

# CHAPTER IV: IMPROVEMENTS REQUIRED

**4.1 ADEQUATE PUBLIC FACILITIES REQUIRED.** Land proposed for development shall be served by public facilities and services which are adequate to support the proposed development. Land shall not be approved for development unless and until adequate public facilities exist or provision has been made for the following essential public facilities: water service, wastewater treatment and disposal, stormwater management, electrical service, telecommunications service and streets. Public facilities shall be provided in a manner that is consistent with the Master Plan, this code and other standards adopted by the County.

**Exhibit 4.1: Public Improvement Requirements**

Facilities/ Improvements	Zoning District						
	A-1	AR-1	R-1	R-2	C-1	C-2	M-1 & M-2
Legal Access	✓	✓	✓	✓	✓	✓	✓
Grants of Rights-of-Way and Easements	✓	✓	✓	✓	✓	✓	✓
Paved Access							
Arterial		✓	✓	✓	✓	✓	✓
Collector Road				✓	✓	✓	✓
Local Road				✓	✓	✓	✓
Chip Sealed Access							
Arterial	✓						
Collector Road		✓	✓				
Local Road							
Gravel/Dirt Access							
Arterial							
Collector Road	✓						
Local Road	✓	✓ <sup>1</sup>	✓ <sup>1</sup>				
Curbs, Gutters & Sidewalks				✓ <sup>2</sup>			
Electricity	✓ <sup>3</sup>	✓	✓	✓	✓	✓	✓
Wastewater							
Centralized Service				✓ <sup>4</sup>		✓ <sup>4</sup>	✓ <sup>4</sup>
On-Site Systems	✓	✓	✓				



Facilities/ Improvements	Zoning District						
	A-1	AR-1	R-1	R-2	C-1	C-2	M-1 & M-2
Water Centralized Service Community Well		✓ <sup>6</sup>	✓ <sup>5</sup>	✓		✓ <sup>6</sup>	✓ <sup>5</sup>
Local Park & Rec. Facilities				✓ <sup>7</sup>			
Fire Protection Fire Flow <sup>8</sup> 2.5-Mile Radius			✓	✓ ✓ <sup>9</sup>		✓	✓

**Notes for Improvements Standards Matrix**

- 1) Local roads need not be paved or chip-sealed unless the average daily trip counts on the roadway is projected to exceed 400 trips. For local roads projected to carry more than 400 vehicles per day at full development, the County will determine the most appropriate surface.
- 2) Requirements for these improvements may be waived by the County along local streets and where the minimum lot size is ½ acre or more.
- 3) Connection to public electric utility is required if service is available. However, alternative sources of power may be provided.
- 4) On-site disposal systems may be authorized by the County, provided centralized water service is not available and no wastewater facilities are located within 1,250 feet of the proposed development. If centralized water service is provided, the County Board of Health may approve the use of on-site systems on lots smaller than 2 acres.
- 5) Centralized service requirements may be waived by the County Board of Health for developments with a minimum lot size of 2 acres, provided the applicant demonstrates the availability of safe and adequate water for the proposed use.
- 6) Only one well serving domestic needs is allowed per subdivision unless otherwise approved by the Board of Health.
- 7) Local parks are not required for any development with a minimum lot size of 2 acres or more. The County may provide for contribution of a fee-in-lieu of dedication applicable to small scale developments.
- 8) Where centralized systems are unavailable or inadequate to provide required fire flow, the applicant will be required to construct and dedicate a standpipe or other suitable water source for fire protection as approved by the County.
- 9) Proximity to a fire station may be increased to 10 miles, provided the minimum lot size is 2 acres or more or the applicant provides a stand pipe or water tower sufficient to sustain minimum fire flow requirements.



- A. New development shall provide adequate facilities and services to accommodate demands from proposed development in conformance with the minimum standards established in Sections 4.1 through 4-10 of these regulations.
- B. Unconstructed improvements shall be bonded prior to the recording of the plat in conformance with Section 2.8.3.
- C. New development shall be phased at a pace that will ensure the adequate provision of community facilities and services for proposed and future development.
- D. Each phased development project shall be designed so that the project is capable of functioning effectively and independently at completion of each cumulative phase.
- E. Adequate roadway facilities shall be provided concurrently with new development and shall be designed and constructed in conformance with applicable County standards.
- F. All required facilities shall be installed and approved by the County prior to issuance of a zoning permit, except sidewalks.
- G. If adequate public facilities are not available, the Board may:
  - 1. Disapprove the application; or
  - 2. Approve the application on the condition that the applicant voluntarily reduces development intensity, phases in development as facilities become available, provides for adequate on-site and off-site public facilities, and/or mitigates the impacts of facility deficiencies to the satisfaction of the Board.

## 4.2 WASTE WATER DISPOSAL SYSTEMS

### 4.2.1 Public Wastewater Systems.

- A. **Generally.** All habitable buildings and buildable lots shall be served by an approved means of wastewater collection and treatment as follows:
  - 1. Centralized wastewater collection and treatment shall be required for any new development of lots in residential districts that are smaller than 2 acres and any manufactured home park allowing more than one unit per two acres.



2. Centralized wastewater collection shall be required for all development of lots smaller than 2 acres that is located within 1,250 feet of an existing wastewater system which can provide adequate service.
  3. On-site disposal systems may be authorized by the County for lots of 2 acres or larger, provided: a) no wastewater facilities are located within 1,250 feet of the proposed development; and b) subject to a satisfactory perc test conducted by a competent professional.
  4. If centralized water service is provided, then the County Board of Health may recommend, and the Board of Supervisors may approve, the use of on-site systems on lots smaller than 2 acres, subject to the provisions of Section 4.2.1A.3.
- B. Design Standards.** All wastewater systems shall be designed and constructed to comply with state and American Public Works Associations (APWA) Standards as modified by these regulations.
1. These design standards are not intended to cover extraordinary situations. Deviations will be allowed and may be required in those instances where recommended by the County Engineer and County health department.
  2. Sanitary sewer systems shall be designed and built for the ultimate tributary population. Sewer capacities shall be adequate to handle the anticipated maximum hourly quantity of sewerage and industrial waste together with an adequate allowance for infiltration and other extraneous flow. Design flows shall be subject to approval of the County Engineer for each particular development.
- C. Off-Site Improvements.** The developer of a parcel shall provide for on-site and off-site improvements required to adequately serve a proposed development, provided, however, that the Administrator may authorize development to proceed if the service provider certifies that the necessary capital improvements have been funded for construction within 2 years of plat recordation. In no event shall a zoning permit be granted prior to connection to an approved wastewater system unless the Board has approved an interim service plan
- D. Extension/Oversizing.** Upon recommendation of the County Engineer and the Commission, the Board may require that wastewater lines be over-sized to accommodate planned development.
- E. Wastewater System Easements.** The property owner shall dedicate adequate easements to accommodate all wastewater system facilities required to serve new



development, except individual service lines. The Administrator shall identify the location and dimensions of required easements, but in no instance shall an easement be narrower than 10 feet in width. Easements should follow property lines to the greatest extent possible.

#### 4.2.2 Private (On-Site) Wastewater Systems.

- A. **Generally.** Where on-site sewage disposal systems are to be installed, they shall be subject to County approval and in compliance with applicable State regulations.
- B. **Permit Required.** Any person who desires to install, add to, alter, expand or repair a private waste treatment system shall make a written application on forms provided by the Clinton County Health Department. No person shall install, add to, alter, expand or repair a private waste treatment system without a valid permit issued by the County.
- C. **Failure to Comply with Stop Work Order.** Failure to comply with a stop work order or other lawful order of the County Health Department issued pursuant to this Section is a violation of these regulations.
- D. **One Residence Per Individual On-Site System.** Only one residence shall be connected to an individual on-site sewage treatment system, except that the Administrator and County Health Department may jointly authorize connection of additional units upon finding that the system can accommodate all uses.
- E. **When Private Waste Treatment System Constitutes a Public Nuisance.** Any private waste treatment system installed, added to, altered, expanded or repaired in violation of this Section and the rules and regulations of the County or State is a threat to the health, safety and welfare of the County and is a public nuisance.
- F. **Private Waste Treatment, Issuance of Permit.** The County Health Department shall issue the appropriate permit in compliance with this Section and any rule or regulation adopted pursuant to this Section, and payment of the appropriate fee.
- G. **Private Waste Treatment, Standards.** All private waste disposal systems shall be installed, altered, expanded, repaired or operated according to State regulations and the following standards:
  - 1. **Not Create a Public Nuisance.** The location and installation of private waste disposal systems shall be such that with reasonable maintenance, the private waste disposal system will function in a sanitary manner and will not create a nuisance, health hazard or endanger the safety of any domestic water supply.



2. **Factors Considered.** When reviewing an application for a subdivision with individual waste treatment systems, consideration shall be given to the size and shape of the lots, slope of natural and finished grade, soil type and classification, depth of ground water, bedrock, or any limiting layer, proximity of existing or future water supplies and possible expansion of the system.
3. **Designed to Receive All Sewage.** The systems shall be designed to adequately receive all sewage from the dwelling. Footing or roof drainage shall not enter any part of the systems.

**4.3 WATER.** As-built drawings for water lines, valves, fire hydrants and other appurtenances or elements of the water distribution system constructed to served the project shall be limited to horizontal location and size of water lines and location and description of valves with dimensional ties as may be required by the County Engineer.

- A. **Centralized Service Required.** All new buildable lots shall be connected to a centralized public water system which is capable of providing water for health and emergency purposes, including adequate fire protection as required in Exhibit 4.1. Centralized water facilities shall be designed in accordance with Iowa Design Standards and requirements of the DNR for public and non-public water supplies, as applicable. Except within the A-1 district, all lots of a subdivision shall be served by a common well except as approved by the Board of Supervisors after consideration of the recommendation of the Board of Health.
- B. **Fire Flow Requirements.** Where centralized systems are unavailable or inadequate to provide required fire flow, the applicant may be required to construct and dedicate a standpipe or other suitable water source for fire protection as approved by the County. Fire Departments shall be consulted for recommendations on alternative standards for individual projects.
- C. **Exceptions.** The Administrator and Commission may recommend and the Board may approve subdivisions which do not comply with the requirements in Exhibit 4.1 , subject to the following conditions:
  1. The Board finds that the proposed development:
    - a. will be adequately served for normal water demands;
    - b. will not pose a threat to life or property within or adjacent to the proposed development due to inadequate fire protection; and



- c. will not impede the logical extension of services to serve growth in the County in accordance with the Master Plan.
  2. For Urban Residential development, a fire station shall be available within a 2.5 mile radius, provided however, that this radius may be increased to 10 miles if the minimum lot size is 2 acres or more.
  3. Individual wells may be used to provide water to development with a minimum lot size 2 acres in any district, provided the applicant demonstrates the availability of water for domestic use.
- D. Off-Site Improvements.** The developer shall provide for on-site and off-site improvements required to adequately serve a proposed development, provided, however, that the Administrator may authorize development to proceed if the water provider certifies that the necessary capital improvements have been funded for construction within 2 years of map recordation. In no event shall a zoning permit be granted prior to connection to an adequate approved water supply.
- E. Extension/Oversizing.** Upon recommendation of the Administrator and the Commission, the Board may require that water lines be oversized and be phased in coordination with the pace of new development to ensure the development will be adequately served by community facilities and services.
- F. Water System Easements.** The applicant shall dedicate adequate easements to accommodate all water system facilities required to serve new development, except individual service lines. The Administrator shall identify the location and dimensions of required easements, but in no instance shall an easement be narrower than 10 feet in width. Easements should follow property lines to the greatest extent possible.

## 4.4 STORMWATER MANAGEMENT

**4.4.1 Purpose.** The purposes of these stormwater management provisions are to protect life and property from reasonably preventable flood hazards; protect the quality of surface waters from contamination; and to minimize loss of valued wildlife by preserving habitat and linkages between wildlife habitat areas. Drainage improvements shall accommodate potential runoff from the entire upstream drainage area and shall be designed to prevent increases in downstream flooding. The County may require the use of control methods such as retention or detention, and/or the construction of off-site drainage improvements to mitigate the impacts of the proposed development to achieve these purposes.



**4.4.2. Design Standards.** Stormwater systems, designed to APWA Standards, shall be provided for all suburban and urban residential development.

- A. Where appropriate, natural drainageways shall be retained to minimize interference with potential floodwater conveyance, floodwater storage, wetlands, and both surface and subsurface hydrology. The Administrator may recommend approval of modifications to natural channels that are consistent with the other provisions of this plan.
- B. Storm sewers, where required, shall be designed and built to APWA Standards.
- C. On-site stormwater detention basins shall be required where needed to protect public or private property from increased volumes or velocity of stormwater runoff.
- D. Erosion and sedimentation controls shall be required during and after new construction as needed to prevent increased erosion or increased deposits of material downstream from the development.
- E. Development design shall accommodate large floods and smaller, more frequent floods along major and minor waterways.
- F. Stormwater systems shall be designed to minimize future operational and maintenance expenses.
- G. Stormwater systems shall be designed to reduce the exposure of streets, utilities and other public facilities to damage from stormwater.
- H. Development design shall provide at least one all-weather access to every parcel designed to remain open during the 100-year storm event.
- I. Stormwater drainage easements shall be provided where necessary for maintenance of the stormwater facility, as determined by the County Engineer.

**4.5 INSPECTIONS.** All required improvements shall be inspected in a manner approved by the Board. The applicant shall bear all the costs of inspections.