



COMMERCIAL CONSTRUCTION PERMIT APPLICATION

CITY OF CARTER LAKE, IOWA
Building & Zoning Department

950 Locust Street
Carter Lake, IA 51510
Telephone: 712.847.0535
Fax: 712.347.5454
Inspection Request: 712.847.0535

	Permit Amount	Receipt #	Permit #
JOB SITE ADDRESS:	PARCEL NUMBER:		
LEGAL DESCRIPTION: <input type="checkbox"/> Attachment			PROPERTY SIZE:
ZONING DISTRICT: <input type="checkbox"/> R-3 Urban Residential Multi-Family District <input type="checkbox"/> R/CC CL Club Special Residential District <input type="checkbox"/> C/L Locust Street Mixed Use Corridor District <input type="checkbox"/> C-1 Limited Commercial/Office District <input type="checkbox"/> C-2 General Commercial District <input type="checkbox"/> BP Business Park District <input type="checkbox"/> T-C Town Center <input type="checkbox"/> C/A Abbott Drive Corridor District <input type="checkbox"/> M-1 Limited Industrial District <input type="checkbox"/> M-2 General Industrial District <input type="checkbox"/> MC Mixed Use District <input type="checkbox"/> PUD Planned Unit Development Overlay District <input type="checkbox"/> W Water-Oriented Development Overlay District <input type="checkbox"/> FP/FW Floodplain Overlay District			
PROPERTY OWNER:		PHONE NUMBER:	
PROPERTY OWNER ADDRESS:		STATE:	ZIP CODE:
GENERAL CONTRACTOR NAME:		STATE LICENSE #:	PHONE NUMBER:
CONTRACTOR MAILING ADDRESS:		STATE:	ZIP CODE:
SUB-CONTACTOR NAME & STATE LICENSE #'s:			
Electrical: _____ Plumbing: _____ Mechanical: _____			
State License #: _____ State License #: _____ State License #: _____			

Building Type/Use: General Commercial
 Industrial
 Multi-Family
 Other _____
Class of Work: New Structure
 Addition
 Tenant Improvement
 Remodel
 Other _____

CONSTRUCTION INFORMATION		
PROPOSED CONSTRUCTION DESCRIPTION:		
ESTIMATED CONSTRUCTION COST:	PROPOSED BUILDING AREA (square footage):	CODE TYPE OF CONSTRUCTION:

PERMIT FEES	AMOUNTS
Building Fee will be based on engineered estimated construction cost or permit valuation using the current Building Valuation Data and adopted Building Permit Fee Schedule. (see next page to figure cost)	Building Fee Receipt #: \$
Figuring the Plan Review Fee at 25% of the calculated Building Permit Fee cost. The Plan Review Fee will be a required deposit at the time of your permit application submittal. (see next page to figure cost)	Plan Review Fee (submittal deposit) Receipt #: \$
	Total Amount \$

Applicant is responsible for obtaining all other necessary permits or approvals related to the proposed activity, including those that may be required by the State or Federal Government. Applicant will save, indemnify, and keep harmless the City of Carter Lake, Iowa its officers, employees, and agents against all liabilities, judgments cost, and expenses which may accrue against them in consequence of the granting of this permit, inspections, or use of any on-site or off-site improvements placed by virtue hereof, and will in all things strictly comply with all applicable rules, ordinances, and laws. Signature constitutes an attestation by the applicant that application complies with all covenants, conditions, and restrictions.

APPLICANT SIGNATURE: _____ DATE _____

Issued By:	Date:
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BUILDING VALUATION DATA
Square Foot Construction Costs ^{a, b, c, d}

Group (2015 International Building Code)	IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
A-1 Assembly, theaters, with stage	229.03	221.51	216.10	207.06	194.68	189.07	200.10	177.95	171.21
A-1 Assembly, theaters, without stage	209.87	202.35	196.94	187.90	175.62	170.01	180.94	158.89	152.15
A-2 Assembly, nightclubs	177.89	172.85	168.07	161.49	151.98	147.78	155.80	137.68	132.99
A-2 Assembly, restaurants, bars, banquet halls	176.89	171.85	166.07	160.49	149.98	146.78	154.80	135.68	131.99
A-3 Assembly, churches	211.95	204.43	199.02	189.98	177.95	172.34	183.02	161.22	154.48
A-3 Assembly, general, community halls, libraries, museums	176.88	169.36	162.95	154.91	141.73	137.12	147.95	125.00	119.26
A-4 Assembly, arenas	208.87	201.35	194.94	186.90	173.62	169.01	179.94	156.89	151.15
B Business	182.89	176.17	170.32	161.88	147.55	142.00	155.49	129.49	123.76
E Educational	192.29	185.47	180.15	172.12	160.72	152.55	166.18	140.46	136.18
F-1 Factory and industrial, moderate hazard	108.98	103.99	97.83	94.17	84.37	80.56	90.16	69.50	65.44
F-2 Factory and industrial, low hazard	107.98	102.99	97.83	93.17	84.37	79.56	89.16	69.50	64.44
H-1 High Hazard, explosives	102.01	97.02	91.86	87.20	78.60	73.79	83.19	63.73	0.00
H234 High Hazard	102.01	97.02	91.86	87.20	78.60	73.79	83.19	63.73	58.67
H-5 HPM	182.89	176.17	170.32	161.88	147.55	142.00	155.49	129.49	123.76
I-1 Institutional, supervised environment	182.53	175.88	170.97	162.73	150.55	146.48	162.73	135.02	130.72
I-2 Institutional, hospitals	308.50	301.79	295.93	287.50	272.14	0.00	281.10	254.09	0.00
I-2 Institutional, nursing homes	213.56	206.85	200.99	192.56	179.22	0.00	186.16	161.17	0.00
I-3 Institutional, restrained	208.37	201.66	195.80	187.37	174.54	167.98	180.97	156.48	148.74
I-4 Institutional, day care facilities	182.53	175.88	170.97	162.73	150.55	146.48	162.73	135.02	130.72
M Mercantile	132.61	127.57	121.79	116.21	106.35	103.15	110.52	92.05	88.36
R-1 Residential, hotels	184.11	177.46	172.55	164.31	152.38	148.31	164.31	136.85	132.55
R-2 Residential, multiple family	154.38	147.73	142.82	134.58	123.25	119.18	134.58	107.72	103.42
R-3 Residential, one- and two-family	143.93	139.97	136.51	132.83	127.95	124.61	130.57	119.73	112.65
R-4 Residential, care/assisted living facilities	182.53	175.88	170.97	162.73	150.55	146.48	162.73	135.02	130.72
S-1 Storage, moderate hazard	101.01	96.02	89.86	86.20	76.60	72.79	82.19	61.73	57.67
S-2 Storage, low hazard	100.01	95.02	89.86	85.20	76.60	71.79	81.19	61.73	56.67
U Utility, miscellaneous	77.82	73.48	69.04	65.52	59.23	55.31	62.58	46.83	44.63

Footnotes:

- a. Private Garages use Utility, miscellaneous
- b. Unfinished basements (all use group) = \$18.25 per square foot
- c. For shell only buildings deduct 20 percent
- d. N. P. = Not Permitted

TOTAL VALUATION	FEE
\$1 to \$500	\$ 23.50
\$501 to \$2,000	\$ 23.50 for the first \$ 500.00 plus \$ 3.05 for each additional \$ 100.00, or fraction thereof, to and including \$ 2,000.00
\$2,001 to \$25,000	\$ 69.25 for the first \$ 2,000.00 plus \$ 14.00 for each additional \$ 1,000.00, or fraction thereof, to and including \$ 25,000.00
\$25,001 to \$50,000	\$ 391.75 for the first \$ 25,000.00 plus \$10.10 for each additional \$ 1,000.00, or fraction thereof, to and including \$ 50,000.00
\$50,001 to \$100,000	\$ 643.75 for the first \$ 50,000.00 plus \$ 7.00 for each additional \$ 1,000.00, or fraction thereof, to and including \$ 100,000.00
\$100,001 to \$500,000	\$ 993.75 for the first \$ 100,000.00 plus \$ 5.60 for each additional \$ 1,000.00, or fraction thereof, to and including \$ 500,000.00
\$500,001 to \$1,000,000	\$ 3,233.75 for the first \$ 500,000.00 plus \$ 4.75 for each additional \$ 1,000.00, or fraction thereof, to and including \$ 1,000,000.00
\$1,000,001 and up	\$ 5,608.75 for the first \$ 1,000,000.00 plus \$ 3.15 for each additional \$ 1,000.00, or fraction thereof...

ZONING DISTRICT REGULATIONS

DISTRICT	Site Area per Housing Unit (sq ft)	Minimum Lot Area (sq ft)	Minimum Lot Width (feet)	Front Yard	Side Yard	Street Side Yard	Rear Yard	Max Height (feet)	Max Building Coverage	Max Impervious Coverage	Floor Area Ratio	Max % of Total Parking Located in Street Yard	Minimum Depth of Landscaping Adjacent to Street Right-of-Way Line (feet)
R-3													
1- FAMILY DETACHED				25	*7	15	25	35	55%	65%	N/A	N/A	20
Conventional Developments	6,000	6,000	60										
Planned Developments	5,000	4,000	45										
1- FAMILY ATTACHED				25	*7	15	25	35	55%	65%	N/A	N/A	20
Conventional Developments	6,000	5,000	45										
Planned Developments	5,000	4,000	40										
DUPLEX				25	*10	15	25	35	55%	65%	N/A	N/A	20
Conventional Developments	3,000	6,000	75										
Planned Developments	3,000	6,000	65										
* 5 ft for each additional story													
TOWNHOUSE				25	*15	15	25	35	55%	65%	N/A	N/A	20
Conventional Developments	2,500	3,000	35										
Planned Developments	2,000	2,500	25										
MULTI-FAMILY				30	25	25	25	35	55%	65%	.50	50%	20
Conventional Developments	2,000	10,000	100										
Planned Developments	1,500	1.0 acre	150										
OTHER PERMITTED USES				25	10	15	25	35	45%	55%	.50	50%	20
Conventional Developments		6,000	60										
Planned Developments		6,000	60										
R/CC													
1 – Family Detached	4,000	4,000	50	10	5	15	10*	35	55%	65%	N/A		10
*20 for garages facing alleys													
1 – Family Attached (section 804)	3,000	7,000	45	10	5	15	10*	35	55%	54%	N/A		10
*20 for garages facing alleys													
Other Permitted Uses		6,000	50	25	10	15	10	35	55%	65%	.50		10
RM													
1 – Family Detached in Conv. Develop.	6,000	6,000	60	25	5	15	25	35	45%	60%	N/A	N/A	20*, 35**
*private **public													
Other Permitted Uses in Conv. Develop.		6,000	60	25	10	15	25	35	45%	60%	.50	50%	20*, 35**
*private **public													
C/L													
Permitted Uses		6,000	75	*Note 1	10	15	25	35	60%	80%	1.0	50%	10
*Note 1 - Setbacks along Urban Corridors Normal minimum setback is 25 feet/ Front yard setback may be reduced to 15 feet if: 1. No parking is placed within the street yard. 2. The entire street yard area is landscaped, with the exception of driveways to parking areas or pedestrian accesses to the principal building on the site. This setback flexibility shall not be applied on any street without the specific approval of the City Council.													

DISTRICT	Site Area per Housing Unit (sq ft)	Minimum Lot Area (sq ft)	Minimum Lot Width (feet)	Front Yard	Side Yard	Street Side Yard	Rear Yard	Max Height (feet)	Max Building Coverage	Max Impervious Coverage	Floor Area Ratio	Max % of Total Parking Located in Street Yard	Minimum Depth of Landscaping Adjacent to Street Right-of-Way Line (feet)
C-1													
Permitted Uses	N/A	6,000	60	15 (Note 1)	7	15	*	35	60%	80%	.50 (Note 2)	75%	10
<p style="text-align: center;">* Less of 15% of lot depth or 20 feet <i>Note 1: Flexible Yard Setbacks in Planned Districts</i> The Planning Board and City Council may vary required minimum setbacks in planned districts. However, the setbacks from the front façade of a garage to any public or private street right-of-way (including the boundary of sidewalks) must be at least 20 feet. <i>Note 2: Flexible Floor Area Ratios in Planned Districts:</i> The Planning Board and City Council may increase the maximum Floor Area Ratio for a development in a planned district.</p>													
C-2													
Permitted Uses		6,000	65	25 (Note 1)	0	25	0	35	70%	90%	1.0 (Note 2)	100%	10
<p style="text-align: center;"><i>Note 1: Flexible Yard Setbacks in Planned Districts</i> The Planning Board and City may vary required minimum setbacks in planned districts. Along Arterials designated in the city's Comprehensive Development Plan, the Maintenance Supervisor may require a deeper front-yard setback. <i>Note 2: Flexible Floor Area Ratios in Planned Districts</i> The Planning Board and City Council may increase the maximum Floor Area Ratio for a development in a planned district.</p>													
TC													
Multi-family													
Conventional Developments	2,000	10,000	100	30	25	25	25	35	55%	65%	.50 (Note 1)	50%	Refer to R-3
Planned Developments	1,500	1.0 acre	150										
All Other Permitted Uses													
Conventional Developments	N/A	10,000	No requirement	0	0	0	0	35	50%	70%	3.0	50%	0*
Planned Developments													
<p style="text-align: center;">* 5 ft. for one story. 5ft. for each additional story <i>Note 1: Flexible Floor Area Ratios in Planned Districts</i> The Planning Board and City may vary required minimum setbacks in planned districts. Along Arterials designated in the city's Comprehensive Development Plan, the Maintenance Supervisor may require a deeper front-yard setback.</p>													
C/A													
Permitted Uses		8,000	80	25 (Note 1)	0	0	0	*	70%	85%	3.0 (Note 2)	75%	15
<p style="text-align: center;">* 60 unless reduced by airport standards <i>Note 1: Flexible Yard Setbacks in Planned Districts</i> The Planning Board and City may vary required minimum setbacks in planned districts. Along Arterials designated in the city's Comprehensive Development Plan, the Maintenance Supervisor may require a deeper front-yard setback. <i>Note 2: Flexible Floor Area Ratios in Planned Districts</i> The Planning Board and City Council may increase the maximum Floor Area Ratio for a development in a planned district.</p>													
BP													
Permitted Uses		20,000	100	30 (Note 1)	10	25	30	60 *	50%	701%	2.0 (Note 2)	50%	20
<p style="text-align: center;">* "unless reduced by airport approach standard" <i>Note 1: Flexible yard Setbacks in Planned Districts</i> The Planning Board and City Council may vary required minimum setbacks in planned districts. <i>Note 2: Flexible Floor Area Ratios in Planned Districts</i> The Planning Board and City Council may increase the maximum Floor Area Ratio for a development in a planned district.</p>													
M-1													
Permitted Uses	10,000*	10,000	100	** (Note 1)	0	25	10	75	70%	90%	1.0 (Note 2)	100%	10
<p style="text-align: center;">* Minimum District Size (sq ft) ** 25; greater of 35 feet from property line or 50 feet from the centerline along roads on the TEA-21 arterial system <i>Note 1: Flexible Yard Setbacks in Planned Districts</i> The Planning Board and City may vary required minimum setbacks in planned districts. Along Arterials designated in the city's Comprehensive Development Plan, the Maintenance Supervisor may require a deeper front-yard setback. <i>Note 2: Flexible Floor Area Ratios in Planned Districts</i> The Planning Board and City Council may increase the maximum Floor Area Ratio for a development in a planned district.</p>													
M-2													
Permitted Uses		1 acre	100	* (Note 1)	0	25	10	75	80%	90%	1.0 (Note 2)	100%	10
<p style="text-align: center;">*25; greater of 35 feet from property line or 50 feet from the centerline along roads on the TEA-21 arterial system <i>Note 1: Flexible Yard Setbacks in Planned Districts</i> The Planning Board and City may vary required minimum setbacks in planned districts. Along Arterials designated in the city's Comprehensive Development Plan, the Maintenance Supervisor may require a deeper front-yard setback. <i>Note 2: Flexible Floor Area Ratios in Planned Districts</i> The Planning Board and City Council may increase the maximum Floor Area Ratio for a development in a planned district.</p>													

DEFINITION OF ZONING DISTRICT

- R-3 Urban Residential Multi-Family District
- R/CC CL Club Special Residential District
- C/L Locust Street Mixed Use Corridor District
- C-1 Limited Commercial/Office District
- C-2 General Commercial District
- T-C Town Center
- C/A Abbott Drive Corridor District
- BP Business Park District
- M-1 Limited Industrial District
- M-2 General Industrial District

Note: Provided in Table 1, Height and Area Matrix, are the height and area requirements for each zoning district. Where there are two (2) or more values shown, the first is for the permitted use in the district followed by supplemental requirements for other uses and site conditions. For example, in the R-1 District the minimum lot width is shown as 60/70/35, which means that sixty (60) feet is the minimum lot width for most lots, seventy (70) feet is the minimum lot width for corner lots, and thirty-five (35) feet is the minimum lot width (at the curb) for lots abutting a cul-de-sac. The second value shown for rear and side setbacks in the commercial and industrial zoning districts are for lots that are adjacent to residential areas.

SECTION C- FLOOD PLAIN DEVELOPMENT

Rate Map Information		Rate Map <div style="border: 1px solid black; width: 100px; height: 20px;"></div>	Flood Zone: <input type="checkbox"/> .2% <input type="checkbox"/> AH <input type="checkbox"/> A <input type="checkbox"/> AO <input type="checkbox"/> AE <input type="checkbox"/> X		Floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No	Floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		
PROJECT DESCRIPTION	Type of Development	<input type="checkbox"/> Filing <input type="checkbox"/> Routine Maintenance <input type="checkbox"/> Substantial Improvement					<input type="checkbox"/> Grading/Excavation <input type="checkbox"/> Minor Improvement <input type="checkbox"/> New Construction (Skip Structural Improvements)	
	Detailed Description of Development Proposed	<input type="checkbox"/> Per Attachment						
STRUCTURAL IMPROVEMENTS	Is the existing structure non-conforming?	<input type="checkbox"/> Not Applicable <input type="checkbox"/> There is no existing structure <input type="checkbox"/> Yes <input type="checkbox"/> No						
	Size of existing structure(s):							
	Value of existing structure(s):	\$	Source of value of existing structure		<input type="checkbox"/> Assessor <input type="checkbox"/> Appraisal			
	Size of proposed structure and/or addition:							
	Estimated cost of improvements:	\$						
	Type of structure being constructed/improved:	<input type="checkbox"/> Residential Dwelling <input type="checkbox"/> Non-Residential <input type="checkbox"/> Accessory Building <input type="checkbox"/> Other: <div style="border: 1px solid black; width: 100%; height: 20px;"></div>						
FLOODPLAIN/FLOODWAY DATA	Is property located in a designated floodway?	<input type="checkbox"/> Yes <input type="checkbox"/> No		<i>If answered yes, certification must be provided prior to the issuance of a permit to develop, that the proposed development will result in no increase in the 100-year base flood elevation. No new residential or substantially improved buildings are permitted in the floodway.</i>				
	Is property located in a designated floodway fringe?	<input type="checkbox"/> Yes <input type="checkbox"/> No		<i>If this permit is issued, it will be with the condition that the lowest floor (including basement) of any new or substantially improved residential building will be elevated at least 1.0 above the 100-year base flood elevation. If the proposed development is a non-residential building, this permit will be issued with the condition that the lowest floor (including basement) of a new or substantially improved non-residential building will be elevated or flood proofed to at least 1.0 foot above the 100-year base flood elevation. Detached accessory structures to a residential use may be exempt if it meets certain criteria. Contact the Planning Dept. of details.</i>				
	MSL/NGVD=Mean Sea Level/National Geodetic Vertical Datum of 1929	Elevation of the 100-Year Base Flood:			MSL/NGVD:			
		Elevation of the proposed development site (natural ground/grade):			MSL/NGVD:			
	Required elevation/flood proofing level for lowest floor:			MSL/NGVD:				
	Proposed elevation/flood proofing level for lowest floor (including basement):			MSL/NGVD:				

**PLEASE MAKE CERTAIN THAT YOU WANT TO PROCEED WITH THIS PROJECT WHEN SUBMITTING YOUR APPLICATION.
THE 25% PLAN REVIEW FEE IS NON-REFUNDABLE ONCE THE APPLICATION IS SUBMITTED.**

PLAN SUBMITTAL REQUIREMENT FOR COMMERCIAL & INDUSTRIAL BUILDINGS

This Includes Tenant Improvements, Additions, Remodels and Accessory Structures

GENERAL INFORMATION FOR SUBMITTAL

- Submit two (02) complete sets of plans in blueprint or photocopy form, with the plan review deposit.
 - Provide two (02) additional plot (site) plans if parcel is on septic along with a completed septic permit application.
 - Pencil drawings on original drawings are not acceptable.
- Plans prepared by an Iowa Registered Professional must be wet stamped, signed and dated on all sheets.
- If plans are NOT prepared by a Licensed Iowa Design Registered Professional then the following information must be on the plans.
 - Iowa Licensed Contractor must place their business name and license number on all sheets prepared by them along with the required signature and date.
- Provide Title Block on each sheet of plans with the following information:
 - Address, Assessor's Parcel Number of proposed construction site
 - Name and Address of design professional, contractor or owner/builder
- The cover sheet for the plans must indicate the square footage break-down, providing all areas separately.
- Plans must be drawn to an approved scale and fully dimensioned: Plot (site) plan approved scales; 1"=10', 1"=20' & 1"=30'/Construction plans (other than details) approved scales; 1/4"=1'-0" & 1/8"=1'-0" can be used if pre-approved by City Staff.
- Minimum paper size for all plan sets; 11"X 17" paper.
- Revisions to plans must be made on the original drawings and new blueprints or photocopies submitted. No pencil drawing or marks will be accepted on plans at submittal.
- Additions, Remodels, and Tenant Improvements, plans must have complete existing layout (floor) plan, showing what was/is existing prior to remodel or addition. Indicate and label the use of each existing room within the structure along with the door and window locations and sizes.

Plans and specifications must be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of the technical codes and all relevant laws, ordinances, rules and regulations. The following information is standard requirement for construction documents:

BUILDING PLAN REVIEW REQUIREMENTS

1. Complete Architectural plans, structural plans and material specifications of all work.
2. A Site Plan including the following information:
 - a. Size and location of all new construction and all existing structures on the site.
 - b. Distances from lot lines.
 - c. Established street grades and proposed finish grades.
3. Architectural plans and specifications to include:
 - a. Description of uses and the proposed use group(s) for all portions of the building. The design approach for mixed-uses (as applicable).
 - b. Proposed type of construction of the building.
 - c. Full dimensioned drawings to determine areas and building height.
 - d. Adequate details and dimensions to evaluate means of egress, including occupant loads for each floor, exit arrangement and sizes, corridors, doors, stairs, etc.
 - e. Exit signs/means of egress lighting, including power supply.
 - f. Accessibility scoping provisions.
 - g. Description and details of proposed special occupancies such as a covered mall, high-rise, mezzanine, atrium, public garage, etc.
 - h. Adequate details to evaluate fire resistive construction requirements, including data substantiating required ratings.
 - i. Details of plastic, insulation, and safety glazing installation.
 - j. Details of required fire protection systems.
4. Structural plans, specifications, and engineering details to include:
 - a. Soils report indicating the soil type and recommended allowable bearing pressure and foundation type.
 - b. Signed and sealed structural design calculations which support the member sizes on the drawings.
 - c. Details of foundations and superstructure.
 - d. Provisions for required special inspections.
 - e. Applicable construction standards and material specifications (i.e., masonry, concrete, wood, steel, etc.).
 - f. Design Criteria:
 - Ground Snow Load: 30 pounds per square foot
 - Wind Speed: 90 mph for a 3 second gust /Exposure C
 - Seismic Design Category: B
 - Weathering Probability for Concrete: Severe
 - Frost Line Depth: 42-inches below finish grade

Termite: Moderate to Heavy
Decay: Slight to Moderate
Winter Design Temperature: -5 degrees

MECHANICAL PLAN REVIEW REQUIREMENTS

1. Complete plans and specifications of all heating, ventilating and air- conditioning work.
2. Complete information on all the mechanical equipment and materials including listing, labeling, installation and compliance with specified quality control standards
3. Details on the HVAC equipment including the equipment capacity (Btu/h input), controls, equipment location, access and clearances.
4. A ventilation schedule indicating the outdoor air rates, the estimated occupant load/1,000 ft², the floor area of the space and the amount of outdoor air supplied to each space.
5. The location of all outdoor air intakes with respect to sources of combustibles.
6. Duct construction and installation methods, flame spread/smoke development ratings of materials, flexible air duct and connector listing and duct support spacing.
7. Condensate disposal, routing of piping and auxiliary and secondary drain systems.
8. Required exhaust systems, routing of piping and auxiliary and secondary drain systems.
9. Complete details of all Type I and II kitchen hoods, grease duct construction and velocity, clearance to combustibles and fire suppression system. (If applicable).
10. Details of all duct penetrations through fire resistance rated assemblies including shaft, fire dampers and smoke damper locations.
11. Method of supplying combustion air to all fuel fired appliances, the location and size of openings and criteria used to size the openings.
12. Details on the vents used to vent the products of combustion from all fuel burning appliances including the type of venting system, the sizing criteria required for the type of vent and routing of the vent.
13. Boiler and water heater equipment and piping details including safety controls and distribution piping layout.
14. Details on the type of refrigerant, calculations indicating the quantity of refrigerant and refrigerant piping material and the type of connections.
15. Complete details on the gas piping system including materials, installation, valve locations, sizing criteria and calculations (i.e., the longest run of piping, the pressure and pressure drop).

PLUMBING PLAN REVIEW REQUIREMENTS

1. Complete plans and specifications of all plumbing work.
2. Plumbing fixture specifications including identification of the applicable referenced quality control standards and the maximum flow rates for the plumbing fixtures.
3. The basis for the number of plumbing fixtures provided including the occupant load use, the use group and fixtures rate from the plumbing code.
4. Complete dimensions for bathrooms, the location of plumbing fixtures and the wall and floor surface materials.
5. Site plan which indicates the routing of the sanitary, storm and water service with the burial depths for all sewers and water service.
6. Water distribution system sizing criteria and calculations.
7. Water supply and distribution piping plan showing the incoming water supply, distribution piping, and pipe size, the location of the water hammer arrestors and the location of the valves.
8. The location of all backflow preventers, the type of backflow preventers provided for each piece of equipment or outlet and the specified quality control standards referenced in the code.
9. Drainage system piping plan showing the layout of all piping, of plumbing fixtures and the location of cleanouts.
10. Riser diagram(s) of the drain waste and vent piping including the building drain, all horizontal branches and the connections and layout of all fixtures. Pipe sizes, directions of flow, grade of horizontal piping, drainage fixture loads and the method of venting all plumbing fixtures.
11. The location of all indirect waste connections, standpipes, grease traps and separators. (and sizing if applicable).
12. Complete details of the water heater, the method of supplying tempered water to accessible fixtures and the temperature and pressure relief valve discharge.
13. Complete details of the method of draining storm water from the roof including calculations to verify pipe and /or gutter size, the location of all roof drains and the roof area that each group of roof drains is intended to serve and an independent secondary roof drainage system.
14. Piping material specifications to verify compliance with the specified quality control standards for all sanitary, storm and potable water piping (e.g., ASTM B88 for cooper pipe), the type of joints and connections for all piping, the pipe hanger support spacing and details of anchorage and bracing.

ELECTRICAL PLAN REVIEW REQUIREMENTS

1. Complete plans and specifications of all electrical work.
2. Labeling criteria of all electrical equipment.
3. Lighting floor plan including electrical circuits indicating conduit and wiring sizes.
4. Power floor plans including electrical circuits indicating conduit and wiring sizes, equipment and disconnect switches.
5. Exit sign/means of egress lighting location and power supply.
6. Single line diagram including the available fault current and bus bracing.
7. Panel board schedule.
8. Lighting fixtures schedule.
9. Symbol schedule and diagrams.
10. Provide all service and loads calculations.
11. Specifications to include requirements for:
 - a. Raceway and conduit with fittings.
 - b. Wire and cable.
 - c. Electrical boxes, fittings and installation.
 - d. Electrical connections.
 - e. Electrical wiring devices.
 - f. Circuit and motor disconnect
 - g. Hangers and supporting devices.
 - h. Electrical identification.
 - i. Service entrance and details.
 - j. Over-current protection.
 - k. Switchboards.
 - l. Grounding.

- m. Transformers.
- n. Panel-boards.
- o. Motor control centers
- p. Lighting fixtures.

ENERGY PLAN REVIEW REQUIREMENTS

Commercial Energy Plan Reviews are based on Chapter 7 of the IECC or the referenced edition of *ASHRAE/IES 90.1-1989*, Energy Code for Commercial and High-Rise Residential Buildings as applicable. In order to perform a thorough Energy Plan Review, the following specifications, drawings and details should be submitted:

Envelope

1. Architectural plans and specifications to include:
 - a. Description of uses and the proposed use group(s) for all portions of the building.
 - b. Thermal performance of envelope components
 - c. Fenestration performance details (U-factor, SC, SHGC, VLT, air leakage rates, etc.).
 - d. Fully dimensioned drawings to determine gross and net areas of all envelope components.
 - e. Details of vapor barrier and insulation installation, caulking, gasketing, weather-stripping and other means of sealing joints, cracks, holes and penetrations in the building envelope.
 - f. ENVSTD output (where applicable) ^a
2. Design conditions (interior and exterior) consistent with local climate.

Electrical Power & Lighting ^b

1. Complete plans and specifications of all electrical work.
2. Riser diagrams(s) of the distribution system indicating:
 - a. Check metering provisions for individual dwelling units.
 - b. Subdivision of feeders by end use: 1) Lighting, 2) HVAC, 3) SWH and systems over 20 kW. ^a
3. Lighting fixture schedule(s) depicting location, fixture lamps, ballasts, ballast specifications, fixture input watts, fixture wiring methods power factor, etc.
4. Lighting plans(s) for building exterior including total exterior Connected Lighting Power (CLP).
5. Lighting and power floor plans for building interiors including total interior CLP.
6. LTGSTD output (where applicable).
7. Interior and exterior means of lighting control.
8. Electric motor schedule including type, HP and efficiencies. ^a

Mechanical System & Equipment

1. Mechanical equipment data, plans and specifications of all mechanical work including:
 - a. Equipment type, capacity (Btuh) and efficiency (peak and part-load).
 - b. System design air flow rates (cfm).
 - c. Details of equipment/system sizing.
 - d. System and / or zone control capabilities including terminal device schedule, provisions for humidity control (where applicable) and the corresponding testing of system controls. ^a
 - e. Provisions for automatic setback/shutdown.
 - f. Indicate supply and exhaust systems to have automatic shut-off or volume reduction dampers.
 - g. Energy consumed by fans in the form of an Air Transport Factor (ATF) and pumps. ^a
2. Economizers (air or water) including provisions for integrated control. ^a
3. Duct construction and system static pressure(s), including provisions for sealing.
4. Duct and/or hydronic-piping lining and insulation materials.
5. Provisions for air and/or hydronic system balancing.
6. Boiler and water heater equipment and piping details including safety controls and distribution piping layout.

Service Water Heating (SWH)

1. SWH equipment data including type, capacity and efficiency.
2. SWH pipe insulation, thickness, conductivity and vapor retarder (where appropriate).
3. Water conservation requirements.
4. Energy conservation measures for swimming pools (where applicable).

Accessibility Plan Review Requirements

Accessibility Plan Reviews are based on the specified edition of the ICC/ANSI A117.1 standard as referenced by the building code. In order to perform a thorough Accessibility Plan Review, the following specifications, drawings and details should be submitted.

1. Complete architectural plans and material specifications of all work. Details and plans drawn to scale with sufficient clarity, details and dimensions to show the nature and extent of the work proposed.
2. A site plan including the following information:
 - a. Size and location of all new construction and all existing structures on the site.
 - b. Location of any recreational facilities (i.e., pool, tennis courts, etc.)
 - c. Established street grades and proposed finished grade.
 - d. Accessible parking, other locations of public access to the facility, accessible exterior routes and locations of accessible entrances.
3. Architectural plans and specifications to include:
 - a. Description of uses and the proposed use group(s) for all portions of the building. The design approach for mixed-uses (as applicable).

- b. Fully dimensioned drawings to determine areas and building height.
- c. Adequate details and dimensions to evaluate accessible means of egress, including occupant loads for each floor, exit arrangement and sizes, corridors, doors, stairs, areas of refuge, etc.
- d. Adequate details and dimensions to evaluate the accessible route to areas required to be accessible, including corridors, doors, protruding objects, maneuvering clearances, clear floor space at fixtures and controls, etc.
- e. Accessibility provisions including but not limited to access to services, seating, listening systems, accessible fixtures, elevators, work surfaces, etc.
- f. Accessible plumbing facilities and details.
- g. Tactile signage provided.
- h. Details of required fire protection systems.

Note: The Accessibility Review will cover the scoping requirements in Chapter 11 of the IBC and other accessibility related requirements mainstreamed throughout the applicable building code. Technical requirements covered will be based on the applicable edition of ICC/ANSI A117.1.

Fire Sprinkler Plan Review Requirements

Sprinkler Plan Reviews are based on the specified edition of the applicable NFPA 13 standard as referenced by the building code. In order to perform a thorough Sprinkler Plan Review, the following items should be submitted:

- 1. Complete plans and specifications for the sprinkler system and related equipment.
- 2. Description and locations of uses within the building.
- 3. Design details in accordance with the appropriate reference standard (i.e. NFPA 13, 13D, 13R) as referenced by the building code.
- 4. Design calculations indicating the discharge requirements of the system with evaluation of the arrangement and source of the water supply.
- 5. Results of a current flow test indicating the location and date of the test.
- 6. Working drawings indication all pipe sizes and the spacing between branch lines and sprinklers on the branch line.
- 7. Material specifications and equipment specifications. All material used should be verified that they are installed in accordance with their listing.

INCOMPLETE PLANS WILL NOT BE ACCEPTED

NOTE:

Other Inspections and Fees

1. Inspections outside of normal business hours, per hour (minimum charge – two hours)	\$286.00*
2. Re-Inspection fees assessed under provisions of Section 305.8 per inspection	\$286.00*
3. Inspections for which no fee is specifically indicated, per hour (minimum charge – one half hour)	\$286.00*
4. Additional plan review required by changes, additions or revisions to plans or to plans for which an initial review has been completed (minimum charge – one half hour)	\$286.00*

For use of outside consultants for plan review and inspections

Actual Costs*

*Or the total hourly cost to the jurisdiction, whichever is greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved.

****INSPECTION IS REQUIRED BEFORE COVER-UP AND AT COMPLETION****

Inspection Requests: It shall be the duty of the holder of the building permit or their duly authorized agent to notify the Building & Safety Division when work is ready for inspection.

- Inspections should be scheduled and recorded before 5:00 p.m. the day BEFORE the inspection is requested.
- After Hours, Weekend and Holiday Inspections shall be scheduled and the appropriate fee must be paid at least two-days before the required inspection date.
- All inspections should be called in and recorded to 712.847.0535
- AM scheduled inspections will be performed from 8:00 a.m. to 12:00 p.m. (noon)
- PM scheduled inspections will be performed from 12:00 p.m. (noon) to 4:00 p.m.
- Any special requested inspection times will need to be pre-approved by your scheduled Inspector, the day before.

Contact Information

Building & Zoning Department
Office Hours: 8:00 a.m. to 4:30 p.m.
City Hall: 712.847.0535
Fax: 712.347.5454