



City of Kitchener

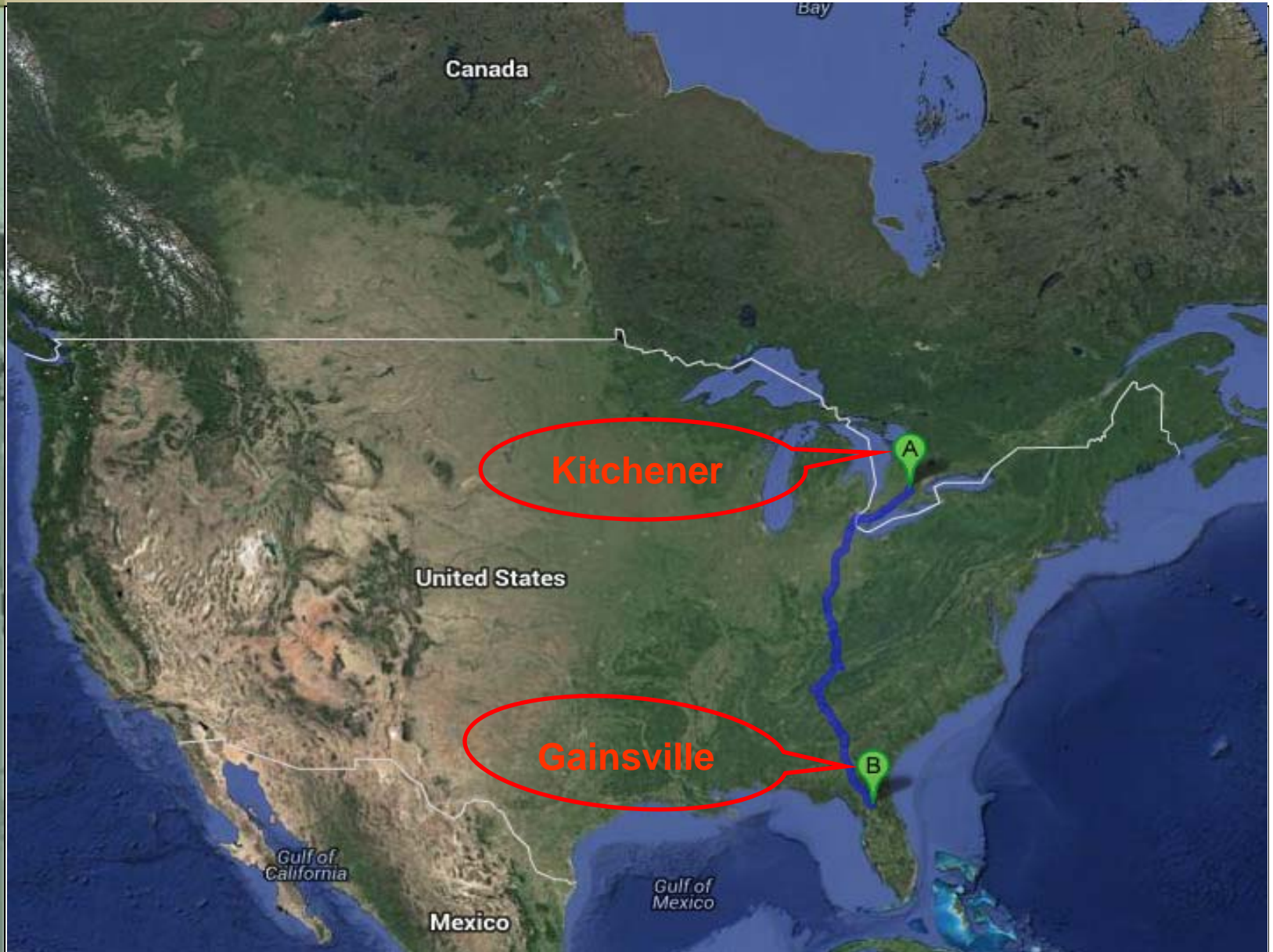
Implementing CPTED in the Site Plan Process

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Florida Design Out Crime Association
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Where is Kitchener?





CPTED at the City of Kitchener:



The City recognized the importance of CPTED many years ago.

Brian Page was instrumental in making CPTED a formal part of the development review process.

The Mayor and Council of Kitchener along with senior management staff were very supportive of implementing a CPTED program at the City.

The City has provided CPTED training for Staff from across the corporation and the local consulting industry.



Planning and CPTED:



“CPTED is good planning. It’s where you start, and augment with good procedural and physical security.”

- Timothy D. Crowe

Planning at the City:



All development proposals in the City of Kitchener are put through an intensive review process to ensure that we get the best possible development.

We use the “multi-disciplinary” approach. Numerous city departments and outside agencies are circulated for comment, such as:

Internal Depts:

- Planning
- Engineering
- Transportation
- Community Services
- Building
- Utilities
- Fire

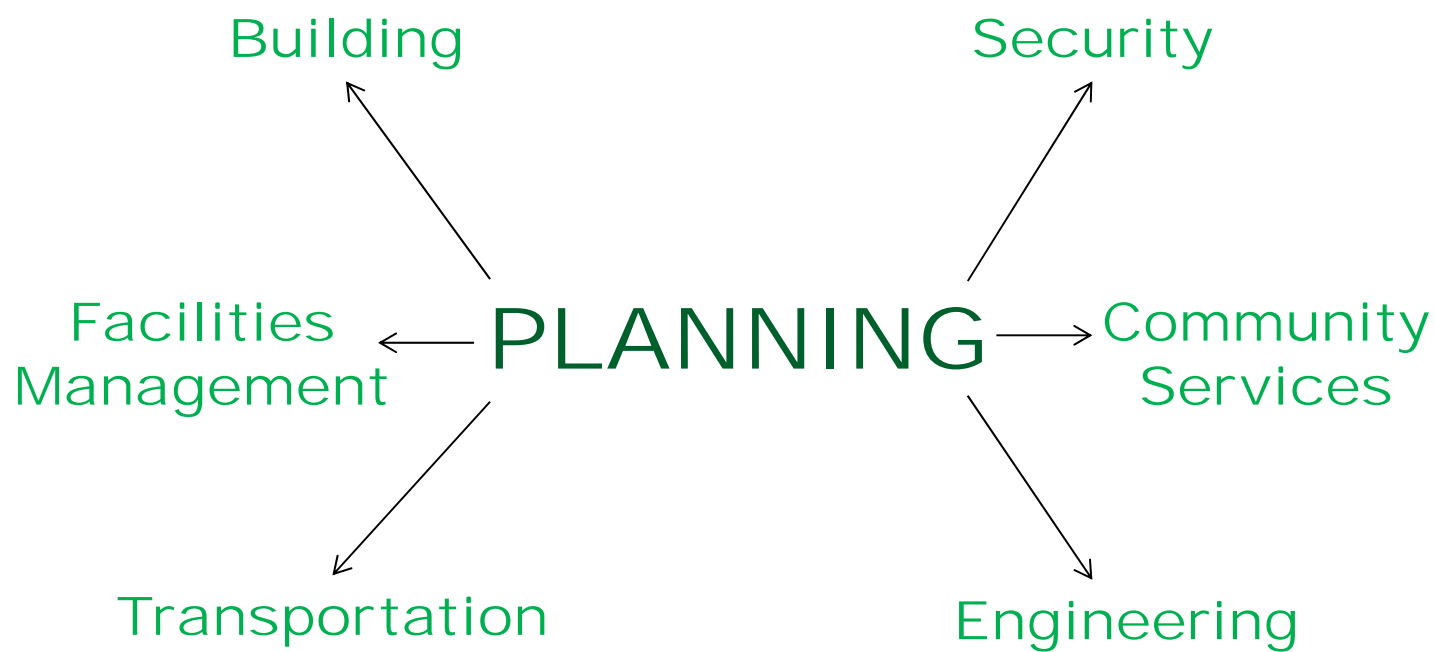
External Agencies:

- Grand River Conservation Authority
- Ministry of Transportation
- Waterloo Regional Police
- Region of Waterloo
- KW Hydro
- School Boards
- Ministry of the Environment

CPTED Committee:



To further the advancement of CPTED at the City of Kitchener, at Council's request, a CPTED Committee was formed with staff trained in CPTED from various departments across the corporation.



Purpose of the Committee:



To facilitate CPTED audits of City of Kitchener facilities where issues are identified.

Members of the committee are available to undertake CPTED audits of City facilities at the request of the Mayor or Council.

Staff work with the appropriate departments and make recommendations accordingly.

The Committee is chaired through the Planning Division.



CPTED & Development Review:



The City's Site Plan Approval process has incorporated CPTED as a condition of development through the Ontario Planning Act.

Each development application is reviewed by staff to determine if a formal CPTED report will be required.

CPTED reports are required to be submitted by a trained professional.



CPTED Conditions:



Prior to Site Plan Approval the Owner agrees:

To submit a CPTED report, including a detailed maintenance schedule to the satisfaction of the City's Manager of Site Development.....

To retain a qualified CPTED Consultant to prepare the CPTED Report.....

Within six months of occupancy the Owner agrees:

To implement and/or install all CPTED measures in accordance with the approved CPTED report.

To have Owner's CPTED Consultant to inspect and certify, that all CPTED measures...have been implemented in accordance with the approved CPTED report prior to the reduction of the Letter of Credit.....

For the life of the proposed development, the Owner agrees:

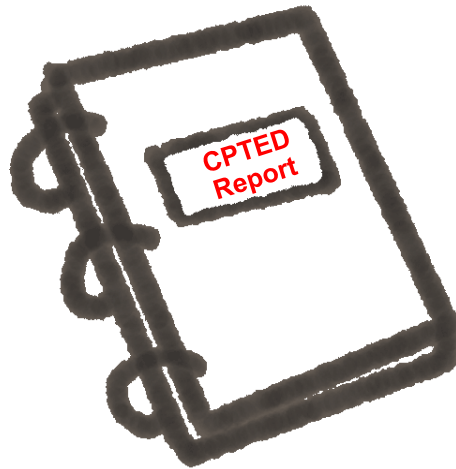
To maintain the CPTED measures in accordance with the approved CPTED report and maintenance schedule in a state acceptable to the City's Manager of Site Development.

CPTED Reports:



The CPTED report is to clearly outline what crime prevention strategies are being implemented into the design of the site as they relate to the four CPTED principles.





The CPTED report is prepared by the developer's consultant and is reviewed and approved by City staff.

The approved report becomes part of the development approval registered on title.

The strategies implemented in the project are required to be maintained for the life of the development.

What Staff Review:



Development proposals are reviewed from a CPTED perspective and recommendations are made for alterations or site modifications to the developer or consultant.

On certain applications staff work with Waterloo Regional Police in the review process.

Staff work with the developer or consultant to implement the CPTED recommendations into the design of the project and ultimately into the required CPTED report.



Types of Drawings Reviewed:

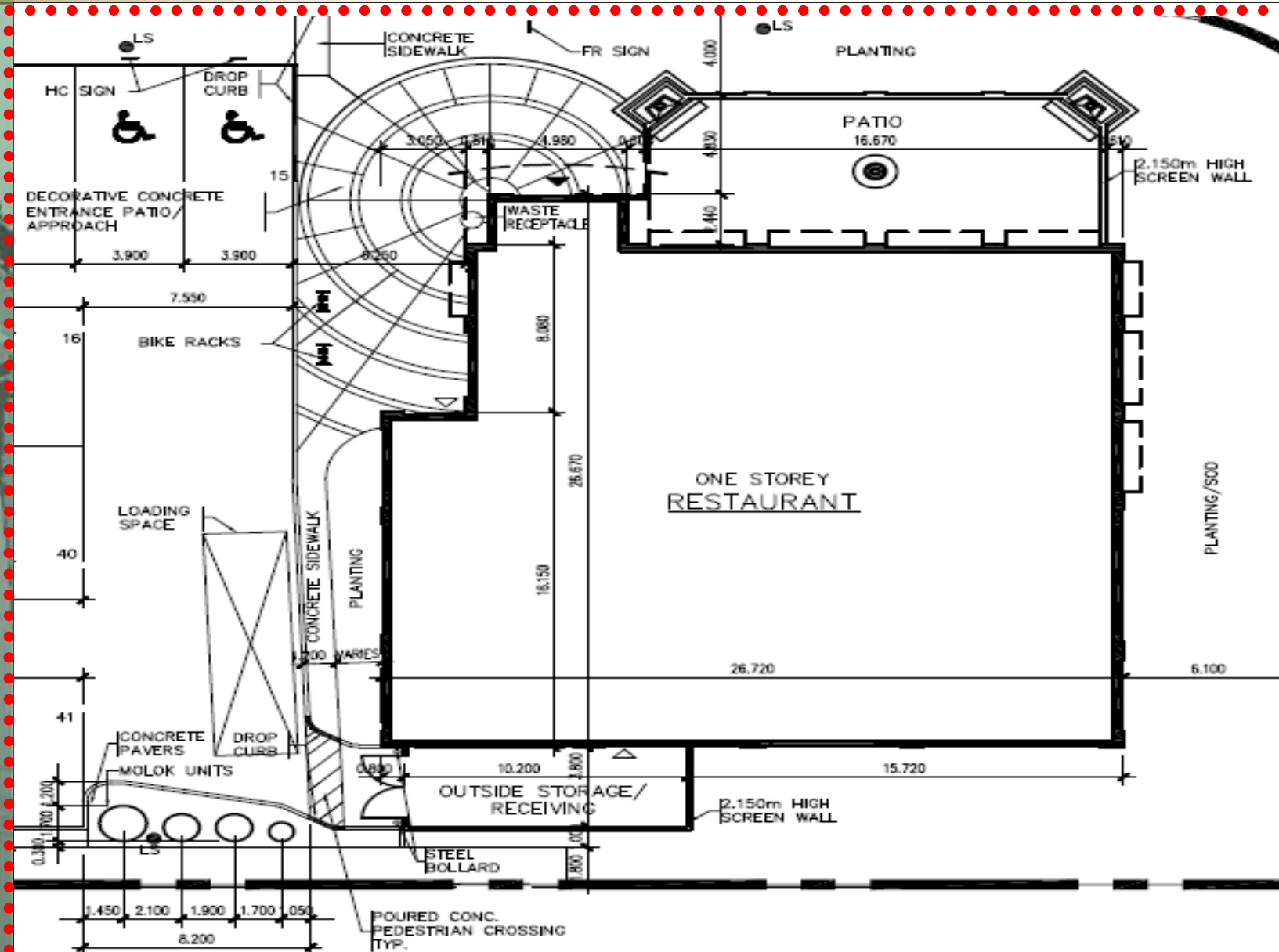


- Site Plan
- Lighting Plan
- Landscape Plan
- Building Elevations and Interior (including parking garages)
- 3D Massing Model
- Grading Plan
- CPTED Report

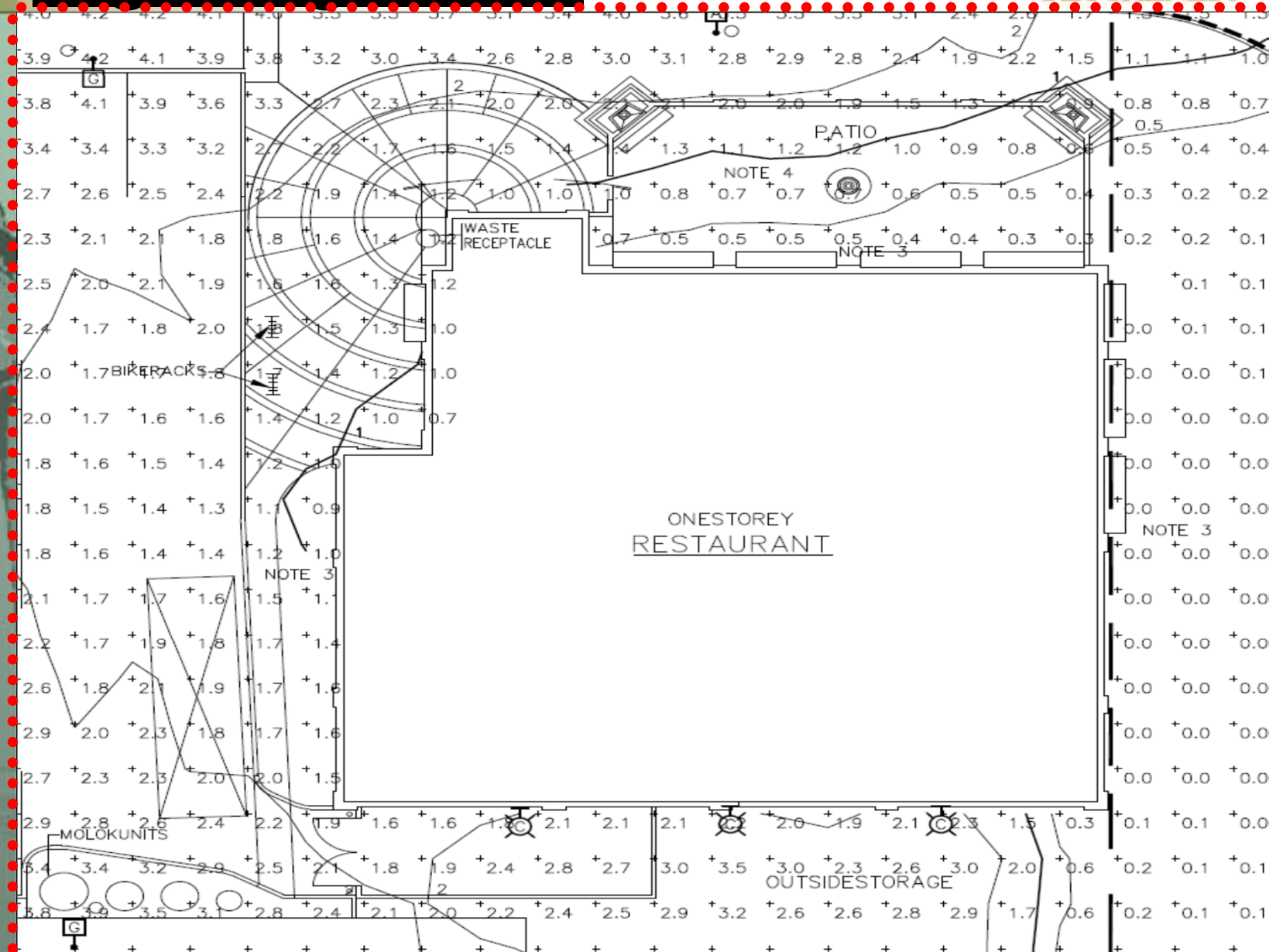


Floor Plans

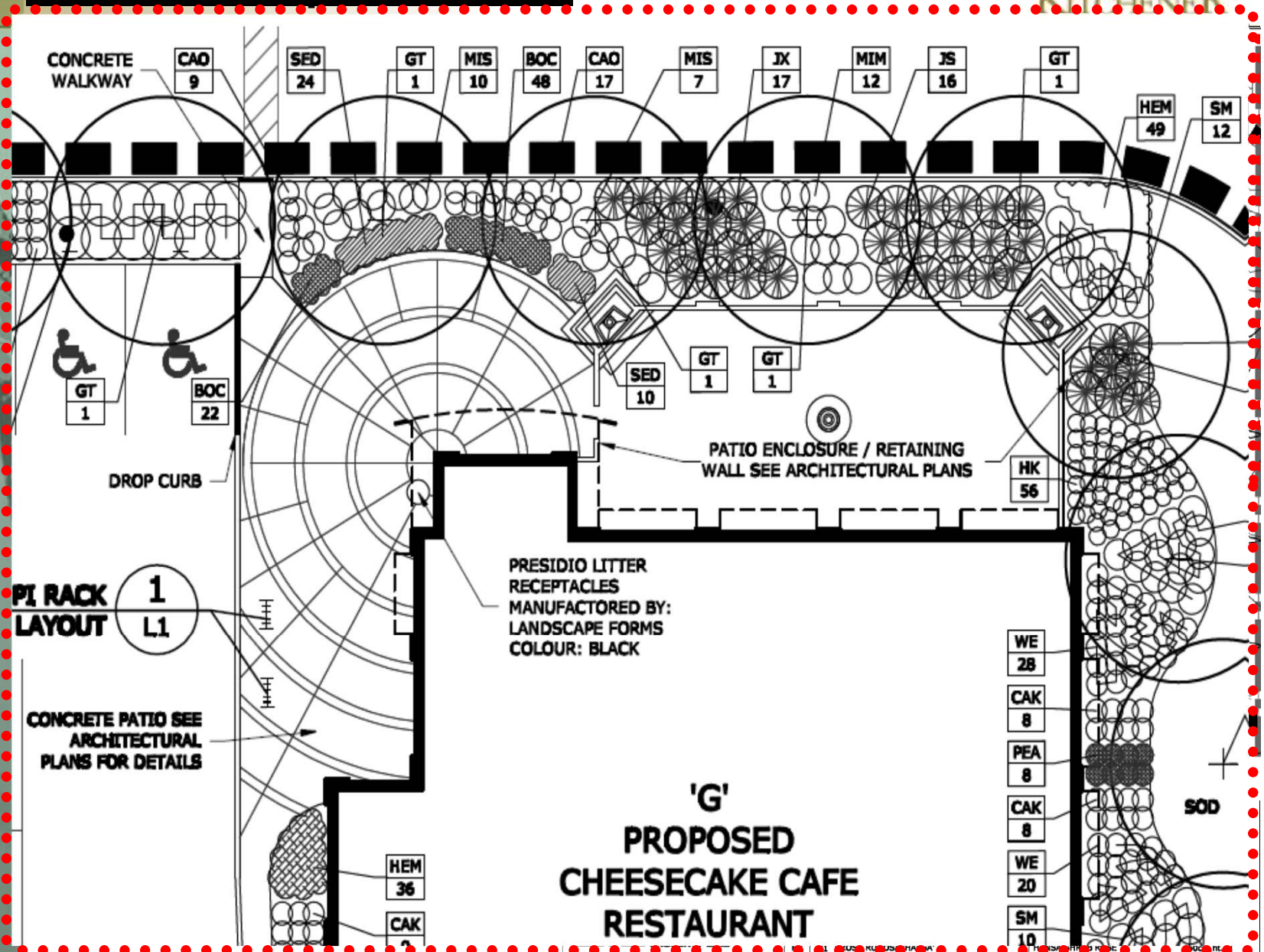
Site Plan:

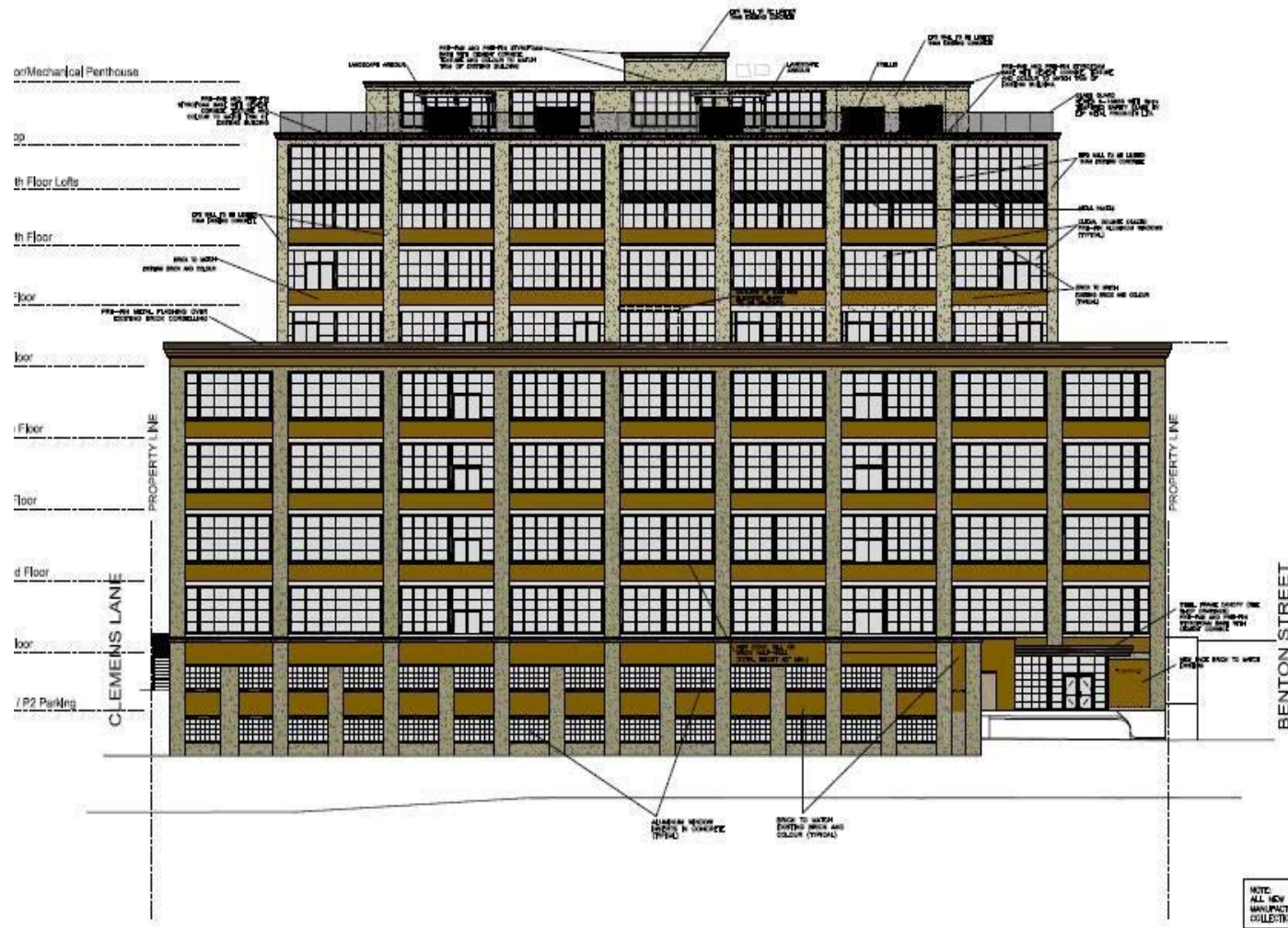


Lighting Plan:

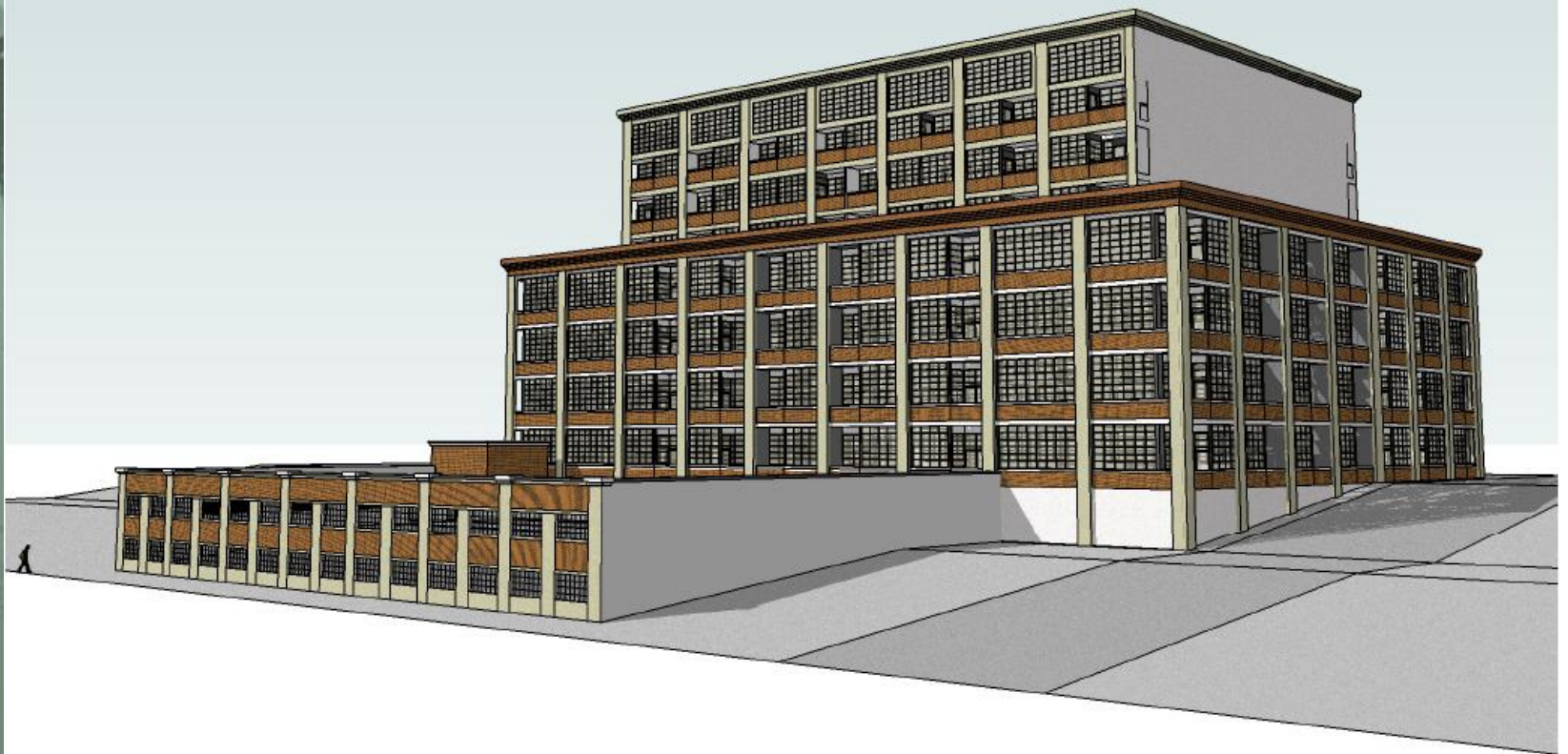
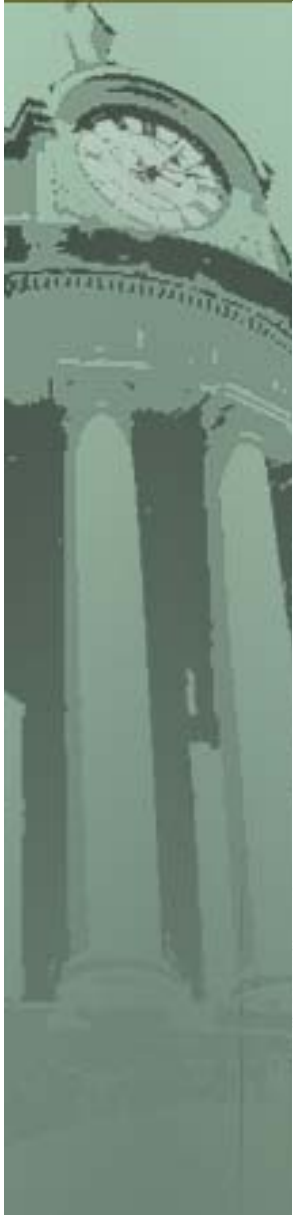


Landscape Plan:

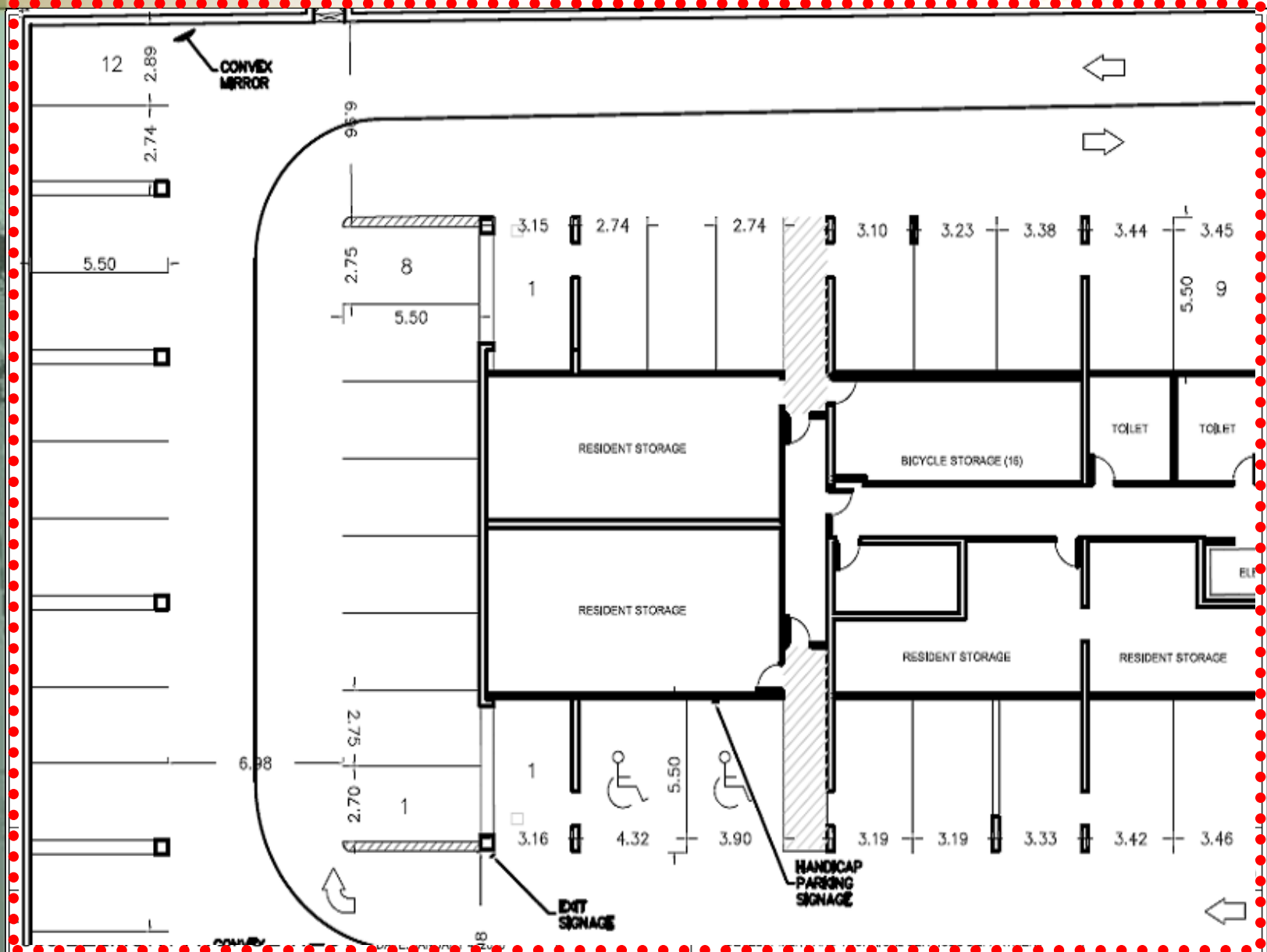




3D Massing Model:



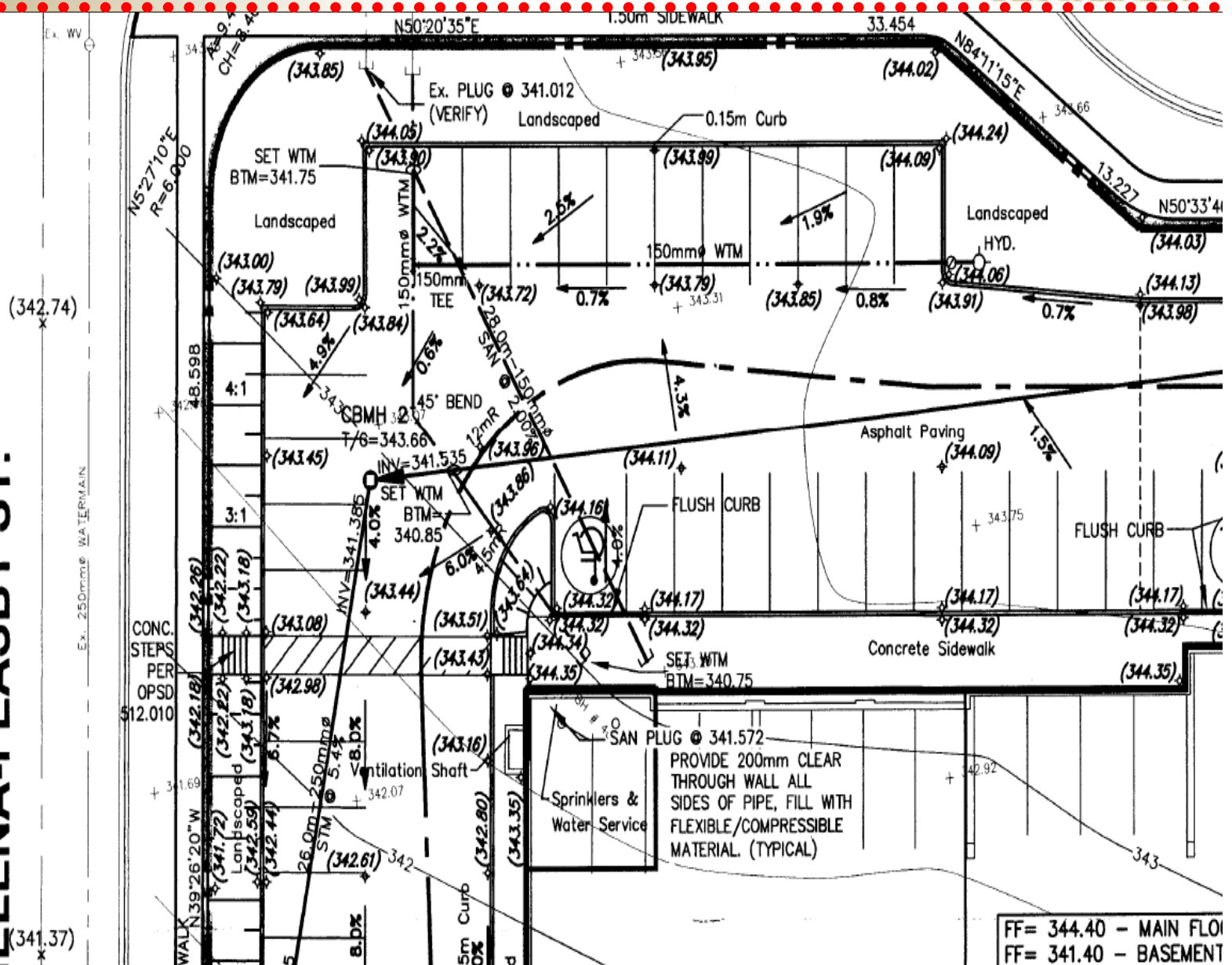
Parking Garage Interior:



Grading Plan:



ELENA-FEASBY ST.



Garbage and Recycling:



Deep Collection System:





Practical Application Downtown:



Urban Design Guidelines:



The City of Kitchener has an extensive Urban Design Manual. An entire section has been devoted to CPTED.

There are individual sections devoted to each type of development including:

- Subdivisions
- Parks, Open Space & Trails
- Single Family Homes
- Multiple Dwellings
- Institutional Uses
- Commercial Store Fronts
- Shopping Malls
- Office Buildings
- Industrial Uses
- Parking Structures

7.0 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

Crime Prevention Through Environmental Design (CPTED) is defined as the proper design and effective use of the built environment to reduce crime and the fear associated with crime, and an improvement in the quality of life.

The thrust of the CPTED concept is that manipulation of the physical environment can produce desired human behaviour or conversely reduce (or eliminate) undesired human behaviour. The concept involves more than physical security measures. It is based on the belief that crime can be directly related to the design of the physical environment and implementation of good urban design.

CPTED does not purport to provide crime prevention solutions to the broad universe of human behaviour, but rather specific behaviours in a specific environment. The concept seeks to prevent certain types of crimes and the fear associated with them by manipulating variables that are closely related to the specific environment.

CPTED is the specific design of physical space in the context of the needs of the legitimate users of that space, the expected/intended use of the space and the anticipated behaviour of both legitimate users and potential offenders.

CPTED is a proactive approach to crime prevention. The principles of CPTED overlap in many areas and work together to provide a safe and secure environment for legitimate users of a space, while increasing the perception of risk to a potential offender.

It is important to implement the CPTED principles at the earliest stage of a development project. Owners, developers, architects, planners, landscape architects, lighting and grading engineers need to work together to achieve the highest level of safety for all developments.

Goal

The goal of CPTED is to emphasize the perceived risk of detection and apprehension to a potential offender. The key is to have potential offenders perceive that an unwarranted intrusion will elicit a protective response from not only those having legitimate access to a space, but also the casual user of a space. The arrangement and design of buildings (interior and exterior), structures and open spaces can encourage or discourage undesirable behaviour and criminal activity.

Ultimately, the CPTED concept strives to achieve a design that is appropriate for the designated use of the space by identifying the potential for criminal activity and providing a solution compatible with the designated use by implementing strategies that will enhance the effective use of the space.

Key Principles:

The key principles of CPTED are:

- Access Control
- Surveillance
- Territorial Reinforcement
- Maintenance

Access Control

This strategy is directed at decreasing criminal opportunity by denying access to crime targets and creating a perception of risk to offenders.

This can be accomplished by the judicious placement of buildings, entrances/exits, parking areas, fencing and lighting for example. This strategy can also include the use of physical and mechanical means of controlling access through locking devices, alarm systems, and signage to mention a few.

Access control limits the opportunity for crime by taking steps to clearly differentiate between public space and private space. The aim is to physically guide people through a space by strategically locating streets, sidewalks, building entrances, lighting and landscaping.



Clearly defined walkways guide people through spaces to the intended destination.



Define public space (sidewalk) from Semi-private space (front yard) and private space (front porch) with soft and hard Landscape elements (plants, ornamental fencing, alternative surface treatments).

Surveillance

This strategy refers to the placement of physical features, activities and people in a way that maximizes visibility and observability of a space. It is directed toward keeping intruders easily observable and therefore less likely to commit criminal acts. Site and building design must ensure that users can see and be seen.

This can be accomplished by the proper selection and placement of landscape material, lighting, building orientation, parking lot location, and window locations to provide maximum visibility and observation.

Surveillance can also include more formalized measures such as CCTV, security guards or a police presence.



This play area is ideally located for maximum eyewitness potential and provides amenities for adults to supervise their children.



Perimeter trees should be limbed up to 1.8 metres above grade to provide clear visibility into a property, especially parking lots. Buildings should be oriented so windows overlook parking lots.



A well maintained property tells people that someone cares about the property.



Lighting maintenance is very important to ensure appropriate light levels are maintained to eliminate dark or shadowed areas.

7.1 CPTED Report Submission Requirements

All development proposals in Kitchener are to incorporate the principles of CPTED. Certain site plan proposals, as determined by the Supervisor of Site Plan Development and certain subdivision proposals as determined by the Manager of Development Review, will be required to submit a CPTED report for the City's approval as a Condition

for Issuance of Site Plan Approval or prior to Draft Plan Approval for subdivisions. Consultants submitting a CPTED report are to be knowledgeable in CPTED and formally trained.

The CPTED report is to clearly outline how each of the CPTED principles will be incorporated into the development with details of the specific strategies to be implemented for each of the principles.

As each development is unique and will have individual challenges, the suggested CPTED strategies provided in this section are not intended to be a checklist or complete listing of strategies, but rather guidelines to be considered in the design process.

7.2 CPTED Strategies - Subdivisions

Subdivisions are the core of a community. They incorporate a multitude of uses; from housing to schools to neighbourhood shopping to public spaces, as well as the road network and public walkways that connect all of these uses.

Consideration needs to be given to each of the uses in a subdivision and to how these uses will interact with one another. Gateway entrance features, traffic calming measures and front lotting dwellings onto public spaces will create a greater perception of risk to a potential offender and create a stronger sense of community.

Goal

To create a safe environment where people live, work and play.

Design Guidelines

Access Control:

- The street network should be designed to limit access without disconnecting one area from another.
- Streets should be designed to discourage cut-through traffic.



- Traffic calming measures should be implemented on higher volume streets to not only deter speeding but also impede escape routes from subdivisions.
- All streets should provide sidewalk on both sides.
- Provide gateway features such as a columned entrance with landscaping to clearly define the entrance to a subdivision.
- Public walkways should be limited in length and be observable from surrounding properties and streets.

Surveillance:

- Locate parks and open spaces in front of residential areas so they can be easily observed from nearby homes or provide a larger street frontage for views into park and open space areas.
- Dwellings should front onto streets (rear-lotting dwellings should be avoided as it creates a disconnect and eliminates the opportunity for surveillance).

- Use pedestrian scale lighting in high pedestrian traffic areas.
- Landscaping should not create hiding areas or entrapment areas.
- Locate central mail boxes in high pedestrian and vehicular traffic areas.

Territorial Reinforcement:

- Public spaces and parks should be signed with hours of operation and behaviour expectations.
- Locate public spaces and parks in front of dwellings to extend the homeowners sphere of influence to include the public or park space.
- Accentuate entrances with different surface treatments, architectural elements and landscape design.
- Where possible use shorter length streets to create more of a community feel for residents
- Design homes with front porches and recessed garages to encourage interaction between residents.
- All buildings should provide the municipal address on both the front and rear of the structure with numbers at least 150mm in height in a visible location.

Maintenance:

- Maintain landscaping to a high standard in all seasons.
- Provide a light standard/fixture numbering system to allow the public to easily report broken or burnt out lights.

Next Steps:





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