Retail / Office	PRC PCD	X	X	1,800,000 SF	2,866,145 SF
Hotel	PRC PCD	X	X	400 Rooms	400 Rooms

Notes:
1. Source: Schedule C, Stacked 40s Land Use Budget, Development Agreement
2. A maximum of 750 residential units within Planning Unit III.

According to the Development Agreement, the approved Development Plan for the Project Area is on file with the Planning and Development Services Department at the City of Scottsdale. The two (2) proposed Planning Unit locations are as follows: Planning Unit II will extend north from the State Route 101 Freeway to Legacy Boulevard, and Planning Unit III will extend north from Legacy Boulevard to Thompson Peak Parkway. A summary of proposed planning areas designated for development within the Project Area is provided in Table 1.2 – *Conceptual Planning Areas*. For a detailed breakdown of land-use as used for estimated wastewater flow rates, please refer to the *Modeled On-Site Land Use Plans* in Plate 2 and *Modeled Land Use Calculations* in Appendix A.

Table 1.2:
Conceptual Planning Areas[1]

Description	Residential Dwelling Units[2]	Commercial				Hotel[2] (Rooms)
		Office (Sq. Ft.)	Retail (Sq. Ft.)	Restaurant (Sq. Ft)	Total (Sq. Ft.)	
Planning Unit II	1716	1,859,145	234,400	70,000	2,163,545	400
Planning Unit III	750	637,100	35,500	30,000	702,600	0
Total	**2,466**	**2,496,245**	**269,900**	**100,000**	**2,866,145**	**400**

Notes:
1. Source: Client-furnished December 2015 land plan for modeling purposes.

608 000 + 25 300 = 633 300 current L- 128

1.3 Build-Out Condition

The design criteria utilized to project wastewater flows and to determine required pipe sizes for the Project Area is based on the maximum number of residences, hotel rooms and square footage of commercial uses allowed. Significant changes in land use and/or projected wastewater flow rates may require an amendment to the Master Plan and/or review and re-approval by the City of Scottsdale. All water and sanitary sewer lines within the Project Area will be constructed by the owner/developer.

1.4 Construction Phasing

It is anticipated that Planning Units II and III will be constructed in several phases. On-site sewer line construction will generally coincide with the development phasing, to be modeled with future basis-of-design (BOD) reports for individual phases.

2.0 EXISTING CONDITIONS

2.1 Topographic Conditions

Currently, the Project Area consists of a mass graded condition for both Planning Units II and III. The Henkel development and associated infrastructure in the southern portion of Planning Unit II is built, along with the Legacy Boulevard improvements that dissect the area. The land generally slopes in a southerly direction at an approximate slope of 1.5 percent from Thompson Peak Parkway to ADOT State Route 101 Freeway. The peak elevation within the area is approximately 1,669 feet, located near Thompson Peak Parkway. The lowest elevation within the Project Area is approximately 1,608 feet near the intersection of Scottsdale Road and State Route 101 Freeway.

2.2 Existing Wastewater Infrastructure

City of Scottsdale public wastewater collection systems adjacent to the Project Area include an existing 12-inch gravity sewer located along East Thompson Peak Parkway, north of Planning Unit III, an existing 15-inch gravity sewer located along Scottsdale Road, west of Planning Units II and III, and an existing 12-inch sewer extending from east to west, located in the Legacy Boulevard alignment, from the eastern boundary of the Project Area to Scottsdale Road.

3.0 WASTEWATER COLLECTION SYSTEM DESIGN CRITERIA AND FLOW RATES

3.1 Design Criteria

For the purpose of this Master On-Site Wastewater Plan, wastewater design flows and pipe-sizing criteria utilized are based on Wood/Patel's understanding of the following:

- Applicable wastewater system design criteria listed in the *City of Scottsdale Design Standards and Policy Manual, 2004 update*;
- Wastewater 'unit daily design flows' as provided by City of Scottsdale staff; and potential development conditions as provided by the client
- Title 18, Chapter 9 of the *Arizona Administrative Code;*
- City of Scottsdale Water Reuse Masterplan (2012)

Please refer to Appendix B – *Wastewater Collection System Design Criteria,* for detailed information regarding design criteria.

3.2 Peaking Factor Variations

An argument can be made that the reality and potential of residential and commercial wastewater flows peaking simultaneously is unlikely. Therefore, the selected approach utilized in this Master Plan determined wastewater design flows based on commercial and residential sources peaking independently. Results of this analysis are presented in Appendix C – *Modeled Wastewater Design Flows*.

3.3 Wastewater Design Flows

Wastewater design flows were estimated using design criteria listed in Section 3.1, and are summarized in Table 3.1. According to City of Scottsdale staff, the existing sewer main extending along Legacy Boulevard through the area should be designed to accommodate wastewater flows from approximately 1,295 off-site dwelling units east of the area and north of Legacy Boulevard. Wastewater design flows from these off-site dwelling units are included in the calculations. Please refer to Plate 2 – *Modeled On-Site Land Use Plans.* Detailed flow calculations are provided in Appendix C – *Modeled Wastewater Design Flows* and Appendix D – *Pipe Capacity Calculations*.

Appendix C - For Reference Only

Table 3.1:
Wastewater Design Flows (GPD)

Outfall Number	Average-Day	Maximum-Day
1	175,877	429,077
2	351,678	1,046,478
3	190,600	690,100
4	75,600	218,600
5	268,550	1,074,200
6	222,610	583,280
Total	**1,284,915**	**4,041,735**

737960 per Erickson report (One Scottsdale)

3.4 Off-Site Wastewater Flows to Scottsdale Road (Master Plan Demands)

Off-Site Wastewater design flows were estimated using design criteria listed in Section 3.1, and are summarized in Table 3.2. See Appendix C for detailed Calculations.

Table 3.2:
Off-Site Wastewater Design Flows (GPD)

Phase	Acres	ADF (GPAD)	PEAK Factor (GPAD)
Planning Unit II	64.2	92,897	371,590
Planning Unit III	56.7	82,045	328,180
TOTAL	**120.9**	**174,942**	**699,769**

PF of 4 is High for Area >20 AC

485gpm

~~737960 per Erickson report (One Scottsdale)~~

3.6 Million Erickson report

3.5 Wastewater Flows from Future Off-Site Development

It is Wood/Patel's understanding that the City of Scottsdale is currently investigating potential sewering alignments to serve future development in the area east of Planning Units II and III and north of the State-Route 101 Freeway intersection. These proposed

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alignments would convey sewage from this area to the east and/or south, ultimately outfalling into the proposed public sewer line located in the Miller Road alignment. In the event these alignments are not feasible, a portion of future wastewater flows from this area may need to be routed through One Scottsdale. As portions of Phase II are developed along the eastern boundary, the developer shall meet with the City of Scottsdale staff to discuss potential sewer extensions for the state land to the east.

4.0 PROPOSED SEWER SYSTEM

4.1 Preliminary Sewer Pipe Sizes

Pipes were sized to accommodate peak-flow conditions at ultimate build-out for the Project Area, plus off-site flows as discussed in Section 3.3. Using the design criteria mentioned previously, the resulting conceptual skeleton sewer system includes sewer pipes ranging in diameter from 8-inches to 12-inches, as shown in Plate 2. Please refer to the Appendix D – *Pipe Capacity Calculations* and Plate 2 – *Modeled On-Site Land Use Plans* for the recommended sewer configuration.

4.2 Modifications to Existing Sewer

The existing public 12-inch sewer located south of Legacy Boulevard within the Project Area has been abandoned and a new 12-inch line placed within the Legacy Boulevard right-of-way. This line serves an off-site area east of the Project Area (a portion of Grayhawk). This line is currently in operation as of the third quarter of 2007 and is shown in Plate 2.

4.3 Deer Valley Road Sewer Interceptor

Per the Development Agreement, an off-site sewer interceptor line was designed and funded by the Stacked 40s (One Scottsdale) developer to connect to the Deer Valley Road sewer that currently flows to the existing 15-inch sewer line in Scottsdale Road, adjacent to the Project Area. This off-site sewer redirects existing wastewater flows and increases the available capacity of the existing 15-inch sewer located along Scottsdale Road to serve the Project Area. This interceptor is in use as of 2006.

4.4 Proposed Wastewater Outfall Connections

There are six (6) proposed wastewater-outfall connections that will be made to the existing public 15-inch sewer line located in Scottsdale Road (see Plate 2). It is Wood/Patel's understanding that the City of Scottsdale will review the existing 15-inch line located in Scottsdale Road for capacity issues as the Project Area develops based on demands shown in Table 3.2 and the Off-Site Wastewater Design Flow Calculations (Please refer to Appendix C- *Modeled Wastewater Design Flows).*

4.5 Legacy Boulevard (Center Drive)

Center Drive is now called Legacy Boulevard. It is our understanding that the managing partner of One Scottsdale caused Legacy Boulevard through the Site to be constructed to coincide with the adjoining City of Scottsdale sponsored Legacy Boulevard. At this time, Legacy Boulevard (a public roadway) has been constructed and is in use by the general public.

5.0 CONCLUSIONS

The One Scottsdale (Stacked 40s) On-Site Master Wastewater Plan, revised January 28, 2016, is believed to meet City of Scottsdale standards and requirements. It is intended to serve as a guide for construction documents associated with the proposed on-site and off-site (Deer Valley Road sewer re-routing modifications) wastewater collection systems. The following highlights critical conclusions:

1. Planning Units II and III's on-site wastewater collection system is ~~capable of being~~ designed in accordance with the City of Scottsdale's current wastewater-system design criteria.

2. Wood/Patel believes that the modeled on-site wastewater system will provide necessary system conveyance and capacity within the previously-defined design, according to calculation results contained in this plan.

3. The work presented models full entitlement build-out per the project zoning case. Full entitlement build-out may or may not occur.

4. The On-Site Master Wastewater Plan for One Scottsdale (Stacked 40s) demonstrates the adequacy of the proposed on-site wastewater collection system to serve the proposed Planning Units II and III.

5. The existing 15-inch public sewer located in Scottsdale Road has more available capacity since the Deer Valley sewer re-routing modifications were completed. It is our understanding that the City of Scottsdale will monitor the performance of the existing 15-inch public sewer in Scottsdale Road as development in the area progresses.

6. City of Scottsdale to evaluate the offsite sewer capacities and implement any necessary capital improvement projects in a future city master plan update.

7. Basis of design reports are required for each phase of development within Planning Units II and III to demonstrate compliance with this master plan.

Appendix C - For Reference Only

APPENDIX A

MODELED LAND USE CALCULATIONS

Appendix C - For Reference Only

WOOD/PATEL — **MODELED LAND USE CALCULATIONS**

CIVIL ENGINEERS • HYDROLOGISTS • LAND SURVEYORS

Project:	Master On-Site Wastewater Plan for One Scottsdale (Stacked 40s)	Proj. Number:	154391
Location:	Scottsdale, Arizona	Proj. Engineer:	JGR
Date:	December 4, 2015		

PLANNING UNIT II

PHASE 1

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL OFFICE AREA (SF)	COMMERCIAL RETAIL AREA (SF)	COMMERCIAL RESTAURANT AREA (SF)	COMMERCIAL AREA (SF)	HOTEL (ROOMS)
17 (Henkel Building)	—	325,156	—		325,156	—
SUBTOTAL	—	325,156	—	—	325,156	—

PHASE 2

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL OFFICE AREA (SF)	COMMERCIAL RETAIL AREA (SF)	COMMERCIAL RESTAURANT AREA (SF)	COMMERCIAL TOTAL COMMERCIAL (SF)	HOTEL (ROOMS)
2a	133	—	62,500	26,000	88,500	—
2b	266	—	23,831	—	23,831	—
2c	133	—	62,500	26,000	88,500	—
2d	266	—	23,831	—	23,831	—
SUBTOTAL	798	—	172,662	52,000	224,662	—

PHASE 3

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL OFFICE AREA (SF)	COMMERCIAL RETAIL AREA (SF)	COMMERCIAL RESTAURANT AREA (SF)	COMMERCIAL TOTAL COMMERCIAL (SF)	HOTEL (ROOMS)
3a	—	260,000	3,000	5,000	268,000	140
3b	—	140,000	2,000	—	142,000	—
3c	—	260,000	3,000	—	263,000	—
3d	—	140,000	2,000	—	142,000	—
SUBTOTAL	—	800,000	10,000	5,000	815,000	140

WOOD/PATEL — **MODELED LAND USE CALCULATIONS**

CIVIL ENGINEERS • HYDROLOGISTS • LAND SURVEYORS

Project:	Master On-Site Wastewater Plan for One Scottsdale (Stacked 40s)	Proj. Number:	154391
Location:	Scottsdale, Arizona	Proj. Engineer:	JGR
Date:	December 4, 2015		

PHASE 4

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL				HOTEL (ROOMS)
		OFFICE AREA (SF)	RETAIL AREA (SF)	RESTAURANT AREA (SF)	TOTAL COMMERCIAL (SF)	
4a	279	—	—	—	—	260
4b	267	—	—	8,000	8,000	—
4c	372	—	—	—	—	—
SUBTOTAL	918	—	—	8,000	8,000	260

PHASE 5

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL				HOTEL (ROOMS)
		OFFICE AREA (SF)	RETAIL AREA (SF)	RESTAURANT AREA (SF)	TOTAL COMMERCIAL (SF)	
5a	—	127,834	21,074	2,500	151,408	—
5b	—	204,533	15,332	2,500	222,365	—
5c	—	204,533	15,332	—	219,865	—
SUBTOTAL	—	536,900	51,738	5,000	593,638	—

PHASE 6

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL				HOTEL (ROOMS)
		OFFICE AREA (SF)	RETAIL AREA (SF)	RESTAURANT AREA (SF)	TOTAL COMMERCIAL (SF)	
6	—	197,089	—		197,089	—
SUBTOTAL	—	197,089	—		197,089	—

PLANNING UNIT II TOTAL	1,716	1,859,145	234,400	70,000	2,163,545	400

Appendix C - For Reference Only

WOOD/PATEL — **MODELED LAND USE CALCULATIONS**

CIVIL ENGINEERS • HYDROLOGISTS • LAND SURVEYORS

Project:	Master On-Site Wastewater Plan for One Scottsdale (Stacked 40s)	Proj. Number:	154391
Location:	Scottsdale, Arizona	Proj. Engineer:	JGR
Date:	December 4, 2015		

PLANNING UNIT III

PHASE 1

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL OFFICE AREA (SF)	COMMERCIAL RETAIL AREA (SF)	COMMERCIAL RESTAURANT AREA (SF)	COMMERCIAL TOTAL COMMERCIAL (SF)	HOTEL (ROOMS)
1	388	—	—		—	—
SUBTOTAL	388	---	---	—	---	---

PHASE 2

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL OFFICE AREA (SF)	COMMERCIAL RETAIL AREA (SF)	COMMERCIAL RESTAURANT AREA (SF)	COMMERCIAL TOTAL COMMERCIAL AREA (SF)	HOTEL (ROOMS)
2	362		—		—	—
SUBTOTAL	362	---	---	---	—	---

PHASE 3

PLANNING UNIT SUB-AREA	RESIDENTIAL (DUs)	COMMERCIAL OFFICE AREA (SF)	COMMERCIAL RETAIL AREA (SF)	COMMERCIAL RESTAURANT AREA (SF)	COMMERCIAL TOTAL COMMERCIAL AREA (SF)	HOTEL (ROOMS)
3a	—	159,275	17,750	15,000	192,025	—
3b	—	159,275	17,750		177,025	—
3c	—	159,275		15,000	174,275	—
3d	—	159,275			159,275	—
SUBTOTAL	---	637,100	35,500	30,000	702,600	---
PLANNING UNIT III TOTAL	750	637,100	35,500	30,000	702,600	---
FULL BUILDOUT TOTAL	2,466	2,496,245	269,900	100,000	2,866,145	400

633 300 proposed
(TDI + Erickson Reports)

Appendix C - For Reference Only

WOOD/PATEL

MODELED WASTEWATER DESIGN FLOWS

CIVIL ENGINEERS • HYDROLOGISTS • LAND SURVEYORS

Project	Master On-Site Wastewater Plan for One Scottsdale (Stacked 40s)
Location	City of Scottsdale
Date	December 4, 2015
References	City of Scottsdale Design Standards and Policies Manual

Proj Number 153491
Proj Engineer JGR

				LAND USE TYPE																												
				RESIDENTIAL	COMMERCIAL				HOTEL	AVE. DAILY FLOW (ADF) PER SEGMENT (GPD)						CUMULATIVE AVERAGE DAY FLOW (GPD)							PEAK RESIDENTIAL & HOTEL FLOWS + AVE. DAY COMMERCIAL FLOWS (GPD)						PEAK COMMERCIAL FLOWS + AVE. DAY RESIDENTIAL & HOTEL FLOWS (GPD)							
				NO. OF DWELLING UNITS	AREA (SF)				NO. OF ROOMS																								
UPSTREAM NODE	DOWNSTREAM NODE	LOCATION (PLANNING UNIT)	PLANNING UNIT SUB-AREAS CONTRIBUTING TO FLOW	OFF-SITE	ON-SITE	OFFICE	RETAIL	RESTAURANT		RESID.	OFFICE	RETAIL	RESTAURANT	HOTEL	TOTAL (GPD)	RESID.	OFFICE	RETAIL	RESTAURANT	HOTEL	TOTAL ADF (GPD)	INFILT & INFLOW (GPD)	RESID. (PF=4.0)	OFFICE (ADF)	RETAIL (ADF)	RESTAURANT	HOTEL (PF=4.0)	TOTAL MAX DAY FLOW (GPD)	RESID. (ADF)	OFFICE (PF=3.0)	RETAIL (PF=3.5)	RESTAURANT (PF=6.0)	HOTEL (ADF)	TOTAL MAX DAY FLOW (GPD)	PEAK DESIGN FLOW[1] (GPD)	PIPE DIA. (IN)
A5	A4	II	4b,4c, 6	---	422	197,089	---	8,000	205,089	---	84,400	19,709	---	9,600	---	113,709	84,400	19,709	---	9,600	---	113,709	---	337,600	19,709	---	9,600	---	366,909	84,400	59,127	---	57,600	---	201,127	366,909	8
A4	A3	II	5c	---	---	204,533	15,332	---	219,865	---	---	20,453	9,199	---	---	29,653	84,400	40,162	9,199	9,600	---	143,361	---	337,600	40,162	9,199	9,600	---	396,561	84,400	120,487	32,197	57,600	---	294,684	396,561	8
A3	A2	II	1	---	---	325,158	---	---	325,158	---	---	32,516	---	---	---	32,516	84,400	72,678	9,199	9,600	---	175,877	---	337,600	72,678	9,199	9,600	---	429,077	84,400	218,033	32,197	57,600	---	392,231	429,077	8
A2	A1 (OUTFALL # 1)	II	---	---	---	---	---	---	---	---	---	---	---	---	---	---	84,400	72,678	9,199	9,600	---	175,877	---	337,600	72,678	9,199	9,600	---	429,077	84,400	218,033	32,197	57,600	---	392,231	429,077	8
	TOTAL FOR OUTFALL #1			---	422	726,776	15,332	8,000	750,110	---	84,400	72,678	9,199	9,600	---	175,877	84,400	72,678	9,199	9,600	---	175,877	---	337,600	72,678	9,199	9,600	---	429,077	84,400	218,033	32,197	57,600	---	392,231	429,077	
B5	B4	II	3d,4a,3b	---	279	280,000	4,000	---	284,000	260	55,800	28,000	2,400	---	26,000	112,200	55,800	28,000	2,400	---	26,000	112,200	---	223,200	28,000	2,400	---	104,000	357,600	55,800	84,000	8,400	---	26,000	174,200	357,600	10
B4	B3	II	4b	---	217	---	---	---	---	---	43,400	---	---	---	---	43,400	99,200	28,000	2,400	---	26,000	43,400	---	398,800	28,000	2,400	---	104,000	531,200	99,200	84,000	8,400	---	26,000	217,600	531,200	10
B3	B2	II	5a, 5b	---	---	332,367	36,408	5,000	373,773	---	---	33,237	21,844	6,000	---	61,080	99,200	61,237	24,244	6,000	26,000	173,280	---	398,800	61,237	24,244	6,000	104,000	592,280	99,200	183,710	64,953	36,000	26,000	429,783	592,280	12
B2	B1 (OUTFALL #2)	II	2b,2d	---	532	---	47,662	---	47,662	---	106,400	---	28,197	---	---	134,597	205,600	61,237	52,841	6,000	26,000	308,278	---	822,400	61,237	52,841	6,000	104,000	1,046,478	205,600	183,710	184,943	36,000	26,000	636,253	1,046,478	12
	TOTAL FOR OUTFALL #2			---	1,028	612,367	88,068	5,000	705,435	260	205,600	61,237	52,841	6,000	26,000	351,678	205,600	61,237	52,841	6,000	26,000	351,678	---	822,400	61,237	52,841	6,000	104,000	1,046,478	205,600	183,710	184,943	36,000	26,000	636,253	1,046,478	
C2	C1 (OUTFALL #3)	II	2a 2c	---	286	---	125,000	52,000	177,000	---	53,200	---	75,000	62,400	---	190,600	53,200	---	75,000	62,400	---	190,600	---	212,800	---	75,000	62,400	---	350,200	53,200	---	262,500	374,400	---	690,100	690,100	10
	TOTAL FOR OUTFALL #3			---	286	---	125,000	52,000	177,000	---	53,200	---	75,000	62,400	---	190,600	53,200	---	75,000	62,400	---	190,600	---	212,800	---	75,000	62,400	---	350,200	53,200	---	262,500	374,400	---	690,100	690,100	
D2	D1 (OUTFALL #4)	II	3a, 3c	---	---	520,000	6,000	5,000	531,000	140	---	52,000	3,600	6,000	14,000	75,600	---	52,000	3,600	6,000	14,000	75,600	---	---	52,000	3,600	6,000	56,000	117,600	---	156,000	12,600	36,000	14,000	218,600	218,600	10
	TOTAL FOR OUTFALL #4			---	---	520,000	6,000	5,000	531,000	140	---	52,000	3,600	6,000	14,000	75,600	---	52,000	3,600	6,000	14,000	75,600	---	---	52,000	3,600	6,000	56,000	117,600	---	156,000	12,600	36,000	14,000	218,600	218,600	
E4	E3	III	Offsite	1,295	---	---	---	---	---	---	220,150	---	---	---	---	220,150	220,150	---	---	---	---	220,150	---	880,600	---	---	---	---	880,600	220,150	---	---	---	---	220,150	880,600	12
E10	E3	III	---	---	121	---	---	---	---	---	24,200	---	---	---	---	24,200	24,200	---	---	---	---	244,350	---	96,800	---	---	---	---	96,800	24,200	---	---	---	---	24,200	96,800	8
E3	E2	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	244,350	---	---	---	---	244,350	---	977,400	---	---	---	---	977,400	244,350	---	---	---	---	244,350	977,400	12
E5	E2	III	---	---	121	---	---	---	---	---	24,200	---	---	---	---	24,200	24,200	---	---	---	---	268,550	---	96,800	---	---	---	---	96,800	24,200	---	---	---	---	24,200	96,800	8
E2	E1 (OUTFALL #5)	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	268,550	---	---	---	---	268,550	---	1,074,200	---	---	---	---	1,074,200	268,550	---	---	---	---	268,550	1,074,200	12
	TOTAL FOR OUTFALL #5			1,295	242	---	---	---	---	---	268,550	---	---	---	---	268,550	268,550	---	---	---	---	268,550	---	1,074,200	---	---	---	---	1,074,200	268,550	---	---	---	---	268,550	1,074,200	
F14	F12	III	---	---	194	---	---	---	---	---	38,800	---	---	---	---	38,800	38,800	---	---	---	---	38,800	---	155,200	---	---	---	---	155,200	38,800	---	---	---	---	38,800	155,200	8
F12	F11	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38,800	---	---	---	---	38,800	---	155,200	---	---	---	---	155,200	38,800	---	---	---	---	38,800	155,200	8
F17	F11	III	---	---	193	---	---	---	---	---	38,600	---	---	---	---	38,600	38,600	---	---	---	---	38,600	---	154,400	---	---	---	---	154,400	38,600	---	---	---	---	38,600	154,400	8
F11	F10	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	77,400	---	---	---	---	77,400	---	309,600	---	---	---	---	309,600	77,400	---	---	---	---	77,400	309,600	8
F10	F9	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	77,400	---	---	---	---	77,400	---	309,600	---	---	---	---	309,600	77,400	---	---	---	---	77,400	309,600	10
F19	F8	II	---	---	121	---	---	---	---	---	24,200	---	---	---	---	24,200	24,200	---	---	---	---	24,200	---	96,800	---	---	---	---	96,800	24,200	---	---	---	---	24,200	96,800	8
F9	F8	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	101,600	---	---	---	---	101,600	---	406,400	---	---	---	---	406,400	101,600	---	---	---	---	101,600	406,400	10
F5	F4	III	3a	---	---	159,275	17,750	15,000	192,025	---	---	15,928	10,650	18,000	---	44,578	---	15,928	10,650	18,000	---	44,578	---	---	15,928	10,650	18,000	---	44,578	---	47,783	37,275	108,000	---	193,058	193,058	8
F4	F6	III	3b	---	---	159,275	17,750	---	177,025	---	---	15,928	10,650	---	---	26,578	---	31,855	21,300	18,000	---	71,155	---	---	31,855	21,300	18,000	---	71,155	---	95,565	74,550	108,000	---	278,115	278,115	8
F6	F10	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	31,855	21,300	18,000	---	115,733	---	---	31,855	21,300	18,000	---	71,155	---	95,565	74,550	108,000	---	278,115	278,115	8
F10	F8	II	3d	---	---	159,275	---	---	159,275	---	---	15,928	---	---	---	15,928	---	47,783	21,300	18,000	---	131,660	---	---	47,783	21,300	18,000	---	87,083	---	143,348	74,550	108,000	---	325,898	325,898	8
F7	F6	III	3c	---	---	159,275	---	15,000	174,275	---	---	15,928	---	18,000	---	33,928	---	15,928	---	18,000	---	33,928	---	---	15,928	---	18,000	---	33,928	---	47,783	---	108,000	---	155,783	155,783	8
F8	F2	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	101,600	63,710	21,300	36,000	---	267,188	---	406,400	63,710	21,300	36,000	---	527,410	101,600	191,130	74,550	216,000	---	583,280	583,280	10
F2	F1 (OUTFALL #6)	III	---	---	---	---	---	---	---	---	---	---	---	---	---	---	101,600	63,710	21,300	36,000	---	267,188	---	406,400	63,710	21,300	36,000	---	527,410	101,600	191,130	74,550	216,000	---	583,280	583,280	10
	TOTAL FOR OUTFALL #6			---	506	637,100	35,500	30,000	702,600	---	101,600	63,710	21,300	36,000	---	222,610	101,600	63,710	21,300	36,000	---	222,610	---	406,400	63,710	21,300	36,000	---	527,410	101,600	191,130	74,550	216,000	---	583,280	583,280	
	FULL BUILDOUT TOTAL			1,295	2,466	2,496,245	269,900	100,000	2,866,145	400	713,350	249,625	161,940	120,000	26,000	1,284,915	713,350	249,625	161,940	120,000	40,000	1,284,915	---	2,853,400	249,625	161,940	120,000	160,000	3,544,965	713,350	748,873	566,790	720,000	40,000	2,789,014	4,041,735	

INFILTRATION & INFLOW

VALUE	UNITS
65	ACRES PU II
55	ACRES PU III
250	GPD/ACRE
16,250	GPD INFILTRATION / INFLOW PU II
13,750	GPD INFILTRATION / INFLOW PU III
11	PIPES IN MASTER PLAN MODEL PU II
18	PIPES IN MASTER PLAN MODEL PU III
1,477	GPD PER PIPE INFILTRATION & INFLOW PU II
764	GPD PER PIPE INFILTRATION & INFLOW PU III

NOTES
1 Utilizes the greater of peak flows from Residential/Hotel or Commercial
2 Assumes 50% of flow contributes to node

Allowances for offsite (State Land) flows

Appendix C - For Reference Only

APPENDIX B

WASTEWATER COLLECTION SYSTEM DESIGN CRITERIA

Appendix C - For Reference Only

WOOD/PATEL **WASTEWATER COLLECTION SYSTEM DESIGN CRITERIA**

Project: Master On-Site Wastewater Plan for One Scottsdale (Stacked 40s) Proj. Number: 154391
Location: Scottsdale, Arizona Proj. Engineer: JGR
Date: December 4, 2015

ONSITE WASTEWATER DESIGN CRITERIA

DESCRIPTION	VALUE	UNITS	Note
GENERAL			
Minimum Mean Full-Flow Velocity:	2.50	ft/s	1
Max. Peak Flow Depth-to-Diameter Ratio (8-12" Dia. Sewers):	0.65	---	1,3
Max. Peak Flow Depth-to-Diameter Ratio (>12" Dia. Sewers):	0.70	---	1
Max. Utilized Capacity:	90	%	---
Minimum Pipe Diameter:	8	in	1
RESIDENTIAL			
Average Day Wastewater Flow per Person, (8-12"Dia. Sewers):	100	gpd/person	2
Average Day Wastewater Flow per Person, (>12"Dia. Sewers):	100	gpd/person	2
Population Density, On-Site:	2.00	persons/DU	2
Population Density, Off-Site Condominiums:	1.70	persons/DU	2
Peaking Factor, Residential:	4.00	---	1
OFFICE			
Average Day Wastewater Flow, Office:	0.10	gpd/SF	2
Peaking Factor, Office:	3.00	n/a	2
RETAIL			
Average Day Wastewater Flow, Retail:	0.60	gpd/sf	2
Peaking Factor, Retail:	3.50	---	2
RESTAURANT			
Average Day Wastewater Flow, Restaurant:	1.20	gpd/sf	
Peaking Factor, Restaurant:	6.00		
HOTEL			
Average Day Wastewater Flow, Hotel:	100	gpd/room	
Peaking Factor, Hotel:	4.00	---	1

OFFSITE WASTEWATER DESIGN CRITERIA

DESCRIPTION	VALUE	UNITS	Note
MIXED USE DEVELOPMENT			
Average Day Wastewater Flow per Acre	1447	gpd/acre	2
Max. Day Wastewater Flow per Acre	2098	gpd/acre	2
Peaking Factor	4	---	2

Notes: 1 —

2 —

3 —

Appendix C - For Reference Only

APPENDIX C

MODELED WASTEWATER DESIGN FLOWS

Appendix C - For Reference Only

WOOD/PATEL — **OFFSITE WASTEWATER DESIGN FLOWS**

CIVIL ENGINEERS • HYDROLOGISTS • LAND SURVEYORS • CONSTRUCTION MANAGERS

Project: Master On-Site Wastewater Plan to One Scottsdale
Location: Scottsdale, Arizona
Date: January 29, 2016
References: City of Scottsdale Water Reuse Master Plan (2012)

Proj. Number: 154391
Proj. Engineer: John Gordy Ritchie, P.E.

PHASE	APPLICABLE UNIT	NUMBER OF UNITS	ADF/ APPLICABLE UNIT (GPAD)[1]	TOTAL ADF (GPD)	MAX ADF/ APPLICABLE UNIT (GPAD)[1]	TOTAL MAX ADF (GPD)	F.A.R. PEAKING FACTOR[1]	PEAK ADF (GPD)[1]
Planning Unit II	Acres	64.2	1447	92,897	2098	134,692	4	371,590
Planning Unit III	Acres	56.7	1447	82,045	2098	118,957	4	328,180
Totals		120.9		174,942		253,648		699,769

Notes
1. Wastewater design flow rates and peaking factors established from the City of Scottsdale Water Reuse Master Plan (2012)

So 404,735 gpd (DS+KM)
vs. 699,769 gpd (MP)
(5.8 factor)

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Appendix C - For Reference Only

APPENDIX D

PIPE CAPACITY CALCULATIONS

Appendix C - For Reference Only

WOOD/PATEL — **PIPE CAPACITY CALCULATIONS**

Project: Master On-Site Wastewater Plan for One Scottsdale (Stacked 40s)
Location: Scottsdale, Arizona
Date: December 4, 2015

Proj. Number: 154391
Proj. Engineer: JGR

Full

UPSTREAM NODE	DOWNSTREAM NODE	MAX DAY FLOW (GPD)	PIPE DIA. (IN.)	PIPE SLOPE (FT / FT)	d/D RATIO	FULL FLOW VELOCITY (FPS)	PIPE CAPACITY (GPD)	SURPLUS CAPACITY (GPD)	PERCENT OF CAPACITY
A5	A4	366,909	8	0.00550	57.7%	2.6	580,390	213,481	63.2%
A4	A3	396,561	8	0.00550	60.7%	2.6	580,390	183,829	68.3%
A2	A1 (OUTFALL # 1)	429,077	8	0.00550	64.0%	2.6	580,390	151,313	73.9%
B5	B4	357,600	10	0.00430	43.0%	2.6	930,533	572,933	38.4%
B3	B2	592,280	12	0.00300	48.1%	2.5	1,263,964	671,684	46.9%
B2	B1 (OUTFALL #2)	1,046,478	12	0.00300	69.4%	2.5	1,263,964	217,487	82.8%
C2	C1 (OUTFALL #3)	690,100	10	0.00430	64.1%	2.6	930,533	240,433	74.2%
D2	D1 (OUTFALL #4)	218,600	10	0.00430	33.0%	2.6	930,533	711,933	23.5%
E4	E3	880,600	12	0.00310	60.8%	2.5	1,284,858	404,258	68.5%
E10	E3	96,800	8	0.00550	27.7%	2.6	580,390	483,590	16.7%
E3	E2	977,400	12	0.00360	62.0%	2.7	1,384,603	407,203	70.6%
E5	E2	96,800	8	0.00550	27.7%	2.6	580,390	483,590	16.7%
E2	E1 (OUTFALL #5)	1,074,200	12	0.00310	69.9%	2.5	1,284,858	210,658	83.6%
F14	F12	155,200	8	0.00550	35.3%	2.6	580,390	425,190	26.7%
F12	F11	155,200	8	0.00550	35.3%	2.6	580,390	425,190	26.7%
F17	F11	154,400	8	0.00550	35.2%	2.6	580,390	425,990	26.6%
F11	F10	309,600	8	0.00550	52.0%	2.6	580,390	270,790	53.3%
F10	F9	309,600	10	0.00430	39.7%	2.6	930,533	620,933	33.3%
F19	F9	96,800	8	0.00550	27.7%	2.6	580,390	483,590	16.7%
F9	F8	406,400	10	0.00430	46.3%	2.6	930,533	524,133	43.7%
F5	F4	193,058	8	0.00550	39.7%	2.6	580,390	387,333	33.3%
F4	F6	278,115	8	0.00550	48.8%	2.6	580,390	302,275	47.9%
F6	F10	278,115	8	0.00550	48.8%	2.6	580,390	302,275	47.9%
F10	F8	325,898	8	0.00550	53.6%	2.6	580,390	254,493	56.2%
F7	F8	155,783	8	0.00550	27.1%	2.6	580,390	424,608	26.8%
F8	F2	583,280	10	0.00430	57.4%	2.6	930,533	347,253	62.7%
F2	F1 (OUTFALL #6)	583,280	10	0.00430	57.4%	2.6	930,533	347,253	62.7%

A1 d/D=0.7 486720 − 429077 = 57643 gpd

Avail for offsite

B1 d/D=0.7 1058400 − 1046478 = 11922 gpd

Avail for offsite

(Not much)

Appendix C - For Reference Only

PLATE 1

VICINITY MAP

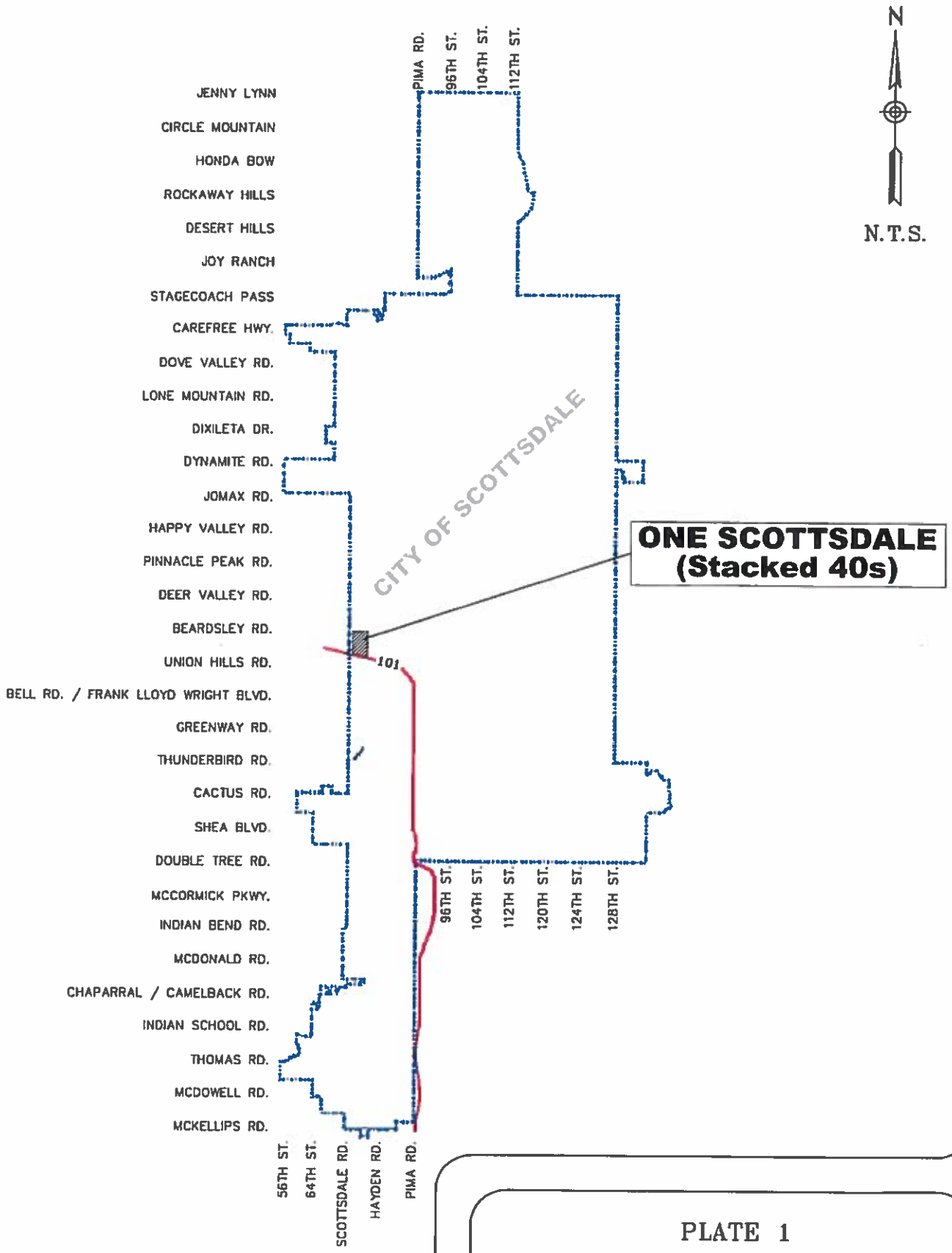

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PLATE 1

ONE SCOTTSDALE
(Stacked 40s)
VICINITY MAP

WOOD/PATEL & ASSOCIATES
Civil Engineers
Hydrologists
Land Surveyors
Construction Managers
(602) 335-8500

Appendix C - For Reference Only

PLATE 2

MODELED ON-SITE LAND USE PLANS

Appendix C - For Reference Only

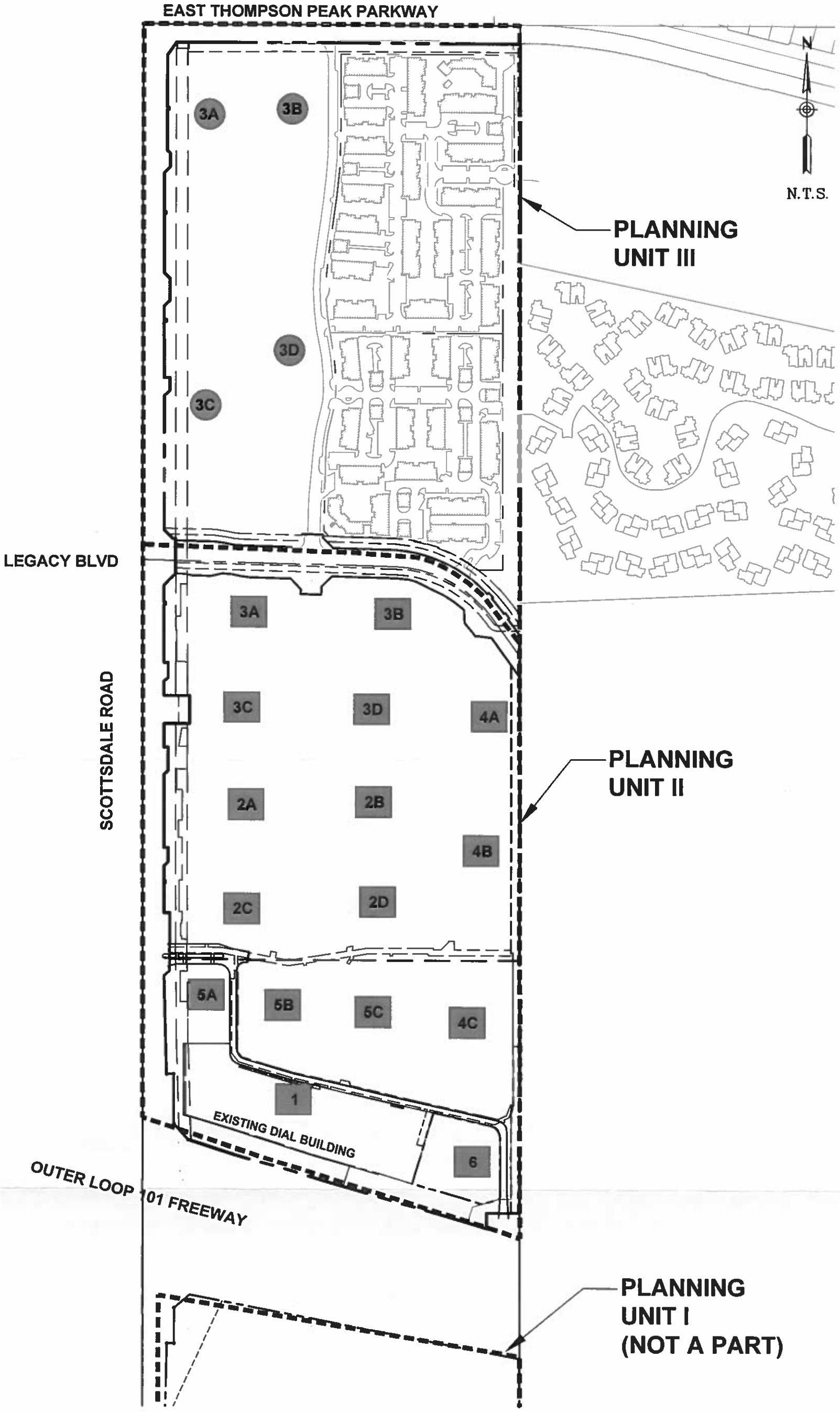


PLATE 2

JANUARY 2016

ONE SCOTTSDALE MODELED ON-SITE LAND USE PLAN

WOOD/PATEL ASSOCIATES
Civil Engineers
Hydrologists
Land Surveyors
Construction Managers
(602) 335-8500

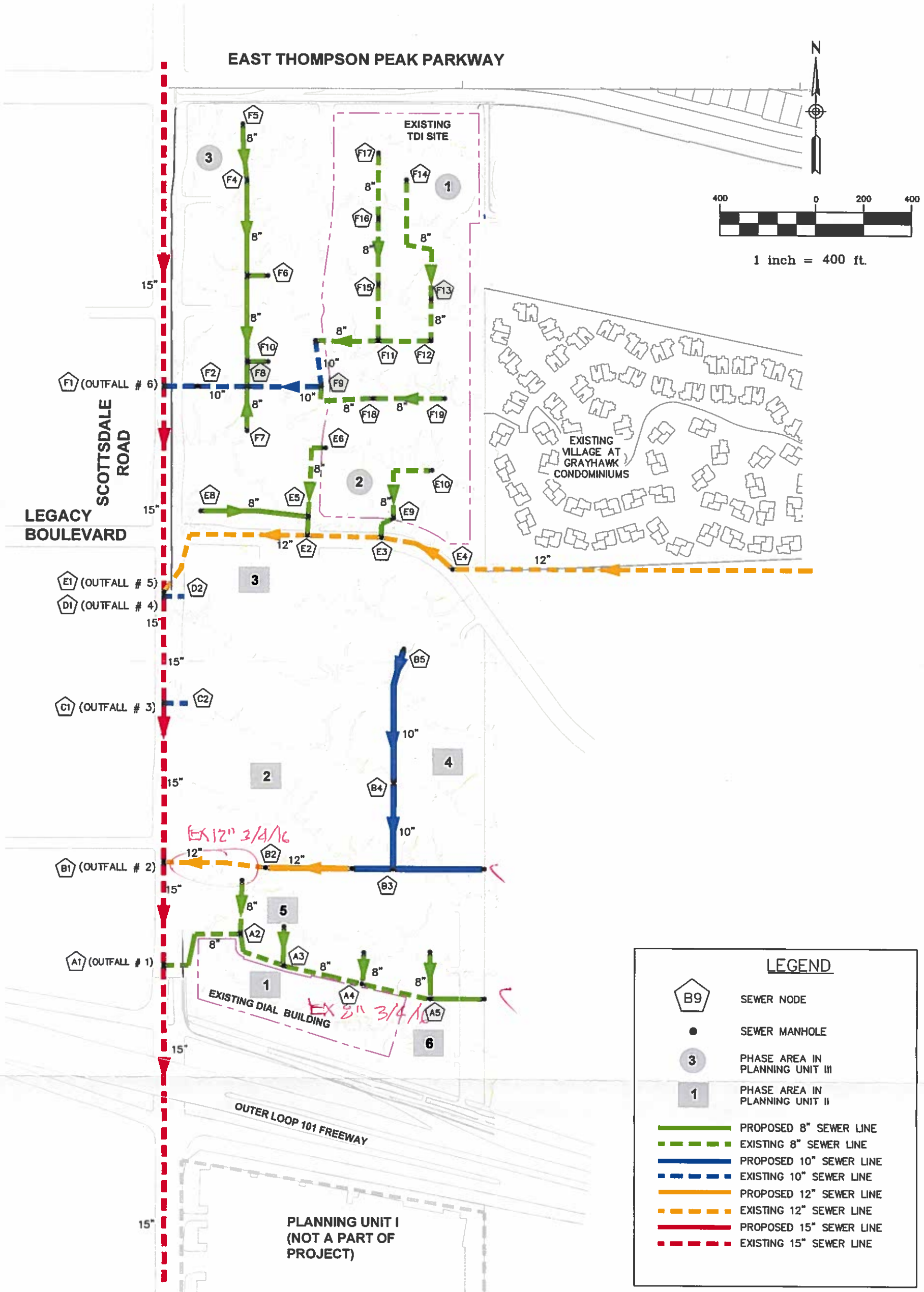
Appendix C - For Reference Only

PLATE 3

MODELED ON-SITE WASTEWATER COLLECTION SYSTEM

Appendix C - For Reference Only

PRELIMINARY
NOT FOR
CONSTRUCTION
OR RECORDING



LEGEND

- B9 — SEWER NODE
- SEWER MANHOLE
- 3 — PHASE AREA IN PLANNING UNIT III
- 1 — PHASE AREA IN PLANNING UNIT II
- PROPOSED 8" SEWER LINE
- EXISTING 8" SEWER LINE
- PROPOSED 10" SEWER LINE
- EXISTING 10" SEWER LINE
- PROPOSED 12" SEWER LINE
- EXISTING 12" SEWER LINE
- PROPOSED 15" SEWER LINE
- EXISTING 15" SEWER LINE

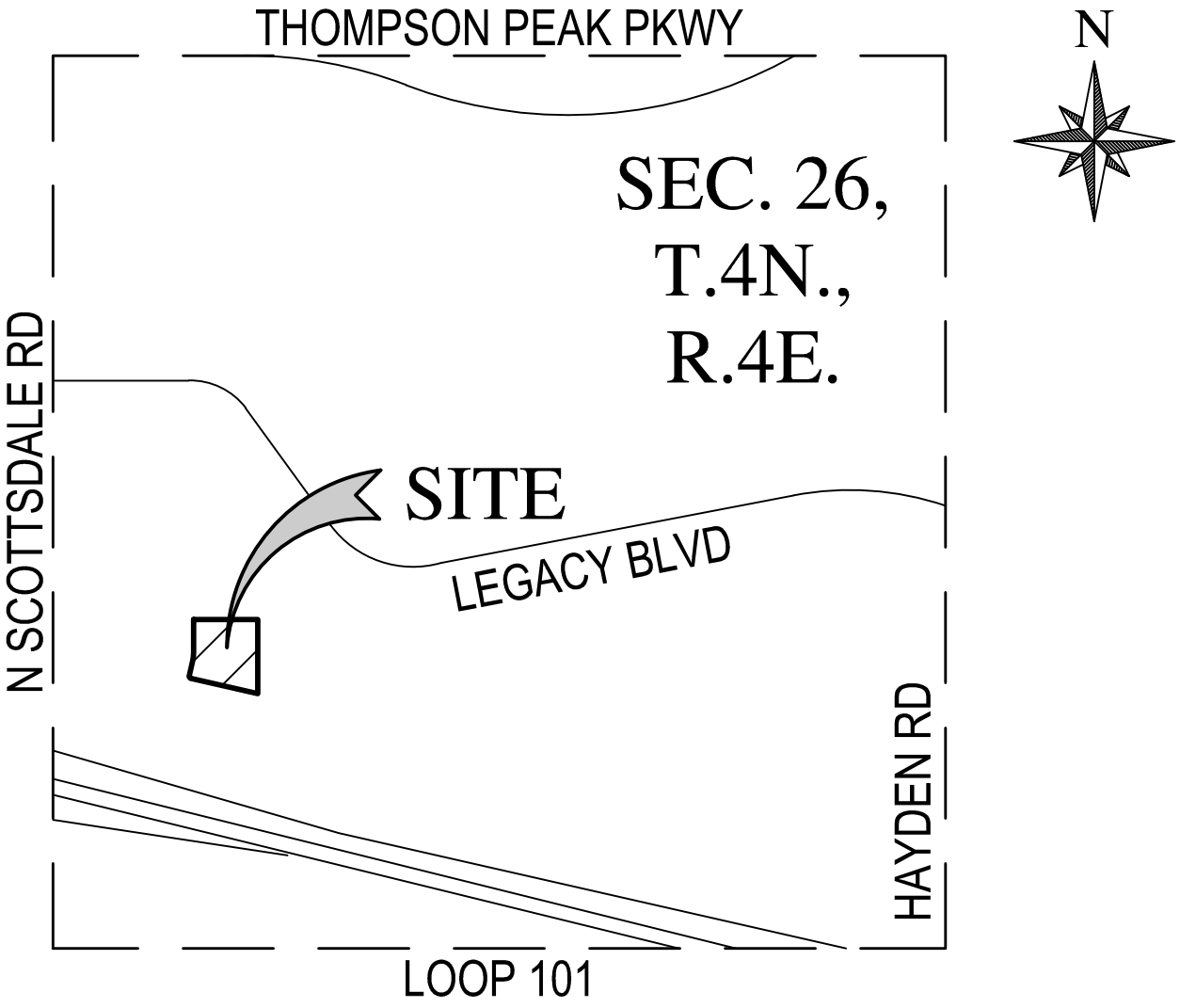
PLATE 3

JANUARY 2016

ONE SCOTTSDALE ON-SITE WASTEWATER COLLECTION SYSTEM

WOOD/PATEL ASSOCIATES
Civil Engineers
Hydrologists
Land Surveyors
Construction Managers
(602) 335-8500

EXHIBIT 1 – VICINITY MAP



VICINITY MAP

N.T.S.

NOT
FOR
CONSTRUCTION
OR RECORDING

WOOD PATEL

ONE SCOTTSDALE - LOT 3

VICINITY MAP

DATE	07-21-2021	SCALE	N/A	SHEET	1 OF 1
JOB NO.	225336	DESIGN	JGR	CHECK	ZNR
		DRAWN	AJS	RFI #	

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30-DR-2021#3
8/12/2022

EXHIBIT 2 – ONSITE WASTEWATER COLLECTION SYSTEM EXHIBIT (FROM MASTER REPORT)

PRELIMINARY
NOT FOR
CONSTRUCTION
OR RECORDING

EAST THOMPSON PEAK PARKWAY

EXISTING TDI SITE

EXISTING VILLAGE AT GRAYHAWK CONDOMINIUMS

SCOTTSDALE ROAD

LEGACY BOULEVARD

EXISTING DIAL BUILDING

OUTER LOOP 101 FREEWAY

F1 (OUTFALL # 6)
E1 (OUTFALL # 5)
D1 (OUTFALL # 4)
C1 (OUTFALL # 3)
B1 (OUTFALL # 2)
A1 (OUTFALL # 1)

PLANNING UNIT I
(NOT A PART OF
PROJECT)

N

400 0 200 400

1 inch = 400 ft.

to be completed prior to or along with this development.

PROPOSED ONE SCOTTSDALE - LOT 3 PROJECT BOUNDARY

LEGEND

- B9 — SEWER NODE
- SEWER MANHOLE
- 3 — SUB-AREA IN PLANNING UNIT III
- 1 — SUB-AREA IN PLANNING UNIT II
- PROPOSED 8" SEWER LINE
- EXISTING 8" SEWER LINE
- PROPOSED 10" SEWER LINE
- EXISTING 10" SEWER LINE
- PROPOSED 12" SEWER LINE
- EXISTING 12" SEWER LINE
- PROPOSED 15" SEWER LINE
- EXISTING 15" SEWER LINE

PLATE 3

OCTOBER 2021

ONE SCOTTSDALE
ON-SITE WASTEWATER
COLLECTION SYSTEM

WOOD/PATEL ASSOCIATES
Civil Engineers
Hydrologists
Land Surveyors
Construction Managers
(602) 335-8500

\\Phx-filesvr-projects\phx\W-Drive\2015\154391\Project Support\Reports\Sewer BOD\Exhibits\4391 - Wastewater - Plate 3.dwg

EXHIBIT 3 – MODELED ON-SITE LAND USE PLAN (FROM MASTER REPORT)

EAST THOMPSON PEAK PARKWAY

N

N.T.S.

PLANNING UNIT III

PLANNING UNIT II

PLANNING UNIT I (NOT A PART)

LEGACY BLVD

SCOTTSDALE ROAD

OUTER LOOP 101 FREEWAY

EXISTING DIAL BUILDING

PROPOSED ONE SCOTTSDALE - LOT 3 PROJECT BOUNDARY

3A 3B 3C 1 2 3A 3B 3C 3D 4A 2A 2B 4B 5D 5E 5A 5B 5C 4C 1 6

3 PHASE AREA IN PLANNING UNIT III

1 PHASE AREA IN PLANNING UNIT II

PLANNING UNIT LINE

PLATE 2

JUNE 2021

ONE SCOTTSDALE MODELED ON-SITE LAND USE PLAN

WOOD/PATEL ASSOCIATES
Civil Engineers
Hydrologists
Land Surveyors
Construction Managers
(602) 335-8500

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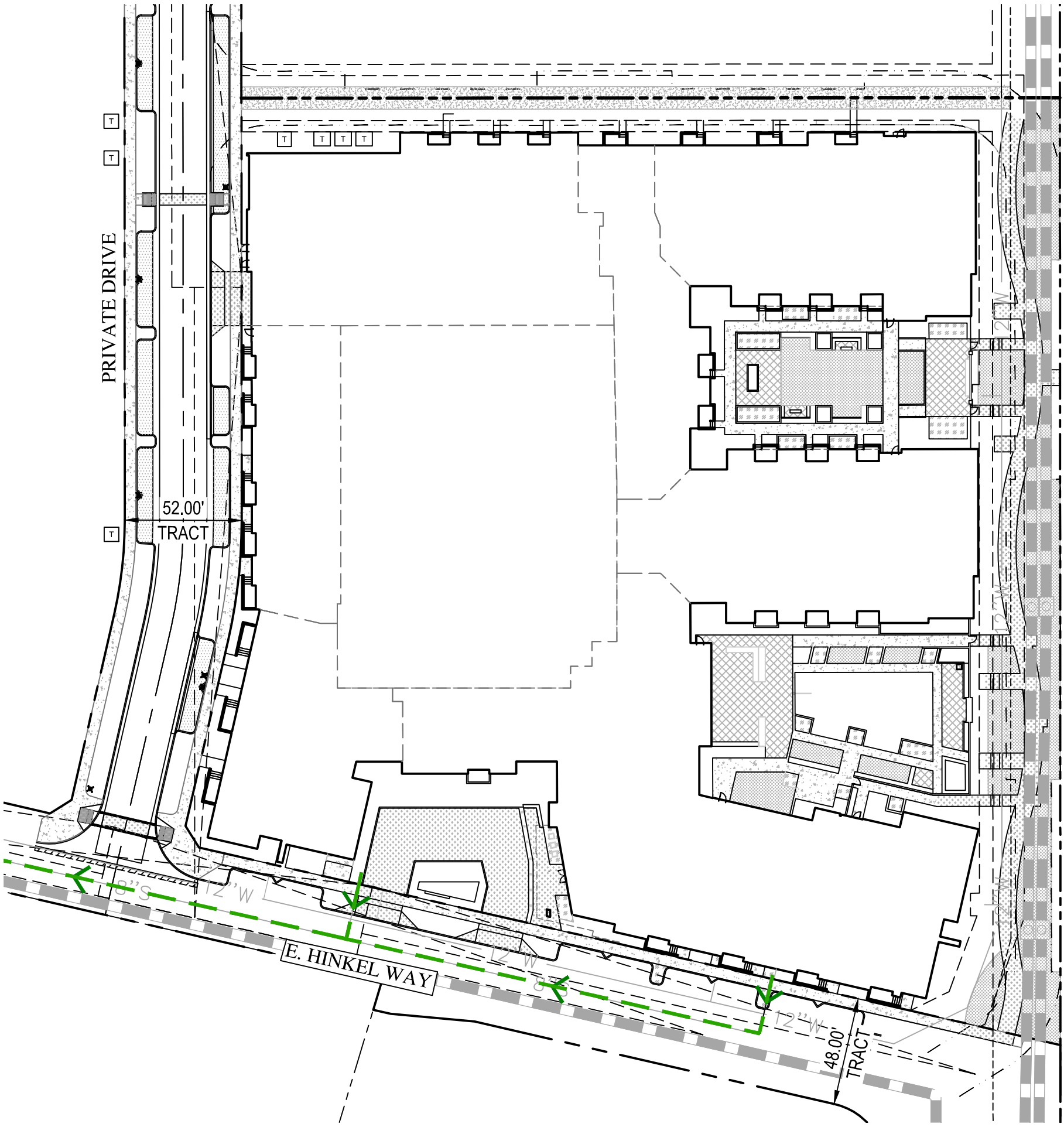
EXHIBIT 4 – ONE SCOTTSDALE – LOT 3 WASTEWATER EXHIBIT



LEGEND

PROPOSED 8" SEWER PIPE

EXISTING 8" SEWER PIPE

FLOW DIRECTION

PROPERTY BOUNDARY

NOT FOR CONSTRUCTION OR RECORDING

WOOD PATEL

ONE SCOTTSDALE - LOT 3

WASTEWATER EXHIBIT

DATE	07-21-2022	SCALE	1" = 50'	SHEET	1 OF 1
JOB NO	225336	DESIGN	JGR	CHECK	ZNR
		DRAWN	AJS	RFI #	

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