

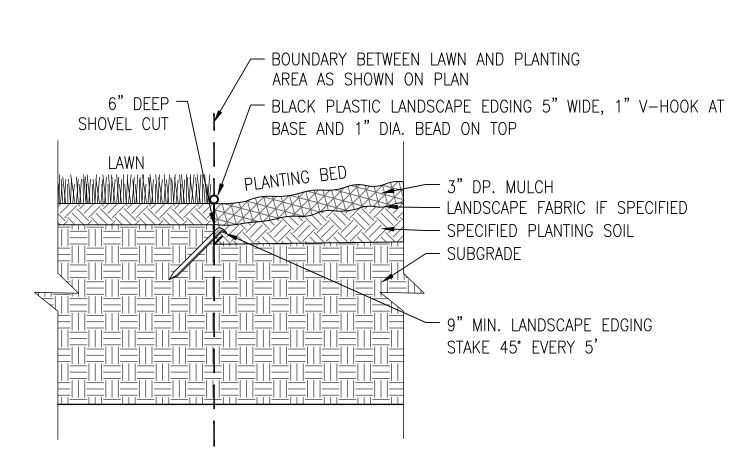
SHRUB BED SPACING (TYP.)

SCALE: N.T.S.

NOTE:

-FOR MULTIPLE PIECES OF EDGING, CONNECT WITH 6" MIN.

PLUG. STAKE EACH SIDE OF THE EDGING 12" MAX FROM THE POINT OF CONNECTION.



POLY EDGER DETAIL

SCALE: N.T.S.

VA FORM 08 - 6231

3' MIN. TO PAVED
SURFACES
3" DEPTH MULCH

DECIDUOUS SHRUB PLANTING (TYP.)

SCALE: N.T.S.

LAWN SURFACE

— PLANTING SOIL

— 3" DEPTH MULCH

INDIVIDUALLY

— PAVED SURFACE,

UNDISTURBED OR

COMPACTED SOIL

OR LAWN

UNDISTURBED OR COMPACTED SOIL

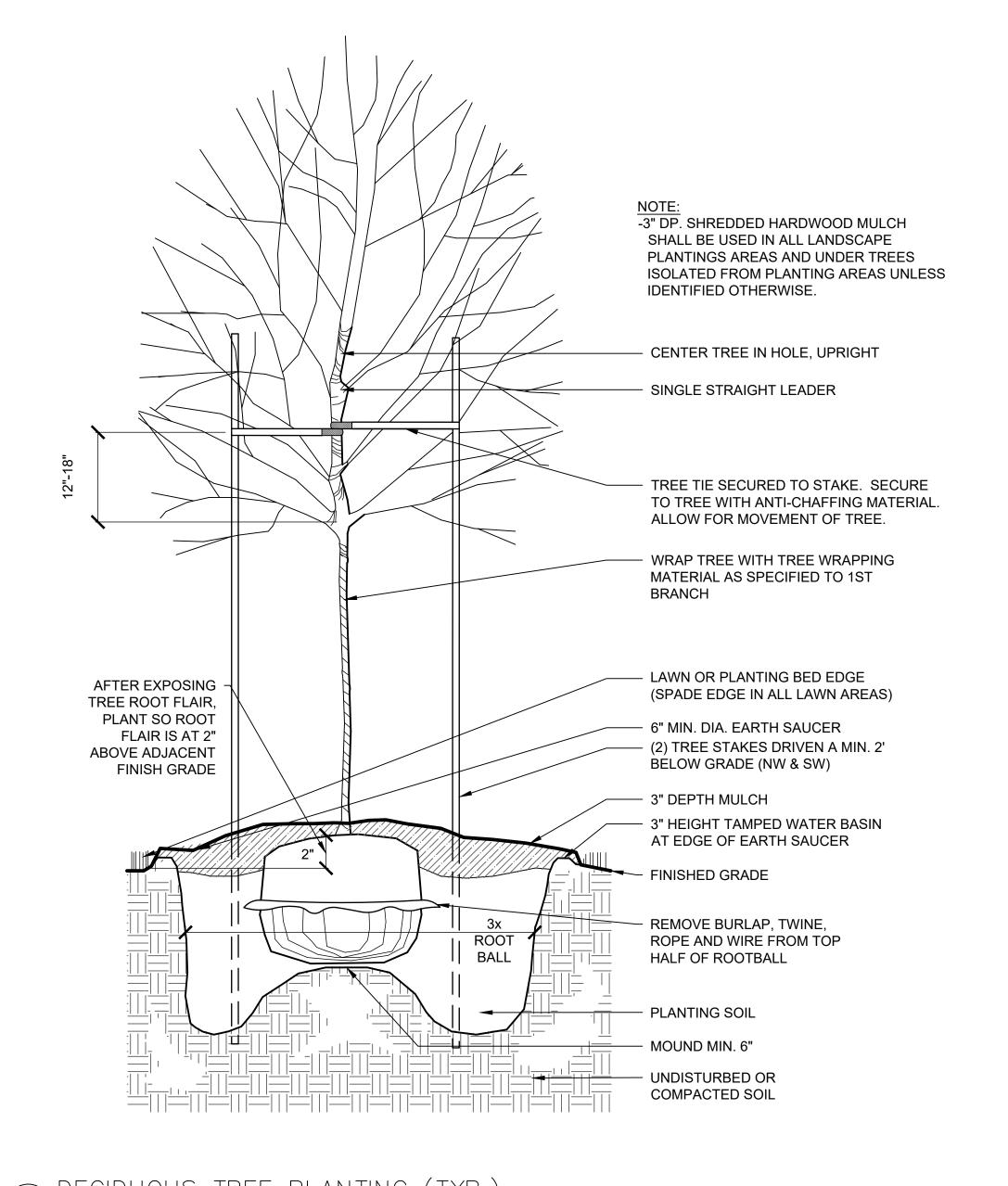
- PAVED SURFACE, IF APPLICABLE

UNDISTURBED OR COMPACTED SOIL

- LINE OF PLANTING PIT WHEN PLANTED

EVERGREEN SHRUB PLANTING (TYP.)

SCALE: N.T.S.



7 DECIDUOUS TREE PLANTING (TYP.)

SCALE: N.T.S.

		CONSULTANT	ARCHITECT/ENGINEER OF RECOF
		engineering discipline <edit text="">:</edit>	
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Revisions:	Date:		Anderson Engineering of Minnesota, LLC   <b>Proj #</b> 15522

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Landscape Architect under the laws of the State of Minnesota.

CURT H. CLAEYS
PRINT NAME

SIGNATURE

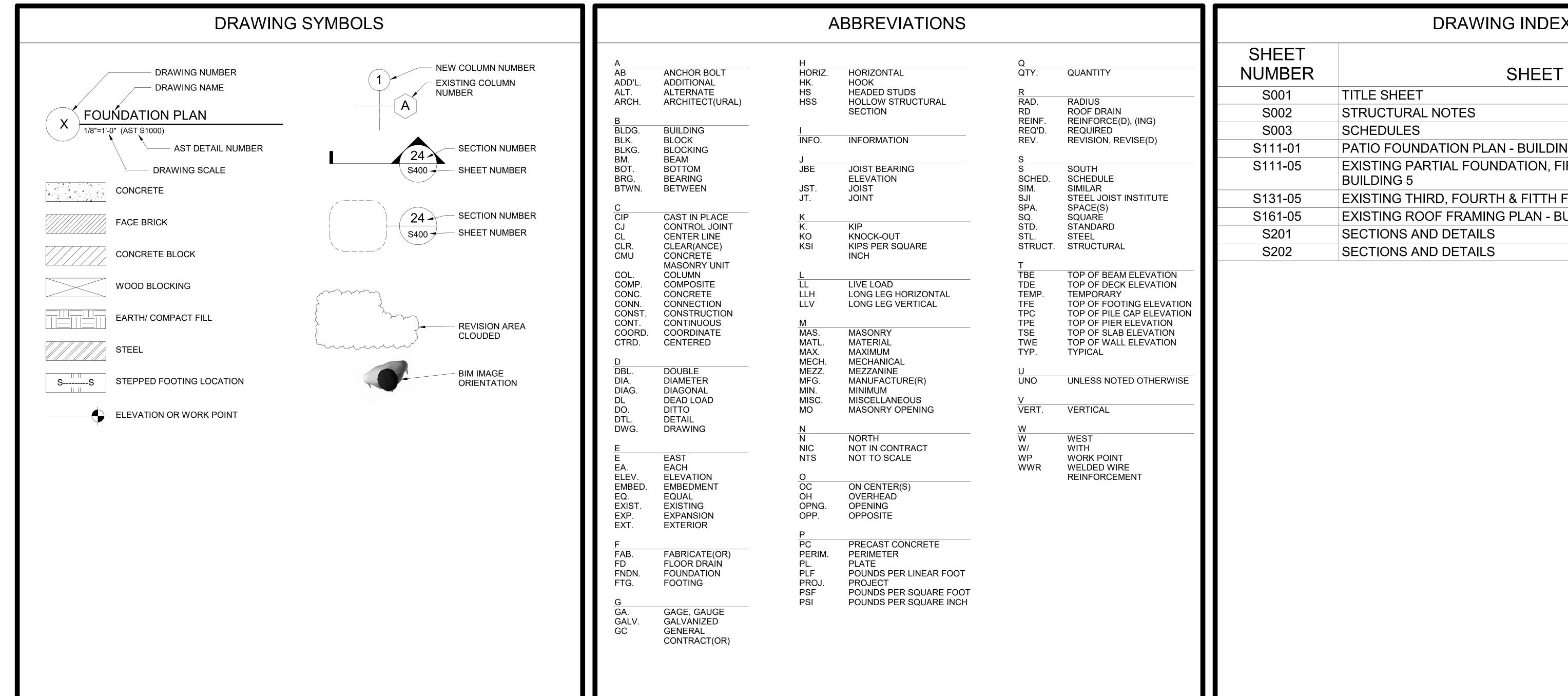
45613
REGISTRATION
NUMBER

O DATE

Office of
Construction
and Facilities
Management

U.S. Department
of Veterans Affairs

Drawing Title Project Title Project Number CONSTRUCTION RENOVATE OLD CHAPEL 438-19-301 PLANTING DETAILS AND AUDITORIUM DOCUMENTS **Building Number** 1 and 5 Approved: Project Director Drawing Number Sioux Falls, SD Checked CHC



DRAWING INDEX				
SHEET NUMBER	SHEET NAME			
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S202	SECTIONS AND DETAILS			

		CONSULTANT	ARCHIT	ECT/ENGINE	ER OF RECORD	PROFESSION ALL	Office of	Drawing Title TITLE SHEET	Phase CONSTRUCTION	Project Title RENOVATE		APEL S	Project Number SD 1007
ocal.vt		© PROPERTY OF ADVANCED STRUCTURAL TECHNOLOGIES. THIS DOCUMENT MAY NOT BE USED OR COPIED WITHOUT THE		NDEE	RSON	13222 JOHN MATHEW  JOHN MATHEW	Construction and Facilities		DOCUMENTS	AND AUDIT	TORIUM		Building Number 1 and 5
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		7301 OHMS LANE EDINA, MN 55439 AST PROJECT NUMBER:		1st Ave. N. #100 Pl 412.4000   F 763.412	ymouth, MN 55441	7,7,7,7,7,7,1,1,1,1,1,1,1,1,1,1,1,1,1,1	U.S. Department	$\overline{t}$	FULLY SPRINKLERED	Issue Date	Checked	Drawn	S001
Revisions:	Date:	SUITE #215 ASTENG.COM <b>SD 1007</b> (952) 854-9302 TEL.			ota, LLC   <b>Proj #</b> SD 1007	127	U.S. Department of Veterans Affairs			05/15/2020	MAS	AJM	
VA FORM 08 - 6231				1		1			1		ı		

## STRUCTURAL NOTES

DESIGN DATA BUILDING CODE	F. SEE THE APPROPRIATE MATERIALS SECTION ON THIS PAGE FOR ADDITIONAL INFORMATION ON EACH SUBMITTAL.	D. COMPOSITE METAL DECK AND CONCRE
INTERNATIONAL BUILDING CODE 2018 EDITION WITH STATE AND LOCAL AMENDMENTS	REQUIRED STRUCTURAL SUBMITTALS	D. COMPOSITE METAL BECK AND CONCRE      PRE-COMPOSITE (WET CONCRE      A. EQUIPMENT FOR C
DESIGN LOADS/DESIGN CRITERIA  1. WIND LOAD	CATEGORY ITEM COMMENTS  CONCRETE	APPROVAL OF THE B. THE PRE-COMPOSI
BASIC WIND SPEED (3-SECOND GUST)	FOUNDATION REINFORCING INT. AND EXT. SLAB REINFORCING	SEE THE DESIGN L C. CONCRETE PUMP I
EXPOSURE C INTERNAL PRESSURE COEFFICIENTS, GCpi+/-0.18	FOUNDATION WALL REINFORCING MIX DESIGNS FOR ALL CLASSES OF CONCRETE	WELDED WIRE REII NOT LOCATED ON I
2. ROOF LOADS	MILL CERTS. FOR REINFORCING  MASONRY	AT LEAST 10 FEET
LIVE LOAD (L.L.)	STEEL REINFORCING GROUT MIX DESIGN	<ol> <li>POST-COMPOSITE (CURED CON A. THE GENERAL CON</li> </ol>
3. ROOF SNOW LOAD	MILL CERTS. FOR REINFORCING STEEL	CONSTRUCTION AI DAMAGE THE SLAE
GROUND SNOW LOAD, Pg	CURRENT AISC OR ICC SHOP CERTIFICATION ANCHOR BOLTS	B. NO EQUIPMENT OF IN ADDITION, CYLIN
SLOPED ROOF SNOW LOAD Ps	STRUCTURAL STEEL STRUCTURAL STEEL CONNECTIONS AND PE CERTIFICATION REQUIRED	C. LIFTS FOR PERSON ENGINEER OF REC
SNOW LOAD IMPORTANCE FACTOR, I1.2 THERMAL FACTOR, Ct1.0	CALCULATIONS STRUCTURAL STEEL EMBEDS	WITH PAYLOAD OF D. A MAXIMUM OF (2)
4. FLOOR LOADS - TYPICAL	MILL CERTS. FOR STRUCTURAL STEEL  STAIR AND MISC. METALS SHOP DRAWINGS PE CERTIFICATION REQUIRED	ALL TIMES. E. MATERIAL STOCKE
LIVE LOAD (L.L.)	STAIR CALCULATIONS PE CERTIFICATION REQUIRED LIGHT GAGE METAL	LIVE LOAD FOR THI F. OPERATIONS SHAL
5. STAIRS, CORRIDORS & LOBBIES (L.L.) LIVE LOAD (LL)	LIGHT-GAGE SHOP DRAWINGS PE CERTIFICATION REQUIRED  LIGHT-GAGE CALCULATIONS. PE CERTIFICATION REQUIRED	VII. STEEL
6. SEISMIC DESIGN DATA	OTHER SPRINKLER SHOP DRAWINGS	A. STEEL MATERIAL PROPERTIES  1. <u>STEEL PROPERTIES</u> STRUCTURAL WIDE FLANGE SH
SEISMIC IMPORTANCE FACTOR	PATIENT LIFT/FALL PROTECTION SHOP DRAWINGS  DECK PENETRATION LAYOUT PLAN	OTHER STRUCT. SHAPES & PLATES. ETC
MAPPED SPECTRAL RESPONSE ACCELERATIONS0.092 S <sub>S</sub>	ELEVATOR SHOP DRAWINGS	ANCHOR RODS
0.035 S <sub>1</sub> SPECTRAL RESPONSE COEFFICIENTS	V. SITE WORK A. GEOTECHNICAL (ASSUMED PROPERTIES)	DECK WELDING ELECTRODES HEADED STUDS, TYPE B (Fu=65
	1. FOUDATIONS, RETAINING WALLS, FOUNDATION DRAINAGE, SLABS ON GRADE & OTHER ITEMS RELATED TO THE SOILS ARE DESIGNED ON THE ASSUMED DESIGN INFORMATION OUTLINED IN THIS SECTION. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER, LICENSED IN THE	EXPANSION BOLTS SHALL BE H
SITE CLASSD SEISMIC DESIGN CATEGORYA	STATE OF THE PROJECT, TO VISIT THE SITE AND CERTIFY IN WRITING THAT THE FOLLOWING ASSUMED DESIGN INFORMATION IS CORRECT.	2. SEE ITEM B.10 BELOW FOR ADD
SEISMIC RESPONSE COEFFICIENT	2. DESIGN NET SOIL BEARING CAPACITY IS AS FOLLOWS: STRIP FOOTINGS	B. STRUCTURAL STEEL 1. STRUCTURAL STEEL DESIGN &
SEISMIC DESIGN AND ANCHORAGE OF NON-STRUCTURAL COMPONENTS SHALL BE THE RESPONSIBILITY OF THE SUPPLIER OF THE COMPONENTS. NON-	3. ALLOWABLE PASSIVE PRESSURE440 PCF	STRUCTURAL STEEL BUILDINGS
STRUCTURAL COMPONENTS INCLUDES, BUT IS NOT LIMITED TO, ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STORAGE RACKING SYSTEMS. IT SHALL BE THE RESPONSIBILITY OF THE SUPPLIER TO EXAMINE THE SYSTEMS AND COMPONENTS BEING PROVIDED RELATIVE TO THE PROVISIONS OF	4. COEFFICIENT OF FRICTION0.45	<ol> <li>STRUCTURAL STEEL SUPPLIER SUBMIT DRAWINGS AND CALCU</li> </ol>
ASCE-7, CHAPTER 13 TO DETERMINE APPLICABILITY OF THE PROVISIONS TO THE SCOPE OF WORK. IN THE EVENT THAT PROVISIONS APPLY TO THE SCOPE OF WORK, AN ENGINEER REGISTERED IN THE STATE OF THE PROJECT SHALL DESIGN THE APPLICABLE SUPPORT SYSTEMS AND ANCHORAGE	5. MINIMUM DEPTH FROM EXTERIOR GRADE TO BOTTOM OF BUILDING PERIMETER FOOTINGS SHALL BE 4'-0". ALL OPEN AIR FOUNDATIONS HAVE A MINIMUM	LADDERS, RAILINGS, CAP PLATI THE SUPPLIER.
FOR THE COMPONENTS AND PRODUCE SIGNED AND SEALED DRAWINGS AND CALCULATIONS FOR SUBMITTAL AND REVIEW BY THE ENGINEER OF RECORD.	OF 5'-0" FROST PROTECTION.	3. STRUCTURAL STEEL SUPPLIER
7. DEFLECTION CRITERIA	6. UNRESTRAINED RETAINING WALLS ARE DESIGNED FOR AN ACTIVE EQUIVALENT FLUID PRESSURE OF 35 PSF/FT. THE BACKFILL MATERIAL SHALL CONSIST OF A WELL-COMPACTED, FREE-DRAINING SAND. SEE THE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION ON MATERIAL GRADATION	SHALL BE MAXIMUM 9/16" DIA. F
ALL MEMBERS SUPPORTING MASONRY ARE DESIGNED FOR A MAXIMUM DEAD LOAD PLUS LIVE LOAD DEFLECTION OF SPAN/600 OR 0.3 INCHES, WHICHEVER IS LESS.	AND BACKFILL OPERATIONS.	<ol> <li>CAMBERS SHOWN ON THE DRA ACCORDINGLY BY STRUCTURA</li> </ol>
ALL PERIMETER MEMBERS ARE DESIGNED FOR A MAXIMUM LIVE LOAD DEFLECTION OF 0.5 INCHES UNLESS NOTED OTHERWISE ON PLANS.	VI. CONCRETE A. CONCRETE MATERIAL PROPERTIES	HANDLING. BEAMS WITH CAME
* REDUCED PER IBC, SEC. 1607.10  ** PLUS SNOW ACCUMULATION AS REQUIRED BY IBC, CHAPTER 16, SECTION 1608.	1. <u>CONCRETE PROPERTIES</u> <u>STRENGTH (fc @ 28 DAYS)</u> FOOTINGS	5. THIS STRUCTURE IS A NON-SEL THE STEEL ERECTOR SHALL PR
ALTERNATE DESIGNS	RETAINING WALLS4000 PSI EXTERIOR SLAB ON GRADE4000 PSI	PROVIDED AT EACH GRID IN BO
ALTERNATE STRUCTURAL SYSTEMS & DETAILS WILL ONLY BE CONSIDERED PROVIDED THEY ARE SUBMITTED WITH CALCULATIONS CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT. THE CALCULATIONS MUST SHOW THE EQUIVALENCY OF THE ALTERNATE.	CONC. OVER METAL DECK3500 PSI	6. BOLTED CONNECTIONS SHALL I HOLES AND TIGHTEN TO A SNU
ACCEPTANCE OF THE ALTERNATE BY THE ENGINEER OF RECORD MUST BE IN WRITING.	<ol> <li>CYLINDER TESTING SHALL BE COMPLETED PER ACI-318, SECTION 5.6. TESTING REPORTS SHALL BE PROVIDED TO THE OWNER AND ENGINEER OF RECORD AT A MINIMUM. PREFERABLE DELIVERY METHOD IS VIA E-MAIL.</li> </ol>	BOLTS" UNO.
EXPANSION JOINTS EXPANSION JOINTS ARE NOTED ON THE DRAWINGS. NO CONNECTIONS SHALL BE MADE ACROSS THESE JOINTS UNO.	3. ALL EXTERIOR CONCRETE, PERMANENTLY EXPOSED TO WEATHER (DOES NOT APPLY TO BURIED FOUNDATIONS), SHALL BE AIR ENTRAINED TO GIVE THE	C. STEEL FLOOR DECK  1. ALL STEEL DECK SHALL BE DES DECK INSTITUTE SPECIFICATIO
FUTURE EXPANSION THIS PROJECT IS NOT DESIGNED FOR FUTURE EXPANSION.	CONCRETE AN AIR CONTENT OF 6% +/- 1% BY VOLUME. NATURALLY OCCURRING AIR SHALL NOT EXCEED 3% FOR NON-AIR ENTRAINED MIXES.	2. THE STEEL DECK SUPPLIER SHA
GENERAL NOTES	<ol> <li>CONCRETE MIX DESIGNS &amp; SUPPORTIVE DATA MUST BE SUBMITTED FOR APPROVAL ACCORDING TO ACI-318 SECTION 5.3, AND ACI-301, SECTION 1.5.</li> <li>LIGHTWEIGHT CONCRETE SHALL HAVE A MINIMUM DRY UNIT WEIGHT OF 106 PCF &amp; A MAXIMUM DRY UNIT WEIGHT OF 116 PCF WITH AIR CONTENT OF 4%</li> </ol>	SHALL SUBMIT ICC REPORTS SI
1. IN ALL CASES WHERE A CONFLICT MAY OCCUR, SUCH AS BETWEEN REQUIREMENTS IN THE SPECIFICATION AND REQUIREMENTS ON THE DRAWINGS, THE STRUCTURAL ENGINEER OF RECORD SHALL BE IMMEDIATELY NOTIFIED IN WRITING AND THE STRUCTURAL ENGINEER OF RECORD SHALL INTERPRET	TO 7%.	<ol> <li>PRE-APPROVED DECK MANUFAGE</li> <li>APPROVED PROVIDING THAT THE</li> </ol>
THE INTENT OF THE CONTRACT DOCUMENT.	B. REINFORCING MATERIAL PROPERTIES  1. REINFORCING PROPERTIES fy KSI ASTM	DECK SIZE, GAGE AND TYPE AR
2. IN NO CASE, SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS OR DETAILS ON THE STRUCTURAL DRAWINGS.	ALL BARS UNLESS NOTED60 A615 WELDED WIRE FABRIC (SMOOTH)65 A185	<ol> <li>STRUCTURAL SLAB FORM (META IN ACCORDANCE WITH SDI SPE</li> </ol>
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOBSITE AND TO CROSS CHECK ALL DETAILS AND DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS WITH RELATED REQUIREMENTS ON THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND	2. EPOXY COATING FOR REINFORCING SHALL CONFORM TO ASTM A-775 AND ACI-301 SECTION 3.2.	5. THE STEEL DECK SHALL SUPPO
CIVIL DRAWINGS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.	3. WHERE EPOXY COATED REINFORCING IS REQUIRED, ALL CHAIRS, SLAB BOLSTERS, SUPPORT BARS, AND SPACERS SHALL BE PLASTIC COATED OR	AND SEQUENCE OF LOADING T COORDINATED WITH THE DECK
4. IN EXISTING FACILITIES, ALL EXISTING CONDITIONS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY EXISTING CONDITIONS THAT DIFFER FROM THOSE SHOWN ON THE STRUCTURAL DRAWINGS MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE	EPOXY COATED.	6. DECK FASTENING SHALL BE PE
STRUCTURAL ENGINEERING (IN WRITING).	4. SOFT METRIC BAR SIZES VS. INCH-POUND (U.S. SYSTEM OF MEASURES) BAR SIZE TABLE. AST DRAWINGS REFLECT THE U.S. SYSTEM OF MEASURE. INCH-POUND BAR SOFT METRIC BAR	PUNCHED OR CRIMPED SIDE LA INDICATED ON THE DRAWINGS.
REFERENCE STANDARDS – SEE IBC CHAPTER 35 FOR ALL REFERENCE STANDARDS	SIZE DESIGNATION  #4  #13  #4  #40	7. ALL METAL DECK TO BE SPRAY FOR EXTENT OF FIREPROOFING
SPECIAL INSPECTIONS THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE "SPECIAL INSPECTIONS" DURING CONSTRUCTION. THE "SPECIAL INSPECTIONS" -	#5 #16 #6 #19	FOR EXTENT OF FIREPROOFING  VIII. LIGHT GAGE METAL STUD FRAMING
REQUIRED IN ACCORDANCE W/ THE IBC, SECTIONS 1704 AND 1705 - ARE SUMMARIZED BELOW.	#1 #22 #8 #25	A. LIGHT GAGE METAL STUD FRAMING  A. LIGHT GAGE FRAMING  1. LIGHT GAGE FRAMING SHALL BI
1. SECTION 1705.2 STEEL CONSTRUCTION 2. SECTION 1705.3 CONCRETE CONSTRUCTION	C. CAST IN PLACE CONCRETE  1. ALL CONCRETE SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH IBC CHAPTER 19 & ACI-318.	STUD DESIGNATION & RELATED
3. SECTION 1705.3 CONCRETE CONSTRUCTION 4. SECTION 1705.10 FABRICATED ITEMS	<ol> <li>ALL CONCRETE SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH IBC CHAPTER 19 &amp; ACI-318.</li> <li>ALL REINFORCING SHALL BE DETAILED, FABRICATED &amp; PLACED IN ACCORDANCE WITH CRSI "MANUAL OF STANDARD PRACTICE." THE STEEL</li> </ol>	SHAPES. OTHER MANUFACTURI Fy = 33,000 psi (STUDS = 18 GA &
5. SECTION 1705.10 FABRICATED TIEMS 5. SECTION 1705.12 SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE 6. SECTION 1705.13 TESTING FOR SEISMIC RESISTANCE	REINFORCING SHALL BE DETAILED, FABRICATED & PLACED IN ACCORDANCE WITH CRST-MANUAL OF STANDARD PRACTICE. THE STEEL REINFORCING SUPPLIER SHALL SUBMIT SHOP DRAWINGS FOR ALL ELEMENTS & MEMBERS WITH REINFORCING FURNISHED BY THE SUPPLIER.	Fy = 53,000 psi (STUDS = 16 GA 8 Fy = 50,000 psi (STUDS = 16 GA 8 Fy = 33,000 psi (TRACK).
SEE THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR INFORMATION REGARDING TESTING AND INSPECTION OF FIELD APPLIED FIREPROOFING AND	<ol> <li>PER ACI 26.6.2.2, ALL REINFORCEMENT SHALL BE PLACED AND SUPPORTED PRIOR TO PLACING CONCRETE. "WET STICKING" OF REBAR, INCLUDING DOWELS IS PROHIBITED.</li> </ol>	3. STEEL THICKNESS
ASSEMBLIES.	4. SPACING OF CONSTRUCTION OR CONTROL JOINTS IN WALLS EXPOSED TO VIEW SHALL NOT EXCEED 40 FEET UNLESS SPECIFICALLY NOTED OTHERWISE	REFERENCE GAGE MIL 20 33
SPECIAL INSPECTOR SHALL SUBMIT AN INSPECTION PLAN THAT SUMMARIZES ALL THE INSPECTIONS THAT WILL BE PROVIDED FOR THE PROJECT PRIOR TO START OF CONSTRUCTION.	ON THE DRAWINGS. CUT HALF OF THE HORIZONTAL REINFORCING AT CONTROL JOINTS.	18 43 16 54
STRUCTURAL TESTS	5. SLEEVES EMBEDDED IN SLABS AND WALLS SHALL BE LOCATED CLEAR BETWEEN REINFORCING BARS AND SHALL MAINTAIN CLEAR SPACING EQUAL TO THE DIAMETER OF THE LARGEST SLEEVE IN ANY DIRECTION. SLEEVE GROUPS THAT DO NOT COMPLY WITH THE ABOVE REQUIREMENTS SHALL BE	14 68 12 97
THE OWNER SHALL EMPLOY ONE OR MORE TESTING AGENCIES TO PROVIDE STRUCTURAL TESTING DURING CONSTRUCTION. THE MINIMUM STRUCTURAL TESTING - REQUIRED IN ACCORDANCE W/ THE IBC IS SUMMARIZED BELOW.	CONSIDERED AS AN OPENING AND REINFORCED PER NOTE #5 BELOW.	4. THE DRAWINGS ARE INTENDED
1. CONCRETE CYLINDER COMPRESSION TESTING	6. UNLESS NOTED OTHERWISE ON THE DRAWINGS: PROVIDE EXTRA REINFORCING ON ALL SIDES OF ALL MISCELLANEOUS WALL AND SLAB OPENINGS EQUAL TO ONE HALF THE INTERRUPTED REINFORCING BARS EACH SIDE BUT NOT LESS THAN 2 - #5 FOR EACH LAYER OF REINFORCEMENT. EXTEND	CONSIDERED BY THE STRUCTU RELATED DESIGN CALCULATION
<ol> <li>MASONRY HOLLOW UNIT BLOCK COMPRESSIONS TESTS (UNIT STRENGTH METHOD)</li> <li>ANCHORAGE ** POST-INSTALLED EXPANSION OR ADHESIVE ANCHORS</li> </ol>	BARS CLASS 'B' LAP LENGTH BUT NOT LESS THAN 2 FEET BEYOND EDGE OF OPENINGS. PROVIDE 2 - #4x4'-0" DIAGONAL BARS AT EACH CORNER FOR EACH LAYER OF REINFORCEMENT.	5. SCREW ALL STEEL SECTIONS A
** WHEN DIRECTED BY THE STRUCTURAL ENGINEER OF RECORD TO PROVIDE POST-INSTALLED ANCHORAGES THE FOLLOWING GUIDELINES SHALL BE	7. PROVIDE A 3/4" CHAMFER ON ALL EXPOSED CORNERS OF CONCRETE.	6. ANCHOR EACH STUD TO RUNNE
FOLLOWED:	8. PROVIDE ISOLATION JOINTS AROUND COLUMNS AT SLAB ON GRADE AREAS.	7. ALIGN RUNNER TRACK ACCURA
1. A REPRESENTATIVE OF THE ANCHOR MANUFACTURER OR PROJECT SPECIAL INSPECTOR SHALL BE ON SITE TO OVERSEE THE INSTALLATION OF THE FIRST FOUR ANCHORS FOR EACH TYPE OF ANCHOR INSTALLED. THIS MEASURE SHALL BE TAKEN FOR EACH INSTALLER OF THE ANCHORS. THIS SERVICE	9. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:	MANUFACTURER'S STANDARD
IS TYPICALLY PROVIDED FOR FREE BY THE LOCAL HILTI REPRESENTATIVE.  THE FIRST FOUR ANCHORS SHALL BE TENSION TESTED ONCE INSTALLATION IS COMPLETE FOR 100% OF THE SERVICE LEVEL LOAD CAPACITY AS	MINIMUM COVER (IN) CONCRETE CAST AGAINST & PERMANENTLY	8. SELF-DRILLING OR SELF-TAPPIN SCREW MAY BE SUBSTITUTED
SPECIFIED BY THE STRUCTURAL ENGINEER OF RECORD.	EXPOSED TO EARTH3	
REQUIRED STRUCTURAL SUBMITTALS	CONCRETE EXPOSED TO EARTH OR WEATHER: #6 THRU #18 BARS	
THE REVIEW OF THE FOLLOWING SUBMITTALS IS INCLUDED IN THE STRUCTURAL ENGINEER OF RECORD'S (SEOR) SCOPE OF SERVICES. THE GENERAL CONTRACTOR SHALL PROVIDE THE ITEMS BELOW TO THE SEOR FOR REVIEW PRIOR TO CONSTRUCTION.	#5 & SMALLER BARS1 ½	
SHOP DRAWINGS SHALL BE ORIGINALS AND SHALL NOT BE CREATED, IN WHOLE OR IN PART, FROM THE ELECTRONIC STRUCTURAL CAD FILES OR	CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS & WALLS:	
REPRODUCTIONS OF THE STRUCTURAL DRAWINGS. REPRODUCING THE STRUCTURAL DRAWINGS WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER IS A VIOLATION OF COPYRIGHT LAWS AND CODE OF STANDARD PRACTICE. SUBMITTALS NOT ADHERING TO THESE PROVISIONS WILL BE REJECTED WITHOUT REVIEW.	#11 & SMALLER BARS	
REVIEW. SHOP DRAWING PACKAGES MUST BE COMPLETE WHEN SUBMITTED AND MUST INCLUDE CERTIFIED CALCULATIONS IF REQUIRED. INCOMPLETE SHOP DRAWING	PRIMARY REINFORCEMENT, TIES & STIRRUPS1 ½	
SHOP DRAWING PACKAGES MUST BE COMPLETE WHEN SUBMITTED AND MUST INCLUDE CERTIFIED CALCULATIONS IF REQUIRED. INCOMPLETE SHOP DRAWING PACKAGES WILL BE REJECTED WITHOUT REVIEW.		
PRIOR TO SUBMITTING SHOP DRAWINGS TO SEOR, THE SHOP DRAWINGS MUST BE REVIEWED AND COORDINATED BY THE GENERAL CONTRACTOR.		
ELECTRONIC VERSION IN PDF FORMAT OF ALL REQUIRED SHOP DRAWINGS AND CALCULATIONS MUST BE SUBMITTED BY THE SUPPLIER AND A MINIMUM OF 10 BUSINESS DAYS MUST BE PROVIDED FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD.		
The state of the s		

TE FLOOR SYSTEMS TE) REQUIREMENTS DNCRETE PLACING AND FINISHING OPERATIONS ON THE METAL DECK SHALL NOT BE USED WITHOUT PRIOR WRITTEN ENGINEER OF RECORD. E CONSTRUCTION LIVE LOAD LIMITS THE EQUIPMENT ALLOWED ON THE METAL DECK DURING PLACING OPERATIONS. ADS SECTION FOR THE LIVE LOAD USED FOR DESIGN. NE EQUIPMENT USED TO MOVE THE LINE DURING PLACING MAY NOT BE USED ON FLOOR SYSTEMS DESIGNED WITH FORCING (WWR). WHERE FIBER REINFORCING IS USED IN LIEU OF WWR, LINE EQUIPMENT MAY BE USED AS LONG AS IT IS ECK SPANS WHERE CONCRETE IS ACTIVELY BEING PLACED. PERSONNEL OTHER THAN THE OPERATOR(S) SHALL REMAIN WAY FROM THE EQUIPMENT. FRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT CRACKING OF THE ELEVATED CONCRETE SLABS DURING D BUILD-OUT ACTIVITIES. THIS INCLUDES LIMITING MATERIALS, EQUIPMENT AND OPERATIONS TO THOSE THAT DO NOT MATERIAL MAY BE USED OR STORED ON THE ELEVATED CONCRETE FLOOR WITHIN 7 DAYS OF CONCRETE PLACEMENT. DER TESTS SHALL CONFIRM THAT THE DESIGN COMPRESSIVE STRENGTH HAS BEEN REACHED. NEL OR MATERIAL SHALL NOT BE USED ON THE ELEVATED CONCRETE SLAB WITHOUT PRIOR WRITTEN APPROVAL OF THE DRD. THE DESIGN SHOWN ON THE CONSTRUCTION DOCUMENTS ASSUMES THAT LIFTS DO NOT EXCEED A TOTAL WEIGHT 2500 LBS AND THAT NO AXLE LOAD EXCEEDS 1500 LBS. WO LIFTS MAY BE USED IN A GIVEN BAY. A MINIMUM CLEARANCE OF 10 FEET BETWEEN LIFTS MUST BE MAINTAINED AT OR STORED ON THE ELEVATED SLAB SHALL BE DISTRIBUTED SUCH THAT THE LOAD DOES NOT EXCEED THE DESIGN . MINIMIZE IMPACT LOADING BY SLOWLY LOWERING LOADS FROM PALLET JACKS AND OTHER SIMILAR EQUIPMENT. <u>STRENGTH (PSI)</u> ---- 36,000 F1554 A233 -- E70XX ---- 360XX 00) ----- 51,000 AWS D1.1 CHAPTER 7 LTI KWIK BOLT 3 OR PRE-APPROVED EQUAL. TIONAL REQUIREMENTS FOR SEISMIC FORCE RESISTING SYSTEMS. CONSTRUCTION SHALL CONFORM TO IBC CHAPTER 22, AISC "LOAD & RESISTANCE FACTOR DESIGN SPECIFICATION FOR " & AISC "CODE OF STANDARD PRACTICE," APPLY UNO. SHALL SUBMIT SHOP DRAWINGS FOR ALL MATERIAL SUPPLIED. IN ADDITION, THE STRUCTURAL STEEL SUPPLIER SHALL LATIONS CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT FOR ALL STAIRS, S, BEARING PLATES, BASE PLATES, STIFFENERS, SPLICES, CONNECTIONS AND ANY OTHER COMPONENTS DESIGNED BY SHALL FURNISH BOLTS FOR OSHA CONNECTIONS (SEE DRAWINGS FOR DETAILS). BOLT HOLES IN BEAM TOP FLANGE OR "K" SERIES JOISTS AND 13/16" DIA. FOR "LH" SERIES JOISTS. MNGS REFLECT THE IN-PLACE, ERECTED BEAM SELF-WEIGHT CONDITIONS. CAMBERS SHALL BE INCREASED . STEEL SUPPLIER TO ACCOUNT FOR LOSS OF CAMBER DUE TO CAMBERING PROCESS, TRANSPORTATION AND ER SHALL COMPLY WITH A CAMBER TOLERANCE OF -0".+ ½". SINGLE POINT CAMBERING IS NOT ALLOWED. SUPPORTING STEEL FRAME REQUIRING INTERACTION WITH OTHER ELEMENTS TO PROVIDE THE REQUIRED STABILITY. OVIDE TEMPORARY BRACING UNTIL FINAL STABILITY IS PROVIDED. AS A MINIMUM, TEMPORARY BRACING SHALL BE E 3/4" DIA., A325 BEARING-TYPE WITH THREADS INCLUDED IN THE SHEAR PLANE. INSTALL BOLTS IN PROPERLY ALIGNED 3-TIGHT CONDITION AS DEFINED BY THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 GNED & CONSTRUCTED IN ACCORDANCE WITH IBC CHAPTER 22, SECTION 2210 - COLD FORMED STEEL AND THE STEEL NS AND RECOMMENDATIONS, UNO. ILL SUBMIT SHOP DRAWINGS FOR ALL ELEMENTS & MEMBERS FURNISHED BY THE DECK SUPPLIER. DECK SUPPLIER OWING ALLOWABLE DIAPHRAGM SHEAR VALUES. CTURERS ARE NUCOR/VULCRAFT/VERCO, WHEELING, AND CAN-AM. OTHER METAL DECK MANUFACTURERS MAY BE IE DECK SPECIFICATIONS MEET OR EXCEED THE SPECIFICATIONS OF THE PRE-APPROVED MANUFACTURERS. METAL E INDICATED ON THE DRAWINGS. L CENTERING) SHALL BE DESIGNED FOR THE SPANS AND SLAB DEAD LOADS AS SHOWN ON THE DRAWINGS & INSTALLED CIFICATIONS AND MANUFACTURER'S REQUIREMENTS. RT THE WEIGHT OF WET CONCRETE AND OTHER CONSTRUCTION LOADS AS AN UN-SHORED FORM DECK. PLACEMENT HE DECK WITH THE WET CONCRETE IS THE RESPONSIBILITY OF THE CONCRETE SUBCONTRACTOR AND SHALL BE SUPPLIER IN ADVANCE OF PLACING CONCRETE. R SDI & MANUFACTURER'S RECOMMENDATIONS BUT NOT LESS THAN THAT SHOWN ON THE DRAWINGS. BUTTON-P FASTENERS SHALL NOT BE USED ON THE COMPOSITE DECK. COMPOSITE DECK MUST BE SCREWED OR WELDED AS FIREPROOFED SHALL BE GALVANIZED, CLEANED & DEGREASED PRIOR TO SHIPPING. SEE ARCHITECTURAL DRAWINGS DESIGNED & CONSTRUCTED IN ACCORDANCE WITH IBC CHAPTER 22, SECTION 2210 - COLD FORMED STEEL. ACCESSORIES ON DRAWINGS ARE BASED ON AISI/ SFIA/ SSMA (STEEL STUD MANUFACTURERS ASSOCIATION) STANDARD ERS SHALL FURNISH ELEMENTS OF EQUAL OR GREATER SECTION PROPERTIES, MATERIAL STRENGTHS & STIFFNESS. THICKER). MINIMUM DELIVERED THICKNESS (IN.) 0.0428 0.0538 0.0677 0.0966 TO EXPRESS THE MINIMUM DESIGN PERFORMANCE. ALTERNATE DESIGNS OF EQUIVALENT CAPACITY WILL BE RAL ENGINEER FOR APPROVAL. THIS WILL BE SUBJECT TO THE REVIEW OF THE FINAL DETAILED SHOP DRAWINGS AND IS CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT. I WINDOW HEADS & SILLS TO JAMB STUDS WITH A MINIMUM OF ONE SCREW EACH SIDE EACH MEMBER. RS WITH FOUR #10 SCREWS, TWO TOP AND TWO BOTTOM, WITH ONE SCREW IN EACH FLANGE UNO. TELY & SECURE TO BASE & HEAD WITH FASTENERS AS SHOWN ON THE DRAWINGS OR EQUIVALENT OR AS NOTED IN THE SPECIFICATION BUT FASTENER SPACING SHALL NOT EXCEED 24" ON CENTER. G MINIMUM 1/2" TYPE S-12 SCREWS MAY BE USED IN LIEU OF WELDING FOR ASSEMBLING STEEL STUD WALLS. ONE OR EACH WELD UNO.

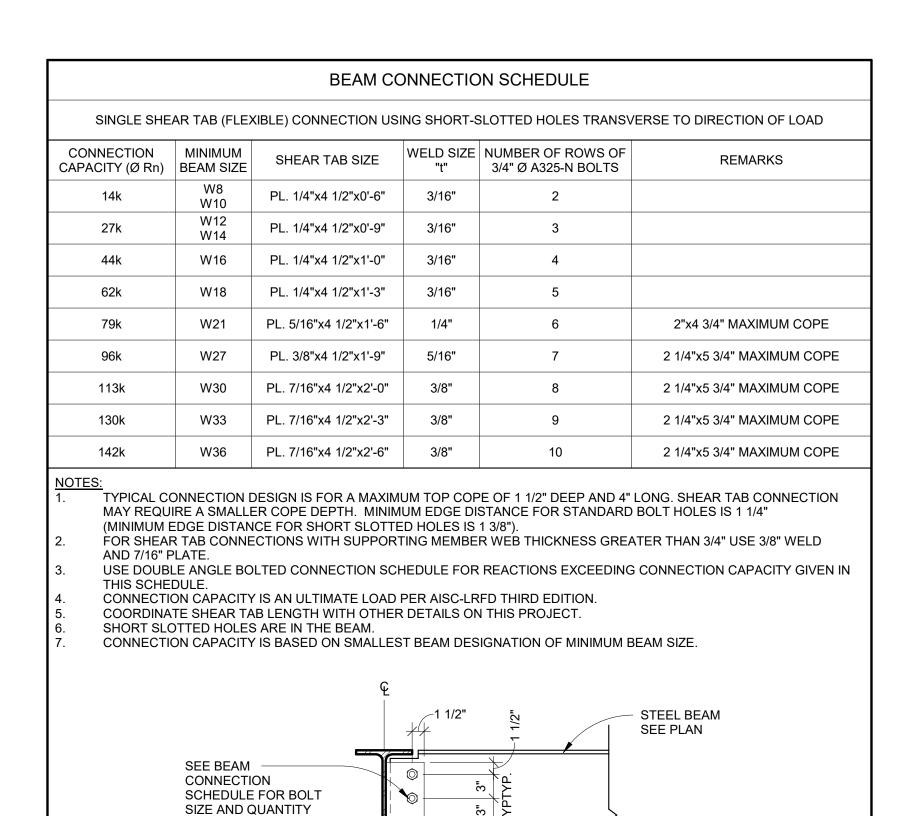
Drawing Title Project Title Project Number ARCHITECT/ENGINEER OF RECORD CONSULTANT Office of RENOVATE OLD CHAPEL SD 1007 STRUCTURAL NOTES CONSTRUCTION AND AUDITORIUM Construction **Building Number** © PROPERTY OF ADVANCED STRUCTURAL TECHNOLOGIES. THIS DOCUMENT MAY NOT BE USED OR COPIED WITHOUT THE PRIOR WRITTEN CONSENT OF DOCUMENTS 13222 1 and 5 and Facilities ANDERSON JOHN MATHEW LEVAR **Drawing Number** Management ADVANCED STRUCTURAL SIOUX FALLS, SD FULLY SPRINKLERED Issue Date Checked 13605 1st Ave. N. #100 Plymouth, MN 55441 Drawn EDINA, MN 55439 **AST PROJECT NUMBER:** | U.S. Department of Veterans
Affairs 7301 OHMS LANE P 763.412.4000 | F 763.412.4090 | ae-mn.com ASTENG.COM SD 1007 SUITE #215 MAS 05/15/2020 AJM Revisions: Anderson Engineering of Minnesota, LLC | Proj # SD 1007 (952) 854-9302 TEL. VA FORM 08 - 6231

EXISTING CONCRETE COLUMN SCHEDULE

MARK SIZE REMARKS

(E) 10" COL. (E) 10" COL.
(E) C1 12"x12"
(E) C2 14"x14"
(E) C3 16"x16"
(E) C4 18"x18"
(E) C5 20"x20"
(E) C6 22"x22"
(E) C7 23"x23"
(E) C8 24"x24"
(E) C9 26"x26"

	EXISTING FOOTING SCHEDULE			
MARK	SIZE	REINF. E.W. BOTTOM	REMARKS	
(E) F5.3	5'-4"x5'-4"x2'-2"	(10) - #5		
(E) F6.5	6'-6"x6'-6"x2'-2"	(14) - #5		
(E) F6.8	6'-10"x6'-10"x2'-4"	(14) - #5		
(E) F7	7'-0"x7'-0"x2'-0"	(20) - #6		
(E) F7.5	7'-6"x7'-6"x2'-2"	(22) - #6		
(E) F7.5b	7'-6"x7'-6"x2'-4"	(21) - #6		
(E) F8	8'-0"x8'-0"x2'-4"	(22) - #6		
(E) F8.5	8'-6"x8'-6"x2'-4"	(24) - #6		
(E) F8.8	8'-10"x8'-10"x2'-4"	(24) - #6		
(E) F9.2	9'-2"x9'-2"x2'-6"	(28) - #6		
(E) F9.3a	9'-4"x9'-4"x2'-2"	(28) - #6		
(E) F9.3b	9'-4"x9'-4"x2'-6"	(27) - #6		
(E) F9.5	9'-6"x9'-6"x2'-6"	(26) - #6		
(E) F9a	9'-0"x9'-0"x2'-2"	(25) - #6		
(E) F9b	9'-0"x9'-0"x2'-4"	(28) - #6		



SCHEDULE

STEEL BEAM, SEE — PLAN (SUPPORTING

MEMBER)

