2018 APPENDIX B

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

	`	following data on		ns sheet 1 or 2)	
Name of Project	::SHEETZ FUEL	SLAND CANOF	PY		
Address:283	NC RTE 87 CAMERON,	N.C			
Zip Code283	26				
Owner/Authoriz	ed Agent:	Phone # (_)	E-Ma	il
Owned By: Priv	<u>ate</u>				
Code Enforceme	ent Jurisdiction: Select one	2			
CONTACT:					
DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural					
Civil				()	
Electrical				_ ()	
Fire Alarm				_ ()	
Plumbing				_ (_)	_
Mechanical	nina			_ (_)	_
Sprinkler-Standy Structural	Lawrence R. Pilon, PE	Lawrence R Pilon	022186	(315) 668-0039	lpilons@windstream.n
	>5' High	Lawrence K 1 non	022180	()	- — — — — — — — — — — — — — — — — — — —
Other	5 111gh			_ ()	
("Other" should	include firms and individu	ıals such as truss,	precast, pre-eng	ineered, interior des	signers, etc.)
BASIC BUILD Construction T Sprinklers: No Standpipes: No Primary Fire D	CATEGORY (Table 160 ING DATA ype: II-B Select one	4.5): Current: <u>N</u> Flood		ANCY(S) (Ch. 3): _ Proposed: Select o	
		Gross Building	Area Table		
FLOOR	EXISTING (SQ FT)		(SQ FT)	Sui	B-TOTAL
3 rd Floor			0		
2 nd Floor			0		
Mezzanine			0 SO ET		
1 st Floor Basement			SQ. FT 0		
TOTAL			SQ. FT		
TOTAL		7017	~~.11		
Primary Occup	pancy Classification(s): \underline{N}	ALLOWAB		Select one Select	t one Select one

Special Uses (Chapter 4 – List Code Sections):										
Special Provisions: (Chapter 5 – List Code Sections):										
Mixed Occupancy: Select one Separation: Select one Exception:										
+ + ≤ 1.00										
STORY DESCRIPTION AND	(A)	(B)	(C)	(D)	-					

STORY	DESCRIPTION AND	(A)	(B)	(C)	(D)
NO.	USE	BLDG AREA PER	TABLE 506.2 ⁴	AREA FOR FRONTAGE	ALLOWABLE AREA PER
		STORY (ACTUAL)	AREA	INCREASE ^{1,5}	STORY OR UNLIMITED ^{2,3}
ONE	CANOPY	4614	12,500	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 = _____ (F) b. Total Building Perimeter
- c. Ratio (F/P) =

Accessory Occupancy Classification(s):

Incidental Uses (Table 509):

- d. W = Minimum width of public way = _____(W) e. Percent of frontage increase $I_f = 100$ [F/P 0.25] x W/30 = ______(%)
- ² Unlimited area applicable under conditions of Section 507.
- ³ Maximum Building Area = total number of stories in the building x D (maximum3 stories) (506.2). ⁴ The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic
- control towers must comply with Table 412.3.1.
- ⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE				
Building Height in Feet (Table 504.3)	55	20'	503				
Building Height in Stories (Table 504.4) 4 STORIES ONE 503							
¹ Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.							

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE		RATING	DETAIL#	DESIGN#	SHEET # FOR	SHEET #
	SEPARATION	REQ'D	PROVIDED	AND	FOR	RATED	FOR
	DISTANCE		(W/*	SHEET #	RATED	PENETRATION	RATED
	(FEET)		REDUCTION)		ASSEMBLY		JOINTS
Structural Frame,							
including columns, girders,							
trusses							
Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions							

Exterior walls			
North			
East			
West			
South			
Interior walls and partitions			
Floor Construction			
Including supporting beams			
and joists			
Floor Ceiling Assembly			
Columns Supporting Floors			
Roof Construction, including			
supporting beams and joists			
Roof Ceiling Assembly			
Columns Supporting Roof			
Shaft Enclosures - Exit			
Shaft Enclosures - Other			
Corridor Separation			
Occupancy/Fire Barrier Separation			
Party/Fire Wall Separation			
Smoke Barrier Separation			
Smoke Partition			
Tenant/Dwelling Unit/ Sleeping Unit Separation			
Incidental Use Separation			

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS									
FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	Degree of openings Protection (Table 705.8)	Allowable area (%)	ACTUAL SHOWN ON PLANS (%)						

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting:	Select one
Exit Signs:	Select one
Fire Alarm:	Select one
Smoke Detection Systems:	Select one
Carbon Monoxide Detection:	Select one

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #:

- Fire and/or smoke rated wall locations (Chapter 7)
- Assumed and real property line locations (if not on the site plan)
- Exterior wall opening area with respect to distance to assumed property lines (705.8)

Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)

Occupant loads for each area	

- Exit access travel distances (1017)
- Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
- Dead end lengths (1020.4)
- Clear exit widths for each exit door
- Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3) 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 (1010.1.10)
- Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
- Location of doors with electromagnetic egress locks (1010.1.9.9)
- Location of doors equipped with hold-open devices
- Location of emergency escape windows (1030)
- The square footage of each fire area (202)
- The square footage of each smoke compartment for Occupancy Classification I-2 (407.5) Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1107)

(SECTION 1107)									
TOTAL	Accessible	Accessible	Түре А	Түре А	Түре В	Түре В	TOTAL		
Units	Units	Units	Units	Units	Units	Units	ACCESSIBLE UNITS		
	REQUIRED	Provided	Required	Provided	REQUIRED	Provided	PROVIDED		

ACCESSIBLE PARKING (SECTION 1106)

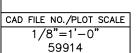
			(BECTION II			
OT OR PARKING	TOTAL # OF PA	RKING SPACES	# OF AC	TOTAL#		
AREA	REQUIRED	PROVIDED	REGULAR WITH	VAN SPACI	ACCESSIBLE	
			5' ACCESS AISLE	132" ACCESS	8' ACCESS	PROVIDED
				AISLE	AISLE	
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

					`		•				
USE		WATERCLOSETS URIN		URINALS	LAVATORIES		SHOWERS	DRINKING	FOUNTAINS		
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX	/TUBS	REGULAR	ACCESSIBLE
SPACE	EXIST'G										
	NEW										
	REO'D										

SPECIAL APPROVALS

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



ENERGY SUMMARY **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 performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design. Existing building envelope complies with code: Select one **Exempt Building:** Select one Provide code or statutory reference: Climate Zone: Select one **Method of Compliance:** Select one (If "Other" specify source here)_ **THERMAL ENVELOPE** (Prescriptive method only) 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: Solar heat gain coefficient: projection factor: 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:

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

STRUCTURAL DESIGN

(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS: Importance Factors: Wind (I_W) <u>1.0</u> Snow (I_S) $\underline{1.0}$ Seismic (I_E) $\underline{1.0}$ Live Loads: _____N/A___ psf Mezzanine ____N/A___ psf **Ground Snow Load:**

R-Value of insulation:

Description of assembly:

R-Value of insulation:

slab heated:

U-Value of total assembly:

Horizontal/vertical requirement:

Floors slab on grade

Basic Wind Speed 120 mph (Ultimate ASCE-7-10) Exposure Category <u>B</u>

SEISMIC DESIGN CATEGORY: B Provide the following Seismic Design Parameters: Occupancy Category (Table 1604.5) II **Spectral Response Acceleration** $S_S = 0.21 \text{ }\%g$ $S_1 = 0.095 \%g$ **Site Classification (ASCE 7)** Data Source: Field Test Basic structural system <u>Inverted Pendulum</u> Analysis Procedure: Equivalent Lateral Force

Architectural, Mechanical, Components anchored? Yes

LATERAL DESIGN CONTROL: Wind

SOIL BEARING CAPACITIES: Field Test (provide copy of test report) 2500 psf Pile size, type, and capacity _____

MECHANICAL DESIGN (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE) MECHANICAL SUMMARY

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

winter dry bulb: summer dry bulb: Interior design conditions winter dry bulb: summer dry bulb: relative humidity: **Building heating load: Mechanical Spacing Conditioning System** Unitary

Thermal Zone

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:

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS ELECTRICAL DESIGN

(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Select one

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

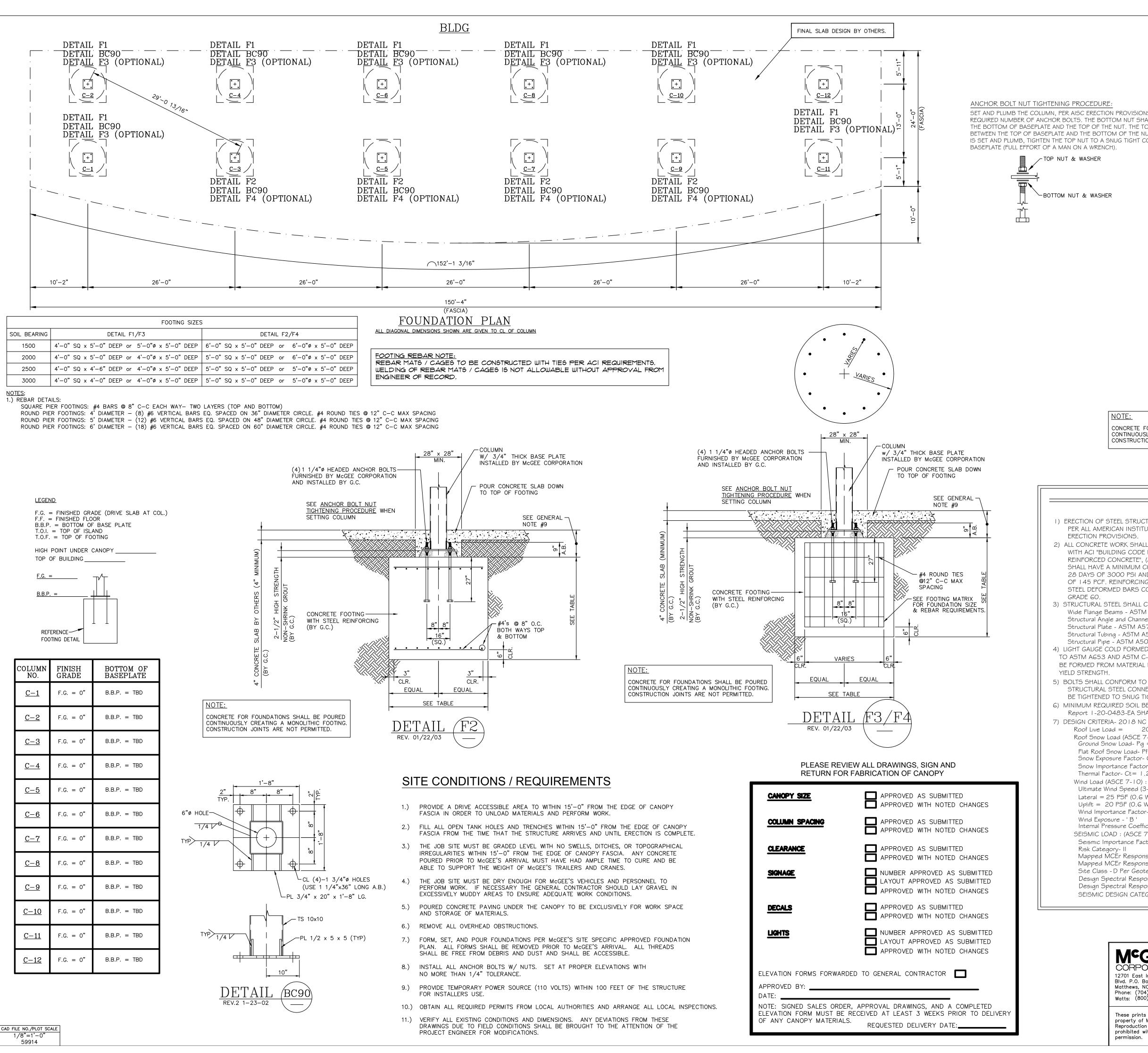
Additional Efficiency Package Options (When using the 2018 NCECC; not required for ASHRAE 90.1)

C406.2 More Efficient HVAC Equipment Performance C406.3 Reduced Lighting Power Density
C406.4 Enhanced Digital Lighting Controls
C406.5 On-Site Renewable Energy

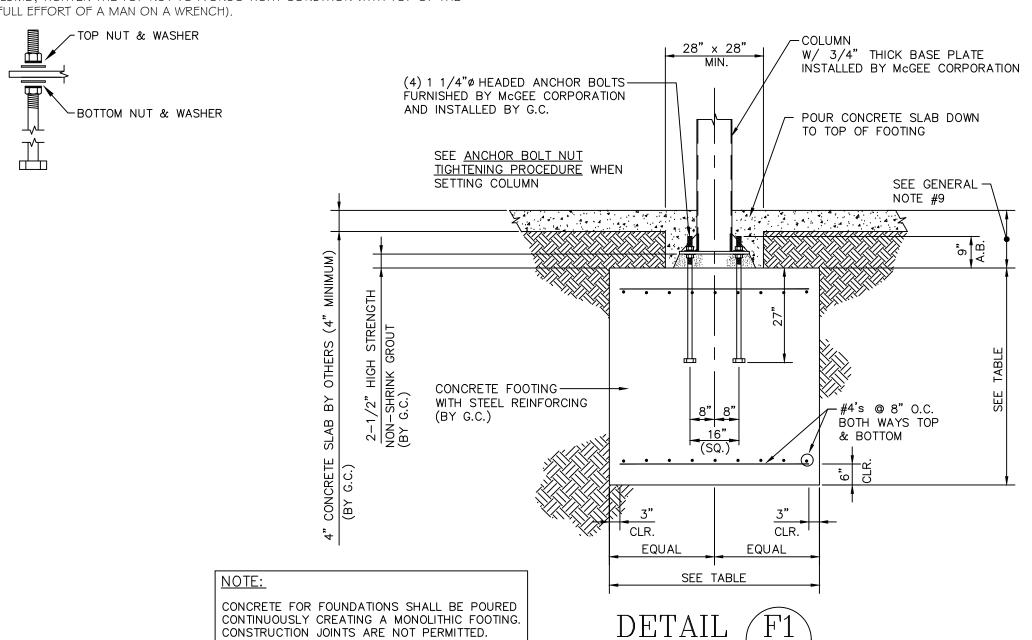
C406.6 Dedicated Outdoor Air System C406.7 Reduced Energy Use in Service Water Heating

LAWRENCE R. PILON/ PROFESSIONAL ENGINEER
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(315) 668-0039

FINAL JOB NO. **M^cGEE** 59914 AB059914 SHEETZ INC CORPORATION 283 NC 87 12701 East Independence Blvd. P.O. Box 1375 CAMERON, NC 28326 (HARNETT) Matthews, NC 28106-1375 Phone: (704) 882-1500 IN ACCORDANCE DRAWN BY: JWG Watts: (800) 526-5589 WITH REV. LETTER: These prints are the property of M^CGee Corp.. METAL CANOPY 34'-0" x 150'-4 Reproduction or reuse is prohibited without written APPENDIX B



SET AND PLUMB THE COLUMN, PER AISC ERECTION PROVISIONS, WITH DOUBLE NUTS ON THE REQUIRED NUMBER OF ANCHOR BOLTS. THE BOTTOM NUT SHALL HAVE A FLAT WASHER BETWEEN THE BOTTOM OF BASEPLATE AND THE TOP OF THE NUT. THE TOP NUT SHALL HAVE A WASHER BETWEEN THE TOP OF BASEPLATE AND THE BOTTOM OF THE NUT. AFTER THE COLUMN IS SET AND PLUMB, TIGHTEN THE TOP NUT TO A SNUG TIGHT CONDITION WITH TOP OF THE



GENERAL NOTES:

REV. 01/22/03

- 1) ERECTION OF STEEL STRUCTURE SHALL BE PERFORMED PER ALL AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) ERECTION PROVISIONS.
- 2) ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACL "BLILLDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", (ACI 3 | 8-14). ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI AND A MINIMUM UNIT WEIGHT OF 145 PCF. REINFORCING STEEL SHALL BE NEW BILLET STEEL DEFORMED BARS CONFORMING TO ASTM A6 I 5.
- 3) STRUCTURAL STEEL SHALL CONFORM TO: Wide Flange Beams - ASTM A992, Grade 50, Fy = 50 KSI Structural Angle and Channel - ASTM A36, Fy = 36 KSI Structural Plate - ASTM A572, Grade 50, Fy = 50 KSI Structural Tubing - ASTM A500, Grade B, Fy = 46 KSI
- Structural Pipe ASTM A500, Grade B, Fy = 42 KSI 4) LIGHT GAUGE COLD FORMED SHAPES SHALL CONFORM TO ASTM A653 AND ASTM C-955. ALL MEMBERS SHALL BE FORMED FROM MATERIAL HAVING A 50 KSI MINIMUM
- 5) BOLTS SHALL CONFORM TO ASTM A325 FOR STRUCTURAL STEEL CONNECTIONS. BOLTS SHALL
- BE TIGHTENED TO SNUG TIGHT PER AISC \$ RCSC SPECIFICATIONS. 6) MINIMUM REQUIRED SOIL BEARING PRESSURE OF 2500 PSF Per Geotech Report I-20-0483-EA SHALL BE PROVIDED BY THE OWNER.
- 7) DESIGN CRITERIA- 2018 NC BUILDING CODE (2015 IBC W/ NC AMENDMENTS) Roof Live Load = 20 PSF
 - Roof Snow Load (ASCE 7-10): Ground Snow Load- Pg = 10 PSF Flat Roof Snow Load- Pf = 10 PSF Snow Exposure Factor- Ce = 1.0
 - Snow Importance Factor- $\underline{T}_{S} = 1.0$ (Risk Category II) Thermal Factor- Ct= 1.2
 - Ultimate Wind Speed (3-Sec. Gust) V = 120 MPHLateral = 25 PSF (0.6 W FOR ASD)Uplift = 20 PSF (0.6 W FOR ASD)
 - Wind Importance Factor- $I_w = 1.0$ (Risk Category II) Wind Exposure - 'B' Internal Pressure Coefficients - GCpi = 0.00 (Open Bldg.)
 - SEISMIC LOAD: (ASCE 7-10) Seismic Importance Factor - le= 1.00 (Risk Category II) Risk Category- II
 - Mapped MCEr Response Accelerations At Short Periods $S_9 = 0.21 \text{ g}$ Fa = 1.6 Mapped MCEr Response Accelerations At 1-Sec. Period - SI = 0.095g - Fv = 2.4 Site Class - D Per Geotech Report
 - Design Spectral Response Acceleration At Short Periods $S_{DS} = 0.224g$ Design Spectral Response Acceleration At 1-Sec. Period - Spi = 0.1529 SEISMIC DESIGN CATEGORY - C

- BASIC SEISMIC FORCE RESISTING SYSTEM -INVERTED PENDULUM SYSTEM CANTILEVERED COLUMN SYSTEM
 - Response Modification Coefficient R = 2System Overstrength Factor $-\Omega o = 2$ Deflection Amplification Factor - Cd = 2
- SEISMIC RESPONSE COEFFICIENT Cs = 0.086 SEISMIC BASE SHEAR - V = 0.9 KIPS / COL ANALYSIS - EQUIVALENT LATERAL FORCE PROCEDURE 8) ASTM F1554 GR. 55 (Fy = 55 KSI) HEADED ANCHOR RODS & WOOD TEMPLATES SHALL BE FURNISHED BY McGEE CORP.
- 9) CANOPY FOUNDATION INSTALLATION: CONTRACTOR SHALL DETERMINE WHICH FINISHED GRADE ELEVATION AT EACH CANOPY COLUMN IS THE LOWEST AND ESTABLISH ALL FOUNDATION LOCATIONS IN RELATION TO THAT ELEVATION. CONTRACTOR MUST VERIFY FUEL CONTAINMENT BOX SIZE AND LOCATION TO ENSURE FOUNDATION DOES NOT INTERFERE WITH BOX INSTALLATION. TOP OF FOUNDATION DEPTH MAY BE GREATER THAN BUT NOT LESS THAN 12" BELOW THE PREVIOUSLY DETERMINED LOWEST FINISHED GRADE ELEVATION.
- 10) STRUCTURAL AND MISCELLANEOUS STEEL SUBJECTED TO EXTERIOR EXPOSURE HAS BEEN PRIMED COATED ONLY. FIELD TOUCH-UP, FINISH PAINTING AND
- MAINTENANCE ARE THE RESPONSIBILITY OF THE OWNER. II) FOUNDATIONS (WHERE SHOWN) HAVE BEEN SIZED FOR GIVEN LOADS AND ALLOWABLE SOIL PRESSURE. THEIR DESIGN ASSUMES THAT THERE ARE NO BURIED TANKS OR OTHER NEARBY OBSTRUCTIONS THAT WOULD BE DETRIMENTAL TO THEIR PROPER FUNCTION. THE ENGINEER OF RECORD SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF FOUNDATIONS FOR THE RESOLUTION OF ANY CONFLICT. WHERE FOUNDATION DETAIL IS NOT SHOWN McGEE CORPORATION AND THEIR ENGINEERS TAKE NO
- RESPONSIBILITY FOR FOUNDATION DESIGN. 12) ALL WELDED CONNECTIONS SHALL BE IN ACCORDANCE WITH LATEST AWS SPECIFICATIONS, USING E70XX ELECTRODES. ALL WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER.
- 13) CANOPY USE GROUP "M" / CONSTRUCTION TYPE II-B

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(315) 668-0039FINAL JOB NO. McGEE P059914 59914 SHEETZ INC CORPORATION 283 NC 87 12701 East Independence Blvd. P.O. Box 1375 CAMERON, NC 28326 (HARNETT) Matthews, NC 28106-1375 Phone: (704) 882-1500 SCALE: 1/8"=1'-0" IN ACCORDANCE DRAWN BY: JWG Watts: (800) 526-5589 WITH REV. LETTER: METAL CANOPY 34'-0" These prints are the property of MCGee Corp. Reproduction or reuse is prohibited without written

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