ATTACHMENT 2
BACKUP FOR PDP HYDROMODIFICATION CONTROL MEASURES

This is the cover sheet for Attachment 2.

☒ Mark this box if this attachment is empty because the project is exempt from PDP hydromodification management requirements.

Indicate which Items are Included:

Attachment Sequence	Contents	Checklist
Attachment 2a	Hydromodification Management Exhibit (Required)	☐ Included See Hydromodification Management Exhibit Checklist.
Attachment 2b	Management of Critical Coarse Sediment Yield Areas (WMAA Exhibit is required, additional analyses are optional) See Section 6.2 of the BMP Design Manual.	☐ Exhibit showing project drainage boundaries marked on WMAA Critical Coarse Sediment Yield Area Map (Required) Optional analyses for Critical Coarse Sediment Yield Area Determination ☐ 6.2.1 Verification of Geomorphic Landscape Units Onsite ☐ 6.2.2 Downstream Systems Sensitivity to Coarse Sediment ☐ 6.2.3 Optional Additional Analysis of Potential Critical Coarse Sediment Yield Areas Onsite ☐ Not performed
Attachment 2c	Geomorphic Assessment of Receiving Channels (Optional) See Section 6.3.4 of the BMP Design Manual.	☐ Included ☐ Submitted as separate stand-alone document
Attachment 2d	Flow Control Facility Design and Structural BMP Drawdown Calculations (Required) Overflow Design Summary for each structural BMP See Chapter 6 and Appendix G of the BMP Design Manual	☐ Included in SWMM (see 1e) ☐ Submitted as separate stand-alone document
Attachment 2e	Vector Control Plan (Required when structural BMPs will not drain in 96 hours)	☐ Included ☐ Not required because BMPs will drain in less than 96 hours

Use this checklist to ensure the required information has been included on the Hydromodification Management Exhibit:

The Hydromodification Management Exhibit must identify:

- ☐ Underlying hydrologic soil group
- ☐ Approximate depth to groundwater
- ☐ Existing natural hydrologic features (watercourses, seeps, springs, wetlands)
- ☐ Critical coarse sediment yield areas to be protected
- ☐ Existing topography
- ☐ Existing and proposed site drainage network and connections to drainage offsite
- ☐ Proposed grading
- ☐ Proposed impervious features
- ☐ Proposed design features and surface treatments used to minimize imperviousness
- ☐ Point(s) of Compliance (POC) for Hydromodification Management
- ☐ Existing and proposed drainage boundary and drainage area to each POC (when necessary, create separate exhibits for pre-development and post-project conditions)
- ☐ Structural BMPs for hydromodification management (identify location, type of BMP, and size/detail)

Hydromodification Exempt Drains from SanGIS

SEE IMPROVEMENT PLANS
13875-L AND 8012-L
IN ATTACHMENT 1

ATTACHMENT 3
STRUCTURAL BMP MAINTENANCE INFORMATION

This is the cover sheet for Attachment 3.

Indicate which Items are Included:

Attachment Sequence	Contents	Checklist
Attachment 3a	Structural BMP Maintenance Thresholds and Actions (Required)	☒Included See Structural BMP Maintenance Information Checklist.
Attachment 3b	Maintenance Agreement (Form DS-3247) (when applicable)	☐ Included ☒ Not Applicable

Use this checklist to ensure the required information has been included in the Structural BMP Maintenance Information Attachment:

Preliminary Design / Planning / CEQA level submittal:

- Attachment 3a must identify:
  - ☐ Typical maintenance indicators and actions for proposed structural BMP(s) based on Section 7.7 of the BMP Design Manual
- Attachment 3b is not required for preliminary design / planning / CEQA level submittal.

Final Design level submittal:

Attachment 3a must identify:

- ☐ Specific maintenance indicators and actions for proposed structural BMP(s). This shall be based on Section 7.7 of the BMP Design Manual and enhanced to reflect actual proposed components of the structural BMP(s)
- ☐ How to access the structural BMP(s) to inspect and perform maintenance
- ☐ Features that are provided to facilitate inspection (e.g., observation ports, cleanouts, silt posts, or other features that allow the inspector to view necessary components of the structural BMP and compare to maintenance thresholds)
- ☐ Manufacturer and part number for proprietary parts of structural BMP(s) when applicable
- ☐ Maintenance thresholds specific to the structural BMP(s), with a location-specific frame of reference (e.g., level of accumulated materials that triggers removal of the materials, to be identified based on viewing marks on silt posts or measured with a survey rod with respect to a fixed benchmark within the BMP)
- ☐ When applicable, frequency of biofiltration soil media replacement.
- ☐ Recommended equipment to perform maintenance
- ☐ When applicable, necessary special training or certification requirements for inspection and maintenance personnel such as confined space entry or hazardous waste management

Attachment 3b: For private entity operation and maintenance, Attachment 3b must include a Storm Water Management and Discharge Control Maintenance Agreement (Form DS-3247). The following information must be included in the exhibits attached to the maintenance agreement:

- ☐ Vicinity map
- ☐ Site design BMPs for which DCV reduction is claimed for meeting the pollutant control obligations.
- ☐ BMP and HMP location and dimensions
- ☐ BMP and HMP specifications/cross section/model
- ☐ Maintenance recommendations and frequency
- ☐ LID features such as (permeable paver and LS location, dim, SF).

BF-1
Biofiltration

BMP MAINTENANCE FACT SHEET
FOR
STRUCTURAL BMP BF-1 BIOFILTRATION

Biofiltration facilities are vegetated surface water systems that filter water through vegetation, and soil or engineered media prior to discharge via underdrain or overflow to the downstream conveyance system. Biofiltration facilities have limited or no infiltration. They are typically designed to provide enough hydraulic head to move flows through the underdrain connection to the storm drain system. Typical biofiltration components include:

- Inflow distribution mechanisms (e.g., perimeter flow spreader or filter strips)
- Energy dissipation mechanism for concentrated inflows (e.g., splash blocks or riprap)
- Shallow surface ponding for captured flows
- Side slope and basin bottom vegetation selected based on climate and ponding depth
- Non-floating mulch layer
- Media layer (planting mix or engineered media) capable of supporting vegetation growth
- Filter course layer consisting of aggregate to prevent the migration of fines into uncompacted native soils or the aggregate storage layer
- Aggregate storage layer with underdrain(s)
- Impermeable liner or uncompacted native soils at the bottom of the facility
- Overflow structure

Normal Expected Maintenance

Biofiltration requires routine maintenance to: remove accumulated materials such as sediment, trash or debris; maintain vegetation health; maintain infiltration capacity of the media layer; replenish mulch; and maintain integrity of side slopes, inlets, energy dissipators, and outlets. A summary table of standard inspection and maintenance indicators is provided within this Fact Sheet.

Non-Standard Maintenance or BMP Failure

If any of the following scenarios are observed, the BMP is not performing as intended to protect downstream waterways from pollution and/or erosion. Corrective maintenance, increased inspection and maintenance, BMP replacement, or a different BMP type will be required.

- The BMP is not drained between storm events. Surface ponding longer than approximately 24 hours following a storm event may be detrimental to vegetation health, and surface ponding longer than approximately 96 hours following a storm event poses a risk of vector (mosquito) breeding. Poor drainage can result from clogging of the media layer, filter course, aggregate storage layer, underdrain, or outlet structure. The specific cause of the drainage issue must be determined and corrected.
- Sediment, trash, or debris accumulation greater than 25% of the surface ponding volume within one month. This means the load from the tributary drainage area is too high, reducing BMP function or clogging the BMP. This would require pretreatment measures within the tributary area draining to the BMP to intercept the materials. Pretreatment components, especially for sediment, will extend the life of components that are more expensive to replace such as media, filter course, and aggregate layers.
- Erosion due to concentrated storm water runoff flow that is not readily corrected by adding erosion control blankets, adding stone at flow entry points, or minor re-grading to restore proper drainage according to the original plan. If the issue is not corrected by restoring the BMP to the original plan and grade, the [City Engineer] shall be contacted prior to any additional repairs or reconstruction.

Other Special Considerations

Biofiltration is a vegetated structural BMP. Vegetated structural BMPs that are constructed in the vicinity of, or connected to, an existing jurisdictional water or wetland could inadvertently result in creation of expanded waters or wetlands. As such, vegetated structural BMPs have the potential to come under the jurisdiction of the United States Army Corps of Engineers, SDRWQCB, California Department of Fish and Wildlife, or the United States Fish and Wildlife Service. This could result in the need for specific resource agency permits and costly mitigation to perform maintenance of the structural BMP. Along with proper placement of a structural BMP, **routine maintenance is key to preventing this scenario**.

BF-1
Biofiltration

SUMMARY OF STANDARD INSPECTION AND MAINTENANCE FOR BF-1 BIOFILTRATION		
The property owner is responsible to ensure inspection, operation and maintenance of permanent BMPs on their property unless responsibility has been formally transferred to an agency, community facilities district, homeowners association, property owners association, or other special district. Maintenance frequencies listed in this table are average/typical frequencies. Actual maintenance needs are site-specific, and maintenance may be required more frequently. Maintenance must be performed whenever needed, based on maintenance indicators presented in this table. The BMP owner is responsible for conducting regular inspections to see when maintenance is needed based on the maintenance indicators. During the first year of operation of a structural BMP, inspection is recommended at least once prior to August 31 and then monthly from September through May. Inspection during a storm event is also recommended. After the initial period of frequent inspections, the minimum inspection and maintenance frequency can be determined based on the results of the first year inspections.		
Threshold/Indicator	**Maintenance Action**	**Typical Maintenance Frequency**
Accumulation of sediment, litter, or debris	Remove and properly dispose of accumulated materials, without damage to the vegetation or compaction of the media layer.	• Inspect monthly. If the BMP is 25% full* or more in one month, increase inspection frequency to monthly plus after every 0.1-inch or larger storm event. • Remove any accumulated materials found at each inspection.
Obstructed inlet or outlet structure	Clear blockage.	• Inspect monthly and after every 0.5-inch or larger storm event. • Remove any accumulated materials found at each inspection.
Damage to structural components such as weirs, inlet or outlet structures	Repair or replace as applicable	• Inspect annually. • Maintenance when needed.
Poor vegetation establishment	Re-seed, re-plant, or re-establish vegetation per original plans.	• Inspect monthly. • Maintenance when needed.
Dead or diseased vegetation	Remove dead or diseased vegetation, re-seed, re-plant, or re-establish vegetation per original plans.	• Inspect monthly. • Maintenance when needed.
Overgrown vegetation	Mow or trim as appropriate.	• Inspect monthly. • Maintenance when needed.
2/3 of mulch has decomposed, or mulch has been removed	Remove decomposed fraction and top off with fresh mulch to a total depth of 3 inches.	• Inspect monthly. • Replenish mulch annually, or more frequently when needed based on inspection.

*"25% full" is defined as ¼ of the depth from the design bottom elevation to the crest of the outflow structure (e.g., if the height to the outflow opening is 12 inches from the bottom elevation, then the materials must be removed when there is 3 inches of accumulation – this should be marked on the outflow structure).

SUMMARY OF STANDARD INSPECTION AND MAINTENANCE FOR BF-1 BIOFILTRATION (Continued from previous page)		
Threshold/Indicator	**Maintenance Action**	**Typical Maintenance Frequency**
Erosion due to concentrated irrigation flow	Repair/re-seed/re-plant eroded areas and adjust the irrigation system.	• Inspect monthly. • Maintenance when needed.
Erosion due to concentrated storm water runoff flow	Repair/re-seed/re-plant eroded areas, and make appropriate corrective measures such as adding erosion control blankets, adding stone at flow entry points, or minor re-grading to restore proper drainage according to the original plan. If the issue is not corrected by restoring the BMP to the original plan and grade, the [City Engineer] shall be contacted prior to any additional repairs or reconstruction.	• Inspect after every 0.5-inch or larger storm event. If erosion due to storm water flow has been observed, increase inspection frequency to after every 0.1-inch or larger storm event. • Maintenance when needed. If the issue is not corrected by restoring the BMP to the original plan and grade, the [City Engineer] shall be contacted prior to any additional repairs or reconstruction.
Standing water in BMP for longer than 24 hours following a storm event Surface ponding longer than approximately 24 hours following a storm event may be detrimental to vegetation health	Make appropriate corrective measures such as adjusting irrigation system, removing obstructions of debris or invasive vegetation, clearing underdrains, or repairing/replacing clogged or compacted soils.	• Inspect monthly and after every 0.5-inch or larger storm event. If standing water is observed, increase inspection frequency to after every 0.1-inch or larger storm event. • Maintenance when needed.
Presence of mosquitos/larvae For images of egg rafts, larva, pupa, and adult mosquitos, see http://www.mosquito.org/biology	If mosquitos/larvae are observed: first, immediately remove any standing water by dispersing to nearby landscaping; second, make corrective measures as applicable to restore BMP drainage to prevent standing water. If mosquitos persist following corrective measures to remove standing water, or if the BMP design does not meet the 96-hour drawdown criteria due to release rates controlled by an orifice installed on the underdrain, the [City Engineer] shall be contacted to determine a solution. A different BMP type, or a Vector Management Plan prepared with concurrence from the County of San Diego Department of Environmental Health, may be required.	• Inspect monthly and after every 0.5-inch or larger storm event. If mosquitos are observed, increase inspection frequency to after every 0.1-inch or larger storm event. • Maintenance when needed.
Underdrain clogged	Clear blockage.	• Inspect if standing water is observed for longer than 24-96 hours following a storm event. • Maintenance when needed.

References

American Mosquito Control Association.
http://www.mosquito.org/

California Storm Water Quality Association (CASQA). 2003. Municipal BMP Handbook.
https://www.casqa.org/resources/bmp-handbooks/municipal-bmp-handbook

County of San Diego. 2014. Low Impact Development Handbook.
http://www.sandiegocounty.gov/content/sdc/dpw/watersheds/susmp/lid.html

San Diego County Copermittees. 2016. Model BMP Design Manual, Appendix E, Fact Sheet BF-1.
http://www.projectcleanwater.org/index.php?option=com_content&view=article&id=250&Itemid=220

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BF-1
Biofiltration

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	
Property / Development Name:	Responsible Party Name and Phone Number:	
Property Address of BMP:	Responsible Party Address:	

INSPECTION AND MAINTENANCE CHECKLIST FOR BF-1 BIOFILTRATION PAGE 1 of 5			
Threshold/Indicator	**Maintenance Recommendation**	**Date**	**Description of Maintenance Conducted**
Accumulation of sediment, litter, or debris Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Remove and properly dispose of accumulated materials, without damage to the vegetation ☐ If sediment, litter, or debris accumulation exceeds 25% of the surface ponding volume within one month (25% full*), add a forebay or other pre-treatment measures within the tributary area draining to the BMP to intercept the materials. ☐ Other / Comments:		
Poor vegetation establishment Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Re-seed, re-plant, or re-establish vegetation per original plans ☐ Other / Comments:		

*"25% full" is defined as ¼ of the depth from the design bottom elevation to the crest of the outflow structure (e.g., if the height to the outflow opening is 12 inches from the bottom elevation, then the materials must be removed when there is 3 inches of accumulation – this should be marked on the outflow structure).

BF-1
Biofiltration

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	

INSPECTION AND MAINTENANCE CHECKLIST FOR BF-1 BIOFILTRATION PAGE 2 of 5			
Threshold/Indicator	**Maintenance Recommendation**	**Date**	**Description of Maintenance Conducted**
Dead or diseased vegetation Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Remove dead or diseased vegetation, re-seed, re-plant, or re-establish vegetation per original plans ☐ Other / Comments:		
Overgrown vegetation Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Mow or trim as appropriate ☐ Other / Comments:		
2/3 of mulch has decomposed, or mulch has been removed Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Remove decomposed fraction and top off with fresh mulch to a total depth of 3 inches ☐ Other / Comments:		

BF-1
Biofiltration

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	

INSPECTION AND MAINTENANCE CHECKLIST FOR BF-1 BIOFILTRATION PAGE 3 of 5			
Threshold/Indicator	**Maintenance Recommendation**	**Date**	**Description of Maintenance Conducted**
Erosion due to concentrated irrigation flow Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Repair/re-seed/re-plant eroded areas and adjust the irrigation system ☐ Other / Comments:		
Erosion due to concentrated storm water runoff flow Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Repair/re-seed/re-plant eroded areas, and make appropriate corrective measures such as adding erosion control blankets, adding stone at flow entry points, or minor re-grading to restore proper drainage according to the original plan ☐ If the issue is not corrected by restoring the BMP to the original plan and grade, the [City Engineer] shall be contacted prior to any additional repairs or reconstruction ☐ Other / Comments:		

BF-1
Biofiltration

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	

INSPECTION AND MAINTENANCE CHECKLIST FOR BF-1 BIOFILTRATION PAGE 4 of 5			
Threshold/Indicator	**Maintenance Recommendation**	**Date**	**Description of Maintenance Conducted**
Obstructed inlet or outlet structure Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Clear blockage ☐ Other / Comments:		
Underdrain clogged (inspect underdrain if standing water is observed for longer than 24-96 hours following a storm event) Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Clear blockage ☐ Other / Comments:		
Damage to structural components such as weirs, inlet or outlet structures Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Repair or replace as applicable ☐ Other / Comments:		

BF-1
Biofiltration

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	

INSPECTION AND MAINTENANCE CHECKLIST FOR BF-1 BIOFILTRATION PAGE 5 of 5			
Threshold/Indicator	**Maintenance Recommendation**	**Date**	**Description of Maintenance Conducted**
Standing water in BMP for longer than 24-96 hours following a storm event* Surface ponding longer than approximately 24 hours following a storm event may be detrimental to vegetation health Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Make appropriate corrective measures such as adjusting irrigation system, removing obstructions of debris or invasive vegetation, clearing underdrains, or repairing/replacing clogged or compacted soils ☐ Other / Comments:		
Presence of mosquitos/larvae For images of egg rafts, larva, pupa, and adult mosquitos, see http://www.mosquito.org/biology Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Apply corrective measures to remove standing water in BMP when standing water occurs for longer than 24-96 hours following a storm event.** ☐ Other / Comments:		

*Surface ponding longer than approximately 24 hours following a storm event may be detrimental to vegetation health, and surface ponding longer than approximately 96 hours following a storm event poses a risk of vector (mosquito) breeding. Poor drainage can result from clogging of the media layer, filter course, aggregate storage layer, underdrain, or outlet structure. The specific cause of the drainage issue must be determined and corrected.

**If mosquitos persist following corrective measures to remove standing water, or if the BMP design does not meet the 96-hour drawdown criteria due to release rates controlled by an orifice installed on the underdrain, the [City Engineer] shall be contacted to determine a solution. A different BMP type, or a Vector Management Plan prepared with concurrence from the County of San Diego Department of Environmental Health, may be required.

THE CITY OF SAN DIEGO
RECORDING REQUESTED BY:
THE CITY OF SAN DIEGO
AND WHEN RECORDED MAIL TO:

(THIS SPACE IS FOR THE RECORDER'S USE ONLY)

STORM WATER MANAGEMENT AND DISCHARGE CONTROL MAINTENANCE AGREEMENT

APPROVAL NUMBER:	ASSESSOR'S PARCEL NUMBER:	PROJECT NUMBER:

This agreement is made by and between the City of San Diego, a municipal corporation [City] and

the owner or duly authorized representative of the owner [Property Owner] of property located at:

(PROPERTY ADDRESS)

and more particularly described as:

(LEGAL DESCRIPTION OF PROPERTY)

in the City of San Diego, County of San Diego, State of California.

Property Owner is required pursuant to the City of San Diego Municipal Code, Chapter 4, Article 3, Division 3, Chapter 14, Article 2, Division 2, and the Land Development Manual, Storm Water Standards to enter into a Storm Water Management and Discharge Control Maintenance Agreement [Maintenance Agreement] for the installation and maintenance of Permanent Storm Water Best Management Practices [Permanent Storm Water BMP's] prior to the issuance of construction permits. The Maintenance Agreement is intended to ensure the establishment and maintenance of Permanent Storm Water BMP's onsite, as described in the attached exhibit(s), the project's Storm Water Quality Management Plan [SWQMP] and Grading and/or Improvement Plan Drawing No(s), or Building Plan Project No(s):

_____

Property Owner wishes to obtain a building or engineering permit according to the Grading and/or Improvement Plan Drawing No(s) or Building Plan Project No(s):

Continued on Page 2

NOW, THEREFORE, the parties agree as follows:

1. Property Owner shall have prepared, or if qualified, shall prepare an Operation and Maintenance Procedure [OMP] for Permanent Storm Water BMP's, satisfactory to the City, according to the attached exhibit(s), consistent with the Grading and/or Improvement Plan Drawing No(s), or Building Plan Project No(s):_____

2. Property Owner shall install, maintain and repair or replace all Permanent Storm Water BMP's within their property, according to the OMP guidelines as described in the attached exhibit(s), the project's WQTR and Grading and/or Improvement Plan Drawing No(s), or Building Plan Project No(s)_____.

3. Property Owner shall maintain operation and maintenance records for at least five (5) years. These records shall be made available to the City for inspection upon request at any time.

This Maintenance Agreement shall commence upon execution of this document by all parties named hereon, and shall run with the land.

Executed by the City of San Diego and by Property Owner in San Diego, California.

See Attached Exhibits(s):

_____
(Owner Signature)

_____
(Print Name and Title)

_____
(Company/Organization Name)

_____
(Date)

THE CITY OF SAN DIEGO

APPROVED:

_____
(City Control engineer Signature

_____
(Print Name)

_____
(Date)

NOTE: ALL SIGNATURES MUST INCLUDE NOTARY ACKNOWLEDMENTS PER CIVIL CODE SEC. 1180 ET.SEQ

ATTACHMENT 4
COPY OF PLAN SHEETS SHOWING PERMANENT STORM WATER BMPS

This is the cover sheet for Attachment 4.

Use this checklist to ensure the required information has been included on the plans:

The plans must identify:

- ☒ Structural BMP(s) with ID numbers matching Form I-6 Summary of PDP Structural BMPs
- ☒ The grading and drainage design shown on the plans must be consistent with the delineation of DMAs shown on the DMA exhibit
- ☒ Details and specifications for construction of structural BMP(s)
- ☐ Signage indicating the location and boundary of structural BMP(s) as required by the City Engineer **(N/A)**
- ☐ How to access the structural BMP(s) to inspect and perform maintenance **((N/A)**
- ☒ Features that are provided to facilitate inspection (e.g., observation ports, cleanouts, silt posts, or other features that allow the inspector to view necessary components of the structural BMP and compare to maintenance thresholds)
- ☐ Manufacturer and part number for proprietary parts of structural BMP(s) when applicable **(N/A)**
- ☒ Maintenance thresholds specific to the structural BMP(s), with a location-specific frame of reference (e.g., level of accumulated materials that triggers removal of the materials, to be identified based on viewing marks on silt posts or measured with a survey rod with respect to a fixed benchmark within the BMP)
- ☐ Recommended equipment to perform maintenance **(N/A)**
- ☐ When applicable, necessary special training or certification requirements for inspection and maintenance personnel such as confined space entry or hazardous waste management **(N/A)**
- ☒ Include landscaping plan sheets showing vegetation requirements for vegetated structural BMP(s)
- ☒ All BMPs must be fully dimensioned on the plans
- ☐ When proprietary BMPs are used, site specific cross section with outflow, inflow and model number shall be provided. Broucher photocopies are not allowed. **(N/A)**

THIS CHECKLIST IS SHOWN ON PLAN

CONSTRUCTION NOTES

1. C/L PROPOSED 25' DRIVEWAY PER SDG-163
2. PROPOSED PED RAMP PER SDG-132
3. REMOVE AND REPLACE EXISTING DRIVEWAY WITH CURB GUTTER AND SIDEWALK (TYPICAL)
4. REMOVE EX CONCRETE. REPLACE WITH PLANTER (TYPICAL)
5. PROPOSED SIDEWALK PER SDG-155
6. KILL EXISTING WATER SERVICE (TYPICAL)
7. ABANDON EXISTING SEWER LATERAL AT P/L (TYPICAL)
8. PROPOSED 6" SEWER LATERAL
9. PROPOSED 2" WATER SERVIDE
10. PROPOSED 4" FIRE SERVICE
11. VISIBILITY TRIANGLE (TYPICAL)
12. MAIN FLOOR LEVEL CATCH BASIN (TYPICAL)
13. PVC DRAIN CONVEYING RUNOFF TO BMP-2
14. CATCH BASIN WITH PUMP (AT GROUND LEVEL) TO CONVEY MAIN FLOOR AND PARKING RAMP RUNOFF TO BIOFILTRATION BASIN. INCLUDES OVERFLOW TO CURB OULET IN THE CASE OF PUMP FAILURE
15. BIOFILTRATION BASIN TO TREAT RUNOFF FROM ROOF (504 SF) (BMP-1)
16. BIOFILTRATION BASIN TO TREAT RUNOFF FROM MAIN LEVEL (163 SF) (BMP-2)
17. DRAIN WITHIN BUILDING TO CONVEY DOWNSPOUT ROOF RUNOFF TO BMP-1 (TYPICAL)
18. OUTER EXTENT OF ROOF (OUTLINE)
19. CURB OUTLET PER D-25
    Q100 = 0.44 CFS
    V100 = 2.2 FPS
20. CURB OUTLET PER D-25
    Q100 = 1.14 CFS
    V100 = 3.1 FPS
21. PROPOSED BACKFLOW PREVENTER (TYPICAL) (ZURN 475DA FOR 4" FS)
23. ROOF DOWNSPOUT (JOINED BY ITEM #17 DRAIN WHERE SHOWN TO BMP-1)
24. "GARDEN" AREA ON MAIN FLOOR. SEE LANDSCAPE PLAN
26. "GARDEN" AREA DRAIN CONVEYING RUNOFF TO BMP-2 (TYPICAL)
27. "GARDEN" AREA PVC DRAIN (TYPICAL)

TITLE NOTES

2. AN EASEMENT OR RIGHT OF WAY FOR THE CONSTRUCTION AND MAINTENANCE OF FLUMES, CANALS OR AQUEDUCTS, CONVEYED BY DEED FROM FRANK A. KIMBALL, AND WARREN G. KIMBALL TO KIMBALL BROTHERS WATER COMPANY, A CORPORATION, DATED JUNE 9, 1869, AND RECORDED IN BOOK 7, PAGE 124 OF DEEDS. THE INTEREST OF SAID GRANTEE IN AND TO SAID EASEMENT HAS SINCE PASSED TO AND NOW VESTS OF RECORD IN THE SWEETWATER AUTHORITY. THE LOCATION AND EXTENT OF SAID EASEMENT IS NOT DISCLOSED OF RECORD AND IS NOT PLOTTED.
3. AN EASEMENT FOR SEWER PURPOSES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED JUNE 12, 1928 IN BOOK 1510, PAGE 12, OF DEEDS, OF OFFICIAL RECORDS. (TO BE VACATED)
4. AN EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF A PRIVATE SEWER LATERAL AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED FEBRUARY 4, 1944 IN BOOK 1635, PAGE 177 OF OFFICIAL RECORDS. (TO BE VACATED)
5. AN EASEMENT FOR POLES AND WIRES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED MAY 29, 1944 IN BOOK 1684, PAGE 263, OF OFFICIAL RECORDS. (TO BE QUITCLAIMED)
6. AN EASEMENT FOR PUBLIC STREET AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, RECORDED MARCH 3, 1959 IN BOOK 7527, PAGE 49 OF OFFICIAL RECORDS.
7. AN EASEMENT FOR POLES AND WIRES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED IN BOOK 1688, PAGE 116, OF OFFICIAL RECORDS. (TO BE QUITCLAIMED)
9. AN EASEMENT FOR COMMUNICATION STRUCTURES AND RIGHTS INCIDENTAL THERETO, GRANTED TO THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, RECORDED MAY 11, 1966 AS INSTRUMENT NO. 79002, OF OFFICIAL RECORDS. (TO BE QUITCLAIMED)

LEGAL DESCRIPTION

LOTS 1 AND 2, BLOCK 62 OF ROSEVILLE, CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, ACCORDING TO MAP THEREOF NO. 165 FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, EXCEPTING THAT PORTION IF ANY HERETO FORE OR NOW LYING BELOW THE ORDINARY HIGH TIDE LINE OF THE BAY OF SAN DIEGO.

LOT 3 IN BLOCK 62 OF ROSEVILLE, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 165, FILED IN THE OFFICE OF THE RECORDER OF SAN DIEGO COUNTY. EXCEPTING THAT PORTION, IF ANY, HERETOFORE OR NOW LYING BELOW THE ORDINARY HIGH TIDE LINE OF THE BAY OF SAN DIEGO.

LOTS 4 AND 5 IN BLOCK 62, OF ROSEVILLE, IN CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 165, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY.

APNs: 530-751-01,02,03,04 AND 05

BASIS OF BEARINGS

A PORTION OF THE MEAN HIGH TIDE LINE AS SHOWN ON SHEET 3 OF RECORD OF SURVEY 20732.
I.E. SOUTH 37°29'53" WEST.

APN / ADDRESS

ASSESSOR'S PARCEL NUMBERS: 530-751-01,02,03,04 AND 05

ADDRESS: 1453-1455 AND 1461-1463 ROSECRANS ST
AND 2912 AND 2930 GARRISON ST
SAN DIEGO, CA 92106

BENCHMARK

CITY OF SAN DIEGO BENCHMARK BRASS PLUG LOCATED IN THE TOP OF CURB AT THE WESTERLY CORNER OF ROSECRANS STREET AND GARRISON STREET. ELEVATION = 8.474' MEAN SEA LEVEL (N.G.V.D. 1929).

NOTES

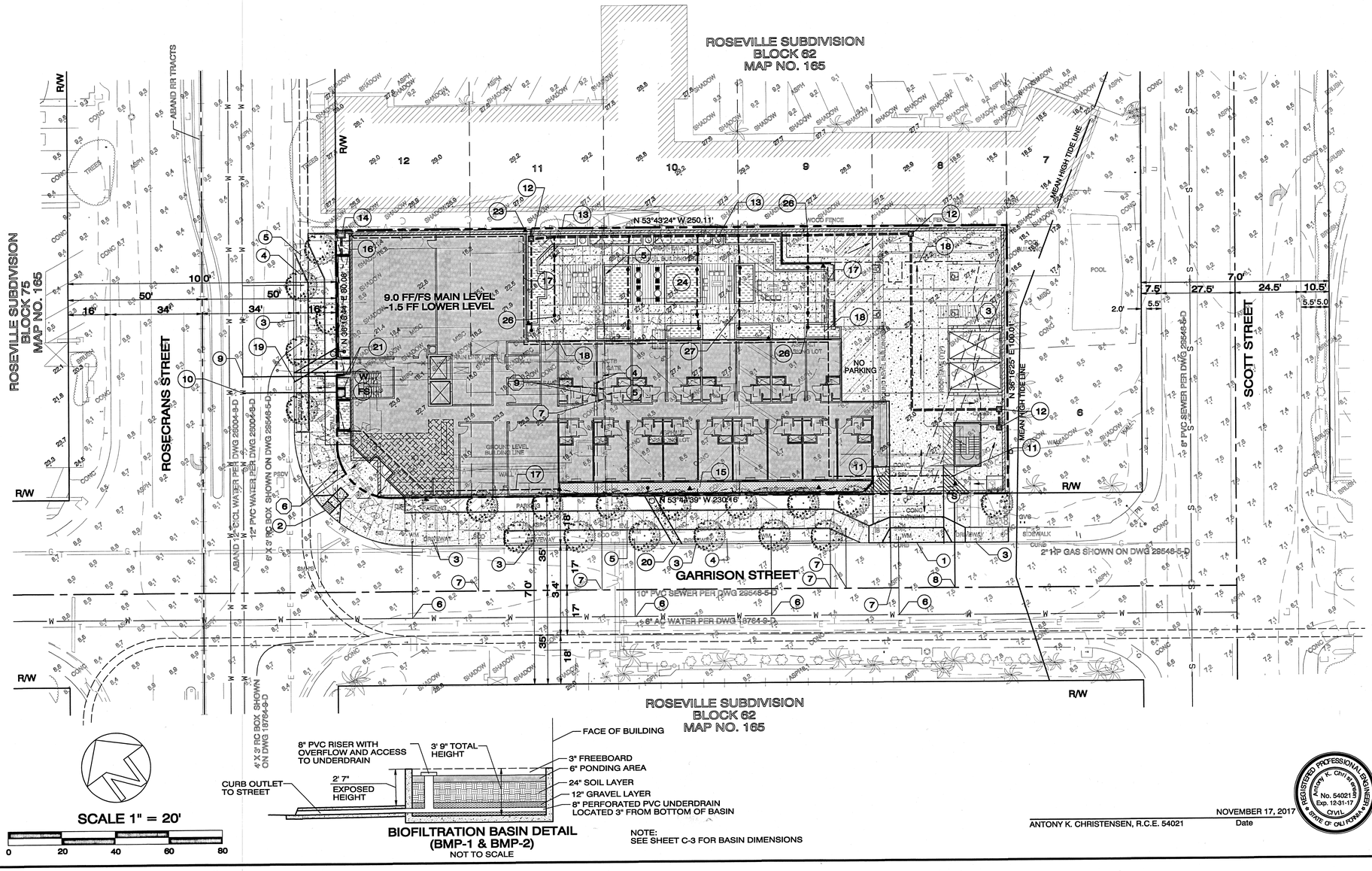
1. UTILITIES SHOWN HEREON ARE FROM CITY OF SAN DIEGO RECORDS AND ARE THEIR LOCATION ARE APPROXIMATE. NOT ALL UTILITIES MAY BE SHOWN. BEFORE ANY WORK TAKES PLACE CONTRACTOR SHALL HAVE ALL UTILITIES MARKED OUT AND SHALL USE SPECIAL CARE DURING CONSTRUCTION.
2. TITLE INFORMATION FOR THIS PROJECT IS FROM FIDELITY NATIONAL TITLE COMPANY PRELIMINARY REPORT ORDER NO. 005-23088597-1MB, DATED OCTOBER 7, 2016 AND CHICAGO TITLE PRELIMINARY REPORT ORDER NO. 0069801-993-SD2-CFU, DATED MARCH 16, 2017. ITEMS OTHER THAN EASEMENTS EXIST. SEE TITLE REPORTS FOR DETAILS.
3. THE SOURCE OF THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS FROM SURVEY BY CHRISTENSEN ENGINEERING & SURVEYING, DATED 01-07-13 AND REVISED 01-08-13.
4. THE SUBJECT PROPERTY IS SERVED BY CITY OF SAN DIEGO SANITARY SEWER AND WATER MAINS.
5. NAD27 COORDINATES = 204-1698. NAD83 COORDINATES = 1844-6258.
6. TITLE ITEM 3 TO BE VACATED. TITLE ITEMS 4, 5, 7 & 9 TO BE QUITCLAIMED.
7. AN ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT WILL BE REQUIRED FOR PRIVATE CURB OUTLETS AND WALKWAYS WITHIN ROSECRANS AND GARRISON STREET RIGHTS OF WAY

GRADING DATA

AREA OF SITE - 24,941 S.F.
AREA OF SITE TO BE GRADED: 24,941 SF
PERCENT OF SITE TO BE GRADED: 100%
AREA OF SITE WITH SLOPES GREATER THAN 25%: 0 S.F.

AMOUNT OF CUT - 9160 C.Y.
AMOUNT OF FILL - 180 C.Y.
AMOUNT OF EXPORT - 8,980 C.Y.
MAXIMUM FILL - <1
MAXIMUM CUT - 11 FOOT VERTICAL WITHIN STRUCTURE
NONE ELSEWHERE
MAXIMUM HEIGHT OF FILL SLOPE - NONE
MAXIMUM HEIGHT OF CUT SLOPE - NONE
RETAINING WALL: NONE NOT A PART OF BUILDING

EARTHWORK CALCULATIONS ARE APPROXIMATE TO FINISH FLOOR/SURFACE



BIOFILTRATION BASIN DETAIL
(BMP-1 & BMP-2)
NOT TO SCALE

NOTE:
SEE SHEET C-3 FOR BASIN DIMENSIONS

ANTONY K. CHRISTENSEN, R.C.E. 54021

NOVEMBER 17, 2017
Date

REGISTERED PROFESSIONAL ENGINEER
Antony K. Christensen
No. 54021
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

Owners:

PL BOUTIQUE INVESTORS LLC
17828 VILLAMOURA DR
POWAY CA 92064-1013

Prepared By:

CHRISTENSEN ENGINEERING & SURVEYING
7888 SILVERTON AVENUE, SUITE "J"
SAN DIEGO, CA 92126
PHONE (858) 271-9901 FAX (858) 271-8912

Project Address:

1453-1455 AND 1461-1463 ROSECRANS ST
AND 2912 AND 2930 GARRISON ST
SAN DIEGO, CA 92106

Project Name:

DOLPHIN MOTEL

Revision 4:
Revision 3: 11-17-17 REVISE WATER SERVICES
Revision 2: 08-30-17 REVISE GARDEN DESIGN
Revision 1: 08-25-17 REVISED DESIGN
ADDRESS CITY COMMENTS

Original Date: APRIL 10, 2017

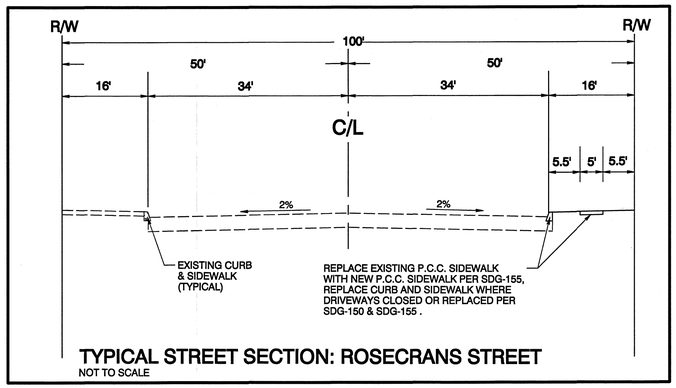
Sheet Title:

PRELIMINARY GRADING PLAN

Sheet of Sheets

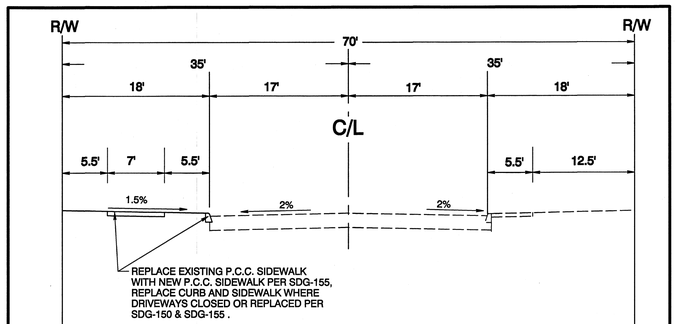
C-2

A2016-80



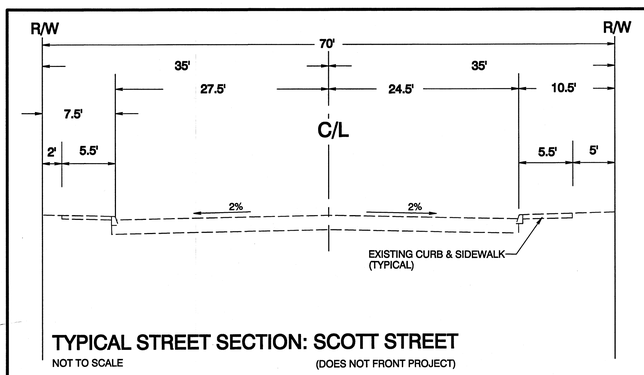
TYPICAL STREET SECTION: ROSECRANS STREET

NOT TO SCALE



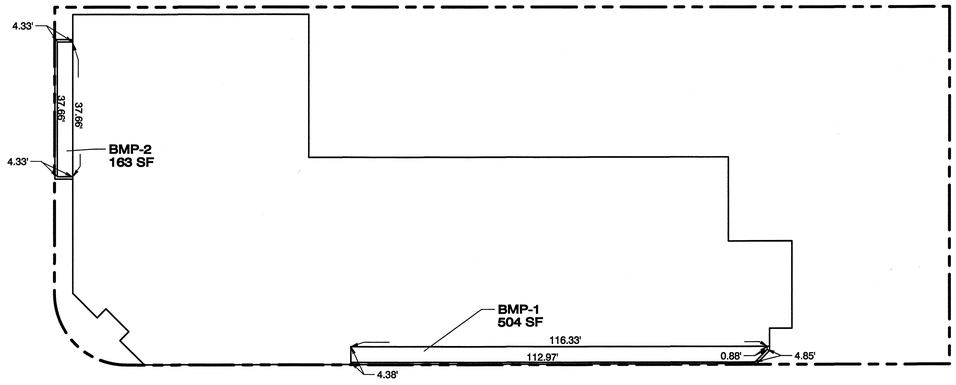
TYPICAL STREET SECTION: GARRISON STREET

NOT TO SCALE



TYPICAL STREET SECTION: SCOTT STREET

NOT TO SCALE (DOES NOT FRONT PROJECT)



BIOFILTRATION BASIN DIMENSION DETAIL

NOT TO SCALE

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 DESIGNEE: PL BOUTIQUE, LLC

BMP DESCRIPTION	INSPECTION FREQUENCY	MAINTENANCE FREQUENCY	MAINTENANCE METHOD	QUANTITY	INCLUDED IN O&M MANUAL	SHEET NUMBER(S)
SITE DESIGN ELEMENTS					YES ☒ NO	
DESCRIPTION: SD-1, 4, 5, 7	N/A	N/A	N/A	N/A		
SOURCE CONTROL ELEMENTS					YES ☒ NO	
DESCRIPTION: SC-3, 4, 5	N/A	N/A	N/A	N/A		
POLLUTANT CONTROL BMP(S)			REMOVE SEDIMENT, TRASH AND		YES ☒ NO	
DESCRIPTION: BIOFILTRATION	SEMI-ANNUALLY	ANNUALLY	DEBRIS. REPLACE SOIL MEDIUM	2		C-2
HMP FACILITY (IF SEPARATE)			AS REQUIRED		YES NO	
DESCRIPTION: N/A						
HMP EXEMPT YES						

PLAN ADEQUACY CHECKLIST

THE PLANS MUST IDENTIFY:

STRUCTURAL BMP(S) WITH ID NUMBERS MATCHING FORM I-6 SUMMARY OF PDP STRUCTURAL BMPS ARE SHOWN

THE GRADING AND DRAINAGE DESIGN SHOWN ON THE PLAN IS CONSISTENT WITH THE DELINEATION OF DMAS SHOWN ON THE DMA EXHIBIT

DETAILS AND SPECIFICATIONS FOR CONSTRUCTION OF STRUCTURAL BMPS ARE SHOWN HEREON

SIGNAGE INDICATING THE LOCATION AND BOUNDARY OF STRUCTURAL BMPS AS REQUIRED BY THE CITY ENGINEER DOES NOT APPLY TO THIS PROJECT

THE STRUCTURAL BMPS ARE AVAILABLE TO INSPECT AND PERFORM MAINTENANCE

FEATURES THAT PROVIDEDTO FACILITATE INSPECTION (E.G., OBSERVATION PORTS, CLEANOUTS, SILT POSTS, OR OTHER FEATURES THAT ALLOW THE INSPECTOR TO VIEW NECESSARY COMPONENTS OF THE STRUCTURAL BMP AND COMPARE TO MAINTENANCE THRESHOLDS) ARE SHOWN AND ACCESSIBLE.

MANUFACTURER AND PART NUMBER FOR PROPRIETARY PARTS OF STRUCTURAL BMP(S) ARE NOT APPLICABLE

MAINTENANCE THRESHOLDS SPECIFIC TO THE STRUCTURAL BMPS, WITH A LOCATION-SPECIFIC FRAME OF REFERENCE ARE CALLED OUT ABOVE

RECOMMENDED EQUIPMENT TO PERFORM MAINTENANCE (NO SPECIAL EQUIIPMENT REQUIRED)

WHEN APPLICABLE, NECESSARY SPECIAL TRAINING OR CERTIFICATION REQUIREMENTS FOR INSPECTION AND MAINTENANCE PERSONNEL SUCH AS CONFINED SPACE ENTRY OR HAZARDOUS WASTE MANAGEMENT (NOT APPLICABLE)

INCLUDE LANDSCAPING PLAN SHEETS SHOWING VEGETATION REQUIREMENTS FOR VEGETATED STRUCTURAL BMPS ARE SHOWN ON LANDSCAPE PLANS

ALL BMPS ARE FULLY DIMENSIONED ON THE PLANS

WHEN PROPRIETARY BMPS ARE USED, SITE SPECIFIC CROSS SECTION WITH OUTFLOW, INFLOW AND MODEL NUMBER SHALL BE PROVIDED. NOT APPLICABLE FOR THIS PROJECT

NOVEMBER 17, 2017

ANTONY K. CHRISTENSEN, R.C.E. 54021 Date

REGISTERED PROFESSIONAL ENGINEER — ANTONY K. CHRISTENSEN — No. 54021 — Exp. 12-31-17 — CIVIL — STATE OF CALIFORNIA

Owners:

PL BOUTIQUE INVESTORS LLC
17828 VILLAMOURA DR
POWAY CA 92064-1013

Prepared By:

CHRISTENSEN ENGINEERING & SURVEYING
7888 SILVERTON AVENUE, SUITE "J"
SAN DIEGO, CA 92126
PHONE (858) 271-9901 FAX (858) 271-8912

Project Address:

1453-1455 AND 1461-1463 ROSECRANS ST
AND 2912 AND 2930 GARRISON ST
SAN DIEGO, CA 92106

Project Name:

DOLPHIN MOTEL

Revision 4:
Revision 3:
Revision 2:
Revision 1:

Original Date: AUGUST 31, 2017

Sheet Title:

PRELIMINARY GRADING PLAN

Sheet of Sheets

C-3

A2016-80

ATTACHMENT 5
DRAINAGE REPORT

Attach project's drainage report. Refer to Drainage Design Manual to determine the reporting requirements.

Preliminary Drainage Study

Dolphin Motel

Lots 1-5, Block 62, Map No. 165
1453-63 Rosecrans Street and 2912 & 2930 Garrison Street
San Diego, California 92106

Prepared for:
PL BOUTIQUE INVESTORS LLC
17828 VILLAMOURA DR
POWAY CA 92064-1013

Prepared by:
Christensen Engineering & Surveying
7888 Silverton Avenue, Suite "J"
San Diego, CA 92126
(858) 271-9901

April 10, 2017
Revised August 25, 2017

PTS No. 556027

Introduction

This project proposes the removal of the existing commercial improvements on lots 1-5 in Block 62 of Map No.165, to be replaced with a new motel with subterranean parking, biofiltration basins, and landscaping.

The attached drainage area maps are from a topographic survey by Christensen Engineering & Surveying dated March 23, 2017. The site, in its existing pre-construction condition, drains southwesterly to the Garrison Street (1.60 cfs). Following construction area PC-R will flow to Rosecrans Street (0.44 cfs (0.44 cfs by curb outlet)) and area PC-G will flow to Garrison (1.16 cfs (1.14 cfs to curb outlet)). The flow to Rosecrans will flow to Garrison and then to San Diego Bay, by the same public storm drain before construction. Drainage Basin G runoff, from the roof, will flow to the biofiltration basin (BMP-1) by a downspout drainage system within the building that outlets to the basin. The outlet to the basin will have adequate energy dissipation to prevent scouring within the basin's upper soil/mulch layer. Runoff from Drainage Basin R will be conveyed to biofiltration basin (BMP-2) by being pumped from catch basins equipped with pumps. There will be no increase in runoff from the site. The site has 0.572 ac of imperviousness and a proposed 0.562 area of imperiousness following development, a change from of 100% to 98.2% area of imperviousness.

Section 404 of CWA regulates the discharge of dredged or fill material into waters of the United States. Section 404 is regulated by the Army Corps of Engineers. Section 401 of CWA requires that the State provide certification that any activity authorized under Section 404 is in compliance with effluent limits, the state's water quality standards, and any other appropriate requirements of state law. Section 401 is administered by the State Regional Water Quality Control Board. The project does not require a Federal CWA Section 404 permit nor Section 401 Certification because it does not cause dredging or filling in waters of the United States and is in compliance with the State Water Quality Standards. See separate SWQMP.

The Rational Method was used to calculate the anticipated flow for the 100-year storm return frequency event using the method outlined in the City of San Diego Drainage Design Manual.

Antony K. Christensen
RCE 54021
Exp. 12-31-17
JN A2016-80

08-25-17
Date

Calculations

1. *Intensity Calculation*

(From the City of San Diego Drainage Design Manual, Page 86)
Tc = Time of concentration

$Tc = 1.8\ (1.1-C)\ (D)^{1/2} / S^{1/3}$

Since the difference in elevation is 0.8' (9.1'-8.3') and the distance traveled is 267' (S=0.3%). C=0.85.

Tc = 11 minutes

From table on Page 83

I_{100} = 3.3 inches

2. *Coefficient Determination*

The site and the area offsite that will contribute to runoff is included in this study.
From Page 82

Pre-Construction:
The site is a motel site and is considered Commercial

C= 0.85

Post construction:
From Page 82 site remains a motel and is considered Commercial

C = 0.55

3. *Volume calculations*

Q = CIA

Areas of Drainage

The procedure used by the City of San Diego Drainage Design Manual is that areas of similar use should employ the same runoff coefficient using that method for this project has the same pre- and post-construction total runoff.

Pre-Construction

Area onsite flows to Garrison Street	A = 0.572 Acre

Post-Construction

Area draining from roof and biofiltration basin flowing to Garrison Street	PC-G = 0.414 Acre (0.408 to curb outlet)
Area draining from roof and biofiltration basin flowing to Rosecrans Street	PC-R = 0.159 Acre (0.159 to curb outlet)

Pre-Construction

Q_{100A} = (0.85) (3.3) (0.572)

Q_{100A} = 1.60 cfs

Post-Construction

$Q_{100PC-G}$ = (0.85) (3.3) (0.414) (0.408 to curb outlet)
$Q_{100PC-R}$ = (0.85) (3.3) (0.159) (0.159 to curb outlet)

$Q_{100PC-G}$ = 1.16 cfs (1.14 cfs to curb outlet)
$Q_{100PC-R}$ = 0.44 cfs (0.44 cfs to curb outlet)

4. Discussion

The site, in its existing pre-construction condition, drains southwesterly to the Garrison Street (1.60 cfs). Following construction area PC-R will flow to Rosecrans Street (0.44 cfs (0.44 cfs by curb outlet)) and area PC-G will flow to Garrison (1.16 cfs (1.14 cfs to curb outlet)). The flow to Rosecrans will flow to Garrison and then to the Bay by the same public storm drain before construction. There will be no increase in runoff from the site.

APPENDIX

TABLE 2

RUNOFF COEFFICIENTS (RATIONAL METHOD)

DEVELOPED AREAS (URBAN)

Land Use	Coefficient, C Soil Type (1)
	D
Residential:	
Single Family	.55
Multi-Units	.70
Mobile Homes	.65
Rural (lots greater than 1/2 acre)	.45
Commercial (2) 80% Impervious	.85
Industrial (2) 90% Impervious	.95

NOTES:

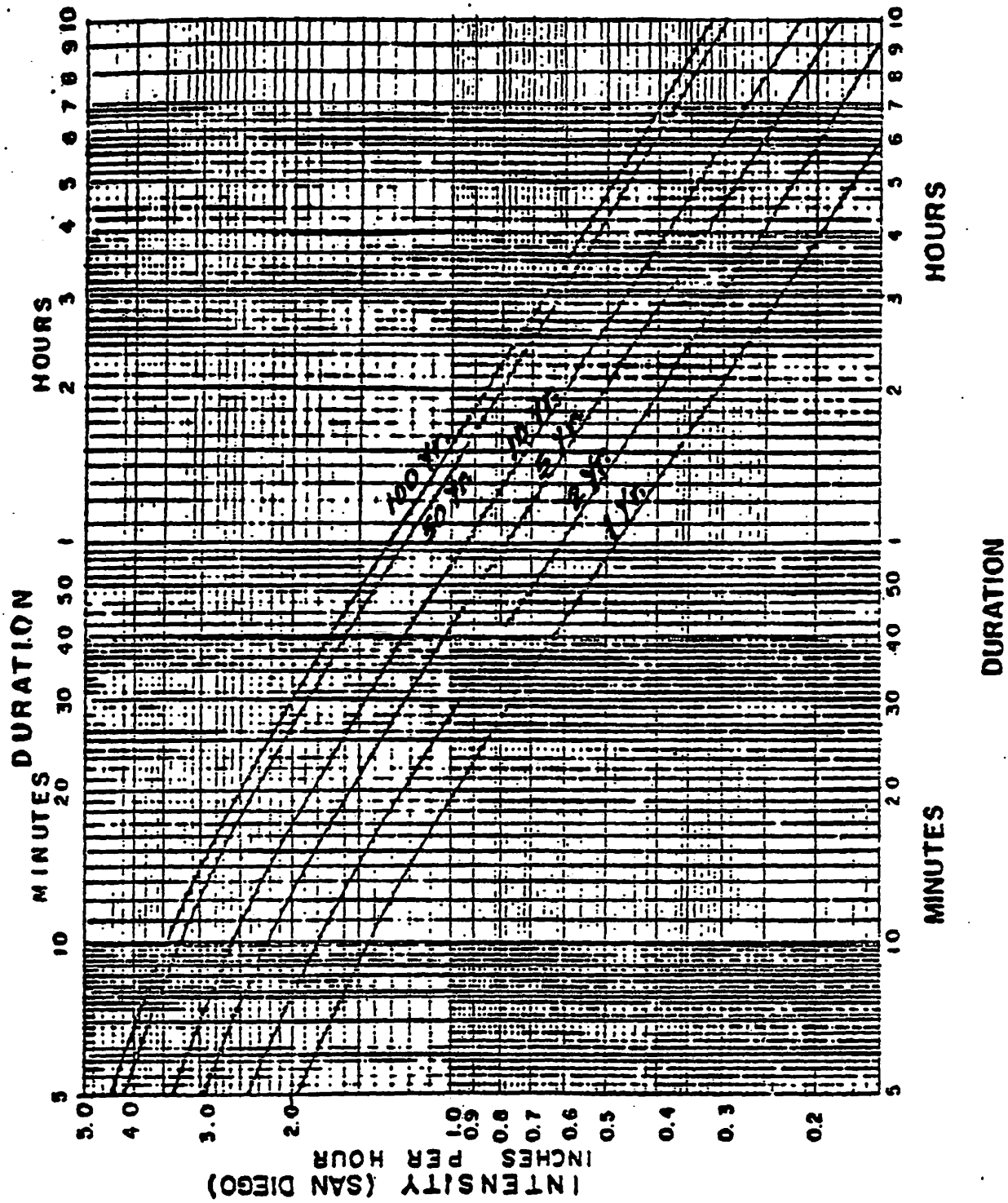
(1) Type D soil to be used for all areas.

(2) Where actual conditions deviate significantly from the tabulated imperviousness values of 80% or 90%, the values given for coefficient C, may be revised by multiplying 80% or 90% by the ratio of actual imperviousness to the tabulated imperviousness. However, in no case shall the final coefficient be less than 0.50. For example: Consider commercial property on D soil.

Actual imperviousness = 50%

Tabulated imperviousness = 80%

Revised C = $\frac{50}{80}$ x 0.85 = 0.53



ELEV.	FACTOR
0–1500	1.00
1500–3000	1.25
3000–4000	1.42
4000–5000	1.60
5000–6000	1.70
DESERT	1.25

To obtain correct intensity, multiply intensity on chart by factor for design elevation.

RAINFALL

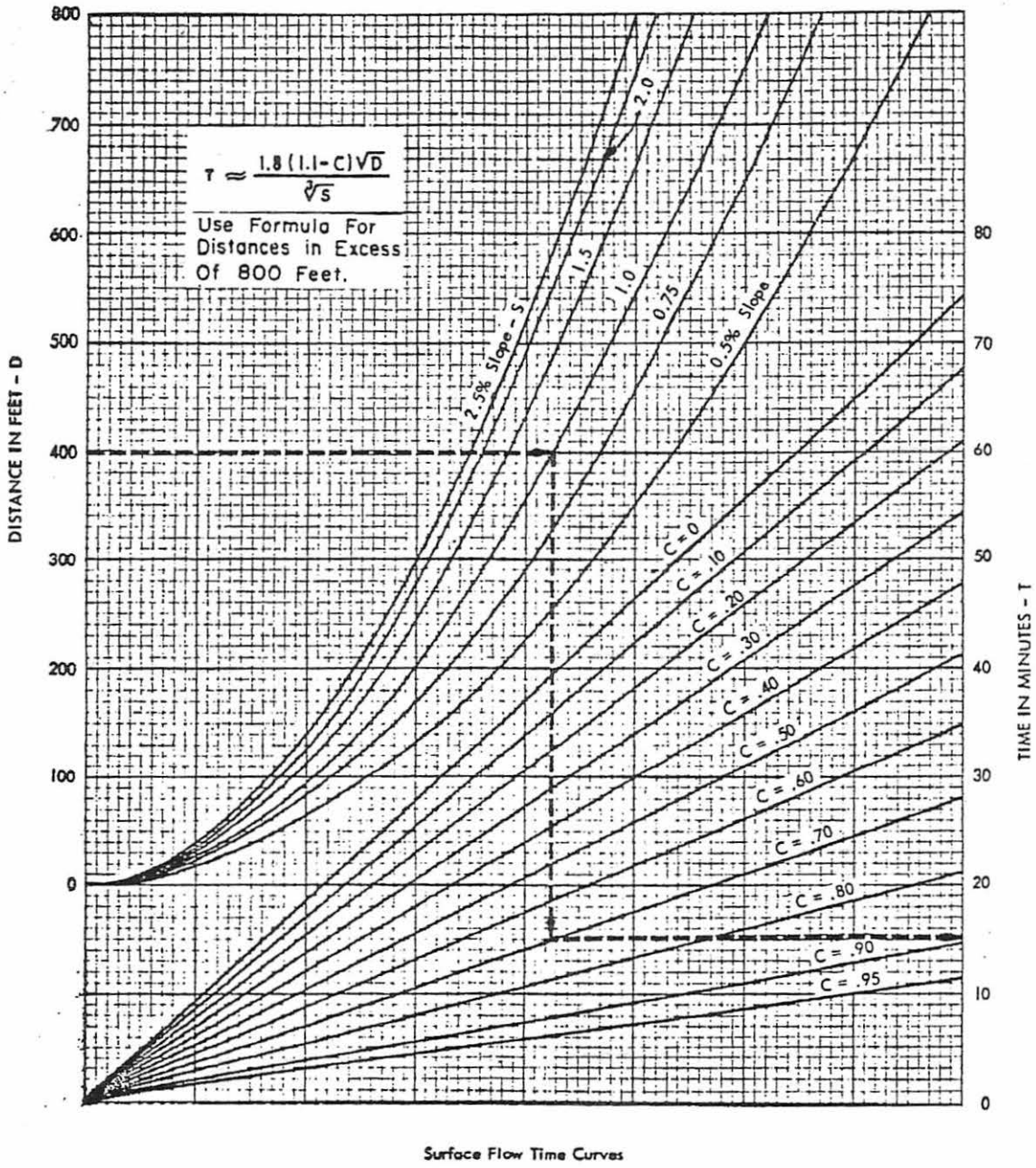
INTENSITY – DURATION – FREQUENCY CURVES

for

COUNTY OF SAN DIEGO

APPENDIX I

URBAN AREAS OVERLAND TIME OF FLOW CURVES



Surface Flow Time Curves

EXAMPLE:

GIVEN: LENGTH OF FLOW = 400 FT.
SLOPE = 1.0 %
COEFFICIENT OF RUNOFF C = .70

READ: OVERLAND FLOWTIME = 15 MINUTES

DRAINAGE AREA MAPS

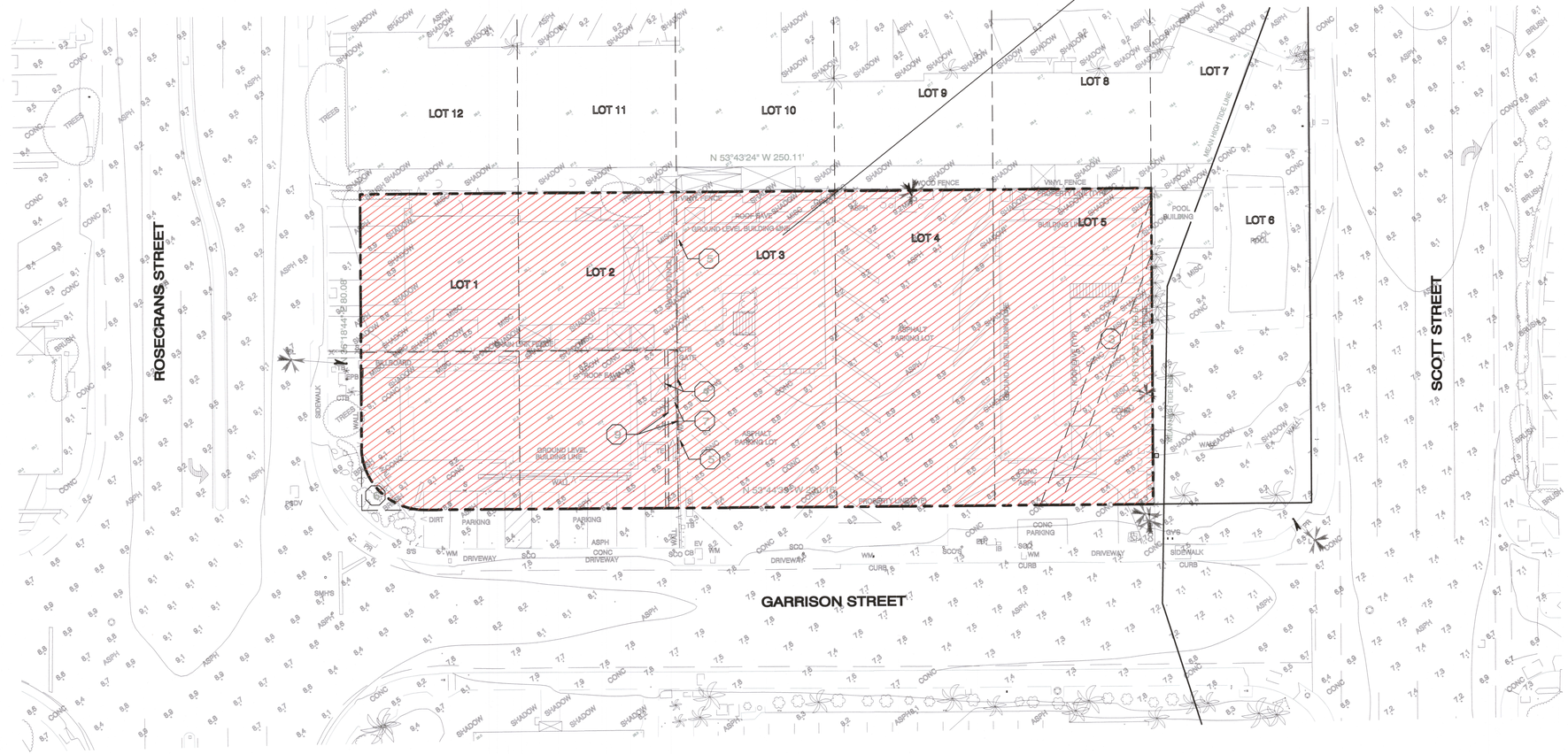
PRE-DEVELOPMENT DRAINAGE AREA MAP

PRE-CONSTRUCTION DRAINAGE AREA MAP

SHEET 1 0F 1 SHEET

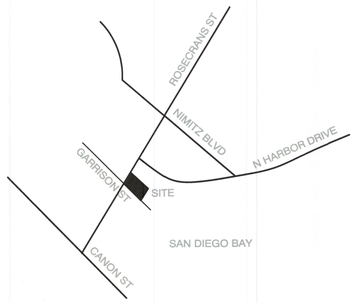
TOPOGRAPHY

SCALE 1"= 20'



ABBREVIATIONS

ASPH ASPHALT
CB COMMUNICATIONS BOX
CTB CABLE TELEVISION BOX
EV ELECTRIC VAULT
GV GAS VALVE
IB IRRIGATION BOX
L LIGHT
PR PEDESTRIAN RAMP
PSDV PORT OF SAN DIEGO VAULT
S SIGN
SCO SEWER CLEANOUT
SL STREET LIGHT
SMH SEWER MANHOLE
TB TELEPHONE BOX
TE TRASH ENCLOSURE
TYP TYPICAL
WM WATER METER



VICINITY MAP

NOT TO SCALE

TITLE NOTES

(2) AN EASEMENT OR RIGHT OF WAY FOR THE CONSTRUCTION AND MAINTENANCE OF FLUMES, CANALS OR AQUEDUCTS, CONVEYED BY DEED FROM FRANK A. KIMBALL, AND WARREN G. KIMBALL TO KIMBALL BROTHERS WATER COMPANY, A CORPORATION, DATED JUNE 9, 1889, AND RECORDED IN BOOK 7, PAGE 124 OF DEEDS. THE INTEREST OF SAID GRANTEE IN AND TO SAID EASEMENT HAS SINCE PASSED TO AND NOW VESTS OF RECORD IN THE SWEETWATER AUTHORITY. THE LOCATION AND EXTENT OF SAID EASEMENT IS NOT DISCLOSED OF RECORD AND IS NOT PLOTTED.

(3) AN EASEMENT FOR SEWER PURPOSES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED JUNE 12, 1928 IN BOOK 1510, PAGE 12, OF DEEDS, OF OFFICIAL RECORDS.

(4) AN EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF A PRIVATE SEWER LATERAL AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED FEBRUARY 4, 1944 IN BOOK 1635, PAGE 177 OF OFFICIAL RECORDS.

(5) AN EASEMENT FOR POLES AND WIRES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED MAY 29, 1944 IN BOOK 1684, PAGE 263, OF OFFICIAL RECORDS.

(6) AN EASEMENT FOR PUBLIC STREET AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, RECORDED MARCH 3, 1959 IN BOOK 7527, PAGE 49 OF OFFICIAL RECORDS.

(7) AN EASEMENT FOR POLES AND WIRES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED IN BOOK 1688, PAGE 116, OF OFFICIAL RECORDS.

(8) AN AGREEMENT RELATING TO THE INSTALLATION, MAINTENANCE AND POSSIBLE REMOVAL OF A PARKING LOT OVER EXISTING SIDEWALK AND CURB, BY AND BETWEEN THE CITY OF SAN DIEGO AND EDWIN FRANK MAY AND BARBARA J. MAY, RECORDED JUNE 21, 1963 AS INSTRUMENT NO. 108971, OF OFFICIAL RECORDS. AGREEMENT IS NOT PLOTTED.

(9) AN EASEMENT FOR COMMUNICATION STRUCTURES AND RIGHTS INCIDENTAL THERETO, GRANTED TO THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, RECORDED MAY 11, 1966 AS INSTRUMENT NO. 79002, OF OFFICIAL RECORDS.

(13) AN AGREEMENT RELATING TO THE INSTALLATION, MAINTENANCE AND POSSIBLE REMOVAL OF A 3 1/2 TALL CHAIN LINK FENCE, BY AND BETWEEN THE CITY OF SAN DIEGO AND H.G. ROCKWOOD AND BEVERLY M. ROCKWOOD, RECORDED DECEMBER 18, 1986 AS INSTRUMENT NO. 86-596034, OF OFFICIAL RECORDS. AGREEMENT IS NOT PLOTTED.

(20) AN ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT, EXECUTED BY. H.D. MURDOCK, INC. AND THE CITY OF SAN DIEGO, RECORDED APRIL 4, 2014 AS INSTRUMENT NO. 2014-0133012, OF OFFICIAL RECORDS. AGREEMENT IS NOT PLOTTED.

LEGAL DESCRIPTION

LOTS 1 AND 2, BLOCK 62 OF ROSEVILLE, CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, ACCORDING TO MAP THEREOF NO. 165 FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, EXCEPTING THAT PORTION IF ANY HERETO FORE OR NOW LYING BELOW THE ORDINARY HIGH TIDE LINE OF THE BAY OF SAN DIEGO.

LOT 3 IN BLOCK 62 OF ROSEVILLE, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 165, FILED IN THE OFFICE OF THE RECORDER OF SAN DIEGO COUNTY. EXCEPTING THAT PORTION, IF ANY, HERETOFORE OR NOW LYING BELOW THE ORDINARY HIGH TIDE LINE OF THE BAY OF SAN DIEGO.

LOTS 4 AND 5 IN BLOCK 62, OF ROSEVILLE, IN CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 165, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY.

REFERENCE DOCUMENT

TITLE INFORMATION FOR THIS SURVEY IS FROM FIDELITY NATIONAL TITLE COMPANY PRELIMINARY REPORT ORDER NO. 005-23088597-1MB, DATED OCTOBER 7, 2016 AND CHICAGO TITLE PRELIMINARY REPORT ORDER NO. 0069801-993-SD2-CFU, DATED MARCH 16, 2017.

LEGEND

(3) INDICATES REFERENCE TO TITLE NOTE EXCEPTION PER THE TITLE REPORTS.

NOTES

1. AGREEMENTS, DOCUMENTS AND OTHER MATTERS WHICH AFFECT THIS PROPERTY EXIST, BUT CANNOT BE PLOTTED. SEE TITLE REPORT.
2. THE PRECISE LOCATION OF UNDERGROUND UTILITIES COULD NOT BE DETERMINED IN THE FIELD PRIOR TO ANY EXCAVATION UTILITY COMPANIES WILL NEED TO MARK-OUT EXACT UTILITY LOCATIONS.
3. THE ASSESSOR PARCEL NUMBERS FOR THE SUBJECT PROPERTY ARE 530-751-01,02,03,04 AND 05.
4. THE ADDRESSES FOR THE SUBJECT PROPERTY ARE 1453-1455 AND 1461-1463 ROSECRANS STREET AND 2912 AND 2930 GARRISON STREET, SAN DIEGO, CA 92106.
5. THE TOTAL AREA OF THE SUBJECT PROPERTY IS 0.572 ACRES.

MARCH 23, 2017

PATRICK F. CHRISTENSEN, L.S. 7208 Date

CE&S CHRISTENSEN ENGINEERING & SURVEYING
CIVIL ENGINEERS LAND SURVEYORS PLANNERS
7888 SILVERTON AVENUE, SUITE "J", SAN DIEGO, CALIFORNIA 92126
TELEPHONE: (858)271-9901 FAX: (858)271-8912 EMAIL: CEANDS@AOL.COM

C-1

J.N. 2016-80

POST-DEVELOPMENT DRAINAGE AREA MAP

POST-CONSTRUCTION DRAINAGE AREA MAP

CONSTRUCTION NOTES

1. C/L PROPOSED 25' DRIVEWAY PER SDG-163
2. PROPOSED PED RAMP PER SDG-132
3. REMOVE AND REPLACE EXISTING DRIVEWAY WITH CURB GUTTER AND SIDEWALK (TYPICAL)
4. REMOVE EX CONCRETE. REPLACE WITH PLANTER (TYPICAL)
5. PROPOSED SIDEWALK PER SDG-155
6. KILL EXISTING WATER SERVICE (TYPICAL)
7. ABANDON EXISTING SEWER LATERAL AT P/L (TYPICAL)
8. PROPOSED 6" SEWER LATERAL
9. PROPOSED 2" WATER SERVIDE
10. PROPOSED 4" FIRE SERVICE
11. VISIBILITY TRIANGLE (TYPICAL)
12. MAIN FLOOR LEVEL CATCH BASIN (TYPICAL)
13. PVC DRAIN CONVEYING RUNOFF TO BMP-2
14. CATCH BASIN WITH PUMP (AT GROUND LEVEL) TO CONVEY MAIN FLOOR AND PARKING RAMP RUNOFF TO BIOFILTRATION BASIN. INCLUDES OVERFLOW TO CURB OULET IN THE CASE OF PUMP FAILURE
15. BIOFILTRATION BASIN TO TREAT RUNOFF FROM ROOF (504 SF) (BMP-1)
16. BIOFILTRATION BASIN TO TREAT RUNOFF FROM MAIN LEVEL (211 SF) (BMP-2)
17. DRAIN WITHIN BUILDING TO CONVEY DOWNSPOUT ROOF RUNOFF TO BMP-1 (TYPICAL)
18. OUTER EXTENT OF ROOF (OUTLINE)
19. CURB OUTLET PER D-25
    Q100 = 0.44 CFS
    V100 = 2.2 FPS
20. CURB OUTLET PER D-25
    Q100 = 1.14 CFS
    V100 = 3.1 FPS
21. PROPOSED BACKFLOW PREVENTER (TYPICAL)
22. PROPOSED AREA DRAIN CONVEYING RUNOFF TO BMP-2 SURFACE BY PUMP IN CATCH BASIN WITHIN BASIN
23. ROOF DOWNSPOUT (JOINED BY ITEM #17 DRAIN WHERE SHOWN TO BMP-1)
24. "GARDEN" AREA ON MAIN FLOOR. SEE LANDSCAPE PLAN
25. CATCH BASIN WITH PUMP TO COVEY RUNOFF FROM ITEM 22 TO SURFACE OF BMP-2
26. "GARDEN" AREA DRAIN CONVEYING RUNOFF TO BMP-2 (TYPICAL)
27. "GARDEN" AREA PVC DRAIN (TYPICAL)

TITLE NOTES

2. AN EASEMENT OR RIGHT OF WAY FOR THE CONSTRUCTION AND MAINTENANCE OF FLUMES, CANALS OR AQUEDUCTS, CONVEYED BY DEED FROM FRANK A. KIMBALL, AND WARREN G. KIMBALL TO KIMBALL BROTHERS WATER COMPANY, A CORPORATION, DATED JUNE 9, 1869, AND RECORDED IN BOOK 7, PAGE 124 OF DEEDS. THE INTEREST OF SAID GRANTEE IN AND TO SAID EASEMENT HAS SINCE PASSED TO AND NOW VESTS OF RECORD IN THE SWEETWATER AUTHORITY. THE LOCATION AND EXTENT OF SAID EASEMENT IS NOT DISCLOSED OF RECORD AND IS NOT PLOTTED.
3. AN EASEMENT FOR SEWER PURPOSES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED JUNE 12, 1928 IN BOOK 1510, PAGE 12, OF DEEDS, OF OFFICIAL RECORDS. (TO BE VACATED)
4. AN EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF A PRIVATE SEWER LATERAL AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED FEBRUARY 4, 1944 IN BOOK 1635, PAGE 177 OF OFFICIAL RECORDS. (TO BE VACATED)
5. AN EASEMENT FOR POLES AND WIRES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED MAY 29, 1944 IN BOOK 1684, PAGE 263, OF OFFICIAL RECORDS. (TO BE QUITCLAIMED)
6. AN EASEMENT FOR PUBLIC STREET AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, RECORDED MARCH 3, 1959 IN BOOK 7527, PAGE 49 OF OFFICIAL RECORDS.
7. AN EASEMENT FOR POLES AND WIRES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED IN BOOK 1688, PAGE 116, OF OFFICIAL RECORDS. (TO BE QUITCLAIMED)
9. AN EASEMENT FOR COMMUNICATION STRUCTURES AND RIGHTS INCIDENTAL THERETO, GRANTED TO THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, RECORDED MAY 11, 1966 AS INSTRUMENT NO. 79002, OF OFFICIAL RECORDS. (TO BE QUITCLAIMED)

LEGAL DESCRIPTION

LOTS 1 AND 2, BLOCK 62 OF ROSEVILLE, CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, ACCORDING TO MAP THEREOF NO. 165 FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, EXCEPTING THAT PORTION IF ANY HERETO FORE OR NOW LYING BELOW THE ORDINARY HIGH TIDE LINE OF THE BAY OF SAN DIEGO.

LOT 3 IN BLOCK 62 OF ROSEVILLE, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 165, FILED IN THE OFFICE OF THE RECORDER OF SAN DIEGO COUNTY. EXCEPTING THAT PORTION, IF ANY, HERETOFORE OR NOW LYING BELOW THE ORDINARY HIGH TIDE LINE OF THE BAY OF SAN DIEGO.

LOTS 4 AND 5 IN BLOCK 62, OF ROSEVILLE, IN CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 165, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY.

APNs: 530-751-01,02,03,04 AND 05

BASIS OF BEARINGS

A PORTION OF THE MEAN HIGH TIDE LINE AS SHOWN ON SHEET 3 OF RECORD OF SURVEY 20732. I.E. SOUTH 37°29'53" WEST.

APN / ADDRESS

ASSESSOR'S PARCEL NUMBERS: 530-751-01,02,03,04 AND 05

ADDRESS: 1453-1455 AND 1461-1463 ROSECRANS ST
AND 2912 AND 2930 GARRISON ST
SAN DIEGO, CA 92106

BENCHMARK

CITY OF SAN DIEGO BENCHMARK BRASS PLUG LOCATED IN THE TOP OF CURB AT THE WESTERLY CORNER OF ROSECRANS STREET AND GARRISON STREET. ELEVATION = 8.474' MEAN SEA LEVEL (N.G.V.D. 1929).

NOTES

1. UTILITIES SHOWN HEREON ARE FROM CITY OF SAN DIEGO RECORDS AND ARE THEIR LOCATION ARE APPROXIMATE. NOT ALL UTILITIES MAY BE SHOWN. BEFORE ANY WORK TAKES PLACE CONTRACTOR SHALL HAVE ALL UTILITIES MARKED OUT AND SHALL USE SPECIAL CARE DURING CONSTRUCTION.
2. TITLE INFORMATION FOR THIS PROJECT IS FROM FIDELITY NATIONAL TITLE COMPANY PRELIMINARY REPORT ORDER NO. 005-230885971-1MB, DATED OCTOBER 7, 2016 AND CHICAGO TITLE PRELIMINARY REPORT ORDER NO. 0069801-993-SD2-CFU, DATED MARCH 16, 2017. ITEMS OTHER THAN EASEMENTS EXIST. SEE TITLE REPORTS FOR DETAILS.
3. THE SOURCE OF THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS FROM SURVEY BY CHRISTENSEN ENGINEERING & SURVEYING, DATED 01-07-13 AND REVISED 01-08-13.
4. THE SUBJECT PROPERTY IS SERVED BY CITY OF SAN DIEGO SANITARY SEWER AND WATER MAINS.
5. NAD27 COORDINATES = 204-1698. NAD83 COORDINATES = 1844-6258.
6. TITLE ITEM 3 TO BE VACATED. TITLE ITEMS 4, 5, 7 & 9 TO BE QUITCLAIMED.
7. AN ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT WILL BE REQUIRED FOR PRIVATE CURB OUTLETS AND WALKWAYS WITHIN ROSECRANS AND GARRISON STREET RIGHTS OF WAY

GRADING DATA

AREA OF SITE - 24,941 S.F.
AREA OF SITE TO BE GRADED: 24,941 SF
PERCENT OF SITE TO BE GRADED: 100%
AREA OF SITE WITH SLOPES GREATER THAN 25%: 0 S.F.

AMOUNT OF CUT - 9160 C.Y.
AMOUNT OF FILL - 180 C.Y.
AMOUNT OF EXPORT - 8,980 C.Y.
MAXIMUM FILL - <1
MAXIMUM CUT - 11 FOOT VERTICAL WITHIN STRUCTURE
NONE ELSEWHERE
MAXIMUM HEIGHT OF FILL SLOPE - NONE
MAXIMUM HEIGHT OF CUT SLOPE - NONE
RETAINING WALL: NONE NOT A PART OF BUILDING

EARTHWORK CALCULATIONS ARE APPROXIMATE
TO FINISH FLOOR/SURFACE

AREA PC-G
18,030 SF
0.414 AC
C=0.85
FLOWS TO GARRISON

AREA PC-R
6,911 SF
0.159 AC
C=0.85
FLOWS TO ROSECRANS

ROSEVILLE SUBDIVISION
BLOCK 62
MAP NO. 165

9.0 FF/FS MAIN LEVEL
-1.5 FF LOWER LEVEL

ROSEVILLE SUBDIVISION
BLOCK 75
MAP NO. 165

ROSECRANS STREET

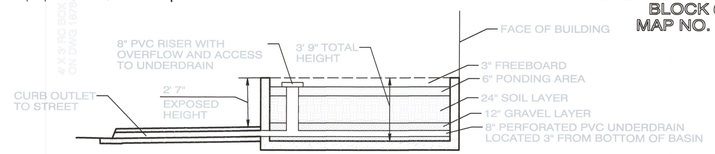
GARRISON STREET

SCOTT STREET

ROSEVILLE SUBDIVISION
BLOCK 62
MAP NO. 165

SCALE 1" = 20'

0 20 40 60 80



BIOFILTRATION BASIN DETAIL
(BMP-1 & BMP-2)
NOT TO SCALE

NOTE:
SEE SHEET C-3 FOR BASIN DIMENSIONS

AUGUST 30, 2017
ANTONY K. CHRISTENSEN, R.C.E. 54021 Date

Owners:

PL BOUTIQUE INVESTORS LLC
17828 VILLAMOURA DR
POWAY CA 92064-1013

Prepared By:

CHRISTENSEN ENGINEERING & SURVEYING
7888 SILVERTON AVENUE, SUITE "J"
SAN DIEGO, CA 92126
PHONE (858) 271-9901 FAX (858) 271-8912

Project Address:

1453-1455 AND 1461-1463 ROSECRANS ST
AND 2912 AND 2930 GARRISON ST
SAN DIEGO, CA 92106

Project Name:

DOLPHIN MOTEL

Revision 4:
Revision 3:
Revision 2: 03-30-17 REVISE GARDEN DESIGN
Revision 1: 08-25-17 REVISED DESIGN ADDRESS CITY COMMENTS

Original Date: APRIL 10, 2017

Sheet Title:

PRELIMINARY GRADING PLAN

Sheet of Sheets

C-2

A2016-80

ATTACHMENT 6
GEOTECHNICAL AND GROUNDWATER INVESTIGATION REPORT

Attach project's geotechnical and groundwater investigation report. Refer to Appendix C.4 to determine the reporting requirements

ADVANCED GEOTECHNICAL SOLUTIONS, INC.
485 Corporate Drive, Suite B
Escondido, CA 92029
Telephone: (619) 867-0487

Alliance Development Services, Inc.
17828 Villamoura Drive
Poway, CA 92064

November 20, 2017
P/W 1611-03
Report No. 1611-03-B-7

Attention: **Mr. Mac Stead**

Subject: ***Updated Preliminary Infiltration Feasibility Study, Dolphin Motel Project, Point Loma San Diego, California***

References: See Attached

Gentlemen:
In accordance with your request, Advanced Geotechnical Solutions, Inc. (AGS) has prepared this Updated Preliminary Infiltration Feasibility Study for the proposed Dolphin Motel Project in the Point Loma area of San Diego, California. This report is intended to meet the preliminary infiltration testing requirements of the City of San Diego and provide an evaluation of the feasibility for storm water infiltration in accordance with the current Storm Water Standards – BMP Design Manual. A discussion of our field testing and findings are presented below. Worksheet Form C.4-1 and associated supporting worksheets and data are presented in Appendix A.

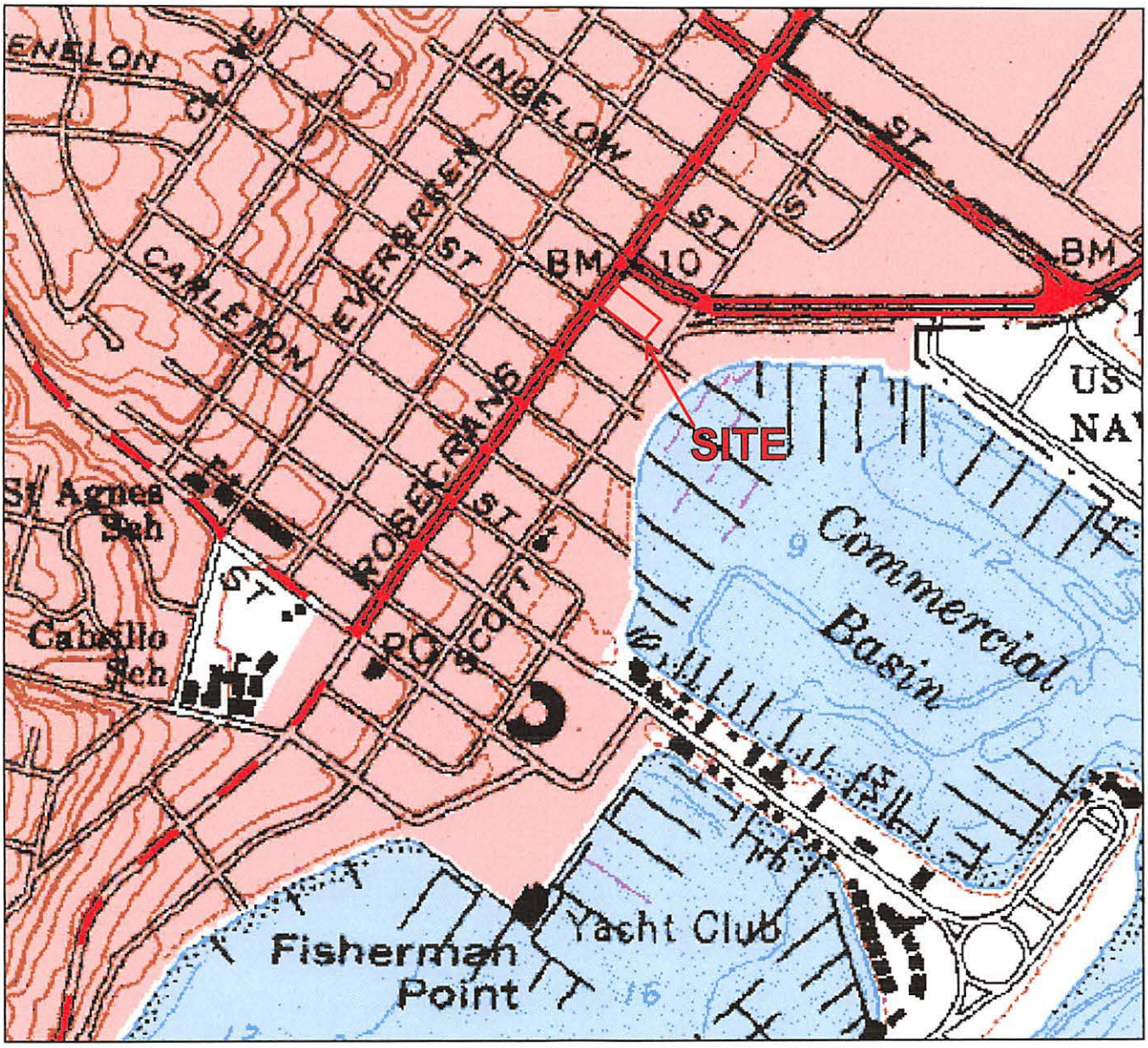
1.0 SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The Proposed Project is located within the USGS 7.5' Point Loma quadrangle, generally along Rosecrans Street, City of San Diego, California. More specifically the rectangular shaped property is bounded on the southwest by Garrison Street, to the northwest by Rosecrans Street and a commercial structure, and to the northeast and southeast by existing motels as depicted in Figure 1 (Site Location Map). Overall the lot encompasses approximately 0.57 acres. Topography at the site is relatively level to gently sloping to the southeast (toward the bay). The site currently supports a motel with two, two-story structures and a separate one-story structure; surface improvements include paved driveways and parking areas with some small planters.

As AGS understands the project, the existing structures and associated improvements will be razed to allow for construction of a new motel structure. It is currently anticipated that the new motel will consist of a multi-story "podium" structure having three stories of motel units over one story of subterranean parking. Current plans call for the finish surface of the subterranean garage slab to be at an elevation of -1.5 feet below sea level Associated improvements including storm water BMPs are anticipated.

2.0 PREVIOUS STUDIES

AGS previously performed geotechnical studies (AGS, 2017a, 2017b and 2017c) for the proposed project which included excavation of three (3) exploratory borings (HS-1 though HS-3) to a depth of 50 feet and six (6) site specific infiltration borehole testing (P-1 through P-6) ranging in depth from 3 to 6 feet.



N

USGS SITE LOCATION MAP

2912 GARRISON STREET
SAN DIEGO, CALIFORNIA

FIGURE 1

SOURCE MAP(S): POINT LOMA QUADRANGLE CALIFORNIA - SAN DIEGO CO. 7.5 MINUTE SERIES (TOPOGRAPHIC)

AGS
ADVANCED GEOTECHNICAL SOLUTIONS, INC.
485 Corporate Drive, Suite B, Escondido Ca, 92029
Telephone: (619) 867-0487 Fax: (714) 786-5661
P/W 1611-03

3.0 CURRENT FIELD INVESTIGATION

To further evaluate the feasibility of storm water infiltration across the entire site, three (3) additional double ring infiltrometer tests were performed within areas not tested during our previous studies. The double ring infiltrometer tests were perfomed in general conformance with Appendix D, Section D.3.3.2 of the current BMP Design Manual. The double ring infiltrometer tests ranged in depth from 36 to 62 inches below ground surface. A geologist from AGS continuously logged the excavations used for the double ring test borings for soil/geology/stratigraphy. Locations of the double ring infiltrometer tests are shown on Plate 1 (Infiltration Test Location Plan).

4.0 GEOLOGY

The site is underlain by old paralic deposits at depth and mantled by a relatively thin veneer of artificial fill near the surface. All infiltration tests (P-1 through P-9) with the exception or P-3 extended into old paralic deposits (Qop_6) which were observed to underlie undocumented artificial fill (afu). Infiltration test boring P-3 extended into undocumented artificial fill (afu). The undocumented artificial fill encountered within the borings advanced during this infiltration investigation consisted predominantly of medium dense, silty sand with clay in moist to wet condition. The upper portion of the old paralic deposits encountered generally consisted of interbedded fine-grained clayey sand and sandy clay in a wet to saturated and loose/firm to moderately dense/stiff condition. Observed bedding ranged from laminar to thickly bedded but was generally observed to be thinly bedded.

5.0 TEST PROCEDURES

5.1. Borehole Percolation

Infiltration tests P-1 through P-6 were performed via borehole percolation test method. The test holes were advanced utilizing a 6-inch diameter hand auger. The resulting test holes were cleaned of loose debris then successively filled with clean, potable water and allowed to pre-soak. The following day the test holes were cleaned of sediment and the bottom was lined with approximately 2-inches of washed gravel prior to infiltration testing. A series of falling head infiltration tests were performed. The test holes were filled with clean, potable water to approximately 24 inches above the infiltration surface and allowed to infiltrate. The water level was allowed to drop for a 30-minute period, the water level was then measured and the drop rate calculated in inches per hour. The test hole was then refilled with water as necessary and the test procedure was repeated over the course of 6 hours, and until a stabilized percolation rate was recorded. The stabilized percolation

rate was then converted to an infiltration rate based on the "Porchet Method" utilizing the following equation:

$$I_t = \frac{\Delta H\, \pi r^2 60}{\Delta t(\pi r^2 + 2\pi r H_{avg})} = \frac{\Delta H\, 60\, r}{\Delta t(r + 2H_{avg})}$$

Where:

I_t = tested infiltration rate, inches/hour
ΔH = change in head over the time interval, inches
Δt = time interval, minutes
r = effective radius of test hole
H_{avg} = average head over the time interval, inches

5.2. Double-Ring Infiltrometer

Infiltration tests P-7 through P-9 were performed via the double-ring infiltrometer. The test holes were excavated utilizing hand tools. The resulting holes were cleaned of loose debris and two open cylinders, one inside the other were driven into the ground. The rings were then partially filled with water and the water level was maintained. The volume of water added to the inner ring, to maintain the water level constant was measured and recorded as the volume of water that infiltrates the soil. The volume infiltrated during timed intervals was converted to an incremental infiltration velocity, in inches per hour. The maximum-steady state velocity was used as the infiltration rate.

6.0 TEST RESULTS AND PRELIMINARY DESIGN VALUES

The results of our testing are summarized in Table 1 below.

TABLE 1
SUMMARY OF INFILTRATION TEST RESULTS

Test Hole No.	Depth of Test Hole	Approximate Test Elevation	Geologic Unit	Description	Tested Infiltration Rate (inches/hour)
P-1	60 inches	6.0 ft msl	Qop_6	Clayey Sand/Sandy Clay	0.00
P-2	60 inches	6.0 ft msl	Qop_6	Clayey Sand	0.14
P-3	38 inches	5.2 ft msl	afu	Clayey Sand to Sandy Silt	0.03
P-4	34 inches	5.7 ft msl	Qop_6	Clayey Sand	0.00
P-5	36 inches	6.1 ft msl	Qop_6	Clayey Sand	0.00
P-6	36 inches	6.0 ft msl	Qop_6	Clayey Sand	0.00
P-7	36 inches	5.9 ft msl	Qop_6	Clayey Sand	0.002
P-8	64 inches	3.7 ft msl	Qop_6	Clayey Sand	0.001
P-9	61 inches	2.6 ft msl	Qop_6	Clayey Sand	0.0006

It is our understanding that a factor of safety of 2 should be applied to the tested infiltration rates when the rates indicate a condition other than full infiltration. Table 2 summarizes the preliminary design infiltration rates utilizing a factor of safety of 2.

TABLE 2
SUMMARY OF PRELIMINARY DESIGN INFILTRATION RATES

Test Hole No.	Tested Infiltration Rate (in./hr.)	Factor of Safety	Design Infiltration Rate (in./hr.)
P-1	0	2.0	0.00
P-2	0.14	2.0	0.07
P-3	0.03	2.0	0.01
P-4	0.00	2.0	0.00
P-5	0.00	2.0	0.00
P-6	0.00	2.0	0.00
P-7	0.002	2.0	0.001
P-8	0.001	2.0	0.007
P-9	0.0006	2.0	0.0003

7.0 DESIGN CONSIDERATIONS

7.1. Groundwater

Static groundwater was not observed within hand auger excavations but was encountered within the deeper exploratory borings (HS-1 through HS-3) at a depth of approximately fifteen (15) feet below ground surface. However, nearby monitoring well data suggests historical high ground water is approximately eleven (11) feet below ground surface. Further, it is anticipated that static groundwater elevations may fluctuate due to tides given the close proximity of the San Diego Bay (approximately 280 ft). Perched groundwater was encountered between three (3) and four (4) feet below ground surface during our previous subsurface exploration at the site.

7.2. Geotechnical Hazards

There are no significant geotechnical hazards known to exist on or adjacent to the project site.

7.3. Soil Contamination

During our recent site investigation, no evidence of soil contamination was observed, nor is any contamination known to exist onsite. Utilizing an online resource; Geotracker.ca.gov, showed an open Leaking Underground Storage Tank (LUST) cleanup site that is open. The cleanup site is located at Northern Trust of CA, which is about 750 feet from the proposed project site. The investigation opened in 2000 and soil samples collected at a depth of 15 feet below ground surface were saturated with petroleum hydrocarbons. Northern Trust of CA sits at a higher elevation than the proposed project site and the contaminant plume has not migrated to the project site. It is not anticipated that infiltration would lead to spread of contamination.

7.4. Soil Characteristics and Anticipated Flow Paths

The soils underlying the project site are identified as Old Paralic Deposits, Unit 6 and generally consist of interbedded clayey sands and sandy clay. Based on site specific testing and our previous experience in the project area, the clay soils underlying the site are considered to be impermeable

when saturated and the silty to clayey sand soils have low to moderate permeability. Minor to moderate lateral flow will occur within the confined sand layers. However, in consideration of the thinly interbedded nature of the soils, the capacity for vertical infiltration is negligible.

7.5. **Proximity to Water Supply Wells**

There are no known water supply wells within the project vicinity.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our preliminary infiltration testing, the onsite native soils (Old Paralic Deposits) possess preliminary design infiltration rates ranging between **0.0 to 0.07 inches/hour** with an average preliminary design infiltration rate of less than **0.0097 inches/hour.** The average rate indicates a No Infiltration condition based on the City's current interpretation of 'appreciable rate' as being greater than or equal to 0.01 inches/hour.

Advanced Geotechnical Solutions, Inc. appreciates the opportunity to provide you with geotechnical consulting services and professional opinions. If you have any questions, please contact the undersigned at (619) 867-0487.

Respectfully Submitted,
Advanced Geotechnical Solutions, Inc.

Prepared by:

SHANE P. SMITH
Staff Engineer

Reviewed by:

JEFFREY A. CHANEY, President
RCE 46544 / RGE 2314, Reg. Exp. 6-30-19

REGISTERED PROFESSIONAL ENGINEER
JEFFREY A. CHANEY
No. 2314
GEOTECHNICAL
STATE OF CALIFORNIA

Distribution: (6) Addressee

Attachments: References
Figure 1 – Site Location Map
Appendix A- Storm Water Standards BMP Design Manual - Worksheet Form C.4-1
Appendix B- Boring Logs
Plate 1 – Infiltration Test Location Plan

REFERENCES

Advanced Geotechnical Solutions, Inc., 2016, "Proposal for Geotechnical Services Associated with the Design of the Dolphin Motel Project", San Diego, California", dated November 28, 2016, Report No. 1611-03-A-1.

---. (2017a). "Preliminary Infiltration Feasibility Study, Dolphin Motel Project, Point Loma San Diego, California", dated April 7, 2017, Report No. 1611-03-B-2

---. (2017b). "Preliminary Geotechnical Investigation and Foundation Design Recommendations for Proposed Residential Multi-Family Podium Apartment Structure (Garrison Street) Dolphin Motel Project, San Diego, California", dated April 10, 2017, Report No. 1611-03-B-3

---. (2017c). "Updated Preliminary Infiltration Feasibility Study, Dolphin Motel Project, Point Loma San Diego, California", dated June 12, 2017, Report No. 1611-03-B-5

American Society for Testing and Materials (2008), Annual Book of ASTM Standards, Section 4, Construction, Volume 04.08, Soil and Rock (I), ASTM International, West Conshohocken, Pennsylvania.

California Building Standards Commission, 2016, California Building Code, Title 24, Part 2, Volumes 1 and 2.

City of San Diego, 2016, Transportation & Storm Water, Storm Water Standard – BMP Design Manual, January 2016 Edition.

Jennings, C.W., 1994, Fault Activity Map of California and Adjacent Areas: California Geological Survey, California Geologic Data Map No. 6, Scale 1:750,000.

Kennedy, M.P., and Tan, S.S., 2008, Geologic Map of the San Diego 30' x 60' Quadrangle, California Regional Geologic Map Series, Scale = 1:100,000, Map No. 3, Sheet 1 of 2.

State of California Water Boards, September 23, 2016, *http://geotracker.waterboards.ca.gov/*

Tan, S.S., 1995, Landslide Hazards in the Southern Part of the San Diego Metropolitan Area, San Diego County, California, Landslide Hazard Identification Map No. 33, Plate 33A, Division of Mines and Geology, Open File Report 95-03.

APPENDIX A

STORM WATER STANDARDS BMP DESIGN MANUAL – WORKSHEET FORM C.4-1

Categorization of Infiltration Feasibility Condition	Worksheet C.4-1

Part 1 - Full Infiltration Feasibility Screening Criteria

Would infiltration of the full design volume be feasible from a physical perspective without any undesirable consequences that cannot be reasonably mitigated?

Criteria	Screening Question	Yes	No
1	Is the estimated reliable infiltration rate below proposed facility locations greater than 0.5 inches per hour? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2 and Appendix D.	☐	☒

Provide basis:

Nine (9) infiltration tests (P-1 though P-9) have performed at the project site. The stabilized percolation rates overserved in the field have been converted to inflation rates. Using a factor of safety of 2, the onsite soils possess infiltration rates ranging between 0.00 and 0.07 inches/hour with an average infiltration rate of less than 0.5 inches/hour. A more detailed discussion of the site specific infiltration testing can be found in our, "Updated Preliminary Infiltration Feasibility Study, Dolphin Motel Project, Point Loma San Diego, California", dated November 20, 2017, Report No. 1611-03-B-7.

Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.

2	Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of geotechnical hazards (slope stability, groundwater mounding, utilities, or other factors) that cannot be mitigated to an acceptable level? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2.	☐	☒

Provide basis:

Design Infiltration rates at the project site are less than 0.5 inches/hour. As such, this screening question does not control the feasibility of infiltration at the project site and is not applicable.

Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.

Worksheet C.4-1 Page 2 of 4			
Criteria	Screening Question	Yes	No
3	Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of groundwater contamination (shallow water table, storm water pollutants or other factors) that cannot be mitigated to an acceptable level? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.	☐	☒
Provide basis: The preliminary design infiltration rates at the project site are less than 0.5 inches/hour. Infiltration at a rate greater than 0.5 inches/hour is not feasible for this project. As such, this screening question does not control the feasibility of infiltration at the project site. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
4	Can infiltration greater than 0.5 inches per hour be allowed without causing potential water balance issues such as change of seasonality of ephemeral streams or increased discharge of contaminated groundwater to surface waters? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.	☐	☒
Provide basis: The design infiltration rates at the project site are less than 0.5 inches/hour. Infiltration at a rate greater than 0.5 inches/hour is not feasible for this project. As such, this screening question does not control the feasibility of infiltration at the project site. Per Section C.4.4 of the BMP Design Manual, final determination should be made by the project design engineer. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
Part 1 Result*	If all answers to rows 1-4 are "Yes" a full infiltration design is potentially feasible. The feasibility screening category is Full Infiltration If any answer from row 1-4 is "No", infiltration may be possible to some extent but would not generally be feasible or desirable to achieve a "full infiltration" design. Proceed to Part 2		No, full infil-tration is not feasible

**To be completed using gathered site information and best professional judgment considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by the City Engineer to substantiate findings*

Part 2 – Partial Infiltration vs. No Infiltration Feasibility Screening Criteria

Would infiltration of water in any appreciable amount be physically feasible without any negative consequences that cannot be reasonably mitigated?

Criteria	Screening Question	Yes	No
5	Do soil and geologic conditions allow for infiltration in any appreciable rate or volume? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2 and Appendix D.	☐	☒

Provide basis:

Site specific infiltration testing yielded preliminary design infiltration rates (utilizing a factor of safety of 2) ranging between 0.00 and 0.07 inches/hour with an average rate of less than 0.0097 inches/hour. In addition the subsurface soils encountered are relatively dense and possess high fines content, and perched groundwater was encountered at shallow depths during previous geotechnical studies at the site. Infiltration at the project site is anticipated to be negligible. It is anticipated that over the lifetime of the development the infiltration rates will further diminish. The BMP Design Manual utilizes the subjective terminology of 'appreciable' and fails to define a lower bound infiltration rate. It is our current understanding that an 'appreciable' infiltration rate is interpreted to be an infiltration rate of 0.01 in/hr or greater. Therefore, in consideration of the current interpretation, the soil and geologic conditions at the project site locally does not allow for infiltration in an 'appreciable' rate or volume. A more detailed discussion of the site specific infiltration testing can be found in our, "Updated Preliminary Infiltration Feasibility Study, Dolphin Motel Project, Point Loma San Diego, California", dated November 20, 2017, Report No. 1611-03-B-7.

6	Can Infiltration in any appreciable quantity be allowed without increasing risk of geotechnical hazards (slope stability, groundwater mounding, utilities, or other factors) that cannot be mitigated to an acceptable level? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2.	☐	☒

Provide basis:

As stated in response to criteria 5; it is our current understanding that an 'appreciable' infiltration rate is interpreted to be an infiltration rate of 0.01 in/hr or greater. Therefore, in consideration of the current interpretation, the soil and geologic conditions at the project site does not allow for infiltration in an 'appreciable' rate or volume. As such, this screening question does not control the feasibility of infiltration at the project site.

Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.

Worksheet C.4-1 Page 4 of 4			
Criteria	Screening Question	Yes	No
7	Can Infiltration in any appreciable quantity be allowed without posing significant risk for groundwater related concerns (shallow water table, storm water pollutants or other factors)? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.	☐	☒
Provide basis: As stated in response to previous screening questions; it is our current understanding that an 'appreciable' infiltration rate is interpreted to be an infiltration rate of 0.01 in/hr or greater. Therefore, in consideration of the current interpretation, the soil and geologic conditions at the project site locally does not allow for infiltration in an 'appreciable' rate or volume. As such, this screening question does not control the feasibility of infiltration at the project site. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.			
8	Can infiltration be allowed without violating downstream water rights? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.	☐	☒
Provide basis: It is not anticipated that infiltration would violate downstream water rights; however, per Section C.4.4 of the BMP Design Manual, final determination should be made by the project design engineer. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.			
Part 2 Result*	If all answers from row 5-8 are "Yes", then partial infiltration design is potentially feasible. The feasibility screening category is Partial Infiltration. If any answer from row 5-8 is "No", then infiltration of any volume is considered to be infeasible within the drainage area. The feasibility screening category is No Infiltration.		No Infil-tration

**To be completed using gathered site information and best professional judgment considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by the City Engineer to substantiate findings*

APPENDIX B

BORING LOGS

BORING NUMBER HS-1

AGS
ADVANCED GEOTECHNICAL SOLUTIONS, INC.

CLIENT Alliance Development Services Inc.
PROJECT NAME Dolphin Motel
PROJECT NUMBER 1611-03
PROJECT LOCATION Point Loma
DATE STARTED 2/1/17 **COMPLETED** 2/1/17
GROUND ELEVATION 11 ft **HOLE SIZE** 8
DRILLING CONTRACTOR 2R-Drilling
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
▽ **AT TIME OF DRILLING** 15.00 ft / Elev -4.00 ft
LOGGED BY SS **CHECKED BY** JAC
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	USCS	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	SATURATION (%)	FINES CONTENT (%)	OTHER TESTS
10	0		SM	**Artificial Fill - Undocumented (afu):** SILTY SAND, fine to medium grained, brown, moist to wet, loose							
	5			@ 4.0 ft, SILTY SAND, fine to medium grained, brown, saturated, loose; perched water							
5			SC	@ 5.0 ft, CLAYEY SAND, fine to medium grained, mottled brown to gray, wet, medium dense	MC	7-4-5 (9)	116	14.9	88		
			SC	**Old Paralic Deposits (Qop6):** CLAYEY SAND, fine to medium grained, brown, wet, moderately dense; interbedded sand and clay							
	10			@ 10.0 ft, CLAYEY SAND, fine to medium grained, brown, wet, moderately dense; interbedded sand and clay	SPT	3-7-7 (14)					
0											
	15			▽							
-5			CL	@ 15.0 ft, SANDY CLAY, fine grained, brown, wet, hard; interbedded sand and clay	MC	8-14-18 (32)	117	16.3	100		Consol
	20										
-10			SM	@ 20.0 ft, SILTY SAND, very fine grained, tan to brown, moist, very dense	SPT	5-9-11 (20)		19.0			
	25										
-15				@ 25.0 ft, SILTY SAND, fine grained, tan to brown, saturated, dense	MC	5-10-20 (30)	101	21.0	85	23	SA, Shear
	30										
-20				@ 30.0 ft, SILTY SAND, fine to medium grained, tan to brown, saturated, dense	SPT	7-15-27 (42)					
	35										

(Continued Next Page)

AGS
ADVANCED GEOTECHNICAL SOLUTIONS, INC.

CLIENT Alliance Development Services Inc. **PROJECT NAME** Dolphin Motel

PROJECT NUMBER 1611-03 **PROJECT LOCATION** Point Loma

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	USCS	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	SATURATION (%)	FINES CONTENT (%)	OTHER TESTS
	35		SM	@ 35.0 ft, SILTY SAND, fine to medium grained, tan to brown, saturated, medium dense	MC	3-5-22 (27)	100	23.0	90		
-25											
	40			@ 40.0 ft, SILTY SAND, fine to medium grained, tan to brown, saturated, moderately dense; interbedded sand and clay, lense of seashells	SPT	4-5-7 (12)		21.0		23	
-30											
	45		SC	@ 45.0 ft, CLAYEY SAND, fine to medium grained, reddish brown, saturated, very dense	MC	18-30-44 (74)	120	15.0	99		
-35											
	50			@ 50.0 ft, CLAYEY SAND, fine to medium grained, reddish brown, saturated, dense	SPT	13-16-18 (34)					

Total Depth = 50.0 ft
Ground Water at 15.0 ft
Backfilled with Bentonite and Cement Grout

BORING NUMBER HS-2R

AGS
ADVANCED GEOTECHNICAL SOLUTIONS, INC.

CLIENT Alliance Development Services Inc.
PROJECT NAME Dolphin Motel
PROJECT NUMBER 1611-03
PROJECT LOCATION Point Loma
DATE STARTED 2/1/17 **COMPLETED** 2/1/17
GROUND ELEVATION 11 ft **HOLE SIZE** 8
DRILLING CONTRACTOR 2R-Drilling
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
▽ **AT TIME OF DRILLING** 15.00 ft / Elev -4.00 ft
LOGGED BY SS **CHECKED BY** JAC
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	USCS	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	SATURATION (%)	FINES CONTENT (%)	OTHER TESTS
	0			0-6 inches of Asphalt							
10			SM	**Artificial Fill - Undocumented (afu):** SILTY SAND, fine to medium grained, brown, moist to wet, loose	BU						Max, EI, Chem
			SC	**Old Paralic Deposit (Qop6):** CLAYEY SAND, fine to medium grained, mottled brown to gray, wet, loose							
	5				SPT	1-1-2 (3)					
5											
	10			@ 10.0 ft, CLAYEY SAND, fine to medium grained, dark gray to brown, moist to wet, medium dense	MC	8-10-12 (22)	113	18.4	100		
0											
	15			▽							
			SM	@ 15.0 ft, SILTY SAND, fine to medium grained, light brown to tan, moist, moderately dense	SPT	5-8-9 (17)					
-5											
	20			@ 20.0 ft, SILTY SAND, fine grained, light brown to tan, saturated, moderately dense	MC	9-11-14 (25)	108	20.5	99		Consol
-10											
	25			@ 25.0 ft, SILTY SAND, fine grained, light brown to tan, saturated, moderately dense	SPT	5-7-9 (16)					
-15											
	30			@ 30.0 ft, SILTY SAND, fine grained, light brown to tan, saturated, dense	MC	6-17-28 (45)	98	25.1	95		
-20											
	35										

(Continued Next Page)

AGS
ADVANCED GEOTECHNICAL SOLUTIONS, INC.

CLIENT Alliance Development Services Inc. **PROJECT NAME** Dolphin Motel

PROJECT NUMBER 1611-03 **PROJECT LOCATION** Point Loma

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	USCS	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	SATURATION (%)	FINES CONTENT (%)	OTHER TESTS
	35										
-25			CL	@ 35.0 ft, SANDY CLAY, fine to medium grained, orange brown to brown, saturated, medium dense; mottling iron oxide	SPT	6-11-18 (29)					
	40			@ 40.0 ft, SANDY CLAY, fine to medium grained, orange brown to brown, saturated, dense	MC	8-16-25 (41)	115	17.1	100		
-30											
	45			@ 45.0 ft, SANDY CLAY, fine to medium grained, orange brown to brown, saturated, dense	SPT	9-15-23 (38)					
-35											
	50			@ 50.0 ft, SANDY CLAY, fine to medium grained, orange brown to brown, saturated, very dense	MC	16-24-40 (64)	106	21.1	96		

Total Depth = 50.0 ft
Ground Water at 15.0 ft
Backfilled with Bentonite and Cement Grout

BORING NUMBER HS-3R

AGS
ADVANCED GEOTECHNICAL SOLUTIONS, INC.

CLIENT Alliance Development Services Inc.
PROJECT NAME Dolphin Motel
PROJECT NUMBER 1611-03
PROJECT LOCATION Point Loma
DATE STARTED 2/1/17 **COMPLETED** 2/1/17
GROUND ELEVATION 11 ft **HOLE SIZE** 8
DRILLING CONTRACTOR 2R-Drilling
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
▽ **AT TIME OF DRILLING** 15.00 ft / Elev -4.00 ft
LOGGED BY SS **CHECKED BY** JAC
AT END OF DRILLING —
NOTES
AFTER DRILLING —

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	USCS	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	SATURATION (%)	FINES CONTENT (%)	OTHER TESTS
	0			4 inches of Concrete							
10			SM	**Artificial Fill - Undocumented (afu):** SILTY SAND, fine to medium grained, tan to brown, slightly moist, loose	BU						Remolded Shear
			SC	**Old Paralic Deposit (Qop6):** CLAYEY SAND, fine to medium grained, mottled brown to dark brown, moist, moderately dense; roots and orgaincs							
	5				MC	3-4-7 (11)	103	19.6	83		
5											
	10			@ 10.0 ft, CLAYEY SAND, fine to medium grained, mottled brown to dark brown, moist, moderately dense	SPT	3-4-6 (10)					
0											
	15			▽							
-5			SM	@ 15.0 ft, SILTY SAND, fine to medium grained, gray to brown, saturated, moderately dense to dense; with mottling	MC	5-11-18 (29)	108	20.3	98	39	Consol
	20			@ 20.0 ft, SILTY SAND, fine to medium grained, gray to brown, saturated, loose	SPT	5-4-4 (8)		29.0		30	
-10											
	25			@ 25.0 ft, SILTY SAND, fine to medium grained, tan to brown, saturated, dense	MC	11-15-28 (43)	98	26.0	97		
-15											
	30			@ 30.0 ft, SILTY SAND, fine grained, tan to brown, saturated, moderately dense	SPT	7-13-15 (28)					
-20											
	35										

(Continued Next Page)

AGS
ADVANCED GEOTECHNICAL SOLUTIONS, INC.

CLIENT Alliance Development Services Inc. **PROJECT NAME** Dolphin Motel

PROJECT NUMBER 1611-03 **PROJECT LOCATION** Point Loma

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	USCS	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	SATURATION (%)	FINES CONTENT (%)	OTHER TESTS
	35										
-25			SM	@ 35.0 ft, SILTY SAND, fine grained, tan to brown, saturated, very dense	MC	10-26-42 (68)	103	22.7	96		
	40										
-30			CL	@ 40.0 ft, SANDY CLAY, fine to medium grained,orange brown to brown, saturated, very stiff	SPT	7-11-17 (28)		16.0			
	45										
-35				@ 45.0 ft, SANDY CLAY, fine to medium grained, orange brown to brown, saturated, hard	MC	16-16-17 (33)	114	17.0	96		
	50			@ 50.0 ft, SANDY CLAY, fine to medium grained, orange brown to brown, saturated, very stiff	SPT	4-8-17 (25)					

Total Depth = 50.0 ft
Ground Water at 15.0 ft
Backfilled with Bentonite and Cement Grout

CONSTRUCTION NOTES

1. C/L PROPOSED 25' DRIVEWAY PER SDG-163
2. PROPOSED PED RAMP PER SDG-132
3. REMOVE AND REPLACE EXISTING DRIVEWAY WITH CURB GUTTER AND SIDEWALK (TYPICAL)
4. REMOVE EX CONCRETE, REPLACE WITH PLANTER (TYPICAL)
5. PROPOSED SIDEWALK PER SDG-155
6. KILL EXISTING WATER SERVICE (TYPICAL)
7. ABANDON EXISTING SEWER LATERAL AT P/L (TYPICAL)
8. PROPOSED 6" SEWER LATERAL
9. PROPOSED 2" WATER SERVIDE
10. PROPOSED 4" FIRE SERVICE
11. VISIBILITY TRIANGLE (TYPICAL)
12. MAIN FLOOR PARKING AREA CATCH BASIN (TYPICAL)
13. PVC DRAIN (TYPICAL)
14. CATCH BASIN WITH PUMP (AT GROUND LEVEL) TO CONVEY MAIN FLOOR AND PARKING RAMP RUNOFF TO BIOFILTRATION BASIN. INCLUDES OVERFLOW TO CURB OULET IN THE CASE OF PUMP FAILURE V100 = 4.0 FPS
15. BIOFILTRATION BASIN TO TREAT RUNOFF FROM ROOF (500 SF) (BMP-1)
16. BIOFILTRATION BASIN TO TREAT RUNOFF FROM MAIN LEVEL (213 SF) (BMP-2)
17. RAMP TRENCH DRAIN WITH PUMP TO CONVEY RUNOFF TO CATCH BASIN 14 AND THEN TO BIOFILTRATON BASIN
18. OUTLINE OF ROOFF
19. CURB OUTLET PER D-25 Q100 = 0.45 CFS V100 = 2.2 FPS
20. CURB OUTLET PER D-25 Q100 = 1.12 CFS V100 = 3.1 FPS
21. PROPOSED BACKFLOW PREVENTER (TYPICAL)
22. PROPOSED ONSITE POROUS PAVING AREA

TITLE NOTES

2. AN EASEMENT OR RIGHT OF WAY FOR THE CONSTRUCTION AND MAINTENANCE OF FLUMES, CANALS OR AQUEDUCTS, CONVEYED BY DEED FROM FRANK A. KIMBALL, AND WARREN G. KIMBALL TO KIMBALL BROTHERS WATER COMPANY, A CORPORATION, DATED JUNE 9, 1869, AND RECORDED IN BOOK 7, PAGE 124 OF DEEDS. THE INTEREST OF SAID GRANTEE IN AND TO SAID EASEMENT HAS SINCE PASSED TO AND NOW VESTS OF RECORD IN THE SWEETWATER AUTHORITY. THE LOCATION AND EXTENT OF SAID EASEMENT IS NOT DISCLOSED OF RECORD AND IS NOT PLOTTED.
3. AN EASEMENT FOR SEWER PURPOSES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED JUNE 12, 1928 IN BOOK 1610, PAGE 12, OF DEEDS, OF OFFICIAL RECORDS.
4. AN EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF A PRIVATE SEWER LATERAL AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED FEBRUARY 4, 1944 IN BOOK 1833, PAGE 177 OF OFFICIAL RECORDS.
5. AN EASEMENT FOR POLES AND WIRES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED MAY 29, 1944 IN BOOK 1684, PAGE 263, OF OFFICIAL RECORDS.
6. AN EASEMENT FOR PUBLIC STREET AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, RECORDED MARCH 3, 1969 IN BOOK 7527, PAGE 49 OF OFFICIAL RECORDS.
7. AN EASEMENT FOR POLES AND WIRES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED IN BOOK 1688, PAGE 116, OF OFFICIAL RECORDS.
9. AN EASEMENT FOR COMMUNICATION STRUCTURES AND RIGHTS INCIDENTAL THERETO, GRANTED TO THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, RECORDED MAY 11, 1966 AS INSTRUMENT NO. 79002, OF OFFICIAL RECORDS.

LEGAL DESCRIPTION

LOTS 1 AND 2, BLOCK 62 OF ROSEVILLE, CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, ACCORDING TO MAP THEREOF NO. 165 FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, EXCEPTING THAT PORTION IF ANY HERETO FORE OR NOW LYING BELOW THE ORDINARY HIGH TIDE LINE OF THE BAY OF SAN DIEGO.

LOT 3 IN BLOCK 62 OF ROSEVILLE, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 165, FILED IN THE OFFICE OF THE RECORDER OF SAN DIEGO COUNTY. EXCEPTING THAT PORTION, IF ANY, HERETOFORE OR NOW LYING BELOW THE ORDINARY HIGH TIDE LINE OF THE BAY OF SAN DIEGO.

LOTS 4 AND 5 IN BLOCK 62, OF ROSEVILLE, IN CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 165, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY.

APNs: 530-751-01,02,03,04 AND 05

BASIS OF BEARINGS

A PORTION OF THE MEAN HIGH TIDE LINE AS SHOWN ON SHEET 3 OF RECORD OF SURVEY 20732. I.E. SOUTH 37°29'53" WEST.

APN / ADDRESS

ASSESSOR'S PARCEL NUMBERS: 530-751-01,02,03,04 AND 05

ADDRESS: 1453-1455 AND 1461-1463 ROSECRANS ST AND 2912 AND 2930 GARRISON ST SAN DIEGO, CA 92106

BENCHMARK

CITY OF SAN DIEGO BENCHMARK BRASS PLUG LOCATED IN THE TOP OF CURB AT THE WESTERLY CORNER OF ROSECRANS STREET AND GARRISON STREET. ELEVATION = 8.474' MEAN SEA LEVEL (N.G.V.D. 1929).

NOTES

1. UTILITIES SHOWN HEREON ARE FROM CITY OF SAN DIEGO RECORDS AND ARE THEIR LOCATION ARE APPROXIMATE. NOT ALL UTILITIES MAY BE SHOWN. BEFORE ANY WORK TAKES PLACE CONTRACTOR SHALL HAVE ALL UTILITIES MARKED OUT AND SHALL USE SPECIAL CARE DURING CONSTRUCTION.
2. TITLE INFORMATION FOR THIS PROJECT IS FROM FIDELITY NATIONAL TITLE COMPANY PRELIMINARY REPORT ORDER NO. 005-23088597-1MB, DATED OCTOBER 7, 2016 AND CHICAGO TITLE PRELIMINARY REPORT ORDER NO. 00699101-993-SD2-CFU, DATED MARCH 16, 2017. ITEMS OTHER THAN EASEMENTS EXIST. SEE TITLE REPORTS FOR DETAILS.
3. THE SOURCE OF THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS FROM SURVEY BY CHRISTENSEN ENGINEERING & SURVEYING, DATED 01-07-13 AND REVISED 01-09-13.
4. THE SUBJECT PROPERTY IS SERVED BY CITY OF SAN DIEGO SANITARY SEWER AND WATER MAINS.
5. NAD27 COORDINATES = 204-1698. NAD83 COORDINATES = 1844-6258.
6. TITLE ITEM 3 TO BE VACATED. TITLE ITEMS 4, 5, 7 & 9 TO BE QUITCLAIMED.
7. AN ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT WILL BE REQUIRED FOR PRIVATE CURB OUTLETS AND WALKWAYS WITHIN ROSECRANS AND GARRISON STREET RIGHTS OF WAY

GRADING DATA

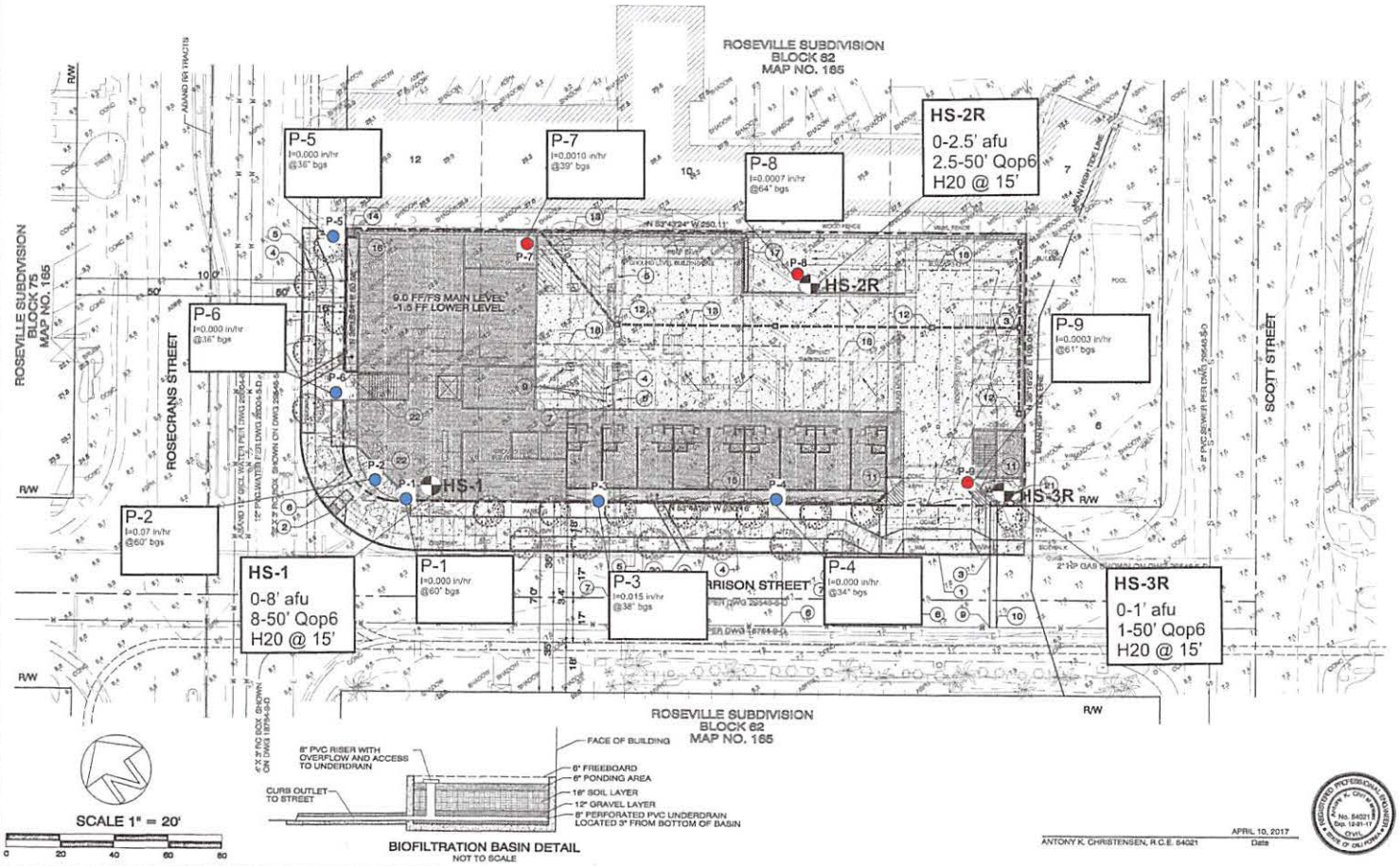
AREA OF SITE - 24,941 S.F.
AREA OF SITE TO BE GRADED: 24,941 SF
PERCENT OF SITE TO BE GRADED: 100%
AREA OF SITE WITH SLOPES GREATER THAN 25%: 0 S.F.

AMOUNT OF CUT - 9160 C.Y.
AMOUNT OF FILL - 180 C.Y.
AMOUNT OF EXPORT - 8,980 C.Y.
MAXIMUM FILL - <1
MAXIMUM CUT - 11 FOOT VERTICAL WITHIN STRUCTURE
NONE ELSEWHERE
MAXIMUM HEIGHT OF FILL SLOPE - NONE
MAXIMUM HEIGHT OF CUT SLOPE - NONE
RETAINING WALL: NONE NOT A PART OF BUILDING

EARTHWORK CALCULATIONS ARE APPROXIMATE TO FINISH FLOOR/SURFACE

INFILTRATION RATES	
ID	Rate (in/hr)
P-1	0.0000
P-2	0.0700
P-3	0.0150
P-4	0.0000
P-5	0.0000
P-6	0.0000
P-7	0.0010
P-8	0.0007
P-9	0.0003
AVERAGE =	0.0097

(FS = 2.0)



SCALE 1" = 20'

0 20 40 60 80

BIOFILTRATION BASIN DETAIL
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER ANTONY K. CHRISTENSEN No. 84021 Exp. 12-31-17 CIVIL STATE OF CALIFORNIA

APRIL 10, 2017
ANTONY K. CHRISTENSEN, R.C.E. 84021 Date

0 10 20 40 60
(IN FEET)
1 inch = 20 ft.

Owners:
PL BOUTIQUE INVESTORS LLC
17828 VILLAMOURA DR
POWAY CA 92064-1013

Prepared By:
CHRISTENSEN ENGINEERING & SURVEYING
7888 SILVERTON AVENUE, SUITE 110
SAN DIEGO, CA 92126
PHONE (858) 271-9901 FAX (858) 271-9904

Project Address:
1453-1455 AND 1461-1463 ROSECRANS ST AND 2912 AND 2930 GARRISON ST SAN DIEGO, CA 92106

Project Name:
DOLPHIN MOTEL

Sheet Title:
PRELIMINARY GRADING PL

LEGEND:
- P-1 — Approximate Borehole Percolation Test location (AGS, Previous Studies)
- P-7 — Approximate Double Ring Infiltrometer Test location (AGS, Current Study)
- HS-1 — Approximate Hollow Stem Boring location

Revision 4:
Revision 3:

PLATE 1
Infiltration Test Location Plan

AGS
ADVANCED GEOTECHNICAL SOLUTIONS, INC.

Project:	Report:	Date:
P/W 1611-03	1611-03-B-7	Nov. 2017

A2016-80

CONSTRUCTION NOTES

1. C/L PROPOSED 25' DRIVEWAY PER SDG-163
2. PROPOSED PED RAMP PER SDG-132
3. REMOVE AND REPLACE EXISTING DRIVEWAY WITH CURB GUTTER AND SIDEWALK (TYPICAL)
4. REMOVE EX CONCRETE. REPLACE WITH PLANTER (TYPICAL)
5. PROPOSED SIDEWALK PER SDG-155
6. KILL EXISTING WATER SERVICE (TYPICAL)
7. ABANDON EXISTING SEWER LATERAL AT P/L (TYPICAL)
8. PROPOSED 6" SEWER LATERAL
9. PROPOSED 2" WATER SERVIDE
10. PROPOSED 4" FIRE SERVICE
11. VISIBILITY TRIANGLE (TYPICAL)
12. MAIN FLOOR PARKING AREA CATCH BASIN (TYPICAL)
13. PVC DRAIN (TYPICAL)
14. CATCH BASIN WITH PUMP (AT GROUND LEVEL) TO CONVEY MAIN FLOOR AND PARKING RAMP RUNOFF TO BIOFILTRATION BASIN. INCLUDES OVERFLOW TO CURB OULET IN THE CASE OF PUMP FAILURE V100 = 4.0 FPS
15. BIOFILTRATION BASIN TO TREAT RUNOFF FROM ROOF (500 SF) (BMP-1)
16. BIOFILTRATION BASIN TO TREAT RUNOFF FROM MAIN LEVEL (213 SF) (BMP-2)
17. RAMP TRENCH DRAIN WITH PUMP TO CONVEY RUNOFF TO CATCH BASIN 14 AND THEN TO BIOFILTRATON BASIN
18. OUTLINE OF RUOFF
19. CURB OUTLET PER D-25 Q100 = 0.45 CFS V100 = 2.2 FPS
20. CURB OUTLET PER D-25 Q100 = 1.12 CFS V100 = 3.1 FPS
21. PROPOSED BACKFLOW PREVENTER (TYPICAL)
22. PROPOSED ONSITE POROUS PAVING AREA

TITLE NOTES

2. AN EASEMENT OR RIGHT OF WAY FOR THE CONSTRUCTION AND MAINTENANCE OF FLUMES, CANALS OR AQUEDUCTS, CONVEYED BY DEED FROM FRANK A. KIMBALL, AND WARREN G. KIMBALL TO KIMBALL BROTHERS WATER COMPANY, A CORPORATION, DATED JUNE 9, 1869, AND RECORDED IN BOOK 7, PAGE 124 OF DEEDS. THE INTEREST OF SAID GRANTEE IN AND TO SAID EASEMENT HAS SINCE PASSED TO AND NOW VESTS OF RECORD IN THE SWEETWATER AUTHORITY. THE LOCATION AND EXTENT OF SAID EASEMENT IS NOT DISCLOSED OF RECORD AND IS NOT PLOTTED.
3. AN EASEMENT FOR SEWER PURPOSES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED JUNE 12, 1928 IN BOOK 1510, PAGE 12, OF DEEDS, OF OFFICIAL RECORDS.
4. AN EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF A PRIVATE SEWER LATERAL AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED FEBRUARY 4, 1944 IN BOOK 1635, PAGE 177 OF OFFICIAL RECORDS.
5. AN EASEMENT FOR POLES AND WIRES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED MAY 29, 1944 IN BOOK 1684, PAGE 263, OF OFFICIAL RECORDS.
6. AN EASEMENT FOR PUBLIC STREET AND RIGHTS INCIDENTAL THERETO GRANTED TO THE CITY OF SAN DIEGO, RECORDED MARCH 3, 1959 IN BOOK 7527, PAGE 49 OF OFFICIAL RECORDS.
7. AN EASEMENT FOR POLES AND WIRES AND RIGHTS INCIDENTAL THERETO GRANTED TO THE SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED IN BOOK 1688, PAGE 116, OF OFFICIAL RECORDS.
9. AN EASEMENT FOR COMMUNICATION STRUCTURES AND RIGHTS INCIDENTAL THERETO, GRANTED TO THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, RECORDED MAY 11, 1966 AS INSTRUMENT NO. 79002, OF OFFICIAL RECORDS.

LEGAL DESCRIPTION

LOTS 1 AND 2, BLOCK 62 OF ROSEVILLE, CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, ACCORDING TO MAP THEREOF NO. 165 FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, EXCEPTING THAT PORTION IF ANY HERETO FORE OR NOW LYING BELOW THE ORDINARY HIGH TIDE LINE OF THE BAY OF SAN DIEGO.

LOT 3 IN BLOCK 62 OF ROSEVILLE, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 165, FILED IN THE OFFICE OF THE RECORDER OF SAN DIEGO COUNTY. EXCEPTING THAT PORTION, IF ANY, HERETOFORE OR NOW LYING BELOW THE ORDINARY HIGH TIDE LINE OF THE BAY OF SAN DIEGO.

LOTS 4 AND 5 IN BLOCK 62, OF ROSEVILLE, IN CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 165, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY.

APNs: 530-751-01,02,03,04 AND 05

BASIS OF BEARINGS

A PORTION OF THE MEAN HIGH TIDE LINE AS SHOWN ON SHEET 3 OF RECORD OF SURVEY 20732. I.E. SOUTH 37°29'53" WEST.

APN / ADDRESS

ASSESSOR'S PARCEL NUMBERS: 530-751-01,02,03,04 AND 05

ADDRESS: 1453-1455 AND 1461-1463 ROSECRANS ST
AND 2912 AND 2930 GARRISON ST
SAN DIEGO, CA 92106

BENCHMARK

CITY OF SAN DIEGO BENCHMARK BRASS PLUG LOCATED IN THE TOP OF CURB AT THE WESTERLY CORNER OF ROSECRANS STREET AND GARRISON STREET. ELEVATION = 8.474' MEAN SEA LEVEL (N.G.V.D. 1929).

NOTES

1. UTILITIES SHOWN HEREON ARE FROM CITY OF SAN DIEGO RECORDS AND ARE THEIR LOCATION ARE APPROXIMATE. NOT ALL UTILITIES MAY BE SHOWN. BEFORE ANY WORK TAKES PLACE CONTRACTOR SHALL HAVE ALL UTILITIES MARKED OUT AND SHALL USE SPECIAL CARE DURING CONSTRUCTION.
2. TITLE INFORMATION FOR THIS PROJECT IS FROM FIDELITY NATIONAL TITLE COMPANY PRELIMINARY REPORT ORDER NO. 005-23088597-1MB, DATED OCTOBER 7, 2016 AND CHICAGO TITLE PRELIMINARY REPORT ORDER NO. 0069801-993-SD2-CFU, DATED MARCH 16, 2017. ITEMS OTHER THAN EASEMENTS EXIST. SEE TITLE REPORTS FOR DETAILS.
3. THE SOURCE OF THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS FROM SURVEY BY CHRISTENSEN ENGINEERING & SURVEYING, DATED 01-07-13 AND REVISED 01-08-13.
4. THE SUBJECT PROPERTY IS SERVED BY CITY OF SAN DIEGO SANITARY SEWER AND WATER MAINS.
5. NAD27 COORDINATES = 204-1698. NAD83 COORDINATES = 1844-6258.
6. TITLE ITEM 3 TO BE VACATED. TITLE ITEMS 4, 5, 7 & 9 TO BE QUITCLAIMED.
7. AN ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT WILL BE REQUIRED FOR PRIVATE CURB OUTLETS AND WALKWAYS WITHIN ROSECRANS AND GARRISON STREET RIGHTS OF WAY

GRADING DATA

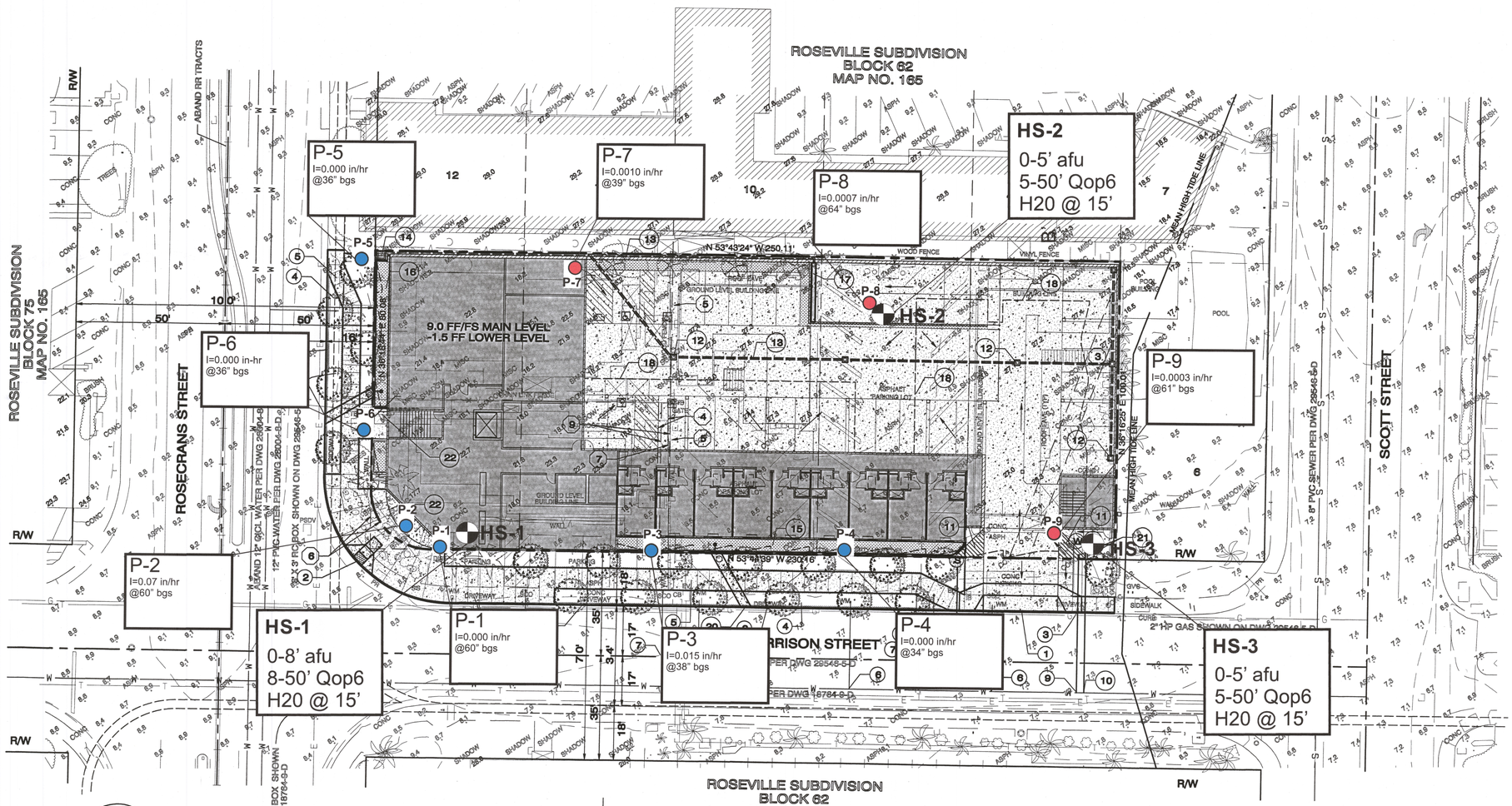
AREA OF SITE - 24,941 S.F.
AREA OF SITE TO BE GRADED: 24,941 SF
PERCENT OF SITE TO BE GRADED: 100%
AREA OF SITE WITH SLOPES GREATER THAN 25%: 0 S.F.

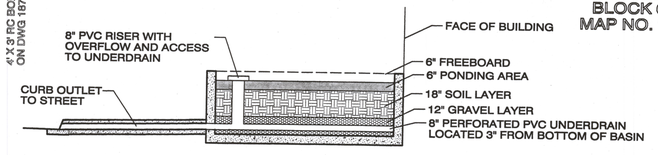
AMOUNT OF CUT - 9160 C.Y.
AMOUNT OF FILL - 180 C.Y.
AMOUNT OF EXPORT - 8,980 C.Y.
MAXIMUM FILL - <1
MAXIMUM CUT - 11 FOOT VERTICAL WITHIN STRUCTURE
NONE ELSEWHERE
MAXIMUM HEIGHT OF FILL SLOPE - NONE
MAXIMUM HEIGHT OF CUT SLOPE - NONE
RETAINING WALL: NONE NOT A PART OF BUILDING

EARTHWORK CALCULATIONS ARE APPROXIMATE TO FINISH FLOOR/SURFACE

INFILTRATION RATES	
ID	Rate (in/hr)
P-1	0.0000
P-2	0.0700
P-3	0.0150
P-4	0.0000
P-5	0.0000
P-6	0.0000
P-7	0.0010
P-8	0.0007
P-9	0.0003
AVERAGE =	0.0097

(FS = 2.0)





BIOFILTRATION BASIN DETAIL
NOT TO SCALE

0 10 20 40 60
(IN FEET)
1 inch = 20 ft.

Owners:

PL BOUTIQUE INVESTORS LLC
17828 VILLAMOURA DR
POWAY CA 92064-1013

LEGEND:

- P-1 — Approximate Borehole Percolation Test location (AGS, Previous Studies)
- P-7 — Approximate Double Ring Infiltrometer Test location (AGS, Current Study)
- HS-1 — Approximate Hollow Stem Boring location

Prepared By:

CHRISTENSEN ENGINEERING &
7888 SILVERTON AVENUE, SUITE
SAN DIEGO, CA 92126
PHONE (858) 271-9901 FAX (858)

Project Address:

1453-1455 AND 1461-1463 ROSECRANS ST
AND 2912 AND 2930 GARRISON ST
SAN DIEGO, CA 92106

Revision 4:

Revision 3:

Project Name:

DOLPHIN MOTEL

Sheet Title:

PRELIMINARY GRADING PL

PLATE 1
Infiltration Test Location Plan

ANTONY K. CHRISTENSEN, R.C.E. 54021 — APRIL 10, 2017 Date

REGISTERED PROFESSIONAL ENGINEER — Antony K. Christensen — No. 54021 Exp. 12-31-17 CIVIL — STATE OF CALIFORNIA

ADVANCED GEOTECHNICAL SOLUTIONS, INC.

Project:	Report:	Date:
P/W 1611-03		Nov. 2017

A2016-80