GENERAL REQUIREMENTS:

1. THE GENERAL STRUCTURAL NOTES ARE INTENDED TO AUGMENT THE DRAWINGS AND SPECIFICATIONS. SHOULD CONFLICTS EXIST BETWEEN THE DRAWINGS SPECIFICATIONS AND THE STRUCTURAL NOTES, THE STRICTEST PROVISION SHALL GOVERN.
2. THE STRUCTURES ARE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE, TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION, AND TO PROVIDE TEMPORARY BRACING, GUYS, OR TIE-DOWNS AS NECESSARY FOR COMPLETION OF THE WORK. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE WORK.
3. VERIFY ALL DIMENSIONS WITH THE STRUCTURAL DRAWINGS PRIOR TO FABRICATION OF ANY PIECES. NO CONNECTION OR DIMENSION SHALL BE REVISED OR MODIFIED IN THE FIELD WITHOUT THE WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS AND TO REPORT ANY DISCREPANCIES TO THE ENGINEER OF RECORD.
4. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE STRUCTURAL DRAWINGS WITH MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR LOCATION AND PLACEMENT OF ALL INSERTS, HANGERS, SLEEVES, DUCTWORK OPENINGS ETC. THAT ARE REQUIRED BY THE ARCHITECT AND/OR EQUIPMENT. VERIFY LOCATION OF ALL THE BOX OUTS AND OPENINGS WITH MECHANICAL MECHANICAL CONTRACTORS. OPENING SIZES AND LOCATIONS SHOWN FOR PIPES, DUCTS ETC. WHEN SHOWN, ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED WITH THE MECHANICAL CONTRACTOR BEFORE FORMING.
5. FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
6. ALL CONDITIONS AND DIMENSIONS PERTAINING TO EXISTING UTILITIES AND CONSTRUCTION, AT THE SITE, SHALL BE VERIFIED BY THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK, INCLUDING FABRICATION OF ANY MEMBERS. THIS ASSESSMENT SHALL BE CONDUCTED SUFFICIENTLY IN ADVANCE OF ANY PHASE OF CONSTRUCTION, TO THE MAXIMUM EXTENT POSSIBLE, TO AVOID DELAYS IN THE WORK.
7. EQUIPMENT WEIGHTS AND STRUCTURAL ITEMS IN ANY WAY RELATED TO THE SUPPORT OF EQUIPMENT OR OPENINGS ARE INDICATED FOR INFORMATIONAL PURPOSES ONLY. VERIFY AND COORDINATE SIZE, LOCATION AND QUANTITY OF OPENINGS AND EQUIPMENT WEIGHTS REQUIRED FOR ARCHITECTURAL, MECHANICAL AND ELECTRICAL TRADES. OBTAIN APPROVAL OF AFFECTED TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. CHANGES REQUIRED BY EQUIPMENT IN EXCESS OF THE WEIGHT OR GEOMETRIC ALLOWANCES ARE THE CONTRACTOR'S RESPONSIBILITY.
8. ALL LOADS AND REACTIONS ON DRAWINGS AND IN THESE GENERAL STRUCTURAL NOTES ARE UNFACTORED SERVICE LOADS UNLESS OTHERWISE NOTED. LOAD CASES WHICH INCLUDE COMBINED LOADS SHALL BE CALCULATED IN ACCORDANCE WITH THE MUNICIPAL CODE OF CHICAGO.
9. IN GENERAL, ALL SECTIONS AND DETAILS SHOWN ON THE PLANS ARE INTENDED TO APPLY TO SIMILAR CONDITIONS, UNLESS SPECIFICALLY NOTED.
10. SEE ARCHITECTURAL AND MECHANICAL REQUIREMENTS FOR EMBEDDED ITEMS NOT SHOWN HEREIN AND TO VERIFY SIZE AND LOCATION OF ALL OPENINGS.
11. NO CORE DRILLING SHALL BE ALLOWED WITHOUT APPROVAL BY THE ENGINEER. BEFORE CORE DRILLING ANY HOLES, LOCATE THE REINFORCING STEEL IN EXISTING CONCRETE WITH R-METER. RELOCATE THE HOLE TO AVOID CUTTING ANY REBARS OR POST-TENSIONING TENDONS. DO NOT DRILL HOLES THROUGH EXISTING REBARS UNLESS ACCEPTABLE TO THE STRUCTURAL ENGINEER. DO NOT OVERCUT ANY HOLES.
12. ALL ELEVATIONS INDICATED IN THE STRUCTURAL DRAWINGS ARE REFERENCED TO THE CITY OF CHICAGO DATUM.
13. THE CONTRACTOR IS REQUIRED TO COMPLY WITH ALL CITY, STATE AND FEDERAL REGULATIONS REGARDING AIR, WATER AND NOISE POLLUTION.
14. THE CONTRACTOR IS REQUIRED TO OBTAIN ANY PERMITS AND WRITTEN AUTHORIZATION FROM THE CITY OF CHICAGO, CHICAGO TRANSIT AUTHORITY, IDOT AND OTHER AFFECTED AGENCIES. ALL COSTS AND TIME INCURRED WITH THESE PAYMENTS SHALL BE INCLUDED IN THE CONTRACT.
15. THE CONTRACTOR IS RESPONSIBLE FOR MONITORING ADJACENT BUILDINGS AND STRUCTURES FOR DAMAGE AND MOVEMENT THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH THE SPECIFICATIONS.

DESIGN CRITERIA:

1. REFERENCE STANDARDS:
   MUNICIPAL CODE OF CHICAGO.
   CTA INFRASTRUCTURE DESIGN CRITERIA MANUAL (IDCM), 2013.
   ASCE 7-05, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
2. BUILDING IMPORTANCE CATEGORY II
3. LOADS:
   LIVE LOADS:

PLATFORM LEVEL LIVE LOADS:	100 PSF
STATION LEVEL LIVE LOADS:	100 PSF
ELEVATOR EQUIPMENT ROOM:	200 PSF
ROOF LIVE LOAD:	30 PSF (NON-REDUCIBLE)

4. FUTURE STATION LOADS (GRIDS A.5/12 TO B/16.8)

STATION DEAD LOADS (SELF-WEIGHT + SDL)	100 PSF
STATION LIVE LOADS (SLL)	100 PSF
STATION ROOF DEAD LOADS (RDL)	25 PSF
STATION ROOF LIVE LOADS (RLL)	30 PSF
STATION ROOF SNOW LOADS (RSL)	30 PSF

5. WIND DESIGN CRITERIA:

MWFRS PRESSURE:	30 PSF
COMPONENTS AND CLADDING PRESSURE:	25 PSF (30 PSF @ CORNERS)

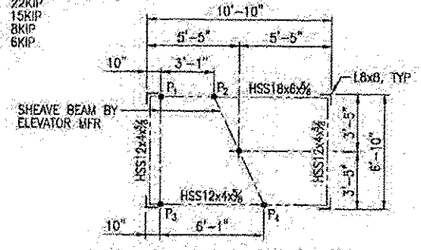
6. SNOW LOADS:

FLAT ROOF SNOW LOAD:	30 PSF
ADDITION SNOW DRIFT LOAD:	25 PSF

7. ELEVATOR DESIGN CRITERIA:
   ELEVATOR TOWER DESIGN IS BASED ON THE LOAD CRITERIA BELOW. ALL LOADS ARE UNFACTORED AND INCLUDE AN 100% IMPACT ADJUSTMENT. IF THE FINAL DESIGN LOADS ARE GREATER THAN 5% OF THE LOADS INDICATED, THEN THE ENGINEER OF RECORD SHALL BE NOTIFIED PRIOR TO FABRICATION.

TYPE:	TRACTION
CAPACITY:	2,500 LB
IMPACT:	100%

   MAXIMUM SHEAVE BEAM REACTIONS:
   P_1= 22KIP
   P_2= 15KIP
   P_3= 8KIP
   P_4= 6KIP



ASSUMED ELEVATOR TOWER LOADING DIAGRAM

8. HSS SUPPORT BEAMS INDICATED ARE DESIGNED TO SUPPORT THE ELEVATOR SHEAVE BEAMS AND ALL VERTICAL GRAVITY AND DYNAMIC LOADING. THE (4) L8x8 ANGLES HAVE BEEN DESIGNED TO TRANSFER THE ELEVATOR VERTICAL LOADS DIRECTLY TO THE MAT FOUNDATION AT THE BOTTOM OF THE ELEVATOR PIT.
9. THE DIMENSIONS INDICATED WERE ASSUMED FOR DESIGN PURPOSES. THE FINAL DIMENSIONS SHALL BE COORDINATED WITH THE DESIGN REQUIREMENTS OF THE ACTUAL ELEVATOR TO BE INSTALLED.

FOUNDATION NOTES:

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED IN THE PROJECT SPECIFIC GEOTECHNICAL REPORT PERFORMED BY WANG ENGINEERING, REPORT NUMBER 1100-04-01 INCLUDING THE TECHNICAL MEMORANDUM DATED AUGUST 23, 2013.
2. DRILLED SHAFTS HAVE BEEN DESIGNED FOR AN ALLOWABLE END-BEARING CAPACITY OF 13,500 PSF IN ACCORDANCE WITH THE GEOTECHNICAL CRITERIA INDICATED IN NOTE 1.
3. CONTRACTOR SHALL PROVIDE THE SERVICES OF AN INDEPENDENT GEOTECHNICAL TESTING AGENCY TO VERIFY THE ASSUMED FOUNDATION ALLOWABLE BEARING CAPACITIES AND FINAL DESIGNS FOR THE PROPOSED DRILLED CAISSONS AND MICROPILES.
4. CONTRACTOR SHALL FOLLOW RECOMMENDATIONS CONTAINED WITHIN THE GEOTECHNICAL REPORT IN PREPARATION OF THE SITE AND BUILDING FOUNDATIONS.
5. PRIOR TO ANY EXCAVATION OPERATIONS, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES OR OTHER SUBSURFACE STRUCTURES WITHIN THE AREA TO BE EXCAVATED.
6. ALL EXCAVATIONS WITHIN 2 FEET OF EXISTING STRUCTURES TO REMAIN SHALL BE REMOVED BY HAND. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR TAKING ADEQUATE PRECAUTIONS NOT TO DAMAGE THE EXISTING INFRASTRUCTURE DURING ALL EXCAVATION, FILL AND COMPACTION OPERATIONS.
7. STORM WATER SHALL BE DIVERTED FROM OPEN EXCAVATIONS.

CAST-IN-PLACE CONCRETE NOTES:

1. REFERENCE STANDARDS:
   EXCEPT AS INDICATED, ALL CONCRETE WORK AND DETAILING, FABRICATION AND PLACING OF REINFORCING SHALL BE GOVERNED BY:
   ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, 2010.
   ACI 305.1, HOT WEATHER CONCRETING, 2006.
   ACI 306, COLD WEATHER CONCRETING, 2010.
   ACI 308.1 SPECIFICATIONS FOR CURING CONCRETE, 2011.
   ACI 315, DETAILS AND DETAILING OF CONCRETE REINFORCEMENT, 2004.
   ACI 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 2011.
2. PROVIDE CONCRETE CONSTRUCTION IN ACCORDANCE WITH IDCM, 2013.
3. MATERIALS:
   ALL FOUNDATIONS, DRILLED SHAFTS AND MICROPILES: f'_c= 4,000 PSI
   ALL CAST-IN-PLACE WALLS, SLABS AND BEAMS: f'_c= 4,000 PSI, AE, UNO
4. CONCRETE COVER REQUIREMENTS:

CONCRETE CAST DIRECTLY AGAINST EARTH:	3 IN
CONCRETE EXPOSED TO EARTH OR WEATHER, BUT CAST AGAINST FORMS:	2 IN

   CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:

SLABS, WALLS, JOISTS:	1 IN
BEAMS, COLUMNS:	1½ IN

5. ALL CONCRETE REINFORCING SHALL BE HOT-DIPPED GALVANIZED.
6. DURING PLACEMENT OF THE CONCRETE SLABS, TAKE ALL NECESSARY STEPS TO AVOID PLASTIC CRACKS DUE TO WEATHER CHANGES. CURE ALL CONCRETE ACCORDING TO ACI 308.1 AND SPECIFICATIONS.
7. CORNER BEND DIAMETERS:

#3 THRU #5:	4D
#9, THRU #11:	5D
#14, #18:	6D

8. WHERE ANY OPENING REQUIRED FOR THE WORK IS NOT INDICATED, OBTAIN APPROVAL FROM THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE WORK.
9. PROVIDE 3/4" CHAMFER ON ALL EXPOSED EDGES OF CONCRETE EXCEPT AS INDICATED.
10. ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES DURING CONCRETE PLACEMENT. REINFORCING SHALL NOT BE SUPPORTED ON BOOSTERS MADE OF CMU OR CONCRETE NOT SPECIFICALLY DESIGNED TO SUPPORT REINFORCING STEEL.
11. NO ALUMINUM OF ANY TYPE SHALL BE ALLOWED IN THE CONCRETE WORK UNLESS COATED TO PREVENT ALUMINUM CONCRETE REACTION. MAXIMUM O.D. OF EMBEDDED CONDUIT SHALL BE NO LARGER THAN ONE-THIRD OF THE SLAB THICKNESS. LOCATED IN THE MIDDLE OF THE SLAB.
12. WALLS AND PILASTERS SHALL BE CAST MONOLITHICALLY. CONTRACTOR SHALL LIMIT LENGTH OF CONTINUOUS WALL PLACEMENT TO 60 FEET.
13. PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE. SPLICE ONLY AS SHOWN OR APPROVED. STAGGER ALL SPLICES. USE CLASS "B" TENSION SPLICE UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH TENSION SPLICES, UNLESS NOTED OTHERWISE. TENSION SPLICE LENGTHS SHALL BE AS FOLLOWS:

GALVANIZED REINFORCING TENSION SPLICE LENGTHS, (IN)

BAR SIZE	CONCRETE STRENGTH, F'c (PSI) CLASS	3,000	4,000	5,000
#4	A	26	23	20
	B	35	30	26
#5	A	34	28	25
	B	44	37	33
#6	A	39	35	31
	B	51	45	41

BAR SIZE	CONCRETE STRENGTH, F'c (PSI) CLASS	3,000	4,000	5,000
#7	A	58	50	45
	B	76	64	58
#8	A	66	57	51
	B	86	74	68
#9	A	74	64	57
	B	96	83	75

14. FOR HORIZONTAL REINFORCING WITH MORE THAN 12" OF CONCRETE BELOW, OR FOR VERTICAL REINFORCING, MULTIPLY THE SPLICE LENGTH INDICATED IN THE TABLE BY 1.3.
15. THE SPLICE LENGTHS INDICATED IN THE TABLE ABOVE ARE IN COMPLIANCE WITH CTA IDCM, 2013.
16. KEY ALL CONSTRUCTION JOINTS.

DEMOLITION:

1. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE MEANS AND METHODS OF DEMOLITION AND THE INTEGRITY AND STABILITY OF THE EXISTING STRUCTURE DURING DEMOLITION UNTIL THE WORK IS COMPLETED. THE CONTRACTOR SHALL PROVIDE SHORING IN REQUIRED LOCATIONS WHERE EXISTING CONSTRUCTION IS TO REMAIN WILL BE AFFECTED BY DEMOLITION.
2. A DEMOLITION PLAN IS TO BE SUBMITTED TO IDOT FOR APPROVAL. DEMOLITION SHALL NOT COMMENCE UNTIL THE CONTRACTOR HAS RECEIVED WRITTEN APPROVAL FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
3. THE EXISTING STRUCTURE IS INDICATED FOR REFERENCE ONLY AND IS TO BE FIELD VERIFIED BY THE CONTRACTOR. THE EXACT EXTENT OF DEMOLITION SHALL BE VERIFIED AT THE SITE. DETERMINE THE NATURE AND EXTENT OF DEMOLITION THAT WILL BE NECESSARY BY COMPARING THE DRAWINGS WITH THE EXISTING CONSTRUCTION. THE CONTRACTOR SHALL USE THESE DRAWINGS IN CONJUNCTION WITH THE ARCHITECTURAL AND MECHANICAL DEMOLITION DRAWINGS. IN THE EVENT OF CONFLICTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY IDOT.
4. THE CONTRACTOR SHALL USE QUALIFIED, EXPERIENCED PERSONNEL FOR DEMOLITION AND REMOVAL OPERATIONS. DEMOLITION AND REMOVAL OPERATIONS SHALL BE PERFORMED IN A CAREFUL AND ORDERLY MANNER TO PREVENT HAZARDS TO PERSONS, DAMAGE TO PROPERTY AND THE SPREADING OF DUST AND/OR DEBRIS USING A VACUUM SYSTEM AND/OR WET METHODS.
5. NO PORTIONS OF THE STRUCTURE SHALL BE PERMITTED TO FALL NOR SHALL ANY DEBRIS BE DROPPED EXCEPT BY METHODS WHICH WILL ENSURE INTEGRITY OF THE STRUCTURE.
6. PRIOR TO THE START OF WORK, VERIFY THAT THE SCOPE OF DEMOLITION INDICATED ON THE DRAWINGS SHALL NOT DAMAGE, CUT OR DISRUPT SERVICE TO ANY MECHANICAL SYSTEM, COMMUNICATION SYSTEM, ELECTRICAL SYSTEM OR UTILITY EMBEDDED IN THE EXISTING STRUCTURE.
7. DO NOT REMOVE MORE OF THE EXISTING STRUCTURE THAN IS INDICATED ON THE DRAWINGS. DO NOT DAMAGE, MAR, CUT OR DEFACE THE REMAINING STRUCTURE TO REMAIN, OR MATERIALS TO BE REUSED.
8. THE CONTRACTOR SHALL INCLUDE IN THEIR BID THE COST OF REMOVING AND LEGALLY DISPOSING OF DEMOLISHED MATERIALS FROM THE SITE IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS.
9. WHERE NEW OPENINGS IN EXISTING CONCRETE SLABS ARE TO BE CREATED, THE DEMOLITION CONTRACTOR SHALL CORE HOLES AT THE OUTSIDE CORNERS OF THE NEW OPENING PRIOR TO DEMOLITION. SAW-CUTTING SHALL BE STRAIGHT AND SHALL NOT EXTEND INTO THE EXISTING REMAINING SLAB OR BEYOND THE HOLES CORED AT THE CORNERS OF THE NEW OPENING.

STRUCTURAL ALUMINUM NOTES:

1. REFERENCE STANDARDS:
   EXCEPT AS INDICATED, ALL DESIGN, FABRICATION AND ERECTION OF STRUCTURAL ALUMINUM SHALL BE GOVERNED BY:
   ALUMINUM ASSOC'S SPECIFICATION FOR ALUMINUM STRUCTURES, 2010.
   AWS D1.2, STRUCTURAL WELDING CODE - ALUMINUM.
2. MATERIALS:

ALUMINUM STRUCTURAL SECTIONS;	6061-T6; F_u= 42KSI, F_y= 35KSI
STAINLESS STEEL BOLTS;	ASTM A193, TYPE 316
STAINLESS STEEL NUTS;	ASTM A194, TYPE 316
STAINLESS STEEL WASHERS;	TYPE 316
STAINLESS STEEL ANCHOR RODS;	ASTM A320, TYPE 316
WELD FILLER MATERIAL;	4043

3. ALL WELDED JOINTS SHALL BE IN ACCORDANCE WITH AWS D1.2. USE ONLY WELDERS CERTIFIED TO WELD ALUMINUM.
4. WHERE THE CONTACT OF DISSIMILAR METALS MAY CAUSE ELECTROLYSIS OR WHERE ALUMINUM WILL COME IN CONTACT WITH CONCRETE, MORTAR OR PLASTER, MILD STEEL OR STAINLESS STEEL, THE ALUMINUM CONTACT SURFACE SHALL BE INSULATED FROM STEEL OR CONCRETE CONSTRUCTION WITH FABRIC REINFORCED ELASTOMERIC OR NEOPRENE MATERIAL.
5. PROVIDE NEOPRENE BUSHINGS AT ALL ALUMINUM BOLTED CONNECTIONS.

STATE OF ILLINOIS
ALBERT F. KALTENTHALER
81-004927
SCHAUMBURG, IL
LICENSED STRUCTURAL ENGINEER

ALBERT F. KALTENTHALER — DATE
LICENSE EXPIRES 11 / 30 / 2014
SHEET RANGE: 192-213

B

USER NAME = MAC	DESIGNED KLT	REVISED B 2/10/2014	
	CHECKED AD	REVISED —	
PLOT SCALE =	DRAWN MAC	REVISED —	
PLOT DATE = 10/28/13	CHECKED KLT	REVISED —	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEORIA STREET STATION
GENERAL NOTES
SHEET NO. S-001 OF 117 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	192
		CONTRACT NO. 60W29		
		ILLINOIS FED. AID PROJECT	FED. AID PROJECT	