1. STEEL CONSTRUCTION: THE SPECIAL INSPECTIONS AND NONDESTRUCTIVE TESTING OF STEEL CONSTRUCTION IN BUILDINGS, STRUCTURES, AND PORTIONS THEREOF SHALL

- STRUCTURAL STEEL: SPECIAL INSPECTIONS AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN BUILDINGS, STRUCTURES AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.
- COLD-FORMED STEEL DECK: SPECIAL INSPECTIONS AND QUALIFICATION OF WELDING SPECIAL INSPECTORS FOR COLD-FORMED STEEL FLOOR AND ROOF DECK SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF SDI QA/QC.
- OPEN-WEB STEEL JOISTS AND JOIST GIRDERS: SPECIAL INSPECTIONS OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS IN BUILDINGS, STRUCTURES AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH TABLE 1705.2.3. OF THE 2020 NYS
- COLD-FORMED STEEL TRUSSES SPANNING 60 FEET OR GREATER: WHERE A COLD-FORMED STEEL TRUSS CLEAR SPAN IS 60 FEET OR GREATER, THE SPECIAL INSPECTOR SHALL VERIFY THAT THE TEMPORARY INSTALLATION RESTRAINT/BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS

2.WELDING OF REINFORCING BARS: SPECIAL INSPECTIONS OF WELDING AND QUALIFICATIONS OF SPECIAL INSPECTORS FOR REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF AWS D1.4 FOR SPECIAL INSPECTION AND OF AWS D1.4 FOR SPECIAL INSPECTOR QUALIFICATION.

THE FOLLOWING NOTES AND TABLES SHALL CONSTITUTE THE STATEMENT OD SPECIAL INSPECTIONS REQUIRED IN ACCORDANCE WITH SECTION 1705 OF THE 2020 NYS BUILDING CODE. THE LISTED INSPECTION REQUIREMENTS REPRESENT THE MINIMUM ACCEPTABLE LEVEL OF INSPECTION. WHERE THE BUILDING CODE OR LOCAL JURISDICTION REQUIRES A GRATER LEVEL OF INSPECTION, THOSE REQUIREMENTS SHOULD TAKE PRECEDENCE.

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	COMMENTARY/NOTES AND REFERENCE STANDARDS
A. Special Cases (Add requirements under Part S as necessary)			1705.1.1	Special Inspections and Tests shall be required for proposed work that is, in the opinion of the building official, unusual in its nature.

REQUIRED SPECIAL INSPECTIONS- STEEL CONSTRUCTION- BCNYS REF. 1705.2 STRUCTURAL STEEL - BCNYS REF. 1705.2.1

INSPECTIONS AND TESTS $\mid \bar{S} \mid \underline{S} \mid$

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUO	PERIODIC	BCNYS REFERENCE	COMMENTARY/NOTES AND REFERENCE STANDARDS
a. Inspection tasks prior to welding;			1705.2.1	AISC 360 Table N5.4-1
i. Welding procedure specifications (WPSs) available	X		1705.2.1	AISC 360 Table N5.4-1
ii. Manufacturer certifications for welding consumables available	X		1705.2.1	AISC 360 Table N5.4-1
iii. Material identification (type/grade)		X	1705.2.1	AISC 360 Table N5.4-1
iv. Welder identification system		X	1705.2.1	AISC 360 Table N5.4-1 The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be the low-stress type.
v. Fit up of groove welds (including joint geometry)		X	1705.2.1	AISC 360 Table N5.4-1
vi. Configuration and finish of access holes		X	1705.2.1	AISC 360 Table N5.4-1
vii. Fit-up of fillet welds		X	1705.2.1	AISC 360 Table N5.4-1
viii. Check Welding equipment		X	1705.2.1	AISC 360 Table N5.4-1
b. Inspection Tasks During Welding			1705.2.1	AISC 360 Table N5.4-2
i. Use of qualified welders.		X	1705.2.1	AISC 360 Table N5.4-2
ii. Control and Handling of welding consumables.		X	1705.2.1	AISC 360 Table N5.4-2
iii. No welding over cracked tack welds.		X	1705.2.1	AISC 360 Table N5.4-2
iv. Environmental Conditions		X	1705.2.1	AISC 360 Table N5.4-2
v. Verify WPS followed		X	1705.2.1	AISC 360 Table N5.4-2
vi. Verify Welding Techniques		X	1705.2.1	AISC 360 Table N5.4-2
c. Inspection Tasks after Welding			1705.2.1	AISC 360 Table N5.4-3
i. Welds cleaned		X	1705.2.1	AISC 360 Table N5.4-3
ii. Size, length, and location of welds	X		1705.2.1	AISC 360 Table N5.4-3
iii. Welds meet visual acceptance criteria	X		1705.2.1	AISC 360 Table N5.4-3
iv. Arc strikes	X		1705.2.1	AISC 360 Table N5.4-3
v. K-area	X		1705.2.1	AISC 360 Table N5.4-3 When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75mm) of the weld. AISC 360 Table C-N5.4-3
vi. Backing removed and weld tabs removed (if required)	X		1705.2.1	AISC 360 Table N5.4-3
vii. Repair activities	X		1705.2.1	AISC 360 Table N5.4-3
viii. Document acceptance or rejection of welded joint or member	X		1705.2.1	AISC 360 Table N5.4-3
d. Inspection Tasks Prior to Bolting			1705.2.1	AISC 360 Table N5.4-6
i. Manufacturer's certification available for fastener materials	X		1705.2.1	AISC 360 Table N5.4-6
ii. Fasteners marked in accordance with ASTM requirements		X	1705.2.1	AISC 360 Table N5.4-6

REQUIRED SPECIAL INSPECTIONS- STEEL CONSTRUCTION- BCNYS REF. 1705
STRUCTURAL STRUCTURAL STEEL - BCNYS REF. 1705.2.1

STRUCTURALS	SIKU	CIUI	(AL STEEL - BO	CNYS REF. 1/03.2.1	COLD-FORMI	ED 81
INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	COMMENTARY/NOTES AND REFERENCE STANDARDS	INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS
iii. Proper fasteners selected		X	1705.2.1	AISC 360 Table N5.4-6	iv. Verify WPS followed.	
for the joint detail (grade, type, bolt length if threads			1703.2.1		e. Inspection or Execution Tasks after Welding	
are to be excluded from shear plane)					 i. Verify size and location of welds, including support, sidelap, and perimeter welds. 	X
iv. Proper bolting procedure selected for joint detail		X	1705.2.1	AISC 360 Table N5.6-1	ii. Welds meet visual acceptance criteria.	X
v. Connecting elements,		X	1705.2.1	AISC 360 Table N5.6-1	iii. Verify repair activities.	X
including the appropriate faying surface condition and hole preparation, if specified,			1,00.2.1	11120 300 14010 1	iv. Document acceptance or rejection of welds.	X
meet applicable requirements.					f. Inspection or Execution Tasks prior to Mechanical	
vi. Pre-installation verification testing by		X	1705.2.1	AISC 360 Table N5.6-1	Fastening i. Manufacturer installation	
installation personnel observed and documented for					instructions available for mechanical fasteners.	
fastener assemblies and methods used.					ii. Proper tools available for fastener installation.	
vii. Proper storage provided for bolts, nuts, washers and other fastener components.		X	1705.2.1	AISC 360 Table N5.6-1	iii. Proper storage for mechanical fasteners.	
e. Inspection Tasks During			1705.2.1		g. Inspection or Execution Tasks during Mechanical	
Bolting			1705.2.1	AISC 360 Table N5.6-2	Fastening	
i. Fastener assemblies, of suitable condition, placed in		X	1705.2.1	AISC 360 Table N5.6-2	i. Fasteners are positioned as required.	
all holes and washers (if required) are positioned as required.					ii. Fasteners are installed in accordance with manufacturer's instructions.	
ii. Joint brought to the snug- tight condition prior to the pretensioning operation.		X	1705.2.1	AISC 360 Table N5.6-2	h. Inspection or Execution Tasks after Mechanical Fastening	
			1505.0.1	AIGG 2/0 T 11 N5 / 2	i. Check spacing, type, and installation of support	X
iii. Fastener component not turned by the wrench prevented from rotating.		X	1705.2.1	AISC 360 Table N5.6-2	fasteners. ii. Check spacing, type, and	37
iv. Fasteners are		X	1705.2.1	AISC 360 Table N5.6-2	installation of sidelap fasteners.	X
pretensioned in accordance with the RCSC Specification, progressing systematically		Λ	1703.2.1		iii. Check spacing, type, and installation of perimeter fasteners.	X
from the most rigid point toward the free edges.					iv. Verify repair activities.	X
f. Inspection Tasks After Bolting			1705.2.1	AISC 360 Table N5.6-3	v. Document acceptance or rejection of mechanical fasteners.	X
i. Document acceptance or rejection of bolted connections.	X		1705.2.1	AISC 360 Table N5.6-3		
g. Inspection of Steel Elements of Composite Construction Prior to			1705.2.1	AISC 360 Table N6-1	REQUIRED SPECIAL INSPEC	
Concrete Placement						CS

AISC 360 Table N6-1

AISC 360 Table N6-1

AISC 360 Table N6-1

REQUIRED SPECIAL INSPECTIONS- STEEL CONSTRUCTION- BCNYS REF. 1705.2

1705.2.1

i. Placement and installation

ii. Placement and installation

of steel headed stud anchors.

iii. Document acceptance or

rejection of steel elements

of steel deck.

temperature).

REQUIRED SPECIAL INSPECTIONS- STEEL CONSTRUCTION- BCNYS REF. 1705.2 COLD-FORMED STEEL DECK- BCNYS REF. 1705.2.2								
INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	COMMENTARY/NOTES AND REFERENCE STANDARDS				
a. Inspection or Execution Tasks prior to Deck Placement	X		1705.2.2	SDI QA/QC Table 1.1				
i. Verify compliance of materials (deck and all deck accessories) with construction documents, including profiles, material properties, and base metal thickness.	X		1705.2.2	SDI QA/QC Table 1.1				
ii. Document acceptance or rejection of deck and deck accessories.	X		1705.2.2	SDI QA/QC Table 1.1				
b. Inspection or Execution Tasks after Deck Placement				SDI QA/QC Table 1.2				
i. Verify compliance of deck and all deck accessories installation with construction documents.	X		1705.2.2	SDI QA/QC Table 1.2				
ii. Verify deck materials are represented by the mill certifications that comply with the construction documents.	X		1705.2.2	SDI QA/QC Table 1.2				
iii. Document acceptance or rejection of installation of deck and deck accessories.	X		1705.2.2	SDI QA/QC Table 1.2 SDI QA/QC Table 1.3				
c. Inspection or Execution Tasks Prior to Welding			1705.2.2					
i. Welding Procedure Specifications (WPS) available.		X	1705.2.2	SDI QA/QC Table 1.3				
ii. Manufacturer certifications for welding consumables available		X	1705.2.2	SDI QA/QC Table 1.3				
iii. Material identification (type/grade).		X	1705.2.2	SDI QA/QC Table 1.3				
iv. Check welding equipment.		X	1705.2.2	SDI QA/QC Table 1.3				
d. Inspection or Execution Tasks during Welding			1705.2.2	SDI QA/QC Table 1.4				
i. Use of qualified welders.		X	1705.2.2	SDI QA/QC Table 1.4				
ii. Control and handling of welding consumables.		X	1705.2.2	SDI QA/QC Table 1.4				
iii. Environmental conditions (wind speed, moisture, temperature).		X	1705.2.2	SDI QA/QC Table 1.4				

REQUIRED SPECIAL INSPECTIONS- STEEL CONSTRUCTION- BCNYS REF. 1705.2 COLD-FORMED STEEL DECK- BCNYS REF. 1705.2.2

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	COMMENTARY/NOTES AND REFERENCE STANDARDS
iv. Verify WPS followed.		X	1705.2.2	SDI QA/QC Table 1.4
e. Inspection or Execution Tasks after Welding			1705.2.2	SDI QA/QC Table 1.5
i. Verify size and location of welds, including support, sidelap, and perimeter welds.	X		1705.2.2	SDI QA/QC Table 1.5
ii. Welds meet visual acceptance criteria.	X		1705.2.2	SDI QA/QC Table 1.5
iii. Verify repair activities.	X		1705.2.2	SDI QA/QC Table 1.5
iv. Document acceptance or rejection of welds.	X		1705.2.2	SDI QA/QC Table 1.5
f. Inspection or Execution Tasks prior to Mechanical Fastening			1705.2.2	SDI QA/QC Table 1.6
i. Manufacturer installation instructions available for mechanical fasteners.		X	1705.2.2	SDI QA/QC Table 1.6
ii. Proper tools available for fastener installation.		X	1705.2.2	SDI QA/QC Table 1.6
iii. Proper storage for mechanical fasteners.		X	1705.2.2	SDI QA/QC Table 1.6
g. Inspection or Execution Tasks during Mechanical Fastening			1705.2.2	SDI QA/QC Table 1.7
i. Fasteners are positioned as required.		X	1705.2.2	SDI QA/QC Table 1.7
ii. Fasteners are installed in accordance with manufacturer's instructions.		X	1705.2.2	SDI QA/QC Table 1.7
h. Inspection or Execution Tasks after Mechanical Fastening			1705.2.2	SDI QA/QC Table 1.8
i. Check spacing, type, and installation of support fasteners.	X		1705.2.2	SDI QA/QC Table 1.8
ii. Check spacing, type, and installation of sidelap fasteners.	X		1705.2.2	SDI QA/QC Table 1.8
iii. Check spacing, type, and installation of perimeter fasteners.	X		1705.2.2	SDI QA/QC Table 1.8
iv. Verify repair activities.	X		1705.2.2	SDI QA/QC Table 1.8
v. Document acceptance or rejection of mechanical fasteners.	X		1705.2.2	SDI QA/QC Table 1.8

IONS- STEEL CONSTRUCTION- BCNYS REF. 1705.2 TS & JOIST GIRDERS - BCNYS REF. 1705.2.3

	INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	COMMENTARY/NOTES AND REFERENCE STANDARDS
	a. Installation of open-web steel joists and joist girders		X	Table 1705.2.3	
	i. End connections – welded or bolted.		X	Table 1705.2.3	SJI Specifications listed in Section 2207.1.
	ii. Bridging – Horizontal or diagonal.		X	Table 1705.2.3	
	a. Standard bridging.		X	Table 1705.2.3	SJI Specifications listed in Section 2207.1.
	b. Bridging that differs from the SJI specifications listed in Section 2207.1		X	Table 1705.2.3	
•	4. Cold-Formed Steel Trusses spanning 60 feet or Greater		X	1705.2.4	The Special Inspector shall verify that the temporary restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal

REQUIRED SPECIAL INSPECTIONS- STEEL CONSTRUCTION- BCNYS REF. 1705.2 CONCRETE CONSTRUCTION - BCNYS REF. 1705.3

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	COMMENTARY/NOTES AND REFERENCE STANDARDS
1. Inspect reinforcement, including prestressing tendons, and verify placement.		X	Table 1705.3	ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3
2 Reinforcing Bar Welding:		X	Table 1705.3 1705.3.1	AWS D1.4, ACI 318: 26.6.4
3. Inspect anchors cast in concrete.		X	Table 1705.3	ACI 318: 17.8.2
4. Inspect anchors post- installed in hardened concrete members.		X	Table 1705.3	
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X		Table 1705.3	ACI 318: 17.8.2.4
b. Mechanical anchors and adhesive anchors not defined in item 4a.		X	Table 1705.3	ACI 318: 17.8.2
5. Verify use of required design mix		X	Table 1705.3	ACI 318: Ch. 19, 26.4.3, 26.4.4
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of concrete.	X		Table 1705.3	ASTM C172, ASTM C31; ACI 318: 26.4, 26.12;
7. Inspect concrete and shotcrete placement for proper application techniques.	X		Table 1705.3	ACI 318: 26.5

REQUIRED SPECIAL INSPECTIONS- STEEL CONSTRUCTION- BCNYS REF. 1705.2 CONCRETE CONSTRUCTION - BCNYS REF. 1705.3

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	COMMENTARY/NOTES AND REFERENCE STANDARDS
8. Verify maintenance of specified curing temperature and techniques.		X	Table 1705.3	ACI 318: 26.5.3-26.5.5
9. Inspect Prestressed concrete for:			Table 1705.3	
a. Application of prestressing forces; and	X		Table 1705.3	ACI 318: 26.10
b. Grouting of bonded prestressing tendons	X		Table 1705.3	ACI 318: 26.10
10. Inspect erection of precast concrete members		X	Table 1705.3	ACI 318: Ch. 26.8
11. Verify in-situ concrete strength, prior to stressing tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.		X	Table 1705.3	ACI 318: 26.11.2
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.		X	Table 1705.3	

REQUIRED SPECIAL INSPECTIONS- STEEL CONSTRUCTION- BCNYS REF. 1705.2 MASONRY CONSTRUCTION - BCNYS REF. 1705.4

BCNYS

REFERENCE

COMMENTARY/NOTES

AND REFERENCE

STANDARDS

INSPECTIONS AND TESTS

(Continuous & Periodic is

as defined by the BCNYS)

	CON	PER	
Quality Assurance: Minimum Special Inspections			
Verify compliance with the approved submittals.		X	ACI 530/ ASCE 5/TMS 402 and ACI 530.1/ ASCE 6/TMS 602 Ch. 3
2. Verify that the following are in compliance:			TMS 402/ACI530/ASCE6
2a. Proportions of site mixed mortar, grout and prestressing grout for bonded tendons.		X	TMS 402/ACI530/ASCE6
2b. Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages.		X	TMS 402/ACI530/ASCE6
2c. Placement of masonry units and construction of mortar joints.		X	TMS 402/ACI530/ASCE6
2d. Placement of reinforcement, connectors, and prestressing tendons and anchorages.	X		TMS 402/ACI530/ASCE6
2e. Grout spacing prior to grouting.	X		TMS 402/ACI530/ASCE6
2f. Placement of grout and prestressing grout for bonded tendons.	X		TMS 402/ACI530/ASCE6
2g. Size and location of structural elements.		X	TMS 402/ACI530/ASCE6
2h. Type, size, and location of anchors including other details of anchorage of masonry to structural members, frames, or other construction.	X		TMS 402/ACI530/ASCE6
2i. Welding of reinforcement.	X		TMS 402/ACI530/ASCE6
2j. Preparation, construction, and protection of masonry during cold weather (temperature below 40dF) or hot weather (temperature above 90dF).		X	TMS 402/ACI530/ASCE6
Minimum Tests			
1. Verification of f'm and f'AAC in accordance with Specification Article 1.4B prior to construction and for every 5,000sf during construction.			TMS 402/ACI530/ASCE6
2. Verification of proportions of materials in premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout, as delivered to the project site.			TMS 402/ACI530/ASCE6
3. Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Specification Article 1.5B.1.b.3 for self-consolidating grout.			TMS 402/ACI530/ASCE6

REQUIRED SPECIAL INSPECTIONS- STEEL CONSTRUCTION- BCNYS REF. 1705.2

	SOII	SOILS - BCNYS REF. 1705.6											
	INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	COMMENTARY/NOTES AND REFERENCE STANDARDS								
	1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		X	1705.6									
•	2. Verify excavations are extended to proper depth and have reached proper material.		X	1705.6									
	3. Perform classification and testing of compacted fill materials.		X	1705.6									
	4. Verify use of proper materials, densities and lift thickness during placement and compaction of compacted fill.		X	1705.6									
	5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.		X	1705.6									

FOUNDATION NOTES:

1. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR STRUCTURAL FILL AS DETAILED IN THE GEOTECHNICAL REPORT BY KEVIN L. PATTON, PE, DATED JANUARY 16, 2021, AND SHALL HAVE A MINIMUM COVER OF 48" FOR FROST PROTECTION OR WHERE BEDROCK ENCOUNTERED LESS THAN 48" DEEP, SHALL BE PINNED TO BEDROCK WITH 3/4"Ø STEEL DOWELS AT 6' O.C. MAX. UNDER WALL FOOTINGS, AND AT LEAST (6) ¾"Ø DOWELS AT COLUMN FOOTINGS. DOWELS SHALL EXTEND AT LEAST 12" INTO SOUND BEDROCK.

2. REINFORCING BARS SHALL BE GRADE 60 DEFORMED TYPE.

3 FOOTING DRAINS SHALL BE PROVIDED AROUND THE PERIMETER OF THE FOUNDATION AND SHALL BE BROUGHT TO DAYLIGHT OR TIED TO THE SITE DRAINAGE SYSTEM.

4. THE OWNER AND CONTRACTOR SHALL VERIFY ALL DIMENSIONS SHOWN

5. THIS DESIGN IS BASED ON SOIL BEARING CAPACITY TAKEN FOR THE GEOTECHNICAL REPORT MENTIONED IN NOTE 1.

6. STEPPED FOOTINGS, IF REQUIRED, SHALL NOT CREATE A SLOPE GREATER THAN 2 HORIZONTAL TO 1 VERTICAL, WITH A MAXIMUM VERTICAL RISE

7. BEFORE ANY CONCRETE IS POURED IN ANY FORMS, INSPECTION IS REQUIRED BY THE BUILDING DEPT.

8. THE CONTRACTOR SHALL PROVIDE WATER PROOF CONTRACTION JOINTS IN THE FOUNDATION WALLS AS NEEDED TO MINIMIZE CRACKING WHICH MAY OCCUR DURING CURING OF THE CONCRETE.

9. CONCRETE COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS UNLESS - FOOTING POURED AGAINST EARTH: ...

- SURFACE EXPOSED TO WEATHER OR EARTH:1 ½" - SURFACE NOT EXPOSED TO WEATHER OR EARTH:.....3/4"

10. BACKFILL THE EXCAVATION OUTSIDE THE FOUNDATION WITH SOIL THAT IS FREE OF ORGANIC MATERIAL, CONSTRUCTION DEBRIS, OR COBBLES BOULDERS. BACKFILL SHALL BE PLACED IN LIFTS AND COMPACTED IN A MANNER THAT DOES NOT DAMAGE THE FOUNDATION.

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE OF THE AMERICAN CONCRETE INSTITUTE (ACI 318-14), "RECOMMENDED PRACTICE FOR

CONCRETE FORMWORK". 2. USE AIR-ENTRAINING ADMIXTURE IN ALL CONCRETE, PROVIDING NOT LESS THAN 4% NOR MORE THAN 8% ENTRAINED AIR FOR CONCRETE EXPOSED TO FREEZING AND THAWING, AND FROM 2% TO 4% FOR OTHER CONCRETE. 3. CONCRETE FOR SIDEWAKS, EXTERIOR PADS, STAIRS, ETC. SHALL BE 4500 PSI

STONE CONCRETE ENTRAINED WITH 4% AIR MIN. 4. NO ADMIXTURES ARE PERMITTED IN CONCRETE IF NOT PART OF THE CONCRETE MIX DESIGN.

5. CONCRETE WHEN PLACED SHALL HAVE A TEMPERATURE BETWEEN 50 DEGREES F. AND 70 DEGREES F. TEMPERATURE OF CONCRETE DURING MIXING OR TRANSPORTATION SHALL NEVER BE LOWER THAN 40 DEGREES F. NOR HIGHER THAN 90 DEGREES F.

6. DURING COLD WEATHER (AMBIENT TEMPERATURE BELOW 40 DEGREES F.) BUILDER SHALL MAINTAIN CONCRETE AT A MINIMUM TEMPERATURE OF 50 DEGREES F FOR 3 DAYS AND ABOVE 32 DEGREES F FOR 14 DAYS FOLLOWING ITS PLACEMENT. FOLLOW ACI 306R RECOMMENDATIONS FOR COLD WEATHER CONCRETING.

7. DURING HOT WEATHER (AMBIENT TEMPERATURE ABOVE 80 DEGREES F.) BUILDER SHALL FOLLOW RECOMMENDATIONS FOR HOT WEATHER CONCRETING AS DESCRIBED IN ACI 305R AS REQUIRED TO MINIMIZE TEMPERATURE AND SHRINKAGE CRACKING OF CONCRETE.

8. CONCRETE SHALL BE CONVEYED AND DEPOSITED IN ACCORDANCE WITH RECOMMENDATIONS OF ACI 304. 9. REINFORCEMENT SHALL NOT BE DISPLACED OR CUT TO PROVIDE

CLEARANCE FOR PENETRATIONS, INSERTS, OR EMBEDMENTS. 10. DESIGN, FABRICATION, INSTALLATION, AND REMOVAL OF CONCRETE FORMWORK IS SOLELY THE RESPONSIBILITY OF BUILDER.

11. CONCRETE, PLACEMENT: COMPLY WITH ACI 304, PLACING CONCRETE, AND ACI 304.2R PLACING CONCRETE BY PUMPING METHOD. 12. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. FOLLOW ACI AND CRSI STANDARDS FOR ACCESSORIES AND SUPPORTS. UNLESS OTHERWISE NOTED, LAP CONTINUOUS BARS, DOWELS, ETC. 24" AT SPLICES.

13. CONCRETE SHALL HAVE THE FOLLOWING MINIMUM ULTIMATE COMPRESSIVE STRENGTHS AT THE END OF 28 DAYS: SLABS ON GRADE: 3,500 PSI 3" SLUMP FOOTINGS: 4,000 PSI 5" SLUMP FOUNDATIONS: 4,000 PSI 4" SLUMP

MASONRY MORTAR: 3,000 PSI TYPE 'M'

COLD-FORMED METAL FRAMING NOTES 1. MINIMUM MEMBER MATERIAL THICKNESS IS 16 GAUGE UNLESS NOTED

2. CUT FRAMING COMPONENTS SQUARELY OR ON AN ANGLE AS REQUIRED TO FIT TIGHTLY WITH FULL BEARING AGAINST ABUTTING MEMBERS. TEMPORARILY BRACE MEMBERS AS REQUIRED PRIOR TO FINAL FASTENING. 3. FIELD CUTTING OF MEMBERS SHALL BE PERFORMED BY SHEARING OR SAWING.

TORCH CUTTING IS NOT ACCEPTABLE. 4. SPLICES ARE NOT PERMITTED IN STUDS, JOISTS, OR OTHER LOAD-CARRYING MEMBERS UNLESS CALCULATIONS AND DETAILS HAVE BEEN SUBMITTED TO ENGINEER FOR REVIEW AND ACCEPTED.

5. WHEN COLD-FORMED STUDS ARE TO BE USED FOR TRUSS, RAFTER, OR HEADER APPLICATIONS, STUDS SHALL BE UN-PUNCHED THROUGH THE WEB. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SPECIFY UN-PUNCHED STUDS WHEN ORDERING MATERIALS.

6. TRUSSES/RAFTERS SHALL BEAR DIRECTLY ABOVE STUDS IN LOAD BEARING WALLS. PROVIDE ADDITIONAL STUDS AS REQUIRED FOR ALIGNMENT WHERE TRUSS SPACING AND STUD SPACING ARE DIFFERENT. 7. FIELD-INSTALLED HOLES ARE NOT PERMITTED IN MEMBERS UNLESS INDICATED

IN DRAWINGS. 8. DO NOT SCREW OR WELD STUDS TO VERTICAL DEFLECTION TRACKS. DO NOT CONNECT SHEATHING TO VERTICAL DEFLECTION TRACKS. PROVIDE GAP IN

SHEATHING TO ACCOMMODATE VERTICAL DEFLECTION. 9. ABUTTING TRACK MEMBERS SHALL BE SPLICED TOGETHER USING A TYPICAL STUD/JOIST SCREWED TO THE TRACK ON BOTH SIDES OF JOINT. BUTT-WELDING IS ALSO ACCEPTABLE. 10. FOR LOAD BEARING CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT

ADEQUATE BRACING IS IN PLACE UNTIL SHEATHING IS ATTACHED TO BOTH STUD FLANGES. DO NOT OVERLOAD STUDS DURING CONSTRUCTION. 11. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ERECTION BRACING. 12. MINIMUM SCREW SPACING AND EDGE DISTANCE IS ¾ INCH UNLESS NOTED

13. THE FOLLOWING SHALL BE USED FOR POWDER-ACTUATED FASTENERS IN STEEL UNLESS NOTED OTHERWISE:

- MINIMUM EDGE DISTANCE = ½ INCH - MINIMUM FASTENER SPACING = 1 INCH

- MINIMUM FASTENER SPACING = 4 INCHES

14. THE FOLLOWING SHALL BE USED FOR POWDER-ACTUATED FASTENERS IN CONCRETE UNLESS NOTED OTHERWISE: - MINIMUM EDGE DISTANCE = 3 INCHES

15. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL". 16. MINIMUM WELD THROAT THICKNESS EOUALS THE BASE METAL THICKNESS OF THE THINNEST CONNECTED MATERIAL UNLESS NOTED OTHERWISE.

STRUCUTRAL STEEL NOTES:

STEEL DETAILING, FABRICATION, AND ERECTION SHALL CONFIRM TO THE LATEST EDITION OF THE AISC SPECIFICATIONS AND CODE.

NON-SHRINK, NON-METALLIC GROUT WITH A 28 DAY STRENGTH OF 5000 PSI SHALL BE USED UNDER BASE PLATES AND SHALL CONFORM TO CORPS OF ENGINEERS CRD-C621, FACTORY PREMIX GROUT. SEE SPECIFICATIONS

FOR TESTING REQUIREMENTS. 3. ENGINEER SHALL BE CONTACTED FOR APPROVAL OF ANY FIELD MODIFICATIONS OF ANCHOR BOLTS OR RODS AND COLUMN BASE PLATES .

4. TEMPORARY BRACING OF STRUCTURAL STEEL ELEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURAL STABILITY SHALL BE MAINTAINED AT ALL TIMES DURING THE ERECTION PROCESS CONTRACTOR MUST PROVIDE NOTIFICATION TO THE ERECTOR THAT, BY TESTING. THE FOUNDATION AND SUPPORTING WALLS HAVE ATTAINED SUFFICIENT STRENGTH TO SUPPORT THE STEEL TO BE ERECTED BEFORE ERECTING STRUCTURAL STEEL.

5. PROVIDE ONE SHOP COAT OF PRIMER (TT-P-636) ON ALL STEEL EXCEPT FOR ITEMS TO BE HOT DIPPED GALVANIZED OR SPRAY FIREPROOFED. DO

NOT PAINT PORTIONS EMBEDDED IN CONCRETE.

6. ALL WELD OPERATORS SHALL BE CURRENTLY AWS QUALIFIED. SHOP CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED. USE 3/16" FILLET WELD MINIMUM (U.O.N.).

8. FIELD CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED AS DETAILED. NO FIELD WELDING OF HOT DIPPED GALVANIZED MEMBERS WILL BE ALLOWED. USE 3/16" FILLET WELD MINIMUM (U.O.N.) 9. DURING THE ERECTION OF STEEL BEAMS AND DIAGONAL BRACING, ALL BOLTING AND FIELD WELDING SHALL BE COMPLETE BEFORE RELEASING

HOISTING CABLES. 10. SUBMIT FOR REVIEW SHOP DRAWINGS OF STEEL DETAILS PRIOR TO

FABRICATING STRUCTURAL STEEL 11. ALL EXTERIOR ELEMENTS AND THOSE ELEMENTS NOTED TO BE GALVANIZED SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER SANDBLAST CLEANING PER SSPC-SP10. USE ASTM A325

WASHERS AND GALVANIZED HEAVY HEX NUTS FOR BOLTING OF GALVANIZED ITEMS.

BOLTS HOT DIPPED GALVANIZED WITH GALVANIZED HARDENED

12. STEEL COLUMNS, BASE PLATES AND ALL STEEL BELOW GRADE SHALL HAVE A MINIMUM 3" CONCRETE COVER PROTECTION.

13. MEMBERS NOTED AS "CONTINUOUS" SHALL BE FULLY WELDED AT ALL BUTT SPLICES OR CONNECTIONS SHALL BE DETAILED TO PROVIDE

CONTINUITY. 14. MATERIALS: W-SHAPES & WT-SHAPES..... ASTM A992

S-SHAPES, M-SHAPES, HP-SHAPES... ... ASTM A36 ST-SHAPES & MT-SHAPES... . ASTM A36 C-SHAPES & MC-SHAPES... . ASTM A36 ANGLES & PLATES... .. ASTM A36 HSS SHAPES... ASTM A500, GRADE B . ASTM A53 (TYPE E OR S), GRADE B STEEL PIPE... HIGH STRENGTH BOLTS. . ASTM A325

MACHINE BOLTS... .. ASTM A307 ANCHOR RODS..... ...ASTM F1554, GRADE 55 TYPE S1(UNO) WELDED HEADED STUDS... .. ASTM A108 DEFORMED BAR ANCHORS... ... ASTM A496

WELDING ELECTRODES.... . AWS D1.1, E70 SERIES

STRUCTURAL DESIGN DATA 1-SNOW LOADS: Pg = 40 lb/sf

Pf = 40 lb/sfPs = 28 lb/sfCe = 1.0 $I_{s} = 1.0$ Cs = 1.0

2- WIND LOADS: V = 115 M.P.H.Iw=1.0

SD1 = 0.076

EXPOSURE: B INTERNAL PRESSURE COEFFICIENT = + 0.18 / - 0.18

3- EARTHQUAKE DESIGN DATA: SEISMIC IMPORTANCE FACTOR Ie = 1.25 MAPPED SPECTRAL RESPONSE ACCEL. Ss = 0.277, S1 = 0.067SITE CLASS : C SDS = 0.222

SEISMIC DESIGN CATEGORY "B" SEISMIC RISK CATEGORY "III"

LOADING/UNLOADING)

4- ROOF LIVE LOAD: 20 lb/sf 5- ROOF MECHANICAL EQ. ALLOWANCE: 5 lb/sf

6- SOIL LOADING DATA: AS DETAILED IN THE GEOTECHNICAL REPORT BY KEVIN L. PATTON, PE, DATED JANUARY 16, 2021.

7- STORE LIVE LOADS: 125lb/sf. (RETAIL AND STORAGE AREAS). 8- RETAINING WALLS LIVE LOAD: 150lb/sf SURCHARGE (FORKLIFT

horized alteration or addition to a plan bearing a licensed engineer's seal is a violation o section 7209, subdivision 2 of the N.Y.S. education

R-1 10-25-2021 KIE KIE Revisions per 10/5/21 MHE review lettei

P&C Project No.: D20-136 Drawn By: Check By: KIE AS SHOWN 25 October 2021

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17. TOUCH-UP WELDS WITH GALVANIZING REPAIR PAINT.

















