IX. INFRASTRUCTURE

- Village Infrastructure

  - Water Service
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  - Stormwater Management
  - Flood Control
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  - Recycling
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VILLAGE INFRASTRUCTURE

Goals, Objectives and Policies

Hoffman Estates will maintain service to existing development in the Village to ensure adequate anitary sewer, potable water, and stormwater management facilities. New development will be evaluated relative to its impact on the existing system.

Capital Improvement Plan

The Village maintains a 5 year schedule of capital improvement needs for public facilities, which is updated annually in conformance with standard practices.

Project Review Procedures

New projects are reviewed based on the following guidelines for infrastructure:

- Whether a Village sponsored project is needed to protect public health and safety,
- Whether the new development project represents a logical and sufficient extension of facilities and services within the service area.

Village Inventories

The Village maintains up-to-date inventories of all public facilities and identifies system improvements required to support future development needs. The Village will optimize the use of existing infrastructure, coordinate the extension of, or increase the capacity of, potable water, sanitary sewer and stormwater management facilities.

Level of Service

The Village shall ensure that the continuation of current service and the extension of service into the future meet the needs of the residents through the endorsement of state regulations pertaining to permitting, construction and quality standards of potable water, sewerage, stormwater, waste disposal, recycling, pollution and erosion control.

Water Service

Water is provided to the by the Joint Action Water Agency (JAWA), which is a consortium of communities that provide water from Lake Michigan. JAWA provides the water to the member communities via a system of pipes, pumps, and water storage tanks. The water is then distributed throughout the Village via a system of Village water mains and storage facilities.

The Village periodically evaluates the water system and considers improvements. In 2007, a water system study was completed for the western portion of the Village. That study recommended various system improvements in the western portion of the Village over the next several years, including the addition of a second transmission main from the central portion to the western portion of the Village, a second and a third water storage tank, and a pressure boosting system.

The Village shall establish the following level of service standards to ensure that the continuation of current service and the extension of service into the future meet the needs of the residents of Hoffman Estates.

- Drinking water shall meet the quality standards established by the State of Illinois.
- Water supply systems provision of storage for the number of gallons of potable water at a rate consistent with the standards of the State and minimum pressure requirements.
- Provisions for peak use and control for landscape irrigation, as may be appropriate.

Sanitary Sewer System

The Village, through the development review process, coordinates the development of the local sanitary sewer system. Processing of the effluent occurs at facilities operated by the Metropolitan Water Reclamation District (MWRD). In the western portion of the Village, the effluent is process by the Fox River Water Reclamation District (FRWRD) under an agreement with MWRD.

Sanitary Sewer Disposal shall be in accordance with Metropolitan Water Reclamation District (MWRD) standards for the majority of the Village and Fox River Water Reclamation District (FRWRD) standards for the western portions of the Village for the following;

- Permitting and construction methods
- Sizing and location of sanitary sewer conveyance systems.
- Conveyance of the sewage flow from a building

Stormwater Management

Stormwater management facilities shall be sized based upon the demand generated by a development to accommodate the 100-year frequency, 24-hour duration

design storm in stormwater management facilities to meet the standards that follow:

- Water quantity, where peak post-development run-off rates shall not exceed pre-development run-off rates.
- Stormwater draining to a wetland regulated by the Army Corps of Engineers shall conform to the Army Corp requirements.
- Roadway and parking lot drainage requirements shall conform to Village Code.
- Stormwater conveyance maintenance shall occur in accordance with Village Code and practice.

Village will continue to 1) identify areas which have recurring drainage problems and evaluate the extent to which water bodies and surrounding areas are being impacted by the stormwater discharges; 2) determine where additional improvements are needed; 3) establish a priority listing of stormwater management facilities projects and costs and associated completion time.

Village may in the future delineate a strategy for managing and testing stormwater quality.

Flood Control

The MWRD regulates the flood protection measures for Hoffman Estates.

Solid Waste Disposal

The Village contracts with a private waste management firm and the level of service for the Village's solid waste disposal shall be reviewed on a periodic basis for adequacy of service.

Recycling

The Village strongly supports the recycling programs that will be continued and enhanced throughout the Village as part of the solid waste disposal service.

Water Conservation

Continue public education program alerting residents of wasteful water practices, and encouraging responsible and practical use of potable and water resources. Through the Citizen Newsletter the Village maintains a public awareness of the value of conservation of the supply of potable water.

Pollution Control

The Village has a permit with the National Pollutant Discharge Elimination System (NPDES) permit program. All discharges requiring permits shall be required to meet NPDES Quality Standards.

The Army Corp of Engineers requires new development to establish minimum buffers of native vegetation adjacent to jurisdictional wetlands and water bodies to mitigate run off pollution and flooding.

Erosion Control

The Village requires that new construction be engineered to reduce erosion. Erosion controls shall include the recommended best management practices for erosion and sedimentation control.

Wireless Emergency Reponse System

Hoffman Estates is part of a county-wide pilot program to develop an emergency response system with a "state of the art" wireless communication infrastructure. The current configuration of the system is envisioned to be series of strategically located cameras for real time video information should an emergency take place with an independent and reliable Village communication network that provides "hot-spots" for wireless transmission of information. This will enable the police and fire departments to obtain secure and real time information about emergencies and the ability to communicate with other Villages through a secure network.

Village-wide Wireless Access

As the Village wireless system is developed further, there could be home applications that provide Village wide internet service with a subscriber network. In the future the system might also include the business community providing opportunities to partner with companies on a fee for service approach.

SUSTAINABLE DESIGN PRACTICES- LEED

Creating a sustainable approach to development that preserves natural resources and conserves energy is a significant goal for the Village of Hoffman Estates. The US Green Building Council (USGBC) has developed sustainable practices, guidelines and policies that are applicable for the Village to address in planning for the future. The following section is a synopsis of sustainable design guidelines for neighborhood development that is part of the LEED pilot program.

What is LEED

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

LEED provides a road map for measuring and documenting success for every building type and phase of a building life cycle. Specific LEED programs include:

- New Commercial Construction and Major Renovation projects
- Existing Building Operations and Maintenance
- Commercial Interiors projects
- Core and Shell Development projects
- Homes
- Neighborhood Development
- Guidelines for Multiple Buildings and On-Campus Building Projects
- LEED for Schools

LEED for Neighborhood Development

Sustainable guidelines are organized into the following categories

1. Location Efficiency
2. Environmental Preservation
3. Encourage Compact, Complete, & Connected Neighborhoods
4. Resource Efficiency

Location Efficiency

The goal is to reduce energy consumption and degradation of the environment by promoting the following location efficiency initiatives.

1. **Transportation Efficiency:** Reduce air pollution, energy consumption, and greenhouse gas emissions generated by transportation by encouraging new development in locations that reduce automobile dependence. Promote public health by encouraging new development in locations that provide increased opportunities for walking, bicycles and transit.The use of efficient vehicles by the Village is encouraged.

2. **Water and Stormwater Infrastructure Efficiency:** Conserve natural and financial resources required for construction and maintenance of infrastructure. Encourage new development within and near existing communities, in order to reduce multiple environmental impacts caused by haphazard sprawl.

3. **Clean up and Encourage Contaminated Brownfields Redevelopment:** Conserve land and reduce air, water, and land pollution from contaminated land.

4. **Adjacent, Infill, or Redevelopment Site to Reduce Automobile Dependence:** Encourage development within existing communities and already-developed places to reduce multiple environmental harms associated with haphazard sprawl. Reduce development pressure beyond the limits of existing development. Conserve natural and financial resources required for construction and maintenance of infrastructure.

5. **Contribution to Jobs-Housing Balance:** Encourage balanced communities with a diversity of uses and employment opportunities. Reduce energy consumption and pollution from motor vehicles by providing opportunities for shorter vehicle trips and/or use of alternative modes of transportation.

6. **School Proximity:** Promote children's health through physical activity by facilitating walking to school and promote a sense of community.

7. **Access to Public Space:** Provide access to public gathering space in order to promote a sense of community.

Environmental Preservation

The goal is to reduce energy consumption and degradation of the environment by promoting the following location environmental preservation initiatives.

1. **Preserve Imperiled Species and Ecological Communities:** Protect imperiled species and ecological communities. Conserve existing natural areas and protect trees to provide habitat and promote biodiversity.

2. **Parkland Preservation:** Protect natural habitat. Preserve existing tree canopy, native vegetation and pervious surfaces while encouraging high density, smart growth communities.

3. **Wetland & Water Body Protection:** Conserve water quality, natural hydrology and habitat through conservation of water bodies and wetlands.

4. **Design the Site for Habitat or Wetlands Conservation, through Restoration and Implement Conservation Management:** Conserve water quality, natural hydrology and habitat through conservation of water bodies and wetlands.

5. **Provide Erosion & Sedimentation Control through Steep Slope Preservation and Site Disturbance during Construction:** Minimize erosion to protect habitat, and reduce stress on natural water systems, by preserving steep slopes in a natural, vegetated state. Reduce water pollution from erosion during construction.

6. **Reduce or Maintain Stormwater Runoff Rates and Provide Stormwater Treatment:** Protect land that is important for natural or cultural resources from development. Conserve native wildlife habitat, wetlands and water bodies. Reduce stormwater pollution, prevent flooding, and promote aquifer recharge.

7. **Prevent Outdoor Hazardous Waste Pollution:** Reduce surface water pollution from stormwater. Reduce stormwater pollution from the use of pesticides and fertilizers.

Encourage Compact, Complete and Connected Neighborhoods

The goal is to reduce energy consumption and degradation of the environment by promoting the following location compact and complete neighborhood initiatives.

1. **Encourage Compact Development especially with Transit-Oriented Development:** Conserve land. Promote livability, transportation efficiency, and walkability. Maximize walking trips to and from transit stops in the area immediately surrounding the transit stop.

2. **Provide for Transit Amenities and Inter-Modal Connections:** Promote community livability, transportation efficiency, and walkability.

3. **Provide for a Diversity of Uses:** Promote community livability, transportation efficiency, and walkability.

4. **Provide for Housing Diversity:** To enable citizens from a wide range of economic levels and age groups to live within a community.

5. **Encourage Affordable Rental Housing in New Development:** To enable citizens from a wide range of economic levels and age groups to live within a community.

6. **Encourage the Development of Affordable For-Sale Housing:** To enable citizens from a wide range of economic levels and age groups to live within a community.

7. **Reduce the Parking Footprints:** Reduce stormwater runoff per capita. Encourage neighborhood walkability and promote public health through physical activity.

8. **Encourage Neighborhood Walkability:** to promote public health through physical activity.

9. **Provide for Community Outreach and Involvement:** To encourage community participation in the project design and planning and involve the people who live in a community in deciding how it should be improved or how it should change over time.

10. **Orient and Design Buildings to Shape Walkable Streets and Comprehensively Design Walkable Streets:** To promote pedestrian connectivity and encourage pedestrian-oriented streets.

111. **Create and Maintain Street Network for Vehicles and Pedestrians:** Provide direct and safe connections, for pedestrians and bicyclists as well as drivers, to local destinations and neighborhood centers. Promote public health though increased physical activity.

12. **Maximize Pedestrian Safety and Comfort and Maximize Pedestrian Experience:** Provide direct, safe, and comfortable connections, for pedestrians and bicyclists, to local destinations and neighborhood centers. Promote public health though increased physical activity. Provide appealing and comfortable pedestrian street environments in order to promote pedestrian activity.

13. **Regional Precedents in Urbanism and Architecture:** Promote energy savings, respond to regional climate, increase the life of buildings and materials, provide cultural continuity, and reinforce local distinctiveness.

14. **Provide Adaptive Reuse of Historic Buildings:** Encourage use of historic buildings in a manner that preserves their historic materials and character.

Resource Efficiency

The goal is to reduce energy consumption and derogation of the environment by promoting the following resource efficiency initiatives.

1. **Encourage Certified Green Buildings through use of LEED rating systems:** Encourage the design and construction of buildings to utilize energy conserving practices.

2. **Regulate Energy Efficiency in Buildings:** Encourage the design and construction of energy efficient buildings to reduce air, water, and land pollution and environmental impacts from energy production and consumption.

3. **Regulate Water Efficiency in Buildings:** Encourage the design and construction of water efficient buildings to reduce the environmental impacts from water consumption.

4. **Encourage Heat Island Reduction:** Reduce heat island effect to minimize impact on micro-climate, human and wildlife habitat, and required energy for cooling.

5. **Develop Infrastructure Energy Efficiency:** Reduce air, water, and land pollution from energy consumption on a municipal level.

6. **Encourage On-Site Power Generation and Renewable Energy Sources:** Reduce air, water, and land pollution from energy consumption and production by increasing the efficiency of the power delivery system. Increase the reliability of power. Reduce environmental impacts associated with fossil fuel energy generation by increasing the use of on-site renewable energy sources.

7. **Encourage Efficient Irrigation through the use of Greywater & Stormwater Reuse:** Conserve potable water.

8. **Encourage Efficient Wastewater Management:** Reduce pollution from wastewater and reuse nutrients from the wastewater stream.

9. **Encourage Reuse of Materials and Recycled Content:** Strongly promote reuse of materials, resource and recycled content.

10. **Use Regionally Provided Materials to Reduce Transportation:** Promote selection of regionally available materials and resources to build local economy and reduce embodied energy.

11. **Develop Construction Waste Management:** Promote efficient use of solid waste by diverting construction, demolition and land clearing debris from landfill disposal, and by redirecting resources for recycling and reuse. Promote safe and efficient disposal or reuse of waste streams generated by occupants.

12. **Light Pollution Reduction:** Reduce light pollution.

13. **Contaminant Reduction in Brownfields Remediation:** Encourage brownfields cleanup methods that reduce contaminant thereby minimize long-term remediation or monitoring burdens.

SOCIAL INFRASTRUCTURE

Community Services

Today the Hoffman Estates Department of Health and Human Services provides affordable community health services including immunizations, health clinics, financial counseling, community education, referral services, and mental health counseling. As the community evolves the department will continue to address the changing community health and mental health needs through on going assessment of programming. This will ensure that the department continues to effectively serve Hoffman Estates residents.

The following is a list of current and potential future community services:

1. Health and Mental Health
2. Well Child Immunizations
3. Counseling
4. Preventative Health Screenings
5. Adult Health Services
6. Smoking Cessation
7. Grief and Bereavement Services
8. Psychological Testing
9. Support services for patients and families of terminal illnesses
10. Short-term health equipment loans
11. Vision and Hearing Screening

Other

1. Assistance with AllKids applications
2. Elementary School Mentoring Program
3. Afterschool Programs
4. Financial Assistance
5. Financial Counseling
6. Vocational Testing
7. Divorce Support
8. Parent Support
9. Referral Services
10. Homeless Support
11. Community Education
12. Domestic Violence Prevention