

TOPPED & UN-TOPPED ELEVATED DECK

- All notes apply to composite floor deck with concrete cover and non-composite floor deck with concrete cover. Notes 11 & 12 apply to steel roof deck as well.
- All floor deck has been designed based on an un-shored, triple span condition. The steel deck supplier will verify the adequacy of the floor deck to support the weight of the plastic concrete + a 20psf construction live load where a triple span condition can not be achieved.
- Concrete will be deposited on floor decks in a fashion that minimizes the impact load of the concrete.
- Concrete will be placed as close to its final location as practically possible and moved into place by a method consistent with ACI requirements. In no instance may the concrete be deposited in a fashion that produced a large quantity of concrete in one location.
- The placement of concrete at a particular floor may be continuous or may be broken into separate pours at the option of the contractor. In either instance the contractor will make provisions for the installation of construction joints. The locations of the construction joints are subject to the approval of the project engineer of record and must be coordinated a minimum of ten business days before the placement of the slab. Adjacent pours will not be permitted for a period of forty-eight hours from the time of final placement of the initial pour without prior approval.
- All concrete on floor slabs is subject to all ACI requirements including, but not limited to, placement, finishing and curing methods.
- Conduit may not be run through composite flooring. **This note will take primacy over any and all information to the contrary.**
- Provide accessories including cell, Z and column closures, pour stops, and beam fillers (if required) for a complete installation. Indicate all required accessories on shop drawings.
- Steel members are designed to deflect up to one inch at mid span under the loading of freshly placed concrete. Additional concrete will be placed to bring the floor slab to the proper elevation and levelness. This additional quantity of concrete will be accounted for in all pricing estimates.
- Welding to gage metal pour-stops is not permitted in any circumstance. Penetrations through the pour stops are permitted.
- The contractor will erect and anchor the decking in accordance with the project specification and the standard specifications of the Steel Deck Institute
- No mechanical, electrical, plumbing, architectural or miscellaneous element may be hung from the steel deck under any circumstances. **This note will take primacy over any and all information to the contrary.** Attachments through the decking is permitted where the deck is topped with concrete and where the connection load is less than 200 pounds.

STRUCTURAL MASONRY

- Only masonry walls resisting vertical gravity loads imposed by roof or floor framing, masonry walls resisting lateral earth loads, or masonry walls resisting building shear are to be considered structural masonry on this project. Interior partitions and non-load bearing, exterior walls are examples of non-structural masonry.
- All structural masonry has been designed in accordance with ACI 530 for allowable stress provisions. Values relied upon for this design are contingent on continuous inspection as outlined in ACI 530.1.
- Masonry walls are inherently unstable until all connecting structure is in place to brace the walls. The contractor must temporarily brace all masonry walls until final, supporting elements are in place. Locate horizontal bond beams at the levels of temporary bracing attachments.
- Masonry shop drawings are required for all structural masonry. Shop drawings must show all reinforcing including splices and accessory items, opening in the masonry walls, and control joints.
- Reinforce masonry walls as directed on plans, schedules and in details. At reinforcing splices lap as required by the more restrictive requirements of ACI 530 or the jurisdictional code.
- Reinforce each corner cell of concrete masonry unit walls. Additionally, reinforce one cell directly adjacent to the corner cell in each intersecting wall.
- For reinforced concrete masonry walls, continuous, high-lift construction between horizontal bond beams is the preferred method of construction. The preference reduces the amount of reinforcing steel required. The contractor will use "A" blocks, "H" blocks, or acoustical blocks as required to place masonry units around vertical reinforcing.
- The use of bar supports and positioners is required to ensure locations of reinforcement.
- All masonry cells and voids will be grouted solid below grade, whether reinforced or not. No void spaces capable of retaining water are permitted.
- Conduits, piping and similar items are not permitted in grouted masonry cells.
- Control joint spacing in masonry walls may not exceed 28 feet, unless noted otherwise. When not shown on plan, place control joints within 4 feet of corners and mid-way between major openings. Show all control joints on shop drawings for approval.
- Provide continuous horizontal joint reinforcement consisting of 2, 9 gage wires at 16 inches on center vertically.
- Masonry walls must be attached to the building structure or the foundation system at their bases. Provide #4 dowels at the spacing of the masonry wall reinforcing.
- All structural masonry must be placed in running bond.
- High slump grout, 8 inches to 11 inches, is required in reinforced cells. The slump is to result from high water to cement ratios.

NON-STRUCTURAL MASONRY

- Masonry walls acting as interior partitions and non-load bearing, exterior walls are non-structural masonry.
- Where possible interior, non-structural masonry has been designed in accordance with the empirical provisions of ACI 530. Empirically designed walls do not rely upon steel reinforcing located in the unit cells for strength capacity. However, reinforcement may be required at the bases of walls for anchorage.
- Non-structural masonry walls are not permitted to be attached to the building structure except at their bases and top anchorage points. Joints must be placed between the non-structural masonry units at the building structure. The joint between the top of the wall and the underside of floor slabs, or framing elements will be nominally sized 1/4 inches. The joints between the sides of the walls and bounding vertical elements will be 3/8 of an inch.
- Masonry walls are inherently unstable until all connecting structure is in place to brace the walls. The contractor must temporarily brace all masonry walls until final, supporting elements are in place. Locate horizontal bond beams at the levels of temporary bracing attachments.
- Masonry shop drawings are not required by the structural engineer of record for non-structural masonry. Shop drawings may be required by the project architect for coordination purposes. Refer to masonry specifications for submittal requirements.
- Reinforce masonry walls as directed on plans, schedules and in details. All reinforced void spaces are to be grouted solid.
- Non-structural masonry frequently provides support to anchored masonry veneer. Veneer masonry is precluded by Code from resisting any structural loads. No element may be anchored in any fashion to veneer masonry.

USE OF DRAWINGS

- The drawings that follow these general notes were prepared solely for the project under contract. These drawings may not be used for any other project in any form.
- These drawings are instruments of service between the Architect of Record and the Structural Engineer of Record. The ownership of the drawings remains with the author of the drawings.
- The project Owner is granted limited use of the drawings during construction. The Owner may reproduce the drawings as required to disseminate information to the Contractor.
- Details are not cut at every location. Where similar conditions exist, similar details will be employed by the Contractor.
- These drawings have been electronically signed and sealed. It is the belief of the Engineer of Record that the electronic signature is in keeping with the laws of the State of North Carolina. If signed and sealed, hardcopies are preferred by the Jurisdictional Authority, please contact the Engineer of Record.

MATERIALS

1. Soil Fill	57 Stone	
Subbase	150psi Maximum Strength	
CLSM		
2. Concrete		
Spread Footings	NW4.5	
Foundation Walls	NW4.5	
Retaining Walls	NW4.5	
Concrete on Metal Deck	LW3.5	
3. Concrete Reinforcing		
General Reinforcing	ASTM A615, Gr 60	
Weldable Reinforcing	ASTM A706, Gr 60	
Welded Wire Reinforcing	ASTM A185, In Flat Sheets	
4. Masonry Construction		
Concrete Masonry Units	ASTM C90, 3ksi, LW	
Masonry Mortar	ASTM C270, Type S	
Masonry Grout	ASTM C476, 3ksi, Fine	
Joint Reinforcing	ASTM A951	
5. Steel Shapes		
Wide Flanged Members	ASTM A992, Fy = 50ksi	
Angles	ASTM A36, Fy = 36ksi	
Channels	ASTM A36, Fy = 36ksi	
Plates & Bars (General)	ASTM A36, Fy = 36ksi	
Plates & Bars (Moment Connections)	ASTM A572, Fy = 50ksi	
Hollow Structural Sections (Rectangular)	ASTM A600, Gr C, Fy = 50ksi	
Hollow Structural Section (Circular)	ASTM A600, Gr B, Fy = 42ksi	
Miscellaneous Pipe	ASTM A53, Fy = 35ksi	
6. Steel Decking		
Composite Metal Decking	ASTM A653SQ, Gr 33, Galvanized	
Roof Decking	ASTM A653SQ, Gr 33, Galvanized	
7. Steel Connectors		
Headed Shear Studs	ASTM A108, 1015, or 1020	
Bolts (Framing Member)	ASTM A325-N	
Bolts (Framing Member)	ASTM F1852	
Tension Rods	ASTM A364, Gr BC	
Anchor Rods	ASTM F1554, Gr 55, Welded	
Weld Electrodes (General)	E70xx Electrode, CVN = 20, E60xx	
Weld Electrodes (Decking to Framing)	E70xx, E60xx	

ABBREVIATIONS

ACI	American Concrete Institute	JT	Joint
AFF	Above Finished Floor	LB. #	Pound or Pounds
AISC	American Institute of Steel Construction	LLV	Long Leg Vertical
AISI	American Iron and Steel Institute	LW	Lightweight
AITC	American Institute of Timber Construction	MANUF	Manufacturer
AR	Anchor Rod	MAT	Material
ARCH	Architect, Architectural	MAX	Maximum
ASTM	American Society of Testing and Materials	MC	Moment Connection
AWS	American Welding Society	MECH	Mechanical
B	Bottom	MEP	Mechanical, Electrical, and Plumbing
BLDG	Building	MIN	Minimum
BM	Beam	MISC	Miscellaneous
BOT	Bottom	NIC	Not in Contract
BRG	Bearing	NOM	Nominal
C/C	Center to Center	NS	Near Side
CIP	Cast-in-Place	NTS	Not to Scale
CJ	Control Joint	OC	Over Center
CL	Center Line	OD	Outside Diameter
CLR	Clear	OH	Opposite Hand
CMU	Concrete Masonry Units	O/O	Over/Out
COL	Column	PC	Pilecap
CONC	Concrete	PCI	Precast Concrete Institute
CONST	Construction	PSF	Pounds Per Square Foot
CONT	Continuous	PSI	Pounds Per Square Inch
D	Deep	R	Radius
DET	Detail	RD	Roof Deck
DIA, Ø	Diameter	REINF	Reinforcing or Reinforcement
DIM	Dimension	SCH	Schedule
DRG	Drawing	SIM	Similar
EA	Each	SOG	Slab-on-Grade
EE	Each Edge	T	Top
EF	Each Face	ToS	Top of Steel
ES	Each Side	ToSL	Top of Slab
EW	Each Way	TYP	Typical
EJ	Expansion Joint	VIF	Verify in Field
ELEV	Elevation	W	With
EMBED	Embedment	WWR	Welded Wire Reinforcement
EOD	Edge of Deck		
EoS	Edge of Slab		
EQ	Equal		
EX	Existing		
EXP	Expansion		
FND	Foundation		
FS	Far Side		
FT	Foot or Feet		
FTG	Footing		
GA	Gage		
GALV	Galvanized		
GB	Grade Beam		
H	Height or Horizontal		
HORIZ	Horizontal		
ID	Inside Diameter		
IN	Inch or Inches		
INFO	Information		
INT	Interior		

These drawings are instruments of service and as such remain the property of the engineer. No copies or reproductions of these drawings are permitted without the consent of the engineer. Upon completion of the work all the drawings (except the contract copies) are to be returned to the engineer.
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GENERAL NOTES

ABC STORE HOLLOWAY STREET

ABC STORE RENOVATIONS

1928 HOLLOWAY ST. DURHAM, NC

PROJECT NUMBER: 1904501



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Revisions	
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