

## Space Needs Analysis Bristol Municipal Buildings

### **Bristol City Hall**

111 North Main

Total Building Area: 60,141 SF

Current Use: City Hall

Original Construction Year: 1963

Renovated (years):1982-1986

Number of Floors: Four



Previous studies reviewed for this building: Study of HVAC Systems 2007.

Drawings used for Study: PDF's of Infrastructure Cabling Drawings 1997

### **Current Facility**

#### **Building Condition** (Refer to Appendix 'A', Condition Survey)

The exterior of the building is predominantly brick in an exposed concrete frame. Limestone is used as accent walls. Windows are single glazed with storm panels in bronze aluminum frames. Roof is a dead level ballasted EPDM. Many of the stones in the ballast have sharp edges and have resulted in roof leaks.

In general the exterior and interior of the building are in good condition.

#### **Fire and Code Deficiencies**

From a code standpoint the building is in good condition with adequate and remote means of egress from each of the floors. One exception is outside the public restrooms on the Basement level where there is a long dead-end corridor. To overcome this, an exterior door with steps will need to be added. Another exception is the dead-end hallway leading to the Council Room on the first floor. This can be corrected by adding a pair of doors close to the women's room entrance.

Fire stopping between floors at electrical closets is missing.

Additional lighting fixtures are required to meet emergency lighting requirements.

Smoke detectors need to be added to the building.

#### **ADA Deficiencies:**

An accessible entrance is provided on the north end of the building, adjacent to two of the accessible parking spaces. An accessible entrance is also provided from the third floor of the

adjacent Police/Court parking garage. The south entrance is not accessible, and is not required to be accessible by ADA. However, ADA does require that an accessible route be provided from the south entrance to the north entrance. The only route currently available is to cross the south parking lot to Laurel Street and follow the sidewalk to North Main and then to access the North Entrance, which is not convenient and could not easily be sign posted. Alternatively, a route could be created on the west side of the building, by extending the sidewalk over to the island at the drive-up window and then to the accessible parking spaces. There is one section of sidewalk that has a steep slope and will require railings. This route could be easily sign posted. The ramp to the north entrance has an inadequate landing at the door (too steep).



One accessible parking space needs to be modified for van accessibility and signs need to be increased to 60" in height to the bottom.

There are a number of doors that are too narrow including toilet room and doors into the stairs enclosures. For the toilet rooms the doors will need to be relocated and only one door used for each room. Some partition changes may be required. The removable mullion on the pairs of doors into the stairs needs to be removed and the panic devices changed to vertical rod type.

The drive up window in the tax office is only accessed via stairs. There is no space for a wheelchair lift.

Drinking fountains for standing persons need to be added to each floor.



Only Ambulatory Toilet compartments are provided. Urinals are too high. Piping under lavatory basins needs to be insulated. Mirrors are too high. One Wheelchair Accessible Toilet compartment needs to be added to each toilet room. Doors into public toilet rooms do not provide side clearance on the pull side.



Sinks in the building need to be changed and cabinets modified to provide for accessibility.

The shower in the lower level sitting room is not accessible.

Audio visual devices need to be added to the fire alarm system.

The elevator location is not in a preferred location by ADA (not adjacent to the stairs).

Accessible sections of service counters need to be added.

**Hazardous Materials** (Refer to Appendix 'B', Hazardous Material Survey)

8x8 Vinyl composition tile is present in rooms throughout the building. This size tile tends to have either asbestos content or asbestos containing adhesives.

**Mechanical, Electrical, Plumbing and other services.** (Refer to Appendix 'C', MEP Survey)

In general with the exception of the heating plant and associated equipment, all of the other systems are 25+ years old and have met their useful life expectancy. The system components are very inefficient. The ventilation system does not meet current code requirements. We recommend that most of the systems be replaced with new.

**Structural Systems**

The building has a structural frame of cast in place reinforced concrete with reinforced concrete floors. The building is structurally sound.

**Available Parking:**

There are 37 parking spaces on site of which 3 are handicapped spaces. Additional parking is available on the surrounding street and in the adjacent parking floors of the Police/Court building.



## Use Recommendations

### Uses

#### 1. City Hall

##### Option CH1

If Youth Services are returned to the Building, even with Probate, Parks and Renaissance moving out an expansion of approximately 5,000 SF will be required.

##### Option CH2

Limited site space makes it difficult to construct an addition. An expansion could occur in the second floor of the police building if the courts were relocated. (see Courts).

- a. This is a good central location.

#### 2. Commercial

- a. The building lends itself to commercial use as office space but the market is so depressed at this time this option has not been explored.
- b. The layout of the building could also lend itself to a small hotel.

#### 3. Residential

- a. This is a solid structure and could lend itself to many uses. Residential is one of them. Its proximity the proposed Depot Square redevelopment, however, would be in competition with the proposed housing to be constructed.

**Bristol City Hall**  
Department Interaction Chart

	Assessor	BDA	Building	City Clerk	Claims	Comptrollers	Corp. Counsel	Emergency Management	Mayor	MIS	Park	Personnel	Probate	Public Works Admin	Public Works Drafting	Public Works Engineering	Public Works Inspection	Public Works Land Use	Public Works Maintenance	Public Works Survey	Purchasing	Registrars	Social Services	Tax	Treasurer	First Floor For Public Access						
Assessor																										■						
BDA																											■					
Building																																
City Clerk	■																										■					
Claims						▽						▽																				
Comptrollers						▽		▽	▽																■							
Corp. Counsel				▽	■			■													■			▽								
Emergency Management																																
MIS																																
Mayor		▽				▽	■																									
Park																																
Personnel					▽																											
Probate																																
Public Works Admin																																
Public Works Drafting																																
Public Works Engineering																																
Public Works Inspection																																
Public Works Land Use																																
Public Works Maintenance																																
Public Works Survey																																
Purchasing																																
Registrars					■																						■					
Social Services																																
Tax																											■					
Treasurer						■	Strong connection to mail room and copier																									■

MIS = Management Information Systems  
BDA = Bristol Development Authority

**KEY**

■ Strong with shared Vault

■ Strong

▽ Close proximity desired



**CITY HALL**  
**Interior Conditions Survey**

Ratings: 1= Good; 2= Needs Refinished; 3= Replace

BASEMENT								
Rm #	Name	Floor	Rating	Walls	Rating	Ceiling	Rating	Notes
1	Storage	Concrete/Mosaic	3	GWB	2	Concrete	1	Was previously restrooms
				CMU	2			
2	Vault	VCT 8x8	2	Plaster	2	Concrete	1	Exposed pipes, Old insulation
3	Office/Main	Concrete	2	CMU	2	Concrete	1	New lights needed, sprinkler room
4	Maintenance	VCT 8x8	1	Plaster	2	Concrete	2	
5	Boiler	Concrete	1	CMU	2	Concrete	1	
6	Range	Ptd Concrete	1	Ptd CMU	1	12x12 SAT*	2	*Some water damaged, 100SF
		VCT 12x12	2			2x2 SAP	1	
7	Control Room	VCT 12x12	1	Ptd CMU	1	2x2 SAP	1	
8	Hall	VCT 12x12	1	Ptd CMU	1	2x2 SAP	1	
9	Sitting	VCT 8x8	1	Ptd CMU	2	2x4 SAP	3	
10	Toilet/Shower	VCT 12x12	2	Ptd CMU	2	12x12 SAT	3	
11	Storage	VCT 12x12	2	Ptd CMU	2	2x4 SAP*	1	*Some water damage
12	Men's Room	1x1 Mosaic	1	Ptd CMU	2	12x12 SAT*	2	Replace tile base. *Some damage
13	Women's Room	V Mosaic	1	Ptd CMU	2	12x12 SAT	1	
14	Hall	VCT 12x12	1	Ptd CMU	2	Tectum	3	
15	Storage	Concrete	1	Ptd CMU	2	Concrete	1	
16	Recycling/Garage	Concrete	1	Ptd CMU	2	Concrete	1	
17	Open Office	VCT 12x12	2	Ptd CMU	2	Tectum	2	
18	Land Use	VCT 12x12	1	Ptd CMU	1	12x12 SAT	3	In hall
				Ptd GWB	2	2x2 SAP	2	
19	Office	VCT 12x12	2	Ptd GWB	1	2x2 SAP	1	
				Ptd CMU	1			
20	Office	VCT 12x12	2	Ptd CMU/GWB	1	2x2 SAP	1	
21	Hall	VCT 12x12	2	Ptd CMU/GWB	1	2x2 SAP	1	
22	EMR	VCT 8x8	3	CMU/Concrete	2	Concrete	1	Floor broken & pieces missing
23	Reception	VCT 12x12	2	Glass Block	1	2x4 SAP	1	Nasty match up with tectum
						Ptd GWB	1	
24	Hall	VCT 12x12	1	Ptd CMU	1	Tectum	2	



**CITY HALL**

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Rm#	Name	Floor	Rating	Walls	Rating	Ceiling	Rating	Notes
111	Renaissance	VCT 12x12	1	Ptd GWB	1	12x12 SAT	3	
111A	Lobby	VCT 12x12	1	Ptd GWB	1	2x2 SAP	1	
112	Office	Carpet	1	Ptd CMU/GWB	1	12x12 SAT	3	
113	Office	Carpet	1	Ptd CMU/GWB	1	12x12 SAT	3	
114	Waiting Room	Carpet	1	Ptd CMU/GWB	1	12x12 SAT	3	
115	Office	Carpet	3	Ptd GWB	1	2x2 SAP	1	
116	Ballot Storage	Carpet	3	Ptd GWB	1	12x12 SAT	3	
117	Voting Equipment	VCT 12x12	1	Ptd GWB	1	12x12 SAT	3	
120	Registrar of Voters	VCT 12x12	2	Ptd GWB	2	12x12 SAT	3	
121	Storage	VCT 12x12	2	Ptd GWB	2	Ptd GWB	1	
				Ptd CMU	2			
122	Office (Democrat)	Carpet	1	Ptd CMU	2	12x12 SAT	3	
				Ptd GWB	2			
123	Office (Republican)	Carpet	1	Ptd CMU	1	12x12 SAT	3	
131	Vitals Vault	VCT 12x12	1	Ptd CMU	1	2x4 SAP	1	
132	Closet	VCT 12x12	1	Ptd GWB	2	None		
140	City Clerk	VCT 12x12	1	Ptd CMU	2	2x2 SAP	1	
141	Town & City Clerk	Carpet	2	Ptd CMU	2	2x2 SAP	1	
142	Asst City Clerk	Carpet	2	Ptd CMU	2	2x2 SAP	1	
144	Corridor	VCT 12x12	1	Ptd CMU	2	2x2 SAP	1	
145	Vault	VCT 8x8	3	Ptd CMU	1	2x4 SAP	1	
150	Corridor	Terrazzo	1	Glazed CMU	1	2x2 SAP	3	
153	Lobby	VCT 12x12	1	Ptd GWB	2	12x12 SAT	3	
154	Corridor	Terrazzo	1	Glazed CMU	1	2x2 SAP	2	
155	Men's Room	2x2 CT	1	4x4 CT	1	12x12 SAT	3	
156	Women's Room	2x2 CT	1	4x4 CT	1	12x12 SAT	3	
157	Electrical	Concrete	1	CMU	1	Concrete	1	
158	Custodian	VCT 12x12	3	Ptd CMU	2	Concrete	1	
160	Tax Office	VCT 12x12	2	Ptd CMU	1	2x2 SAP	2	
Rm#	Name	Floor	Rating	Walls	Rating	Ceiling	Rating	



**CITY HALL**

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SECOND FLOOR								
Rm#	Name	Floor	Rating	Walls	Rating	Ceiling	Rating	Notes
210	Development	VCT 12x12	2	Ptd CMU/GWB	2	2x2 SAP	2	
212	Storage	VCT 12x12	2	Ptd CMU/GWB	1	2x2 SAP	2	
213	Office	Carpet	1	Ptd GWB	1	2x2 SAP	2	
214	Office	Carpet	1	Ptd GWB	1	2x2 SAP	2	
215	Office	VCT 12x12	2	Ptd GWB	1	2x2 SAP	2	
216	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	2	
217	Conference	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	2	
218	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	2	
219	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	2	
221	Storage	VCT 12x12	2	Ptd CMU/GWB	2	2x2 SAP	2	
222	Parks	VCT 12x12	2	Ptd CMU/GWB	2	2x2 SAP	2	
222A	Storage Alcove	VCT 12x12	2	Ptd CMU/GWB	2	2x2 SAP	2	
222B	Storage Office	VCT 12x12	2	Ptd CMU/GWB	2	2x2 SAP	2	
224	Parks Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	1	
230	Reception	VCT 12x12	2	Ptd CMU/GWB	2	2x2 SAP	2	
231	Offices	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	2	
232	Offices/Break Room	Carpet	1	Ptd CMU/GWB	2	2x2 SAP	2	
240	Reception	VCT 12x12	1	Glass Block	1	2x2 SAP	2	
241	Office	VCT 12x12	1	Ptd CMU/GWB	1	2x2 SAP	2	
241A	Vault	VCT 8x8	3	Ptd CMU	1	Ptd Concrete	1	
241B	Office	VCT 12x12	1	Ptd CMU	1	2x2 SAP	2	
241C	Office	VCT 12x12	1	Ptd CMU	1	2x2 SAP	2	
241D	Building Department	VCT 12x12	2	Ptd CMU/GWB	1	2x2 SAP	2	
242	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	2	
243	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	2	
244	Kitchen	Sheet Vinyl	2	Ptd GWB	2	2x2 SAP	2	Cabinets dull
245	Toilet	Sheet Vinyl	2	Ptd GWB	2	2x2 SAP	2	Only 1 grab bar
246	Office	VCT 12x12	1	Ptd CMU/GWB	1	2x2 SAP	2	
248	Conference	Carpet	1	Ptd CMU	1	2x2 SAP	2	

**CITY HALL**

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Rm#	Name	Floor	Rating	Walls	Rating	Ceiling	Rating	Notes
248B	Office area	VCT 12x12	2	Ptd CMU/GWB	2	2x2 SAP	2	
250	Corridor	VCT 12x12	1	Ptd CMU	1	2x2 SAP	2	
251	Stair	Terrazzo	1	Glazed CMU	1	Ptd GWB	1	
252	Stair	Terrazzo	1	Glazed CMU	1	Ptd GWB	1	
260	Storage	VCT 12x12	2	Ptd CMU	1	2x2 SAP	2	
261	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	3	
263	Personnel	VCT 12x12	2	Ptd CMU/GWB	1	2x2 SAP	2	
264	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	2	
265	Conference	Carpet	1	Ptd CMU	1	2x2 SAP	2	
266	Vault	VCT 8x8	3	Ptd CMU	1	Ptd Concrete	1	
267	Electrical	VCT 8x8	3	Ptd CMU	1	Concrete	1	
268	Storage	VCT 12x12	2	Ptd CMU	1	2x2 SAP	2	
271	Purchasing	VCT 12x12	1	Ptd CMU/GWB	1	2x2 SAP	2	
272	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	2	
273	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	2	
274	Conference	VCT 12x12	1	Ptd CMU/GWB	1	2x2 SAP	2	
275	Vault	VCT 12x12	2	Ptd CMU	2	Concrete	2	
276	Vault	VCT 12x12	2	Ptd CMU	2	Ptd GWB	2	
280	Staff Lounge	VCT 12x12	2	Ptd CMU	1	2x2 SAP	3	
281	Electrical	VCT 12x12	2	Ptd CMU	2	Concrete	1	
282	Custodian	VCT 12x12	2	Ptd CMU	2	Concrete	1	
283	Men's Room	2x2 CT	1	4x4 CT	1	2x2 SAP	1	Lobby area: Ptd CMU 2
284	Storage	VCT 8x8	3	Ptd CMU	1	2x2 SAP	3	
285	Women's Room	2x2 CT	1	4x4 CT	1	2x2 SAP	1	

**CITY HALL**

**Interior Conditions Survey**

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THIRD FLOOR								
Rm#	Name	Floor	Rating	Walls	Rating	Ceiling	Rating	Notes
310	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	1	
311	Office	Carpet	1	Ptd CMU	1	2x2 SAP	1	
312	Office	Carpet	1	Ptd CMU	1	2x2 SAP	1	
313	Office	Carpet	1	Ptd CMU	1	2x2 SAP	1	
314	Conference	VCT 12x12	1	Ptd CMU/GWB	2	2x2 SAP	2	
320	Corporate Counsel	Carpet	1	Ptd CMU	1	2x2 SAP	1	
				Ptd GWB	1			
323	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	1	
341	Treasury	VCT 12x12	2	Ptd CMU	1	2x2 SAP	1	
342	Office	Carpet	1	Vinyl	1	2x2 SAP	1	
				Ptd CMU	1			
343	Office	Carpet	1	Ptd CMU	1	2x2 SAP	1	
351	Mayor Outer Office	Carpet	1	VWC	1			
351A	Mayor	Carpet	1	VWC	2	2x2 SAP	1	
				Wood	1			
351B	Hall	Carpet	1	VWC	1	2x2 SAP	2	
351D	Coffee	Carpet	1	VWC	1	2x2 SAP	1	
352	Closet	VCT 8x8	3	Ptd CMU	1	2x2 SAP	1	
353	Toilet	1x1 Mosaic	1	Ptd CMU	1	2x2 SAP	1	
354	Conference	Carpet	1	VWC	1	2x2 SAP	1	
363	Electrical	VCT 8x8	3	CMU	1	Concrete	1	
364	Custodian	VCT 12x12	2	Ptd CMU	2	Concrete	1	
365	Men's Room	1x1 CT Mosaic	1	4x4 CT	1	2x2 SAP	1	
366	Women's Room	1x1 CT Mosaic	1	4x4 CT	1	2x2 SAP	1	
370	Comptroller	VCT 12x12	2	Ptd CMU/GWB	1	2x2 SAP	2	
371	Storage/Coffee	VCT 12x12	2	Ptd CMU/GWB	1	2x2 SAP	2	
375	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	1	
376	Office	Carpet	1	Ptd CMU/GWB	1	2x2 SAP	1	
377	Vault	VCT 8x8 & 12x12	3	Ptd CMU	1	Concrete	1	



**Mechanical and Electrical Systems**  
**Existing Conditions Narrative**

**City Hall**  
**Bristol, Connecticut**  
November 1, 2011

Prepared By  
**Consulting Engineering Services, Inc.**  
811 Middle Street, Middletown, Connecticut 06457  
CES Project No. 2011127.00

## APPLICABLE CODES AND STANDARDS

The mechanical, electrical, plumbing, and fire protection systems will be reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

- A. 2005 Connecticut State Building Code
- B. 2005 Connecticut State Fire Safety Code
- C. 2003 International Building Code(IBC)
- D. 2003 International Plumbing Code
- E. 2003 International Energy Conservation Code
- F. NFPA, All applicable code sections, Latest Version
- G. ASHRAE 90.1

## PLUMBING NARRATIVE

### PLUMBING UTILITIES

#### 1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by a 4 inch domestic water service. The domestic water service equipment includes a 2 inch water meter, pressure reducing valve, and isolation valves. This water service currently serves all of the building's domestic water needs and has adequate pressure. The water distribution system is original to the building.



#### 2. Natural Gas:

- a. Existing Natural Gas Service: The natural gas service enters the front of the building from a main gas line on North Main Street. The gas service is located in the basement adjacent to the fire and domestic water services. The service entrance equipment includes a remote metering assembly and shut-off valves.



### 3. Sanitary:

- a. Existing Sanitary Service: The sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The piping material above grade is primarily cast iron. The plumbing fixtures drain to buried sanitary waste piping to the buildings exterior and to the municipal sewer system.



### 4. Storm:

- a. The storm piping is primarily cast iron and drains to the municipal storm water system. There are no secondary roof drains.
- b. There are areas of the storm water system where the piping has been replaced with PVC. Further investigation should be done to determine the exact cause of the failure.



- c. There are no reports of problems with the storm water piping below grade.

## **PLUMBING FIXTURES AND SPECIALTIES**

### 1. Existing plumbing fixtures are as follows:

- Water closets are floor or wall mounted; flush valve, vitreous china. Some of the fixtures have been replaced with water conserving fixtures with sensor operated flush valves. The fixtures range from original to the facility in fair condition to new in very good condition. The original fixtures are non-water conserving type and non-ADA compliant.



- Urinals are wall hung, vitreous china, with flush valves. Some of the fixtures have been replaced with water conserving fixtures with sensor operated flush valves. The fixtures range from original to the facility in fair condition to new in very good condition. The original fixtures are non-water conserving type and non-ADA compliant.



- Lavatories are wall hung vitreous china. Some of the fixtures have been replaced with water conserving fixtures with sensor operated faucets. The original fixtures are a combination of two lever handle or metered faucets. The fixtures range from original to the facility in fair condition to new in very good condition. The original fixtures are non-water conserving type and the faucets and drains are non-ADA compliant.



- Drinking fountains are wall mounted stainless steel units in good condition. The amount these units protrude into the path of travel should be reviewed for compliance with current ADA requirements.
- A Stainless steel sink with two lever gooseneck type faucet is present in the Mayor's office. This sink is non-ADA compliant and in good condition.



- Janitor sinks are wall mounted cast iron units with two lever faucets. There is no vacuum breaker present at these sinks. The sinks are original to the building and in poor condition.



## DOMESTIC HOT WATER SYSTEMS

1. The existing domestic hot water system includes a Bradford White Model D75T1253N natural gas fired domestic water heater. This water heater has no gas supply or electrical power to it. It appears that this water heater is fed from the boiler system. This equipment is in poor condition.



## **FIRE PROTECTION NARRATIVE**

### **FIRE PROTECTION SERVICE**

1. The building is served by a 6" fire protection service fed from a fire main in North Main Street. This fire service includes a shut-off valve and Watts Model 774 double check valve. This fire protection service feeds standpipes only located in the stairs. There are no sprinklers in the building. This fire service equipment has been recently installed and is in good condition.



## **MECHANICAL SYSTEMS:**

### **EXISTING SYSTEMS**

1. The existing building is heated by (2) Columbia Boiler Model MPH-60 steam boilers with Cyclonic Model JB2C-10-RM7800L-M.15-MP-UL-FM dual fuel burners. The burners do have gas train equipment installed, however, there is no gas piping to the burners. They operate on oil only at the present time. The boilers, burners, and breeching have been recently installed and all are in very good condition.



2. The heating plant also includes a new condensate receiver, boiler feed system, hot water heat exchanger, and hot water pumps. All of this equipment was installed with the boilers and is in very good condition.



3. The present heating system also includes cabinet unit heaters, and ceiling mounted unit heaters and steam coils in the 4<sup>th</sup> floor air handling equipment. This equipment is original to the building and in good to very poor condition.



4. The air conditioning system consists of a Trane Model CCWBD181ECNPN80EGTCP electric chiller rated at 180 tons. The system also includes a roof mounted cooling tower manufactured by Baltimore Air Coil, chilled water pumps, piping, chilled water coils in the 4<sup>th</sup> floor air handling equipment, and controls. The chiller, chilled water pumps, piping, and chilled water coils are in poor condition. The cooling tower was replaced in the past two years and is in very good condition, however, the piping on the exterior of the building needs to be insulated.





5. The air handling equipment is located in the 4<sup>th</sup> floor mechanical room. This equipment includes (4) air handling units with steam and chilled water coils, return air fans, miscellaneous exhaust fans, ductwork, piping and controls. With the exception of the new control system, all of this equipment is original to the facility and in very poor condition.



6. The steam piping consists of iron supply and condensate return piping. Some of this piping in the 4<sup>th</sup> floor mechanical room is missing insulation or the insulation has failed and replaced.



7. The chilled water piping consists of iron and copper piping. The condition of this piping is suspect as the chilled water treatment system has not been present for the entire life of the system. Some of the pipe insulation is missing or has been replaced where failures have occurred.



8. The air handling equipment distributes heated or cooled air to various locations in the building. AHU-1 serves the majority of the building. There has been some work done to add ductwork between AHU-1 and Return Air Fan 1 so that AHU-1 does not need to bring in 100% outside air all of the time. All of the air handling systems should be reviewed for ventilation rates and replaced with units with energy recovery capability.



9. The exhaust fans located in the 4<sup>th</sup> floor mechanical room or on the roof serve toilet rooms, etc. This equipment is in poor condition.
10. The existing temperature control system consists of both electronic and pneumatic equipment. The head end is an Invensys DDC control system with the existing valves being pneumatic. There is an air compressor and air dryer located in the 4<sup>th</sup> floor mechanical room that services the pneumatic components. There is an excessive amount of condensation being removed by the air dryer so a bucket is located under the equipment to collect the water.



## ELECTRICAL NARRATIVE

### EXISTING SYSTEMS

1. The building is served by a single electrical service rated 1600amperes, 480Y/277volts, 3-phase, 4-wire. This service equipment consists of a 1600amp main disconnect switch, distribution sections and metering per utility company requirements. The service equipment is original to the building and is in fair condition. There is an electrical panel located adjacent to the main electrical switchboard where the required clearance between the front of the panel and the switchboard does not meet code requirements. In addition, the current electrical room access does not meet the current code requirements for egress from the room.



2. There are a number of electrical panels located throughout the facility. These panelboards are original to the facility. The condition of these panelboards is fair. The majority of the panelboards do not have spare circuit breakers available for new circuits to be added, or have space to add new circuit breakers.



3. There is a motor control center located in the boiler room to serve the mechanical equipment in the boiler room. This equipment is original to the building and in fair condition. The required clearance in front or on top of this equipment does not appear to meet current code requirements.



4. The lighting throughout the facility consists primarily of recessed mounted acrylic lensed fluorescent fixtures in the office areas, toilet rooms, etc. A recessed fluorescent cove lighting system is located in the corridors. Industrial fluorescent fixtures are located in storage rooms. There are other miscellaneous fixtures spotted throughout the building. Most of the lighting has been upgraded to newer T8 technology, however, there are other fixtures using older T12 technology or incandescent lamps. The lighting ranges from good to poor condition.



5. The fire alarm system is manufactured by Simplex. The system includes manual pull stations, horn strobes, and ceiling mounted heat detectors. This system is in fair condition and non-ADA compliant. Smoke detectors and additional audio visual devices should be added to the building.



6. The emergency lighting is provided by a Dual Lite Inverter System that includes the inverter, batteries, ceiling mounted remote heads and controls. Although this system is operational, it is in poor condition. Additional lighting fixtures are required to meet current requirements for emergency lighting.



7. The exit signs consist of fluorescent exit signs with batteries. This equipment is in fair condition. Additional exit signs are required to meet current requirements for exit signs.
8. The wiring between the electrical closets passes through slots in the floors below the electrical panels. Site observation shows that fire stopping between the floors is missing. Fire stopping is required at these locations.

### **MEP SYSTEMS CONCLUSION**

In general with the exception of the heating plant and associated equipment, all of the other systems are 25+ years old and have met their useful life expectancy. The system components are very inefficient. The ventilation system does not meet current code requirements. We recommend that most of the systems be replaced with new.



CITY HALL DEPARTMENT BREAKDOWN	Current Space SF	Floor	Proposed SF	Comments	Basement	First	Second	Third	Offsite
Assessor	1640	1	1640	same		1640			
BDA	2050	2	1500					1500	
Building	2270	2	2780	Enlarge vault					2270
Building Department Vault (Rm. 275)	230	2	230	same					230
City Clerk	2950	1	3250	Enlarge vault		3250			
City Council	1850	1	1850	same		1850			
Claims	400	2	400	same			540		
Comptrollers	2800	3	2800	Proposed to include Treas.				2800	
Conference 1	540	1	540	same		540			
Conference 2	385	1	385	same		385			
Corp. Counsel	1675	3	1675	same				1646	
Firing Range	1450	G	1450	Possible move to Police Station	1450				
Garage	560	G	560	same	560				
General Vault	880	G	880	same	880				
MIS	2140	3	1875	Reduction of computer room				1915	
Mail	310	3	600	Add supplies storage, recycling				524	
Maintenance	840	G	840	same	840				
Mayor	1280	3	1280	same				1280	
Parks	1100	2	0	Move to Rockwell Bathhouse			0		
Personnel	1950	2	1950	Enlarge vault by 40 s.f., same total			1950		
Probate	1790	3	2310	Add conference rooms					2310
Public Works	6040	G	6040	Reorganize, same total size			6240		
Public Works Records	460	G	460	same			475		
Purchasing	1190	2	1190					920	
Registrars	1590	1	1590	same		1600			
Renaissance	1360	1	0	Assumed to move out					1360
Social Services	320	2	320				500		
Staff Lounge	860	2	860	same			860		
Tax	1500	1	1500			1500			
Treasurer	590	3	0	Combine with Comptroller				0	
Youth Services	0	n/a	5700	Currently outside City Hall	5710				
UNASSIGNED FLOOR SPACE					765	1025			
TOTAL NET SF	43000		46455	Proposed Net Useable:	10205	11790	10565	10585	6170
COMMON AREAS & WALLS	19520	31%	21088	31%					
TOTAL GROSS SF	62520		67543	5,023 Addition	16600	16490	14700	14730	
Current Net Useable:					10230	11815	10600	10585	
Discrepancies					25	25	35	0	

 Current Location

 Moved to a new floor

 Moved to a separate building

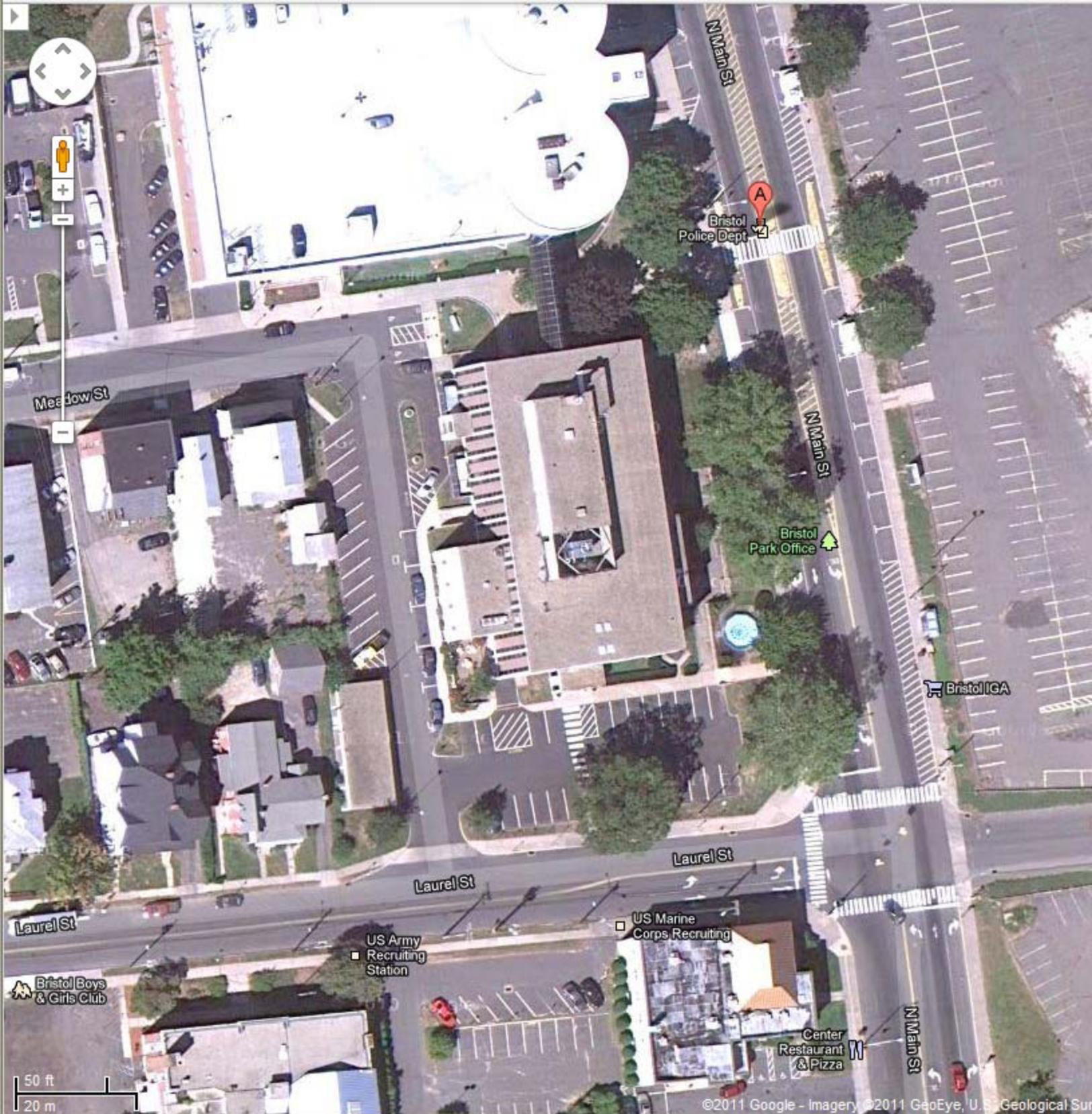
 Unassigned Useable Space



Space Summary - Bristol City Hall Departments

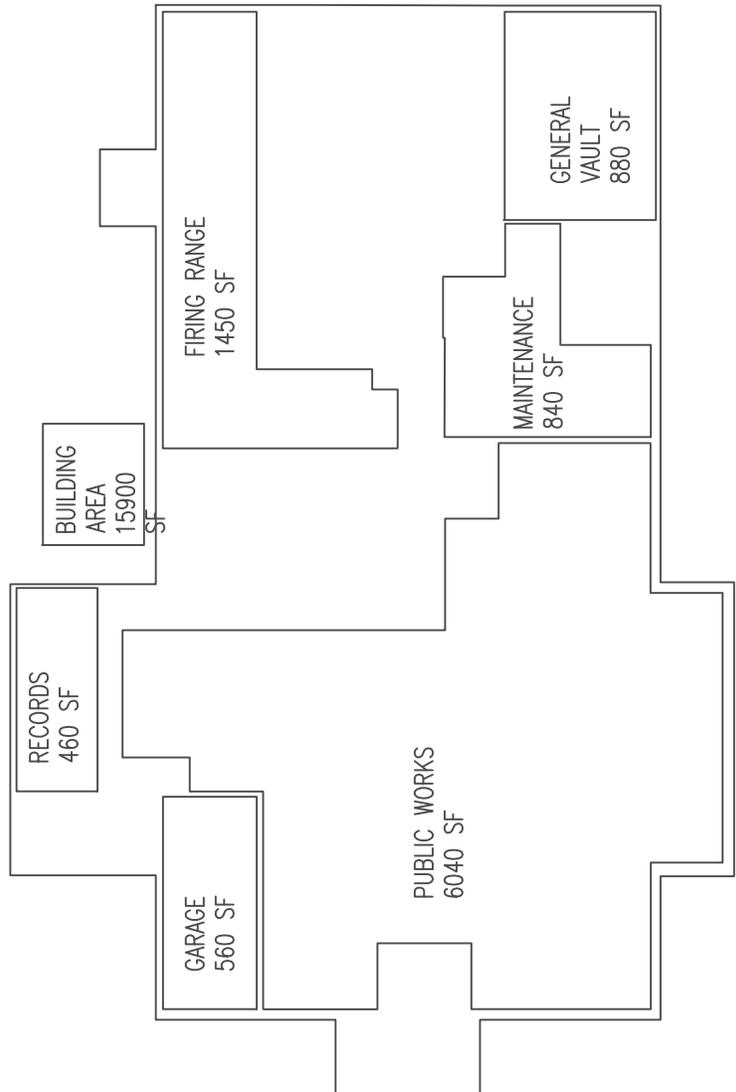
Department	Space Name	Area	Qty	Total	Comments
Building	Director	140	1	140	
	Inspector	130	7	910	Private offices
	Admin. Asst.	130	1	130	
	Reception	170	1	170	Front counter area
	Vault-Street Files	350	1	350	Expanded from existing
	Coffee	100	1	100	Sink and counters
	Library	160	1	160	
	Conference	220	1	220	
	Circulation	600	1	600	
				2780	[2500 existing]
Probate	Judge/Hearings	320	1	320	Desk, tables, chairs
	Waiting/Recn.	250	1	250	Counter
	Head Clerk	120	1	120	
	Clerk	100	4	400	
	Microfilm Clerk	100	1	100	IT equipment
	Microfiche Clerk	100	1	100	IT equipment
	Vault	200	1	200	Records
	Attourney Conf.	150	2	300	
	Coffee	120	1	120	
Circulation	400	1	400		
				2310	[1790 existing]
City Clerk	Asst. City Clerk	150	1	150	
	City Clerk Office	240	1	240	2 people
	City Clerk Clerical	622	1	622	4 clerks
	Reception	216	1	216	Waiting, counter, cash regis.
	Vault	1190	1	1190	Vault construction, larger
	Vital Stats Room	276	1	276	Vault construction
	Files	245	1	245	Fireproof cabinets
	Circulation	311	1	311	
				3250	[2950 existing]
MIS	Director	170	1	170	
	Network mgr.	120	1	120	
	System analyst	130	1	130	
	Desktop tech	130	3	390	
	GIS tech	130	1	130	
	Computer room	550	1	550	Reduction in size
	IT storage	85	1	85	Equip. and supplies
	Circulation	300	1	300	
				1875	[2140 existing]



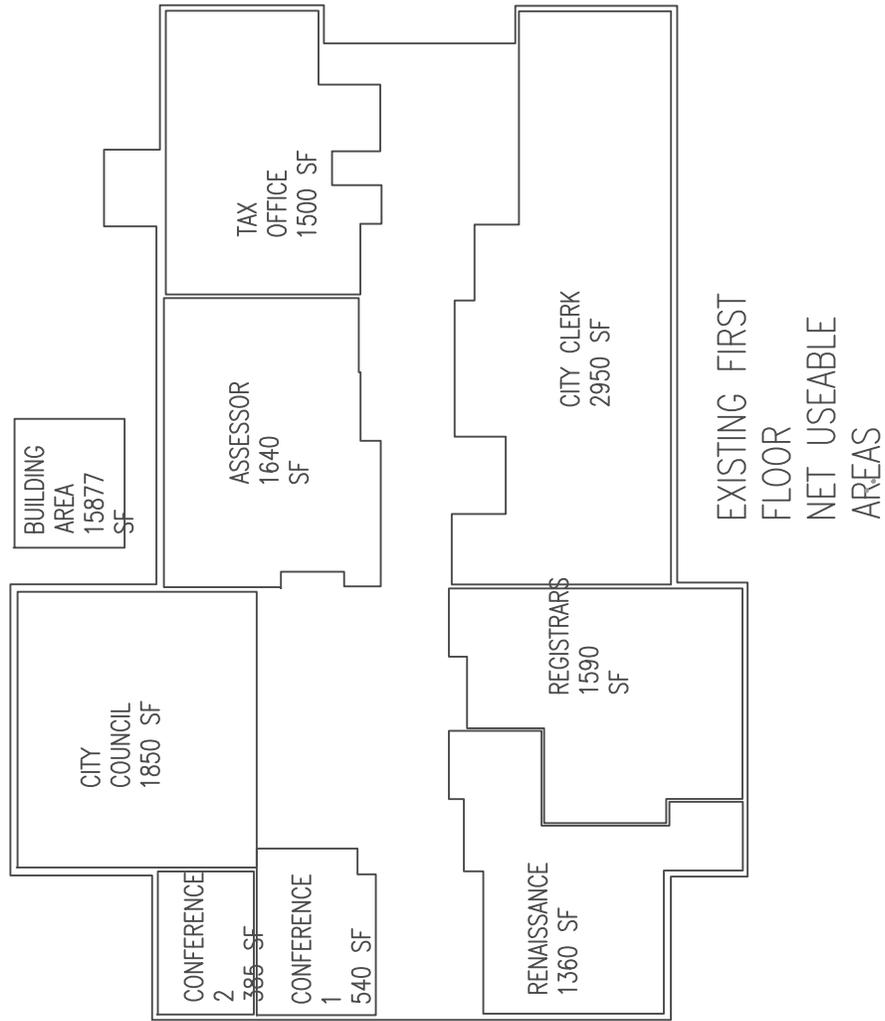


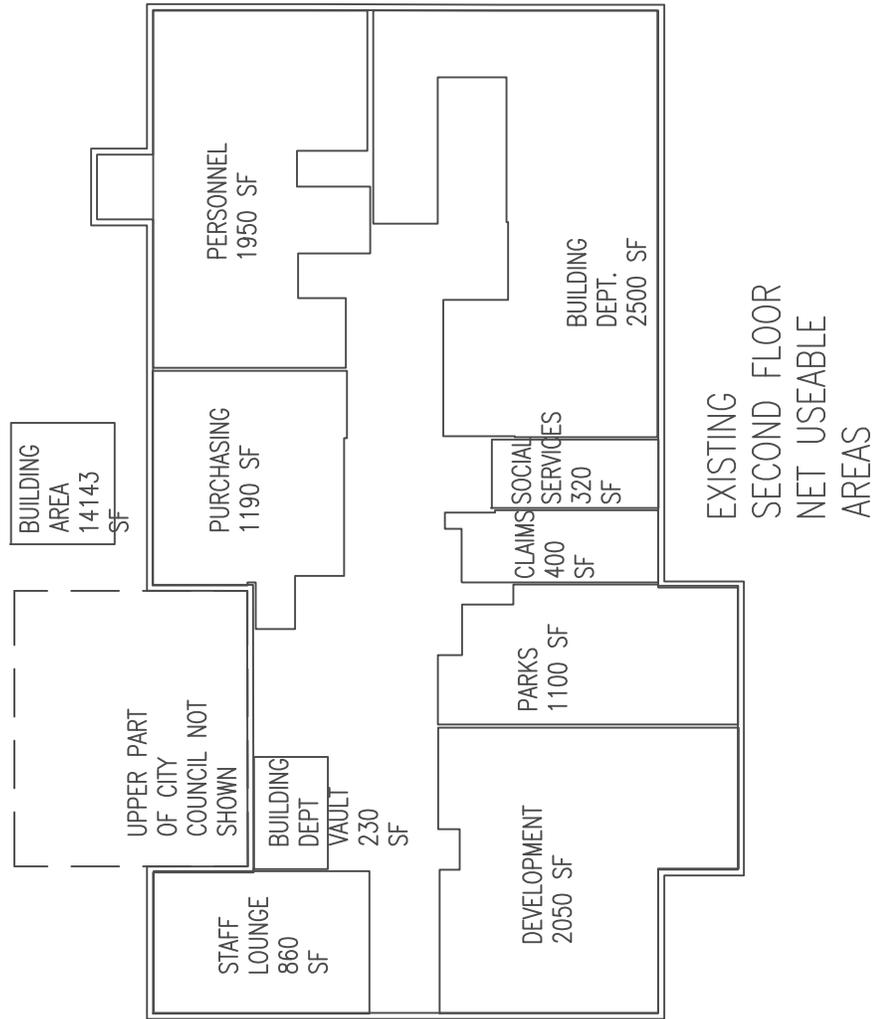
**DRA Architects, Bristol, City Hall, Site Aerial**



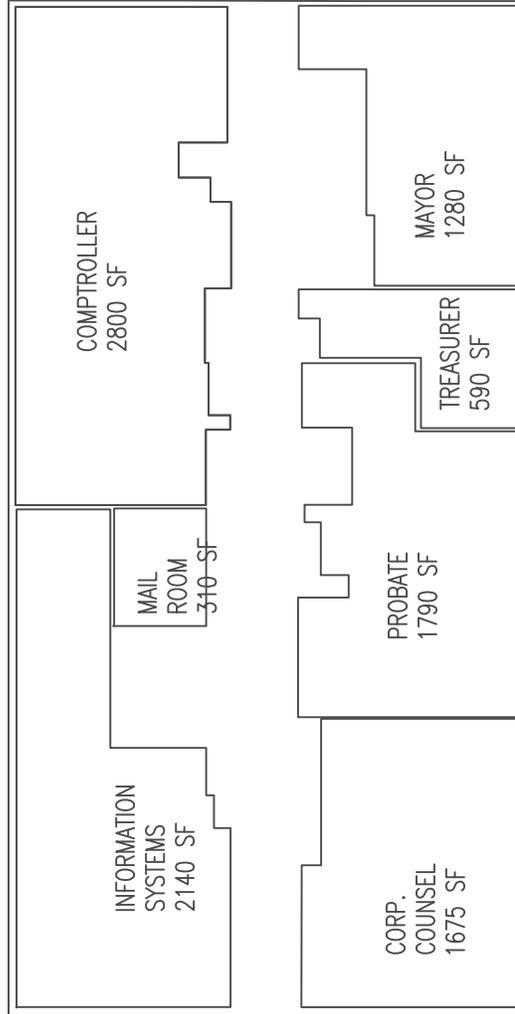


EXISTING  
BASEMENT  
NET USEABLE  
AREAS

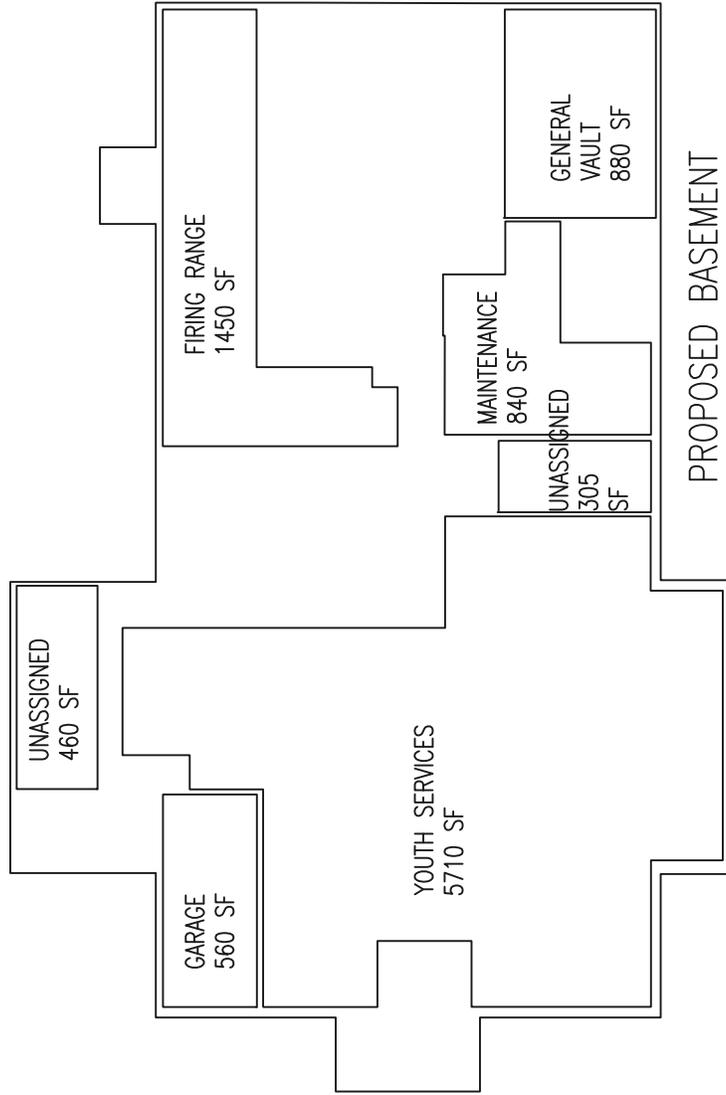




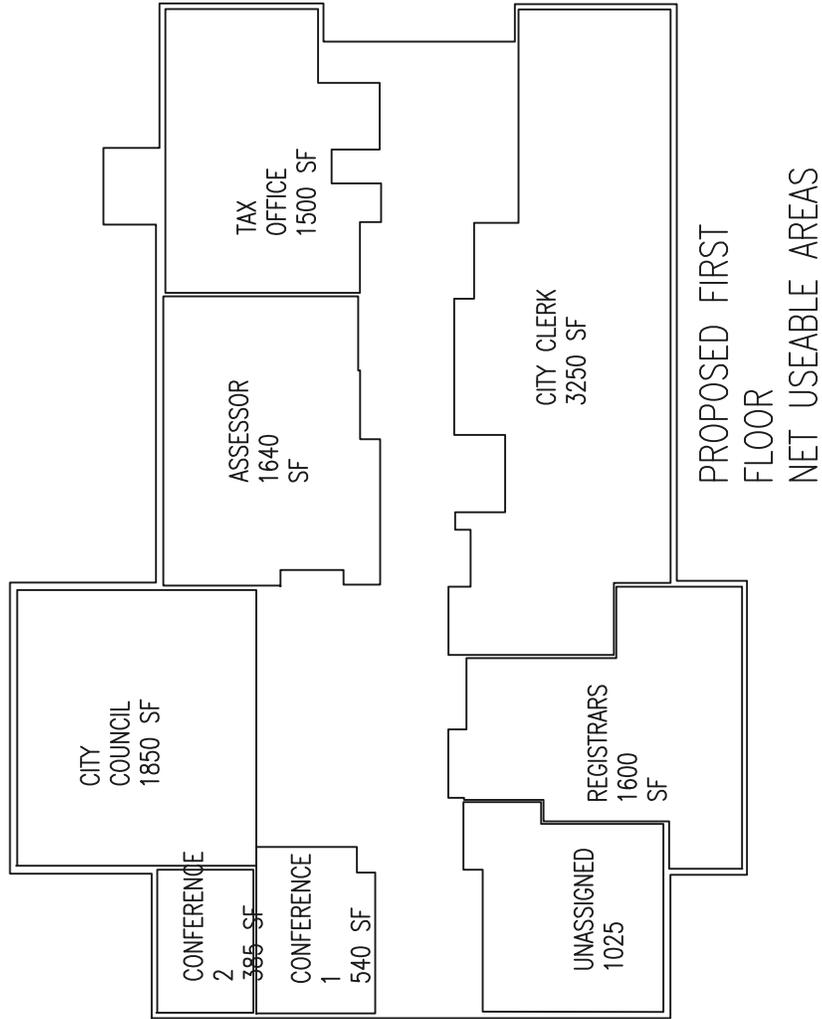
BUILDING AREA  
14221 SF



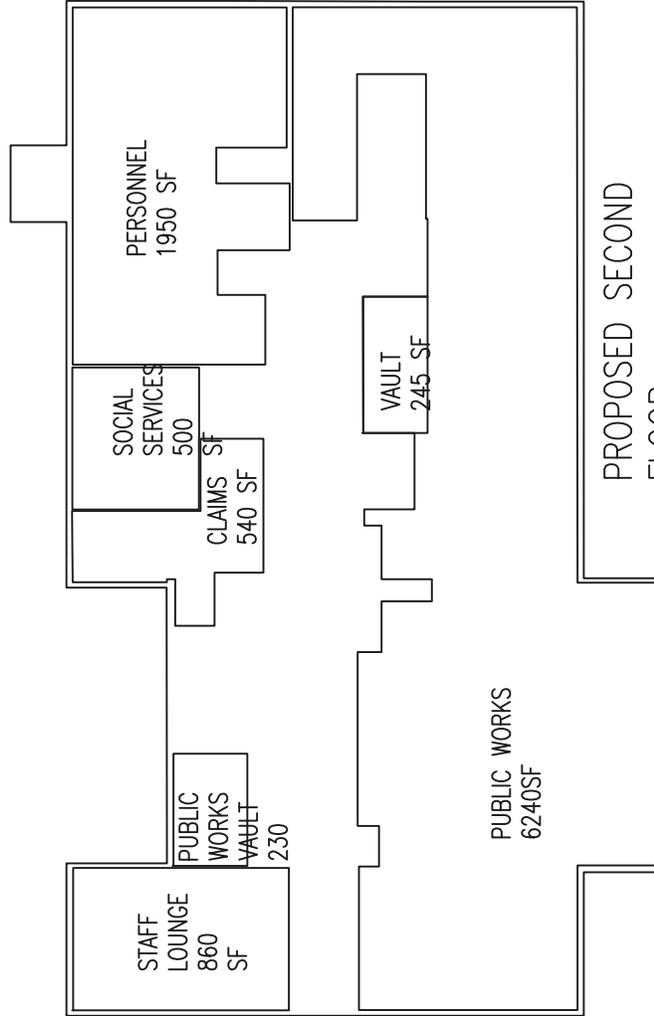
EXISTING THIRD  
FLOOR  
NET USEABLE  
AREAS



Options CH1 & 2

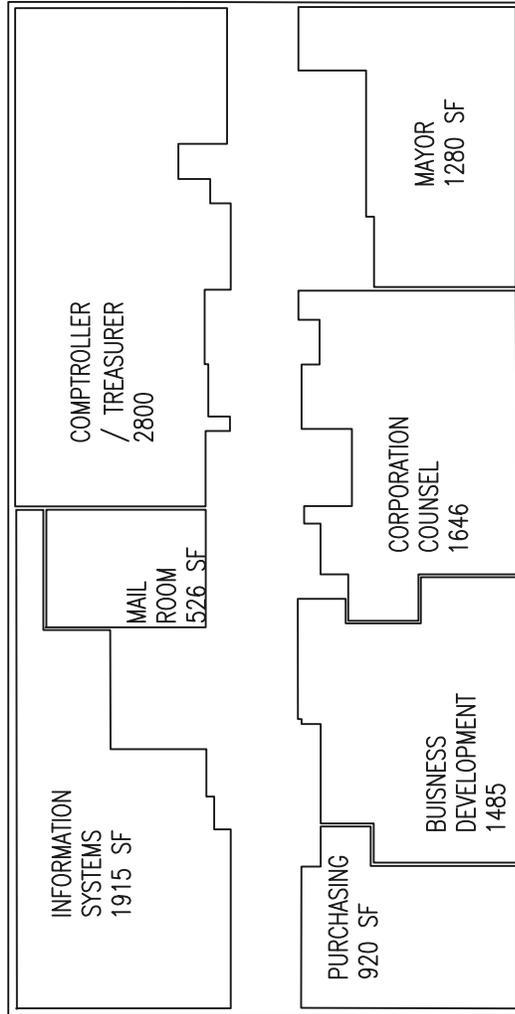


Options CH1 & 2



PROPOSED SECOND FLOOR  
NET USEABLE AREAS

Options CH1 & 2



PROPOSED THIRD FLOOR NET USEABLE AREAS

Options CH1 & 2