

2012 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 & 2-FAMILY DWELLINGS AND TOWNHOUSES)

NAME OF PROJECT: SAMS XPRESS CAR WASH
4965 University Pkwy, Winston-Salem, NC 27106 PARCEL ID#
PROPOSED USE: MERCANTILE-CAR WASH
OWNER OR CONTACT PERSON: PAYMAN NADIMI - SAMS REAL ESTATE
OWNED BY: CITY/COUNTY PRIVATE STATE
CODE ENFORCEMENT JURISDICTION: CITY COUNTY STATE

BUILDING DESCRIPTION: ONE STORY CAR WASH

SCOPE OF WORK DETAILS: New construction of a one story masonry carwash building with fuel pump stations
Does this project have any rights, easements, an assumed or deeded property line, no build easements or other circumstances similar to the aforementioned? Yes No If yes, please provide a copy of the official documents.

REVISIONS: Renovation projects only: If you are using Chapter 34 (414), Existing buildings in the NCSCB or NFPA 101 as an alternative for Code compliance, schedule a preliminary review before submitting your project for review.
Notes for Plans Examiner and Inspectors: Please reproduce the evaluation form on the plans.

ALTERNATE MEANS OF COMPLIANCE REQUEST:
INDUSTRIAL EQUIPMENT WITH DECLARATION DOCUMENT ATTACHED
RTAP (REVISION TO APPROVED PLANS)
DATE OF PRELIMINARY REVIEW:

LEAD DESIGN PROFESSIONAL: MICHAEL J. REMESI
DESIGNER: FIRM: NAME: LICENSE#: PHONE#: EMAIL:
ARCHITECTURAL: NA ARCHITECTURE MICHAEL J. REMESI NC-6239 (704) 330-7335 mremesi@naarchitecture.com
CIVIL: STIMMEL, PA TIMOTHY J. JENNINGS NC-929 (303) 723-1067 tjennings@stimmelpa.com
ELECTRICAL: SABER ENGINEERING RICHARD MORRISON NC-2599 (704) 373-2088/222 rmm@saberengr.com
MECHANICAL: SABER ENGINEERING WAYNE KING NC-2695 (704) 373-2088/226 wking@saberengr.com
STRUCTURAL: M. STRUCT. JOSEPH M. TRULLI NC-2995 (704) 507-3039 jtrulli@mstru.com

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 NONE EXCEPTION NONE
 INCIDENTAL USE SEPARATION (508.2.5)
THIS SEPARATION IS NOT EXEMPT AS A NON-SEPARATED USE (SEE EXCEPTIONS)
 NON-SEPARATED MIXED OCCUPANCY (508.3)
THE REQUIRED TYPE OF CONSTRUCTION FOR THE BUILDING SHALL BE DETERMINED BY APPLYING THE HEIGHT AND AREA LIMITATION 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 MIXED OCCUPANCY (508.3.1) - 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. NOTE ALSO EXCEPTION 508.3.1 RE LTAED TO ACCESSORY OCCUPANCIES

*SEE SEPARATE RETAINING WALL APPENDIX B FOR WALL STRUCTURAL DESIGN DATA ONLY

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)
Upgrade: (First Time Interior Completion)
(Upgrade: the first time interior completion of a virgin (never occupied) shell space in a newly constructed building. The applicant must provide a copy of the approved shell.)
Alteration/Renovation: (Previously Occupied Space) This includes Change of Use.

BUILDING CODE: 2012 NORTH CAROLINA BUILDING CODE (NCSCB) 2009 ANSI A117.1
 2012 CHAPTER 34 (ATTACH BUILDING EVALUATION PER SEC. 3412)
 2015 NC EXISTING BUILDING CODE

NEW BUILDING: NEW BUILDING SHELL BUILDING
 FIRST TIME INTERIOR COMPLETION (UPFIT)
 ADDITION

EXISTING BUILDING: CHANGE OF USE/OCCUPANCY
 BUILDING/TENANT SPACE INTERIOR/EXTERIOR (RENOVATION)
 YEAR OF CONSTRUCTION: ORIGINAL USE

2012 NC REHAB CODE INFO: REPAIR RENOVATION ALTERATION RECONSTRUCTION
 CHANGE OF USE ADDITION

LAST KNOWN LEGAL OCCUPANCY USE: RESIDENTIAL COMMERCIAL PROPERTY: YES NO

ORIGINAL BUILDING CONSTRUCTION DATE: _____ DATE OF PRELIMINARY MEETINGS: _____

JUSTIFICATIONS FOR USING RETAINING WALL: _____

REVIEWERS NOTES FOR FIELD INSPECTOR: _____

BUILDING DATA
CONSTRUCTION TYPE: IA IB IIA IIB IIIA IIIB
 IV VA VB

MIXED CONSTRUCTION: NO YES TYPES: _____

SPRINKLERS: NO PARTIAL YES NFPA 13 NFPA 13R NFPA 13D
STANDPIPE: NO YES CLASS: 1 2 3 WET DRY
FIRE DISTRICT: NO YES FLOOD HAZARD AREA: NO YES

BUILDING HEIGHT: 28'-0" FEET 1 NUMBER OF STORIES: HIGH RISE: _____
MEZZANINE: NO YES

GROSS BUILDING AREA:
FLOOR EXISTING (SQ. FT.) (SQ. FT.) (SQ. FT.) SUBTOTAL

FLOOR	EXISTING (SQ. FT.)	(SQ. FT.)	(SQ. FT.)	SUBTOTAL
6TH FLOOR				
5TH FLOOR				
4TH FLOOR				
3RD FLOOR				
2ND FLOOR				
1ST FLOOR	0	0		*4,120
BASEMENT				
TOTAL				*4,120

PHYSICAL OCCUPANCY: ASSEMBLY A-1 A-2 A-3 A-4 A-5
 BUSINESS LOCATION FACTORY/INDUSTRY F-1 F-2
 HAZARDOUS H-1 H-2 H-3 H-4 H-5
 INSTITUTIONAL I-1 I-2 I-3 I-4
 I-3 USE CONDITION 1 2 3 4 5
 MERCANTILE RESIDENTIAL R-1 R-2 R-3 R-4
 STORAGE S-1 S-2 HIGH PILED
 UTILITY & MISCELLANEOUS PARKING GARAGE REPAIR OPEN ENCLOSED

SECONDARY OCCUPANCY NONE. SEE ALSO LIFE SAFETY PLAN FOR FUNCTION OF SPACE BREAK DOWN AS IT RELATES TO TABLE 1004.1.1 - TYP

Accessory Occupancies (≤ 10%): (508) If Applicable
Assembly A-1 A-2 A-3 A-4 A-5
Business B
Educational E
Factory F-1 Moderate F-2 Low
Hazardous H-1 Detonable 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 Miscellaneous U

Incidental Uses: If applicable, areas with additional requirements (Table 508.2.5)
 Furnace room where any piece of equipment is over 400,000 Btu per hour
 Rooms with boilers where the largest piece of equipment is over 400,000 Btu per hour
 Refrigerant machine room
 Hydrogen cutoff rooms, not classified as Group E
 Incinerator rooms
 Paint shops, not classified as Group E, located in occupancies other than Group F
 Laboratories and research rooms, not classified as Group E, located in a Group E or E-2 occupancy
 Laundry rooms of Group E
 Group I-3 cells equipped with unadorned surfaces
 Group I-2 waste and lint 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 uninterruptible 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 handies equal to or less than 100 square feet
 Group I-2 rooms or spaces that contain fast-fired heating equipment

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ACTUAL AREA OF OCCUPANCY A + ACTUAL AREA OF OCCUPANCY B ≤ 1
ALLOWABLE AREA OF OCCUPANCY A ALLOWABLE AREA OF OCCUPANCY B

STORY NO.	DESCRIPTION & USE	(A) BLDG. AREA PER STORY (ACTUAL)	(B) TABLE AREA (MAXIMUM)	(C) AREA FOR OPEN SPACE INCREASE*	(D) OR AREA FOR INCREASE*	(E) ALLOWABLE AREA OR UNLIMITED*	(F) MAXIMUM BLDG. AREA*
1	(B) BUSINESS	4,120	9,000	NA	NA	9,000	9,000
TOTAL							

* AREA OF FUNCTION OF USE AS OCCUPIABLE SPACE MAY DIFFER FROM GROSS S.F. OF BLD.

1. FRONTAGE AREA INCREASES FROM SECTION 508.2 ARE COMPUTED THIS:
A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20' MIN. WIDTH = (____) F'
B. TOTAL BUILDING PERIMETER = (____) F'
C. RATIO (F/P) = (____) (F/P)
D. W = MINIMUM WIDTH OF PUBLIC WAY = (____) W'
E. PERCENT OF FRONTAGE INCREASE (If = [F/P - 0.25] x W/30) If = 100 [.50 - .25] x 30/30 = (____) %
2. THE SPRINKLER INCREASE PER SECTION 506.3 IS AS FOLLOWS:
A. MULTISTORY BUILDING IS = 200%
B. SINGLE STORY BUILDING IS = 300%

3. UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTIONS: GROUP B, F, M, S, A-4 (____) %;
IGROUP A MOTION PICTURE (507.11), MALLS (402); & H-2 AIRCRAFT PAINT HANGARS (507.9).
4. MAX BUILDING AREA = TOTAL # OF STORIES IN THE BUILDING x E BUT NOT GREATER THAN 3 x E
5. MAX AREA OF A SINGLE-USE PARKING GARAGE MUST COMPLY W/ 406.3.5. MAX AREA OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH 412.1.2

ALLOWABLE HEIGHT:

TYPE OF CONSTRUCTION	Type	V-B	Type	V-B
BUILDING HEIGHT (FEET)	Feet	40'-0"	H = H + 1	28'-0"
BUILDING HEIGHT (STORIES)	Stories	2	H + 0 =	1

Life Safety: This section is required to be completed for all projects

EMERGENCY LIGHTING: YES NO
EXITS: YES NO
FIRE ALARM: YES NO
SMOKE DETECTION SYSTEMS: YES NO PARTIAL
PANIC HARDWARE: YES NO
LIFE SAFETY SYSTEMS GENERATOR: YES NO

EXIT REQUIREMENTS: THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

EXIT WIDTH:

USE GROUP OR SPACE DESIGNATION	(A) AREA (SQ FT)	(B) AREA PER OCCUPANT (TABLE 1004.1.1)	(C) CALCULATED OCCUPANT LOAD (A/B)	(D) EGRESS WIDTH PER OCCUPANT (SEC 1005.1)	(E) REQ WIDTH (A/B) x C	(F) ACTUAL WIDTH ON PLANS
1st FL - (A) ASSEMBLY	327	15 NET	22	N/A	2	
1st FL - (B) BUSINESS	647	100 GROSS	7	N/A	2	
1st FL - (S) STORMECH	785	300 GROSS	3	N/A	2	

ACCESSIBLE UNITS PROVIDED

TOTAL UNITS	ACCESSIBLE REQUIRED	ACCESSIBLE PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LIFE SAFETY PLAN SHEET #, IF PROVIDED: A001

FIRE RESISTIVE INFORMATION	RATING**	DETAIL # AND SHEET #		ASSEMBLY	PENETRATION	JOINTS
		FIRE SEPARATION DISTANCE (FEET)	RECD			
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	0	0				
BEARING WALLS	0	0				
EXTERIOR	0	0				
NORTH	0	0				
EAST	0	0				
WEST	0	0				
SOUTH	0	0				
INTERIOR	0	0				
NON BEARING WALLS AND PARTITIONS	0	0				
EXTERIOR	30' +	0				
EAST	30' +	0				
WEST	30' +	0				
SOUTH	30' +	0				
INTERIOR	0	0				

FLOOR CONSTRUCTION*** (INCLUDES SUPPORT BEAMS & JOISTS)

ROOF CONSTRUCTION (INCLUDES SUPPORT BEAMS & JOISTS)

SHAFTS - EXITS: NA NA NA CONDITION DOES NOT EXIST

SHAFTS - OTHER: NA NA NA CONDITION DOES NOT EXIST

CORRIDOR SEP.: NA NA NA CONDITION DOES NOT EXIST

OCCUPANCY SEP.: NA NA NA CONDITION DOES NOT EXIST

PARTY / FIRE WALL SEP.: NA NA NA CONDITION DOES NOT EXIST

SMOKE BARRIER SEP.: NA NA NA CONDITION DOES NOT EXIST

TENANT SEP. (GUEST ROOMS): NA NA NA CONDITION DOES NOT EXIST

INCIDENTAL USE SEPARATION: 0

PERCENT OF WALL OPENING CALCULATIONS: THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

WALL LEGENDS: CHECK 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 RAISED WALLS ARE PRESENT

LIFE SAFETY SYSTEM: THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

EXIT REQUIREMENTS: THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

EXIT WIDTH:

FLOOR, ROOM OR SPACE DESIGNATION	REQ	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1016.1)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE OF EXITS SHOWN ON PLANS
1ST FLOOR	2	3	200'-0"	50'-5"	55'-4"	88'-6"

1 CORRIDOR DEAD ENDS (SECTION 1018.4)
2 BUILDINGS WITH SINGLE EXITS (1021.2), SPACES WITH ONE MEANS OF EGRESS (1015.1)
3 COMMON PATH OF TRAVEL (SECTION 1014.3)

EXIT WIDTH:

USE GROUP OR SPACE DESIGNATION	(A) AREA (SQ FT)	(B) AREA PER OCCUPANT (TABLE 1004.1.1)	(C) CALCULATED OCCUPANT LOAD (A/B)	(D) EGRESS WIDTH PER OCCUPANT (SEC 1005.1)	(E) REQ WIDTH (A/B) x C	(F) ACTUAL WIDTH ON PLANS
1st FL - (A) ASSEMBLY	327	15 NET	22	N/A	2	
1st FL - (B) BUSINESS	647	100 GROSS	7	N/A	2	
1st FL - (S) STORMECH	785	300 GROSS	3	N/A	2	

ACCESSIBLE PARKING: *** SEE CIVIL DRAWINGS ***

SPECIAL APPROVALS: ENERGY REQUIREMENTS: ENERGY SUMMARY

ENERGY REQUIREMENTS: THE FOLLOWING DATA SHALL BE CONSIDERED MIN. & ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED PORTIONS OF THE PROJECT INFO FOR THE PLAN DATA SHEET. IF ENERGY COST BUDGET METHOD, STATE THE ANNUAL ENERGY COST BUDGET VS ALLOWABLE ENERGY COST BUDGET.

THERMAL ENVELOPE METHOD OF COMPLIANCE: SEE BELOW
PREScriptive PERFORMANCE ENERGY COST BUDGET
*** SEE COMCHECK REPORT ATTACHED BELOW ***

ELECTRICAL SUMMARY: *** SEE ELECTRICAL DOCUMENTS ***

MECHANICAL SUMMARY: *** SEE MECHANICAL DOCUMENTS ***

EXIT WIDTH CONT

- SEE TABLE 1004.1.1 TO DETERMINE WHETHER NET OR GROSS AREA IS APPLICABLE. SEE DEFINITION "AREA, GROSS" AND "AREA NET" (SECTION 1002)
- MINIMUM STAIRWAY WIDTH (SECTION 1009.1), MIN. CORRIDOR WIDTH (SECTION 1018.2), MIN. DOOR WIDTH (SECTION 1008.1)
- MINIMUM WIDTH OF EXIT PASSAGEWAY (SECTION 1023.2)
- SEE SECTION 1004.5 FOR CONVERGING EXITS.
- 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)
- ASSEMBLY OCCUPANCIES (SECTION 1028)
- SPACES WITHIN OCCUPANCIES OR USE GROUPS SHALL BE CALCULATED INDEPENDENTLY. (LOBBIES, LOUNGES, BREAK ROOMS, CONFERENCE ROOMS)

PLUMBING FIXTURE REQUIREMENTS

OCCUPANCY USE GROUP / SPACE	WATER CLOSETS		URINAL	LAVS		SHOWER / TUBS	DRINKING FOUNTAINS	
	MALE	FEMALE		M	F		REG	ACC
(A) ASSEMBLY	0.17	0.34	0	0.11	0.11	N/A		0.04
(B) BUSINESS	0.13	0.13	0	0.08	0.08	N/A		0.06
(S) STORAGE	0.02	0.02	0	0.02	0.02	N/A		0.00
TOTAL	0.32	0.40	0	0.21	0.21	N/A		0.10

ACTUAL SHOWN ON PLANS:

OCCUPANCY USE GROUP / SPACE	WATER CLOSETS	URINAL	LAVS	SHOWER / TUBS	DRINKING FOUNTAINS
BUILDING	1	1	0	1	N/A

* PLEASE SEE ALSO GENERAL PLUMBING NOTES FOR ROOM REGARDING PLUMBING SPECIFICATIONS
** FAMILY RESTROOM PROVIDED AND POOL AREA PROVIDED FOR 3RD WASH RESTROOM
*** SEE ALSO A004 GEN. PLUMBING NOTES FOR HAZARDOUS WASTE TREATMENT AREA FOR ADDITIONAL PLUMBING

SCHEDULE OF SPECIAL INSPECTION SERVICE:
 NO SPECIAL INSPECTION REQUIRED FOR THIS PROJECT SPECIAL INSPECTIONS REQUIRED

THE FOLLOWING COMPREHENSIVE REQUIRED SCHEDULE OF SPECIAL INSPECTIONS FOR THIS PROJECT ARE AS FOLLOWS:

- I-1 VERIFICATION OF SOILS
- I-2 EXCAVATION AND FILL
- I-3 DRILLING AND DRILLING PIERCE
- I-4 REINFORCED CONCRETE
- I-5 TENSION SLAB
- I-6 PRECAST CONCRETE ERECTION
- I-7 PRESTRESSED CONCRETE
- I-8 INSPECTION OF PRE CAST FABRICATORS
- I-9 INSPECTION OF SOILS
- I-10 INSPECTION OF STRUCTURAL STEEL
- I-11 STRUCTURAL MASONRY
- I-12 WELDING
- I-13 HIGH STRENGTH BOLTS & STEEL FRAMING INSP.
- I-14 SPRAYED FIRE RES