BEAVERTON SCHOOL DISTRICT

Business Services
Procurement and Contracting
16550 SW Merlo Road
Beaverton, OR 97003
(503) 356-4324

April 11, 2022

SOLICITATION ADDENDUM NO. 2
ITB 21-0026
Five Oaks Mechanical Penthouse Roof Replacement

THE FOLLOWING CHANGES/ADDITIONS TO THE ABOVE CITED SOLICITATION ARE ANNOUNCED:

This Addendum modifies the Invitation to Bid (ITB) document(s) only to the extent indicated herein. All other areas not changed or otherwise modified by this Addendum shall remain in full force and effect. This Addendum is hereby made an integral part of the ITB document. Bidder must be responsive to any requirements of this Addendum as if the requirements were set forth in the ITB. Failure to do so may result in Bid rejection. See the ITB regarding requests for clarification or change and protests of this Addendum, and the deadlines for the foregoing.

This addendum is to be acknowledged in the space provided on the Bidder Certification form supplied in the solicitation document. Failure to acknowledge receipt of this addendum may be cause to reject your offer.

The closing date **IS :**
April 19, 2022 at 2:00 PM Pacific Time

CLARIFICATIONS/QUESTIONS

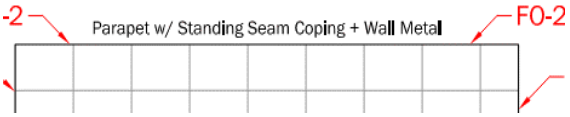
- **The Revised Drawings attached to the Addendum 2 hereby replace any corresponding pages in ATTACHMENT J Drawings. If any pages in the Revised Drawings do not have a corresponding page in the ATTACHMENT J Drawings, such pages are hereby added to the ATTACHMENT J Drawings.**

Question: Is 60 mil an acceptable substitution for the 80mil?
Answer: **A 60 mil is not acceptable substitute. It must be 80mil**.

Question: Glue is difficult to acquire at this time, is mechanically fastened acceptable?
Answer: **The membrane must be fully adhered**.

Question: On our site visit we noticed that the existing main roof of the building is past its useful life. While we will work diligently to protect it during the work on the mechanical penthouse roofs, we wanted to confirm that the district is aware of the condition of the existing main roof.
Answer: **The District is aware of the existing roof condition. The contractor is responsible for all damages done to the existing roof system**.

Question: Detail FO-1 shows TPO wrapping up and over parapet walls. Detail Callout Drawing calls for parapet with standing seam coping and wall metal. Is wall metal required on the project?



Answer: **Yes – wall metal to be provided per Detail Callout drawing.**

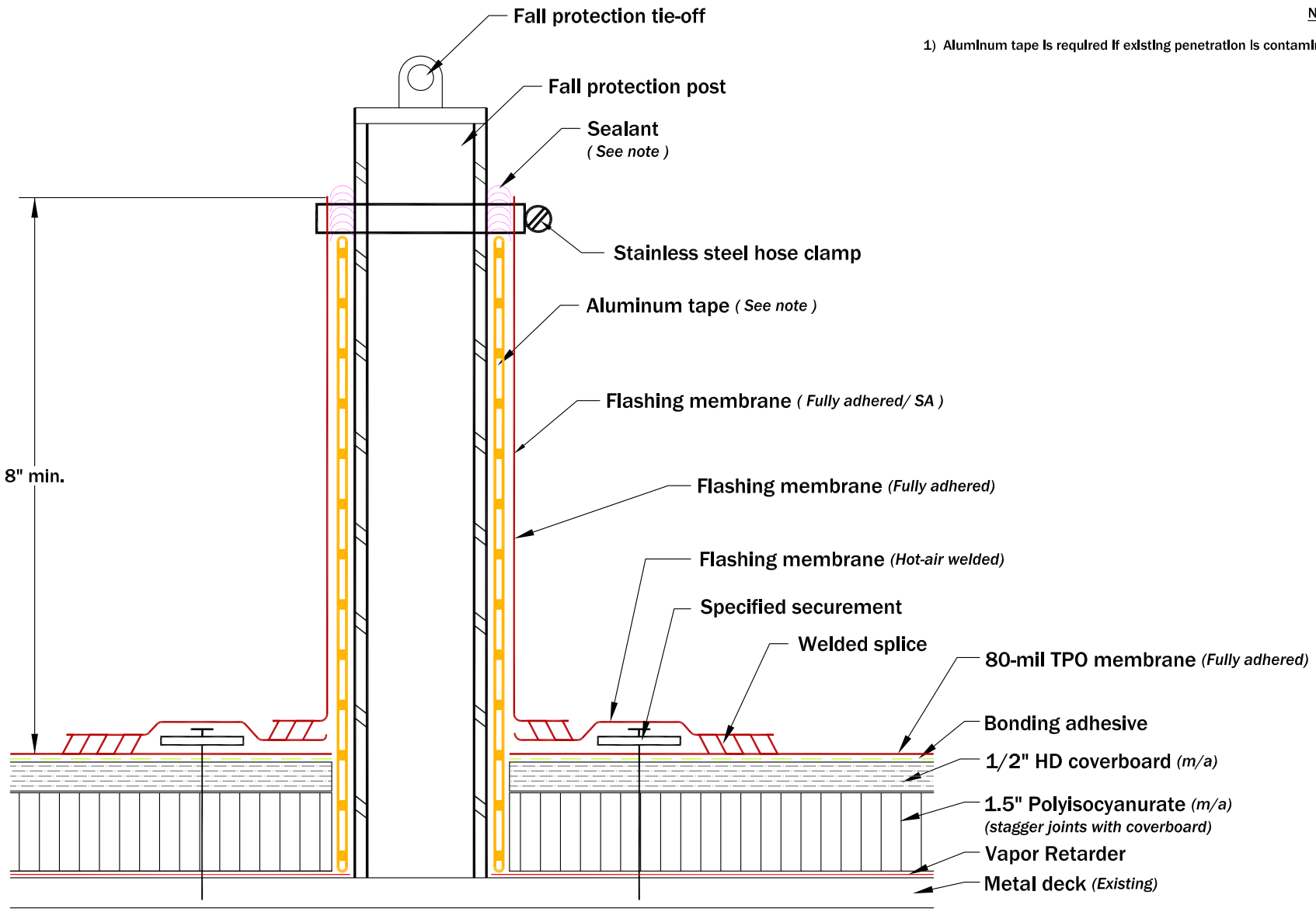
ATTACHMENTS:

13 – A-Tech Detail FO-13
14 – A-Tech Detail FO-14
S001 - HOLMES Cover Sheet
S002 - HOLMES General Notes
S003 - HOLMES General Notes Continued
S010 - HOLMES Special Inspections
S201 - HOLMES Roof Partial Plans
S301 - Details

End of Addenda

NOTES:

1) Aluminum tape is required if existing penetration is contaminated.



Detail Ref: FO-13

Bid Addenda 2 - 4/8/22

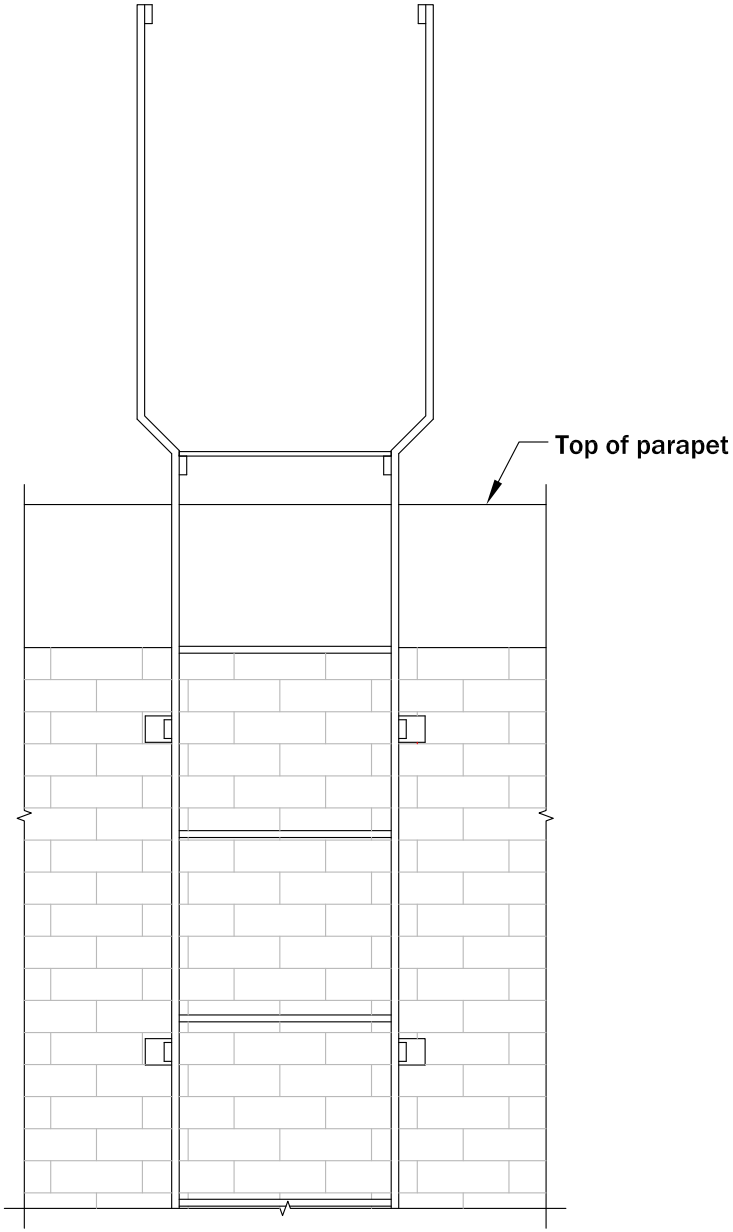
BEAVERTON SCHOOL DISTRICT
Five Oaks Middle School - Beaverton, OR

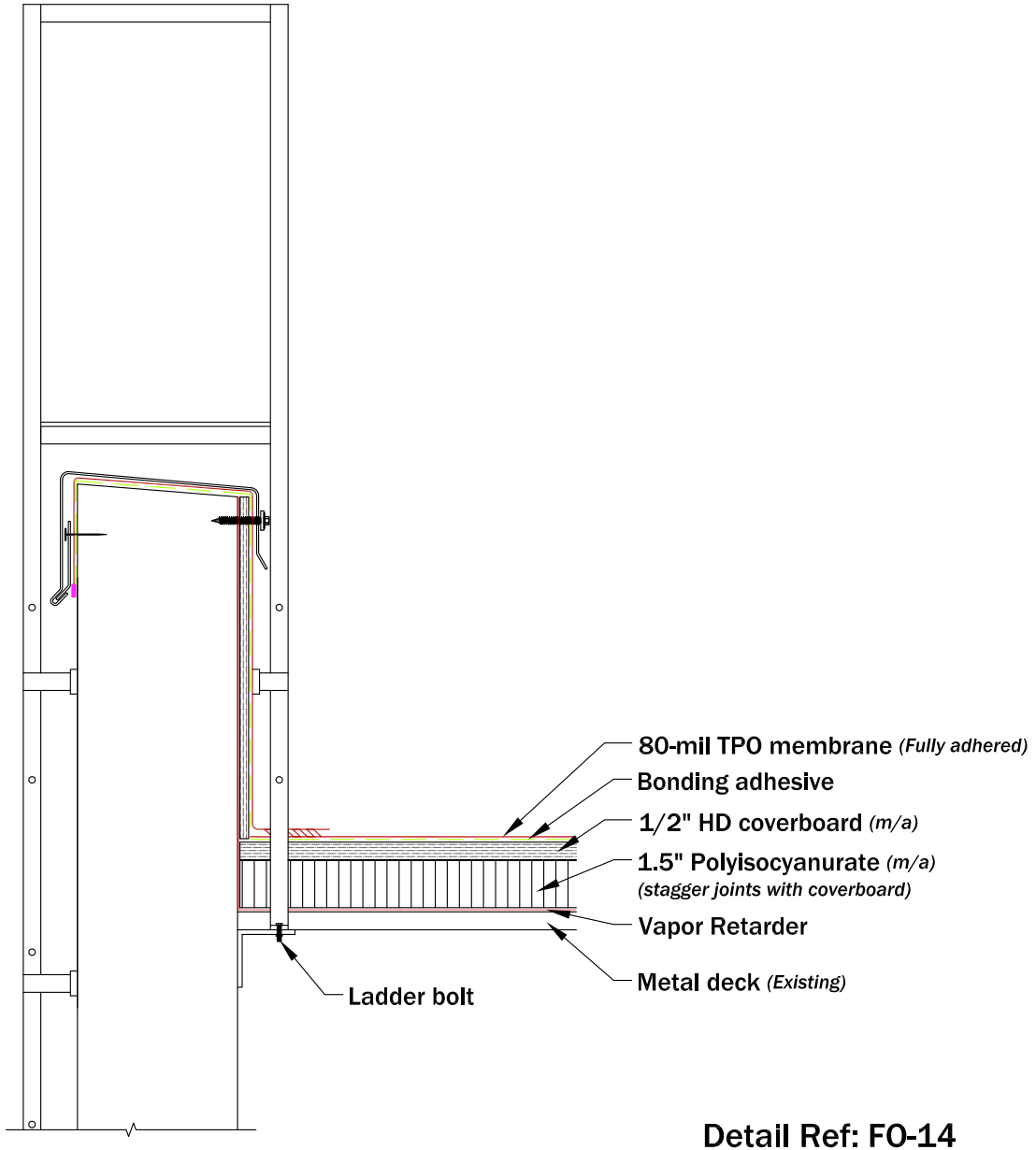
SCALE: NTS	13 of 14	DRAWN BY: D.V.G.
DATE: 1/21/22		REVISED:

A-TECH/NORTHWEST, INC.
Portland & Prineville, Oregon 503 - 628 - 2882

Penetration - Fall protection post - Detail

PROJECT NUMBER: 22048





Detail Ref: FO-14

Bid Addenda 2 - 4/8/22

Note: must meet manufactures requirements

BEAVERTON SCHOOL DISTRICT
Five Oaks Middle School - Beaverton, OR

SCALE: NTS	14 of 14	DRAWN BY: D.V.G.
DATE: 1/21/22		REVISED:

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Portland & Prineville, Oregon 503 - 628 - 2882

Misc - Roof Ladder - Detail

PROJECT NUMBER: 22048

Holmes

Holmes Structures Portland

SHEET LIST	
SHEET NUMBER	SHEET NAME
S001	COVER SHEET
S002	GENERAL NOTES
S003	GENERAL NOTES CONTINUED
S010	SPECIAL INSPECTIONS
S201	ROOF PARTIAL PLANS
S301	DETAILS

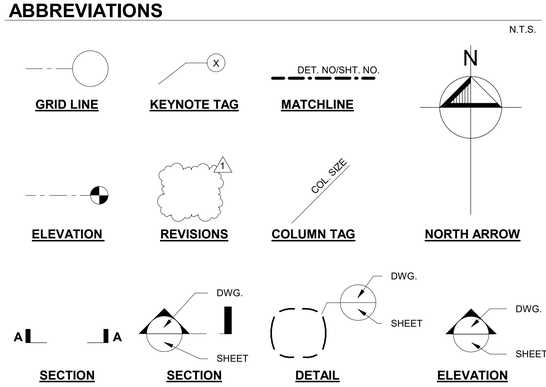
LATERAL IMPROVEMENT NARRATIVE

THIS PROJECT IS A ROOF IMPROVEMENT FOR FIVE OAKS MIDDLE SCHOOL. THIS SCHOOL HAS AREAS PREVIOUSLY IDENTIFIED AS HAVING SEISMIC DEFICIENCIES - THESE ARE NOT ALL DIRECTLY ADDRESSED IN THIS PROJECT. THE CURRENT BEAVERTON SCHOOL DISTRICT LATERAL IMPROVEMENT GOAL IS COMPLIANCE WITH THE BPOE FOR EXISTING BUILDINGS AS OUTLINED IN THE ASCE/SEI 41-17 STANDARD. ADDITIONAL STRENGTHENING WORK WILL BE REQUIRED IN THE FUTURE TO HAVE STRUCTURAL PERFORMANCE COMPLYING WITH THE ASCE/SEI 41-17 BPOE. THE INTENT OF THE ASCE/SEI 41-17 BPOE DESIGN IS TO PROTECT THE OCCUPANTS, NOT THE BUILDINGS.

(A)	ABOVE
A.B.	ANCHOR BOLT
ADD'L	ADDITIONAL
ADJ.	ADJACENT
A.F.F.	ARCHITECTURAL FINISHED FLOOR
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.T.R.	ALL THREAD ROD
(B)	BELOW
BLDG.	BUILDING
BLKG.	BLOCKING
BM.	BEAM
B.N.	BOUNDARY NAILING
B.O.	BOTTOM OF
BOT.	BOTTOM
BTWN.	BETWEEN
℄	CENTERLINE
C.F.	CUBIC FEET
C.I.P.	CAST IN PLACE
C.J.	CONSTRUCTION JOINT
CLR.	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTR.	CENTER
COL.	COLUMN
CNTRSNK.	COUNTER SUNK
COLL.	COLLECTOR
COMP.	COMPACTED
CONC.	CONCRETE
COND.	CONDITION
CONN.	CONNECTION
CONT.	CONTINUOUS
DBL.	DOUBLE
DET.	DETAIL
DIA. Ø	DIAMETER
DIAPH.	DIAPHRAGM
DIM.	DIMENSION
DN.	DOWN
DWG.	DRAWING
(E)	EXISTING
EA.	EACH
E/E	EACH END
E/F	EACH FACE
EL.	ELEVATION
EMB.	EMBEDMENT
E.N.	EDGE NAILING
EQ.	EQUAL
EQUIV.	EQUIVALENT
E/S	EACH SIDE
E/W	EACH WAY
EXT.	EXTERIOR
FDN.	FOUNDATION
FIN.	FINISH
FLR.	FLOOR
F.N.	FIELD NAILING
F.S.	FAR SIDE
FT.	FEET
FTG.	FOOTING
GA.	GAUGE
GALV.	GALVANIZED
G.L.	GRID LINE
GLB	GLUED LAMINATED BEAM
HD	HOLDOWN
H.D.G.	HOT DIP GALVANIZED
HDR.	HEADER
HORIZ.	HORIZONTAL
HT.	HEIGHT
HSS	HOLLOW STRUCTURAL STEEL
I.D.	INSIDE DIAMETER
IN.	INCH
INT.	INTERIOR
LB.	POUND
LONG.	LONGITUDINAL
LLV	LONG LEG VERTICAL
LV.	LEVEL
L.S.	LAG SCREW
LVL	LAMINATED VENEER LUMBER
L.W.	LIGHT WEIGHT
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MECH.	MECHANICAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
ML.	MICROLLAM
MTL.	METAL
(N)	NEW
N.I.C.	NOT IN CONTRACT
N.S.	NEAR SIDE
N.T.S	NOT TO SCALE
N.W.	NORMAL WEIGHT
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OPNG.	OPENING
OPP.	OPPOSITE
PAR.	PARALLEL
PERP.	PERPENDICULAR
PL	PLATE
PSL	PARALLEL STRAND LUMBER
PLYWD.	PLYWOOD
P.T.	PRESSURE TREATED
P/T	POST TENSIONED
REF.	REFERENCE
R.C.	RELATIVE COMPACTION
REINF.	REINFORCING
REQ'D	REQUIRED
REV.	REVISION
S.A.D.	SEE ARCHITECTURAL DRAWINGS
S.C.D.	SEE CIVIL DRAWINGS
S.L.D.	SEE LANDSCAPE DRAWINGS
S.M.D	SEE MECHANICAL DRAWINGS
SCH.	SCHEDULE
SHT.	SHEET
SHTG.	SHEATHING
SIMP.	SIMPSON
SIM.	SIMILAR
S.O.G.	SLAB ON GRADE
SPEC.	SPECIFICATIONS
SQ.	SQUARE
STAG.	STAGGERED
STD.	STANDARD
STIFF.	STIFFENER
STL.	STEEL
S.W.	SHEAR WALL
SYM.	SYMMETRIC
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
THK.	THICK
THR'D.	THREADED
THRU	THROUGH
T.O.	TOP OF
T.O.C	TOP OF CONCRETE
T.O.S.	TOP OF SLAB/STEEL
TRNSV.	TRANSVERSE
TS	TUBE STEEL
TYP.	TYPICAL
U.O.N	UNLESS OTHERWISE NOTED
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
V.W.A.	VERIFY WITH ARCHITECT
W/	WITH
WD.	WOOD
W/O	WITHOUT
W.P.	WORKING POINT
WT.	WEIGHT

ABBREVIATIONS

N.T.S.



GRID LINE | KEYNOTE TAG | MATCHLINE | ELEVATION | REVISIONS | COLUMN TAG | NORTH ARROW | SECTION | SECTION | DETAIL | ELEVATION

GENERAL SYMBOLS

N.T.S.

Holmes

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STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 88908PE OREGON MARCH 11, 2014 JENNIFER B. EGGERS

EXP. 12/31/2023

REVISIONS

1	BID ADDENDA #2	04/08/2022

BEAVERTON SCHOOL DISTRICT
Five Oaks Middle School - Beaverton, OR

SCALE: As Noted	S001	DRAWN BY: IK
DATE: 04/08/2022		REVISED: -

A-TECH/NORTHWEST, INC.
Portland & Prineville, Oregon 503 - 628 - 2882

COVER SHEET

PROJECT NUMBER: 22159.10

GENERAL STRUCTURAL NOTES

SCOPE OF WORK: THIS PROJECT INVOLVES A VOLUNTARY STRENGTHENING OF THE BUILDING ROOF SYSTEM. SEISMIC STRENGTHENING WAS COMPLETED PER REQUIREMENTS OF ASCE 41-17 BPOE (RC: III: BSE-1E & BSE-2E, USING 75% CAP FROM BSE-1N & BSE-2N PER SRGP REQUIREMENTS).

GOVERNING CODE:

THE STRUCTURAL DESIGN OF BUILDING COMPONENTS DESCRIBED ON THESE DRAWINGS IS IN ACCORDANCE WITH ASCE 41-17 AS NOTED ABOVE AND PER 2019 OREGON STRUCTURAL SPECIALTY CODE (OSSC) REQUIREMENTS.

LIMITATIONS:

THE LATERAL FORCE RESISTING SYSTEM SHOWN ON THESE DRAWINGS IS DESIGNED TO ACHIEVE MINIMUM REQUIRED STANDARDS FOR STRUCTURAL SEISMIC RESISTANCE, AND IS INTENDED TO REDUCE THE RISK OF LIFE LOSS OR INJURY. THIS WORK WILL NOT NECESSARILY PREVENT LOSS OF LIFE OR INJURY, NOR PREVENT EARTHQUAKE DAMAGE TO NEW OR REHABILITATED BUILDINGS.

1. GENERAL

MATERIALS AND WORKMANSHIP TO CONFORM TO THE BUILDING CODE DEFINED ABOVE AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

A. THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. WHENEVER THERE APPEARS TO BE A CONFLICT BETWEEN THE NOTES, DRAWINGS, OR SPECIFICATIONS, CONTACT THE OWNER'S REPRESENTATIVE FOR CLARIFICATION.

B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT JOB SITE. COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS BEFORE COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES IN A REASONABLE AND TIMELY MANNER. DO NOT PROCEED WITH AFFECTED WORK UNTIL DISCREPANCIES ARE RESOLVED. DO NOT SCALE DRAWINGS.

C. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, USE SIMILAR DETAILS OF CONSTRUCTION, SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.

D. DETAILS NOTED AS "TYPICAL" IN THEIR TITLE OR ON SHEETS TITLED "TYPICAL DETAILS" APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. SUCH DETAILS ARE NOT NOTED AT EACH LOCATION THAT THEY OCCUR.

E. ALL ELEMENTS INDICATED ON THE DRAWINGS SHALL BE ASSUMED "NEW" UNLESS OTHERWISE NOTED.

F. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE AT ALL TIMES FOR THE CONDITIONS OF THE JOB SITE, INCLUDING, BUT NOT LIMITED TO:
a) SAFETY OF PERSONS, PROPERTY AND STRUCTURES,
b) MEANS, METHODS, PROCEDURES, TECHNIQUES OR SEQUENCES OF CONSTRUCTION,
c) COMPLIANCE WITH APPLICABLE CAL/OSHA REQUIREMENTS AND GUIDELINES,
d) ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS.

THE CONTRACTOR SHALL BRACE OR SHORE THE CONSTRUCTION AS REQUIRED TO PROVIDE A SAFE AND TRUE STRUCTURE. WHERE BRACING OR SHORING IS INDICATED IN THE DRAWINGS, IT IS DONE SO ONLY AS A COURTESY TO THE CONTRACTOR AND SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COORDINATE THE WORK WITH THE AFOREMENTIONED PROVISIONS. THE ARCHITECT'S OR ENGINEER'S JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.

2. SUBMITTALS

A. SUBMIT (1) HARDCOPY OR ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) COPY OF REQUIRED SUBMITTALS TO OWNER'S REPRESENTATIVE FOR REVIEW. SUBMIT IN ACCORDANCE WITH DIVISION 1 OF THE SPECIFICATIONS. MULTIPLE COPIES OF THE SAME SUBMITTAL WILL NOT BE RETURNED. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR MAKING ANY ADDITIONAL COPIES OF REVIEWED SUBMITTALS, AS MAY BE REQUIRED. THE ENGINEER SHALL HAVE 15 WORKING DAYS FROM DATE OF RECEIPT TO COMPLETE AND RETURN THE SUBMITTAL REVIEW.

B. SUBSTITUTION REQUESTS SHALL DEMONSTRATE THE REQUESTED SUBSTITUTION'S ABILITY TO MEET OR EXCEED THE REQUIREMENTS OF THE ORIGINALLY SPECIFIED ITEM. THE REQUEST SHALL ALSO INCLUDE A ROUGH COST SAVINGS ESTIMATE TO THE OWNER, REFERENCES TO DETAILS WHERE SUBSTITUTION IS PROPOSED TO BE APPLIED, AND ALL SUPPORTING DOCUMENTATION REQUIRED FOR THE ITEM BY THIS SECTION OF THE NOTES.

C. SHOP DRAWINGS, MILL CERTIFICATES, AND/OR OTHER RELEVANT CERTIFICATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BEFORE FABRICATION, FOR THE ITEMS LISTED BELOW. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL SHOP DRAWINGS WITH ALL TRADES AND FIELD CONDITIONS.

NOTE: SUBMITTING COPIES OF THE STRUCTURAL DRAWINGS IS UNACCEPTABLE AND WILL BE REJECTED FOR COMPLETE REVISION. WHERE NEW STRUCTURAL ELEMENTS ARE LOCATED WITHIN AN EXISTING STRUCTURE, SHOP DRAWINGS SHALL INCLUDE THE COORDINATION OF THE NEW STRUCTURAL ELEMENTS WITH THE EXISTING STRUCTURAL AND ARCHITECTURAL ELEMENTS. ALL SHOP DRAWING SUBMITTALS SHALL CLEARLY IDENTIFY THE SET-OUT OF NEW STRUCTURAL ELEMENTS RELATIVE TO THE RELEVANT PORTIONS OF THE EXISTING STRUCTURE, EXTENT OF ANY REQUIRED DEMOLITION, AND SHALL COORDINATE ALL OF THE RELEVANT TRADES.

1) STRUCTURAL AND MISCELLANEOUS STEEL
   a. MILL CERTIFICATIONS FOR ALL STEEL AND ALL FASTENERS.
   b. SHOP DRAWINGS INCLUDING AT A MINIMUM ASTM MATERIAL DESIGNATIONS, MEMBER SIZES, SIZES AND TYPES OF WELDS, SIZES AND TYPES OF BOLTS, AND DIMENSIONS.
   c. WELD PROCEDURE SPECIFICATIONS FOR EACH TYPE OF WELD TO BE USED AND PRODUCT DATA FOR WELDING FILLER METAL.
   d. MANUFACTURER'S PRODUCT DATA FOR PRIMER AND FINISH PAINT, INCLUDING COLOR CHARTS.
   e. CONTRACTOR SHALL ESTABLISH AND VERIFY REQUIRED TOP OF STEEL (T.O.S.) ELEVATIONS, WHETHER INDICATED ON THE DRAWINGS OR NOT, AGAINST ARCHITECTURAL FINISHED FLOOR AND ROOF ELEVATIONS, AND THE STRUCTURAL DETAILS, INCLUDING ANY SPECIFIED OFFSET OR PRE-CAMBER.
   NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.

2) MECHANICAL ANCHORS AND EPOXY ANCHORS
   a. PRODUCT DATA FOR EACH TYPE OF SYSTEM INCLUDING ANCHOR TESTING IN ACCORDANCE WITH ACI 355.2 FOR MECHANICAL ANCHORS AND ACI 355.4 FOR EPOXY ANCHORS.
   b. CERTIFICATION OF ANCHOR INSTALLERS PER ACI/CRSI WHERE ANCHORS ARE INSTALLED IN HORIZONTAL OR VERTICAL CONDITIONS WITH SUSTAINED TENSION.

3) DEFERRED DESIGN SUBMITTALS SHALL BE SUBMITTED TO THE ENGINEER AND ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO SUBMISSION TO THE AUTHORITY HAVING JURISDICTION FOR PLAN CHECK AND BUILDING PERMIT. THE DESIGN SHALL BE IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE AND PROJECT-SPECIFIC DESIGN CRITERIA LISTED IN SECTION 5. DEFERRED DESIGN SUBMITTAL SHALL CONTAIN DRAWINGS AND CALCULATIONS STAMPED BY A LICENSED ENGINEER IN THE STATE OF OREGON:

   a. LADDERS
   b. SKYLIGHTS (AS APPLICABLE)
   c. SEISMIC RESTRAINT OF MEP EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING. CONNECTIONS TO STRUCTURE SHALL CONFORM TO ASCE 7-16 CHAPTER 13, SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF OREGON, AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION.
   d. FALL PROTECTION

3. SPECIAL INSPECTION REQUIREMENTS AND TESTING

A. PROVIDE SPECIAL INSPECTIONS AND TESTING FOR ALL ITEMS AS REQUIRED BY THE GOVERNING JURISDICTION IN ADDITION TO TABLES ON S010.

B. THE OWNER SHALL BE RESPONSIBLE FOR RETAINING AN INDEPENDENT, QUALIFIED INSPECTOR AND/OR TESTING LAB TO PERFORM ALL REQUIRED TESTING AND SPECIAL INSPECTIONS.

C. IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS WILL BE MADE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER OF NON-CONFORMING WORK. THIS NOTIFICATION SHALL SPECIFICALLY ADDRESS THE NON-CONFORMING WORK AND SHALL BE SEPARATE FROM THE SPECIAL INSPECTION REPORTS.

D. SPECIAL INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME OF COMPLETION FOR REVIEW OF CONFORMANCE WITH THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS.

E. THE CONTRACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS PRIOR TO TIME OF INSPECTION.

4. STRUCTURAL OBSERVATIONS

A. STRUCTURAL OBSERVATIONS WILL BE UNDERTAKEN BY PERSONNEL UNDER THE SUPERVISION OF THE ENGINEER OF RECORD. STRUCTURAL OBSERVATIONS ARE SEPARATE FROM THE SPECIAL INSPECTION REQUIREMENTS OUTLINED ABOVE.

B. THE PURPOSE OF STRUCTURAL OBSERVATIONS IS TO REVIEW THE OVERALL PROGRESS OF CONSTRUCTION AND ASCERTAIN ITS GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, THESE GENERAL NOTES, AND OTHER SPECIFICATIONS, WHERE APPLICABLE. OBSERVATIONS WILL BE NOTED IN REGULAR SITE REPORTS ISSUED TO THE OWNER'S REPRESENTATIVE.

C. UNLESS OTHERWISE AGREED UPON, THE ENGINEER OF RECORD SHALL BE ENGAGED TO PROVIDE, AT MINIMUM, A LEVEL OF CONSTRUCTION INVOLVEMENT NEEDED TO OBSERVE THE FOLLOWING AT SIGNIFICANT MILESTONES DURING THE CONSTRUCTION PROCESS:

1) STRUCTURAL STEEL FRAMING
2) LATERAL FORCE RESISTING ELEMENTS

ADDITIONAL ENGINEER INVOLVEMENT MAY BE DESIRED. ANY AGREEMENT TO THAT EFFECT SHALL BE MADE PRIOR TO THE START OF CONSTRUCTION.

D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 3 DAYS PRIOR TO TIME OF OBSERVATION AND PROVIDE ACCESS FOR THE OBSERVATIONS.

E. AN OWNER'S REPRESENTATIVE MAY BE DESIGNATED, BY THE OWNER'S SPECIFIC AUTHORIZATION PRIOR TO THE START OF CONSTRUCTION, WHO WILL HAVE THE AUTHORITY TO REQUEST ADDITIONAL ENGINEER INVOLVEMENT OUTSIDE OF THE NORMAL DUTIES ASSOCIATED WITH STRUCTURAL OBSERVATION.

5. DESIGN BASIS

A. CONSTRUCT IN CONFORMANCE WITH THE BUILDING CODE NOTED ABOVE.

B. DESIGN LIVE LOADS (PSF):

ROOF	20
PARTITION	15

C. DESIGN DEAD LOADS

1) SUPERIMPOSED DEAD LOADS NOTED ON PLANS AS APPLICABLE

D. EARTHQUAKE DESIGN DATA

2) RISK CATEGORY: III
3) ASCE 41 PERFORMANCE OBJECTIVE: BPOE PER ASCE 41-117
   a. DAMAGE CONTROL @ BSE-1
   b. LIMITED SAFETY @ BSE-2
4) SITE CLASS: D
5) ASCE 41 BSE-2E SPECTRAL RESPONSE ACCELERATIONS:
   a. SXS = 0.820 g
   b. SX1 = 0.586 g
6) ASCE 41 BSE-1E SPECTRAL RESPONSE ACCELERATIONS:
   a. SXS = 0.380 g
   b. SX1 = 0.206 g
7) SEISMIC DESIGN CATEGORY: D
8) BASIC SEISMIC-FORCE RESISTING SYSTEM: REINFORCED MASONRY SHEARWALLS
9) ANALYSIS PROCEDURE USED: LSP
10) DESIGN STORY DRIFT: 2.5%

E. WIND:

1) RISK CATEGORY:	III
2) BASIC WIND SPEED:	103 MPH
3) WIND DIRECTIONALITY FACTOR, Kd:	1.0
4) EXPOSURE CATEGORY TYPE:	B
5) TOPOGRAPHIC FACTOR, Kzt:	1.0
6) ENCLOSURE CLASSIFICATION:	ENCLOSED

H. DESIGN SNOW LOADS

1) GROUND SNOW LOAD, Pg:	11 PSF
2) FLAT-ROOF SNOW LOAD, Pf:	20 PSF MIN.
3) SNOW EXPOSURE FACTOR, Ce:	1.0 PSF
4) SNOW LOAD IMPORTANCE FACTOR, I:	1.1
5) THERMAL FACTOR, Ci:	1.0

6. NON-SHRINK GROUT

A. NON-SHRINK GROUT SHALL ACHIEVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (F'c) OF 7,000 PSI.

B. NON-SHRINK GROUT SHALL COMPLY WITH ONE OF THE FOLLOWING.

1) DRY PACK NON-SHRINK GROUT SHALL BE EUCLID CHEMICAL COMPANY'S "EUCO-NS", L&M CRYSTEX, MASTER BUILDERS' "MASTERFLOW 713", SIMPSON'S "FX-228", FIVE STAR GROUT, OR SIKAGROUT-212.
2) WHERE HIGH FLUIDITY OR INCREASED PLACING TIME IS REQUIRED, USE EUCLID CHEMICAL COMPANY'S "EUCO HI-FLOW GROUT", MASTER BUILDERS' "MASTERFLOW 928", OR SIKAGROUT-212.

C. COMPLY WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS AND REQUIREMENTS.

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STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 88908PE OREGON MARCH 11, 2014 JENNIFER B. EDGERS
EXP. 12/31/2023

REVISIONS

1	BID ADDENDA #2	04/08/2022

BEAVERTON SCHOOL DISTRICT
Five Oaks Middle School - Beaverton, OR

SCALE: As Noted
DATE: 04/08/2022
S002
DRAWN BY: IK
REVISED: -

A-TECH/NORTHWEST, INC.
Portland & Prineville, Oregon 503 - 628 - 2882

GENERAL NOTES

PROJECT NUMBER: 22159.10

7. STRUCTURAL STEEL

A. STRUCTURAL STEEL SHALL CONFORM TO FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED:

1) PLATES AND BARS, INCLUDING DOUBLER PLATES, CONTINUITY PLATES, BASE PLATES, GUSSET PLATES, AND SHEAR TABS: ASTM A572 GRADE 50.
2) WIDE FLANGES (W): ASTM A992 (Fy = 50 KSI).
3) MISCELLANEOUS (M), AMERICAN STANDARD (S), CHANNEL (C), MISCELLANEOUS CHANNEL (MC), AND ANGLES (L): ASTM A36 (Fy = 36 KSI).
4) BEARING PILES (HP): ASTM A572 GRADE 50 (Fy = 50 KSI).
5) RECTANGULAR HSS (HSS): ASTM A500 Gr. C (Fy = 50 KSI).
6) ROUND HSS (HSS): ASTM A500 Gr. C (Fy = 46 KSI).
7) PIPE (P): ASTM A53 GRADE B (Fy = 35 KSI)
8) STRUCTURAL TEES (WT, MT, AND ST) SHALL CONFORM TO THE ASTM SPECIFICATION OF THE CORRESPONDING FULL DEPTH SHAPE (WT SHALL CONFORM TO ASTM SPECIFICATION FOR W, ETC.)

B. STRUCTURAL FASTENERS INCLUDING BOLTS, THREADED RODS, AND ANCHOR RODS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED.

1) ERECTION, GROUTED, AND TIMBER CONNECTION BOLTS: ASTM A307 WITH WELDABILITY SUPPLEMENT S1 GRADE A.
2) HIGH STRENGTH BOLTS: ASTM F3125 A325; WHERE TWIST-OFF TYPE BOLTS ARE SPECIFIED, PROVIDE ASTM F3125 F1852.
3) THREADED RODS: ASTM A36.
4) HIGH STRENGTH THREADED RODS: ASTM A193 GRADE B7.
5) STEEL HEADED STUD ANCHORS: ASTM A108.
6) ANCHOR RODS AND ANCHOR BOLTS: ASTM F1554 WITH WELDABILITY SUPPLEMENT S1 GRADE 55.

C. WHEN PRETENSIONED ASTM F3125 A490 BOLTS ARE SPECIFIED F436 WASHERS SHALL BE USED UNDER BOTH THE BOLT HEAD AND NUT.

D. ALL BOLTS FOR EXTERIOR USE SHALL BE ZINC-COATED BY THE BOLT MANUFACTURER BY EITHER THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A153, CLASS C OR THE MECHANICAL DEPOSIT PROCESS IN ACCORDANCE WITH ASTM B695, CLASS 50.

E. ALL STRUCTURAL STEEL MEMBERS EXPOSED TO WEATHER OR CALLED OUT AS HOT DIP GALVANIZED (HDG) ON PLAN OR STRUCTURAL STEEL MEMBERS LOCATED IN EXTERIOR ENVIRONMENTS SHALL BE HDG IN ACCORDANCE WITH ASTM A 123. ANY MEMBER THAT HAS HAD ITS HDG COATING DAMAGED OR REMOVED DURING TRANSPORT OR ERECTION SHALL HAVE ITS COATING REPAIRED USING ZRC GALVILITE REPAIR COMPOUND OR EQUAL. REPAIR GALVANIZING AFTER WELDING IN ACCORDANCE WITH ASTM A780. PROVIDE 1/2"Ø WEEP HOLE @ 6'-0" O.C. ON UNDERSIDE OF EACH EXTERIOR HSS/PIPE MEMBER. DO NOT PROVIDE WEEP HOLES IN ANY HSS MEMBER THAT PENETRATES THE ROOF MEMBRANE. FABRICATOR TO COORDINATE WEEP HOLES WITH HOT DIP GALVANIZING PROCESS PRIOR TO DIPPING.

F. PAINT STEEL (EXCEPT GALVANIZED STEEL AND PORTIONS TO BE ENCASED IN CONCRETE) WITH ONE COAT OF PRIMER STANDARD TNEMEC V10 OR EQUIVALENT SUBJECT TO ENGINEER'S APPROVAL. ALTERNATES WILL BE CONSIDERED UPON REQUEST AND SUBMISSION OF THE MANUFACTURER'S SPECIFICATIONS.

G. ALL CONCRETE ENCASED STEEL SHALL BE CLEAN OF GREASE, PAINT AND OTHER CONTAMINANTS.

H. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST AISC 'SPECIFICATIONS' FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

I. WELDING SHALL CONFORM TO THE LATEST EDITION OF THE ANSI/AWS D1.1 STRUCTURAL WELDING CODE. USE E70XX ELECTRODES. WELDING OF METAL DECK AND OTHER SHEET METAL SHALL CONFORM TO THE LATEST EDITION OF AWS D1.3, USE E70XX ELECTRODES. ALL WELD SIZES SPECIFIED ON THE DRAWINGS ARE EFFECTIVE WELD SIZES (E), WELDS SHOWN ON SHOP DRAWINGS (S) SHALL BE INCREASED AS REQUIRED TO ACHIEVE WHAT IS SPECIFIED.

J. WELDED STUDS SHALL CONFORM TO THE LATEST EDITION OF ANSI/AWS D1.1 STRUCTURAL WELDED CODE. WELDED STUDS SHALL BE FUSION WELDED TO THE BASE MATERIAL USING AUTOMATIC MECHANIZED WELDING EQUIPMENT. FILLET WELDS ARE NOT PERMITTED U.O.N.

L. LOCATE AND INSTALL ALL ANCHOR BOLTS, EPOXY ANCHORS, AND MECHANICAL ANCHORS BEFORE FABRICATING STEEL CONNECTION ELEMENTS.

M. STRUCTURAL STEEL AND CONNECTIONS EXPOSED TO VIEW IN THE COMPLETED BUILDING ARE DESIGNATED ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) AND ARE SUBJECT TO THE AISC AESS REQUIREMENTS. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

8. MECHANICAL ANCHORS

A. EXPANSION ANCHORS INTO CONCRETE SHALL BE

1) HILTI KB-TZ
2) SIMPSON STRONG-BOLT 2
3) DeWalt POWER-STUD+ SD2
INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. SCREW ANCHORS INTO CONCRETE SHALL BE:

1) HILTI KH-EZ
2) SIMPSON TITEN HD
3) DeWalt SCREWBOLT+
INSTALL SCREWS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

C. PRIOR TO INSTALLING MECHANICAL ANCHORS IN POST TENSIONED CONCRETE ELEMENTS THE CONTRACTOR SHALL SCAN THE STRUCTURE AND LOCATE THE TENDONS. THE CONTRACTOR SHALL AVOID TENDON LOCATIONS.

D. PROVIDE STAINLESS (AISI 316) STEEL FASTENERS FOR EXTERIOR USE OR WHEN EXPOSED TO WEATHER OR IN CHEMICALLY CORROSIVE ENVIRONMENTS. PROVIDE ZINC COATED OR GALVANIZED CARBON STEEL ANCHORS AT OTHER LOCATIONS, UNLESS OTHERWISE NOTED. WHERE STAINLESS STEEL FASTENERS ARE USED IN CONJUNCTION WITH GALVANIZED OR OTHER DISSIMILAR BASE METALS, PROVIDE ELECTRICAL ISOLATION AS NOTED ON THE DRAWINGS. NOTIFY THE ENGINEER FOR CLARIFICATION IF NO ELECTRICAL ISOLATION IS SPECIFIED.

E. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. DO NOT CUT EXISTING REINFORCEMENT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER WILL DETERMINE A NEW LOCATION.

F. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL ANCHORS.

G. WHEN INSTALLING ANCHORS, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS OR POST TENSIONING TENDONS. IN POST TENSION ELEMENTS THE CONTRACTOR SHALL SCAN PRIOR TO LOCATE THE EXISTING TENDONS PRIOR TO INSTALLING THE ANCHOR.

H. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED, THE ENGINEER WILL DETERMINE A NEW LOCATION.

I. LOCATE EXISTING REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH ANCHORS.

14. EPOXY GROUTING OF DOWELS, REBAR AND ANCHOR BOLTS

A. INSTALLATION OF POST-INSTALLED DOWELS, REBAR AND ANCHOR BOLTS (EPOXY ANCHORS) SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). WHERE THERE IS A CONFLICT BETWEEN THESE NOTES AND THE MPII, SEE MPII FOR CLARIFICATION.

B. EPOXY ANCHORS SHALL MEET THE REQUIREMENTS OF ACI 355.4 AND THE FOLLOWING INSTALLATION REQUIREMENTS, UNLESS OTHERWISE NOTED.

1) MINIMUM AGE OF CONCRETE: 21 DAYS
2) CONCRETE TEMPERATURE RANGE: 50-80 DEGREES FAHRENHEIT
3) MOISTURE CONDITION OF CONCRETE: DRY

C. EPOXY GROUTING WILL BE USED IN ALL LOCATIONS WHERE EITHER ALL-THREAD ROD OR REBAR ARE BEING EMBEDDED INTO EXISTING CONCRETE, CMU, OR BRICK.

D. IN CONCRETE, HOLES SHALL BE DRILLED WITH ROTARY HAMMER UNLESS NOTED OTHERWISE.

E. IN BRICK, HOLES SHALL BE DRILLED WITH NON-IMPACT TOOLS, NO ROTARY HAMMERS.

F. EPOXY GROUT FOR DOWNWARD HOLES SHALL BE EITHER NON-SAG OR LIQUID TYPE, NORMAL SET. HORIZONTAL OR OVERHEAD HOLES SHALL BE NON-SAG TYPE. FOR OVERHEAD APPLICATIONS A PISTON PLUG SHALL BE USED.

G. UNLESS OTHERWISE NOTED, EPOXY TYPES SHALL BE AS FOLLOWS:
FOR DOWELS AND REBAR IN CONCRETE, EPOXY SHALL BE:
a. HILTI HIT-RE 500 V3
b. SIMPSON SET-3G
C. DEWALT PURE 110+

FOR ANCHOR BOLTS IN CONCRETE, EPOXY SHALL BE
a. SIMPSON SET-XP
b. HILTI HIT-HY 200
c. DeWalt PURE 110+

FOR UNREINFORCED MASONRY (URM), EPOXY SHALL BE:
a. HILTI HIT-HY 270

FOR CONCRETE MASONRY UNITS(CMU), EPOXY SHALL BE:
a. DEWALT AC100+
b. HILTI HIT-HY 270
c. SIMPSON SET-XP

ALTERNATES WILL BE CONSIDERED UPON REQUEST AND SUBMISSION OF PRODUCT EVALUATION REPORT IN ACCORDANCE WITH ACI 355.4.

H. WHEN INSTALLING ANCHORS, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS OR POST TENSIONING TENDONS. IN POST TENSION ELEMENTS THE CONTRACTOR SHALL SCAN PRIOR TO LOCATE THE EXISTING TENDONS PRIOR TO INSTALLING THE ANCHOR.

I. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED, THE ENGINEER WILL DETERMINE A NEW LOCATION.

J. LOCATE EXISTING REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH ANCHORS.

15. FINISHES - FOR WORK ON EXISTING BUILDINGS

A. REPLACE ALL DAMAGED FINISH MATERIALS WITH NEW MATERIALS OF EQUIVALENT QUALITY AND KIND. SUBMIT SAMPLES AND/OR PRESENT SAMPLE INSTALLATION TO OWNER FOR APPROVAL PRIOR TO INSTALLATION.

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STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 88908PE OREGON MARCH 11, 2014 JENNIFER B. EGGERS
EXP. 12/31/2023

REVISIONS

1	BID ADDENDA #2	04/08/2022

BEAVERTON SCHOOL DISTRICT
Five Oaks Middle School - Beaverton, OR

SCALE: As Noted
DATE: 04/08/2022
S003 1
DRAWN BY: IK
REVISED: -

A-TECH/NORTHWEST, INC.
Portland & Prineville, Oregon 503 - 628 - 2882

GENERAL NOTES CONTINUED

PROJECT NUMBER: 22159.10

STATEMENT OF SPECIAL INSPECTIONS

1. SPECIAL INSPECTIONS AND TESTS SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED INSPECTION AND/OR TESTING AGENCY APPROVED BY THE JURISDICTION FOR SUCH WORK, AND IN ACCORDANCE WITH CHAPTER 17 OF THE CODE. THESE SPECIAL INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS PERFORMED BY THE BUILDING OFFICIAL.
2. THE OWNER SHALL BE RESPONSIBLE FOR RETAINING THE SPECIAL INSPECTION AND/OR TESTING AGENCY.
3. THE SPECIAL INSPECTION AND/OR TESTING AGENCY SHALL KEEP RECORDS AND SUBMIT SPECIAL INSPECTION AND TEST REPORTS TO THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH SECTIONS 1704.2.4 AND 1704.5 OF THE CODE AND JURISDICTION-SPECIFIC REQUIREMENTS.
4. THE CONTRACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS PRIOR TO TIME OF INSPECTION.
5. THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION OR TESTING IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION OR TESTING PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS OR TESTS.
6. IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING OR INSPECTION AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER IMMEDIATELY OF NON-CONFORMING WORK. THIS NOTIFICATION SHALL SPECIFICALLY ADDRESS THE NON-CONFORMING WORK AND SHALL BE SEPARATE FROM THE SPECIAL INSPECTION REPORTS.
7. SPECIAL INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME OF COMPLETION FOR REVIEW OF CONFORMANCE WITH THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS.
8. SPECIAL INSPECTIONS AND TESTS FOR SEISMIC RESISTANCE SHALL BE PERFORMED FOR THE DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING COMPONENT WHEN APPLICABLE AND AS PER SECTIONS 1705.12 & 1705.13 OF THE CODE.
   a. DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING SYSTEM: N/A
      SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION AND TEST REQUIREMENTS FOR STRUCTURAL STEEL, STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, DESIGNATED SEISMIC SYSTEMS, ARCHITECTURAL COMPONENTS, MEP COMPONENTS, STORAGE RACKS, SEISMIC ISOLATIONS SYSTEMS, AND COLD-FORMED STEEL SPECIAL BOLTED MOMENT FRAMES.
9. SPECIAL INSPECTIONS FOR WIND RESISTANCE SHALL BE PERFORMED FOR THE MAIN WIND FORCE RESISTING SYSTEM AND WIND RESISTING COMPONENTS WHEN APPLICABLE AND AS PER SECTION 1705.11 OF THE CODE.
   a. MAIN WIND FORCE RESISTING SYSTEM/WIND RESISTING COMPONENT: N/A
      SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION REQUIREMENTS FOR STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, AND WIND-RESISTING COMPONENTS.
10. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND OR SEISMIC RESISTING COMPONENT LISTED ABOVE SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THIS STATEMENT OF SPECIAL INSPECTIONS.
11. STEEL CONSTRUCTION: SPECIAL INSPECTIONS FOR STEEL ELEMENTS OF BUILDINGS AND STRUCTURES SHALL BE AS REQUIRED BY SECTION 1705.2 OF THE CODE AND IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360-16, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. SEE ALSO REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
12. CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.3 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN.
    CONCRETE SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR:
    a. ISOLATED SPREAD FOOTINGS OF BUILDINGS 3 STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK.
    b. NONSTRUCTURAL CONCRETE SLABS SUPPORTED DIRECTLY ON THE GROUND, INCLUDING PRESTRESSED SLABS ON GRADE WHERE THE EFFECTIVE PRESTRESS IN THE CONCRETE IS LESS THAN 150 PSI.
    c. CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS, ON GRADE.
13. MASONRY CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR MASONRY CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.4 OF THE CODE AND IN ACCORDANCE WITH TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 QUALITY ASSURANCE REQUIREMENTS, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.
14. WOOD CONSTRUCTION: SPECIAL INSPECTIONS FOR WOOD CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.5 OF THE CODE. SEE ALSO REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
15. SOILS: SPECIAL INSPECTIONS FOR EXISTING SOIL CONDITIONS, FILL PLACEMENT, AND LOAD BEARING REQUIREMENTS SHALL BE AS REQUIRED BY SECTIONS 1705.6 THROUGH 1705.9 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.

1 S010 **STATEMENT OF SPECIAL INSPECTIONS**

N.T.S.

TESTING FOR SEISMIC RESISTANCE (2019 OSSC SECTION 1705.13)	
TESTING	
1. STRUCTURAL STEEL TESTING AND QUALIFICATION FOR SEISMIC RESISTANCE: TEST IN ACCORDANCE WITH THE QUALITY ASSURANCE REQUIREMENTS OF AISC 341.	OSSC SEC. 1705.13.1, AISC 341-10

2 S010 **MINIMUM TEST FOR SEISMIC RESISTANCE**

N.T.S.

REQUIRED VERIFICATION AND INSPECTION FOR SEISMIC RESISTANCE (2019 OSSC SECTION 1705.12)			
VERIFICATION AND INSPECTION	**CONTINUOUS**	**PERIODIC [a]**	**REFERENCED STANDARD**
1. STRUCTURAL STEEL SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE: INSPECTION OF STRUCTURAL STEEL IN ACCORDANCE WITH AISC 341.	-	O	OSSC SEC. 1705.12.1 AISC 341

a. "O" INDICATES AN ACTIVITY THAT IS EITHER A ONE-TIME ACTIVITY OR ONE WHOSE FREQUENCY IS ON A RANDOM BASIS OR IS DEFINED IN SOME OTHER MANNER (SEE REFERENCED CODE SECTION).

3 S010 **MINIMUM INSPECTION FOR SEISMIC RESISTANCE**

N.T.S.

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION (2019 OSSC SECTION 1705.2.1 AND AISC 360-16 CHAPTER N)[a]

VERIFICATION AND INSPECTION	PERFORM[b]	OBSERVE[c]	REF. STANDARD
1. FABRICATOR AND ERECTOR DOCUMENTS: VERIFY REPORTS, CERTIFICATIONS, SPECIFICATIONS AND QUALIFICATIONS LISTED IN AISC 360-16 SECTION N3 FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS.	-	X	AISC 360 N3
2. MATERIAL VERIFICATION OF STRUCTURAL STEEL.	-	X	
3. VERIFY MEMBER LOCATIONS, BRACES, STIFFENERS, AND APPLICATION OF JOINT DETAILS AT EACH CONNECTION COMPLY WITH CONSTRUCTION DOCUMENTS.	-	X	AISC 360 N5.7
4. WELDING			AISC 360 N5.4
A. INSPECTION TASKS PRIOR TO WELDING			AISC TABLE N5.4-1
1. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE.	X	-	
2. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	X	-	
3. MATERIAL IDENTIFICATION (TYPE/GRADE).	-	X	
4. WELDER IDENTIFICATION SYSTEM (FABRICATOR SHALL BE ABLE TO IDENTIFY WELDERS PERFORMING WELDING OF JOINTS OR MEMBERS).	-	X	
5. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY): JOINT PREPARATION, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), AND BACKING TYPE AND FIT (IF APPLICABLE).	-	X	
6. CONFIGURATION AND FINISH OF ACCESS HOLES.	-	X	
7. FIT-UP OF FILLET WELDS: DIMENSIONS (ALIGNMENT, GAPS AT ROOT), CLEANLINESS (CONDITION OF STEEL SURFACES), AND TACKING (TACK WELD QUALITY AND LOCATION).	-	X	
8. CHECK WELDING EQUIPMENT.	N/A	N/A	
B. INSPECTION TASKS DURING WELDING			AISC TABLE N5.4-2
1. USE OF QUALIFIED WELDERS.	-	X	
2. CONTROL AND HANDLING OF WELDING CONSUMABLES: PACKAGING, AND EXPOSURE CONTROL.	-	X	
3. NO WELDING OVER CRACKED TACK WELDS.	-	X	
4. ENVIRONMENTAL CONDITIONS: WIND SPEED WITHIN LIMITS, AND PRECIPITATION AND TEMPERATURE.	-	X	
5. WPS FOLLOWED: SETTINGS ON WELDING EQUIPMENT, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED (MIN/MAX), AND PROPER POSITION (F,V,H,OH).	-	X	
6. WELDING TECHNIQUES: INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITATIONS, AND EACH PASS MEETS QUALITY REQUIREMENTS.	-	X	
C. INSPECTION TASKS AFTER WELDING			AISC TABLE N5.4-3
1. WELDS CLEANED.	-	X	
2. SIZE, LENGTH, AND LOCATION OF WELDS.	X	-	
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA: CRACK PROHIBITION, WELD/BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, AND POROSITY.	X	-	
4. ARC STRIKES.	X	-	
5. k-AREA (WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES, OR STIFFENERS HAS BEEN PERFORMED IN THE k-AREA, VISUALLY INSPECT THE WEB k-AREA FOR CRACKS WITHIN 3" OF THE WELD).	X	-	
6. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	X	-	
7. REPAIR ACTIVITIES.	X	-	
8. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER.	X	-	
D. NONDESTRUCTIVE TESTING OF WELDED JOINTS (EXCEPTION NDT OF WELDS COMPLETED IN AN APPROVED FABRICATOR'S SHOP. SEE AISC 360-16 N7):			AISC 360 N5.5
1. COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY III OR IV. UT ON 100% MAY BE REDUCED TO 25% PER AISC 360-16 N5e.	X	-	
2. COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY II. UT ON 10%, MAY INCREASE TO 100% PER AISC 360-16 N5f.	X	-	
3. THERMALLY CUT SURFACES OF ACCESS HOLES WHEN MATERIAL t>2".	X	-	
4. WELDED JOINTS SUBJECT TO FATIGUE WHEN REQUIRED BY AISC 360, APPENDIX 3, TABLE A-3.1.	X	-	
5. FABRICATOR'S NDT REPORTS WHEN FABRICATOR PERFORMS NDT.	X	-	
5. BOLTING			AISC 360 N5.6
A. INSPECTION TASKS BEFORE BOLTING			AISC TABLE N5.6-1
1. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS.	X	-	
2. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS.	-	X	
3. PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE).	-	X	
4. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL.	-	X	
5. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS.	-	X	
6. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENT FOR FASTENER ASSEMBLIES AND METHODS USED.	-	X	
7. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS.	-	X	
B. INSPECTION TASKS DURING BOLTING			AISC TABLE N5.6-2
1. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED.	-	X	
2. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.	-	X	
3. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING.	-	X	
4. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES.	-	X	
C. INSPECTION TASKS AFTER BOLTING: DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	X	-	AISC TABLE N5.6-3
6. PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL. VERIFY AS A MINIMUM DIAMETER, GRADE, TYPE, AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM, AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE.	X	-	AISC 360 N5.7

a. SEE AISC 360-16 CHAPTER N FOR ADDITIONAL INFORMATION NOT SHOWN HEREIN.
b. "PERFORM" INDICATES PERFORMANCE OF THE TASK FOR EACH STEEL ELEMENT, MEMBER, WELDED JOINT, OR BOLTED CONNECTION.
c. "OBSERVE" INDICATES OBSERVATION OF ITEM ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. THIS REQUIRES PURPOSEFUL, REGULAR, RANDOM INSPECTION WITH FREQUENCY THAT IS APPROPRIATE TO ASSURE THAT THE PROCESS IS BEING PERFORMED CORRECTLY.

4 S010 **MINIMUM TESTS AND SPECIAL INSPECTION OF STEEL CONSTRUCTION**

N.T.S.

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STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 88908PE OREGON MARCH 11, 2014 JENNIFER B. EDGERS
EXP. 12/31/2023

REVISIONS

1	BID ADDENDA #2	04/08/2022

BEAVERTON SCHOOL DISTRICT
Five Oaks Middle School - Beaverton, OR

SCALE: As Noted
DATE: 04/08/2022
S010 1
DRAWN BY: IK
REVISED: -

A-TECH/NORTHWEST, INC.
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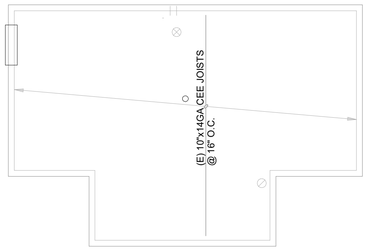
SPECIAL INSPECTIONS

PROJECT NUMBER: 22159.10

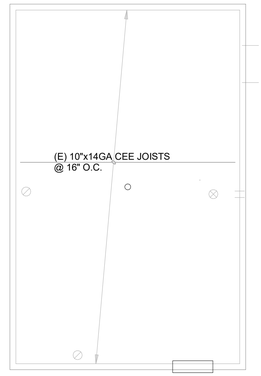
1 S201 **PARTIAL PLAN - ROOF J**

1/8" = 1'-0"



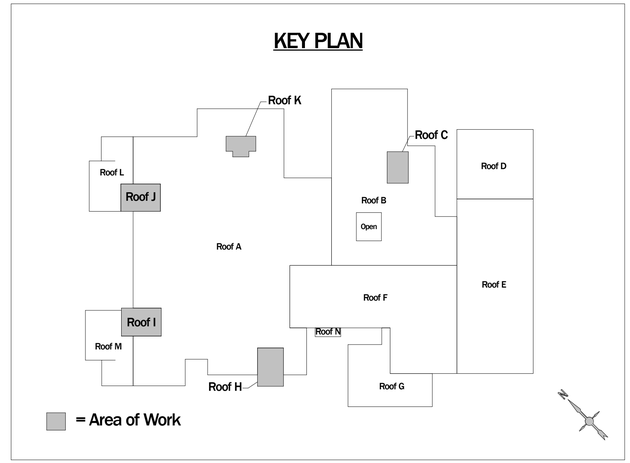
2 S201 **PARTIAL PLAN - ROOF K**

1/8" = 1'-0"



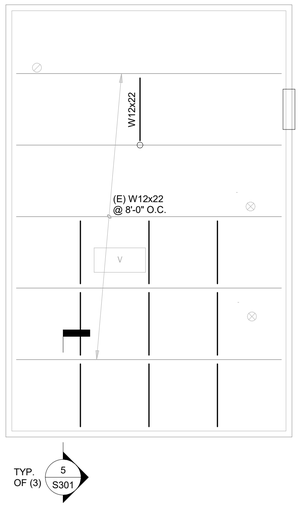
3 S201 **PARTIAL PLAN - ROOF C**

1/8" = 1'-0"



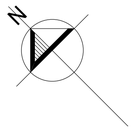
4 S201 **PARTIAL PLAN - ROOF I**

1/8" = 1'-0"



5 S201 **PARTIAL PLAN - ROOF H**

1/8" = 1'-0"



Holmes Structures
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EXP. 12/31/2023

REVISIONS

1	BID ADDENDA #2	04/08/2022

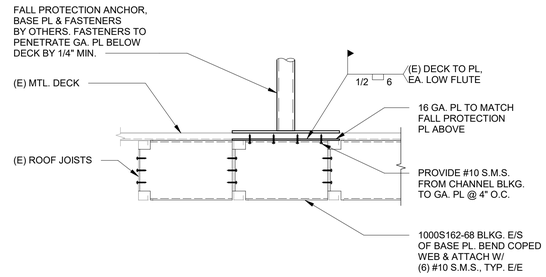
BEAVERTON SCHOOL DISTRICT
Five Oaks Middle School - Beaverton, OR

SCALE: As Noted	S201	DRAWN BY: IK
DATE: 04/08/2022		REVISED: -

A-TECH/NORTHWEST, INC.
Portland & Prineville, Oregon 503 - 628 - 2882

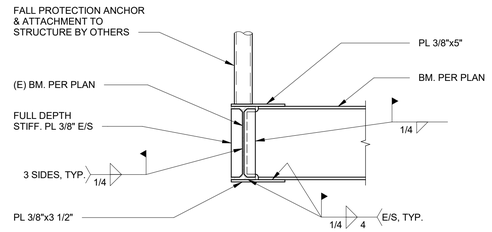
ROOF PARTIAL PLANS

PROJECT NUMBER: 22159.10



4 S301 FALL PROTECTION AT C-JOIST

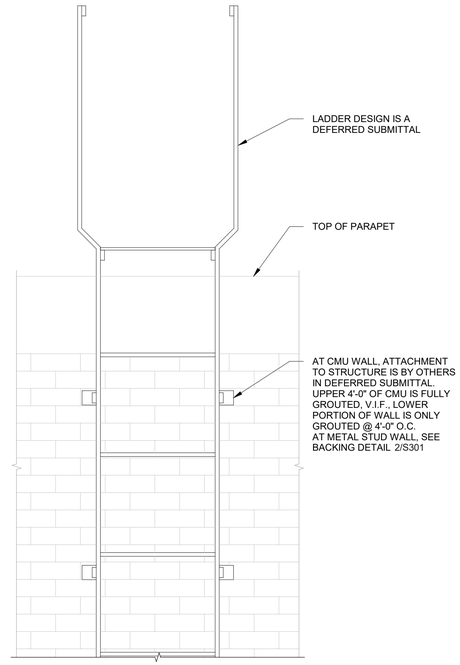
1" = 1'-0"



NOTE:
WF BM. CONN. TYP. E/E OF (N) BM.

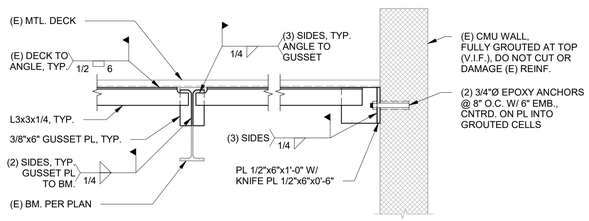
3 S301 FALL PROTECTION AT WF BEAM

1" = 1'-0"



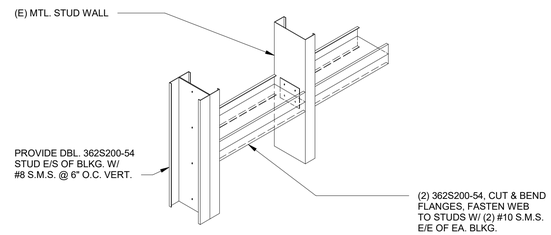
1 S301 TYPICAL LADDER CONNECTION

N.T.S.



5 S301 WALL OUT-OF-PLANE CONNECTION

1" = 1'-0"



NOTE:
450 LBS MAX. REACTION FROM LADDER

2 S301 LADDER BACKING AT STUD WALL

1" = 1'-0"

Holmes

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STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 88908PE OREGON MARCH 11, 2014 JENNIFER B. EGGERS
EXP. 12/31/2023

REVISIONS

1	BID ADDENDA #2	04/08/2022

BEAVERTON SCHOOL DISTRICT
Five Oaks Middle School - Beaverton, OR

SCALE: As Noted
DATE: 04/08/2022
S301 1
DRAWN BY: IK
REVISED: -

A-TECH/NORTHWEST, INC.
Portland & Prineville, Oregon 503 - 628 - 2882

DETAILS

PROJECT NUMBER: 22159.10