880-RICR-00-00-4

TITLE 880 – QUONSET DEVELOPMENT CORPORATION

CHAPTER 00 – N/A

SUBCHAPTER 00 – N/A

PART 4 – Quonset Business Park Development Package

4.1 Introduction

4.1.1 Purpose and Intent

A. The purpose of the Development Regulations (the "Regulations") is to outline requirements for land development, building construction, and utilities in the Quonset Business Park (the "Park").

B. The Regulations described herein represent a commitment by Quonset Development Corporation ("QDC" or the “Corporation") to develop a successful and well-planned business park, optimize the efficiency of utility infrastructure, conserve limited resources, protect the natural environment, and provide a competitive platform for businesses to thrive in a manner that is compatible with the surrounding community. The Park is designed to provide prime sites for quality industrial development, offices, mixed use development and marine-related industries to create new job opportunities for Rhode Island workers and to increase State and local tax revenues.

C. QDC continues to maintain a collaborative relationship with the Town of North Kingstown to develop the Park in a manner that is consistent with the goals of QDC and the Town. Administrative agreements between the Town and QDC, the development and maintenance of shared infrastructure, and the regulatory process in the Park have all been structured to ensure a streamlined approach to development in the Park. The Municipal Services Agreement (MSA, as amended August 17, 2016), the Sewer Services Agreement (as amended August 17, 2016) and the Memorandum of Understanding (MOU, December 16, 2010) are examples of documents that help to define the relationship between the Town and QDC. The regulatory components of these agreements are codified in these Regulations.

4.2 Legal Authority

A. The Corporation shall have and may exercise all general powers set forth in R.I. Gen. Laws Chapter 42-64.10.

4.3 Incorporation by Reference

A. These Regulations hereby adopt and incorporate 40 C.F.R Part§ 403 (2018) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

B. These Regulations hereby adopt and incorporate 14 C.F.R. § Part 77 (2011) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

C. These Regulations hereby adopt and incorporate 33 C.F.R. § 105.275 (2018) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

D. These Regulations hereby adopt and incorporate 33 C.F.R. Part§ 136 (2018) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

E. These Regulations hereby adopt and incorporate "Rhode Island Department of Transportation, Standard Specifications for Road and Bridge Construction" (2013) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

F. These Regulations hereby adopt and incorporate the "Rhode Island Department of Environmental Management's Rhode Island Soil and Sediment Control Handbook" (2016) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

G. These Regulations hereby adopt and incorporate the "National Fire Protection Association 291, Recommended Practice for Fire Flow Testing and Marking of Hydrants" (2016) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

H. These Regulations hereby adopt and incorporate the "American Standard for Nursery Stock Z60.1" (2004) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

I. These Regulations hereby adopt and incorporate the "Institute of Transportation Engineers Parking Generation, 4th Edition" (2010) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

J. These Regulations hereby adopt and incorporate the "Water Pollution Control Federation's Manual of Practice No. 9, Design and Construction of Sanitary and Storm Sewers" (1986) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

K. These Regulations hereby adopt and incorporate the following "International Organization for Standardization (ISO)" by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations:

1. Fire Suppression Rating Schedule (2012)

2. 8179-1, Ductile Iron Pipes, Fittings, Accessories and Their Joints, External Zinc-Based Coating, Part 1: Metallic Zinc with Finishing Layer" (2017)

L. These Regulations hereby adopt and incorporate the following "Illuminating Engineering Society (IES)" standards by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

1. The Lighting Handbook (2011)

2. Lighting for Exterior Environments RP-33-14 and Lighting for Parking Facilities RP-20-14 (2014)

M. These Regulations hereby adopt and incorporate the following "American National Standard Institute (ANSI)" standards by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

1. S1.4, American National Standard Electroacoustics – Sound Level Meters, Part 1 (2014)

2. S12.51, Acoustics – Determination of Sound Power Levels and Sound Energy Levels of Noise Sources Using Sound Presser (2012)

N. These Regulations hereby adopt and incorporate the following "American Association of State Highway Transportation Officials" standards by reference,

not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations.

1. M252, Standard Specification for Corrugated Polyethylene Drainage Pipe (2018)

2. M294, Standard Specification for Corrugated Polyethylene Pipe, 300- to 1500-mm (12-to 60-in.) Diameter (2018)

3. T99, Standard Method of Test for Moisture-Density Relations of Soils Using a 2.5-kg Rammer and a 305-mm Drop (2017)

O. These Regulations hereby adopt and incorporate the following "American Water Works Association (AWWA)" standards by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations:

1. M31, Manual of Water Supply Practices Requirements for Fire Protection (1998)

2. C909, Molecularly Oriented Polyvinyl Chloride Pressure Pipe, 4in. or Larger (2016)

3. C502, Dry Barrel Fire Hydrant (2005)

4. C800, Underground Service Line Valves and Fittings (2012)

5. C900, Standard Test Method for Pullout Strength of Hardened Concrete (2015)

6. C151/A21.51, Ductile-Iron Pipe, Centrifugally Cast (2017)

7. C500, Metal-Seated Gate Valves for Water Supply Service (2009)

8. C509, Resilient-Seated Gate Valves for Water Supply Service (2015)

9. C504, Rubber-Seated Butterfly Valves (2015)

10. C110/A21.10, Ductile-Iron and Gray Iron Fittings (2012)

11. C111/A21.11, Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings (2017)

12. C115/A21.15, Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges (2011)

13. C150/A21.50, Thickness Design of Ductile-Iron Pipe (2014)

14. C117/A21.4, Cement-Mortar Lining for Ductile-Iron Pipe and Fittings (2016)

15. C905, Polyvinyl Chloride Pressure Pipe and Fabricated Fittings, 14 in. through 48 in. for Water Transmission and Distribution (2010)

16. C901, Polyethylene Pressure Pipe and Tubing, ¾ In. through 3 In. for Water Service (2017)

17. C600, Standard Test Method of Thermal Shock Test on Glass Pipe (2015

P. These Regulations hereby adopt and incorporate the following "American Society for Testing and Materials (ASTM)" standards by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these Regulations:

1. D3139, Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals (2011)

2. D3034, Standard Specification for Type PSM Poly (Vinyl Chloride) Sewer Pipe and Fittings (2016)

3. F679, Standard Specification for Poly (Vinyl Chloride) Large-Diameter Plastic Gravity Sewer Pipe and Fittings (2016)

4. F794, Standard Specification for Poly (Vinyl Chloride) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter (2014)

5. F949, Standard Specification for Poly (Vinyl Chloride) Corrugated Sewer Pipe with a Smooth Interior and Fittings (2015)

6. F949, Standard Specification for Poly (Vinyl Chloride) Compounds and Chlorinated Poly (Vinyl Chloride) (2011)

7. D2444, Standard Practice for Determination of the Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight) (2017)

8. D2321, Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications (2018)

9. D3212, Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals (2013)

10. F477, Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe (2014)

11. D1785, Standard Specification for Poly (Vinyl Chloride) Plastic Pipe, Schedules 40, 80 and 120 (2015)

12. D2241, Standard Specification for Poly (Vinyl Chloride) Pressure-Rated Pipe (SDR Series) (2015)

13. D3350, Standard Specification for Polyethylene Plastic Pipe and Fitting Materials (2014)

14. C76, Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe (2017)

15. C507, Standard Specification for Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe (2018)

16. C443, Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets (2017)

17. C877, Standard Specification for External Sealing Bands for Concrete Pipe, Manholes, and Precast Box Sections (2016)

4.4 Definitions

A. The following words, terms and phrases, when used in this package, shall have the meaning stated herein:

1. "Accessory use" means a use of land or a building, or portion thereof, customarily incidental and subordinate to the principal use of the land or building. An accessory use shall not be permitted without the principal use.

2. "Act" means Quonset Development Corporation Act, R.I. Gen. Laws § 42-64.10-1 *et seq*.

3. "Airport" means Quonset State Airport located in the Town of North Kingstown, Rhode Island.

4. "Alteration" means an action that changes one (1) or more of the exterior architectural features of a structure or its appurtenances, including but not limited to the erection, construction, reconstruction, or removal of any structure or appurtenance.

5. "Applicant" means an owner or authorized agent of the owner submitting an application.

6. "Application" means the completed form or forms and all accompanying documents, exhibits and fees required of an applicant.

7. "Aviation facilities" means infrastructure including runways, taxiways, buildings, parking, hangar storage, terminals and navigational aids.

8. “Best management practices” or “BMPs” means as defined in 40 C.F.R. § 403.3 incorporated in § 4.3(A) of this Part.

9. "Biochemical oxygen demand" or "BOD" means the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at twenty degrees Celsius (20° C), expressed in milligrams per liter.

10. "Buffer" means land which is maintained in either a natural or landscaped state and is used to screen and/or mitigate the impacts of development on surrounding areas, properties or rights-of-way.

11. "Building" means any structure used or intended for supporting any use or occupancy. When any portion thereof is completely separated from every other portion thereof by a division wall without openings then each portion shall be deemed to be a separate building.

12. "Building drain" means that part of the lowest piping of a drainage which receives the discharge from soil and other drainage pipes inside the walls of the building and conveys it to the storm sewer.

13. "Building height" means the vertical distance from grade, as determined by the TRC, to the top of the highest point of the roof or structure. The distance may exclude spires, chimney, flag poles, solar panels and the like, except as may be required by the Federal Aviation Administration.

14. "Building sewer" means the extension from a building’s sanitary sewer piping to the point of connection to the QDC sewer or another place of disposal.

15. "Certificate of approval" means a notice issued by the TRC to the applicant that the development meets the requirements of the Regulations and that the applicant may proceed with the permitting process. Notice consists of stamped development plans signed by the Managing Director (or his/her designee).

16. "Client" means a developer who is or may be entering into an agreement with the QDC for development of a given parcel of land within the Park.

17. "Chemical oxygen demand" or "COD" means the quantity of oxygen utilized in the chemical oxidation of wastewater under standard laboratory procedures.

18. "Coastal features" means coastal features are defined in R.I. Gen. Laws Chapter 46-23.

19. “Coastal zone” means the jurisdictional area of the Coastal Resources Management Council regulated by 650-RICR-20-00-1, Red Book.

20. "Conservation areas" means land that is undeveloped and is maintained in its natural state such as forest, salt marsh, tidal mud flat, wetlands, watersheds and water supply land.

21. “Construction activity” means land clearing and grubbing, grading, excavation, demolition and building of structures above or below ground.

22. "Development" means the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure; land disturbance; any change of use, alteration or extension of the use of land.

23. "Development plan review" means the process whereby authorized officials review the site plans, maps, engineered drawings and other documents of a proposed development to determine the compliance with the stated purposes and standards of these Regulations.

24. "Director" or "Managing director" means the managing director of the QDC or his/her designee.

25. “Discharge permit” means a permit issued by the EPA (or State under authority delegated pursuant to National Pollutant Discharge Elimination System, 33 U.S.C. § 1317) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group or general area-wide basis.

26. "District" means land use district.

27. "Division of Planning" means that division created within the Department of Administration by R.I Gen. Laws § 42-11-10(b)(2).

28. "Education and training" means land uses intended for the training in general, technical or professional education.

29. "Effective date" means the date these Regulations become effective as set forth in R.I. Gen. Laws § 42-35-4(e).

30. "FAA" means Federal Aviation Administration.

31. "Floatable oil" means oil, fat or grease in a physical state such that it will separate by gravity from wastewater by treatment in an approved pretreatment facility. A wastewater shall be considered free of floatable oil if it is properly pretreated and does not interfere with the collection system.

32. "Garbage" means solid wastes from the domestic and commercial preparation, cooking, dispensing, and sale of food.

33. "General manufacturing" means manufacturing, fabrication or processing; assembly or packaging; printing and publishing plant; millwork; and work with outside operations and storage.

34. "Gross floor area" means the total area of a building measured by taking the outside dimensions of the building at each level intended for occupancy or storage.

35. “Groundwater” means natural water that occurs below the surface of the earth, where it occupies space in soils or geologic strata and flows within aquifers below the water table.

36. "Hazardous materials" means any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

37. "Historic property" means:

    a. Any district, site, building, structure, or object listed in the State Register. Properties may be listed in the State Register through concurrent listing in the National Register of Historic Places or alternatively for the purpose of these Regulations the Rhode Island Historical Preservation & Heritage Commission may determine that properties meet the criteria for registration.

    b. Any building, site, object or artifact of historical, architectural, or archaeological interest listed in the catalog of State-owned historic properties; or

c. Any archaeological resource, including specimens, sites, and underwater resources subject to permits or advisories pursuant to the R.I. Gen. Laws § 42-45-1 *et seq*.

38. "Hotel" means a building, group of buildings or a portion thereof used or offered for residential occupancy for any period less than one (1) month, with or without meals, and in which a building or portion thereof may be certain public rooms or halls for the service of food or drink.

39. “Illicit connection” means any drain or conveyance, whether on the surface or subsurface, which allows an illicit discharge to enter the storm drain system, including but not limited to any conveyance which allows non-stormwater discharge, including sewage, process wastewater and wash water to enter the storm drain system, and any connections to the storm drain system from floor drains and sinks not authorized by the appropriate permitting authority.

40. “Illicit discharge” means any unauthorized discharge to the stormwater collection system, including but not limited to, sewage, industrial wastewater, wash water, cooling water and stormwater.

41. "Improvements" means changes, alterations, or modifications made to land or structures.

42. "Industrial cooling water" means water used to reduce temperature in an industrial process.

43. "Industrial user" means a user who discharges or has the capacity to discharge industrial wastewater or industrial sewage directly or indirectly into the sewer.

44. "Industrial wastewater" means the liquid wastes resulting from industrial manufacturing, trade or business processes.

45. "Interference" means as defined in 40 C.F.R. § 403.3 incorporated in § 4.3(A) of this Part.

46. "Land" means surface of earth above sea level.

47. "Light manufacturing" means land uses limited to manufacturing of non-noxious products that can be shipped in trucks or containers and conducted entirely indoors. Buildings shall have minimal smokestacks, silos, cooling towers and such structures.

48. "Lot" means:

a. The basic development unit for determination of lot area, depth, and other dimensional Regulations; or

b. A parcel of land whose boundaries have been established by some legal instrument such as a recorded deed or recorded map and which is recognized as a separate legal entity for purposes of transfer of title.

49. "Lot frontage" means that portion of a lot abutting a street. Nonconforming frontage shall not be added to meet the minimum frontage requirements.

50. "Marine business" means water dependent commercial activities related to marina and other vessel service activities.

51. "Marine construction support" means land-based construction activities that use the water as the primary means for moving the product from the land construction area to its permanent location.

52. "Marine industrial" means water dependent industries in direct support of seaport for facilitating waterborne cargo operations, fisheries development and marine construction activities.

53. "Marine structures" means structures to support the transfer of cargo and people from marine vessel to land areas such as piers, jetties, ramps, bulkheads or mooring structures.

54. "Master plan" means the most recently adopted and approved Quonset Business Park Master Land Use and Development Plan.

55. “Municipal separate storm sewer system” or “MS4” means any facility designed or used for collecting and/or conveying stormwater, including but not limited to any roads with drainage systems, highways, QDC streets, curbs, gutters, catch basins, piped storm drains, pumping facilities, structural stormwater controls, ditches, swales, natural and man-made, or altered drainage channels, reservoirs, and other drainage structures and which is:

a. Owned and/or maintained by the Quonset Development Corporation,

b. Not a combined sewer and,

c. Not part of a publicly owned treatment works.

56. "Natural outlet" means any outlet into a natural watercourse, pond, ditch, lake or other body of surface or groundwater.

57. "New source" means as defined in 40 C.F.R. § 403.3 incorporated in § 4.3(A) of this Part.

58. “Non-stormwater discharge” means any discharge to the storm drain that is not composed entirely of stormwater.

59. "Open space" means any land that is primarily undeveloped, including public and semipublic open lands, and private development requiring little or no construction. The purpose of this designation is to provide for the conservation of land and other natural and scenic resources.

60. "Parks with facilities" means land that is primarily undeveloped whose purpose is to provide recreation and relaxation activities such as but not limited to beaches, playgrounds and picnic areas.

61. "Pass through" means as defined in 40 C.F.R. § 403.3 incorporated in § 4.3(A) of this Part.

62. "Performance standards" means a set of criteria or limits relating to elements which a particular use or process either must meet or may not exceed.

63. "Permit" means an authorization, license or equivalent control document issued by the QDC, unless otherwise identified.

64. "Permitted uses" means uses authorized by these Regulations for a particular land use district.

65. "Person" means any individual, partnership, association, joint venture, corporation, trust, estate, commission, board, public or private institution, utility, cooperative, municipality, any political subdivision of a municipality, this State, any department or agency of the Federal government, or any other legal entity.

66. "Personal convenience services" means property uses intended to provide personal services to occupants of the park such as, but not limited to, barber, beauty shops, cleaning, and tailoring.

67. "pH" means the logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.

68. "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand and cellar dirt and industrial, municipal, agricultural or other pollution-causing agents.

69. "Pretreatment" means as defined in 40 C.F.R. § 403.3 incorporated in § 4.3(A) of this Part.

70. "Principal use" means the main or primary purpose for which a building, other structure and/or lot is designed, arranged, or intended, or for which they may be used, occupied or maintained under this chapter.

71. "Privately-owned wastewater treatment facilities" means pump stations, collection systems and/or wastewater treatment facilities privately owned by users, individuals, corporations, associations, or State or Federal agencies, with said facilities ultimately being connected to Quonset's wastewater treatment or collection system whose wastewater design flows are in excess of thirty thousand (30,000) gallons per day.

72. "Professional and business services" means property uses intended to provide support services for primary economic development activities such as industrial and corporate offices including professional offices, such as, but not limited to medical, legal, engineering and accounting and business services, such as, but not limited to, photocopying, equipment repair, repair shops (computers, watches, etc.).

73. "Professional offices" means operations designed to attract and serve customers or clients on the premises with low-volume traffic such as lawyer, doctor, dentist, architect, engineer, realtor, accountant, travel agency, stockbroker, insurance agency, computer processing services and the like.

74. "Properly shredded garbage" means the wastes from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one half inch (1/2") (1.27 centimeters) in any dimension.

75. "Residential boundary" means building setback measurements taken from the proposed building foundation to the lot line of an approved residential parcel identified as such on Town Plat Maps and excluding open space, common areas, and undevelopable areas.

76. "Quonset Development Corporation" or "QDC" means a real estate development and management company organized as a subsidiary of the Rhode Island Commerce Corporation, R.I. Gen. Laws § 42-64.10-6.

77. "QDC sewers" means a sewer regulated, operated and maintained by QDC for the purpose of affording sewage collection service to its users.

78. "Recreation tourism" means property use intended to support recreational or tourism activities that use the water as a primary resource or amenity.

79. "Regulation" means a type of "delegated legislation" promulgated by a State, Federal or local administrative agency given authority to do so by the appropriate legislature.

80. "Research and development" means a use for research, design, prototype development, and testing of new products or ideas.

81. "Restaurant" means a public eating place or food court that serves a substantial portion of its food for consumption at tables or counters located on the premises or a carryout retail service business which sells ready-to-eat foods primarily for consumption off the premises. A carryout restaurant does not include fast food restaurant that are designed for rapid food delivery to customers. All restaurants with drive-through service are considered fast food restaurants and are prohibited.

82. "Retail stores" means establishments engaged in; sales of food (excluding fish and shellfish) drugs, clothing, jewelry, stationery, or similar personal or specialty items, and the like.

83. "Rhode Island Commerce Corporation" or "RICC" means the parent corporation of the QDC, R.I. Gen. Laws Chapter 42-64.

84. "Road" means a public means of access in the Park via a State or Town right of way to abutting land. Certain roads may be gated for security purposes.

85. "Sanitary sewer" means a sewer that carries sewage and to which storm, surface and ground waters are not intentionally admitted.

86. "Sewage" means a combination of the water-carried wastes from residences, commercial buildings, institutions, and industrial establishments, together with such ground, surface, and storm waters as may be present.

87. "Sewage treatment plant" means any arrangement of devices and structures used for treating sewage.

88. "Sewage works" means all facilities for collecting, pumping, treating and disposing of sewage.

89. "Sewer" means a pipe or conduit for carrying sewage.

90. "Shall" means mandatory; “May” means permissive.

91. "Shipping" means uses intended for the transportation and distribution of products and goods.

92. "Significant industrial user" means as defined in 40 C.F.R. § 403.3 incorporated in § 4.3(A) of this Part.

93. "Site control documentation" means a document defining the purchase and sales or lease agreement entered into between the QDC and the Client.

94. "Site plan" means the development plan for one or more lots on which is shown the existing and/or the proposed conditions of the lot.

95. "Site readiness program" means a program undertaken by the Quonset Development Corporation beginning in 2010 to design, pre-engineer, and pre-permit vacant available parcels in the Park.

96. "Slug" means any discharge of water, sewage or industrial waste that in concentration of any given constituent or in quantity of flow exceeds a user’s average discharge and adversely affects the sewer and/or the performance of the sewage treatment plant.

97. "Solar energy system" means a system of panels containing photovoltaic cells, either on a rooftop or on the ground, including all necessary appurtenances, that is intended to generate power for consumption on site, or for sale to the grid.

98. "Solid waste" means garbage, refuse and other discarded solid material generated by residential, institutional, commercial, industrial, and agricultural sources, but does not include solids or dissolved material in domestic sewage or sludge, nor does it include hazardous waste as defined in the Hazardous Waste Management Act, R. I. Gen. Laws Chapter 23-19.1.

99. "Storm drain" or “Storm sewer” means a conveyance that carries storm and surface waters and drainage, but excludes sewage and industrial waste, other than unpolluted cooling water.

100. "Storm drain system" means any infrastructure in which its sole purpose is to intercept, collect, retain or detain, and convey rainwater runoff to a point of discharge (i.e. outlet/outfall), including but not limited to: underground injection, State and Federally regulated Wetlands, streams, brooks, river, tidal wetlands, Narragansett Bay.

101. “Stormwater” means any surface flow, runoff, and/or drainage consisting entirely of water from any form of natural precipitation and resulting from such precipitation.

102. "Structure" means a combination of materials to form a construction for use, occupancy, or ornamentation, whether installed on, above, or below, the surface of land or water.

103. "Subdivision" means the division, re-division, of a lot, tract or parcel of land into two (2) or more lots, tracts, or parcels. Any adjustment to existing lot lines of a recorded lot by any means shall be considered a subdivision. All re-subdivision activity shall be considered a subdivision. The division of property for purposes of financing constitutes a subdivision.

104. "Survey, Class I" means surveys of developed (or soon to be developed) commercial and residential property, performed to a high degree of positional accuracy. Most urban and suburban boundary surveys, large-scale construction projects, title surveys, and subdivision of land should be performed to this standard.

105. "Suspended solids" means solids that either float on the surface of, or are in suspension in, water, sewage, or other liquids, and which are removable by laboratory filtering.

106. "The park" means Quonset Business Park.

107. "Technical review committee" or "TRC" means the committee described in § 4.8.3(A)(1) of this Part.

108. "Temporary" means a time frame of eighteen (18) months or less as it applies to lighting, signage, and buildings.

109. "Town" means the Town of North Kingstown.

110. "Toxic" means any substance listed as toxic under § 307(a)(1) of the Clean Water Act, as amended, 33 U.S.C. § 1251 *et seq*., or listed under the Hazardous Substances Right-to-Know Act, R.I. Gen. Laws § 28-21-1 *et seq*., or as may otherwise be designated by the Director from time to time.

111. "Toxic materials" means any substance or combination of substances which, because of quantity, concentration or physical, chemical or infectious characteristics, poses a significant present or potential hazard to water supplies or to human health.

112. "Undeveloped" means land that has not had improvements made either to the land or on the land.

113. "USEPA" means United States Environmental Protection Agency.

114. "Use" means the purpose or activity for which land or buildings are designed, arranged, or intended, or for which land or buildings are occupied or maintained.

115. "User" means, for the purpose of wastewater, the owner of any residential, commercial, or industrial property or any publicly owned building or non-profit institution with a direct or indirect connection to the sewer.

116. "Variance" means permission from the TRC or the QDC Board to depart from the literal requirements of these Regulations as they relate to performance, utility and design standards.

117. "Waivers" means permission from the TRC to omit information that would otherwise be required in a Development Plan Review application.

118. "Warehousing" and "Wholesaling" means uses that include industrial; distribution center, sorting facilities, parcel delivery center; storage facilities, and the like.

119. “Wastewater” means any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

120. "Watercourse" means a channel in which a flow of water occurs either continuously or intermittently.

121. "Waterfront uses" means uses intended for marine-related and marine-enhanced uses such as waterborne cargo operations, fisheries development, boat building, shipyards, ferry terminals, and marine construction activities; water dependent commercial activities related to

marina and other vessel service activities; structures to support the transfer of cargo and people from marine vessel to land areas such as piers, bulkheads, or mooring structures; land based construction activities that use the water as the primary means for moving the product from the land construction area to its permanent location; uses in support of recreational or tourism activities that use the water as a primary resource or amenity such as sea plane operations; accessory marine supply retail, boat and marine equipment rentals; and accessory food service retail.

122. "Wetlands, freshwater" means as defined in R.I. Gen. Laws § 2-1-20. A marsh, swamp, bog, pond, river, river or stream flood plain or bank, area subject to flooding or storm flowage; emergent or sub-emergent plant community in any body of freshwater; or area within fifty feet (50') of the edge of a bog, marsh, swamp, or pond as defined in R.I. Gen. Laws § 2-1-20.

123. "Wholesale" means any sale for resale but not for direct consumption and not open to the general public.

124. "Wind energy system" or "WES" means a device that converts wind energy into electrical energy. A WES typically consists of a tower, nacelle body and a rotor with two or more blades. A WES includes all equipment, machinery, and structures utilized in connection with the conversion of wind to electricity, and includes, but is not limited to, transmission, storage, collection and supply equipment, substations, transformers, service and access roads, and wind monitoring and meteorological towers. A WES may be gear driven, employing one (1) or more gears connecting a low-speed shaft to a high-speed shaft for the purpose of increasing rotational speeds at the generator over and above the rotational speed of the rotor, or may be direct drive, which does not alter shaft rotational speed from the rotor to the generator. WESs also include Alternative Design Wind Energy Systems, which shall include any WES other than one that is rotor driven. WESs include both free-standing and building mounted systems. WESs shall also include associated wind monitoring and/or meteorological towers.

125. "Wind monitoring" or "Meteorological tower" means a temporary tower equipped with devices to measure wind speeds and direction used to determine how much wind power a site can be expected to generate (referred to as “Met Tower”).

126. "Yard, front" means yard extending across the full width of the lot, the depth of which shall be the least distance between the front lot line and

the front of any building. Frontage on any public street is considered to be a front yard. A corner lot may have more than one (1) front yard.

127. "Yard, rear" means a yard extending across the full width of the lot between the rear most main building and the rear lot line, the depth of which shall be the least distance between the rear lot line and the rear of any buildings.

128. "Yard, side" means a yard between the main building and the side lot line, extending from the front yard or the front lot line where no front yard is required, to the rear yard. The width of the required side yard shall be measured horizontally from the nearest point of the side lot line toward the nearest part of the main building.

4.5 Development Review Process

4.5.1 Process

A. No development shall occur within the Park or shall be so altered as to change the location, exterior dimensions, or appearance of the same unless plans are submitted to and approved by QDC. All development projects within the Park must obtain appropriate approvals by the QDC through its plan review process. This review includes site design, architectural design, building materials, access, parking, grading, drainage, utility services and traffic impacts. The various steps of the Development Review Process are illustrated in the Quonset Business Park Development Plan's guidance documents.

B. Development Interest – The review process begins when a development interest is presented to QDC. The QDC staff shall work with clients to select a site which is suitable for their project based on such things as land use, transportation infrastructure and availability of utilities. The staff will work with existing owners and tenants of the Park that wish to expand their operations. Development projects which do not require a building permit, such as leases for office and warehouse space, shall not be subject to review by the TRC.

C. Environmental Review and Socio-Economic Review – Pursuant to a 1979 Settlement Agreement land development projects require an Environmental Review form and a Socio-Economic Review form (ERF & SERF). This process is further described in § 4.8.2 of this Part.

D. QDC Board Approval – The QDC Board of Directors will consider the proposed land transaction and development and will indicate approval, rejection or recommendations for modifications or additional information. QDC may authorize QDC staff to negotiate Site Control Documentation.

E. Site Control Documentation – Upon approval of the proposed development by the QDC Board, the staff of QDC will negotiate Site Control Documentation with the Client.

F. Development Plan Review – The Development Plan Review process involves the detailed review of site engineering, and architectural design in accordance with the procedures provided in § 4.8 of this Part, typically consisting of Pre-Application and Technical Review. Plan approval must be obtained from the Technical Review Committee before a Building Permit can be issued by the appropriate authority.

G. Sewer Treatment System User Regulations – The Sewer Treatment System User Regulations, § 4.16 of this Part, govern the use of the QDC's sewers and drains, the installation and connection of building sewers, the discharge of waters and wastes into the sewers and the penalties for violations. Prospective users of the Quonset Wastewater Treatment System, leasing or purchasing property from the QDC or from any other private parties, shall complete the requirements of § 4.16 of this Part.

H. Building Permit Review – Clients leasing or purchasing property from the QDC for new construction, as well as existing tenants who wish to alter or renovate their buildings, must submit building plans to the QDC, the State Building Official and the State Fire Marshal for review. Upon a finding of compliance with these Regulations and applicable Building and Fire Codes, a Building Permit can be issued.

I. Other Laws – In addition to the Regulations contained herein, property within the Park is also subject to other local, State and Federal laws, Rules and Regulations, including, but not limited to, laws and Regulations administered by the Rhode Island Coastal Resources Management Council (RICRMC), Rhode Island Department of Environmental Management (RIDEM), State Building Codes and Fire Codes, State and Federal statutes pertaining to hazardous materials, airspace, and other applicable statutes. All uses in the Park must be compliant with Federal laws.

4.5.2 Waivers and Variances

A. Waivers

1. A waiver may be requested for any of the requirements listed in § 4.8.5 of this Part which may not be applicable to a particular project. Waivers are specific to these requirements and are therefore distinct from variances, which are described in § 4.5.2(B)(1) of this Part. An applicant may request a waiver, which may be granted at the discretion of the Managing Director of QDC.

B. Variances

1. Variances represent a situation in which an applicant petitions the TRC to deviate from the development standards associated with the site. Variances shall be classified as “minor” or “major” by the Director of QDC and/or the Director of Planning for the Town during the pre-application phase of the Development Review Process. Classification of these variances will be decided on a case by case basis at the discretion of the Managing Director of QDC and the Director of Planning for the Town and will use the description of a “major” variance provided in § 4.5.2(B)(1)(b) of this Part as a guide.

   a. Minor Variance – May be approved by the TRC as evidenced by a certificate signed by both the Managing Director of QDC and the Director of Planning for the Town.

   b. Major Variance – Shall be reviewed by and require approval from both the QDC Board and the North Kingstown Planning Commission. A variance may be classified as “major” by either the Director of the Planning Department or the Managing Director of QDC if either party finds that:

      (1) The proposed activity will require additional mitigation measures to protect environmental resources beyond what is already required by QDC or State standards;

      (2) A significant additional investment or construction to mitigate potential increased impacts from noise, vibration, glare, dust, odor, heat, or traffic associated with daily operations is required;

      (3) A deviation from dimensional requirements is required in a manner that is not incidental to minor site engineering or architectural adjustments designed to improve overall site design or building performance;

      (4) The proposal includes a land use that is not allowed in the Land Use District, as outlined in § 4.7 of this Part;

      (5) The proposed land use, as outlined in § 4.7 of this Part, requires a Major Variance;

      (6) The proposal includes an activity that is clearly inconsistent with the Quonset Master Plan or the Town of North Kingstown’s Comprehensive Plan;

(7) The proposal would present a clearly identifiable threat to public health, safety or welfare.

c. Petition for a Variance – An applicant may petition for a variance through a Letter of Variance Request sent to both the Director of Planning for the Town and the Managing Director of QDC. The letter shall contain the information listed below at a minimum. The applicant may provide information in the form of map, site plans or other materials if it is his/her opinion that these supporting materials will assist in the review of the petition.

(1) Name and contact information for the applicant;

(2) Plat and lot number;

(3) Frontage road;

(4) Applicable Land Use District;

(5) Description of proposed development;

(6) Comprehensive and specific list of all standards within the Regulations from which variances are being requested;

(7) Description of why each variance is being sought.

4.5.3 Enforcement

QDC shall be responsible for the enforcement of these Regulations or any decision of the TRC within the Park. In the event that the QDC has issued two (2) Notices of Violation with respect to any violation of the Development Regulations or any decision of the TRC and said violation has not been remedied to the satisfaction of the QDC, then, upon notice from the QDC, the Town, through its Code Enforcement Office, shall enforce the Development Regulations or the TRC decision, as the case may be. Notwithstanding the foregoing, nothing contained herein shall be deemed a waiver by the Town or the QDC of its enforcement authority and the Town or QDC may, at any time, enforce the Uniform Regulations or any decision of the TRC.

4.5.4 Severability

If the provisions of any article, section, subsection, paragraph, subdivision or clause of these Regulations shall be judged invalid by court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of

any article, section, subsection, paragraph, subdivision or clause of these Regulations.

4.6 Protective Controls and Subdivisions

4.6.1 Protective Controls

A. Approval of Plan – No building or structure shall be erected, constructed, or placed in the Park premises or so altered as to change the location, exterior dimensions, or appearance of the same unless plans are submitted to and approved by QDC. These plans shall conform to the Development Regulations. Plans shall include, but shall not be limited to, elevations and construction materials; site development, including utilities, grading, drainage, plantings; building location; and locations of required yards, walks, drives, parking areas, lighting and signs. The QDC shall act upon the plans consistent with § 4.8 of this Part indicating approval, rejection, or recommendations for modifications.

B. Development Restrictions – Any use established or changed to, and any building, structure, or land developed, constructed or used for, any permitted principal use or accessory use, shall comply with all of the standards contained in the Development Regulations. No change in standards shall invalidate any existing use if such a use was in compliance with standards existing at the time of commencement of that use. If any existing use of buildings or other structures is extended, enlarged, or reconstructed, the standards shall apply with respect to such extended, enlarged, or reconstructed portion or portions of such use, building or structure.

C. Commencement of Construction – If, after the expiration of six (6) months from the date of delivery of a deed from the QDC, a grantee shall not have begun, in good faith with reasonably complete arrangements to carry through to completion the development of the property pursuant to plans approved by the QDC under the foregoing restrictions and provisions, the QDC shall have the option to repurchase the property for the price paid by the party which acquired the same from QDC. The QDC may extend the six (6) month period whenever it deems it desirable to do so. The QDC's option must be exercised in writing within one (1) year after it accrues; otherwise, the option shall expire. Any extension pursuant to this clause shall extend the QDC's right of repurchase in the same manner as contemplated after the expiration of the first six (6) months.

D. Subdivision – The premises shall not be subdivided without the approval of the QDC, its successors and assigns, or its duly authorized representative. No part of the Park premises which is left unimproved may be leased, re-sold, or otherwise disposed of without being first offered in writing for resale to the QDC at the same price per square foot at which any portion of the premises were sold

by the QDC to the party which acquired the same from the QDC. Land subdivisions shall follow the Administrative Subdivision Guidelines found in the Development Regulation's Guidance Document.

E. Additions to Buildings – Any addition or alteration (interior and exterior) to the buildings or future improvements to a site shall conform to these Regulations and shall be subject to the approval of the QDC.

F. Injunctive Relief – The QDC may obtain injunctive relief to enjoin the violations of any of these provisions without prejudice to any of its other legal or equitable remedies.

G. Utility Easement – The QDC reserves the right to construct underground utility facilities and install and maintain pipes and conduits. The QDC also reserves the right to maintain all existing utility facilities within existing utility easements. New easements through an area shall not be more than twenty feet (20') in width and the subsequent owners or any lessees of the premises or any portion thereof, agree to execute any and all instruments necessary and reasonable for the further development of the premises, including the granting of easements of no more than twenty feet (20') in width, provided no such easement shall interfere with any building planned for, or constructed on, the premises by the subsequent owner or lessee.

H. Construction – The QDC shall have the power to interpret the provisions of these Regulations, to decide any disputes that arise, and to reconcile any inconsistency or omission in these Regulations in such manner and to such extent as it shall deem necessary or desirable. All determinations made by the QDC shall be final and binding on all applicants requesting approvals.

I. Plan Approval – Upon the completion of the construction of a building or other structure on the premises or property that is subject of approval, it shall be conclusively presumed, insofar as any *bona fide* purchaser or mortgagee is concerned, that the location of the building or other structure has been approved by QDC and that all plans, specifications and details of such buildings or other structures which have been constructed on the premises and all other plans and restrictions referred to herein, have been approved in writing by QDC unless there shall have been recorded in the Records of Land Evidence a notice to the effect that such approval has been withheld.

J. Certificate of Approval – Upon the granting of any approvals pursuant to the terms of these Regulations, QDC will stamp the final plans submitted by the applicant with a red-ink signed approval block to serve as a Certificate of Approval.

4.7 Land Use Districts

4.7.1 Purpose and Intent

A. The Park is comprised of separate and distinct land use districts to implement land use development policies contained in the Quonset Business Park Master Land Use and Development Plan (2008) ("Master Plan"), as amended, to meet the unique growth and development issues of the Park. More specifically, the purpose of the land use districts is to:

1. Ensure development of the highest quality;

2. Provide flexibility in the use and design of property within the Park;

3. Accommodate development that is appropriate for the site and the surrounding areas;

4. Facilitate economic development opportunities;

5. Ensure development respects neighboring land uses and produces minimal off-site impacts;

6. Maintain uses that are consistent with federal land conveyances and other laws; and

7. Avoid potential adverse impacts to airport and/or aeronautical operations, including but not limited to, attracting wildlife, radio interference, and glare.

4.7.2 Quonset Business Park Districts

A. The Park is divided into the following Land Use Districts as depicted on Figure 1. Land Use Districts and, as described in other sections of the Regulations. Where there may be any question regarding which district applies to any given site or portion of a site, final determination shall be made by the QDC Managing Director."

1. Airport (QAD)

2. General Industrial (QGID)

3. Light Industrial (QLID)

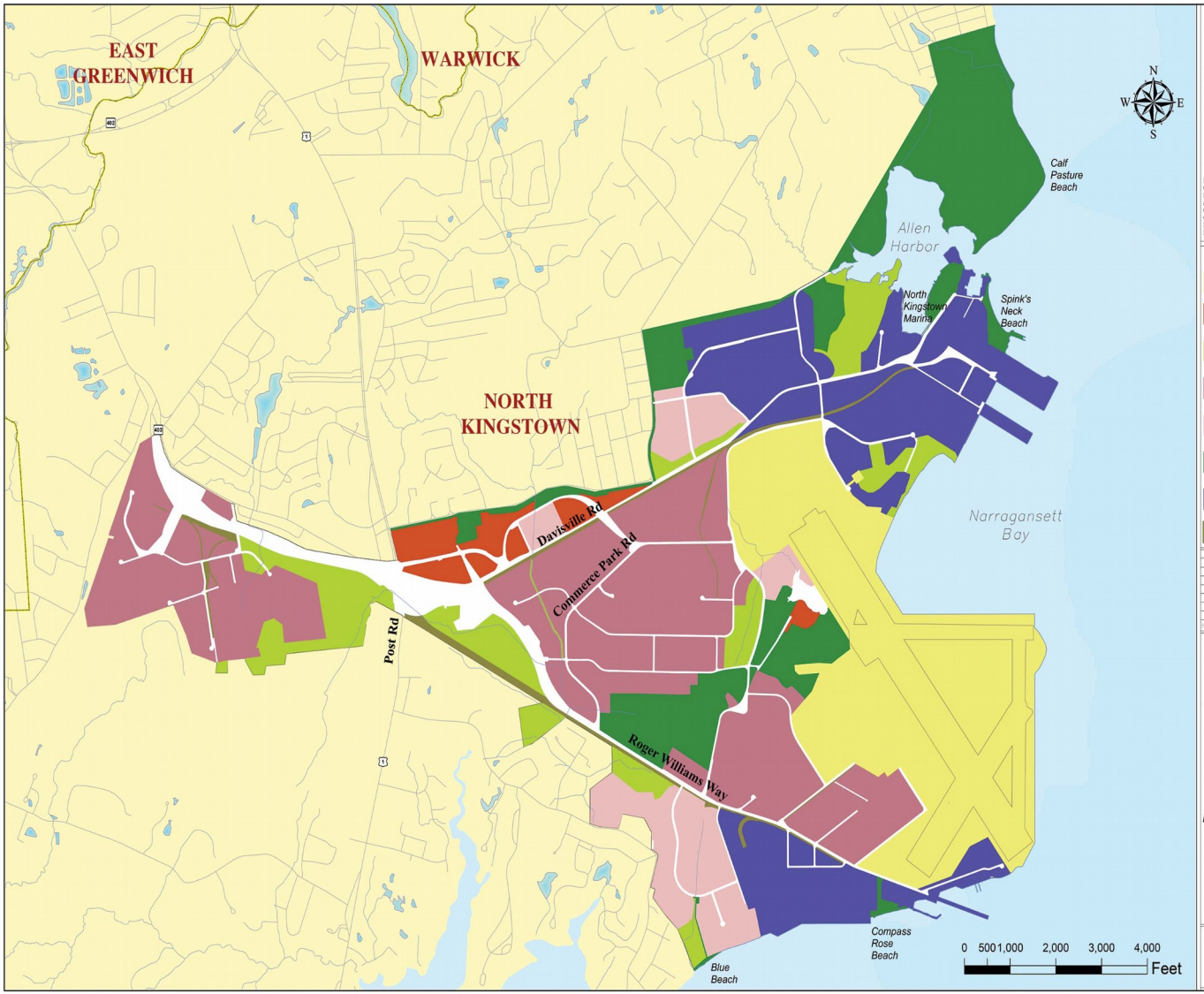
4. Mixed Use Development (QMUDD)

5. Open Space and Conservation (QOSCD)

6. Public and Recreation (QPRD)

7. Waterfront (QWD)

B. Figure 1 Land Use Districts



QUONSET DEVELOPMENT CORPORATION
Technical Support Services
95 Cripe St.
North Kingstown, RI 02852
Tel: (401) 295-0044
Fax: (401) 268-9885

Information shown on this map was provided by the Quonset Development Corporation, Rhode Island Geographic Information System and its participating organizations.
Cartography by Antonio Ambrosio, Quonset Development Corporation N. Kingstown, Rhode Island.
Map produced 2021. © 2021 QDC

RIGIS

Legend

- QAD Quonset Airport District
- QMUDD Quonset Mixed Use Development District
- QOSCD Quonset Open Space and Conservation District
- QGID Quonset General Industrial District
- QLID Quonset Light Industrial District
- QPRD Quonset Public and Recreation District
- QWD Quonset Waterfront District
- Rail/ROW

NO.	REVISION	DATE	APP.
1	UPDATED MAP ACCORDING TO MASTER PLAN	8/19/21	AJA

QUONSET BUSINESS PARK

DEVELOPMENT REGULATIONS

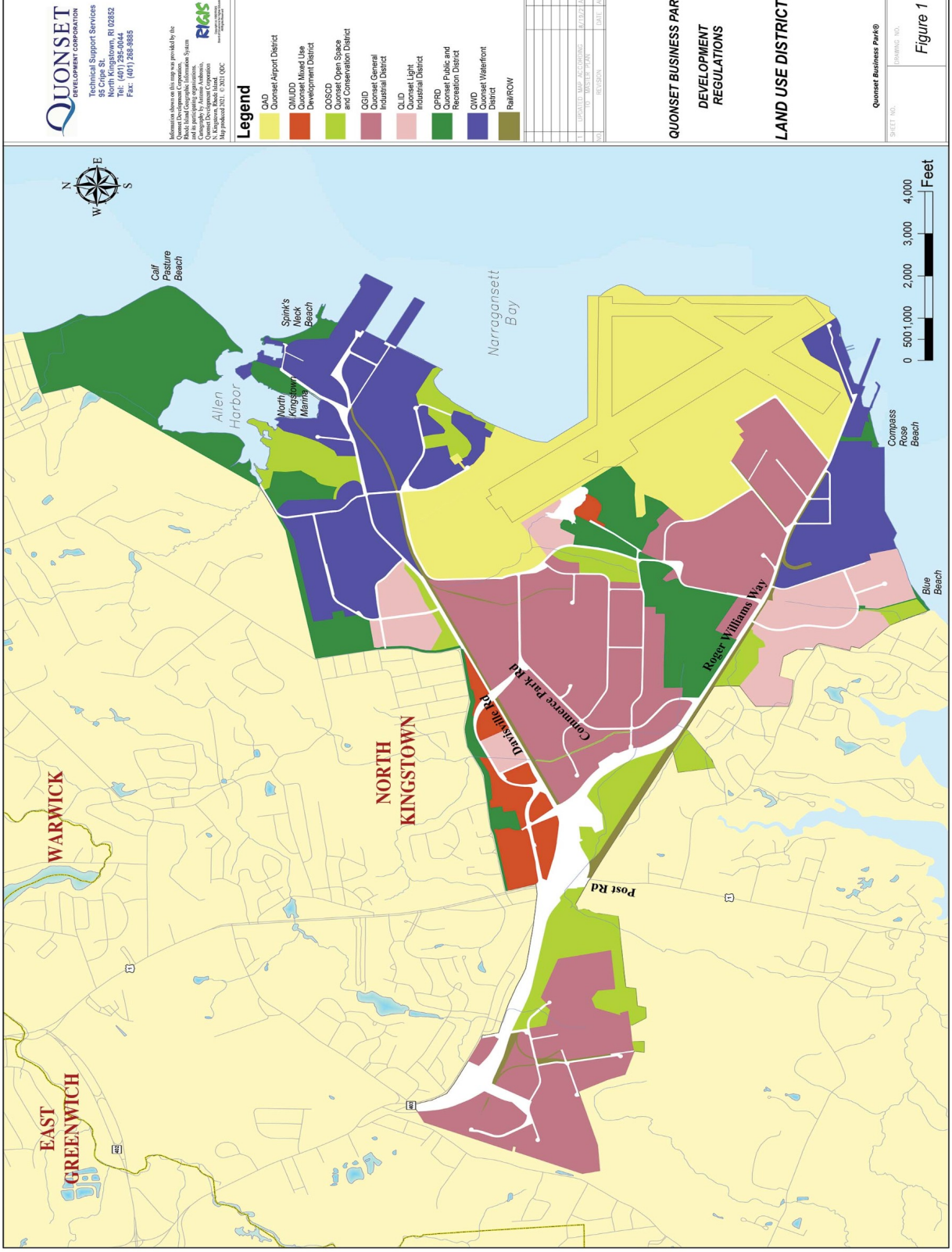
LAND USE DISTRICTS

Quonset Business Park®

SHEET NO.

DRAWING NO.

Figure 1



(2) Waterfront Uses

(3) Wind and Solar Energy Systems (accessory use only)

D. Quonset General Industrial District (QGID)

1. Quonset General Industrial District (QGID) shall be used for a broad range of industrial activities, including open and covered storage, fabrication,

material processing, packaging, distribution, offices, and manufacturing facilities. The intent is to locate such activities in areas where minimal impact on adjacent areas will result and where infrastructure and transportation facilities are available or can be made available.

2. General Provisions

a. All development activities must obtain all necessary approvals through the QDC development review process as set forth in § 4.5 of this Part, which include environmental, design, and technical review, and FAA review if applicable.

3. Principal Permitted Uses

a. Permitted uses shall include the following land use types:

(1) General Manufacturing

(2) Warehousing and Wholesaling

(3) Research and Development Facilities

(4) Professional Office

(5) Shipping

(6) Accessory Uses including Wind and Solar Energy Systems

(7) Sales or display areas within wholesale/manufacturing establishments limited to one thousand (1,000) square feet of net floor area.

E. Quonset Light Industrial District (QLID)

1. The purpose of the Quonset Light Industrial District (QLID) is to provide opportunities for non-noxious industrial uses such as light manufacturing, research and development, warehousing and wholesaling, and light assembly or any combination thereof within enclosed buildings.

2. The QLID is intended to provide for the development of light industrial uses in an industrial park setting. More specifically, the purpose of the QLID is to:

a. Provide a transition from more intensive to less intensive uses;

b. Develop low intensity and high-quality projects with increased amenities and open space.

3. General Provisions

a. All development activities must obtain all necessary approvals through the QDC development review process, which include environmental, design, and technical reviews, and FAA review if applicable.

b. A vegetated buffer consisting of evergreen shrubs, shade trees, ornamental plants, and groundcover shall be installed along the northern perimeter of the Park from Post Road to Marine Road. This buffer may include a multi-use trail. The buffer shall be a year-round dense opaque screen not less than six feet (6') in height.

4. Principal Permitted Uses

a. All permitted uses are subject to review by the TRC. Permitted uses shall include the following:

(1) Light Manufacturing

(2) Warehousing and Wholesaling

(3) Research and Development Facilities

(4) Professional Office

(5) Shipping

(6) Accessory Uses including Wind and Solar Energy Systems

F. Quonset Mixed Use Development District (QMUDD)

1. The purpose of the Quonset Mixed Use Development District (QMUDD) is to meet the goals and objectives of the Master Plan as it relates to supportive land use activities for the Park. The QMUDD is intended to accommodate a variety of office, hotel, retail sales and services, institutional and public uses. Institutional and public uses include government, educational and training facilities as well as associated buildings, parking, and amenities. Development in this district should be complementary to the Park and/or the community.

2. General Provisions

a. All development activities must obtain all necessary approvals through the QDC plan approval process, which include environmental, design, and technical reviews, and FAA review if applicable.

b. A vegetated buffer consisting of evergreen shrubs, shade trees, ornamental plants, and groundcover shall be installed along the northern perimeter of the Park from Post Road to Marine Road. This buffer may include a multi-use trail. The buffer shall be a year-round dense opaque screen not less than six feet (6') in height.

3. Principal Permitted Uses

a. All permitted uses are subject to review by the TRC. Permitted uses shall include the following land use types:

(1) Professional Office

(2) Hotel

(3) Restaurant

(4) Professional and Business Services

(5) Personal Convenience Services

(6) Education and Training

(7) Retail Stores

(8) Indoor Recreation Facilities

(9) Solar and Wind Energy System (accessory use only)

G. Quonset Open Space and Conservation District (QOSCD)

1. The purpose of the Quonset Open Space and Conservation District (QOSCD) is designed to meet the goals and objectives of the Master Plan as it relates to undeveloped open spaces.

2. General Provisions

~~a.~~ All activities must obtain all necessary approvals through the QDC development review process, which include environmental, design, and development reviews. Land owned by the Town of North Kingstown is not subject to these provisions and is excluded from the QDC process.

3. Principal Permitted Uses

a. All permitted uses are subject to review by the TRC. Permitted uses shall include the following land use types:

(1) Conservation Areas

(2) Buffers

H. Quonset Public and Recreation District (QPRD)

1. The purpose of the Quonset Public and Recreation District (QPRD) is designed to meet the goals and objectives of the Master Plan as it relates to developed lands dedicated to public uses. The QPRD is intended to accommodate publicly managed recreational facilities.

2. General Provisions

a. All activities must obtain all necessary approvals through the QDC development review process, which include environmental, design, and technical reviews. Land owned by the Town of North Kingstown is not subject to these provisions and is excluded from the QDC process.

b. Development along the coastal feature must conform to Regulations as set forth by RICRMC, RIDEM, ACOE, USCG, and all other appropriate agencies.

3. Principal Permitted Uses

a. All permitted uses are subject to review by the TRC. Permitted uses shall include the following land use types:

(1) Parks with Facilities

(2) Golf Courses

(3) Athletic Fields

(4) Bike Paths

(5) Historic Resources

I. Quonset Waterfront District (QWD)

1. The purpose of the Quonset Waterfront District (QWD) is to meet the goals and objectives of the Master Plan as it relates to waterfront development. The QWD is intended to accommodate a variety of waterfront industrial activities, marine-related and marine-enhanced uses, and tourism. Certain parcels in the QWD are located on RIAC property and may be subject to additional approvals.

2. General Provisions

    a. All activities must obtain all necessary approvals through the QDC development review process, which include environmental, design, and technical review, and FAA and RIAC review if applicable.

    b. Development in the Coastal Zone shall comply with 650-RICR-20-00-01, Red Book.

3. Principal Permitted Uses

    a. All permitted uses are subject to review by the TRC. Permitted uses may include the following land use types:

        (1) Marine Industrial

        (2) Marine Business

        (3) Marine Structures

        (4) Marine Construction Support

        (5) Recreation/Tourism

        (6) Accessory Uses including Wind and Solar Energy Systems

        (7) Marine Supply Retail

        (8) Boat and Marine Equipment Rentals

        (9) Businesses associated with aviation (on RIAC parcels)

4.8 Development Plan Review Regulations

4.8.1 Purpose

A. The purpose of the Development Plan Review Regulations is to establish the procedural and substantive provisions for the development of land in order to

meet the unique growth and development issues of the Park. The Development Plan Review Regulations are intended to:

1. Protect the public health, safety and welfare;

2. Provide design and improvement standards to reflect the intent of the Master Plan and the Municipal Services Agreement between the QDC and the Town of North Kingstown;

3. Provide thorough and consistent environmental, design, and technical review of all proposed land developments;

4. Ensure development which respects neighboring land uses and produces minimal off-site impacts;

5. Provide flexibility in the use and design of property within the Park;

6. Accommodate development that is appropriate for the site and the surrounding areas;

7. To avoid development which may result in negative environmental impacts;

8. Facilitate economic development opportunities.

4.8.2 Environmental Review and Socio-Economic Review

A. Pursuant to the 1979 Settlement Agreement, prospective land owners or lessees of land, must fill out an Environmental Review Form and a Socio-Economic Review Form (ERF & SERF). This procedure was established to protect the environment and ensure that development in the Park is consistent with the State Guide Plan. In 2016, a Memorandum of Agreement with the Division of Planning allowed QDC to prepare a unified ERF & SERF for pre-approval of parcels included in the Site Readiness Program. Parcels that are included in the Site Readiness Program shall use the Expedited Environmental and Socio-Economic Review process. Other parcels that are not in the Site Readiness Program shall use the Standard Environmental and Socio-Economic Review process. This review typically occurs concurrent with Site Control and prior to the Pre-Application. Expansion of existing uses that do not entail property acquisition are not subject to this review.

1. Expedited Environmental and Socio-Economic Review: Parcels that have been pre-permitted through the Site Readiness Program also have a pre-approved ERF & SERF. For projects on Site Readiness Program parcels, the applicant shall complete a one (1) page Project Notification Form

(found in the Forms Section of the Development Package' Guidance Document) and provide information on the location, land use, scope, size, scale, investment, employment, and water demand of the project. The form is then reviewed by QDC's Director, the North Kingstown Planning Director (or designee), and the Associate Director of the Division of Planning (who has a maximum of seven (7) business days to respond) to verify that the project conforms to pre-approved ERF & SERF. If it is determined that a project does not conform to the pre-approved ERF & SERF then a Standard Environmental Review must be conducted. Lack of a response to the Notification indicates concurrence.

2. Standard Environmental and Socio-Economic Review: Applicants for development of parcels that are not in the Site Readiness Program or whose projects were found not to conform to the pre-approved ERF & SERF shall complete the standard ERF & SERF (found in the Forms Section of the Development Package's Guidance Document) and provide detailed information related to the scope and scale of the project and its environmental, utility, transportation, and community impacts. The completed forms are then returned to QDC who shall then forward them to the State Planning Council, the RIDEM, the RICRMC, and the Town of North Kingstown for review and compliance with the State Guide Plan, environmental laws and Regulations, and the community comprehensive plan. The RIDEM and the RICRMC have fourteen (14) days to provide a preliminary assessment to the Director, and the State Planning Council has forty-five (45) days to respond with its determination. Lack of a response indicates conformity to the State Guide Plan.

4.8.3 Development Plan Review Authority

A. The authority to perform Development Plan Review shall reside with the Technical Review Committee as described herein and consistent with the MOU with the Town dated December 16, 2010.

1. Technical Review Committee (TRC)

a. Committee Purpose: To review all development within the Park for compliance and consistency with the Technical Review Regulations.

b. Committee Membership: The TRC will be comprised of the following members:

(1) The Managing Director of the QDC, who will be the chair of the TRC;

(2) The Director of Development Services of QDC (or his/her designee);

(3) The Director of Public Works of QDC (or his/her designee);

(4) The North Kingstown Planning Director (or his/her designee);

(5) The North Kingstown Public Works Director (or his/her designee); and

(6) The North Kingstown Fire Chief (or his/her designee) and/or the Rhode Island State Fire Marshall (or his/her designee) may serve in an advisory capacity.

2. Committee Meeting Schedule: TRC will meet as needed at the mutual convenience of the members with a minimum seven (7) day notice and receipt of plans. Notice requirement may be waived by mutual agreement of Managing Director and the North Kingstown Planning Director.

3. Development Plan Required: Upon a finding by QDC that the proposed development is an allowable use and that the site is either an existing lot or a new conforming lot, an applicant must submit a complete Development Plan to the TRC as described in § 4.8.5 of this Part.

4.8.4 Development Plan Review Process

A. Pre-Application Review

1. All development projects requiring a Certificate of Approval shall submit materials to the TRC for a pre-application review. The purpose of pre-application is to provide the TRC with information sufficient to convey the general design of the project and to determine whether any variance requests shall be classified as “minor” or “major” pursuant to § 4.5.2(B) of this Part. The TRC may approve a subdivision during this process provided the lot conforms to these Regulations, pursuant to Table 4, § 4.10(B)(1)(a) of this Part.

2. Pre-application plans shall contain information required in the Pre-application Checklist located in Development Regulations Guidance Document.

3. Pre-application review shall require no more than fifteen (15) days.

B. Development Plan Review Process

1. Upon advisement from the TRC on the pre-application submittal, an applicant may submit a complete Development Plan to the TRC pursuant to the requirements § 4.8.5 of this Part.

2. Upon receipt of a complete application the TRC has thirty (30) days in which to render a decision. The application may be approved, approved with conditions, or denied. If the application is denied, the application may be resubmitted.

3. Where an application requires a variance as determined by the Managing Director and/or the North Kingstown Planning Director, the application may be conditionally approved by the TRC, pending outcome of variance request as described in § 4.5.2 of this Part.

4.8.5 Development Plan Review Submittals

A. All plans and drawings submitted to the TRC shall be prepared by a professional licensed in the State of Rhode Island in the applicable discipline (i.e. architecture, landscape architecture, and engineering) and shall include all information required as part of the Technical Review Application and Checklist located in Development Regulations Guidance Document.

1. Development Plan Review Fees are to be paid by the Applicant to QDC on behalf of the TRC at the time of submission as follows:

a. Two thousand dollars ($2,000.00) for structures greater than forty thousand (40,000) square feet of gross floor area

b. One thousand dollars ($1,000.00) for structures between five thousand (5,000) and forty thousand (40,000) square feet of gross floor area

c. Five hundred dollars ($500.00) for structures less than five thousand (5,000) square feet of gross floor area

d. The Managing Director has discretion to adjust fees commensurate with the complexity of the development.

4.8.6 Decisions and Records

A. The TRC determination shall be binding on the applicant. Approval of an application for Development Plan Review may be granted by the concurrence of at least two (2) QDC members and at least one (1) Town Member; provided, however, that if neither Town Member is in attendance at a meeting of the TRC, the TRC shall be entitled to take any action upon the concurrence of at least two

(2) of the QDC Members. The Development Regulations shall specify meeting notification requirements to members of the TRC as well as to the applicants. If the TRC does not approve a proposed project, the members of the TRC who oppose the project shall be obligated to identify the particular section(s) of the Development Regulations with which the proposed project does not conform. Any applicant whose project is denied by the TRC for failure to conform with the Development Regulations shall be advised of the finding of non-conformance and provided an opportunity to address such finding.

B. All records, minutes and decisions of the TRC and the QDC Board shall be filed in the Office of the QDC. All correspondence with the TRC and/or the QDC Board shall be sent to:

1. Technical Review Committee, Quonset Development Corporation, Quonset Business Park, 95 Cripe Street, North Kingstown, Rhode Island 02852

4.9 Technical Review Regulations

4.9.1 Performance Standards

A. Performance standards are defined as a set of criteria or limits relating to elements, which a particular use or process either must meet or may not exceed. Performance standards within the Park shall regulate noise, vibration, air quality, water quality, light and glare, electronic interference, heat, fire and explosive hazards, radioactive materials, wetlands, historic preservation, resource allocation, and waste.

1. Application of Performance Standards – Any use established or changed to, and any building, structure, or land developed, constructed for any permitted principal use or any accessory use shall comply with all of the performance standards set forth in this section for the district involved. If any existing use or building or other structure is expanded and enlarged, the performance standards for the district involved shall apply with respect to such expanded or enlarged portion or portions of such use, building or other structure.

2. Enforcement of Standards – In the event of a determination of an alleged violation of these standards subsequent to the granting of a permit, the enforcement action may be taken consistent with § 4.5.3 of this Part.

3. Noise

a. Noise Measurement – Noise shall be measured with a sound level meter meeting the standards of the ANSI § S1.4-2014, 2014,

incorporated above in § 4.3(M)(1) of this Part. Measurements shall be conducted in accordance with ANSI § S12.51, incorporated above in § 4.3(M)(2) of this Part.

b. Basic Continuous Noise Level – The maximum permissible sound-pressure levels at specified points of measurement for noise radiated continuously from a facility shall conform to the values in Table 1 as measured from the nearest lot line. These standards are for noise generated as part of typical daily operations between the hours of 7 A.M. and 7 P.M. Where more than one (1) specified sound level applies, the most restrictive shall govern. Measurements may be made at points of maximum noise intensity. If the noise occurs between the hours of 7 P.M. and 7 A.M. on Monday through Saturday or any time on Sunday or holidays, seven (7) shall be subtracted from each of the decibel levels given in Table 1.

(1) Table 1. Basic Noise Level Restrictions: Monday – Saturday 7 A.M. to 7 P.M.

Maximum Permitted Sound Level dBA	Measured Across and Outside (Property Line)
55	QMUDD
60	QLID, QWD
65	QGID, QAD
Note: Notwithstanding these performance standards, aviation related activities are subject to FAA requirements and guidance.	

c. Adjusted Noise Standards in Areas Not Bordering Residential Districts – QDC shall adjust the values in Table 1 in specific instances for sites that are not adjacent to residential districts. The noise levels in Table 1 shall be adjusted for non-continuous noises associated with daily operations or those associated with impact activities. These adjustments shall not apply to noises emanating from construction and maintenance activities between 7 A.M. and 7 P.M.; noises emanating from safety signals, warning devices, and emergency pressure relief valves; or transient noises of moving sources such as automobiles, trucks, airplanes and railroads.

(1) The levels specified in Table 1 may be exceeded by ten (10) dBA for a single period, no longer than fifteen (15) minutes, in any one (1) day.

(2) For impact noise levels, the values in Table 1 increased by twenty (20) dBA, shall apply. Impact noises shall be considered to be those noises whose peak values are more than six (6) dBA higher than the values indicated on the sound level meter.

(3) Limits are intended for normal continuous day-to-day operations. These limits may be exceeded by a reasonable amount of time for temporary and short-term operations during construction, maintenance, or emergency conditions.

d. Adjusted Noise Standards in Areas Bordering Residential Districts – QDC shall adjust the values in Table 1 in specific instances for sites that are adjacent to residential districts. The noise levels in Table 1 shall be adjusted for non-continuous noises associated with daily operations or those associated with impact activities. If the noise is not smooth and continuous and is not radiated between the hours of 7 P.M. and 7 A.M., one (1) or more of the corrections in Table 2 following adjustments to the values in Table 1 shall be made. Any reductions already applied to values in Table 1 due to the hours during which it occurs (between 7 P.M. and 7 A.M.) shall be applied in addition to the adjustments in Table 2.

(1) Table 2. Adjusted Noise Level Standards for Properties Adjacent to Residential Districts.

Type of Operation or Character of Noise	Correction in Decibels (dB)
Noise source operates less than twenty percent (20%) of any one (1) hour period	Plus 5*
Noise source operates less than five percent (5%) of any one (1) hour period	Plus 10*
Noise sound operates less than one percent (1%) of any one (1) hour period	Plus 15*
Noise of impulsive character (hammering) or periodic character (screech, hum etc.)	Minus 5

Note: Notwithstanding these performance standards, aviation related activities are subject to FAA requirements and guidance.

*Apply one (1) of these corrections only.

4. Vibration

a. Definition of Terms – For the purposes of this subsection, certain terms are defined as follows:

(1) Frequency means the number of oscillations per second of a vibration.

(2) Impact vibrations means earthborne oscillations occurring in discrete pulses at or less than one hundred (100) per minute.

(3) Steady-state vibrations means continuous earthborne oscillations occurring more than one hundred (100) times per minute.

(4) Three (3) component measuring device means a device for the intensity of any vibration in three (3) mutually perpendicular directions.

b. Method of Measurement – For the purpose of measuring vibration, a three-component measuring system recognized as a standard for such purpose shall be used. Location and timing of measurements shall be arranged insofar as possible to exclude vibrations emanating from off the premises involved, or a correction factor reasonable under the circumstances shall be applied to compensate for off-premises vibrations.

c. Maximum Allowable Vibration Levels – No vibration at any time shall produce a maximum peak particle velocity that exceeds the following values measured on or beyond the appropriate property lines.

(1) Table 3. Maximum Peak Particle Velocity (inches/second)

Residential ** Character of Vibration	Adjacent Lot Line	QGID, QAD District Boundary	QMUDD, QLID, QWD District Boundary

Steady State	0.10	0.50	0.20
Impact	0.20	0.10	0.40

Note: Notwithstanding these performance standards, aviation related activities are subject to FAA requirements and guidance.

**Between the hours of 7 P.M. and 7 A.M., all of the permissible vibration levels indicated in the previous table for residential district boundaries shall be reduced by fifty percent (50%).

5. Aviation-related activities are subject to FAA guidance and requirements.

6. Air Quality – All operations, activities and uses shall be conducted so as to comply with all applicable Regulations for the prevention, control and abatement and limitation of air pollution established by the RIDEM.

7. Water Quality

   a. Sewage and water-borne wastes shall be deposited in the Park sewage system and shall be subject to the QDC Sewer Treatment System User Regulations. All effluent discharged into the QDC sewage system shall comply with the applicable pretreatment standards established by the United States Environmental Protection Agency (USEPA), 40 C.F.R ~~§~~ Part 403, incorporated in § 4.3(A) of this Part, and/or the QDC.

   b. Effluent not discharged into the QDC sewage system shall be disposed of in a manner acceptable to 250-RICR-150-10-2, Rhode Island Pretreatment Regulations, and the design, installation and operation of all subsurface wastewater disposal systems shall be approved by the Director of RIDEM.

   c. Effluent discharged into a surface water body shall require issuances of a National Pollutant Discharge Elimination System (NPDES) permit by the USEPA and RIDEM.

8. Light and Glare – Lighting installation and design shall comply with the provisions of § 4.13.4 of this Part.

9. Electronic Interference – Communications devices, radar equipment, or other electromagnetic radiation shall not interfere with airport instrumentation and communications.

10. Heat – Any use producing heat shall be shielded so that no increase in the ambient temperature can be recorded on or beyond the property line.

11. Fire and Explosive Hazards – All operations, activities and uses shall be conducted so as to comply with applicable provisions of the 450-RICR-00-00-7, RI Fire Code.

12. Radioactive Materials – The handling of radioactive materials, the discharge of such materials into the air and water, and the disposal of radioactive wastes shall be in conformance with the applicable Regulations of the United States Nuclear Regulatory Commission and Rules and Regulations for the control of radiation established by the Rhode Island Department of Health.

13. Wetlands – Areas classified as "wetlands" by R.I. Gen. Laws §§ 2-1-18 through 2-1-24, as amended, shall be subject to the provisions of that law.

14. Resource Allocation – Development of the property shall take into consideration the availability of water and energy supply. To the extent feasible, the developer shall make efficient use of such resources. Standards relating to the use of water may be amended by the QDC, at any time in order to comply with any requirements of any Federal, State or legal governmental agency or to ensure the short or long-term sustainability of supply to the Park.

15. Waste – All operations shall conform to Title 250 Chapter 140, Waste and Materials Management.

16. Hazardous Materials – All use, storage, and transportation of hazardous materials as defined by the U.S. EPA shall be in accordance with 250-RICR-140-10-1, and other State laws and local ordinances as applicable. The applicant shall indicate on the development plans materials, which are used, stored, transported, or generated which will be controlled by these Regulations. Material safety data sheets for each compound shall accompany the application. The application shall indicate the location, amount, and chemical composition of all such materials. All hazardous materials shall be contained in appropriate vessels in fully enclosed structures.

4.10 Site Design Standards

A. The following Site Design Standards are intended for use by those developing or modifying sites, parcels and/or premises located within the Park. Site Design Standards are a method and means of ensuring high quality development within

the individual parcel while accomplishing the desired goals for the entire Park. Development should be located to preserve the natural features of the site and to avoid areas of environmental sensitivity.

B. The architectural design of new buildings in the Park is important in maintaining and enhancing the curb appeal, providing an aesthetically pleasing built environment, and establishing a sense of place. Buildings that are visible from Post Road, residential neighborhoods, and/or from major streets are particularly important in establishing the visual character in the Park. "Building Design Standards" are found in the Guidance Document. The Building Design Standards shall be incorporated into all Development Plans to the maximum extent practicable.

1. Setbacks and Height

a. Dimensional Regulations: Table 4 below depicts the dimensional Regulations for the Quonset Business Park Land Use Districts. These Regulations have been adopted for the purpose of regulating the development while maintaining maximum flexibility within each use district.

(1) Table 4. Dimensional Regulations Table

Dimensional Requirements	QGID	QLID	QMUDD/ QAD*****	QWD
MINIMUM DIMENSIONS				
Lot Area	80,000 SF	60,000 SF	40,000 SF	80,000 SF
Lot Width	175’	175’	150’	125’
Lot Frontage	175’	175’	150’	125’
BUILDING SETBACKS (Including solar arrays)*				
Front Yard	35’	35’	15’	30’
Side Yard	30’	30’	10’	10’
Rear Yard	30’	30’	10’	10’

From Residential Structure	50’	50’	50’	50’
MAXIMUM DIMENSIONS				
Building Height	***	45’	150’****	150’****
MINIMUM PARKING SETBACKS				
Front	30’	30’	10’	30’
Side	10’	10’	10’	10’
Rear	10’	10’	10’	10’
MINIMUM STORAGE SETBACKS				
Front	35’	35’	-	30’
Side	30’	30’	-	10’
Rear	30’	30’	-	10’
Maximum Storage Height	40’**	30’	-	50**

*Where the height of a building exceeds the value for this setback and the property is adjacent to an existing residential district, the setback value from the residential district shall be equal to the building height as measured from the lot line of an approved residential parcel as shown on NK plat maps. This does not include open space, common areas, or undevelopable land.

**Storage Height may be exceeded only if an individual component (e.g., submarine hull or turbine foundation) exceeds forty feet (40’). 14 C.F.R. Part 77, incorporated in § 4.3(B) of this Part, apply.

***Building Height shall not exceed the distance from the lot line, or applicable requirements in 14 C.F.R. Part 77, incorporated in § 4.3(B) of this Part.

****14 C.F.R. Part 77, incorporated in § 4.3(B) of this Part, Horizontal Surface

restricts all buildings to a maximum of one hundred fifty feet (150') above runway grade.

*****QAD dimensional standards shall be applied only to new development abutting public streets and/or non-aviation uses.

2. Sidewalk Maintenance

   a. All areas subject to pedestrian traffic shall be paved with a durable material.

   b. Snow removal shall be the responsibility of the adjacent tenant and/or property owner and snow storage areas shall not interfere with pedestrian traffic.

   c. Access to sidewalks shall be provided in accordance with the Americans with Disabilities Act, 42 U.S.C. § 12101.

   d. The original construction and appearance of all sidewalks shall be maintained in good repair and in safe condition.

3. Parking and Circulation

   a. Parking is permitted only in paved designated areas. Spaces must be striped. Exceptions may be made on lots where the Rhode Island Coastal Resource Management Council (CRMC) prohibits the use of non-porous materials. Spaces shall be no smaller than nine feet (9') by eighteen feet (18').

   b. Parking is not permitted on Park streets, within the front, rear, or side yard parking setbacks.

   c. Snow storage areas shall not interfere with vehicular or pedestrian traffic.

   d. Parking spaces for people with disabilities must be provided in accordance with the Americans with Disabilities Act, 42 U.S.C. § 12101.

   e. Off-street parking shall be provided in accordance with Table 5. If a Regulation is not otherwise specified, the developer must refer to the Institute of Parking Generation Manual, incorporated above in § 4.3(I) of this Part.

(1) Table 5. Parking Standards

Parking Requirements by Use	**QAD**, QGID, QLID, QMUDD, and QWD**
Industrial	1 space per 500 sq. ft. *gross floor area
Office	1 space per 200 sq. ft. net office space
Commercial	1 space per 200 sq. ft. gross floor area
Marina	1 space per boat slip
Hotel/plus Meeting Room	1 space per room/plus 1 space for each 80 sq. ft. of meeting floor area
*A variance may be requested based on projected employment. **Parking in the QAD requires RIAC approval.	

f. Large tract, multiple tract, or mixed use development parking requirements may be satisfied in total or in part by an agreement between the developer and the QDC. Such exception to Table 5 shall be determined on a case by case basis per the results of a Parking Generation Report submitted to the QDC by the developer.

g. An applicant may petition the TRC to construct fewer parking spaces than what is required pursuant to Table 5. The TRC may grant approval of this request through a condition of Development Plan Review approval provided the applicant demonstrates that adequate land is set aside to meet the parking demands in the future and that all drainage calculations reflect the amount of parking area at build-out.

4. Loading and Service Areas

a. For every twenty thousand (20,000) square feet of gross floor area above four thousand (4,000) square feet, there shall be at least one (1) off-street loading space for industrial uses, at least twelve feet (12') wide, fifty feet (50') long, with fourteen feet (14') height clearance if covered. QDC may approve smaller loading docks if it

finds that only smaller trucks requiring less space will be used for a period of ten (10) years.

b. Loading facilities located on the side of a building facing a street shall be screened from view from the street unless such facilities are entirely enclosed within the buildings.

c. Any loading or unloading in front of the building shall be prohibited.

d. Distance from the loading dock to the property line shall be one hundred ten feet (110').

5. Driveways and Access Points

a. Joint access – The sharing of driveway access by two (2) or more properties is encouraged. Such driveways shall require a waiver from the QDC and an access easement agreement between the property owners.

b. Access to roads – All entrance and/or exit driveways onto State roads shall be in accordance with 290-RICR-20-00-4, State Highway Right of Way Regulations. All entrance and/or exit driveways onto Town roads shall be in accordance with the requirements of the Town's Department of Public Works. All entrance and/or exit driveways onto Park roads shall be in accordance with these Regulations.

c. Sight distance – Appropriate sight line shall be maintained where a driveway or street intersects with a public street depending on speed limit.

d. Maximum driveway grade – The gradient of a driveway shall have a slope of no greater than three percent (3%) for the first one hundred feet (100').

e. Driveway placement – Driveways should not be located beyond the crest of a vertical curve or on the inside of a horizontal curve where stopping site distance in not available for the design speed of the street. Driveways must be placed such that an exiting vehicle has an unobstructed sight distance according to the following table (Table 6):

(1) Table 6. Driveway Site Distance

Street Speed Limit	**Sight Distance (feet)**

(mph)	
5 – 30	200
35	225
40	275

f. Radii, Width and Spacing – Radii is related to the width of the driveway. -The width of most two (2) lane driveways measured parallel with the roadway since the driveway will typically be at right angles to the roadway is thirty feet (30') for two (2) way operation and fifteen feet (15') for one (1) way operation. Table 7 shows basis driveway dimensions. The TRC may reduce these values upon petition from an applicant to suit the design of lower traffic areas.

(1) Table 7. Driveway Dimensions

	Dimension Reference (Figure 1)	**Commercial**	**Industrial**
Width	W	15 feet one-way	20 feet one-way
Right-turn Radius	R	25 feet	25 feet
Minimum Spacing			
From Property Line	P	-R	-R
From Corner	C	10 feet	10 feet
From Driveway	S	(see Table 8)	

g. Driveway Spacing – At least one (1) curb cut shall be permitted per site. An additional curb cut per site may be allowed if warranted per review by the TRC and/or the RIDOT depending on the street classification. The limits of lot frontage, driveway spacing, both on site and to a driveway on an adjacent site, should be determined as

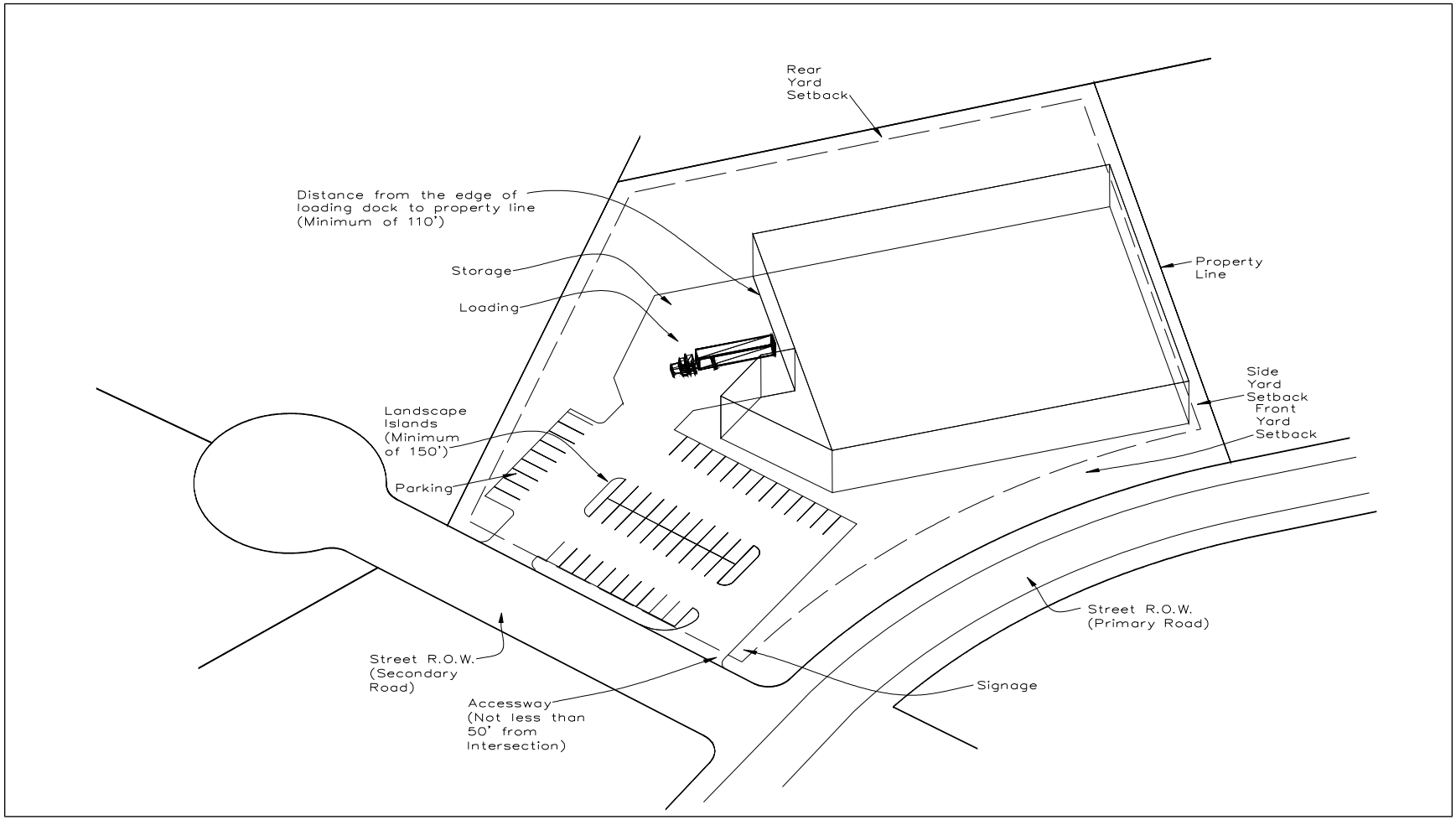
a function of street speed limit according to the following table (Table 8):

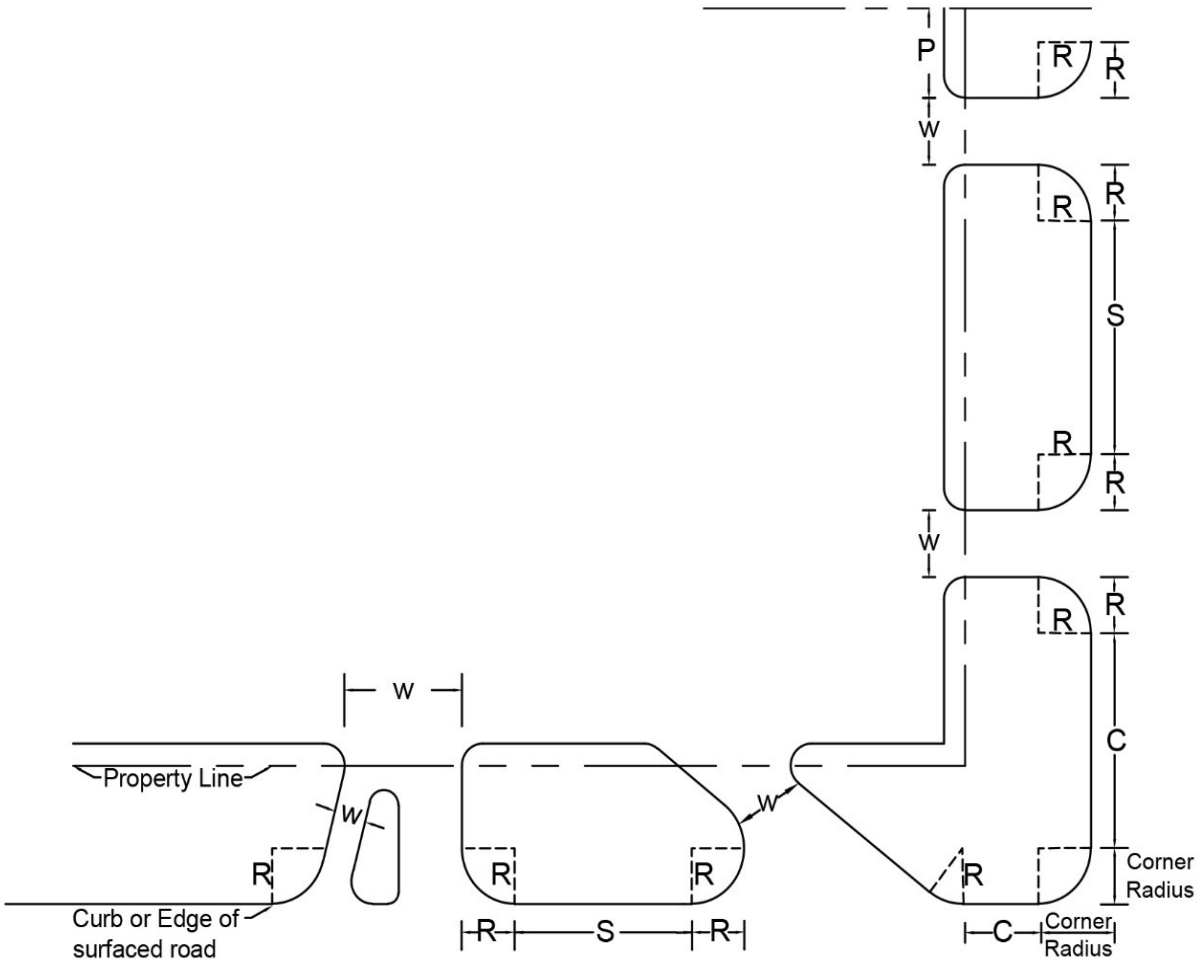
(1) Table 8. Driveway Spacing

Street Speed Limit (mph)	**Minimum Spacing (feet)**
25	105
30	125
35	150
40	185
45	230
50	275

h. Spacing distances are based on average vehicle acceleration and deceleration rates and are considered necessary to maintain safe traffic operation. Spacing shall be measured from the centerline of each driveway.

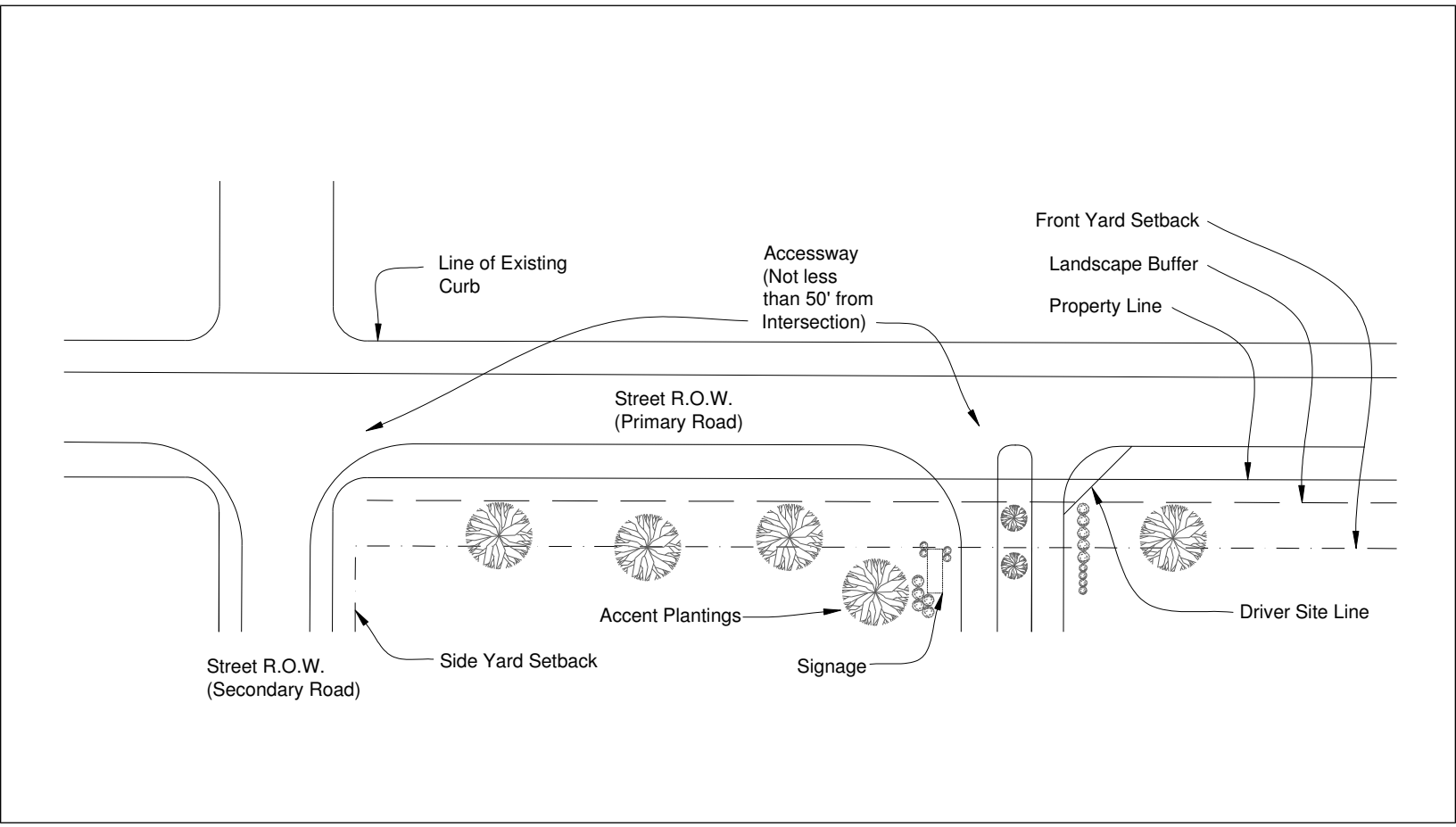
(1) Figure 2. Driveway Dimension Measurements (See Table 7)


Rear
Yard
Setback
Distance from the edge of
loading dock to property line
(Minimum of 110')
Storage
Loading
Property
Line
Side
Yard
Setback
Front
Yard
Setback
Landscape
Islands
(Minimum
of 150')
Parking
Street R.O.W.
(Primary Road)
Street R.O.W.
(Secondary
Road)
Signage
Accessway
(Not less than
50' from
Intersection)



(2) Figure 3. Loading and Service Area

(3) Figure 4. Site Entrance



6. Fire Department Access

a. A fire access road shall extend around the exterior of the building with a section of the access road within fifty feet (50') of a single exterior door providing access to the interior of the building and the remaining fire access road located no more than one hundred fifty feet (150') from the exterior wall of the building.

b. The access shall have an unobstructed width of not less than twenty feet (20') with an unobstructed vertical clearance of thirteen feet six inches (13'6").

c. The turning radius shall be a minimum outside radius of fifty feet (50').

d. The gradient of the access rood shall not exceed one foot (1') change in elevation in twenty (20) linear feet.

e. Fire access road shall be covered with a surface material that is capable of supporting the fire apparatus, preferably gravel or

bituminous pavement, and will permit access under all climate conditions and be maintained free of ice and snow.

f. Yard fire hydrants shall be installed a minimum distance of thirty feet (30') away from the structure.

7. Fencing and Walls – Design of Fencing and walls shall comply with the provisions of § 4.12(A)(5) of this Part.

8. Storage Areas

a. All areas for the outdoor storage of materials, waste, and finished products shall be indicated on the plans. The plans shall state the chemical composition and form of the materials, type of storage, and height of the materials.

b. Storage setbacks and height shall comply with the provisions of § 4.10(B)(1) of this Part and limitations required by 14 C.F.R Part 77, incorporated in § 4.3(M) of this Part, where applicable.

c. Open storage shall be screened from view of adjacent properties and from public streets.

d. All open storage shall be contained and/or covered as necessary so as to prevent its movement or transport by act of nature, including leaching into the ground.

e. Open storage of any substance that can be moved or damaged by water, or which is wholly or partly soluble in water is not permitted. QDC will notify users that materials shall be moved twenty-four (24) hours in advance of a major storm event in "A" and "V" Flood Zones as defined by Federal Emergency Management Agency National Flood Insurance Program.

f. Open storage shall be secured from unauthorized access.

g. Liquid bulk storage containers must meet standards as set forth by the National Fire Protection Association and RIDEM.

4.11 Site Utility Standards

A. Electric and Communications

1. Electric, telephone, cable and all other communication service lines shall be installed underground between building and point of service per specifications of the applicable public utility company.

2. Year-round screening shall be required of any utility apparatus appearing aboveground, other than utility poles. Screening may consist of fences and/or opaque evergreen plantings and shall be shown as part of the Landscape Plan submittal to the TRC.

B. Water Capacity

1. The water supply service shall be adequate to handle the necessary flow, based on complete development of the tract.

2. Water and fire suppression systems must meet the requirements of the QDC Water Department, 216-RICR-50-05-1, Public Drinking Water, 510-RICR-00-00-1, RISBC-1 Rhode Island Building Code, and 510-RICR-00-00-3, RISBC-3 Rhode Island Plumbing Code.

3. The demand rates for all uses shall be considered in computing the total system demand. Where fire protection is provided in accordance with the section below, the system shall be capable of providing the required fire demand plus the required maximum daily demand, or the peak hour flows indicated in 250-RICR-150-10-6, Rules Establishing Minimum Standards Relating to Location, Design, Construction and Maintenance of Onsite Wastewater Treatment Systems, whichever is greater. The maximum daily demand shall be calculated by multiplying the average daily demand by a factor of 1.5. An alternative method for estimating peak sewerage flows for building sewers is the “fixture unit” method. Coordinate with design of building plumbing. Sizes of proposed water and sewer services in the building shall be included on the plumbing trade plan, which shall be substantially a part of this.

4. Average daily consumption shall be computed in accordance with the section above. The peak daily flows shall be computed by applying a peaking factor of three (3) times the average daily consumption. QDC may require deviations in the peaking factor value provided appropriate documentation and justification for the deviation from the standards is provided.

5. The design of the on-site water service system shall be adequate to provide fire protection as per ISO standard, Fire Suppression Rating Schedule incorporated above in § 4.3(K)(1) of this Part, or per AWWA M31, incorporated above in § 4.3(O)(1) of this Part.

6. All development plans will comply with water conservation goals in the Quonset Business Park Master Land Use and Development Plan, § 5.0 and § 6.0 of the “Quonset Development Corporation Quonset Business Park Water Supply System Management Plan.” Water conservation shall be part of the site development planning, and building plumbing plans. Water conservation techniques such as but not limited to efficient use and reuse, recycling, pressure reduction where practical, low flow plumbing devices, and drought resistant landscape plantings, shall be evaluated and integrated into site plans and building plans. Recycling of industrial cooling water is encouraged.

7. All new site, building, and renovation designs shall have water efficiency enhancements incorporated into the building plumbing fixture selection and landscape planting selections:

    a. Indoor plumbing fixtures shall be U.S. EPA WaterSense Certified.

    b. Outside planting selections shall be of the variety that once established require little or no irrigation.

    c. The size of landscaping requiring irrigation shall be limited.

    d. Outside sprinkler systems shall be equipped with moisture sensors.

C. Water Service Design and Placement

1. Service design and placement shall comply with construction specifications for all applicable QDC rules and "American Water Works Association C800" incorporated above in § 4.3(O)(4) of this Part.

2. Service mains of the overall system shall be connected into yard loops so as to avoid dead-ends.

3. Valve connections are required at all points of Connection with the Park. Yard valves and hydrant spacing shall be per 510-RICR-00-00-1, RISBC-1 Rhode Island Building Code.

4. Gate valves shall be cast-iron body with double-disc gates; bronze mounted conforming to AWWA C500, incorporated above in § 4.3(O)(7) of this Part, or resilient-seated wedge, non-rising stem mechanical joint conforming to AWWA C509, incorporated above in § 4.3(O)(8) of this Part. Butterfly valves shall conform to AWWA C504, incorporated above in § 4.3(O)(9) of this Part. Valve interior openings shall be full size, and valves on sixteen inch (16”) mains or larger shall be geared and have suitable

bypasses. Valve boxes shall be of the adjustable type with the cover marked "water."

5. Gate valves shall be used for service lines between four and twelve inches (4” and 12”) diameter. Butterfly valves shall be used for all services greater than twelve inches (12”). All valves shall open left.

6. A building domestic service connection shall be comprised of a corporation stop at the main, a curb stop, a reduce pressure zone (RPZ) backflow preventer, and a water meter. Valving shall be in accordance with the 510-RICR-00-00-3, RISBC-3 Rhode Island Plumbing Code. Curb stops and water meters shall be located as specified by the QDC Water Department.

7. QDC shall supply all meters up to one inch (1”) in diameter, and any larger diameter meter shall be purchased by the User. User supplied meters shall comply with QDC Standard Details in the Guidance Document and shall be electronically coded at the factory to be read by QDC’s automated water meter reading system. Coordination with the QDC Water Department is required prior to purchasing.

8. Reduced Pressure Zone (RPZ) backflow preventers are required on all domestic water services and shall comply with QDC Standard Details in the Guidance Document, or as directed by QDC Water Department Superintendent. Double check valve assemblies are required on all fire protection services and shall comply with QDC Standard Details in the Guidance Document.

9. Meters and backflow prevention devices shall be installed per the QDC’s standard details; and shall be inspected and approved by the QDC’s Water Department prior to activation.

10. Pipe size shall comply with the following requirements:

    a. Building service connection pipe shall be a minimum diameter of one inch (1”), unless another size is required for fire flow and other criteria.

    b. Design capacity of water mains shall be such as to maintain a minimum residual pressure of twenty (20) pounds per square inch (psi) at street level under all fire flow conditions. The maximum fire flow shall be two thousand (2,000) gallons per minute (gpm) per zone.

11. Pipe materials used in the construction of water mains shall be cement-lined ductile iron class 52 or PVC pipe, as outlined in AWWA C900, incorporated above in § 4.3(O)(5) of this Part. All pipes greater than or equal to twelve inches (12") in diameter must be ductile iron. All pipe and appurtenances shall comply with AWWA C151/A21.51 standards, incorporated above in § 4.3(O)(6) of this Part.

    a. Ductile iron pipe, appurtenances, and fittings shall comply with AWWA C110/A21.10, incorporated above in § 4.3(O)(10) of this Part; gasket joints shall comply with AWWA C111/A21.11, incorporated above in § 4.3(O)(11) of this Part; flanged joints shall comply with AWWA C115/A21.15, incorporated above in § 4.3(O)(12) of this Part; and pipe shall comply with AWWA C151/A21.51, incorporated above in § 4.3(O)(6) of this Part. Thickness shall be designed in accordance with AWWA C150/A21.50, incorporated above in § 4.3(O)(13) of this Part. It shall be cement-mortar lined in accordance with AWWA C104/A21.4, incorporated above in § 4.3(O)(14) of this Part. Joints shall be gasketed push-on joints or mechanical joints in conformance with AWWA C111/A21.11, incorporated above in § 4.3(O)(11) of this Part. The exterior of the ductile iron pipe shall be covered with an asphaltic, epoxy-type coating. In aggressive soils, ductile iron pipe shall be wrapped in polyethylene in accordance with AWWA C105/A21.50, incorporated above in § 4.3(O)(13) of this Part, or zinc coated ductile iron pipe in accordance with ISO 8179-1, incorporated above in § 4.3(K)(2) of this Part, shall be used.

    b. PVC pipe, appurtenances, and fittings shall conform to AWWA C900, incorporated above in § 4.3(O)(5) of this Part or AWWA C909, incorporated above in § 4.3(O)(2) of this Part for pipe sizes four inches (4") to twelve inches (12") and shall conform to AWWA C905, incorporated above in § 4.3(O)(15) of this Part for sizes fourteen inches (14") through thirty-six inches (36"). Joints shall be elastomeric-gasket couplings of a corresponding size. Laboratory performance requirements shall be met as specified in ASTM D3139, incorporated above in § 4.3(P)(1) of this Part. Solvent-cement couplings shall not be permitted. PVC pipe installations shall be provided with a metallic locator tape.

    c. Where transitions to flanged fittings are made, adapters approved by QDC shall be used.

d. Building service connection pipe shall be type K copper or polyethylene (PE) pressure pipe that complies with ANSI/AWWA C901, incorporated above in § 4.3(O)(16) of this Part.

12. Pipe bedding and backfill shall be installed in accordance with the pipe manufacturer's recommendations.

a. QDC may require the developer to provide an opinion of a professional engineer relative to the suitability of the on-site material to be used as backfill.

b. Where the on-site material is deemed suitable, the opinion shall specify the appropriate installation methods for the material. Where the on-site material is deemed not suitable, the opinion shall specify modification or replacement of the material and the appropriate installation for the specified material.

D. Fire Hydrants

1. Hydrants shall be spaced to provide necessary fire flow subject to the approval of State and Town Fire Marshal.

2. Size, type, and installation of hydrants shall conform to the following specifications as appropriate.

a. Hydrants shall comply with QDC Standard Details in the Guidance Document. Valves shall open right, and hydrant nozzles shall be set at standard height above finish grade.

b. Size, type, and installation of hydrants shall be in accordance with the requirements of QDC or shall conform to ANSI/AWWA C502 incorporated above in § 4.3(O)(3) of this Part.

c. All fire hydrants shall conform to NFPA Standard 291, incorporated above in § 4.3(G) of this Part.

E. Sanitary Sewers

1. Sanitary sewer service, where installed, shall conform to the standards contained in this Subchapter and to the standards of QDC.

2. The applicant shall submit to QDC for review for compliance with this Part details of the planned pipes, joints, mains, laterals, and appurtenances. The details shall comply with all standards and specifications listed in this Part.

F. Sanitary System Design and Placement

1. Refer to the Development Regulation's Guidance Document for slope standards for sanitary systems.

2. Except where shallower depths are permitted by QDC, sewer lines, including force mains and laterals, shall be constructed at least three feet below the proposed grade (as measured from the top of the pipe to the grade elevation).

3. Pipe materials used in the construction of gravity sanitary sewers shall be PVC or ductile iron pipe. All pipe and appurtenances shall comply with AWWA and ASTM standards referenced in this paragraph, which are incorporated herein by reference. Where PVC pipe is installed, a metallic locator tape shall also be installed adjacent to the pipe.

   a. PVC sewer pipe shall have bell and spigot ends, and O-ring rubber gasketed joints. PVC pipe and fittings shall conform to ASTM D3034, incorporated above in § 4.3(P)(2) of this Part, with a minimum wall thickness designation of SDR 35, or shall conform to ASTM F679, incorporated above in § 4.3(P)(3) of this Part, F794, incorporated above in § 4.3(P)(4) of this Part or F949, incorporated above in § 4.3(P)(5) of this Part with a designated pipe stiffness of PS-46.

   b. The plastic material from which the pipe and fittings are extruded shall be impact types of PVC, unplasticized, having high mechanical strength and maximum chemical resistance, conforming to Type 1, Grade 1 of the specification for rigid polyvinyl chloride compounds, ASTM D1784, incorporated above in § 4.3(P)(6) of this Part.

   c. Pipe shall be free from defects, such as bubbles or other imperfections, in accordance with accepted commercial practice. Test results demonstrating that the pipe meets ASTM D2444, incorporated above in § 4.3(P)(7) of this Part for impact and ASTM D2321, incorporated above in § 4.3(P)(8) of this Part for deflection and pipe stiffness shall be provided when requested by the municipality or utility authority.

   d. Joints shall conform to ASTM D3212, incorporated above in § 4.3(P)(9) of this Part. Rubber-ring gaskets shall conform to ASTM F477, incorporated above in § 4.3(P)(10) of this Part. The gasket

shall be the sole element depended upon to make the joint watertight.

e. The pipe shall be installed as specified in ASTM D2321, incorporated above in § 4.3(P)(8) of this Part. When installing pipe in unstable soil or excessive ground water, a determination regarding special precautions, such as poured concrete slabs, shall be made by QDC's engineer.

f. Bedding, haunching, and initial backfill material shall be furnished and installed to conform to "Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction, Amended August 2013, § 701.02.5 Bedding Materials", incorporated above in § 4.3(E) of this Part.

g. Ductile iron pipe shall be centrifugally cast in metal or sand-lined molds to AWWA C151/A21.51, incorporated above in § 4.3(O)(6) of this Part. Joints shall be rubber gasketed joints that conform to AWWA C111/A21.11, incorporated above in § 4.3(O)(11) of this Part, or flanged joints that comply with AWWA C115/A21.15, incorporated above in § 4.3(O)(12) of this Part. Pipe shall be a minimum of Class 50. The outside of the pipe shall be coated with a uniform thickness of hot applied asphaltic coating. In corrosive soils, pipe shall be encased in polyethylene in accordance with AWWA C150/A21.50, incorporated above in § 4.3(O)(13) of this Part. Ductile iron pipe shall be installed with Class C, Ordinary Bedding when site conditions allow. The inside shall be lined with cement in accordance with AWWA C117/A21.4, incorporated above in § 4.3(O)(14) of this Part, or where hydrogen sulfide is present, ductile iron pipe with polyethylene coating that protects the interior of the pipe shall be used.

h. Force mains shall be constructed of ductile iron pipe, as specified above or PVC pipe that meets ASTM D1785, incorporated above in § 4.3(P)(11) of this Part, ASTM D2241, incorporated above in § 4.3(P)(12) of this Part, or AWWA C909, incorporated above in § 4.3(O)(2) of this Part.

i. Inspection cleanouts or observation tees within the easement or right-of-way shall be fitted with either a metallic cap or a nonmetal cap fitted with a metallic plug that is suitable for locating the cleanout. Caps shall have a depressed or inverted nut. The inspection cleanout or observation tee shall be placed between the curb or edge of pavement and property line, or within a designated

easement. An inspection manhole shall be provided at or near the property line, prior to connection to the QDC Sewer System, from each prospective sewer user.

j. As-built drawings that include the location of plumbing wyes, as supplied by the contractor, shall be submitted to QDC's engineer.

k. Exterior drop manholes shall be per QDC standard detail found in the Development Regulation's Guidance Document.

4.12 Landscaping Standards

A. All landscaping improvements shall be installed and completed in accordance with a Landscape Plan as submitted and approved by the TRC. A Landscaping Plan must be submitted for each site as part of the review process. The goal of the TRC is to work with the developer to achieve a landscape design for the parcel which incorporates the site and improvements into the surrounding environment.

1. Landscape Plan

a. A Landscape Plan shall be submitted to the TRC as part of the Development Plan Review process detailed in § 4.8 of this Part. The Landscape Plan shall include information regarding the type and location of existing and proposed landscape elements including: decorative plantings, trees, shrubs, grassed areas, screen plantings and the location of fencing, lighting and signage for buildings and parking areas.

(1) Proposed grading at two foot (2') contour intervals;

(2) Proposed location of retained vegetation and description of the vegetation to be retained;

(3) Methods of protection for retained vegetation during the construction phase;

(4) List of proposed plantings and general locations;

(5) Details for screening as required in § 4.12(A)(4) of this Part;

(6) Details for buffering as required in § 4.12(A)(8) of this Part including cross-section profiles of any buffers between properties at a frequency of no less than one (1) cross-section per one hundred (100) linear feet of property line;

(7) Identification of any landscaped areas that will be used for stormwater management including details and specifications for vegetated practices such as swales, constructed wetlands, rain gardens, etc.; as required by 250-RICR-150-10-8~~7~~, Stormwater Management, Design, and Installation Rules;

(8) Specifications for cultivation, loaming, seeding, and fertilization that demonstrate compliance with these Regulations and required by the "Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction, Amended August 2013, § 701.02.5 Bedding Materials", incorporated above in § 4.3(E) of this Part.

b. The Landscape Plan shall be developed as a total plan for the site, which incorporates the various elements of the site design, preserving and enhancing the particular identity of the site, and creating a character that is cohesive to the landscape aesthetic of the Park.

c. Landscaping may include plant materials such as trees, shrubs, ground covers, perennials, annuals, and other materials such as rocks, water, sculpture, art, walls, fences, paving materials and street furniture.

d. Street tree plantings from the edge of the road to the property line will be installed and maintained as a part of the common area of the Park by the QDC. All landscape installation within the individual parcels is the responsibility of the parcel owner/tenant.

2. Plant Selection

a. Plant varieties shall be selected for long term resistance to drought, moisture, salt, urban conditions, insects or pests depending on the location of landscaping and the specific stressors anticipated for different areas of the site. Plants should be selected so that landscaping can be maintained with minimal care and the need for watering, pesticides or fertilizers is minimized or eliminated;

b. Landscape professionals are encouraged refer to the Development Regulation's Guidance document for a link to the URI Cooperative Extension's Rhode Island Coastal Plant Guide, as well as other

current standards for nursery stock/species when selecting plant varieties for landscaping;

c. Under no circumstances shall any plant be selected that appears on the most recent listing of invasive species as published by the Rhode Island Invasive Species Council;

d. Caliper measurements and root ball specifications for all trees and shrubs shall conform to the American Standard for Nursery Stock ANSI Z60.1-2004, incorporated above in § 4.3(H) of this Part;

e. Shade or canopy trees shall not be less than twelve feet (12') in planted height above grade;

f. Small or minor shade trees shall not be less than ten feet (10') in planted height above grade;

g. Ornamental or flowering fruit trees shall not be less than ten feet (10') in planted height above grade;

h. Evergreen trees used for screening shall not be less than six feet (6') in planted height above grade;

i. Trees shall be selected to encourage a continuous canopy to the greatest extent practical;

j. Lawn seed mixes shall be drought resistant. To achieve a high level of drought tolerance, lawn mixes may include, but shall not be limited to, a predominance of fine fescues.

3. Site Protection, Planting and Cultivation

a. Topsoil suitable for landscaping shall be retained on site in an amount as determined as part of the required landscape plan. To the maximum extent practicable, the developer shall minimize the areas of the site to be regraded or disturbed. Topsoil exposed during construction shall be protected through stabilization measures consistent with the Rhode Island Soil Erosion and Sediment Control Handbook, incorporated above in § 4.3(F) of this Part.

b. All organic material, rubbish, potentially harmful materials or debris shall be removed from the site in a timely fashion. Disposal of cleared, grubbed and stripped materials shall be the responsibility of the developer. All roots, stumps, brush, foliage and other

vegetation that have been cleared or excavated shall be removed and disposed of by the developer of the project site.

c. No filling, excavation or material storage shall occur within four feet (4') of any shrub or the dripline of any tree that will be retained. Protective barriers shall be installed to protect the area surrounding retained vegetation and shall be a minimum of three feet (3') high and constructed of durable material. Snow fences and silt fences are examples of acceptable barriers.

d. Parking of construction vehicles, offices/trailers, stockpiling of equipment/materials, etc. shall take place in areas designated for permanent structures or other impervious surfaces.

e. Landscaping of all cut and fill areas and/or terraces shall be sufficient to prevent erosion and all roadway side slopes greater than 1:3 shall be planted with vegetated ground cover appropriate for the purpose of erosion control and for the soil conditions and environment. The use of erosion control fabric or mats shall be utilized when appropriate.

f. In all areas where landscaping is to be provided and topsoil is to be removed for the purposes of site development and/or grading, topsoil shall be restored and shall contain a minimum of five percent (5%) organic matter for turf areas and ten percent (10%) for trees and shrubs. The minimum depth of any restored topsoil shall be six inches (6").

g. Where pre-existing topsoil will be used for landscaping, such soil shall be cultivated to a depth of six inches (6").

h. Cultivated areas shall be covered with not less than a two inch (2") deep layer of mulch after planting where weed control is required. Mulch should be natural, unpainted, unstained, and designed to retain moisture where applied. Mulching around plantings shall not cover the base of plants or the root zone in a manner that encourages damage from excessive moisture. Wood chip mulch shall not be allowed.

i. Pit cultivation for all trees shall be two and one half (2 ½) times the diameter of the root ball and a depth equal to the same. Holes for trees shall be prepared in a manner that facilitates grow-in of new trees through the use of best practices.

j. Trees and other landscaping shall be staked as necessary and provisions shall be made by the developer for adequate watering and maintenance until the plantings are established.

4. Screening

a. Screening shall be provided for all development of land in order to minimize adverse visual impacts.

b. Where there is adequate land, screening shall incorporate vegetation at a variety of heights so that trees and plantings can be used in a complementary manner to the remaining portions of the property.

c. Parking lots and loading areas shall be screened from the street.

d. Parking lots shall be interrupted by shade trees and planting islands to allow no more than one hundred fifty feet (150') of continuous asphalt paving surface.

e. Solid waste collection equipment, surface mounted transformers, pump stations, outdoor storage and other outdoor uses visible from a public street shall be screened by a buffer strip with minimum width of three feet (3') along the sides and back of the areas and shall be planted with evergreen trees and shrubs and/or screened by a five-foot solid fence. Evergreen shrubs shall be spaced so that adjacent plants are touching at time of planting.

5. Walls and Fences

a. Walls and fences shall be erected where required for privacy, screening, separation, security, erosion control or to serve other necessary and reasonable functions.

b. No fence or wall shall be so constructed or installed as to constitute a hazard to traffic or safety.

c. All fences shall be constructed of manufactured metal fencing material, wood, masonry or other inert material, and be functional and compatible with the existing and proposed architecture. Wooden posts shall be treated with a preservative before being placed in the ground. Unless otherwise specified, barbed wire fence is prohibited.

d. Fences used as part of screening between Park properties and existing residential districts shall be compatible with a residential setting in design and materials.

e. Security fences may be permitted and/or required at the discretion of the TRC.

6. Mixed Use Development/Waterfront Non-Industrial Use/Light Industrial

a. To the extent possible, existing natural conditions such as mature trees and topographic features shall be preserved.

b. It is encouraged to have all unpaved areas planted with sustainable plant material. Groundcover or other low-lying species are preferred over turf.

c. The front yard landscaped with street trees, ornamental plants, and groundcover to within ten feet (10') of a public roadway is preferred.

d. Landscape elements shall not restrict visibility of signs or sight distances for vehicular access.

e. It is preferred that a minimum of ten feet (10') of side and rear yards be landscaped with trees, shrubs and groundcover if the parcel does not adjoin an open space area.

f. Screening of parking lots, loading areas, surface mounted transformers, and waste receptacles from the street and adjacent properties is required.

g. Chain link fences are not permitted except for security.

7. General Industrial and Waterfront Industrial

a. The front yard landscaped with street trees, ornamental plants, and groundcover to within thirty feet (30') of a public roadway is preferred.

b. A minimum of ten feet (10') of side and rear yards shall be landscaped with trees, shrubs and groundcover where the lot line is on a public street, if possible.

8. Buffers and Natural Features

a. Buffers and natural features are encouraged throughout the Park to enhance visual image of the Park.

b. A vegetated buffer consisting of evergreen shrubs, shade trees, ornamental plants and groundcover shall be maintained along the northern perimeter of the Park from Post Road to Marine Road. This buffer may include a multi-use trail. The buffer shall provide a year-round dense opaque screen not less than six feet (6') in height.

c. To the maximum extent practicable, development shall be located to preserve the natural features of the site, to avoid areas of environmental sensitivity and to minimize negative impacts and alteration of natural features. The following specific areas shall be preserved as undeveloped open space, to the extent consistent with the reasonable utilization to land and in accordance with applicable local, State, or Federal Regulations: wetlands, water bodies and water courses, and scenic views.

4.13 Signage and Lighting

4.13.1 Signage Design

A. A "sign" means any letter, number, word, address, symbol, drawing, picture, design, device, article, object or any combination thereof that has the primary purpose of identifying or indicating any property, lot, parcel, premises, product, business or entity.

1. The size of a sign is defined by the area of the shape, whether rectangular, circular, or other, that encloses all the individual letters and/or symbols that make up that sign. Any material or color forming part of the background of the display or which is used to differentiate the display from the backdrop shall be included in the total sign area calculations.

2. Only one (1) side is calculated in computing the area of a double faced sign, however, not having a double faced sign shall not allow for the addition of square footage to the maximum square footage that is allowed.

B. All outdoor signs shall conform to applicable Federal and State statutes and Regulations.

C. Signs shall be restricted to advertising only the person, firm, company or corporation operating the use conducted on the site or the products produced or sold on the site.

D. No sign shall by any reason of location, shape, size, lighting or color, interfere with traffic, or be confused with or obstruct the view or the effectiveness of any official traffic sign, signal or marking.

E. Construction signs shall not be erected prior to the commencement of the site work and shall be removed within ten (10) days after the issuance of any occupancy permit.

F. The following types of signs will be permitted, subject to the approval of the TRC as per Table 9 – Dimensional Regulations for Signs.

1. Horizontal wall signs, otherwise known as belt, face, or building mounted tenant signs, excluding signs painted on the wall itself. Individual graphics applied to the façade of the wall sign

2. Plaque signs attached to the face of a building in close proximity to the main entrance and bearing the firm's name or trademark

3. Parapet signs including signs on the top of a canopy or marquee. No sign shall project above the roofline of any structure

4. Monument, ground mounted building identification

5. All necessary directional signs on the lot occupied by the building to which such signs pertain

6. Signs which are part of the building architecture

7. Internal directional signage (which shall not be located within the setback area)

8. Window signs

9. Temporary Signs

a. The following are the requirements for temporary signs within the Park, unless otherwise regulated by this Part:

(1) Any new business is permitted to display a temporary sign for up to thirty (30) days, provided proper QDC approval has been obtained.

(2) Temporary signs shall be attached to the structure where the business is located.

(3) Temporary signs shall be no more than six (6) square feet in area.

(4) No temporary sign shall be internally or externally illuminated.

(5) No temporary sign shall be allowed within a QDC right-of-way or on any property owned or operated by QDC unless prescribed by this Part.

(6) All temporary signs shall be constructed with suitable materials to withstand the weather for the time period during which they are displayed. Any temporary sign that shows wear or tear shall be removed by owner.

(7) No temporary sign shall be allowed that obstructs visibility, interferes with public access, or is otherwise determined to be a safety hazard by the QDC.

(8) Signs placed or authorized by a government agency, including, but not limited to, traffic signs and signals, legal notices, railroad crossing signs, or signs regulating the traffic of, or giving information to, motorists, transit riders, cyclists, or pedestrians are permitted in any number, configuration, or size in any district. Such signs may be illuminated as required by the agency.

G. No billboards, flashing or animated signs, or pole mounted signs will be allowed.

H. Signs provided within the right of way, such as temporary signs or way-finding signs shall only be installed and maintained by QDC.

1. Table 9 Dimensional Regulations for Signs

	DISTRICT	
Type of Sign	**Mixed Use Development (QMUDD)**	**(QAD), (QGID), (QLID), (QWD)*, (QPRD) (QOSCD)**
Wall Sign/Plaque Sign	Signs may be located on any building wall of a structure so long as the maximum sign surface area does not exceed three (3) square feet for each running foot of face, or ten percent (10%) of building façade length.	Maximum of two (2) tenants per sign and maximum forty five (45) square feet per sign
Freestanding/Monument* *No part of a freestanding sign may project into, over, or otherwise encroach on a public right-of-way.	No more than eight feet (8') tall by six feet (6') wide, maximum one (1) sign per building with graphics on both sides. For multiple tenants, each plaque may not exceed eight (8) square feet.	No more than eight feet (8') tall by six feet (6') wide, maximum one (1) sign per building with graphics on both sides. For multiple tenants, each plaque may not exceed eight (8) square feet.
Awning/Canopy** **Canopy signs shall maintain a minimum vertical clearance of seven feet six inches (7'6"). Printing on any canopy sign is limited to twenty-five percent (25%) of the surface area. An awning/canopy is to be considered a wall sign. Any section of the awning that incorporates writing or other	No more than two (2) square feet of sign area for every one foot (1') of lineal building frontage.	No more than two (2) square feet of sign area for every one foot (1') of lineal building frontage.

graphics used to identify a business will be calculated as sign area.		
Window Signs	All window signs, whether temporary or permanent, are limited to no more than twenty-five percent (25%) of the surface of each window area. Window area is counted as a continuous surface until divided by an architectural or structural element. Mullions are not considered an element that divides window area.	Not Permitted
Temporary*** ***Signs placed or authorized by a government agency, including, but not limited to, traffic signs and signals, legal notices, railroad crossing signs, or signs regulating the traffic of, or giving information to, motorists, transit riders, cyclists, or pedestrians, are permitted in any number, configuration, or size in any district. Such signs may be illuminated as required by the agency.	Maximum six (6) square feet	Maximum six (6) square feet
Billboard, Flashing, Neon Sign, Pole Signs, Pylon	Not Permitted	Not Permitted

I. No sign shall exceed a maximum area of more than three (3) square feet for each running foot of the face of the building displaying such signs, and a maximum projection of no more than twelve inches (12”) from the face of the building.

4.13.2 Maintenance of Signs

All signs whether erected prior to the effective date of this Regulation or not, shall be maintained in a safe and neat condition to the satisfaction of the QDC.

4.13.3 Sign Approvals

A. All new signs must be reviewed and approved by the QDC.

1. Submittal requirements – the following must be submitted concurrently to be considered a complete submission for review of signs:

    a. Copy of the site plan showing the sign location;

    b. Color copy of the proposed sign(s); and

    c. Picture of the existing sign, if applicable.

2. Drawing requirements – color renderings of the proposed sign which includes but is not limited to the following detailed information:

    a. Type of sign (wall, monument, awning, etc.);

    b. Size/dimensions;

    c. Lettering;

    d. Colors being used;

    e. Materials;

    f. Lighting (if applicable, type, style and location of lighting, provide details of lighting fixtures); and

    g. A site plan showing the proposed location of the sign and any proposed landscaping, if applicable. The site plan must show underground utilities and overhead utilities in the vicinity of any proposed ground mounted sign.

4.13.4 Lighting Design Guidelines

A. General Rules for all Outdoor Lighting

1. All exterior lights and sign illumination shall be designed, located, installed and directed in such a manner as to prevent glare, light trespass or light pollution.

2. Lighting for safety shall be provided at intersections, along walkways, at entryways, between buildings and in parking areas and passenger loading or shelter areas.

3. Lighting shall be provided in accordance with the IES Lighting Handbook and RP-20-14 and RP-33-14, incorporated above in § 4.3(L)(2) of this Part.

4. All fixtures used must conform to the provisions of all local, State and Federal Codes for electrical, energy and building requirements.

5. All fixtures which are non-directional and use a lamp or lamps rated at one thousand eight hundred (1,800) lumens and above are required to be of the fully shielded and/or full cutoff type.

6. All fixtures which are non-directional and use a lamp or lamps rated at one thousand eight hundred (1,800) lumens and above are not allowed to emit any light above ninety degrees (90°) vertically measured from on a line from the center of the luminous opening and the ground.

7. All fixtures used for area illumination which are directional in type and mounted to poles, buildings and or structures, that use a lamp or lamps rated at nine hundred (900) lumens and above must be aimed at the ground at an angle of no more than twenty-five degrees (25°) measured from the vertical line between the center of the fixture lamp or aperture and the ground.

8. Any lighting rated at a total of more than one thousand eight hundred (1,800) lumens and all flood or spot lighting rated at a total of more than nine hundred (900) lumens, shall not emit any direct light above a horizontal plane through the lowest direct light emitting part of the luminaire.

9. Any lighting rated at a total of more than one thousand eight hundred (1,800) lumens and all flood or spot lighting rated at a total of more than nine hundred (900) lumens shall be mounted at a height equal to or less than the value 3 + (D/3) where D is the distance in feet to the nearest property boundary. The maximum height of the luminaire may not exceed fifteen feet (15').

B. Temporary Outdoor Lighting

1. Any temporary outdoor lighting that conforms to the requirements of these Regulations shall be allowed.

2. Nonconforming temporary outdoor lighting may be permitted by the Managing Director by special temporary permit. The applicant shall submit a detailed description of the proposed temporary nonconforming lighting with a request. A failure of the QDC to act on a request shall constitute a denial of the request. In granting any permit the QDC shall consider:

   a. The public and/or private benefits which will result from the temporary lighting;

   b. Any annoyance or safety problems that may result from the use of the temporary lighting; and

   c. The duration of the temporary nonconforming lighting.

C. Waterfront Lighting – Every attempt shall be made to discourage light spillover adjacent to Narragansett Bay. Outdoor lighting in and around the Bay, shall not be installed or maintained so as to create a hazard or nuisance to other property owners and shall comply with the following standards. Areas dedicated to shipyards, terminals or security areas shall be exempt from these standards.

1. In areas solely designated for pedestrian traffic, lights on docks shall be no more than three feet (3') above the dock, shall be downward directed and shall be five hundred fifty (550) lumens or less;

2. Lights illuminating paths, stairs, decks, etc. shall not be directed toward the waters and shall be one thousand eight hundred (1,800) lumens or less;

3. All exterior lighting shall be located, mounted and shielded so that direct illumination is not focused toward the water surface more than twenty feet (20') from shore;

4. Maximum height of lighting standards shall not exceed twenty-five feet (25');

5. The height and shielding of lighting standards shall provide proper lighting without hazard to motorists or aircraft or nuisance to adjoining properties, and the design of lighting standards shall be of a type appropriate to the development and surrounding area. Light sources shall be shielded so as

to conform to standards for glare as defined within the Park Performance Standards, outlined in § 4.9.1 of this Part;

6. Notwithstanding these Regulations, lighting at the Port of Davisville shall conform to 33 C.F.R § 105.275, incorporated above in § 4.3(C) of this Part.

D. Service Area Lighting – Outdoor sales and service canopy lighting shall be aimed downward and installed such that center of the fixtures luminous opening is flush with or recessed into the canopy ceiling. All lighting from the canopy must be substantially confined to the ground area directly beneath the perimeter of the canopy.

E. Architectural and Landscape Lighting

1. All fixtures must be aimed and or shielded to illuminate only the intended target such that no stray light from the luminaire passes above the horizontal plane.

2. Upward aimed façade and building lighting shall not exceed nine hundred (900) lumens per fixture or lamp and should be fully shielded and fully confined from projecting into the sky by eaves roofs, overhangs or structures and mounted as flush to the illuminated wall as possible.

3. All lighting not required for safety and security shall be controlled by either a timer or photoelectric switch to be turned off after 11 P.M. local time or a time set at the request of the QDC.

F. Sign Lighting

1. Signs may be illuminated externally by a downward-directed stationary light of white or off-white color. Lighting used primarily for sign illumination may be mounted at a height not to exceed fifteen feet (15’).

2. Except as otherwise prohibited herein, signs may be illuminated by any fixed steady light source, of such nature and in such manner that the brightness of the sign face does not exceed one hundred (100) lumens per square foot. Illumination shall be so arranged that its source is not directly visible from any way, occupied building or abutting property and no illumination shall be of any color that might be confusing to traffic. This paragraph shall also apply to window signs.

3. Illuminated signs shall not cause glare distracting to drivers, nor shall they be in such a position or such color as will hamper the readability of traffic lights or traffic signs.

G. Light Trespass

1. The maximum illumination at five feet (5') inside an adjacent property line, residential parcel or right of way shall not exceed .1 horizontal foot or .1 vertical foot candles in residential zones and .3 horizontal foot candles or .3 vertical foot candles in all other districts.

4.13.5 Enforcement

A. This regulation shall be enforced by the QDC, who shall interpret, administer and enforce its provisions. The QDC shall investigate suspected violations and issue notices of violation requiring corrective action and shall have the ability to assign penalties for noncompliance.

B. Lighting that is installed without approval shall be removed at the direction of the QDC and at the owner's expense.

4.14 Renewable Energy Systems

A. Wind Energy Systems

1. The purpose of this Section is to regulate Wind Energy Systems (WES) and to promote the safe, effective and efficient use of WESs.

2. Application for a WES – No WES shall be erected, constructed or installed without Development Plan Review approval. In addition to application requirements listed in the appropriate checklists, the application shall include:

a. Location of the proposed WES and associated equipment

b. Location, dimensions and types of existing structures on the property or adjacent properties within one and one half (1 ½) times of the WES height utilizing the most recent aerial photography

c. The location and height of any overhead utility lines within one and one half (1 ½) times of the proposed WES height

d. The proposed limits of vegetation clearing

e. Building envelope setbacks

f. WES foundation plans and specifications stamped by a Rhode Island Professional Engineer

g. Specifications, including manufacturer and model, rotor diameter, tower height and tower type

h. A description or plan of electrical plan components in sufficient detail to allow for a determination that the manner of installation conforms to 510-RICR-00-00-1, RISBC-1 Rhode Island Building Code

i. Evidence of compliance with or non-applicability of Federal Aviation Administration requirements

j. WES that will be connected to the power grid shall include a copy of the application for interconnection with the electrical utility provider, and if available, a copy of the interconnection agreement.

k. Any Met Tower, Lidar, Sodar or other applicable wind data that has been used in determining the feasibility of the SWES

l. Operation and Maintenance plan for maintenance of access roads and storm water controls, as well as general procedures for operational maintenance of the WES

m. Evidence that the applicant is procuring liability insurance in an amount and for the duration sufficient to cover loss or damage to persons and structures occasioned by the failure of the WES. The applicant shall provide evidence of liability insurance prior to obtaining a building permit.

3. WES Approval Standards

a. FAA approval

b. The minimum setback of the WES from the property line shall be the height of the nacelle

c. Advertising signage may not be attached to a WES, but may be painted on. This restriction does not apply to signs necessary for public safety purposes as required by a duly authorized regulatory authority.

d. A non-reflective exterior color designed to blend with the surrounding environment is required.

e. The applicant shall demonstrate through project site planning and proposed mitigation that the WES has minimal impacts on the

character of surrounding neighborhoods and the community. This may include, but not be limited to, information regarding site selection, shadow flicker, turbine design or appearance, ice throw, buffering, screening, sound, or lighting. All electrical conduits shall be underground.

f. The owner of the property where a WES is located shall be required to obtain a demolition permit and remove and properly dispose of the structure within one hundred eighty (180) days of its abandonment, which shall be defined as the ceasing of the continuous production of electricity for longer than two (2) years.

4. Emergency Services

a. The wind installation owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the local Fire Chief. Upon request the owner or operator shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the WES shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

B. Solar Facilities

1. The purpose of this section is to promote the creation of rooftop and ground-mounted solar photovoltaic installations by providing standards for the placement, design, construction, operation, monitoring, modification and removal of such installations that address public safety, minimize impacts on scenic, natural and historic resources and to provide adequate financial assurance for the eventual decommissioning of such installations.

2. Applicability – This section applies to new or modified solar photovoltaic installations that materially alter the type, configuration or size of these installations or related equipment. Development of these facilities as part of parking areas is encouraged and any alterations to parking lot design required to develop a ground-mounted solar array shall ordinarily be considered minor variances pursuant to § 4.5.2(B) of this Part.

3. Application for a Solar Array – Pursuant to the site plan review process, the project proponent shall provide the following documents:

a. Plans of the solar photovoltaic installation signed by a Professional Engineer licensed to practice in the State of Rhode Island showing

the proposed layout of the system and any potential shading from nearby structures;

b. Rooftop array application requires certification by Rhode Island licensed Professional Engineer that the roof is structurally sound and can support the weight and wind loads of the roof mounted equipment;

c. One (1) or three (3) line electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices;

d. Documentation of the major system components to be used, including the PV panels, mounting system, and inverter;

e. FAA approval or statement of non-applicability;

f. An operation and maintenance plan;

g. Proof of liability insurance.

4. Utility Notification – No large-scale solar photovoltaic installation shall be constructed until evidence has been given to the QDC that the utility company that operates the electrical grid where the installation is to be located has been informed of the solar photovoltaic installation owner or operator's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

5. Dimensional Requirements for setbacks

a. For large-scale ground-mounted solar photovoltaic installations, front, side and rear setbacks shall be as listed in Table 4, § 4.10 of this Part.

b. For rooftop arrays, setback from the roof edge shall comply with 510-RICR-00-00-1, RISBC-1 Rhode Island Building Code.

6. Appurtenant Structures – All appurtenant structures to solar photovoltaic installations shall be subject to reasonable Regulations concerning the bulk and height of structures, lot area, setbacks, open space, parking and building coverage requirements. All such appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with each other. Whenever

reasonable, structures should be shaded from view by vegetation and/or joined or clustered to avoid adverse visual impacts.

7. Design Standards

   a. Lighting – Lighting of solar photovoltaic installations shall be consistent with § 4.13.4 of this Part. Lighting of other parts of the installation, such as appurtenant structures, shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties.

   b. Signage – Signs on solar photovoltaic installations shall comply with § 4.12.1 of this Part. A sign consistent with § 4.12.1 of this Part shall be required to identify the owner and provide a twenty-four (24) hour emergency contact phone number. Solar photovoltaic installations shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the solar photovoltaic installation.

   c. Utility Connections – Reasonable efforts, as determined by the QDC, shall be made to place all utility connections from the solar photovoltaic installation underground, depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. Electrical transformers for utility interconnections may be above ground if required by the utility provider.

8. Emergency Services

   The solar photovoltaic installation owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the local Fire Chief. Upon request the owner or operator shall cooperate with local Emergency Services in developing an emergency response plan. All means of shutting down the solar photovoltaic installation shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

9. Monitoring and Maintenance

   ~~a.~~ The solar photovoltaic installation owner or operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, mowing, painting, structural repairs, and integrity of security measures. Site access shall be maintained to a level acceptable to the local Fire Chief and Emergency Medical Services. The owner or operator shall be responsible for the cost of maintaining the solar photovoltaic installation

and any access road(s). All material modifications to a solar photovoltaic installation made after issuance of the required building permit shall require approval by the QDC.

10. Abandonment or Decommissioning

a. Abandonment – Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the solar photovoltaic installation shall be considered abandoned when it fails to operate for more than one (1) year without the written consent of the QDC.

b. Removal Requirements – Any solar photovoltaic installation which has reached the end of its useful life or has been abandoned shall be removed. The owner or operator shall physically remove the installation no more than one hundred eighty (180) days after the date of discontinued operations. The owner or operator shall notify the QDC by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:

(1) Physical removal of all solar photovoltaic installations, structures, equipment, security barriers and transmission lines from the site.

(2) Disposal of all solid and hazardous waste in accordance with local, State, and Federal waste disposal Regulations.

(3) Ground mounted arrays: stabilization or re-vegetation of the site as necessary to minimize erosion. The QDC may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

4.15 Construction Phase Requirements

A. Soil Erosion and Sediment Control Prevention – Erosion controls shall be consistent with the R.I. Soil and Erosion Control Manual, incorporated above in § 4.3(F) of this Part and 250-RICR-150-10-8, Stormwater Management, Design, and Installation Rules;~~250-RICR-150-10-7~~. An erosion Control Plan must be submitted to TRC for review.

B. Construction Access – Construction access shall be coordinated with QDC. The construction access road shall meet the requirements of the Rhode Island Soil

Erosion and Sediment Control Handbook, incorporated above in § 4.3(F) of this Part.

C. Storage and Equipment Fencing – All construction storage and equipment areas shall be fenced and shall be located on the site so as to minimize their impact on adjacent properties and public streets.

D. Maintenance of Construction Sites

1. Temporary construction trailers and other temporary structures shall be removed from the site within thirty (30) days of the end of construction.

2. Construction debris shall be removed periodically from the site.

3. All trash shall be maintained in enclosed containers and removed from site on a weekly basis.

4. Sanitary facility shall be provided for all construction sites and maintained by the contractor or property owner.

E. Utility Installations and Inspections

1. The contractor is responsible for coordinating with the QDC Water Department, the QDC Sewer Department and the QDC Engineering Department, forty-eight (48) hours in advance of any construction on the water, sewer, and/or drain lines.

2. QDC staff shall inspect all connections to the QDC infrastructure and shall be present for all required testing.

3. The contractor shall not install any utilities without written approval from QDC.

4. The contractor must submit an as-built drawing, so-called, for all utilities to the design engineer for the record drawing, per § 4.15(G) of this Part.

F. Periodic Inspections

1. All construction shall be subject to periodic inspections by QDC to ensure compliance with the approved Site Plans and the Rhode Island Soil Erosion and Sediment Control Manual, incorporated above in § 4.3(F) of this Part.

2. If the construction site is not in compliance with the approved plans, QDC has the right to order a cease and desist on all work until the contractor remedies the issues on the cease and desist order.

G. Record Drawing

1. The applicant's design engineer and/or surveyor of record of a completed project must submit a record drawing to QDC. No exceptions will be granted. The plan shall depict completed improvements, site features and the location of all utilities (above and below ground). The record drawing shall be certified and stamped by the appropriate design professional. Improvements and site features shall include but are not limited to property information, environmental resources, buildings, roadways, sidewalks, curbing/berm, stormwater management systems, clearing/tree-line, planting features, permanent structures, signage, roadway/parking markings, and utilities. In addition, the record drawing shall be developed per the QDC record drawing checklist found in the Development Regulation's Guidance Document.

2. Applicant must provide certifications from registered design engineers and registered land surveyors that construction was completed according to QDC approved plans, conditions and remarks.

3. A record drawing deposit is required to be paid by the applicant to QDC at the time of the project approval. The deposit will be returned to the applicant upon receipt and approval of the record drawing, provided that it is submitted within thirty (30) days of the issuance of the Certificate of Occupancy by the Rhode Island Building Code Commission. If the record drawing is not submitted within the required thirty (30) days, the deposit will be reduced by one sixtieth ($1/60^{th}$) of the total amount for each day after the thirty (30) days to a maximum duration of sixty (60) days. After sixty (60) days the deposit is no longer returnable and QDC will proceed to have the plan produced accordingly. The deposit shall be calculated as follows:

    a. Five thousand dollars ($5,000.00) for structures less than fifty thousand (50,000) square feet of gross floor area

    b. Seven thousand five hundred dollars ($7,500.00) for structures between fifty thousand (50,000) and one hundred thousand (100,000) square feet of the gross floor area

    c. Ten thousand dollars ($10,000.00) for structures greater than one hundred thousand (100,000) square feet of gross floor area

H. Maintenance – Owner/Occupants Responsibilities – The original construction and appearance of the site and all buildings and improvements on the premises shall be maintained in good repair and in safe, clean and sanitary condition and

shall conform to all federal, state, and municipal statutes, ordinances and Regulations.

I. Repairs after Damage

1. Any damaged structure, accessways or parking lot surface shall be restored or replaced to its original condition as promptly as the extent of the damage will permit.

2. Protection against Vandals – Buildings and property shall be properly secured in order to prevent entrance by vandals.

3. Maintenance of Grounds – All grounds shall be maintained in a safe, clean and orderly manner. Accessways, paved areas, lighting and signage shall be maintained in good repair. Drainage systems shall be maintained clean and free of obstacles.

4. Maintenance of Plant Materials – Trees and other landscaping shall be properly planted and staked in accordance with the approved landscape plan. The developer shall make provisions for regular watering and maintenance until they are established as defined by the landscape plan.

5. All plantings shall be maintained in a healthy condition with proper maintenance carried out on a regular basis.

6. Replacement of Plants – Dead or dying plants shall be removed in thirty (30) days and replaced as quickly as possible subject to seasonal limitations.

4.16 Sewer Treatment System User Regulations

4.16.1 Purpose

The purpose of these Regulations is to set forth the rules governing the use of the QDC's sewers and drains, the installation and connection of building sewers, the discharge of waters and wastes into the sewers and the penalties for violations.

4.16.2 Building Sewers and Connections

A. No person shall uncover, make any connections with or opening into, use, alter, or disturb any QDC sewer or appurtenance thereof without first obtaining a written permit from the Director. All such connections shall be subject to such terms and conditions as the Director shall prescribe.

B. There shall be two (2) classes of building sewer connections; residential and commercial/industrial. For the commercial/industrial class all prospective users must be evaluated by the QDC Industrial Pretreatment Program (IPP). The IPP will inform the potential user of additional applicable requirements as defined in § 4.16.9 of this Part.

C. All costs and expenses incidental to the installation and connection of the building sewer shall be borne by the user who shall indemnify the QDC from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.

D. A separate and independent building sewer shall be provided for every building that is not already connected to the QDC's sewer system on the date this Regulation is put into effect. Where one (1) building stands at the rear of another on an interior lot, the building sewer from the front building may be extended to the rear building and the whole considered as one building sewer; however, the QDC does not and will not assume any obligation or responsibility for damage caused by or resulting from any such single connection.

E. Old building sewers may be used in connection with new buildings only when they are found, on examination and testing by the Director, to meet all requirements of this Regulation.

F. The size, slope, alignment, materials of construction of a building sewer, and the methods to be used in excavating, placing of the pipe, jointing, testing, and backfilling the trench, shall all conform to the requirements of 510-RICR-00-00-1, RISBC-1 Rhode Island Building Code and 510-RICR-00-00-3, RISBC-3 Rhode Island Plumbing Code and to other applicable rules of the QDC. In the absence of Code provisions or in amplification thereof, the materials and procedures set forth in appropriate specifications shall comply with WPCF Manual of Practice No. 9, incorporated above in § 4.3(J) of this Part.

G. Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building drain shall be lifted by an approved means and discharged to the building sewer.

H. No person shall make connection of roof downspouts, exterior foundation drains, areaway drains or other sources of surface runoff or ground water to a building sewer or building drain that in turn is connected directly or indirectly to a QDC sanitary sewer.

I. The connections of the building sewer into the QDC sewer shall conform to the requirements of 510-RICR-00-00-1, RISBC-1 Rhode Island Building Code and 510-RICR-00-00-3, RISBC-3 Rhode Island Plumbing Code or other applicable rules of the QDC, and the procedures set forth in WPCF Manual of Practice No. 9, incorporated above in § 4.3(J) of this Part. All such connections shall be made gastight and watertight. Any deviation from the prescribed procedures and materials must be approved by the Director before installation.

J. The applicant for the building sewer permit shall notify the Director when the building sewer is ready for inspection and connection to the QDC sewer. The connection shall be made under the supervision of the Director or his/her representative.

K. All excavations for building sewer installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, pavements and other QDC property disturbed in the course of the work shall be restored in a manner satisfactory to the QDC.

L. Privately owned and operated pump stations and collection systems connected to or desiring to connect to the QDC Wastewater System shall adhere to the following:

1. Owners of Privately Owned Wastewater Treatment Facilities shall maintain the system in good working order and operate the facility as efficiently as possible. Proper operation and maintenance shall include, but shall not be limited to, effective performance-based on-facility design, adequate operator staffing and training, adequate laboratory process and controls, including quality assurance procedures as determined to be appropriate by QDC, and backup or auxiliary facilities or similar systems to assure compliance or effective performance. Proper operation and maintenance must include emergency procedures and reporting requirements in case of power outages, natural disaster, labor shortage (whether the result of intentional work stoppages or epidemics), equipment failure, acts of terrorism/vandalism, accidental discharges or sanitary sewer overflow. Reporting requirements shall include verbal notification to the Director and RIDEM as soon as possible, but not exceeding twenty-four (24) hours of discovery of the event. A written report must be submitted to the Director and RIDEM within five (5) business days of the event's ending.

2. The owner shall submit, for review and approval, an Operations and Maintenance Plan describing standards and procedures by which the Privately Owned Wastewater Treatment Facilities, pump station(s) and/or collection system(s) will be staffed, operated and maintained during

normal and emergency conditions. Should development of the Plan include the practice of engineering, the Plan must be prepared and certified by a Rhode Island Registered Professional Engineer. The Operations and Maintenance Plan must be approved prior to the commencement of the construction of the new Wastewater Treatment Facility.

3. The owner is required to conduct (at a minimum) monthly inspections of any pump station(s) within their facility. The inspection reports shall be forwarded to the QDC within fifteen (15) business days after the inspection. At a minimum, the inspection report shall provide the name of the individual or firm performing the inspection, hours of operation for each pump, generator run time, summary of alarms, any maintenance undertaken during that month, condition of the station, and recommendations.

4. The Operations and Maintenance Plan shall include, but not be limited, to the following elements:

    a. Describe the detailed operating procedures for the pump station(s) and collection system;

    b. Provide a Preventative Maintenance Plan for the pump station(s);

    c. Provide staffing requirements;

    d. Provide a list of material suppliers and essential spare parts necessary to be kept on the site for normal and emergency conditions;

    e. Provide operating procedures for the emergency generator and automatic transfer switch;

    f. Provide a Spill Prevention Plan;

    g. Provide a description of the auxiliary system, such as water, heating, ventilation, sump pump and dehumidifying;

    h. Provide a description of the alarm system and response procedures;

    i. Provide names, addresses, and telephone numbers of all emergency contacts, facility owners and facility operators;

j. Provide a list of subcontractors that are on call for emergency equipment rental (e.g., septage hauler, portable pump, generator, etc.);

k. Provide emergency procedures and reporting requirements in case of power outages, natural disasters, equipment failure, acts of terrorism/vandalism or sanitary sewer overflow;

l. Provide a description of the means of record keeping (the records must be accessible for a three (3) year period);

m. Provide as-built plans for the pump station(s) and/or collection system;

n. Provide a map of the collection system, including but not limited to, the overall service area, diameter of pipes, distance between manholes, slopes and direction of flow;

o. Provide all required procedures, easements or other administrative items necessary to allow the QDC access to the site for unannounced periodic inspections pursuant to § 4.16.5 of this Part; and

p. Provide a sample template of a monthly report.

5. Owners of an Existing Privately Owned Wastewater Treatment Facility without an approved Plan must submit for approval of a Plan as appropriate and as described herein to comply with the requirements of this Sewer System Regulation within one (1) year of its passage.

6. There shall be an Operations and Maintenance Plan Review Fee that shall be set from time to time by the Director.

7. There will be an Annual Fee set from time to time by the Director.

4.16.3 Discharge Requirements, Limitations, and Prohibitions

A. The QDC may limit, reject or prohibit any direct or indirect discharge of pollutants or combination of pollutants, as defined in § 4.4 of this Part or as described below, into the QDC Sewers.

B. Specifically prohibited substances, waters or wastewaters are:

1. Groundwater, stormwater, and surface waters, roof runoff, tidewater, subsurface drainage. Storm water and all other unpolluted drainage shall

be discharged to storm sewers, or to a natural outlet approved by the Director and other regulatory agencies.

2. Gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquids, solids or gases;

3. Any trucked or hauled pollutants, except at discharge points designated by the QDC and in accordance with § 4.16.9(L) of this Part;

4. Slugs;

5. Sludges or deposited solids resulting from an industrial or pretreatment process;

6. Industrial cooling water or unpolluted process waters may be discharged, on approval of the Director and other regulatory agencies, to a storm sewer or natural outlet.

C. No person shall discharge or cause or allow to be discharged directly or indirectly into the QDC Sewers, any other substances, water or wastewater that either singly or by interaction with other substances will or is likely to:

1. Interfere with the operation of the QDC Sewers by:

a. Harming either the sewerage system or wastewater treatment process;

b. Being otherwise incompatible with the treatment process; or

c. Contaminating the sludge or contributing to sludge disposal problems.

2. Violate applicable Federal and State law and the terms of the QDC Sewers' Federal and State permits, including but not limited to RIPDES and National Pollutant Discharge Elimination System (NPDES) permits.

3. Endanger the environment by adversely affecting receiving waters or otherwise.

4. Endanger the health or welfare of persons.

D. No person shall discharge or cause or allow to be discharged either directly or indirectly into the QDC Sewers, any substance, water or wastewater that has:

1. A temperature higher than one hundred four degrees Fahrenheit (104° F) (forty degrees Celsius (40° C)).

2. Any toxic or non-toxic gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any waste treatment process, constitute a hazard to humans or animals, create a public nuisance, create a toxic effect in the receiving waters of the QDC Sewers or exceed the limiting standards issued from time to time under Clean Water Act, 33 U.S.C. § 1317(a).

3. Any water or waste which by itself or by interaction with other materials, emits chemical contaminants into the atmosphere of any confined area of the sewer system at levels in excess of short-term exposure limit Threshold Limit Value established for air-borne contaminants the Occupational Safety and Health Act, 29 U.S.C. § 15.

4. Any liquids, solids or gases which by reason of their nature or quantity are, or may be sufficient, either alone or by interaction with other substances, to cause fire or explosion or be injurious in any other way to the QDC Sewers. At no time shall two (2) successive readings on any explosion hazard meter at the point of discharge into the QDC Sewers (or at any point in the QDC Sewers) be more than five percent (5%) nor any single reading be over ten percent (10%) of the Lower Explosive Limit of the meter.

5. Pollutants that will cause corrosive structural damage to the Wastewater Treatment Facility (WWTF), but in no case discharges with pH lower than five (5.0), unless the works is specifically designed to accommodate such discharges.

6. Petroleum oil, non-biodegradable cutting oils, or products of mineral oil in amounts that will cause interference or pass through.

7. Fats, wax, grease or oils of vegetable or animal origin as measured by Freon extraction in excess of one hundred (100) mg/1 or containing other substances which may solidify or become viscous at temperatures between thirty-two degrees Fahrenheit (32° F) or zero degrees Celsius (0° C), and one hundred four degrees Fahrenheit (104° F) or forty degrees Celsius (40° C). Waters or wastes containing such substances, excluding normal household waste, shall exclude all visible floating oils, fats and greases. The use of chemical or physical means (such as temperature variation, emulsifying agents, and mechanical mixers) to bypass or release fats, oils and greases into the QDC Sewers is prohibited.

8. Any garbage that has not been properly shredded. Garbage grinders may be connected to the QDC Sewers from homes, hotels, institutions,

restaurants, hospitals, catering establishments or similar places where garbage originates from the preparation of food in kitchens for the purpose of consumption on the premises or when served by caterers. The installation and operation of any garbage grinder equipped with a motor of three fourths (3/4) horsepower (0.76 hp metric) or greater shall be subject to the review and approval of the Director.

9. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the WWTF resulting in interference.

10. Unusual concentrations of dissolved solids such as, but not limited to, sodium chloride and sodium sulfate, and waste waters having excessive suspended solids concentrations.

11. Color or turbidity in such an amount that it will prevent the QDC from discharging a treated effluent in compliance with any state or federal rules, Regulations or permit requirements.

12. Chemical Oxygen Demand concentrations in such quantities as to constitute a significant load on the QDC Sewers or to cause the effluent from the QDC Sewers to violate any State or Federal Rules, Regulations or permit requirements, including but not limited to NPDES and RIPDES permits.

13. Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by State or Federal laws or Regulations.

14. Any process wastewater, as defined by the Director, containing concentrations of the substances listed below in excess of the assigned discharge limits:

	Miligrams per Liter
Cadmium (Total)	0.26
Chromium (Total)	1.71
Copper (Total)	2.07
Cyanide (Total)	0.20
Lead (Total)	0.27

Mercury (Total)	0.003
Nickel (Total)	2.38
Silver (Total)	0.24
Zinc (Total)	0.76
TTO	1.50
Oil and Grease	100
5-day BOD	300
Total Suspended Solids	300
pH	<5.0 or >12.0 standard units

15. The term “TTO” means total toxic organics, which is the summation of all quantifiable values greater than one one hundredth (0.01) milligrams per liter of the toxic organics listed at Environmental Protection Agency, 40 C.F.R. § 433.11.

16. Concentrations of substances in excess of limits established in § 250-RICR-150-10-2.8.

17. Pollutants which may create a fire or explosion hazard including, but not limited to, waste streams with a closed cup flashpoint of less than one hundred forty degrees Fahrenheit (140° F) or sixty degrees Celsius (60° C) using the test methods specified in 40 C.F.R. § 403.5(b)(1), incorporated above in § 4.3(A) of this Part.

18. Pollutants that result in the presence of toxic gases, vapors or fumes in a quantity that may cause acute worker health and safety problems.

E. No user shall, by increasing the use of process water or in any other way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in § 250-RICR-150-10-2.8, or in any other pollutant specific limitation developed by the QDC. The QDC shall, in its sole discretion, use EPA formulas or any other reasonable method for determining discharge levels where dilution is reasonably suspected.

F. If any wastewater is discharged or is proposed to be discharged to the QDC Sewers in violation of the prohibitions described in this section, the Director may in his sole discretion:

1. Reject the wastes;

2. Require a discharger to demonstrate and implement those in-plant modifications that will reduce or eliminate the discharge of such substances to conform to these rules;

3. Require pretreatment, including storage facilities or flow equalization necessary to reduce or eliminate the objectionable characteristics or substances, so that the discharge will not violate these Rules;

4. Require controls to be installed that will regulate the quantities and rates of discharge;

5. Require payment to the QDC to cover its added cost of handling, monitoring, and treating the wastes;

6. Revoke a discharger's permit; and

7. Take any other administrative sanctions, enforcement actions, and remedial actions as may be desirable, necessary, or permitted to achieve the purpose of these Rules. When considering the above alternatives, the Director shall give consideration to the economic impact of each alternative on the discharger. If the Director permits the pretreatment or equalization of waste flows, the design and installation of the plants and equipment shall be subject to the review and approval of the Director, and shall be subject to the requirements of all applicable codes, ordinances, and laws.

G. Grease, oil, and sand interceptors shall be provided by the person generating such wastes when, in the opinion of the Director, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand, or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the Director and shall be located as to be readily and easily accessible for cleaning and inspection. In the maintaining of these interceptors, the person generating the wastes shall be responsible for the proper removal and disposal by appropriate means of the captured material and shall maintain records of the dates and means of disposal that are subject to review by the Director. Any removal and hauling of the collected materials not performed by generator's personnel must be performed by currently licensed waste disposal firms.

H. Where pretreatment or flow-equalizing facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the provider at his expense.

I. When required by the Director, the licensee or other permitted user of any property serviced by a building sewer carrying industrial waste shall install a suitable control manhole together with such necessary meters and other appurtenances in the building sewer to facilitate observation, sampling and measurement of the wastes. Such manhole, when required, shall be accessible and safely located, and shall be constructed in accordance with plans approved by the Director. The manhole shall be installed by the licensee or other permitted user, at his expense, and shall be maintained by him so as to be safe and accessible at all times.

J. Whenever required by the Director by Regulation, order, or permit, any industry discharging into the sanitary sewer shall monitor its discharge, perform analysis, keep records and report to the Director information needed to determine compliance with this Regulation. This information may include:

1. Wastewater discharge rate (both peak and average);

2. Chemical analysis of wastewaters;

3. Information on raw materials, processes, and products affecting wastewater volume and quality;

4. Quantity and disposition of specific liquid, sludge, oil, solvent, or other materials important to sewer use control;

5. Plot plan of the property served showing sewer and pretreatment facility location;

6. Details of wastewater pretreatment facilities;

7. Details of systems to prevent and control losses of materials through spills to the QDC sewer.

K. All measurements, tests and analyses of the characteristics of waters and wastes to which reference is made in this Regulation shall be determined in accordance with the approved methods and procedures in 40 C.F.R. ~~§§~~ Parts 403 and 136, incorporated above in §§ 4.3(A) and (D) of this Part, and shall be determined at the control manhole provided, or at any other suitable sampling site. Sampling shall be carried out by accepted methods to reflect the effect of constituents upon the sewage works and to determine the existence of hazards to life, limb, and

property. The particular analyses involved will determine the duration and type of sampling which shall be conducted.

L. The Director shall be given forty-five (45) days' prior notification of:

1. Any proposed substantial change in volume or character of pollutants over that being discharged into the sanitary sewers at the time of this Regulation's adoption; and

2. Any proposed new discharge into the sanitary sewers from any source which would be a new source as defined by 33 U.S.C. § 1251 *et seq*. (1972).

M. No statement contained in this section shall be construed as preventing any special agreement or arrangement between the QDC and any industrial user whereby an industrial waste of unusual strength or character may be accepted by the QDC for treatment, subject to payment therefore by the industrial concern, provided that such agreements do not contravene 40 C.F.R. Part 403, 250-RICR-150-10-2, and §§ 4.16.3(C) and (D) of this Part.

4.16.4 Protection from Damage

No unauthorized person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance, or equipment that is a part of the sewage works. Any person violating this provision shall be subject to immediate arrest by regular law enforcement agencies under civil and/or criminal charges, as applicable.

4.16.5 Powers and Authority of Inspectors

A. The Director and other duly authorized employees of the QDC bearing proper credentials and identification shall be permitted:

1. To enter without delay all properties for the purposes of inspection, observation, measurement, sampling and testing in accordance with the provisions of this Regulation;

2. During regular working hours and at other reasonable times, and within reasonable limits and in a reasonable manner, to have access to and to copy any records, inspect any monitoring equipment and sample any effluents which the owner or operator of such discharge source is required to sample under these Rules or State or Federal law;

3. To set up on the user's property such devices as are necessary to conduct sampling inspection, compliance monitoring and/or metering operations.

The owner or his representatives shall have no authority to inquire into any processes including metallurgical, chemical, oil, refining, ceramic, paper or other industries beyond that point having a direct bearing on the kind and source of discharge to the sewers or waterways or facilities for waste treatment.

B. The Director and other duly authorized employees of the QDC bearing proper credentials and identification shall be permitted to enter all properties served by the sewage system for the purpose of, but not limited to, inspection, observation, measurement, sampling, repair and maintenance of any portion of the sewerage works lying within said property.

4.16.6 General Sewer Use Charges

A. In general, sewer use charges shall reflect the average cost of treating all sanitary wastes. This shall be done by apportioning the total of all normal sewer works costs among the various categories of users in accordance with flows generated or capacity demanded. For users generating industrial waste with characteristics that vary significantly from the composition of all other wastes introduced into the sewage works, the Director may require that the basic apportionment be supplemented to reflect the additional expense imposed on the QDC by such abnormalities.

B. Each user of the QDC's sewer works shall be charged a monthly fee determined by multiplying the flow contributed or capacity demanded by flow rates (dollars per one thousand (1,000) gallons) determined by the Director. The flow rate will be established annually and will be the same for all categories of users.

C. In addition, users generating industrial waste having abnormal treatment requirements may be charged additional amounts at rates established by the Director.

4.16.7 Industrial Discharge Permit System

A. All industrial users connected to or discharging to the QDC Sewers must evaluated by the QDC IPP. All industrial users proposing to connect to or discharge into the QDC Sewers must also be evaluated by the QDC IPP before connecting to or discharging to the QDC Sewers.

B. Industrial users seeking a wastewater discharge permit must have completed and filed the Industrial Questionnaire, found in the QDC Development Regulation's Guidance Document, with the QDC and paid any applicable fee, by the date specified by the Director. Following an assessment of the Industrial Questionnaire by the QDC, a determination will be made as to user classification. If it is determined the user is or may have a potential to be a Significant Industrial

User (SIU) or Categorical Industrial User (CIU), a Wastewater Discharge Permit Application shall be completed by the prospective user. A Wastewater Treatment Facility Permit approval must be obtained through QDC's Wastewater Treatment Permit application process prior to any discharge. In support of this application, the user shall submit the following information:

1. Name, business address, location of the facility (if different from business address) and North American Industrial Classification System (NAICS) number of the applicant;

2. Total water consumption from all sources and supporting documentation when appropriate;

3. Type, frequency and volume of discharges;

4. Average and peak wastewater flow rates, including daily, monthly and seasonal variations, if any;

5. Site plans, floor plans, mechanical and plumbing plans, pretreatment plans and details to show all building connections and appurtenances by size, location, and elevation;

6. Description of activities, pretreatment facilities and plant processes on the premises, including all materials and types of material that are or could be discharged;

7. Type of product produced;

8. Number of employees, number of shifts and hours of work;

9. The name and concentration of any pollutants in the discharge, for a minimum of four (4) consecutive operating days, which are regulated by the QDC, the State or the Federal government, and a written statement as to whether or not applicable pretreatment standards are being met, and if not, whether additional in-plant modification and additional pretreatment is required for the user to meet such applicable pretreatment standards;

10. If additional pretreatment or in-plant modification will be required to meet the pretreatment standards, the user must provide a schedule by which to achieve the standards in the shortest possible time. This schedule shall be reported as the Pretreatment Compliance Schedule. The following conditions shall apply to this schedule:

    a. The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events

leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards (e.g., hiring an engineer, completing preliminary plans, executing contracts for major components, commencing construction, completing construction).

b. Not later than fourteen (14) days following each completion date in the schedule, the user shall submit a progress report to the QDC including, at a minimum, whether or not he complied with the increments of progress.

c. If such increment of progress was not completed on time, the user shall also report the date on which he expects to complete the increment of progress, the reason for the delay, and the steps being taken by the user to return to the schedule established. In no event shall completion dates for increments of progress be more than nine (9) months apart;

11. Any other pertinent information as may be needed to evaluate the permit application. The Director shall evaluate the data furnished by the industrial user and may require additional information. Based on the application, the Director may issue a wastewater discharge permit subject to the terms and conditions enumerated in the permit. The Director may deny a request for a permit when the information supplied indicates the industrial user will be unable to reasonably meet QDC standards. Any person denied a permit may request a hearing in accordance with the provisions in § 4.16.9 of this Part.

C. Wastewater discharge permits shall be expressly subject to specific permit provisions contained therein as well as to provisions of these Rules and all other Regulations, user charges and fees established by the QDC. Permit conditions may include, but are not limited to, the following:

1. The average and maximum wastewater constituents and characteristics permitted in the process water discharges;

2. Limits on rate and time of discharge or requirements for flow regulation and equalization;

3. Requirements for installation of inspection and sampling facilities and specifications for self-monitoring;

4. Requirements for the submission of periodic self-monitoring compliance reports, including all notices and self-monitoring reports required by EPA, which shall include, but not be limited to, volume or rates of flow,

concentrations of controlled pollutants or other information which relates to the generation of waste;

5. Requirements for maintaining and submitting technical reports and plant records relating to wastewater discharges;

6. Daily average and daily maximum discharge rates, or other appropriate conditions when pollutants subject to limitations and prohibitions are proposed or present in the user's wastewater discharge;

7. Compliance schedules;

8. Requirements for installation of pretreatment systems and spill prevention control plans;

9. Provisions for authorized QDC employees and agents to enter and inspect the premises, including provisions for copying records, inspecting monitoring equipment and sampling effluent;

10. Compliance with Federal, State and other governmental laws, Rules;

11. Fees and costs including supplemental fees assessed because of the special nature of the user's effluent in accordance with the provisions of § 4.16.6(C) of this Part, and additional costs and fees including reasonable attorneys' fees based on the costs of enforcing these Regulations or the permit.

D. Users shall provide treatment of wastewater as required to comply with § 4.16 of this Part. Any equipment required to pretreat wastewater to a level acceptable to the QDC shall be provided, operated and maintained at the user's expense. Detailed plans showing the pretreatment equipment and operating procedures shall be submitted to the QDC for review and shall be acceptable to the QDC before construction of the facilities. Any review and inspection conducted by the QDC is for the sole purpose of determining compliance with the technical provisions of these Rules. The QDC does not assume responsibility for means, methods or techniques used, or for the safety of construction works, the site, or for compliance by users with applicable laws and Regulations other than this section. Review by the QDC does not constitute any form of guarantee or insurance with respect to the performance of the equipment and processes. The review of such plans and operating procedures will in no way relieve the user from the responsibility of modifying the equipment as necessary to produce an effluent acceptable to the QDC under the provisions of this section. Any subsequent significant changes in the pretreatment equipment or method of operation shall be reported to and be acceptable to the QDC prior to the user's initiation of the changes.

E. Each user shall provide protection from accidental discharge of prohibited materials or other substances regulated by these Rules. Equipment to prevent accidental discharge or prohibited materials into the facilities shall be provided and maintained at the owner's or user's own cost and expense. A Slug Plan showing equipment and operating procedures to provide this protection shall be submitted to the QDC for review, and shall be approved by the QDC before construction. It is understood that any review and inspection conducted by the QDC is for the sole purpose of determining compliance with the technical provisions of these Rules. The QDC does not assume responsibility for means, methods or techniques used, or for the safety of construction works, the site, or for compliance by users with applicable laws and Regulations other than this section. Review by the QDC does not constitute any form of guarantee or insurance with respect to the performance of the equipment and processes. All existing users shall also complete such a plan as required by a compliance schedule or permit. No new user proposing to discharge into the QDC Sewers shall be permitted to introduce pollutants into the QDC Sewers until the Slug Plan has been approved by the QDC. Review and approval of such plans and operating procedures shall not relieve the industrial user from the responsibility of modifying the user's equipment as necessary to meet the requirements of these Rules. In the case of an accidental discharge, it is the responsibility of the user to notify the QDC of the incident as soon as possible. The notification shall include location of discharge, type of waste, concentration and volume, and corrective actions.

F. Within five (5) days following an accidental discharge into the facilities, the user shall submit a detailed written report describing the nature and cause of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage or other liability that may be incurred by the QDC as a result of damage to the wastewater facilities, nor shall notification relieve the user of liability for any other damage to persons or property arising out of such accidental discharge. Notification will not exempt the user from any fines, civil or criminal penalties or any other liability that may be imposed by these Rules or other applicable law.

G. No permit holder shall discharge industrial wastewater in excess of the quantity, rate of discharge, concentrations or any other limits specified in the permit. Any person desiring to modify a discharge in a manner that would violate conditions of the existing permit must first apply for an amended permit.

H. Permits shall be issued for a specified time period, generally for one (1) year but not to exceed five (5) years. A permit may be issued for a period of less than one (1) year, or may be stated to expire on a specific date. If the user is not notified by the QDC thirty (30) days prior to the expiration of the permit, the permit shall automatically be extended for one (1) three (3) month period.

I. An industrial user may apply for modification of a discharge permit by filing a new application form showing substantial, significant and material changes that have been proposed since filing the original application. No application for modification will be considered unless it demonstrates such changes. Within nine (9) months of the promulgation of a national Categorical Pretreatment Standard, the wastewater discharge permit of users subject to such standards shall be revised to require compliance with such standard within the time frame prescribed by such standard. Where a user subject to a national Categorical Pretreatment Standard has not previously submitted a wastewater discharge permit application, the user shall apply for a wastewater discharge permit within one hundred eighty (180) days after the promulgation of the applicable national Categorical Pretreatment Standard. In addition, a user with an existing wastewater discharge permit shall fully comply with the requirements set forth in 40 C.F.R. § 403.6, incorporated above in § 4.3(A) of this Part. After review of the application and inspection of the facility, the Director may in his sole discretion modify the original permit. If such application is rejected, the existing permit shall remain in full force and effect. The terms and conditions of the permit may be subject to modification and changed by the Director during the life of the permit. The Director may in his sole discretion place further restrictions, limitations and conditions in a permit. The user shall be informed of any proposed changes in the permit at least thirty (30) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance. A user may request a hearing on modifications to his/her permit in accordance with the provisions of § 4.16.7 of this Part.

J. Wastewater discharge permits are issued to a specific user for a specific operation. No wastewater discharge permit may be reassigned, transferred or sold to a new owner, new user, different premises, or a new or changed operation.

K. Any industrial user who violates the conditions of a permit, these Rules, or applicable State and Federal Regulations is subject to having the permit revoked. Revocation of an industrial user's discharge permit shall be in accordance with the notice and hearing provisions of § 4.16.9 of this Part. However, notwithstanding any other provisions of this section, the Director may in his sole discretion immediately revoke any discharge permit where the discharge reasonably appears to present an imminent endangerment to the health or welfare of persons. Violations subjecting an industrial user to revocation of a permit include, but are not limited to, the following:

1. Failure of an industrial user to accurately report the wastewater constituents and characteristics of his/her discharge;

2. Failure of an industrial user to report significant changes in operations, or wastewater constituents;

3. Refusing the QDC statutorily authorized access to the industrial user's premises for the purposes of inspection or monitoring; or

L. Before any further discharge of industrial wastewater may be made by a user whose permit has been revoked, the user must apply for, and be granted, a reinstatement of the terminated permit or a new permit, as the Director may require, as well as paying costs occasioned by the violation. Any such fines, fees, charges and costs shall be paid for by the user before any new permit will be issued. When all costs cannot be readily determined, the QDC may require and accept a bond or irrevocable letter of credit which it considers sufficient and which will be subject to appropriate adjustment after all costs have been determined. Costs shall include, but not be limited to:

1. Inspection, monitoring, sampling and related expenses;

2. Restitution to other affected parties;

3. Reasonable attorneys' fees incurred by the QDC in enforcing the permit;

4. Disconnecting and reconnecting the user to the facility; and

5. Other actual damages incurred due to the violation.

4.16.8 Validity

The invalidity of any section, clause, sentence, or provision of these Rules shall not affect the validity of the remainder that can be given effect without such invalid part or parts.

4.16.9 Enforcement and Penalties

A. Any person violating these rules may be sent a "Notice of Deficiency" by the Director. The Notice shall list the violations noted, the Rules violated, and shall require that the violations be corrected within a reasonable time. Failure to correct such violations within the time allowed will result in the issuance of a "Notice of Violation" by the Director.

B. Any person violating the provisions of these rules may be served by the Director with a written "Notice of Violation" stating the nature of such violation. The violator shall immediately and permanently cease all violations. Nothing herein shall require issuance of a Notice of Deficiency prior to issuance of a Notice of

Violation. No prior notices shall be required for the Director to initiate civil proceedings in Superior Court.

C. Notwithstanding any provisions for notice or hearing, liability for violations of these Rules shall be deemed to commence as the date such violation was discovered by the QDC or may otherwise be proven. The Notice of Violation issued by the Director pursuant to § 4.16.9(B) of this Part, shall require the violator to show cause at a hearing why he or she should not be found in violation of these Rules and why enforcement action should not be taken.

D. The Notice of Violation shall state the time and place of the hearing, the legal authority and jurisdiction under which the hearing is to be held, a reference to the Rules involved and a short and plain statement of the matters of fact and law asserted. The Notice of Violation shall be served personally or by registered or certified mail (return receipt requested) allowing at least twenty (20) working days before the hearing. Service may be upon any agent or officer of a corporation.

1. Answer. Within fifteen (15) working days of service of the Notice of Violation, the violator shall file an Answer to it. For each claim set forth in the Notice of Violation, the Answer shall contain full, direct and specific answers, admitting, denying or explaining material facts. If there is insufficient knowledge to answer with specificity it shall be so stated, and this shall be treated as a general denial. The Answer shall contain all affirmative defenses that are relied upon and may cite the statutes and Regulations that form the basis of each defense. All allegations contained in the Notice of Violation that are not specifically admitted in the Answer shall be deemed denied. The Hearing Officer upon his/her own initiative or upon the request of the QDC or the violator may permit the violator to amend an Answer or to postpone the hearing for good cause. If the violator fails to appear for the scheduled hearing, he/she may be found in default. Default constitutes, for purposes of this action and any subsequent action in Superior Court, an admission of all facts alleged in the Notice of Violation and a waiver of the violator’s right to a hearing on the factual allegations in the Notice of Violation.

2. Hearing Officer. The Board of Directors of the QDC shall designate certain persons to act as hearing officers in cases arising under these rules. With the adoption of these rules, the Director is empowered to appoint persons who are duly designated by the Board of Directors of the QDC and who are not involved in the enforcement action to act as hearing officer. A person designated as a hearing officer shall be a person who meets specific qualifications adopted by the Board of Directors of the QDC. The hearing officer shall: have the right to issue subpoenas in the name of the QDC to compel the appearance of witnesses and the production of any

books, records or other documents; take evidence; transmit in a timely manner a report of the evidence and hearing, including transcripts and other evidence, together with findings of fact and conclusions of law, and recommendations of action to the Director. The Hearing Officer may also issue findings as to the number of days during which the violation occurred and appropriate penalties.

3. Other Hearings. All other provisions for public hearings not specifically described herein shall be in accordance with R.I. Gen Laws § 42-35-9.

4. Orders by the Director. After the Director has reviewed the evidence, he may issue an order to the violator to cease and desist committing such violations, to remedy such violations, to revoke the violator's discharge permit, assess fines, and condition future permits upon payment of the costs of implementing and enforcing the terms of such permit, including attorneys' fees and administrative costs. The decision may include a finding as to the number of days during which the violation occurred and appropriate penalties. Every day in which a violation occurred shall be deemed a separate offense. The Superior Court shall have jurisdiction to enforce such order and the Director may institute civil or criminal proceedings in the name of the QDC.

E. Civil/Criminal Penalties

1. Any person who shall violate the provisions of any permit, Rule, Regulation or order of the QDC shall be subject to a civil penalty of not more than twenty-five thousand dollars ($25,000.00) for each day during which such violation occurs.

2. Any person who shall be found guilty of violating willfully or with criminal negligence, any provisions of any permit, Rule or Regulation, or an order of the QDC shall be punished by a fine of not more than twenty-five thousand dollars ($25,000.00) or by imprisonment for not more than thirty (30) days, or by both fine and imprisonment.

F. Notwithstanding any other provision herein, the Director may, after informal notice to the discharger as described below, immediately and effectively halt or prevent any discharge of pollutants into the QDC Sewers which reasonably appears to present an imminent endangerment to the health or welfare of persons. Upon determination by the Director that a discharge reasonably appears to present an imminent endangerment to the health or welfare of persons, he may issue an immediate compliance order. Informal notice shall consist of a telephone call to the discharging facility's owner or any agent or officer of a corporation. Such compliance order shall become effective

notwithstanding inability to contact the foregoing persons. A registered letter, return receipt requested, which states the existence of the violation and the action deemed necessary will be sent as soon as practicable. No request for a hearing prior to issuance of the compliance order may be made. Any such immediate compliance order issued under this section without notice and prior hearing shall be effective for no longer than forty-five (45) days, provided, however, that for good cause shown such order may be extended one (1) additional period not exceeding forty-five (45) days.

G. Notwithstanding any other provisions herein, the Director may, in accordance with the notice and procedures described below, halt or prevent any discharge into the QDC Sewers which presents or may present endangerment to the environment or which threatens to interfere with the operation of the facilities. Such Notice shall provide for a time within such said alleged violation shall be remedied, and shall inform the person to whom it is directed that a written request for a hearing on said alleged violation may be filed with the Director within ten (10) days after service of the notice. Notice will be deemed properly served upon a person if a copy thereof is served upon him or her personally, sent by registered mail, return receipt requested, or such person is served with notice by any other method of service now or hereafter authorized in a civil action under the laws of this State. If a person upon whom a notice of violation has been served under the provisions of this section or if a person aggrieved by any such Notice of Violation requests a hearing before the Director within ten (10) days of the service of Notice of Violation, the Director shall set a time and place for said hearing, and shall give the person requesting such a hearing at least five (5) days written notice thereof. After such hearing, the Director may make findings of fact and law and shall sustain, modify or withdraw the Notice of Violation. If the Director sustains or modifies the notice, such decision shall be deemed a compliance order and shall be served upon the person responsible in any manner provided for the service of the notice of this section. Such compliance order shall state a time within which said violation shall be remedied. Nothing herein shall prohibit the Director from requiring immediate compliance. Whenever a compliance order has become effective, whether automatically or not, where no hearing has been requested, or where an immediate compliance order has been issued, or upon decision following hearing, the Director may institute injunctive proceedings in the Superior Court for enforcement of such compliance order and for appropriate temporary relief. In such proceedings the correctness of a compliance order shall be presumed and the person attacking such order shall bear the burden of proving error in such compliance order; except that the Director shall bear the burden of proving in such proceedings the correctness of an immediate compliance order. The remedy provided for in this section shall be in addition to other remedies provided by law. Any party aggrieved by a final judgment of the Superior Court may, within thirty (30) days from the date of entry

of such judgment, petition the Supreme Court for a writ of certiorari to review any questions of law.

H. Notwithstanding the provisions of §§ 4.16.9(B) and (C) of this Part, if the QDC or its duly authorized employees and agents, upon presenting identification and appropriate credentials, are denied access to carry out inspection, surveillance, and monitoring procedures, the Director may immediately institute civil proceedings, including proceedings for necessary injunctive relief.

I. If any person shall construct, install, alter or repair any sewer or connect to any sewer in violation of the requirements of these Rules, the QDC may, in its discretion, order or direct such person to uncover and fully expose any or all portions of such sewer or connection and afford the QDC and its representatives' adequate opportunity for examination and inspection of the work. If the connection and appurtenances thereto shall be found not to be in full accord with the requirements of these Rules and standards, the QDC may serve the offender with a written notice as provided in § 4.16.9(B) of this Part.

J. Affirmative Defenses to Discharge Violations

1. Upset Provisions

a. For the purposes of this section, “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with pretreatment standards because of factors beyond the reasonable control of the user. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with pretreatment standards if the requirements of 40 C.F.R. § 403.16, incorporated above in § 4.3(A) of this Part.

c. A user who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and the user can identify the cause(s) of the upset;

(2) The facility was at the time being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures;

(3) The user submitted the following information to the QDC within twenty-four (24) hours of becoming aware of the upset. If this information is provided orally, a written submission must be provided within five (5) days and include; a description of the discharge and cause of noncompliance; the period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; steps being taken and/or planned to reduce, eliminate and prevent recurrence of the noncompliance.

d. In any enforcement proceeding, the user seeking to establish the occurrence of an upset shall have the burden of proof.

e. The user shall control production of all discharges to the extent necessary to maintain compliance with Pretreatment Standards upon reduction, loss or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost or fails.

2. Bypass

a. “Bypass” means the intentional diversion of waste streams from any portion of the user’s treatment facility.

b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

c. A user may allow bypass to occur where it does not violate pretreatment standards or requirements, and only if it is necessary to assure efficient maintenance and/or operation. These bypasses are not subject to the provisions of §§ 4.16.9(J)(2)(d), (e), and (f) of this Part below.

d. If a user knows in advance of the need for a bypass, the QDC shall be given notice, if possible, at least ten (10) days before the date of the bypass.

e. A user shall orally notify the QDC of an unanticipated bypass that exceeds applicable pretreatment standards or requirements within twenty-four (24) hours of becoming aware of the bypass. A written submission shall also be provided within five (5) days of becoming aware of the bypass, including exact times and dates, and if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

f. Unauthorized bypass is prohibited and the QDC may take enforcement action against an individual user for a bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury or severe property damage;

(2) There are no feasible alternatives to bypass, such as use of auxiliary treatment facilities, retention of wastes, or maintenance during normal periods of downtime. This condition is not satisfied if adequate backup equipment should have been installed to prevent bypass which occurred during normal periods of equipment downtime or preventative maintenance;

(3) The user submitted notices as required by 40 C.F.R. § 403.17, incorporated above in § 4.3(A) of this Part. The Director may approve an anticipated bypass, after considering its adverse effects, if the QDC determines that the bypass will meet the three (3) conditions listed in this section.

K. Confidential Information

1. Confidential information and data on a user obtained from reports, questionnaires, permit applications, permits and monitoring programs and from inspections shall be available to the public or other governmental agencies without restriction unless the user specifically requests and is able to demonstrate to the satisfaction of the QDC that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the user.

2. When requested by the person furnishing a report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available upon written request to governmental agencies for uses related to these Regulations, any NPDES permit, any RIPDES permit, and/or any pretreatment program; provided, however, that such portions of a report shall be available for use by the State or any State agency in judicial review or enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information. Information accepted by the QDC as confidential, shall not be transmitted to any governmental agency or to the general public by the QDC until and unless a ten (10) day notification is given to the user.

L. Septage Hauler Discharge Permits

1. No septage hauler shall discharge to the QDC WWTF without first obtaining a permit from the QDC. No septage hauler will be allowed a permit unless the hauler has a valid license issued by the Rhode Island Department of Environmental Management to haul septage waste.

2. Septage Hauler Discharge Permit applications shall be completed on a form provided by QDC. All information requested in the permit application must be provided, including any additional information determined to be necessary by the Director. The completed application and any supporting documentation must be submitted to the QDC at least sixty (60) days prior to the issuance of a permit. Applications for permit renewal must be submitted at least sixty (60) days prior to the expiration of any existing permit. Incomplete permit applications will not be considered. At the discretion of the Director, an incomplete permit application may be returned to the applicant for additional information, or the incomplete permit application may be denied. After receipt of a completed permit application, the Director may request additional information to supplement the submission. If supplemental information is not supplied within thirty (30) days of the request of the Director, the permit application is deemed denied. Applicants denied a permit due to failure to provide supplemental information in a timely manner may re-submit the entire permit application with all requested supplemental information as an application for a new permit.

3. Limitations and Prohibitions

a. Only domestic septage originating from sources within the geographic boundaries of the State of Rhode Island may be discharged by a permitted septage hauler into the QDC WWTF.

b. No commercial, institutional, or other non-residential septage that is not domestic in character shall be discharged into the QDC WWTF.

c. Discharge of septage shall be limited to the times and locations selected by the Director. No septage shall be discharged into any user's connection, catch basin, storm drain, drainage system or manhole.

d. In the discretion of the Director, septage hauler permit holders may be limited in the frequency of use or volume of discharge into the QDC WWTF. Limitations may be included in the terms and conditions of a septage hauler's permit, or may be established at any time by the Director.

e. No septage hauler shall carry or discharge any material considered a hazardous waste under Federal or State law, nor shall any hauler mix any amount of hazardous material with domestic septage for the purpose of dilution or for any other reason.

f. Prohibited substances, as identified in §§ 4.16.3(B) and (C) of this Part, shall apply to septage.

g. The Director has the right to refuse the discharge of any load of septage into the QDC WWTF.

4. Fees

a. Each septage hauler permit application must be accompanied by a permit application fee. The permit application fee amount shall be set by the Director.

b. Permit holders shall be assessed a per-load charge, established by the Director.

c. All applications for modifications or renewal of an existing permit shall be accompanied by the appropriate fee. The fee amount shall be established by the Director.

d. The Director may revise fee amounts at any time. Notice to all septage permit holders shall be sent to the address provided on the

permit application at least twenty (20) days prior to the changes taking effect.

5. No less than sixty (60) days prior to the expiration of a permit, or to a change in operation of a permit holder requiring modification of an existing permit, the applicant shall submit an application for renewal or modification.

6. Each septage permit issued herein shall be valid for the period of time specified in the permit. No permit shall be issued or renewed for a time period to exceed three (3) years. A permit for the discharge of septage may be revoked at the discretion of the Director for violation of any of the provisions of these Rules.

7. Septage haulers are subject to enforcement under the provisions of § 4.16.9 of this Part for violation of any section of these Rules.

8. Sampling and Testing

    a. The Director may require all permitted septage haulers to provide a representative sample of each load of septage prior to discharge into the QDC WWTF.

    b. Specific sampling methods, testing requirements, and other restrictions shall be included in the terms and conditions of the permit.

    c. The Director reserves the rights to have QDC personnel obtain samples of the septage prior to or during discharge.

    d. The Director may require the septage hauler to suspend the discharging of septage until the analysis of the sample is complete.

9. Discharge of Septage

    a. Discharge of septage shall occur only at the locations designated by the Director. Discharge at any other location in the QDC system is absolutely prohibited.

    b. The hours of permitted discharge shall be established by the Director. Discharge shall be limited to the hours and days established by the Director.

c. Discharge of septage must be performed under the supervision of designated QDC personnel. Discharge without QDC supervision is absolutely prohibited.

10. Record Keeping Requirements

a. The permittee must provide a completed QDC septage hauler manifest form. The form shall contain information regarding the septage from each septage generator. The permittee shall also sign the form, indicating that no wastes other than those listed have been accepted. The manifest must be reviewed by an QDC representative prior to discharge. Failure to accurately record every load, falsification of data, or failure to transmit the form to the plant operator prior to discharge may result in revocation of this permit and/or a fine of up to twenty-five thousand dollars ($25,000.00) per day as allowed by these Rules.

b. The permittee shall retain all records which substantiate any information supplied in permit applications, monitoring information, septage manifest forms, records of data pertaining to hauled loads, and any other information requirements of these Rules for a period of three (3) years. Records that are retained by the permittee must be made available for inspection by authorized representatives of the QDC.

c. In the event that a dispute or litigation involving the subject of any records that have been retained is pending, the records are to be kept by the permittee for a period of three (3) years following the resolution of such litigation or dispute.

4.17 Stormwater Management

4.17.1 Purpose

A. The purpose of these Regulations is to provide for effective management of the stormwater system within the Park. These Regulations provide a mechanism for mitigating the damaging effects of uncontrolled and unplanned stormwater runoff. They improve the public health, safety and welfare by establishing methods for controlling the introduction of pollutants into the ground and surface waters under and adjacent to the Park. These Regulations establish the guidelines for managing the stormwater system including design, regulatory coordination, construction, operation, maintenance, inspection and enforcement. These Regulations identify the concept of implementing stormwater drainage service

charges based on each property's contribution of stormwater runoff to the system.

4.17.2 Stormwater Regulation

A. There are six (6) Regulations that affect stormwater management ranging from QDC's enabling legislation to State and Federal mandated programs. Under these programs, stormwater runoff from streets, parking lots, construction sites, industrial facilities and/or other impervious surfaces are regulated. These Regulations include:

1. R.I. Gen. Laws § 42-64.10-6 entitled "Quonset Development Corporation" establishes a stormwater management and conveyance system and regulates connections, user fees, charges and assessments.

2. Under § 250-RICR-150-10-1.32, Quonset Business Park is a designated A Municipal Separate Storm Sewer System (MS4) and QDC has prepared a stormwater management program that identifies measures to reduce the discharge of pollutants into stormwater system that drains into surface water bodies.

3. A Rhode Island Pollutant Discharge Elimination System (RIPDES) Construction General Permit shall be obtained in accordance with 250-RICR-150-10-1, Regulations for the Rhode Island Pollutant Discharge Elimination System. All stormwater discharges associated with construction including clearing, grading, excavation, and filling of one (1) acre of more require a permit. The permit requires the development of a Stormwater Management Plan consistent with 250-RICR-150-10-7. In addition, a Soil Erosion and Sediment Control Plan (SESCP) must be prepared.

4. Discharges of stormwater associated with specific categories of industrial facilities also are required to obtain a RIPDES General Permit for Storm Water Discharge Associated with Industrial Activity in accordance with 250-RICR-150-10-1, Regulations for the Rhode Island Pollutant Discharge Elimination System, for material handling and storage, equipment maintenance and cleaning, scrapyards, landfills, shipyards and other types of activities.

5. Stormwater runoff discharging toward a wetland or a conveyance system that discharges into a wetland requires a wetland permit in accordance with 250-RICR-150-15-1, Rules and Regulations Governing the Administration and Enforcement of the Fresh Water Wetlands Act.

6. Stormwater Discharge into the Coastal Zones: The Coastal Resources Management Council (CRMC) regulates discharges into the Coastal Zone including freshwater wetlands in the vicinity of the coast. The areas of RIDEM and CRMC jurisdictional boundaries within the Park are shown on the RIDEM online GIS map: http://ridemgis.maps.arcgis.com/apps/webappviewer/index.html?id=87e104c8adb449eb9f905e5f18020de5. Any proposed discharge, construction, or maintenance activity into or within this boundary requires a CRMC Assent.

B. Storm Sewers and Connections

1. No persons shall uncover, make any connections with or opening into, use, alter, or disturb any QDC stormwater system or appurtenances without submitting the appropriate information consistent with §§ 4.8.5 and 4.17 of this Part and obtaining prior approval.

2. All costs and expenses incidental to the installation and connection of the stormwater and storm infrastructure shall be borne by the user who shall indemnify the QDC from any loss or damage that may indirectly be occasioned by the installation of the storm sewer.

3. No persons shall make connection of sanitary sewer lines or illicit discharges to a storm drain that in turn is connected directly or indirectly to a QDC stormwater system.

4. The user of the stormwater system shall notify QDC when the storm drain is ready for inspection and connection to the QDC storm drain. The connection shall be made under the supervision of the QDC.

5. All excavations for storm drain installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, pavements and other QDC property disturbed in the course of the work shall be restored by the owner in a manner satisfactory to the QDC.

C. Stormwater Review Procedure

1. For connections or alterations to QDC's stormwater, the applicant shall submit the drainage design and requirements identified in § 4.17.2(D) of this Part, "Project Drainage Report" for QDC Technical Review Committee (TRC) approval. The TRC will review and provide comments to the applicant if necessary. Upon approval, the TRC will provide the applicant with an approval letter to accompany the RIDEM RIPDES permit and RIDEM Water Quality Certification applications. RIDEM will issue the final

permit and a copy of this permit is to be filed with QDC. QDC manages this permit program which enables a more streamlined review by RIDEM.

2. For Stormwater Discharge into Freshwater Wetland Areas and Stormwater Discharge into Coastal Zone, the applicant shall submit the drainage design as detailed in § 4.17.2(D) of this Part, to the TRC. TRC will review and approve the drainage design and give the applicant an approval letter to accompany the Freshwater Wetlands and Coastal application.

D. Project Drainage Report

~~1.~~ The purpose of the Project Drainage Report is to identify and propose specific solutions to stormwater runoff and water quality impacts resulting from proposed development within the Park. The report must comply with 250-RICR-150-10-8, Stormwater Management, Design, and Installation Rules~~250-RICR-150-10-7, Appendix K: Hydrologic & Hydraulic Modeling Guidance~~. The Drainage Report should include; a drainage analysis, pre and post analysis and area maps, drainage diagram (node diagram) and input and output data.

4.17.3 Material Used in Construction of Storm Sewers

A. Materials used in the construction of stormwater system shall be constructed of reinforced concrete, ductile iron, PVC or corrugated polyethylene. -The most cost-effective materials shall be allowed that conform to the site conditions and reflect the relevant operations, maintenance, and system character of the stormwater system. Specifications referred to, such as ASTM or AWWA, etc., should be the latest revision in effect at the time of application.

1. Reinforced Concrete Pipe

a. Circular reinforced concrete pipe and fittings shall meet the requirements of ASTM C76, incorporated above in § 4.3(P)(14) of this Part.

b. Elliptical reinforced concrete pipe shall meet the requirements of ASTM C507, incorporated above in § 4.3(P)(15) of this Part.

c. Joint design and joint material for circular pipe shall conform to ASTM C443, incorporated above in § 4.3(P)(16) of this Part.

d. Joints for elliptical pipe shall be bell and spigot or tongue and groove sealed with butyl, rubber tape, rubber ring gaskets, or external sealing bands conforming to ASTM C877, incorporated above in § 4.3(P)(17) of this Part.

e. All pipes shall be Class III minimum unless loading conditions call for stronger pipe (i.e., higher class).

f. The minimum depth of cover over the concrete pipe shall be as designated by the American Concrete Pipe Association (ACPA).

g. Minimum depth of cover standards for ductile iron and corrugated polyethylene pipe shall conform to manufacturer standards.

2. Ductile Iron Pipe

a. Ductile iron pipe shall conform to AWWA C151/A21.51, incorporated above in § 4.3(O)(6) of this Part.

b. Joints shall conform to AWWA C111/A21.11, incorporated above in § 4.3(O)(11) of this Part, or AWWA C115/A21.15, incorporated above in § 4.3(O)(12) of this Part, as appropriate.

c. Pipe shall be designed in accordance with AWWA C150/A21.50, incorporated above in § 4.3(O)(13) of this Part.

d. The outside of the pipe shall be coated in accordance with AWWA C151/A21.51, incorporated above in § 4.3(O)(6) of this Part, and the inside lined in accordance with AWWA C104/A21.4, incorporated above in § 4.3(O)(14) of this Part.

e. Ductile iron pipe shall be installed in accordance with AWWA C600, incorporated above in § 4.3(O)(17) of this Part.

3. The following apply to corrugated polyethylene pipe:

a. Corrugated polyethylene pipe shall conform to AASHTO M252, incorporated above in § 4.3(N)(1) of this Part, for three through ten inches (3” through 10”) and AASHTO M294, incorporated above in § 4.3(N)(2) of this Part for sizes twelve inches (12”) and larger.

b. All pipes greater than twelve inches (12”) in diameter shall be Type S, unless conditions dictate otherwise.

c. Materials shall conform to ASTM D3350, incorporated above in § 4.3(P)(13) of this Part.

d. Pipe joints and fittings shall be compatible with the pipe material and shall conform to the same standards and specifications as the pipe material.

e. Pipe couplers shall not cover less than one (1) full corrugation on each section of pipe.

f. Installation shall be in accordance with ASTM D2321, incorporated above in § 4.3(P)(8) of this Part.

g. Backfill material shall be placed in six inch (6”) lifts and compacted to ninety-five percent (95%) minimum dry density, per AASHTO T99, incorporated above in § 4.3(N)(3) of this Part. In areas of high ground water tables, design engineers shall check for flotation.

4. PVC

PVC shall conform to SDR-35 or ASTM F949, incorporated above in § 4.3(P)(5) of this Part.

5. Pipe bedding and backfill shall be provided as specified in the " Standard Specifications for Road and Bridge Construction, Amended August 2013, § 701.02.5 Bedding Materials," incorporated above in § 4.3(E) of this Part.

B. Inlets, Catch Basins, Manholes, and Outlets

1. Engineers shall design inlets, catch basins, and manholes in accordance with the latest version of " Standard Specifications for Road and Bridge Construction, Amended August 2013, § 701.02.5 Bedding Materials," incorporated above in § 4.3(E) of this Part, and ~~250-RICR-150-10-7~~ 250-RICR-150-10-8, Stormwater Management, Design, and Installation Rules. Where compliance with the RI Stormwater Manual requires different specifications than those listed by RIDOT, those specifications associated with the RI Stormwater Manual shall be used.

a. Inlet spacing depends on the inlet capacity. Area inlets in parking lots should be limited to three (3) cubic feet per second.

b. Outlet grates; fences, and other safety features for stormwater management facilities shall conform to 250-RICR-150-10-8, Stormwater Management, Design, and Installation Rules ~~250-RICR-150-10-7~~.

c. Manhole cover shall be as specified in the QDC's Development Package Guidance Document under standard details.

d. All grates shall be as specified in the QDC's Development Package Guidance Document under standard details.

4.17.4 Maintenance of Stormwater Infrastructure

A. Best Management Practices (BMPs) consistent with 250-RICR-150-10-8, Stormwater Management, Design, and Installation Rules~~250-RICR-150-10-7~~ are required for any Storm Sewers and Connections identified in § 4.17.2(B) of this Part. Maintenance is necessary to extend the longevity of BMPs, maintain stormwater BMP performance over time, protect against downstream water quality impacts and flooding, physically removes trapped stormwater pollutants and disposes of them, ensures that stormwater BMPs are functional, safe and attractive.

1. The applicant shall submit, for review and approval, an Operation and Maintenance Plan (O&M) as outlined in 250-RICR-150-10-8, Stormwater Management, Design, and Installation Rules ~~250-RICR-150-10-7~~. The O&M Plan must be approved prior to the start of stormwater construction.

2. The O&M Plan shall include, but not be limited, to the following elements:

    a. Stormwater Management System Owners,

    b. The party(ies) responsible for operation and maintenance,

    c. The routine and non-routine maintenance tasks and a schedule,

    d. A plan that shows the location of all stormwater BMPs and discharge points,

    e. A description and delineation of public safety features,

    f. An estimated budget and funding source.

3. The owner is required to perform the inspections as described in the Operations and Maintenance Plan and shall submit the approved inspection reports to QDC within fifteen (15) business days after the inspection.

4.17.5 Illicit Discharges and Connections

A. The purpose of this section is to:

1. Prevent illicit discharges into the QDC storm system.

2. Prevent illicit connections in the QDC storm system.

3. Require the cessation and removal of any and all such illicit connections and discharges.

B. This section shall apply to all non-stormwater entering the storm system generated on any developed and undeveloped lands unless explicitly authorized or exempt by the terms of this section.

4.17.5.1 Prohibited Acts

A. Prohibition of Illicit Discharges – No person shall discharge or cause to be discharged into QDC's storm system, directly or indirectly, any materials, including but not limited to pollutants, other than stormwater, except as authorized by this section.

B. Exempt Activities – Water line flushing or other potable water sources; landscape irrigation or lawn watering; diverted stream flows; rising groundwater; groundwater infiltration to storm drains; uncontaminated pumped groundwater; discharges from foundation or footing drains (not including active groundwater dewatering systems) where flows are not contaminated with process materials such as solvents, or contaminated by contact with soils where spills or leaks of toxic or hazardous materials have occurred; springs; natural riparian habitat or wetland flows; emergency fire-fighting activities; air conditioning condensation; noncommercial washing of new vehicles where no detergents are used; and any other water source not containing pollutants. Discharges specified in writing by the RIDEM or the United States Environmental Protection Agency (EPA).

1. Dye testing is an allowable discharge but requires a verbal notification to the QDC prior to the event.

C. Prohibition of Illicit Connections – The construction, use, maintenance or continued existence of illicit connections to the storm system is prohibited.

1. This prohibition includes, without limitation, illicit connections made prior to the enactment of these Regulations.

2. Existing connections made prior to the adoption of these Regulations will require review by TRC and issuance of approval by TRC in accordance with the provisions of these Regulations.

3. A person is in violation of these Regulations if the person connects a line conveying sewage or other non-stormwater related flows to the QDC's stormwater system or allows such a connection to continue.

D. Industrial or Construction Activity Discharges – Any person subject to an industrial or construction activity by RIDPES stormwater discharge permit shall comply with all provisions of such permit, as issued by RIDEM. Proof of compliance with said permit may be required in a form acceptable to the QDC prior to allowance of discharge to the QDC's stormwater system.

E. Monitoring of Discharges and Right of Entry

1. To the extent authorized by the owner/leaser or other party in control of the property, QDC personnel may enter upon privately owned or leased property for the purpose of performing his/her duties under these Regulations and may conduct any examinations or sampling as QDC deems reasonably necessary.

2. QDC shall have the right to set up on any permitted facility such devices as are necessary in the opinion of QDC to conduct monitoring and/or sampling of the facility's stormwater discharge.

3. QDC has the right to require the discharger, at the discharger's expense, to install monitoring equipment as deemed necessary by QDC. The sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.

F. Notification of Spills – Notwithstanding other requirements of law, as soon as any person has information of any known or suspected release of materials resulting in or may result in illegal discharges or pollutants discharging into QDC's stormwater system or State waters, said person shall take all necessary steps to ensure the discovery, containment and cleanup of said release.

1. In the event of such a release, and in addition to other notification requirements, the person responsible for a facility shall notify QDC in person or by phone no later the next business day after the discharge.

2. Notifications in person or by phone shall be confirmed in writing by the notifying person and mailed to QDC and the RIDEM Office of Compliance and Inspection within five (5) business days of the original verbal notification. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least five (5) years.

3. For facilities that operate under existing RIPDES permits for stormwater discharge, notice of the spill shall be made to the permitting authority in accordance with the permit. QDC shall be provided with copies of any written notification required by the RIPDES permit.

4. Nothing in this Regulation shall authorize any person to fail to comply with relevant provisions of the Rhode Island Clean Water Act, R.I. Gen. Laws § 46-12-1 *et seq.*, or other applicable laws or Regulations.

4.17.6 Administration

A. No person or entity shall, without first being granted written approval from QDC, make any future connection or permit any runoff from any structure or property to any stormwater management and conveyance systems, or any appurtenance thereto, without first being granted written approval from TRC in accordance with these Rules and Regulations in this Part.

B. QDC shall assess any person or entity having a direct or indirect connection (including, without limitation, via runoff) to the QDC's stormwater system reasonable charges for the use, operation, maintenance and improvements to the system.

C. QDC shall also be entitled, in addition to any other remedies available, to enforce for violations of the Rules and Regulations established by QDC with respect to stormwater management as identified by § 4.17.7 of this Part.

4.17.7 Enforcement

A. Any person who violates these Rules, or applicable State and Federal Regulations is subject to having their domestic water service suspended and or terminated as per R.I. Gen. Laws Chapter 42-64.10.

1. QDC is authorized to terminate the water supply service or prohibit the use of QDC's stormwater system of any person or entity for the nonpayment of storm water management user fees, charges and assessments.

2. The person or entity shall not make any future connection or permit any runoff from any structure or property to any stormwater systems, or any appurtenance thereto, without first being granted a written approval from QDC.

3. QDC shall notify the user of termination of water supply or use of the stormwater management and conveyance systems at least forty-eight (48) hours prior to ceasing service. QDC may assess any person or entity any fees, charges and assessments affiliated with the shut off and restoration of service.