

FLEET REPAIR GARAGE EXPANSION

MILWAUKEE FIRE DEPARTMENT

CAPITAL BUDGET NARRATIVE & 2010 DESIGN SERVICES SCOPE

Thursday, April 01, 2010

BUILDING PROGRAM

The Milwaukee Fire Department seeks to build a new Fleet Repair Garage adjacent to the existing Virginia Street Maintenance Facility. Currently all vehicle, engine and shop-related and parts storage are housed at Virginia Street and this new facility would transfer out the vehicle repair and vehicle parts storage into the new footprint. In addition, improved staff support areas would be created in the new facility including, locker rooms, break rooms/kitchenette, training classrooms and simulator driving stations.

The site in consideration is owned by the city and is bordered by 1st Street, Florida Street with an Alley and the Virginia Street Repair House to the south. The site size is 34,000 square, around .7 of an acre.

JUSTIFICATION FOR NEW FACILITY

The need for an expanded and modernized repair facility has been documented in a prior studies developed by Barrientos Design & Consulting in 2005. Portions of this study detailing the deficiencies of the existing facility and projected needs for efficient operations are attached following this.

In brief, the Fire Department Repair facility has the following needs due to the existing facilities deficiencies:

- Ability to work on a larger number of engines per work period
- Larger bay widths and clearances to work around engines that have gotten bigger over the years.
- Better vehicle access for pulling in and out of building
- Higher ceiling clearance so engines can extend their ladders and mechanics can lift the engines to work underneath them
- More shop and workbench area to house toolboxes, fixed equipment and staging of parts
- Better access to parts and the delivery of parts from vendors, shippers
- More variety of storage systems for various parts types
- Adequate exhaust systems and fresh air makeup
- ADA compliant bathrooms and lockers

- Facilities for women lockers
- Separate break areas from vehicle repair areas
- Providing day room and training for visiting engine companies.
- Provide location for driving simulation

BUILDING PROGRAM

At this concept level the building program involves the following:

1. Engine/Heavy Duty Truck Repair Garage, 18 bays, 15,000 SF
2. Light Duty Truck Repair, 5 bays, 3,000 SF
3. Parts Storage, Bulk Fluids, Clerks, 3,200 SF
4. Classrooms, Simulator, Lunchroom, Lockers, 7,000 SF
5. Green Learning Deck, on roof, 3,200 SF
6. Site development for immediate area around building

DESIGN SCHEDULE

For 2010 a Schematic Design will be developed within two months. Assuming a start of April 15 the Schematic Design will be completed on June 15. Following review and approval by the MFD and DPW, the A/E will develop Construction documents up to a 75% level by end of December, 2010.

At the start of January, 2010, the A/E will continue with Construction Documents and complete them by February 28, 2011. Bidding Documents will be issued in March with bids due middle of April and Construction award for middle of May, 2011. Construction will proceed for 12 months and be completed in May of 2012.

SCOPE OF A/E SERVICES

For 2010, the Architect/Engineer (A/E) will provide professional design services for architecture, structural engineering, civil/site engineering, HVAC, electrical, plumbing and fire protection for a public bidding and construction process.

Phases of work will be:

1. **Schematic Design.** Finalize building program, review including zoning and DCD planning requirements, review of site conditions, utilities, ally usage and soils, finalize plan layout, elevations and massing options, cost estimate by CSI division. Schematic presentation document with Project Outline.

2. **Design Development.** Research, analysis and selection of major building components and construction assembly, selection of equipment, finishes. Finalization of floor plans, elevations, sectional data drawings. Engineering systems development. Site preliminary engineering Outline specifications. Final meetings with DCD. Cost Estimates along with options analysis for bid alternates.
3. **Construction documents 75%.** Development of working drawings, schedules, engineering calculations, specifications and cost estimates. Updated detailed cost estimate based on quantity.
4. **Final Construction Documents, Bidding Phase, Construction Administration.** Provided in 2011 and to be detailed later.

BUDGET & DESIGN SCOPE BASIS

The initial project budget is estimated to be \$5,943,603 and shown detail in the table dated 4/1/2010. The design scope is based on the concept layout attached to this document and dated 4/1/2010

PRIOR A/E USAGE

The MFD will engage the same A/E which developed the study in 2005 given their knowledge of the existing facility and program requirements. Barrientos Design & Consulting, Inc of Milwaukee will provide the services listed in the Scope above.

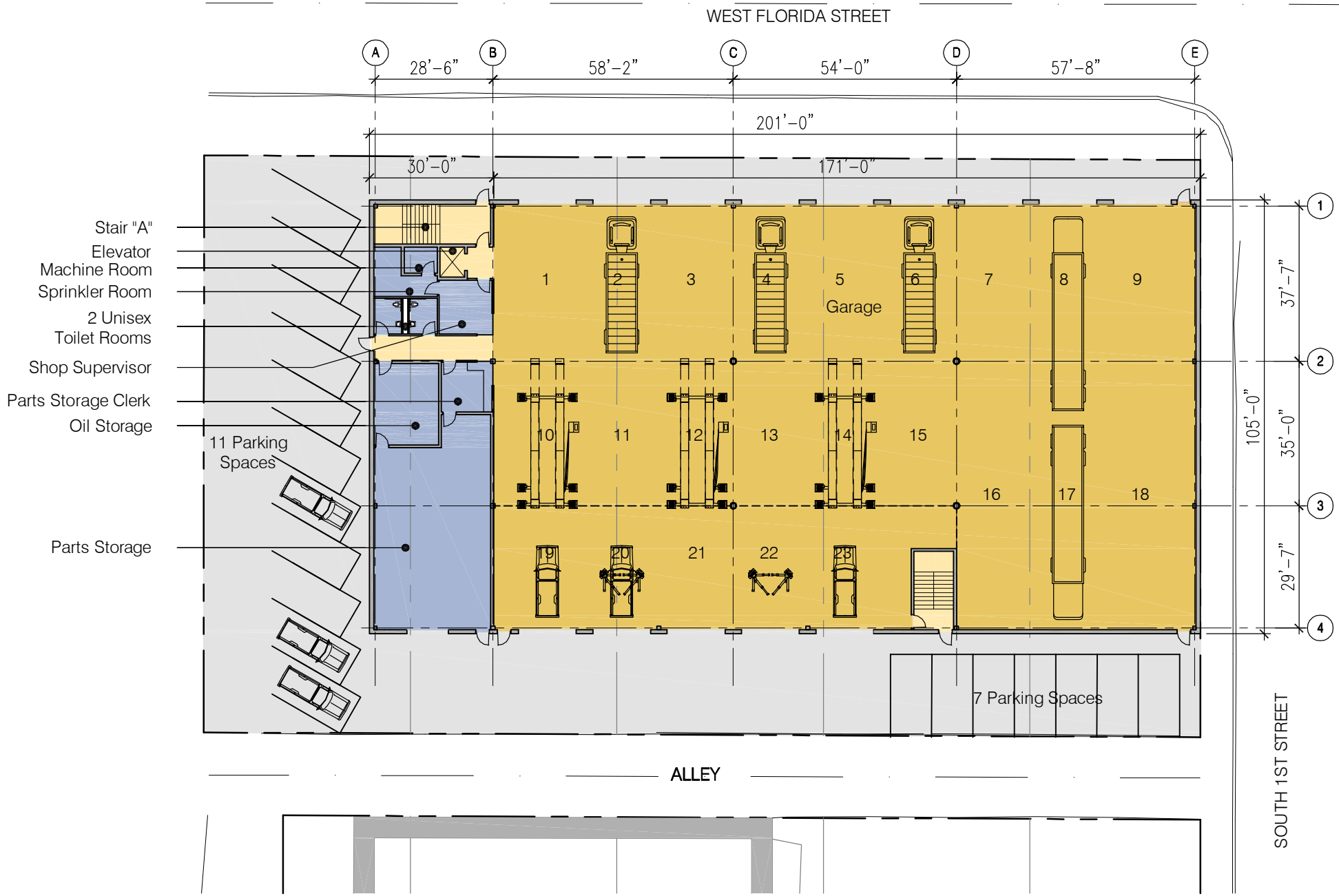
Milwaukee Fire Department Fleet Repair Garage - Initial Concept

Preliminary Construction Cost Estimate

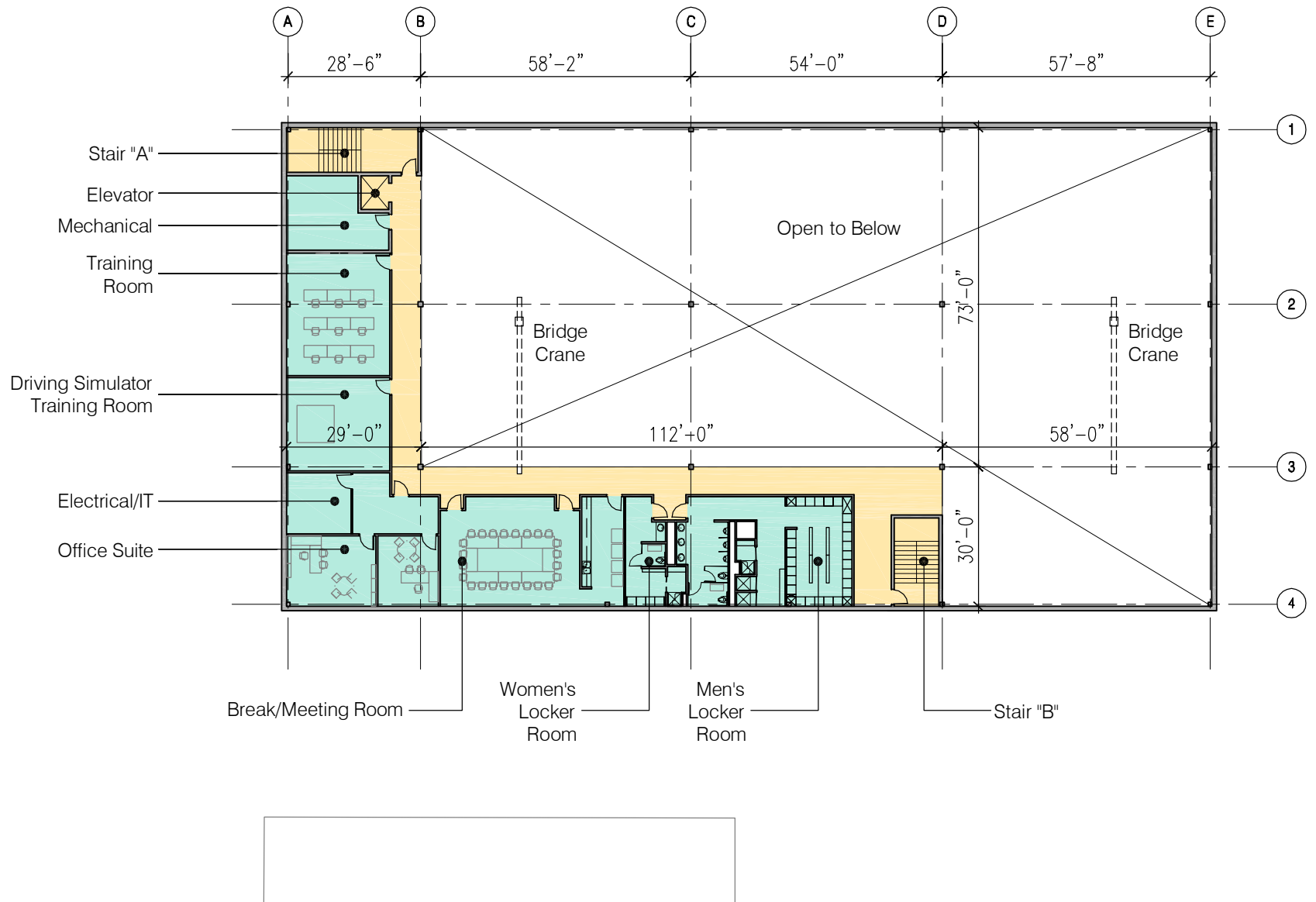
Barrientos Design & Consulting, Inc.

April 1st, 2010

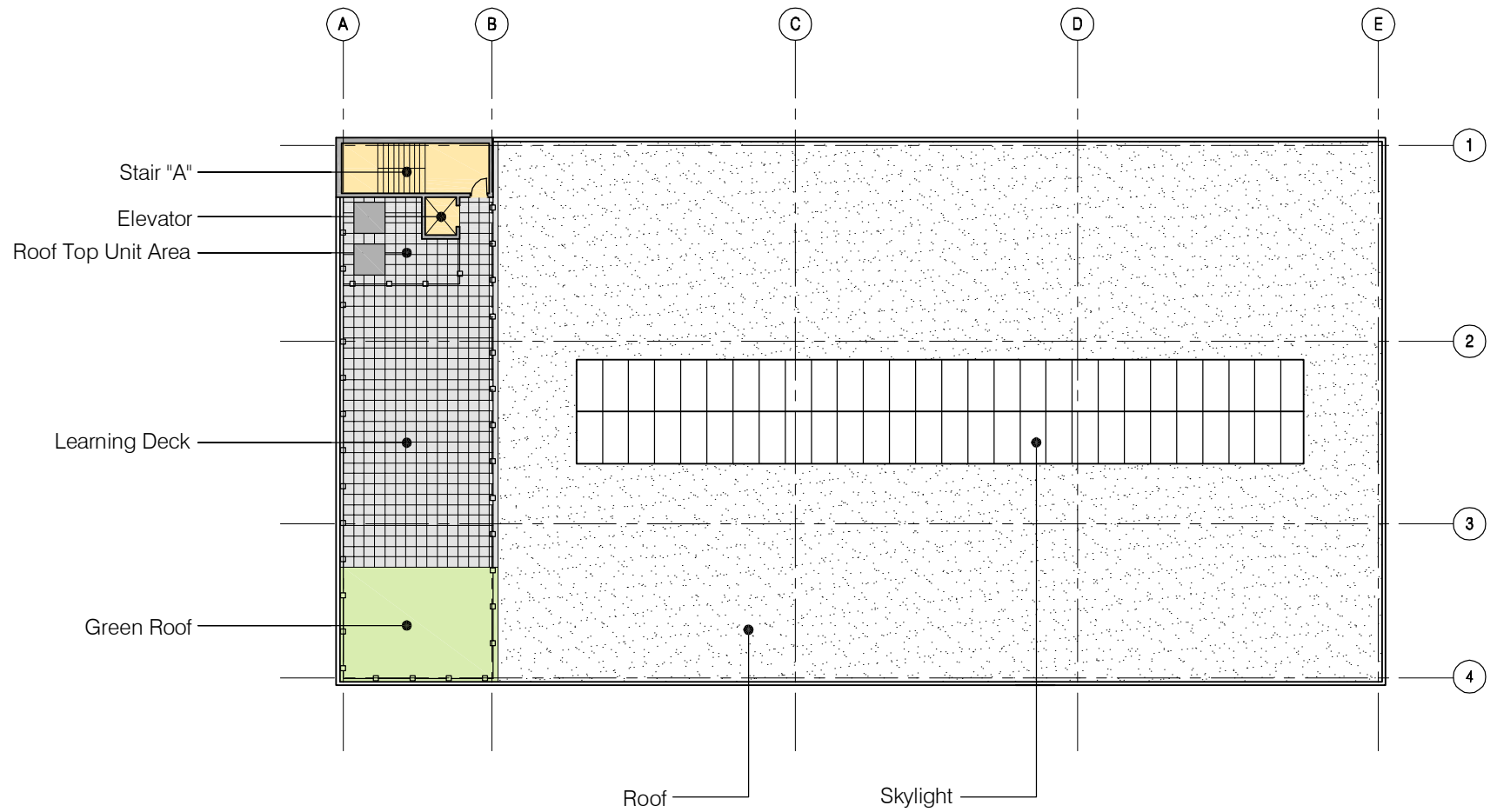
CATEGORY	COST
DIVISION 1	
General Conditions	\$144,000
Survey, Geotechnical	\$20,000
DIVISION 2	
General Site Work	\$200,000
Piles (allotment)	\$50,000
DIVISION 3	
Building Concrete & Precast Concrete	\$1,160,000
DIVISION 4	
Masonry	\$50,000
DIVISION 5	
Structural & Miscellaneous Steel	\$542,000
DIVISION 6	
Carpentry	\$15,000
DIVISION 7	
Membrane Roofing & Wall Panels, Sealants and Sheet Metal Flashings/Copings	\$192,500
DIVISION 8	
Windows & Doors	\$475,000
DIVISION 9	
Interior Finishes	\$250,000
DIVISION 10	
Interior Specialties	\$56,000
DIVISION 11	
Green Roof/Learning Deck	\$50,000
6 Post Lift (3 @ \$70,000ea)	\$210,000
2 Post Lift (2@ \$8,000ea)	\$16,000
Bulk Fluid Reels	\$12,000
Waste Oil Collection Tank	\$30,000
Tail Pipe Exhaust	\$25,000
Driving Simulator	\$350,000
Bridge Crane (2@ \$75,000ea)	\$150,000
Boom Crane (6@ \$8,000ea)	\$48,000
DIVISION 15	
Fire Protection	\$77,000
Plumbing	\$220,000
OH Radiant Heat	\$35,000
HVAC	\$250,000
DIVISION 16	
Electrical	\$200,000
Bidding Contingency (10%)	\$520,000
Total Construction Cost Amount	\$5,183,500
Total Building SF	27,727
Cost Per SF	\$186.95
Development Costs	
General Conditions (12 months x \$12,000)	\$144,000
Geotechnical, Soils	\$20,000
A/E Fees	\$388,763
City Contract Administration (2%)	\$103,670
City Construction Department (2%)	\$103,670
Total Project Amount	\$5,943,603



First Floor
22,995sf



Second Floor Plan
6,622sf



Roof Plan