GENERAL FOUNDATION/ CONCRETE NOTES

GENERAL:

1. The structure and its several parts have been designed for the in-service loads only. The methods, means, procedures, and sequences of construction are the responsibility of the Contractor. The Contractor shall take all necessary precautions to insure safe working conditions and maintain the integrity of the structure during all stages of construction. The adequacy of the design of temporary bracing, shoring, etc. is the contractor's responsibility.

2. The bracing design for cast-in-place concrete, tilt-up concrete, precast concrete and masonry walls is the complete responsibility of the Contractor. Temporary bracing for walls shall be adequate to resist the forces imposed during construction. Bracing for a wall shall not be removed until all supporting levels or units have been erected and the concrete of the supporting levels has attained the specified compressive strength (F'c). In the case of walls supporting soil, the braces shall additionally remain in place until the backfilling procedures have been completed.

FOUNDATIONS:

1. Foundation excavations shall be made to plan elevations. Foundations are to bear on firm, undisturbed soil. The soil conditions beneath foundations shall then be inspected by a qualified Geotechnical Engineer. Where unacceptable soils occur, excavate and replace with an acceptable engineered fill or lower the bottom of the footing to an acceptable elevation.

2. The foundation design is based on recommendations contained in the soils reports prepared by Dynamic Earth, LLC dated September 1, 2020 and May 26, 2023, along with supplemental Seismic Shear Wave Velocity report dated November 3, 2023.

3. Foundations and soils related work shall be performed in accordance with the geotechnical report and inspected by a qualified Geotechnical Engineer.

4. Design Net Soil Pressures:
   4.1. Spread Footings: 3000 psf
   4.2. Continuous Wall Footings: 3000 psf

5. Foundation conditions noted during construction, which differ from those described in the geotechnical report shall be reported to the Architect, Structural Engineer and Geotechnical Engineer before construction is continued.

CONCRETE:

1. Reinforced concrete has been designed in accordance with "Building Code Requirements for Reinforced Concrete" Chapter 19 of the 2018 IBC & ACI 318-14.

2. Mixing, transporting, and placing of concrete shall conform to the latest edition of the "Specifications for Structural Concrete for Buildings" (ACI 301).

3. Cold and hot weather concreting procedures shall be followed in accordance with ACI 318 sections 5.12 and 5.13, ACI 306R, and ACI 305R.

4. Concrete in the following areas shall consist of natural sand fine aggregate and normal weight coarse aggregates conforming to ASTM C33, Type 1 Portland Cement conforming to ASTM C150, and shall have the following compressive strength (F'c) at 28 days:

   4.1. Footings and Mats: 3,000 psi
   4.2. Slabs-on-Grade: 4,000 psi
   4.3. Retaining Walls and Slabs Exposed to De-icers: 4,500 psi (6% +/- 1% entrained air by volume)
   4.4. Tilt-Wall Panels: 4,000 psi

5. Concrete (flowable fill or lean concrete) used as fill under footings or as backfill behind walls shall consist of natural sand fine aggregate, Type V Portland Cement conforming ASTM C150 (50 pounds minimum), and type C or F Fly Ash, and have a compressive strength (F'c) at 28 days of 75 psi.

6. Slump for pumped concrete shall be measured at point of discharge from pipe.

7. Concrete compressive strength tests shall be performed in accordance with ASTM C39. Copies of the test results shall be forwarded directly to the Structural Engineer. One set of specimens shall be taken for each day's pour of appreciable size and for each 100 cubic yards in accordance with the latest edition of ASTM C31. Each set shall include one specimen tested at 7 days, 2 specimens tested at 28 days and one specimen retained in reserve. This set of test cylinders shall be protected against freezing.

8. Slump tests shall be made prior to the addition of plasticizers. Where concrete is placed by pumping methods, concrete for test cylinders and slump tests shall be taken at the point of final placement.

9. Protect the concrete surface between finishing operations on hot, dry days or any time plastic shrinkage cracks could develop by using ACI recommended procedures. Protect concrete at all times from rain, hail or other injurious effects.

10. Use of construction joints at locations other than those indicated on the drawings shall be submitted to the Structural Engineer for approval.

11. Principal openings in the structure are indicated on the contract documents. Refer to the architectural, mechanical, electrical, and plumbing drawings for sleeves, curbs, inserts, etc. not herein indicated. Openings in slabs with a maximum side dimension or diameter of 10 inches or less shall not require additional framing or reinforcement, unless noted otherwise. The Structural Engineer shall approve the location of sleeves or openings in structural members.

12. The Contractor shall verify the location of sleeves, openings, embedded items, etc. and shall insure that they are in place prior to the placement of the concrete.

13. The Contractor shall submit for review by the Structural Engineer a mix design for each proposed class of concrete. Mix designs shall show weight proportions for components of the mix. The Contractor shall not vary from the mix design without the approval of the Structural Engineer.

CONCRETE SLABS-ON-GRADE:

1. Slabs-on-grade shall be constructed in accordance with the latest edition of the "Guide for Concrete Floor and Slab Construction" (ACI 302.1R).

2. In addition to the specifications noted elsewhere, the normal weight concrete for flatwork shall conform to the following:

   2.1. Minimum Cement Content: 5 sacks / cyd min.
   2.2. Maximum Water Cement Ratio by Weight: 0.48-0.52
   2.3. Maximum Slump Prior to Addition of Plasticizers: 3 inches
   2.4. Maximum Slump if Plasticizers are not used: 4.5" +/- 1"
   2.5. Coarse Aggregate Gradation for slab on grade: ASTM D448 #467
   2.6. Dry Shrinkage for the slab on grade sheel not to exceed 0.04% in 28 days.
   2.7. Minimum cement content shall be 6 sacks/cyd and max w/c ratio shall be 0.43 for Curbs, Sidewalks and Slabs exposed to de-icers.

3. Slabs-on-grade shall be placed to achieve the following minimum tolerances:
   3.0.1. Overall Values: Ff = 60 Fl = 40
   3.0.2. Local Values: Ff = 35 Fl = 25

4. Place concrete in a manner so as to prevent segregation of the mix. Floating and troweling operations shall not occur until the concrete has lost surface water sheen or all free water. Do not sprinkle free cement on the slab surface. Slab to be finished using power trowels.

5. Provide curing of concrete slabs immediately after finishing with Ashford formula or engineer approved equal. Other methods may be used with the Structural Engineer's approval.

6. Subgrade modulus for slab on grade design treated in accordance with the Geotechnical Report: 125 p.c.i.

CONCRETE REINFORCEMENT:

1. Reinforcing bar detailing, fabricating, and placing shall conform to the latest edition of the following standards: "Specifications for Structural Concrete Buildings" (ACI 301) and "ACI Detailing Manual" (SP66).

2. Reinforcing steel shall be deformed bars of new billet steel conforming to ASTM A615 and shall have a minimum yield strength of 60,000 psi.

3. Provide standard bar chairs and spacers as required to maintain concrete protection specified.

4. Welded wire fabric shall be supplied in flat sheets and lapped a minimum of 14 inches.

5. Welded wire fabric in slabs-on-grade shall be placed 2" down from the top of the slab unless otherwise noted. All w.w.f. to be placed on chairs or bricks. Hooking and pulling wire during placement is unacceptable.

6. Unless otherwise shown or noted, splicing of reinforcing bars shall conform to the current ACI 318. Where the length of lap is not shown or noted, provide a Class "B" lap at splices.

7. The Concrete Contractor shall prepare detailed working or shop drawings to enable fabrication, erection and construction of the work in accordance with the drawings and specifications and shall submit one electronic copy (PDF) to the Structural Engineer for approval. These shop drawings will be reviewed for design concepts expressed in the contract documents only. The Contractor shall be responsible for all dimensions, accuracy, and fit of work.

MASONRY:

1. All masonry walls are designed in accordance with allowable stress design method for 5 psf lateral load per the Building Code.

2. Engineered concrete masonry has been designed in accordance with the latest edition of the "Building Code Requirements for Masonry Structures" (ACI 530) by the American Concrete Institute (ACI).

3. Concrete masonry construction shall conform to the latest edition of the "Specification for Masonry Construction" (ACI530.1).

4. Provide special inspections of all masonry construction. (Level 1).

5. Masonry construction shall have a minimum compressive strength (F'm) of 1,500 psi at 28 days.

6. Mortar shall be Type M below grade and Type M or S above grade proportioned in accordance with the latest edition of ASTM C 270 or C 476.

7. Reinforcing steel for bond beams and vertical block cores shall be deformed bars of new billet steel complying with ASTM A 615 and having a minimum yield strength of 60,000 psi.

8. Unless otherwise noted, masonry cores (where specified on drawings) and bond beams shall be filled with concrete meeting the following requirements.

   8.1. Minimum 2,500 psi 28-day compressive strength with 3/4-inch maximum aggregate and 7 inch maximum slump.

9. Unless otherwise noted, provide a steel bearing plate with two 3/8-inch x 6" stud anchors at beam bearings.

10. Bearings for beams, lintels, joists, etc. shall be bond beams or hollow masonry units with cores filled solid with concrete. See drawings for minimum bearing requirements.

11. Provide horizontal wire type reinforcing at every other vertical course.

GROUT:

1. Grout shall be a non-metallic,premixed, non-corrosive, non-staining product containing Portland Cement, silica sands and fluidity improving compounds. Grout shall have a minimum compressive strength (F'c) of 5,000 psi in 28 days.

2. Grout compressive strength tests shall be performed in accordance with the latest edition of ASTM C109.

DESIGN DATA:

1. The structure and its components are designed for loads as defined by the New York State Building Code with Ammendments to the 2018 International Building Code.

2. The roof has been designed for the following loads:

   2.1. Roof Loads
   Dead Load: 15 psf (18 psf @ Office)
   - Roofing Material, Insulation: 2 psf
   - Metal Deck: 2 psf
   - Joists: 3 psf
   - Sprinklers: 3 psf
   - HVAC/Misc.: As Shown on Plan
   - Solar: 5 psf
   - Collateral: 3 psf (Office Areas, See Plan)

   Live Load: 20 psf (Reducible)

   Snow Load (Ground): 30 psf
   Flat Roof Snow Load: 21 psf
   (P_f =30 psf, C_s =1.0, C_e =1.0, Σ=1.0)

3. Rainfall Intensity:
   15 min intensity/100 yr = 6.39 in/hr
   60 min intensity/100 yr = 3.00 in/hr

4. Wind Design Data
   *Basic Wind Speed: 89 mph (Nominal), 114 mph (Ultimate) *
   Wind Importance Factor: 1.00
   *Wind Exposure: C *
   Internal Pressure Coeff: 0.18 +/-

*Components and Cladding Loads: vary with zone and area (Service Loads)

COMPONENTS & CLADDING WALLS

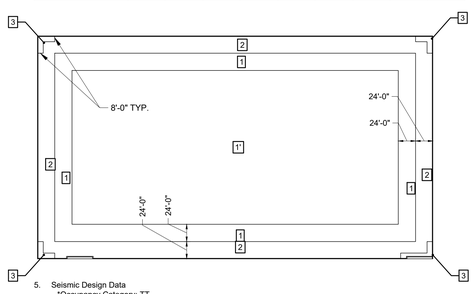
SERVICE LEVEL SURFACE PRESSURES (PSF)

WALL ZONE \ AREA	10 sf	100 sf	200 sf	500 sf	1200 sf
IN FIELD OF WALL	-20.6	-17.8	-17.0	-15.9	-15.9
WITHIN 24-0" OF CORNERS	-25.4	-19.8	-18.1	-15.9	-15.9
POSITIVE ALL AREAS	19.0	16.2	15.4	14.3	14.3

COMPONENTS & CLADDING UPLIFT

SERVICE LEVEL SURFACE PRESSURES (PSF)

ROOF ZONE \ AREA	10 sf	20 sf	50 sf	100 sf	200 sf	350 sf	500 sf	1000 sf	1500 sf
NEGATIVE ZONE 1	-33.1	-30.9	-28.0	-25.9	-23.7	-21.9	-20.8	-20.8	-20.8
NEGATIVE ZONE 1'	-19.0	-19.0	-19.0	-19.0	-16.4	-14.2	-12.9	-10.2	-10.2
NEGATIVE ZONE 2	-43.7	-40.9	-37.1	-34.4	-31.5	-29.3	-27.8	-27.8	-27.8
NEGATIVE ZONE 3	-59.5	-53.9	-46.5	-40.9	-35.3	-30.7	-27.8	-27.8	-27.8
POSITIVE ALL ZONES	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0



5. Seismic Design Data
   *Occupancy Category: II
   *Seismic Importance Factor: 1.00
   *Mapped Spectral Response Accelerations:
   S_S = 28.7% S_1 = 6.10%
   *Soil Site Class: C
   *Design Spectral Response Accelerations:
   S_{DS} = 0.249 S_{D1} = 0.061
   *Seismic Design Category: B
   *Basic Seismic force resisting system:
   Structural steel not specifically detailed for seismic resistance, Ordinary Concrete Shear walls
   *Seismic Response Coefficient: C_s = 0.066
   *Response Modification Factor: R = 3
   *Analysis Procedure:
   Equivalent Lateral Force Procedure

GENERAL STRUCTURAL STEEL NOTES

MISCELLANEOUS:

1. The structure and its several parts have been designed for the in-service loads only. The methods, means, procedures, and sequences of construction shall be responsibility of the Contractor. The Contractor shall take all necessary precautions to insure safe working conditions and maintain the integrity of the structure during all stages of construction. The adequacy of the design of temporary bracing, shoring, etc. is the Contractor's responsibility.

STRUCTURAL STEEL:

1. Structural steel detailing, fabrication and erection shall conform to the AISC Specification for Structural Steel Buildings, latest edition with amendments, and the AISC Code of Standard Practice for Steel Buildings and Bridges, latest edition with amendments.

2. Erector shall maintain adequate temporary bracing in each direction until diaphragm and lateral brace construction is completed.

3. Structural tube steel shall conform to ASTM A 500, Grade C (Fy = 50 ksi).

4. Structural steel rolled shapes, except plates, shall conform to ASTM A 992, Grade 50, unless otherwise noted.

5. Anchor bolts shall conform to ASTM F1154 GR36 or GR 105, unless otherwise noted.

6. Structural steel rolled angles and plates shall conform to ASTM A36, unless otherwise noted.

7. Structural steel shall be shop-painted with a gray rust-inhibiting primer. Steel which will be exposed to weather shall receive one additional finish coat. All abrasions caused by handling after shop painting shall be touched-up after erection is complete.

8. Unless otherwise noted, bolted connections for structural steel members shall be made with 3/4" diameter high strength bolts, conforming to ASTM A325. Except as noted, bolted connections shall be tightened to the snug tight condition. Bolted connections in wind brace elements shall be tightened using the turn-of-nut method. Connections shall conform to the Specification for Structural Joints Using ASTM A325 or A490 Bolts, approved by the Research Council on Structural Connections of the Engineering Foundation.

9. Welding procedures shall conform to the latest edition of the American Welding Society's (AWS) Structural Welding Codes for: Steel ANSI / AWS D1.1, Sheet Steel ANSI / AWS D1.3, and Reinforcing Steel ANSI / AWS D1.4.

10. Splicing of structural steel members where not detailed on the contract documents is prohibited without the prior approval of the Structural Engineer as to location, type of splice and connection to be made.

11. The Structural Steel Contractor shall prepare detailed working or shop drawings to enable him to fabricate, erect and construct all parts of the work in accordance with the drawings and specifications, and shall submit one electronic copy (PDF) to the Structural Engineer for approval. These shop drawings will be reviewed for design concepts expressed in the contract documents only. The Contractor shall be responsible for all dimensions, accuracy, and fit of work.

STEEL DECK:

1. Metal deck shall be installed in accordance with the latest edition of the Steel Deck's Institute's Specifications and Code of Standard Practice.

2. Deck manufacturer shall provide all roof deck accessories, including closures, supplementary framing, and sump pans.

3. Steel roof deck and accessories shall be shop-painted with a rust-inhibiting paint, white on exposed bottom - (G40 min. Galvanized).

4. Steel roof deck to have minimum yield strength of 50 ksi.

5. Roof deck shall be attached to the structural steel in accordance with the details shown in the plans. Welding shall be performed in accordance with the latest edition of the American Welding Society's Structural Welding Code -Sheet Steel ANSI / AWS D1.3.

STEEL JOISTS:

1. Steel bar joists shall be designed, fabricated, erected and braced in accordance with the latest Steel Joist Institute (SJI) specifications.

2. All bar joists shall be shop painted with a gray, rust-inhibiting primer.

3. Steel joists shall be fabricated in accordance with the design specification shown for each joist on the drawings.

4. Deflection due to live load shall be limited to 1/240 of the joist span.

5. Where bearing depth, length and end anchorages for steel joists are not shown or noted, provide anchorages as required by the SJI specifications.

6. Horizontal bridging and diagonal bridging for steel joists shall be located and designed as required by the SJI specifications. Bridging members shall be connected to the joist chords by welding or other mechanical means. The ends of bridging lines terminating at concrete block walls or steel beams shall be securely anchored thereto at top and bottom chords.

7. Hangers and other supports for mechanical, electrical, or plumbing systems shall be located at the intersection of the chord and web members. Concentrated loads in excess of 100 pounds must be reviewed by the Structural Engineer.

8. Where columns are not framed in at least two directions with steel beams, the joist at or nearest each column line shall be bolted to supporting members during erection.

STEEL JOIST GIRDERS:

1. Steel joist girders shall be designed, fabricated, erected and braced in accordance with the latest Steel Joist Institute (SJI) specifications.

2. Joist girders that are part of a moment resistive rigid frame shall be designed for the indicated end moments.

3. All joist girders shall be shop-painted with a gray, rust-inhibiting primer.

4. Joist girders shall be fabricated in accordance with the design specification shown for each joist girder on the drawings. The design specifications follow the form:

   DD G XN TLK

   where DD indicates the maximum joist girder depth, G indicates joist girder type, X indicates the number of joist spaces (equal or unequal) occurring in the joist girder span, and TL indicates the total panel point design load (excluding joist girder self weight) in kips. Where "VG" replaces "G", joist must bear only at vertical joist girder web members. Deflection due to live load shall be limited to 1/240 of the joist girder span.

5. Stabilizer plates shall be provided on the columns between the joist girder bottom chord angles as required by SJI specifications. DO NOT WELD BOTTOM CHORD ANGLES TO STABILIZER PLATES UNLESS NOTED.

6. Where end anchorages for joist girders are not shown or noted, provide anchorages as required by the SJI specifications.

7. Joist girder bracing shall be as shown on the shop drawings and as required by the joist girder manufacturer.

SPECIAL INSPECTIONS

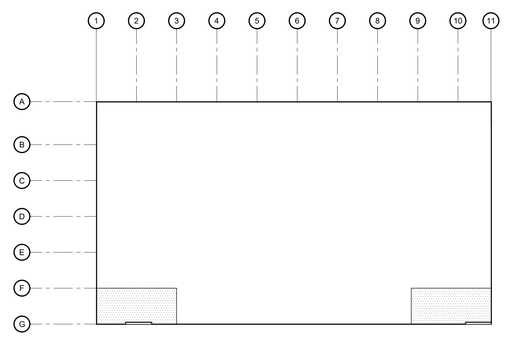
ALL INSPECTIONS, TESTINGS AND VERIFICATIONS SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE 2018 IBC.

	FREQUENCY	
	CONTINUOUS	PERIODIC
1. SOILS		
A. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X
B. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X
C. PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS		X
D. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL	X	
E. PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X
2. CONCRETE VERIFICATION AND INSPECTION		
A. INSPECTION OF REINFORCING STEEL AND PLACEMENT		X
B. REINFORCEMENT BAR WELDING B1. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706 B2. INSPECT SINGLE PASS WELDS; MAXIMUM 5/16"		X
C. VERIFYING USE OF REQUIRED DESIGN MIX		X
D. SAMPLING FRESH CONCRETE AND PERFORMING SLUMP, AIR CONTENT AND DETERMINING THE TEMPERATURE OF FRESH CONCRETE AT THE TIME OF MAKING SPECIMENS FOR STRENGTH TESTS	X	
E. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	
F. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
G. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO ERECTION OF TILT-UP PANELS		X
H. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF CONCRETE MEMBER BEING FORMED		X
3. SPREAD FOOTINGS AND CONTINUOUS FOOTINGS		
A. INSPECT PLAN DIMENSIONS AND DEPTH		X
B. INSPECT QUANTITY AND SPACING OF BARS		X
C. INSPECT PROPER CLEARANCE TO BARS AT TOP AND BOTTOM IS PROVIDED		X
D. VERIFY PROPER LAPS ARE PROVIDED		X
E. INSPECT FOR PROPER DOWEL EMBEDMENT INTO FOOTING AND EXTENSION ABOVE FOOTING	X	
F. INSPECT FOR CORNER BARS, STEP BARS, DOWELS, ANCHOR BOLTS, OR EMBEDDED MATERIAL		X
G. VERIFY SOILS ENGINEER HAS APPROVED DESIGN BEARING CAPACITY	X	
H. VERIFY THAT ALL LOOSE MATERIAL IS REMOVED FROM BOTTOM OF FOOTING, NO SIDE FORMING IS PERMITTED		X
I. INSPECT BOLTS TO BE INSTALLED IN FOOTINGS PRIOR TO AND DURING CONCRETE PLACEMENT		X
4. CONCRETE TILT-UP WALLS		
A. INSPECT DOWEL LENGTH AND OFFSET REQUIREMENTS		X
B. INSPECT TIE ARRANGEMENT AND SPACING		X
C. INSPECT HORIZONTAL REINFORCING AND LAPS		X
D. INSPECT PROPER CLEARANCE TO BARS ARE AS REQUIRED		X
E. CHECK NUMBER AND SIZE OF BARS. CHECK SPACING AND EXTENSION OF BARS		X
F. INSPECT OF EMBEDDED ITEMS	X	
G. ERECTION OF TILT-UP WALLS		X
5. MASONRY VERIFICATION AND INSPECTION (ACI 530/ASCE 5/TMS 402) (ACI 530.1/ASCE 6/TMS 602)		
A. PROPORTIONS OF SITE PREPARED MORTAR		X
B. CONSTRUCTION OF MORTAR JOINTS		X
C. LOCATION OF REINFORCING		X
D. SPECIFIED SIZE AND GRADE OF REINFORCEMENT		X
E. PROTECTION OF MASONRY DURING HOT AND COLD WEATHER		X
F. GROUT SPACE IS CLEAN		X
G. PLACEMENT OF REINFORCEMENT		X
H. WELDING OF REINFORCEMENT	X	
I. GROUT PLACEMENT	X	
J. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS, AND OR PRISMS.		X
6. STRUCTURAL STEEL - AISC 360 - CHAPTER N		
A. MATERIAL VERIFICATION OF STEEL MEMBERS, HIGH STRENGTH BOLTS, NUTS, WASHERS, AND WELD MATERIAL. A1. OBTAIN MANUFACTURE'S CERTIFICATE OF COMPLIANCE AND MILL TEST REPORTS		X
B. CHECK ANCHOR BOLTS AND GROUTING OF BASE PLATES		X
C. INSPECT COMPLETE PENETRATION OF GROOVE WELDS (ULTRASONIC 25%)	X	
D. INSPECT COMPLETE PENETRATION OF GROOVE WELDS (VISUAL REMAINDER)	X	
E. INSPECT COMPLETE PENETRATION OF MULTI-PASS FILLET WELDS	X	
F. INSPECT COMPLETE PENETRATION OF SINGLE PASS FILLET WELDS > 5/16		X
G. INSPECT COMPLETE PENETRATION OF SINGLE PASS FILLET WELDS = OR < 5/16		X
H. INSPECT HIGH-STRENGHT BOLTING H1. BEARING CONNECTION H2. SLIP-CRITICAL CONNECTION		X
I. INSPECT ALL JOISTS ARE WELDED DOWN OR CONNECTED TO STEEL PER SJI SPECIFICATION		X
J. INSPECT ALL BRIDGING, "X" BRIDGING, AND MISCELLANEOUS STEEL IS IN PLACE PER SJI SPECIFICATION		X
K. INSPECT THAT FIELD WELDED AREAS ARE PAINTED		X
L. INSPECT WELDED CONNECTIONS TO EMBEDDED PLATES IN TILT-UP PANELS	X	
M. INSPECT THAT METAL DECK IS ATTACHED AS CALLED FOR ON DRAWINGS		X
N. INSPECT THAT PROPER BEARING IS PROVIDED FOR JOISTS, JOIST GIRDERS AND BEAMS ON STEEL OR CONCRETE		X
O. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS: O1. MEMBER LOCATIONS O2. APPLICATION OF JOINT DETAILS AT EACH CONNECTION O3. BRACING AND STIFFENING DETAIL		X
7. SPECIAL CASES - EPOXY ANCHORS AND EXPANSION BOLTS		
A. INSPECT FOR ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCES, ANCHOR EMBEDMENT AND TIGHTENING TORQUE.		X
B. VERIFY INITIAL INSTALLATION OF EACH ANCHOR TYPE AND SIZE BY CONSTRUCTION PERSONNEL ON SITE. SUBSEQUENT INSTALLATION OF THE SAME ANCHOR TYPE AND SIZE BY THE SAME CONSTRUCTION PERSONNEL SHALL BE PERMITTED TO BE PERFORMED IN THE ABSENCE OF THE SPECIAL INSPECTOR. ANY CHANGES IN THE ANCHOR PRODUCT BEING INSTALLED OR THE PERSONNEL PERFORMING THE INSPECTION SHALL REQUIRED AN INITIAL INSPECTION. FOR ONGOING INSTALLATIONS OVER AN EXTENDED PERIOD OF TIME, THE SPECIAL INSPECTOR SHALL MAKE REGULAR INSPECTIONS TO CONFIRM CORRECT HANDLING AND INSTALLATION.		X

NOTES:
1. REPORTS OF INSPECTIONS, VERIFICATIONS, AND/OR TESTINGS SHALL BE SUMITTED EVERY TWO WEEKS OF LESS AS REQUIRED TO ALLOW FOR TIMELY REVIEW AND FIELD MODIFICATIONS IF ANY ARE REQUIRED.
2. INSPECTIONS DESIGNATED AS CONTINUOUS REQUIRE FULL TIME MONITORING OF THE WORK BY SPECIAL INSPECTOR.
3. INSPECTIONS DESIGNATED AS PERIODIC REQUIRE INTERMITTENT OBSERVATION DURING THE PERFORMANCE OF THE WORK AND A FINAL OBSERVATION UPON THE COMPLETION OF THE WORK BY THE SPECIAL INSPECTOR.

NON-DESTRUCTIVE TESTING

NONDESTRUCTION TESTING OF ALL WELDS IN THE BRACED AND MOMENT FRAME MEMBERS IS REQUIRED AS FOLLOWS:
A. GROOVE WELDS SHALL BE TESTED ON 25% BY ULTRASONIC TESTING, REMAINDER VISUAL.
B. ALL FILLET WELDS SHALL BE VISUALLY INSPECTED.
C. ULTRASONIC TESTING SHALL BE IN ACCORDANCE WITH AWS D1.1-96, PART F.



ROOF DEAD LOAD LAYOUT

SCALE: NONE

15 PSF DL (10 PSF + 5 PSF SOLAR)

18 PSF DL (10 PSF + 5 PSF SOLAR + 3 PSF COLLATERAL)

DESIGNER / BUILDER

ARCO DESIGN/BUILD

44 SOUTH BROADWAY, SUITE 1003
WHITE PLAINS, NY 10601
P: 914.821.5535 F: 914.306.6010

ADB STRUCTURAL ENGINEERING

PROJECT TITLE

ROCKLAND LOGISTICS CENTER BLDG 2

25 OLD MILL RD.
SUFFERN, NY 10901

OWNER
BROOKFIELD PROPERTIES
1 MEADOWLANDS PLAZA, SUITE 802
EAST RUTHERFORD,NJ 07073

ARCHITECT
ADB / DESIGN SERVICES LLC
44 SOUTH BROADWAY, SUITE 1003
WHITE PLAINS, NY 10601

CIVIL ENGINEER
DYNAMIC ENGINEERING CONSULTANTS
1904 MAIN STREET
LAKE COMO, NJ 07719

STRUCTURAL ENGINEER
ADB STRUCTURAL ENGINEERING
325 S. ALABAMA ST , SUITE 200
INDIANAPOLIS, IN 46204

MECHANICAL ENGINEER
NATIONAL DESIGN BUILD SERVICES
11840 BORMAN DRIVE
MARYLAND HEIGHTS, MO 63146

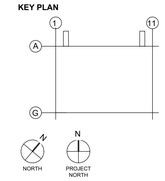
ELECTRICAL ENGINEER
FXB ENGINEERING
5 CHRISTY DRIVE, SUITE 307
CHADDS FORD, PA 19317

PLUMBING ENGINEER
MCCARTHY ENGINEERING
2500 E HIGH STREET, SUITE 630
POTTSTOWN, PA 19464

FIRE PROTECTION ENGINEER
S.A. COMUNALE
2900 NEWPARK DRIVE
BARBERTON, OH 44203

SEAL

KEY PLAN



SUBMITTALS

NO.	DATE	DESCRIPTION
	12-04-23	COORDINATION SET
	12-08-23	75% PROGRESS SET
	01-26-24	90% PROGRESS SET
	02-09-24	PERMIT SET

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SHEET TITLE

GENERAL NOTES

SHEET NO.

S0.1

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