2012 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

A. PROJECT INFORMATION

Name of Project: **ADDITION FOR FIRE STATION 15**
Address: **3617 FRONTENAC AVENUE, CHARLOTTE, NC** Zip Code: **28215**
Proposed Use: **FIRE STATION - BUSINESS**
Owner/Authorized Agent: **BILL WITHERELL, OPERATIONS SUPERVISOR, CITY OF CHARLOTTE ENGINEERING AND PROPERTY MANAGEMENT - BUILDING SERVICES**
Phone No.: **704. 562. 3306** E-MAIL: bill.witherell@charlotte.nc.gov

Owned by: ☒ City/County ☐ Private ☐ State
Code Enforcement Jurisdiction: ☐ City_____ ☒ County: **MECKLENBURG COUNTY** ☐ State

B. PROJECT SUMMARY/ ALTERNATIVE MEANS OF COMPLIANCE

Building description:
New single floor Type IIB, non-sprinklered addition to an existing Type IIB, non-sprinklered, Fire Station.

Scope of work details:
This set of construction documents includes the addition of a new Weight Room, ADA compliant Women's Locker Room and Storage space. Scope of work does not alter existing code compliant Life Safety measures which include: Occupancy Types, Occupancy Loads, Exit Access Travel Distance, Common Path of Travel Distance, Dead End Lengths, Clear Exit Widths, and Maximum Occupant Loads.

Does this project have air rights, easements, an assumed or deeded property line, no build easements or other circumstances similar to the aforementioned? Yes _____ No ___**X**___ If yes, please provide a copy of the official documents.

C. DESIGN PROFESSIONAL INFORMATION

LEAD DESIGN PROFESSIONAL: ALR ARCHITECTURE

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
ARCHITECTURAL	ALR Architecture	William S. Ashlin	6303	704.348.2699	b.ashlin@alr-arch.com
CIVIL	GeoScience Group, Inc.	Kevin Caldwell, P.E.			kcaldwell@geosciencegroup.com
ELECTRICAL	AeroKaq Engineering, Inc.	Hakeem R. Bailey, P.E.	056300	704. 469. 8463	hakeembailey@aerokaq.com
FIRE ALARM	N/A				
PLUMBING	AeroKaq Engineering, Inc.	Hakeem R. Bailey, P.E.	056300	704. 469. 8463	hakeembailey@aerokaq.com
MECHANICAL	AeroKaq Engineering, Inc.	Hakeem R. Bailey, P.E.	056300	704. 469. 8463	hakeembailey@aerokaq.com
SPRINKLER (HANGERS)	AeroKaq Engineering, Inc.	Hakeem R. Bailey, P.E.	056300	704. 469. 8463	hakeembailey@aerokaq.com
STRUCTURAL RETAINING WALLS >5' HIGH	Ritchie Engineering	Phillip Ritchie	13509	704. 351. 3313	pritchie@ritcheeng.com
OTHER	N/A				

D. TYPE OF WORK BEING PERFORMED – (REQUIRED INFORMATION FOR ALL PROJECTS)

What type of work is being performed?
☐ New Construction (A project from the site work through the completion of work required for tenant occupancy) This includes Shell buildings.
☒ Addition: (An Existing Building that is adding heated or unheated space. This could be an addition to the footprint or a vertical expansion)
☐ Up Fit: (First Time Interior Completion) The applicant must provide a copy of the approved shell)
☐ Alteration/Renovation (Previously Occupied Space) This includes Change of Use.

E. CODE DATA - NCEC – (SEE SECTION F. FOR NC REHAB CODE OR NC EXISTING BUILDING CODE)

Building Code:
Check all that apply: ☐ 2012 North Carolina State Building Code (NCSBC) ☐ New building ☐ Shell building ☐ First time interior completion (up fit) ☒ **Addition**

Existing Building Data: (for up fits or additions) Year of construction: **1965** Previous use: **FIRE STATION** Current use: **FIRE STATION**

F. 2012 REHAB CODE (VALID UNTIL MARCH 2018) OR 2015 NC EXISTING BUILDING CODE

☐ 2012 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
Justifications for using the REHAB code:

☐ 2015 NC EXISTING BUILDING CODE (NCEBC)
Check all that apply: ☐ Repair ☐ Alteration Level 1 ☐ Alteration Level 2 ☐ Alteration Level 3 ☐ Change of Occupancy ☒ **Addition**

Alteration/Renovations projects: Please see Section 410.7 of the NC Existing Building Code for compliance for Accessibility for Existing Buildings. A letter from the designer will be required to be reproduced on the plans to verify how compliance will be achieved. This can be placed on the plans after the Appendix B.
Existing Building Data: (for NC Rehab or NC Existing Building Code)
Last known legal occupancy use: **FIRE STATION** Historic Property: Yes ☐ No ☒
Original Building Construction Date: **1965** Date of Preliminary Meeting _____
Reviewers Notes for Field Inspection: _____

EXISTING BUILDINGS - ACCESSIBILITY COMPLIANCE STATEMENT

This project has work in an existing building that has been determined to be an alteration to the primary function area. Change of use or addition. The following are the exceptions per Section 410.7. EXCEPTIONS (CHECK ALL THAT APPLY):
☐ Exception #1 – Costs of providing an accessible route are not required to exceed 20% of the costs of the alterations affecting the area of primary function. (If this exception is used, please be sure to include Items A., B. and an Expenditure Log, such as in the example that follows below, on the submitted plans.)
☐ Exception #2 – Alterations limited solely to windows, hardware, operating controls, electrical outlets and signs
☐ Exception #3 – Alterations limited to mechanical systems, electrical systems, installation or alteration of fire protection systems and abatement of hazardous materials.
☐ Exception #4 – Alterations undertaken for the primary purpose of increasing the accessibility of an existing building, facility or element.
☐ Exception #5 – This provision does not apply to altered areas limited to Type B dwelling and sleeping units.
☐ Existing accessible route (parking, route to building entrance, building entrance, route through building to primary function area, toilets and drinking fountains serving the primary function area) are in full compliance with current accessibility requirements.

Per Section 410.7, Exception #1, costs of providing the accessible route are not required to exceed 20% of the costs of the alterations affecting the area of primary function.

A. ESTIMATED COST OF ALTERATION TO AREA OF PRIMARY FUNCTION:
B. MAXIMUM REQUIRED COST OF IMPROVEMENTS TO ACCESSIBLE ROUTE (20% OF LINE "A" ABOVE):

ACCESSIBLE ROUTE EXPENDITURE LOG

DESCRIPTION OF IMPROVEMENTS TO ACCESSIBLE ROUTE TO PRIMARY FUNCTION AREA	DRAWING OR DETAIL REFERENCE	ESTIMATED COST

Total Cost ($) of combined improvement to accessible route
Additional notes / explanation:

G. BASIC BUILDING DATA

Construction Type: (Table 601) (check all that apply) ☐ I-A ☐ I-B ☐ II-A ☐ II-B ☐ III-HT ☐ III-A ☐ III-B ☒ **II-B** ☐ IV-HT ☐ IV-A ☐ IV-B
Sprinklers: (Section 903) ☒ **No** ☐ Partial ☐ Yes NFPA 13-07 ☐ NFPA 13R-07 ☐ NFPA 13D-07
Standpipes: (Section 905) ☒ **No** ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry NFPA 14-07
Fire District: ☒ **No** ☐ Yes (Primary) (Appendix D)
Flood Hazard Area: (Appendix G) ☒ **No** ☐ Yes
Building Height: (Feet) **19'-0"** (Table 503) Stories: **ONE (1)**
Gross Building Area:

FLOOR	EXISTING	NEW	Alteration/Renovation	SUB-TOTAL
3rd Floor				
2nd Floor				
Mezzanine				
1st Floor	**5,338 SF**	**920 SF**	N/A	**6,258 SF**
Basement				
TOTAL	**5,338 SF**	**920 SF**		**6,258 SF**

H. ALLOWABLE AREA / OCCUPANCY CLASSIFICATION

Occupancy(s): (Chapter 3)
Assembly (303) ☐ A-1 ☐ A-2 ☒ **A-3** ☐ A-4 ☐ A-5
Business (304) ☒ **B**
Educational (305) ☐ E
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
I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
Mercantile (309) ☐ M
Residential (310) ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
Storage (311) ☐ S-1 Moderate ☐ S-2 **Low** ☐ High-piled ☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
Utility and Misc. (312) ☐ U

Accessory Occupancies (s) (Table 508) If Applicable
☐ Business ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☐ Educational ☐ E
☐ Factory ☐ F-1 Moderate ☐ F-2 Low
☐ Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
☐ Institutional ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ Mercantile ☐ M
☐ Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
☐ Storage ☐ S-1 Moderate ☐ S-2 Low ☐ High-piled ☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
☐ Utility and Misc. ☐ U

Special Use: If applicable, provide a list of applicable special use sections and a brief description of how the building complies with the special use requirements.

Special Occupancies: (Chapter 4)
☐ Covered mall buildings
☐ Group I-2 waste and linen collection rooms
☐ Waste and linen collection rooms over 100 square feet
☐ Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterrupted power supplies
☐ Rooms containing fire pumps ☐ Rooms containing Life-Safety generator ☐ Rooms containing primary transformers
☐ Group I-2 storage rooms over 100 square feet
☐ Group I-2 commercial kitchens
☐ Group I-2 laundries equal to or less than 100 square feet
☐ Group I-2 rooms or spaces that contain fuel-fired heating equipment

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

Special Provisions: If Applicable ☐ 509.2 ☐ 509.3 ☐ 509.4 ☐ 509.5 ☐ 509.6 ☐ 509.7 ☐ 509.8 ☐ 509.9

Mixed Occupancy/Use: (506.5) If Applicable ☐ No ☒ **Yes** Separation: ___0___ **Hr.** Exception: _____

☐ Incidental Use Separation: (508.2.1) 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. If applicable to this project, please provide a key plan with all occupancies identified with square footage.

$$\frac{\text{ACTUAL AREA OF OCCUPANCY A}}{\text{ALLOWABLE AREA OF OCCUPANCY A}} + \frac{\text{ACTUAL AREA OF OCCUPANCY B}}{\text{ALLOWABLE AREA OF OCCUPANCY B}} \leq 1$$

___ **SF** / ___ **SF** + ___ **SF** / ___ **SF** = ____ **≤ 1.00**

STORY NO.	DESCRIPTION AND USE	(1) FLOOR AREA PER STORY (ACTUAL)	(2) TOTAL BUILDING AREA (ACTUAL)	(3) AREA FOR UNLIMITED AREAS (ACTUAL)	(4) AREA FOR SPRINKLER INCREASE (ACTUAL)	(5) ADJUSTED AREA PER STORY (ACTUAL)	(6) MAXIMUM BUILDING AREA
1	**WEIGHT ROOM ADDITION (A-3)**	**920 SF**	**9,500 SF**	**N/A**	**N/A**	**N/A**	**9,500 SF** (LESSER ALLOWABLE BUILDING AREA)
1	**OFFICE (B)**	**1,132 SF**	**22,000 SF**	**N/A**	**N/A**	**N/A**	
1	**RESIDENTIAL (R-2)**	**2,150 SF**	**16,000 SF**	**N/A**	**N/A**	**N/A**	
1	**STORAGE (S-2)**	**2,056 SF**	**26,000 SF**	**N/A**	**N/A**	**N/A**	

[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 = _____ (P)
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] x W/30 = _____ (If)
[2] The sprinkler increase per Section 506.3 is as follows:
a. Multi-story Buildings = 200 percent
b. Single story buildings = 300 percent
[3] Unlimited area applicable under conditions of Section 507
[4] Maximum Building Area = total number of stories in the Building x 5 (506.4). Maximum of 3.
[5] The maximum area of open parking garages must comply with Table 406.3.5. The maximum area of air traffic control towers must comply with Table 412.1.2.

I. ALLOWABLE HEIGHT (CHAPTER 5)

	ALLOWABLE (TABLE 503)	ACTUAL BUILDING HEIGHT	ACTUAL STORIES	CODE REFERENCE
Type of Construction	**Type II B**		**Type II B**	
Building Height in Feet	55'	Feet = H + 20' = (N/A)	19'-0"	
Building Height in Stories	3	Stories + 1 = (N/A)	1	

J. FIRE PROTECTION REQUIREMENTS (CHAPTER 6)

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	TYPE	RATING (HOURS)	REQUIRED FIRE RATING (HOURS)	REQUIRED DEPENDENT ON (U, N, S)	CODE REFERENCE	PROVIDED FOR DEPENDENT ELEMENTS
Structural Frame, including Columns, Girders, Trusses			0	**EXISTING**			
Bearing Walls (see section 601 - 602 if rated)							
Exterior							
North	>30'		0	**EXISTING**			
East	10 < X <30'		0	**EXISTING**			
West	10 < X <30'		0	**EXISTING**			
South	>30'			**EXISTING**			
Interior				**EXISTING**			
Nonbearing Walls and Partitions (see section 601 - 602 if rated)							
Exterior walls							
North	>30'			**EXISTING**			
East	>30'			**EXISTING**			
West				**EXISTING**			
South				**EXISTING**			
Interior walls and partitions			0	**EXISTING**			
Floor Construction including supporting beams and joists			0	**EXISTING**			
Roof Construction including supporting beams and joists			0	**EXISTING**			
Shaft Enclosures - Exit			N/A				
Shaft Enclosures – Other than Exit			N/A				
Corridor Separation			N/A				
Occupancy Separation			N/A				
Partyfire Wall Separation			N/A				
Smoke Barrier Separation			N/A				
Tenant Separation			N/A				
Residential Units Separation			N/A				

Include section numbers for rating reductions or increases

PERCENTAGE OF WALL OPENINGS (Table 705.8)

WALL FACE	PROPERTY LINE DISTANCE (FEET) (Table 705.8)	PERCENTAGE ALLOWED	PERCENTAGE PROVIDED
		UNLIMITED PER 705.8.1	

L. WALL LEGENDS

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 ☒ **No rated walls are present**

M. LIFE SAFETY SYSTEMS (EXISTING OR NEW SYSTEMS)

Emergency Lighting: (1006) ☐ No ☒ Yes
Exit Signs: (1011) ☐ No ☒ Yes
Fire Alarm: (907, NFPA 72-07) ☒ No ☐ Yes
Smoke Detection Systems: (907) ☐ No ☒ Yes ☐ Partial _____
Panic Hardware: (1008.1.10) ☒ No ☐ Yes
Life safety systems generator: (2702.2) ☒ No ☐ Yes

N. LIFE SAFETY PLAN CHECK LIST FOR COMPLIANCE - CHECK ITEMS THAT ARE APPLICABLE TO YOUR PROJECT

☐ Fire and/or smoke rated wall locations (Chapter 7)
☐ Assumed and real property line locations
☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
☐ Existing structures within 30' of the proposed building
☒ **Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)**
☒ **Occupant loads for each area**
☒ **Exit access travel distances (1016)**
☒ **Common path of travel distances (1014.3 & 1028.8)**
☐ Dead end lengths (1018.4)
☒ **Clear exit widths for each exit door**
☒ **Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)**
☐ Actual occupant load for each exit door
☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
☐ Location of doors with panic hardware (1008.1.10)
☐ Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)
☐ Location of doors with electromagnetic egress locks (1008.1.9.8)
☐ Location of doors equipped with hold-open devices
☐ Location of emergency escape windows (1029)
☒ **The square footage of each fire area (902)**
☐ The square footage of each smoke compartment (407.4)
☐ Note any code exceptions or table notes that may have been utilized regarding the items above

O. EXIT REQUIREMENTS REFER TO LIFE SAFETY PLAN - SHEET CS FOR ARRANGEMENT OF EXITS

NUMBER AND ARRANGEMENT OF EXITS (TABLE 1021.1)

FLOOR, BOTTOM OR TOP OF SHORT TERM	OCCUPANT NUMBER (TOTAL)	MAXIMUM TRAVEL DISTANCE (TABLE 1017.2)		MINIMUM NUMBER OF EXITS (TABLE 1021.1)		
		BUSINESS (TABLE 1017.2 BUSINESS USE)	RESIDENTIAL (TABLE 1017.2 RESIDENTIAL USE)	REQUIRED (TABLE 1021.1 OCCUPANCY TERM)	PROVIDED (TABLE 1021.1 OCCUPANCY TERM)	REQUIRED ADDITIONAL EXITS PLACED BY CODE
1ST FLOOR	**2**	**EXISTING**	**200'**	**1 UP**	**EXISTING**	**EXISTING**

[1] Consider dead ends (Section 1018.4)
[2] Building 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 (TABLE 1004.1.1) REFER TO LIFE SAFETY PLAN - SHEET CS FOR ARRANGEMENT OF EXITS

USE GROUP OR SPACE DESCRIPTION[1]	SQ. FT.	OCC.	CODE REF.	SQ. FT.		EXIT WIDTH (INCHES)					
	GROSS[2]	FACTOR PER OCCUPANT	CALCULATED OCCUPANCY LOAD	FIXED SEATS PER OCCUPANT (SECTION 1004.5)		REQUIRED WIDTH (SECTION 1005.1)		ACTUAL WIDTH PROVIDED (SECTION 1005.3)			
								DOOR[3]		CORR.	
						DOOR	CORR.	LEVEL	LEVEL	LEVEL	LEVEL
WEIGHT ROOM (A-3) - ADDITION	180 SF	10 GROSS	12 OCC	0.3	0.2	N/A	2.4"	N/A			
BUSINESS (B) - EXISTING	1,132 SF	100 GROSS	12 OCC	0.3	0.2	N/A	2.4"	N/A			
RESIDENTIAL (R-2) - EXISTING	2,150 SF	200 GROSS	11 OCC	0.3	0.2	N/A	2.2"	N/A		34" (EXISTING)	
STORAGE (S-2) - EXISTING	2,056 SF	300 GROSS	7 OCC	0.3	0.2	N/A	1.8"	N/A		34" (EXISTING)	
TOTAL			**42 OCC**				**8.5"**			**64" (EXISTING)**	

[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 1009.1.1)
[3] Minimum width of exit passageway (Section 1027.2)
[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)

P. ACCESSIBLE DWELLING UNITS AND SLEEPING UNITS – (ONLY FOR R-1, R-2 OCCUPANCY) NOT APPLICABLE

ACCESSIBLE DWELLING UNITS (1107)

TOTAL UNITS	ACCESSIBLE UNITS (TYPE A) PROVIDED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TYPE A UNITS PROVIDED	TYPE B UNITS PROVIDED

Q. ACCESSIBLE PARKING – (PROJECTS THAT ARE NEW CONSTRUCTION, ADDITIONS, CHANGE OF USE) (1106) EXISTING TO REMAIN

TOTAL PARKING SPACES PROVIDED	ACCESSIBLE PARKING SPACES		REQUIRED ACCESSIBLE PARKING SPACES	ACCESSIBLE PARKING SPACES PROVIDED		VAN ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED		132" ACCESSIBLE	8' ACCESSIBLE	
TOTAL						

R. STRUCTURAL DESIGN – LOCATED ON STRUCTURAL SHEET NUMBER ___S2.0S_____ YES __X__ NO _____)
DESIGN LOADS:

Importance Factors: (ASCE/SEI 7-05 - 11.5) Wind _____ Snow _____ Seismic _____

Live Loads: Roof: (1607.1.2, 1607.11, 1611) _____ psf
Floor: (1607.1.1, 1607.10, 1607.10) _____ psf
Live Load Reductions: (1607.9.1, 1607.9.2) _____ psf
Ground Snow Load: (1608.2) _____ psf
Wind Load: Basic Wind Speed: (1609.3) _____ mph (ASCE-7)
Exposure Category (1609.4)
Wind Base Shear (+/-): NW/NS) (Engineer Calc's) Vx = _____ Vy = _____

SEISMIC DESIGN CATEGORY: (1613.1, 1613.5.6)
Provide the following Seismic Design Parameters:
Occupancy Category: (Table 1604.5) ☐ I ☐ II ☐ III ☐ IV
Spectral Response Acceleration: (Engineer calc's) S_s _____ %g S_1 _____ %g
Site Class/Elevation (Table 1615.1.2): ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F
Data Source: ☐ 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: (Engineer Calc's) V_x = _____ V_y = _____
Analysis Procedure: ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components anchored? ☐ Yes ☐ No
LATERAL DESIGN CONTROL: Earthquake ☐ Wind ☐
SOIL BEARING CAPACITIES:
Field Test (provide copy of test report as a reference document) _____ psf
Presumptive Bearing capacity _____ psf
File size, type, and capacity _____

SPECIAL INSPECTIONS REQUIRED: ☐ Yes ☐ No

S. special inspections – (if applicable to your project)

SCHEDULE OF SPECIAL INSPECTIONS
☐ No special inspections required for this project ☒ Special inspections required

The following sheets comprise the required schedule of Special Inspections for this project. [illegible] REFER TO SHEET LS2.0

☐ S1 Inspection of Fabricators ☐ S2 Inspection of Steel Construction ☐ S3 Structural Wood ☐ S4 Prestressed Concrete ☐ S5 Post-Tensioned Concrete ☐ S6 Vinyl Composition Tile ☐ S7 Exterior Insulation and Finish System ☐ S8 Masonry ☐ S9 Reinforced Masonry ☐ S10 Concrete ☐ S11 Structural Masonry ☐ S12 Prestressed Masonry ☐ S13 Post Tension Slabs ☐ S14 Concrete Fill ☐ S15 Concrete Tilt-Up ☐ S16 Seismic Resistance ☐ S17 Smoke Control ☐ S18 Wood ☐ S19 Special Cases

[illegible] the boxes for the special inspection required for this project and [illegible] specific special inspections required under Chapter 17. For questions regarding Special Inspections please see www.[illegible].com.

T. PLUMBING FIXTURES REQUIREMENTS (NEW CONSTRUCTION, ADDITIONS, UPFITS, ALTERATIONS AND CHANGE OF USE OR IF INCREASING OCCUPANT LOAD)

If adding fixtures one floor above or one floor below, show calculations to justify the count (TABLE 2902.1)

OCCUPANCY (see Sheet and/or Sheet Designation)	MEN'S WC		WOMEN'S WC		UNISEX WC		WOMEN'S WC	UNISEX BATHROOM
	WC	URINAL	WC	URINAL	WC	URINAL		
BUSINESS (B)	**2 Existing**	**1 Existing**	**1 Existing**	**3 Existing**	**1 Existing**	**2 Existing**	**2 Existing**	**1 Existing**
WEIGHT ROOM (A-3)			**1**		**1**	**1**		
Total Required								
Total Provided	**2**	**1**	**2**	**3**	**1**	**3**	**1**	

U. SPECIAL APPROVALS (IF APPLICABLE TO YOUR PROJECT) NOT APPLICABLE
Special approvals: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)

V. ENERGY SUMMARY (NEW CONSTRUCTION, ADDITIONS, CHANGE OF USE AND UPFITS) REFER TO MECHANICAL DRAWINGS SHEET M0.1
BUILDING ENVELOPE:
ENERGY REQUIREMENTS: The following data shall be considered minimum and any special attribute required to meet the North Carolina Energy Conservation Code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet, if performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.
Climate Zone: ☒ 2 ☐ 3 ☐ 4 ☐ 5
Method of Compliance: ☒ Prescriptive (NCECC) ☐ Performance (NCECC or COMcheck) Report must be reproduced on drawings. ☐ Prototype (ASHRAE 90.1-2010 with addenda 2013 supplement) ☐ Performance (ASHRAE 90.1-2010)
THERMAL ENVELOPE: (NCECC Chapter 4 and or 5)
Roof/ceiling Assembly (each assembly)
Description of assembly: **2 ply modified bitumen membrane on 1/2" cover board on 4" polyisocyanurate insulation on 1.5" metal deck.**
U-Value of total assembly: **0.032**
R-Value of insulation: **R-27.9 ci**
Skylights in each assembly: **0**
U-Value of skylights: **0%**
Total percentage of skylights in each assembly: **0%**
Exterior Walls (each assembly)
EXTERIOR WALLS (EW-1)- Description of assembly: **4" nominal face brick with 2" rigid polystyrene insulation, an weather barrier, on 8" CMU**
U-Value of total assembly: **0.067**
R-Value of insulation: **R-10 ci**
Openings (windows or doors with glazing) **North Elevation: 11% of above grade walls; East Elevation: 5.8% of above grade walls**
U-Value of assembly: **0.64; 1" insulated glass (1/4" clear, 1/2 air, 1/4" clear), low-e storefront windows, thermal break construction.**
Solar heat gain coefficient:
Projection factor: **N/A**
Door U-Values: **0.65; insulated hollow metal door**
Walls below grade (each assembly)
Description of assembly: **N/A**
U-Value of total assembly: **N/A**
R-Value of insulation: **N/A**
Floors over unconditioned space (each assembly)
Description of assembly: **N/A**
U-Value of total assembly: **N/A**
R-Value of insulation: **N/A**
Floors slab on grade
Description of assembly: **4" thick concrete slab on grade on vapor barrier on 4" compacted graded aggregate base.**
U-Value of total assembly:
R-Value of insulation:
Horizontal/vertical requirement: **Horizontal insulation with vertical 2'-0" at new weight room/locker room addition.**
Slab heated:

MECHANICAL SUMMARY (NCECC 503) **LOCATED ON MECHANICAL SHEET NUMBER: YES ___ NO _____** REFER TO MECHANICAL DRAWINGS - SHEET M0.1

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT
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: size category of unit:
Boiler:
Size category. If oversized, state reason.:
Chiller
Size category. If oversized, state reason.:
List equipment efficiencies

ELECTRICAL SUMMARY (NCECC 505) **LOCATED ON ELECTRICAL SHEET NUMBER: YES ___ NO _____** REFER TO ELECTRICAL DRAWINGS - SHEET E1.1

ELECTRICAL SYSTEM AND EQUIPMENT
Method of Compliance: Energy Code: ☒ Prescriptive ☐ Performance ASHRAE 90.1: ☐ Prescriptive ☐ Performance
Lighting schedule (each fixture type)
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 (whole building or space by space):
total exterior wattage specified vs. allowed
Additional Required Prescriptive Compliance
☐ 506.2.1 More Efficient Mechanical Equipment ☐ 506.2.2 Reduced Lighting Power Density ☐ 506.2.3 Energy Recovery Ventilation Systems
☐ 506.2.4 Higher Efficiency Service Water Heating ☐ 506.2.5 On-Site Supply of Renewable Energy ☐ 506.2.6 Automatic Daylighting Control Systems

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Revisions

Rev.	Date	Descrip.

ADDITION
FOR
City of Charlotte
Engineering & Property Management

CFD
FIRE STATION 15
3617 FRONTENAC AVENUE
CHARLOTTE, NC 28215

A.L.R. Architecture, P.A. REGISTERED PROJECT ARCHITECT CERT. NO. 51729 NORTH CAROLINA CHARLOTTE, NC

WILLIAM S. ASHLIN REGISTERED ARCHITECT 6303 NORTH CAROLINA CHARLOTTE, N.C.

07/25/2017

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CODE SUMMARY
(Appendix 'B')

SHEET TITLE:

LS1.0
SHEET NUMBER:
PROJECT #: 1609.06
DATE: 07/25/2017

100% CD