# EDGEWATER REDEVELOPMENT

**REVISED SUBMITTAL PACKAGE** 

SUBMITTED BY: LANDMARK X, LLC A WISCONSIN LIMITED LIABILITY COMPANY DATE: 10/28/2009 Submitted to the City of Madison 1/13/2010

# Hammes Company

22 East Mifflin Street, Suite 800 Madison, Wisconsin 53703 Tel: 608 274 7447 Fax: 608 274 7442

October 28, 2009

Mr. Brad Murphy City of Madison Planning and Development Department 215 Martin Luther King Jr. Boulevard PO Box 2985 Madison, WI 53701

#### RE: UPDATED PUD SUBMITTAL PACKAGE FOR EDGEWATER HOTEL REDEVELOPMENT, 666 WISCONSIN AVENUE, MADISON, WI 53703

Dear Mr. Murphy,

On behalf of Landmark X, LLC, a Wisconsin Limited Liability Company ("Landmark"), I am pleased to submit the following updated/revised plans for the proposed Edgewater Redevelopment.

These plans reflect the culmination of efforts over the last several months to respond to the feedback, input and concerns that we have received during the first phase of the public entitlements process. We have worked diligently to find good, creative solutions to address the primary concerns and challenges of the Project. We have met several times with members of Capitol Neighborhoods Inc, other neighborhood residents/property owners, City staff and other stakeholders to receive feedback on the revisions as they have advanced. We have scheduled a listening session on November 5, 2009 to engage in a public dialog related to the revisions.

The attached includes a summary of the primary changes to the Project, an updated copy of the Zoning Text and an updated version of the architectural and civil planning documents.

We look forward to the opportunity to discuss the Project with you in more detail.

Thank you.

Sincerely, HAMMES COMPANY

Amy Supple Development Director

#### **Executive Summary**

Attached with this outline are updated conceptual plans and renderings of the planned redevelopment of the Edgewater Hotel. These plans have been revised to respond to the feedback, questions and concerns that have been received on the Project during the public entitlements process. A list of key changes to the design is included below. A more detailed outline of each of these points follows:

#### Primary Revisions to Edgewater Redevelopment Plan:

- Reduced height of expansion tower by 3 stories/30 feet;
- Reduced penthouse structure, no encroachment on Capitol View Limit;
- Height is compatible to National Guardian Life Building and Kennedy Manor;
- Removed top level of 1970's low-rise building;
- More than 20 feet of height (2 stories) and 380,000 cubic feet of volume has been removed from the previous proposed design;
- Plaza is terraced, vehicular traffic is removed from view corridor;
- Enhanced configuration and flexibility of public spaces;
- Significantly enhanced experience on Grand Stair to the waterfront;
- The 1940's building becomes a feature of the development;
- Total program of the building has been reduced by nearly 100,000 SF;
- The new podium building is setback 35 feet from shoreline;
- The hotel program has been reduced from 228 to 180 192 rooms;
- Added potential to include 8-10 high-end residential units;
- Reduced program from 364 to 226 stalls;
- Architecture has been advanced to incorporate signature design elements.

Figures 1.0 - 1.2 provide illustrations of the proposed plan revisions. The pages that follow provide a more detailed summary of each of the above referenced changes.

Reduced Height By<br/>3 Stories / 30 FeetThe proposed expansion tower has been reduced by 3 stories and a total of<br/>30 feet in height. The last occupied floor of the expansion tower has been<br/>lowered from 187'-2" (the Capitol Height Limit) to 157'-1" which is<br/>equivalent to the height of the last occupied floor of the adjacent National<br/>Guardian Life building. Figure 1.3 illustrates the height of the proposed<br/>tower in relation to the previously proposed design.

Reduced PenthouseTwo significant concerns of the previous plan were the size of the proposedStructure / Nopenthouse and the proposed Conditional Use Permit that would have beenEncroachment onrequired to allow for this structure to pierce the Capitol Height Limit in<br/>accordance with the provisions of the Madison General Ordinances.

The revised plan has reduced the size and profile of the penthouse structure. The height of the penthouse no longer penetrates the Capitol Height Limit and will not require the additional approval for a Conditional Use Permit.

Height Compatible with National Guardian Life and Kennedy Manor The proposed expansion has been designed so that the last occupied floor is equal in height to the National Guardian Life Building. Additionally, the top two-floors of the building have been set back from the lower floors and this setback has been established to be generally consistent with the height of Kennedy Manor, which sits on the opposite street corner from the proposed expansion. Figure 1.3 illustrates the relationship of height of the building in the revised plan as compared to these surrounding structures. Figure 1.4 provides an aerial of the site and images of the surrounding buildings.

Removed Top Level of<br/>1970's Expansion /<br/>Height and Volume<br/>Reduction in Right-of-<br/>WayLandmark has proposed to remove the top level (20+ feet) of height and<br/>295,000 cubic feet of volume from the 1970's expansion which was built in<br/>the vacated Wisconsin Avenue right-of-way. This change will not only result<br/>in an enhanced terrace and public space at the water, but will also restore<br/>one of Madison's most important street-end views.

This change has significant impacts for the public view from the street to the lake and from the lake back to the State Capitol. Additionally, the removal of this existing structure will transform this corridor from a solid structure to an open, active public terrace at the lakefront. Figure 1.5 provides a sectional illustration of the existing and proposed conditions for the terrace.

Plaza Terrace,The removal of the 1970's building has allowed the Terrace at Mansion Hill<br/>to be reconfigured and the vehicular drive/hotel drop off to be lowered<br/>below the street-end view. Cars will now enter the site and circulate down<br/>to the parking entrance/hotel drop-off.

Additionally, we have re-oriented the bus drop off and loading dock so as to provide an enclosed dock/staging area at the Northeast side of the building. Buses dropping off guests, vans and taxis will also be able to stage in a drop-off area which is outside of the view corridor along the private drive on Langdon Street.



Figure 1.0 Aerial Rendering



Figure 1.1 Existing View





Figure 1.2 Opened View Over Terrace



#### PROJECT INFORMATION/SUBMITTAL SUMMARY OF REVISED PLANS

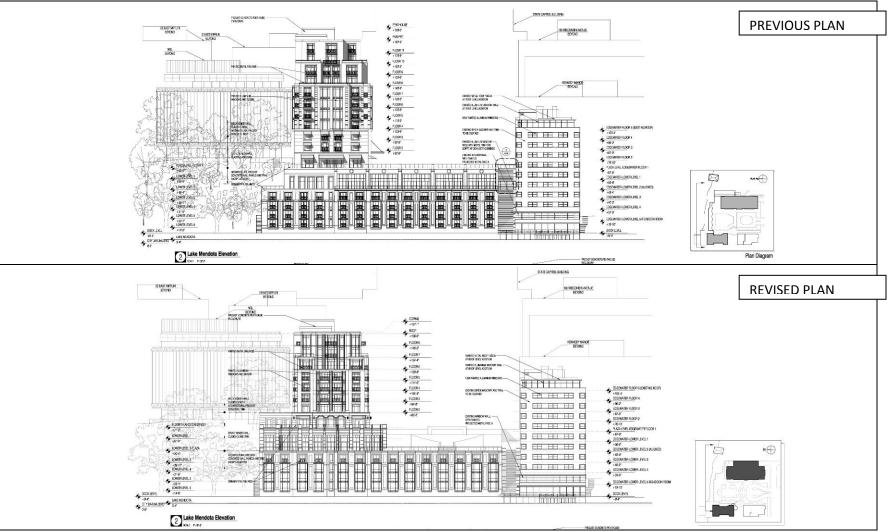


Figure 1.3 Previous Lakefront Elevation as Compared to Revised Lakefront Elevation



#### PROJECT INFORMATION/SUBMITTAL SUMMARY OF REVISED PLANS

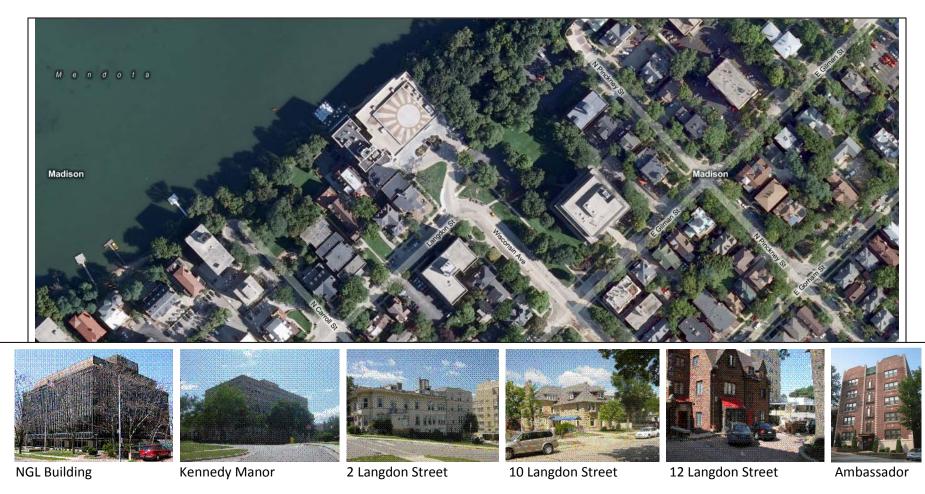


Figure 1.4 Summary of Existing Building

#### PROJECT INFORMATION/SUBMITTAL SUMMARY OF REVISED PLANS

EDGEWATER REDEVELOPMENT PROPOSAL

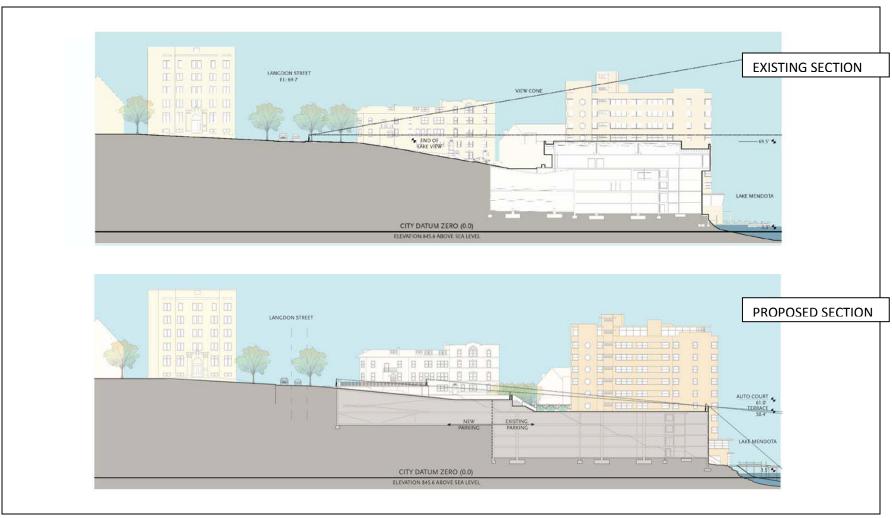


Figure 1.5 Sectional Comparison Existing vs. Revised



Figure 1.6 Site Plan

| Enhanced<br>Configuration<br>and Flexibility of | <ul> <li>While the program of the building has been significantly reduced, the public outdoor space has been maintained and enhanced under the revised design.</li> <li>The space is configured in a series of terraces that extend from Langdon Street to the waters edge. Although a significant amount of program has been cut from the building, we have maintained the public outdoor space and reduced those spaces dedicated solely to hotel use.</li> <li>Furthermore, the configuration of the plaza has been significantly enhanced with the main terrace being reconfigured to provide more flexibility in the space that will allow programming / events to occur while maintaining significant areas that the public can access on an on-going basis. A summary of the square footage of outdoor areas is included below.</li> </ul> |                       |                |  |  |
|---|---|-----------------------|----------------|--|--|
| Public Spaces:                                  |   |                       |                |  |  |
|   |   |                       |                |  |  |
|   |   | Previous Design       | Revised Design |  |  |
|   | Outdoor Plaza / Public Spaces   | 47,210 SF             | 47,240 SF      |  |  |
|   | Dedicated Hotel Spaces<br>Total Without Dock  | 3,996 SF<br>51,206 SF | 3,683 SF       |  |  |
|   |   | 51,206 SF             | 50,923 SF      |  |  |
| Significantly<br>Enhanced<br>Grand Stair:       | The public experience on the Grand Stair has also been significantly enhanced<br>the proposed changes to the terrace. The revised configuration of the auto-con-<br>will allow the top level of the stair to be completely open with a low berm/kn<br>wall along the site as the stair descends from Langdon Street to the mid-lev-<br>terrace. The pedestrian walking down the stair will have an unobstructed vie<br>over the terrace out to the lakeshore. This configuration has an added benefit<br>the 2 Langdon building in that it not only enhances access to that building b<br>also open lake views for the lowest units.  |                       |                |  |  |
|   | The stair has also been enhanced on the second run that extends from the mid-<br>level terrace to the lake. By removing more than 20+ feet of structure along the<br>north wall, the stair has become much more open and accessible to daylight.<br>Additionally, by removing the bridge structures the design will now provide an<br>unobstructed view to the water.   |                       |                |  |  |
| 1940's Building<br>Becomes a Feature:           | A primary benefit of removing the top level of the 1970's building is that it will<br>expose significantly more of the original 1940's hotel tower. The original<br>Edgewater is designated as a "Priority Building" in the 1975 Historic District plan<br>and these proposed changes will restore the prominence of the building both<br>from the street and lakeside elevations.  |                       |                |  |  |
|   | As part of the changes to the façade we have re-oriented the connection<br>between the low-rise building and the 1940's tower to a tunnel which will slip<br>under the Grand Stair. This prevents the need to punch openings in the 1940's<br>façade to accommodate the bridge connections that were previously proposed.   |                       |                |  |  |

An important element of the proposed design is that we would like to incorporate some of the specialized design features that were shown in the original rendering to provide a more iconic entrance and presence for the building on the terrace.

Total ProgramThe estimated gross square footage of the building has been reduced by nearlyReduced by Nearly100,000 square feet. A summary of the program changes is provided below:100,000 Square

| 100,000 Square      |                             |                   |                         |
|---------------------|-----------------------------|-------------------|-------------------------|
| Feet Gross Square   |                             | Previous Proposal | <b>Revised Proposal</b> |
| Footage – Building: | Guest Rooms/Living Areas    | 140,868 SF        | 118,724 SF              |
|                     | Circulation                 | 57,188 SF         | 57,533 SF               |
|                     | Function Space              | 13,772 SF         | 9,542 SF                |
|                     | Restaurant / Bar/Café Areas | 13,805 SF         | 11,745 SF               |
|                     | Spa/Health/Fitness          | 10,177 SF         | 10,400 SF               |
|                     | Office/Administrative       | 8,561 SF          | 5,125 SF                |
|                     | Back of House/Mechanical:   | 45,097 SF         | 36,460 SF               |
|                     | Parking                     | 168,397 SF        | 115,092 SF              |
|                     | Total Gross Building Area   | 457,865 SF        | 364,621 SF              |
|                     |                             |                   |                         |

New Podium Building is Setback from the Shoreline: The proposed podium building has been pulled back from the shoreline in a series of step backs which provide a minimum 30 foot buffer between the edge of the building and the shore of Lake Mendota. This change has softened the edge of the building at the shoreline, allowed the plan to incorporate a small public green space along the waterfront and provides the opportunity for vegetation and trees to wrap the side of the new building along the lakefront.

Reduced Program<br/>from 228 Rooms toThe proposed expansion of hotel rooms has been reduced by approximately 40<br/>rooms. This reduction is a result of lowering the height of the expansion tower<br/>but will also result in a reduction of traffic, parking and operational concerns that<br/>have been raised by the neighborhood.

Potential Addition<br/>of 8-10 ResidentialThe plan incorporates the ability to incorporate 8-10 residential units as part of<br/>the proposed development. While the condominium market in downtown<br/>Madison has been suppressed by the recent economy, there has been a<br/>significant amount of interest in the potential for units that are located on the<br/>waterfront and which are part of a quality hotel environment.

The addition of owner-occupied residential units speaks directly to one of the primary goals stated by Capitol Neighborhoods, Inc. and the City of Madison for the Mansion Hill Historic District.

**Reduced Parking** With the reduction of room, restaurant and banquet program we have also been Program from 364 able to reduce the amount of structured parking that is incorporated into the to 226 Stalls: Project. Our parking ratios are at 1.3 to 1.5 per room, well above the City's required ratio of 1 per room. Additionally, enhancements have been made to improve the ability to valet park on remote lots around the site which will significantly mitigate the impact from large events at the hotel. **Refinement of** Detailed architectural plans are included in the attached package. While still Architecture: consistent to the design philosophy of the original plan, the architecture has been refined to incorporate more articulation and variation in the pattern of windows, opening and balconies along the façade. We have varied the design on the upper floors and lakefront to provide a more transparent facade and to blend elements of more modern architecture with classic design elements. We have also added round windows, canopy elements and signage that will relate to the proposed restoration of the original Edgewater hotel tower.

#### EDGEWATER HOTEL PLANNED UNIT DEVELOPMENT DISTRICT 666 WISCONSIN AVENUE MADISON, WISCONSIN

#### **ZONING TEXT**

The following Zoning Text (the "Zoning Text") has been prepared on behalf of Midwest Realty and Investment Corporation (the "Owner"), for the Edgewater Hotel Planned Unit Development District (the "District"), located at 666 Wisconsin Avenue in Madison, Wisconsin as more particularly described on the attached Legal Description incorporated herein by reference as <u>Exhibit I</u>.

**WHEREAS,** the District has been established to allow for the redevelopment and expansion of the existing Edgewater Hotel, located at 666 Wisconsin Avenue in Madison, Wisconsin and related property as more definitively described in **Exhibit 1** attached hereto.

**WHEREAS**, the approval of this District is occurring simultaneously with the approval of other specific documents and / or agreements to be executed between the City of Madison (the "City") and the Owner as more particularly described herein.

**NOW, THEREFORE**, in consideration of the mutual covenants and agreements contained herein, the Zoning Text for the Edgewater Hotel Planned Unit Development District shall contain the following:

#### Legal Description of Site:

The site (the "Site") includes approximately 1.64 acres of land in four (4) separate parcels as are more particularly described in **Exhibit I** attached hereto. Parcel 1 includes the land area that encompasses the original 1948 hotel tower. Parcels 2 and 3 include the land area that encompasses the low-rise addition of the hotel that was constructed in the early 1970's. Parcel 2 defines the boundaries of that portion of the site that was previously the Wisconsin Avenue right-of-way. The area included as Parcel 2 was vacated by Ordinance No 1761, File No. 4600 adopted in 1965 and amended thereafter as described later in this Zoning Text. Parcel 3 includes the balance of the land area on which the 1970's addition is located. Parcel 4 includes land area that will be purchased from National Guardian Life and incorporated as part of the Site. For the purpose of this Zoning Text the Site shall define the boundaries of the District.

#### Additional Leased Area:

In addition to the Site, the Owner shall lease approximately .38 acres of land located within the Wisconsin Avenue right-of-way immediately adjacent to the Site and as is further described in **Exhibit II** attached hereto (the "Additional Leased Area").

The surface of the Additional Leased Area shall remain part of Wisconsin Avenue and shall serve as a public plaza, pedestrian pathway and vehicular turn-around and drop off area in a manner similar to the way the street-end functions as of the date this District is approved. For the purpose of this Zoning Text the surface area shall be considered part of the Wisconsin Avenue right-of-way and shall be subject to the provisions of Section 10 of the Madison General Ordinances governing Streets, Alleys, Sidewalks and Gutters, except that the operation and maintenance of this area shall become the responsibility of the

Owner as is more particularly described in a Management Agreement to be executed between the City and the Owner.

The City and Owner shall enter into a subterranean ground lease (the "Ground Lease") which shall dictate the terms and conditions under which improvements will be made, used and maintained within the Additional Leased Area. The terms and conditions of the Ground Lease shall be consistent with the terms of this Zoning Text to allow for the seamless use, operation and maintenance of the Project within the Project Area as defined below. Approval of the Ground Lease shall be a condition of approval of the District and such approvals shall occur simultaneously.

#### **Project Area:**

Collectively, the Site and the Additional Leased Area shall be defined as the project area (the "Project Area"). The Project Area includes approximately 2.02 acres of land.

#### Permitted Uses:

The following describes the permitted uses within the District and Project Area:

- 1. Those uses permitted and allowed in OR-Office Residence District, and;
- 2. Uses related to the operation of a high-quality hotel, involving amenities and guest services comparable with industry standards for similar hotels in similar markets and which may include guest rooms, guest suites, extended stay suites, bars, restaurants, spa, fitness facilities, limited retail uses, offices, underground parking areas, public plazas and terraces, and;
- 3. Lodging rooms, and;
- 4. Multi-family residential uses, and;
- 5. Uses accessory to the permitted uses as listed above, and;
- 6. Above grade vehicular drop off area;
- 7. Below-grade parking structure, and;
- 8. Bicycle parking areas;
- 9. Public/urban open spaces including outdoor plazas, stairways, terraces, etc, and;
- 10. Outdoor seating for eating and recreational uses in areas associated with the hotel, restaurant(s) and / or other uses that serve both alcoholic and non-alcoholic beverages, and;
- 11. Pier and dock structures;
- 12. Rooftop Installations, and;
- 13. Other uses as described herein.

#### Hours of Operation:

The hours of operation ("Hours of Operation") of the occupied spaces will be varied. It is anticipated that activity will occur within portions of the District on a twenty-four (24) hour basis. The Hours of Operation of the Outdoor Areas/Public Spaces will be described in a Management Agreement to be executed between the City and the Owner.

#### Floor Area Ratio/ Building Height:

The Project floor area ratio (FAR) is calculated by taking the total gross area of the building less the below grade parking area to get the total occupied gross building area. The total occupied gross building area is then divided by the Project Area to define the FAR. The calculated FAR based on the Project Area is 2.81. The calculated FAR based on the Site Area (exclusive of the Wisconsin Avenue right-of-way) is 3.44.

#### Yard Area Requirements:

Yard areas will be provided as shown on the attached planning documents included in **Exhibit II** attached hereto.

#### **Bulk Contingency:**

The bulk standards for the Project shall be established based on provisions outlined in this Zoning Text. So as to specifically restrict the Project from setting a precedent for development in the City of Madison, the Project shall be required to meet the following conditions in order to receive approval for the Bulk Standards outlined herein:

- 1. The Project shall be located on a lot or collective lots of not less than 1.0 acre;
- 2. The Project shall have vehicular access directly onto, or across a private drive, to at least one (1) street with a right-of-way width of not less than 80 feet;
- 3. There shall be not less than 15,000 square feet of open space in the Project;
- 4. Public access to said open space shall be granted in accordance with an agreement(s) with the City of Madison;
- 5. As a development along the waterfront, a path of public access across the Project Area to the waterfront shall be constructed and maintained as part of the Project in accordance with an agreement(s) with the City of Madison;
- 6. As a waterfront development, the Project shall include the construction and maintenance of a public walkway of not less than six (6) feet in depth parallel to the waterfront. Said walkway shall connect to any adjacent waterfront walkways to the extent such walkways exist at the time of said development.

#### Amendment to Existing Ordinance Number 1761, File Number 4600-41:

The above referenced ordinance was adopted on January 28, 1965 and provided for the vacation of a portion of Wisconsin Avenue to allow for the expansion of the Edgewater Hotel within said vacated right-of-way. The Ordinance was further amended on November 10, 1966, September 20, 1967, September 28, 1967 and November 9, 1971. Copies of the existing Ordinance and amendments thereto is attached hereto as **Exhibit IV-A** of this Zoning Text.

The Ordinance shall be further amended under terms and conditions agreed to by the City of Madison and the Owner. A copy of the amendment to the Ordinance is attached hereto as **Exhibit IV-B** to this Zoning Text. Approval of the amendment shall be a condition of approval of the District and such approvals shall occur simultaneously.

#### Landscaping:

Site landscaping will be included in the areas shown on the attached site plans included in **Exhibit II** attached hereto. Site landscape areas shall include areas on public plazas, external stairways, along the façade of buildings and along public walkways at the waterfront. Decorative flower boxes will be included on certain balconies and railings on the building.

#### Accessory Off-Street Parking and Loading:

The District shall include a minimum of 226 below-grade parking stalls. Approximately 154 of these stalls are part of the existing below grade parking structure. The remaining stalls shall be constructed in the Additional Leased Area as further described in this Zoning Text.

The Project shall include a loading dock and service area which has room to store trash and recycling bins in an interior loading dock area. The design and exterior appearance of the entrance to such parking stalls and loading berths shall be consistent with the architecture of the building and will be generally consistent with the elevations attached hereto in **Exhibit II**.

The Owner shall submit for separately a plan for the redevelopment of the two surface parking lots and a connecting driveway on two separate parcels owned by National Guardian Life Insurance Company. As part of the conditions of the sale of parcel 4 to the Owner, the Owner has agreed that it will rebuild/expand the two surface parking areas to replace the existing surface parking which is displaced by the Project. The total number of stalls to be constructed is 39 stalls. The existing surface lots hold 34 stalls. The replacement parking areas are identified in the Site Plan attached as part of **Exhibit II**.

#### Lighting:

Electrical reflectors, spotlights, floodlights and other sources of illumination may be used to illuminate buildings, landscaping, street graphics, signage, parking and loading areas and public areas within the District. Such lighting shall be equipped with lenses or other devices which concentrate the illumination upon such buildings, landscaping, street graphics, signage, parking areas, loading areas and outdoor public areas as required. All lighting shall be reflected away from any residential uses adjacent to the District.

#### Signage:

Signage will be allowed as per Chapter 31 of the Madison General Ordinances and/or as outlined in the future submittals for the proposed development.

#### **Open Space (On Site):**

The Site, which comprises the areas not included in the Wisconsin Avenue right-of-way, includes approximately 34,833 square feet of Open Space as part of the Project. For the purpose of this Zoning Text, Open Space shall include: 1) those areas defined as Outdoor Plazas/Public Spaces which shall be accessible to the general public under the terms and conditions of a Management Agreement and; 2) those areas which are dedicated solely to the use of the hotel, restaurants or other uses within the Project and which are consistent with the definition of Open Space in the Section 28 of the Madison General Ordinances but which are not part of the Outdoor Plazas/Public Spaces as defined in this Zoning Text (the "Dedicated Spaces"). By way of reference, some of the Open Space areas that are Dedicated Spaces to the Hotel include, but are not limited to, the rooftop balcony on the 1940's building which is part of the meeting/function spaces on that level of the hotel and the outdoor terrace outside of the ballrooms on Level 5 of the Project.

## Outdoor Plazas / Public Space (In Total Project Area):

The Project Area, which encompasses both the Site and the Additional Leased Area within the Wisconsin Avenue right-of-way, includes approximately 47,600 square feet of outdoor plazas and public space. These areas include the Terrace at Mansion Hill (The "Terrace at Mansion Hill") leading from the corner of Wisconsin Avenue and Langdon Street to the waterfront, the Gardens on Mansion Hill (The "Gardens on Mansion Hill"), and the grand stair ("Grand Stair") leading to the waterfront from Langdon Street, the skywalk and elevators connecting the plaza to the waterfront, the waterfront path. Once the configuration is determined the pier/dock structures will add additional square footage to the Outdoor Plaza/Public Space. The Outdoor Plazas/Public Spaces will be identified in the Management Agreement.

Areas internal to the hotel (e.g. guest accommodations, ballrooms, spa/fitness areas, offices, restaurants, etc.) and Dedicated Spaces shall not be included as part of the Outdoor Plaza/Public Space as defined in this Zoning Text.

#### **Rooftop Installations:**

The Owner shall be permitted to add rooftop installations including, but not limited to, elevator equipment, cellular equipment, satellite equipment and mechanical equipment in the locations designated on the approved plans attached hereto as **Exhibit II**.

#### Alterations and Revisions:

No alteration or revision of this planned unit development shall be permitted unless approved by the City Plan Commission, however, the Zoning Administrator may issue permits for minor alterations or additions which are approved by the Director of Planning and Development and the Alderperson of the district and which are compatible with the concept approved by the City Plan Commission.

#### EXHIBIT I LEGAL DESCRIPTION

#### PARCEL DESCRIPTIONS:

#### PARCEL 1

All that part of Lot Five (5), lying Northwest of the Southeast 126 feet thereof, in Block Seventy-eight (78), Madison, according to the recorded plat thereof, in the City of Madison, Dane County, Wisconsin.

#### PARCEL 2

All of that portion of vacated Wisconsin Avenue, in the City of Madison. Dane County. Wisconsin, lying Northwesterly of a line parallel to the Northwesterly line of Langdon Street extended Northeasterly and 126 feet Northwesterly from such extended line of Langdon Street.

#### PARCEL 3

Part of Block Two Hundred Sixty-three (263), Madison, according to the recorded plat thereof, in the City of Madison, Dane County, Wisconsin, described as follows: Beginning at the most southerly corner of Block 94, said point being the point of intersection of the Northwest line of East Gilman Street with the Northeast line of Wisconsin Avenue; thence Northwesterly along said Northeasterly line of Wisconsin Avenue 383.6 feet to the point of beginning of this description; thence Northeasterly at right angles to last described line 45.0 feet; thence Northwesterly parallel with the Northeast line of Wisconsin Avenue (now vacated) 186.4 feet to an iron stake, on a meander line, which is 36.0 feet more or less Southeasterly from the low water mark of Lake Mendota; thence Southwesterly along said meander line 45.0 feet to an iron stake on the Northeast line of Wisconsin Avenue which is 48.6 feet Southeasterly from the low water mark of Lake Mendota and also 186.4 feet Northwesterly from the point of beginning; thence Southeasterly along said line 186.4 feet to the point of beginning. Also, all land lying northwesterly of above described meander line to the low water mark of Lake Mendota.

PARCEL 1, 2, & 3 Contain 48,230 SQFT/ 1.09 Acres more or less.

#### PARCEL 4

Part of Block Two Hundred Sixty-three (263), Madison, according to the recorded plat thereof, in the City of Madison, Dane County, Wisconsin, described as follows: Beginning at the most southerly corner of Block 94, said point being the point of intersection of the Northwest line of East Gilman Street with the Northeast line of Wisconsin Avenue; thence Northwesterly along said Northeasterly line of Wisconsin Avenue 383.6 feet to the point of beginning of this description; thence N44°54'28"E, 45.32 feet; thence N44°12'40"W, 234.4 feet more or less to the shore of Lake Mendota; thence Northeasterly, 65 feet more or less, along the shore of Lake Mendota; thence S44°12'40"E, 313' feet more or less; thence S45°40'16"W, 105.00 feet; thence N44°47'55"W, 102.70 feet to the point of beginning.

PARCEL 4 Contains 24,140 SQFT/ 0.55 Acres more or less.

#### EXHIBIT II PLANS AND SPECIFICATIONS

A copy of the approved plans and specifications are attached as Exhibit II to the Zoning Text for the Edgewater Hotel Planned Unit Development District for the Project Area located in the 2<sup>nd</sup> Aldermanic District at 666 Wisconsin Avenue, Madison Wisconsin.

# [TO BE INSERTED UPON COMPLETION]

#### EXHIBIT III-A CITY OF MADISON ORDINANCE ORDINANCE NO. 1761, FILE NO. 4600-41

A copy of Madison City Ordinance No. 1761 is attached herein as Exhibit VI-A to the Zoning Text for the Edgewater Hotel Planned Unit Development District for the Project Area located in the 2<sup>nd</sup> Aldermanic District at 666 Wisconsin Avenue, Madison Wisconsin.

# [TO BE INSERTED UPON COMPLETION]

#### EXHIBIT III-B CITY OF MADISON ORDINANCE ORDINANCE NO. 1761, FILE NO. 4600-41 – AMENDMENT

A copy of Madison City Ordinance No. 1761 – Amendment is attached herein as Exhibit VI-B to the Zoning Text for the Edgewater Hotel Planned Unit Development District for the Project Area located in the 2<sup>nd</sup> Aldermanic District at 666 Wisconsin Avenue, Madison Wisconsin.

[TO BE INSERTED UPON COMPLETION]



# MEMORANDUM

DATE: October 28, 2009

TO: Amy Supple, Landmark X, LLC

FROM: Betsy Powers and Mark Huber

SUBJECT: Stormwater Management for Proposed Edgewater Hotel Development

An expansion of the Edgewater Hotel is in the planning stages. BT Squared has prepared a preliminary plan for managing stormwater runoff from the proposed development. The conceptual-level design was prepared with the requirements of Ch. 37, City of Madison Ordinances, in mind. Because runoff from the site will be directed to Lake Mendota, water quality, rather than water quantity, is the main concern. Therefore, the key concept for the proposed development is treating runoff from private drive and parking areas prior to discharging to Lake Mendota. The conceptual-level stormwater management plan is shown on **Drawing C1.03** and further described below.

The conceptual stormwater management plan includes grading the auto court, private drive (Langdon Avenue extension), and National Guardian Life (NGL) parking lot to drain to storm inlets. Inlets associated with the auto court and loading dock areas will divert runoff to a treatment device. Inlets associated with the private drive and NGL parking lot will divert runoff to a separate treatment device. The stormwater treatment devices promote the settling of particulates and capture of oil and grease from the runoff. Preliminary sizing of the treatment devices has been performed to meet or exceed City of Madison requirements. Discharge from both treatment devices will be combined into one storm sewer discharge pipe to Lake Mendota. The storm sewer system for the private drive has been designed to accommodate the runoff from a 10-year, 24-hour storm event. The storm sewer system for the auto court area has been designed to accommodate a 100-year, 24-hour storm event, which includes high intensity rainfall over a short period of time.

An existing storm sewer currently routes city street runoff through the property and directly into the lake. The existing storm sewer through the property will be abandoned and stormwater runoff from the city streets will be routed through the new storm sewer and stormwater treatment device. Although it is not required by the City of Madison, the stormwater treatment device will be sized to treat the previously untreated city street runoff. Treated stormwater will be discharged to Lake Mendota via a relocated outfall.

Runoff from the remaining development (e.g., the plaza area and roof areas) will be directed to roof drains, ultimately discharging to the lake. Runoff from these areas is considered clean; therefore, water quality treatment is not required.

Silt fence and temporary diversion berms will be used to control sediment transport during construction. The locations of erosion control devices are shown on **Drawing C1.03**. A detailed erosion control plan will be developed during the next phase of this project.

A summary of the existing and post-development peak discharge rates based on the preliminary design is presented below.

|                  | Peak Discharge Rate (cubic feet per second) |                        |                         |  |  |  |
|------------------|---|------------------------|-------------------------|--|--|--|
| Condition        | 2-year, 24-hour storm                       | 10-year, 24-hour storm | 100-year, 24-hour storm |  |  |  |
| Existing         | 6.3   | 10.7                   | 16.9                    |  |  |  |
| Post-development | 9.1   | 13.6                   | 19.7                    |  |  |  |

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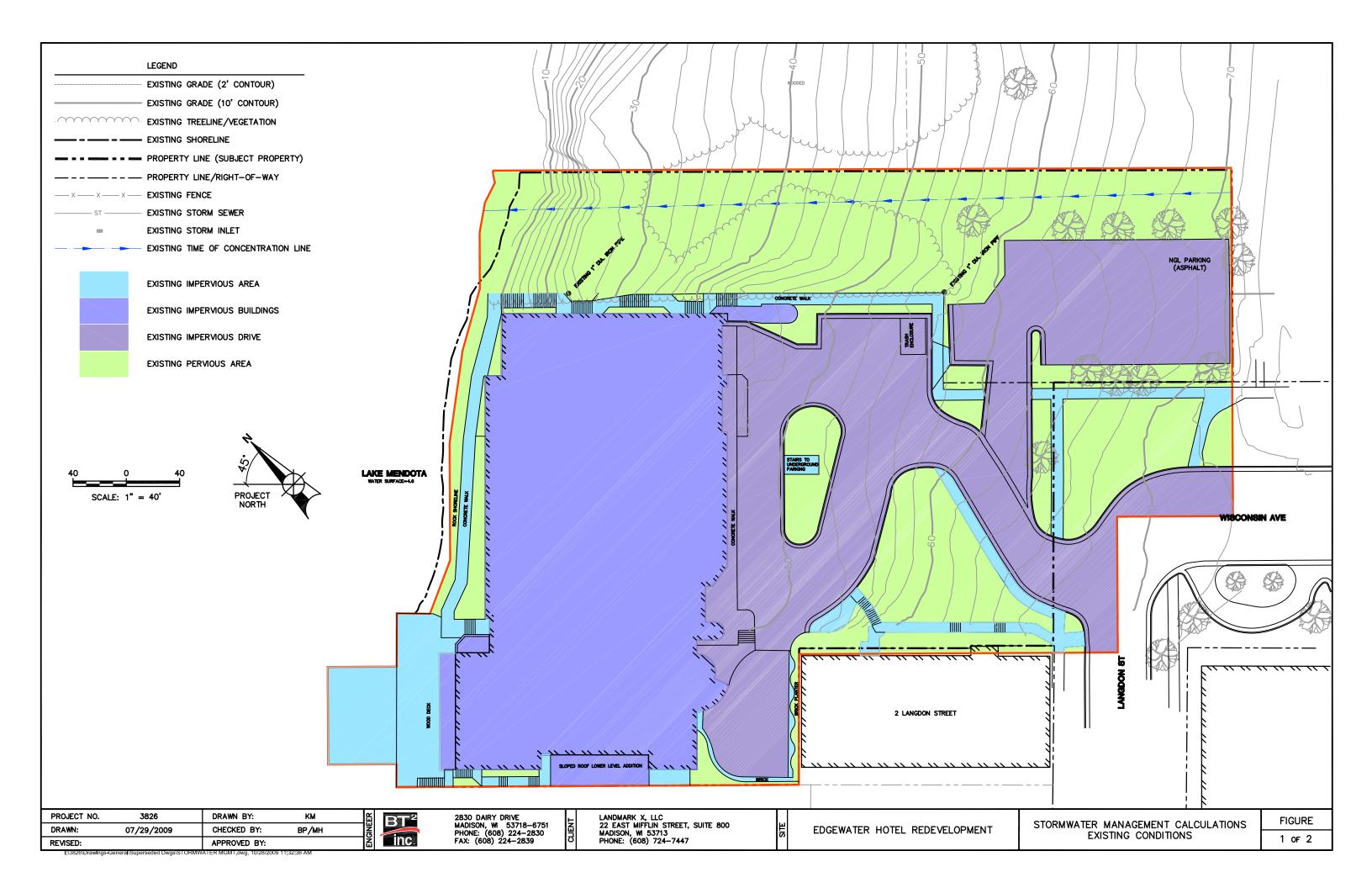
Stormwater Management – Proposed Edgewater Hotel Development October 28, 2009 Page 2

Detailed stormwater calculations are attached to this memo.

During the preliminary phase of this project, we are assuming that stormwater infiltration will not be required. Soil borings will be performed at a later date to verify this assumption.

BP/MH I:\3826\Correspondence-Client\Conceptual\_Stormwater\_Memo\_0901028.doc

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# EDGEWATER EXISTING

TOTAL STORMWATER AREA MODELED = 103074 S.F = 2.366253 ACRES

| BUILDINGS<br>EDGEWATER<br>DRIVEWAY   | SQUARE<br>FOOTAGE<br>27,886   | ACREAGE<br>0.6401745  |                  |
|--|---|---|------------------|
| DRIVE/STREET   | 30,590  | 0.7022498   |                  |
| MISC IMPERVIC<br>WALK/DECK<br>DECK<br>CONCRETE STAIRS<br>WALK<br>WALK<br>GARAGE STAIRS<br>PLANTER EDGE<br>CONCRETE | DUS<br>3,468<br>1,644<br>1,779<br>1,189<br>1,507<br>159<br>265<br>161<br>10,172 | 0.037741<br>0.0408402<br>0.0272957<br>0.034596<br>0.0036501<br>0.0060836<br>0.0036961 |                  |
| TOTAL IMPERVIOUS   | 68,648  | 1.5759412   |                  |
| PERVIOUS<br>PLANTER<br>MISC PERV<br>TOTAL PERVIOUS   | 1,274<br>33,152<br><b>34,426</b>  | 0.7610652   |                  |
| TOTAL IMPERVIOUS<br>TOTAL PERVIOUS   | 68,648<br>34,426  | 1.5759412<br>0.7903122  | 66.60%<br>33.40% |

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# Summary for Subcatchment 1S: EXISTING SITE

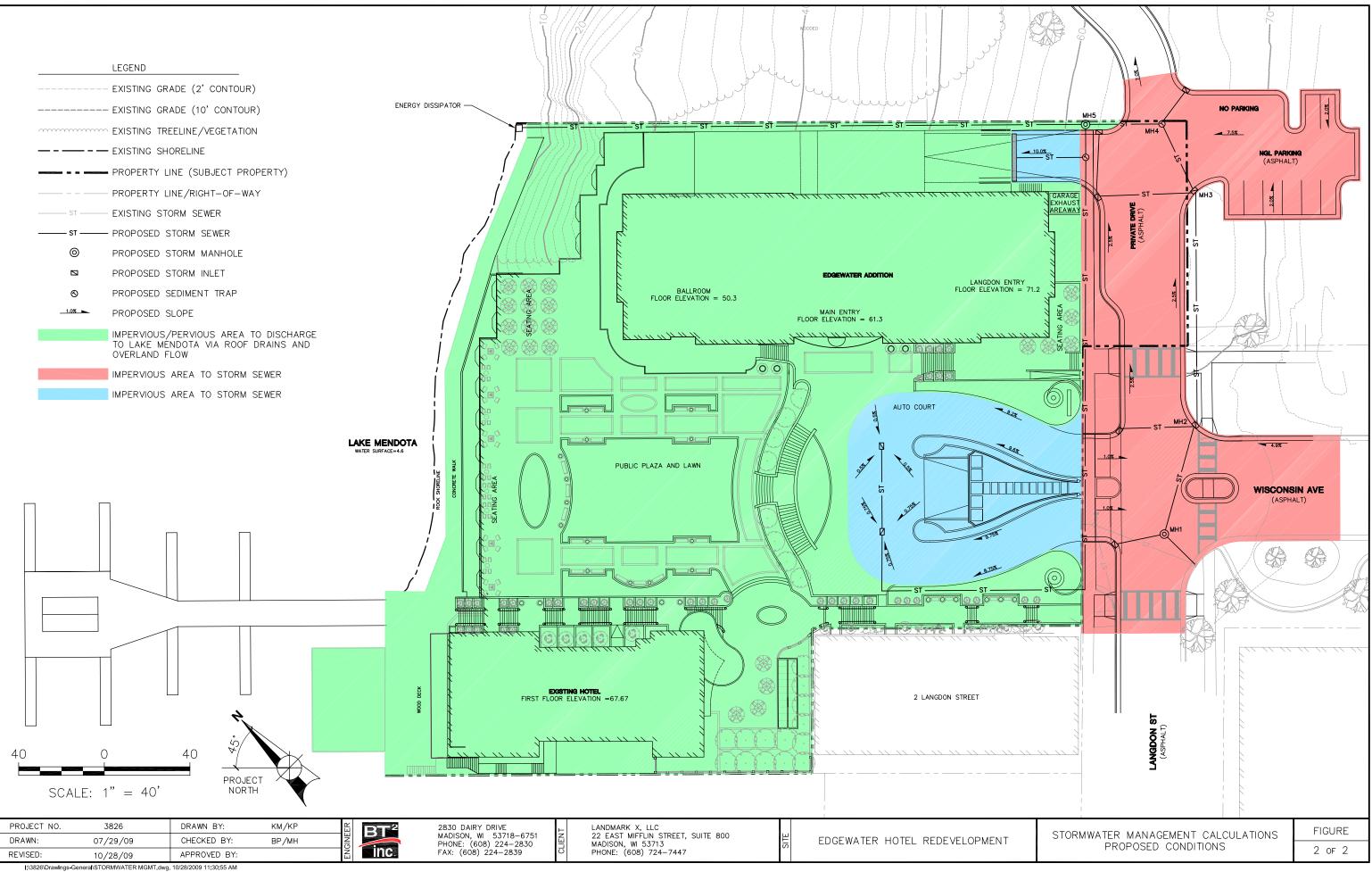
Runoff = 16.88 cfs @ 11.98 hrs, Volume= 0.814 af, Depth> 4.13"

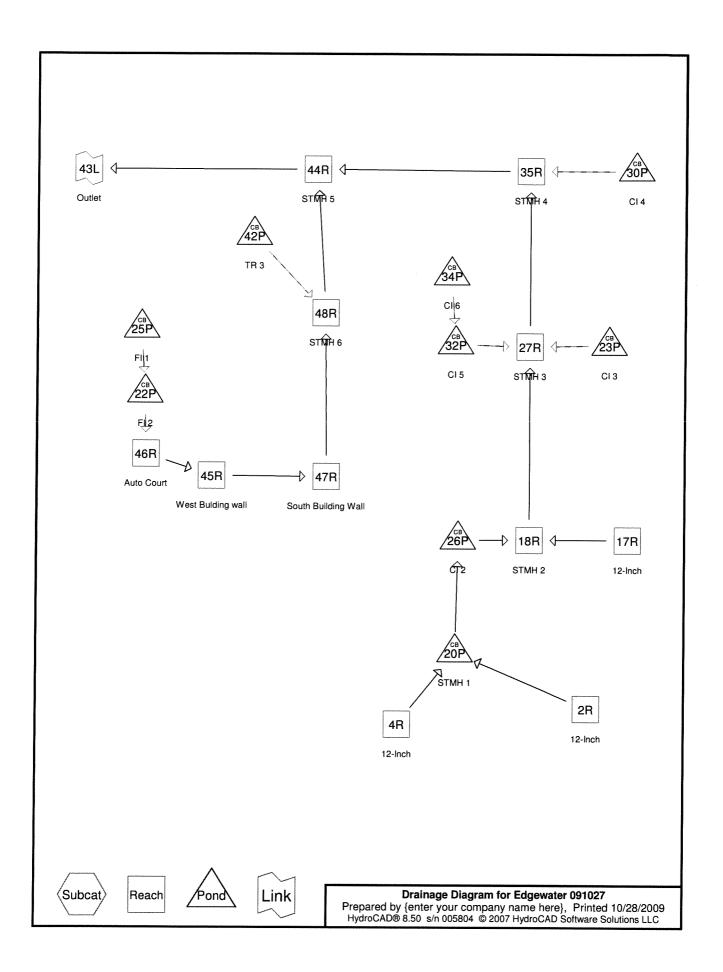
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 100 YR Rainfall=6.00"

| Area (       | (ac) C | N De       | scription   |            |                                  |
|--------------|--------|------------|-------------|------------|----------------------------------|
| 0.6          | 640    | 98 Pav     | ed parking  | & roofs    |                                  |
| 0.7          | 702 9  |            | ed parking  |            |                                  |
| 0.7          | 790 (  | 61 >75     | 5% Grass c  | over, Good | , HSG B                          |
| 0.2          | 234 9  | 98 Pav     | ed parking  | & roofs    |                                  |
| 2.3          | 366 8  | 36 We      | ighted Ave  | rage       |                                  |
| 0.7          | 790    | Per        | vious Area  |            |                                  |
| 1.5          | 576    | Imp        | ervious Are | эа         |                                  |
|              |        | <b>.</b> . |             | - ·        |                                  |
|              | Length | Slope      |             | Capacity   | Description                      |
| <u>(min)</u> | (feet) | (ft/ft)    | (ft/sec)    | (cfs)      |                                  |
| 5.9          | 100    | 0.0800     | 0.28        |            | Sheet Flow, Grass                |
|              |        |            |             |            | Grass: Short n= 0.150 P2= 2.90"  |
| 0.8          | 275    | 0.1250     | 5.69        |            | Shallow Concentrated Flow, Grass |
|              |        |            |             |            | Unpaved Kv= 16.1 fps             |
| 6.7          | 375    | Total      |             |            |                                  |
|              |        | 1          | * *         |            |                                  |

# Events for Subcatchment 1S: EXISTING SITE

| Event  | Runoff | Volume      | Depth    |
|--------|--------|-------------|----------|
|        | (cfs)  | (acre-feet) | (inches) |
| 1 YR   | 5.02   | 0.226       | 1.14     |
| 2 YR   | 6.33   | 0.287       | 1.46     |
| 5 YR   | 8.68   | 0.400       | 2.03     |
| 10 YR  | 10.72  | 0.501       | 2.54     |
| 25 YR  | 12.77  | 0.604       | 3.06     |
| 50 YR  | 14.49  | 0.691       | 3.50     |
| 100 YR | 16.88  | 0.814       | 4.13     |





#### Summary for Reach 2R: 12-Inch

[52] Hint: Inlet/Outlet conditions not evaluated

| Inflow Area | = | 0.103 ac,10 | 0.00% Imp  | ervious, | Inflow | Depth > | 2.6   | 7" for 2 ነ | 'R event   |     |
|-------------|---|-------------|------------|----------|--------|---------|-------|------------|------------|-----|
| Inflow :    | _ | 0.42 cfs @  | 11.97 hrs, | Volume   |        | 0,023   | af    |            |            |     |
| Outflow =   | = | 0.42 cfs @  | 11.97 hrs, | Volume   | =      | 0.023   | af, A | Atten= 0%, | Lag= 0.2 m | nin |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 7.04 fps, Min. Travel Time= 0.1 min Avg. Velocity = 2.07 fps, Avg. Travel Time= 0.3 min

Peak Storage= 3 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.13' Bank-Full Depth= 1.00', Capacity at Bank-Full= 11.69 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 43.0' Slope= 0.1433 '/' Inlet Invert= 68.16', Outlet Invert= 62.00'

#### Summary for Reach 4R: 12-Inch

[52] Hint: Inlet/Outlet conditions not evaluated

 Inflow Area =
 0.040 ac,100.00% Impervious, Inflow Depth > 2.67" for 2 YR event

 Inflow =
 0.17 cfs @ 11.97 hrs, Volume=
 0.009 af

 Outflow =
 0.17 cfs @ 11.97 hrs, Volume=
 0.009 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 3.40 fps, Min. Travel Time= 0.0 min Avg. Velocity = 1.01 fps, Avg. Travel Time= 0.1 min

Peak Storage= 0 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.11' Bank-Full Depth= 1.00', Capacity at Bank-Full= 6.18 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 5.0' Slope= 0.0400 '/' Inlet Invert= 65.90', Outlet Invert= 65.70'

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#### Summary for Reach 17R: 12-Inch

[52] Hint: Inlet/Outlet conditions not evaluated

| Inflow Are | a = | 0.030 ac,100.00% Impervious, Inflow Depth > 2.67" for 2 YR event |
|------------|-----|--|
| Inflow     | =   | 0.12 cfs @ 11.97 hrs, Volume= 0.007 af                           |
| Outflow    | =   | 0.12 cfs @ 11.97 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.2 min  |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.42 fps, Min. Travel Time= 0.1 min Avg. Velocity = 1.37 fps, Avg. Travel Time= 0.4 min

Peak Storage= 1 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.08' Bank-Full Depth= 1.00', Capacity at Bank-Full= 10.24 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 30.0' Slope= 0.1100 '/' Inlet Invert= 64.60', Outlet Invert= 61.30'

## Summary for Reach 18R: STMH 2

[52] Hint: Inlet/Outlet conditions not evaluated

[62] Warning: Exceeded Reach 17R OUTLET depth by 0.24' @ 11.98 hrs

[79] Warning: Submerged Pond 26P Primary device # 1 INLET by 0.12'

 Inflow Area =
 0.220 ac,100.00% Impervious, Inflow Depth >
 2.67" for 2 YR event

 Inflow =
 0.90 cfs @
 11.97 hrs, Volume=
 0.049 af

 Outflow =
 0.90 cfs @
 11.99 hrs, Volume=
 0.049 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 3.28 fps, Min. Travel Time= 0.6 min Avg. Velocity = 0.95 fps, Avg. Travel Time= 2.1 min

Peak Storage= 33 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.32' Bank-Full Depth= 1.50', Capacity at Bank-Full= 9.10 cfs

18.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 120.0' Slope= 0.0100 '/' Inlet Invert= 61.30', Outlet Invert= 60.10'

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# Summary for Reach 27R: STMH 3

[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 18R outlet invert by 0.31' @ 11.98 hrs
[79] Warning: Submerged Pond 23P Secondary device # 2 OUTLET by 0.31'
[79] Warning: Submerged Pond 32P Secondary device # 2 OUTLET by 0.31'

| Inflow Are | a = | 0.357 ac,100.00% Impervious, Inflow Depth > 2.66" for 2 YR event |   |
|------------|-----|--|---|
| Inflow     | =   | 1.45 cfs @ 11.98 hrs, Volume= 0.079 af                           |   |
| Outflow    | =   | 1.44 cfs @ 11.98 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.1 min  | 1 |
|            |     |  |   |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.66 fps, Min. Travel Time= 0.1 min Avg. Velocity = 1.36 fps, Avg. Travel Time= 0.2 min

Peak Storage= 6 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.31' Bank-Full Depth= 2.00', Capacity at Bank-Full= 27.73 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 20.0' Slope= 0.0200 '/' Inlet Invert= 60.10', Outlet Invert= 59.70'



# Summary for Reach 35R: STMH 4

[52] Hint: Inlet/Outlet conditions not evaluated

[61] Hint: Exceeded Reach 27R outlet invert by 0.22' @ 11.98 hrs

[79] Warning: Submerged Pond 30P Secondary device # 2 OUTLET by 0.22'

 Inflow Area =
 0.403 ac,100.00% Impervious, Inflow Depth > 2.66" for 2 YR event

 Inflow =
 1.63 cfs @ 11.98 hrs, Volume=
 0.089 af

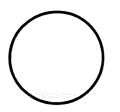
 Outflow =
 1.63 cfs @ 11.98 hrs, Volume=
 0.089 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 8.68 fps, Min. Travel Time= 0.1 min Avg. Velocity = 2.58 fps, Avg. Travel Time= 0.2 min

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Peak Storage= 6 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.22' Bank-Full Depth= 2.00', Capacity at Bank-Full= 64.03 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 30.0' Slope= 0.1067 '/' Inlet Invert= 59.70', Outlet Invert= 56.50'



## Summary for Reach 44R: STMH 5

[52] Hint: Inlet/Outlet conditions not evaluated [61] Hint: Exceeded Reach 48R outlet invert by 0.25' @ 11.99 hrs

 Inflow Area =
 0.701 ac,100.00% Impervious, Inflow Depth > 2.66" for 2 YR event

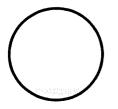
 Inflow =
 2.78 cfs @ 11.99 hrs, Volume=
 0.156 af

 Outflow =
 2.77 cfs @ 12.00 hrs, Volume=
 0.155 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 12.22 fps, Min. Travel Time= 0.4 min Avg. Velocity = 3.63 fps, Avg. Travel Time= 1.2 min

Peak Storage= 61 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.25' Bank-Full Depth= 2.00', Capacity at Bank-Full= 82.92 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 270.0' Slope= 0.1789 '/' Inlet Invert= 52.90', Outlet Invert= 4.60'



# Summary for Reach 45R: West Bulding wall

[52] Hint: Inlet/Outlet conditions not evaluated [61] Hint: Exceeded Reach 46R outlet invert by 0.32' @ 11.98 hrs

| Inflow Area | a = | 0.206 ac,10 | 0.00% Impervious | Inflow Depth > 2 | 2.67" for 2 Y | 'R event     |
|-------------|-----|-------------|------------------|------------------|---------------|--------------|
| Inflow      | =   | 0.84 cfs @  | 11.97 hrs, Volum | e= 0.046 af      | F             |              |
| Outflow     | =   | 0.84 cfs @  | 11.98 hrs, Volum | ∋= 0.046 af      | f, Atten= 0%, | Lag= 0.6 min |

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Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 3.79 fps, Min. Travel Time= 0.3 min Avg. Velocity = 1.11 fps, Avg. Travel Time= 1.1 min

Peak Storage= 17 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.32' Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.68 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 75.0' Slope= 0.0107 '/' Inlet Invert= 56.00', Outlet Invert= 55.20'



# Summary for Reach 46R: Auto Court

[52] Hint: Inlet/Outlet conditions not evaluated [81] Warning: Exceeded Pond 22P by 0.01' @ 2.16 hrs

| Inflow Area | a = | 0.206 ac,10 | 0.00% Imp  | ervious, | Inflow Depth > | 2.67  | " for 2 YR ev  | rent      |
|-------------|-----|-------------|------------|----------|----------------|-------|----------------|-----------|
| Inflow      | =   | 0.84 cfs @  | 11.97 hrs, | Volume   | = 0.046        | af    |                |           |
| Outflow     | =   | 0.84 cfs @  | 11.97 hrs, | Volume   | = 0.046        | af, / | Atten= 0%, Lag | = 0.4 min |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 3.75 fps, Min. Travel Time= 0.2 min Avg. Velocity = 1.11 fps, Avg. Travel Time= 0.8 min

Peak Storage= 11 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.36' Bank-Full Depth= 0.83', Capacity at Bank-Full= 2.19 cfs

10.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 50.0' Slope= 0.0100 '/' Inlet Invert= 56.50', Outlet Invert= 56.00'

# Summary for Reach 47R: South Building Wall

[52] Hint: Inlet/Outlet conditions not evaluated

[62] Warning: Exceeded Reach 45R OUTLET depth by 0.03' @ 12.08 hrs

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0.206 ac,100.00% Impervious, Inflow Depth > 2.66" for 2 YR event Inflow Area = Inflow 0.84 cfs @ 11.98 hrs, Volume= = 0.046 af Outflow 0.83 cfs @ 12.01 hrs, Volume= \_ 0.046 af, Atten= 1%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 3.70 fps, Min. Travel Time= 0.9 min Avg. Velocity = 1.08 fps, Avg. Travel Time= 2.9 min

Peak Storage= 43 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.33' Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.56 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 190.0' Slope= 0.0100 '/' Inlet Invert= 55.20', Outlet Invert= 53.30'

#### Summary for Reach 48R: STMH 6

[52] Hint: Inlet/Outlet conditions not evaluated

[62] Warning: Exceeded Reach 47R OUTLET depth by 0.04' @ 12.06 hrs

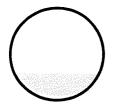
[79] Warning: Submerged Pond 42P Secondary device # 2 OUTLET by 0.36'

Inflow Area = 0.298 ac,100.00% Impervious, Inflow Depth > 2.66" for 2 YR event Inflow 1.17 cfs @ 11.99 hrs, Volume= 0.066 af = Outflow 1.17 cfs @ 12.00 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.3 min \_

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 3.99 fps, Min. Travel Time= 0.2 min Avg. Velocity = 1.17 fps, Avg. Travel Time= 0.6 min

Peak Storage= 12 cf @ 12.00 hrs, Average Depth at Peak Storage= 0.36' Bank-Full Depth= 1.25', Capacity at Bank-Full= 6.46 cfs

15.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 40.0' Slope= 0.0100 '/' Inlet Invert= 53.30', Outlet Invert= 52.90'



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Type II 24-hr 2 YR Rainfall=2.90"

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#### Summary for Pond 20P: STMH 1

[57] Hint: Peaked at 62.38' (Flood elevation advised)[62] Warning: Exceeded Reach 2R OUTLET depth by 0.25' @ 11.97 hrs

| Inflow Area = | 0.144 ac,100.00% Impervious, Inflow | Depth > 2.67" for 2 YR event      |
|---------------|-------------------------------------|-----------------------------------|
| Inflow =      | 0.59 cfs @ 11.97 hrs, Volume=       | 0.032 af                          |
| Outflow =     | 0.59 cfs @ 11.97 hrs, Volume=       | 0.032 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.59 cfs @ 11.97 hrs, Volume=       | 0.032 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 62.38' @ 11.97 hrs

| Device | Routing | Invert | Outlet Devices   |
|--------|---------|--------|--|
| #1     | Primary | 62.00' | <b>15.0" x 50.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 61.50' S= $0.0100$ '/' Cc= $0.900$<br>n= 0.015 Concrete sewer w/manholes & inlets |

Primary OutFlow Max=0.59 cfs @ 11.97 hrs HW=62.38' (Free Discharge)

#### Summary for Pond 22P: FI 2

[57] Hint: Peaked at 57.00' (Flood elevation advised)[79] Warning: Submerged Pond 25P Secondary device # 2 INLET by 0.25'

| Inflow Area = | 0.206 ac,100.00% Impervious, Inflow De | epth > 2.67" for 2 YR event       |
|---------------|--|-----------------------------------|
| Inflow =      | 0.84 cfs @ 11.97 hrs, Volume=          | 0.046 af                          |
| Outflow =     | 0.84 cfs @ 11.97 hrs, Volume=          | 0.046 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.84 cfs @ 11.97 hrs, Volume=          | 0.046 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 57.00' @ 11.97 hrs

| #1Primary<br>#260.50'2.0" Vert. Orifice/GrateC= 0.600#2Secondary56.50'12.0" x 30.0' long CulvertCPP, square edge headwall, Ke= 0.500Outlet Invert= 56.20'S= 0.0100 '/'Cc= 0.900n= 0.013Concrete pipe, straight & clean | ) |
|--|---|

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.50' (Free Discharge)

Secondary OutFlow Max=0.84 cfs @ 11.97 hrs HW=57.00' (Free Discharge) —2=Culvert (Barrel Controls 0.84 cfs @ 3.15 fps)

#### Summary for Pond 23P: CI 3

[57] Hint: Peaked at 61.29' (Flood elevation advised)

| Inflow Area = | 0.083 ac,100.00% Impervious, Inflow D | epth > 2.67" for 2 YR event       |
|---------------|---------------------------------------|-----------------------------------|
| Inflow =      | 0.34 cfs @ 11.97 hrs, Volume=         | 0.018 af                          |
| Outflow =     | 0.34 cfs @ 11.97 hrs, Volume=         | 0.018 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=          | 0.000 af                          |
| Secondary =   | 0.34 cfs @ 11.97 hrs, Volume=         | 0.018 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 61.29' @ 11.97 hrs

| Device | Routing              | Invert | Outlet Devices  |
|--------|----------------------|--------|---|
| #1     | Primary<br>Secondary | 66.00' | <b>24.0" Vert. Orifice/Grate</b> $C= 0.600$<br><b>12.0" x 10.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 60.10' S= 0.0900 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=61.00' (Free Discharge)

Secondary OutFlow Max=0.34 cfs @ 11.97 hrs HW=61.29' (Free Discharge) —2=Culvert (Inlet Controls 0.34 cfs @ 1.82 fps)

#### Summary for Pond 25P: FI 1

[57] Hint: Peaked at 57.11' (Flood elevation advised)

| Inflow Area = | 0.103 ac,100.00% Impervious, Inflow De | epth > 2.67" for 2 YR event       |
|---------------|--|-----------------------------------|
| Inflow =      | 0.42 cfs @ 11.97 hrs, Volume=          | 0.023 af                          |
| Outflow =     | 0.42 cfs @ 11.97 hrs, Volume=          | 0.023 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.42 cfs @ 11.97 hrs, Volume=          | 0.023 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 57.11' @ 11.97 hrs

| Device    | Routing              | Invert | Outlet Devices  |
|-----------|----------------------|--------|---|
| #1<br>#2  | Primary<br>Secondary |        | 2.0" Vert. Orifice/Grate C= 0.600   |
| <i>π∠</i> | Secondary            | 56.75  | <b>10.0" x 25.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 56.50' S= 0.0100 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, straight & clean |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.75' (Free Discharge) 1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.42 cfs @ 11.97 hrs HW=57.11' (Free Discharge) —2=Culvert (Barrel Controls 0.42 cfs @ 2.70 fps) Edgewater 091027

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#### Summary for Pond 26P: Cl 2

[57] Hint: Peaked at 62.01' (Flood elevation advised)[79] Warning: Submerged Pond 20P Primary device # 1 OUTLET by 0.50'

| Inflow Area = | 0.190 ac,100.00% Impervious, Ir | nflow Depth > 2.67" for 2 YR event |
|---------------|---------------------------------|------------------------------------|
| Inflow =      | 0.78 cfs @ 11.97 hrs, Volume=   | 0.042 af                           |
| Outflow =     | 0.78 cfs @ 11.97 hrs, Volume=   | 0.042 af, Atten= 0%, Lag= 0.0 min  |
| Primary =     | 0.78 cfs @ 11.97 hrs, Volume=   | 0.042 af                           |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 62.01' @ 11.97 hrs

| Device | Routing | Invert | Outlet Devices   |
|--------|---------|--------|--|
| #1     | Primary | 61.50' | <b>12.0" x 20.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 61.30' S= 0.0100 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

Primary OutFlow Max=0.78 cfs @ 11.97 hrs HW=62.00' (Free Discharge) -1=Culvert (Barrel Controls 0.78 cfs @ 2.85 fps)

#### Summary for Pond 30P: Cl 4

[57] Hint: Peaked at 60.29' (Flood elevation advised)

| Inflow Area = | 0.046 ac,100.00% Impervious, Inflow De | epth > 2.67" for 2 YR event       |
|---------------|--|-----------------------------------|
| Inflow =      | 0.19 cfs @ 11.97 hrs, Volume=          | 0.010 af                          |
| Outflow =     | 0.19 cfs @ 11.97 hrs, Volume=          | 0.010 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.19 cfs @ 11.97 hrs, Volume=          | 0.010 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 60.29' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices   |
|--------|-----------|--------|--|
| #1     | Primary   | 65.50' | <b>24.0" Vert. Orifice/Grate</b> C= 0.600  |
| #2     | Secondary | 60.10' | <b>15.0" x 20.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 59.70' S= 0.0200 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=60.10' (Free Discharge) **1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.18 cfs @ 11.97 hrs HW=60.29' (Free Discharge) 2=Culvert (Inlet Controls 0.18 cfs @ 1.50 fps)

#### Summary for Pond 32P: CI 5

[57] Hint: Peaked at 60.81' (Flood elevation advised)[79] Warning: Submerged Pond 34P Secondary device # 2 OUTLET by 0.21'

| Inflow Area = | 0.054 ac,100.00% Impervious, Inflow De | epth > 2.67" for 2 YR event       |
|---------------|--|-----------------------------------|
| Inflow =      | 0.22 cfs @ 11.97 hrs, Volume=          | 0.012 af                          |
| Outflow =     | 0.22 cfs @ 11.97 hrs, Volume=          | 0.012 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.22 cfs @ 11.97 hrs, Volume=          | 0.012 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 60.81' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices   |
|--------|-----------|--------|--|
| #1     | Primary   | 66.00' | 24.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 60.60' | <b>15.0" x 25.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 60.10' S= 0.0200 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.60' (Free Discharge)

Secondary OutFlow Max=0.22 cfs @ 11.97 hrs HW=60.81' (Free Discharge) 2=Culvert (Inlet Controls 0.22 cfs @ 1.57 fps)

#### Summary for Pond 34P: CI 6

[57] Hint: Peaked at 61.29' (Flood elevation advised)

| Inflow Area = | 0.010 ac,100.00% Impervious, Inflow De | epth > 2.67" for 2 YR event       |
|---------------|--|-----------------------------------|
| Inflow =      | 0.04 cfs @ 11.97 hrs, Volume=          | 0.002 af                          |
| Outflow =     | 0.04 cfs @ 11.97 hrs, Volume=          | 0.002 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.04 cfs @ 11.97 hrs, Volume=          | 0.002 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 61.29' @ 11.97 hrs

| Device   | Routing              | Invert | Outlet Devices  |
|----------|----------------------|--------|---|
| #1<br>#2 | Primary<br>Secondary | 65.00' | <b>24.0" Vert. Orifice/Grate</b> $C= 0.600$<br><b>12.0" x 30.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 60.60' S= 0.0200 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=61.20' (Free Discharge) -1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.04 cfs @ 11.97 hrs HW=61.29' (Free Discharge) -2=Culvert (Inlet Controls 0.04 cfs @ 1.04 fps)

#### Summary for Pond 42P: TR 3

[57] Hint: Peaked at 54.80' (Flood elevation advised)

| Inflow Area = | 0.092 ac,100.00% Impervious, Inflow De | epth > 2.67" for 2 YR event       |
|---------------|--|-----------------------------------|
| Inflow =      | 0.38 cfs @ 11.97 hrs, Volume=          | 0.020 af                          |
| Outflow =     | 0.38 cfs @ 11.97 hrs, Volume=          | 0.020 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.38 cfs @ 11.97 hrs, Volume=          | 0.020 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 54.80' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices   |
|--------|-----------|--------|--|
| #1     | Primary   | 60.50' | 24.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 54.50' | <b>12.0" x 110.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 53.30' S= 0.0109 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, straight & clean |

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=54.50' (Free Discharge) **1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.37 cfs @ 11.97 hrs HW=54.80' (Free Discharge) —2=Culvert (Inlet Controls 0.37 cfs @ 1.87 fps)

#### Summary for Link 43L: Outlet

| Inflow Area | a = | 0.701 ac,10 | 0.00% Impervious | , Inflow Depth > | 2.66"    | for 2 YR event       |
|-------------|-----|-------------|------------------|------------------|----------|----------------------|
| Inflow      | =   | 2.77 cfs @  | 12.00 hrs, Volum | ie= 0.155        | af       |                      |
| Primary     | =   | 2.77 cfs @  | 12.00 hrs, Volum | e= 0.155         | af, Atte | en= 0%, Lag= 0.0 min |

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

#### Summary for Reach 2R: 12-Inch

[52] Hint: Inlet/Outlet conditions not evaluated

| Inflow Are | a = | 0.103 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR | event      |
|------------|-----|---|------------|
| Inflow     | =   | 0.62 cfs @ 11.97 hrs, Volume= 0.034 af                      |            |
| Outflow    | =   | 0.62 cfs @ 11.97 hrs, Volume= 0.034 af, Atten= 0%, La       | g= 0.1 min |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 7.88 fps, Min. Travel Time= 0.1 min Avg. Velocity = 2.31 fps, Avg. Travel Time= 0.3 min

Peak Storage= 3 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.16' Bank-Full Depth= 1.00', Capacity at Bank-Full= 11.69 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 43.0' Slope= 0.1433 '/' Inlet Invert= 68.16', Outlet Invert= 62.00'

#### Summary for Reach 4R: 12-Inch

[52] Hint: Inlet/Outlet conditions not evaluated

| Inflow Are | a = | 0.040 ac,10 | 0.00% Impe | ervious, | Inflow | Depth > | 3.96  | " for 10  | YR event     |
|------------|-----|-------------|------------|----------|--------|---------|-------|-----------|--------------|
| Inflow     | ==  | 0.24 cfs @  | 11.97 hrs, | Volume   | =      | 0.013   | af    |           |              |
| Outflow    | =   | 0.24 cfs @  | 11.97 hrs, | Volume   |        | 0.013   | af, A | tten= 0%, | Lag= 0.0 min |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 3.81 fps, Min. Travel Time= 0.0 min Avg. Velocity = 1.12 fps, Avg. Travel Time= 0.1 min

Peak Storage= 0 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.13' Bank-Full Depth= 1.00', Capacity at Bank-Full= 6.18 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 5.0' Slope= 0.0400 '/' Inlet Invert= 65.90', Outlet Invert= 65.70'

#### Summary for Reach 17R: 12-Inch

[52] Hint: Inlet/Outlet conditions not evaluated

| Inflow Are | a = | 0.030 ac,10 | 0.00% Impervious, | Inflow Depth > 3 | 3.96" for 10  | YR event     |
|------------|-----|-------------|-------------------|------------------|---------------|--------------|
| Inflow     | =   | 0.18 cfs @  | 11.97 hrs, Volume | e 0.010 a        | lf            |              |
| Outflow    | =   | 0.18 cfs @  | 11.97 hrs, Volume | e= 0.010 a       | f, Atten= 0%, | Lag= 0.2 min |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.95 fps, Min. Travel Time= 0.1 min Avg. Velocity = 1.48 fps, Avg. Travel Time= 0.3 min

Peak Storage= 1 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.09' Bank-Full Depth= 1.00', Capacity at Bank-Full= 10.24 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 30.0' Slope= 0.1100 '/' Inlet Invert= 64.60', Outlet Invert= 61.30'

#### Summary for Reach 18R: STMH 2

[52] Hint: Inlet/Outlet conditions not evaluated

[62] Warning: Exceeded Reach 17R OUTLET depth by 0.29' @ 11.98 hrs

[79] Warning: Submerged Pond 26P Primary device # 1 INLET by 0.18'

 Inflow Area =
 0.220 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event

 Inflow =
 1.31 cfs @ 11.97 hrs, Volume=
 0.073 af

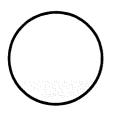
 Outflow =
 1.31 cfs @ 11.98 hrs, Volume=
 0.073 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 3.66 fps, Min. Travel Time= 0.5 min Avg. Velocity = 1.07 fps, Avg. Travel Time= 1.9 min

Peak Storage= 43 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.38' Bank-Full Depth= 1.50', Capacity at Bank-Full= 9.10 cfs

18.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 120.0' Slope= 0.0100 '/' Inlet Invert= 61.30', Outlet Invert= 60.10'

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#### Summary for Reach 27R: STMH 3

[52] Hint: Inlet/Outlet conditions not evaluated

[61] Hint: Exceeded Reach 18R outlet invert by 0.37' @ 11.98 hrs

[79] Warning: Submerged Pond 23P Secondary device # 2 OUTLET by 0.37'

[79] Warning: Submerged Pond 32P Secondary device # 2 OUTLET by 0.37'

 Inflow Area =
 0.357 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event

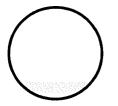
 Inflow =
 2.11 cfs @ 11.98 hrs, Volume=
 0.118 af

 Outflow =
 2.11 cfs @ 11.98 hrs, Volume=
 0.118 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 5.21 fps, Min. Travel Time= 0.1 min Avg. Velocity = 1.52 fps, Avg. Travel Time= 0.2 min

Peak Storage= 8 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.37' Bank-Full Depth= 2.00', Capacity at Bank-Full= 27.73 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 20.0' Slope= 0.0200 '/' Inlet Invert= 60.10', Outlet Invert= 59.70'



#### Summary for Reach 35R: STMH 4

[52] Hint: Inlet/Outlet conditions not evaluated

[61] Hint: Exceeded Reach 27R outlet invert by 0.26' @ 11.98 hrs

[79] Warning: Submerged Pond 30P Secondary device # 2 OUTLET by 0.26'

 Inflow Area =
 0.403 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event

 Inflow =
 2.38 cfs @ 11.98 hrs, Volume=
 0.133 af

 Outflow =
 2.38 cfs @ 11.98 hrs, Volume=
 0.133 af, Atten= 0%, Lag= 0.1 min

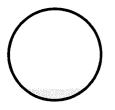
Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 9.73 fps, Min. Travel Time= 0.1 min Avg. Velocity = 2.88 fps, Avg. Travel Time= 0.2 min

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Peak Storage= 7 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.26' Bank-Full Depth= 2.00', Capacity at Bank-Full= 64.03 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 30.0' Slope= 0.1067 '/' Inlet Invert= 59.70', Outlet Invert= 56.50'



#### Summary for Reach 44R: STMH 5

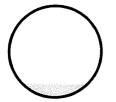
[52] Hint: Inlet/Outlet conditions not evaluated[61] Hint: Exceeded Reach 48R outlet invert by 0.30' @ 11.99 hrs

| Inflow Area | a = | 0.701 ac,10 | 0.00% Impervious, | Inflow Depth > | 3.96" for    | 10 YR event     |
|-------------|-----|-------------|-------------------|----------------|--------------|-----------------|
| Inflow      | =   | 4.08 cfs @  | 11.98 hrs, Volume | = 0.231        | af           |                 |
| Outflow     | -   | 4.06 cfs @  | 11.99 hrs, Volume | e= 0.231       | af, Atten= 0 | %, Lag= 0.6 min |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 13.68 fps, Min. Travel Time= 0.3 min Avg. Velocity = 4.04 fps, Avg. Travel Time= 1.1 min

Peak Storage= 80 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.30' Bank-Full Depth= 2.00', Capacity at Bank-Full= 82.92 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 270.0' Slope= 0.1789 '/' Inlet Invert= 52.90', Outlet Invert= 4.60'



#### Summary for Reach 45R: West Bulding wall

[52] Hint: Inlet/Outlet conditions not evaluated [61] Hint: Exceeded Reach 46R outlet invert by 0.40' @ 11.98 hrs

| Inflow Are | a = | 0.206 ac,10 | 0.00% Imperv | vious, Inflow | Depth > 3.96 | for 10 YR event       |   |
|------------|-----|-------------|--------------|---------------|--------------|-----------------------|---|
| Inflow     | =   | 1.22 cfs @  | 11.97 hrs, V | 'olume=       | 0.068 af     |                       |   |
| Outflow    | =   | 1.22 cfs @  | 11.98 hrs, V | 'olume=       | 0.068 af, A  | tten= 0%, Lag= 0.5 mi | n |

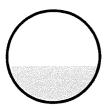
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Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.21 fps, Min. Travel Time= 0.3 min Avg. Velocity = 1.25 fps, Avg. Travel Time= 1.0 min

Peak Storage= 22 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.40' Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.68 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 75.0' Slope= 0.0107 '/' Inlet Invert= 56.00', Outlet Invert= 55.20'



#### Summary for Reach 46R: Auto Court

[52] Hint: Inlet/Outlet conditions not evaluated [81] Warning: Exceeded Pond 22P by 0.01' @ 1.41 hrs

 Inflow Area =
 0.206 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event

 Inflow =
 1.23 cfs @ 11.97 hrs, Volume=
 0.068 af

 Outflow =
 1.22 cfs @ 11.97 hrs, Volume=
 0.068 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.13 fps, Min. Travel Time= 0.2 min Avg. Velocity = 1.25 fps, Avg. Travel Time= 0.7 min

Peak Storage= 15 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.45' Bank-Full Depth= 0.83', Capacity at Bank-Full= 2.19 cfs

10.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 50.0' Slope= 0.0100 '/' Inlet Invert= 56.50', Outlet Invert= 56.00'

#### Summary for Reach 47R: South Building Wall

[52] Hint: Inlet/Outlet conditions not evaluated

[62] Warning: Exceeded Reach 45R OUTLET depth by 0.04' @ 12.07 hrs

Edgewater 091027 Type II 24-hr 10 YR Rainfall=4.20" Prepared by {enter your company name here} Printed 10/28/2009 HydroCAD® 8.50 s/n 005804 © 2007 HydroCAD Software Solutions LLC Page 18 Inflow Area = 0.206 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event Inflow 1.22 cfs @ 11.98 hrs, Volume= 0.068 af \_ Outflow 1.21 cfs @ 12.00 hrs, Volume= 0.068 af, Atten= 1%, Lag= 1.3 min = Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.10 fps, Min. Travel Time= 0.8 min Avg. Velocity = 1.22 fps, Avg. Travel Time= 2.6 min

Peak Storage= 56 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.40' Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.56 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 190.0' Slope= 0.0100 '/' Inlet Invert= 55.20', Outlet Invert= 53.30'

#### Summary for Reach 48R: STMH 6

[52] Hint: Inlet/Outlet conditions not evaluated

[62] Warning: Exceeded Reach 47R OUTLET depth by 0.04' @ 12.05 hrs

[79] Warning: Submerged Pond 42P Secondary device # 2 OUTLET by 0.44'

 Inflow Area =
 0.298 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event

 Inflow =
 1.72 cfs @ 11.99 hrs, Volume=
 0.098 af

 Outflow =
 1.72 cfs @ 11.99 hrs, Volume=
 0.098 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.45 fps, Min. Travel Time= 0.1 min Avg. Velocity = 1.32 fps, Avg. Travel Time= 0.5 min

Peak Storage= 15 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.44' Bank-Full Depth= 1.25', Capacity at Bank-Full= 6.46 cfs

15.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 40.0' Slope= 0.0100 '/' Inlet Invert= 53.30', Outlet Invert= 52.90'



#### Summary for Pond 20P: STMH 1

[57] Hint: Peaked at 62.47' (Flood elevation advised)[62] Warning: Exceeded Reach 2R OUTLET depth by 0.31' @ 11.97 hrs

| Inflow Area = | 0.144 ac,100.00% Impervious, | Inflow Depth > 3.96" for 10 YR event |
|---------------|------------------------------|--------------------------------------|
| Inflow =      | 0.86 cfs @ 11.97 hrs, Volume | e= 0.047 af                          |
| Outflow =     | 0.86 cfs @ 11.97 hrs, Volume | e= 0.047 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.86 cfs @ 11.97 hrs, Volume | e= 0.047 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 62.47' @ 11.97 hrs

| Device | Routing | Invert | Outlet Devices   |
|--------|---------|--------|--|
| #1     | Primary | 62.00' | <b>15.0" x 50.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 61.50' S= 0.0100 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

**Primary OutFlow** Max=0.86 cfs @ 11.97 hrs HW=62.47' (Free Discharge) **1=Culvert** (Barrel Controls 0.86 cfs @ 3.05 fps)

#### Summary for Pond 22P: FI 2

[57] Hint: Peaked at 57.12' (Flood elevation advised)[79] Warning: Submerged Pond 25P Secondary device # 2 INLET by 0.37'

| Inflow Area = | 0.206 ac,100.00% Impervious, Inflow De | epth > 3.96" for 10 YR event      |
|---------------|--|-----------------------------------|
| Inflow =      | 1.23 cfs @ 11.97 hrs, Volume=          | 0.068 af                          |
| Outflow =     | 1.23 cfs @ 11.97 hrs, Volume=          | 0.068 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 1.23 cfs @ 11.97 hrs, Volume=          | 0.068 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 57.12' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices  |
|--------|-----------|--------|---|
| #1     | Primary   |        | 2.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 56.50' | <b>12.0" x 30.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 56.20' S= 0.0100 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, straight & clean |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.50' (Free Discharge)

Secondary OutFlow Max=1.22 cfs @ 11.97 hrs HW=57.12' (Free Discharge) —2=Culvert (Barrel Controls 1.22 cfs @ 3.42 fps) Edgewater 091027 Prepared by {enter your company name here} HydroCAD® 8.50 s/n 005804 © 2007 HydroCAD Software Solutions LLC

#### Summary for Pond 23P: CI 3

[57] Hint: Peaked at 61.35' (Flood elevation advised)

| Inflow Area = | 0.083 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event |
|---------------|---|
| Inflow =      | 0.49 cfs @ 11.97 hrs, Volume= 0.027 af                            |
| Outflow =     | 0.49 cfs @ 11.97 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min   |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume= 0.000 af                             |
| Secondary =   | 0.49 cfs @ 11.97 hrs, Volume= 0.027 af                            |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 61.35' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices   |
|--------|-----------|--------|--|
| #1     | Primary   | 66.00' | 24.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 61.00' | <b>12.0" x 10.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 60.10' S= 0.0900 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=61.00' (Free Discharge) **1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.49 cfs @ 11.97 hrs HW=61.35' (Free Discharge) —2=Culvert (Inlet Controls 0.49 cfs @ 2.01 fps)

#### Summary for Pond 25P: FI 1

[57] Hint: Peaked at 57.20' (Flood elevation advised)

| Inflow Area = | 0.103 ac,100.00% Impervious, Inflow De | epth > 3.96" for 10 YR event      |
|---------------|--|-----------------------------------|
| Inflow =      | 0.61 cfs @ 11.97 hrs, Volume=          | 0.034 af                          |
| Outflow =     | 0.61 cfs @ 11.97 hrs, Volume=          | 0.034 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.61 cfs @ 11.97 hrs, Volume=          | 0.034 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 57.20' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices  |
|--------|-----------|--------|---|
| #1     | Primary   | 60.50' | 2.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 56.75' | <b>10.0" x 25.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 56.50' S= 0.0100 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, straight & clean |

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=56.75' (Free Discharge) **1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.61 cfs @ 11.97 hrs HW=57.20' (Free Discharge) —2=Culvert (Barrel Controls 0.61 cfs @ 2.94 fps)

#### Summary for Pond 26P: CI 2

[57] Hint: Peaked at 62.13' (Flood elevation advised)[79] Warning: Submerged Pond 20P Primary device # 1 INLET by 0.13'

| Inflow Are | ea =    | 0.190 ac,100.00% Impervious, Inflo | w Depth > 3.96" for | 10 YR event      |
|------------|---------|------------------------------------|---------------------|------------------|
| Inflow     | =       | 1.13 cfs @ 11.97 hrs, Volume=      | 0.063 af            |                  |
| Outflow    | <u></u> | 1.13 cfs @ 11.97 hrs, Volume=      | 0.063 af, Atten= 0  | )%, Lag= 0.0 min |
| Primary    | =       | 1.13 cfs @ 11.97 hrs, Volume=      | 0.063 af            | -                |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 62.13' @ 11.97 hrs

| Device | Routing | Invert | Outlet Devices   |
|--------|---------|--------|--|
| #1     | Primary | 61.50' | <b>12.0" x 20.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 61.30' S= 0.0100 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

Primary OutFlow Max=1.13 cfs @ 11.97 hrs HW=62.13' (Free Discharge) 1=Culvert (Barrel Controls 1.13 cfs @ 3.11 fps)

#### Summary for Pond 30P: CI 4

[57] Hint: Peaked at 60.34' (Flood elevation advised)

| Inflow Area = | 0.046 ac,100.00% Impervious, Inflow De | epth > 3.96" for 10 YR event      |
|---------------|--|-----------------------------------|
| Inflow =      | 0.27 cfs @ 11.97 hrs, Volume=          | 0.015 af                          |
| Outflow =     | 0.27 cfs @ 11.97 hrs, Volume=          | 0.015 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.27 cfs @ 11.97 hrs, Volume=          | 0.015 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 60.34' @ 11.97 hrs

| Device   | Routing              | Invert           | Outlet Devices  |
|----------|----------------------|------------------|---|
| #1<br>#2 | Primary<br>Secondary | 65.50'<br>60.10' | <b>24.0" Vert. Orifice/Grate</b> $C= 0.600$<br><b>15.0" x 20.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 59.70' S= 0.0200 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.10' (Free Discharge) 1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.27 cfs @ 11.97 hrs HW=60.34' (Free Discharge) 2=Culvert (Inlet Controls 0.27 cfs @ 1.66 fps)

#### Summary for Pond 32P: CI 5

[57] Hint: Peaked at 60.86' (Flood elevation advised)[79] Warning: Submerged Pond 34P Secondary device # 2 OUTLET by 0.26'

| Inflow Area = | 0.054 ac,100.00% Impervious, Inflow De | epth > 3.96" for 10 YR event      |
|---------------|--|-----------------------------------|
| Inflow =      | 0.32 cfs @ 11.97 hrs, Volume=          | 0.018 af                          |
| Outflow =     | 0.32 cfs @ 11.97 hrs, Volume=          | 0.018 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.32 cfs @ 11.97 hrs, Volume=          | 0.018 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 60.86' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices   |
|--------|-----------|--------|--|
| #1     | Primary   | 66.00' | 24.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 60.60' | <b>15.0" x 25.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 60.10' S= 0.0200 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=60.60' (Free Discharge)

Secondary OutFlow Max=0.32 cfs @ 11.97 hrs HW=60.86' (Free Discharge) —2=Culvert (Inlet Controls 0.32 cfs @ 1.73 fps)

#### Summary for Pond 34P: Cl 6

[57] Hint: Peaked at 61.32' (Flood elevation advised)

| Inflow Area = | 0.010 ac,100.00% Impervious, Inflow De | epth > 3.96" for 10 YR event      |
|---------------|--|-----------------------------------|
| Inflow =      | 0.06 cfs @ 11.97 hrs, Volume=          | 0.003 af                          |
| Outflow =     | 0.06 cfs @ 11.97 hrs, Volume=          | 0.003 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.06 cfs @ 11.97 hrs, Volume=          | 0.003 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 61.32' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices  |
|--------|-----------|--------|---|
| #1     | Primary   | 65.00' | 24.0" Vert. Orifice/Grate C= 0.600                              |
| #2     | Secondary | 61.20' | 12.0" x 30.0' long Culvert CPP, square edge headwall, Ke= 0.500 |
|        |           |        | Outlet Invert= 60.60' S= 0.0200 '/' Cc= 0.900                   |
|        |           |        | n= 0.015 Concrete sewer w/manholes & inlets                     |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=61.20' (Free Discharge)

Secondary OutFlow Max=0.06 cfs @ 11.97 hrs HW=61.32' (Free Discharge) 2=Culvert (Inlet Controls 0.06 cfs @ 1.17 fps)

#### Summary for Pond 42P: TR 3

[57] Hint: Peaked at 54.87' (Flood elevation advised)

| Inflow Area = | 0.092 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event |     |
|---------------|---|-----|
| Inflow =      | 0.55 cfs @ 11.97 hrs, Volume= 0.030 af                            |     |
| Outflow =     | 0.55 cfs @ 11.97 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 m     | ıin |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume= 0.000 af                             |     |
| Secondary =   | 0.55 cfs @ 11.97 hrs, Volume= 0.030 af                            |     |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 54.87' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices   |
|--------|-----------|--------|--|
| #1     | Primary   | 60.50' | 24.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 54.50' | <b>12.0" x 110.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 53.30' S= 0.0109 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, straight & clean |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=54.50' (Free Discharge) ←1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.54 cfs @ 11.97 hrs HW=54.87' (Free Discharge) -2=Culvert (Inlet Controls 0.54 cfs @ 2.07 fps)

#### Summary for Link 43L: Outlet

| Inflow Are | a = | 0.701 ac,100.00% Imperviou  | s, Inflow Depth > 3.96" | ' for 10 YR event      |
|------------|-----|-----------------------------|-------------------------|------------------------|
| Inflow     | =   | 4.06 cfs @ 11.99 hrs, Volui | me= 0.231 af            |                        |
| Primary    | =   | 4.06 cfs @ 11.99 hrs, Volu  | ne= 0.231 af, At        | tten= 0%, Lag= 0.0 min |

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

#### Summary for Reach 2R: 12-Inch

[52] Hint: Inlet/Outlet conditions not evaluated

| Inflow Are | a = | 0.103 ac,100.00% Imperv | vious, Inflow Depth > | 5.76" for 100 YR event      |
|------------|-----|-------------------------|-----------------------|-----------------------------|
| Inflow     | =   | 0.88 cfs @ 11.97 hrs, V | /olume= 0.050         | af                          |
| Outflow    | =   | 0.88 cfs @ 11.97 hrs, V | 'olume= 0.050         | af, Atten= 0%, Lag= 0.1 min |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 8.77 fps, Min. Travel Time= 0.1 min Avg. Velocity = 2.56 fps, Avg. Travel Time= 0.3 min

Peak Storage= 4 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.19' Bank-Full Depth= 1.00', Capacity at Bank-Full= 11.69 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 43.0' Slope= 0.1433 '/' Inlet Invert= 68.16', Outlet Invert= 62.00'

#### Summary for Reach 4R: 12-Inch

[52] Hint: Inlet/Outlet conditions not evaluated

| Inflow Area | a = | 0.040 ac,10 | 0.00% Impervious, | Inflow Depth > | 5.76" for    | 100 YR event     |
|-------------|-----|-------------|-------------------|----------------|--------------|------------------|
| Inflow      | =   | 0.35 cfs @  | 11.97 hrs, Volume | e= 0.019 ;     | af           |                  |
| Outflow     | =   | 0.35 cfs @  | 11.97 hrs, Volume | e 0.019 :      | af, Atten= ( | 0%, Lag= 0.0 min |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.24 fps, Min. Travel Time= 0.0 min Avg. Velocity = 1.25 fps, Avg. Travel Time= 0.1 min

Peak Storage= 0 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.16' Bank-Full Depth= 1.00', Capacity at Bank-Full= 6.18 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 5.0' Slope= 0.0400 '/' Inlet Invert= 65.90', Outlet Invert= 65.70'

#### Summary for Reach 17R: 12-Inch

[52] Hint: Inlet/Outlet conditions not evaluated

| Inflow Are | a = | 0.030 ac,10 | 0.00% Impervious | , Inflow Depth > | 5.76" for 1   | 00 YR event    |
|------------|-----|-------------|------------------|------------------|---------------|----------------|
| Inflow     | =   | 0.26 cfs @  | 11.97 hrs, Volum | e= 0.014 a       | af            |                |
| Outflow    | =   | 0.25 cfs @  | 11.97 hrs, Volum | e= 0.014 a       | af, Atten= 0% | , Lag= 0.1 min |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 5.52 fps, Min. Travel Time= 0.1 min Avg. Velocity = 1.65 fps, Avg. Travel Time= 0.3 min

Peak Storage= 1 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.11' Bank-Full Depth= 1.00', Capacity at Bank-Full= 10.24 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 30.0' Slope= 0.1100 '/' Inlet Invert= 64.60', Outlet Invert= 61.30'

#### Summary for Reach 18R: STMH 2

[52] Hint: Inlet/Outlet conditions not evaluated

[62] Warning: Exceeded Reach 17R OUTLET depth by 0.35' @ 11.98 hrs

[79] Warning: Submerged Pond 26P Primary device # 1 INLET by 0.26'

 Inflow Area =
 0.220 ac,100.00% Impervious, Inflow Depth > 5.76" for 100 YR event

 Inflow =
 1.88 cfs @ 11.97 hrs, Volume=
 0.106 af

 Outflow =
 1.87 cfs @ 11.98 hrs, Volume=
 0.106 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.05 fps, Min. Travel Time= 0.5 min Avg. Velocity = 1.20 fps, Avg. Travel Time= 1.7 min

Peak Storage= 55 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.46' Bank-Full Depth= 1.50', Capacity at Bank-Full= 9.10 cfs

18.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 120.0' Slope= 0.0100 '/' Inlet Invert= 61.30', Outlet Invert= 60.10'

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#### Summary for Reach 27R: STMH 3

[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 18R outlet invert by 0.45' @ 11.98 hrs
[79] Warning: Submerged Pond 23P Secondary device # 2 OUTLET by 0.45'

[79] Warning: Submerged Pond 32P Secondary device # 2 OUTLET by 0.45'

 Inflow Area =
 0.357 ac,100.00% Impervious, Inflow Depth >
 5.75" for 100 YR event

 Inflow =
 3.03 cfs @
 11.98 hrs, Volume=
 0.171 af

 Outflow =
 3.03 cfs @
 11.98 hrs, Volume=
 0.171 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 5.79 fps, Min. Travel Time= 0.1 min Avg. Velocity = 1.70 fps, Avg. Travel Time= 0.2 min

Peak Storage= 10 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.45' Bank-Full Depth= 2.00', Capacity at Bank-Full= 27.73 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 20.0' Slope= 0.0200 '/' Inlet Invert= 60.10', Outlet Invert= 59.70'



#### Summary for Reach 35R: STMH 4

[52] Hint: Inlet/Outlet conditions not evaluated

[61] Hint: Exceeded Reach 27R outlet invert by 0.31' @ 11.98 hrs [79] Warning: Submerged Pond 30P Secondary device # 2 OUTLET by 0.31'

 Inflow Area =
 0.403 ac,100.00% Impervious, Inflow Depth > 5.75" for 100 YR event

 Inflow =
 3.42 cfs @ 11.98 hrs, Volume=
 0.193 af

 Outflow =
 3.42 cfs @ 11.98 hrs, Volume=
 0.193 af, Atten= 0%, Lag= 0.1 min

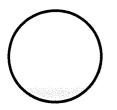
Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 10.83 fps, Min. Travel Time= 0.0 min Avg. Velocity = 3.19 fps, Avg. Travel Time= 0.2 min

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Peak Storage= 9 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.31' Bank-Full Depth= 2.00', Capacity at Bank-Full= 64.03 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 30.0' Slope= 0.1067 '/' Inlet Invert= 59.70', Outlet Invert= 56.50'



#### Summary for Reach 44R: STMH 5

[52] Hint: Inlet/Outlet conditions not evaluated [61] Hint: Exceeded Reach 48R outlet invert by 0.36' @ 11.99 hrs

 Inflow Area =
 0.701 ac,100.00% Impervious, Inflow Depth > 5.75" for 100 YR event

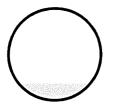
 Inflow =
 5.86 cfs @ 11.98 hrs, Volume=
 0.336 af

 Outflow =
 5.85 cfs @ 11.99 hrs, Volume=
 0.336 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 15.24 fps, Min. Travel Time= 0.3 min Avg. Velocity = 4.49 fps, Avg. Travel Time= 1.0 min

Peak Storage= 104 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.36' Bank-Full Depth= 2.00', Capacity at Bank-Full= 82.92 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets Length= 270.0' Slope= 0.1789 '/' Inlet Invert= 52.90', Outlet Invert= 4.60'



#### Summary for Reach 45R: West Bulding wall

[52] Hint: Inlet/Outlet conditions not evaluated [61] Hint: Exceeded Reach 46R outlet invert by 0.49' @ 11.98 hrs

| Inflow Are | a = | 0.206 ac,10 | 0.00% Impervious, | Inflow Depth > 5. | .76" for 100 | ) YR event   |
|------------|-----|-------------|-------------------|-------------------|--------------|--------------|
| Inflow     | =   | 1.76 cfs @  | 11.97 hrs, Volume | e= 0.099 af       |              |              |
| Outflow    | =   | 1.75 cfs @  | 11.98 hrs, Volume | e= 0.099 af,      | Atten= 0%,   | Lag= 0.5 min |

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Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.63 fps, Min. Travel Time= 0.3 min Avg. Velocity = 1.40 fps, Avg. Travel Time= 0.9 min

Peak Storage= 28 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.49' Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.68 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 75.0' Slope= 0.0107 '/' Inlet Invert= 56.00', Outlet Invert= 55.20'



#### Summary for Reach 46R: Auto Court

[52] Hint: Inlet/Outlet conditions not evaluated [81] Warning: Exceeded Pond 22P by 0.01' @ 0.96 hrs

| Inflow Are | a = | 0.206 ac,100.00% Impervious | , Inflow Depth > 5.76" | for 100 YR event    |
|------------|-----|-----------------------------|------------------------|---------------------|
| Inflow     | =   | 1.76 cfs @ 11.97 hrs, Volum | e= 0.099 af            |                     |
| Outflow    | =   | 1.76 cfs @ 11.97 hrs, Volum | e= 0.099 af, Atte      | n= 0%, Lag= 0.3 min |

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.47 fps, Min. Travel Time= 0.2 min Avg. Velocity = 1.40 fps, Avg. Travel Time= 0.6 min

Peak Storage= 20 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.57' Bank-Full Depth= 0.83', Capacity at Bank-Full= 2.19 cfs

10.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 50.0' Slope= 0.0100 '/' Inlet Invert= 56.50', Outlet Invert= 56.00'

#### Summary for Reach 47R: South Building Wall

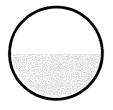
[52] Hint: Inlet/Outlet conditions not evaluated

[62] Warning: Exceeded Reach 45R OUTLET depth by 0.04' @ 12.07 hrs

Edgewater 091027 Type II 24-hr 100 YR Rainfall=6.00" Prepared by {enter your company name here} Printed 10/28/2009 HydroCAD® 8.50 s/n 005804 © 2007 HydroCAD Software Solutions LLC Page 29 Inflow Area = 0.206 ac,100.00% Impervious, Inflow Depth > 5.75" for 100 YR event 1.75 cfs @ 11.98 hrs, Volume= Inflow 0.099 af = 0.099 af, Atten= 1%, Lag= 1.2 min Outflow 1.74 cfs @ 12.00 hrs, Volume= \_ Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.51 fps, Min. Travel Time= 0.7 min Avg. Velocity = 1.37 fps, Avg. Travel Time= 2.3 min Peak Storage= 73 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.49'

Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.56 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 190.0' Slope= 0.0100 '/' Inlet Invert= 55.20', Outlet Invert= 53.30'



#### Summary for Reach 48R: STMH 6

[52] Hint: Inlet/Outlet conditions not evaluated

[62] Warning: Exceeded Reach 47R OUTLET depth by 0.05' @ 12.05 hrs

[79] Warning: Submerged Pond 42P Secondary device # 2 OUTLET by 0.54'

 Inflow Area =
 0.298 ac,100.00% Impervious, Inflow Depth > 5.75" for 100 YR event

 Inflow =
 2.47 cfs @ 11.99 hrs, Volume=
 0.143 af

 Outflow =
 2.47 cfs @ 11.99 hrs, Volume=
 0.143 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Max. Velocity= 4.91 fps, Min. Travel Time= 0.1 min Avg. Velocity = 1.48 fps, Avg. Travel Time= 0.5 min

Peak Storage= 20 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.54' Bank-Full Depth= 1.25', Capacity at Bank-Full= 6.46 cfs

15.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean Length= 40.0' Slope= 0.0100 '/' Inlet Invert= 53.30', Outlet Invert= 52.90'



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#### Summary for Pond 20P: STMH 1

[57] Hint: Peaked at 62.57' (Flood elevation advised)[62] Warning: Exceeded Reach 2R OUTLET depth by 0.38' @ 11.97 hrs

| Inflow Area = | 0.144 ac,100.00% Impervious, Inflow I | Depth > 5.76" 1 | for 100 YR event    |
|---------------|---------------------------------------|-----------------|---------------------|
| Inflow =      | 1.23 cfs @ 11.97 hrs, Volume=         | 0.069 af        |                     |
| Outflow =     | 1.23 cfs @ 11.97 hrs, Volume=         | 0.069 af, Atter | n= 0%, Lag= 0.0 min |
| Primary =     | 1.23 cfs @ 11.97 hrs, Volume=         | 0.069 af        |                     |
|               |                                       |                 |                     |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 62.57' @ 11.97 hrs

| Device | Routing | Invert | Outlet Devices   |
|--------|---------|--------|--|
| #1     | Primary | 62.00' | <b>15.0" x 50.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 61.50' S= 0.0100 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

**Primary OutFlow** Max=1.23 cfs @ 11.97 hrs HW=62.57' (Free Discharge) **1=Culvert** (Barrel Controls 1.23 cfs @ 3.32 fps)

#### Summary for Pond 22P: FI 2

[57] Hint: Peaked at 57.28' (Flood elevation advised)[79] Warning: Submerged Pond 25P Secondary device # 2 INLET by 0.53'

| Inflow Area = | 0.206 ac,100.00% Impervious, In | Iflow Depth > 5.76" for 100 YR event |
|---------------|---------------------------------|--------------------------------------|
| Inflow =      | 1.76 cfs @ 11.97 hrs, Volume=   | 0.099 af                             |
| Outflow =     | 1.76 cfs @ 11.97 hrs, Volume=   | 0.099 af, Atten= 0%, Lag= 0.0 min    |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=    | 0.000 af                             |
| Secondary =   | 1.76 cfs @ 11.97 hrs, Volume=   | 0.099 af                             |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 57.28' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices   |           |
|--------|-----------|--------|--|-----------|
| #1     | Primary   | 60.50' | 2.0" Vert. Orifice/Grate C= 0.600  |           |
| #2     | Secondary | 56.50' | <b>12.0'' x 30.0' long Culvert</b> CPP, square edge headwall,<br>Outlet Invert= 56.20' S= 0.0100 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, straight & clean | Ke= 0.500 |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.50' (Free Discharge)

Secondary OutFlow Max=1.76 cfs @ 11.97 hrs HW=57.28' (Free Discharge) —2=Culvert (Barrel Controls 1.76 cfs @ 3.69 fps)

#### Summary for Pond 23P: CI 3

[57] Hint: Peaked at 61.43' (Flood elevation advised)

| Inflow Area = | 0.083 ac,100.00% Impervious, Inflow E | Depth > 5.76" for 100 YR event    |
|---------------|---------------------------------------|-----------------------------------|
| Inflow =      | 0.71 cfs @ 11.97 hrs, Volume=         | 0.040 af                          |
| Outflow =     | 0.71 cfs @ 11.97 hrs, Volume=         | 0.040 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=          | 0.000 af                          |
| Secondary =   | 0.71 cfs @ 11.97 hrs, Volume=         | 0.040 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 61.43' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices   |
|--------|-----------|--------|--|
| #1     | Primary   | 66.00' | 24.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 61.00' | <b>12.0" x 10.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 60.10' S= 0.0900 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=61.00' (Free Discharge)

Secondary OutFlow Max=0.70 cfs @ 11.97 hrs HW=61.42' (Free Discharge) 2=Culvert (Inlet Controls 0.70 cfs @ 2.22 fps)

#### Summary for Pond 25P: FI 1

[57] Hint: Peaked at 57.31' (Flood elevation advised)

| Inflow Area = | 0.103 ac,100.00% Impervious, Inflow D | epth > 5.76" for 100 YR event     |
|---------------|---------------------------------------|-----------------------------------|
| Inflow =      | 0.88 cfs @ 11.97 hrs, Volume=         | 0.049 af                          |
| Outflow =     | 0.88 cfs @ 11.97 hrs, Volume=         | 0.049 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=          | 0.000 af                          |
| Secondary =   | 0.88 cfs @ 11.97 hrs, Volume=         | 0.049 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 57.31' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices  |
|--------|-----------|--------|---|
| #1     | Primary   | 60.50' | 2.0" Vert. Orifice/Grate C= 0.600                               |
| #2     | Secondary | 56.75' | 10.0" x 25.0' long Culvert CPP, square edge headwall, Ke= 0.500 |
|        |           |        | Outlet Invert= 56.50' S= 0.0100 '/' Cc= 0.900                   |
|        |           |        | n= 0.013 Concrete pipe, straight & clean                        |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.75' (Free Discharge)

Secondary OutFlow Max=0.88 cfs @ 11.97 hrs HW=57.31' (Free Discharge) -2=Culvert (Barrel Controls 0.88 cfs @ 3.18 fps)

| Edgewater 091027   | $T_{j}$ |
|--|---------|
| Prepared by {enter your company name here}                     |         |
| HydroCAD® 8.50 s/n 005804 © 2007 HydroCAD Software Solutions L | LC.     |

#### Summary for Pond 26P: Cl 2

[57] Hint: Peaked at 62.29' (Flood elevation advised)[79] Warning: Submerged Pond 20P Primary device # 1 INLET by 0.29'

| Inflow Area = | 0.190 ac,100.00% Impervious, Inflow De | epth > 5.76" for 100 YR event     |
|---------------|--|-----------------------------------|
| Inflow =      | 1.63 cfs @ 11.97 hrs, Volume=          | 0.091 af                          |
| Outflow =     | 1.63 cfs @ 11.97 hrs, Volume=          | 0.091 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 1.63 cfs @ 11.97 hrs, Volume=          | 0.091 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 62.29' @ 11.97 hrs

| Device | Routing | Invert | Outlet Devices   |
|--------|---------|--------|--|
| #1     | Primary | 61.50' | <b>12.0" x 20.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 61.30' S= 0.0100 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

Primary OutFlow Max=1.62 cfs @ 11.97 hrs HW=62.28' (Free Discharge) -1=Culvert (Barrel Controls 1.62 cfs @ 3.38 fps)

#### Summary for Pond 30P: CI 4

[57] Hint: Peaked at 60.39' (Flood elevation advised)

| Inflow Area = | 0.046 ac,100.00% Impervious, Inflow De | epth > 5.76" for 100 YR event     |
|---------------|--|-----------------------------------|
| Inflow =      | 0.39 cfs @ 11.97 hrs, Volume=          | 0.022 af                          |
| Outflow =     | 0.39 cfs @ 11.97 hrs, Volume=          | 0.022 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.39 cfs @ 11.97 hrs, Volume=          | 0.022 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 60.39' @ 11.97 hrs

| <u>Device</u> | Routing   | Invert | Outlet Devices   |
|---------------|-----------|--------|--|
| #1            | Primary   | 65.50' | 24.0" Vert. Orifice/Grate C= 0.600   |
| #2            | Secondary | 60.10' | <b>15.0" x 20.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 59.70' S= 0.0200 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.10' (Free Discharge)

Secondary OutFlow Max=0.39 cfs @ 11.97 hrs HW=60.39' (Free Discharge) 2=Culvert (Inlet Controls 0.39 cfs @ 1.83 fps)

#### Summary for Pond 32P: CI 5

[57] Hint: Peaked at 60.91' (Flood elevation advised)[79] Warning: Submerged Pond 34P Secondary device # 2 OUTLET by 0.31'

| Inflow Area = | 0.054 ac,100.00% Impervious, Inflow D | Depth > 5.76" for 100 YR event    |
|---------------|---------------------------------------|-----------------------------------|
| Inflow =      | 0.46 cfs @ 11.97 hrs, Volume=         | 0.026 af                          |
| Outflow =     | 0.46 cfs @ 11.97 hrs, Volume=         | 0.026 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=          | 0.000 af                          |
| Secondary =   | 0.46 cfs @ 11.97 hrs, Volume=         | 0.026 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 60.91' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices  |
|--------|-----------|--------|---|
| #1     | Primary   | 66.00' | 24.0" Vert. Orifice/Grate C= 0.600                              |
| #2     | Secondary | 60.60' | 15.0" x 25.0' long Culvert CPP, square edge headwall, Ke= 0.500 |
|        |           |        | Outlet Invert= 60.10' S= 0.0200 '/' Cc= 0.900                   |
|        |           |        | n= 0.015 Concrete sewer w/manholes & inlets                     |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.60' (Free Discharge) -1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.46 cfs @ 11.97 hrs HW=60.91' (Free Discharge) —2=Culvert (Inlet Controls 0.46 cfs @ 1.91 fps)

#### Summary for Pond 34P: CI 6

[57] Hint: Peaked at 61.34' (Flood elevation advised)

| Inflow Area = | 0.010 ac,100.00% Impervious, Inflow De | epth > 5.76" for 100 YR event     |
|---------------|--|-----------------------------------|
| Inflow =      | 0.09 cfs @ 11.97 hrs, Volume=          | 0.005 af                          |
| Outflow =     | 0.09 cfs @ 11.97 hrs, Volume=          | 0.005 af, Atten= 0%, Lag= 0.0 min |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume=           | 0.000 af                          |
| Secondary =   | 0.09 cfs @ 11.97 hrs, Volume=          | 0.005 af                          |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 61.34' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices  |
|--------|-----------|--------|---|
| #1     | Primary   | 65.00' | 24.0" Vert. Orifice/Grate C= 0.600  |
| #2     | Secondary | 61.20' | <b>12.0"</b> x <b>30.0'</b> long Culvert CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= $60.60'$ S= $0.0200'/$ ' Cc= $0.900$<br>n= $0.015$ Concrete sewer w/manholes & inlets |

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=61.20' (Free Discharge) -1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.09 cfs @ 11.97 hrs HW=61.34' (Free Discharge) -2=Culvert (Inlet Controls 0.09 cfs @ 1.27 fps)

#### Summary for Pond 42P: TR 3

[57] Hint: Peaked at 54.95' (Flood elevation advised)

| Inflow Area = | 0.092 ac,100.00% Impervious, Inflow Depth > 5.76" for 100 YR event |
|---------------|--|
| Inflow =      | 0.79 cfs @ 11.97 hrs, Volume= 0.044 af                             |
| Outflow =     | 0.79 cfs @ 11.97 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min    |
| Primary =     | 0.00 cfs @ 0.00 hrs, Volume= 0.000 af                              |
| Secondary =   | 0.79 cfs @ 11.97 hrs, Volume= 0.044 af                             |

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs Peak Elev= 54.95' @ 11.97 hrs

| Device | Routing   | Invert | Outlet Devices   |
|--------|-----------|--------|--|
| #1     | Primary   | 60.50' | 24.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 54.50' | <b>12.0" x 110.0' long Culvert</b> CPP, square edge headwall, Ke= 0.500<br>Outlet Invert= 53.30' S= 0.0109 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, straight & clean |

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=54.50' (Free Discharge) **1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.78 cfs @ 11.97 hrs HW=54.95' (Free Discharge) —2=Culvert (Inlet Controls 0.78 cfs @ 2.28 fps)

#### Summary for Link 43L: Outlet

| Inflow Are | a = | 0.701 ac,10 | 0.00% Imperviou | is, Inflow Depth > | 5.75"    | for 100 YR event     |
|------------|-----|-------------|-----------------|--------------------|----------|----------------------|
| Inflow     |     | 5.85 cfs @  | 11.99 hrs, Volu | me= 0.336          | af       |                      |
| Primary    | =   | 5.85 cfs @  | 11.99 hrs, Volu | me= 0.336          | af, Atte | en= 0%, Lag= 0.0 min |

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

#### Events for Subcatchment 1S: Non-storm sewer areas

| Event  | Runoff | Volume      | Depth    |
|--------|--------|-------------|----------|
|        | (cfs)  | (acre-feet) | (inches) |
| 2 yr   | 6.35   | 0.312       | 2.21     |
| 10 yr  | 9.53   | 0.481       | 3.39     |
| 100 yr | 13.88  | 0.713       | 5.03     |



#### Stormceptor Design Summary PCSWMM for Stormceptor

#### **Project Information**

| Date           | 10/27/2009 |
|----------------|------------|
| Project Name   | Edgewater  |
| Project Number | 3826       |
| Location       | Madison WI |

#### **Designer Information**

| Company  | BT Squared   |
|----------|--------------|
| Contact  | Besty Powers |
| 00111401 |              |

#### Notes

| Private | Drive |
|---------|-------|
|---------|-------|

#### **Drainage Area**

| Total Area (ac)    | 0.55 |
|--------------------|------|
| Imperviousness (%) | 100  |

The Stormceptor System model STC 900 achieves the water quality objective removing 86% TSS for a NJDEP (clay, silt, sand) particle size distribution.

#### **Stormceptor Sizing Summary**

| Ra | int | fall |  |
|----|-----|------|--|
|----|-----|------|--|

| Name             | MADISON DANE COUNTY AP |
|------------------|------------------------|
| State            | WI                     |
| ID               | 4961                   |
| Years of Records | 1948 to 2005           |
| Latitude         | 43°8'26"N              |
| Longitude        | 89°20'43''W            |

#### Water Quality Objective

| TSS Removal (%) | 80 |
|-----------------|----|
|                 |    |

#### **Upstream Storage**

| Storage<br>(ac-ft) | Discharge |
|--------------------|-----------|
| (ac-ft)            | (cfs)     |
| 0                  | 0         |
|                    |           |
|                    |           |
|                    |           |
|                    |           |

| Stormceptor Model | TSS Removal |
|-------------------|-------------|
|                   | %           |
| STC 450i          | 79          |
| STC 900           | 86          |
| STC 1200          | 86          |
| STC 1800          | 86          |
| STC 2400          | 89          |
| STC 3600          | 90          |
| STC 4800          | 92          |
| STC 6000          | 93          |
| STC 7200          | 94          |
| STC 11000         | 96          |
| STC 13000         | 96          |
| STC 16000         | 97          |





#### **Particle Size Distribution**

Removing silt particles from runoff ensures that the majority of the pollutants, such as hydrocarbons and heavy metals that adhere to fine particles, are not discharged into our natural water courses. The table below lists the particle size distribution used to define the annual TSS removal.

| NJDEP (clay, silt, sand) |              |                     |                      |               |              |                     |                      |
|--------------------------|--------------|---------------------|----------------------|---------------|--------------|---------------------|----------------------|
| Particle Size            | Distribution | Specific<br>Gravity | Settling<br>Velocity | Particle Size | Distribution | Specific<br>Gravity | Settling<br>Velocity |
| μm                       | %            | -                   | ft/s                 | μm            | %            | -                   | ft/s                 |
| 1                        | 5            | 2.65                | 0.0012               |               |              |                     |                      |
| 4                        | 15           | 2.65                | 0.0012               |               |              |                     |                      |
| 29                       | 25           | 2.65                | 0.0025               |               |              |                     |                      |
| 75                       | 15           | 2.65                | 0.0133               |               |              |                     |                      |
| 175                      | 30           | 2.65                | 0.0619               |               |              |                     |                      |
| 375                      | 5            | 2.65                | 0.1953               |               |              |                     |                      |
| 750                      | 5            | 2.65                | 0.4266               |               |              |                     |                      |
|                          |              |                     |                      |               |              |                     |                      |
|                          |              |                     |                      |               |              |                     |                      |

#### **Stormceptor Design Notes**

- Stormceptor performance estimates are based on simulations using PCSWMM for Stormceptor.
- Design estimates listed are only representative of specific project requirements based on total suspended solids (TSS) removal.
- Only the STC 450i is adaptable to function with a catch basin inlet and/or inline pipes.
- Only the Stormceptor models STC 450i to STC 7200 may accommodate multiple inlet pipes.
- Inlet and outlet invert elevation differences are as follows:
  - Inlet and Outlet Pipe Invert Elevations Differences

| Inlet Pipe Configuration | STC 450i | STC 900 to STC<br>7200 | STC 11000 to<br>STC 16000 |
|--------------------------|----------|------------------------|---------------------------|
| Single inlet pipe        | 3 in.    | 1 in.                  | 3 in.                     |
| Multiple inlet pipes     | 3 in.    | 3 in.                  | Only one inlet<br>pipe.   |

- Design estimates are based on stable site conditions only, after construction is completed.
- Design estimates assume that the storm drain is not submerged during zero flows. For submerged applications, please contact your local Stormceptor representative.
- Design estimates may be modified for specific spills controls. Please contact your local Stormceptor representative for further assistance.
- For pricing inquiries or assistance, please contact Rinker Materials 1 (800) 909-7763 www.rinkerstormceptor.com





#### Stormceptor Design Summary PCSWMM for Stormceptor

#### **Project Information**

| Date           | 10/27/2009 |
|----------------|------------|
| Project Name   | Edgewater  |
| Project Number | 3826       |
| Location       | Madison WI |

#### **Designer Information**

| •       |              |
|---------|--------------|
| Company | BT Squared   |
| Contact | Besty Powers |
|         |              |

#### Notes

| Auto Court and Load Dock Only |  |
|-------------------------------|--|
|-------------------------------|--|

#### **Drainage Area**

| Total Area (ac)    | 0.3 |
|--------------------|-----|
| Imperviousness (%) | 100 |

The Stormceptor System model STC 450i achieves the water quality objective removing 84% TSS for a NJDEP (clay, silt, sand) particle size distribution.

#### **Stormceptor Sizing Summary**

| Rainfall |     |
|----------|-----|
| Name     | MAD |
| -        |     |

| Name                 | MADISON DANE COUNTY AP |
|----------------------|------------------------|
| State                | WI                     |
| ID                   | 4961                   |
| <br>Years of Records | 1948 to 2005           |
| Latitude             | 43°8'26"N              |
| Longitude            | 89°20'43"W             |

#### Water Quality Objective

| TSS Removal (%) | 80 |  |
|-----------------|----|--|
|                 |    |  |

#### **Upstream Storage**

| 1 5                |           |
|--------------------|-----------|
| Storage<br>(ac-ft) | Discharge |
| (ac-ft)            | (cfs)     |
| 0                  | 0         |
|                    |           |
|                    |           |
|                    |           |
|                    |           |

| Stormceptor Model | TSS Removal<br>% |
|-------------------|------------------|
| STC 450i          | 84               |
| STC 900           | 90               |
| STC 1200          | 90               |
| STC 1800          | 91               |
| STC 2400          | 93               |
| STC 3600          | 94               |
| STC 4800          | 95               |
| STC 6000          | 95               |
| STC 7200          | 96               |
| STC 11000         | 97               |
| STC 13000         | 98               |
| STC 16000         | 98               |



#### **Particle Size Distribution**

Removing silt particles from runoff ensures that the majority of the pollutants, such as hydrocarbons and heavy metals that adhere to fine particles, are not discharged into our natural water courses. The table below lists the particle size distribution used to define the annual TSS removal.

|               | NJDEP (clay, silt, sand) |                     |                      |  |               |              |                     |                      |  |  |  |  |  |  |
|---------------|--------------------------|---------------------|----------------------|--|---------------|--------------|---------------------|----------------------|--|--|--|--|--|--|
| Particle Size | Distribution             | Specific<br>Gravity | Settling<br>Velocity |  | Particle Size | Distribution | Specific<br>Gravity | Settling<br>Velocity |  |  |  |  |  |  |
| μm            | %                        |                     | ft/s                 |  | μm            | %            |                     | ft/s                 |  |  |  |  |  |  |
| 1             | 5                        | 2.65                | 0.0012               |  |               |              |                     |                      |  |  |  |  |  |  |
| 4             | 15                       | 2.65                | 0.0012               |  |               |              |                     |                      |  |  |  |  |  |  |
| 29            | 25                       | 2.65                | 0.0025               |  |               |              |                     |                      |  |  |  |  |  |  |
| 75            | 15                       | 2.65                | 0.0133               |  |               |              |                     | 2<br>-               |  |  |  |  |  |  |
| 175           | 30                       | 2.65                | 0.0619               |  |               |              |                     |                      |  |  |  |  |  |  |
| 375           | 5                        | 2.65                | 0.1953               |  |               |              |                     |                      |  |  |  |  |  |  |
| 750           | 5                        | 2.65                | 0.4266               |  |               |              |                     |                      |  |  |  |  |  |  |
|               |                          |                     |                      |  |               |              |                     |                      |  |  |  |  |  |  |
|               |                          |                     |                      |  |               |              |                     |                      |  |  |  |  |  |  |

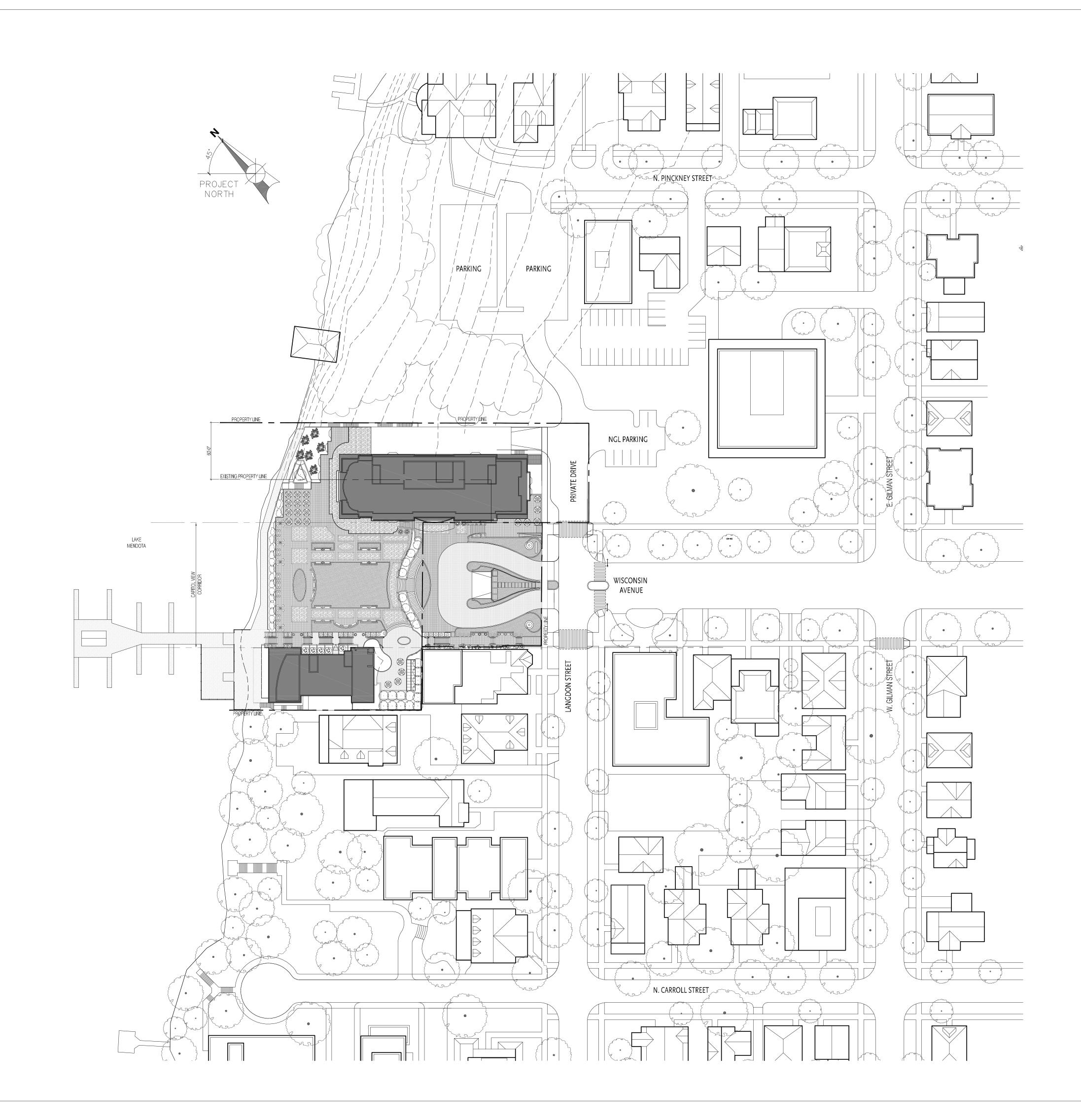
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- For pricing inquiries or assistance, please contact Rinker Materials 1 (800) 909-7763 www.rinkerstormceptor.com





# The Edgewater

# 666 Wisconsin Avenue

Madison, WI 53703

## OWNER

## Landmark X, LLC

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## ARCHITECT

**Elkus I Manfredi Architects Ltd** 300 A Street Boston, Massachusetts 02210

T. 617 426 1300 F. 617 426 7502

## DEVELOPER

### Hammes Company 22 East Mifflin, Suite 800

Madison, WI 53703 T. 608.274.7447 F. 608.274.7424

CIVIL ENGINEER

**BT<sup>2</sup>, Inc.** 2830 Dairy Drive Madison, WI 53718 T. 608.224.2830 F. 608.224.2839

# **DRAWING LIST:**

# ARCHITECTURAL

| A1.00 | DOCK LEVEL PLAN |
|-------|-----------------|
|       |                 |

- A1.01 LOWER LEVEL 6 FLOOR PLAN
- A1.02 LOWER LEVEL 5 FLOOR PLAN
- A1.03 LOWER LEVEL 4 FLOOR PLAN A1.04 LOWER LEVEL 3 FLOOR PLAN
- A1.04 LOWER LEVEL 3 FLOOK PLAN A1.05 LOWER LEVEL 2 FLOOR PLAN - PLAZA
- A1.06 LOWER LEVEL 1 FLOOR PLAN AUTO COURT
- A1.07 LEVEL 1 FLOOR PLAN LANGDON STREET
- A1.08 NEW HOTEL FLOOR 2 PLAN
- EXISTING HOTEL FLOORS 2-4 PLAN A1.09 NEW HOTEL FLOORS 3-5 PLAN
- EXISTING HOTEL FLOOR 5 PLAN
- A1.10 NEW HOTEL FLOORS 6 PLAN EXISTING HOTEL ROOF PLAN
- A1.11 NEW HOTEL FLOORS 7-8 PLAN EXISTING HOTEL ROOF PLAN
- A1.12 HOTEL ROOF PLANS
- A2.01 ELEVATIONS
- A2.02 ELEVATIONS
- A2.03 ELEVATIONS & SECTIONS
- A2.04 ELEVATIONS & SECTIONS
- A3.01 PLAZA DETAILS
- A3.02 ELEVATION DETAILS
- A3.03 1940'S ELEVATION DETAILS

## CIVIL

- C1.01 SITE SURVEY
- C1.02 PROPERTY TRANSFER DIAGRAM
- C1.03 GRADING AND EROSION CONTROL PLAN
- C1.04 UTILITY PLAN

OCTOBER 28, 2009

#### THE EDGEWATER HOTEL

MADISON, WISCONSIN

10.28.09

|                     | GUEST ROOM AREA | ROOM KEYS | CIRCULATION AREA | FUNCTION | RESTAURANT/BAR | SPA / HEALTH | FITNESS CENTER/ | OFFICE   | BACK OF HOUSE/ | PARKING AREA | CARS   | TOTAL FLOOR AR |
|---------------------|-----------------|-----------|------------------|----------|----------------|--------------|-----------------|----------|----------------|--------------|--------|----------------|
| FLOOR               |                 |           |                  |          |                |              | POOL            |          | MECHANICAL     |              |        | (gross)        |
|                     |                 |           |                  |          |                |              |                 |          |                |              |        |                |
| DOCK LEVEL          |                 |           | 850 sf           |          | 920 SF         |              |                 |          |                |              |        | 1,770 S        |
| LOWER LEVEL 6       |                 |           | 325 SF           |          | 2,975 SF       |              |                 |          |                |              |        | 3,300 S        |
| LOWER LEVEL 5       |                 |           | 730 SF           |          |                |              |                 |          |                |              |        | 730 s          |
| LOWER LEVEL 4       |                 |           | 850 sf           |          |                |              |                 | 4,250 SF | 1,400 SF       |              |        | 6,500 s        |
| LOWER LEVEL 3       |                 |           | 1,150 SF         |          |                | 3,300 SF     | 5,000 SF        |          | 300 SF         |              |        | 9,750 s        |
| LOWER LEVEL 2       |                 |           | 3,750 SF         |          |                | 2,100 SF     | -               |          | 150 SF         |              |        | 6,000 s        |
| LOWER LEVEL 1       | 4,700 SF        | 6         | 1,100 SF         |          |                |              |                 |          | -              |              |        | 5,800 s        |
| LEVEL   1           | 4,700 SF        | 6         | 1,100 SF         |          |                |              |                 |          |                |              |        | 5,800 s        |
| 2                   | 4,700 SF        | 6         | 1,100 SF         |          |                |              |                 |          |                |              |        | 5,800 s        |
| 3                   | 4,700 SF        | 6         | 1,100 SF         |          |                |              |                 |          |                |              |        | 5,800 s        |
| 4                   | 4,700 SF        | 6         | 1,100 SF         |          |                |              |                 |          |                |              |        | 5,800 s        |
| , (PREVIOUSLY ROOF) |                 |           | 938 SF           | 1,952 SF |                |              |                 |          | 725 SF         |              |        | 3,615 s        |
|                     |                 |           |                  |          |                |              |                 |          |                |              |        | _              |
| TOTAL AREA          | 23,500 SF       | 30 KEYS   | 14,093 SF        | 1,952 SF | 3,895 SF       | 5,400 SF     | 5,000 SF        | 4,250 SF | 2,575 SF       | - SF         | O CARS | 60,665 s       |

NOTE: THE 1940'S BUILDING PLANS ARE BASED ON DRAWINGS BY LAURENCE MONBERG DATED JULY 1941; FIELD CONDITIONS HAVE NOT BEEN VERIFIED.

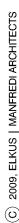
|               | GUEST ROOM AREA | ROOM KEYS | CIRCULATION AREA | FUNCTION | RESTAURANT/BAR | SPA / HEALTH | FITNESS CENTER/ | OFFICE | BACK OF HOUSE/ | PARKING AREA | CARS     | TOTAL FLOOR AR |
|---------------|-----------------|-----------|------------------|----------|----------------|--------------|-----------------|--------|----------------|--------------|----------|----------------|
| FLOOR         |                 |           |                  |          |                |              | POOL            |        | MECHANICAL     |              |          | (GROSS)        |
|               |                 |           |                  |          |                |              |                 |        |                |              |          |                |
| lower level 6 | 4,536 SF        | 9         | 1,095 SF         |          |                |              |                 |        |                | 11,502 SF    | 25       | 17,133 5       |
| LOWER LEVEL 5 | 4,536 SF        | 9         | 1,084 SF         |          |                |              |                 |        |                | 19,203 SF    | 43       | 24,823 5       |
| LOWER LEVEL 4 | 4,536 SF        | 9         | 1,121 SF         |          |                |              |                 |        |                | 19,163 SF    | 44       | 24,820 \$      |
| LOWER LEVEL 3 | 4,536 SF        | 9         | 1,320 SF         |          |                |              |                 |        | 1,955 SF       | 17,294 SF    | 41       | 25,105         |
| TOTAL AREA    | 18,144 SF       | 36 KEYS   | 4,620 SF         | - SF     | - SF           | - SF         | - SF            | - SF   | 1,955 SF       | 67,162 SF    | 153 CARS | 91,881         |

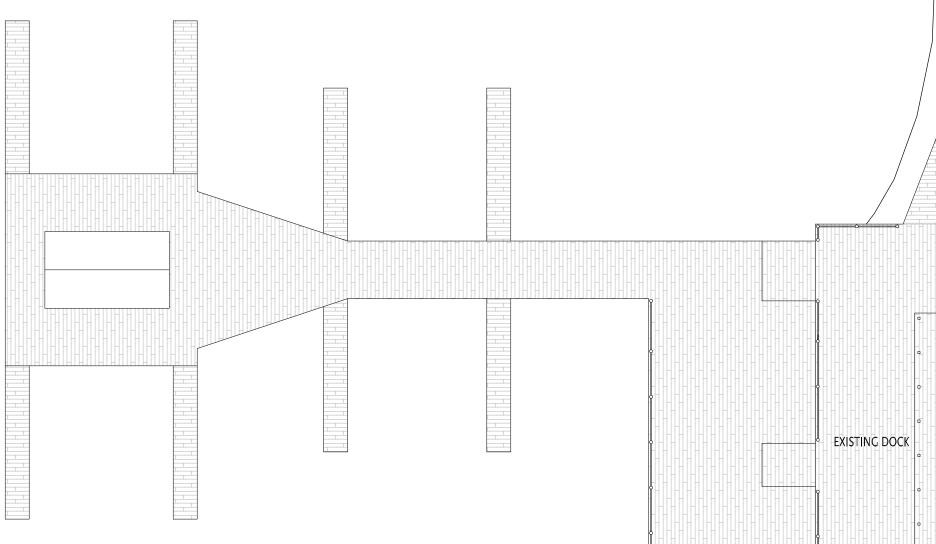
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|                        | GUEST ROOM AREA | ROOM KEYS | CIRCULATION AREA | FUNCTION               | RESTAURANT/BAR/CAFÉ  | SPA / HEALTH | FITNESS CENTER/ | (HOTEL) OFFICE | BACK OF HOUSE/ | PARKING AREA | CARS    | TOTAL FLOOR AREA |
|------------------------|-----------------|-----------|------------------|------------------------|----------------------|--------------|-----------------|----------------|----------------|--------------|---------|------------------|
| FLOOR                  |                 |           |                  | INCLUDING PRE-FUNCTION | ON INCLUDING KITCHEN |              | POOL            |                | MECHANICAL     |              |         | (GROSS)          |
|                        |                 |           |                  |                        |                      |              |                 |                |                |              |         |                  |
| LOWER LEVEL 6          | 1,900 SF        | 4         | 2,450 SF         |                        |                      |              |                 |                | 3,150 SF       |              |         | 7,500 SF         |
| LOWER LEVEL 5          | 1,900 SF        | 4         | 2,450 SF         |                        |                      |              |                 |                | 3,150 SF       |              |         | 7,500 SF         |
| LOWER LEVEL 4          | 1,900 SF        | 4         | 2,450 SF         |                        |                      |              |                 |                | 3,150 SF       |              |         | 7,500 SF         |
| LOWER LEVEL 3          | 1,900 SF        | 4         | 2,450 SF         |                        |                      |              |                 |                | 3,150 SF       | 25,290 SF    | 68      | 32,790 SF        |
| Plaza: lower level 2   |                 |           | 7,330 SF         | 5,600 SF               |                      |              |                 |                | 7,810 sf       | 17,640 sf    | 5       | 38,380 sf        |
| LOWER LEVEL 1          |                 |           | 4,900 SF         |                        |                      |              |                 | 875 sf         | 5,160 SF       | 5,000 SF     |         | 15,935 SF        |
| angdon Street: level 1 |                 |           | 3,270 SF         | 1,990 SF               | 7,850 sf             |              |                 |                | 1,240 SF       |              |         | 14,350 SF        |
| 2                      | 10,150 SF       | 17        | 2,360 SF         |                        |                      |              |                 |                | 800 sf         |              |         | 13,310 SF        |
| 3                      | 10,460 SF       | 19        | 2,015 SF         |                        |                      |              |                 |                | 825 SF         |              |         | 13,300 SF        |
| 4                      | 10,460 SF       | 19        | 2,015 SF         |                        |                      |              |                 |                | 825 SF         |              |         | 13,300 SF        |
| 5                      | 10,460 SF       | 19        | 2,015 SF         |                        |                      |              |                 |                | 825 SF         |              |         | 13,300 SF        |
| 6                      | 10,190 SF       | 20        | 2,015 SF         |                        |                      |              |                 |                | 825 SF         |              |         | 13,030 SF        |
| 7                      | 8,880 sf        | 7         | 1,550 SF         |                        |                      |              |                 |                | 510 SF         |              |         | 10,940 SF        |
| 8                      | 8,880 sf        | 7         | 1,550 SF         |                        |                      |              |                 |                | 510 SF         |              |         | 10,940 SF        |
| TOTAL AREA             | 77,080 SF       | 124 KEYS  | 38,820 SF        | 7,590 SF               | 7,850 SF             | - SF         | - SF            | 875 SF         | 31,930 SF      | 47,930 SF    | 73 CARS | 212,075 SF       |

| TOTAL BUILDING AREA | TOTAL BUILDING AREAS |           |                  |          |                |              |                 |          |               |              |          |                  |
|---------------------|----------------------|-----------|------------------|----------|----------------|--------------|-----------------|----------|---------------|--------------|----------|------------------|
|                     | GUEST ROOM AREA      | ROOM KEYS | CIRCULATION AREA | FUNCTION | RESTAURANT/BAR | SPA / HEALTH | FITNESS CENTER/ | OFFICE   | BACK OF HOUSE | PARKING AREA | CARS     | TOTAL FLOOR AREA |
|                     |                      |           |                  |          |                |              | POOL            |          | / месн.       |              |          | (GROSS)          |
| TOTAL AREA          | 118,724 SF           | 190 KEYS  | 57,533 SF        | 9,542 SF | 11,745 SF      | 5,400 SF     | 5,000 SF        | 5,125 SF | 36,460 sf     | 115,092 SF   | 226 CARS | 364,621 SF       |

#### PREPARED BY: ELKUS MANFREDI ARCHITECTS





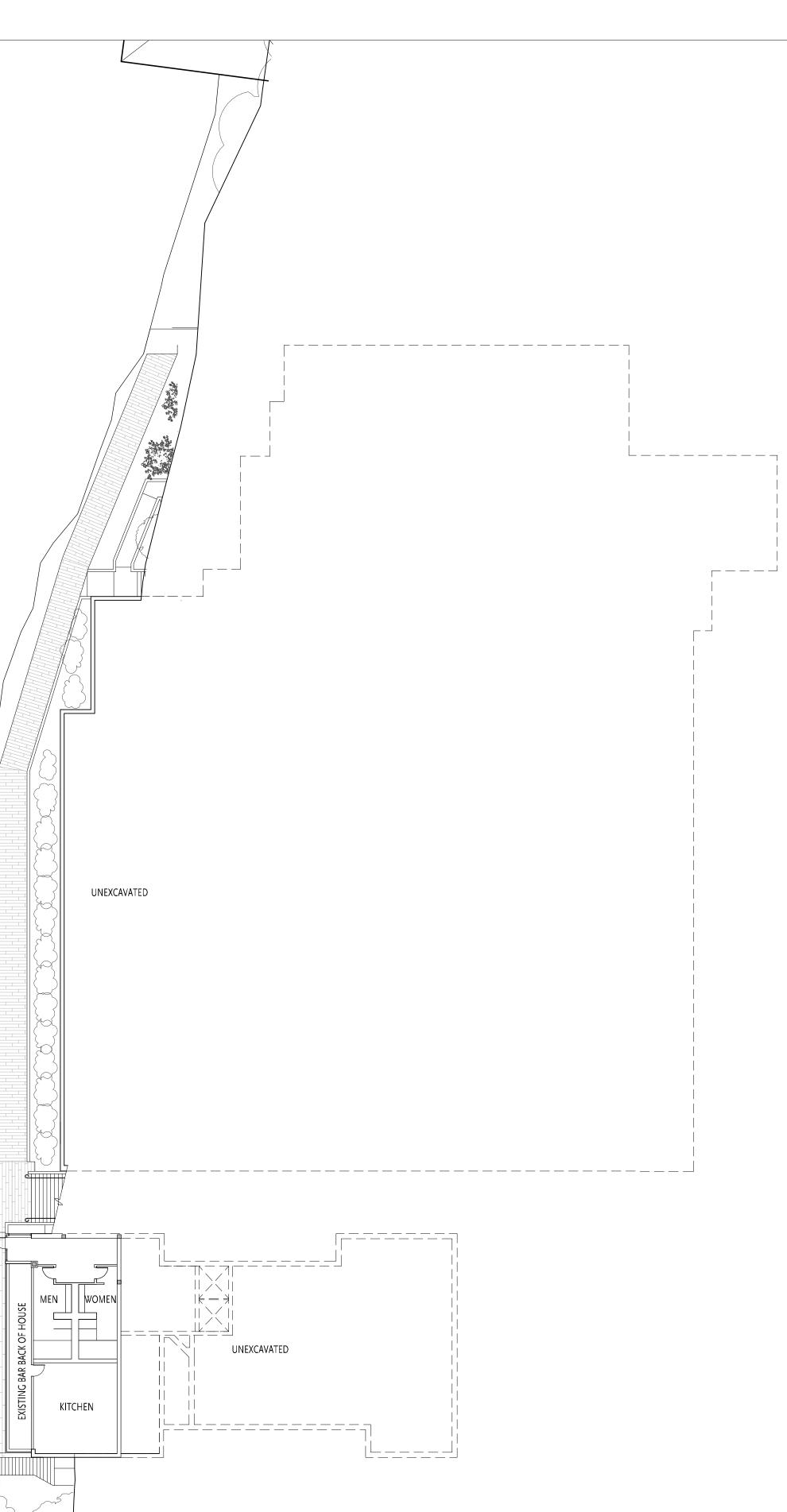






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J. J.E





[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

# The Edgewater

666 Wisconsin Avenue Madison, WI 53703

Owner: Landmark X, LLC 22 East Mifflin Street, Suite 800 Madison, WI 53703

Developer: Hammes Company 22 East Mifflin Street, Suite 800 Madison, WI 53703

Civil Engineer: BT <sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718

PROJECT NUMBER: 08105.00

DATE: October 28, 2009

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**REVISIONS**: 08/18/09  $\Lambda$ 10/28/09

Dock Level Plan

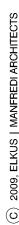
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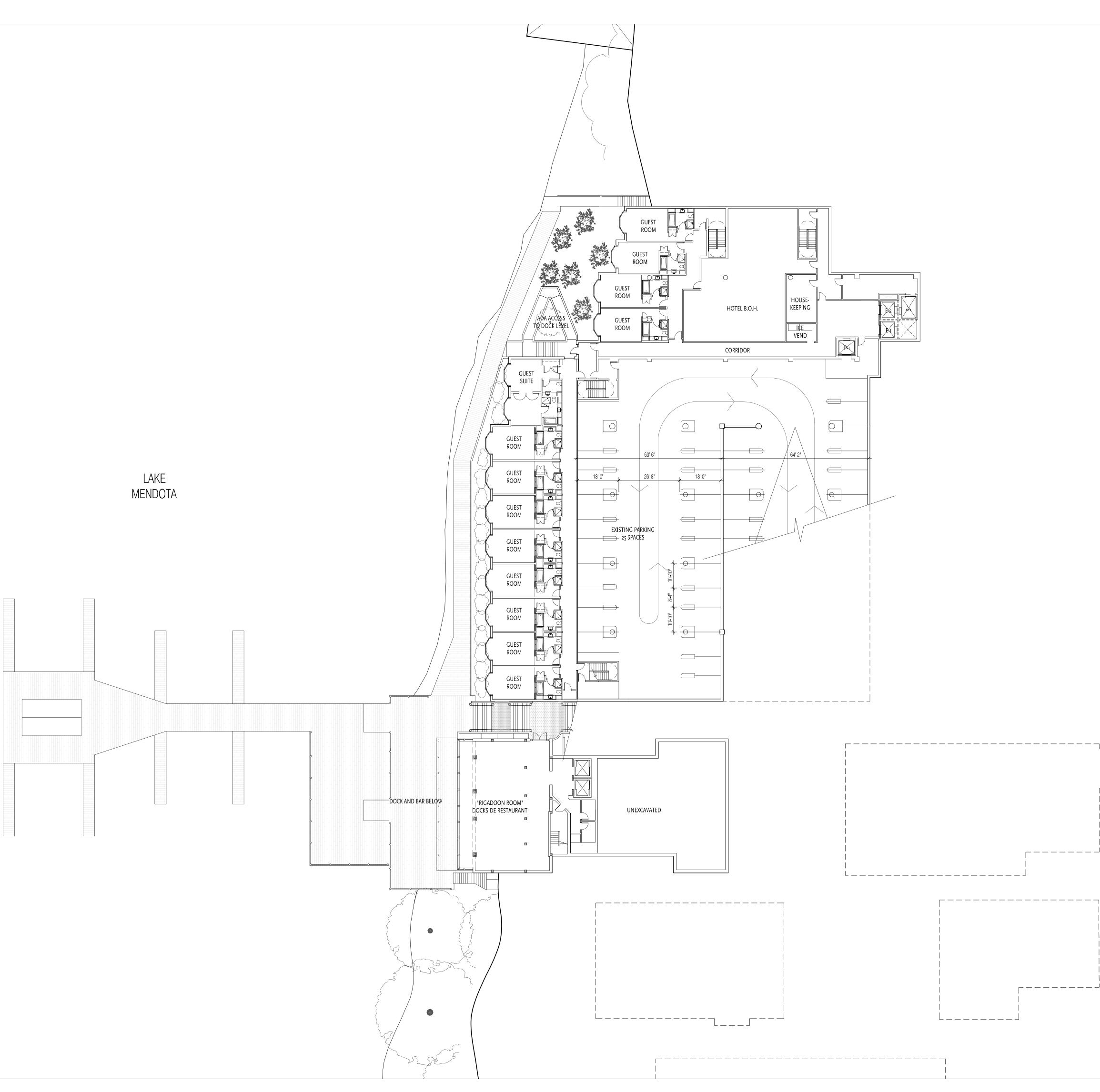
DRAWING NUMBER:

A1.00

PROJECT / NORTH

SCALE: 1"= 20'-0"





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### The Edgewater

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Civil Engineer: BT <sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718

DATE: October 28, 2009

PROJECT NUMBER: 08105.00

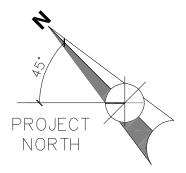
REVISIONS: 08/18/09 10/28/09

SCALE: 1"= 20'-0"

DRAWING NAME:

DRAWING NUMBER:

Lower Level 6



I.

A1.01













[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

### The Edgewater

666 Wisconsin Avenue Madison, WI 53703

Owner: Landmark X, LLC 22 East Mifflin Street, Suite 800 Madison, WI 53703

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Civil Engineer: BT <sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718

PROJECT NUMBER: 08105.00

08/18/09

10/28/09

DATE: October 28, 2009

SCALE: 1"= 20'-0"

Lower Level 5

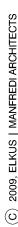
DRAWING NAME:

DRAWING NUMBER:

-----REVISIONS:

PROJECT NORTH







[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

### The Edgewater

666 Wisconsin Avenue Madison, WI 53703

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Civil Engineer: BT <sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718

PROJECT NUMBER: 08105.00

08/18/09

10/28/09

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DATE: October 28, 2009

SCALE: 1"= 20'-0"

Lower Level 4

DRAWING NAME:

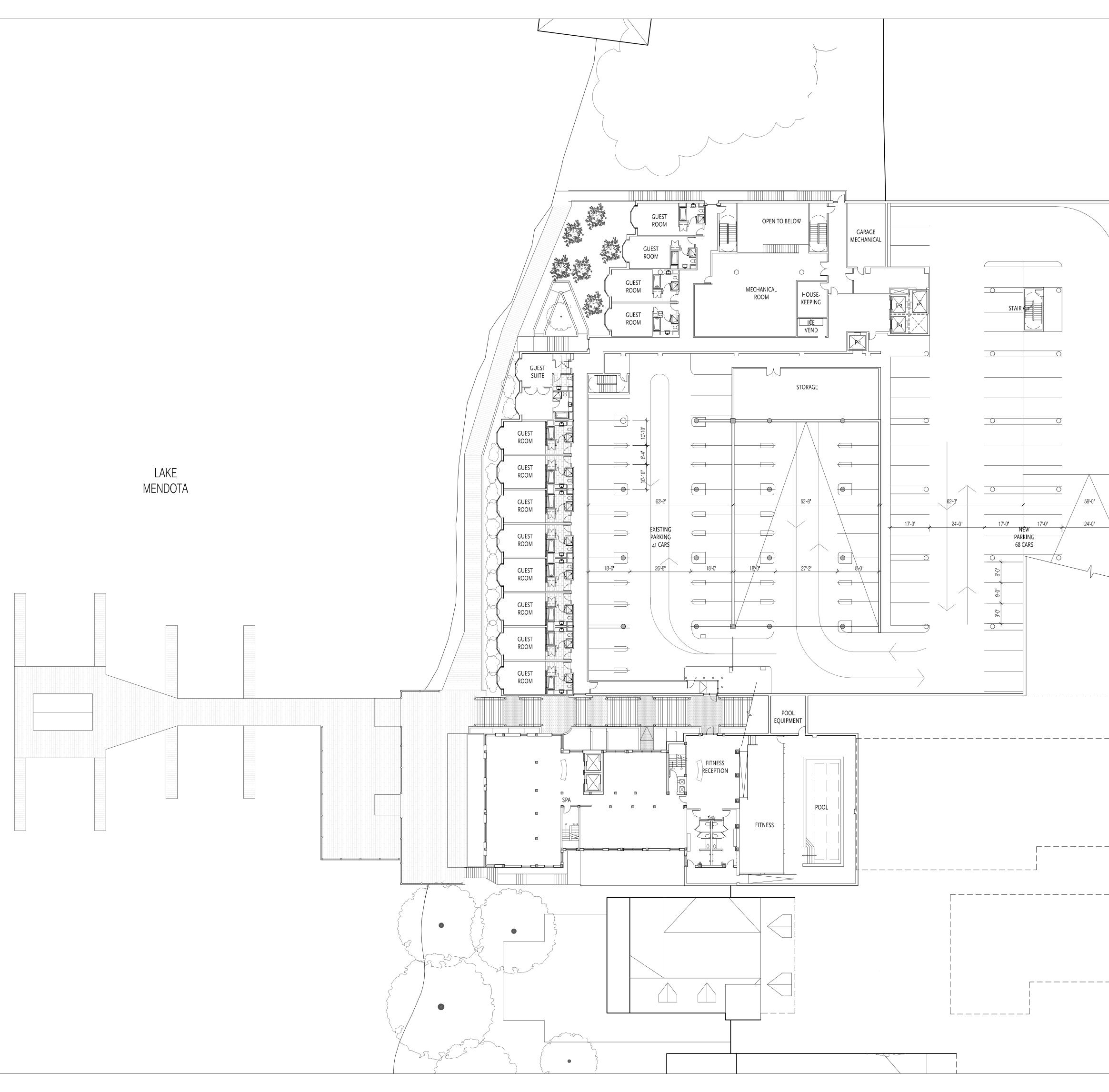
DRAWING NUMBER:

-----REVISIONS:

PROJECT NORTH

\_\_\_\_\_





ELKUS | MANFREDI ARCHITECTS

[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

### The Edgewater

666 Wisconsin Avenue Madison, WI 53703

Owner: Landmark X, LLC 22 East Mifflin Street, Suite 800 Madison, WI 53703

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Civil Engineer: **BT <sup>2</sup>, Inc.** 2830 Dairy Drive Madison, WI 53718

DATE: October 28, 2009

PROJECT NUMBER: 08105.00

 REVISIONS:

 1
 08/18/09

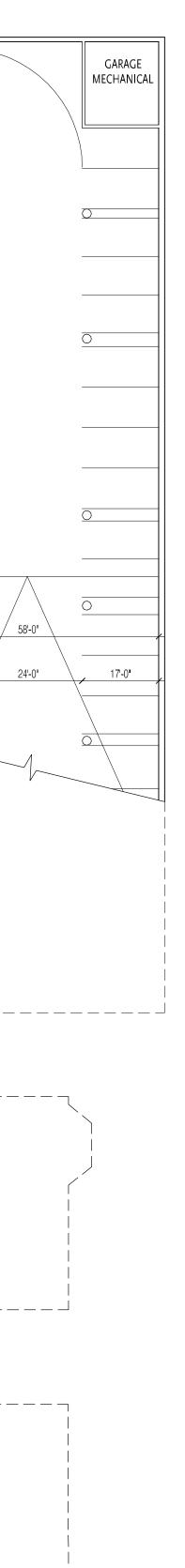
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 10/28/09

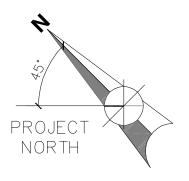
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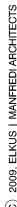
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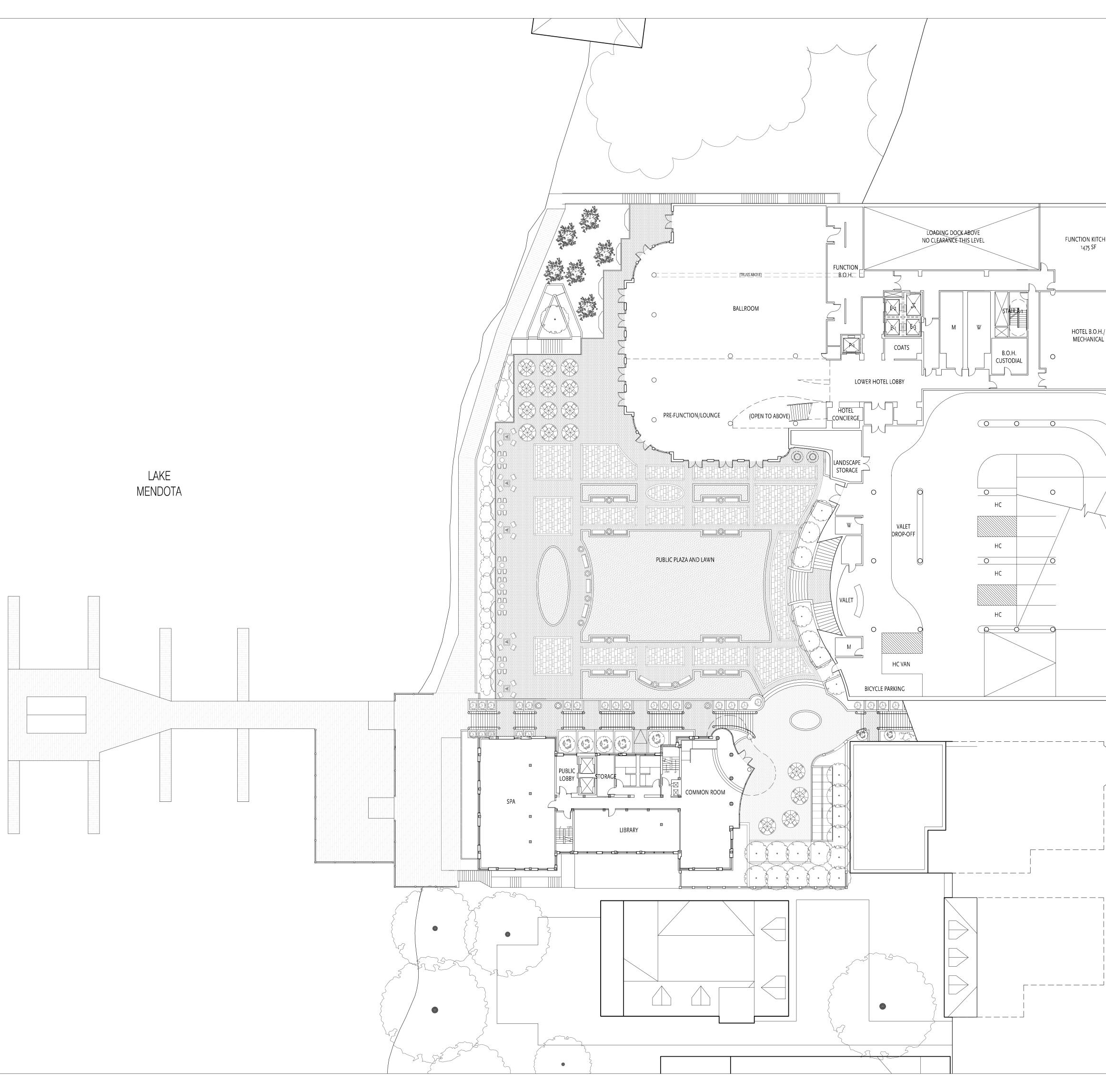
Lower Level 3 Plan











[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

### The Edgewater

666 Wisconsin Avenue Madison, WI 53703

Owner: Landmark X, LLC 22 East Mifflin Street, Suite 800 Madison, WI 53703

Developer: Hammes Company 22 East Mifflin Street, Suite 800 Madison, WI 53703

Civil Engineer: BT <sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718

PROJECT NUMBER: 08105.00

08/18/09

10/28/09

DATE: October 28, 2009

SCALE: 1"= 20'-0"

Lower Level 2

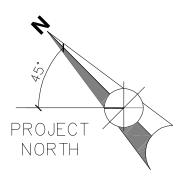
Plaza and Ballroom

DRAWING NAME:

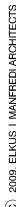
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REVISIONS:

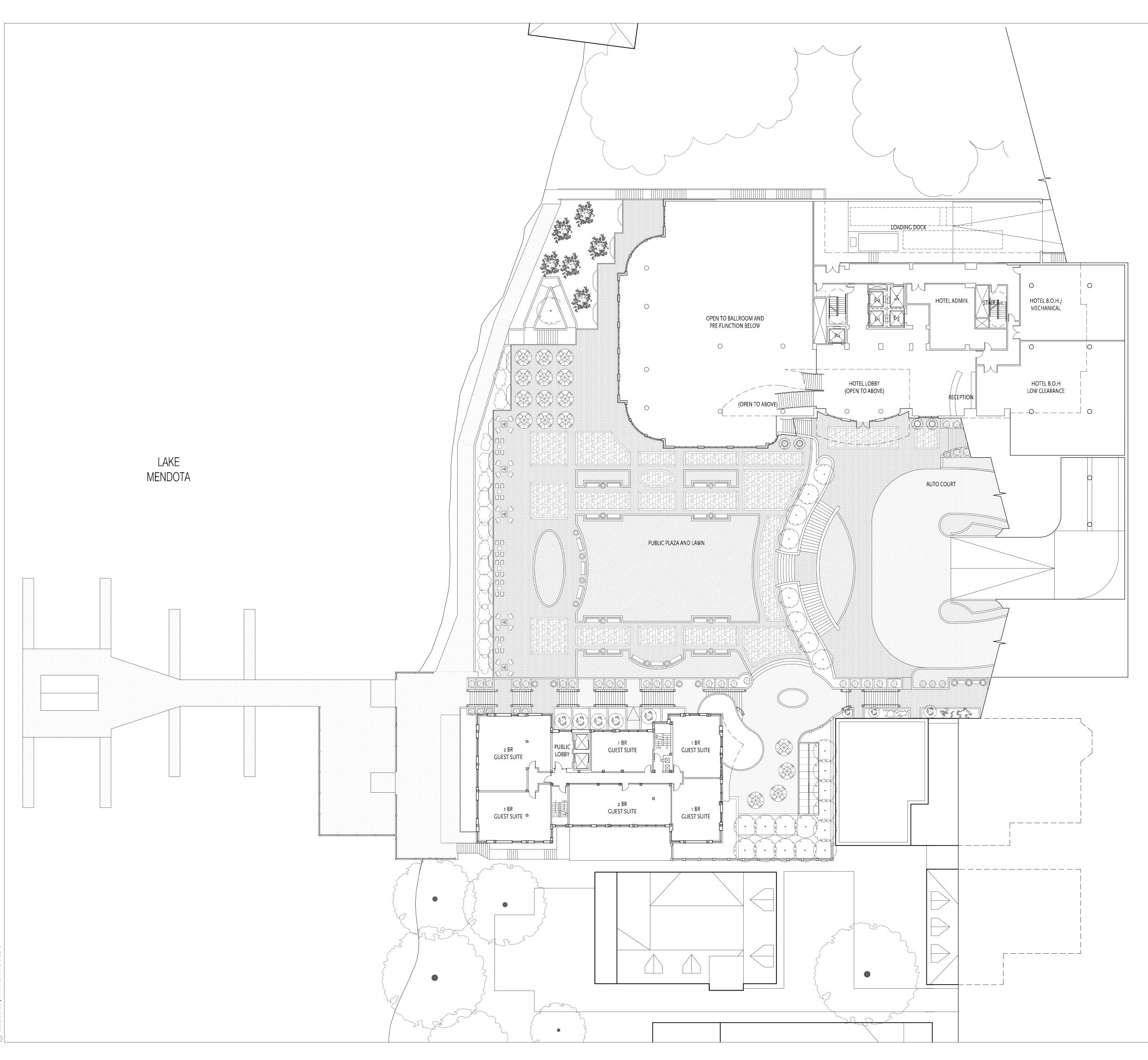
FUNCTION KITCHEN 1475 SF GARAGE MECHANICAL HOTEL B.O.H./ MECHANICAL 0 / b \











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### The Edgewater

666 Wisconsin Avenue Madison, WI 53703

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Civil Engineer: BT <sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718

REVISIONS: 08/18/09 10/28/09

PROJECT NUMBER: 08105.00

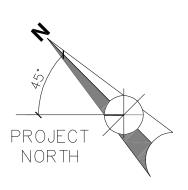
DATE: October 28, 2009

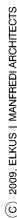
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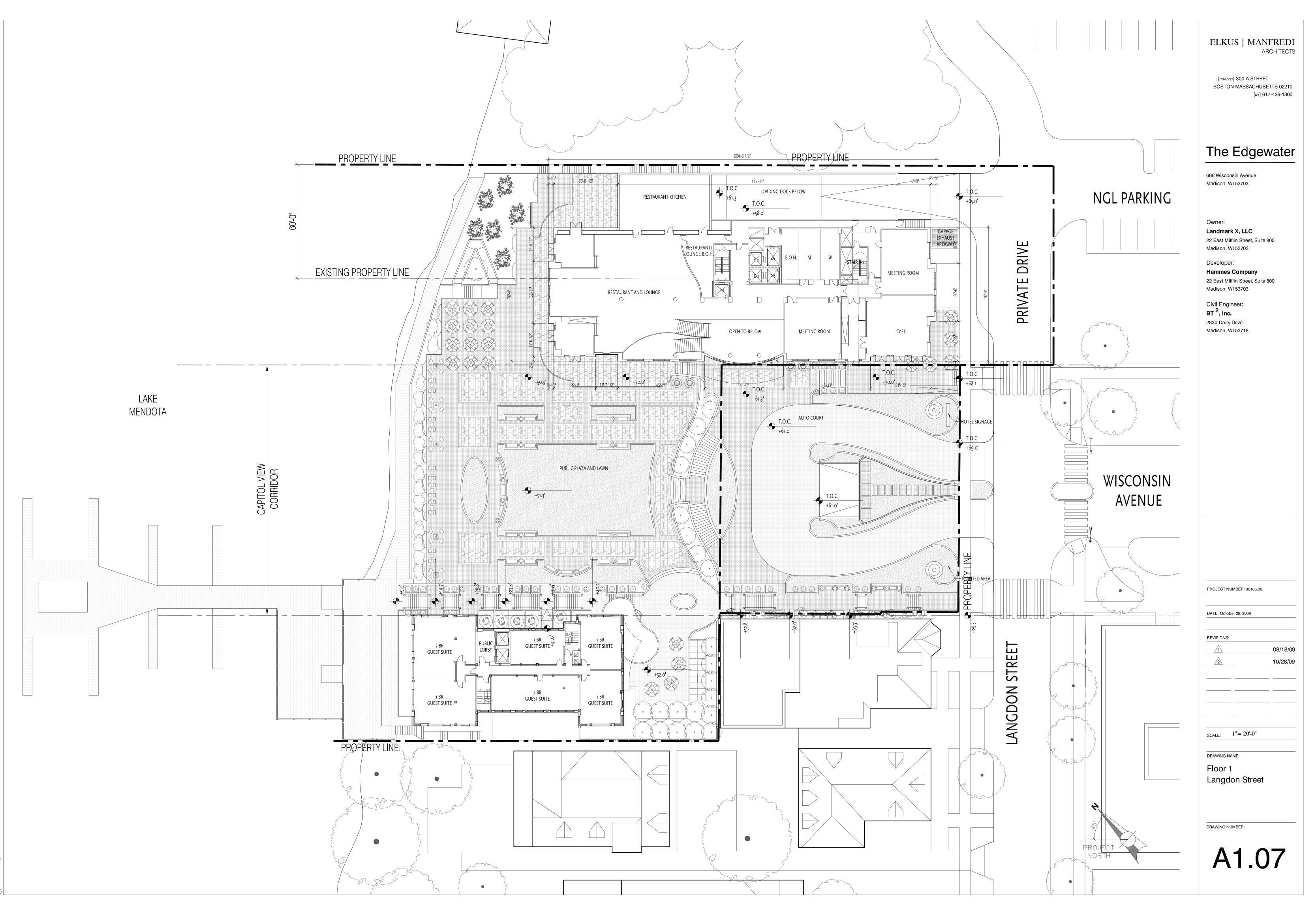
DRAWING NAME:

Lower Level 1 Auto Court

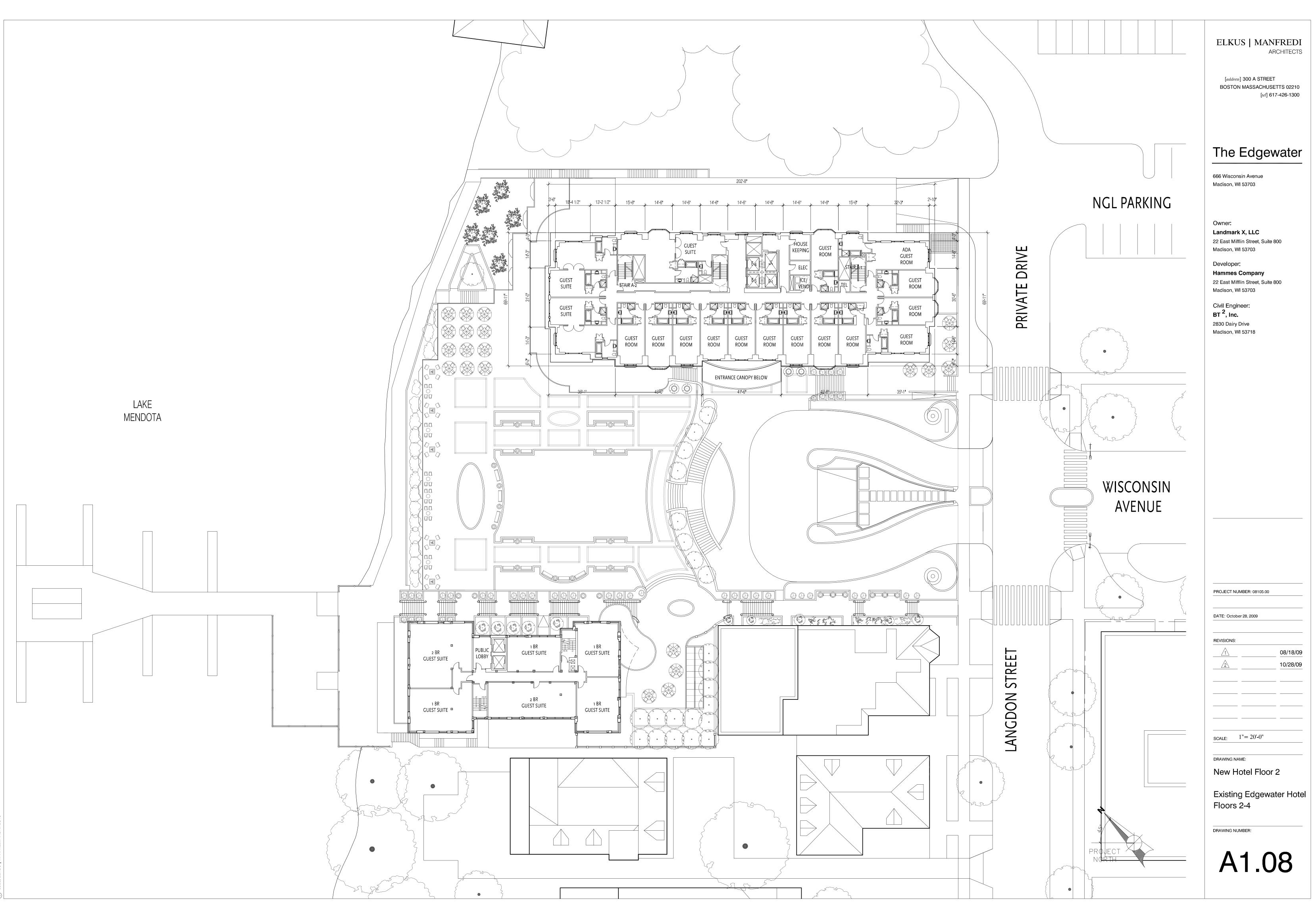


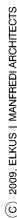


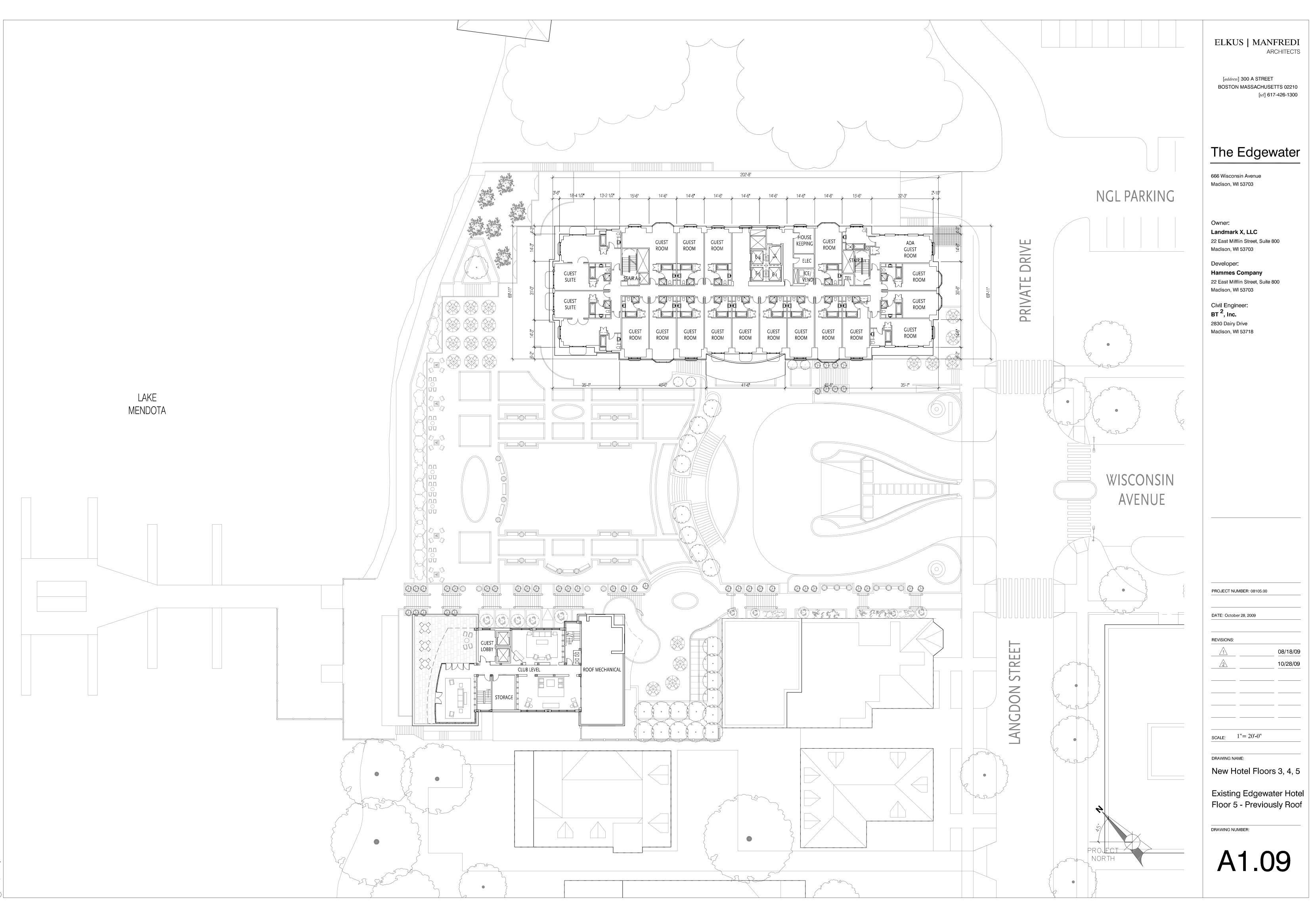


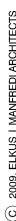


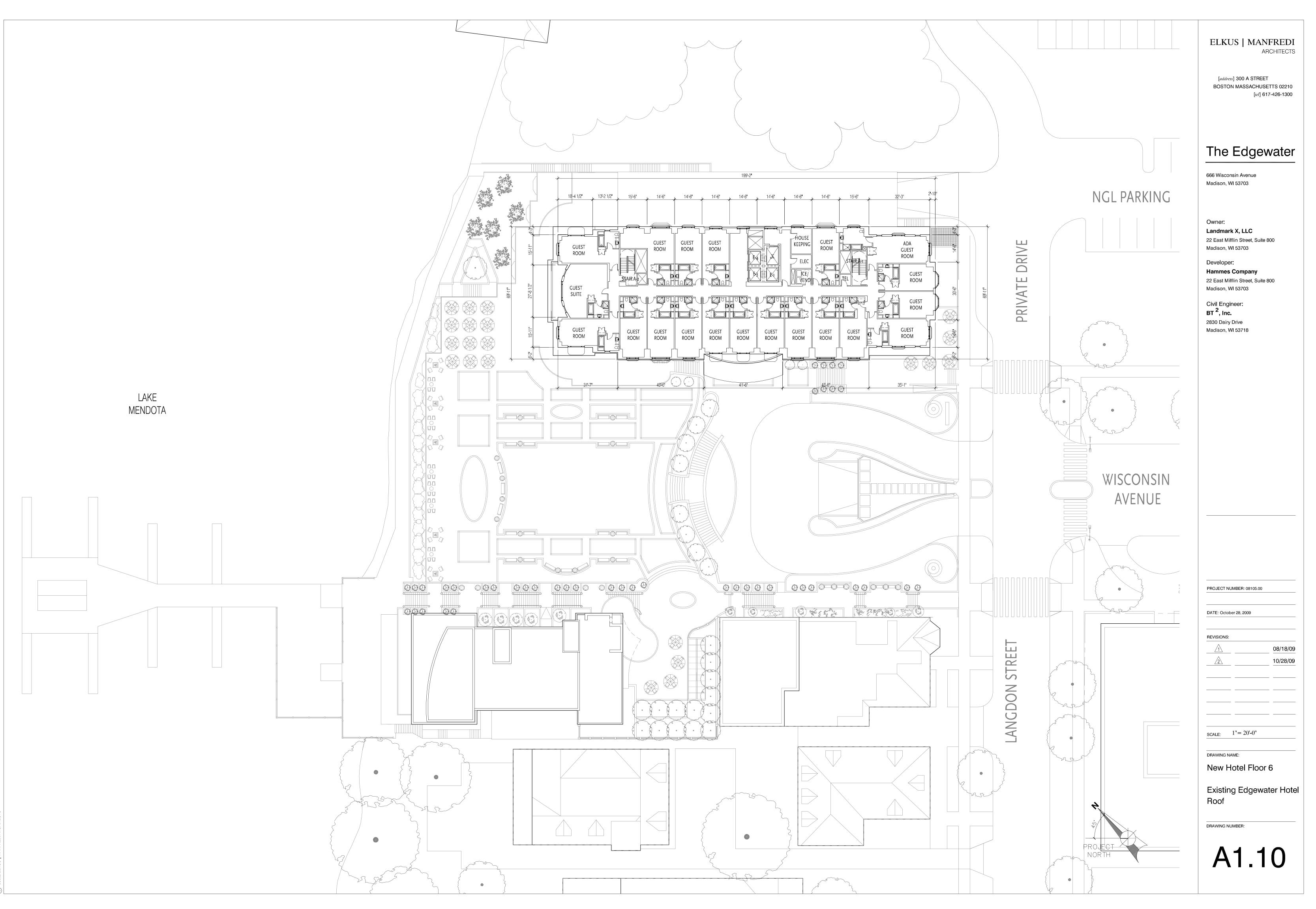
) 2009. ELKUS I MANFREDI ARCHITECT

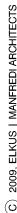


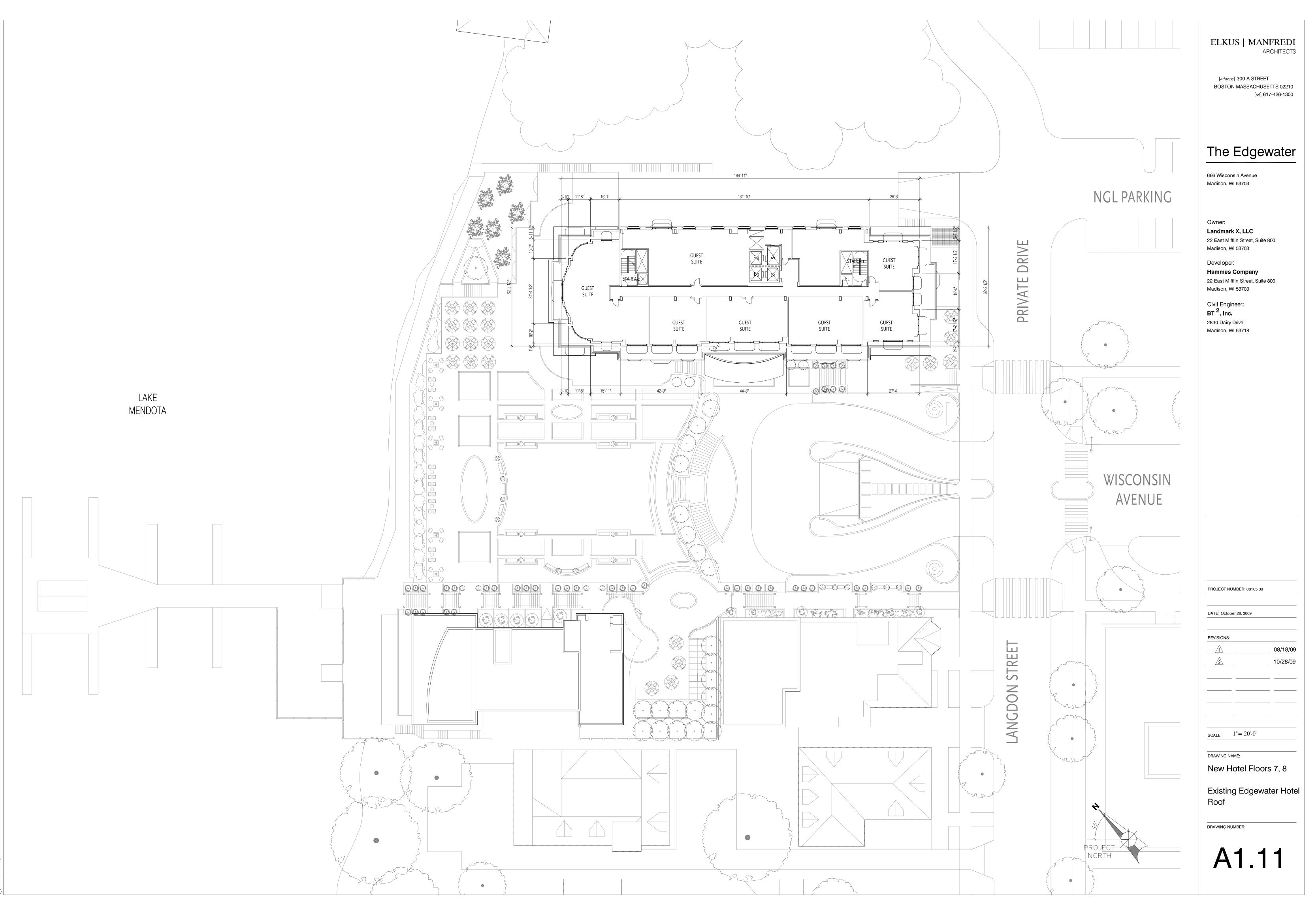


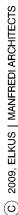


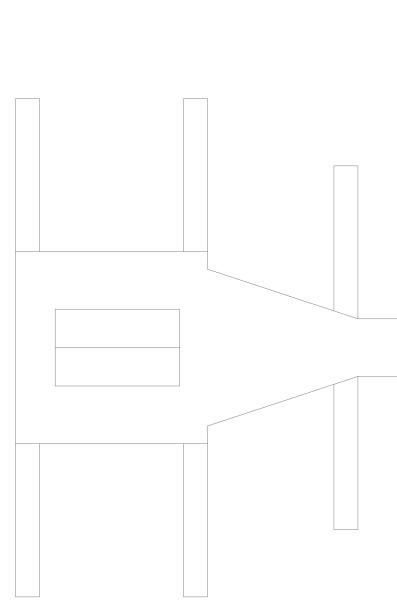


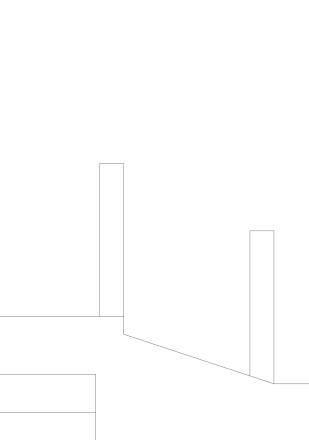


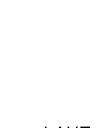




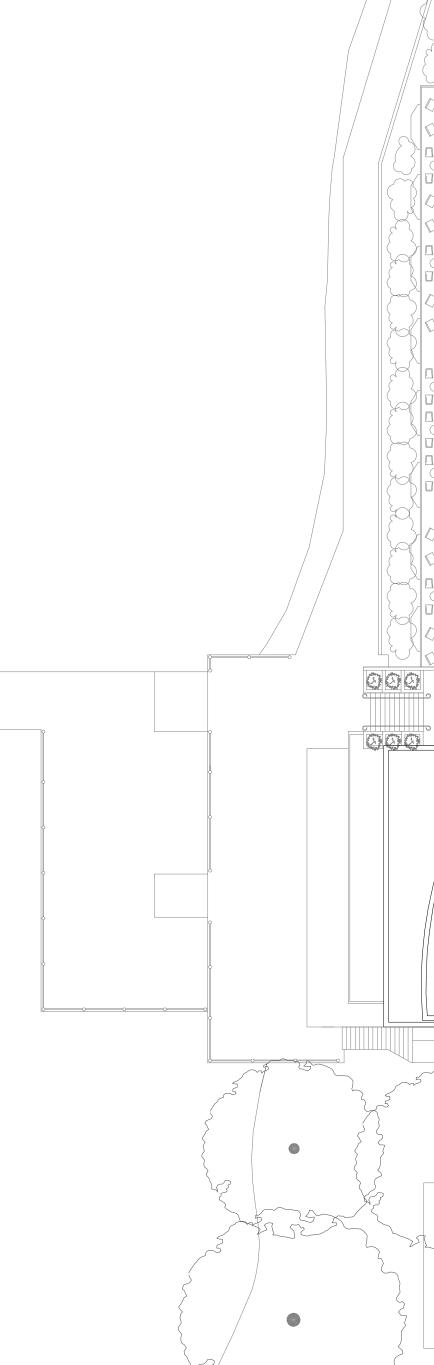


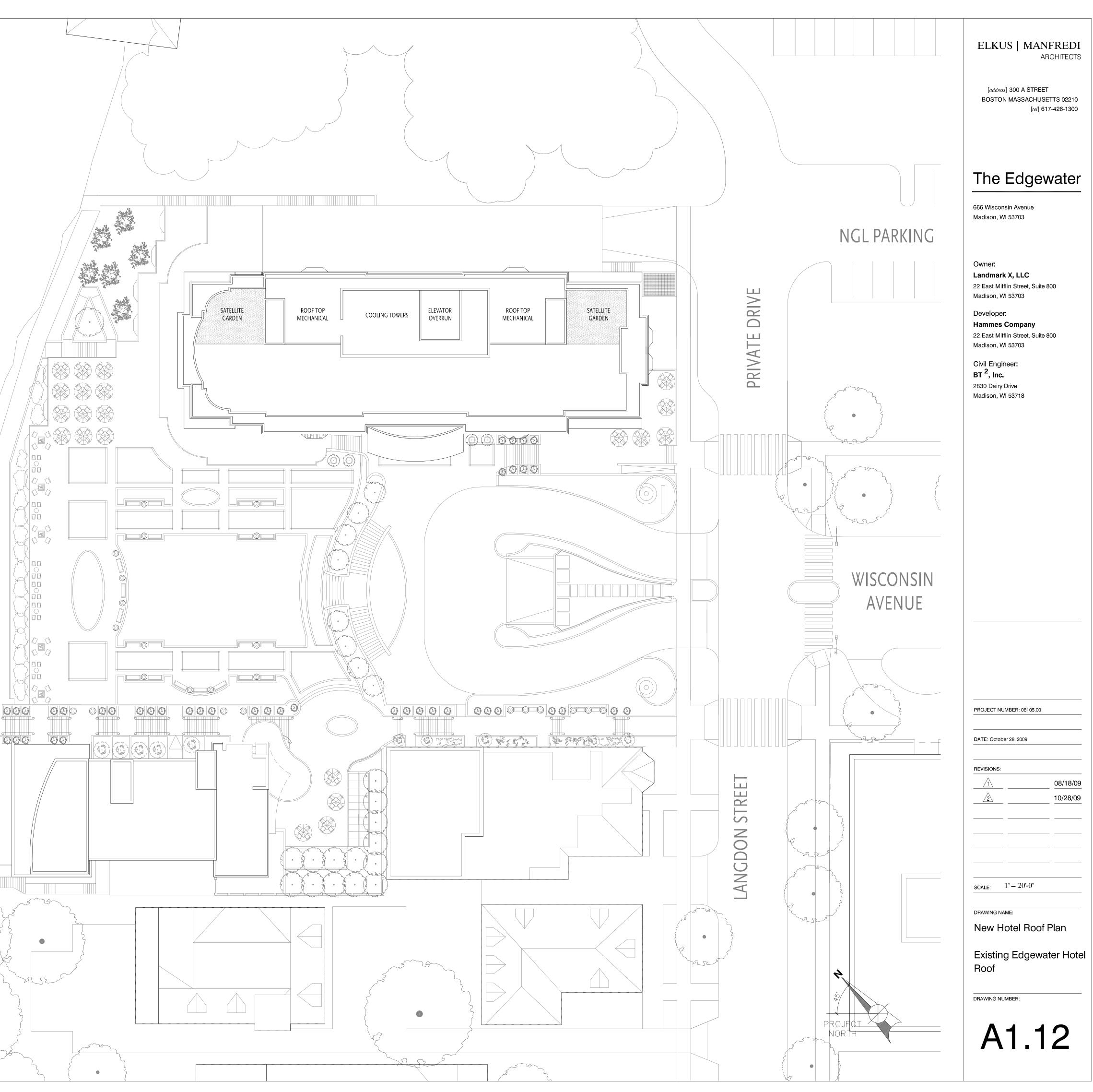


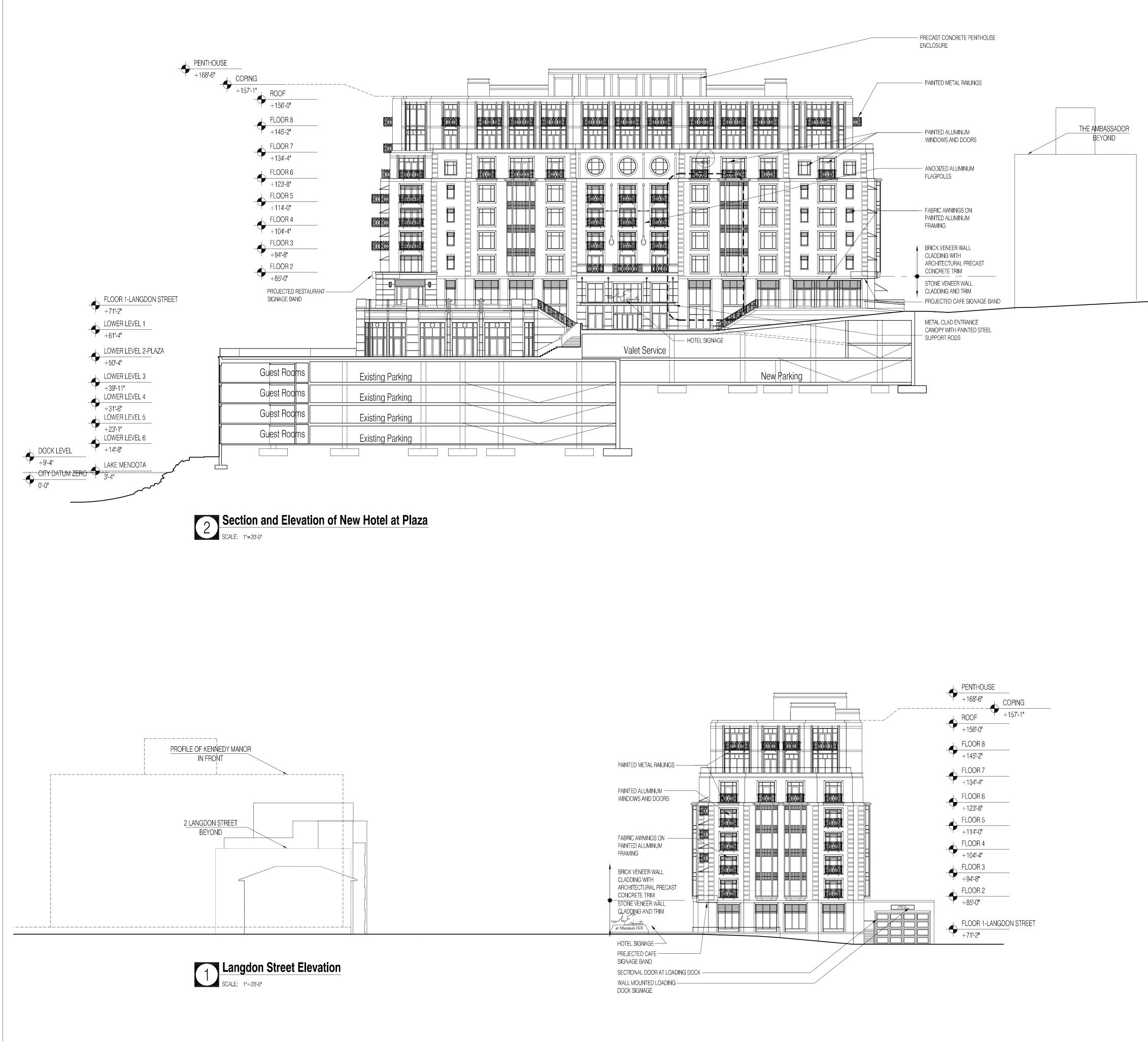














[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

# The Edgewater

666 Wisconsin Avenue Madison, WI 53703

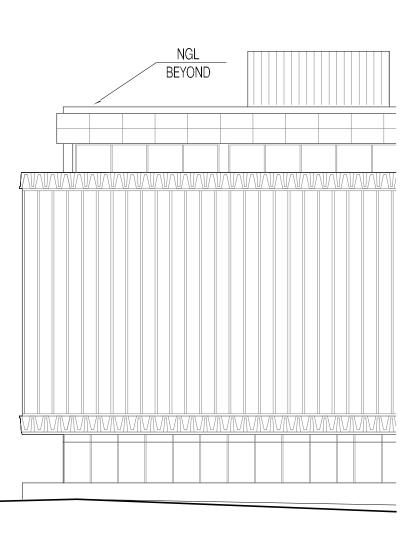
### Owner:

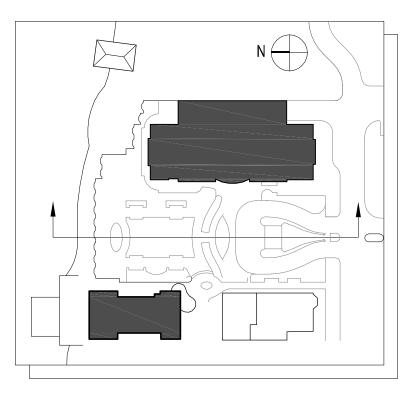
Landmark X, LLC 22 East Mifflin Street, Suite 800 Madison, WI 53703

### Developer:

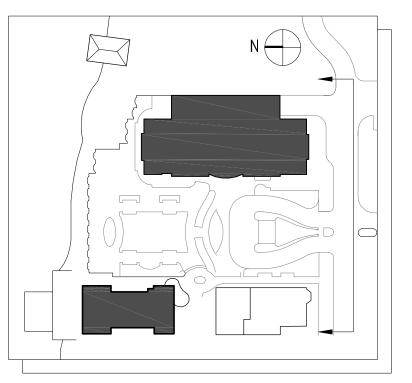
Hammes Company 22 East Mifflin Street, Suite 800 Madison, WI 53703

Civil Engineer: BT <sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718





### Plan Diagram

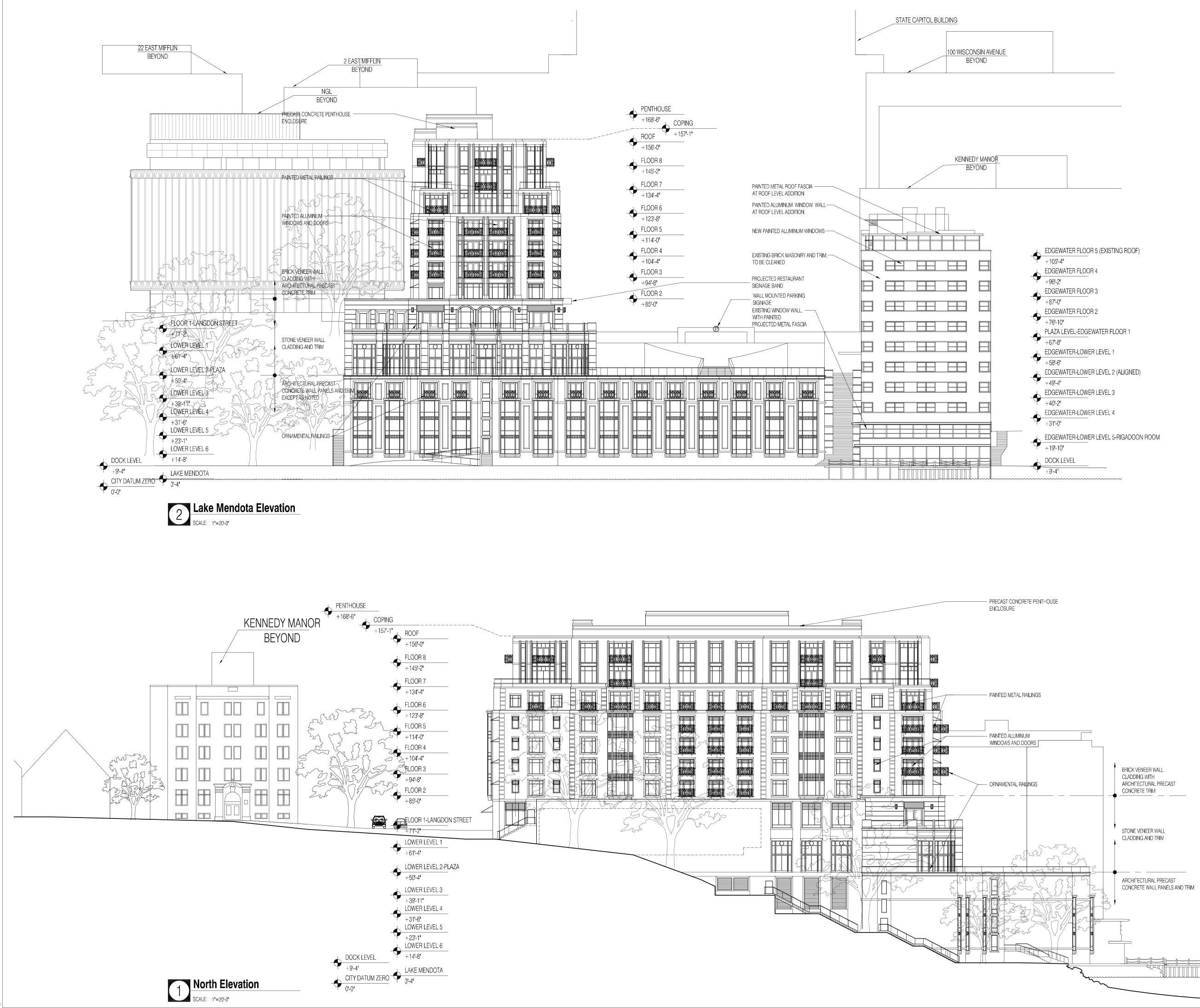


Plan Diagram

| PROJECT NUMBER: 0     | 8105.00  |
|-----------------------|----------|
|                       |          |
| DATE: October 28, 200 | )9       |
|                       |          |
| REVISIONS:            |          |
|                       |          |
| <u></u>               | 08/18/09 |
| <u></u>               | 10/28/09 |
|                       |          |
|                       |          |
|                       |          |
|                       |          |
|                       |          |
| SCALE: $1''=20$       | <br>''   |

DRAWING NAME: Elevations





[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

## The Edgewater

666 Wisconsin Avenue Madison, WI 53703

### Owner: Landmark X, LLC 22 East Mifflin Street, Suite 800 Madison, WI 53703

Developer: Hammes Company 22 East Mifflin Street, Suite 800 Madison, WI 53703

Civil Engineer: BT <sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718

PROJECT NUMBER: 08105.00

08/18/09

10/28/09

DATE: October 28, 2009

SCALE: 1"= 20'-0"

DRAWING NAME:

Elevations

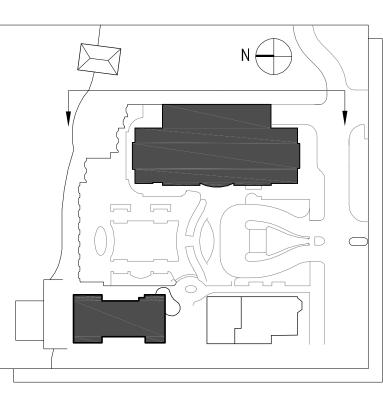
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REVISIONS:

N

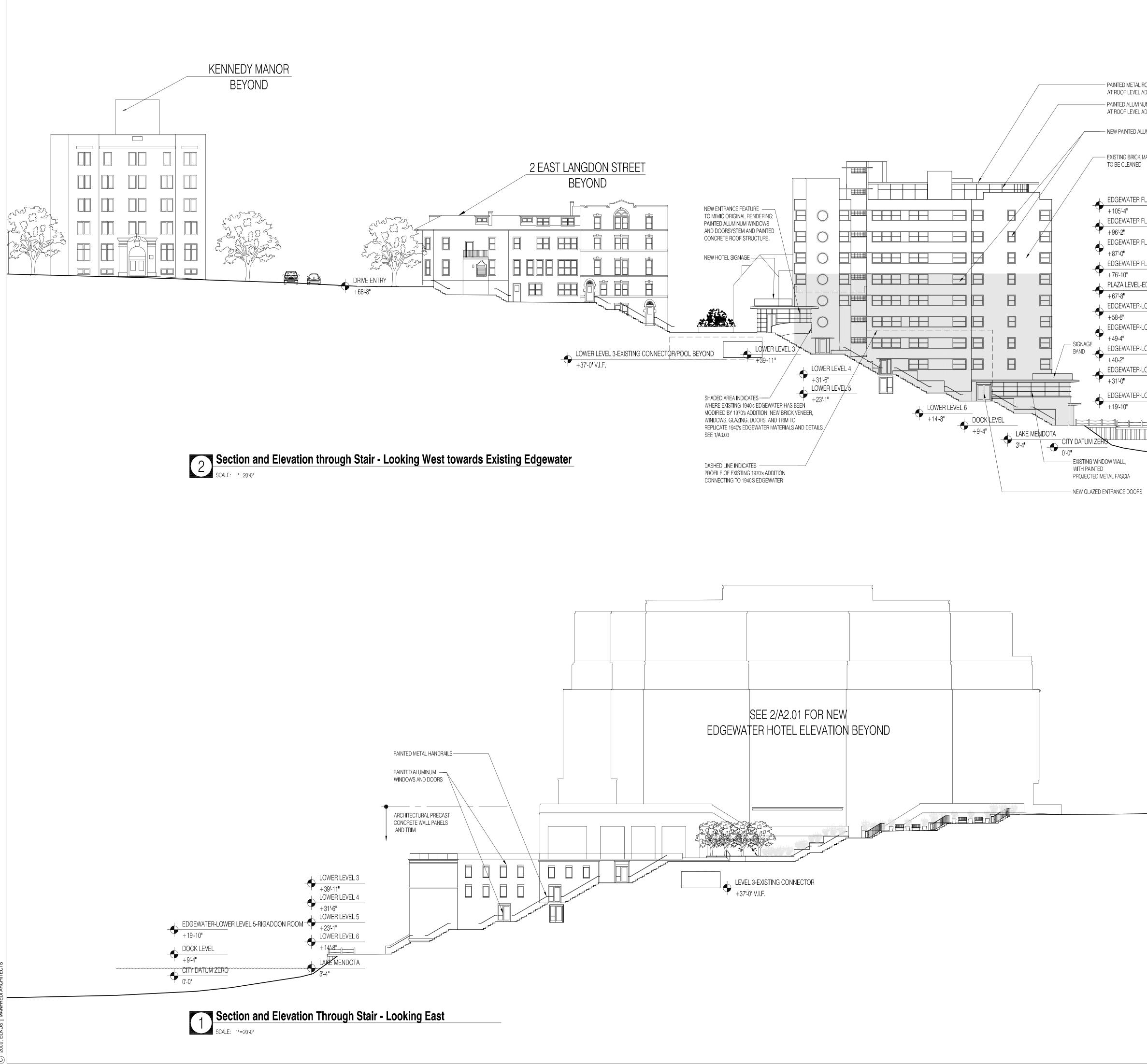
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### Plan Diagram



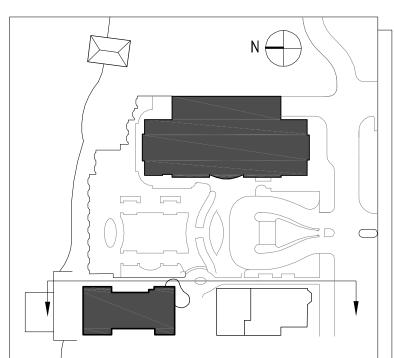
Plan Diagram

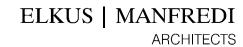




- PAINTED METAL ROOF FASCIA AT ROOF LEVEL ADDITION - PAINTED ALUMINUM WINDOW WALL AT ROOF LEVEL ADDITION

EDGEWATER FLOOR 5 (EXISTING ROOF) +105'-4" -+96'-2"
EDGEWATER FLOOR 4
+96'-2" EDGEWATER FLOOR 3 +87'-0" +76'-10" PLAZA LEVEL-EDGEWATER FLOOR 1 +67'-8" +58-6" EDGEWATER-LOWER LEVEL 1 EDGEWATER-LOWER LEVEL 2 (ALIGNED) +49-4" EDGEWATER-LOWER LEVEL 3 EDGEWATER-LOWER LEVEL 4 +31'-0" EDGEWATER-LOWER LEVEL 5-RIGADOON ROOM +19'-10"





[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

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666 Wisconsin Avenue Madison, WI 53703

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PROJECT NUMBER: 08105.00

DATE: October 28, 2009

| EVISIONS: |          |
|-----------|----------|
| 1         | 08/18/09 |
| 2         | 10/23/09 |
|           |          |



SCALE: 1"= 20'-0"

N

 $\square$ 

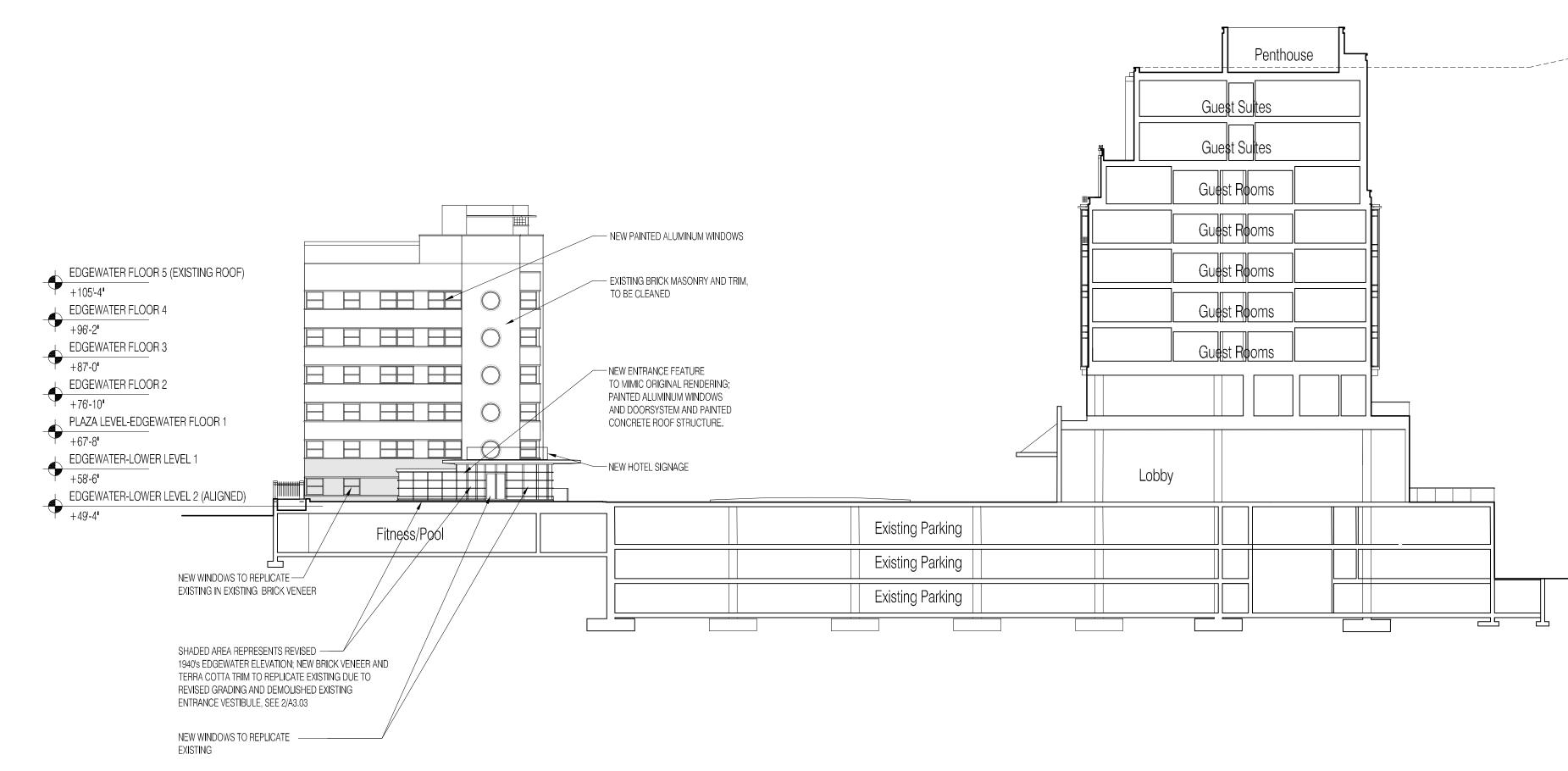
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Sections

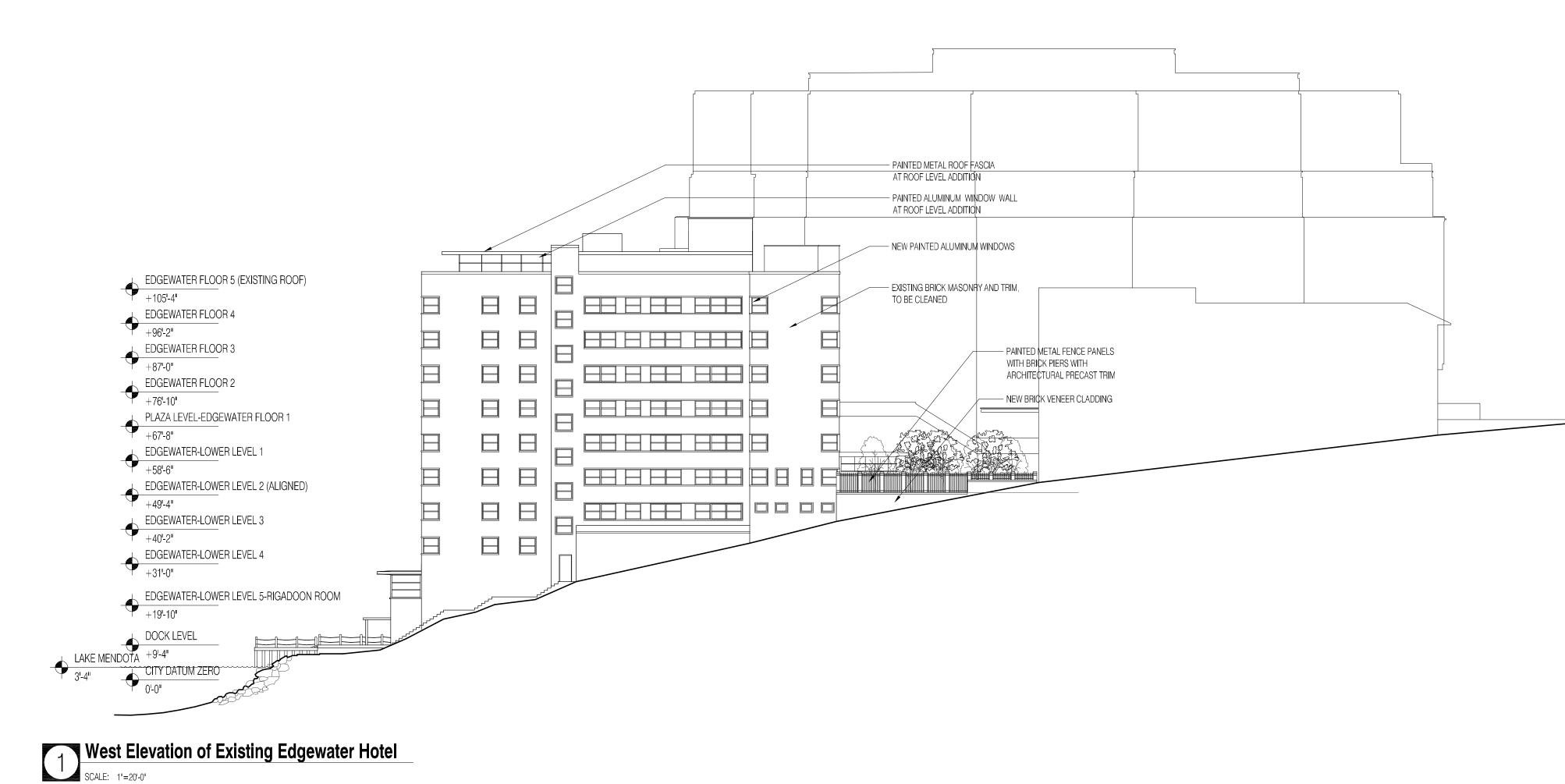
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A2.03

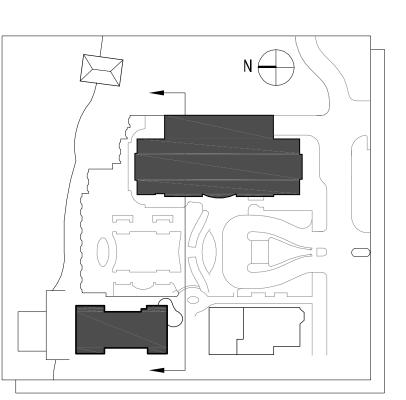
Elevations and













[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

## The Edgewater

666 Wisconsin Avenue Madison, WI 53703

Owner: Landmark X, LLC 22 East Mifflin Street, Suite 800 Madison, WI 53703

Developer: Hammes Company 22 East Mifflin Street, Suite 800 Madison, WI 53703

Civil Engineer: BT <sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718

PROJECT NUMBER: 08105.00

DATE: October 28, 2009

SCALE: 1"= 20'-0"

Elevations and

DRAWING NAME:

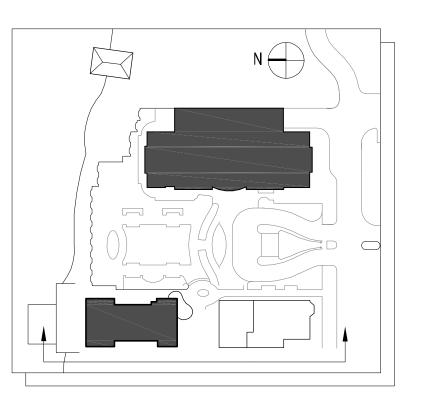
Sections

DRAWING NUMBER:

08/18/09

10/23/09

REVISIONS:











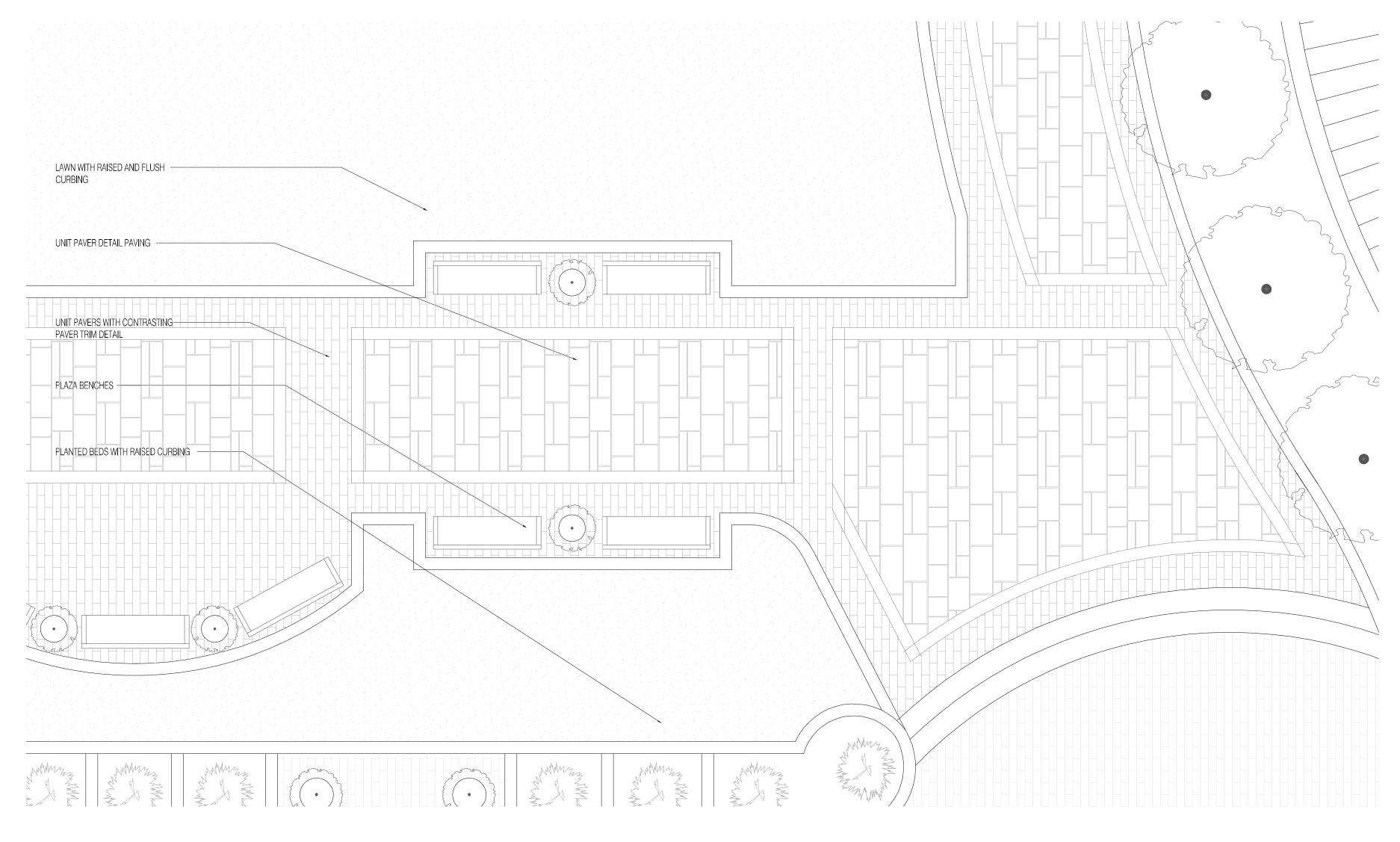




4 Lawn with Raised and Flush Curb and Unit Pavers with Contrasting Paver Trim Details SCALE: N.T.S.









# Becale: N.T.S.

ELKUS | MANFREDI ARCHITECTS

[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

# The Edgewater

666 Wisconsin Avenue Madison, WI 53703

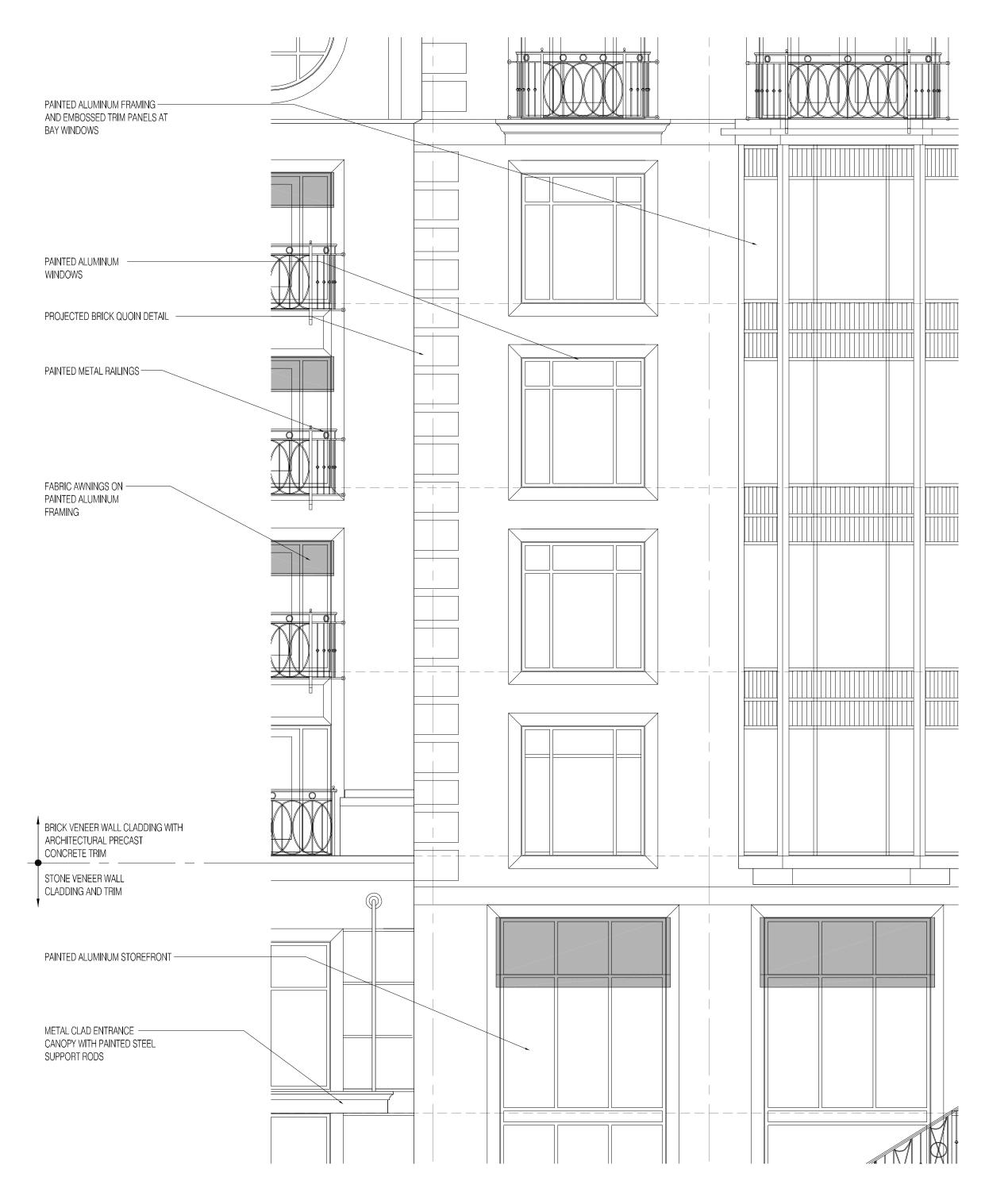
Owner: Landmark X, LLC 22 East Mifflin Street, Suite 800 Madison, WI 53703

Developer: Hammes Company 22 East Mifflin Street, Suite 800 Madison, WI 53703

Civil Engineer: BT <sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718

| ATE: October 28, 2009     |          |
|---------------------------|----------|
|                           |          |
| REVISIONS:                |          |
| <u>_1</u>                 | 08/18/09 |
| <u></u>                   | 10/28/09 |
|                           |          |
|                           |          |
|                           |          |
|                           |          |
| SCALE $1/4"=1'-0"$        | 1        |
| SCALE: $1/4'' = 1' - 0''$ |          |
| DRAWING NAME:             |          |
| PLAZA DETA                | IIS      |

A3.01



SCALE: 1/4"=1-0"





Bay Window Reference Image SCALE: N.T.S.



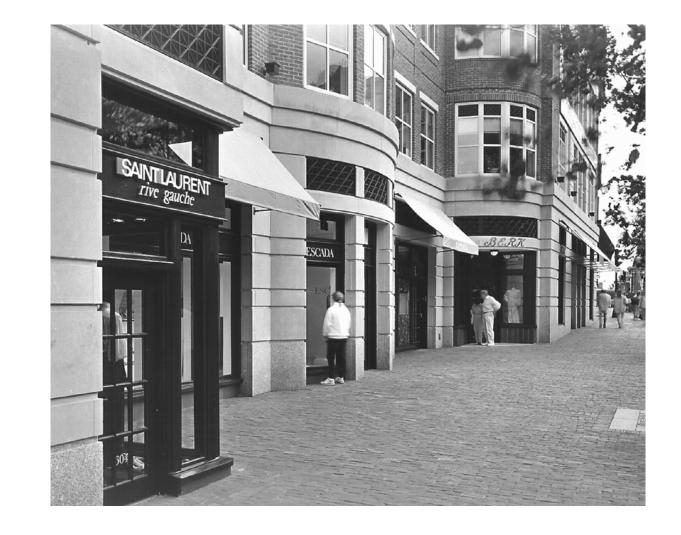


Painted Metal Railing Reference Image





5 Brick and Stone Wall Cladding Reference Image SCALE: N.T.S.





4 Storefront, Awning, and Stone Detail Reference Image



[address] 300 A STREET BOSTON MASSACHUSETTS 02210 [tel] 617-426-1300

# The Edgewater

666 Wisconsin Avenue Madison, WI 53703

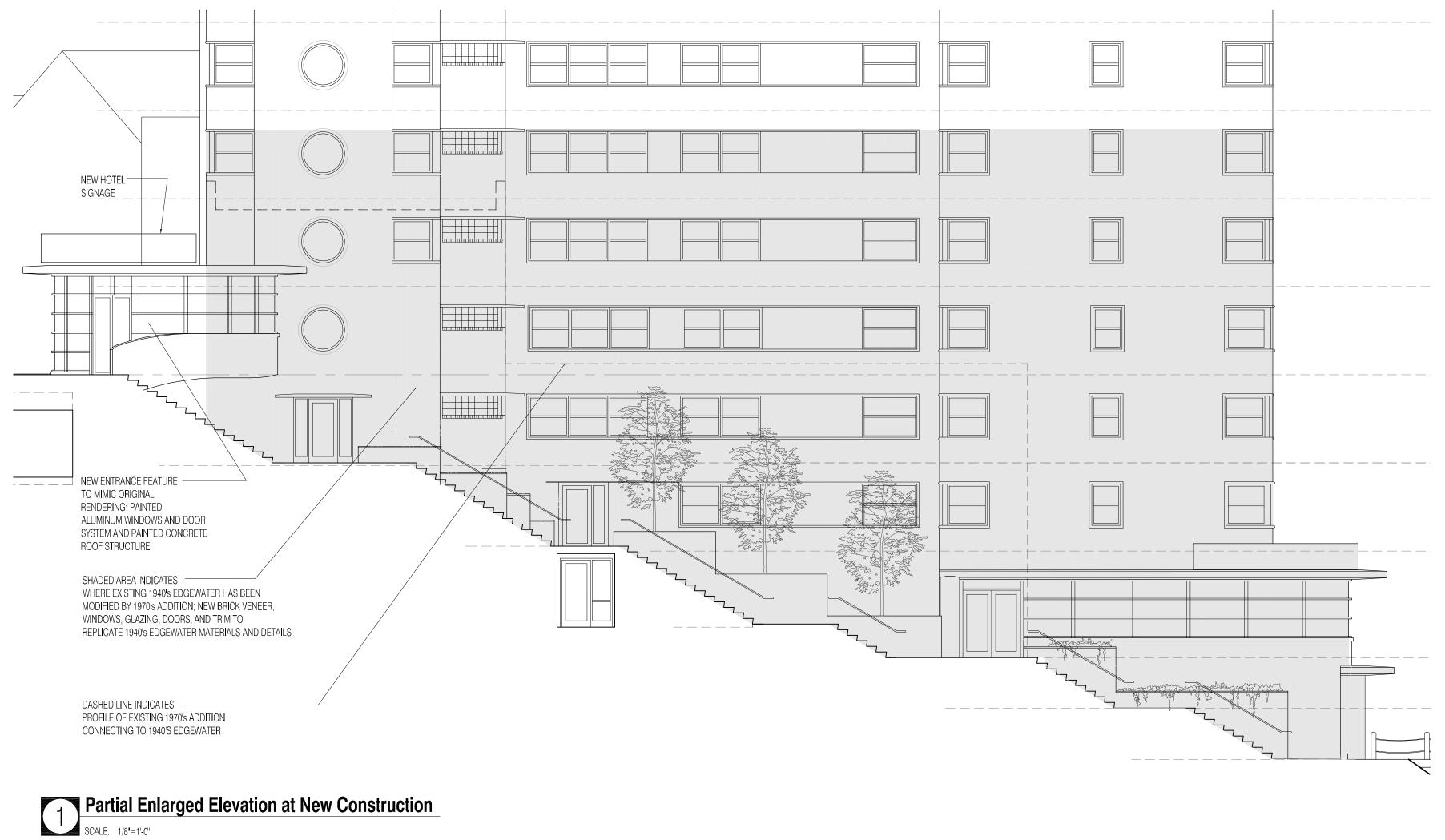
Owner: Landmark X, LLC 22 East Mifflin Street, Suite 800 Madison, WI 53703

Developer: Hammes Company 22 East Mifflin Street, Suite 800 Madison, WI 53703

Civil Engineer: BT<sup>2</sup>, Inc. 2830 Dairy Drive Madison, WI 53718

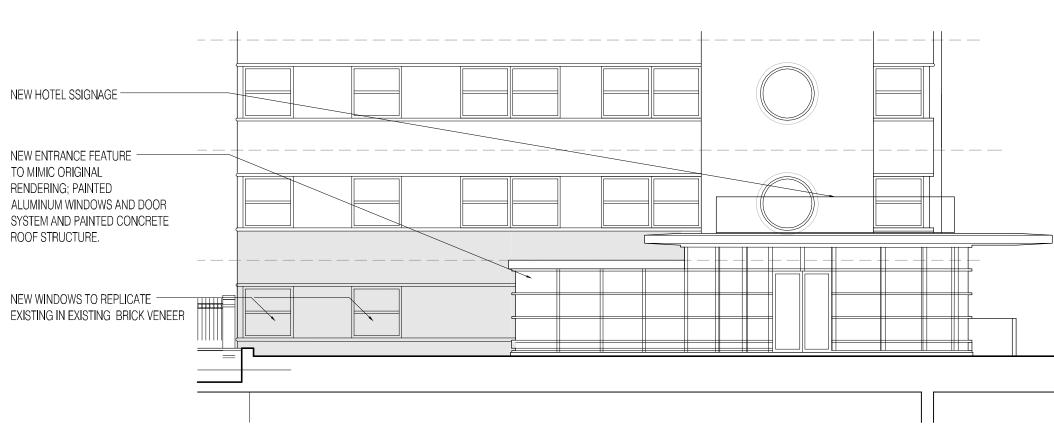
| PROJECT NUMBER: 08105.00 |               |          |  |
|--------------------------|---------------|----------|--|
|                          |               |          |  |
| DATE: Oct                | ober 28, 2009 |          |  |
| REVISION                 | S:            |          |  |
| $\underline{\land}$      |               | 08/18/09 |  |
| 2                        |               | 10/28/09 |  |
|                          |               |          |  |
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|                          |               |          |  |
|                          |               |          |  |
|                          |               |          |  |
| SCALE:                   | 1/4"=1'-0"    |          |  |
|                          |               |          |  |
| DRAWING                  | NAME:         |          |  |











SHADED AREA REPRESENTS REVISED 1940's EDGEWATER ELEVATION; NEW BRICK VENEER AND TERRA COTTA TRIM TO REPLICATE EXISTING DUE TO REVISED GRADING AND DEMOLISHED EXISTING ENTRANCE VESTIBULE



ELKUS | MANFREDI ARCHITECTS

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### The Edgewater

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PROJECT NUMBER: 08105.00

DATE: October 28, 2009

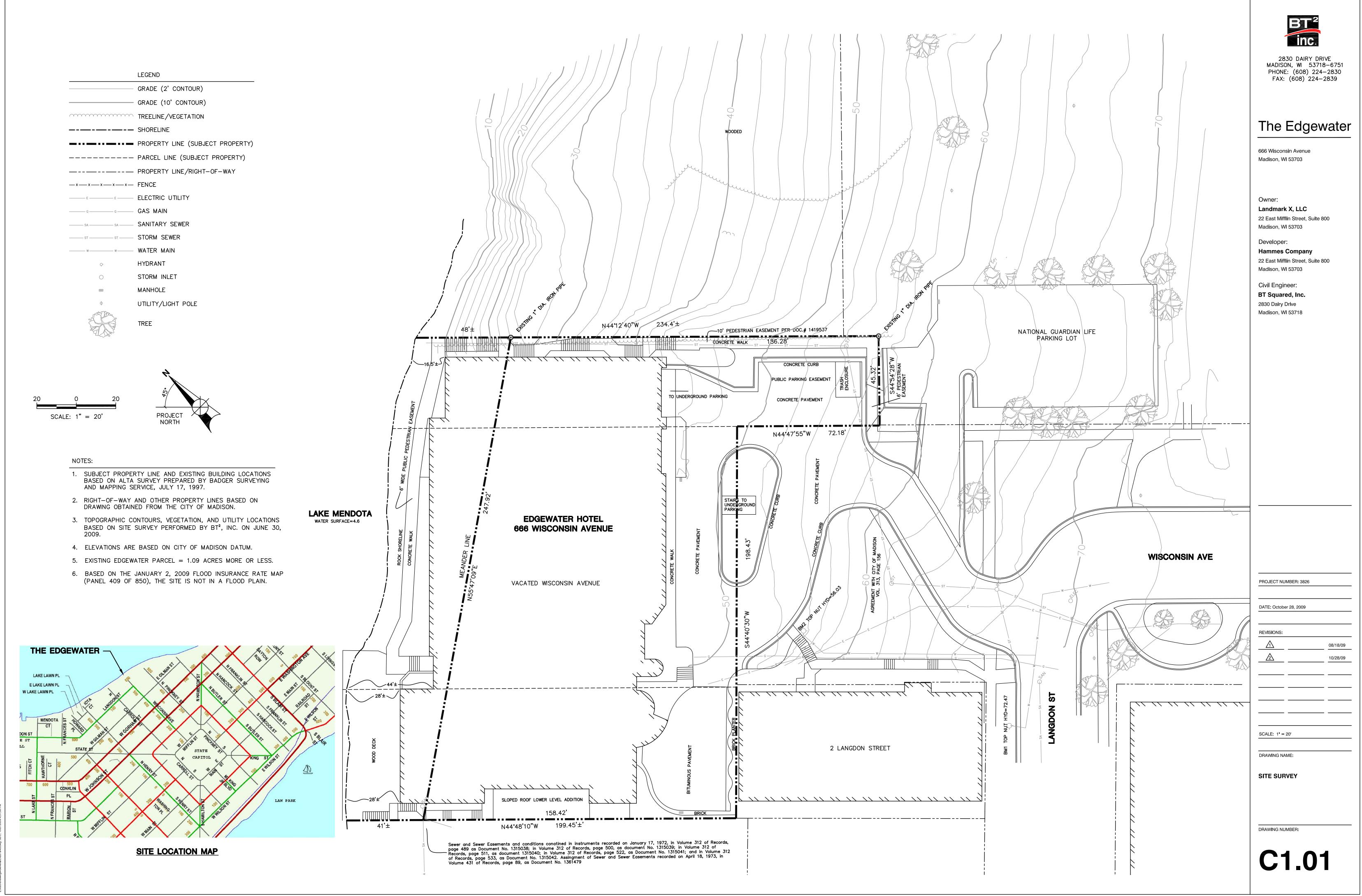
| REVISIONS: |          |
|------------|----------|
|            | 08/18/09 |
| <u>_2</u>  | 10/28/09 |
|            |          |

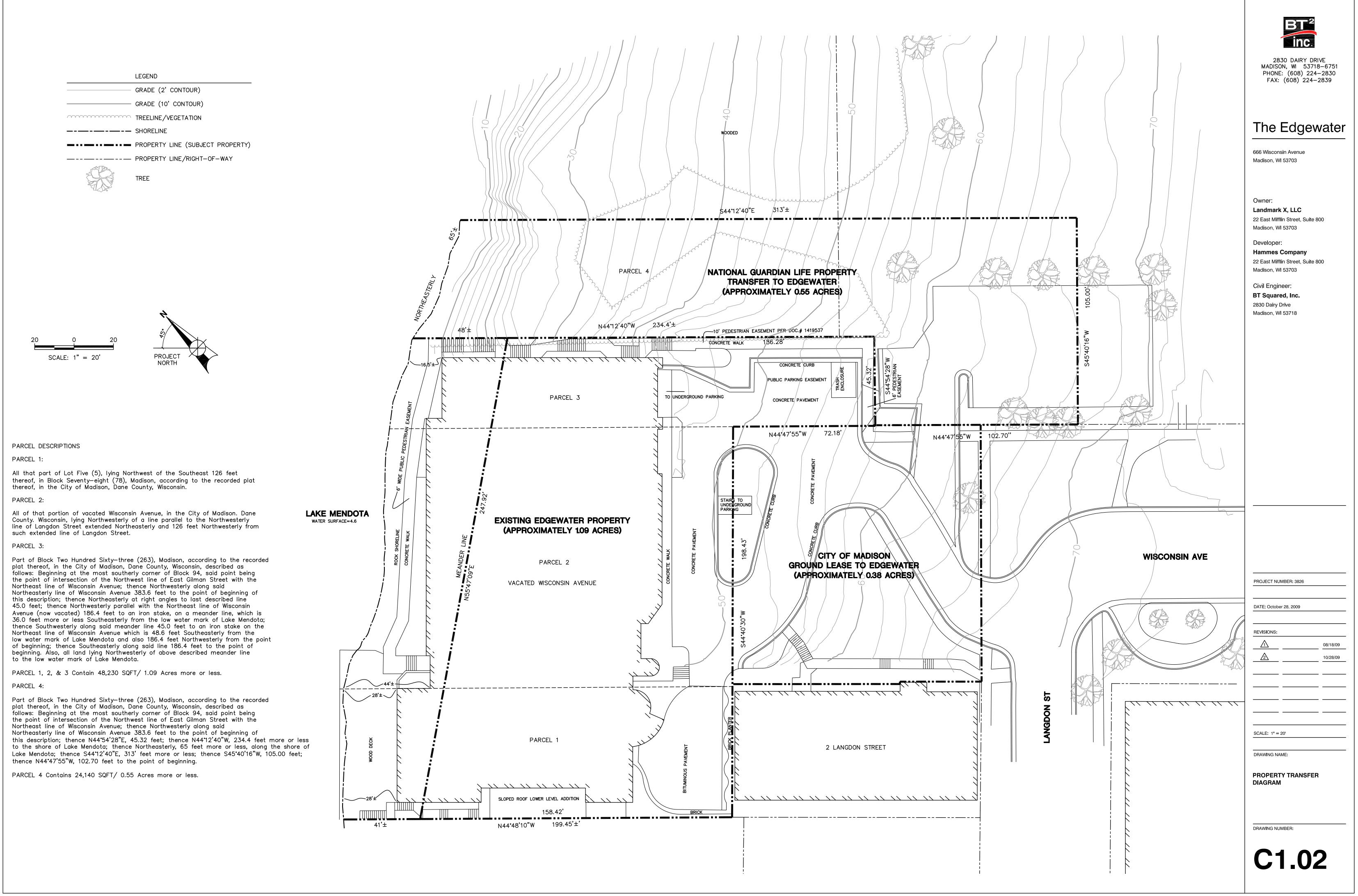
SCALE: VARIES

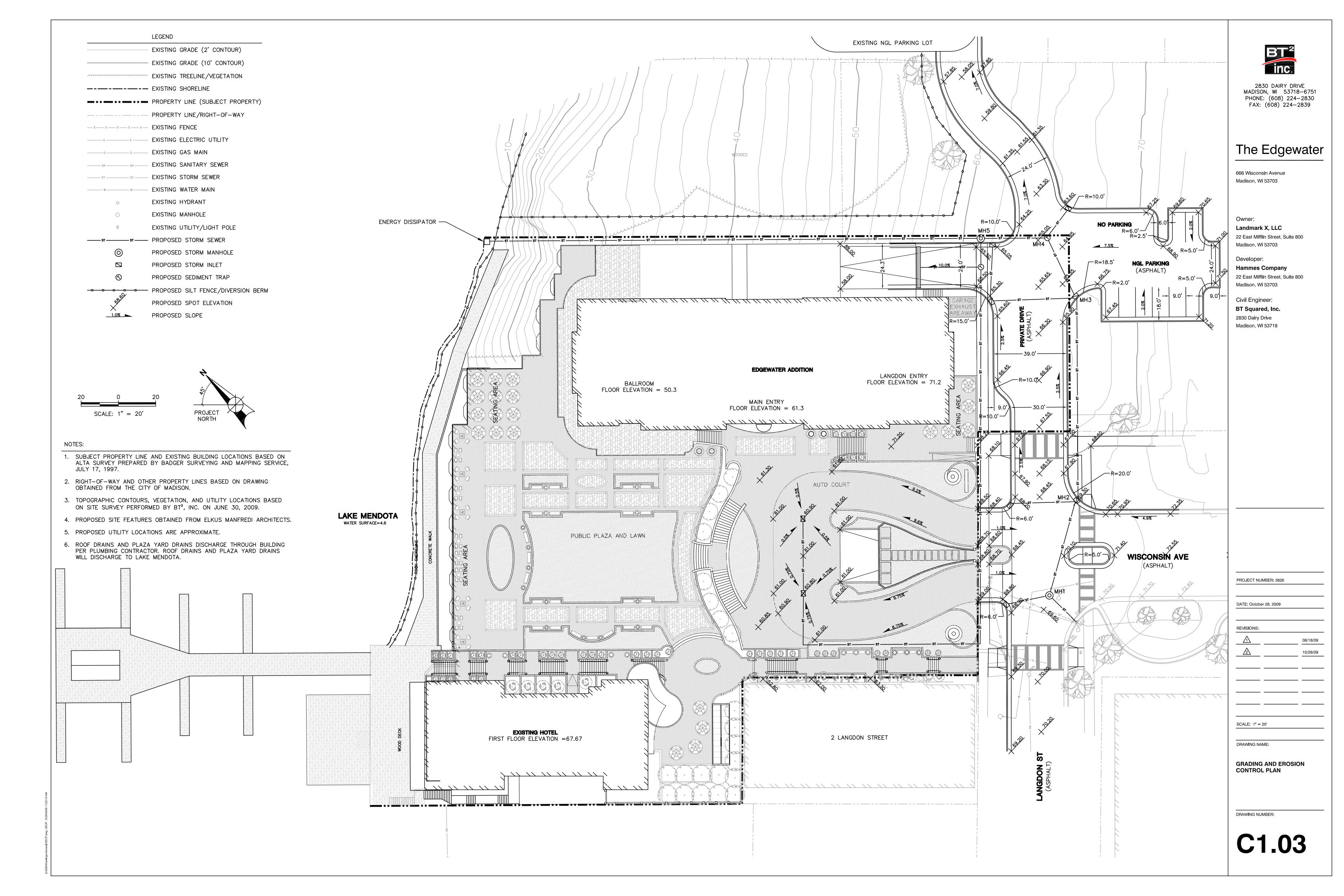
DRAWING NAME:

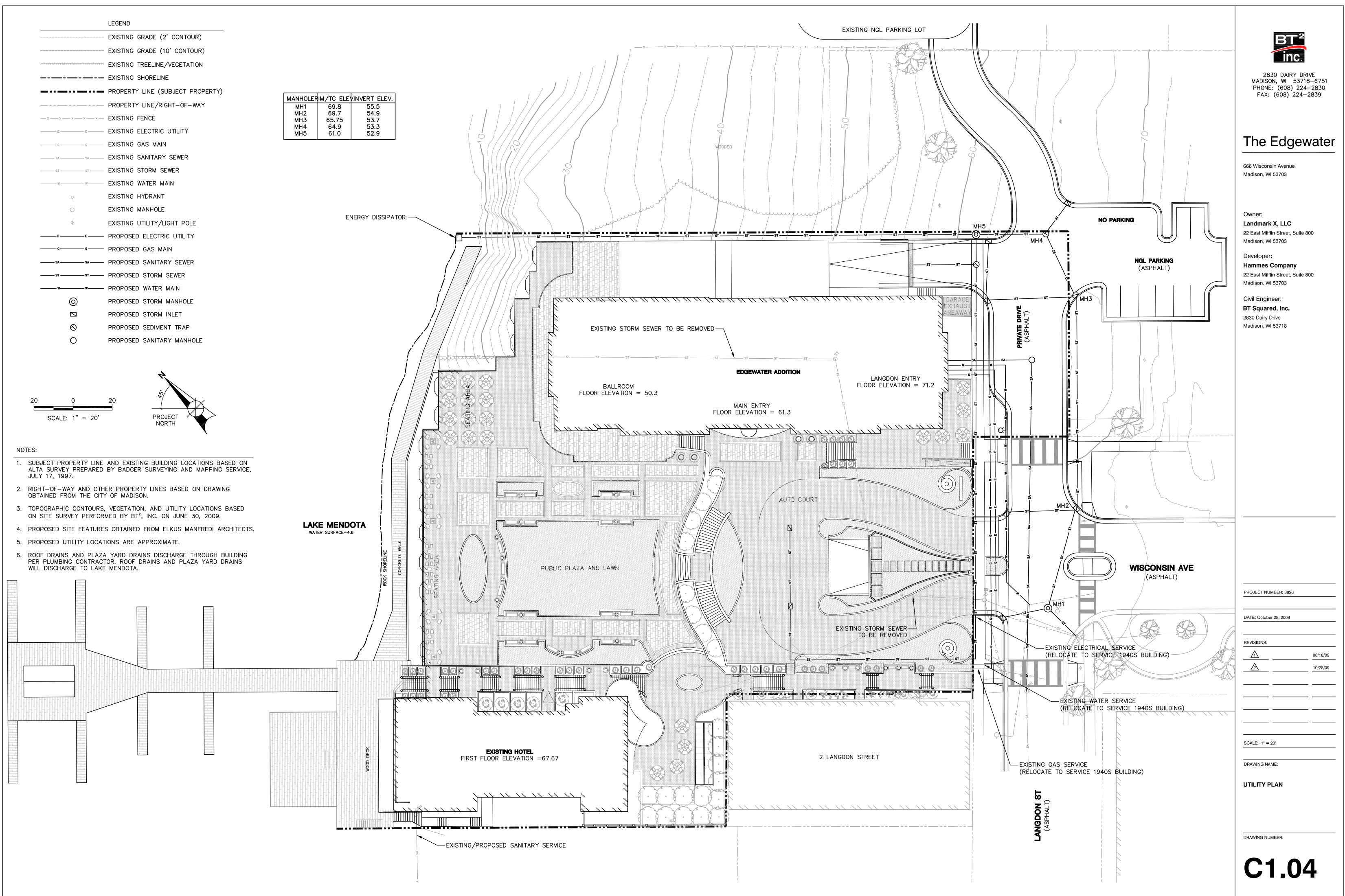
1940'S BUILDING PARTIAL ENLARGED ELEVATIONS











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