



City of Long Beach
Department of Development Services
 333 West Ocean Blvd., 4th Floor
 Long Beach, CA 90802
 Phone: (562) 570-5237 Fax: (562) 570-6753
 Website: www.lbds.info

Residential / 5 Units or More / Non-Residential LID Checklist

INFORMATION	PROJECT NO.:	EXPIRATION DATE:	STATUS:
	PROJECT ADDRESS:		
	WORK DESCRIPTION:		
	APPLICANT'S NAME:		TEL. NO.:
	E-MAIL:		FAX. NO.:
INSTRUCTIONS	<p>Your application for a permit, together with plans and specifications, has been examined and you are advised that the issuance of a permit is withheld for the reasons hereinafter set forth.</p> <p>Please follow the steps outlined below to ensure that your application and your responses to these plan check comments are reviewed expeditiously:</p> <ul style="list-style-type: none"> • <u>Review the comments herein apply to this plan check.</u> • Ensure revised plans and calculations incorporate or address all comments marked on the original checked set of plans, calculations, and/or this Plan Review Checklist (Checklist). Provide a written response to each comment and show where and how it has been addressed. Identify the sheet number and detail or reference note on the revised plans where the corrections are made. Once all comments on the plans, calculations, and/or this Checklist have been addressed, contact the Plan Reviewer, indicated below, to SCHEDULE AN APPOINTMENT to review the changes made. 		
	PLAN REVIEWER:	TEL. NO.:	
	ADDRESS:	333 W. OCEAN BLVD., 4 TH FLOOR, LONG BEACH, CA 90802	
	EMAIL:	WEBSITE: <u>www.lbds.info</u>	
	<ul style="list-style-type: none"> • Bring the original checked set of plans and calculations along with this Checklist to the appointment. Do not schedule an appointment with the Plan Reviewer until all comments have been addressed. • Major revisions to the plans that require additional review time may be subject to re-submittal and additional plan check fees as authorized by Section 18.05.040 of the Long Beach Municipal Code. • Reviewed plans and/or calculations not picked up within 60 days of notice will be discarded. <p>We will ensure that the re-submittal of the plans for recheck will proceed as expeditiously as possible. If an impasse is reached, you may request to speak with the Plan Check Supervisor to resolve and/or clarify the matter.</p> <p>Should you have any questions or need clarification pertaining to the comments made on your project, you may contact the plan check staff by telephone from 7:30 AM (8:30 AM Wed) to 4:30 PM (M T W TH F).</p>		
NOTE	Numbers within the parenthesis () refer to the section of the applicable code. 2016 California Building Code (CBC). Table (T). 2016 California Plumbing Code (CPC). Long Beach Municipal Code (LBMC). Ordinance No. ORD-10-0035. Health and Safety Code (HSC).		

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A. PERMIT APPLICATION

1. When all required approvals are obtained, the permit application must be signed by the property owner, licensed contractor, or authorized agent at the time the permit is to be issued:
 - a. For owner-builder permits: Owner's signature can be verified with owner's driver license. Owner's representatives must present owner's approval with a notarized letter from the owner.
 - b. For contractor building permits: Prior to the issuance of a building permit, the contractor shall have the following:
 - i. Certificate of Workers Compensation Insurance made out to the Contractors State License Board.
 - ii. Copy of Contractors State License or pocket ID.
 - iii. Copy of City of Long Beach business tax registration certificate or a newly paid receipt for one.
 - iv. Notarized letter of authorization for agents.

B. ADMINISTRATION

1. Obtain all approvals/clearances from the following department/bureau/agency noted below. Please apply immediately as it can take several weeks for some departments/bureaus/agencies to review and approve the project. All required approvals or clearances must be secured prior to permit issuance.
 - a. Building Plan Check Review (562) 570-5237
 - b. Planning Plan Check (562) 570-6194
 - c. Health Department (562) 570-4195
 - d. Public Works (562) 570-6383
 - e. Los Angeles County Flood Control District (562) 458-7894
 - f. Los Angeles County Recorder's Office (800) 201-8999

C. PLAN SUBMITTAL

1. Each sheet of the construction documents must have the stamp, wet signature, registration number, and expiration date of the Responsible Party. The Responsible Party is the Registered Civil Engineer, or Licensed Architect, or Licensed Plumbing Contractor (C-36).
2. The address of the project and the name/address of the owner are required on the first sheet of the construction documents. Include the name/address of the registered design professionals and/or consultants on the construction documents where applicable.
3. Provide the scope of work to be done on the cover sheet.
4. Two final set(s) of construction documents will be required during permit issuance. All construction documents must be:
 - a. Produced with quality blue or black line drawings with uniform and light background color.
 - b. Wet-signed by the Responsible Party, shall be included on the plans.
 - c. Wet-signed by the Responsible Party, in 8-1/2" x 11" format.
 - d. 36" x 48" maximum size with minimum 1/8" lettering size.
 - e. Accompanied with complete and accurate Plumbing Permit application.
5. Remove all plans, details or notes that do not pertain to the project from the final set of construction documents.

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D. LOW IMPACT DEVELOPMENT (LID)

GENERAL

1. Provide Best Management Practices (BMPs) to pre-treat and infiltrate / retain / reuse the first 0.75-inch rain event as required by the City of Long Beach's LID Ordinance. (Low Impact Development, Best Management Practices Design Manual – Section 3.1.3):
 - a. For new development or where redevelopment results in an alteration of at least fifty percent (50%) or more of the impervious surfaces of an existing developed site, the entire site shall comply with the standards and requirements of Section 3.1.3.
 - b. Where the redevelopment results in an alteration of less than fifty percent (50%) of the impervious surfaces of an existing developed site, only such incremental development shall comply with the standards and requirements of Section 3.1.3.
2. Provide one (1) set of full plans (plot, site, grading, civil, elevation, architectural, structural, plumbing, and landscape plans) for LID review.
3. Obtain all approvals/clearances from the following department/bureau/agency noted below. Please apply immediately as it can take several weeks for some departments/bureaus/agencies to review and approve the project. All required approvals or clearances must be secured prior to permit issuance.
 - a. Planning Bureau,
 - b. Department of Public Works,
 - c. County of Los Angeles Flood Control District.
4. Storm water from alley cannot discharge or connect to private property.
5. Plans shall indicate the method of verifying compliance with all applicable requirements from Long Beach Municipal Code (LBMC) Chapter 18.61 and the Low Impact Development, Best Management Practices Design Manual.
6. Provide sufficient clarity to indicate the location, nature, and scope of the proposed Best Management Practices (BMPs). Plans must include, but not limited to the following (Low Impact Development, Best Management Practices Design Manual – Section 4):
 - a. Existing and proposed impervious area.
 - b. Location of all BMPs on the design plans, including elevations and drainage patterns.
 - c. Detailed drawings of all BMPs, including model, size, and capacity.
 - d. Roof drainage layout and connection(s) to treatment system(s).
 - e. Stenciling notes and/or details.
 - f. Trash enclosure location and details.
 - g. Landscaping areas.
7. Provide a geotechnical investigation demonstrating technical feasibility of infiltration. The geotechnical investigation must include a letter, signed and stamped by a California licensed geotechnical engineer, explicitly stating infiltration is technically feasible or infeasible. Technical infeasibility may result from conditions including, but not limited to, the following:
 - a. The infiltration rate of saturated in-situ soils is less than 0.3 inches per hour. Note, the various media layers may be used to derive or average the measured infiltration rate.
 - b. Locations where seasonal high groundwater is within 5 to 10 feet of the surface depending on the BMP type
 - c. Locations where pollutant mobilization is a documented concern
 - d. Locations with potential geotechnical hazards

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8. Provide flow calculations identifying flow rate and / or volume of storm water runoff that must be treated. (Low Impact Development, Best Management Practices Design Manual – Appendix D)
9. Provide manufacturer’s product specifications to verify the selected BMPs model can adequately handle the design flow rate.
10. A recorded Covenant & Agreement (C&A) indicating that the owner of the subject development is aware and agrees to maintain the LID features of the project as required. The covenant shall be recorded with the Los Angeles County Registrar-Recorder/County Clerk and shall include a diagram of the site indicating the location, type, and maintenance schedule of each LID feature incorporated into the development. Prior to recordation, a copy of the covenant and all related material shall be provided to the Plan Reviewer for review and approval. (Low Impact Development, Best Management Practices Design Manual – Appendix C, Information Bulletin BU-7).
11. Plans must be submitted to the Long Beach Water Department for review of reclaim water service for irrigation systems. Provide landscape plans with wet stamp and signature of approval by the Long Beach Water Department regarding reclaim water service irrigation systems. Please contact Chris Pincherli at (562) 570-2327 or Valeri Karakanov at (562) 570-2331 for information. (LBWD Regulation Part 9)
12. For buildings located in whole or in part in flood hazard areas as established in Section 1612 of the California Building Code adopted in Chapter 18.40 Building Code, Table R301.2(1) of the California Residential Code adopted in Chapter 18.41 Residential Code, or Chapter 18.73 Floodplain Management Regulations, the construction documents shall include flood hazard documentations and design flood elevation information as required by provisions of this title, municipal code, or other ordinances of the City or laws and statutes by the State of California. (LBMC 18.05.030.A.11)
13. The site plan shall be drawn showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades and the proposed finished grade and, as applicable, flood hazard areas, floodways, and design flood elevations; and it shall be drawn in accordance with an accurate boundary line survey. (LBMC 18.05.030.A.12)
14. Plans sheets should be wet-stamped and signed by a professional Civil/Structural Engineer licensed to practice in the State of California.
15. Show the outline of the storm drain and/or channel with dashed lines and label the mainline of the facilities.
16. Show the centerline and indicate the mainline storm drain Stations at all points of work that affect County of Los Angeles Flood Control District.
17. Show a profile view with the following items:
 - a. Allowable “Q” in cfs (across the top).
 - b. Velocity “v” in fps at the point of connection for 24-inch connections and above.
 - c. Label who the proposed line is to be maintained by: City of Long Beach, County of Los Angeles Flood Control District, or owner.
 - d. Show the hydraulic grade line (HGL) along the proposed connecting system.
 - e. Slope along the grade line.
 - f. Pipe size, length, and strength.

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18. The point of discharge shall not be on the steps of the catch basin.
19. Label the invert elevation of the catch basin, of the proposed line at the point of connection, and the top of curb at the catch basin.
20. Label the elevation of the invert and the elevation of the top of the grate inlet on-site.
21. Need minimum 1% slope for proposed connector pipe.

INFILTRATION BMPS

22. Provide infiltration feasibility screening table for review. (Low Impact Development, Best Management Practices Design Manual – Table 4.2)
23. Infiltration systems' requirements shall be provided in accordance with Low Impact Development, Best Management Practices Design Manual – Section 4.2, 4.4, Appendix D & Appendix E.
24. Provide soil report. Soil report shall be signed by a professional Geotechnical or Civil Engineer licensed in the State of California and or a Certified Engineering Geologist. Soil report must include, but not limited to the following (Low Impact Development, Best Management Practices Design Manual – Appendix E):
 - a. Soil descriptions.
 - b. Depth to seasonal high groundwater.
 - c. Depth to bedrock.
 - d. Estimated hydraulic conductivity.
25. Provide a sediment forebay or separate pretreatment unit (e.g. vegetated swale, filter strip, hydrodynamic device, etc.) between the inlet and infiltration BMP.
26. The sediment forebay shall have a minimum length to width ratio of 2:1 and design to conduct flow to the infiltration BMP.
27. The embankment slopes (interior and exterior) shall not be steeper than 3:1 (rise: run).
28. Provide hydraulic conductivity (Ksat) of the subsurface layers. Where Ksat values are greater than 2.4 in/hr, pretreatment shall be provided to address pollutants of concern prior to infiltration to protect groundwater quality.
29. Provide overflow safely conveys flow to the downstream stormwater conveyance system, an addition BMP, or an alternatively acceptable discharge point.
30. An observation well shall be provided where the infiltration system is placed underground.
31. Porous pavement facilities shall meet the design criteria and requirements listed in Low Impact Development, Best Management Practices Design Manual – Section 4.4.3.
32. Drywell shall meet the design criteria and requirements listed in Low Impact Development, Best Management Practices Design Manual – Section 4.4.3.
33. Show on plan, the distance between the infiltration systems to the property lines, sidewalks, buildings, and foundations. The following are the requirements on the distance:

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- a. The distance between the infiltration facility and the private property line shall be a minimum of 10 feet;
- b. Foundations shall be set back a minimum of 25 feet from the infiltration systems;
- c. The bottom of the footing shall be a minimum of 10 feet from the expected zone of saturation.

Or provide an approved permeable liner.

34. Plans must be submitted to the Long Beach Health and Human Services Department for review of vector control and possible cross-connection hazards, if project are implementing rainfall or urban runoff captures and distribution systems. Provide plans with wet stamp and signature of approval by the Long Beach Health and Human Services Department. Please contact Zenaida Savella, Environmental Health Specialist, at (562) 570-4195 for information.

CAPTURE AND USE BMPS

35. Provide capture and use feasibility screening table for review. (Low Impact Development, Best Management Practices Design Manual – Table 4.3)
36. Capture and use systems' requirements shall be provided in accordance with Low Impact Development, Best Management Practices Design Manual – Section 4.3, 4.5 & Appendix D.
37. Provide soil report. Soil report shall be signed by a professional Geotechnical or Civil Engineer licensed in the State of California and or a Certified Engineering Geologist. Soil report must include but not limited to the following (Low Impact Development, Best Management Practices Design Manual – Appendix E):
 - a. Soil descriptions.
 - b. Depth to seasonal high groundwater.
 - c. Depth to bedrock.
 - d. Estimated hydraulic conductivity.
38. Provide a report with calculations complied with California's Department of Water Resources Model Water Efficient Landscape Ordinance AB 1881.
39. Provide a typical installation detail for above-ground cisterns. The cistern shall secure in place and designed to meet seismic requirements for tanks.
40. Provide an overflow outlet at the upstream of the tank inlet. It shall be designed to disperse overflow onsite. Overflow from the tank into the storm drain system is not allowed.
41. Show the location of pumps. Pumps shall be accessible for maintenance. A high / low-pressure pump shut off system shall be provided in case of line clogging or breaking.
42. Provide a rainfall or soil moisture sensor, if an automated harvesting control system is proposed.
43. Cisterns shall be capable to prevent UV light penetration to prevent algae growth.
44. Provide a manhole if cistern is installed underground.
45. Plans must be submitted to the Department of Health and Human Services for review of vector control and possible cross-connection hazards, if project are implementing rainfall or urban runoff captures and distribution systems. Provide plans with wet stamp and signature of approval by the Long Beach Health

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and Human Services Department. Please contact Vanna Kho, Environmental Health Specialist, at (562) 570-4306 for information.

BIOFILTRATION BMPS

46. Biofiltration systems' requirements shall be provided in accordance with Low Impact Development, Best Management Practices Design Manual – Section 4.6 & Appendix D.
47. Provide a minimum depth of 2 feet (recommended 3 feet) for planting soil and topped with 3 inches of mulch for biofiltration BMPS.
48. Provide drains below the planting soil.
49. Show the slope of the under drains on plan.
50. Provide overflow safely conveys flow to the downstream stormwater conveyance system, an addition BMP, or an alternatively acceptable discharge point.
51. Show the width of the bottom of the swales. The width shall be sized between 2 and 10 feet.
52. Provide a check dams.

STANDARD URBAN STORM WATER MITIGATION PLAN (SUSMP)

53. Standard Urban Storm Water Mitigation (SUSMP) requirement shall be provided in accordance with Low Impact Development, Best Management Practices Design Manual – Section 3.2, 3.3, 3.4.
54. Provide SUSMP BMP sizing calculations.
55. Provide a completed Low Impact Development Project Data Form.

OTHERS

56. The following note(s) shall be added to plan:
 - a. The permeable (porous) pavement shall be installed in accordance with the requirements of the State of California Accessibility Code and local accessibility codes having jurisdiction.
 - b. Bed bottom must be level.
 - c. All systems shall be designed and installed with an overflow system.
 - d. If vector breeding occurs resulting from contained stormwater or inadequately maintained BMPs, Long Beach Department of Health and Human Services Department, Bureau of Environmental Health, can fine site owners for violating the California Health and Safety Code (Section 2060 – 2067).
 - e. Applicant shall contact dig alert/UAS prior to the commencement of any demolition or earth disturbance.
 - f. An original LID Observation Report shall be submitted to the Building and Safety Bureau prior to the issuance of the Certificate of Occupancy or building final for all BMPs installation.
 - g. Public Works inspection shall be required for all BMPs installation in the public right of way prior to the issuance of the Certificate of Occupancy or building final.
57. See additional corrections marked in red on the checked set of plans.

