PRELIMINARY DRAINAGE REPORT

FOR

ONE SCOTTSDALE - SHOPS B

20001 N. Scottsdale Road
Scottsdale, AZ 85255

Prepared For:

CHRISTIFULLI COMMERCIAL

REAL ESTATE

5141 N. 40th Street, Suite #20
Phoenix, AZ 85018

Prepared By:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Phoenix, AZ

Plan # _____

Case # 61-dr-2015 #3 **CEC Project 316-413**

Q-S # 40-45

OCTOBER 2021

X Approved

____ Corrections

11/15/2021

Reviewed By Date

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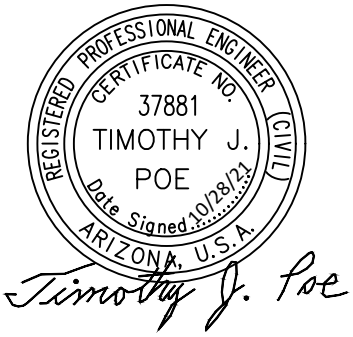


APPENDICES

1.0 INTRODUCTION

The purpose of this preliminary drainage report is to provide the drainage analysis for the proposed One Scottsdale Shops - B located north of the northeast corner of the intersection of Legacy Boulevard and N. Scottsdale Road. The site is further described as:

- A portion of the southeast quarter of Section 26, Township 4 North, Range 4 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.
- Assessor's parcel Number: 215-05-306

Refer to the Vicinity Map on the following page.

The proposed project will be constructed on vacant Lot 5 of approximately 85,773 sf (1.97 ac) per the Final Plat One Scottsdale Lot 3, approved March 2, 2021. The subject lot is part of the previous One Scottsdale – Phase 1 commercial and retail development, currently designated as PRC PCD zoning. The development will consist of a 10,700 sf commercial building with retail (7,200 sf) and a café (3,500 sf) with designated parking area and utility connections to existing main lines. Ingress and egress will provided by the existing drives allowing access to Scottsdale Road.

This preliminary drainage report will serve as an additional support document to the approved *Onsite Drainage Report for One Scottsdale* dated April 2, 2021 by providing discussions and calculations defining the onsite and offsite storm water management concepts to comply with the drainage requirements established by the City of Scottsdale (C.O.S.) Design Standards & Policies Manual (D.S. & P.M.). The preparation of this report has been done in accordance with the Drainage Design Manual for Maricopa County, Volumes I and II, Hydrology and Hydraulics.

2.0 PROJECT BACKGROUND

2.1 EXISTING CONDITIONS

The existing site is partially developed and sheet drains to existing drainage structures. There are existing storm drains and catch basins surrounding the subject site that convey onsite and offsite drainage to the conveyance system east of Scottsdale Road. The system ultimately outfalls at the existing 8' x 3' box culvert located northeast of the Scottsdale Road and Legacy Boulevard intersection, at a low lot outfall elevation of 1635.17.

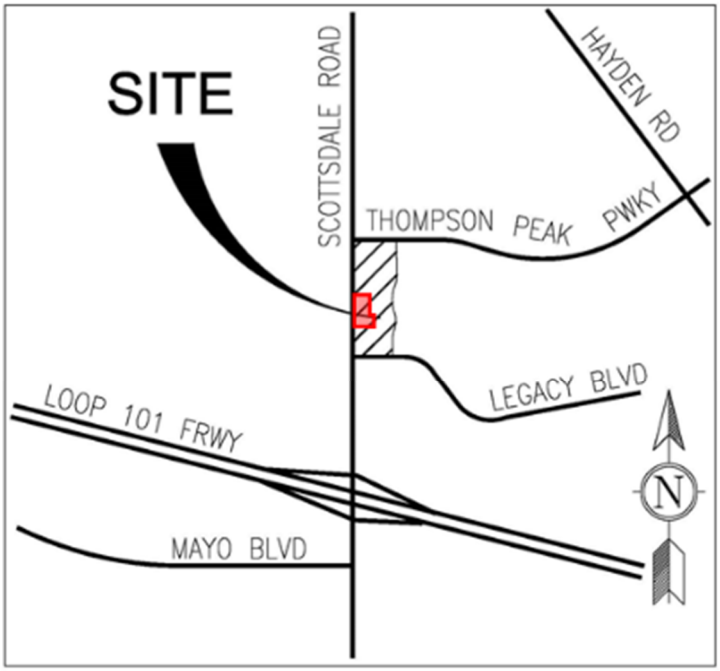
Refer to **Appendix B,** Exhibit 1- Drainage Exhibit, for the *Onsite Drainage Report for One Scottsdale* drainage area map illustrating the existing storm drain system and ultimate outfall location.

The subject site currently drains to existing catch basins CB-D, CB-E and CB-F (east) and catch basins CB-H and CB-I (west). Drainage analysis for the existing infrastructure have been

performed in the previous drainage report, *Onsite Drainage Report for One Scottsdale* and revised in the *Final Drainage Report One Scottsdale – Phase II (Home 2 Suites by Hilton),* dated August 2021. The prosed site is currently accounted for under drainage areas B3, B4, B5, and D9 in Exhibit 1. Based on the original master drainage report, these drainage areas contribute a 100-year peak flow of **18.63 cfs** to the existing conveyance system.

2.1.1 FEMA Map

The subject property is located within the Flood Insurance Rate Map (FIRM) #04013C1320L, dated October 16, 2013, previously designated as an "AO" flood zone. According to LOMR 20-09-0698P, effective April 14, 2021, the property is currently located within the area revised flood zone "AO" to zone "X". This area is defined 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% chance annual flood." Refer to the **Appendix A** for a copy of the FIRMette map for this area.



VICINITY MAP
N.T.S.

2.1.2 Offsite Drainage

The project site is affected by offsite flows discharging from 73rd Street and the Hotel development, defined within drainage areas B1, B2, B3, and B4. Drainage areas B1 through B4 have been revised per the *Final Drainage Report One Scottsdale – Phase II (Home 2 Suites by Hilton)*. The site also

appears to be affected by offsite flows from the south parcel. Drainage area D9 accounts for a portion of Pad B that is anticipated to drain to onsite catch basin, CB-I. There are no other offsite flows affecting the site.

Refer **Appendix E** for *Final Drainage Report One Scottsdale – Phase II (Home 2 Suites by Hilton).*

3.0 PROPOSED CONDITIONS

3.1 STORMWATER DESIGN

Drainage for the site will be handled through existing underground storm drains conveying onsite and offsite flows through the site and connect to the existing drainage system east of Scottsdale Road. The system will continue to outfall at the historical outfall located at the existing box culvert at a low lot outfall elevation of 1635.17.

Stormwater retention for the proposed site development has been waived per the master plan drainage report. First flush requirements have also been met through the use of vortex hydrodynamic separator structures as part of the One Scottsdale Phase I development.

3.1.1 Onsite and Offsite Drainage

Onsite drainage patterns for the site have remained the same as was illustrated in the previous drainage report with minor adjustments to the drainage areas. Refer to **Appendix B**, Exhibit 2 – Proposed Conditions Drainage Area Map for the updated drainage areas.

The hydrology analysis for the proposed site was performed based on procedures dictated in the C.O.S. D.S.& P.M and Drainage Design Manual for Maricopa County, Volumes I Hydrology. The rational method was used to compute the onsite peak discharges for the 10-year and 100-year storm event, assuming a 10-minute time of concentration and weighted runoff coefficients per the C.O.S. D.S.& P.M.

Refer to **Appendix C** for Proposed Conditions Weighted Runoff Coefficient calculations.

3.1.2 Onsite and Offsite Hydraulics and Drainage Infrastructure

Overland flow will be captured by nearby existing catch basins. Roof runoff will surface flow to catch basins CB-I and CB-H though proposed curb and wall openings. Hydraulic analysis for proposed opening will be performed in the final drainage report.

In order to verify the existing stormwater infrastructure had the capacity to accommodate the proposed development, the 10-year and 100-year peak flows for the Shops B post development conditions were compared to the predevelopment runoff flows determined in the master drainage report, *Final Drainage Report for One Scottsdale*, and were summarized in the following table:

PRE vs POST RUNOFF CALCULATIONS						
	PRE		POST		Δ (POST-PRE)	
AREA	*Q_{10}	*Q_{100}	Q_{10}	Q_{100}	Q_{10}	Q_{100}
I.D.	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
B3	4.73	7.85	3.89	6.45	-0.84	-1.40
B4	1.89	3.14	1.51	2.50	-0.38	-0.64
B5	2.17	3.60	2.10	3.49	-0.07	-0.11
D9	2.33	4.04	3.16	5.35	0.83	1.31
TOTAL	**11.12**	**18.63**	**10.65**	**17.81**	**-0.47**	**-0.82**

** Values obtained from Appendix C - Hydrology Calculations of the Final Drainage Report for One Scottsdale*

The 10-year and 100-year peak runoff calculations for each drainage area can be found in **Appendix C** of this report.

The hydrology analysis performed in this report demonstrates that the proposed development's peak flows for the 10-year and 100-year storm event are less than the total runoff anticipated in the previous master report. Since no additional flows are anticipated, the existing infrastructure should have the capacity to adequately capture and convey the proposed development's 10-year and 100-year peak flows.

4.0 CONCLUSION

The existing stormwater infrastructure has been verified to adequately convey peak flows for the One Scottsdale - Shops B development. Based upon the proposed drainage design, the calculated runoff peak flows for the proposed development are the same or less than the master plan anticipated demands, and therefore, should not cause adverse to the existing system.

5.0 REFERENCES

1. *Final Drainage Report For One Scottsdale, prepared by Civil & Environmental Consultants Inc., dated April 2, 2021*
2. *Final Drainage Report One Scottsdale – Phase II (Home 2 Suites by Hilton), prepared by Civil and Environmental Consultant, dated August 2021.*
3. *Design Standards & Policies Manual, City of Scottsdale – January 2018*
4. *Drainage Design Manual for Maricopa County, Arizona, Volume I, Hydrology, Flood Control District of Maricopa County, Fourth Edition, Dec 14, 2018*
5. *Drainage Design Manual for Maricopa County, Arizona, Volume II, Hydraulics, Flood Control District of Maricopa County, Dec 14, 2018*

APPENDIX A
FEMA FIRM RATE MAP

National Flood Hazard Layer FIRMette

FEMA

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

11/1/2021

61-DR-2015#3

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

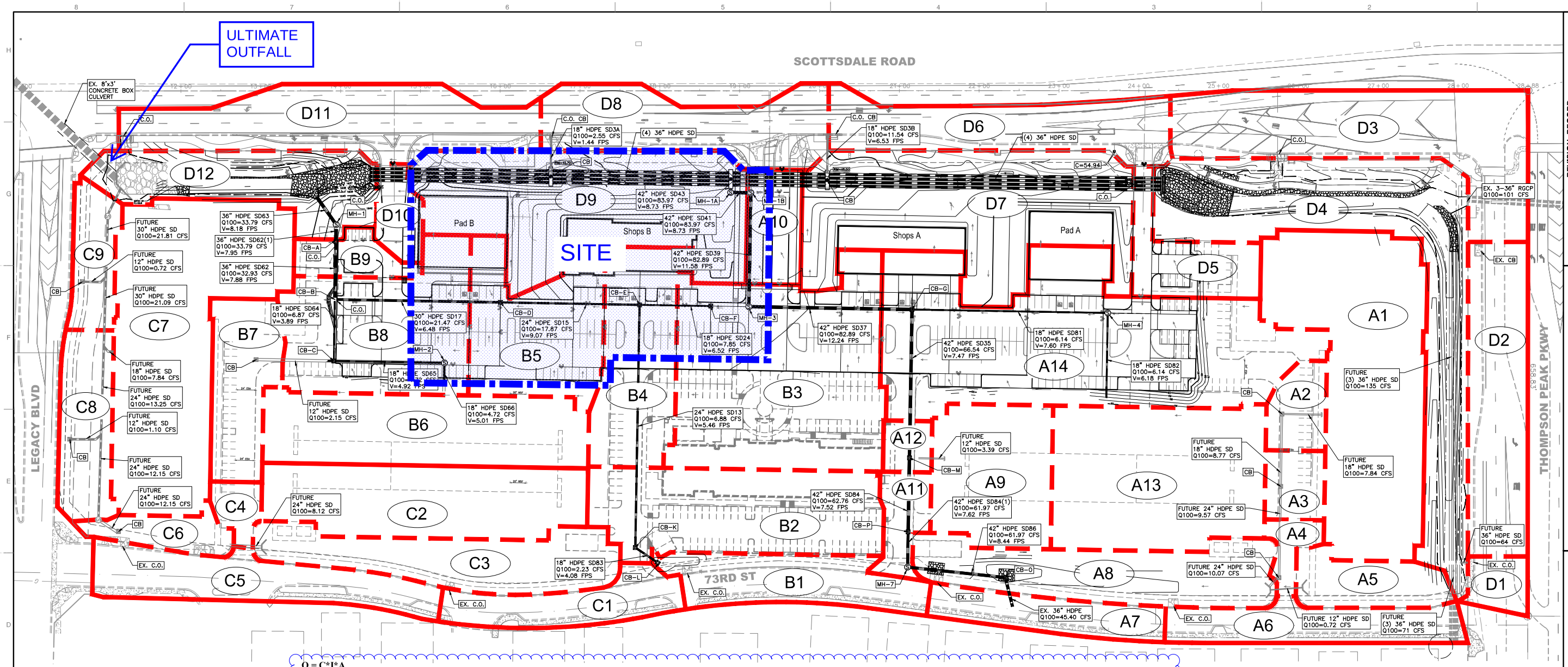
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/23/2021 at 1:04 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX B
PREVIOUS & PROPOSED DRAINAGE AREA MAPS



LEGEND:

- PROPOSED STORM DRAIN PIPE
- DIRECTION OF PROPOSED DRAINAGE
- D1 — PROPOSED DRAINAGE AREA IDENTIFICATION
- PROPOSED DRAINAGE AREA BOUNDARY
- PROPOSED CURB OPENING
- PROPOSED CATCH BASIN
- PROPOSED CULVERT AND HEADWALLS
- 24" RGRCP SD15 Q100=18.69 CFS — STORM DRAIN IDENTIFICATION

Q = C*I*A

C = weighted I = intensity, in/hr

A = Area, Acre

DRAINAGE AREA I.D.	AREA (sf)	AREA (ac)	Tc (min.)	I_{10} (in/hr)	I_{100} (in/hr)	C_{10}	C_{100}	Q_{10} (cfs)	Q_{100} (cfs)
A1	60,077	1.38	10	3.81	5.98	0.90	0.95	4.73	7.84
A2	7,497	0.17	10	3.81	5.98	0.85	0.90	0.56	0.93
A3	6,491	0.15	10	3.81	5.98	0.85	0.90	0.48	0.80
A4	4,034	0.09	10	3.81	5.98	0.85	0.90	0.30	0.50
A5	11,731	0.27	10	3.81	5.98	0.40	0.45	0.41	0.72
A6	16,992	0.39	10	3.81	5.98	0.90	0.95	1.34	2.22
A7	12,798	0.29	10	3.81	5.98	0.90	0.95	1.01	1.67
A8	30,654	0.70	10	3.81	5.98	0.40	0.45	1.07	1.89
A9	26,014	0.60	10	3.81	5.98	0.90	0.95	2.05	3.39
A10	9,864	0.23	10	3.81	5.98	0.75	0.80	0.65	1.08
A11	7,086	0.16	10	3.81	5.98	0.76	0.81	0.47	0.79
A12	3,904	0.09	10	3.81	5.98	0.68	0.73	0.23	0.39
A13	47,049	1.08	10	3.81	5.98	0.90	0.95	3.70	6.14
A14	82,620	1.90	10	3.81	5.98	0.85	0.90	6.14	10.21
B1	19,088	0.44	10	3.81	5.98	0.80	0.85	1.34	2.23
B2	38,644	0.89	10	3.81	5.98	0.83	0.88	2.79	4.65
B3	62,909	1.44	10	3.81	5.98	0.86	0.91	4.73	7.85
B4	26,891	0.62	10	3.81	5.98	0.80	0.85	1.89	3.14
B5	28,931	0.66	10	3.81	5.98	0.86	0.91	2.17	3.60
B6	36,202	0.83	10	3.81	5.98	0.90	0.95	2.85	4.72
B7	17,439	0.40	10	3.81	5.98	0.85	0.90	1.30	2.15
B8	37,139	0.85	10	3.81	5.98	0.85	0.90	2.76	4.59
B9	6,934	0.16	10	3.81	5.98	0.85	0.90	0.52	0.86
C1	14,410	0.33	10	3.81	5.98	0.90	0.95	1.13	1.88
C2	35,062	0.80	10	3.81	5.98	0.90	0.95	2.76	4.57
C3	27,019	0.62	10	3.81	5.98	0.40	0.45	0.95	1.67
C4	4,053	0.09	10	3.81	5.98	0.85	0.90	0.30	0.50
C5	23,518	0.54	10	3.81	5.98	0.90	0.95	1.85	3.07
C6	7,405	0.17	10	3.81	5.98	0.40	0.45	0.26	0.46
C7	60,077	1.38	10	3.81	5.98	0.90	0.95	4.73	7.84
C8	15,780	0.36	10	3.81	5.98	0.46	0.51	0.63	1.10
C9	10,011	0.23	10	3.81	5.98	0.48	0.53	0.42	0.72
D1	5,075	0.12	10	3.81	5.98	0.90	0.95	0.40	0.66
D2	29,592	0.68	10	3.81	5.98	0.90	0.95	2.33	3.86
D3	46,099	1.06	10	3.81	5.98	0.90	0.95	3.63	6.01
D4	61,812	1.42	10	3.81	5.98	0.40	0.45	2.16	3.82
D5	13,617	0.31	10	3.81	5.98	0.85	0.90	1.01	1.68
D6	27,408	0.63	10	3.81	5.98	0.90	0.95	2.16	3.57
D7	60,059	1.38	10	3.81	5.98	0.48	0.53	2.51	4.35
D8	28,249	0.65	10	3.81	5.98	0.90	0.95	2.22	3.68
D9	54,475	1.25	10	3.81	5.98	0.49	0.54	2.33	4.04
D10	6,091	0.14	10	3.81	5.98	0.71	0.76	0.38	0.63
D11	37,663	0.86	10	3.81	5.98	0.90	0.95	2.96	4.91
D12	26,228	0.60	10	3.81	5.98	0.40	0.45	0.92	1.62

* Note: weighted runoff calculations extracted from Appendix C of approved Onsite Drainage Report for One Scottsdale; dated March 3, 2021.

*HAND SIGNATURE ON FILE

REGISTERED PROFESSIONAL ENGINEER — CERTIFICATE NO. 37881 — TIMOTHY J. POE — Date Signed/Sealed — ARIZONA, U.S.A.

Timothy J. Poe

Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
11811 N. Tatum Blvd., Suite 3057 - Phoenix, AZ 85028
Ph: 602.760.2324 - 877.231.2324 - Fax: 602.760.2330
www.cecinc.com

ONE SCOTTSDALE - PHASE 1
CIVIL IMPROVEMENT PLANS
SCOTTSDALE, AZ

DRAINAGE EXHIBIT

DATE:	04/02/21
DWG SCALE:	1"=60'
DRAWN BY:	LAR
CHECKED BY:	DRS
PROJECT NO.	180-168
APPROVED BY:	TJP

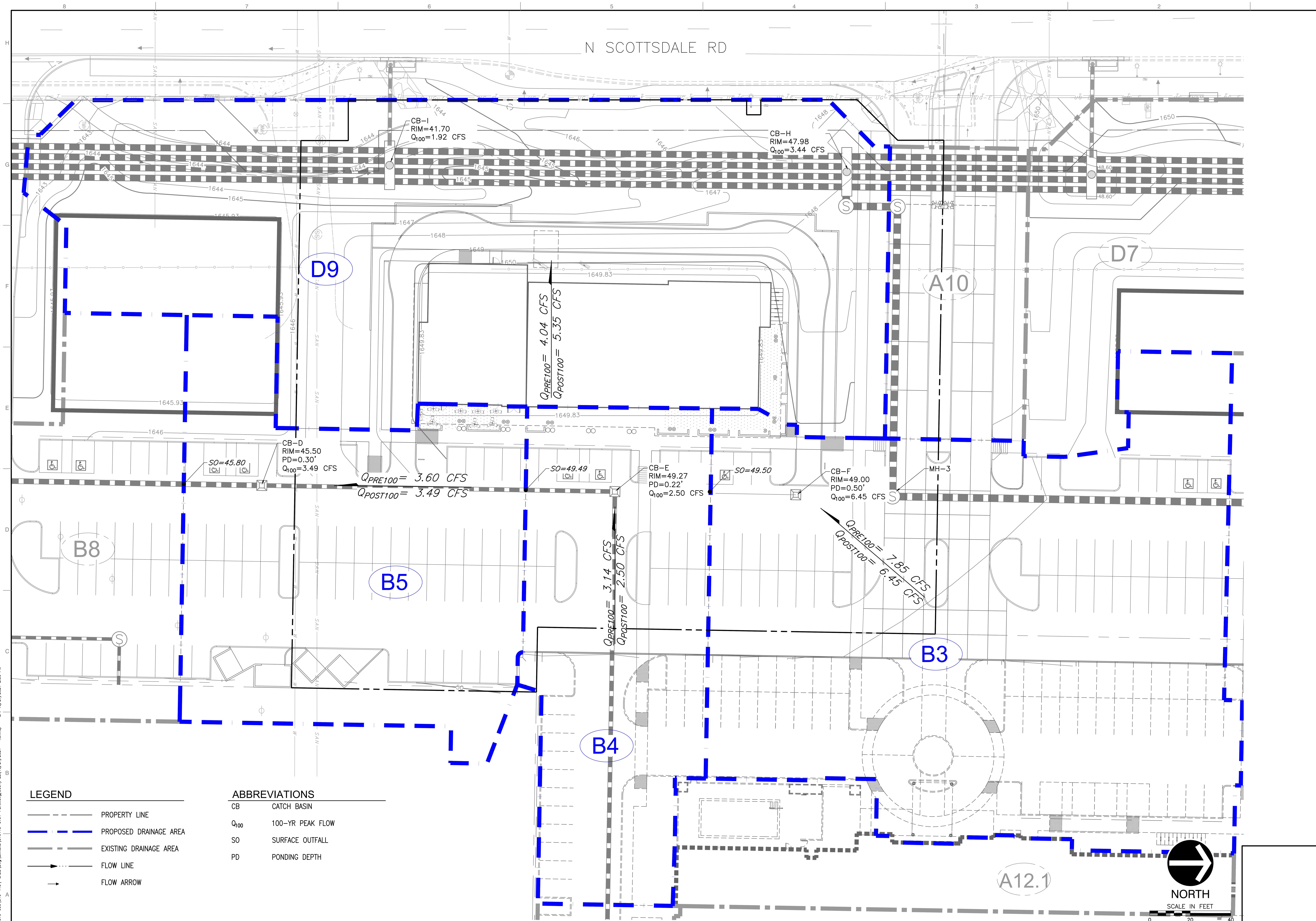
DRAWING NO.: FIGURE 1

12-SA-2021

7-PP-2007#3 2062-20

61-DR-2015#3

11/1/2021



REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
11811 N. Tatum Blvd., Suite 3057 - Phoenix, AZ 85028
Ph: 602.760.2324 · 877.231.2324 · Fax: 602.760.2330
www.cecinc.com

ONE SCOTTSDALE - SHOPS B
CIVIL IMPROVEMENT PLANS
CIVIL IMPROVEMENT PLANS
SCOTTSDALE, AZ

PROPOSED CONDITIONS DRAINAGE AREA MAP

DATE:	OCT. 2021	DRAWN BY:	LAR
DWG SCALE:	1"=20'	CHECKED BY:	TJP
PROJECT NO:	316-413		
APPROVED BY:			TJP

DRAWING NO.: EXHIBIT 2
SHEET 1 OF 1

P:\316-000\316-413\-CADD\Dwg\Exhibits\316413-CV01-PDAM.dwg[C001] LS:(10/21/2021 - kavino) - LP: 10/27/2021 2:30 PM

61-DR-2015#3
11/1/2021

APPENDIX C
HYDROLOGY CALCULATIONS

NOAA Atlas 14, Volume 1, Version 5
Location name: Scottsdale, Arizona, USA*
Latitude: 33.6668°, Longitude: -111.9241°
Elevation: 1651.57 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**2.38** (1.97-2.90)	**3.10** (2.59-3.79)	**4.18** (3.46-5.11)	**5.00** (4.13-6.11)	**6.13** (4.97-7.44)	**6.98** (5.59-8.41)	**7.86** (6.18-9.46)	**8.74** (6.77-10.5)	**9.92** (7.49-11.9)	**10.8** (8.00-13.1)
10-min	**1.81** (1.50-2.21)	**2.35** (1.97-2.89)	**3.18** (2.63-3.89)	**3.81** (3.14-4.64)	**4.66** (3.78-5.66)	**5.32** (4.25-6.40)	**5.98** (4.70-7.19)	**6.65** (5.15-7.99)	**7.55** (5.69-9.08)	**8.24** (6.09-9.93)
15-min	**1.49** (1.24-1.83)	**1.94** (1.63-2.39)	**2.63** (2.18-3.21)	**3.15** (2.59-3.84)	**3.85** (3.12-4.68)	**4.39** (3.52-5.29)	**4.94** (3.89-5.95)	**5.50** (4.25-6.60)	**6.24** (4.70-7.51)	**6.81** (5.03-8.21)
30-min	**1.00** (0.834-1.23)	**1.31** (1.10-1.61)	**1.77** (1.46-2.16)	**2.12** (1.75-2.58)	**2.59** (2.10-3.15)	**2.96** (2.37-3.56)	**3.33** (2.62-4.00)	**3.70** (2.86-4.45)	**4.20** (3.17-5.06)	**4.58** (3.39-5.53)
60-min	**0.621** (0.516-0.761)	**0.811** (0.678-0.995)	**1.09** (0.906-1.34)	**1.31** (1.08-1.60)	**1.61** (1.30-1.95)	**1.83** (1.47-2.21)	**2.06** (1.62-2.48)	**2.29** (1.77-2.75)	**2.60** (1.96-3.13)	**2.84** (2.10-3.42)
2-hr	**0.362** (0.306-0.436)	**0.469** (0.396-0.566)	**0.624** (0.524-0.748)	**0.744** (0.617-0.890)	**0.906** (0.744-1.08)	**1.03** (0.834-1.22)	**1.16** (0.920-1.37)	**1.28** (1.01-1.52)	**1.46** (1.11-1.72)	**1.59** (1.19-1.89)
3-hr	**0.266** (0.224-0.325)	**0.341** (0.288-0.418)	**0.445** (0.374-0.544)	**0.528** (0.439-0.641)	**0.644** (0.527-0.777)	**0.736** (0.595-0.883)	**0.831** (0.659-0.998)	**0.932** (0.727-1.12)	**1.07** (0.809-1.28)	**1.18** (0.871-1.41)
6-hr	**0.160** (0.138-0.190)	**0.202** (0.174-0.241)	**0.258** (0.221-0.305)	**0.303** (0.257-0.356)	**0.364** (0.304-0.426)	**0.411** (0.339-0.480)	**0.460** (0.373-0.536)	**0.511** (0.407-0.596)	**0.579** (0.449-0.675)	**0.632** (0.480-0.739)
12-hr	**0.090** (0.078-0.106)	**0.114** (0.098-0.133)	**0.144** (0.123-0.168)	**0.167** (0.143-0.194)	**0.198** (0.168-0.231)	**0.223** (0.186-0.258)	**0.248** (0.204-0.287)	**0.273** (0.222-0.316)	**0.307** (0.243-0.357)	**0.333** (0.259-0.390)
24-hr	**0.053** (0.046-0.061)	**0.067** (0.059-0.078)	**0.087** (0.076-0.101)	**0.103** (0.089-0.119)	**0.125** (0.107-0.144)	**0.142** (0.121-0.164)	**0.160** (0.136-0.185)	**0.179** (0.150-0.207)	**0.206** (0.169-0.238)	**0.227** (0.184-0.264)
2-day	**0.029** (0.025-0.033)	**0.037** (0.032-0.042)	**0.048** (0.042-0.055)	**0.057** (0.049-0.066)	**0.070** (0.060-0.080)	**0.080** (0.068-0.092)	**0.091** (0.076-0.105)	**0.102** (0.085-0.118)	**0.118** (0.096-0.136)	**0.130** (0.105-0.152)
3-day	**0.021** (0.018-0.024)	**0.026** (0.023-0.030)	**0.035** (0.030-0.040)	**0.041** (0.036-0.047)	**0.051** (0.044-0.058)	**0.059** (0.050-0.067)	**0.067** (0.057-0.077)	**0.076** (0.064-0.087)	**0.088** (0.073-0.102)	**0.098** (0.080-0.114)
4-day	**0.017** (0.015-0.019)	**0.021** (0.019-0.024)	**0.028** (0.025-0.032)	**0.034** (0.029-0.038)	**0.042** (0.036-0.047)	**0.048** (0.042-0.055)	**0.055** (0.047-0.063)	**0.063** (0.053-0.072)	**0.073** (0.061-0.084)	**0.082** (0.067-0.095)
7-day	**0.011** (0.009-0.012)	**0.014** (0.012-0.016)	**0.018** (0.016-0.021)	**0.022** (0.019-0.025)	**0.027** (0.023-0.031)	**0.031** (0.027-0.036)	**0.036** (0.030-0.041)	**0.041** (0.034-0.047)	**0.048** (0.040-0.055)	**0.053** (0.044-0.062)
10-day	**0.008** (0.007-0.009)	**0.010** (0.009-0.012)	**0.014** (0.012-0.016)	**0.017** (0.014-0.019)	**0.020** (0.018-0.023)	**0.024** (0.020-0.027)	**0.027** (0.023-0.031)	**0.031** (0.026-0.035)	**0.036** (0.030-0.041)	**0.040** (0.033-0.046)
20-day	**0.005** (0.004-0.006)	**0.006** (0.006-0.007)	**0.009** (0.008-0.010)	**0.010** (0.009-0.012)	**0.012** (0.011-0.014)	**0.014** (0.012-0.016)	**0.016** (0.014-0.018)	**0.018** (0.015-0.020)	**0.020** (0.017-0.023)	**0.022** (0.018-0.026)
30-day	**0.004** (0.003-0.004)	**0.005** (0.004-0.006)	**0.007** (0.006-0.008)	**0.008** (0.007-0.009)	**0.010** (0.008-0.011)	**0.011** (0.010-0.012)	**0.012** (0.011-0.014)	**0.014** (0.012-0.016)	**0.016** (0.013-0.018)	**0.017** (0.014-0.020)
45-day	**0.003** (0.003-0.003)	**0.004** (0.004-0.005)	**0.005** (0.005-0.006)	**0.006** (0.005-0.007)	**0.007** (0.007-0.008)	**0.008** (0.007-0.010)	**0.009** (0.008-0.011)	**0.010** (0.009-0.012)	**0.012** (0.010-0.014)	**0.013** (0.011-0.015)
60-day	**0.003** (0.002-0.003)	**0.003** (0.003-0.004)	**0.004** (0.004-0.005)	**0.005** (0.005-0.006)	**0.006** (0.005-0.007)	**0.007** (0.006-0.008)	**0.008** (0.007-0.009)	**0.008** (0.007-0.010)	**0.010** (0.008-0.011)	**0.010** (0.009-0.012)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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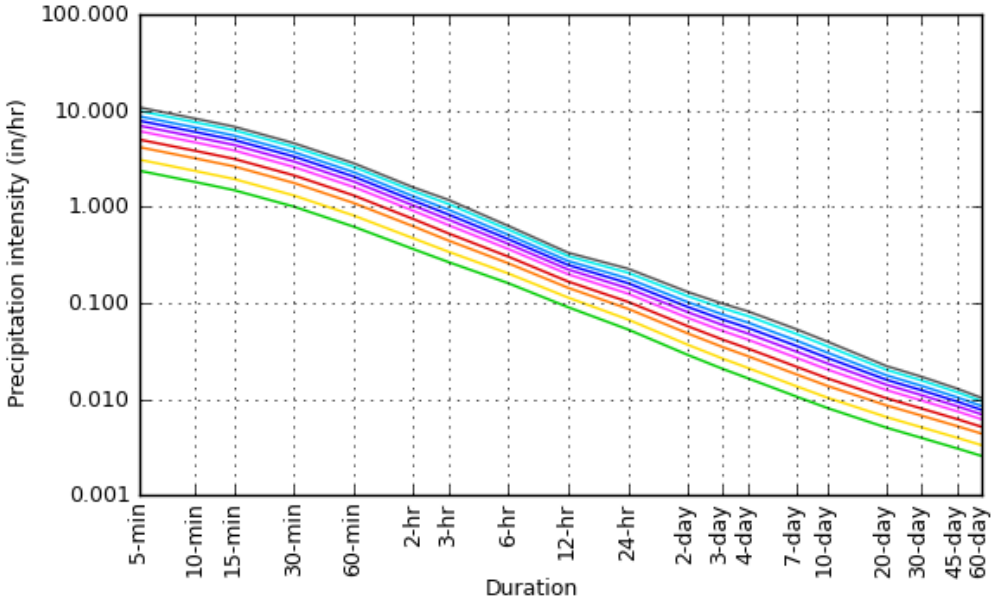
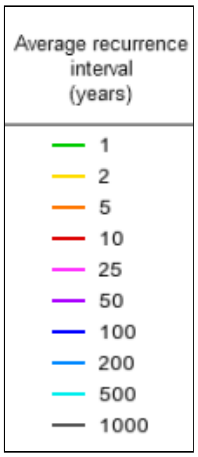
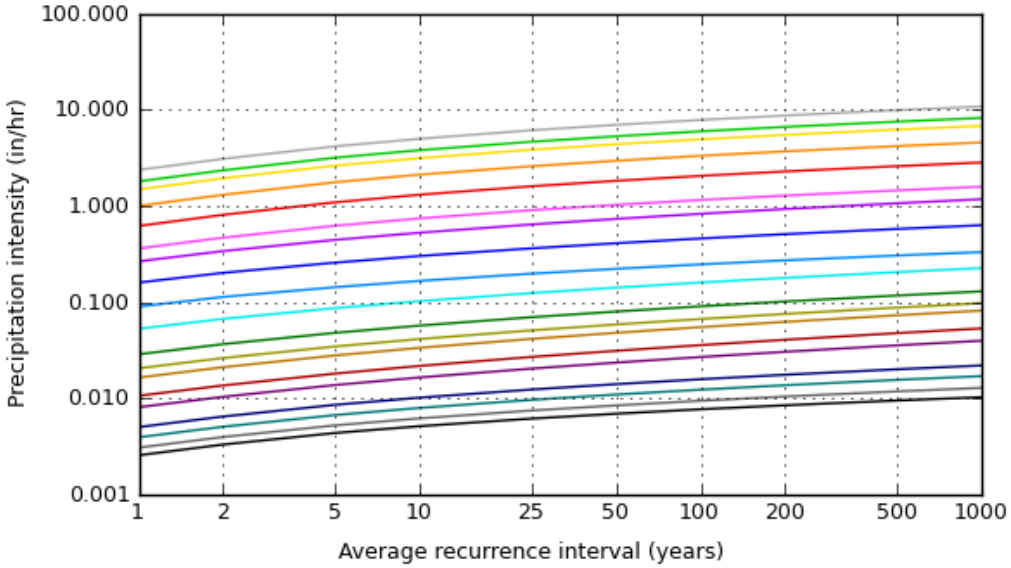
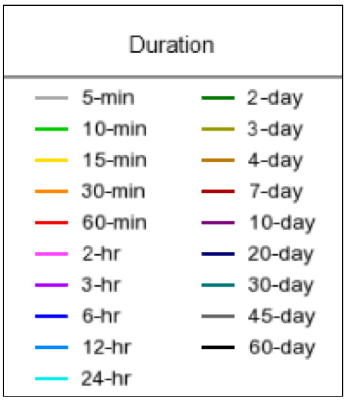
PF graphical

PDS-based intensity-duration-frequency (IDF) curves
Latitude: 33.6668°, Longitude: -111.9241°









NOAA Atlas 14, Volume 1, Version 5

Created (GMT): Thu Jun 24 18:59:42 2021

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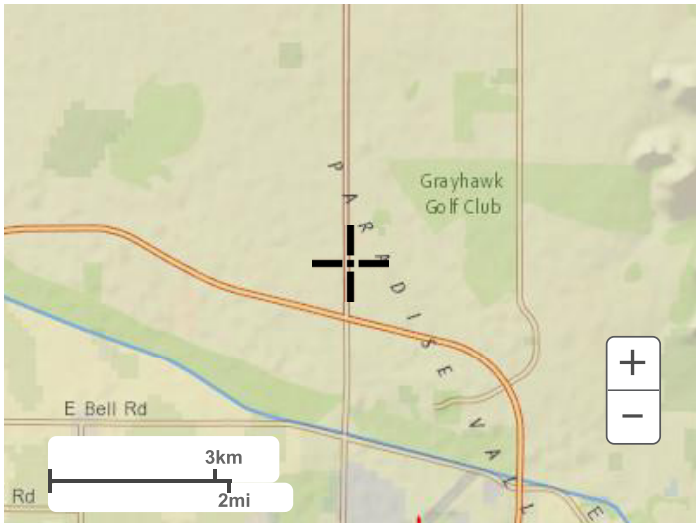
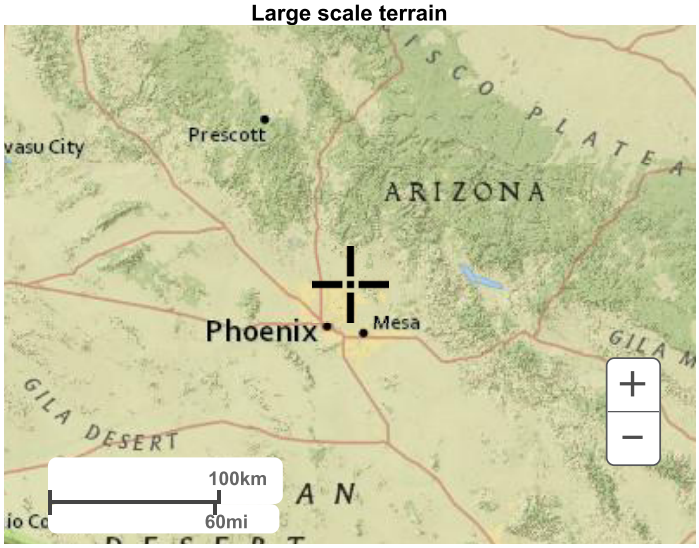
Maps & aerials

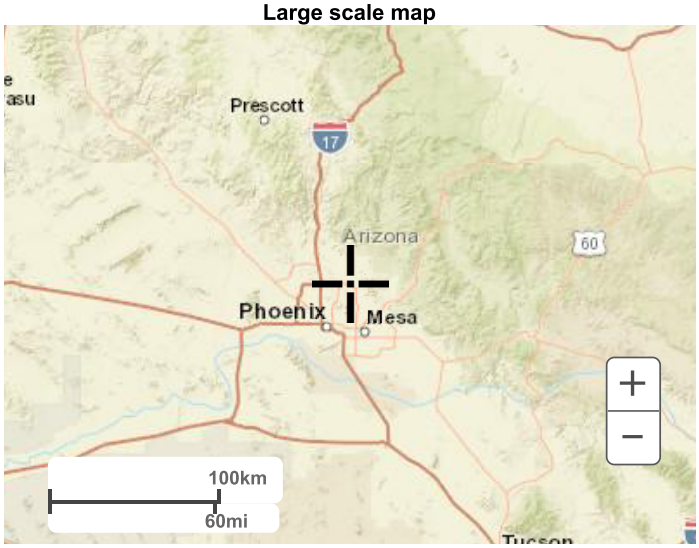
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

Project Name: One Scottsdale - Shops B
CEC JOB: 316-413
DATE: 10/27/2021
PREPARED BY: KA
CHECKED BY:

PROPOSED CONDITIONS WEIGHTED RUNOFF COEFFICIENT (Cw) - 100-YR					
AREA	**DESERT LANDSCAPING**	**BLDG OR PAVEMENT**	**TOTAL AREA**		
I.D.	0.45	0.95	(SF)	(AC)	**Cw**
B3	3,631	47,766	51,397	1.18	**0.91**
B4	2,425	18,048	20,473	0.47	**0.89**
B5	2,079	25,871	27,950	0.64	**0.91**
D9	33,017	25,550	58,567	1.34	**0.67**

PROPOSED CONDITIONS WEIGHTED RUNOFF COEFFICIENT (Cw) -10-YR					
AREA	**DESERT LANDSCAPING**	**BLDG OR PAVEMENT**	**TOTAL AREA**		
I.D.	0.40	0.90	(SF)	(AC)	**Cw**
B3	3,631	47,766	51,397	1.18	**0.86**
B4	2,425	18,048	20,473	0.47	**0.84**
B5	2,079	25,871	27,950	0.64	**0.86**
D9	33,017	25,550	58,567	1.34	**0.62**

Project Name: One Scottsdale - Shops B
CEC JOB:316-413
DATE: 10/27/2021
PREPARED BY: KA
CHECKED BY:

RATIONAL METHOD
Q = C*I*A
C = weighted
A = Area, Acre

PEAK RUNOFF CALCULATIONS								
AREA	**AREA**	**Tc**	**I_{10}**	**I_{100}**	**C_{10}**	**C_{100}**	**Q_{10}**	**Q_{100}**
I.D.	(ac)	(min.)	(in/hr)	(in/hr)			(cfs)	(cfs)
B3	1.18	10	3.81	5.98	0.86	0.91	3.89	6.45
B4	0.47	10	3.81	5.98	0.84	0.89	1.51	2.50
B5	0.64	10	3.81	5.98	0.86	0.91	2.10	3.49
D9	1.34	10	3.81	5.98	0.62	0.67	3.16	5.35
TOTAL	**3.63**				**0.77**	**0.82**	**10.65**	**17.81**

APPENDIX D
PRELIMINARY GRADING AND DRAINAGE PLANS

P:\310-000\316-413\-CADD\Dwg\CV01\316413-CV01-CP01.dwg[CP01] LS:(10/21/2021 - lreforma) - LP: 10/28/2021 3:20 PM

DEVELOPER
CHRISTIFULLI COMMERCIAL REAL ESTATE
5141 N. 40TH ST. STE. #200
PHOENIX, AZ 85018
PHONE: (480) 585-2150
CONTACT: NICHOLAS CHRISTIFULLI

ARCHITECT
DAVIS
3033 N. CENTRAL AVE, STE. 800
PHOENIX, AZ 85012
PHONE: (480) 638-1100
CONTACT: MIKE EDWARDS

ENGINEER
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
11811 N. TATUM BLVD., SUITE 3057
PHOENIX, AZ 85028
PH: (602) 760-2324
FAX: (602) 760-2330
CONTACT: TIMOTHY J. POE

SURVEYOR
SURVEY INNOVATION GROUP, INC.
RICK ENGINEERING
22415 N. 16TH STREET
PHOENIX, AZ 85024
PH: (602) 957-3350
CONTACT: JASON SEGNERI

BENCHMARK
MARICOPA COUNTY 4" MC ENG DEPT BRASS CAP IN HAND HOLE AT THE INTERSECTION OF SCOTTSDALE ROAD AND THOMPSON PEAK PKWY; CITY OF SCOTTSDALE GPS POINT #8660

ELEVATION = 1662.725 (NAVD'88)

I HEREBY CERTIFY THAT ALL ELEVATIONS REPRESENTED ON THIS PLAN ARE BASED ON THE ELEVATION DATUM FOR THE CITY OF SCOTTSDALE BENCHMARK PROVIDED ABOVE.

PROJECT ADDRESS
20001 N SCOTTSDALE RD
SCOTTSDALE, ARIZONA 85255

ZONING
PCD

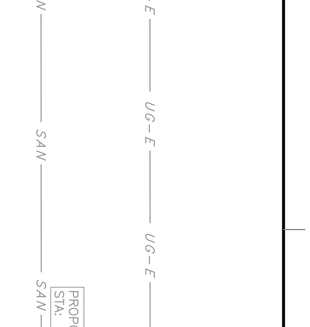
ASSESSOR'S PARCEL NO.
215-05-010

DR NUMBER
61-DR-2015#2

SITE AREA
1.95 ACRES NET (84,821 SF)
2.52 ACRES GROSS (109,781 SF)

AREA OF DISTURBANCE
TOTAL: 0.64 ACRES GROSS (28,000 SF)

VICINITY MAP
N.T.S.



PRELIMINARY
NOT FOR CONSTRUCTION

NORTH
SCALE IN FEET
0 20 40

REGISTERED PROFESSIONAL ENGINEER
CERTIFICATE NO. 37881
TIMOTHY J. POE
Date Signed 10/28/21
ARIZONA U.S.A. (CIVIL)

PRELIMINARY GRADING & DRAINAGE PLAN

DATE:	OCT. 2021	DRAWN BY:	LAR
DWG SCALE:	1"=20'	CHECKED BY:	TJP
PROJECT NO:			316-413
APPROVED BY:			TJP

DRAWING NO.: **CP01**
SHEET 1 OF 1

ONE SCOTTSDALE - SHOPS B
CIVIL IMPROVEMENT PLANS
PRELIMINARY GRADING & DRAINAGE PLAN
SCOTTSDALE, AZ

Civil & Environmental Consultants, Inc.
11811 N. Tatum Blvd., Suite 3057 - Phoenix, AZ 85028
Ph: 602.760.2324 · 877.231.2324 · Fax: 602.760.2330
www.cecinc.com

REVISION RECORD

NO	DATE	DESCRIPTION

APPENDIX E
FINAL DRAINAGE REPORT ONE SCOTTSDALE – PHASE II (HOME 2 SUITES BY HILTON)

FINAL DRAINAGE REPORT
ONE SCOTTSDALE - PHASE II
(HOME 2 SUITES BY HILTON)

20001 N. Scottsdale Road
Scottsdale, Arizona 85255

Prepared For:

DMB

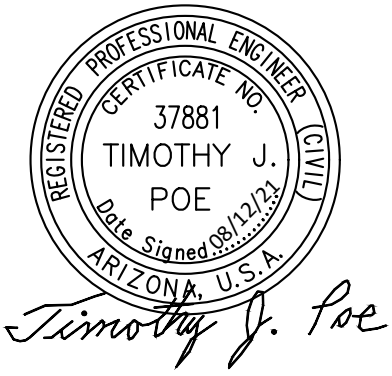
7600 E. Doubletree Ranch Road, Suite 300
Scottsdale, AZ 85258

Prepared By:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
Phoenix, AZ

CEC Project 193-209

AUGUST 2021



Civil & Environmental Consultants, Inc.

TABLE OF CONTENTS

APPENDICES

1.0 INTRODUCTION

The purpose of this final drainage report is to provide the drainage analysis for the proposed One Scottsdale Phase II – Homes 2 Suites by Hilton located northwest of the intersection of Legacy Boulevard and 73rd Street in Scottsdale, Arizona. The site is further described as:

- A portion of the northeast quarter of Section 26, Township 4 North, Range 4 East of the Gila and Salt River Meridian, Maricopa County, Arizona.
- Assessor's parcel Number: 215-05-010

Refer to the Vicinity Map on the following page.

The proposed project will be constructed on a vacant parcel of approximately 98,879 sf (2.27 ac) designated as PRC and PC zoning. The development will consist of a hotel building with designated parking area and drainage facilities for the conveyance of onsite and offsite flows. Ingress and egress will provided by the proposed drives off 73rd Street.

This final drainage report will serve as an additional support document to the approved *Onsite Drainage Report For One Scottsdale* dated April 2, 2021 by providing discussions and calculations defining the onsite and offsite storm water management concepts to comply with the drainage requirements established by the City of Scottsdale and Maricopa County. The preparation of this report has been done in accordance with the Drainage Design Manual for Maricopa County, Volumes I and II, Hydrology and Hydraulics.

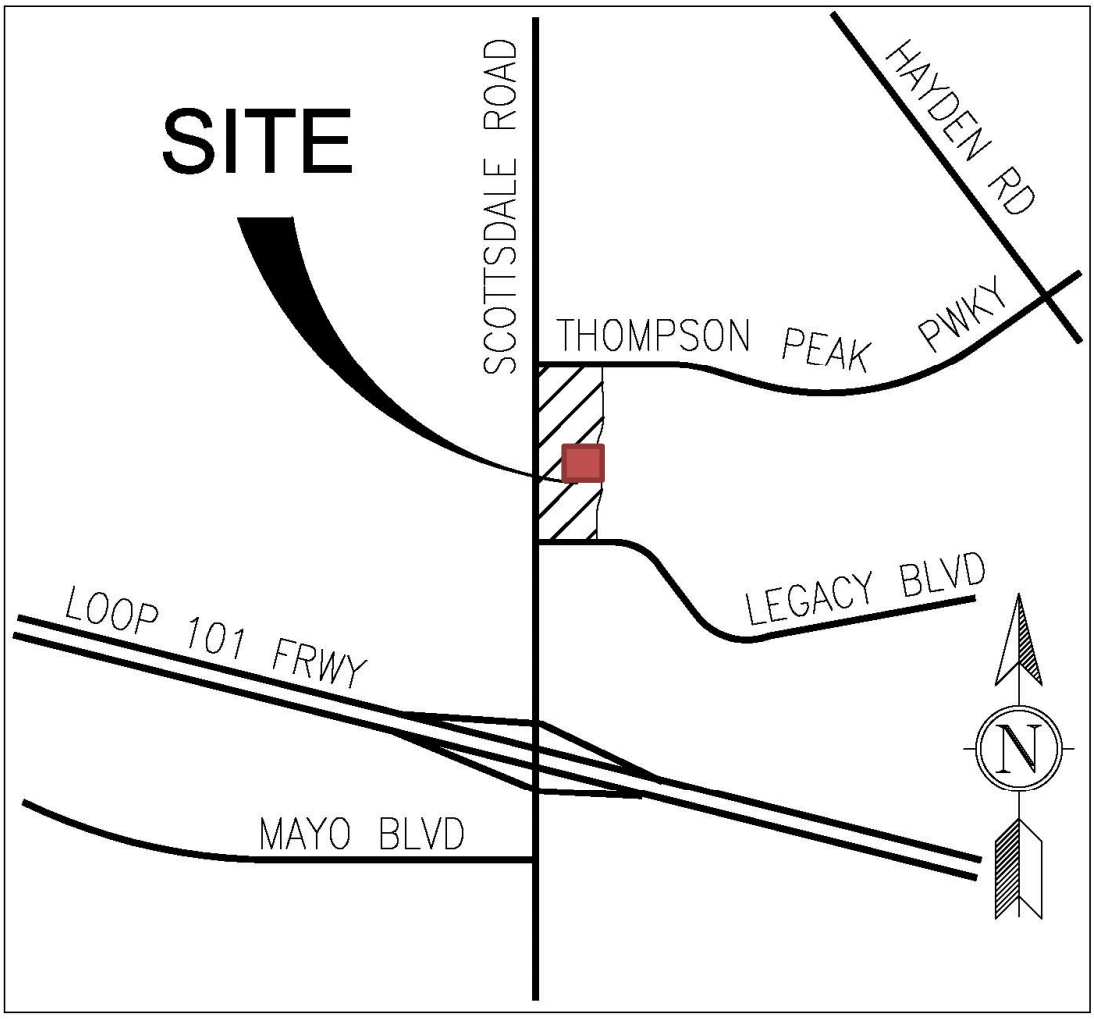
2.0 PROJECT BACKGROUND

2.1 EXISTING CONDITIONS

The existing site is currently undeveloped and sheet drains from northeast to southwest at an average slope of 1.3%. There are two existing 42-inch storm drains running east to west along the proposed drives. The existing 42-inch drains were proposed as part of the One Scottsdale – Phase 1 Improvement Plans for mitigation of offsite flows from 73rd Street through the site. Analysis for the existing storm drains and the subject site have been performed in the previous drainage report: *Onsite Drainage Report For One Scottsdale*.

2.1.1 FEMA Map

The subject property is located within the Flood Insurance Rate Map (FIRM) #04013C1320L, dated October 16, 2013, previously designated as an "AO" flood zone. According to LOMR 20-09-0698P, effective April 14, 2021, the property is currently located within the area revised flood zone "AO" to zone "X". This area is defined 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% chance annual flood." Refer to the **Appendix A** for a copy of the FIRMette map for this area.



VICINITY MAP

N.T.S.

2.1.2 Offsite Drainage

The project site is affected by an offsite flow discharging from 73rd Street, defined as drainage area B1. A calculated peak flow of 2.34 cfs flows through an existing curb opening located near the southeast corner of the site. The site is not affected by any other offsite flows. Refer to **Appendix B**, Figure 2 - Proposed Conditions Drainage Area Map for drainage area location and **Appendix C** for offsite peak flow calculation.

3.0 PROPOSED CONDITIONS

3.1 STORMWATER DESIGN

Drainage for the site will be handled through underground storm drains conveying onsite and offsite flows through the site and connect to the existing drainage system west of the subject site. The system will ultimately outfall at the existing 8' x 3' box culvert located northeast of the Scottsdale Road and Legacy Boulevard intersection, at a low lot outfall elevation of 1635.17.

Refer to **Appendix B,** Figure 1- Drainage Exhibit, for the previous report's drainage area map illustrating the existing storm drain system and ultimate outfall location.

Stormwater retention for the proposed site development has been waived per the previous drainage report. First flush requirements have also been met through the use of vortex hydrodynamic separator structures as part of the One Scottsdale Phase I development.

3.1.1 Onsite and Offsite Drainage

Onsite drainage patterns for the site have remained the same as was illustrated in the previous drainage report with minor adjustments to the drainage areas. Refer to **Appendix A**, Figure 2 – Proposed Conditions Drainage Area Map for the updated drainage areas.

The hydrology analysis for the proposed site was performed based on procedures dictated in the City of Scottsdale Design Standards & Policies Manual and Drainage Design Manual for Maricopa County, Volumes I Hydrology. The rational method was used to compute the onsite peak discharges for the 10-year and 100-year storm event, assuming a 5-minute time of concentration, and utilizing a weighted runoff coefficient.

Refer to **Appendix C** for Hydrology Calculations.

3.1.2 Onsite Hydraulics and Drainage Infrastructure

Overland flow will be captured by nearby existing catch basins. Roof runoff will be conveyed through 8-inch storm drains connecting to the existing 42-inch pipe draining east to west along the northern site boundary.

Refer to **Appendix E** for Grading and Drainage Plans.

Sizing of the proposed storm drains were verified using Bentley OpenFlows StormCAD® for the 100-year storm event. The model also verified that the existing 42-inch storm drains running along the north and east drives remain adequate to convey the calculated 100-year peak flow. Refer to **Appendix C** for hydraulic grade analysis.

3.1.3 Offsite Drainage Infrastructure

Improvements for offsite drainage include replacing the existing curb opening with a 12' wide scupper. Sizing for the scupper was performed using Hydraflow Hydrographs Extension for Autodesk ®. Refer to **Appendix C** for Offsite Scupper calculations.

4.0 CONCLUSION

The proposed drainage infrastructure for One Scottsdale Phase II – Homes 2 Suites by Hilton are adequate to convey the 100-year peak flow and will not cause adverse impacts to the existing infrastructure.

5.0 REFERENCES

1. Final Drainage Report For One Scottsdale, Civil & Environmental Consultants Inc., date April 2, 2021
2. Design Standards & Policies Manual, City of Scottsdale – January 2018
3. Drainage Design Manual for Maricopa County, Arizona, Volume I, Hydrology, Flood Control District of Maricopa County, Fourth Edition, Dec 14, 2018
4. Drainage Design Manual for Maricopa County, Arizona, Volume II, Hydraulics, Flood Control District of Maricopa County, Dec 14, 2018

APPENDIX A
FEMA FIRM RATE MAP

National Flood Hazard Layer FIRMette

FEMA

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

11/1/2021

61-DR-2015#3

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

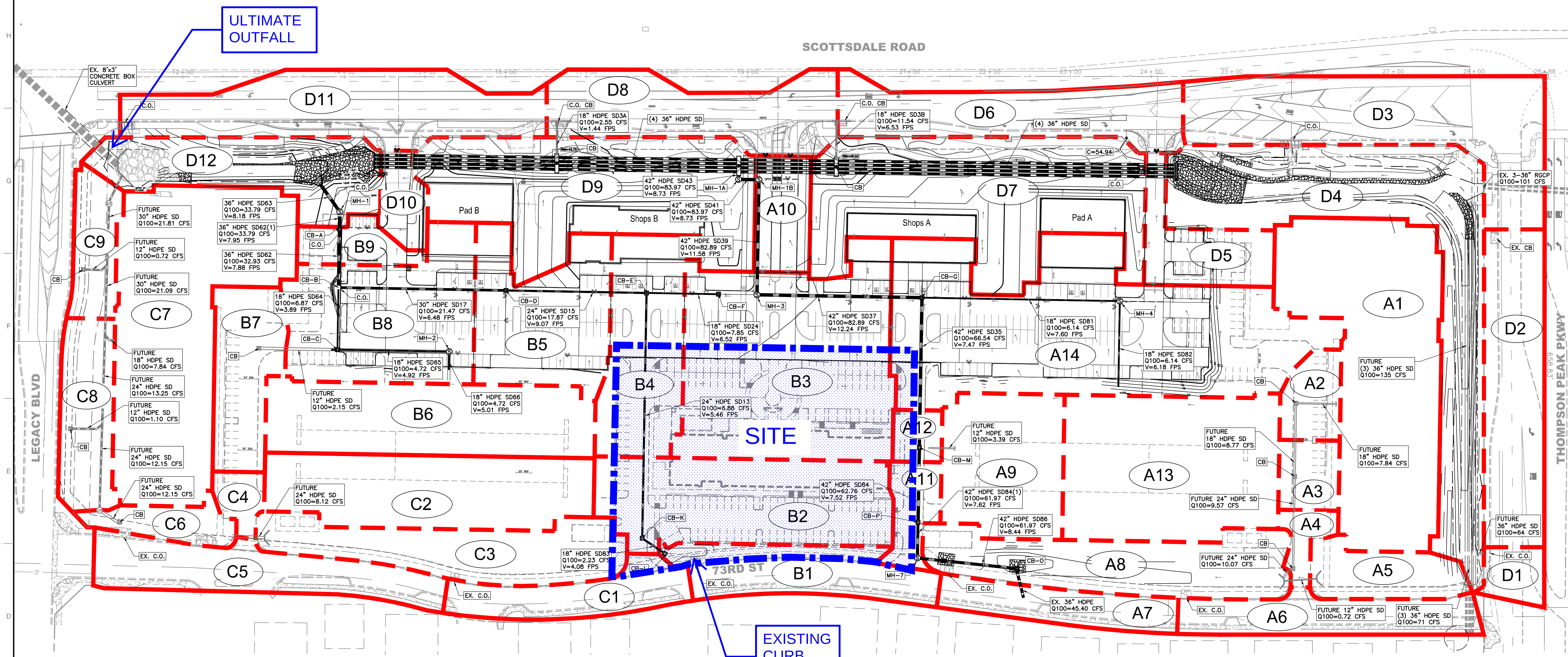
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/23/2021 at 1:04 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX B
PREVIOUS & PROPOSED DRAINAGE AREA MAPS



LEGEND:

- PROPOSED STORM DRAIN PIPE
- DIRECTION OF PROPOSED DRAINAGE
- D1 PROPOSED DRAINAGE AREA IDENTIFICATION
- PROPOSED DRAINAGE AREA BOUNDARY
- PROPOSED CURB OPENING
- PROPOSED CATCH BASIN
- PROPOSED CULVERT AND HEADWALLS
- 24" RGRCP SD15 Q100=18.69 CFS — STORM DRAIN IDENTIFICATION

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

*HAND SIGNATURE ON FILE

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 37881 TIMOTHY J. POE ARIZONA, U.S.A.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
11811 N. Tatum Blvd., Suite 3057 · Phoenix, AZ 85028
Ph: 602.760.2324 · 877.231.2324 · Fax: 602.760.2330
www.cecinc.com

ONE SCOTTSDALE - PHASE 1
CIVIL IMPROVEMENT PLANS
SCOTTSDALE, AZ

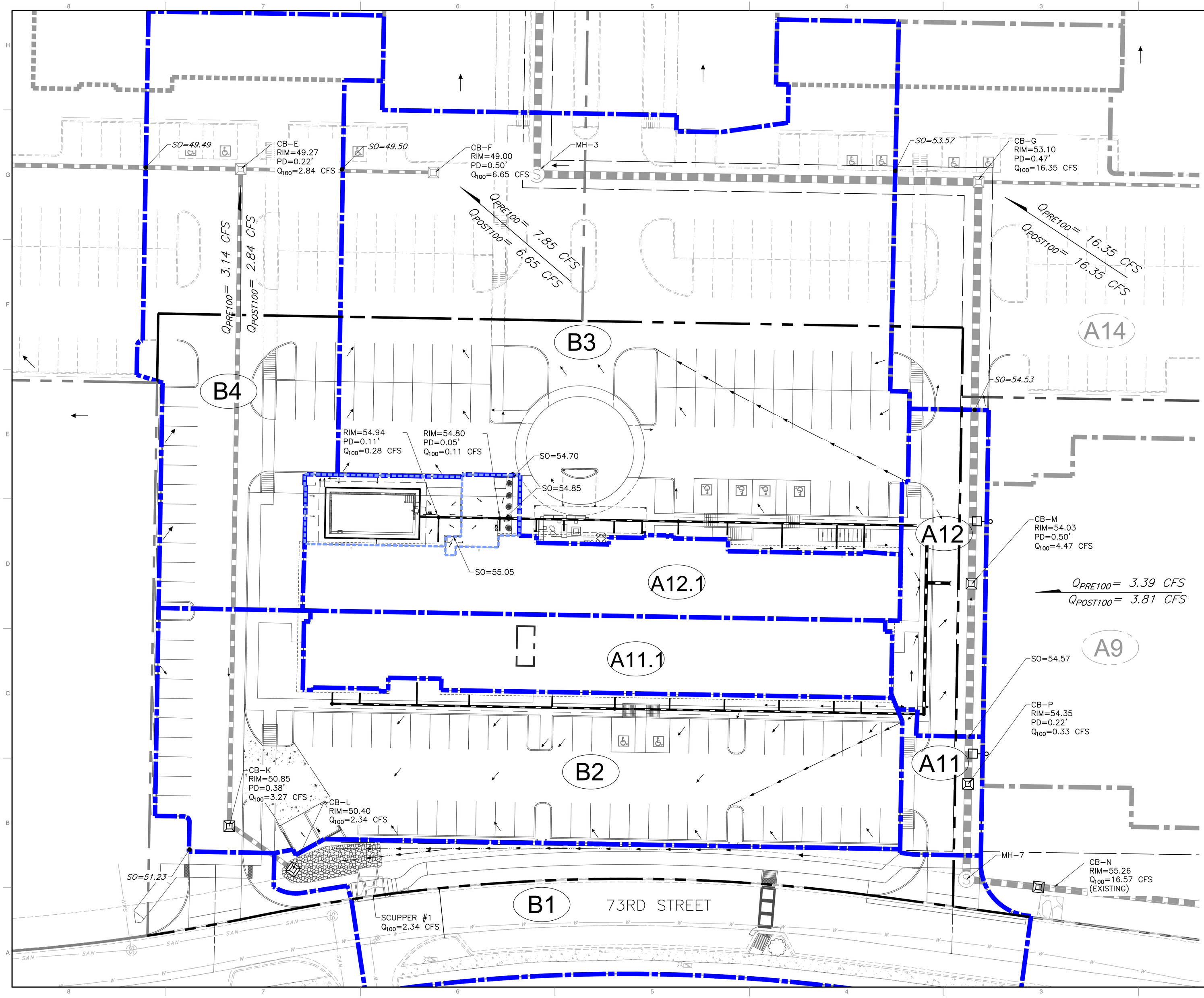
DRAINAGE EXHIBIT

DATE: 04/02/21	DRAWN BY: LAR	DWG SCALE: 1"=60'	CHECKED BY: DRS
PROJECT NO: 180-168	APPROVED BY: TJP		

DRAWING NO.: FIGURE 1

7-PP-2007#3 2062-20 12-SA-2021

61-DR-2015#3
11/1/2021



LEGEND

- PROPERTY LINE
- PROPOSED DRAINAGE AREA
- PROPOSED SUB–DRAINAGE AREAS
- EXISTING DRAINAGE AREA
- FLOW LINE
- FLOW ARROW

ABBREVIATIONS

CB	CATCH BASIN
Q_{100}	100–YR PEAK FLOW
SO	SURFACE OUTFALL
PD	PONDING DEPTH

NORTH

SCALE IN FEET

0 20 40

*HAND SIGNATURE ON FILE

REGISTERED PROFESSIONAL ENGINEER CERTIFICATE NO. 37881 TIMOTHY J. POE Date Signed 08/12/21 ARIZONA, U.S.A. Timothy J. Poe

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

REVISION RECORD

NO	DATE	DESCRIPTION

CEC

Civil & Environmental Consultants, Inc.
11811 N. Tatum Blvd., Suite 3057 - Phoenix, AZ 85028
Ph: 602.760.2324 · 877.231.2324 · Fax: 602.760.2330
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ONE SCOTTSDALE - PHASE 2
HOME 2 SUITES BY HILTON
CIVIL IMPROVEMENT PLANS
SCOTTSDALE, AZ

PROPOSED CONDITIONS
DRAINAGE AREA MAP

DATE:	08/12/21
DWG SCALE:	1"=20'
PROJECT NO.	193-209
APPROVED BY:	TJP
DRAWN BY:	LAR
CHECKED BY:	DRS

DRAWING NO.:

FIGURE 2

SHEET OF

7–PP–2007#3 2062–20–5 12–SA–2021 61–DR–2015#2 11–AB–2020

APPENDIX C
HYDROLOGY CALCULATIONS

NOAA Atlas 14, Volume 1, Version 5
Location name: Scottsdale, Arizona, USA*
Latitude: 33.6668°, Longitude: -111.9241°
Elevation: 1651.57 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**2.38** (1.97-2.90)	**3.10** (2.59-3.79)	**4.18** (3.46-5.11)	**5.00** (4.13-6.11)	**6.13** (4.97-7.44)	**6.98** (5.59-8.41)	**7.86** (6.18-9.46)	**8.74** (6.77-10.5)	**9.92** (7.49-11.9)	**10.8** (8.00-13.1)
10-min	**1.81** (1.50-2.21)	**2.35** (1.97-2.89)	**3.18** (2.63-3.89)	**3.81** (3.14-4.64)	**4.66** (3.78-5.66)	**5.32** (4.25-6.40)	**5.98** (4.70-7.19)	**6.65** (5.15-7.99)	**7.55** (5.69-9.08)	**8.24** (6.09-9.93)
15-min	**1.49** (1.24-1.83)	**1.94** (1.63-2.39)	**2.63** (2.18-3.21)	**3.15** (2.59-3.84)	**3.85** (3.12-4.68)	**4.39** (3.52-5.29)	**4.94** (3.89-5.95)	**5.50** (4.25-6.60)	**6.24** (4.70-7.51)	**6.81** (5.03-8.21)
30-min	**1.00** (0.834-1.23)	**1.31** (1.10-1.61)	**1.77** (1.46-2.16)	**2.12** (1.75-2.58)	**2.59** (2.10-3.15)	**2.96** (2.37-3.56)	**3.33** (2.62-4.00)	**3.70** (2.86-4.45)	**4.20** (3.17-5.06)	**4.58** (3.39-5.53)
60-min	**0.621** (0.516-0.761)	**0.811** (0.678-0.995)	**1.09** (0.906-1.34)	**1.31** (1.08-1.60)	**1.61** (1.30-1.95)	**1.83** (1.47-2.21)	**2.06** (1.62-2.48)	**2.29** (1.77-2.75)	**2.60** (1.96-3.13)	**2.84** (2.10-3.42)
2-hr	**0.362** (0.306-0.436)	**0.469** (0.396-0.566)	**0.624** (0.524-0.748)	**0.744** (0.617-0.890)	**0.906** (0.744-1.08)	**1.03** (0.834-1.22)	**1.16** (0.920-1.37)	**1.28** (1.01-1.52)	**1.46** (1.11-1.72)	**1.59** (1.19-1.89)
3-hr	**0.266** (0.224-0.325)	**0.341** (0.288-0.418)	**0.445** (0.374-0.544)	**0.528** (0.439-0.641)	**0.644** (0.527-0.777)	**0.736** (0.595-0.883)	**0.831** (0.659-0.998)	**0.932** (0.727-1.12)	**1.07** (0.809-1.28)	**1.18** (0.871-1.41)
6-hr	**0.160** (0.138-0.190)	**0.202** (0.174-0.241)	**0.258** (0.221-0.305)	**0.303** (0.257-0.356)	**0.364** (0.304-0.426)	**0.411** (0.339-0.480)	**0.460** (0.373-0.536)	**0.511** (0.407-0.596)	**0.579** (0.449-0.675)	**0.632** (0.480-0.739)
12-hr	**0.090** (0.078-0.106)	**0.114** (0.098-0.133)	**0.144** (0.123-0.168)	**0.167** (0.143-0.194)	**0.198** (0.168-0.231)	**0.223** (0.186-0.258)	**0.248** (0.204-0.287)	**0.273** (0.222-0.316)	**0.307** (0.243-0.357)	**0.333** (0.259-0.390)
24-hr	**0.053** (0.046-0.061)	**0.067** (0.059-0.078)	**0.087** (0.076-0.101)	**0.103** (0.089-0.119)	**0.125** (0.107-0.144)	**0.142** (0.121-0.164)	**0.160** (0.136-0.185)	**0.179** (0.150-0.207)	**0.206** (0.169-0.238)	**0.227** (0.184-0.264)
2-day	**0.029** (0.025-0.033)	**0.037** (0.032-0.042)	**0.048** (0.042-0.055)	**0.057** (0.049-0.066)	**0.070** (0.060-0.080)	**0.080** (0.068-0.092)	**0.091** (0.076-0.105)	**0.102** (0.085-0.118)	**0.118** (0.096-0.136)	**0.130** (0.105-0.152)
3-day	**0.021** (0.018-0.024)	**0.026** (0.023-0.030)	**0.035** (0.030-0.040)	**0.041** (0.036-0.047)	**0.051** (0.044-0.058)	**0.059** (0.050-0.067)	**0.067** (0.057-0.077)	**0.076** (0.064-0.087)	**0.088** (0.073-0.102)	**0.098** (0.080-0.114)
4-day	**0.017** (0.015-0.019)	**0.021** (0.019-0.024)	**0.028** (0.025-0.032)	**0.034** (0.029-0.038)	**0.042** (0.036-0.047)	**0.048** (0.042-0.055)	**0.055** (0.047-0.063)	**0.063** (0.053-0.072)	**0.073** (0.061-0.084)	**0.082** (0.067-0.095)
7-day	**0.011** (0.009-0.012)	**0.014** (0.012-0.016)	**0.018** (0.016-0.021)	**0.022** (0.019-0.025)	**0.027** (0.023-0.031)	**0.031** (0.027-0.036)	**0.036** (0.030-0.041)	**0.041** (0.034-0.047)	**0.048** (0.040-0.055)	**0.053** (0.044-0.062)
10-day	**0.008** (0.007-0.009)	**0.010** (0.009-0.012)	**0.014** (0.012-0.016)	**0.017** (0.014-0.019)	**0.020** (0.018-0.023)	**0.024** (0.020-0.027)	**0.027** (0.023-0.031)	**0.031** (0.026-0.035)	**0.036** (0.030-0.041)	**0.040** (0.033-0.046)
20-day	**0.005** (0.004-0.006)	**0.006** (0.006-0.007)	**0.009** (0.008-0.010)	**0.010** (0.009-0.012)	**0.012** (0.011-0.014)	**0.014** (0.012-0.016)	**0.016** (0.014-0.018)	**0.018** (0.015-0.020)	**0.020** (0.017-0.023)	**0.022** (0.018-0.026)
30-day	**0.004** (0.003-0.004)	**0.005** (0.004-0.006)	**0.007** (0.006-0.008)	**0.008** (0.007-0.009)	**0.010** (0.008-0.011)	**0.011** (0.010-0.012)	**0.012** (0.011-0.014)	**0.014** (0.012-0.016)	**0.016** (0.013-0.018)	**0.017** (0.014-0.020)
45-day	**0.003** (0.003-0.003)	**0.004** (0.004-0.005)	**0.005** (0.005-0.006)	**0.006** (0.005-0.007)	**0.007** (0.007-0.008)	**0.008** (0.007-0.010)	**0.009** (0.008-0.011)	**0.010** (0.009-0.012)	**0.012** (0.010-0.014)	**0.013** (0.011-0.015)
60-day	**0.003** (0.002-0.003)	**0.003** (0.003-0.004)	**0.004** (0.004-0.005)	**0.005** (0.005-0.006)	**0.006** (0.005-0.007)	**0.007** (0.006-0.008)	**0.008** (0.007-0.009)	**0.008** (0.007-0.010)	**0.010** (0.008-0.011)	**0.010** (0.009-0.012)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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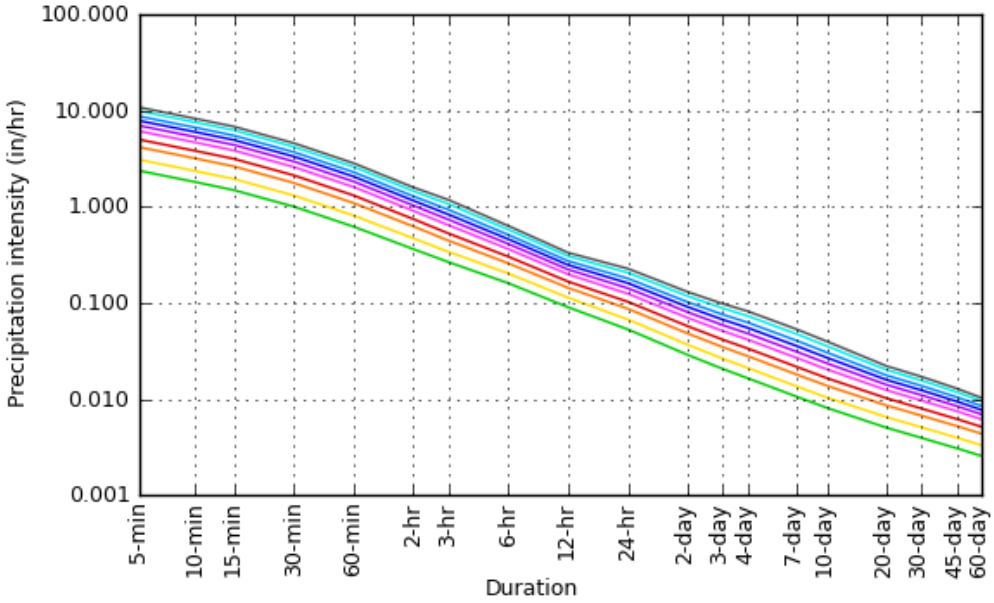
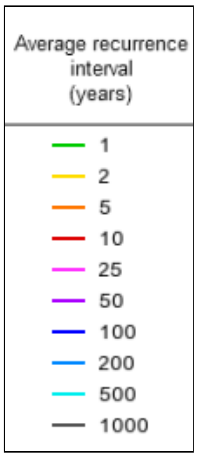
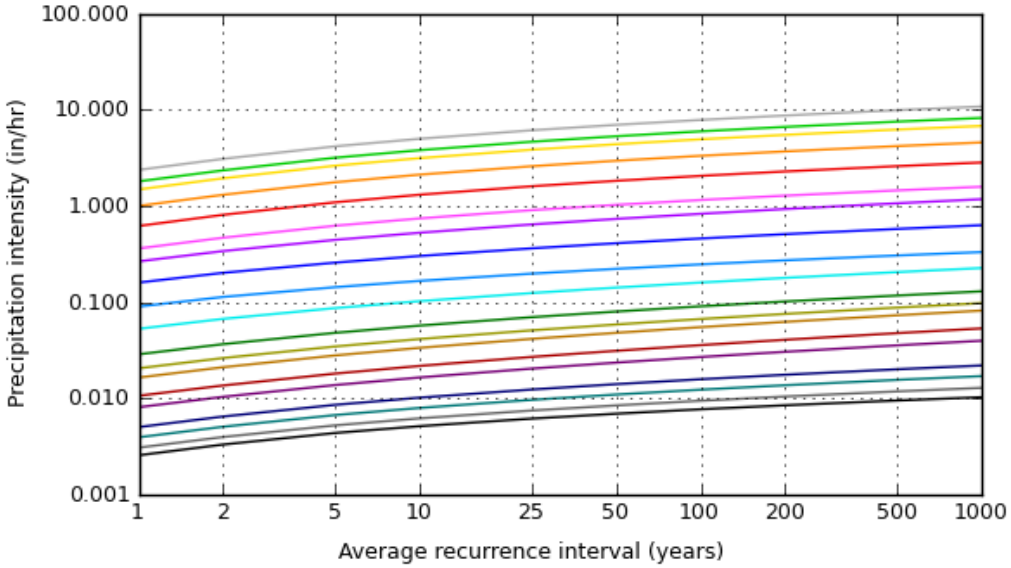
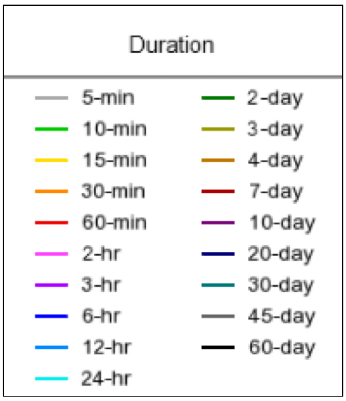
PF graphical

PDS-based intensity-duration-frequency (IDF) curves
Latitude: 33.6668°, Longitude: -111.9241°









NOAA Atlas 14, Volume 1, Version 5

Created (GMT): Thu Jun 24 18:59:42 2021

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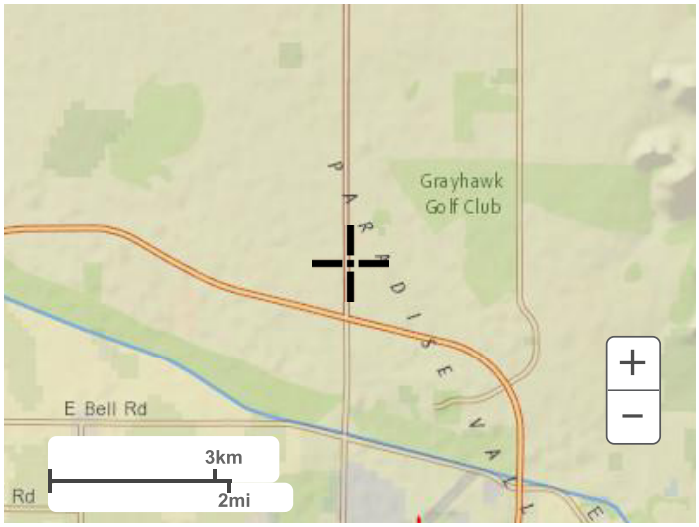
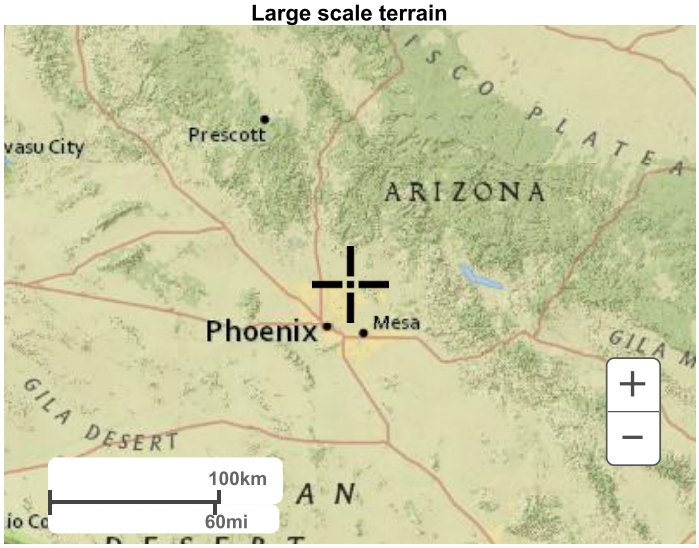
Maps & aerials

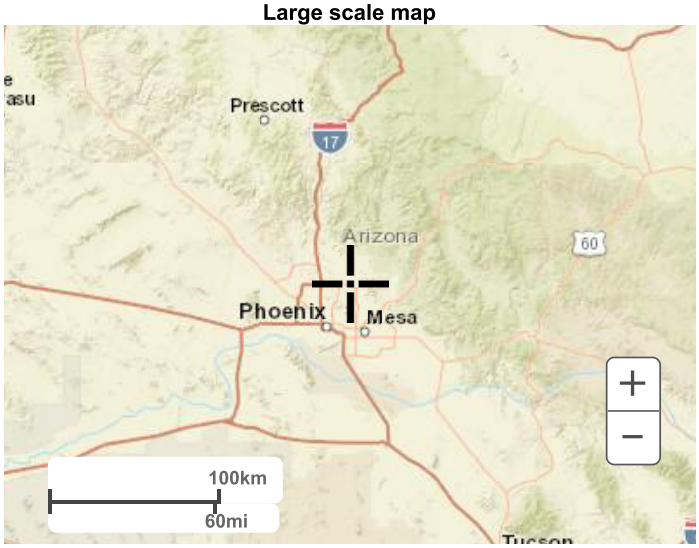
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

Project Name: One Scottsdale Phase II - Hotel
CEC JOB: 193-209
DATE: 08/09/2021
PREPARED BY: KA
CHECKED BY:

PROPOSED CONDITIONS WEIGHTED RUNOFF COEFFICIENT (Cw) - 100-YR					
AREA	**DESERT LANDSCAPING**	**BLDG OR PAVEMENT**	**TOTAL AREA**		
I.D.	0.45	0.95	(SF)	(AC)	**Cw**
B1	4,049	16,141	20,191	0.46	**0.85**
B2	3,654	23,215	26,869	0.62	**0.88**
B3	0	51,156	51,156	1.17	**0.95**
B4	4,112	19,698	23,811	0.55	**0.86**
A11	181	2,331	2,512	0.06	**0.91**
A11.1	0	9,566	9,566	0.22	**0.95**
A12	1,080	4,464	5,544	0.13	**0.85**
A12.1	0	12,223	12,223	0.28	**0.95**
A9	0	28,990	28,990	0.67	**0.95**

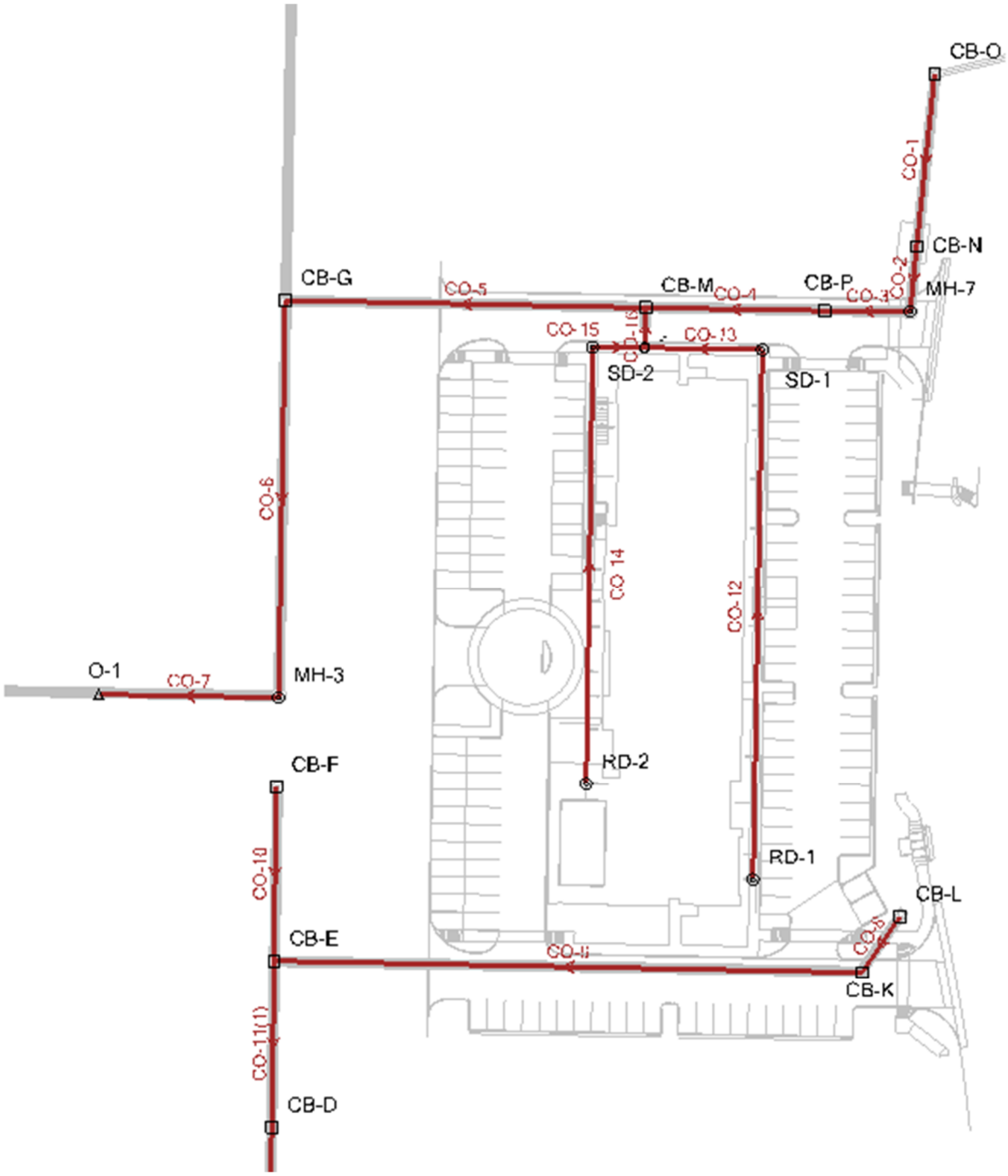
PROPOSED CONDITIONS WEIGHTED RUNOFF COEFFICIENT (Cw) -10-YR					
AREA	**DESERT LANDSCAPING**	**BLDG OR PAVEMENT**	**TOTAL AREA**		
I.D.	0.40	0.90	(SF)	(AC)	**Cw**
B1	4,049	16,141	20,191	0.46	**0.80**
B2	3,654	23,215	26,869	0.62	**0.83**
B3	0	51,156	51,156	1.17	**0.90**
B4	4,112	19,698	23,811	0.55	**0.81**
A11	181	2,331	2,512	0.06	**0.86**
A11.1	0	9,566	9,566	0.22	**0.90**
A12	1,080	4,464	5,544	0.13	**0.80**
A12.1	0	12,223	12,223	0.28	**0.90**
A9	0	28,990	28,990	0.67	**0.90**

Project Name: One Scottsdale Phase II - Hotel
CEC JOB: 193-209
DATE: 8/9/2021
PREPARED BY: KA
CHECKED BY:

RATIONAL METHOD
Q = C*I*A
C = weighted
A = Area, Acre

PEAK RUNOFF CALCULATIONS								
AREA	**AREA**	**Tc**	**I_{10}**	**I_{100}**	**C_{10}**	**C_{100}**	**Q_{10}**	**Q_{100}**
I.D.	(ac)	(min.)	(in/hr)	(in/hr)			(cfs)	(cfs)
B1	0.46	10	3.81	5.98	0.80	0.85	**1.40**	**2.34**
B2	0.62	10	3.81	5.98	0.83	0.88	**1.97**	**3.27**
B3	1.17	10	3.81	5.98	0.90	0.95	**4.01**	**6.65**
B4	0.55	10	3.81	5.98	0.81	0.86	**1.70**	**2.84**
A11	0.06	10	3.81	5.98	0.86	0.91	**0.20**	**0.33**
A11.1	0.22	10	3.81	5.98	0.90	0.95	**0.75**	**1.25**
A12	0.13	10	3.81	5.98	0.80	0.85	**0.40**	**0.66**
A12.1	0.28	10	3.81	5.98	0.90	0.95	**0.96**	**1.59**
A9	0.67	10	3.81	5.98	0.90	0.95	**2.30**	**3.81**

APPENDIX D
HYDRAULIC CALCULATIONS



StormCAD Hydraulic Computations

193-209 One Scottsdale Phase II.stsw

FlexTable: Catch Basin Table

ID	Label	Elevation (Ground) (ft)	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Inlet	Inlet Location	Clogging Factor (%)	Flow (Additional Subsurface) (cfs)	Headloss (ft)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Flow (Total Out) (cfs)
31	CB-O	1,656.64	1,656.64	1,647.98	MAG 537	In Sag	50.0	45.40	0.23	1,653.07	1,652.84	45.40
32	CB-N	1,655.26	1,655.26	1,647.51	MAG 537	In Sag	50.0	16.57	0.43	1,652.66	1,652.23	61.97
33	CB-P	1,654.35	1,654.35	1,647.06	MAG 537	In Sag	50.0	0.33	0.44	1,651.41	1,650.98	62.30
34	CB-M	1,654.03	1,654.03	1,646.69	MAG 537	In Sag	50.0	4.47	0.56	1,650.62	1,650.06	69.61
35	CB-G	1,653.10	1,653.10	1,644.75	MAG 537	In Sag	50.0	16.35	0.83	1,649.27	1,648.44	85.96
36	CB-L	1,650.40	1,650.40	1,645.68	MAG 537	In Sag	50.0	2.34	0.09	1,646.46	1,646.37	2.34
37	CB-K	1,650.85	1,650.85	1,645.34	MAG 537	In Sag	50.0	3.27	0.21	1,646.39	1,646.18	5.61
38	CB-E	1,649.27	1,649.27	1,643.20	MAG 537	In Sag	50.0	2.84	0.43	1,645.03	1,644.60	15.10
39	CB-F	1,649.00	1,649.00	1,644.19	MAG 537	In Sag	50.0	6.65	0.24	1,645.34	1,645.10	6.65
66	CB-D	1,645.50	1,645.50	1,636.64	MAG 537	In Sag	50.0	3.60	0.15	1,639.33	1,639.18	18.70
69	CB-B	1,642.16	1,642.16	1,635.40	MAG 537	In Sag	50.0	33.79	0.64	1,638.75	1,638.11	52.49

193-209 One Scottsdale Phase II.stsw

FlexTable: Manhole Table

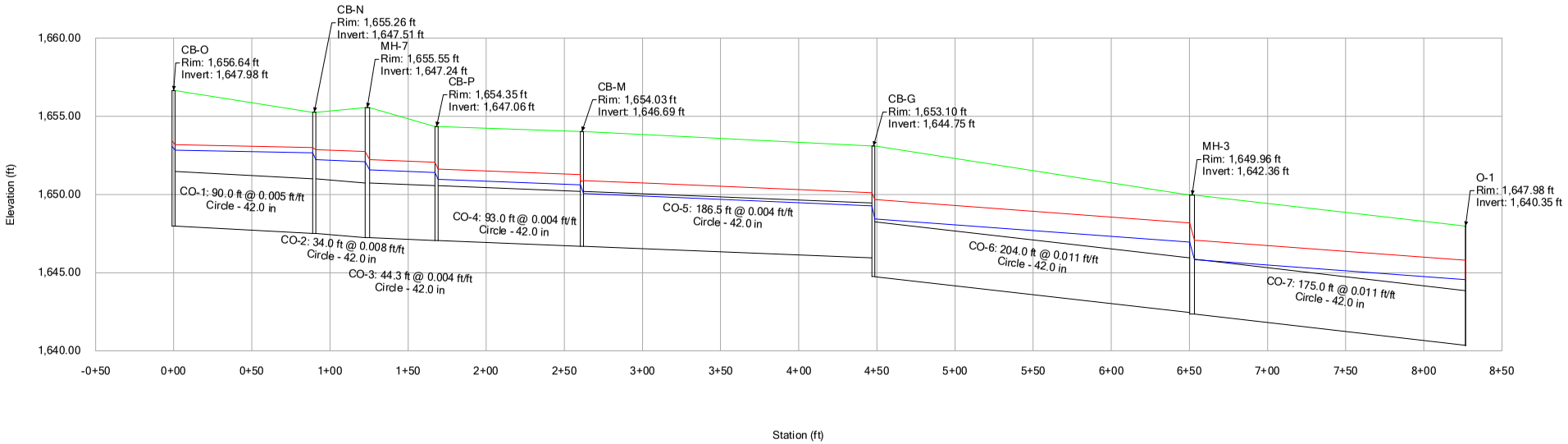
ID	Label	Elevation (Ground) (ft)	Elevation (Rim) (ft)	Depth (Out) (ft)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)	Flow (Total Out) (cfs)
40	MH-7	1,655.55	1,655.55	4.34	1,651.58	1,652.10	61.97
41	MH-3	1,649.96	1,649.96	3.47	1,645.83	1,646.95	85.96
55	RD-1	1,653.94	1,653.94	3.37	1,653.81	1,653.99	1.25
56	SD-1	1,655.15	1,655.15	1.93	1,650.83	1,650.86	1.25
57	RD-2	1,654.94	1,654.94	4.31	1,654.72	1,654.72	1.59
58	SD-2	1,654.98	1,654.98	1.84	1,650.80	1,650.80	1.59

193-209 One Scottsdale Phase II.stsw

FlexTable: Conduit Table

ID	Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Length (Unified) (ft)	Manning's n	Flow (cfs)	Velocity (ft/s)	Depth (Out) (ft)	Capacity (Full Flow) (cfs)
44	CO-1	CB-O	CB-N	1,647.98	1,647.51	0.005	Circle	42.0	90.0	0.013	45.40	4.72	5.15	72.72
45	CO-2	CB-N	MH-7	1,647.51	1,647.24	0.008	Circle	42.0	34.0	0.013	61.97	6.44	4.86	89.65
46	CO-3	MH-7	CB-P	1,647.24	1,647.06	0.004	Circle	42.0	44.3	0.013	61.97	6.44	4.35	64.11
47	CO-4	CB-P	CB-M	1,647.06	1,646.69	0.004	Circle	42.0	93.0	0.013	62.30	6.48	3.93	63.46
48	CO-5	CB-M	CB-G	1,646.69	1,645.95	0.004	Circle	42.0	186.5	0.013	69.61	7.24	3.32	63.37
49	CO-6	CB-G	MH-3	1,644.75	1,642.46	0.011	Circle	42.0	204.0	0.013	85.96	8.93	4.49	106.59
50	CO-7	MH-3	O-1	1,642.36	1,640.35	0.011	Circle	42.0	175.0	0.013	85.96	12.44	4.21	107.82
51	CO-8	CB-L	CB-K	1,645.68	1,645.44	0.007	Circle	18.0	35.0	0.013	2.34	4.17	0.95	8.69
52	CO-9	CB-K	CB-E	1,645.34	1,643.30	0.007	Circle	24.0	304.1	0.013	5.61	5.17	1.73	18.53
53	CO-10	CB-F	CB-E	1,644.19	1,643.30	0.010	Circle	24.0	89.7	0.013	6.65	6.24	1.73	22.53
60	CO-12	RD-1	SD-1	1,650.44	1,649.06	0.005	Circle	8.0	276.0	0.013	1.25	3.58	1.80	0.85
61	CO-13	SD-1	T-1	1,648.90	1,648.59	0.005	Circle	12.0	60.9	0.013	1.25	1.59	2.16	2.54
62	CO-14	RD-2	SD-2	1,650.41	1,649.29	0.005	Circle	8.0	226.0	0.013	1.59	4.56	1.51	0.85
63	CO-15	SD-2	T-1	1,648.96	1,648.59	0.014	Circle	12.0	26.8	0.013	1.59	2.02	2.16	4.19
64	CO-16	T-1	CB-M	1,648.59	1,648.38	0.010	Circle	12.0	20.6	0.013	2.84	3.62	2.24	3.60
67	CO-11(1)	CB-E	CB-D	1,643.20	1,640.80	0.014	Circle	24.0	174.0	0.013	15.10	8.73	1.08	26.57
72	CO-17	CB-D	CB-B	1,636.64	1,635.60	0.005	Circle	30.0	208.0	0.013	18.70	3.81	3.15	29.00
73	CO-18	CB-B	O-2	1,635.40	1,634.10	0.005	Circle	36.0	246.2	0.013	52.49	7.43	2.36	48.46

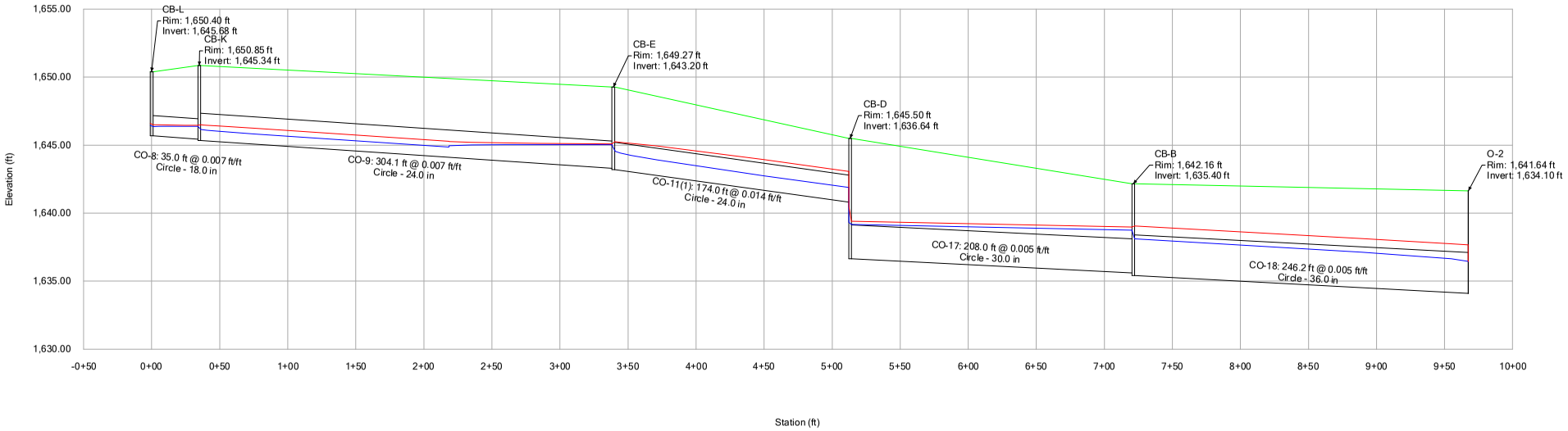
193-209 One Scottsdale Phase II.stsw
Profile Report
Engineering Profile - CB-O to MH-3 (193-209 One Scottsdale Phase II.stsw)



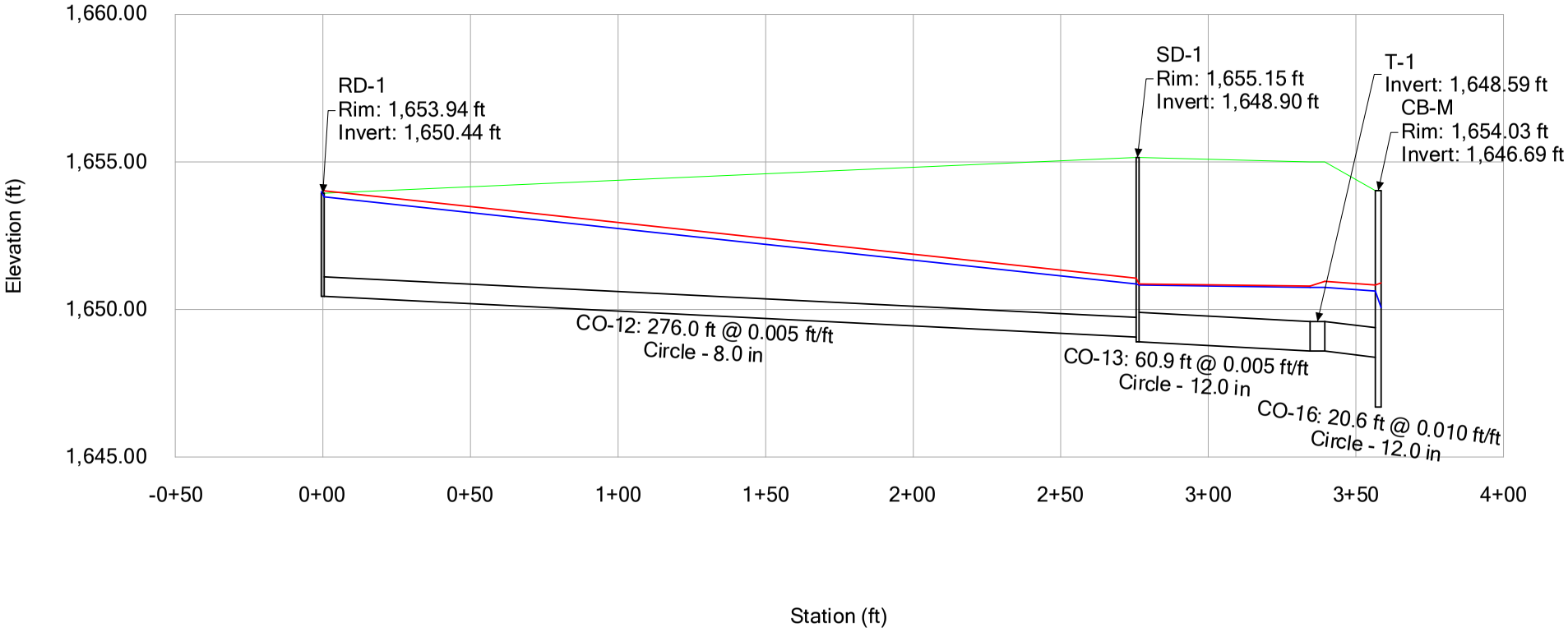
193-209 One Scottsdale Phase II.stsw

Profile Report

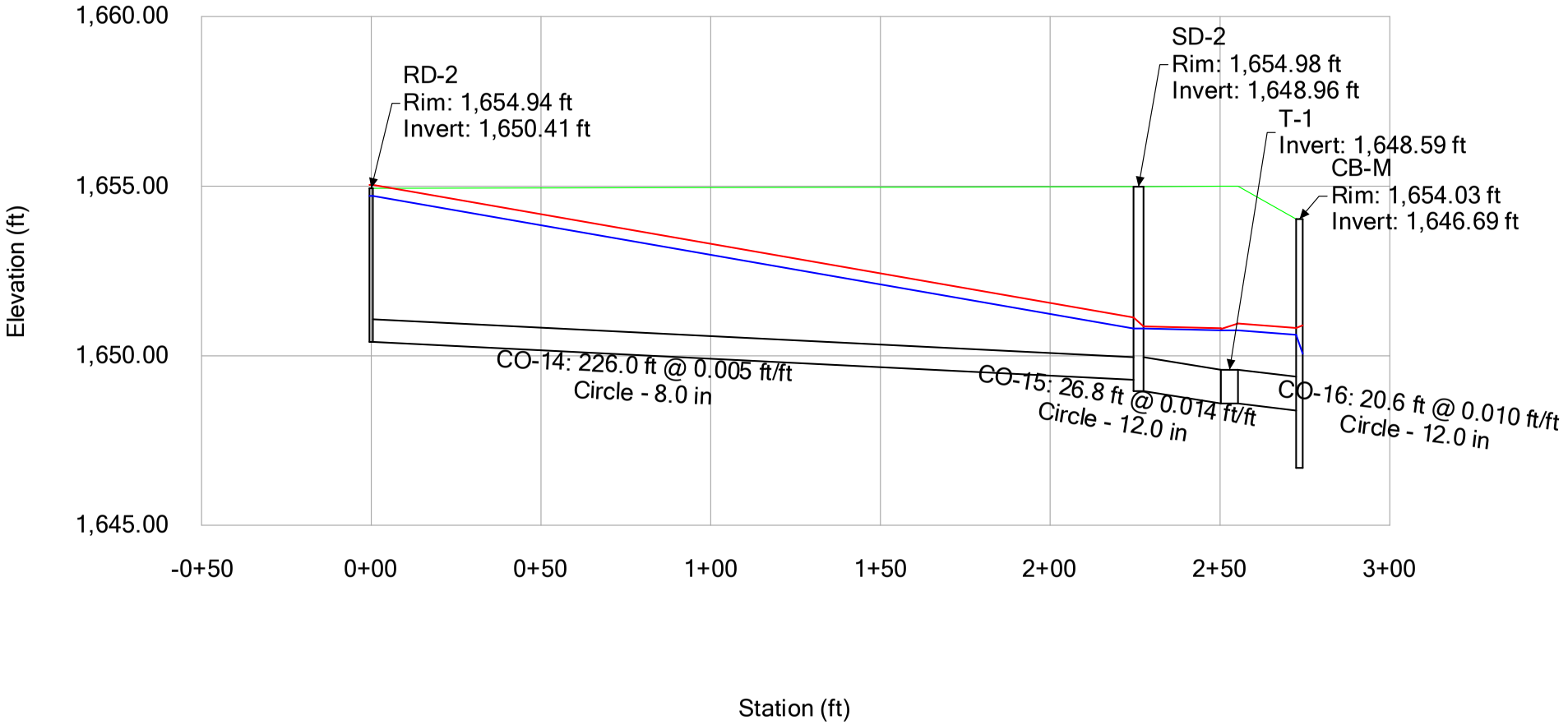
Engineering Profile - CB-L to CB-B (193-209 One Scottsdale Phase II.stsw)



193-209 One Scottsdale Phase II.stsw
Profile Report
Engineering Profile - RD-1 to CB-M (193-209 One Scottsdale Phase II.stsw)



193-209 One Scottsdale Phase II.stsw
Profile Report
Engineering Profile - RD-2 to CB-M (193-209 One Scottsdale Phase II.stsw)



Inlet Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Jun 24 2021

Scupper #!1at W=12FT

Curb Inlet

Location	= On grade
Curb Length (ft)	= 12.00
Throat Height (in)	= 6.00
Grate Area (sqft)	= -0-
Grate Width (ft)	= -0-
Grate Length (ft)	= -0-

Gutter

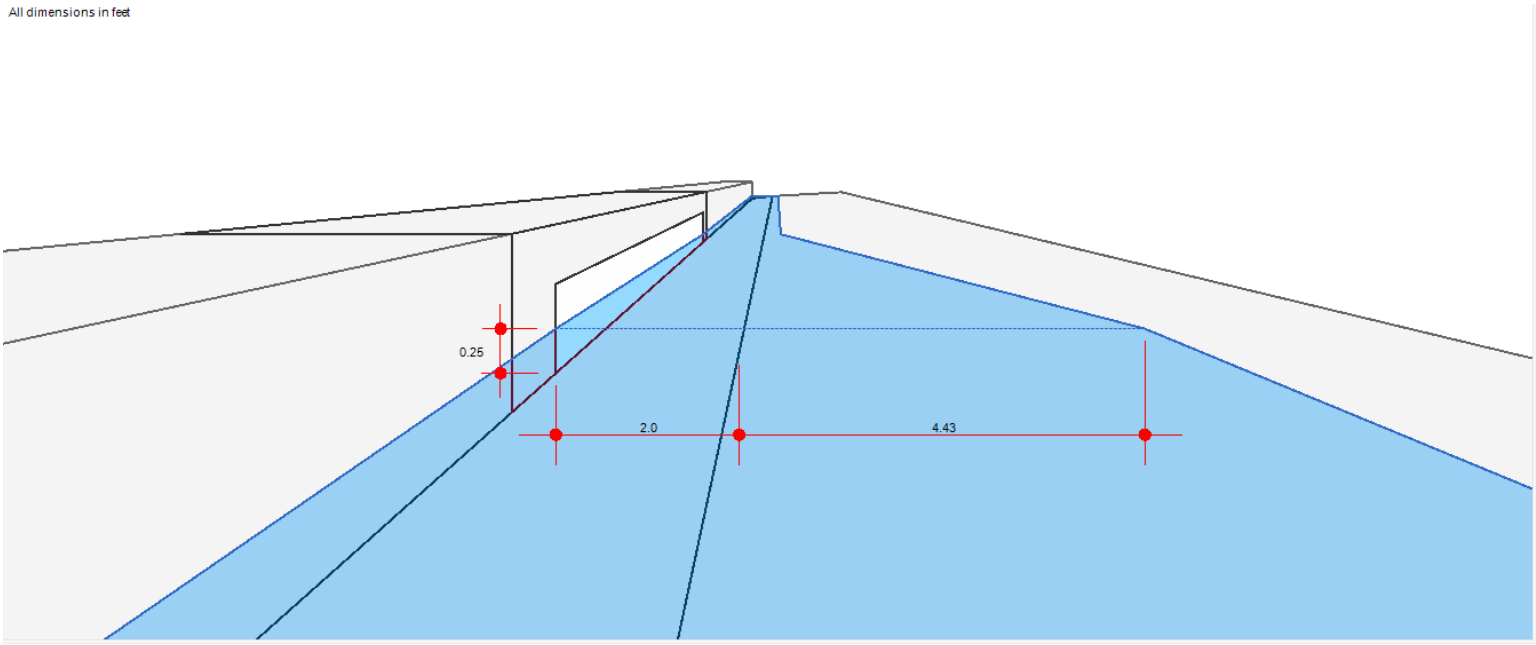
Slope, Sw (ft/ft)	= 0.058
Slope, Sx (ft/ft)	= 0.030
Local Depr (in)	= -0-
Gutter Width (ft)	= 2.00
Gutter Slope (%)	= 1.20
Gutter n-value	= 0.013

Calculations

Compute by:	Known Q
Q (cfs)	= 2.34

Highlighted

Q Total (cfs)	= 2.34
Q Capt (cfs)	= 1.97
Q Bypass (cfs)	= 0.37
Depth at Inlet (in)	= 2.99
Efficiency (%)	= 84
Gutter Spread (ft)	= 6.43
Gutter Vel (ft/s)	= 3.46
Bypass Spread (ft)	= 2.54
Bypass Depth (in)	= 1.59

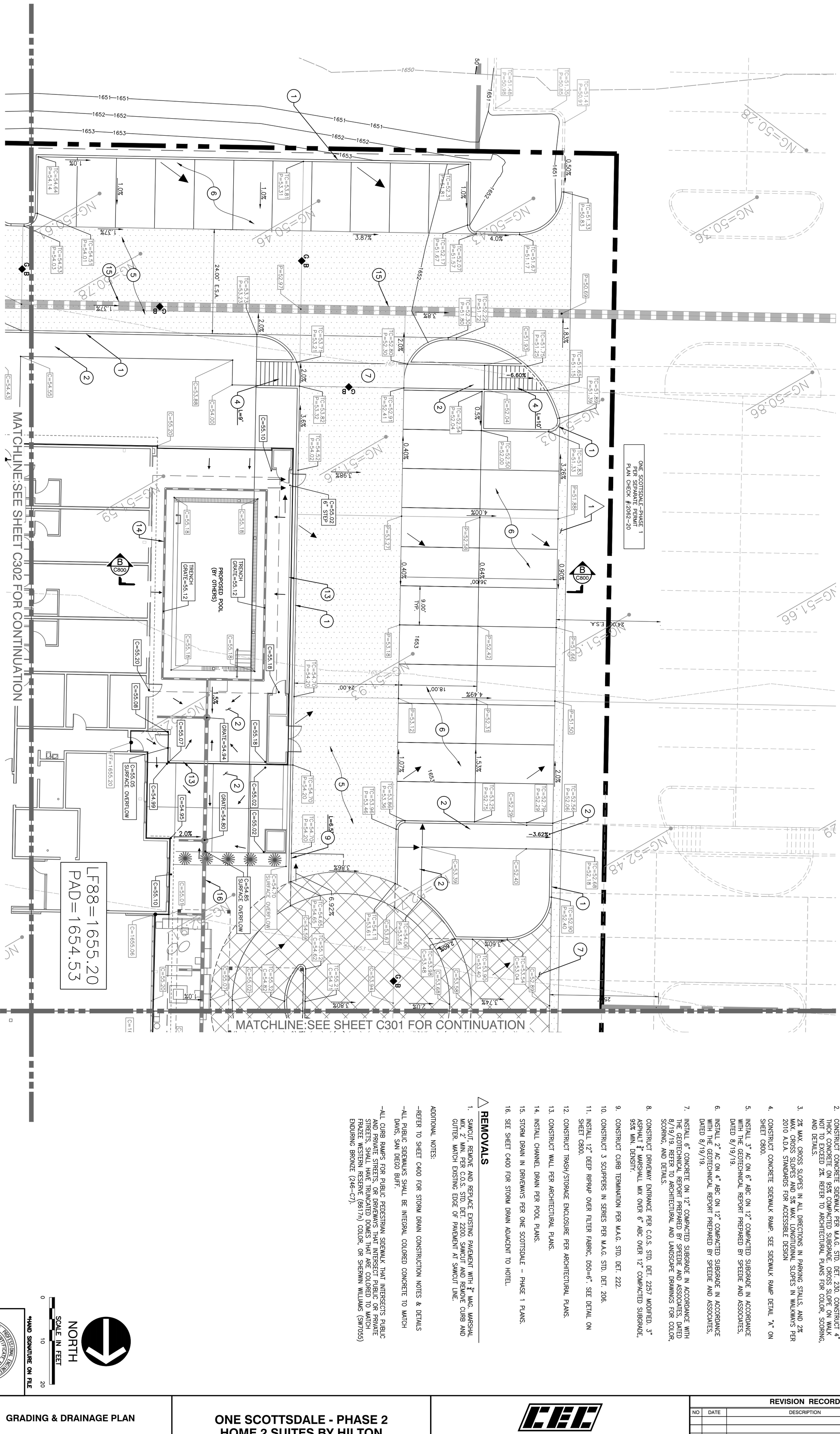


APPENDIX E
GRADING AND DRAINAGE PLANS

11/1/2021

61-DR-2015#3

P:\2019\193-209\-CADD\Dwg\CV01\193209-CV01-C300-GRADING.dwg[300] LS:(8/9/2021 - lreforma) - LP: 8/10/2021 8:00 AM



GRADING NOTES

1. CONSTRUCT 6" CURB PER ARCHITECTURAL PLANS - SITE DETAILS. CURB = 5" HIGH AT PARKING TIRE STOPS (P=TC-5").
2. CONSTRUCT CONCRETE SIDEWALK PER M.A.G. STD. DET. 230. CONSTRUCT 4" THICK CONCRETE ON 95% COMPACTED SUBGRADE. CROSS SLOPE ON WALK NOT TO EXCEED 2%. REFER TO ARCHITECTURAL PLANS FOR COLOR, SCORING, AND DETAILS.
3. 2% MAX. CROSS SLOPES IN ALL DIRECTIONS IN PARKING STALLS, AND 2% MAX. CROSS SLOPES AND 5% MAX. LONGITUDINAL SLOPES IN WALKWAYS PER 2010 A.D.A. STANDARDS FOR ACCESSIBLE DESIGN
4. CONSTRUCT CONCRETE SIDEWALK RAMP. SEE SIDEWALK RAMP DETAIL "A" ON SHEET C800.
5. INSTALL 3" AC ON 6" ABC ON 12" COMPACTED SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY SPEEDIE AND ASSOCIATES, DATED 8/19/19.
6. INSTALL 2" AC ON 4" ABC ON 12" COMPACTED SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY SPEEDIE AND ASSOCIATES, DATED 8/19/19.
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8. CONSTRUCT DRIVEWAY ENTRANCE PER C.O.S. STD. DET. 2257 MODIFIED. 3" ASPHALT ¾" MARSHALL MIX OVER 6" ABC OVER 12" COMPACTED SUBGRADE, 95% MIN. DENSITY.
9. CONSTRUCT CURB TERMINATION PER M.A.G. STD. DET. 222.
10. CONSTRUCT 3 SCUPPERS IN SERIES PER M.A.G. STD. DET. 206.
11. INSTALL 12" DEEP RIPRAP OVER FILTER FABRIC, D50=6". SEE DETAIL ON SHEET C800.
12. CONSTRUCT TRASH/STORAGE ENCLOSURE PER ARCHITECTURAL PLANS.
13. CONSTRUCT WALL PER ARCHITECTURAL PLANS.
14. INSTALL CHANNEL DRAIN PER POOL PLANS.
15. STORM DRAIN IN DRIVEWAYS PER ONE SCOTTSDALE - PHASE 1 PLANS.
16. SEE SHEET C400 FOR STORM DRAIN ADJACENT TO HOTEL.

△ REMOVALS

1. SAWCUT, REMOVE AND REPLACE EXISTING PAVEMENT WITH ¾" MAG. MARSHAL MIX, 2' MIN. PER C.O.S. STD. DET. 2200. SAWCUT AND REMOVE CURB AND GUTTER. MATCH EXISTING EDGE OF PAVEMENT AT SAWCUT LINE.

ADDITIONAL NOTES:

-REFER TO SHEET C400 FOR STORM DRAIN CONSTRUCTION NOTES & DETAILS

-ALL PUBLIC SIDEWALKS SHALL BE INTEGRAL COLORED CONCRETE TO MATCH DAVIS, SAN DIEGO BUFF.

-ALL CURB RAMPS FOR PUBLIC PEDESTRIAN SIDEWALK THAT INTERSECTS PUBLIC AND PRIVATE STREETS, OR DRIVEWAYS THAT INTERSECT PUBLIC OR PRIVATE STREETS, SHALL HAVE TRUNCATED DOMES THAT ARE COLORED TO MATCH FRAZEE WESTERN RESERVE (8617n) COLOR, OR SHERWIN WILLIAMS (SW7055) ENDURING BRONZE (246-C7).

NORTH

SCALE IN FEET
0 10 20

*HAND SIGNATURE ON FILE

REGISTERED PROFESSIONAL ENGINEER
37881
TIMOTHY J. POE
CIVIL
ARIZONA, U.S.A.
Date Signed 8/12/21

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

GRADING & DRAINAGE PLAN

DATE:	08/12/21	DRAWN BY:	LAR
DWG SCALE:	1"=10'	CHECKED BY:	DRS
PROJECT NO:			193-209
APPROVED BY:			TJP

DRAWING NO.: C300
SHEET 3 OF 11

ONE SCOTTSDALE - PHASE 2
HOME 2 SUITES BY HILTON
CIVIL IMPROVEMENT PLANS
SCOTTSDALE, AZ

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Ph: 602.760.2324 · 877.231.2324 · Fax: 602.760.2330
www.cecinc.com

REVISION RECORD

NO	DATE	DESCRIPTION

7-PP-2007#3 2062-20-5 12-SA-2021 61-DR-2015#2 11-AB-2020

GRADING NOTES

1. CONSTRUCT 6" CURB PER ARCHITECTURAL PLANS – SITE DETAILS. CURB = 5" HIGH AT PARKING TIRE STOPS (P=TC-5").
2. CONSTRUCT CONCRETE SIDEWALK PER M.A.G. STD. DET. 230. CONSTRUCT 4" THICK CONCRETE ON 95% COMPACTED SUBGRADE. CROSS SLOPE ON WALK NOT TO EXCEED 2%. REFER TO ARCHITECTURAL PLANS FOR COLOR, SCORING, AND DETAILS.
3. 2% MAX. CROSS SLOPES IN ALL DIRECTIONS IN PARKING STALLS, AND 2% MAX. CROSS SLOPES AND 5% MAX. LONGITUDINAL SLOPES IN WALKWAYS PER 2010 A.D.A. STANDARDS FOR ACCESSIBLE DESIGN
4. CONSTRUCT CONCRETE SIDEWALK RAMP. SEE SIDEWALK RAMP DETAIL "A" ON SHEET C800.
5. INSTALL 3" AC ON 6" ABC ON 12" COMPACTED SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY SPEEDIE AND ASSOCIATES, DATED 8/19/19.
6. INSTALL 2" AC ON 4" ABC ON 12" COMPACTED SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY SPEEDIE AND ASSOCIATES, DATED 8/19/19.
7. INSTALL 6" CONCRETE ON 12" COMPACTED SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY SPEEDIE AND ASSOCIATES, DATED 8/19/19. REFER TO ARCHITECTURAL AND LANDSCAPE DRAWINGS FOR COLOR, SCORING, AND DETAILS.
8. CONSTRUCT DRIVEWAY ENTRANCE PER C.O.S. STD. DET. 2257 MODIFIED. 3" ASPHALT ¾" MARSHALL MIX OVER 6" ABC OVER 12" COMPACTED SUBGRADE, 95% MIN. DENSITY.
9. CONSTRUCT CURB TERMINATION PER M.A.G. STD. DET. 222.
10. CONSTRUCT 3 SCUPPERS IN SERIES PER M.A.G. STD. DET. 206.
11. INSTALL 12" DEEP RIPRAP OVER FILTER FABRIC, D50=6". SEE DETAIL ON SHEET C800.
12. CONSTRUCT TRASH/STORAGE ENCLOSURE PER ARCHITECTURAL PLANS.
13. CONSTRUCT WALL PER ARCHITECTURAL PLANS.
14. INSTALL CHANNEL DRAIN PER POOL PLANS.
15. STORM DRAIN IN DRIVEWAYS PER ONE SCOTTSDALE – PHASE 1 PLANS.
16. SEE SHEET C400 FOR STORM DRAIN ADJACENT TO HOTEL.

REMOVALS

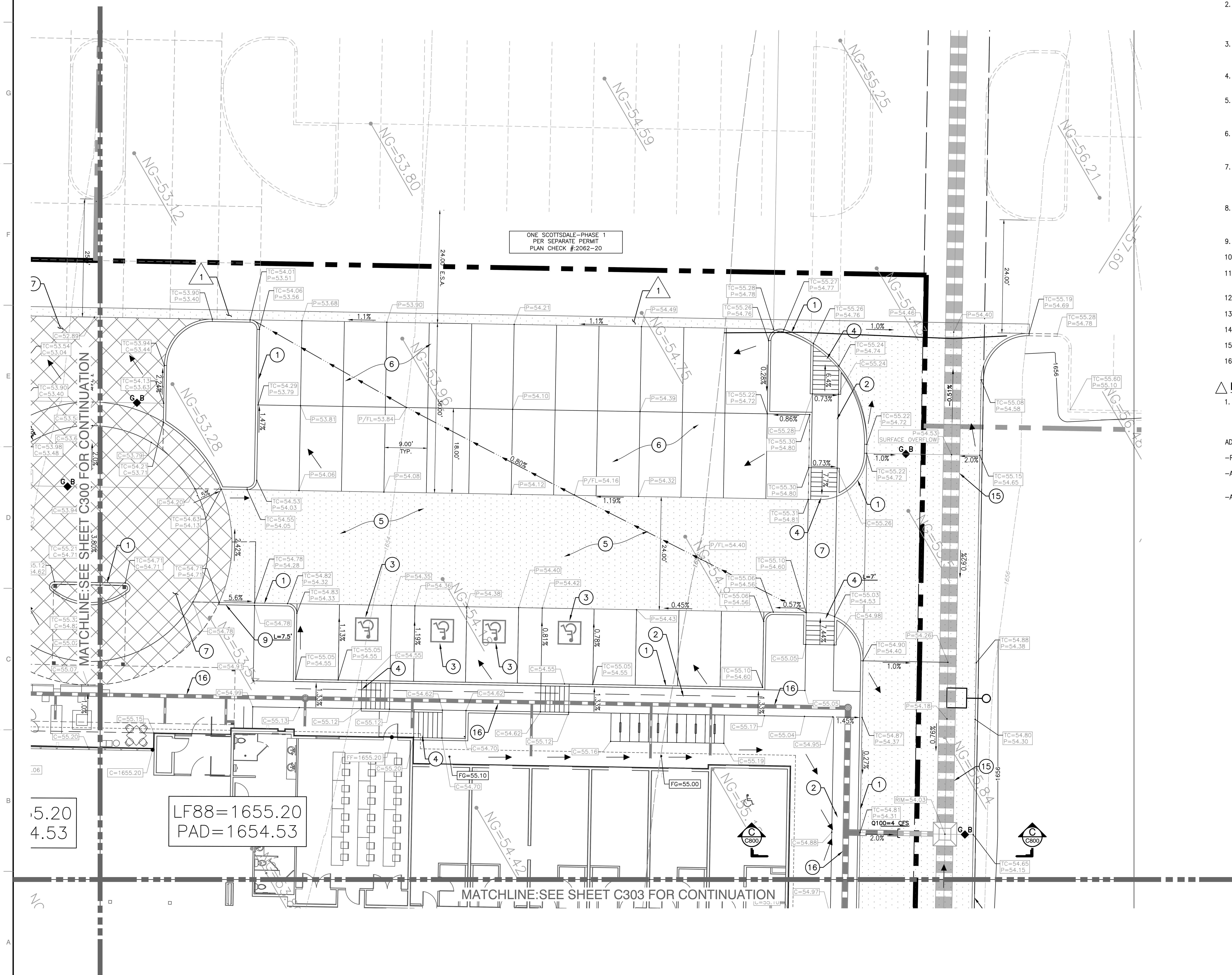
1. SAWCUT, REMOVE AND REPLACE EXISTING PAVEMENT WITH ¾" MAG. MARSHAL MIX, 2" MIN. PER C.O.S. STD. DET. 2200. SAWCUT AND REMOVE CURB AND GUTTER. MATCH EXISTING EDGE OF PAVEMENT AT SAWCUT LINE.

ADDITIONAL NOTES:

–REFER TO SHEET C400 FOR STORM DRAIN CONSTRUCTION NOTES & DETAILS

–ALL PUBLIC SIDEWALKS SHALL BE INTEGRAL COLORED CONCRETE TO MATCH DAVIS, SAN DIEGO BUFF.

–ALL CURB RAMPS FOR PUBLIC PEDESTRIAN SIDEWALK THAT INTERSECTS PUBLIC AND PRIVATE STREETS, OR DRIVEWAYS THAT INTERSECT PUBLIC OR PRIVATE STREETS, SHALL HAVE TRUNCATED DOMES THAT ARE COLORED TO MATCH FRAZEE WESTERN RESERVE (8617n) COLOR, OR SHERWIN WILLIAMS (SW7055) ENDURING BRONZE (246-C7).



*HAND SIGNATURE ON FILE

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 37881 TIMOTHY J. POE Date Signed 08/12/21 ARIZONA, U.S.A.

REVISION RECORD

NO	DATE	DESCRIPTION

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11811 N. Tatum Blvd., Suite 3057 - Phoenix, AZ 85028
Ph: 602.760.2324 · 877.231.2324 · Fax: 602.760.2330
www.cecinc.com

ONE SCOTTSDALE - PHASE 2
HOME 2 SUITES BY HILTON
CIVIL IMPROVEMENT PLANS
SCOTTSDALE, AZ

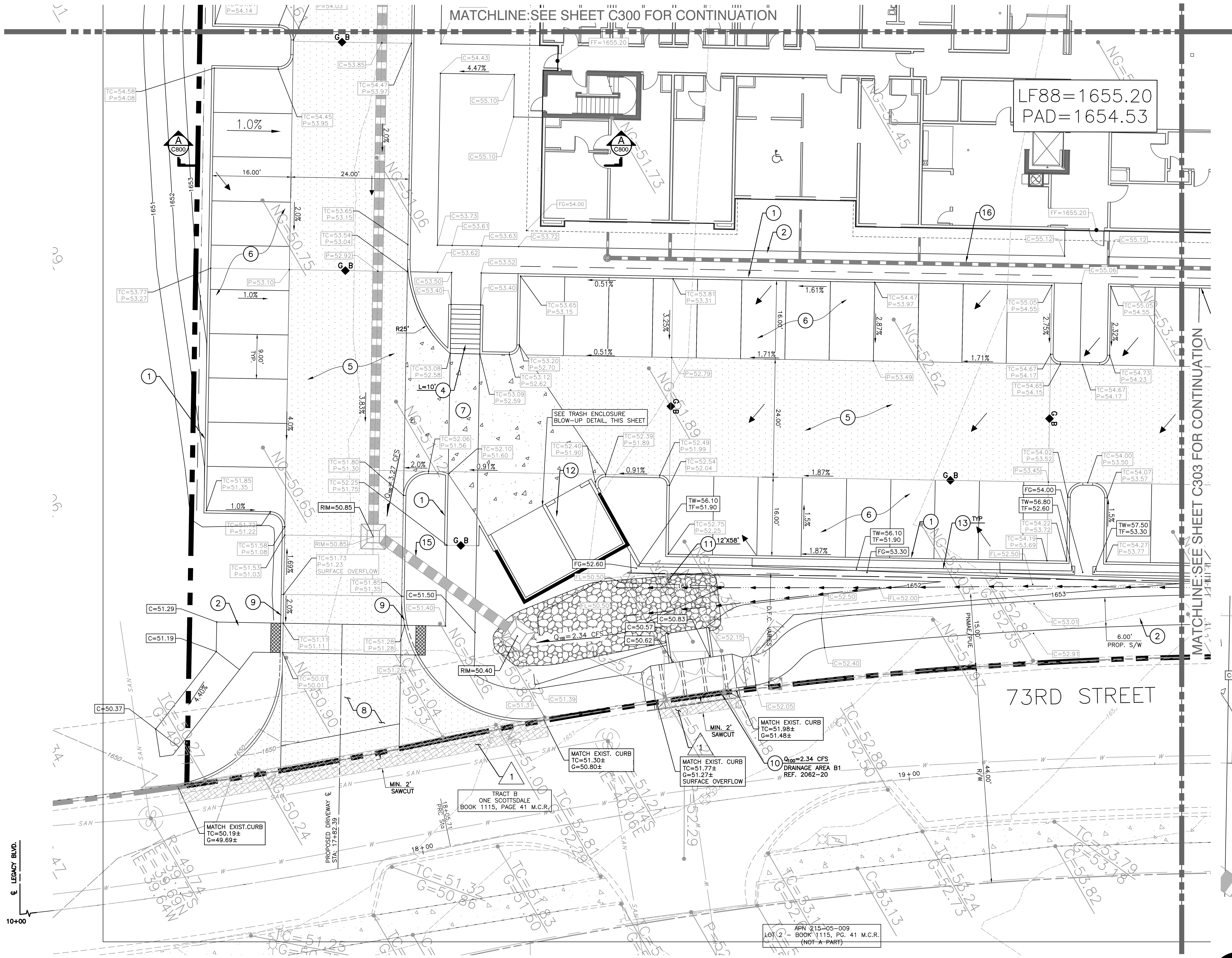
GRADING & DRAINAGE PLAN

DATE:	08/12/21	DRAWN BY:	LAR
DWG SCALE:	1"=10'	CHECKED BY:	DRS
PROJECT NO:			193-209
APPROVED BY:			TJP

DRAWING NO.: C301
SHEET 4 OF 11

7-PP-2007#3 2062-20-5 12-SA-2021 61-DR-2015#2 11-AB-2020

61-DR-2015#3
11/1/2021



GRADING NOTES

1. CONSTRUCT 6" CURB PER ARCHITECTURAL PLANS – SITE DETAILS. CURB = 5" HIGH AT PARKING TIRE STOPS (P=TC-5").
2. CONSTRUCT CONCRETE SIDEWALK PER M.A.G. STD. DET. 230. CONSTRUCT 4" THICK CONCRETE ON 95% COMPACTED SUBGRADE. CROSS SLOPE ON WALK NOT TO EXCEED 2%. REFER TO ARCHITECTURAL PLANS FOR COLOR, SCORING, AND DETAILS.
3. 2% MAX. CROSS SLOPES IN ALL DIRECTIONS IN PARKING STALLS, AND 2% MAX. CROSS SLOPES AND 5% MAX. LONGITUDINAL SLOPES IN WALKWAYS PER 2010 A.D.A. STANDARDS FOR ACCESSIBLE DESIGN
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9. CONSTRUCT CURB TERMINATION PER M.A.G. STD. DET. 222.
10. CONSTRUCT 3 SCUPPERS IN SERIES PER M.A.G. STD. DET. 206.
11. INSTALL 12" DEEP RIPRAP OVER FILTER FABRIC, D50=6". SEE DETAIL ON SHEET C800.
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16. SEE SHEET C400 FOR STORM DRAIN ADJACENT TO HOTEL.

REMOVALS

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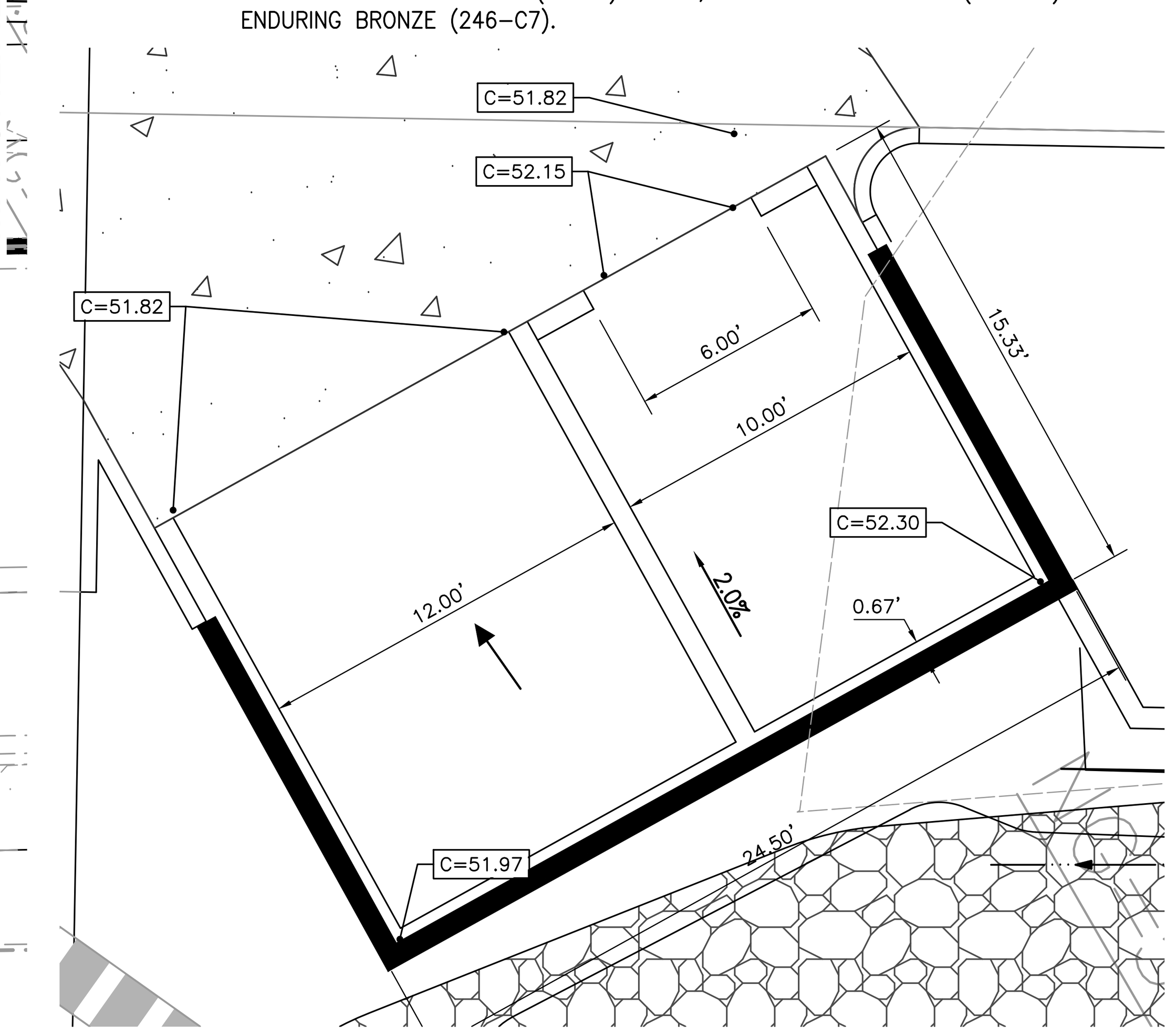

TRASH ENCLOSURE BLOW-UP DETAIL

SCALE: 1"=5'

*HAND SIGNATURE ON FILE

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REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 37881 TIMOTHY J. POE Date Signed 08/12/21 ARIZONA, U.S.A.

REVISION RECORD

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SCOTTSDALE, AZ

GRADING & DRAINAGE PLAN

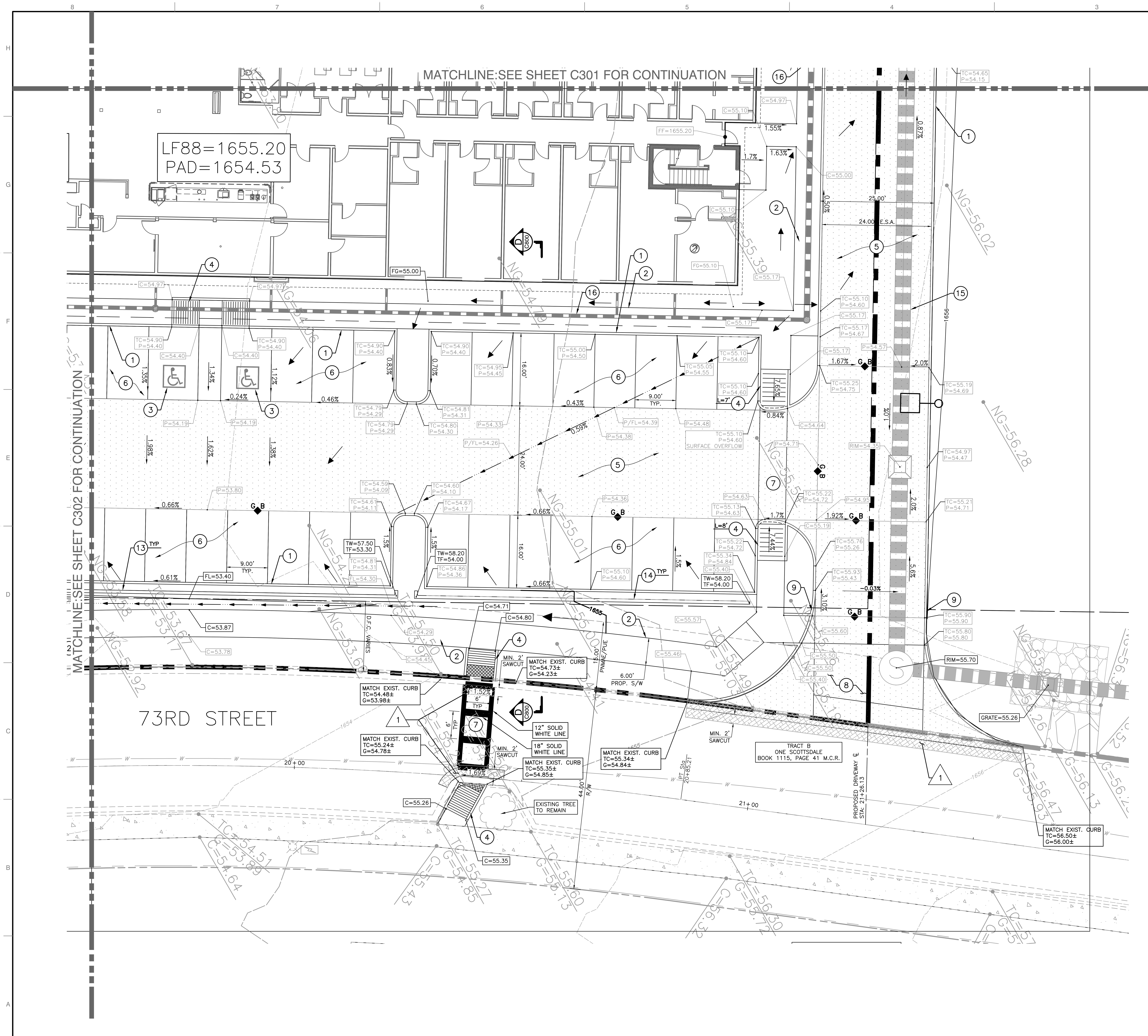
DATE:	08/12/21	DRAWN BY:	LAR
DWG SCALE:	1"=10'	CHECKED BY:	DRS
PROJECT NO:			193-209
APPROVED BY:			TJP

DRAWING NO.: C302

SHEET 5 OF 11

7-PP-2007#3 2062-20-5 12-SA-2021 61-DR-2015#2 11-AB-2020

61-DR-2015#3
11/1/2021



GRADING NOTES

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10. CONSTRUCT 3 SCUPPERS IN SERIES PER M.A.G. STD. DET. 206.
11. INSTALL 12" DEEP RIPRAP OVER FILTER FABRIC, D50=6". SEE DETAIL ON SHEET C800.
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16. SEE SHEET C400 FOR STORM DRAIN ADJACENT TO HOTEL.

REMOVALS

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NORTH

SCALE IN FEET: 0 10 20

*HAND SIGNATURE ON FILE

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REGISTERED PROFESSIONAL ENGINEER CERTIFICATE NO. 37881 TIMOTHY J. POE (CIVIL) Date Signed 08/12/21 ARIZONA, U.S.A.

REVISION RECORD		
NO	DATE	DESCRIPTION

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HOME 2 SUITES BY HILTON
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SCOTTSDALE, AZ

GRADING & DRAINAGE PLAN

DATE:	08/12/21	DRAWN BY:	LAR
DWG SCALE:	1"=10'	CHECKED BY:	DRS
PROJECT NO:	193-209		
APPROVED BY:	TJP		

DRAWING NO.: C303
SHEET 6 OF 11

7-PP-2007#3 2062-20-5 12-SA-2021 61-DR-2015#2 11-AB-2020

61-DR-2015#3
11/1/2021