

DESIGN LOADS	
1. CODE	2018 NORTH CAROLINA BUILDING CODE
2. GRAVITY LOADS	
A. REFER TO MANUFACTURER'S RATED LOADS	
3. LATERAL LOADS	
A. SEISMIC LOADS	
1. 9% DAMPED SPECTRAL RESPONSE COEFF. (S <sub>m</sub> )	0.249g
2. 1-SEC PERIOD SPECTRAL RESP COEFF. (S <sub>d1</sub> )	0.152g
3. SITE CLASS (ASSUMED)	D
4. SEISMIC DESIGN CATEGORY	C
5. NON-BUILDING STRUCTURAL SYSTEM AND SEISMIC RESISTING SYSTEM	STEEL STORAGE RACKS
6. RESPONSE MODIFICATION FACTOR (R)	4.0
7. OVERSTRENGTH FACTOR (O <sub>2</sub> )	2.0
8. IMPORTANCE FACTOR (I <sub>p</sub> )	2.0
- STORAGE AREA	1.5 (PUBLIC ACCESS AREA)
9. ANALYSIS PROCEDURE (ASCE-7, SECT. 12 & 15.5)	EQUVALENT LATERAL FORCE
10. DESIGN BASE SHEAR (PER 2012 RM)	0.092W (PUBLIC ACCESS AREA)
- SALES FLOOR RACKS	0.061W (NO PUBLIC ACCESS)
- STORAGE AREA RACKS	

**STATEMENT OF SPECIAL INSPECTIONS**

SPECIAL INSPECTIONS ARE REQUIRED PER CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE OR BY ENGINEER OF RECORD:

**PERIODIC SPECIAL INSPECTIONS:**

- POST-INSTALLED ANCHORS - INTERIOR SALES FLOOR STORAGE RACK OR SHELVING FIXTURE ANCHORAGE
- POST-INSTALLED ANCHORS - EXTERIOR GARDEN CENTER RACK ANCHORAGE

**NOTES:**

- SPECIAL INSPECTIONS NOTED ABOVE SHALL BE PROVIDED BY, BUT NOT LIMITED TO, THE OWNER'S CONSTRUCTION TESTING LABORATORY (CTL). REFERENCE SPECIFICATIONS FOR DETAILS

**GENERAL NOTES**

- ALL FIXTURES SHALL BE DESIGNED TO MEET ALL BUILDING CODE REQUIREMENTS.
- THE BASE ANCHORAGE, MEMBERS AND CONNECTIONS FOR THE FIXTURES SHOWN ON THIS INSTALLATION DRAWING HAVE BEEN DESIGNED TO RESIST DESIGN WIND/SEISMIC LATERAL FORCES FOR THE BUILDING CODES NOTED IN THE "DESIGN LOADS" TABLE ON THIS SHEET. INSTALLATION OF THE FIXTURES SHALL MEET THE LAYOUT SHOWN ON THE FIXTURE LAYOUT PLAN, PROVIDED BY OWNER.
- SLAB AND FOUNDATION ASSUMPTIONS
- SLAB ON GRADE IS ASSUMED TO HAVE A MINIMUM OF 3,000 PSI COMPRESSIVE STRENGTH.
- THE SLAB ON GRADE IS ASSUMED TO BE A MINIMUM OF 4 INCHES THICK (5 1/2 INCHES THICK MINIMUM AT THE EXTERIOR GARDEN CENTER AND STORAGE AREAS), UNREINFORCED AND PLACED OVER A MINIMUM OF 4 INCHES OF DRAINAGE FILL.
- THE SLAB ON GRADE IS DESIGNED TO BEAR ON A SUBGRADE REACTION MODULUS OF 150 PCI MINIMUM.
- MATERIAL FOR RACKS AND ANCHORAGE
- ALL ANCHORS TO THE SLAB SHALL BE AS NOTED ON THESE PLANS.
- OWNER IS TO PROVIDE MAINTENANCE PER RM 14.1.
- RACK INSTALLER SHALL OBTAIN OUT-OF-PLUMB INSTALLATION TOLERANCE FROM FIXTURE SUPPLIER PRIOR TO INSTALLATION - RM 2012, SECTION 14.1.1.1.
- NO FIELD WELDING IS PERMITTED. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS, IN AN APPROVED SHOP. USE E70xx WELD RODS OR EQUAL TO TENSILE STRENGTH OF BASE METAL OF WELDMENTS. PER AWS D1.1 OR D1.3.
- PROVIDE 6" AT 120" TALL RACKS AND 4 1/2" AT RACKS LESS THAN 120" (OR EQUAL TO 5% OF THE UPRIGHT FRAME HEIGHT) MINIMUM CLEARANCE BETWEEN OTHER RACK FIXTURES OR ADJACENT BUILDING ELEMENTS PER ASCE 7-10, SECTION 15.5.3.8.
- ROLES AND RESPONSIBILITIES FOR DEMOLITION AND INSTALLATION OF SHELVING AND RACKING FIXTURES
- GENERAL CONTRACTOR TO ANCHOR ALL SHELVING AND RACKING FIXTURES ACCORDING TO THE REQUIREMENTS NOTED ON SHEETS FXS1 AND FXS2.
- FIXTURE ANCHORING SHALL BE ACCOMPLISHED SIMULTANEOUSLY WITH FIXTURE INSTALLATION.
- GENERAL CONTRACTOR SHALL INSURE THAT PROPER PROCEDURES AND WORK SEGREGATION ARE IN PLACE DURING ALL FIXTURE ANCHORING PROCEDURES.
- GENERAL CONTRACTOR TO CLEAN ALL RESIDUE FROM SURROUNDING FIXTURES AND AREA AS ANCHORING IS COMPLETED (CLEAN AND PROTECT).
- GENERAL CONTRACTOR IS TO PERFORM ALL REMOVAL AND INSTALLATION OF ANCHOR STRAPS AND/OR BOLTS AT FIXTURES REQUIRING PERMANENT OR TEMPORARY RELOCATION.

**TEMPORARY ANCHORAGE BILL OF MATERIALS**

USAGE	MATERIAL TYPE	ANCHOR COUNT
TEMP ANCHOR	DEWALT SCREW BOLT - 1/4" DIAMETER x 1 3/4" (#PFM1411020)	34

**ANCHORAGE BILL OF MATERIALS**

USAGE	MATERIAL TYPE	COUNT
ANCHOR	DEWALT SCREW BOLT - 1/2" DIAMETER x 3" (#PFM1411380)	22
ANCHOR	WALTSCH BOLT - 1/2" DIAMETER x 2 1/2" (#PFM1411220)	172
ANCHOR	WALTSCH SCREW BOLT - 1/4" DIAMETER x 1 3/4" (#PFM1411020)	34
ANCHOR STRAP	ANCHOR STRAP (GONDOLA/WALL)	80

ANCHOR BOLTS AND STRAPS NOTED ABOVE ARE FURNISHED BY AND LED BY THE GENERAL CONTRACTOR (GC).

2. ANCHOR SUPPLIER CONTACT INFORMATION:  
 JOSE LOPEZ: jose.lopez@ncor.biz (405) 457-6379  
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**SHELVING FIXTURE & ANCHORAGE SCHEDULE**

FIXTURE MARK	FIXTURE DESCRIPTION	FIXTURE HEIGHT	ANCHORAGE DETAIL
18R	HALF GONDOLA	48"	1A-FXS2
18T	HALF GONDOLA	60"	1A-FXS2
18V	HALF GONDOLA	76"	1A-FXS2
24V	HALF GONDOLA	76"	1A-FXS2
38V	HALF GONDOLA	78"	1A-FXS2
38V	HALF GONDOLA	90"	1A-FXS2
3678 EC	END CAP	78"	1C-FXS2
4678 EC	END CAP	78"	1C-FXS2
2490 EC	END CAP	80"	1C-FXS2

**LEGEND NOTES:**

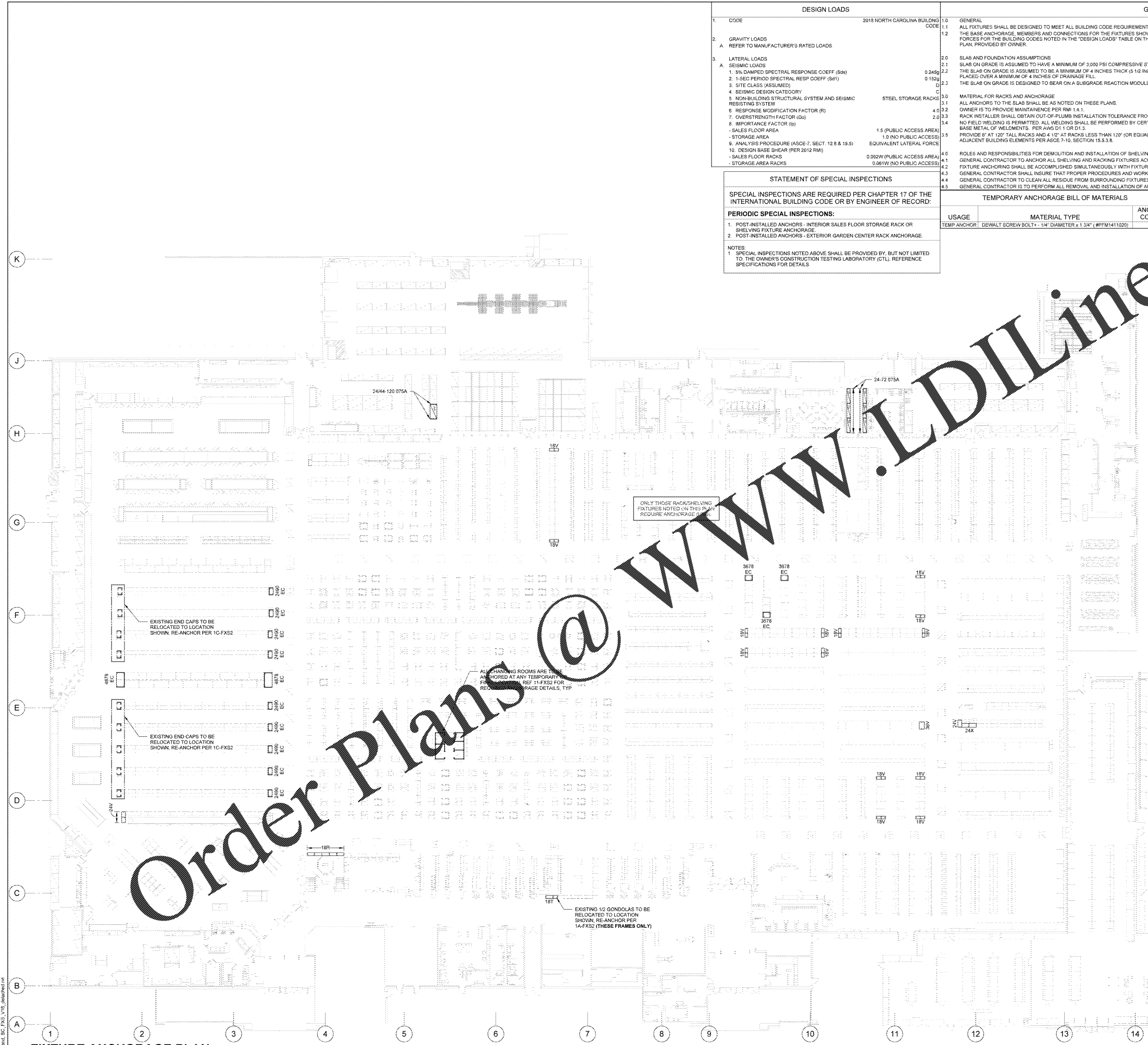
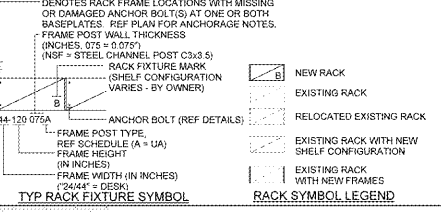
- ANCHORS SHOWN ABOVE ARE FOR EXAMPLE ONLY. REFER TO PLAN AND DETAILS FOR ACTUAL ANCHOR CONFIGURATION
- NOT ALL SYMBOLS SHOWN MAY BE APPLICABLE TO THIS PROJECT.

**RACK FIXTURE SCHEDULE**

FIXTURE MARK	FIXTURE DESCRIPTION	FIXTURE HEIGHT	FRAME MARK	MAX SHELF LOAD (LBS)
BAD	DESK STORAGE RACK	120"	FRAME 2444-120 075A	1200
DD	STORAGE RACK	72"	FRAME 24-72 075A	1200

**RACK FRAME AND ANCHORAGE SCHEDULE**

FRAME MARK	ANCHOR DETAIL	FRAME COUNT
24-72 075A	2-FXS2	8
2444-120 075A	2-FXS2	2



**1 FIXTURE ANCHORAGE PLAN**  
 1" = 20'-0"

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2020 SPRB

**ISSUE BLOCK**

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**FIXTURE ANCHORAGE PLAN AND NOTES**

SHEET: **FXS1**