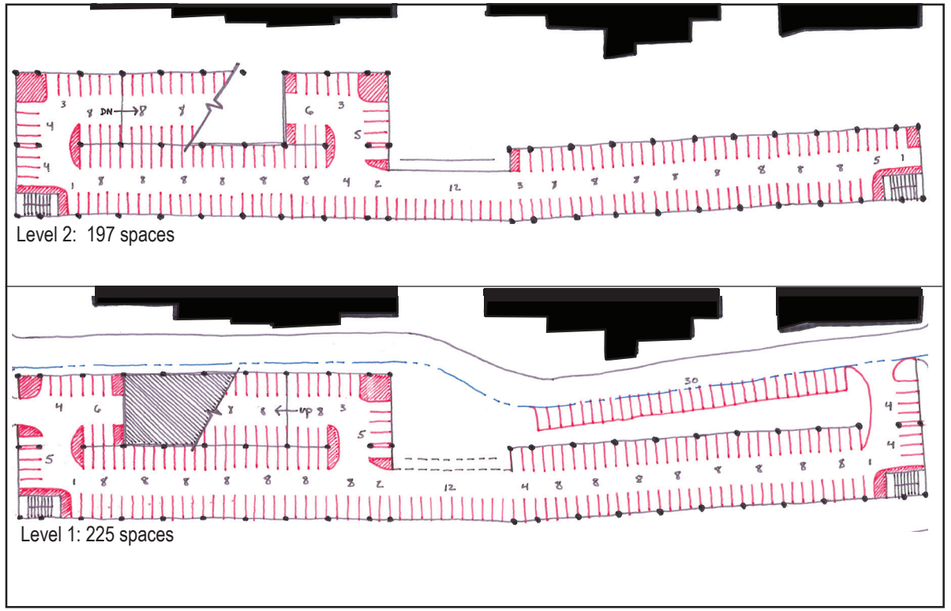
APPENDIX



Option 1: Full Site, Narrow Lot Y: 422 spaces

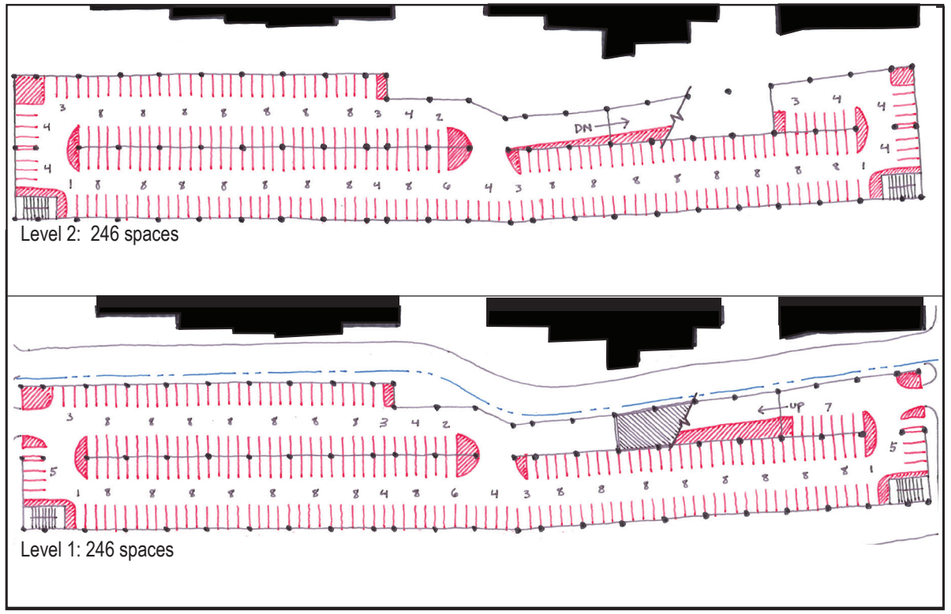
Option 1 – Full Site, Narrow Structure on Lot Y

Pro

- Provides regular structure bay lengths
- Offers open space for possible community use adjacent to park
- May be constructed in phases

Con

- Lowest parking capacity of 4 options on Lot Y
- Higher cost per space
- Single access point to upper deck
- Dead end upper deck circulation
- No direct access of Kellogg Avenue



Option 2: Full Site, Maximized Parking: 479 spaces

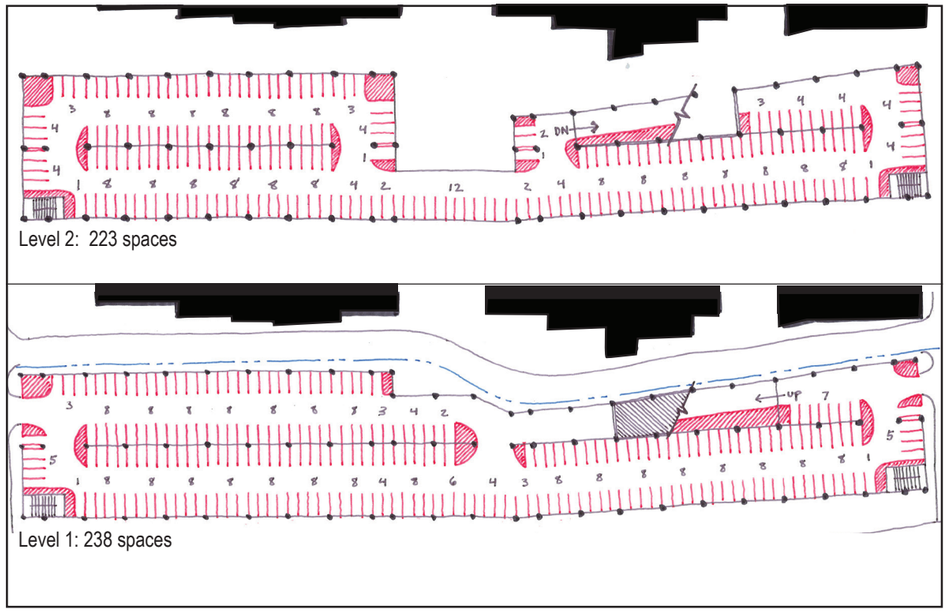
Option 2 – Full Site, Maximized Parking

Pro

- Parking capacity maximized on site
- Full use of site
- May be constructed in phases

Con

- Offers no open space for possible community use adjacent to park
- Costs increase when regular structural bay spacing not utilized
- Single access point to upper deck
- If constructed in phases Lot Y must proceed Lot X



Option 3: Full Site, Maximized Circulation: 461 spaces

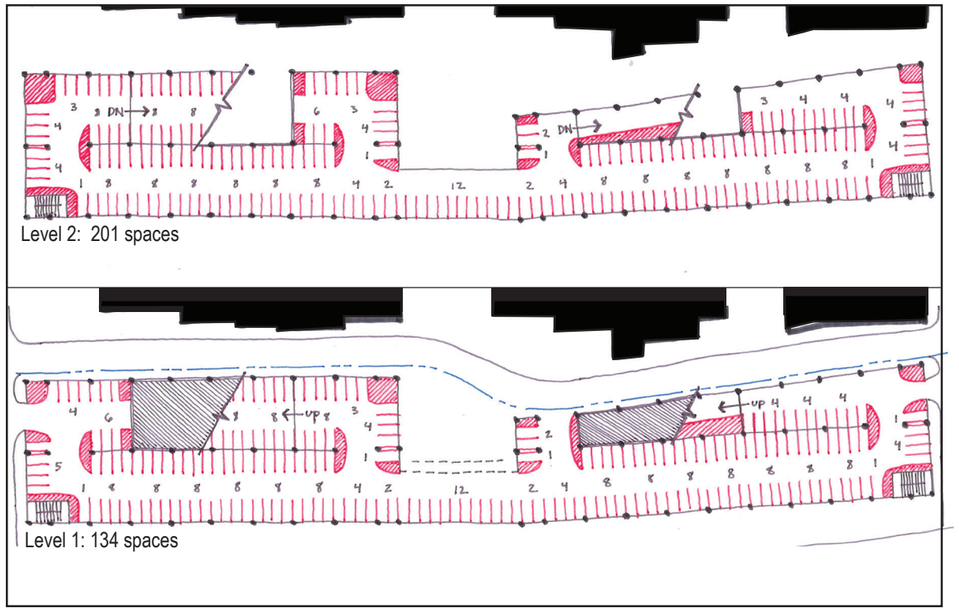
Option 3 – Full Site, Multi-Use Open Space

Pro

- Offers open space for possible community use adjacent to park at times
- Multi-use open space for parking or community use
- May be constructed in phases

Con

- Parking capacity not maximized on site
- Costs increase when regular structural bay spacing not utilized
- Single access point to upper deck
- If constructed in phases Lot Y must proceed Lot X
- No dedicated open space



Option 4: Full Site, Two Ramps: 461 spaces

Option 4 – Full Site, Two Ramps

Pro

- Offers open space for possible community use adjacent to park
- Convenient circulation to upper deck with two ramps
- May be constructed in phases

Con

- Parking capacity not maximized on site
- Costs increase when regular structural bay spacing not utilized

MEETING MINUTES:

Downtown Parking Ramp Study

PROJECT NO:	09801000
CLIENT:	City of Ames, AMES, IA
DISTRIBUTED:	04/10/2009
Meeting Date:	April 3, 2009
Place:	Main Library Building Ames, IA

Present:

Damion Pregitzer	Public Works – Traffic
Steve Osguthorpe	Dept. of Planning & Housing
Doug Houghton	Ames Police Support Services
Rick Seely	OPN Architects
Tom Trapp	OPN Architects

A. General History
1. There was an initial Downtown District Development Plan Document prepared June 1996 which showed a parking structure to the South of Main Street.
2. The renovation of Town Center Building on Main Street started the conversation regarding the need for more parking. Developer Russ McCullough stated that the new building would need 100 more parking spaces and that would in turn mean more customers for downtown overall.
3. The City would like to see the garage have an expanded use; including a platform or stage for a performance area as an extension of the Tom Evans Park.
4. There will be future streetscaping to match Main Street running south on Kellogg and then Clark Street later on. Burnett is the street north of Tom Evans Park.
5. The farmer's market is currently hosted by the Depot to the west of site 'X'.
6. City Council is composed of (6) people plus the Mayor. The council meets on the 2nd and 4th Tues of each month at 7 pm.
7. Contact Jayne McGuire with the Main Street Cultural District to set up a meeting to discuss concerns. Notify the City Manager's Office and Steve Schainker when a meeting time has been set. Tim Coble, owner of Temptations, has many ideas of how to improve parking downtown.

B. Basic Parking Study
1. Consider expanding the parking on Lots X & Y. Lot Z, which is further east, is an option but the site only gets narrower as it heads further east.
2. Study the entire space for the most efficient parking layout.
3. The back aisle drive (approx 25') is used for trash pick-up, deliveries and fire truck access. This aisle is sacred and must remain open.
4. The appearance of the ramp is critical to the success of the project. The ramp shouldn't be cold and dark, but draw upon Main Street's scale and use of materials for a cohesive look (facades, colors, brick accents).
5. The most successful design will combine the maximum number of spaces with the best façade. The spaces gained and cost per stall along with the basic cost of constructing a ramp will be critical to communicate.
6. Consider LEED concepts and sustainable practices including various water management methods while studying the site.
7. Design approach should acknowledge the presence of Tom Evans Park and the possibility of a future extension south with the addition of a venue for live entertainment.
8. Railroad tracks to the south: 100-120 trains per day. Contact Union Pacific Railroad and Mike Blackly for any questions about the railroad zoning restrictions, and any structural and acoustic concerns. A sound analysis is to be included in the final budget estimate.

C. Zoning
1. The site should be considered part of the Downtown Service Center and those standards would apply.
2. Parking has to be a minimum of 35'-0" back from the face of the adjacent buildings.
3. Review the required setbacks along the train tracks right of way on the south side of the site.
4. 20'-0" min. aisle for fire truck access plus the sidewalk creates a 25'-30' alley.
5. 75% of the street façade is required to be retail space.
6. Contact David Brown (Building Official) with Inspections/Fire Department for any code questions

D. Basics
1. Breakdown the essential components
   a) Footings and Foundations
   b) Stairs
   c) Car barrier options
   d) Elevator, if higher than 2 Levels
   e) Fire protection and stand pipes
   f) Required minimum openness of facades
2. Typical Ramp Structural Systems
   a) Precast
   b) Post-Tensioned
3. Concerns
   a) Image
   b) Internal and External Safety/Visibility
   c) Functionality
   d) Acoustic/Sound Transmission Concerns
   e) Street Views – Minimal view from the North, but full view of proposed site from the South
   f) Cy Ride needs
   g) Location of utilities on site
   h) Overall site power limitations

FTP Site Information: misc/Ames Downtown Parking Ramp Study

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UN: ftpguest
PW: now1952
Next Meeting Date: TBD
Place: TBD

These meeting minutes are prepared to establish record of decisions, discussions, and actions required. Please contact me at OPN if you have any different interpretations or understandings of issues shown.

Thomas A Trapp
OPN Architects, Inc.
Attachments: none
Distribution: All in attendance

MEETING MINUTES:

Downtown Parking Ramp Study

PROJECT NO:	09801000
CLIENT:	City of Ames, AMES, IA
DISTRIBUTED:	05/12/2009

Meeting:

Date:	April 22, 2009
Place:	Main Library Building Ames, IA

Present:

Jayne McGuire	MSCD – Director
Tim Coble	MSCD – President
John Doyle	MSCD – Business Improvement
Amber Kobler	MSCD – Business Improvement
Tony Thrush	MSCD – At Large
Rick Seely	OPN Architects
Tom Trapp	OPN Architects

A. General History

1. A few years ago a committee was formed to study the need for parking downtown, the Business Improvement Committee.
2. The focus of the study would be on the financial aspects of the current parking situation, its users, total parking count, parking duration types and the traffic patterns downtown.
3. The varying parking lot configurations make way finding difficult for unfamiliar users to know where metered, reserved and timed spaces are located.
4. Business leaders believe the turnover and different time durations for meters on Main Street create more problems for users looking for convenient parking.
5. Most parking lots south of Main St. contain a mixture of 24 hr reserved spaces, 4 hr and 2 hr timed spaces (not metered).
6. The majority of the reserved spaces sit empty after hours because they are primarily used for business parking. This eliminates prime parking spaces for Main Street patrons during the evening. It was suggested that these be changed to 8am-6pm reserved spaces.
7. The current lot configurations may not utilize the space efficiently w/ a grass median/walkway wasting valuable space in Lot 'Y'.
8. The committee created a map of the Main Street Cultural District that documents all the parking including free, reserved, timed and metered spaces.
9. The uncertainty of the library expansion location and it's need for additional parking is a concern, as well as, the Sheldon Munn Hotel could consolidate its parking to open up more spaces in a centralized area.
10. There is a public presentation in Des Moines on May 5th (closed session) when the Ames Cultural and Entertainment District Representatives present for the Main Street Application in an attempt to secure funding from the Main Street Iowa Program to aid in the revitalization effort.
11. Business leaders believe that the City of Ames would be fine with any changes to parking and metered areas as long as the changes are revenue neutral.

B. Revitalization Plans

1. In June 1996, the Ames Downtown District Development Plan was created by BRW, Inc for the City of Ames to inject life into Main Street with the addition of a "destination" business like a hotel or exhibit hall.
2. A company called Charrette did a study in 05-06, that stated a need for a gathering space/plaza with pavilion and interactive fountain that would satisfy the requirement of a "destination" space. The suggested location is the lot east of City Hall. Recently, the Ames Foundation stated that they would be able to raise $700k of the estimated $1 million budget.
3. A few months after the Charrette, the MSCD suggested an alternate site for the "catalyst" project. A new location for the "destination" business and the addition of outdoor pavilion, south of Tom Evans Park, to be constructed for performances and to satisfy the need for public restrooms.
4. In 2005, the Main Street Cultural District proposed the idea of a "catalyst" project and the site of the Town Center Building. The City Council agreed to support the proposed location along Main Street.
5. Downtown Revitalization and the impact of the Downtown Center by McKell Group.
   - The McKell Group, proposed that an existing building could be renovated to become the "destination" business that Main St. and the "catalyst" project needs.
   - A parking structure must be constructed on Lot 'X' in order for the investment to be successful. More parking would mean more patrons on Main Street.

C. Why a Parking Structure?

1. There are numerous cultural events and entertainment on the Main Street District is another reason for additional parking. "Thursday Night in the Park" is free entertainment that takes place in Tom Evans Park in the early evening (5-8pm) w/ the majority of the patrons traveling over to the see the performance at the Band Shell Park afterwards. This event runs for 10 weeks and starts Mat 28th.
2. Olde Main Brewery also sets up a beer garden with performance stage on Saturday's during the summer.
3. There is a music walk and art walk that takes place in the stores along Main Street and the Arts Festival in September.
4. A green space or extension of Tom Evans Park southward, integrated with the parking structure should be a requirement. The park typically attracts strolling patrons and people from the area over lunch.
5. The idea for the centralized pavilion was for it to house a new consolidated farmer's market that would be integrated with the parking structure to provide a variety of crafts, food and entertainment along with the locally grown produce. This should attract more growers from around the area.
6. Currently, there are (2) separate Farmer's Markets in Ames. A market that goes year round at The Depot off of Main Street and at North Grand Mall during the summer. The North Grand Mall is currently the more vibrant market.
7. There have been complaints in the past from resident south of Lincoln Way that the music was too loud. The event would benefit greatly from any sort of sound barrier or performance space that the parking structure could provide.
8. An acoustic study should explore the benefits of the parking structure as an acoustic barrier. The main issue is the sounds transmission north and south through the street to the residential neighborhood.

D. Goals & Requirements

1. The design of the parking structure should maximize the number of parking stalls.
2. According to the DSC Zoning, 75% retail space on along the street frontage façade should be provided. The MSCD doesn't see this retail space as enhancing the structure and a variance might be worth pursuing.
3. The convenience of the structure and how the additional cars will affect the traffic on Main Street are a concern. Congestion may be an issue with the railroad crossing and Main Street so close to the entrance/exit of the parking structure.
4. The parking structure must be mindful of the Union Pacific Railroad south of the proposed parking structure sites. The sounds of the train whistles and bells from the gates detract from the Main Street atmosphere. The city has proposed that the area be a "Quit Zone" for trains eliminating the periodic train whistles as they pass.
5. The parking structure should be gated with an automated ticket system to eliminate confusion. After business hours the ramp could be open for general use and monthly passes could be sold to business. A similar automated system is currently in use at ISU Memorial Union.
6. The structure should be attractive and enhance/compliment the architecture of Main Street. The use of vegetation for landscaping and screening to soften the structure would be desirable.
7. The city should confirm which street (Clark, Kellogg or Duff) is the most used North/South connector to Main Street. Jeff Benson and Steve Osguthorpe were the suggested contacts.

FTP Site Information: misc/Ames Downtown Parking Ramp Study/MSCD Info
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PW: now1952

Next Meeting:
Date: TBD
Place: TBD

These meeting minutes are prepared to establish record of decisions, discussions, and actions required. Please contact me at OPN if you have any different interpretations or understandings of issues shown.

Thomas A Trapp
OPN Architects, Inc.

Attachments: none

Distribution: All in attendance

MEETING MINUTES:

Downtown Parking Ramp Study

PROJECT NO:	09801000
CLIENT	City of Ames
AMES, IA	Iowa City, IA
DISTRIBUTED:	05/18/2009

Meeting:

Date:	May 8, 2009
Place:	Main Library Building Ames, IA

Present:

Damion Pregitzer	Public Works – Traffic
Steve Osguthorpe	Dept. of Planning & Housing
Doug Houghton	Ames Police Support Services
Steve Schainker	City Manager
Rick Seely	OPN Architects
Tom Trapp	OPN Architects

A. Review of MSCD Meeting Minutes

1. The goals for the project should correspond with the ramp structure and goals for the site design approach. Additional information should be supplied in the appendix of the study.
2. The Ames Foundation is non-profit organization that supported the addition of an interactive fountain, but only if it was located in the proposed site east of City Hall.
3. The expansion of the Downtown Service Center south to Lincoln Way requires that 75% of a street side façade to be retail would strengthen the connection to Main Street. The facades along Clark Ave or Kellogg Ave may be required to have retail, but that could affect the functionality and parking count of the parking structure.
4. A controlled entry or gated ramp with an electronic card system would be acceptable. Some ticketing systems can be quite costly and expense should be considered.

B. Consultant Meeting Information

1. Post-Tensioned (cast-in-place) or Pre-Cast structural systems are the main options to consider for the parking structure. The first cost vs. the overall maintenance, as well as, the construction time and future parking structure expansion are things to keep in mind.
2. There are a few sustainable opportunities that were discussed with our civil engineer including permeable concrete on grade, bio-swales and infiltration field to improve the water management and quality on site.

C. Layout Studies

1. Review of various parking layouts, total space counts and a discussion of expansion approach.
2. A parking scheme maximizing the entire site should be added to the parking studies in the report. All parking layout studies should list the pros and cons when added to the appendix.
3. It should be documented how many parking stall are lost when, by code, the retail space is incorporated into the ramp. It was suggested that the retail may work best only if the structure is 3 levels.
4. Clark Ave is not part of the Union Pacific “Quiet Zone.” The median shown on Kellogg and Clark Ave will be added and should be considered in the ramp traffic studies.
5. Clark Ave gets slightly more traffic N/S than Kellogg Ave.
6. The parking structure should be designed to accommodate the Farmer’s Market with multi-use space at the edges.
7. The average tolerable walking distance for a typical patron is roughly 3 min or 800 ft.
8. Damion Pregitzer was to verify the City’s preferred method of snow removal and cleaning. Specific equipment size and weight should be taken into account when designing the structure.
9. The final delivery date for the report as stated in the RFP is June 30th. It was agreed that the report should be submitted to the City Council in a workshop on July 21st. All information will have to be submitted to Damion no later than July 10th.

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Thomas A Trapp
OPN Architects, Inc.

Attachments: none

Distribution: All in attendance

Applicable codes
2006 International Building Code
2005 National Electrical Code
2006 International Mechanical Code
2006 Uniform Plumbing Code
2006 International Fire Code & Appendix D: Fire Apparatus Access Roads
2003 ANSI 117.1

Concept Descriptions
These are items unique to each Concept that will have an impact on code interpretations.

Concept A: 156,000 gsf, 1 Tier,
2 ramps accessing open parking garage including stairs.
400 total parking stalls serving main street businesses.

Concept B Phase - I: 76,050 gsf, 1 Tier,
Ramp accessing open parking garage including stairs.
216 total parking stalls serving main street businesses.

Concept B Phase - II: 79,950 gsf, 1 Tier,
Ramp accessing open parking garage including stairs.
184 total parking stalls serving main street businesses.

Concepts C: 118,400 gsf 2 Tier,
Ramp accessing open parking garage including stairs and an elevator.
350 total parking stalls serving main street businesses.

Construction Type: I - A precast concrete (0 hour re rating required)

Architectural Review based upon: 2006 INTERNATIONAL BUILDING CODE

Chapter 3: Use and Occupancy Classification

311.3 Design Classification
All design Concepts are Low-Hazard Storage, Group S-2, parking garages open or enclosed

Chapter 4: Special Detailed Requirements based on Use and Occupancy

406. Motor Vehicle Related Occupancies

406.2.1 Classification
All design Concepts are Ramp Access Open Parking Garage

406.2.2 Clear height. Min 7'-0",
All design Concepts are 8'-4" clear min. for level one parking including van accessible spaces

406.2.3 Guards.
42" height provided as required in all Design Concepts

406.2.4 Vehicle Barriers
Vehicle barriers not less than 2' high designed in accordance with Section 1607.7 when 1' or greater difference in adjacent floor elevation.
All design Concepts include galvanized barrier cables 4" O.C. at a minimum height of 42" to meet requirements for both pedestrian and vehicular requirements.

406.2.5 Ramps
Vehicle ramps are not considered to provide required exits in Design Concepts

406.2.6 Floor Surface
Parking Surface is concrete with surface applied topping in all Design Concepts

406.2.7 Mixed separation
All Design Concepts assume no mixed occupancies

406.2.8 Special Hazards
Design Concepts have no special hazards

406.3 Open parking garages
Design Concepts are a ramp access open parking garage

406.3.3 Construction
Design Concepts are TYPE I - A construction.

406.3.3.1 Openings.
For Natural ventilation purposes, the exterior side of the structure shall have uniformly distributed openings on two or more sides. The area of such opening on exterior walls on a tier must be at least 20 percent of the total perimeter wall area of each tier. The aggregate length of the openings considered to be providing natural ventilation shall constitute a maximum 40 percent of the perimeter of the tier. Interior walls shall be at least 20 percent open with uniformly distributed openings.
Exception: Opening are not required t be distributed over 40 percent of the building perimeter where the required openings are uniformly distributed over two opposing sides of the building.

Concept A: ***Level 1 is 63 % open on the North elevation, 75% open on the East elevation, 88% on the South elevation, and 80% open on the West elevation***

Concept B-I: ***Level 1 is 61 % open on the North elevation, 65% open on the East elevation, 88% on the South elevation, and 87% open on the West elevation***

Concept B-II: ***Level 1 is 65 % open on the North elevation, 88% open on the East elevation, 86% on the South elevation, and 72% open on the West elevation***

Concept C: ***Level 1 is 46 % open on the North elevation, 88% open on the East elevation, 65% on the South elevation, and 40% open on the West elevation***
Level 2 is 46 % open on the North elevation, 88% open on the East elevation, 65% on the South elevation, and 40% open on the West elevation

406.3.4 Uses.
All design Concepts are assumed used exclusively for the parking and storage of public motor vehicles.

406.3.5 Area and Height.

Type of construction	***I - A***
Area per tier	***Unlimited***
Ramp access	***Unlimited***

406.3.7 Location on property. ***Design Concept A faces a public way on two sides.***

Concepts A & B–II Building Face:	Distance to Adjacent Building or Public Street
North	***35' (Main Street Buildings)***
East	***15' (Kellogg Ave)***
South	***27' (Railroad Tracks)***
West	***15' (Clark Ave)***

Concepts C & B–I Building Face:	Distance to Adjacent Building or Public Street
North	***35' (Main Street Buildings)***
East	***460' (Kellogg Ave)***
South	***27' (Railroad Tracks)***
West	***15' (Clark Ave)***

406.3.11 Enclosure of vertical openings
Enclosure shall not be required for vertical openings as specified in Section 406.3.8.
All design Concepts have no hazard storage or uses therefore to enclosure of vertical openings.

406.3.12 Ventilation
Ventilation, other than the percentage of openings specified in Section 406.3.3.1, shall not be required. ***All design Concepts do not require ventilation of parking decks***

Chapter 5: General Building Heights and Areas

Area and height limitations are as determined in Section 406.3.5 for all Design Concepts

Chapter 6: Types of Construction

602 Construction Classification

602.2 Types I and II construction are those types of construction in which the building elements listed in Table 601 are of noncombustible materials.

Table 601 Fire-resistance Rating Requirements for Building Elements (hours)

Building Element		**Type I-A**
Structural Frame		3
(Including columns, girders, trusses, spandrels)		
Bearing walls:	Exterior	3
	Interior	3
Nonbearing walls		
and Partitions:	Exterior	See Table 602
	Interior	0
Floor Construction		2
(Including support beams and joists)		
Roof construction		1½
(Including support beams and joists)		

Table 602 Fire-Resistance rating requirements for exterior walls based on fire separation distance

Fire Separation Distance (Feet)	Type of Construction	Group S-2
<5c	All	1
>5	***I-A***	***1***
<10	Others	1
>10	I-A, I-B	1
<30	II-B, V-B	0
	Others	1
>30	All	0

a. Load-bearing exterior walls shall also comply with fire-resistance rating requirements of Table 601.

All Design Concepts are Construction Type I-A, 3 hour fire rating required by Table 601.

d. Open parking garages complying with Section 406 shall not be required to have a fire resistance rating.

All Design Concepts comply with Section 406 requirements for Open Parking Garages.

Chapter 9: Fire Protection Systems

Design Concepts are not required to incorporate automatic fire sprinkler system

903.2.10.1.2. Openings on one side only

Where openings in a story are provided only on one side and the opposite wall of such story is more than 75 feet (22 860mm) from such openings, the story shall be equipped throughout with an approved automatic sprinkler system, or openings as specified above shall be provided on at least two sides of the story.

Design Concepts provide openings on two sides for firefighting or rescue exceeding required size and location.

905 Standpipe Systems

905.3.1 Building Height

Exceptions:

2. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet 45 720mm) above the lowest level of fire department vehicle access.

3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided the hose connections are located as required for Class II standpipes in accordance with Section 905.5.

Design Concepts incorporate Class I manual dry standpipes located in accordance with Class II requirements

Chapter 10: Means of Egress

1004 Occupant Load

1004.1.1 Design Occupant Load

Concept A	Floor	Use	Area (gsf)	Load Factor	Occupants
	Tier 1	Parking	78,000	200	390
	Tier 2	Parking	78,000	200	390
Total			**156,000**		**780**

Concept B-I	Floor	Use	Area (gsf)	Load Factor	Occupants
	Tier 1	Parking	38,025	200	191
	Tier 2	Parking	38,025	200	191
Total			**76,050**		**382**

Concept B-II	Floor	Use	Area (gsf)	Load Factor	Occupants
	Tier 1	Parking	78,000	200	390
	Tier 2	Parking	78,000	200	390
Total			**156,000**		**780**

Concept C	Floor	Use	Area (gsf)	Load Factor	Occupants
	Tier 1	Parking	39,467	200	198
	Tier 2	Parking	39,467	200	198
	Tier 3	Parking	39,467	200	198
Total			**118,400**		**594**

1005.1 Egress width – Stairways

Concept A	Level	Occupants	Factor	Exit Stair Width Req'd	Stair Width Provided
	2	390	3	117"	3 @ 72" = 216"
	1	390	3	N/A	N/A

Concept B-I	Level	Occupants	Factor	Exit Stair Width Req'd	Stair Width Provided
	2	191	3	58"	2 @ 72" = 144"
	1	191	3	N/A	N/A

Concept B-II	Level	Occupants	Factor	Exit Stair Width Req'd	Stair Width Provided
	2	390	3	17"	3 @ 72" = 216"
	1	390	3		

Concept C	Level	Occupants	Factor	Exit Stair Width Req'd	Stair Width Provided
	3	198	3	60"	2 @ 72" = 144"
	2	198	3	60"	2 @ 72" = 144"
	1	198	3	N/A	N/A

1003.2.12 Guards

All Design Concepts include guardrails not less that 42" tall with no openings over 4" meeting the structural requirements. Guards are included as the vehicular barrier strand, exceeding the pedestrian structural requirements.

Section 1007	Accessible means of egress	
1007.2	Continuity and components. ***All Design Concepts include compliant components.***	
1007.3	Stairway width. ***All Design Concepts egress stairs are 72" wide.***	
1007.2.1	Elevator Required	
	In buildings where a required accessible floor is 4 or more stories above or below a level of discharge, at least one required accessible means of egress shall be an elevator.	
	Design Concept C does have an elevator. An elevator is not technically required because it is no taller than 3 stories and all of the accessible parking stalls are on the ground level.	
Section 1009	Stairways	
1009.2	Headroom	
	Stairways w/in all Design Concepts shall have the min. headroom clearance of 80".	
1009.5.2	Outdoor Conditions	
	Outdoor stairways and outdoor approaches to stairways shall be designed so that water will not accumulate on walking surfaces.	
	All Design Concepts provide unenclosed egress stairs with positive drainage and cover to address accumulation.	
1015.1	Exit or exit doorways required	
	Maximum occupant load for one exit in S-2 is 29. 2 exits required	
	All Design Concepts provide 2 exits.	
1016.1	Travel distance limitations	
	Exceptions: 1. Travel distance in open parking garages is permitted to be measured to the closest riser of open stairs.	
	From Table 1016.1	***Exit Travel Distance; OCCUPANCY S-2 WITHOUT SPRINKLER IS 300'***
Section 1019	Number of exits and continuity	
	From Table 1019.1 Minimum exits required for the occupant load 1-500:2	
1019.1.1	Open parking structures	
	Parking Structures shall not have less than 2 exits from each parking tier, except that only one exit is required where vehicles are not mechanically parked. Vehicle ramps shall not be considered as required exits unless pedestrian facilities are provided.	
1020.1	Enclosures required	
	Interior exits shall always be enclosed.	
	Exceptions: 5. Stairways in open parking structures which will serve only the parking structure are not required to be enclosed.	

Chapter 11:	Accessibility	
1104	Accessibility Route	
	The Design Concepts accommodate accessible routes.	
1105	Accessible entrances	
	The Design Concepts accommodate one of two pedestrian routes (vertical), as accessible entrances.	
1106	Parking and passenger loading facilities	
Table 1106.1	Required minimum accessible parking spaces	
	201-300 total spaces require 7 accessible spaces	***7 - Provided in Concept B – Phase I***
	301-400 total spaces require 8 accessible spaces	***8 – Provided in Concept C***
	401-500 total spaces require 9 accessible spaces	***9 – Provided in Concept A***
		9 – Provided in Concept B Complete
	****Total accessible spaces provided includes 2 Van-Accessible spaces at grade only***	
1006.5	Van Spaces	
	For every six or fraction of six accessible parking spaces, at least one shall be a van accessible parking space. ***Design provides the minimum of 2 van-accessible spaces.***	
1106.6	Location	
	Accessible parking spaces shall be located on the shortest route of travel from adjacent parking to an accessible building entrance.	
	Exception: In Multi-level parking structures, van accessible parking spaces are permitted on one level.	

2003 ANSI 117.1		
Section 402	Accessible Route	
	Design Concepts A, B-1, B-11 & C accommodate all accessible route requirements.	
Section 407	Elevators	
	Design Concept C meets or exceeds all requirements of this section and ASME 17.1, Section 105.2.5.	
Section 502	Parking Spaces	
502.2	Car spaces: 96" or 8'-0" min. width	
	Van Spaces: 132" or 11'-0" min. width	
	Exception: Van spaces are permitted to be 96" min. if the adjacent access aisle is 96" min. width	
	All accessible spaces provided are 108" or 9'-0" wide	
502.4	Access Aisle	
502.4.2	Width: Serving car or van 60" min. width.	
	All access aisles provided are 60" or 5'-0" wide	
502.6	Minimum vertical clearance require for vans is 98" or 8'-2" on the	
	All Concepts design is 8'-4" clear exceeding the min. clear height required on the first level.	
Section 703	Signs	
703.1	General	
	All Concepts will contain signage that complies with Section 703.	

Architectural Review based upon: City of Ames Municipal Code

Chapter 29, Article 4 – Development Standards (City of Ames)

Sec. 29.403. Landscaping and Screening

Any required landscaping, as for setbacks or parking lots, may be applied toward the minimum landscaped area percentage requirement. Required landscaping and screening must meet the levels referenced in each applicable zone development standards table and this ordinance as set forth in Section 29.403(1).

(1) Landscaping and Screening Standards

(a) L1, General Landscaping

(ii) Required landscaping elements. The following landscaping elements must be applied in the following ratios.

a. If the area to be landscaped is then than 30 feet deep, required minimum ratio in one Landscape Tree per 100 square feet parallel to the lot line, plus 3 low shrubs per 300 square feet of area to be landscaped.

(b) L2, Low Screen

(i) Generally. The L2 standard requires a combination of distance and low-level screening to separate uses or development. The standard is generally applied where a low-level of screening is adequate to soften the impact of the use or development and where visibility between areas is more important than total visual screen. It is usually applied along front lot lines.

(ii) Required landscaping elements. Low shrubs spaced at a max. Distance of 4 feet on center must forma continuous screen 3 feet high. In addition, one landscaping tree is required per 50 lineal feet of landscaped area or as appropriate to provide tree canopy over the landscape area. A 3 foot high masonry wall may be substituted for the shrubs, but the trees and ground cover plants are still required. A wood fence 3 feet high, or a 3 foot high berm in combination with low shrubs spaced a at max. of 8 feet on center also may be substituted for the shrubs, but the trees and ground cover plants are still required. When applied along Street Lot Lines, the fence or wall is placed along the interior side of the landscaped area. Appropriate adjustments shall be made to preserve sight visibility at all intersection as per Section 29.408(5).

Plant Materials

(a) Shrubs and Ground Cover. All required ground cover plants and shrubs must be of sufficient size and number to meet the required standards within 3 years of planting. Mulch (as ground cover) must be confined to areas underneath plants and is not a substitute for ground cover plants. Ground cover plants may include grass or vines.
(b) Landscape Trees. Landscape Trees may be deciduous or coniferous. Deciduous trees at the time of planting must be fully branched, have a minimum diameter of 1 ½", measured 4 feet above ground and have a minimum height of 6 feet. Coniferous trees at time of planting must be fully branched and have a minimum height of 3 feet.
(c) Existing vegetation. Existing landscaping or natural vegetation may be used to meet the standards for the required landscaping, if protected and maintained during the construction phase of the development. When the existing trees are at least 12 inches in diameter, measured 5 feet above the ground, they may count triple towards meeting the requirements of the landscaping standards.
(d) Definition of shrubs.
(i) Low Shrubs: Shrubs with a mature height of 3 to 6 feet
(ii) High Shrubs: Shrubs with a mature height of 6 feet or greater.

Landscape Requirements for surface parking lots.

(c) Setback and perimeter landscaping. Minimum setbacks and perimeter landscaping standards for parking areas, and for any driveways and drive aisles accessing parking areas are set forth in table 29.403(4) below.

Minimum Parking area Setbacks and Perimeter Landscaping

Lot line abutting street	***5 ft. @ L2*** or 10 ft. @ L1
Lot line abutting a commercially or Industrial Zoned lot	***5 ft. @ L2*** or 10 ft. @ L1

Sec. 29.406 Off-Street Parking
(9) Parking Space and Vehicle Aisle Dimensions

(a) All required parking spaces must comply with the minimum dimensions for spaces stated in Figure 29.406(9).

Full sized Vehicles Table 29.406(9)-1

		Designed
Parking angle:	90 degrees	***90 degrees***
Curb length per space:	9'-0"	***9'-0"***
Space Depth:	19'-0"	***19'-0"***
Access Aisle Width:	24'-0"	***24'-0"***
Space Width:	9'-0"	***9'-0"***

*Auto Accessible spaces shall be 13'-0" wide, including parking space and passenger aisle.
*Van-Accessible spaces shall be 16'-0" wide, including parking space and passenger aisle.

(10) Driveways

Driveways for all parking facilities must be a minimum of 12 feet wide for one-way traffic and 20 feet wide fro two-way traffic. Drive ways may not exceed 30 feet in width. Driveways must be designed to minimize curb cuts. ***All Design Concepts Driveway Width: 24'-0"***

(12) Parking Decks

No parking may be provided in stacked parking decks unless the structure containing such parking conforms to the following requirements.
(a) Deck structure visible from the street must be horizontal rather than sloping.
(b) Screening or other improvements must be made so that parked vehicles are shielded from view at each level of the parking structure.
(c) In "DSC" Zone, 75% of street level frontage must be maintained for walk-in retail and service uses. **(Ord. No. 3822, 3-8-05)**
All Design Concepts assumes a variance to maximize the capacity of the proposed parking structure.
(d) The parking structure must conform to all setbacks, height, bulk and landscaping requirements f or buildings within the zone in which the structure is located.
(e) In the DSC Zone no parking is permitted in any structure on the ground level of the structure or within space, which extends from street level upwards a distance of 10 feet within the 35 feet of a street lot line. **(Ord. No. 3595, 10-24-00; Ord. No. 3872, 03-07-06)**
All Design Concepts assumes a variance to maximize the capacity of the proposed parking structure.

(14) Parking Spaces Accessible for Persons with Disabilities.

For new construction, (a) where parking spaces are provided for self parking of vehicles by employees or visitors to a site, parking spaces shall be provided in accordance with the minimum ratios set forth in Table 29.406(14) below, except where no residential units are accessible.

Required Accessible Parking Spaces Table 29.406(14)

Total Parking Spaces in Lot	Req'd Min.	Number of Accessible Spaces
201 to 300	7	**7 - Provided in Concept B – Phase I - (216 total spaces)**
301 to 400	8	**8 – Provided in Concept C – (350 total spaces)**
401 to 500	9	**9 – Provided in Concept A – (405 total spaces)**
		9 – Provided in Concept B Complete – (405 total spaces)

(15) Standard for Accessible Spaces.

(b) Width of Accessible Parking Spaces and Passenger Access Aisles
(i) Spaces. Accessible Parking Spaces must have a minimum width of 8 feet.
Design Concepts all have 9'-0" wide stalls.
(ii) Passenger access aisles. Except for spaces required to be van-accessible, all Accessible Parking Spaces must be served by passenger access aisles with a minimum width of 5 feet. ***Design Concepts all have 5'-0" access aisles.***
(iii) Van-accessible spaces. One in every 8, but not less than one, required Accessible Parking Spaces must be serves by a passenger access aisle with a minimum width of 8 feet and must be designate "Van-Accessible" by a sign mounted below the symbol of accessibility. ***All Design Concepts have two van-accessible spaces.***
(d) Vertical Clearance. All Accessible Parking Spaces and at least one vehicle access route to and from all Accessible Parking Spaces must have a minimum vertical clearance of 8 feet 2 inches.
All Design Concepts have 8'-4" clear exceeding the required minimum.

(16) Relationship of Accessible Parking Space Requirements to Federal and State Law.

In addition to the requirement set forth in section 29.406(14), federal and state laws contain requirements and specifications for parking spaces accessible to disable or handicaps persons contains in this Ordinance, state and federal law shall control.

Chapter 29, Article 8 – Commercial Zones (City of Ames)

Sec. 29.808. "DSC" Downtown Service Center (Lots X & Y are considered in DSC and must comply standards)
(2) Zone Development Standard.
The zone development standards for the DSC Zone are set forth in table 29.808(3) below:

Table 29.808(3) Downtown Service Center (DSC) Zone Development Standards

DEVELOPMENT STANDARDS	DSC ZONE
Minimum FAR	1.0 [1]
Minimum Lot Area each	No minimum, except for mixed uses, which shall provide 250 sf of lot area for dwelling unit
Minimum Lot Frontage	No minimum, except for mixed uses, which shall provide 25 ft.
Minimum Building Setbacks:	
Front Lot Line	0
Side Lot Line	0
Rear Lot Line	0
Lot Line Abutting a Residentially Zoned Lot	10 ft.
Landscaping in Setbacks Abutting an R Zoned Lot	5 ft. @ L3. See Section 29.403
Maximum Building Coverage	100%
Minimum Landscaped Area	No minimum
Maximum Height	7 stories; **Design maximum height is 3 stories**
Minimum Height	2 Stories; **Design minimum height is 2 stories**
Parking Allowed Between Buildings and Streets	No
Drive-Through Facilities Permitted	Yes
Outdoor Display Permitted	Yes. See Section 29.405
Outdoor Storage Permitted	No
Trucks and Equipment Permitted	Yes

Appendix D Fire Apparatus Access Roads

Section D 105 The minimum fire apparatus access road width of 26'-0" clear is required for a building with any point higher than 30'-0". The access road must run parallel with one entire side of the building.
We have provided a fire access road 26'-0" clear along the entire north side of the building.
All Design Concepts meet or exceed the required 26'-0" min. clear width from face of building to curb and will continue to provide for a Fire Apparatus Access Road.

Buildable Area (minus fire separation distance at south 5'-0", Fire access road at north 26'-0") 96,000 sq ft

Description		Total
CONCEPT A - FULL SITE, 1 DECK, BID 2010	$	7,841,517
ADD INFILTRATION FIELD	$	103,950
CHANGE PCC PAVING TO PERMEABLE	$	47,500
ADD SITE LIGHTING	$	102,000
ADD EMERGENCY GENERATOR	$	50,000
ADD 2 SNOW GATES	$	14,000
CONCEPT B - PHASE 1, 1 DECK, BID 2010	$	3,837,930
ADD INFILTRATION FIELD	$	55,500
CHANGE PCC PAVING TO PERMEABLE	$	21,500
ADD SITE LIGHTING	$	48,500
ADD EMERGENCY GENERATOR	$	50,000
ADD 1 SNOW GATE	$	7,000
CONCEPT B - PHASE 2, 1 DECK, BID 2012	$	4,422,769
ADD INFILTRATION FIELD	$	60,000
CHANGE PCC PAVING TO PERMEABLE	$	28,500
ADD SITE LIGHTING	$	58,000
MODIFY EMERGENCY GENERATOR	$	15,000
ADD 1 SNOW GATE	$	7,500
CONCEPT C - HALF SITE, 2 DECKS, BID 2010	$	6,457,415
ADD INFILTRATION FIELD	$	55,500
CHANGE PCC PAVING TO PERMEABLE	$	21,500
ADD SITE LIGHTING	$	82,000
ADD EMERGENCY GENERATOR	$	60,000
ADD 1 SNOW GATE	$	7,000

Description		Total
CONCEPT A - FULL SITE, 1 DECK, BID 2010		
DEMO, DISPOSE PAVING, CURB & SURFACES		110100
MISC GRADE, CUT & FILL		67963
MISC SITE DEMO		25000
UTILITIES		
UPGRADE EXISTING WATER SERVICE AT NORTH		45000
FIRE SERVICE LOOP - E, S, W		65000
FIRE HYDRANTS, VALVES		30000
STORM SEWER PIPING, INTAKES, MANHOLES		127500
SAND INTERCEPTOR		70000
CONCRETE APPROACHES		7250
REMOVE & REPLACE NORTH CURB & GUTTER		21750
REMOVE & REPLACE E & W CURB & GUTTER AT STREET		10200
MISC SIDEWALK REPLACEMENT AT NORTH		11077
NORTH DRIVE		88550
PAVING NORTH OF BRIDGE		67000
PAVING SOUTH OF BRIDGE		34300
LANDSCAPING AT EAST, SOUTH, WEST		
TREES AT EAST, SOUTH		9000
SHRUBS		30000
TOPSOIL & SOD, 75%		9900
PLANTING BEDS & MULCH, 25%		33000
SIDEWALKS AT EAST & WEST STREETS		2720
PARKING GARAGE CONSTRUCTION		
DEEP FOUNDATION SYSTEM - DRILLED PIERS		270000
A MOBILIZE		
B LAYOUT		
C DRILLED PIERS, 36" X 30'		
D HAUL, DISPOSE EXCESS SOIL		
FOUNDATIONS & RAMP WALLS		478131
A GRADE BEAM FOUNDATIONS		
B PERIMETER WALLS AT GRADE, 12" X 2'		
C UP RAMP WALLS		
D UP RAMP BACKFILL		
SLAB ON GRADE, 6" & RAMP SLAB, 6"		269517
A POROUS FILL, 6" UNDER SLAB ON GRADE		
B SLAB ON GRADE, 6"		
C SLAB ON GRADE AT RAMP, 6"		
PRECAST COLUMNS, BEAMS, DOUBLE TEES		1403250

Construction Costs prepared by Stecker–Harmsen

Description		Total
A	UPPER LEVEL EXTERIOR SPANDREL BEAM/WALL	
B	COLUMNS, BEAMS, PC DOUBLE TEES, W/ SURFACE	
C	BRIDGE CONNECTION	
	TRAFFIC TOPPING, PERIMETER WASH, JOINT SEALANTS	300153
A	TRAFFIC TOPPING	
B	PERIMETER WASH/TOPPING ON PRECAST	
C	JOINT SEALANT SYSTEM	
	BARRIER CABLES AT UPPER LEVEL	10075
	BOLLARDS & PIPE PROTECTION	40985
A	GALVANIZED STEEL BOLLARDS	
B	STEEL BUMPERS AT VERTICAL PIPING	
	STAIRS, PARTIAL ENCLOSURE, ROOF	122100
A	STAIR CONSTRUCTION	
B	STAIR ROOF	
C	PARTIAL GLASS ENCLOSURE AT STAIR	
	FINISHES - PAINT, BASED ON FLOOR AREA	78000
	PLUMBING, ROOF DRAINS, STANDPIPES	262720
A	PLUMBING HOSE BIBS	
B	FLOOR AND ROOF DRAINS	
C	DRY STANDPIPE SYSTEM	
	ELECTRICAL WORK	397800
A	ELECTRIC SERVICE	
B	LIGHTING & BRANCH WIRING	
C	COMMUNICATION & SECURITY	
	PCC PAVING, 6" (PERMEABLE AREA)	28020
	PARKING STALL STRIPING	4000
	RAMP SIGNAGE - WAY FINDING	15600
	PARKING EQUIPMENT - BUDGET	400000
A	OWNER'S ADJUSTMENT	
B	TICKET DISPENSERS & AUTOMATIC GATES	
C	FEE COMPUTER	
D	TICKET SPLITTER, TIME/DATE, MAG STRIP	
E	COLLECTION STATION PAY ON FOOT	
F	PARKING CONTROL SOFTWARE	
	SCREENING SYSTEM, 16' - 1 LEVEL AT E, S, W	712000
A	BACKUP FRAME/SUPPORT	
B	SCREENING SYSTEM	

Description	Total
CONCEPT A - FULL SITE, 1 DECK, BID 2010 - SUBTOTAL	5657660
ADD FOR GENERAL REQUIREMENTS	282,883
SUBTOTAL	5,940,543
CONTRACTOR'S MARKUP ON NET COSTS	594,054
	6,534,598
DESIGN CONTINGENCY FOR BID 2010	1,306,920
CONCEPT A - FULL SITE, 1 DECK, BID 2010 - TOTAL	**$7,841,517**

CONCEPT B - PHASE 1, 1 DECK, BID 2010

DEMO, DISPOSE PAVING, CURB & SURFACES	52500
MISC GRADE, CUT & FILL	32407
MISC SITE DEMO	15000
UTILITIES	
UPGRADE EXISTING WATER SERVICE AT NORTH	22500
FIRE SERVICE LOOP - S, W	32500
FIRE HYDRANTS, VALVES	15000
STORM SEWER PIPING, INTAKES, MANHOLES	63750
SAND INTERCEPTOR	35000
CONCRETE APPROACHES	3500
REMOVE & REPLACE NORTH CURB & GUTTER	9500
REMOVE & REPLACE WEST CURB & GUTTER AT STREET	4800
MISC SIDEWALK REPLACEMENT AT NORTH	4894
NORTH DRIVE	42000
PAVING NORTH OF BRIDGE	20000
PAVING SOUTH OF BRIDGE	15400
LANDSCAPING AT SOUTH, WEST	
TREES AT WEST, SOUTH	4500
SHRUBS	15000
TOPSOIL & SOD, 75%	4125
PLANTING BEDS & MULCH, 25%	7500
SIDEWALKS AT WEST STREET	1360

PARKING GARAGE CONSTRUCTION

Construction Costs prepared by Stecker–Harmsen

	Description	Total
	DEEP FOUNDATION SYSTEM - DRILLED PIERS	128.57
A	MOBILIZE	
B	LAYOUT	
C	DRILLED PIERS, 36" X 30'	
D	HAUL, DISPOSE EXCESS SOIL	
	FOUNDATIONS & RAMP WALLS	3.23
A	GRADE BEAM FOUNDATIONS	
B	PERIMETER WALLS AT GRADE, 12" X 2'	
C	UP RAMP WALLS	
D	UP RAMP BACKFILL	
	SLAB ON GRADE, 6" & RAMP SLAB, 6"	4.28
A	POROUS FILL, 6" UNDER SLAB ON GRADE	
B	SLAB ON GRADE, 6"	
C	SLAB ON GRADE AT RAMP, 6"	
	PRECAST COLUMNS, BEAMS, DOUBLE TEES	19.57
A	UPPER LEVEL EXTERIOR SPANDREL BEAM/WALL	
B	COLUMNS, BEAMS, PC DOUBLE TEES W/SURFACE	
	TRAFFIC TOPPING, PERIMETER WASH, JOINT SEALANTS	4.45
A	TRAFFIC TOPPING	
B	PERIMETER WASH/TOPPING ON PRECAST	
C	JOINT SEALANT SYSTEM	
	BARRIER CABLES AT UPPER LEVEL	5.00
	BOLLARDS & PIPE PROTECTION	21078.00
A	GALVANIZED STEEL BOLLARDS	
B	STEEL BUMPERS AT VERTICAL PIPING	
	STAIRS, PARTIAL ENCLOSURE, ROOF	41250.00
A	STAIR CONSTRUCTION	
B	STAIR ROOF	
C	PARTIAL GLASS ENCLOSURE AT STAIR	
	FINISHES - BASED ON FLOOR AREA	0.50
	PLUMBING, ROOF DRAINS, STANDPIPES	1.65
A	PLUMBING HOSE BIBS	
B	FLOOR AND ROOF DRAINS	
C	DRY STANDPIPE SYSTEM	
	ELECTRICAL WORK	2.55
A	ELECTRIC SERVICE	
B	LIGHTING & BRANCH WIRING	
C	COMMUNICATION & SECURITY	
	PCC PAVING, 6" (PERMEABLE AREA)	3.50

	Description	Total
	PARKING STALL STRIPING	2160
	RAMP SIGNAGE - WAY FINDING	7605
	PARKING EQUIPMENT - BUDGET	200000
A	OWNER'S ADJUSTMENT	
B	TICKET DISPENSERS & AUTOMATIC GATES	
C	FEE COMPUTER	
D	TICKET SPLITTER, TIME/DATE, MAG STRIP	
E	COLLECTION STATION PAY ON FOOT	
F	PARKING CONTROL SOFTWARE	
	SCREENING SYSTEM, 16' - 1 LEVEL AT S, W	348000
A	BACKUP FRAME/SUPPORT	
B	SCREENING SYSTEM	

CONCEPT B - PHASE 1, 1 DECK, BID 2010 - SUBTOTAL	2769070
ADD FOR GENERAL REQUIREMENTS	138,453
SUBTOTAL	2,907,523
CONTRACTOR'S MARKUP ON NET COSTS	290,752
	3,198,275
DESIGN CONTINGENCY FOR BID 2010	639,655
CONCEPT B - PHASE 1, 1 DECK, BID 2010 - TOTAL	**$3,837,930**

CONCEPT B - PHASE 2, 1 DECK, BID 2012

DEMO, DISPOSE PAVING, CURB & SURFACES	57600
MISC GRADE, CUT & FILL	35556
MISC SITE DEMO	10000
UTILITIES	
UPGRADE EXISTING WATER SERVICE AT NORTH	22500
FIRE SERVICE LOOP - E, S, W	32500
FIRE HYDRANTS, VALVES	15000
STORM SEWER PIPING, INTAKES, MANHOLES	63750
SAND INTERCEPTOR	35000

Construction Costs prepared by Stecker–Harmsen

	Description	Total
	CONCRETE APPROACHES	3750
	REMOVE & REPLACE NORTH CURB & GUTTER	12250
	REMOVE & REPLACE EAST CURB & GUTTER AT STREET	5400
	MISC SIDEWALK REPLACEMENT AT NORTH	6182
	NORTH DRIVE	46550
	PAVING NORTH OF BRIDGE	47000
	PAVING SOUTH OF BRIDGE	18900
	LANDSCAPING AT EAST, SOUTH	
	TREES AT EAST, SOUTH	4500
	SHRUBS	15000
	TOPSOIL & SOD, 75%	5775
	PLANTING BEDS & MULCH, 25%	10500
	SIDEWALKS AT EAST STREET	1360
	PARKING GARAGE CONSTRUCTION	
	DEEP FOUNDATION SYSTEM - DRILLED PIERS	145000
A	MOBILIZE	
B	LAYOUT	
C	DRILLED PIERS, 36" X 30'	
D	HAUL, DISPOSE EXCESS SOIL	
	FOUNDATIONS & RAMP WALLS	233757
A	GRADE BEAM FOUNDATIONS	
B	PERIMETER WALLS AT GRADE, 12" X 2'	
C	UP RAMP WALLS	
D	UP RAMP BACKFILL	
	SLAB ON GRADE, 6" & RAMP SLAB, 6"	129256
A	POROUS FILL, 6" UNDER SLAB ON GRADE	
B	SLAB ON GRADE, 6"	
C	SLAB ON GRADE AT RAMP, 6"	
	DEMO & PREP AT CONNECTION	12250
A	DEMO & PREP AT GRADE CONNECTION	
B	DEMO & PREP AT BRIDGE CONNECTION	
	PRECAST COLUMNS, BEAMS, DOUBLE TEES	747000
A	UPPER LEVEL EXTERIOR SPANDREL BEAM/WALL	
B	COLUMNS, BEAMS, PC DOUBLE TEES W/SURFACE	
C	BRIDGE CONNECTION	
	TRAFFIC TOPPING, PERIMETER WASH, JOINT SEALANTS	149965
A	TRAFFIC TOPPING	
B	PERIMETER WASH/TOPPING ON PRECAST	
C	JOINT SEALANT SYSTEM	

	Description	Total
	BARRIER CABLES AT UPPER LEVEL	5625
	BOLLARDS & PIPE PROTECTION	19907
A	GALVANIZED STEEL BOLLARDS	
B	STEEL BUMPERS AT VERTICAL PIPING	
	STAIRS, PARTIAL ENCLOSURE, ROOF	83600
A	STAIR CONSTRUCTION	
B	STAIR ROOF	
C	PARTIAL GLASS ENCLOSURE AT STAIR	
	FINISHES - BASED ON FLOOR AREA	39975
	PLUMBING, ROOF DRAINS, STANDPIPES	137040
A	PLUMBING HOSE BIBS	
B	FLOOR AND ROOF DRAINS	
C	DRY STANDPIPE SYSTEM	
	ELECTRICAL WORK	203873
A	ELECTRIC SERVICE	
B	LIGHTING & BRANCH WIRING	
C	COMMUNICATION & SECURITY	
	PCC PAVING, 6" (PERMEABLE AREA)	15411
	PARKING STALL STRIPING	1840
	RAMP SIGNAGE - WAY FINDING	7995
	PARKING EQUIPMENT	200000
A	OWNER'S ADJUSTMENT	
B	TICKET DISPENSERS & AUTOMATIC GATES	
C	FEE COMPUTER UPGRADE	
D	TICKET SPLITTER, TIME/DATE, MAG STRIP	
E	COLLECTION STATION PAY ON FOOT	
F	PARKING CONTROL SOFTWARE UPGRADE	
	SCREENING SYSTEM, 16' - 1 LEVEL AT E, S	364000
A	BACKUP FRAME/SUPPORT	
B	SCREENING SYSTEM	

CONCEPT B - PHASE 2, 1 DECK, BID 2012 - SUBTOTAL	2945567
ADD FOR GENERAL REQUIREMENTS	147,278
SUBTOTAL	3,092,846
CONTRACTOR'S MARKUP ON NET COSTS	309,285

Construction Costs prepared by Stecker–Harmsen

Description	Total
	3,402,130
DESIGN CONTINGENCY, 20%, ESCALATION @ 5% / YEAR	1,020,639
CONCEPT B - PHASE 2, 1 DECK, BID 2012 - TOTAL	**$4,422,769**
CONCEPT C - HALF SITE, 2 DECKS, BID 2010	
DEMO, DISPOSE PAVING, CURB & SURFACES	53625
MISC GRADE, CUT & FILL	33102
MISC SITE DEMO	15000
UTILITIES	
UPGRADE EXISTING WATER SERVICE AT NORTH	22000
FIRE SERVICE LOOP - E, S, W	42000
FIRE HYDRANTS, VALVES	10000
STORM SEWER PIPING, INTAKES, MANHOLES	81000
SAND INTERCEPTOR	35000
CONCRETE APPROACHES	3750
REMOVE & REPLACE NORTH CURB & GUTTER	9750
REMOVE & REPLACE E & W CURB & GUTTER AT STREET	5250
MISC SIDEWALK REPLACEMENT AT NORTH	5023
NORTH DRIVE	42350
EAST PAVING	55000
LANDSCAPING AT SOUTH, WEST	
TREES AT WEST, SOUTH	4500
SHRUBS	15000
TOPSOIL & SOD, 75%	4208
PLANTING BEDS & MULCH, 25%	7650
SIDEWALKS AT WEST STREET	1360
PARKING GARAGE CONSTRUCTION	
DEEP FOUNDATION SYSTEM - DRILLED PIERS	175000
A MOBILIZE	
B LAYOUT	
C DRILLED PIERS, 36" X 30'	
D BELLS TO 6' DIAMETER	
E HAUL, DISPOSE EXCESS SOIL	
FOUNDATIONS & RAMP ON GRADE CONSTRUCTION	215745
A GRADE BEAM FOUNDATIONS	
B PERIMETER WALLS AT GRADE, 12" X 2'	
C UP RAMP WALLS	
D UP RAMP BACKFILL	
SLAB ON GRADE, 6" & RAMP SLAB, 6"	140261
A POROUS FILL, 6" UNDER SLAB ON GRADE	
B SLAB ON GRADE, 6"	
C SLAB ON GRADE AT RAMP, 6"	
PRECAST COLUMNS, BEAMS, DOUBLE TEES	1414750
A UPPER LEVEL EXTERIOR SPANDREL BEAM/WALL	
B PRECAST DOUBLE TEES, W/ SURFACE	
TRAFFIC TOPPING, PERIMETER WASH, JOINT SEALANTS	339980
A TRAFFIC TOPPING	
B PERIMETER WASH/TOPPING ON PRECAST	
C JOINT SEALANT SYSTEM	
BARRIER CABLES AT UPPER LEVEL	10250
BOLLARDS & PIPE PROTECTION	32203
A GALVANIZED STEEL BOLLARDS	
B STEEL BUMPERS AT VERTICAL PIPING	
STAIRS, PARTIAL ENCLOSURE, ROOF	120000
A STAIR CONSTRUCTION	
B STAIR ROOF	
C PARTIAL GLASS ENCLOSURE AT STAIR	
FINISHES - PAINT BASED ON FLOOR AREA	59200
PLUMBING, ROOF DRAINS, STANDPIPES	195440
A PLUMBING HOSE BIBS	
B FLOOR AND ROOF DRAINS	
C DRY STANDPIPE SYSTEM	
ELECTRICAL WORK	302685
A ELECTRIC SERVICE	
B LIGHTING & BRANCH WIRING	
C COMMUNICATION & SECURITY	
ELEVATOR PIT, SHAFT, EQUIPMENT, EQUIP ROOM	160000
A ELEVATOR PIT	
B ELEVATOR SHAFT WALLS	
C EQUIPMENT ROOM WALLS	
D EQUIPMENT ROOM DOOR	
E SUSPENDED GYP CEILING AT EQUIPMENT ROOM	
F ELEVATOR EQUIPMENT	
G ELEVATOR METALS	

Construction Costs prepared by Stecker–Harmsen

	Description	Total
	PCC PAVING, 6" (PERMEABLE AREA)	12609
	PARKING STALL STRIPING	3500
	RAMP SIGNAGE - WAY FINDING	11840
	PARKING EQUIPMENT	300000
A	OWNER'S ADJUSTMENT	
B	TICKET DISPENSERS & AUTOMATIC GATES	
C	FEE COMPUTER	
D	TICKET SPLITTER, TIME/DATE, MAG STRIP	
E	COLLECTION STATION PAY ON FOOT	
F	PARKING CONTROL SOFTWARE	
	SCREENING SYSTEM, 32' - 1 LEVEL AT S, W	720000
A	BACKUP FRAME/SUPPORT	
B	SCREENING SYSTEM	

CONCEPT C - HALF SITE, 2 DECKS, BID 2010 - SUBTOTAL	4659030
ADD FOR GENERAL REQUIREMENTS	232,951
SUBTOTAL	4,891,981
CONTRACTOR'S MARKUP ON NET COSTS	489,198
	5,381,179
DESIGN CONTINGENCY FOR BID 2010	1,076,236
CONCEPT C - HALF SITE, 2 DECKS, BID 2010 - TOTAL	**$6,457,415**

Construction Costs prepared by Stecker–Harmsen


Innova
SHOE


KEEP RIGHT
DO NOT STOP ON TRACKS
RAILROAD CROSSING TRACKS


KAUKAB BARNI
ARTIST ON COMMISSION • GRAPHIC DESIGNER
OPEN