GENERAL

- ALL CONSTRUCTION TESTING AND INSPECTIONS SHALL CONFORM TO THE 2012 IBC AND 2014 OSSC.
- ALL DETAILS ARE TYPICAL. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS SIMILAR TO THOSE SHOWN, SUBJECT TO REVIEW.
- VERIFY ALL EXISTING FEATURES AND CONDITIONS (DIMENSIONS, ELEVATIONS, ETC.) UPON WHICH THESE DRAWINGS RELY.
- OMISSIONS OR DISCREPANCIES BETWEEN THE V'ARIOUS ELEMENTS OF THE CONTRACT DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- COORDINATE STRUCTURAL WORK WITH THE MECHANICAL ELECTRICAL, PLUMBING, & FIRE WORK. OPENING'S IN FLOORS, BEAMS, OR JOIST LARGER THAN THOSE SHOWN ON TYPICAL DETAILS OF STRUCTURAL DRAWINGS SHALL BE REVIEWED BY THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE WORK.
- DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDING. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING, BRACING, AND GUYS IN ACCORDANCE WITH ALL INATIONAL, STATE, AND LOCAL SAFETY ORDINANCES.
- WHERE A CONFLICT OCCURS BETWEEN SPECIFICATIONS. NOTES ON THE DRAWINGS, GENERAL NOTES, AND SPECIFIC DETAILS, THE MORE RESTRICTIVE SHALL GOVER N.
- 8. DO NOT SCALE THE DRAWINGS.
- 9. VIBRATION EFFECTS OF MECHANICAL EQUIPMENT ARE NOT CONSIDERED TO BE DETRIMENTAL TO THE STRUCTURAL DESIGN AND HAVE NOT BEEN CONSIDERED BY THE STRUCTURAL ENGINEER.
- 10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREIN OR NOT, AND TO PROTECT THEM FROM DAMAGE. THIE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT IN CONJUNCTION WITH THE PERFORMANCE OF THIS WORK.
- 11. ITEMS IDENTIFIED BY TRADE NAME ARE INDICATIVE OF A LEVEL OF PERFORMANCE OR A GRADE OF MATERIAL, IN ALL SUCH CASES THE PHRASE "OR APPROVED EQUAL" SHALL APPLY. SUBSTITUTES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO USE.
- 12. CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN ON STRUCTURAL, AND MECHANICAL DRAWINGS. NOTIFY ENGINEER OF ANY CONFLICTING INFORMATION PRIOR TO BEGINNING CONSTRUCTION.
- 13. THE BRACING AND SHORING SYSTEMS REQUIRED TO PROVIDE TEMPORARY SUPPORT OF THE STRUCTURE DURING CONSTRUCTION SHALL BE DESIGNED TO SUPPORT THE DEAD. LIVE, SOIL, EARTHQUAKE, AND WIND LOADS THAT MAY BE IMPOSED ON THE STRUCTURE DURING CONSTRUCTION, IN ACCORDANCE WITH INDUSTRY STANDARDS AND GENERALLY ACCEPTED ENGINEERING PRINCIPLES.

GENERAL NOTES

13

VICINITY MAP

- 14. THE STABILITY AND INTEGRITY OF THE EXISTING STRUCTURES DURING CONSTRUCTION SHALL BE MAINTAINED AT LEVELS GENERALLY ACCEPTABLE WITHIN THE CONSTRUCTION INDUSTRY BY THE USE OF BRACING, SHORING AND UNDERPINNING UNTIL THE PROPOSED STRUCTURE MODIFICATIONS ARE COMPLETED, IN NO CASE SHALL THE EXISTING STRUCTURES BE ALLOWED TO BECOME UNSAFE DURING CONSTRUCTION.
- 15. NO CONSTRUCTION OR ORDERING MATERIALS SHALL TAIKE PLACE UNTIL THE CONTRACTOR HAS RECEIVED REVIEWED SUBMITTALS BY THE ENGINEER.
- 16. CONSTRUCTION LIABILITY: CONSTRUCTION CONTRACTOR AND HIS/HER SUBCONTRACTORS AGREE THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICE S. CONSTRUCTION CONTRACTOR AND HIS/HIER SUBCONTRACTORS WILL BE REQUIRED TO ASSUMED SOILE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCL.UDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR AND HIS/HER SUBCONTRACTORS FURTHER AGREE TO DEFEND, INDEMINIFY, AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT EXCEPT LIABILITY FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIIONAL.
- 17. THE SUBMITTALS SHALL SHOW LAYOUT, SIZE OF MEMBERS, CONNECTION DETAILS AND CONSTRUCTION SEQUENCE FOR ALL BRACING AND SHORING SYSTEMS. THE SUBMITTALS SHALL BE ACCOMPANIED BY STRUCTURAL CALCULATIONS SIGNIED BY A REGISTERED STRUCTURAL ENGINEER. THE ENGINEER SHALL ALSO PROVIDE A LETTER STATING THAT HE/SHE HAS REVIEWED THE SUBMITTALS FOR COMPLETENESS AND S;HALL PERFORM FIELD VISITS AS REQUIRED IN ORDER TO CHECK GENERAL CONFORMANCE OF THE CONSTRUCTION TO THE CALCULATIONS.
- 18. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED BY THESE DOCUMENTS AFTER THE CONTRACTOR HIMSELF HAS REVIEWED THE SUBMITTALS. ENGINEERING REVIEW OF ANY SUBMITTALS IS ONLY FOR COMPLIANCE WITH GENERAL STRUCTURAL REQUIREMENT AND IS SPECIFICALLY NOT FOR DIMENSIONAL OR QUANTITATIVE INFORMATION.

BY CONTRACTOR. PROJECT SCOPE SHOP DRAWING SUBMITTALS: **FABRICATION DETAILS** COMPONENT LIST ARCHITECT 1551 OAK STREET JOHNSON BRODERICK ENGINEERING 325 WEST 13TH AVENUE EUGENE, OREGON 97401 PHONE - (541)338-9488 ENGINEER OF RECORD: AARON BRODERICK, PE PROJECT CONTACT: AARON BRODERICK, IPE EMAIL: AARON@JBE.US.COM

SITE ADDRESS: SHELDON HIGH SCHOOL SCOPE OF WORK: 2455 WILLAKENZIE ROAD EUGENE, OREGON 97401 THE DESIGNS INCLUDED WITHIN THIS DRAWING SET ARE INTENDED FOR BUILDING A NEW BACKSTOP RUNNING DOWN THE FIRST BASE TAX MAP: 17032012045800 LINE OF THE SHELDON HIGH SCHOOL VARSITY BASEBALL FIELD. NW 1/4 NE 1/4 SEC 20 T 17 S R 3 W WM NO PART OF THIS DRAWING SET MAY BE USED ON ANY STRUCTURE LOCATED NOT AT THE ADDRESS LISTED ABOVE WITHOUT WRITTEN CONSENT FROM THE ENGINEER OF RECORD. PRIVATE LOCATES OF ALL UNDERGROUND SERVICES AND UTILITIES 8 LOT INFORMATION APA AMERICAN PLYWOOD ASSOCIATION BOTTOM BTW CONC CONCRETE EW **EACH WAY** FOC FACE OF CHANNEL FOB FACE OF BUILDING FTG **FOOTING** CUT SHEETS OF PROPOSED HARDWARE OC ON CENTER OSSC OREGON STRUCTURAL SPECIALTY CODE PLY PLYWOOD

JOHNSON BRODERICK ENGINEERING

THE DOCUMENT AND THE DESIG

EDINGHERMORE

BASEBALL FIELD BACKST SHELDON HIGH SCHOOL

3- 18 - 2015

Project No: 15002.01

Drawn By: FAD

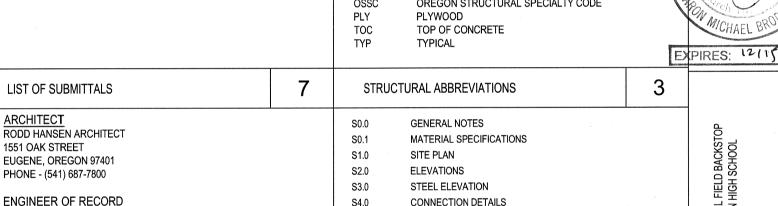
Checked By: AMB

STRUCTURAL

NOTES

S_{0.0}

2



S4.1

S4.2

5

FOUNDATION DETAILS

NET ATTACHMENT DETAILS

5

NOTES

DETAIL SPACE NUMBER FOR SHEETS S1.0 THROUGH S4.0 ALWAYS REMAIN

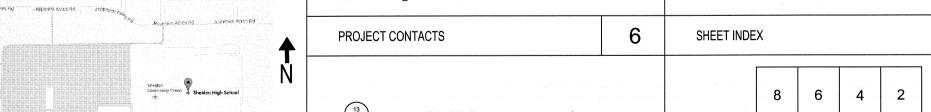
THE SAME. IF A DETAIL OCCUPIES MORE THAN ONE SPACE IT IS IDENTIFIE:D

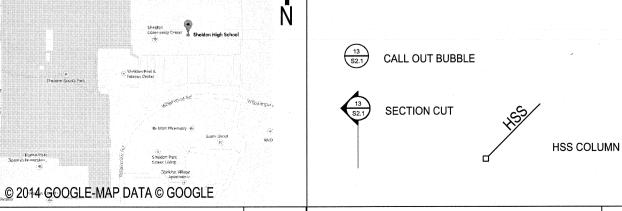
BY THE NUMBER FOR THE LOWER RIGHT SPACE, A DETAIL OCCUPYING

SPACES 1, 2, 3, AND 4 WOULD BE NUMBERED AS 1

SHEET NUMBERING

3





STRUCTURAL SYMBOLS

9

STRUCTURAL STEEL

1. STEEL USAGE:

HSS COLUMNS: BASE PLATES: ANGLE, CHANNEL: ASTM A500, GR. B, FY=46 KSI

- ASTM A36 ASTM A36
- 2. ALL STRUCTURAL STEEL TO BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS, LATEST APPROVED EDITION.
- 3. ALL WELDING TO CONFORM TO AWS AND TO BE PERFORMED BY' CERTIFIED WELDERS.
- 4. ALL BUTT WELDS ARE TO BE COMPLETER PENETRATION UNI FSS OTHERWISE NOTED. ALL FILLET WELDS SHOWN ARE MINIMUM REQUIRED BY STRESS. INCREASE WELDS TO AISC MINIMUM SIZES BASED ON THICKNESS OF MATERIAL JOINED UNLESS OTHERWIS:E NOTED.
- 5. WELDING ELECTRODE TO BE E70XX UNLESS OTHERWISE NOTED. EXCEPT E70XX-T4 IS NOT TO BE USED. SEE FRAME CONNECTION DETAILS FOR REQUIREMENT OF WELD METAL.
- 6. ALL DETAILS ARE TYPICAL. FOR CONDITIONS NOT SPECIFICALLY SHOWN, CONTRACTOR SHALL APPLY SIMILAR CONCEPT OR INTENT TO DETAIL THOSE CONDITIONS AND SUBMIT FOR REVIEW AND APPROVAL.
- 7. BOLT HOLES FOR MACHINE BOLTS SHALL BE NO MORE THAN 1/16" OVERSIZE, UNLESS OTHERWISE NOTED. WHERE OVERSIZED HOLES ARE REQUIRED, PROVIDE 5"X3"X3" PLATE WASHER WELD ED TO THE STRUCTURAL MEMBER.
- 8. ALL STEEL MEMBERS CONNECTING TO OR SUPPORTING WOOD FRAMING SHALL HAVE 1/2" DIAMETER THREADED STUDS AT 24" ON CENTER UNLESS OTHERWISE NOTED.
- 9. ALL FRAME MEMBERS BELOW FINISHED FLOOR SHOULD BE ENCASED IN MINIMUM 3" CONCRETE PROTECTION AGAINST SOIL.. USE WIRE MESH AS REQUIRED.

10.GALVANIZE STEEL TUBE PER ASTM A500.

MANUFACTURED PRODUCTS

THE FOLLOWING MANUFACTURED PRODUCTS SHALL BE DESIGNED AND INSTALLED IN COMPLIANCE WITH THE ASSOCIATED ICC-ES **EVALUATION REPORT LISTED BELOW:**

A.

PRODUCT SET

REPORT ESR-1772

SUBGRADE PREPARATION

- REMOVE ALL NON-NATIVE OR ORGANIC SOILS.
- 2. PROVIDE MINIMUM 8" COMPACTED CRUSHED ROCK BASE AT FOOTINGS.

CONCRETE

- ALL CONCRETE SHALL BE DESIGNED, MIXED AND PLACED IN ACCORDANCE WITH ACI 318, USE MIXES WITH MAXIMUM AGGREGATE SIZE APPROPRIATE FOR FORM AND REBAR CLEARANCES TO BE ENCOUNTERED.
- THE PROPOSED MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED. RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTORS RESPONSIBILITY., SUBMIT TEST DATA ON EACH PROPOSED MIX FOR REVIEW IN ACCORDANCE WITH ACI REQUIREMENTS.

CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES:

ELEMENT:

AGGREGATE SIZE

28-DAY STRENGTH (PSI) 3000

FOUNDATION SLABS

3/4" 3/4"

4000

EXTERIOR CONC. SLABS & FOOTING HAVE BEEN DESIGNED IFOR fc= 2500 PSI AND DO NOT REQUIRE SPECIAL INSPECTION UNI ESS. OTHERWISE NOTED ON THESE PLANS. PROVIDE 3000 PSI CONCRETE WHERE REQUIRED FOR WEATHERING, 5% AIR ENTRAINMENT.

3. PRIOR TO PLACING CONCRETE. THE CONTRACTOR SHALL FINSURE THAT ALL EMBEDMENTS, ARE PROPERLY LOCATED AND SECURELY TIED IN PLACE. WET SETTING OF ANY APPURTENANCES IS NIOT ALLOWED.

SOIL AND FOUNDATION

- 1. THE FOUNDATION DESIGN IS BASED UPON THE 2014 OSSC.
- 2. THE ALLOWABLE DESIGN VALUES ARE AS FOLLOWS:

A. VERTICAL BEARING PRESSURE = 1500 PSF

B. LATERAL BEARING PRESSURE = 150 PSF

- ALL FOOTINGS AND SLABS SHALL BE FOUNDED ON COMPACTED CRUSHED ROCK; ALL CLAY SOILS TO BE REMOVED.
- ALL WALL FOOTINGS SHALL BE CENTERED BELOW WALL/COLUMN ABOVE UNLESS OTHERWISE NOTED.

WELDING

- 1. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS PER AWS "STANDARD QUALIFICATION PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED. ALL WELDING SHALL BE IN ACCORDANCE WITH THE CURRENT AWS WELDING CODE.
- 2. WELDING ELECTRODES SHALL BE E70 SERIES FOR A36, A572 AND A992 MATERIAL, AND E80 SERIES FOR A705 REINFORCING STEEL
- 3. WELD METAL TOUGHNESS SHALL BE REPORTED ON THE ELECTRODE MANUFACTURER'S CERTIFICATE OF COMPLIANCE. ALL ELECTRODES SHALL BE LOW HYDROGEN WITH A MINIMUM CVN VALUE OR 20 FT-LBS AT 0° F. EXCEPTIONS: METAL DECK WELDING, STAIR AND HANDRAIL WELDING, LIGHT GAGE STEEL WELDING.
- 4. TACK WELDS, AIR-ARC GOUGING AND FLAME CUTTING SHALL NOT BE PERFORMED WITHOUT ADEQUATE PREHEAT OR INCORPORATION INTO THE FINAL WELD.
- 5. THE FILLER METAL MANUFACTURER'S PUBLISHED RECOMMENDATIONS SHALL BE THE BASIS FOR DETERMINING THE ALLOWABLE RANGE OF ESSENTIAL VARIABLES FOR THE PREQUALIFIED WPS. UNLESS OTHERWISE NOTED ON THE PLANS, BACK-UP BARS FOR CJP WELDS SHALL BE REMOVED.

REINFORCING STEEL

- 1. ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE TO " BUILDING CODE REQUIREMENTS FOR REINFORCED (CONCRETE" (ACI 318, LATEST APPROVED EDITION), AND THE "ACI DETAILING MANUAL" AS MODIFIED BY THE PROJECT DRAWINGS AND SPECIFICATIONS.
- 2. REINFORCING STEEL TO BE ASTM A615, GRADE 60 DE FORMED BAR UNO.
- REINFORCING STEEL WITH WELDED CONNECTION TO BE ASTM A706, GRADE 60 DEFORMED BAR UNO.
- 4. ALL LAP SPLICES SHALL BE CLASS B SPLICE AND 2'-0" MINIMUM UNLESS OTHERWISE NOTED ON SCHEDULE. MAINTAIN MINIMUM 1-1/2" CLEARANCE BETWEEN PARALLEL BARS OR WHERE NOT CONTACT LAPPED.
- ALL REINFORCING STEEL AND EMBEDMENTS TO BE HELD SECURELY IN PLACE PRIOR TO PLACING CONCRETE. IPROVIDE SUFFICIENT SUPPORTS TO ALLOW WALKING ON REINIFORCEMENT PLACE REINFORCEMENT IN RELATIVE POSITION SHOWN ON THE DRAWINGS.
- PROVIDE CONTINUOUS REINFORCEMENT WHENEVER POSSIBLE.
- REINFORCEMENT BARS SHALL NOT BE RE-BENT WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

WIRE ROPE

- THE MAIN CABLE SHALL BE 1/2" DIAMETER, EXTRA-HIGH STRENGTH GRADE, GALVANIZED STEEL CABLE HAVING A MINIMUM TENSILE BREAKING STRENGTH OF 26,900 LBS OR GREATER.
- ALL CABLES ORIENTATED VERTICALLY SHALL BE 3/8" DIAMETER. HIGH STRENGTH GRADE, GALVANIZED STEEL CABLE HAVING A MINIMUM TENSILE BREAKING STRENGTH OF 15.400 LBS OR GREATER.
- ALL CABLES SHALL BE GALVANIZED IN ACCORDANCE ASTM A475
- ALL PULLEYS, WIRE CLIPS, QUICK CLIPS AND OTHER HARDWARE FOR CONNECTING THE NETTING SYSTEM SHALL BE CAPABLE OF WITHSTANDING AT LEAST TWO TIMES THE TENSILE LOADS INDICATED BELOW FOR THE THE RESPECTIVE CABLE TYPE.

TABLE 1 - STATIC LOADING

TABLE 2 - CASE 1 (85 MPH WIND)

13,400 LBS 1/2" 26,900 LBS

½" 26,900 LBS

3/8" 15,400 LBS

3/8" 15,400 LBS

18.9

308

2.0

2.2

1,420 LBS

50 LBS

7065 LBS

MAIN

VERTICAL

CABLE TYPE

MAIN

VERTICAL

JOHNSON BRODERICK ENGINEERING ral Engineas Fre(E4) 328-948

CABLE TYPE | STATIC FORCE | CABLE | CAPACITY | SAFETY FACTOR TOTAL FORCE | CABLE | CAPACITY | SAFETY FACTOR

MICHAEL

EXPIRES:

1215

TABLE 3 - CASE 2 (ICE AND 30 MPH WIND)				
CABLE TYPE	STATIC FORCE	CABLE	CAPACITY	SAFETY FACTOR
MAIN	2770 LBS	1/2"	26,900 LBS	9.7
VERTICAL	1096 LBS	3/8"	15,400 LBS	14

BACKSTOP NETTING

ALL NETTING SHALL BE #36 THREE-STRAND TWISTED TWINE -KNOTTED NETTING WITH A MESH SIZE OF 13/2" AND TWINE BREAKING STRENGTH OF 250LBS OR GREATER.

. FIELD BACKSTOP HIGH SCHOOL BASEBALL F SHELDON H

Revisions

Date: 3- 18 - 2015

Project No: 15002.01

Drawn By: FAD Checked By: AMB

MATERIAL

SPECIFICATIONS

Sheet title

MATERIAL SPECIFICATIONS

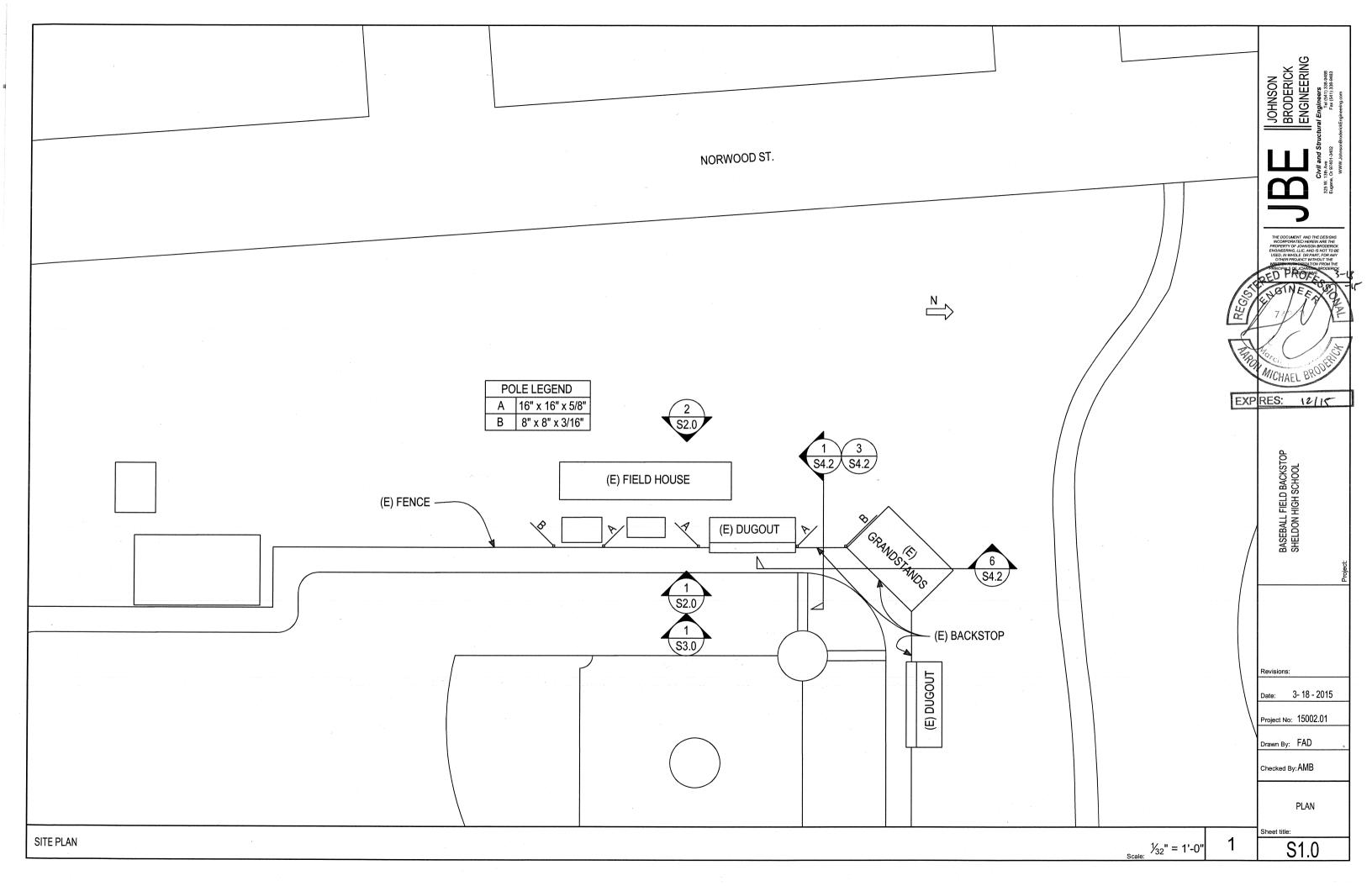
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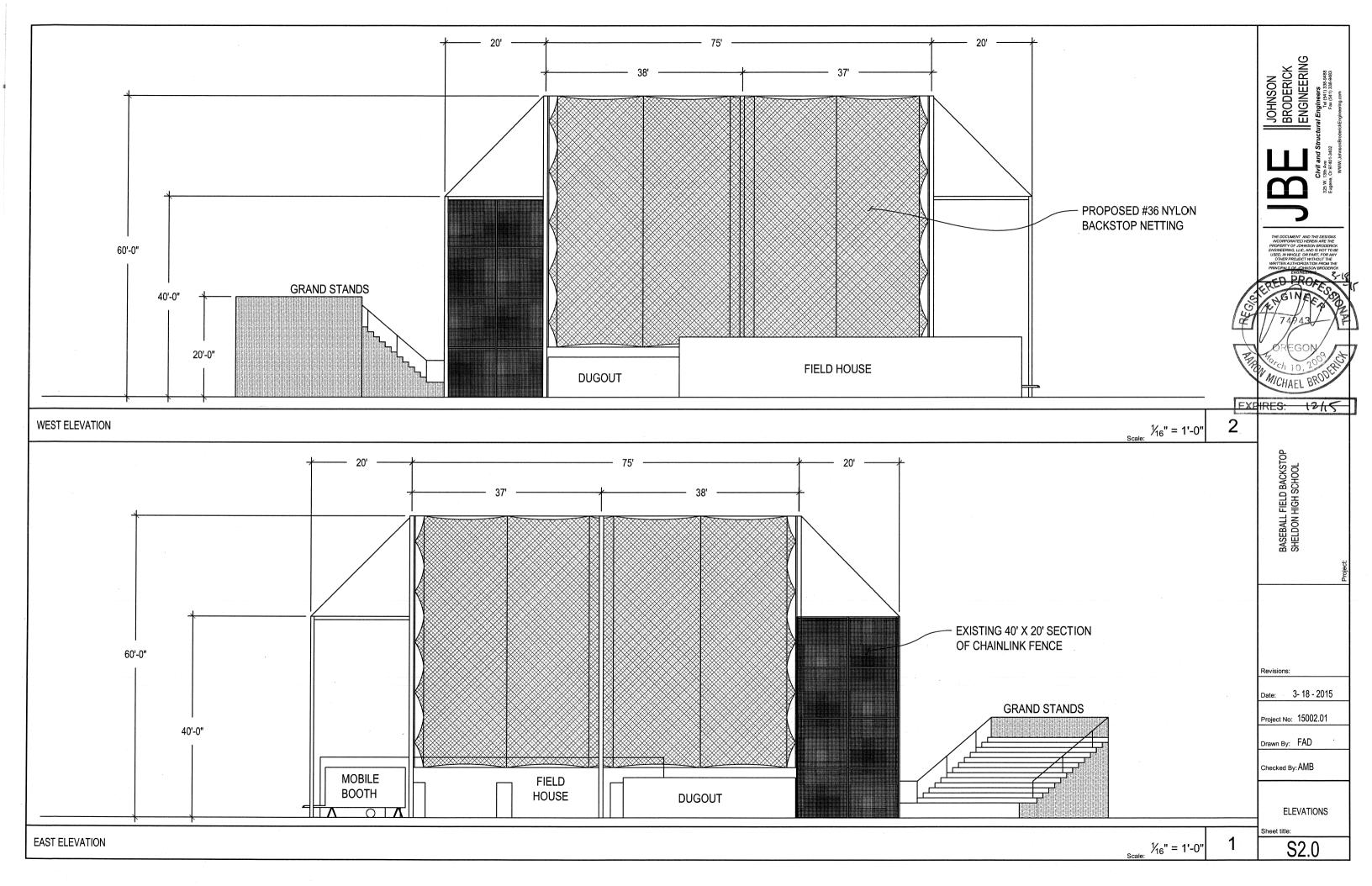
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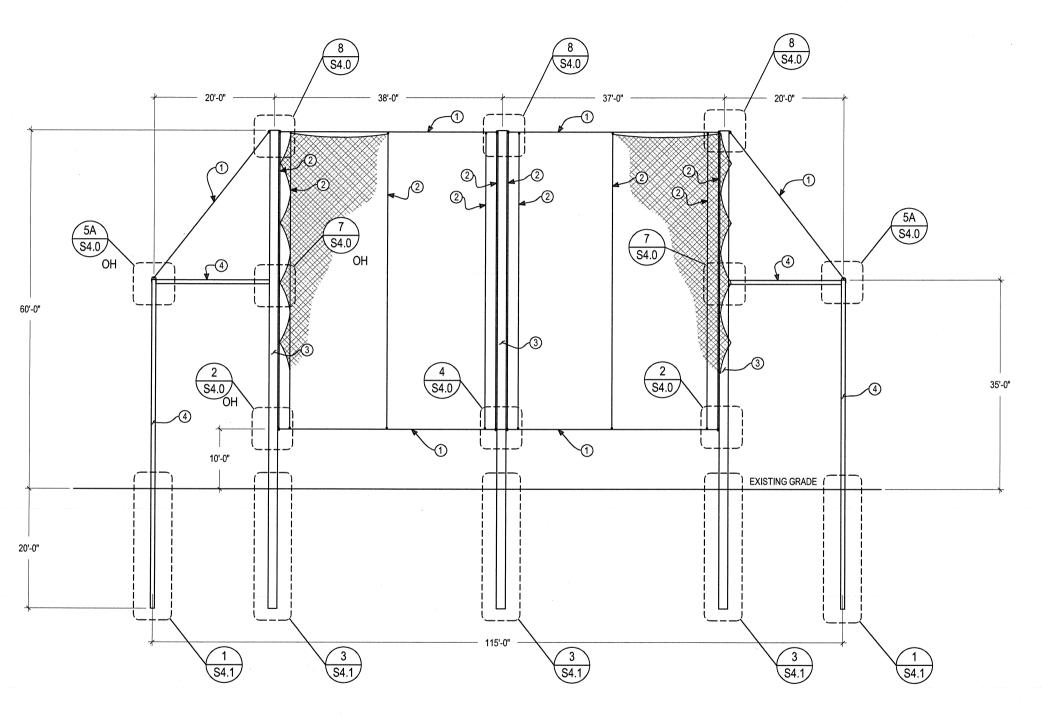
MATERIAL SPECIFICATIONS

5

MATERIAL SPECIFICATIONS







① = 1/2" EHS WIRE ROPE ② = 3/8" EHS WIRE ROPE ③ = 16" x 16" x 5/8" HSS ④ = 8" x 8" x 3/16" HSS

EXPIRES: 12/17 BASEBALL FIELD BACKSTOP SHELDON HIGH SCHOOL Date: 3- 18 - 2015 Project No: 15002.01 Drawn By: FAD Checked By: AMB STEEL ELEVATIONS

S3.0

