4. The design criteria for utilities and facilities set forth in this appendix and appropriate *Abu Dhabi International Codes* shall be met.

SECTION G401 SITE IMPROVEMENT

- **G401.1 Development in floodways.** Development or land disturbing activity shall not be authorized in the *floodway* unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment will not result in any increase in the level of the base *flood*.
- **G401.2 Flood hazard areas subject to high-velocity wave action.** In *flood hazard areas* subject to high-velocity wave action:
 - 1. New buildings and buildings that are substantially improved shall only be authorized landward of the reach of mean high tide.
 - 2. The use of fill for structural support of buildings is prohibited.
- **G401.3 Sewer facilities.** All new or replaced sanitary sewer facilities, private sewage treatment plants (including all pumping stations and collector systems) and on-site waste disposal systems shall be designed in accordance with Chapter 7, ASCE 24, to minimize or eliminate infiltration of floodwaters into the facilities and discharge from the facilities into floodwaters, or impairment of the facilities and systems.
- **G401.4** Water facilities. All new or replacement water facilities shall be designed in accordance with the provisions of Chapter 7, ASCE 24, to minimize or eliminate infiltration of floodwaters into the systems.
- **G401.5 Storm drainage.** Storm drainage shall be designed to convey the flow of surface waters to minimize or eliminate damage to persons or property.
- **G401.6 Streets and sidewalks.** Streets and sidewalks shall be designed to minimize potential for increasing or aggravating flood levels.

SECTION G501 MANUFACTURED HOMES

- **G501.1 Elevation.** All new and replacement manufactured homes to be placed or substantially improved in a *flood hazard area* shall be elevated such that the lowest floor of the manufactured home is elevated to or above the design flood elevation.
- **G501.2 Foundations.** All new and replacement manufactured homes, including substantial improvement of existing manufactured homes, shall be placed on a permanent, reinforced foundation that is designed in accordance with Section 1612.
- **G501.3 Anchoring.** All new and replacement manufactured homes to be placed or substantially improved in a *flood hazard area* shall be installed using methods and practices which minimize flood damage. Manufactured homes shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. Methods of anchoring are authorized to include, but are not limited to, use of over-the-top or