DESIGN CRITERIA

1. CODE: INTERNATIONAL BUILDING CODE 2009 WITH WISCONSIN AMENDMENTS / ASCE 7-05
2. FLOOR LIVE LOADS: (REDUCED AS ALLOWED BY THE BUILDING CODE)
   OFFICES: = 50 PSF*
   PUBLIC AREAS: = 100 PSF
   STORAGE (LIGHT): = 125 PSF
   RETAIL AT FIRST FLOOR: = 100 PSF
   * INDICATES 15 PSF PARTITION LOAD IN ADDITION TO LOAD INDICATED

GENERAL REQUIREMENTS

1. CONTRACTOR AGREES THAT CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF THE WORK, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD OWNERAND STRUCTURAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED,IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF OWNER OR STRUCTURAL ENGINEER.
2. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INCLUDE THE METHOD OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT , TEMPORARY STRUCTURES, AND PARTIALLY COMPLETED WORK. OBSERVATION VISITS TO THE SITE BY STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
3. NTRIVE ENGINEERING SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONSTRUCTION MEANS, METHODS TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH ANY CONSTRUCTION ACTIVITIES, SINCE THESE ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY UNDER THE CONTRACT.
4. NTRIVE ENGINEERING SHALL NOT BE RESPONSIBLE FOR CONTRACTOR'S SCHEDULE OR FAILURES TO CARRY OUT ANY CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. NTRIVE ENGINEERING SHALL NOT HAVE CONTROL OVER OR CHARGE OF ACTIONS OF CONTRACTOR, SUB-CONTRACTOR, OR ANY OF THEIR AGENTS, OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING PORTIONS OF ANY CONSTRUCTION ACTIVITIES.
5. THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR.
6. REFERENCE TO STANDARD SPECIFICATIONS OR CODES OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE STANDARDS IN EFFECT AS OF THE DATE OF THE CONTRACT DOCUMENTS, UNLESS OTHERWISE NOTED. CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH
7. STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION.
   NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION OR CODE,
8. WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONTRACT DOCUMENTS, SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF THE OWNER, ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR OR ANY OF THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONTRACT DOCUMENTS, NOR SHALL IT BE EFFECTIVE TO ASSIGN TO STRUCTURAL ENGINEER OR ANY OF STRUCTURAL ENGINEER'S CONSULTANTS, AGENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE IF THE WORK OR ANY DUTY OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONTRACT DOCUMENT.
   ALL OMISSIONS AND CONFLICTS WITHIN THE CONTRACT DOCUMENTS SHALL
9. BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK. WHEN THIS PROCEDURE IS NOT FOLLOWED, THE CONTRACTOR WILL BE RESPONSIBLE FOR CORRECTING IN-PLACE WORK WHEN THE ENGINEER DETERMINES THAT WORK TO BE INADEQUATE. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS AT THE JOB SITE.
10. ANY DISCREPANCIES BETWEEN THE CONDITIONS FOUND AND THOSE INDICATED IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT PRIOR TO PROCEEDING WITH THE WORK. SEE DOCUMENTS FROM OTHER DISCIPLINES FOR FLOOR, WALL, AND ROOF
11. OPENINGS, TRENCHES, PITS, PIPE SLEEVES, EQUIPMENT PADS, METAL PAN STAIRS, MISCELLANEOUS IRON, ETC.
    DO NOT PLACE PIPES, DUCTS, CHASES, ETC. IN STRUCTURAL BEAM AND
12. COLUMN MEMBERS. DO NOT CUT ANY STRUCTURAL MEMBER FOR PIPES, DUCTS, ETC., UNLESS NOTED OTHERWISE. NOTIFY STRUCTURAL ENGINEER WHEN DOCUMENTS BY OTHER DISCIPLINES SHOW OPENINGS, POCKETS, ETC. NOT INDICATED IN THE STRUCTURAL DRAWINGS BUT ARE LOCATED IN THE STRUCTURAL MEMBERS. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM STRUCTURAL ENGINEER FOR INSTALLATION OF SUCH PIPES, DUCTS, CHASES, ETC.
    DETAILS LABELED "TYPICAL" ON THE STRUCTURAL DRAWINGS APPLY TO ALL
13. SITUATIONS OCCURRING ON PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE LOCATIONS SPECIFICALLY INDICATED. WHERE A DETAIL IS NOT INDICATED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR CONDITIONS.

SUBMITTALS

1. SUBMITTALS PREPARED BY SUBCONTRACTORS SHALL BE REVIEWED BY CONTRACTOR PRIOR TO SUBMITTING TO ARCHITECT.
2. NTRIVE ENGINEERING ASSUMES NO RESPONSIBILITY FOR ANY MISUSE, MODIFICATION, OR MISREPRESENTATION OF ANY INFORMATION CONTAINED IN ANY ELECTRONIC MEDIA TRANSFERRED. NTRIVE ENGINEERING SHALL BE HELD HARMLESS FROM ANY AND ALL CLAIMS, SUITS, LIABILITY, DEMANDS, OR COSTS ARISING OUT OF, OR RESULTING FROM THE USE OF SAID DOCUMENT(S). UTILIZATION OF THE ELECTRONIC DOCUMENTS IS AT RECIPIENT'S OWN RISK.
3. ALL SUBMITTALS REVIEWED BY STRUCTURAL ENGINEER ARE REVIEWED FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION INCLUDED IN THE CONTRACT DOCUMENTS. ANY ACTION INDICATED IS SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR CORRELATING PROCESSES AND TECHNIQUES OF CONSTRUCTION, AND COORDINATION OF THE WORK WITH THAT OF OTHER TRADES.
4. ALL SUBMITTALS SHALL BE REVIEWED BY THE ENGINEER FOR COMPLIANCE AND CONFORMANCE TO THE CONTRACT DOCUMENTS. SUBMITTALS SHALL BE REVIEWED AND RETURNED WITHIN THE FOLLOWING PERIOD AFTER BEING RECEIVED BY THE ENGINEER:
   REBAR 10 WORKING DAYS
   CONCRETE MIX DESIGNS 10 WORKING DAYS
5. CONTRACTOR DESIGNED ELEMENTS SHALL BE DESIGNED BY LICENSED PROFESSIONAL ENGINEERS REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, DESIGN LOAD DATA, SUPPORT REACTIONS, AND CERTIFICATION THAT ELEMENTS WERE DESIGNED FOR LOADS SPECIFIED IN THE CONTRACT DOCUMENTS OR IN THE BUILDING CODE. ALL DOCUMENTS NOTED SHALL BE SEALED BY THE LICENSED ENGINEER. IF CRITERIA INDICATED ARE NOT SUFFICIENT, SUBMIT A WRITTEN REQUEST FOR ADDITIONAL INFORMATION TO THE ARCHITECT. THE FOLLOWING ELEMENTS AND THEIR CONNECTIONS SHALL BE CONTRACTOR DESIGNED:
   - STRUCTURAL STEEL CONNECTIONS NOT DETAILED OR SHOWN ON THE DRAWINGS.
   - STEEL STAIRS AND HANDRAILS
   - PREFABRICATED METAL BUILDINGS
   - PRECAST ELEMENTS INCLUDING: FLOOR PLANKS, WALL PANELS, AND COLUMNS
   - STRUCTURAL LIGHT GAUGE FRAMING INCLUDING EXTERIOR WALLS
   - HELICAL PIERS
   - PUSH PILES

FOUNDATIONS

1. ALL FOUNDATIONS SHALL BE SUPPORTED ON APPROVED EXISTING SUBGRADE OR APPROVED COMPACTED STRUCTURAL FILL HAVING A MINIMUM ALLOWABLE BEARING CAPACITY OF 3000 PSF AS INDICATED IN THE GEOTECHNICAL ENGINEERING REPORT AS PREPARED BY GESTRA ENGINEERING, INC. DATED 04/14/2015.
2. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE VALIDITY OF THE SUBSURFACE CONDITIONS DESCRIBED IN THE DRAWINGS, SPECIFICATIONS, TEST BORINGS OR GEOTECHNICAL REPORTS. THIS DATA IS INCLUDED TO ASSIST THE CONTRACTOR DURING BIDDING AND SUBSEQUENT CONSTRUCTION, AND TO REPRESENT CONDITIONS ONLY AT SPECIFIC LOCATIONS AT THE PARTICULAR TIME THE OBSERVATIONS WERE MADE.
3. ALL EXTERIOR FOUNDATIONS SHALL BEAR ON APPROVED SUBGRADE AT MINIMUM DEPTH OF 4'-0" BELOW ADJACENT FINISH EXTERIOR GRADE.
4. FOOTING ELEVATIONS SHOWN ON THE DRAWINGS REPRESENT ESTIMATED DEPTHS AND ARE NOT TO BE CONSTRUED AS LIMITING THE AMOUNT OF EXCAVATION REQUIRED TO REACH SUITABLE BEARING MATERIAL
5. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORTS IN ALL EXCAVATIONS AS REQUIRED TO PREVENT HORIZONTAL MOVEMENT OR VERTICAL SETTLEMENT OF SURROUNDING SOIL AND/OR PROPERTY WHICH WILL ENDANGER LIVES OR PROPERTY.
6. THE CONTRACTOR SHALL PROVIDE CONTROL OF SURFACE AND SUBSURFACE WATER PROMPTLY TO INSURE THAT ALL FOUNDATION WORK IS PERFORMED IN A DRY CONDITION.
7. FOUNDATIONS SHALL NOT BE PLACED ON FROZEN SUBGRADE.
8. THE CONTRACTOR SHALL PROTECT IN-PLACE FOUNDATIONS AND SLABS-ON-GRADE FROM FROST PENETRATION UNTIL THE PROJECT IS COMPLETE.
9. FOUNDATION WALLS SHALL BE BRACED DURING BACKFILLING AND COMPACTION OPERATIONS. BRACING SHALL BE LEFT IN PLACE UNTIL PERMANENT STRUCTURAL SUPPORT SYSTEM IS INSTALLED AND APPROVED BY THE ENGINEER.
10. WHERE FOUNDATION WALLS HAVE FILL ON BOTH SIDES, BACKFILLING SHALL BE DONE SIMULTANEOUSLY ON BOTH SIDES OF THE WALL.

PRE-ENGINEERED METAL BUILDING SYSTEM

1. PRE-ENGINEERED METAL BUILDING WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING:
   A) AISC - "SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STEEL FOR BUILDINGS".
   B) AISC - "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
   C) AWS D1.1 - "STRUCTURAL WELDING CODE -STEEL".
   D) AISC - "STRUCTURAL STEEL DETAILING MANUAL".
   E) MBMA - "METAL BUILDING SYSTEMS MANUAL".
   F) DESIGN LOADS AND CODE AS NOTED ON THESE DRAWINGS.
2. THE PRE-ENGINEERED METAL BUILDING (PEMB) SHALL BE DESIGNED AND FABRICATED BY A MBMA MEMBER MANUFACTURER.
3. THE PEMB MANUFACTURER SHALL PROVIDE STAMPED DRAWINGS AND CALCULATIONS BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION IN WHICH THE BUILDING IS LOCATED.
4. THE PEMB MANUFACTURER SHALL CONFORM TO THE FOLLOWING DEFLECTION CRITERIA:
   A) AISC - "DESIGN GUIDE #3 SERVICEABILITY DESIGN CONSIDERATIONS FOR STEEL BUILDING" UNLESS NOTED OTHERWISE ON THE DRAWINGS.
5. ANCHOR RODS SHALL BE PRESET WITH TEMPLATES.
6. LEVELING PLATES AND BEARING PLATES SHALL BE SET IN A FULL BED OF NON-SHRINK GROUT.
7. THE PEMB MANUFACTURER SHALL BE RESPONSIBLE FOR ALL CONNECTIONS, STIFFENERS ETC. REQUIRED TO SAFELY ERECT THE BUILDING. THE PEMB MANUFACTURER IS REPONSIBLE FOR ANY REQUIRED HOLES SHOWN PASSING THROUGH THE PEMB STEEL ON THE DRAWINGS.
8. THE PEMB MANUFACTURER SHALL PROVIDE FOUNDATION REACTIONS, COLUMN LOCATIONS AND BASE PLATE SIZES TO THE ENGINEER IN A TIMELY MANNER. CHANGES TO, OR OMMISSIONS OF REACTIONS, ETC, BY THE PEMB MANUFACTURER THAT REQUIRE REDESIGN OF THE FOUNDATIONS WILL REQUIRE ADDITIONAL ENGINEERING FEES.
9. ALL WELDS SHALL USE WELD METAL CONFORMING TO E70XX AND CONFORMING TO AWS WELDING PROCEDURES AND STANDARDS.
10. ALL WELDS SHALL BE MADE BY AWS CERTIFIED WELDERS CERTIFIED IN THE POSITION IN WHICH THE WELD IS TO BE MADE.
11. THE ERECTION OF ANY STRUCTURAL STEEL MEMBERS SHALL NOT COMMENCE UNTIL ALL SUPPORTING CONCRETE/MASONRY ELMENTS HAVE ATTAINED AT LEAST 75% OF THEIR INTENDED MINIMUM COMPRESSIVE STRENGTH.
12. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SUPPORTS AS REQUIRED FOR THE SAFE ERECTION OF ALL STEEL. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL PERMANENT BRACING HAS BEEN INSTALLED AND FLOOR SLAB CONCRETE HAS ATTAINED 75% OF ITS REQUIRED STRENGTH.
13. STRUCTURAL STEEL SHALL BE TRUE AND PLUMB BEFORE FINAL BOLTING OR WELDING OF CONNECTIONS.
14. THE CONTRACTOR SHALL NOT MODIFY OR CUT ANY STRUCTURAL STEEL WITHOUT WIRTEN APPROVAL FROM THE ENGINEER OF RECORD AND PEMB MANUFACTURER.
15. THE CONTRACTOR SHALL FIELD TOUCH UP ALL ABRASIONS, BURNS, AND SIMILAR DEFECTS IN PAINT OF STRUCTURAL STEEL.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING STANDARDS:
   A) ACI 301 – "SPECIFICATIONS FOR STRUCTURAL CONCRETE".
   B) ACI MCP – "MANUAL OF CONCRETE PRACTICE".
   C) ACI 318 – "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
   D) ACI 318.1 – "BUILDING CODE REQUIREMENTS FOR STRUCTURAL PLAIN CONCRETE".
2. CONCRETE SHALL HAVE A MINIMUM 28-DAY ULTIMATE COMPRESSIVE STRENGTH AS FOLLOWS:
   A) SLABS-ON-GRADE 4000 PSI
   B) FOOTINGS 3000 PSI
   C) EXTERIOR EXPOSED CONCRETE
   D) PIERS & FROST WALLS
3. ALL CONCRETE EXPOSED TO WEATHER TO BE AIR ENTRAINED WITH 5%- 8% AIR ENTRAINMENT.
4. ALL CONCRETE IS TO BE NORMAL WEIGHT CONCRETE UNLESS NOTED OTHERWISE.
5. ALL CONCRETE FLATWORK EXPOSED TO WEATHER TO BE FREE OF LIGNITE AND OTHER DELETERIOUS MATERIALS.
6. THE COARSE AGGREGATE SHALL BE WELL GRADED #57 STONE WITH A MAXIMUM AGGREGATE SIZE OF 3/4". AGGREGATE FOR SLAB ON GRADE MAY HAVE A MAXIMUM AGGREGATE SIZE OF 1".
7. THE SLUMP OF THE CONCRETE SHALL BE 4". IF A HIGH RANGE WATER REDUCER IS USED THEN THE SLUMP PRIOR TO THE ADDITION OF THE WATER REDUCER SHALL BE 4". THE SLUMP SHALL NOT EXCEED 7" AFTER THE ADDITION OF A HIGH RANGE WATER REDUCER.
8. MINIMUM CEMENTITIOUS REQUIREMENTS:
   A) 3000 PSI CONCRETE: 517 LBS/CU. YD.
   B) 4000 PSI CONCRETE: 564 LBS/CU. YD.
9. MAXIMUM FLYASH CONTENT: 15%
10. MAXIMUM WATER-CEMENT RATIO:
    A) AIR ENTRAINED CONCRETE: 0.45
    B) NON-AIR ENTRAINED CONCRETE: 0.50
11. CONCRETE DESIGN SUBMITTALS SHALL INCLUDE A HISTORY OF BREAKS ACCORDING TO ACI 318.
12. PROTECTION FOR REINFORCING BARS:
    UNFORMED SURFACES IN CONTACT WITH SOIL 3"
    FORMED SURFACES EXPOSED TO SOIL OR WEATHER
    #6 BARS AND LARGER 2"
    #5 BARS AND SMALLER 1 1/2"
    FORMED SURFACES NOT EXPOSED TO SOIL OR WEATHER
    PIERS 1 1/2"
    SLABS
    #11 BARS AND SMALLER 3/4"
13. CONSTRUCTION JOINTS IN WALLS TO BE KEYED AND PLACED AT APPROVED LOCATIONS.
14. ALL COLUMN POCKETS TO BE FILLED WITH CONCRETE AFTER COLUMN IS ERECTED.
15. SLEEVES AND OPENINGS IN BEAMS, JOISTS AND SLABS NOT SHOWN ON STRUCTURAL DRAWINGS ARE NOT PERMITTED, UNLESS APPROVED BY THE ENGINEER.
16. WATERSTOPS
    A) SEE ARCHITECTS DRAWINGS FOR WATERSTOPS.
    B) WATERSTOPS TO BE EXPANDING CLAY (BENTONITE OR EQUAL) UNLESS NOTED OTHERWISE.
    C) PROVIDE WATERSTOPS IN ALL BELOW GRADE FOUNDATION WALL CONSTRUCTION JOINTS.
17. PROVIDE AN ALLOWANCE OF 10 CUBIC YARDS OF ADDITIONAL CONCRETE TO BE USED AS DIRECTED BY THE STRUCTURAL ENGINEER OF RECORD. ALLOWANCES TO INCLUDE ALL DETAILING, SUBMITTALS FABRICATION, DELIVERY, INSTALLATION AND ANY OTHER INCIDENTALS REQUIRED FOR INSTALLATION. MATERIAL NOT USED UPON COMPLETION OF THE JOB SHALL BE CREDITED BACK TO THE OWNER.

CONCRETE JOINTS

1. MAXIMUM SPACING OF CONSTRUCTION AND/OR CONTROL JOINTS IN SLAB-ON-GRADE CONSTRUCTION SHALL BE 12'-0" O.C. JOINTS SHALL BE PLACED TO PRODUCE PANELS THAT ARE AS SQUARE AS POSSIBLE AND NEVER EXCEEDING A LENGTH TO WIDTH RATIO OF 1.5 TO 1.
2. CONSTRUCTION AND/OR CONTROL JOINTS FOR SLAB-ON-GRADE CONSTRUCTION SHALL BE LOCATED ON COLUMN LINES.
3. CONSTRUCTION OR CONTRACTION JOINTS IN CONCRETE FOUNDATION WALLS SHALL BE SPACED AT 20'-0" ON CENTER MAXIMUM.

REINFORCING FOR CONCRETE

1. ALL REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING:
   A) ACI 315 - "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT"
   B) ACI 318 – "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
   C) MSP2 – "CRSI MANUAL OF STANDARD PRACTICE".
   D) AWS D1.4 – "STRUCTURAL WELDING CODE – REINFORCING STEEL".
   E) WRI – "WELDED WIRE FABRIC MANUAL OF STANDARD PRACTICE".
2. STEEL REINFORCING BARS SHALL CONFORM TO ASTM 615 (GRADE 60), 60 KSI YIELD POINT DEFORMED BARS IN ACCORDANCE WITH LATEST ASTM SPECIFICATIONS UNLESS NOTED OTHERWISE.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
4. ALL REINFORCING BARS TO BE DETAILED AND PLACED IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" SPECIFICATIONS. CONTINUOUS BARS TO BE LAPPED.
5. ONLY REBAR CONFORMING TO ASTM A706 REBAR MAY BE WELDED.
6. PROVIDE (2) #5 SUPPORT BARS TO SUPPORT TOP STEEL TO STEEL IN SLABS.
7. PROVIDE (2) #5 DIAGONALS FOR EACH LAYER AT EACH CORNER OF OPENINGS.
8. PROVIDE CORNER BARS IN THE OUTSIDE FACE AND AT WALL JUNCTURES MATCHING HORIZONTAL WALL BARS. USE (3) #5 VERTICAL CONSTRUCTION RODS AT CORNERS.
9. PROVIDE #5@ 12" o.c. HORIZONTAL AND VERTICAL IN EACH FACE OF ALL WALLS, UNLESS NOTED OTHERWISE.
10. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE UNLESS NOTED OTHERWISE.
13. WELDED WIRE FABRIC SHALL LAP A MINIMUM OF 6" AND BE TIED TOGETHER.
14. PROVIDE AN ALLOWANCE OF 1 TON OF ADDITIONAL CONCRETE REINFORCEMENT TO BE USED AS DIRECTED BY THE STRUCTURAL ENGINEER OF RECORD. ALLOWANCES TO INCLUDE ALL DETAILING, SUBMITTALS FABRICATION, DELIVERY, INSTALLATION AND ANY OTHER INCIDENTALS REQUIRED FOR INSTALLATION.

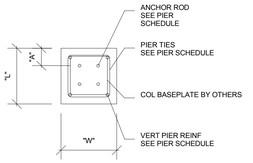
SPECIAL INSPECTIONS

1. SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE BUILDING CODE AND CHAPTER N OF ASC 360-10. (SEE INCLUDED TABLES AND NOTE 4, FOR SPECIAL INSPECTION REQUIREMENTS)
2. SPECIAL INSPECTION REPORTS SHALL BE FURNISHED TO BUILDING OFFICIAL, OWNER, ARCHITECT, STRUCTURAL ENGINEER, AND CONTRACTOR. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR, AND IF NOT CORRECTED, SHALL BE REPORTED TO BUILDING OFFICIAL, OWNER, ARCHITECT, AND STRUCTURAL ENGINEER.
3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING THAT THE STRUCTURAL WORK WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS: (REFER TO THE BUILDING CODE AND SPECIFICATIONS FOR DETAILED INSPECTION REQUIREMENTS.)
   - CONCRETE CONSTRUCTION
   - SOILS
5. NTRIVE IS NOT RESPONSIBLE FOR PERFORMING SAID SPECIAL INSPECTIONS.

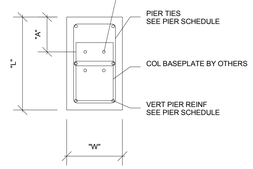
FOOTING SCHEDULE				fs = 3000 psf f'c = 3000 psi	
	SIZE			REINFORCING	
MARK	L	S	D	LONG BARS	SHORT BARS
F5	5'-0"	5'-0"	1'-6"	6 #4	6 #4
F7	7'-0"	7'-0"	2'-0"	8 #5	8 #5
F8	8'-0"	8'-0"	1'-6"	9 #6	9 #6
F10	10'-0"	10'-0"	2'-0"	11 #5	11 #5

PIER SCHEDULE								
MARK	PIER SIZE "W"x"L"	VERTICAL REINF	REINF DETAIL	PIER TIES	ELEV OF TOP OF PIER	ANCHOR BOLT	DIM "A"	REMARKS
P1	12"x12"	(4) #5	1/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) ⅞"□x7½" EMBED	3¾"	-
P2	12"x20"	(6) #5	2/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) ⅞"□x7½" EMBED	7½"	-
P3	18"x21"	(8) #5	3/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) ⅞"□x7½" EMBED	8"	-
P3A	18"x21"	(8) #5	3/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) 1"□x12" EMBED	8"	-
P4	18"x24"	(12) #5	4/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) ⅞"□x7½" EMBED	8"	-
P4A	18"x24"	(12) #5	4/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) 1"□x12" EMBED	8"	-
P5	18"x26"	(12) #5	5/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) ⅞"□x7½" EMBED	8"	-
P6	18"x30"	(12) #5	6/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) 1⅛"□x15" EMBED	8¾"	-
P6A	18"x30"	(12) #5	6/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) 1⅛"□x15" EMBED	12"	-
P7	20"x24"	(12) #5	7/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) ⅞"□x7½" EMBED	8"	-
P8	24"x30"	(14) #5	8/S-100	(3) #3 @ 2" REST #3 @10	99'-0"	(4) 1"□x12" EMBED	12½"	-

NOTE: EXTERIOR FOUNDATION WALLS NOT SHOWN ON TYPICAL PIER DETAILS FOR CLARITY. EXTERIOR FOUNDATION WALLS TO BE SHOWN ON FUTURE DRAWING RELEASES.



1 P1
1" = 1'-0"



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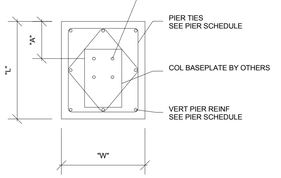

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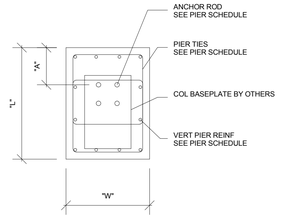

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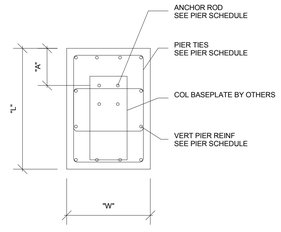

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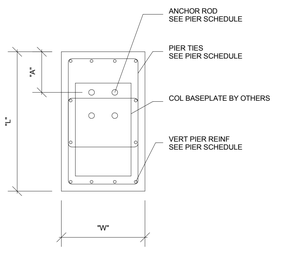
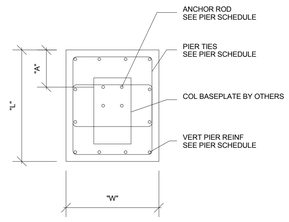
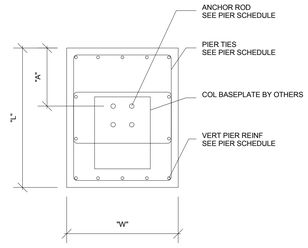


6 P6
1" = 1'-0"



7 P7
1" = 1'-0"



8 P8
1" = 1'-0"

Owner
4860 Highwood Circle
Middleton, Wisconsin 53562
Todd Goldbeck
todd@xcel.net
608-279-6960

General Contractor
Krause Custom Builders
N3897 Duck Creek Rd
Helenville, WI 53137
Toby Krause
tobykrause@gmail.com
920-285-6490

Civil
Lake Country Engineering
970 S. Silver Lake Street, Suite 105
Oconomowoc, WI 53066
Rob Davy robd@lce.biz
(262) 569-933

Landscape
Ground Affects Landscaping, Inc.
W1526 Froelich Rd.
Sullivan, WI 53178
Tom Ball
tom@groundaffectslandscaping.com
262.593.8400

Architect
OpeningDesign
312 W. Lakeside St
Madison, WI 53715*
Ryan Schultz
ryan@openingdesign.com
773-425-6456

Structural
ntrive
1608 S. Ashland Ave., #82002
Chicago, IL 60608
Steven Uecke
s.uecke@ntrive.com
630-480-4120x101

Metal Building Manufacturer
Foremost Buildings, Inc.
895 N Parkway Street
Jefferson WI 53549
Jim Horn
JimH@foremostbuildings.com
920-674-5028

HVAC
Lake Country Heating and Cooling
N6333 Hwy F
Oconomowoc, WI 53066
Jim Shubat
jim@lakecountryhvac.com
414-573-1047

Electrical
Jefferson Current Electric
1473 S. Industrial Ave
Jefferson, WI 53549
Ross Davis
j.current.electric@att.net
920-674-6444

Plumbing
Pelikan Plumbing
144 Main St
Sullivan, WI 53178
Mike Pelikan
pelikanplumbing@yahoo.com
262-593-2290

RYAN P. SCHULTZ
A-11107-5
STOUGHTON WI
ARCHITECT

No.	Description	Date
1	PROGRESS SET	06/05/2015

Xcel Sports Complex

GENERAL NOTES

Date: Issue Date

S-100

Scale: As indicated

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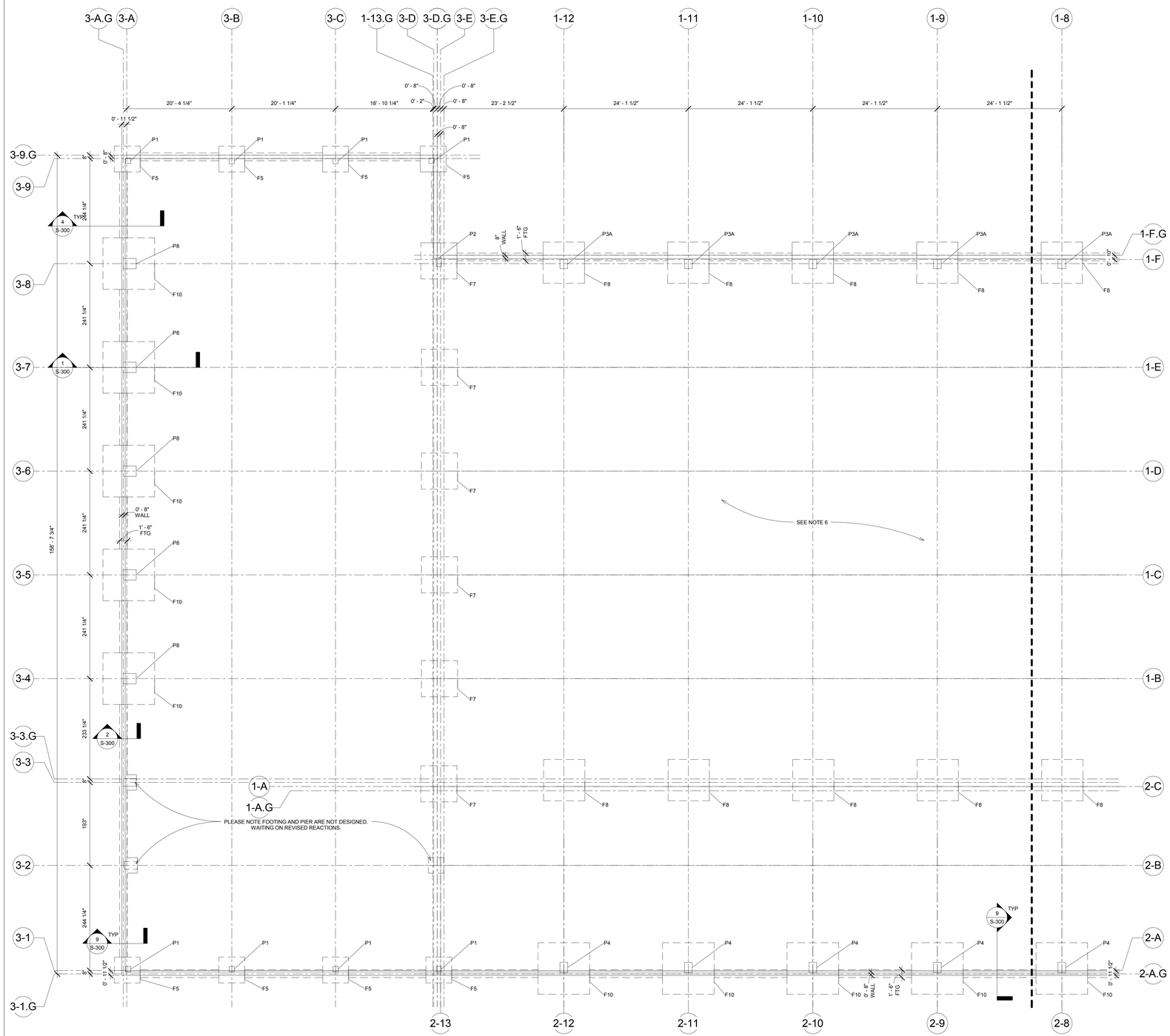

1 FOUNDATION PLAN
1/8" = 1'-0"

SHEET NOTES:

1. SEE SHEET S-100 FOR GENERAL NOTES, ABBREVIATIONS AND SCHEDULES.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH EXISTING CONDITIONS, ARCHITECTURAL, PLUMBING AND MECHANICAL DRAWINGS.
3. FX INDICATES FOOTING. SEE FOOTING SCHEDULE ON SHEET S-100. PX INDICATES CONCRETE PIER. SEE PIER SCHEDULE ON SHEET S-100.
4. T/FOUNDATION WALL ELEVATION = +100'-0" UNLESS NOTED THUS [ ]
5. T/EXTERIOR FOOTING ELEVATION = +96'-6" UNLESS NOTED THUS ( ). T/INTERIOR FOOTING ELEVATION = +99'-0" UNLESS NOTED THUS ( ).
6. TYPICAL SLAB ON GRADE - 6" CONCRETE WITH 6X6 - W2.9XW2.9 WWR ON MIN 10 MIL POLYETHYLENE VAPOR RETARDER ON 6" MIN WELL COMPACTED GRANULAR FILL (PER GEOTECHNICAL REPORT. MAXIMUM PARTICLE SIZE OF 1" CONTAINING NO MORE THAN 5% PASSING 200 SIEVE AND FOLLOW RECOMMENDATIONS OF ACI 302.1 PART 4.1).
T/CONC ELEV=+100'-0".

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Ross Davis
j.current.electric@att.net
920-674-6444

Plumbing
Pelikan Plumbing
144 Main St
Sullivan, WI 53178
Mike Pelikan
pelikanplumbing@yahoo.com
262-593-2290

RYAN P. SCHULTZ A-11197-5 STOUGHTON, WI ARCHITECT

No.	Description	Date
1	PROGRESS SET	06/05/2015

Xcel Sports Complex

FOUNDATION PLAN

Date Issue Date

S-200

Scale 1/8" = 1'-0"

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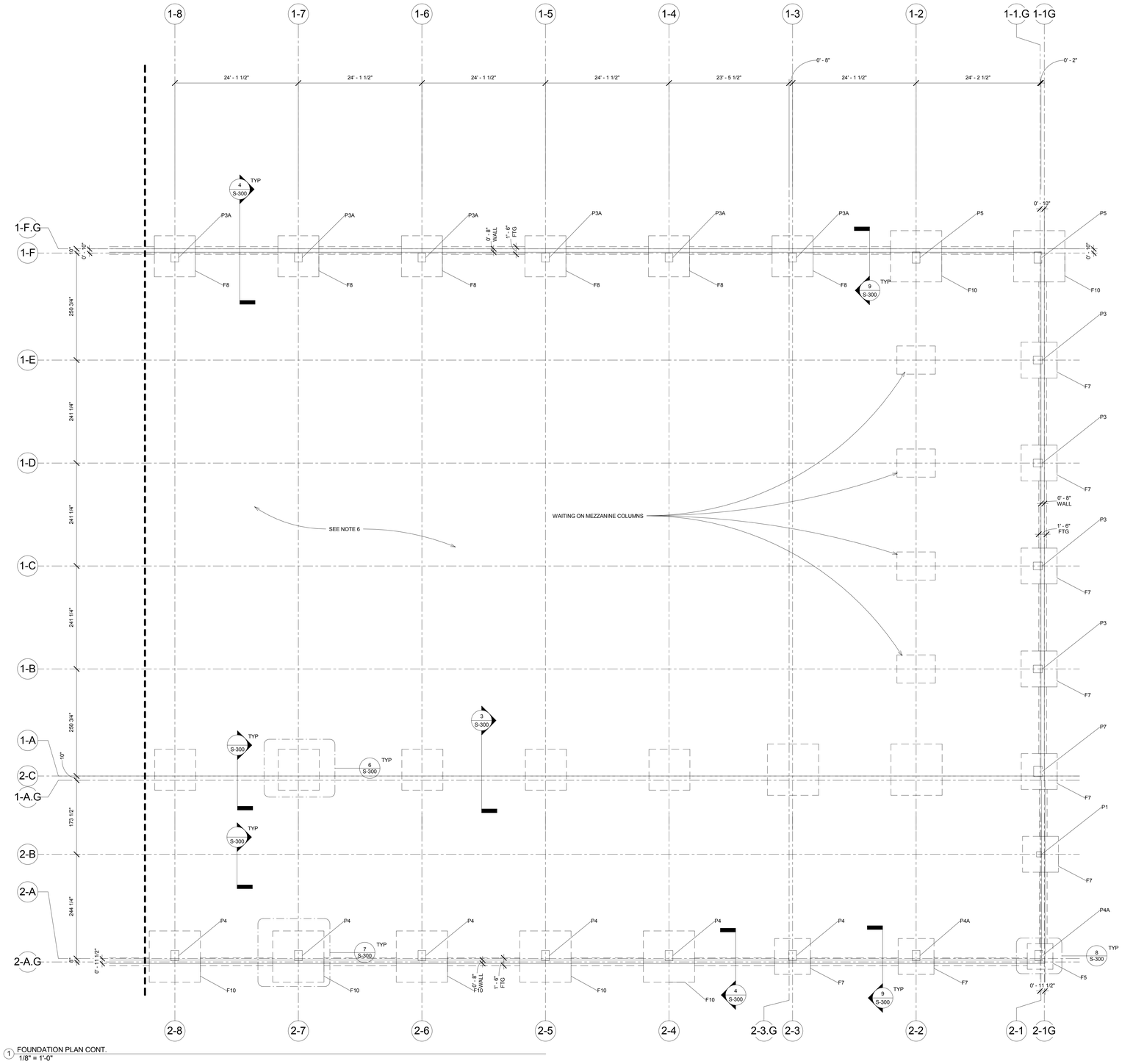

1 FOUNDATION PLAN CONT.
1/8" = 1'-0"

SHEET NOTES:

1. SEE SHEET S-100 FOR GENERAL NOTES, ABBREVIATIONS AND SCHEDULES.
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T/CONC ELEV=+100'-0".

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Rob Davy robd@lce.biz
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Madison, WI 53715*
Ryan Schultz
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Chicago, IL 60608
Steven Uecke
s.uecke@ntrive.com
630-480-4120x101

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Jim Horn
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Oconomowoc, WI 53066
Jim Shuda
jim@lakecountryhvac.com
414-573-1047

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Jefferson Current Electric
1473 S. Industrica Ave
Jefferson, WI 53549
Ross Davis
j.current.electric@att.net
920-674-6444

Plumbing
Pelikan Plumbing
144 Main St
Sullivan, WI 53178
Mike Pelikan
pelikanplumbing@yahoo.com
262-593-2290

RYAN P. SCHULTZ A-11107-5 STOUGHTON WI ARCHITECT

No.	Description	Date
1	PROGRESS SET	06/05/2015

Xcel
Sports Complex

FOUNDATION PLAN CONT.

Date Issue Date

S-201

Scale 1/8" = 1'-0"

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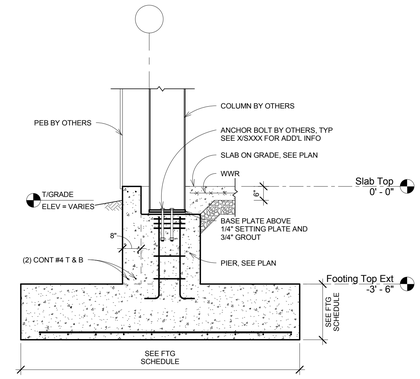
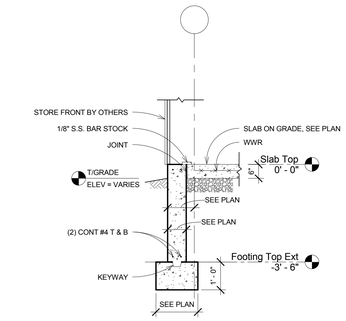
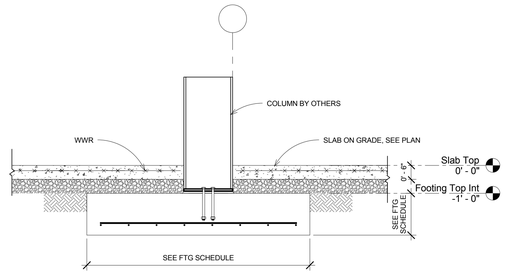


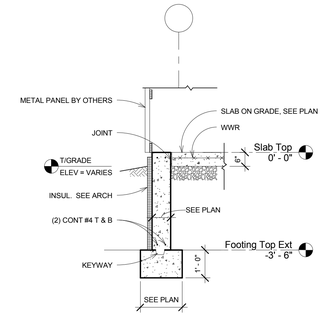
1 TYPICAL SECTION AT COL AT EXT WALL
1/2" = 1'-0"



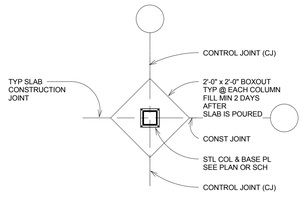
2 TYP FDN SECTION AT STORE FRONT
1/2" = 1'-0"



3 TYP SECTION AT INTERIOR COL
1/2" = 1'-0"

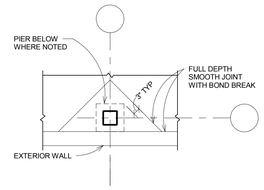


4 TYP SECTION AT FOUNDATION
1/2" = 1'-0"



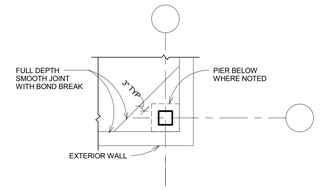
ENGINEER TO VERIFY TYPE
OF COLUMN: TS OR WF

5 TYP CONSTRUCTION JOINT
1/2" = 1'-0"



ENGINEER TO VERIFY TYPE
OF COLUMN: TS OR WF

6 TYP BOX-OUT CENTER
1/2" = 1'-0"



ENGINEER TO VERIFY TYPE
OF COLUMN: TS OR WF

7 TYP BOX-OUT EDGE
1/2" = 1'-0"

ENGINEER TO VERIFY TYPE
OF COLUMN: TS OR WF

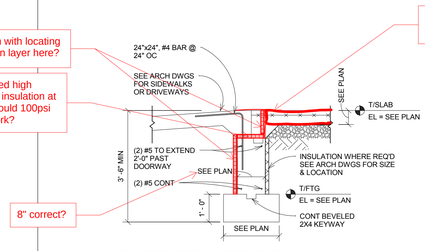
8 TYP BOX-OUT CORNER
1/2" = 1'-0"

any problem with locating the insulation layer here?

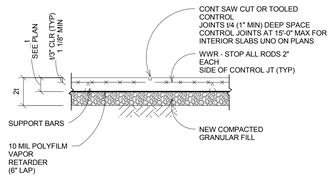
would we need high compressive insulation at this point? would 100psi insulation work?

8" correct?

slab does not bear on frost wall, correct?



9 TYP DOOR SECTION AT FOUNDATION
1/2" = 1'-0"



10 TYP CONTROL JOINT
1/2" = 1'-0"

Owner
4860 Highwood Circle
Middleton, Wisconsin 53562
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todd@xcel.net
608-279-6960

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Rob Davy robd@lce.biz
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Ryan Schultz
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773-425-6456

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Steven Uecke
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Jim Shuda
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A-11107-5
STOUGHTON WI
ARCHITECT

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Xcel Sports Complex

FOUNDATION DETAILS

Date Issue Date

S-300

Scale 1/2" = 1'-0"

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