The Velvet Freeze Project

Project Specification

"Martini Corner"

31st & Gillham
Kansas City, MO 64108

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Drafting & Design Capstone

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Document Description

This project specification is not to be confused with the construction specifications. It does not follow the standardized division format. The sole purpose is to provide a project description and general specification for the project design.

Project Summary

The Velvet Freeze Project is a Drafting and Design project to propose a renovation of the building located at 506 E. 31st Street, Kansas City, MO 64109. Originally constructed in 1930 as the Levy Brothers Meat and Provision Company, the building is remembered as the old famous Velvet Freeze Ice Cream Dairy. Located on adjoining lots in the Longfellow Community and adjacent to the historic Union Hill District is a three-story 23,360 square foot building on 0.9 acres. The Velvet Freeze was one of two dairies located on that block.

The location area at the intersection of 31st and Gillham is now known as the Martini Corner area, an entertainment district self described as “hip + creative entertainment district with all local owner operated joints. From martinis to sports to wine and outdoor patios, Martini Corner has it all within feet of each other.” The site is also located just south of The Filling Station Coffee Shop and The Battery Lofts, The Cadillac Lofts, and other major historic renovations and developments.

The final design project will provide a multi-use building that will provide added value to the surrounding communities by adding family entertainment resources, event space, an alternative large screen format venue, a unique ice cream drink lounge while restoring and preserving a unique historical artifact of Kansas City. The concept designs are based on the guidelines discussed with Butch Rigby of Screenland® of Film Row Company LLC®.

The Velvet Freeze Ice Cream® is a federally registered trademark of McGuinness Enterprises Inc. whose main office is located at 7355 West Florissant Avenue, Saint Louis, MO 63136-1348, Phone: (314) 381-2384. Owner John McGuinness notes that the Velvet Freeze Ice Cream has been in business for 78 years and once had 20 locations in the Kansas City area. Now solely operating in the St. Louis area, the Velvet Freeze still makes its original line of flavors. John McGuinness indicated the business is possible for sale.

The building will be designed as a multi-use facility with the main income function as an independent bar/lounge. The building will be given an identity as The Velvet Freeze with the renovation of the original storefront of the Velvet Freeze Ice Cream Shop. The storefront will function as the main bar that specializes in adult ice cream drinks. The building will incorporate historical elements to add and define the history and character of the building.

A designed theater space(s) will seat maximum occupancy in an adjustable lounge style environment. High-end consumer DVD/Blu-ray technology will be used to allow access to targeted movie screenings and use by the general public. The interior of the theater will include curtains and staging areas. An area for live performances will be included in the facility.

The facility will contain general office rental space to generate a steady source of income for Velvet Freeze. Other designed areas shall function as useable and rentable spaces for corporate and community events.

Sustainable design concepts and function will be used for the renovation. This will include a green rooftop deck and an eco-friendly parking area. Technologies that will reduce the operating cost of the building will be researched and incorporated. Project selection will incorporate LEED (Leadership in Energy and Environmental Design) elements as much as possible. The project design shall strive to achieve Gold to Platinum LEED Certification.

CAD Diagram Sheets

CAD Diagrams are the main material for presentation of design and functions. The associated CAD diagrams have the following sheets.

- CVR: Cover Sheet:
- C01: Site Location:
- C02: Site Demo Plan:
- C03: Water Harvesting:
- C04: New Site Plan:
- C05: Lot Detail
- A01: Basement Demo:
- A02: Basement Plan:
- A03: 1st Floor Demo:
- A04: 1st Floor Plan:
- A04 (2): Theater Plan:
- A05: Mezzanine Demo:
- A06: Mezzanine Plan:
- A07: 2nd Floor Demo:
- A08: 2nd Floor Plan:
- A09: Roof Demo:
- A10: Roof Plan:
- A11: Sectional View Green Roof

Tax Abatements & Incentives

The Velvet Freeze is in three incentive groups:

- Gillham Row PIEA (Planned Industrial Expansion Authority) Ordinance # 041143 that provides for a 25-year tax abatement.
- Longfellow/Dutch Hill Neighborhoods Urban Renewal Plan, Ordinance # 081090 that provides for a 10-year tax abatement.
- Missouri State EEZ (Enhanced Enterprise Zone) that provides incentives for job creation and investment.

Project Package Items Detail

The project package will contain the following items:

- Site plans and floor plan
    - Detail of the lot with parking and building layout.
    - Demolition plans as necessary
    - Detail of all levels and areas.
    - Site location in the Martini Corner area.
- Design sketches for exterior and interior concepts.
    - Drawn sketch of exterior southwest corner.
    - Drawn sketch of exterior entertainment deck.
    - Drawn sketch of exterior of parking area.
    - Drawn sketch of exterior concept viewing.
- Documents for use with construction working documents
    - Project Description: description of project goals and concepts.
    - Project Specifications: General categories of specifications with detail on specific items.
    - Material and product specifications and cut sheets as necessary.
- A presentation of design concepts and project package
    - An assembled package of all deliverables.
    - A power point presentation of project.

General Design Items

The general design items address areas not specifically mentioned in the LEED Specific Areas and general items of design and function.

1. Handicap Compliance

1.1. Handicap accessibility shall be addressed in the design to include parking, building entrance and general interior access. The elevator shall be the primary feature for handicap accessibility to interior floors. A lift will be used to access the exterior northeast deck. A ramp could be an alternative to the lift.

1.2. Theater seating shall be provided for wheelchair access allowing a space for non-motorized and motorized wheelchair parking next to a standard seat. Theater seating shall be movable to allow for arranging for both event adjustment and handicap accessibility.

2. Food Service

2.1. A restaurant, full menu kitchen will be designed for service in the building. The kitchen will be convenient to the loading dock and have local storage for all food items and liquor.

2.2. All kitchen appliances will be energy star rated. All appliances will be "smart" and programmable to perform scheduled functions (i.e. Ice making) during non-peak power grid usage.

2.3. The existing dumbwaiter will be used as a service lift between bars in different floors.

3. Parking and Vehicle Traffic.

3.1. The parking area will utilize sustainable design to contain runoff and provide as much green space as possible.

3.1.1. Pervious concrete will be used on all driveways and walkways that do not use a gravel base topping. Pervious concrete allows for easy rain penetration into the ground to prevent runoff. This also allows easier collection of rain waters for rain harvesting systems.

3.2. Parking will include spaces for bicycles, eco friendly cars, reserved spots for car pool groups and motorcycles. There shall be an area around the north and east side of the building that allows for limousine and taxi service.

3.3. Handicap parking shall be convenient to access ramps and provide cover from weather.

3.4. Parking area pedestrian walkways shall be of sustainable design, provide areas of rest and seating in green areas.

4. Design Specific Detail

4.1. The building shall be designed with an identity dominated by the Velvet Freeze to recreate and maintain historical significance.

4.2. General Office rental space shall be included along with general use areas for office and customer space.

4.3. A green roof-deck shall be designed to take advantage of the city view.

4.4. Theater shall contain lounge style seating to include plush red leather recliners, sofas and sectionals. The seating shall be movable to allow for easy arrangement for events and addition of extra seating for larger events.

4.5. The theater shall contain curtains for the screen and other areas that permit light (natural or artificial) to enter the viewing areas.

4.6. Theater projection and sound equipment will be a high-end consumer product instead of movie industry standard. The use of DVD and Blu-ray will be used.

4.7. A live performance area will be included in the design of the building.

4.8. A standard multi-use auditorium will be included in the design for large events.

4.9. The recreation of the original Velvet Freeze Ice Cream storefront will be the focus of the main bar.

5. Historical Preservation and Tax Abatements

5.1. The project will research Chapter 353 Tax Abatement under the Missouri Department of Economic Development as applicable.

5.2. The project will research tax abatements under The Economic Development Corporation of Kansas City, Missouri.

5.3. The project will research issues and compliance with Ordinance No. 081090 Longfellow/Dutch Hill Neighborhoods Urban Renewal plan.

6. Area and Function Designs.

6.1. The Velvet Freeze building consists of six distinct levels in the building. These include the (1) Basement, (2) First Floor (3) Mezzanine Floor, (4) Second Floor, (5) Warehouse Roof, (6) Second Floor Roof. The property lot is 09 acres measuring approximately 320 feet x 120 feet for 40,676 sq/ft. The building occupies about 10,337 sq/ft footprint or 25% of the lot footage.

6.2. The original building occupancy space is listed at 23,360 sq/ft. The additional occupancy space generated from the warehouse event space and decks on the two roofs increases the space by 9,149 sq/ft or 40% to 32,509sq/ft.

6.3. As a multi-use building, consideration had to be given to the various uses at any time to calculate load capacity and the number of facilities (Restrooms, lavatories,

and drinking fountains) needed in the building for each floor. The new designs for the building provide the following areas and general square footages.

6.4.	Basement Area	Sq/ft
6.4.1.	General Use Open Area	4,353
6.4.2.	Storage and Multi-Use 1	1,105
6.4.3.	Storage and Multi-Use 2	752
6.4.4.	Women's Lounge	596
6.4.4.1.	Sq/ft & Load	6,806

6.5.	First Floor	Sq/ft
6.5.1.	Open Dinning	1,165
6.5.2.	Kitchen	611
6.5.3.	Movie Theater	1,812
6.5.4.	Main Bar and Storefront	1,639
6.5.5.	Event Space	1,972
6.5.6.	External NE Deck	1,500
6.5.6.1.	Sq/ft & Load	8,699

6.6.	Mezzanine	Sq/ft
6.6.1.	Office Space 1	260
6.6.2.	Office Space 2	440
6.6.3.	Office Space 3	343
6.6.4.	Social Area & Office Waiting	1,500
6.6.5.	Theater Side Balcony	369
6.6.6.	Bar Side Balcony & Bar	540
6.6.6.1.	Sq/ft & Load	3,452

6.7.	Second Floor	Sq/ft
6.7.1.	Games and Billards	2,670
6.7.2.	Second Floor Bar & state	1,900
6.7.3.	Green Room	586
6.7.4.	Internet Lounge	443
6.7.5.	French Balcony	169
6.7.5.1.	Sq/ft & Load	5,768

6.8.	Roof	Sq/ft
6.8.1.	Second Floor Roof Deck	6,185
6.8.2.	Warehouse Roof	1,000
6.8.2.1.	Sq/ft & Load	6,000

LEED Specific Areas

This area will address items related to the six main areas of the LEED certification: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation & Design Process. Each of the project area will be discussed with the overall effort to achieve those points. Suggested products and/or manufacturers will be given.

1. Sustainable Sites

1.1. The plan will have an erosion and sedimentation control (ESC) plan that will comply with the EPA Construction General Permit and/or local code.

1.2. The site selection is a brown field building that is considered blighted under Kansas City ORDINANCE NO. 081090. The building is a 1930 construction in stable condition that will allow renovation.

1.3. The development of the building will add to the entertainment value of the Martini Corner entertainment area and provide for a community alternative for activities in the local communities.

1.4. The building is located directly on a KC Metro bus route stop.

1.5. The use of outdoor and indoor bicycle racks along with indoor changing rooms will be utilized for alternative transportation.

1.6. Parking areas will be reserved for use by car pools and some taxi or limousine use. The back drive area will be designed to accommodate limousine use and easy access to the building

1.7. The use of rain harvesting and green areas in the parking lot and roof will restore much of the natural green space as possible.

1.7.1. **GRAF® Rainwater harvesting solutions ECO-Plus Package** is recommended for providing potable water. The system collects rainwater and runoff in underground storage tanks. Modular systems are added inside the building that provide for filtering, conditioning and softening of water for potable use. The larger of the Carat S tanks provides for 1,700 US Gallons each. Two arrays of tanks can be located under the parking lots for the most convenient maintenance options. The total capacity of the arrays will be 40,800 US Gallons.

1.7.2. **RainXchangeTM Rainwater Harvest System by Aquascape, Inc.** is recommended for providing non-potable water use and a reserve for potable water. Non-potable water will be used for fountains, toilet flushing, lawn care, building maintenance, etc. This system provides for underground collection and storage of water with decorative walkways, fountains and other water works sitting on top. This system can be incorporate under and around each of the decorative fountains planned for the lot. The modular box systems provides for a variety of storage capacities to be designed and built along with easy maintenance. Each of the larger boxes stores 32 US Gallons. The recommended design of the combined systems for all fountains and building runoff will total 55,200 US Gallons.

1.8. The open space surrounding the building will be kept open with green and sustainable design parking and walkways as much as possible.

1.9. Rainwater harvesting will be used to keep a majority of the rainfall on the site. This water will be used for on-site water fountains, flushing toilets and other non-potable water use. Filters will be used to clean the water for potable water use.

1.10. The roof will be designed as a green roof for use with a deck that provides for additional entertainment and a city view. Water works and falls will be incorporated to add to the cooling effects and aesthetics.

1.11. One-hundred percent (100%) of the available roof area will be used for the green roof decking and entertainment.

1.12. Use of technology that will keep electrical and lighting use to a minimum will be incorporated for both interior and exterior lighting. Technologies such as compact fluorescence, LED, OLED and low energy high efficiency lighting. The plan will strive to achieve exterior lighting sections of the ASHRAE/IESNA Standard 90.1-2004 and other standards.

2. Water Efficiency

2.1. Use of native plants and trees will reduce the need for additional watering for scenery and shading.

2.2. In conjunction with the use of native species plants and trees, the use of rain harvesting has the goal of reducing the need of potable water to near zero.

2.3. The use of dual flush toilets and waterless urinals will reduce the need of water usage in the building. Estimated reduction should exceed 30%.

2.4. The use of dual flush toilets and waterless urinals will reduce the need of water usage in the building. Estimated reduction should exceed 30%.

2.5. The use of dual flush toilets and waterless urinals will reduce the need of water usage in the building. Estimated reduction should exceed 30%.

2.6. New plumbing will be installed that will separate black and grey waters for disposal and reclamation.

2.6.1. Black water options for recycling using septic tanks or swamp areas were dropped from inclusion in the project. Black water will be channeled into the city sewer system. Although in-house black water processing systems are available, the possibility of systems going wrong due to poorly selected cleaning supplies may be too high a risk in the environment for the Velvet Freeze.

2.6.2. Grey water recycling was designed in the project. This consists of installing separate plumbing systems to transport all grey waters to a two stage processing system. The first stage consists of a sand filter system located under the outside northeast deck. The second stage consists of all the native plants and garden systems throughout the north lot section.

3. Energy & Atmosphere

3.1. For HVAC systems, a qualified commissioning agent (CxA) will be chosen to review the owner's project requirements (OPR) and basis of design (BOD) for clarity and thoroughness. The CxA will provide the written commissioning requirements to be included in the construction documents. Systems will include all passive and

mechanical energy systems with respective controls that function to heat, ventilate, air-condition, refrigerate, provide light, shot-water, and renewable energy supply systems.

3.2. The project design will exceed the ASHRAE/IESNA Standard 90.1-2004 for energy-related systems and performance.

3.3. In order to reduce ozone depletion, HVAC&R systems will use other alternatives than CFC-based refrigerants.

3.4. Computer based simulation software will be used for energy simulations to evaluate and adjust the buildings energy performance. The software provided by the U.S. Department of Energy, “eQuest” will be the recommended software, or equivalent product.

3.5. Renewable energy options will be included as part of the building renovations. Use of solar voltaic cell and solar heating will be included as options. Use of wind energy sources will be included in a manner that will enhance the features of the site as well as reduce reliance on commercial energy providers.

3.6. The CxA will be included in the design phase for the final project documentation prior to construction. Since the CxA is not part of the ITT D&D Capstone project, the earliest that the CxA can be involved in the project is the point after the Capstone and prior to project ground breaking.

3.7. The project refrigerant management program will comply with the Montreal Protocol on the use of man-made chemicals.

3.8. A measurement and verification plan will be implemented to log and check the energy efficiency of all required equipment in the building. Automatic computer log records should be used to allow analysis of data for efficiency and performance over the age of the equipment for the duration of its useful life.

3.9. Any local supplier of renewable energy will be contracted to at least two years to provide at least 35 percent of the electricity.

4. Materials & Resources

4.1. Design in systems will be incorporated into the building to make recycling feasible for occupants and clients. Separate containers for the recycling of all corrugated cardboard, plastic, metal, glass and paper will exist and a method to separate materials from general collection bins will be implemented that allows for recycling of all materials.

4.2. Rechargeable batteries and devices shall be used for all devices powered by batteries.

4.3. The renovation will strive to achieve 95% of existing walls, floors and Roof for reuse. A tracking chart and log will be used to verify the reuse percentage. The demolition of the stand-alone garage may negate the 100% reuse rating. This will be verified.

4.4. A plan to manage the construction debris will be implemented on site. It will be recommended that all deconstruction debris and materials be kept on-site where they will be separated and tagged for reuse or sent to recycling sites. The goal will be to achieve between 50 percent and 75 percent of all construction debris to be reutilized, recycled, or sent to habitat restore facilities.

4.5. In coordination with construction waste management, must existing materials and items such as beams, posts, cabinetry, doors, lumber, fixtures, and like will be reutilized in the renovation. A detail log of items with current replacement values will be kept for audit purposes. The goal will be to achieve a reuse of 10 percent or more of items.

4.6. All new construction material will be manufactured from recycled materials. The ISO 14201 – Environmental labels and declarations – Self-declared environmental claims (Type II environmental labeling) will be used to recommend and select materials.

4.7. Supplies of products that are manufactured, processed or extracted materials shall physically exist within a 500-mile radius of the job site. A goal of 20 percent or more of such all installed materials will be from the Kansas City, Missouri and Kansas City, Kansas market and all others will be kept within the 500-mile radius.

4.8. Materials used in the renovation, whether supplied by third or second parties or manufactured locally on site, shall be from rapidly renewable resources. This shall include but not be limited to linoleum, cork, wheatboard, wool, cotton and other resources considered rapidly renewable under the LEED standards.

4.9. No less than 50 percent of all installed wood products shall be provided by a recognized sources such as the Forest Stewardship Council (FSC) Programme for the Endorsement of Forest Certification schemes programs (PEFC), American Tree Farm System (ATFS), the Canadian Standards Association (CSA), or the Sustainable Forestry Initiative (SFI) Program

5. Indoor Environmental Quality

5.1. The design shall meet ASHRAE Standard 62.1-2004, Section 4-7, “Ventilation for Acceptable Indoor Air Quality” or local code, whichever is stricter. The building shall contain operable windows that allow for natural ventilation and cooling.

5.2. The design for tobacco use shall comply with Local smoking ordinances and the LEED requirements. Optional areas for tobacco use shall include the following:

5.2.1. Limited smoking sections outside the building or on the roof-deck and shall be at least 25 feet from any building air intake.

5.2.2. An optional smoking room will be converted or constructed that has a designed exhaust system to capture all smoke from the room and evacuate it to the outside. The room shall be kept at a negative pressure to prevent smoke escape into the building.

5.2.3. As a multi-use building, the area will be considered densely occupied at peak loads. Monitoring equipment shall be utilized with ventilation systems to insure proper working order and efficiency. Any variations by 10 or more shall alarm so management may take proper action. Carbon dioxide monitors shall be installed throughout the building.

5.2.4. Natural ventilation shall be used as much as possible. The process shall be reviewed in accordance with the Chartered Institution of Building Services Engineers (CIBSE) Applications Manual 10:2005.

5.2.5. All materials will be delivered for use just in time (JIT) and stored in a proper location to prevent damage from physical means or weather conditions.

5.2.6. Installed temporary or permanent ventilation systems for use during construction shall meet the Sheet metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction.

5.2.7. Filters shall be placed on all ventilation systems that meet the Minimum Efficiency Reporting Value (MERV) of 8 at return air grilles. The filters will be replaced before occupancy and the entire building and ductwork shall be flushed.

5.2.8. All adhesives and sealants shall be low volatile organic compound (VOC) and comply with the South Coast Air Quality Management District (SCAQMD) Rule 1168 and the Green Seal S for Commercial Adhesives GS-36.

5.2.9. All interior Paints shall comply with the Green Seal Standard GS-11. All antirust and anticorrosive paints shall comply with the Green Seal Standard GC-03. All clear wood finishes and stains shall comply with the SCAQMD Rule 113.

5.2.10. All carpet systems and cushion shall comply with the Carpet and Rug Institute's Green Label Plus program.

5.2.11. All composite wood and agrifiber products or adhesives hall be free from urea-formaldehyde resins.

5.2.12. Building entrances shall incorporate a walk-off mat or grate-grill system that is serviceable and cleanable with ease.

5.2.13. A storage room(s) shall be designed to contain hazardous materials and contain their fumes. Rooms shall have negative air pressure and properly filtered and vented. Doors hall be self-closing. Ceilings shall be deck or hard lid.

5.2.14. Energy saving technology shall be installed in the building that allows for the following.

5.2.15. Sensors on all lighting that dims and/or turns off lights when unoccupied.

5.2.16. Adjusts the light level according to the amount of natural light present.

5.2.17. Allows for the adjustment of lighting, both natural and illuminated by the occupant.

5.2.18. Spot lighting and uni-directional lighting shall be used where possible.

5.2.19. Omi-directional lighting shall kept to a minimum.

5.2.20. Heating and cooling hall be zoned so each area or occupant can control individual comfort for air and radiant temperature, air speed, and humidity. The ASHRAE Standard 55-2004 shall be used as a reference for thermal comfort.

5.2.21. Use of bi-directional ceiling fans and wall fans shall be used for air circulation. Duct work shall allow for the transfer of air from area to area for balancing temperature and air.

5.2.22. The design shall give rental office occupants daylight and outside views. Daylight shall be documented and demonstrated to an acceptable standard.

6. Innovation and Design

6.1. Refrigeration and ice making equipment shall run during off-peak hours. A computer control system shall be used to automatically control vocalization and air conditioning of the building to meet occupant's needs while managing overall efficiency. System shall control such items as adjusting windows, opening and closing windows, adjusting airflow, adjusting lighting systems, adjusting humidity, and keeping records and logs for audit trails and verification.

6.2. Design research shall include historical and educational plaques. Historical significance shall focus on, but not be limited to the following:

6.2.1. Construction history and occupancy of the building

6.2.2. 1930's Levy Brothers Meat & Provision Company.

6.2.3. Velvet Freeze Ice Cream

6.2.4. Longfellow Community

6.2.5. Martini Corner and surrounding communities.

6.2.6. Velvet Freeze Project

6.2.7. Murals and artwork shall be of style and designs of the 1930's through the 1960's as related to the history of the building under occupancy of the Levy Brothers and Velvet Freeze.

7. Attachments

7.1. Printed

7.1.1. The Velvet Freeze Project (Presentation Handout)

7.1.2. The LEED Check list

7.1.3. GRAP cut sheet

7.1.4. RainXchange cut sheet

7.1.5. LiveRoof Green Roof cut sheet

7.1.6. NRMCA Pervious Concrete cut sheet

7.2. CDROM

7.2.1. Project Specification

7.2.2. EEZ Enhanced Enterprise Zone documents

7.2.3. Gillham Row PIEA documents

7.2.4. Longfellow Dutch Hill Development documents

7.2.5. Calculations spreadsheet

7.2.6. Main AutoDesk AutoCAD files

7.2.7. The LEED Check list

7.2.8. GRAP cut sheet

7.2.9. RainXchange cut sheet

7.2.10. LiveRoof Green Roof cut sheet

7.2.11. NRMCA Pervious Concrete cut sheet