

**PRELIMINARY STORMWATER QUALITY MANAGEMENT PLAN  
LETTER REPORT**

**SDP PRJ-1105210**

**THE NEWMAN BUILDING  
2912 UNIVERSITY AVENUE**

**CITY OF SAN DIEGO, CALIFORNIA**

**FEBRUARY 2025**

Prepared For:

**NORTH PARK BUILDING LLC**  
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San Diego, CA 92104

Prepared By:

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### **EXHIBITS**

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## **I. INTRODUCTION**

The purpose of this preliminary stormwater letter report is to outline the preliminary stormwater approach for The Newman Building project including the preliminary sizing of the BMPs for use in the subsequent ministerial permit process.

## **II. PROJECT DESCRIPTION**

The proposed project is a 7-story building, 92-unit multi-use project located in North Park San Diego. The project is located at the northeast corner of the intersection of University Avenue and Kansas Street. The proposed building will use the existing building façade and introduce subterranean parking and residential stories above. The proposed improvements will include the construction of an improved building, hardscape, landscape, private utilities, private storm drain, and construction and post construction stormwater BMPs.

## **III. STORMWATER TREATMENT AND HYDROMODIFICATION METHODOLOGY**

The preliminary stormwater approach developed for the project is based on the current MS-4 permit and the City of San Diego’s stormwater manual. The preliminary approach was assumed to be “zero”/”no Infiltration”. The feasibility to harvest re-use runoff is assumed to be “not feasible”. All the above was used to develop a preliminary treatment stormwater approach. The type of proposed BMP is a biofiltration planter (BF-1) for treatment and HMP requirements. Section IV. describes the proposed condition stormwater approach and BMPs in more detail.

□

## **IV. DEVELOPED CONDITION STORMWATER OVERVIEW**

The stormwater approach for the Newman Building was developed based on the current stormwater permit and requirements. The following is a summary of the stormwater approach:

### **DMA #1**

DMA #1 consists of the entire footprint of the proposed building, hardscape, and landscape improvements. Runoff from DMA #1 will be collected via roof drains and directed to a biofiltration planter located outdoors on Level 1, beneath the cantilever of Level 2. The overhead cantilever, positioned over 20 feet high, will not impact the vegetation within the planter, which stands only 3 feet tall. This clearance ensures ample space for plant growth, ventilation, and proper function of the biofiltration system. The treated runoff will then be pumped to the existing curb and gutter within Kansas Street via a proposed curb outlet.

### **Proposed Pump System**

A two-pump system is proposed to manage both low and high flow runoff. Using floats, Pump 1 will activate immediately after a storm event to handle the low-flow event up to 0.1Q2 HMP, while Pump 2 will engage during peak flow events, including the 100-year storm. **The pumps will only be in operation during and immediately following a rainfall event.** HMP Runoff will be completely dewatered in 15.3 hours, as pump 1 will match the max allowable orifice flow in the BMP sizing spreadsheet. Q100 runoff (1.4 cfs) will be dewatered from an assumed 64 cubic foot (4'x4'x4') pump chamber in 46 seconds.

$$\text{Time} = \text{Volume} / \text{Flow Rate} \rightarrow 64 \text{ ft}^3 \div 1.4 \text{ ft}^3/\text{s} \approx 45.7 \text{ seconds}$$

The Q100 pump will be designed to match the Q100 peak flow rate.

Refer to Exhibit A for a depiction of the proposed condition stormwater BMPs.

### **Hydro-Modification**

This project is subject to Hydromodification requirements that will be satisfied using a biofiltration planter.

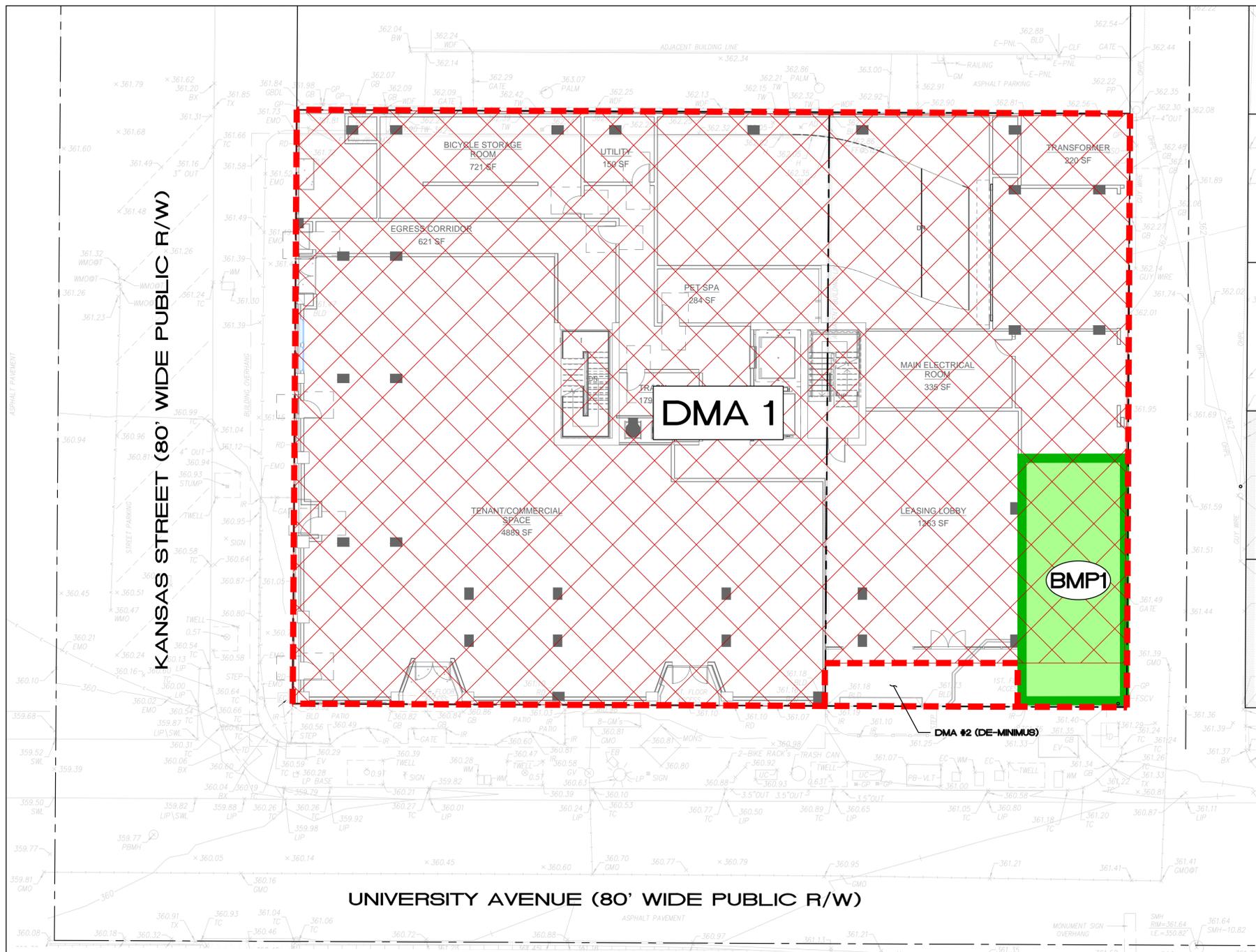
## **V. PRELIMINARY BMP SIZING**

The project is anticipated to be a Priority Development Project (PDP). It will incorporate appropriate LID Design Practices, Site Design BMPs, Source Control BMP's, and Treatment Control BMPs. The treatment control BMP is described by DMA above. The biofiltration planter is sized for treatment and hydromodification. The preliminary sizing for the BMPs were based on the BMP sizing worksheets and spreadsheets.

Refer to Appendix B for the preliminary BMP sizing worksheets and spreadsheets.

## **VI. DISCUSSION AND CONCLUSIONS**

The project is anticipated to be a Priority Development Project (PDP). It will incorporate appropriate LID Design Practices, Site Design BMPs, Source Control BMP's, and Treatment Control BMPs. The treatment control BMP is described by DMA above. The selected BMP is a Biofiltration planter sized for treatment and HMP. The NorthPark Building LLC will be responsible for the maintenance of the BMPs and will be executing the city required Storm Water Maintenance Agreement. Finally, a formal, detailed Stormwater Quality Management Plan (SWQMP), addressing the projects stormwater approach and compliance with the stormwater permit in place at the time the building permit is obtained, will be prepared, and submitted as part of the future grading plan/permit application.



**NOTES**

1. THE UNDERLYING HYDROLOGIC SOIL GROUP IS TYPE D.
2. THE APPROXIMATE DEPTH TO GROUNDWATER IS GREATER THAN 20' FROM THE EXISTING GROUND SURFACE.
3. THE SITE IS FULLY DEVELOPED. NO NATURAL HYDROLOGIC FEATURES EXIST ON SITE. CRITICAL COARSE SEDIMENT YIELD AREA ARE NOT PRESENT EITHER.
4. SEE THE PROJECT DRAINAGE REPORT FOR EXISTING AND PROPOSED DRAINAGE METHODS.
5. DISCHARGE FROM THE BMP WILL BE CONVEYED TO UNIVERSITY AVENUE VIA A PUMP.

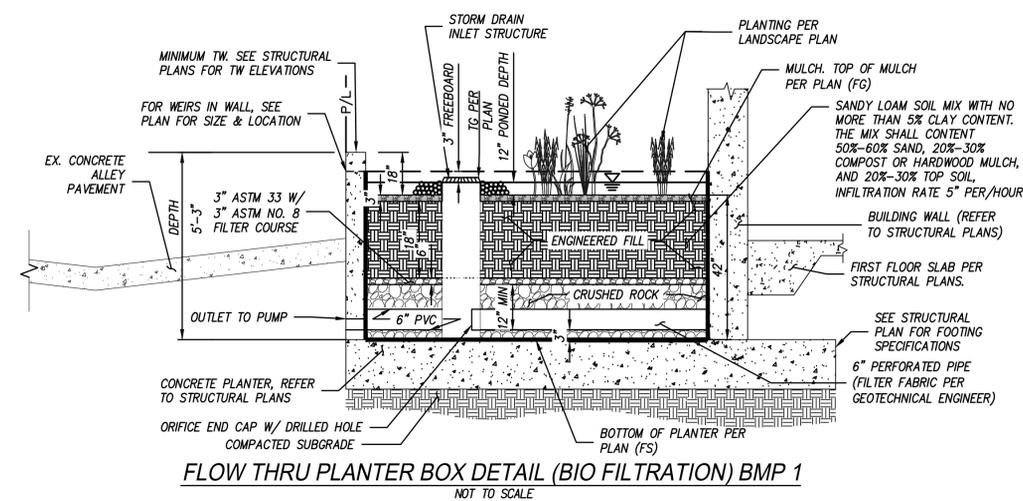
**LEGEND**

- BASIN BOUNDARY
- DMA1
- BMP1 (BIOFILTRATION PLANTER BF-1)
- LANDSCAPED AREA
- BUILDING ROOF

**SOURCE CONTROL BMPs**

SEE FORM I-4

	DESCRIPTION	LOCATION
SC-1	PREVENTION OF ILLICIT DISCHARGES TO THE MS4	ENTIRE SITE
SC-2	STORM DRAIN STENCILING OR SIGNAGE	ALL STORM DRAINS INLETS ①
SC-5	PROTECT TRASH STORAGE AREAS FROM RAINFALL	TRASH ENCLOSURE FULLY COVERED ②
SC-6	ONSITE STORM DRAIN INLETS	ALL STORM DRAINS INLETS ①
	NEED FOR FUTURE INDOOR/OUTDOOR & STRUCTURAL PEST CONTROL	ENTIRE SITE
	LANDSCAPE/ OUTDOOR PESTICIDE USE	LANDSCAPE AREAS ③
	FIRE SPRINKLER TEST WATER	FIRE RISER ROOM ④
	MISC. DRAIN OR WASH WATER	AMENITY DECK ⑤
	PLAZAS, SIDEWALKS AND PARKING LOTS	AMENITY DECK, PARKING AREAS ⑥



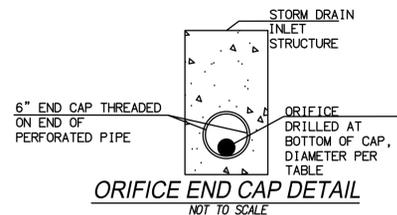
**SITE DESIGN, SOURCE CONTROL AND POLLUTANT CONTROL BMP OPERATION & MAINTENANCE PROCEDURE**

STORM WATER MANAGEMENT AND DISCHARGE CONTROL MAINTENANCE AGREEMENT APPROVAL NO.:

O&M RESPONSIBLE PARTY DESIGNED: PROPERTY OWNER

BMP DESCRIPTION	INSPECTION FREQUENCY	MAINTENANCE FREQUENCY	MAINTENANCE METHOD	QUANTITY	INCLUDED IN O&M MANUAL		SHEET NO.
					YES	NO	
POLLUTANT CONTROL BMP(S)			SEE TABLE BELOW				
HMP FACILITY							
BIOFILTRATION BASIN	ANNUAL	SEMI-ANNUAL	VISUAL INSPECTION (REMOVE DIRT, TRASH, DEBRIS)	1		X	
HMP EXEMPT	NO						

**STORMWATER PUMP NOTE:**  
STORMWATER PUMP OPERATIONS AND DISCHARGES ARE ONLY ALLOWED DURING RAINFALL EVENTS AND IMMEDIATELY AFTER RAINFALL EVENTS. NO DRY WEATHER DISCHARGES ARE ALLOWED FROM STORMWATER PUMP FACILITIES.

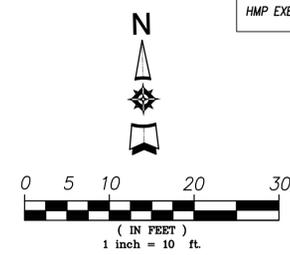


**ORIFICE SIZING CHART**

NO.	ORIFICE SIZE
BMP1	0.50" (SEE DET. ABOVE)

**STRUCTURAL BMP SUMMARY**

DMA ID#	DMA DESCRIPTION	BMP TYPE	DMA AREA (SF)	DMA AREA (AC)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	% PERVIOUS AREA	WEIGHTED C VALUE	DCV	BIOFILTRATION AREA (SF) REQUIRED (WATER QUALITY)	BIOFILTRATION AREA (SF) REQUIRED (HMP)	BIOFILTRATION AREA PROVIDED (SF)
1	DRAINS TO BMP-1	BIOFILTRATION	13,756	0.32	13,648	108	0.0	0.89	533	369	683	707
2	DRAINS TO UNIVERSITY	DE-MINIMUS	239	0.01	239	0	0.0	0.90	9	6	12	--
		TOTAL AREA	13,995	0.32	13,887	108						





**LEGEND**

PROJECT SITE 

CCYSA\* 

**NOTE:**

\*CCYSA'S SHOWN PER THE COMPREHENSIVE MAPPING DATA FROM ATTACHMENT C OF THE WATERSHED MANAGEMENT AREA ANALYSIS (WMAA). "REGIONAL\_WMAA\_DATA\_2018\_0906.KMZ"

**ATTACHMENT 2B - CCYSA EXHIBIT**



SCALE: 1"=100'

DATE: 9/13/24

PREPARED BY: ANM

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**APPENDIX A**

**PRELIMINARY STORMWATER BMP SIZING WORKSHEETS AND  
SPREADSHEETS**

TABULAR SUMMARY OF DMAs								WORKSEET B-1	
DMA ID	AREA (AC)	IMPERVIOUS AREAS (AC)	% IMPERVIOUS	HSG	AREA WEIGHTED RUNOFF C	DCV (CF)	BMP-ID	POLLUTANT CONTROL TYPE	DRAINS TO (POC ID)
1	0.32	0.32	100.0%	D	0.89	533	1	BF-1	POC-1
2	0.00	0.00	100.0%	D	0.90	2	n/a	de minimus	POC-1
TABULAR SUMMARY OF DMAs									
NO OF DMAs	TOTAL AREA (AC)	TOTAL IMP. AREAS (AC)	% IMPERVIOUS		AREA WEIGHTED RUNOFF C	TOTAL DCV (CF)	TOTAL AREA TREATED (AC)		NO OF POCs
2	0.32	0.32	100.0%	D	0.90	535	0.32	BF-1	1

Area Weighted Runoff Factor (BMP-1)			
Surface	Runoff Factor	Area (sq. ft)	Weighted Area
Roof	0.9	13,648	12,283
Concrete or Asphalt	0.9	0	0
Unit Pavers (Grouted)	0.9	0	0
Decomposed Granite	0.3	0	0
Cobbles or Crushed Aggregate	0.3	0	0
Ammended, Mulched soils or Landscape	0.1	108	11
CompactedSoils (Unpaved Parking)	0.3	0	0
Natural (A Soil)	0.1	0	0
Natural (B Soil)	0.14	0	0
Natural (C Soil)	0.23	0	0
Natural (D Soil)	0.3	0	0
Total		13,756	12,294
Composite C	0.89		

Area Weighted Runoff Factor (BMP-1)				
Design Capture Volume		Worksheet B.2-1		
1	85 <sup>th</sup> percentile 24-hr storm depth from Figure B.1-1	d=	0.52	inches
2	Area tributary to BMP (s)	A=	0.316	acres
3	Area weighted runoff factor (estimate using Appendix B.1.1 and B.2.1)	C=	0.89	unitless
4	Trees Credit Volume	TCV=	0	cubic-feet
5	Rain barrels Credit Volume	RCV=	0	cubic-feet
6	Calculate DCV = (3630 x C x d x A) – TCV - RCV	DCV=	533	cubic-feet

		<b>Project Name</b> The Newman Building	The Newman Building	
		<b>BMP ID</b> BMP 1	BMP 1	
<b>Sizing Method for Pollutant Removal Criteria</b>			<b>Worksheet B.5-1</b>	
1	Area draining to the BMP	13,756	sq. ft.	
2	Adjusted runoff factor for drainage area (Refer to Appendix B.1 and B.2)	0.89		
3	85 <sup>th</sup> percentile 24-hour rainfall depth	0.52	inches	
4	Design capture volume [Line 1 x Line 2 x (Line 3/12)]	533	cu. ft.	
<b>BMP Parameters</b>				
5	Surface ponding [6 inch minimum, 12 inch maximum]	12	inches	
6	Media thickness [18 inches minimum], also add mulch layer and washed ASTM 33 fine aggregate sand thickness to this line for sizing calculations	24	inches	
7	Aggregate storage (also add ASTM No 8 stone) above underdrain invert (12 inches typical) – use 0 inches if the aggregate is not over the entire bottom surface area	15	inches	
8	Aggregate storage below underdrain invert (3 inches minimum) – use 0 inches if the aggregate is not over the entire bottom surface area	3	inches	
9	Freely drained pore storage of the media	0.2	in/in	
10	Porosity of aggregate storage	0.4	in/in	
11	Media filtration rate to be used for sizing (maximum filtration rate of 5 in/hr. with no outlet control; if the filtration rate is controlled by the outlet use the outlet controlled rate (includes infiltration into the soil and flow rate through the outlet structure) which will be less than 5 in/hr.)	0.86	in/hr.	
<b>Baseline Calculations</b>				
12	Allowable routing time for sizing	6	hours	
13	Depth filtered during storm [ Line 11 x Line 12]	5.16	inches	
14	Depth of Detention Storage [Line 5 + (Line 6 x Line 9) + (Line 7 x Line 10) + (Line 8 x Line 10)]	24	inches	
15	Total Depth Treated [Line 13 + Line 14]	29.16	inches	
<b>Option 1 – Biofilter 1.5 times the DCV</b>				
16	Required biofiltered volume [1.5 x Line 4]	799	cu. ft.	
17	Required Footprint [Line 16/ Line 15] x 12	329	sq. ft.	
<b>Option 2 - Store 0.75 of remaining DCV in pores and ponding</b>				
18	Required Storage (surface + pores) Volume [0.75 x Line 4]	400	cu. ft.	
19	Required Footprint [Line 18/ Line 14] x 12	200	sq. ft.	
<b>Footprint of the BMP</b>				
20	BMP Footprint Sizing Factor (Default 0.03 or an alternative minimum footprint sizing factor from Line 11 in Worksheet B.5-4)	0.03		
21	Minimum BMP Footprint [Line 1 x Line 2 x Line 20]	369	sq. ft.	
22	Footprint of the BMP = Maximum(Minimum(Line 17, Line 19), Line 21)	369	sq. ft.	
23	Provided BMP Footprint	707	sq. ft.	
24	Is Line 23 ≥ Line 22?	<b>Yes, Performance Standard is Met</b>		

		<b>Project Name</b> The Newman Building	The Newman Building	
		<b>BMP ID</b> BMP 1	BMP 1	
<b>Sizing Method for Volume Retention Criteria</b>			<b>Worksheet B.5-2</b>	
1	Area draining to the BMP		13756	sq. ft.
2	Adjusted runoff factor for drainage area (Refer to Appendix B.1 and B.2)		0.89	
3	85 <sup>th</sup> percentile 24-hour rainfall depth		0.52	inches
4	Design capture volume [Line 1 x Line 2 x (Line 3/12)]		533	cu. ft.
<b>Volume Retention Requirement</b>				
5	Measured infiltration rate in the DMA  Note:  When mapped hydrologic soil groups are used enter 0.10 for NRCS Type D soils and for NRCS Type C soils enter 0.30  When in no infiltration condition and the actual measured infiltration rate is unknown enter 0.0 if there are geotechnical and/or groundwater hazards identified in Appendix C or		0	in/hr.
6	Factor of safety		2	
7	Reliable infiltration rate, for biofiltration BMP sizing [Line 5 / Line 6]		0	in/hr.
8	Average annual volume reduction target (Figure B.5-2) When Line 7 > 0.01 in/hr. = Minimum (40, 166.9 x Line 7 + 6.62)  When Line 7 ≤ 0.01 in/hr. = 3.5%		3.5	%
9	Fraction of DCV to be retained (Figure B.5-3) When Line 8 > 8% = $0.0000013 \times \text{Line } 8^3 - 0.000057 \times \text{Line } 8^2 + 0.0086 \times \text{Line } 8 - 0.014$  When Line 8 ≤ 8% = 0.023		0.023	
10	Target volume retention [Line 9 x Line 4]		12	cu. ft.

		<b>Project Name</b> Newman Building	
		<b>BMP ID</b> BMP 1	
<b>Volume Retention for No Infiltration Condition</b>			<b>Worksheet B.5-6</b>
1	Area draining to the biofiltration BMP	13756	sq. ft.
2	Adjusted runoff factor for drainage area (Refer to Appendix B.1 and B.2)	0.893719104	
3	Effective impervious area draining to the BMP [Line 1 x Line 2]	12294	sq. ft.
4	Required area for Evapotranspiration [Line 3 x 0.03]	369	sq. ft.
5	Biofiltration BMP Footprint	707	sq. ft.
<b>Landscape Area (must be identified on DS-3247)</b>			
	<b>Identification</b>	<b>1</b>	<b>2</b>
		<b>3</b>	<b>4</b>
		<b>5</b>	
6	Landscape area that meet the requirements in SD-B and SD-F Fact Sheet (sq. ft.)		
7	Impervious area draining to the landscape area (sq. ft.)		
8	Impervious to Pervious Area ratio [Line 7/Line 6]	0.00	0.00
9	Effective Credit Area If (Line 8 > 1.5, Line 6, Line 7/1.5)	0	0
10	Sum of Landscape area [sum of Line 9 Id's 1 to 5]	0	
11	Provided footprint for evapotranspiration [Line 5 + Line 10]	707	
<b>Volume Retention Performance Standard</b>			
12	Is Line 11 $\geq$ Line 4?	Volume Retention Performance Standard is Met	
13	Fraction of the performance standard met through the BMP footprint and/or landscaping [Line 11/Line 4]	1.92	
14	Target Volume Retention [Line 10 from Worksheet B.5.2]	12	cu. ft.
15	Volume retention required from other site design BMPs [(1-Line 13) x Line 14.]	-11.2727784	cu. ft.
<b>Site Design BMP</b>			
	<b>Identification</b>	<b>Site Design Type</b>	<b>Credit</b>
16	1		cu. ft.
	2		cu. ft.
	3		cu. ft.
	4		cu. ft.
	5		cu. ft.
	Sum of volume retention benefits from other site design BMPs (e.g. trees; rain barrels etc.). [sum of Line 16 Credits for Id's 1 to 5] Provide documentation of how the site design credit is calculated in the PDP SWQMP.	0	cu. ft.
17	Is Line 16 $\geq$ Line 15?	Volume Retention Performance Standard is Met	

BMP Sizing Spreadsheet V3.1			
Project Name:	Newman Bldg.	Hydrologic Unit:	Chollas Creek
Project Applicant:	0	Rain Gauge:	Lindbergh
Jurisdiction:	City of San Diego	Total Project Area:	14,072
Parcel (APN):	0	Low Flow Threshold:	0.1Q2
BMP Name:	BMP-1	BMP Type:	Biofiltration
BMP Native Soil Type:	N/A - Impervious Liner	BMP Infiltration Rate (in/hr):	N/A

Areas Draining to BMP						HMP Sizing Factors	Minimum BMP Size
DMA Name	Area (sf)	Pre Project Soil Type	Pre-Project Slope	Post Project Surface Type	Area Weighted Runoff Factor (Table G.2-1) <sup>1</sup>	Surface Area	Surface Area (SF)
IMP	13,756	D	Flat	Concrete	1.0	0.05	688
perv	108	D	Flat	Landscape	0.1	0.05	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
BMP Tributary Area	13,864					Minimum BMP Size	688
						Proposed BMP Size*	707

Surface Ponding Depth	12.00	in
Bioretention Soil Media Depth	18.00	in
Filter Coarse	6.00	in
Gravel Storage Layer Depth	12	in
Underdrain Offset	3.0	in

\* Assumes standard configuration

**Notes:**  
 1. Runoff factors which are used for hydromodification management flow control (Table G.2-1) are different from the runoff factors used for pollutant control BMP sizing (Table B.1-1). Table references are taken from the San Diego Region Model BMP Design Manual.

Describe the BMP's in sufficient detail in your PDP SWQMP to demonstrate the area, volume, and other criteria can be met within the constraints of the site.

BMP's must be adapted and applied to the conditions specific to the development project such as unstable slopes or the lack of available head. Designated Staff have final review and approval authority over the project design.

This BMP Sizing Spreadsheet has been updated in conformance with the San Diego Region Model BMP Design Manual, May 2018. For questions or concerns please contact the jurisdiction in which your project is located.

BMP Sizing Spreadsheet V3.1			
Project Name:	Newman Bldg.	Hydrologic Unit:	Chollas Creek
Project Applicant:	0	Rain Gauge:	Lindbergh
Jurisdiction:	City of San Diego	Total Project Area:	14,072
Parcel (APN):	0	Low Flow Threshold:	0.1Q2
BMP Name	BMP-1	BMP Type:	Biofiltration

DMA Name	Rain Gauge	Pre-developed Condition		Unit Runoff Ratio (cfs/ac)	DMA Area (ac)	Orifice Flow - %Q <sub>2</sub> (cfs)	Orifice Area (in <sup>2</sup> )
		Soil Type	Slope				
IMP	Lindbergh	D	Flat	0.429	0.316	0.014	<b>0.19</b>
perv	Lindbergh	D	Flat	0.429	0.002	0.000	<b>0.00</b>

<b>3.75</b>	<b>0.014</b>	<b>0.19</b>	<b>0.50</b>
Max Orifice Head (feet)	Max Tot. Allowable Orifice Flow (cfs)	Max Tot. Allowable Orifice Area (in <sup>2</sup> )	Max Orifice Diameter (in)

<b>0.013</b>	<b>0.014</b>	<b>0.20</b>	<b>0.500</b>
Average outflow during surface drawdown (cfs)	Max Orifice Outflow (cfs)	Actual Orifice Area (in <sup>2</sup> )	Selected Orifice Diameter (in)

Drawdown (Hrs)	15.3
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1. Is there a demand for harvested water (check all that apply) at the project site that is reliably present during the wet season?

Toilet and urinal flushing  
 Landscape irrigation  
 Other: \_\_\_\_\_

2. If there is a demand; estimate the anticipated average wet season demand over a period of 36 hours. Guidance for planning level demand calculations for toilet/urinal flushing and landscape irrigation is provided in Section B.3.2.  
 [Provide a summary of calculations here]  
 Per discussions with City staff, toilet and urinal flushing harvest and use is not allowed by the plumbing code. Consequently, this type of harvest and use is not feasible. For irrigation, the 36-hour demand is provided by attached Table B.3-3 from the BMP Design Manual. The table identifies 1,470 gallons per irrigated acre per 36-hour period demand for moderate plant water use. The Landscaping Plan indicates ~707 sq. ft. or 0.02 ac. Therefore, the demand is 29 gallons (0.07 x 1,470=29)

3. Calculate the DCV using worksheet B-2.1.  
 DCV = 528 \_\_\_\_\_ (cubic feet)  
 [Provide a summary of calculations here]  
 See Table 1b for DCV summary

528 c.f. x 7.5 gal/1 c.f. = 3,960 gallons | 0.25DCV = 3,960 x 0.25 = 990 gallons

<p>3a. Is the 36-hour demand greater than or equal to the DCV?  <input type="checkbox"/> Yes ↓ / <input checked="" type="checkbox"/> No ⇒</p>	<p>3b. Is the 36-hour demand greater than 0.25DCV but less than the full DCV?  <input type="checkbox"/> Yes ↓ / <input checked="" type="checkbox"/> No ⇒</p>	<p>3c. Is the 36-hour demand less than 0.25DCV?  <input checked="" type="checkbox"/> Yes ↓</p>
---	--	--

<p>Harvest and use appears to be feasible. Conduct more detailed evaluation and sizing calculations to confirm that DCV can be used at an adequate rate to meet drawdown criteria.</p>	<p>Harvest and use may be feasible. Conduct more detailed evaluation and sizing calculations to determine feasibility. Harvest and use may only be able to be used for a portion of the site, or (optionally) the storage may need to be upsized to meet long term capture targets while draining in longer than 36 hours.</p>	<p>Harvest and use is considered to be infeasible.</p>
--	--	--

Is harvest and use feasible based on further evaluation?  
 Yes, refer to Appendix E to select and size harvest and use BMPs.  
 No, select alternate BMPs.

## Appendix B: Storm Water Pollutant Control Hydrologic Calculations and Sizing Methods

estimates can be used to calculate the drawdown of harvest and use systems for the purpose of LID BMP sizing calculations.

**Table B.3-3: Planning Level Irrigation Demand by Plant Factor and Landscape Type**

General Landscape Type	36-Hour Planning Level Irrigation Demand (gallons per irrigated acre per 36 hour period)
Hydrozone – Low Plant Water Use	390
Hydrozone – Moderate Plant Water Use	1,470
Hydrozone – High Plant Water Use	2,640
Special Landscape Area	2,640

### B.3.2.3 Calculating Other Harvested Water Demands

Calculations of other harvested water demands should be based on the knowledge of land uses, industrial processes, and other factors that are project-specific. Demand should be calculated based on the following guidelines:

- Demand calculations should represent actual demand that is anticipated during the wet season (October through April).
- Sources of demand should only be included if they are reliably and consistently present during the wet season.
- Where demands are substantial but irregular, a more detailed analysis should be conducted based on a statistical analysis of anticipated demand and precipitation patterns.

FORM  
**DS-560**  
September 2021

# Stormwater Requirements Applicability Checklist

**Project Address:** 2912 University Avenue, San Diego, CA 92104

**Project Number:** 1105210

## SECTION 1: Construction Stormwater Best Management Practices (BMP) Requirements

All construction sites are required to implement construction BMPs per the performance standards in the [Stormwater Standards Manual](#). Some sites are also required to obtain coverage under the State Construction General Permit (CGP)<sup>1</sup>, administered by the [California State Water Resources Control Board](#).

**For all projects, complete Part A - If the project is required to submit a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP), continue to Part B.**

### PART A – Determine Construction Phase Stormwater Requirements

1. Is the project subject to California’s statewide General National Pollutant Discharge Elimination System (NPDES) permit for Stormwater Discharges Associated with Construction Activities, also known as the State Construction General Permit (CGP)? (Typically projects with land disturbance greater than or equal to 1 acre.)
 

Yes, SWPPP is required; skip questions 2-4.                       No; proceed to the next question.
  
2. Does the project propose construction or demolition activity, including but not limited to, clearing, grading, grubbing, excavation, or any other activity resulting in ground disturbance and/or contact with stormwater?
 

Yes, WPCP is required; skip questions 3-4.                       No; proceed to the next question.
  
3. Does the project propose routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility? (Projects such as pipeline/utility replacement)
 

Yes, WPCP is required; skip question 4.                       No; proceed to the next question.
  
4. Does the project only include the following Permit types listed below?
  - Electrical Permit, Fire Alarm Permit, Fire Sprinkler Permit, Plumbing Permit, Sign Permit, Mechanical Permit, Spa Permit.
  - Individual Right of Way Permits that exclusively include only ONE of the following activities: water service, sewer lateral, or utility service.
  - Right of Way Permits with a project footprint less than 150 linear feet that exclusively include only ONE of the following activities: curb ramp, sidewalk and driveway apron replacement, potholing, curb and gutter replacement, and retaining wall encroachments.

Yes, no document is required.

**Check one of the boxes below and continue to Part B**

- If you checked “Yes” for question 1, an SWPPP is REQUIRED – continue to Part B
- If you checked “No” for question 1 and checked “Yes” for question 2 or 3, a WPCP is REQUIRED. If the project proposes less than 5,000 square feet of ground disturbance AND has less than a 5-foot elevation change over the entire project area, a Minor WPCP may be required instead. **Continue to Part B**
- If you check “No” for all questions 1-3 and checked “Yes” for question 4, Part B does not apply, and no document is required. **Continue to Section 2.**

<sup>1</sup> More information on the City’s construction BMP requirements as well as CGP requirements can be found at <http://www.sandiego.gov/stormwater/regulations/index.shtml>

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Visit our web site: [sandiego.gov/dsd](http://sandiego.gov/dsd).

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**PART B – Determine Construction Site Priority**

This prioritization must be completed within this form, noted on the plans, and included in the SWPPP or WPCP. The city reserves the right to adjust the priority of projects both before and after construction. Construction projects are assigned an inspection frequency based on if the project has a “high threat to water quality.” The City has aligned the local definition of “high threat to water quality” to the risk determination approach of the State Construction General Permit (CGP). The CGP determines risk level based on project specific sediment risk and receiving water risk. Additional inspection is required for projects within the Areas of Special Biological Significance (ASBS) watershed. **NOTE:** The construction priority does **NOT** change construction BMP requirements that apply to projects; rather, it determines the frequency of inspections that will be conducted by city staff.

**Complete Part B and continue to Section 2**

**1. ASBS**

A. Projects located in the ASBS watershed.

**2. High Priority**

- A. Projects that qualify as Risk Level 2 or Risk Level 3 per the Construction General Permit (CGP) and are not located in the ASBS watershed.
- B. Projects that qualify as LUP Type 2 or LUP Type 3 per the CGP and are not located in the ASBS watershed.

**3. Medium Priority**

- A. Projects that are not located in an ASBS watershed or designated as a High priority site.
- B. Projects that qualify as Risk Level 1 or LUP Type 1 per the CGP and are not located in an ASBS watershed.
- C. WPCP projects (>5,000 square feet of ground disturbance) located within the Los Peñasquitos watershed management area.

**4. Low Priority**

A. Projects not subject to a Medium or High site priority designation and are not located in an ASBS watershed.

**Section 2: Construction Stormwater BMP Requirements**

Additional information for determining the requirements is found in the [Stormwater Standards Manual](#).

**PART C – Determine if Not Subject to Permanent Stormwater Requirements**

Projects that are considered maintenance or otherwise not categorized as “new development projects” or “redevelopment projects” according to the [Stormwater Standards Manual](#) are not subject to Permanent Stormwater BMPs.

- **If “yes” is checked for any number in Part C:** Proceed to Part F and check “Not Subject to Permanent Stormwater BMP Requirements.”
- **If “no” is checked for all the numbers in Part C:** Continue to Part D.

1. Does the project only include interior remodels and/or is the project entirely within an existing enclosed structure and does not have the potential to contact stormwater?  
 Yes     No
2. Does the project only include the construction of overhead or underground utilities without creating new impervious surfaces?  
 Yes     No
3. Does the project fall under routine maintenance? Examples include but are not limited to roof or exterior structure surface replacement, resurfacing or reconfiguring surface parking lots or existing roadways without expanding the impervious footprint, and routine replacement of damaged pavement (grinding, overlay and pothole repair).  
 Yes     No

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**PART D – PDP Exempt Requirements**

PDP Exempt projects are required to implement site design and source control BMPs.

- If “yes” is checked for any questions in Part D, continue to Part F and check the box labeled “PDP Exempt.”
- If “no” is checked for all questions in Part D, continue to Part E.

- Does the project ONLY include new or retrofit sidewalks, bicycle lanes, or trails that:
  - Are designed and constructed to direct stormwater runoff to adjacent vegetated areas, or other non-erodible permeable areas? Or;
  - Are designed and constructed to be hydraulically disconnected from paved streets and roads? Or;
  - Are designed and constructed with permeable pavements or surfaces in accordance with the Green Streets guidance in the City’s Stormwater Standards manual?

Yes, PDP exempt requirements apply       No, proceed to next question
- Does the project ONLY include retrofitting or redeveloping existing paved alleys, streets or roads designed and constructed in accordance with the Green Streets guidance in the [City’s Stormwater Standards Manual](#)?
 

Yes, PDP exempt requirements apply       No, proceed to next question

**PART E – Determine if Project is a Priority Development Project (PDP)**

Projects that match one of the definitions below are subject to additional requirements, including preparation of a Stormwater Quality Management Plan (SWQMP).

- If “yes” is checked for any number in Part E, continue to Part F and check the box labeled “Priority Development Project.”
- If “no” is checked for every number in Part E, continue to Part F and check the box labeled “Standard Development Project.”

- New development that creates 10,000 square feet or more of impervious surfaces collectively over the project site.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.  Yes       No
- Redevelopment project that creates and/or replaces 5,000 square feet or more of impervious surfaces on an existing site of 10,000 square feet or more of impervious surfaces.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.  Yes       No
- New development or redevelopment of a restaurant.** Facilities that sell prepared foods and beverages for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (Standard Industrial Classification [\(SIC\) 5812](#)), and where the land development creates and/or replaces 5,000 square feet or more of impervious surface.  Yes       No
- New development or redevelopment on a hillside.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site) and where the development will grade on any natural slope that is twenty-five percent or greater.  Yes       No
- New development or redevelopment of a parking lot that creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site).**  Yes       No
- New development or redevelopment of streets, roads, highways, freeways, and driveways.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site).  Yes       No

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- 7. **New development or redevelopment discharging directly to an environmentally sensitive area.** The project creates and/or replaces 2,500 square feet of impervious surface (collectively over the project site), and discharges directly to an Environmentally Sensitive Area (ESA). "Discharging directly to" includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA, or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands).  Yes  No
  
- 8. **New development or redevelopment projects of retail gasoline outlet (RGO) that create and/or replaces 5,000 square feet of impervious surface.** The development project meets the following criteria: (a) 5,000 square feet or more or (b) has a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.  Yes  No
  
- 9. **New development or redevelopment projects of an automotive repair shop that creates and/or replaces 5,000 square feet or more of impervious surfaces.** Development projects categorized in any one of Standard Industrial Classification (SIC) codes [5013](#), [5014](#), [5541](#), [7532-7534](#) or [7536-7539](#).  Yes  No
  
- 10. **Other Pollutant Generating Project.** These projects are not covered in any of the categories above but involve the disturbance of one or more acres of land and are expected to generate post-construction phase pollutants, including fertilizers and pesticides. This category does not include projects creating less than 5,000 square feet of impervious area and projects containing landscaping without a requirement for the regular use of fertilizers and pesticides (such as a slope stabilization project using native plants). Impervious area calculations need not include linear pathways for infrequent vehicle use, such as emergency maintenance access or bicycle and pedestrian paths if the linear pathways are built with pervious surfaces or if runoff from the pathway sheet flows to adjacent pervious areas.  Yes  No

**PART F** – Select the appropriate category based on the outcomes of Part C through Part E

- 1. The project is **NOT SUBJECT TO PERMANENT STORMWATER REQUIREMENTS**  Yes  No
  
- 2. The project is a **STANDARD DEVELOPMENT PROJECT**. Site design and source control BMP requirements apply. See the [Stormwater Standards Manual](#) for guidance.  Yes  No
  
- 3. The Project is **PDP EXEMPT**. Site design and source control BMP requirements apply. Refer to the [Stormwater Standards Manual](#) for guidance.  Yes  No
  
- 4. The project is a **PRIORITY DEVELOPMENT PROJECT**. Site design, source control and structural pollutant control BMP requirements apply. Refer to the [Stormwater Standards Manual](#) for guidance on determining if the project requires hydromodification plan management.  Yes  No

Name of Owner or Agent  
 Alessandro Maganuco, PE

Title  
 Project Engineer

Signature  


Date  
 02/12/2025

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**APPENDIX B**

**INFILTRATION FEASIBILITY CONDITION LETTER**



Project No. G3114-52-01

September 22, 2023

The North Park Building, LLC

P.O. Box 15734

San Diego, California, 92175

Attention: Mr. Michael Larkins

Subject: STORM WATER INFILTRATION FEASIBILITY LETTER  
SUNSET TEMPLE/THE NEWMAN BUILDING  
2912 THROUGH 2922 UNIVERSITY AVENUE  
SAN DIEGO, CALIFORNIA

- References:
1. *Update Geotechnical Investigation, Sunset Temple/The Newman Building, 2912 through 2922 University Avenue, San Diego, California*, prepared by Geocon Incorporated, dated September 13, 2023 (Project No. G3114-52-01).
  2. *Preliminary Grading, Utility, and Stormwater Plan, The Newman Building, 2912 University Avenue, San Diego, CA 92104*, prepared by Kettler Leweck Engineering, plot date August 28, 2023.

Dear Mr. Larkins:

In accordance with your request, we prepared this storm water infiltration feasibility letter for the proposed project located in the North Park area in the City of San Diego, California. We understand storm water management devices may be planned for the site. We prepared this report in accordance with the City of San Diego's 2021 *Storm Water Standards (SWS)*, Section C.1.1.

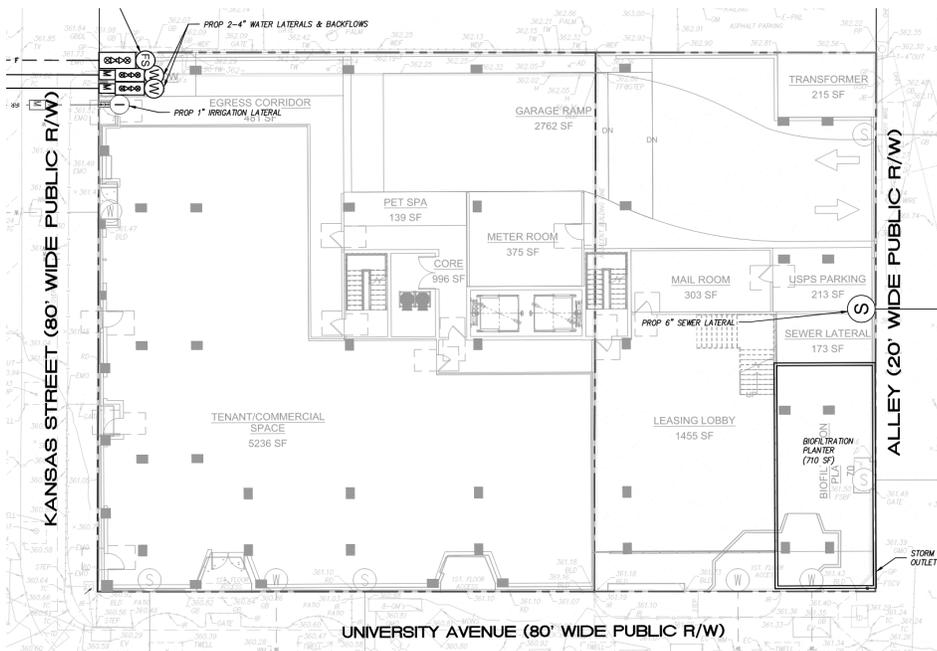
## **SITE AND PROJECT DESCRIPTION**

The property is located north of University Avenue, east of Kansas Street, one block west of 30<sup>th</sup> Street, and south of an adjacent apartment building in the North Park area of the City of San Diego, California. The site currently possesses a two-story mixed-use building that appears to have been constructed prior to 1953. The site is relatively flat and street elevations adjacent to the structure are at elevations of about 360 to 365 feet above mean sea level (MSL). We understand the western portion of the structure possesses one subterranean level about 10 feet below the Kansas Street elevation. The Existing Site Map shows the current site conditions.



Existing Site Map

We understand the project will consist of demolishing the existing building and constructing a new 8-story, mixed-use building over one level of subterranean parking. A biofiltration planter has been planned for the southeast corner of the property. The Proposed Site Plan shows the planned building and improvements.



Proposed Site Plan

The referenced update geotechnical investigation included advancing 4 small-diameter exploratory borings to a maximum depth of about 25 feet, sampling soil and performing laboratory testing. The occurrence, distribution, and description of the formational unit encountered are shown on the Geologic Map, Figure 1, and on the boring logs in Appendix A of the referenced report.

## **Storm Water Feasibility**

The Specific Information requested from Section C.1.1 of the City of San Diego SWS is presented herein.

**The Phase of the Project In which the geotechnical engineer first analyzed the site for infiltration feasibility.** This letter is applicable for both the initial engineering evaluation and final design.

**Results of previous geotechnical analyses conducted in the project area, if any.** The referenced report presents the geotechnical investigation for the subject property. This study includes exploratory borings with accommodating laboratory tests. Based on our referenced report, the property consists of formational Very Old Paralic Deposits that consist of an upper clay layer (known as the Normal Heights Mudstone) overlying a very dense sandstone conglomerate. The mudstone layer generally ranges from 8½ to 10½ feet thick across the site and consists of firm to very stiff, saturated, olive brown, grayish brown to gray, silty to sandy, fat clay. The mudstone layer within the Very Old Paralic Deposits possesses a “medium” to “very high” expansion potential (expansion index of 51 or greater). The sandy portion of the Very Old Paralic Deposits generally consists of very dense, moist, yellowish brown to reddish brown, silty to clayey, fine to coarse sandstone with gravel and cobbles. The sandy portion of this unit generally possesses a “very low” to “low” expansive potential (expansion index of 50 or less).

**The development status of the site prior to the project application.** The property currently consists of a two-story mixed-use building with accommodating utilities. The existing building occupies the entire property. The proposed building is also expected to occupy the entire property.

**The history of design discussion for the project footprint, resulting in the final design determination.**

We discussed the potential for infiltration with the project design team. The existing structure occupies the entire property. The western portion of the structure possesses one subterranean level about 10½ feet below the Kansas Street elevation. The eastern portion of the structure is underlain by 8½ to 9 feet of clayey material known as the Normal Heights Mudstone. Laboratory tests performed during our investigation indicate the Normal Heights Mudstone possesses a “medium” to “very high” expansion potential (expansion index of 51 or greater). Section C.2.1.2 of the SWS states “Upon considering the impacts of an infiltration design, the designer must identify areas where soil settlement

or heave is likely and whether these conditions would be unfavorable to existing or proposed structures.” Infiltration would likely result in volume change in the clayey soils present on the eastern portion of the site. Therefore, a “No Infiltration” condition should be assigned to the property.

The Normal Heights Mudstone is underlain by very dense, sandy conglomerate portion of the Very Old Paralic Deposits. The dense nature of this geologic unit significantly reduces the permeability of the materials and restricts the movement of water through soil. In our experience, clayey materials and dense geologic units are impervious layers that do not allow for infiltration and water tends to perch on the contact. Based on the geologic characteristics of the Very Old Paralic Deposits, infiltration should not be allowed.

**Full/partial infiltration BMP standard setbacks to underground utilities, structures, retaining walls, fill slopes, and natural slopes applicable to the DMA that prevent full/partial infiltration.** Infiltration locations would need to be setback from existing and proposed utilities and property lines a minimum of 10 feet. These setbacks would result in the central portion of the site available for infiltration, if not for the existing subterranean layer and expansive Normal Heights Mudstone layer underlain by dense formational soils.

**Physical impairments (i.e., fire road egress, public safety considerations, etc.) that prevent full/partial infiltration.** The potential infiltration locations would need to be appropriately setback from the existing and proposed utilities, roads, and property lines.

**Consideration of site design alternatives to achieve partial/full infiltration within the DMA.** Infiltration devices should not be allowed on the property due to the clayey/expansive Normal Heights Mudstone layer overlying very dense formational material. In our experience the underlying formational materials exhibit cementation and do not possess appropriate infiltration rates. Other infiltration devices cannot be reasonably installed.

**The extent site design BMPs requirements were included in the overall design.** Based on the referenced preliminary grading, utility, and stormwater plan, BMPs are being incorporated into the site design for storm water management. However, infiltration will not be incorporated into the design based on the discussion herein.

**Conclusion or recommendation from the geotechnical engineer regarding the DMA’s infiltration condition.** The western portion of the site contains an existing subterranean level, underlain by very dense formational soils which do not possess appropriate infiltration rates. On the eastern portion of

the site, the underlying soil consists of clayey materials that possess a “medium” to “very high” expansion potential (expansion index of 51 or greater). Therefore, we opine full and partial infiltration is considered infeasible at the site. We recommend storm water management BMPs be designed so that infiltration does not occur.

**An Exhibit for all applicable DMA’s that clearly labels:**

- **Proposed development areas and development type.**
- **All applicable features and setbacks that prevent partial or full infiltration, including underground utilities, structures, retaining walls, fill slopes, natural slopes, and existing fill materials greater than 5 feet.**
- **Potential locations for structural BMPs.**
- **Areas where full/partial infiltration BMPs cannot be proposed.**

Figure 1 shows the property line and existing utility setback areas, areas of existing building improvements, and proposed development areas.

Should you have any questions regarding this correspondence, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

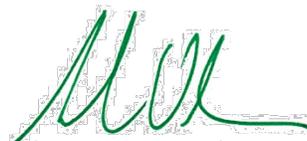
GEOCON INCORPORATED



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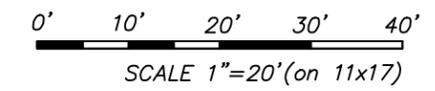
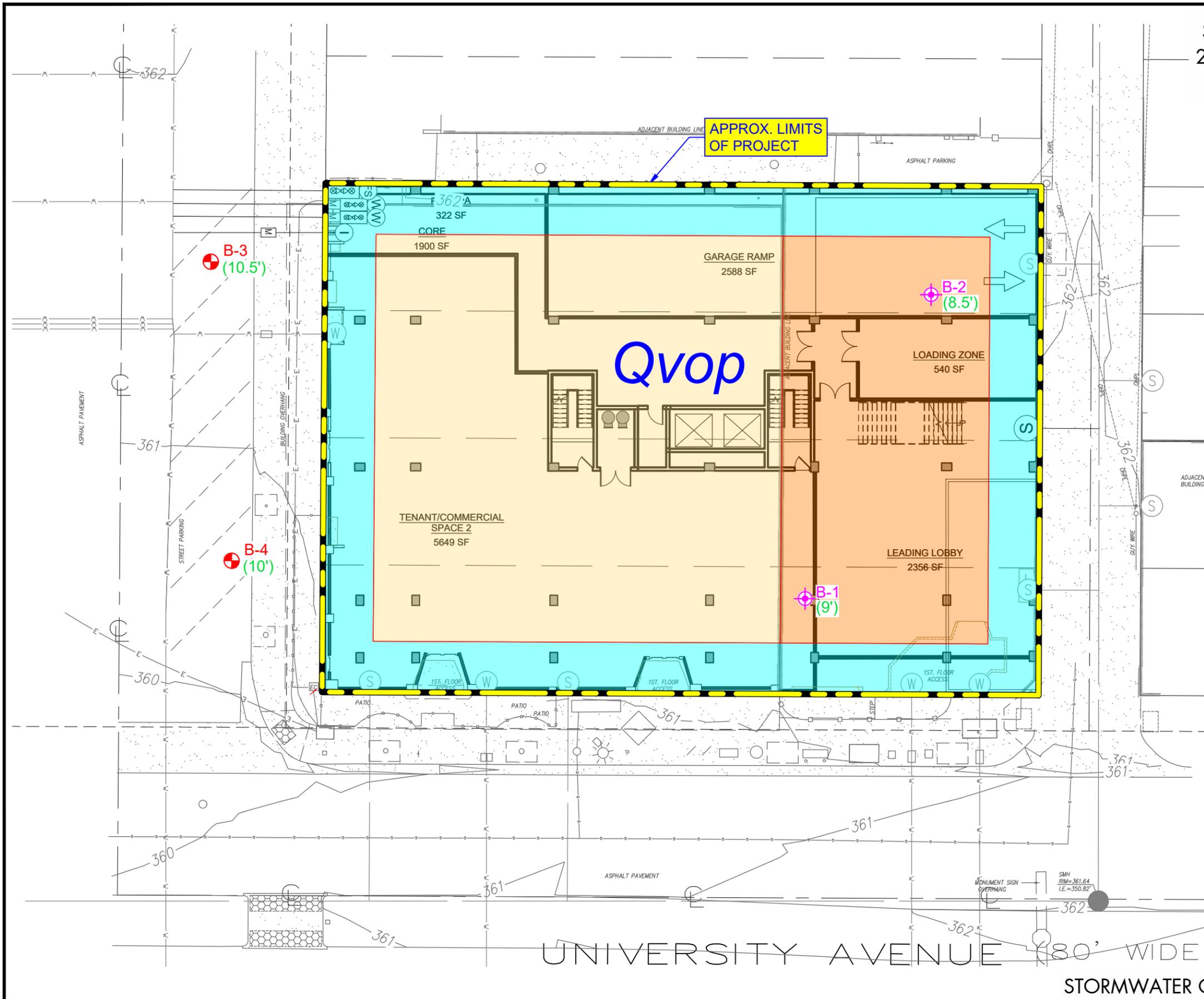
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Shawn Foy Weedon  
GE 2714



SUNSET TEMPLE/THE NEWMAN BUILDING  
2912 THROUGH 2922 UNIVERSITY AVENUE  
SAN DIEGO, CALIFORNIA



- GEOCON LEGEND**
- Qvop** .....VERY OLD PARALIC DEPOSITS
  - B-4** .....APPROX. LOCATION OF BORING (Current Study)
  - B-2** .....APPROX. LOCATION OF PREVIOUS BORING (Geocon Inc., 2011)
  - (10.5')** .....APPROX. THICKNESS OF NORMAL HEIGHTS MUDSTONE (In Feet)
  - .....10 FEET OFFSET FROM PROPERTY LINE (Infiltration Infeasible)
  - .....INFILTRATION INFEASIBLE DUE TO EXISTING BASEMENT
  - .....INFILTRATION INFEASIBLE DUE TO EXPANSIVE SOILS

**GEOCON**  
INCORPORATED

GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS  
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 297.4  
PHONE 858 558-6900 - FAX 858 558-6159  
PROJECT NO. G3114 - 52 - 01  
FIGURE 1  
DATE 09 - 22 - 2023