#2012-18
Crystal Lake Public Library
Project Review for Planning and Zoning Commission

Meeting Date:	March 21, 2012
Zoning Requests:	Conceptual Plan Review for Crystal Lake Public Library expansion and renovation.
Location:	126 Paddock Street
Acreage:	3.03 acres
Existing Zoning:	R-2 and R-3A Residential
Surrounding Properties:	North (R-3A) Single family residential South (R-2) Hannah Beardsley School East (R-3A) Single family residential West (R-2) Single family residential
Staff Contact:	Michelle Rentzsch (815-356-3615)

Background: The property in question is Crystal Lake Public Library. The Public Library's mission statement reads is, "Crystal Lake Public Library: Helping people, of all ages and backgrounds, learn, enjoy, and better their lives." To that end, an expansion and renovation is proposed to help address the needs of the community, as has been identified in several surveys over the past few years. In order to address the concerns and incorporate the input that has been received by the Public Library since 2003, the proposed expansion and renovation offers a higher level of development on the existing site, with a parking deck, a two-story library building, drive-up/drop-off book drop, and a new entry from McHenry Avenue.

Project Info:
Per the UDO, a public library is a permitted use in the R-2 and R-3A zoning districts. The library property is comprised of both zoning districts. Based on the prior direction of community surveys, which indicated the desire to keep the public library in this central location, the expansion would necessitate zoning variations for corner side yard and abutting residential zone setbacks; maximum building coverage; maximum impervious surface coverage; floor area ratio, and the required number of parking spaces. At this time, the Public Library is seeking initial comments on this expansion and renovation plan, given the timing of State Public Library Construction Grant. This grant, if awarded Crystal Lake, would fund up to 35% of the cost of new construction. Before any construction could take place, all funding sources would need to be secured and the formal variations for the final plans would need to be reviewed and approved through the City's typical zoning variation public hearing process.

The expansion plan maintains the existing "library footprint" along Paddock Street but would necessitate the demolition of 17 McHenry Avenue (the blue house), which the Public Library currently owns.

Comprehensive Land Use Plan 2020 Vision Summary Review:

One of the main goals with the current 2020 Comprehensive Plan reads: Provide high quality public and semi-public facilities, such as schools, libraries, municipal facilities and private service providers throughout the City to support the diverse and evolving needs of people in the City. The proposed improvements would certainly meet the stated goal.

Staff Comments:

Building Division

1. Provide Height and Area Calculations for addition and parking structure. If the Library is Type I construction (Unlimited area); the entire building must be classified as Type I construction. 2006 IBC Table 503

2. Structural analyses of existing building structure and foundation capable of bearing all imposed loads including special loads, such as the planting modules.

2. The parking structure shall meet the egress and travel distance of Chapter 10 of the IBC.

3. Exiting stairwells shall have an area of refuge including signage, identification, and two-communication.

4. The entire structure and site is required to meet the accessibility requirements.

5. The structure shall meet all City adopted codes.

6. Provide the minimum amount of plumbing fixtures per the 2004 Illinois Plumbing Code.

7. Mchenry County Dept. of Health approval is required for the coffee shop.

8. A minimum of 6 accessible parking spaces are required.

Engineering Division

1. Drop-off lane: not recommended along McHenry Avenue, as this is a primary thoroughfare (major collector). If desired, suggest relocation to library property or Paddock Street, which is a lower volume local street. Also note possibility of converting this block of Paddock Street to one-way in order to gain on-street parking and improve Hussman School traffic flow for drop-off/pick-up. Requires City and School District coordination for feasibility.

2. Suggest 8' sidewalk between Crystal Lake Ave and Paddock St to facilitate bike access to bike lane corridor from library.

3. A larger 20'+ setback from east property line may be needed for fire department access.

4. Verify turning movements in parking structure for design vehicle. SU truck? Full-size pickup truck? Or Fire-Rescue apparatus?

5. Ramp max grade? Max 12-14% suggested with 10' transition at 1/2 ramp grade for top & bottom to prevent vehicles from bottoming out if grade differences of 8% or more is present. Ramp may not be long enough as shown on plan. Is ramp necessary between parking levels since at-grade access provided at each level. While helpful for better circulation, steep grade may become attractive nuisance for skateboarders and children.

6. Utilize bioswales, grass swales, and/or rain gardens instead of mechanical treatment units ahead of open-bottom underground detention as this is a direct conduit into the ground. Raise rim of manhole riser on storm trap structure to allow settlement prior to runoff infiltration. How will maintenance or repairs be performed on StormTrap structures? CLSO will require a maintenance plan & stormwater management easements for this system with final engineering.

7. Location of handicap accessible parking? IAC requires van accessible loading zone for every HC space.

8. Overflow route directs water to the McHenry Avenue storm sewer, which does not have additional capacity. This area adjacent to the library is a large depressional area. A depressional Base Flood Elevation (BFE) determination may be required that may need approval by MCSC depending on whether the tributary area is greater than 20 acres. Sizing of the underground detention may need to be based on the overall drainage at the site (not just the new impervious), depending on the impacts caused to McHenry Avenue (detailed engineering needed for final determination).

Public Works
No Comments

Police Department
No Comments

Fire Rescue Department

1. Comply with the International Fire Code, 2006 edition with City of Crystal Lake amendments. Information may be obtained from the City's web-site. Listed below are some highlights that may affect this project.
2. A scaled site plan will be needed to determine if proper fire department apparatus access is available. If the top level of the parking structure will be included as access, then drive aisle widths and weight limits will need to be included.
3. All new buildings, except 1 and 2 family, require an approved NFPA 13 sprinkler system, IFC 903.2 as amended.

4. A fire hydrant shall be available within 100 feet from the fire department connection and not closer than 1.5 times the height of the building, IFC 903.3.7.1 as amended.
5. All new buildings, except 1 and 2 family, required an approved manual, automatic, or manual and automatic NFPA 72 fire alarm system, IFC 907.2 as amended.
    a. The fire alarm is required to be monitored at the Fire Rescue Communication Center, IFC 903.4.2.1 as amended.
6. Additional details of the parking structure will be needed to determine if it is considered open or enclosed.
7. All new elevators are required to accommodate an ambulance strecher in the flat position.
8. A fire protection equipment room for installed controls of fire protection or detection is required, IFC 915.1 as amended.
    a. Exterior access is required, IFC 915.2 as amended.
    b. An approved walk is required to access the room, IFC 915.2.1 as amended.
    c. The minimum size is 6 feet by 8 feet, IFC 915.3
    d. The room shall be constructed with a 1 hour minimum vertical and horizontal separation, IFC 915.4 as amended.
    e. The room is required to have a cabinet 14 incheds high by 14 inches wide by 4.5 inches deep or a 4 inch by 30 inch PVC tube to store fire protection plans, IFC 915.5 as amended.
    f. The alarm room shall have a heater to prevent freezing of the sprinkler system. Heater shall have a thermostat and have electrical switches locked in the on position, IFC 915.7 as amended.
    g. A low temperature alarm connected to the fire alarm to send a supervisory signal if the temperature falls below 40 degrees Fahrenheit, IFC 915.8 as amended.

Planning & Economic Development Department

1. Based on the final plans and scope of variations that are requested, additional landscaping may be beneficial to help break up larger expanses of solid brick wall and provide better screening for the surrounding residences.
2. Final architectural plans could include architectural detailing that provides pedestrian scale elements to help the facility relate better to the surrounding neighborhood.
3. Please detail how bike parking for patrons will be accommodated.

Action:

Based on the conceptual plans and information provided, the Crystal Lake Public Library is seeking initial comments on the overall concept of the expanded and renovated proposed library.

City of Crystal Lake
Development Application

Office Use Only
File # 1 8 2012

Project Title: Crystal Lake Public Library Expansion and Renovation

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BY:

Action Requested

___ **Annexation**
___ **Comprehensive Plan Amendment**
_X_ **Conceptual ~~PUD~~ Review**
___ **Final PUD**
___ **Final PUD Amendment**
___ **Final Plat of Subdivision**
___ **Preliminary PUD**
___ **Preliminary Plat of Subdivision**
___ **Rezoning**
___ **Special Use Permit**
___ **Variation**
___ **Other**

Petitioner Information

Name: Crystal Lake Public Library Board of Trustees
Address: 126 Paddock Street
Crystal Lake, IL 60014
Phone: 815-526-5102
Fax: 815-459-9581
E-mail: kmartens@crystallakelibrary.org

Owner Information (if different)

Name:
Address:
Phone:
Fax:
E-mail:

Property Information

Project Description: Expansion and renovation of existing 40,000 gross square foot library building to 88,740 gross square feet; construction of a 2-level parking structure for 200 vehicles, drive-up book return, and delivery zone; storm water management; landscaping; and other site developments including signage and bicycle/pedestrian plaza and drop-off.

Project Address/Location: 126 Paddock Street, and 17 McHenry Avenue, Crystal Lake, IL 60014

PIN Number(s): 19-05-202-003; -004; -005; -006; -029; - 032; -033

Development Team

Please include address, phone, fax and e-mail

Developer: _____

Architect: Engberg Anderson, Inc, 320 E. Buffalo Street, Suite 500, Milwaukee, WI 53202
414-944-9191, joeh@engberganderson.com

Attorney: _____

Engineer: GRAEF, 8501 W. Higgins Road, Suite 280, Chicago, IL 60631
773-399-5464, mark.youngquist@graef-usa.com

Landscape Architect: _____

Planner: _____

Surveyor: _____

Other: _____

Signatures

_____

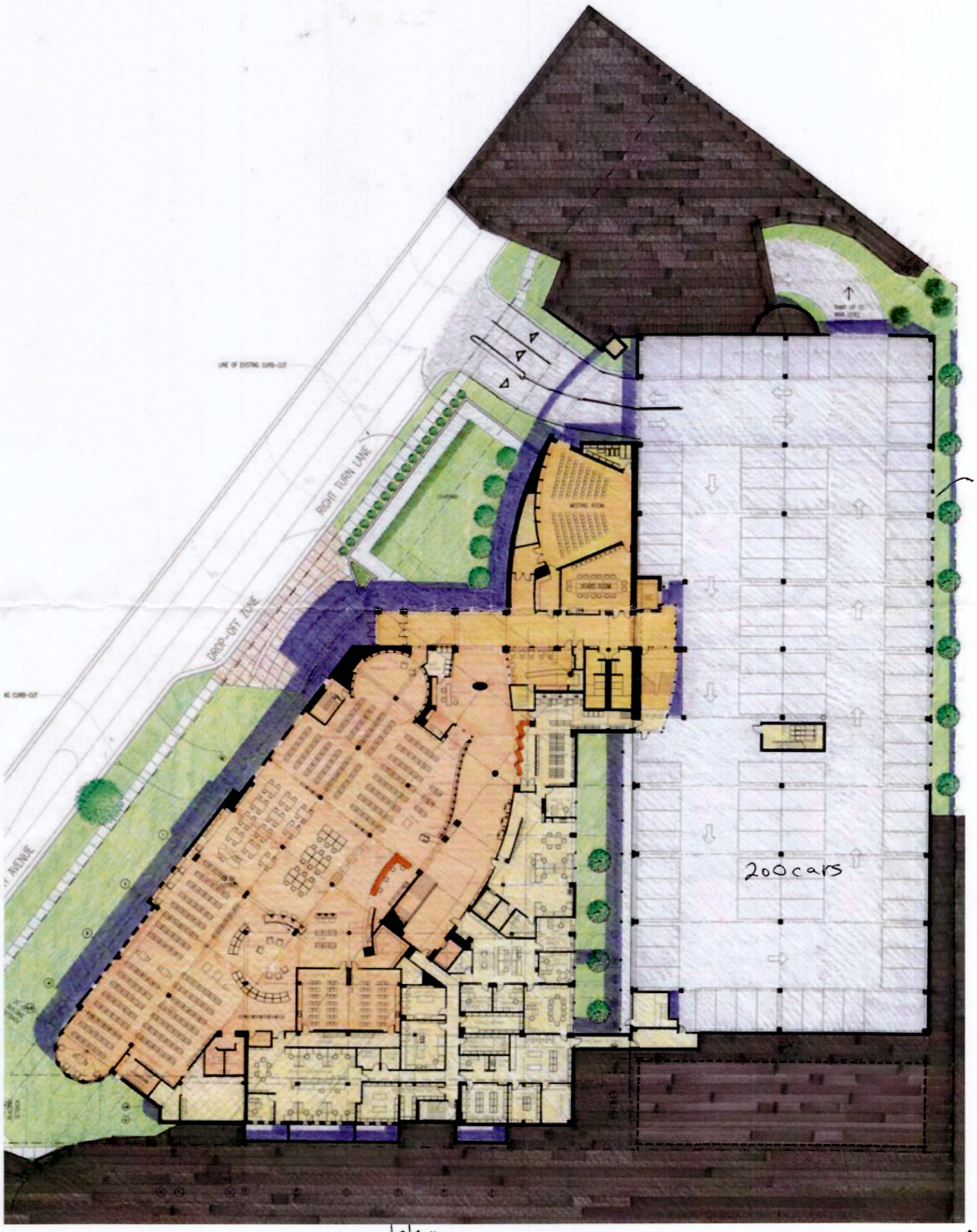
PETITIONER: Print and Sign name (*if different from owner*) **Date**

As owner of the property in question, I hereby authorize the seeking of the above requested action.

John Engebretson,
President, Library Board of Trustees of the City of Crystal Lake John T. Engebretson 3/2/12

OWNER: Print and Sign name **Date**

NOTE: If the property is held in trust, the trust officer must sign this petition as owner. In addition, the trust officer must provide a letter that names all beneficiaries of the trust.



1story

Jae, Mark, Kim

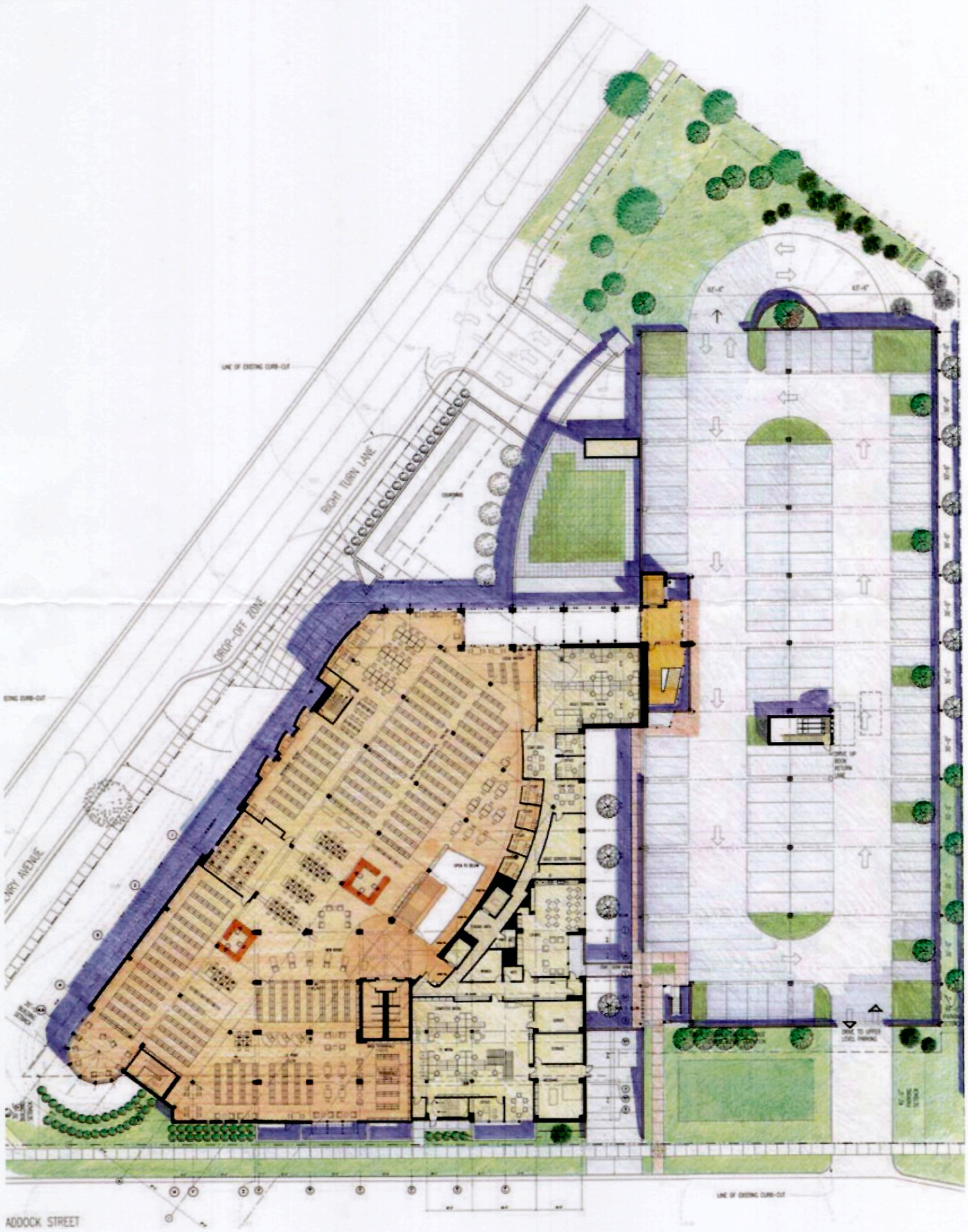
First Floor Building & Site Plan

site plan
prelim eng.
architecture

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80K ☐A propsd
40K currently
4/16 Grant deadline



Second Floor Building & Site Plan

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Conceptual Zoning Review Narrative & Drawings

March 1, 2012

Engberg Anderson

CRYSTAL LAKE PUBLIC LIBRARY EXPANSION & RENOVATION



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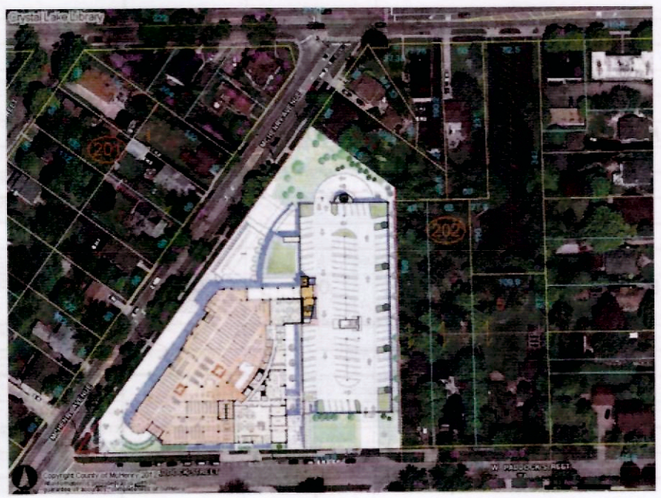
ARCHITECTURE PLANNING INTERIOR DESIGN

Enclosed please find the conceptual drawings illustrating a proposed expansion and renovation of the Crystal Lake Public Library. This narrative supports those drawings. We are including sections on Project History, Zoning Analysis, and Storm Water Management Concept.

Current Site Plan



Proposed Site Plan



PROJECT HISTORY

The drawings reflect twenty years of consistent planning by the Library Board culminating in a 2011 Needs Assessment formulated with input from more than 100 members of the community.

In the early 1990s, the building was 27,000 sf. A space needs assessment determined that more than double that space was needed to adequately serve a community the size of Crystal Lake at that time. The Library Board engaged an architect who developed a Master Facility Plan for the Library to expand at the current location. Since Crystal Lake was still in its growth period, the Library Board decided on an incremental approach to implementing the Master Plan while waiting for Crystal Lake's population to stabilize.

In 1995 Phase 1 of the Master Facility Plan was started and added 13,000 s.f. to the building.

By 2003, Crystal Lake's growth had stabilized, so the Library Board conducted another space needs assessment. Again, the results were that more than double the current space was needed to adequately serve a community the size of Crystal Lake. The Library Board and architect revisited options for expansion on the current site. Due to the price tag of $20.4M to expand on site, the Library Board and architect investigated the option of starting over at another location. The result - it was less expensive to start over.

In 2004, an advisory referendum to build a new Library on a new site, at a cost of $18.8M, failed. A follow-up community survey told us to "make do with what we had for now."

2007 saw action on that directive and the Library undertook Project Shoehorn. The goal of Project Shoehorn was to maximize use of the existing space in order to get 5-8 more years out of the current footprint. Those improvements are now at that 5-year mark.

In 2011 CLPL conducted a Needs Assessment with input from more than 100 members of the community. The Needs Assessment examined the Library's current access, collection, facility, staffing and technology and identified a number of areas of weakness. Many sections of the current building have outlived their natural life span. In addition, the Library facility is not cost efficient to heat or maintain. It has inherent problems related to:

- Parking shortage
- Inability to host a drive-up book return
- Poor access into the building from the parking lot
- Inadequate number of computers and/or power sources for laptops
- Inadequate seating
- Inadequate and inflexible large and small group meeting space and study rooms
- Inadequate space to house the volume of materials the Library currently circulates

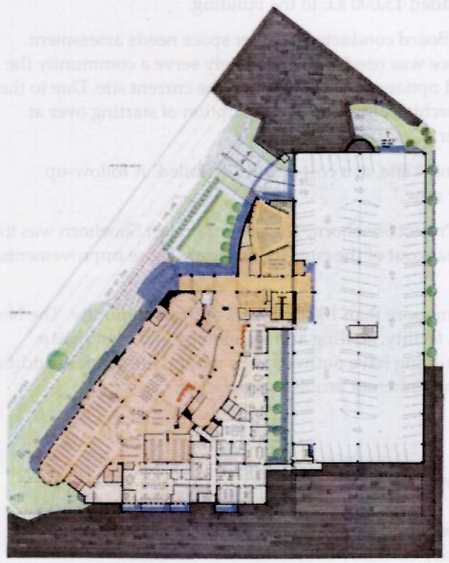
Using the results of the Needs Assessment, the Library Board and management staff met for a Strategic Planning Session in October of 2011. The objective was to identify actionable items and arrange them in priority order. Of the 55 items on the list, more than half of the items on the list related to the need for a "flexible, expanded facility that will be able to change as services change." Double the current space is still needed to adequately serve a community the size of Crystal Lake. While options such as a branch or bookmobile have also been considered, the most cost-efficient solution continues to be one central Library.

In 2012 the Library Board embarked on a site development study. Information from the 2004 advisory referendum, the 2005 public survey, and the recent needs assessment project, indicates that the residents of Crystal Lake want the Library to stay at its current location. In order to accommodate the necessary space, address parking concerns and avoid extensive intrusion into the surrounding residential neighborhoods the concept that has emerged favors a higher level of development on the library's current site with structured parking, an expanded 2-story library building, and a new at-grade entry off McHenry Avenue. These features are included in the attached drawings.

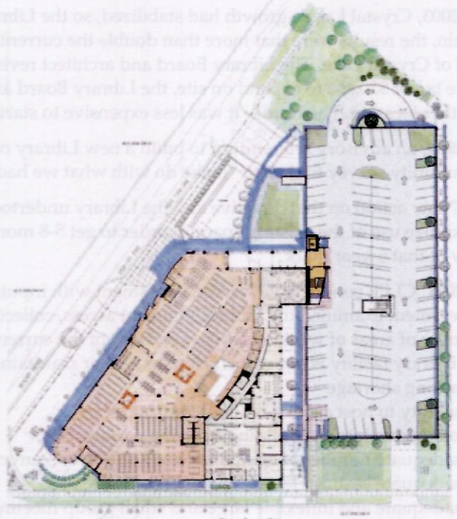
We are seeking this preliminary review as part of an overall development and funding program that is being coordinated with a State Public Library Construction Grant opportunity that has an application deadline of April 16, 2012. With conceptual approvals, the Library will move forward with the application. The State has indicated that it will make a short list of grantees available in August of 2012. If awarded, the grant could fund up to 35% of the cost of new construction for the Library. The Library would then have one year from the date of the award to secure the rest of the funds. Detailed plans would be developed and submitted for approval following funding. In this scenario construction would likely begin no sooner than August 2013.

Over the past twenty years the same goal remains - a flexible, expanded facility that will be a place for public library services to be provided to our community now and for years to come.

Proposed Site Plan



First Floor | McHenry Avenue Entrance



Second Floor | Paddock Street Entrance

ZONING ANALYSIS

	Requirements		Proposed Plan	
	R2	R3A		
Permitted Uses				
Community Facilities				
Library	P	P		
Dimensions - Other Uses in Residential Districts				
Minimum Lot Area	40,000	40,000	134,340	
Minimum Lot Width	150	150	472	
Setbacks				
Front	30	30	34	Measured at McHenry Avenue
Side Yard				
Interior	10	10	11	Measured at Paddock Street
Combined Interior	30	30		
Rear	20	20	20	Measured at Paddock Street
Corner Side	30	30	10	
Abutting Residential District	50	50	10	Measured at Paddock Street
			20	Measured at McHenry Avenue, east corner of parking
			101	Measured at McHenry Avenue, west corner of parking
Setbacks for Accessory Structures				
Side Yard	10	10		
Rear	20	20		
Maximum Building Coverage	20%	20%	**63%**	Includes Library and Parking Structures as buildings
Library Building Footprint			43,500	
Parking Structure Footprint			41,284	
Total Footprint			84,784	
Maximum Impervious Surface	40%	40%	**74%**	
Library Building Footprint			43,500	
Parking Structure Footprint			41,284	
Site Impervious			14,558	
Total Impervious Footprint			99,342	
Floor Area Ratio	0.40	0.40	**1.22**	Includes Library and Parking Structures as buildings
Library - First Floor			43,500	
Library - Second Floor			37,400	
Parking - First Floor			41,284	
Parking - Second Floor			41,284	
Total Floor Area			163,468	

	Requirements		Proposed Plan	
	R2	R3A		
Height				
Principle Structure				
Height	40	40	40	Occurs at main entrance along McHenry Avenue and at mechanical penthouse along Paddock Street
Number of Stories	3	3	2	Exclusive of mechanical penthouse
Accessory Structure				
Height	15	15		
Number of Stories	1	1		
Parking	364	364	177	
Rate	4.5	4.5		
Count				
Upper Level (Paddock Access)			85	
Lower Level (McHenry Access)			92	91 w angled parking
Setbacks for parking areas greater than 200 vehicles				
130' deep parking	25	25		
West			51	
307' deep parking	35	35		
South			53	

STORM WATER MANAGEMENT CONCEPT

The Storm Water Management Concept assumes a design infiltration rate of 3.6"/hour. Based on the success of the existing system, this is probably pretty conservative but based on previous experience we typically don't design to a greater rate than that.

Design is based on the use of an open-bottom precast concrete structure, basically a three-sided box culvert with fabric and stone at the bottom. Standard units are 7'x14'(outside to outside), so the project will need a layout with 3 units arranged in parallel, 210' long and 9' high. Total required volume of approximately 36,000 cubic feet.

The assumed a bottom of structure elevation is approximately 898 and a top of structure elevation is approximately 907, in order to provide all of the volume below the building floor at 908. We would adjust these during detailed design.

In order to fit this volume, the proposed system is located to the west property line. The ground in this area is lower, and the piped outlet will be there, so it generally makes more sense.

The design also assumes a new restricted storm sewer outlet to the City storm sewer system. This would be installed at approx. elevation 904, so it wouldn't begin to discharge except in extremely heavy (25-yr storm or greater) events, or if for some reason the infiltration system failed. The restricted release rate would meet the City Ordinance requirement for new development (max 0.15 cfs/acre release for a 100-yr storm event). We would also provide a design overflow route through this outlet sewer, again in the event of system failure. A surface overflow route would still be required, presumably still to the northeast as per the existing overflow route.

There is a requirement for pre-treatment of storm water. The site does not have adequate space for bio-retention and it would be extremely difficult to drain the upper deck of the parking garage into a surface feature, so the design assumes a mechanical treatment unit will be used, similar to Vortech 2000. This unit is not actually sized it yet and we would need confirmation from the City that this would be acceptable.

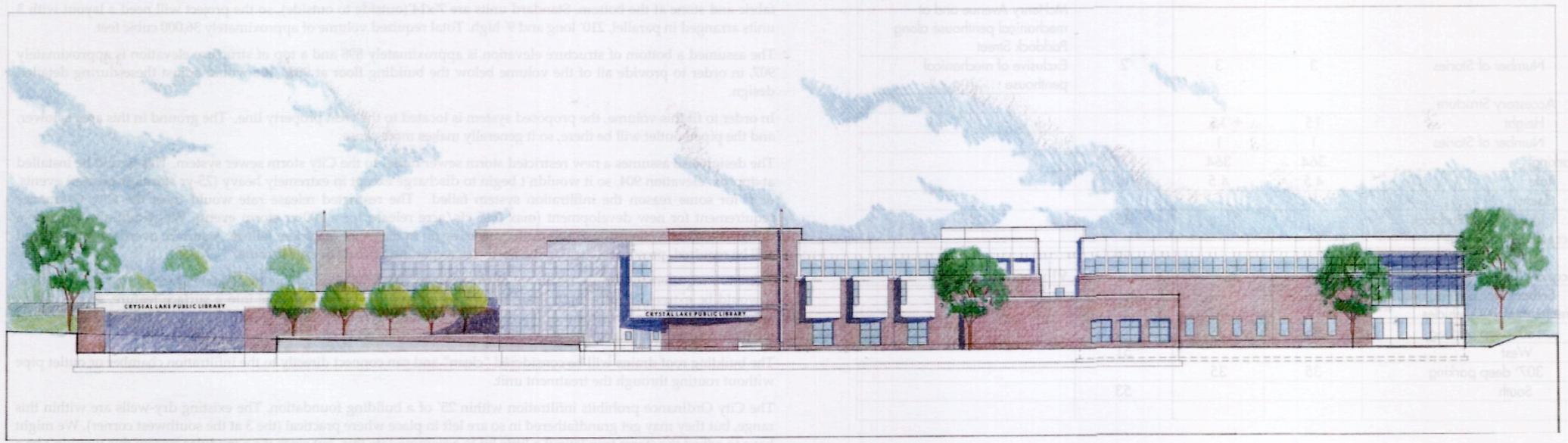
The building roof drains will be considered "clean" and can connect directly to the infiltration chamber or outlet pipe without routing through the treatment unit.

The City Ordinance prohibits infiltration within 25' of a building foundation. The existing dry-wells are within this range, but they may get grandfathered in so are left in place where practical (the 3 at the southwest corner). We might have to adjust the storm trap layout a little bit to accommodate this, but since it's a modular system this wouldn't be a big issue.

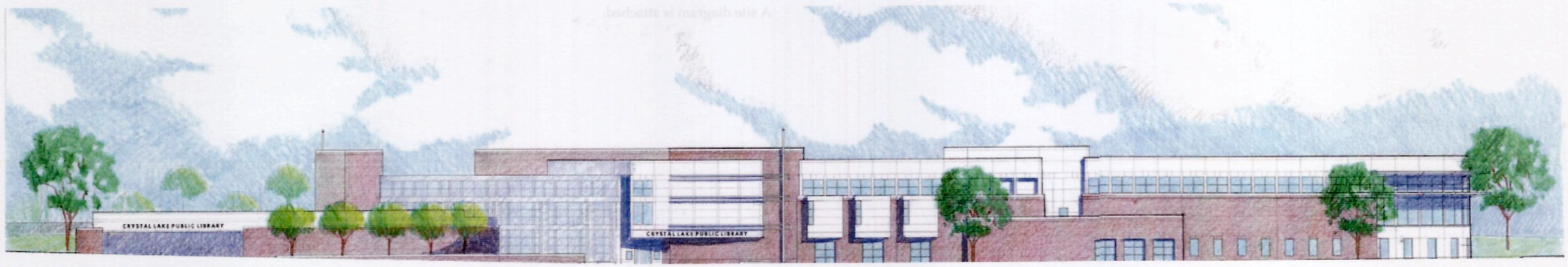
A site diagram is attached.

West Elevation along McHenry Avenue

Crystal Lake Public Library | Expansion & Renovation

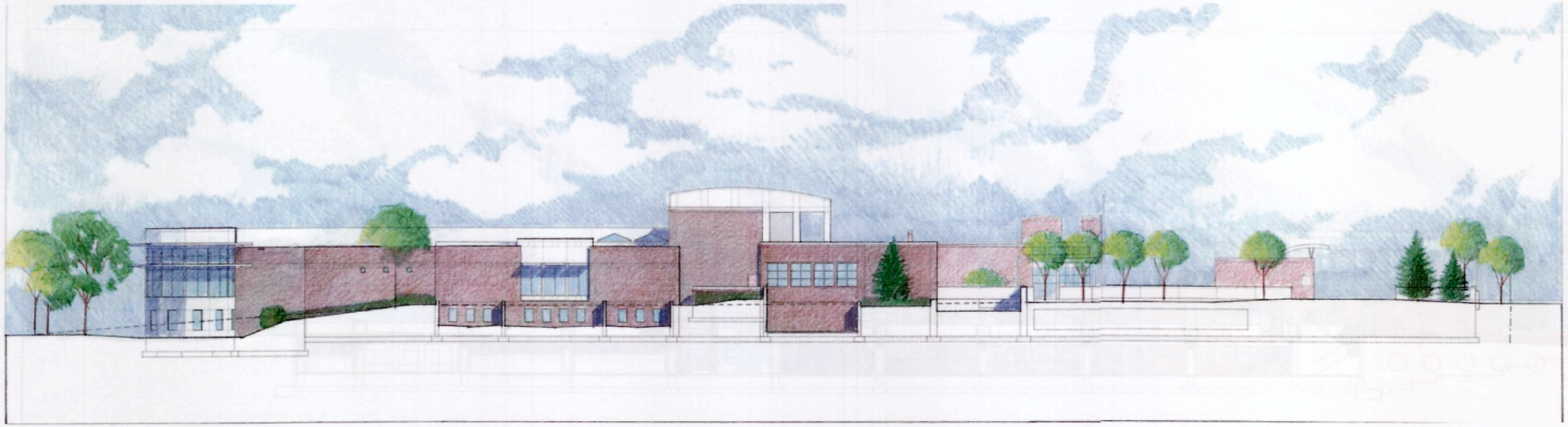


Above: Elevation at line of building. Below: Elevation at line of sidewalk

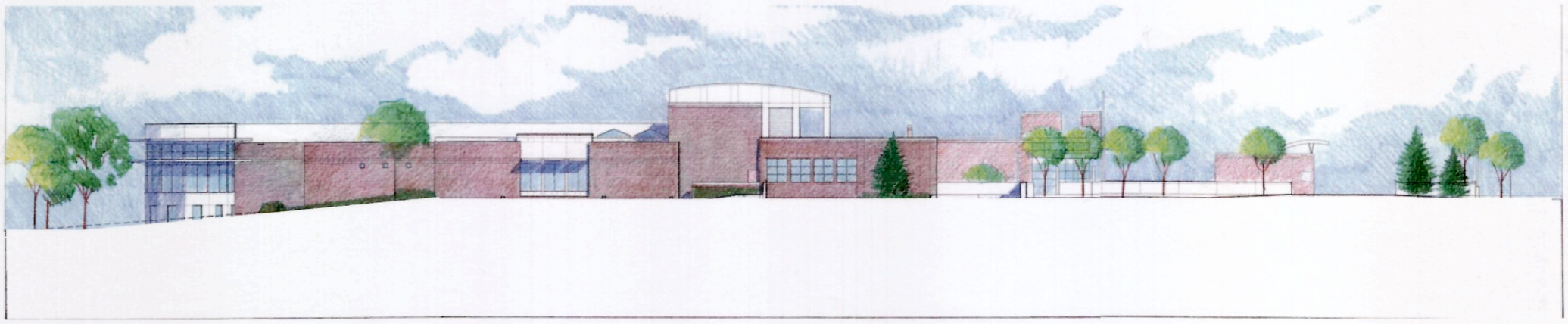


South Elevation along Paddock Street

Crystal Lake Public Library | Expansion & Renovation

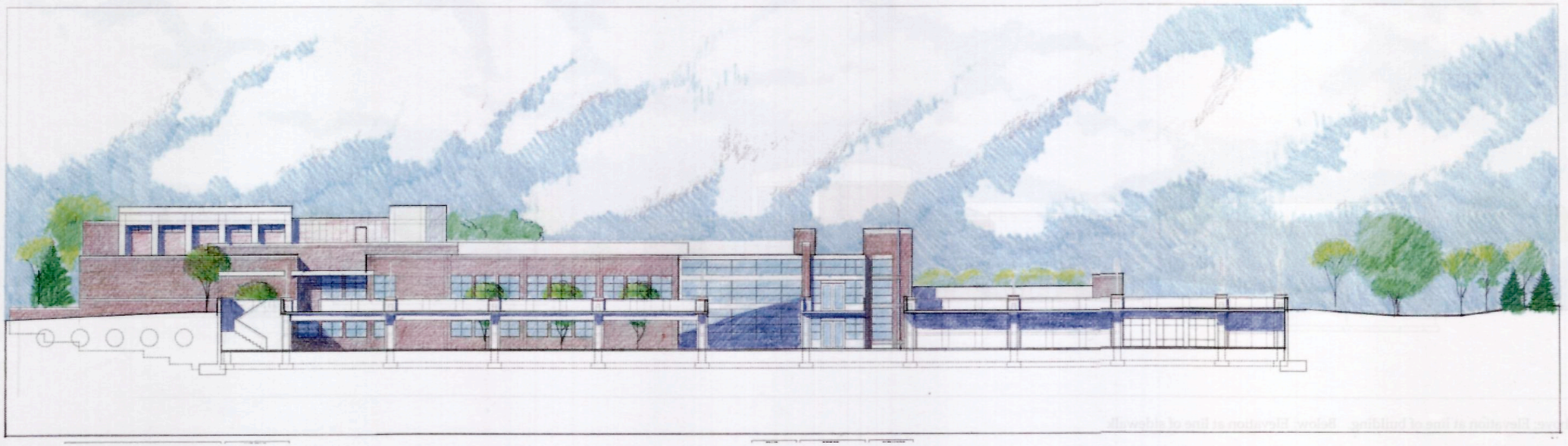


Above: Elevation at line of building. Below: Elevation at line of sidewalk



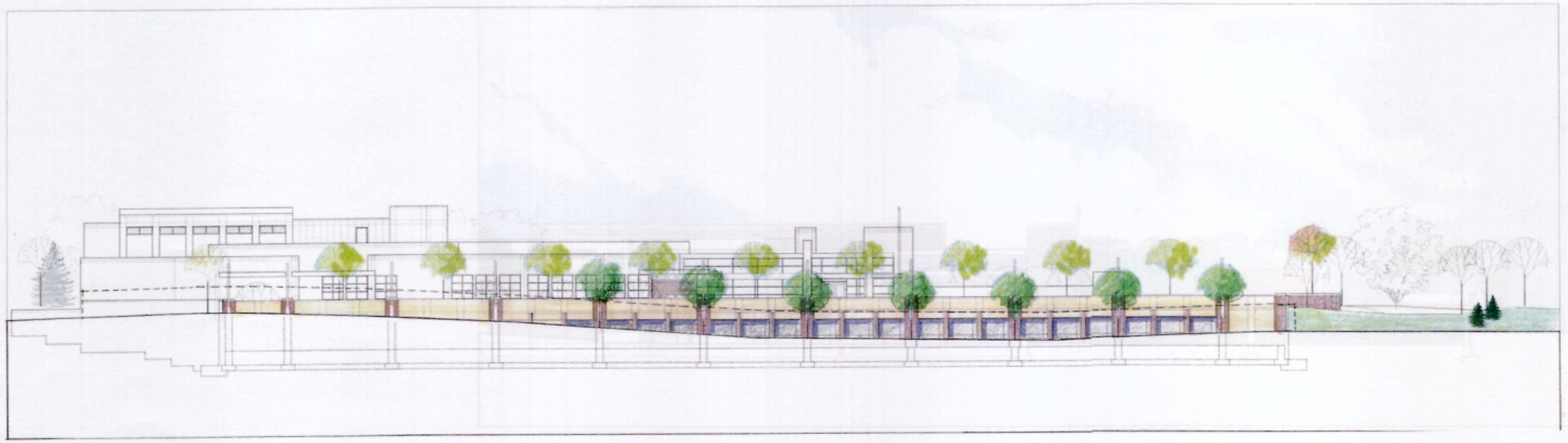
East Elevation & Section at Parking Structure

Crystal Lake Public Library | Expansion & Renovation

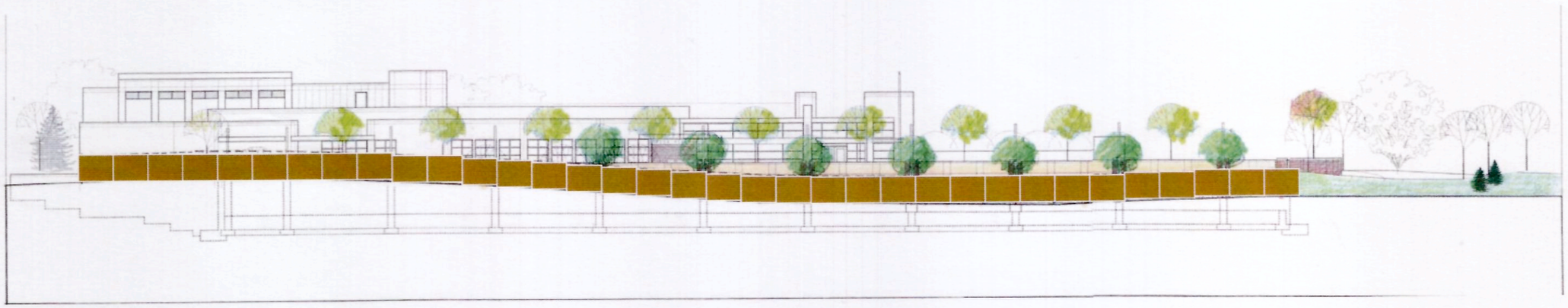


East Elevation at Parking Structure

Crystal Lake Public Library | Expansion & Renovation



Above: Elevation at line of building. Below: Elevation at line of fence/property line



North Elevation and Section through Parking

Crystal Lake Public Library | Expansion & Renovation

