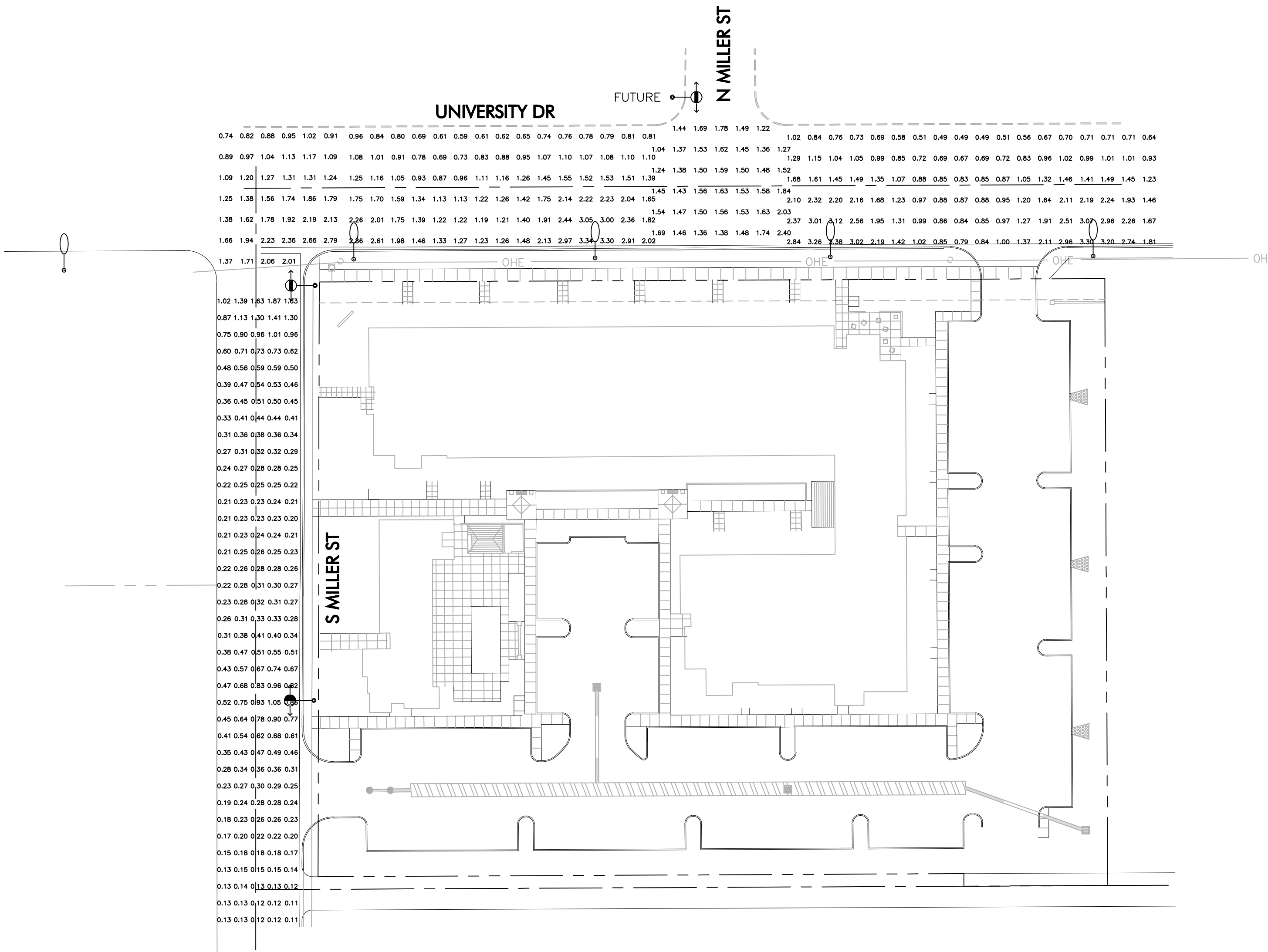


STALWART HOUSING
PHOTOMETRICS



LEGEND

- 5,300 LUMEN LED
Type II Distribution, 8' Mast Arm
candela file 'ERL1_05B330_120-277V.IES'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 39
mounting height= 35 ft
number locations= 1, number luminaires= 1
kw all locations= 0.0
- 9,100 LUMEN LED
Type II Distribution, 8' Mast Arm
candela file 'ERL1_09B330_120-277V.IES'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 84
mounting height= 35 ft
number locations= 2, number luminaires= 2
kw all locations= 0.2
- 250W HPS Cobrahead
Type III Distribution, 8' Mast Arm
candela file 'GE7323.IES'
1 lamp(s) per luminaire, 27500 initial lumens per lamp
Light Loss Factor = 0.810, watts per luminaire = 250
mounting height= 35 ft
number locations= 6, number luminaires= 6
kw all locations= 1.5
- 100W HPS Cobrahead
Type II Distribution, 8' Mast Arm
candela file 'GE7286.IES'
1 lamp(s) per luminaire, 9500 initial lumens per lamp
Light Loss Factor = 0.810, watts per luminaire = 100
mounting height= 35 ft
number locations= 1, number luminaires= 1
kw all locations= 0.1

CALCULATIONS

MILLER ST	190 points at z=0, sp 8ft by 8ft	INT - UNIVERSITY & N MILLER	40 points at z=0, sp 10ft by 10ft
HORIZONTAL FOOTCANDLES		HORIZONTAL FOOTCANDLES	
Average	0.42	Average	1.53
Maximum	1.87	Maximum	2.40
Minimum	0.11	Minimum	1.04
Avg:Min	3.85	Avg:Min	1.47
Max:Min	17.00	Max:Min	2.31
Coef Var	0.73	Coef Var	0.14
UnifGrad	1.55	UnifGrad	1.38

UNIVERSITY DR	198 points	INT- UNIVERSITY DR & S MILLER	40 points at z=0, sp 10ft by 10ft
HORIZONTAL FOOTCANDLES		HORIZONTAL FOOTCANDLES	
Average	1.42	Average	1.51
Maximum	3.38	Maximum	2.79
Minimum	0.49	Minimum	0.74
Avg:Min	2.90	Avg:Min	2.04
Max:Min	6.90	Max:Min	3.77
Coef Var	0.51	Coef Var	0.34
		UnifGrad	1.44

ROADWAY DESIGN CRITERIA				
STREET	TYPE	PEDESTRIAN CONFLICT	AVG FC	AVG/MIN
UNIVERSITY DR	ARTERIAL	MEDIUM	1.3	3:1
MILLER ST	LOCAL	LOW	0.4	6:1

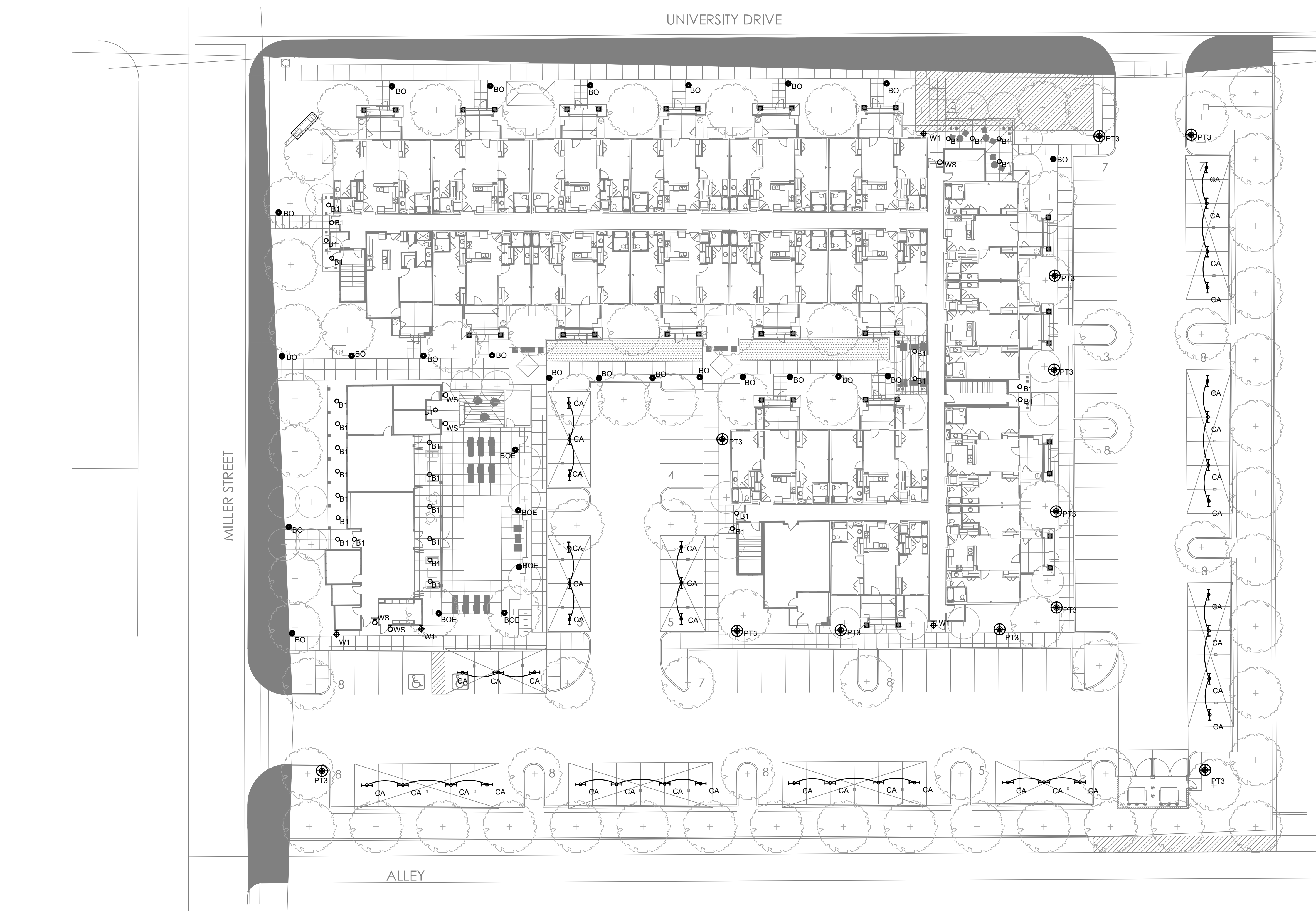
INTERSECTION DESIGN CRITERIA		
INTERSECTION	AVG FC	AVG/MIN
UNIVERSITY DR & MILLER ST	1.7	3:1

WRIGHT
engineering corporation
ELECTRICAL ENGINEERING AND DESIGN
165 EAST CHILTON DRIVE • CHANDLER, ARIZONA 85225
PHONE 480.497.5829 • FAX 480.497.5807

**PHOTOMETRIC CALCULATION
SHEET. FOR INFORMATION ONLY.**

PRELIMINARY
NOT FOR
CONSTRUCTION

PROJECT NAME:
MESA, ARIZONA
STALWART HOUSING
PHOTOMETRICS
WRIGHT ENG.
PROJECT NO: **21009**
DESIGN BY: TDN **PH1**



ELECTRICAL SITE LIGHTING PLAN

SCALE: 1" = 20' - 0"

Schedule								
Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Lumens per Lamp	Efficiency
○	B1	29	Juno Lighting	J5F 5IN 07LM 35K 90CRI 120 FRPC WH	5" Round Edgell (Slimform) Surface Mount, 3500K, 90CRI, 120V	10W LED	754	100%
●	BO	22	KIM LIGHTING	BNB1-36L3K UV DB	42" BOUNCE BOLLARD LED DIE CAST ALUMINUM HOUSING AND LENS FRAME, FLAT GLASS LENS, FOUR 3/4" RODS, HOLDING FIXTURE HEAD OFF BALLAST COMPARTMENT/ RISER.	41W LED, 3000K	2749	100%
●	BOE	5	KIM LIGHTING	BNB1-36L3K UV DB EM	42" BOUNCE BOLLARD LED DIE CAST ALUMINUM HOUSING AND LENS FRAME, FLAT GLASS LENS, FOUR 3/4" RODS, HOLDING FIXTURE HEAD OFF BALLAST COMPARTMENT/ RISER, WITH EMERGENCY BATTERY BACK-UP.	41W LED 3000K	2749	100%
↔	CA	39	Lithonia Lighting	CLX L48 4000LM SEF FDL MVOLT 35K 90CRI SKGYW	4" LED LINEAR Standard Efficiency, Surface Mount Lighting at Carport Canopy.	34.8W LED 3500K	3161	100%
Ω	WS	5	WAC LIGHTING	WS-W52610-BZ	WALL ADA SCONCE MOUNTED AT 8 FT. BOTTOM OF FIXTURE	12W LED 3000K	419	100%
⬆	W1	4	KIM LIGHTING	1W-BNS1H3E35-60L3K UV DB	BOUNCE LED PICO-EMITTER, WALL MOUNTED AT 10FT. AFF.	66W LED 3000K	4797	100%
⊕	PT3	12	KIM LIGHTING	PT BNS1H3E35-60L3K UV DB SF	BOUNCE LED PICO-EMITTER, POST TOP MOUNTED AT +15FT. AFF.	66W LED 3000K	4797	100%

LIGHT TO SHINE AWAY FROM PUBLIC STREET AND ADJACENT PROPERTIES. MOUNT LIGHTING FIXTURE AS TIGHT AS POSSIBLE TO CEILING. (TYPICAL)

STREET OR ADJACENT PROPERTY.

CARPORT MOUNTING DETAIL
N.T.S.

NOTE!!

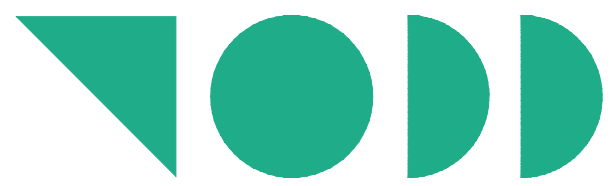
COORDINATE AND VERIFY EXACT LOCATION AND QUANTITIES OF ALL GROUND MOUNTED LTG. FIXTURES WITH LANDSCAPE ARCHITECT BEFORE ROUGH-IN. ALL EXTERIOR SITE LIGHTING FIXTURES SHALL BE U.L. LISTED FOR WET LOCATIONS.

GENERAL NOTES: UTILITIES DISTRIBUTION

- APARTMENT BUILDING IS A SINGLE-STORY BUILDING. CLUBHOUSE BUILDING IS A SINGLE-STORY BUILDING.
- SEE LANDSCAPE ARCHITECT DRAWINGS FOR EXACT LOCATION OF LIGHTING FIXTURES INDICATED ON THIS SHEET.
- MINIMUM UNDERGROUND CONDUIT SIZE SHALL BE 3/4".
- ALL UNDERGROUND RUNS FOR OUTDOOR LIGHTING SHALL BE CIRCUITED WITH #10 AWG, THWN CU. IN PVC CONDUIT UNLESS NOTED OTHERWISE. PROVIDE BOND WIRE PER 2005 N.E.C.
- ALL HOUSE LIGHTING, THIS SHEET, ROUTED WITHIN BUILDING STRUCTURES AND NOT BELOW GRADE IN PVC CONDUIT SHALL BE ROUTED IN EMT, FLEX OR MC CABLE.
- ALL PENETRATIONS OF FIRE RATED WALLS & CEILINGS SHALL BE EXECUTED PER LOCAL AND ALL APPLICABLE CODES.
- CABLE TELEVISION, TELEPHONE AND SECURITY SYSTEM SHALL BE PREWIRED BY ELECTRICAL CONTRACTOR.
- ALL ELECTRICAL EQUIPMENT WIRING, LIGHTING, ETC., IN AND ADJACENT TO THE SWIMMING POOL, SPA AND DECORATIVE FOUNTAIN SHALL COMPLY WITH N.E.C. ARTICLE 680.

FIRE ALARM NOTES:

ELECTRICAL CONTRACTOR SHALL PROVIDE A DESIGN/BUILD FIRE ALARM SYSTEM FOR THIS PROJECT. COMPLY WITH ALL APPLICABLE NATIONAL, STATE & LOCAL FIRE AND BLDG. CODES. SUBMIT DRAWINGS TO AUTHORITIES HAVING JURISDICTION FOR APPROVAL.



TODD + ASSOCIATES

602-952-8280 / TODDASSOC.COM

19-2050-00

STALWART HOUSING, LLC

STALWART HOUSING

MESA, AZ

SITE PLAN REVIEW/ DESIGN REVIEW/ DIP SUBMITTAL #2

02-08-21

ELECTRICAL SITE LIGHTING PLAN

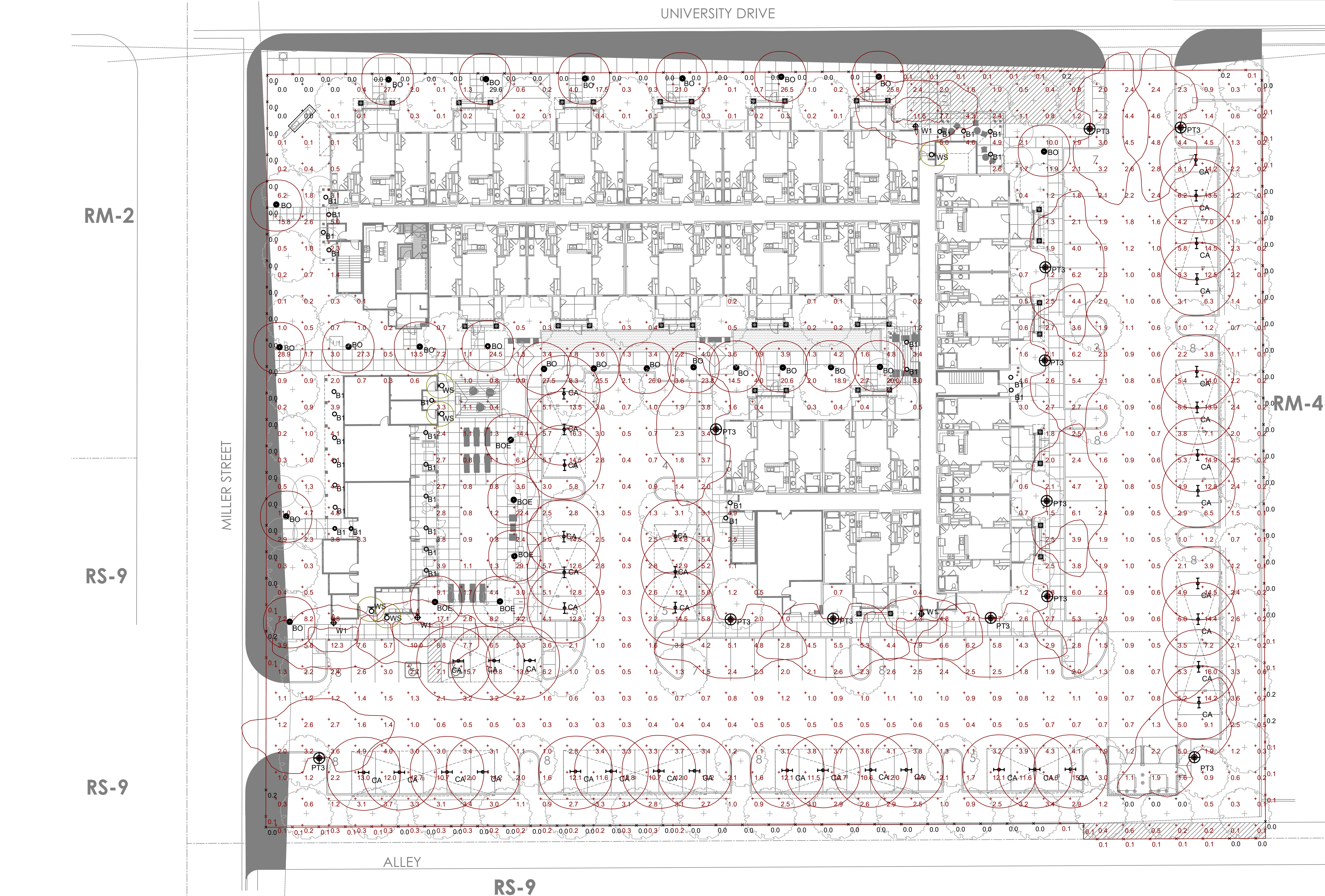
Preliminary Not For Construction



NP ENGINEERING INC.

4115 N. 15TH AVE
PHOENIX, AZ 85015
(602) 265-1559
PROJECT NO. 2020-05

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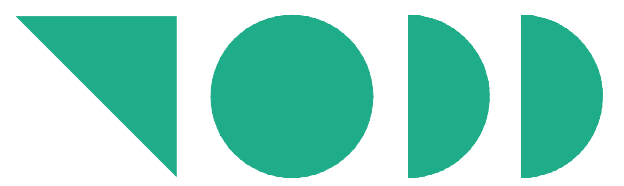


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Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PROPERTY LINE AT +6FT. A.F.F.	✕	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
SITE	+	3.4 fc	29.6 fc	0.0 fc	N/A	N/A

ELECTRICAL SITE PHOTOMETRIC PLAN

SCALE: 1" = 20' - 0"



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19-2050-00

STALWART HOUSING, LLC

STALWART HOUSING

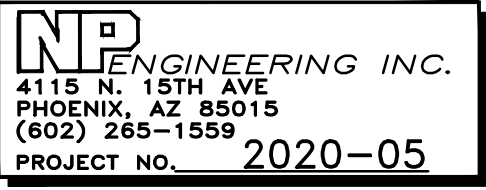
MESA, AZ

SITE PLAN REVIEW/ DESIGN REVIEW/ DIP SUBMITTAL #2

02-08-21

ELECTRICAL SITE PHOTOMETRIC PLAN

Preliminary Not For Construction



E1.2

