

APPENDIX B
BUILDING CODE SUMMARY
FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
 (Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: _____
 Address: _____ Zip Code _____
 Proposed Use: _____
 Owner/Authorized Agent: _____ Phone # (_____) _____ - _____ E-Mail _____
 Owned By: City/County Private State
 Code Enforcement Jurisdiction: City _____ County _____ State

PROJECT SUMMARY

Building description: _____

Scope of work details: (If phased construction, please see plan submittal guidelines.) _____

Code Compliance Summary: _____

Alternative Means of Compliance Request: _____

- Industrial equipment with declaration document attached. [See www.Meckpermit.com (Electrical Services)]
- RTAP (Revisions to approved plans.) [See www.Meckpermit.com (Commercial Plan Review Services)]
- Date of Preliminary Review _____

LEAD DESIGN PROFESSIONAL: _____

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	_____	_____	_____	(____) _____	_____
Civil	_____	_____	_____	(____) _____	_____
Electrical	_____	_____	_____	(____) _____	_____
Fire Alarm	_____	_____	_____	(____) _____	_____
Plumbing	_____	_____	_____	(____) _____	_____
Mechanical	_____	_____	_____	(____) _____	_____
Sprinkler-Standpipe	_____	_____	_____	(____) _____	_____
Structural	_____	_____	_____	(____) _____	_____
Retaining Walls >5' High	_____	_____	_____	(____) _____	_____
Other	_____	_____	_____	(____) _____	_____

Building Code: 2012 North Carolina State Building Code (NCSBC)
 2009 NC Rehab Code 2012 Chapter 34 (attach summary)
 1995 Existing Building Code Vol. 9

New Building: New building Shell building
 First time interior completion (upfit)
 Addition

Existing Building: Change of use/occupancy
 Building/tenant space interior completion (renovation)

Please see 3411 NCSBC for compliance for Accessibility for Existing Buildings. A letter from the designer will be required to be attached or reproduced on the plans to verify how compliance will be achieved.

Year of construction _____ Original use _____

2009 NC REHAB CODE Information: Scope of work / work area must be listed and delineated on the plans.

Check all that apply: Repair Renovation Alteration Reconstruction Change of use Addition

Last known legal occupancy use _____ **Historic Property:** Yes No

Original Building Construction Date: _____ **Date of Preliminary Meeting** _____

Justifications for using the REHAB code:

Reviewers Notes for Field Inspector:

BUILDING DATA

Construction Type: I-A II-A III-A IV V-A
 I-B II-B III-B V-B

Mixed construction: No Yes Types _____

Sprinklers: No Partial Yes NFPA 13-07 NFPA 13R-07 NFPA 13D-07

Standpipes: No Yes NFPA 14-07 Class: I II III Wet Dry

Fire District: No Yes **Flood Hazard Area:** No Yes

Building Height: Feet _____ Number of Stories _____ **High Rise:** No Yes

Mezzanine: No Yes

Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
6 th Floor			
5 th Floor			
4 th Floor			
3 rd Floor			
2 nd Floor			
Mezzanine			
1 st Floor			
Basement			
TOTAL			

OCCUPANCY

Primary Occupancy: Assembly 303 A-1 A-2 A-3 A-4 A-5
 Business 304 Educational 305 Factory 306 F-1 Moderate F-2 Low
 Hazardous 307 H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
 Institutional 308 I-1 I-2 I-3 I-4 Day Care
 I-3 Condition: 1 2 3 4 5
 Mercantile 309 Residential 310 R-1 R-2 R-3 R-4
 Storage 311 S-1 Moderate S-2 Low High-piled
 Utility and Miscellaneous 312 Parking Garage Open Enclosed Repair Garage

Secondary Occupancy: _____

Special Uses: 402 403 404 405 406 407 408 409 410 411 412
 413 414 415 416 417 418 419 420 421 422 423 424 425
 426 427

Special Provisions: 509.2 509.3 509.4 509.5 509.6 509.7 509.8 509.9

Mixed Occupancy: No Yes Separation: _____ Hr. Exception: _____

Incidental Use Separation (508.2.5) Accessory Occupancy (508.2)

This separation is not exempt as a Non-Separated Use (see exceptions).

Non-Separated Use (508.3)

The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

Separated Use (508.4) - See below for area calculations

For each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1. (508.4.2)

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

$$\text{_____} + \text{_____} + \dots = \text{_____} \leq 1.00$$

ALLOWABLE AREA

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503 ⁵ AREA	(C) AREA FOR FRONTAGE INCREASE ¹	(D) AREA FOR SPRINKLER INCREASE ²	(E) ALLOWABLE AREA OR UNLIMITED ³	(F) MAXIMUM BUILDING AREA ⁴

¹ Frontage area increases from Section 506.2 are computed thus:
 a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
 b. Total Building Perimeter = _____ (P)
 c. Ratio (F/P) = _____ (F/P)
 d. W = Minimum width of public way = _____ (W)
 e. Percent of frontage increase $I_f = [F/P - 0.25] \times W/30 = \text{_____}$

² The sprinkler increase per Section 506.3 is as follows:
 a. Multi-story building $I_s = 2$
 b. Single story building $I_s = 3$

³ Unlimited area applicable under conditions of Sections Group B, F, M, S, A-4(507.3), A-3 (507.6); Group A motion picture (507.11); covered mall buildings (507.12); and H-2 aircraft paint hangers (507.9).

⁴ Maximum Building Area = total number of stories in the building x E, but not greater than 3 x E (506.4.1).

⁵ The maximum area of a single-use open parking garage shall be permitted to comply with Table 406.3.5. The maximum area of air traffic control towers must comply with Table 412.3.2.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS 506.3	SHOWN ON PLANS	CODE REFERENCE
Type of Construction	Type _____		Type _____	
Building Height in Feet	Feet _____	Feet = H + 20' = _____	Feet _____	
Building Height in Stories	Stories _____	Stories + 1 = _____	Stories _____	

FIRE PROTECTION REQUIREMENTS (Tables 601 & 602)

THIS SECTION REQUIRED TO BE COMPLETED FOR ALL PROJECTS

Life Safety Plan Sheet #, if Provided _____

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING**		DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
		REQ'D	PROVIDED (w/_____* REDUCTION)				
Structural Frame, including columns, girders, trusses							
Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions							
Exterior walls (T602)							
North							
East							
West							
South							
Interior walls and partitions							
Floor Construction*** Including supporting beams and joists							
Roof Construction Including supporting beams and joists							
Shaft Enclosures - Exit S708.4							
Shaft Enclosures - Other S708.4							
Corridor Separation T1018.1							
Occupancy Separation T508.4							
Party/Fire Wall Separation T706.4							
Smoke Barrier Separation S710							
Tenant Separation S402.7.2							
Incidental Use Separation T508.2.5							

* Indicate section number permitting reduction ** 0-4 hours or N/A – Not applicable. (Define reasons for N/A in the project summary.)

*** Indicate if using T601 Note b exception.

PERCENTAGE OF WALL OPENING CALCULATIONS

THIS SECTION FOR ADDITIONS, NEW CONSTRUCTION AND CHANGE OF USE

Allowable openings per T705.8

WALL LEGENDS

THIS SECTION REQUIRED TO BE COMPLETED FOR ALL PROJECTS

CHECK IF THE FOLLOWING ARE PRESENT AND INDICATED BY A WALL LEGEND ON ALL PLANS

Fire Walls 706 Fire Barriers 707 Shaft Enclosure 708 Fire Partitions 709 Smoke Barriers 710 Smoke Partitions 711

LIFE SAFETY SYSTEM REQUIREMENTS

THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

Emergency Lighting: S1006	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Exit Signs: S1011	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Fire Alarm: S907, NFPA 72-07	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Smoke Detection Systems: S907	<input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> Partial _____
Panic Hardware: S1008.1.10	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Life safety systems generator: S2702.2	<input type="checkbox"/> No	<input type="checkbox"/> Yes

EXIT REQUIREMENTS

THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

NUMBER AND ARRANGEMENT OF EXITS

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM ² NUMBER OF EXITS		TRAVEL DISTANCE		ARRANGEMENT MEANS OF EGRESS ^{1,3} (SECTION 1015.2)	
	REQUIRED T1021.2	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1016.1)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS

¹ Corridor dead ends (Section 1018.4)

² Buildings with single exits (Table 1021.2), Spaces with one means of egress (Table 1015.1)

³ Common Path of Travel (Section 1014.3)

OCCUPANT LOAD AND EXIT WIDTH

THIS SECTIONS IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

USE GROUP OR SPACE DESCRIPTION ⁷	(a)	(b)	CALCULATED OCCUPANT LOAD (a÷b)	(c)		EXIT WIDTH (in) ^{2,3,4,5,6}			
	AREA ¹ sq. ft.	AREA ¹ PER OCCUPANT		EGRESS WIDTH PER OCCUPANT (SECTION 1005.1)		REQUIRED WIDTH (SECTION 1005.1) (a÷b) x c		ACTUAL WIDTH SHOWN ON PLANS	
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL
				0.3	0.2				

- ¹ See Table 1004.1.1 to determine whether net or gross area is applicable.
See definition "Area, Gross" and "Area, Net" (Section 1002)
- ² Minimum stairway width (Section 1009.1); min. corridor width (Section 1018.2); min. door width (Section 1008.1.1)
- ³ Minimum width of exit passageway (Section 1023.2)
- ⁴ See Section 1004.5 for converging exits.
- ⁵ The loss of one means of egress shall not reduce the available capacity to less than 50 percent of the total required (Section 1005.1)
- ⁶ Assembly occupancies (Section 1028)
- ⁷ Spaces within occupancies or use groups shall be calculated independently. (Ex. Lobbies, lounges, break rooms, conference rooms.)

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

THIS SECTION IS REQUIRED TO BE COMPLETED ON ALL PROJECTS.

OCCUPANCY USE GROUP AND/OR SPACE DESIGNATION	WATERCLOSETS		URINALS	LAVATORIES		SHOWERS/ TUBS	DRINKING FOUNTAINS
	MALE	FEMALE		MALE	FEMALE		
Total Required							
Total Provided							

SCHEDULE OF SPECIAL INSPECTION SERVICES

No special inspections required for this project Special inspections required

The following sheets comprise the required schedule of Special Inspections for this project. The construction divisions which require special inspections for this project are as follows:

- | | |
|--|---|
| <input type="checkbox"/> IT-1 Verification of Soils | <input type="checkbox"/> IT-10 Inspection of Structural Steel Fabricators |
| <input type="checkbox"/> IT-2 Excavation and Fill | <input type="checkbox"/> IT-11 Structural Masonry |
| <input type="checkbox"/> IT-3 Piling and Drilling Piers | <input type="checkbox"/> IT-12 Welding |
| <input type="checkbox"/> IT-4 Modular Retaining Walls | <input type="checkbox"/> IT-13 High Strength Bolts & Steel Framing Insp. |
| <input type="checkbox"/> IT-5 Reinforced Concrete | <input type="checkbox"/> IT-14 Sprayed Fire-Resistance Materials |
| <input type="checkbox"/> IT-6 Post Tension Slab | <input type="checkbox"/> IT-15 Exterior Insulation and Finish system |
| <input type="checkbox"/> IT-7 Pre-cast Concrete Erection | <input type="checkbox"/> IT-16 Seismic Resistance |
| <input type="checkbox"/> IT-8 Pre-stressed Concrete | <input type="checkbox"/> IT-17 Smoke Control |
| <input type="checkbox"/> IT-9 Inspection of Pre-Cast Fabricators | <input type="checkbox"/> IT-18 Detention Basin |
| | <input type="checkbox"/> IT-19 Special Cases |

Check the above boxes for the special inspection required for this project and list below specific special inspections required under Chapter 17. For questions regarding Special Inspections please see www.Meck-SI.com.

STRUCTURAL DESIGN

DESIGN LOADS:

Importance Factors: Wind (I_w) _____
 Snow (I_s) _____
 Seismic (I_E) _____

Live Loads: Roof _____ psf
 Table 1607.1 Mezzanine _____ psf
 Floor _____ psf

Ground Snow Load: _____ psf
 Section 1608

Wind Load: Basic Wind Speed _____ mph (ASCE-7-05)
 Section 1609 Exposure Category _____
 Wind Base Shears (for MWFRS) $V_x =$ _____ $V_y =$ _____

Rain Load: _____ Inches/Hour
 Section 1611

SEISMIC DESIGN CATEGORY A B C D

Provide the following Seismic Design Parameters:

Occupancy Category (T1604.5) _____
Spectral Response Acceleration S_s _____ %g S_1 _____ %g
Site Classification _____ Field Test Presumptive Historical Data

Basic structural system (check one)
 _____ Bearing Wall _____ Dual w/Special Moment Frame
 _____ Building Frame _____ Dual w/Intermediate R/C or Special Steel
 _____ Moment Frame _____ Inverted Pendulum

Seismic base shear $V_x =$ _____ $V_y =$ _____
Analysis Procedure _____ Simplified _____ Equivalent Lateral Force _____ Modal
Architectural, Mechanical, Components anchored? _____

LATERAL DESIGN CONTROL: Earthquake _____ Wind _____

SOIL BEARING CAPACITIES:

Field Test (provide copy of test report) _____ psf
 Presumptive Bearing capacity _____ psf
 Pile size, type, and capacity _____

ACCESSIBLE PARKING (TABLE 1106.1)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	
TOTAL					

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)

ENERGY SUMMARY

THIS SECTION FOR NEW CONSTRUCTION, ADDITIONS, CHANGE OF USE, AND INTERIOR COMPLETION

ENERGY REQUIREMENTS:

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If energy cost budget method, state the annual energy cost budget vs. allowable annual energy cost budget.

THERMAL ENVELOPE

Method of Compliance:

- Prescriptive ___% Glazed Wall Area
 Performance Energy Cost Budget

Roof/ceiling Assembly (each assembly)

- Description of assembly
- U-Value of total assembly
- R-Value of insulation
- Skylights in each assembly
 - U-Value of skylight
 - total square footage of skylights in each assembly

Exterior Walls (each assembly)

- Description of assembly
- U-Value of total assembly
- R-Value of insulation
- Openings (windows or doors with glazing)
 - U-Value of assembly
 - shading coefficient

projection factor
low e required, if applicable
Door R-Values

Walls adjacent to unconditioned space (each assembly)

Description of assembly
U-Value of total assembly
R-Value of insulation
Openings (windows or doors with glazing)
U-Value of assembly
Low e required, if applicable
Door R-Values

Walls below grade (each assembly)

Description of assembly
U-Value of total assembly
R-Value of insulation

Floors over unconditioned space (each assembly)

Description of assembly
U-Value of total assembly
R-Value of insulation

Floors slab on grade

Description of assembly
U-Value of total assembly
R-Value of insulation
Horizontal/vertical requirement
slab heated

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:

Prescriptive Performance Energy Cost Budget

Lighting schedule

lamp type required in fixture
number of lamps in fixture
ballast type used in the fixture
number of ballasts in fixture
total wattage per fixture
total interior wattage specified vs. allowed
total exterior wattage specified vs. allowed

Equipment schedules with motors (not used for mechanical systems)

motor horsepower
number of phases
minimum efficiency
motor type
of poles

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Method of Compliance

Prescriptive Energy Cost Budget

Climate Zone _____

Thermal Zone

winter dry bulb
summer dry bulb

Interior design conditions

winter dry bulb
summer dry bulb
relative humidity

Building heating load

Building cooling load

Mechanical Spacing Conditioning System

Unitary

description of unit
heating efficiency
cooling efficiency
heat output of unit
cooling output of unit

Boiler

total boiler output. If oversized, state reason.

Chiller

total chiller capacity. If oversized, state reason.

List equipment efficiencies

Equipment schedules with motors (mechanical systems)

motor horsepower
number of phases
minimum efficiency
motor type
of poles
