

**DETACH ADU FOR  
739 SPOKANE AVE.  
ALBANY, CA 94706**

**PROJECT INFORMATION**

LOCATION: 739 SPOKANE AVE  
ALBANY, CA 94706  
OWNER: AARON PARSONS & SARAH SPIEGEL  
PHONE:  
PARCEL #: 67283522  
LOT SIZE: 3,500 SF  
ZONING: R-1  
OCCUPANCY TYPE: R3  
CONSTRUCTION TYPE: V-B  
YEAR BUILT: 1926  
FIRE SPRINKLERS: NO

**APPLICABLE CODES**

- 2019 CALIFORNIA FIRE CODE
- 2019 CALIFORNIA BUILDING CODE
- 2019 CALIFORNIA RESIDENTIAL CODE
- 2019 CALIFORNIA MECHANICAL CODE
- 2019 CALIFORNIA PLUMBING CODE
- 2019 CALIFORNIA ELECTRICAL CODE
- 2019 CALIFORNIA ENERGY CODE
- 2019 CALIFORNIA HISTORICAL CODE
- 2019 CALIFORNIA EXISTING BUILDING CODE
- 2019 CALIFORNIA GREEN BUILDING CODE
- ALBANY CITY ORDINANCE

**PROJECT SCOPE**

RENOVATION AND ADDITON FOR EXISING DETACH GARAGE TO CREATE ONE STUDIO ADU WITH TOTAL 477 SF  
PROPOSED ADU ADDRESS IS "739 A"

**PROJECT DATA**

	EXISTING	PROPOSED	REQUIREMENT
SETBACK (ADU) FRONT (TO MAIN BLD)	14'-5"	7'-4"	NO SETBACK REQ. FOR CONVERTING (E)
REAR	6"	6"	STRUCTURE (E)
LEFT SIDE	6"	6"	STRUCTURE (N)
RIGHT SIDE	22'-2"	18'-1"	4'-0" FOR (N)
SIDE (N) ADDITION	-	4'-9"	ADDITION
COVERAGE LOT SIZE	3,500 SF	3,500 SF	NA IF ADU < 800 SF
BUILDING FOOTPRINT LOT COVERAGE	1,091 SF 18.18 %	1,435 SF 23.91 %	
MAX. HEIGHT	10'-11"	16'-0"	16'-0"

**INDEX OF DRAWINGS**

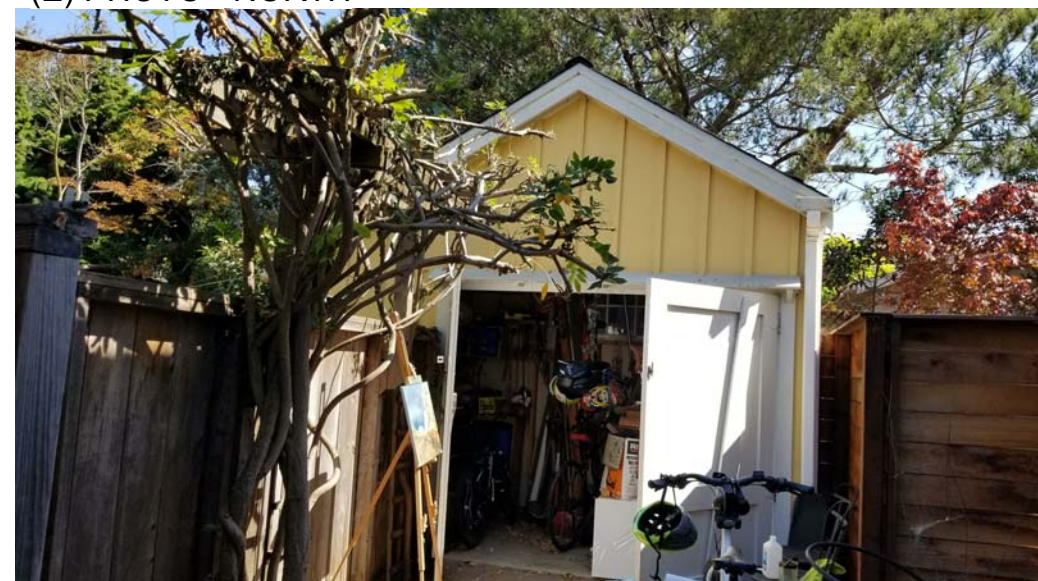
A1	COVER SHEET & SITE PLANS
A2	FLOOR PLANS
A3	ELEVATIONS
A4	SECTIONS & DETAILS
S-0	STRUCTURAL GENERAL NOTES
S-1	FOUANTION PLAN
S-2	ROOF FRAMING & FLOOR FRAMING PLAN
S-3	STRUCTURAL DETAILS
S-4	STRUCTURAL DETAILS
S-5	STRUCTURAL DETAILS
SU	SURVEY MAP
T1	TITLE 24 ANALYSIS



(E) PHOTO - EAST



(E) PHOTO - NORTH



(E) PHOTO - WEST



(E) PHOTO - SOUTH

**VICINITY MAP**



PROJECT SITE

**SHEET NOTES:**

1. ALL JOINTS AND PENETRATIONS TO BE CAULKED AND SEALED
  2. ALL EXTERIOR WALLS/Ceilings/FLOORS (OR WALLS/FLOORS/Ceilings ADJACENT TO UNCONDITIONED SPACE) THAT ARE OPENED UP FROM EITHER THE INTERIOR OR THE EXTERIOR SIDE, DURING CONSTRUCTION WILL BE INSULATED WITH A MINIMUM OF R-13 FOR WALLS, R-19 FOR FLOORS AND R-30 FOR Ceilings.
  3. WEATHERSTRIP ALL NEW WINDOWS AND DOORS, ALL GLASSES SHALL BE DUAL PANE. ALL GLAZING IN HAZARDOUS LOCATION SHALL BE TEMPERED GLASS, CRC R308.4. ALL GLASSES TO CONFORM WITH CURRENT CALIFORNIA CODE.
  4. LOCKING DEVICES ON EXTERIOR DOORS AND WINDOWS TO CONFORM WITH LOCAL AGENCIES STANDARDS
  5. ALL EMERGENCY ESCAPE OR RESCUE WINDOWS FROM NEW SLEEPING ROOMS SHALL HAVE A MINIMUM NET CLEAR OPENABLE OF 5.7 SQUARE FEET, EXCEPT GRADE FLOOR OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5 SQUARE FEET. THE MINIMUM OPENABLE HEIGHT SHALL BE 24" AND WIDTH OF 20". THE FINISHED SILL HEIGHT SHALL NOT BE MORE THAN 44" ABOVE THE FLOOR, CRC SECTION R310
  6. NEW DOORS AND WINDOWS SHALL BE CERTIFIED AND LABELED. THE TEMPORARY LABEL (NFRC) WHICH STATES THE LISTED U-VALUE FOR ALL FENESTRATION PRODUCTS SHALL NOT BE REMOVED PRIOR TO INSPECTION
  7. REPLACEMENT WINDOW SIZES AT BEDROOMS SHALL MEET 2019 CRC SECTION R310 AND SHALL BE DUAL PANE.
  8. ALL HABITABLE ROOMS SHALL HAVE AN AGGREGATE GLAZING AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF SUCH ROOMS. NATURAL VENTILATION SHALL BE THROUGH WINDOWS, DOORS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR. SUCH OPENINGS SHALL BE PROVIDED WITH READY ACCESS OR SHALL OTHERWISE BE READILY CONTROLLABLE BY THE BUILDING OCCUPANTS. THE MINIMUM OPENALBE AREA TO THE OUTDOORS SHALL BE 4 PERCENT OF THE FLOOR AREA BEING VENTILATED.
  9. LANDING OR FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 11/2" LOWER THAN THE TOP OF THE THRESHOLD. EXCEPTION: THE EXTERIOR LANDING OR FLOOR SHALL NOT BE MORE THAN 73/4" BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR. CRC R311.3.1)
  10. GUARDS SHALL BE LOCATED ALONG OPEN SIDED WALKING SURFACES, INCLUDING RAMPS, STAIRS, AND LANDINGS, THAT ARE LOCATED MORE THAN 30 INCHES MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES HORIZONTALLY TO THE EDGE OF THE OPEN SIDE.
  11. REQUIRED GUARDS AT OPEN-SIDED WALKING SURFACES, INCLUDING STAIRS, PORCHES, BALCONIES OR LANDINGS, SHALL BE NOT LESS THAN 42 INCHES IN HEIGHT MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE OR THE LINE CONNECTING THE LEADING EDGES OF THE TREADS. FIRESTOPS SHALL BE PROVIDED AROUND THE CHIMNEY IN OPENINGS AT THE CEILING AND FLOOR LEVELS WITH NON-COMBUSTIBLE MATERIAL PER CODE (CRC 2019 SEC. R312).
  12. TUB/SHOW WALLS TO HAVE CERAMIC TILE O/ 1/2" CEMENTITIOUS BD. (WONDERBOARD) O/ 15# FELT O/ FACE OF STUDS. SHOWER ENCLOSURE SHALL BE TEMPERED GLASS.
  13. SHOWER AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVE OF THE PRESSURE BALANCE OR THE THEMODTATIC MIXING VALVE TYPE.
- ALL SHOWER COMPARTMENTS 1024 SQ. INCHES IN AREA SHALL BE CAPABLE OF ENCOMPASSING A THIRTY INCH CIRCLE.

**TREE PROTECTION NOTES:**

1. BEFORE ANY DEMOLITION OR STAR TO CONSTRUCTION, A PRE-CONSTRUCTION MEETING SHOULD TAKE PLACE BETWEEN THE CONSTRUCTION/DEMOLITION SUPERVISOR AND THE CITY ARBORIST
2. PROTECT THE CRITICAL ROOT ZONE (CRZ) BY ERECTING FENCING WHICH PROTECTS THE TREE AND ROOT SYSTEM BY KEEPING OUT ALL DETRIMENTAL CONSTRUCTION ACTIVITY
3. A TREE PROTECTION ZONE SIGN SHALL BE POSTED ON THE FENCING NOTING THAT THE FENCE IS TO REMAIN UNTIL CONSTRUCTION IS COMPLETE.
4. CARE IS TO BE TAKEN NOT TO DAMAGE BARK, TRUNK, LIMBS, BRANCHES OR FOLIAGE WHILE INSTALLING FENCING
5. NO BUILDING OR DEMO MATERIALS, VEHICLES, DUMPING OR STORAGE OF ANY KIND, OR EXCESSIVE FOOT TRAVEL IS ALLOWED WITHIN THE OPEN ROOT ZONE OF ANY PROTECTED TREE.
6. TRENCHING, ROOT PRUNING OR TREE REMOVAL WILL NEED TO BE DISCUSSED WITH CITY ARBORIST BEFORE TAKING ANY ACTION OR COMMENCING ANY DEMOLITION.
7. IF ROOTS ARE TO BE EXPOSED THROUGH ANY EXCAVATION, SIDEWALK REPAIR, OR ANY OTHER MEANS, TREE ROOTS ARE TO PROTECTED WITH 4-6" OF CLEAN WOOD CHIP MULCH, AND THE ROOTS ARE TO BE KEPT WATERED DURING THE DURATION OF THEIR EXPOSURE.
8. ANY NECESSARY PRUNING WILL NEED TO BE DISCUSSED WITH THE CITY ARBORIST. A CERTIFIED ARBORIST WILL BE REQUIRED FOR ANY PRUNING DONE ON ANY STREET TREE.
9. DAMAGE TO TREES: COMMUNITY DEVELOPMENT WILL ISSUE A STOP WORK ORDER UNTIL PROPER MEASURES ARE TAKEN TO REPAIR AND REMEDIATE ANY DAMAGE DONE TO ANY STREET TREE DUE TO CONSTRUCTION.
10. ANY DAMAGE IS TO BE REPORTED WITHIN 6 HOURS TO THE CITY ARBORIST AND/OR COMMUNITY DEVELOPMENT.

**STORM WATER DRAINAGE DURING CONSTRUCTION MANAGEMENT PLAN:**

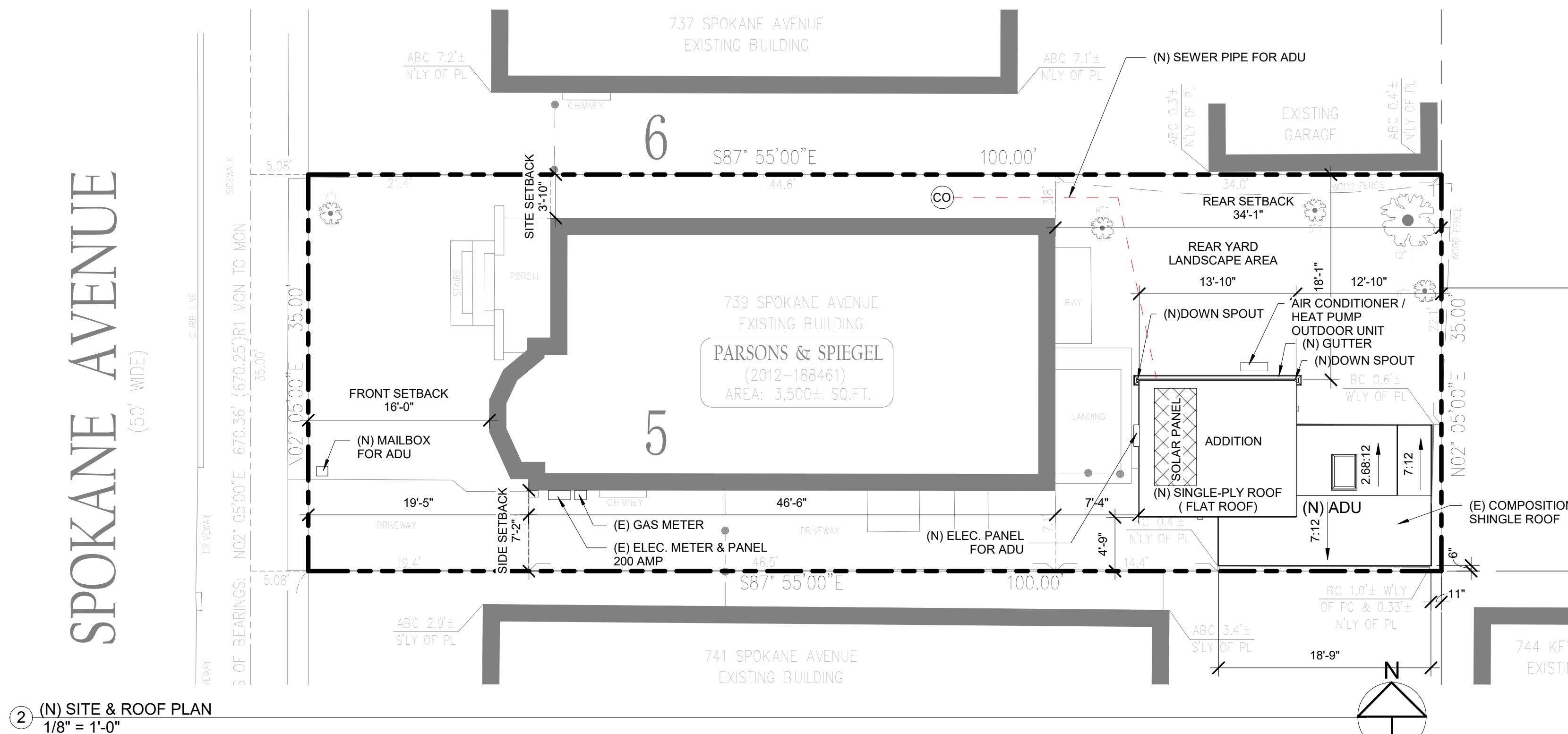
1. THE CONTRACTOR SHALL MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION TO PREVENT FLOODING OF ADJACENT PROPERTY, PREVENT EROSION AND RETAIN SOIL RUNOFF ON THE SITE.
2. STORM WATER IS CONVEYED TO A CLOSEST PUBLIC DRAINAGE SYSTEM, COLLECTION POINT, GUTTER OR SIMILAR DISPOSAL METHOD, WATER SHALL BE FILTERED BY USE OF A BARRIER SYSTEM, WATTLE OR OTHER METHOD APPROVED BY THE ENFORCING AGENCY.
3. COMPLIANCE WITH A LAWFULLY ENACTED STORM-WATER MANAGEMENT ORDINANCE.
4. DIRECT ROOF RUNOFF INTO VEGETATED LANDSCAPE AREA.
5. DIRECT SURFACE WATER AWAY FROM THE HOUSE.
6. STORMWATER DRAINAGE IS NOT ALLOWED TO FLOW INTO SANITARY SEWER.

**NOTES:**

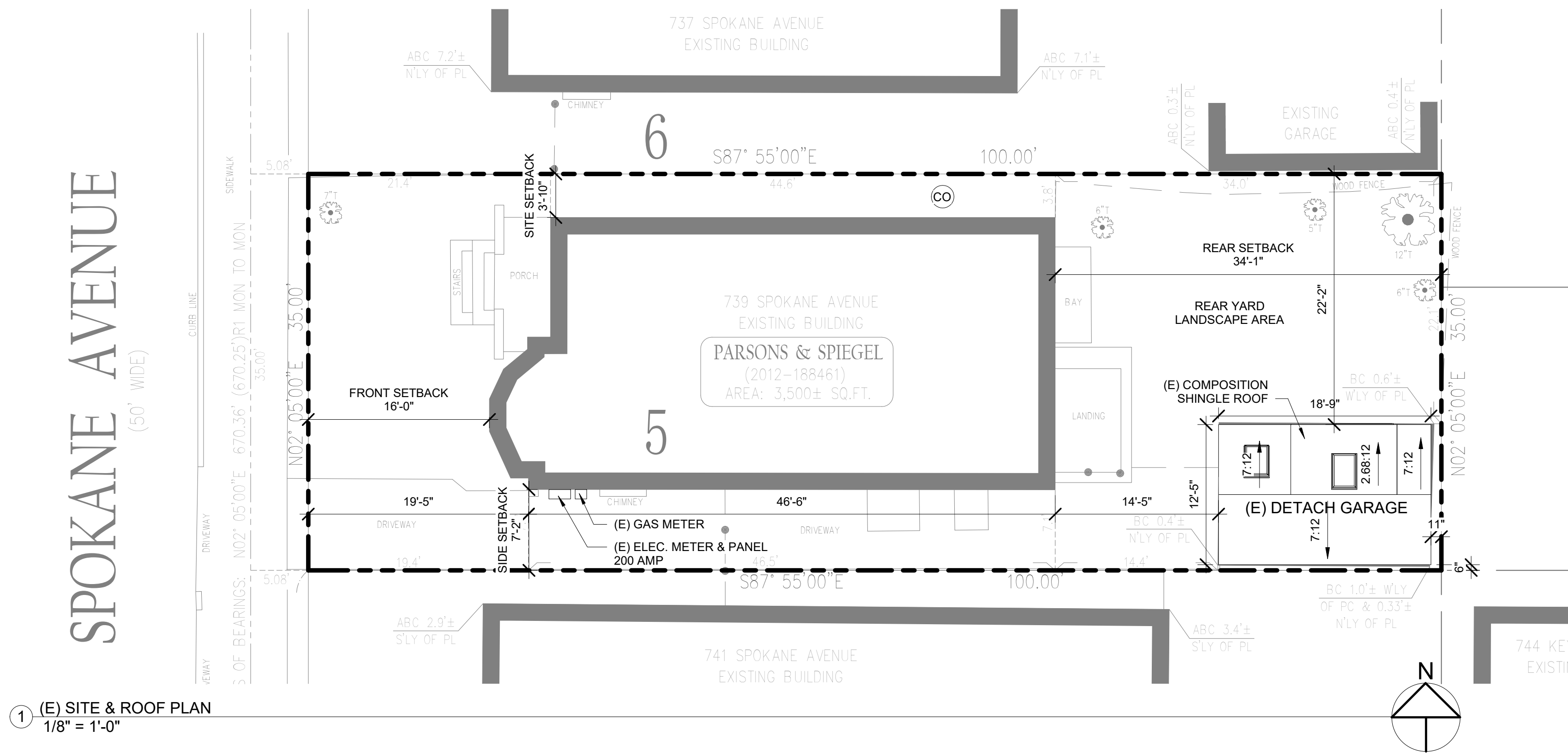
THE USE OF EXISTING DRAINS, VENTS, WATER LINES, ELECTRIC SERVICES, CIRCUITS, ETC. IS SUBJECT TO THE FIELD INSPECTOR'S APPROVAL.

**PLUMBING NOTES:**

1. IF NEEDED, INSTALL AUTOMATIC GAS SHUT-OFF VALVES AT GAS-METER.
2. SEWER WILL BE REPLACE / REPAIR BY PLUMBING CONTRACTOR



(N) SITE & ROOF PLAN  
1/8" = 1'-0"



(E) SITE & ROOF PLAN  
1/8" = 1'-0"

**OWNER**

AARON PARSONS & SARAH SPIEGEL  
739 SPOKANE AVE.  
ALBANY, CA 94706  
CALL: -  
EMAIL: APARSONS@BERKELEY.EDU

**CONSULTANTS**

**DESIGN CONSULTANT**  
YONG F. LIANG  
801 FRANKLIN ST APT 304  
OAKLAND CA 94607  
CALL: 510-387-6668  
EMAIL: YONGLIANGDESIGN@GMAIL.COM

**SURVEYOR**  
KEITH S. BUSH  
BAY AREA LAND SURVEYING INC.  
3065 RICHMOND PARKWAY, SUITE 101  
RICHMOND, CA 94806  
CALL: 510-223-5167

**STRUCTURAL ENGINEER**  
W.H. CONSULTATION, INC  
1590 OAKLAND RD. SUITE 112  
SAN JOSE, CA 95131  
INFO@WHENGINEERINGGROUP.COM  
WWW.WHENGINEERINGGROUP.NET

**T-24 REPORT**  
TAILORED ENERGY AND TESTING SERVICES LTD  
KEVIN LAUGHTON  
548 MARKET ST #30051  
SAN FRANCISCO, CA 94120-7775  
CALL: 1-888-310-0808

**REVISIONS**

2022/3/23 10:58:47

**APPROVALS**

No.	Description	Date

**PROJECT**

DETACH ADU FOR  
739 SPOKANE AVE, ALBANY, CA 94706

**SHEET TITLE**

COVER SHEET & SITE PLANS

**DRAWN BY**

YFL

**CHECKED BY**

YFL

**SCALE**

AS NOTED

**JOB NO.**

210924A

**SHEET NO.**

A1

**GREEN BUILDING NOTES:**

- SUBMIT CONSTRUCTION WASTE MANAGEMENT PLAN PER CALGREEN SECTION 4.408.2. RECYCLE ALL CARDBOARD, CONCRETE, ASPHALT AND METALS. DIVERT A MINIMUM 65% OF THE CONSTRUCTION WASTE GENERATED AT THE SITE TO RECYCLE OR SALVAGE PER SECTION 4.408.1.
- COMPLIANCE WITH A LAWFULLY ENACTED STORM WATER MANAGEMENT ORDINANCE. ALL STORM WATER SHALL BE DIRECTED TO THE LANDSCAPE AREAS. KEEPS SURFACE WATER AWAY FROM BUILDINGS AND AID IN GROUNDWATER RECHARGE.
- ALL NEW PLANTS HAVE TRUNK, BASE, OR STEM LOCATED AT LEAST 36 INCHES FROM FOUNDATION. SHIELDING FIXTURES AND DIRECTING LIGHT DOWNWARD.
- TIGHTLY SEAL THE AIR BARRIER BETWEEN GARAGE AND LIVING AREA.
- ALL NEW INDOOR PLUMBING FIXTURES AND FITTINGS SHALL MEET THE STANDARDS, REFERENCED IN TABLE 4.303.
  - SHOWERHEADS: 1.8 GPM @ 80 PSI
  - LAVATORY FAUCETS: 1.2 GPM @ 60 PSI
  - KITCHEN FAUCETS: 1.8 GPM @ 60 PSI
  - GRAVITY TANK-TYPE WATER CLOSETS: 1.28 GPF
- PER CALIFORNIA CIVIL CODE ARTICLE 1101.4 AND CALGREEN SECTION 301.1, FOR ALL BUILDING ALTERATIONS OR IMPROVEMENTS TO A SINGLE-FAMILY RESIDENTIAL PROPERTY, EXISTING PLUMBING FIXTURES IN THE ENTIRE HOUSE THAT DO NOT MEET COMPLIANT FLOW RATES WILL NEED TO BE UPGRADED.
  - WATER CLOSETS WITH A FLOW RATE IN EXCESS OF 1.6 GPF WILL NEED TO BE REPLACED WITH WATER CLOSETS WITH A MAXIMUM FLOW RATE OF 1.28 GPF.
  - SHOWER HEADS WITH A FLOW RATE GREATER THAN 2.5 GPM WILL NEED TO BE REPLACED WITH A MAXIMUM 1.8 GPM SHOWER HEAD.
  - LAVATORY AND KITCHEN FAUCETS WITH A FLOW RATE GREATER THAN 2.2 GPM WILL NEED TO BE REPLACED WITH A FAUCET WITH MAXIMUM FLOW RATE OF 1.2 GPM (1.8 GPM FOR KITCHEN FAUCETS).
- OUTDOOR WATER USE IRRIGATION CONTROLLERS. AUTOMATIC IRRIGATION SYSTEM CONTROLLERS FOR LANDSCAPING PROVIDED BY THE BUILDER AND INSTALLED AT THE TIME OF FINAL INSPECTION SHALL COMPLY WITH THE FOLLOWING:
  - AUTOMATIC IRRIGATION SYSTEMS CONTROLLERS INSTALLED AT THE TIME OF FINAL INSPECTION SHALL BE WEATHER BASED (4.304.1).
  - PROTECT ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS OR OTHER OPENINGS AT EXTERIOR WALLS AGAINST THE PASSAGE OF RODENTS (4.406.10).
  - COVER DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS DURING CONSTRUCTION (4.504.1).
- SEAL COMBUSTION UNITS FOR NEW WATER HEATERS.
- DUCT SYSTEMS ARE SIZED, DESIGNED, AND EQUIPMENT IS SELECTED PER SECTION 4.507.2.
- PROVIDE A COPY OF THE OPERATION AND MAINTENANCE MANUAL TO THE BUILDING OCCUPANT OR OWNER ADDRESSING ITEMS 1 THROUGH 10 IN SECTION 4.410.1.
- ENERGY STAR BATHROOM FANS VENTED TO THE OUTSIDE TO COMPLY WITH CALGREEN SECTION 4.506.1 FOR BATHROOM EXHAUST FANS. EACH BATHROOM SHALL BE MECHANICALLY VENTED WITH AN ENERGY STAR EXHAUST FAN, AND FAN MUST BE CONTROLLED BY A HUMIDITY CONTROL (4.506.1).
- KITCHEN RANGE HOOD VENTED TO THE OUTSIDE.
- CARBON MONOXIDE ALARM(S) INSTALLED, TESTING AND CORRECTION.
- ATTIC, CRAWL SPACE AND WALL INSULATION UP TO OR EXCEEDING CURRENT CODE.
- DUCT INSULATION TO CODE.
- PAINTS, STAINS AND OTHER COATINGS SHALL BE COMPLIANT WITH VOC LIMIT (4.504.2.2).
- ADHESIVES, SEALANTS AND CAULKS SHALL BE COMPLIANT WITH VOC AND OTHER TOXIC COMPOUND LIMITS (4.504.2.1).
- AEROSOL PAINTS AND COATINGS SHALL BE COMPLIANT WITH PRODUCT WEIGHTED MIR LIMITS FOR ROC AND OTHER TOXIC COMPOUNDS (4.504.2.3). VERIFICATION OF COMPLIANCE SHALL BE PROVIDED.
- CARPET AND CARPET SYSTEMS SHALL BE COMPLIANT WITH VOC LIMITS (4.504.3).
- MINIMUM 80% OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH SECTION 4.504.4.
- PARTICLE BOARD, MEDIUM DENSITY FIBERBOARD (MDF) AND HARDWOOD PLYWOOD USED IN INTERIOR FINISH SYSTEMS SHALL COMPLY WITH LOW FORMALDEHYDE EMISSION STANDARDS (4.504.5).
- INSTALL CAPILLARY BREAK AND VAPOR RETARDER AT SLAB ON GRADE FOUNDATIONS (4.505.2).
- CHECK MOISTURE CONTENT OF BUILDING MATERIALS USED IN WALL AND FLOOR FRAMING BEFORE ENCLOSURE (4.505.3).
- ENERGY EFFICIENCY LIGHTING.
- LOW-MERCURY FLUORESCENT LIGHTING.
- PROTECT ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS AT EXTERIOR WALLS AGAINST THE PASSAGE OF RODENTS PER CALGREEN SECTION 4.406.1.
- COVER DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS DURING CONSTRUCTION PER CALGREEN SECTION 4.504.1.
- INSTALL CAPILLARY BREAK AND VAPOR RETARDER AT SLAB ON GRADE FOUNDATIONS PER CALGREEN SECTION 4.505.2.

**ELECTRICAL NOTES:**

- ALL 120-VOLT, SINGLE PHASE, 15- AND 20- AMP BRANCH CIRCUITS SUPPLYING OUTLETS IN FAMILY/LIVING/DINING ROOMS, BEDROOMS, RECREATION ROOMS, SUNROOM, CLOSET, HALLWAYS, OR SIMILAR ROOMS/AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUITS.
- ALL 120-VOLT, 15- AND 20- AMPERE RECEPTACLES SERVING DWELLING UNITS SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
- ALL UTILITIES, INCLUDING ELECTRICAL, TELEPHONE, CABLE TELEVISIONS, AND ETC, SHALL BE UNDERGROUND.
- LIGHTS FIXTURES IN TUB OR SHOWER ENCLOSURES SHALL BE SUITABLE FOR DAMP LOCATIONS.
- BATHROOM LIGHTING SHALL NOT BE ON AN OUTLET CIRCUIT (CEC ART.210.11(C) & 210.52(B)).
- ALL NEW LIGHTS PROPOSED SHALL BE HIGH EFFICIENCY LUMINARIES. ONE LIGHTS IN NEW BATHROOM SHALL BE CONTROLLED BY VACANCY SENSORS.
- PROVIDE AT LEAST ONE 20 AMP CIRCUIT FOR BATHROOM OUTLETS, WITH NO OTHER OUTLETS ON THE CIRCUIT.

**MECHANICAL NOTES:**

- VENTILATION AIR FLOW AT BATHROOMS SHALL BE 50 CUBIC FEET PER MIN.
- VENTILATION AIR FLOW AT KITCHENS SHALL BE 100 CUBIC FEET PER MIN.
- ALL ENVIRONMENTAL AIR DUCTS SHALL BE AT LEAST 3' FROM OPENINGS INTO THE BUILDINGS AND 3' PROPERTY LINES
- INSTALL HUMIDISTAT IN BATHROOM EXHAUST FANS FOR ALL BATHROOMS CONTAINING A BATHTUB OR SHOWER.
- MECHANICAL DRAFT VENTS MUST TERMINATE:
  - AT LEAST 3' ABOVE ANY FORCED AIR INLET LOCATED WITHIN 10'.
  - AT LEAST 4' BELOW HORIZONTALLY OR 1' ABOVE ANY DOOR OR OPERABLE WINDOW OR AIR INLET.
- VENTS FOR DIRECT VENT APPLIANCES MUST TERMINATE:
  - AT LEAST 6" FROM AIR OPENINGS FOR INPUT RATING UP TO 10K BTU/HR.
  - AT LEAST 9" FOR INPUT OVER 10K UP TO 50K BTU/HR.
  - AT LEAST 12" FOR INPUT OVER 50K BTU/HR.
- AIR DUCTS INSTALLED UNDER A FLOOR IN A CRAWL SPACE SHALL NOT PREVENT ACCESS TO ANY PART OF THE CRAWL SPACE AND PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18" FROM GRADE LEVEL.

**SMOKE ALARM NOTE:**

- SMOKE ALARM REQUIREMENTS APPLY TO BOTH NEW AND EXISTING AREAS.
- SMOKE ALARMS POWERED BY BUILDING WIRING CURRENT WITH BATTERY BACKUP.
- DETECTORS ARE REQUIRED ON EACH STORY.

**BATHROOM NOTES:**

- ALL BATHROOM APPLIANCES, PLUMBING FIXTURES PER OWNER'S SELECTION.
- PROVIDE ULTRA LOW FLUSH TOILET (1.28 GALLONS PER FLUSH) AT ALL BATHROOMS.
- CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BACKERS IN COMPLIANCE WITH ASTM C1178, C1288 OR C1325 AND INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS SHALL BE USED AS A BASE FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWER AREAS. (CBC SEC. 2509.2 "BASE FOR TILE")
- WATER-RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED IN THE FOLLOWING LOCATIONS:
  - OVER A VAPOR RETARDER IN SHOWER OR BATHTUB COMPARTMENTS.
  - WHERE THERE WILL BE DIRECT EXPOSURE TO WATER OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY.
  - ON CEILINGS WHERE FRAME SPACING EXCEEDS 12 INCHES O.C. FOR 1/2" WATER-RESISTANT GYPSUM AND MORE THAN 16" O.C. FOR 5/8" WATER-RESISTANT GYPSUM.
- SHOWER AND TUB/SHOWER SHALL BE PROVIDED WITH PRESSURE-BALANCE OR THERMOSTATIC MIXING VALVE CONTROLS.
- ROOMS CONTAINING BATHTUBS, SHOWERS, SPAS AND SIMILAR BATHING FIXTURES SHALL BE PROVIDED WITH MECHANICAL VENTILATION CAPABLE OF PROVIDING 50 CFM. EXHAUST DUCTS SHALL TERMINATE A MINIMUM OF 3' FROM PROPERTY LINES OR OPENINGS INTO BUILDINGS.
- TOILET ROOMS SHALL BE PROVIDED WITH MECHANICAL VENTILATION CAPABLE OF PROVIDING 50 CFM. EXHAUST DUCTS SHALL TERMINATE A MINIMUM OF 3' FROM PROPERTY LINES OR OPENINGS INTO BUILDING.
- PLUMBING VENTS WITHIN 10 FEET OF OPERABLE SKYLIGHTS SHALL EXTEND A MINIMUM OF 3 FEET ABOVE SUCH OPENINGS.
- BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.
- PLUMB INTERIOR FLOOR DRAINS TO SANITARY SEWER

**WATER HEATING NOTES:**

- EQUIPMENT SHALL MEET THE APPLICABLE REQUIREMENTS OF THE APPLIANCE EFFICIENCY REGULATIONS AS REQUIRED BY SECTION 110.1, SUBJECT TO THE FOLLOWING:
- IF MORE THAN ONE STANDARD IS LISTED IN THE APPLIANCE EFFICIENCY REGULATIONS, THE EQUIPMENT SHALL MEET ALL THE STANDARDS LISTED; AND
  - IF MORE THAN ONE TEST METHOD IS LISTED IN THE APPLIANCE EFFICIENCY REGULATIONS, THE EQUIPMENT SHALL COMPLY WITH THE APPLICABLE STANDARD WHEN TESTED WITH EACH TEST METHOD; AND
  - WHERE EQUIPMENT CAN SERVE MORE THAN ONE FUNCTION, SUCH AS BOTH HEATING AND COOLING, OR BOTH SPACE HEATING AND WATER HEATING, IT SHALL COMPLY WITH ALL THE REQUIREMENTS APPLICABLE TO EACH FUNCTION; AND
  - WHERE A REQUIREMENT IS FOR EQUIPMENT RATED AT ITS "MAXIMUM RATED CAPACITY" OR "MINIMUM RATED CAPACITY," THE CAPACITY SHALL BE AS PROVIDED FOR AND ALLOWED BY THE CONTROLS, DURING STEADY-STATE OPERATION.

**NOTES:**

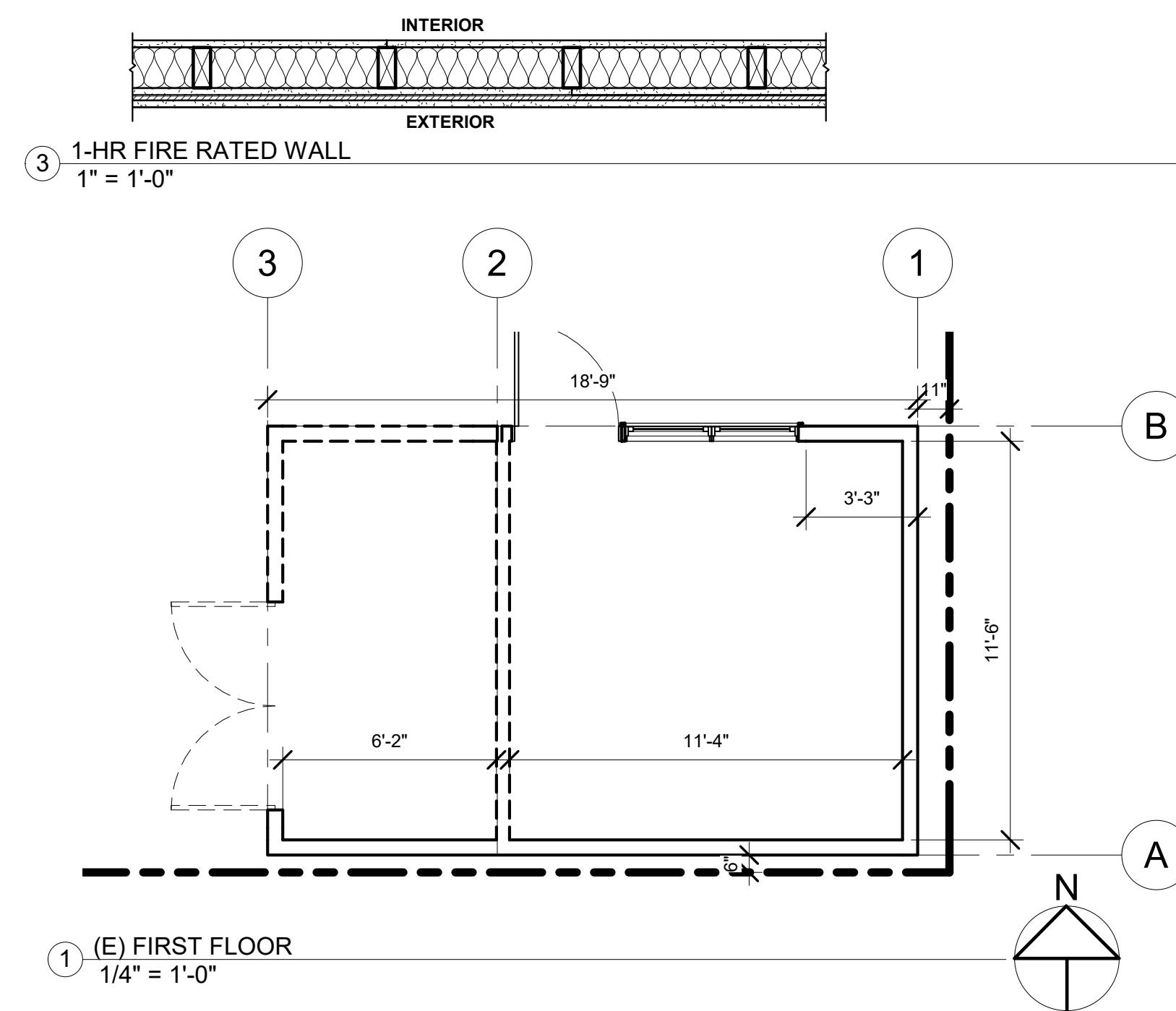
- PROVIDE A NON-REMOVABLE BACKFLOW PREVENTION DEVICE OR VACUUM BREAKER DEVICE ON ALL EXTERIOR HOSE BIBBS. CPC §603.5.7
- ALL PLUMBING EXISTING FIXTURES WITHIN THE BUILDING THAT ARE NON-COMPLIANT SHALL BE UPGRADED WITH WATER CONSERVING PLUMBING FIXTURES. NON-COMPLIANT PLUMBING FIXTURES ARE DEFINED BY SB 407 AS FOLLOWS:
  - WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH (CGBSC SECTION 4.303.1.1)
  - CGBSC SECTION 4.303.1.2 WALL MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH
  - CGBSC SECTION 4.303.1.2 FLOOR MOUNTED URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH
  - CGBSC SECTION 4.303.1.3.1 SINGLE SHOWERHEAD SHALL HAVE A MAXIMUM FLOW OF 1.8 GPM AT 80 PSI
  - CGBSC SECTION 4.303.1.3.2 MULTIPLE SHOWERHEADS SERVING ONE SHOWER SHALL HAVE COMBINED FLOW OF 1.8 GPM AT 80 PSI OR, THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME
  - CGBSC SECTION 4.303.1.4.1 RESIDENTIAL LAVATORY FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF 1.2 GPM AT 60 PSI & MINIMUM OF 0.8 GPM AT 20 PSI
  - CGBSC SECTION 4.303.1.4.2 LAVATORY FAUCETS IN COMMON AND PUBLIC USE AREAS (OUTSIDE OF DWELLINGS OR SLEEPING UNITS) IN RESIDENTIAL BUILDINGS SHALL NOT EXCEED 0.5 GPM AT 60 PSI

**UL DESIGN NO. U305**

FIRE RATING: 1 Hour  
 STC: 36  
 SOUND TEST: USG-151235

**ASSEMBLY OPTIONS:**

INTERIOR: ONE LAYER 5/8" THICK GYPSUM BOARD (UL TYPE ULIX™)  
 WOOD STUDS: 2X WOOD STUDS, 16" O.C.  
 INSULATION: 3-1/2" GLASS FIBER BATT INSULATION IN CAVITY  
 EXTERIOR: ONE LAYER 5/8" THICK GYPSUM BOARD (UL TYPE ULIX™)  
 ONE LAYER 1/2" PLYWOOD SHEETING  
 FIBER-CEMENT PANEL



SAMPLE AC UNIT (OUTDOOR PART)  
 BOSCH INVERTER CLIMATE 5000, ONE-TWO MINI SPLIT-TYPE AIR CONDITIONER / HEAT PUMP 18,000 BTU 1.5 TON DUCTLESS, 230-VOLT



MINI KITCHEN SET  
 ALL-IN-ONE KITCHENETTE WITH 2-BURNER 115V SMOOTH-TOP COOKTOP, REFRIGERATOR-FREEZER, SINK, AND STORAGE CABINET  
 SAMPLE: SUMMIT C39ELGLASS  
 SIZE: 40" X 39" X 23.63" (H X W X D)

**WALL LEGEND**

- (E) WALL TO BE REMOVED
- (E) WALL TO REMAIN
- (N) WALL
- 1-HR FIRE RATED WALL

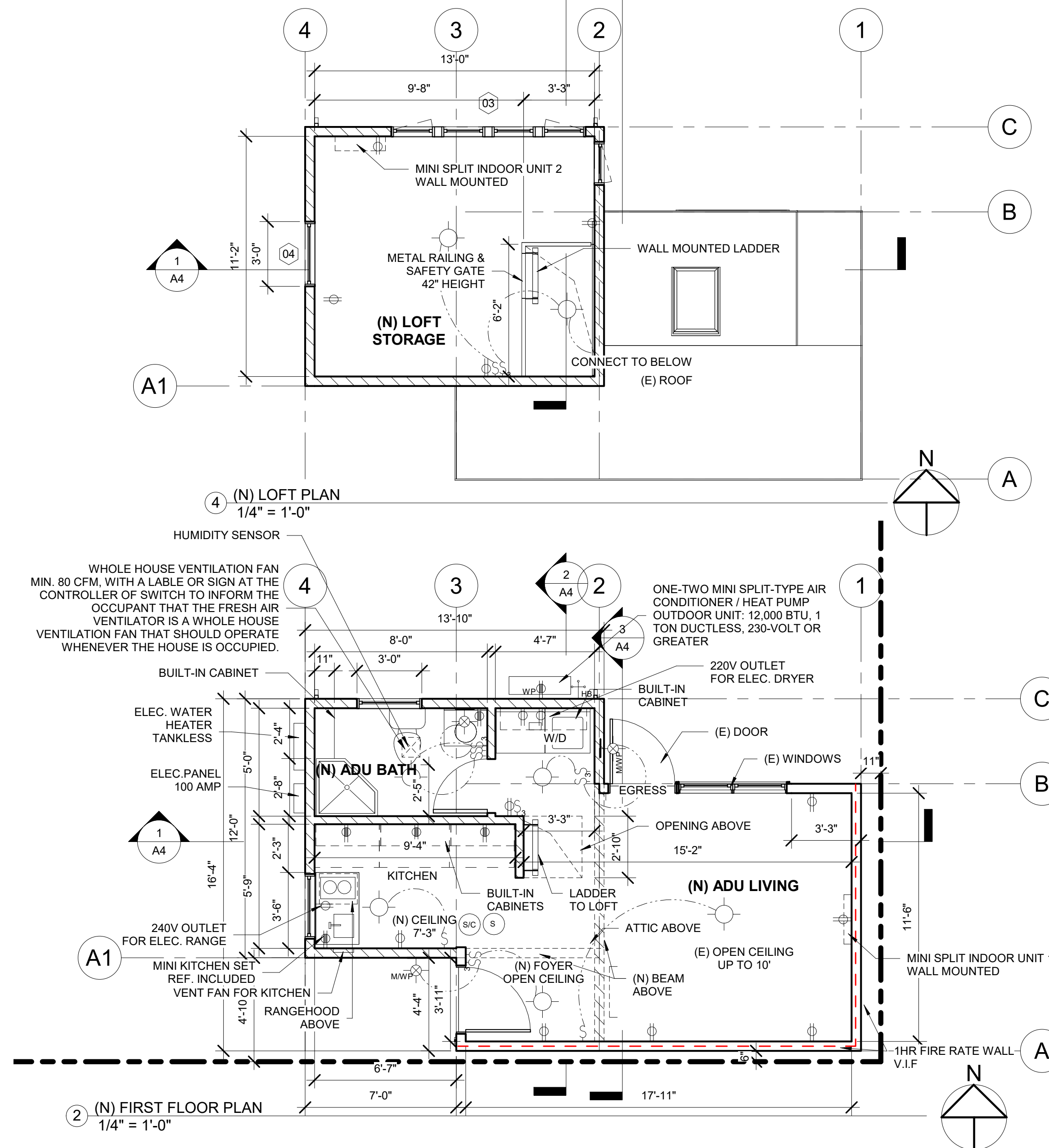
**FLOOR AREA CALCULATION**

Name	Area
(N) ADU LIVING	279 SF
(N) ADU BATH	45 SF
(N) LOFT STORAGE	155 SF
	480 SF
<b>TOTAL AREA</b>	<b>480 SF</b>

**PLAN LEGEND**

- WALL MOUNT DUPLEX OUTLET ARC-FAULT CIRCUIT INTERRUPTER
- WALL MOUNT GROUND FAULT CIRCUIT INTERRUPT DUPLEX OUTLET
- LIGHT SWITCH, @ 48" AFF UNO
- THREE-WAY LIGHT SWITCH, @ 48" AFF UNO
- WALL MOUNT LIGHT FIXTURE
- 22W SURFACE MOUNTED FLUOR. LIGHT FIXTURE
- 6" RECESSED COMP. FLUOR. DOWN LIGHT FIXTURE
- RECESSED VENT / FANS, W/ DOWN LIGHT FIXTURE
- RECESSED VENT / FANS
- 110V W/ BATTERY BACKUP SMOKE DETECTOR
- 110V W/ BATTERY BACKUP SMOKE/CARBON MONOXIDE DETECTOR
- W/ MOTION SENSOR
- WATERPROOF
- HOSE BIB

- LADDER NOTES:  
 MINIMUM CLEAR WIDTH OF 11.5 INCHES ON PORTABLE LADDERS AND 16 INCHES FOR FIXED LADDERS.



**OWNER**

AARON PARSONS & SARAH SPIEGEL  
 739 SPOKANE AVE.  
 ALBANY, CA 94706  
 CALL: -  
 EMAIL: APARSONS@BERKELEY.EDU

**CONSULTANTS**

**DESIGN CONSULTANT**  
 YONG F. LIANG  
 801 FRANKLIN ST APT 304  
 OAKLAND CA 94607  
 CALL: 510-387-6668  
 EMAIL: YONGLIANGDESIGN@GMAIL.COM

**SURVEYOR**  
 KEITH S. BUSH  
 BAY AREA LAND SURVEYING INC.  
 3065 RICHMOND PARKWAY, SUITE 101  
 RICHMOND, CA 94806  
 CALL: 510-223-5167

**STRUCTURAL ENGINEER**  
 W.H. CONSULTATION, INC  
 1590 OAKLAND RD. SUITE 112  
 SAN JOSE, CA 95131  
 INFO@WHENGINEERINGGROUP.COM  
 WWW.WHENGINEERINGGROUP.NET

**T-24 REPORT**  
 TAILORED ENERGY AND TESTING SERVICES LTD  
 KEVIN LAUGHTON  
 548 MARKET ST #30051  
 SAN FRANCISCO, CA 94120-7775  
 CALL: 1-888-310-0808

**REVISIONS**

2022/3/23 10:58:50

**APPROVALS**

No.	Description	Date

**PROJECT**

DETACH ADU FOR  
 739 SPOKANE AVE, ALBANY, CA 94706

**SHEET TITLE**

FLOOR PLANS

**SHEET NO.**

DRAWN BY  
YFL

CHECKED BY  
YFL

SCALE  
AS NOTED

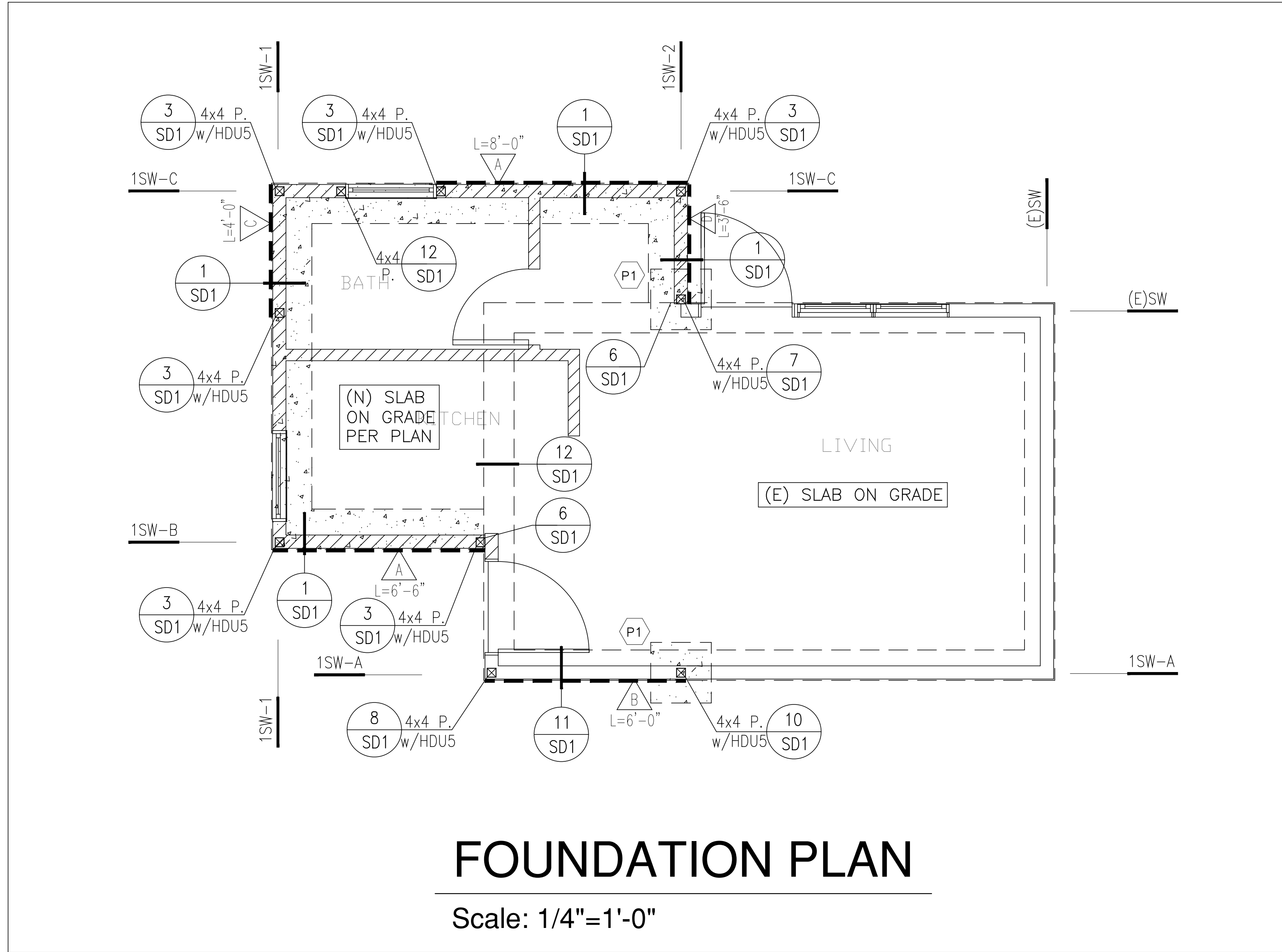
JOB NO.  
210924A

A2









**CONTRACTOR NOTE:**

- CONTRACTOR TO VERIFY ALL PLACES MARKED WITH "V.I.F." AND EXISTING FRAMING/CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES IMMEDIATELY PRIOR TO COMMENCING ANY WORK.
- IF SITE CONDITION OTHER THAN PLAN, CONTRACTOR NEED REPLACE THE EXISTING MEMBER WITH SIZE MARKED ON PLAN OR NOTIFY THE ENGINEER
- FOR DIMENSIONS NOT SHOWN SEE ARCHITECTURAL DRAWINGS. (VERIFY ALL DIMENSION WITH ARCHITECTURAL PLANS)

**ADDITIONAL NOTES**

- ALL THE EXISTING STRUCTURAL ITEMS INCLUDE BUT NOT LIMITED TO ROOF MEMBERS, WALL MEMBERS, HOLDOWN, AND CONNECTIONS, ETC. WHICH DID NOT SHOW /MENTIONED ON PLAN SHOULD BE REMAINED. IT IS THE SOLE RESPONSIBILITY OF CONTRACTOR AND HAS NOT BEEN TAKEN INTO CONSIDERATION BY STRUCTURAL ENGINEER.
- THIS PROJECT ONLY INCLUDED NEW ADDITIONAL 2-STORY ADU DESIGN.
- THE DESIGN, ADEQUACY, AND OVERALL SAFETY OF ANY ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HAS NOT BEEN TAKEN INTO CONSIDERATION BY THE STRUCTURAL ENGINEER.
- OBSERVATION VISITS TO THE SITE BY STRUCTURAL ENGINEER ONLY CONSTITUTE INSPECTION OF ALL THE NEW MEMBERS AND CONNECTIONS ON PLANS.

**STRUCTURAL NOTES**

(E) 12" WIDE X 24" DEEP CONCRETE  
FOOTING (CONTRACTOR TO VERIFY!)

(N)1-STORY 16" WIDE X 24" MIN. DEEP  
CONCRETE FOOTING w/(2)-#4 T.&B.

**ADDITIONAL NOTES**

- 5/8" dia. A.B. (R.H., EPOXY BOLTS) @ 48" O.C. TYP. U.O.N. FOR SH. W. A.B.'S SEE G.N. SHEET, SH. WALL SCHEDULE
- NAILS IN PRESSURE TREATED WOOD SILL PLATES SHALL BE HOT DIPPED GALVANIZED, STAINLESS STEEL, SILICON BRONZE OR COPPER.
- ALL HOLD-DOWN CONNECTIONS SHALL BE TIGHTENED JUST PRIOR TO ENCLOSURE.
- EXCAVATIONS SHALL BE MADE IN COMPLIANCE W/CAL/OSHA REGULATIONS.
- CONTINUOUS INSPECTION BY A LICENSED DEPUTY INSPECTOR IS REQUIRED FOR ALL EPOXY WORKS AND FOR CONCRETE WITH f'c>2500 PSI.

4" THK. CONCRETE SLAB ON GRADE  
W/ #4 BARS @ 16" O.C. E.W.CENTERED

PER CITY REQUEST, A 4-INCH THICK BASE OF 1/2 INCH OR LARGER CLEAN AGGREGATE SHALL BE PROVIDED FOR THE PROPOSED SLAB ON GRADE CONSTRUCTION.

A MOISTURE BARRIER SHALL BE PROVIDED IN DIRECT CONTACT WITH CONCRETE FOR THE PROPOSED SLAB ON GRADE CONSTRUCTION. A VISQUEEN-TYPE MEMBRANE AT LEAST 15 MIL THICK SHOULD BE PLACED BETWEEN THE PREPARED SUBGRADE AND THE SLAB TO PROVIDE AN EFFECTIVE VAPOR RETARDER, AND TO MINIMIZE POTENTIAL MOISTURE CONDENSATION UNDER FLOOR COVERINGS. THE VAPOR RETARDER MEMBRANE SHALL BE LAPPED A MINIMUM OF 12-INCHES TO PROVIDE A CONTINUOUS VAPOR PROOF RETARDER UNDER THE ENTIRE SLAB. CARE SHALL BE EXERCISED TO AVOID DAMAGE OF MOISTURE BARRIER DURING CONSTRUCTION.

PAD FOOTING SCHEDULE	
(P1)	2'-0" SQ.X12" DEEP FTG. W/(3)-#4 E.W.

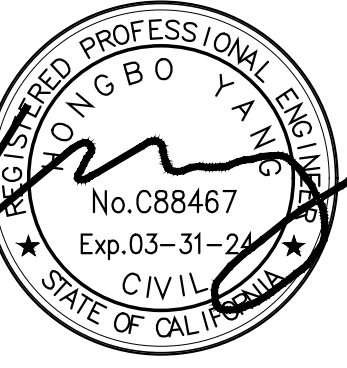
SYMBOLS & LEGENDS			
	4X4 COLUMN PER PLAN U.O.N.		DETAIL NUMBER DETAIL SHEET NUMBER
	(N) PAD FTG. SIZE PER TABLE		CONC. FT'G EDGE
	SHEAR PANEL NUMBER, MIN. LENGTH NOTED, REFER TO "SHEAR WALL SCHEDULE" ON S-0 FOR MORE INFO (LENGTH IS FROM CENTER OF POST TO CENTER OF POST)		(E) 2X WOOD STUD WALL
			(N) 2X4 (MIN.) @16" O.C. WOOD STUD WALL PER ARCH

OWNER/SUBDIVIDER:  
OWNER NAME  
STREET ADDRESS  
CITY, STATE

739 SPOKANE AVE,  
PROJECT ADDRESS  
739 SPOKANE AVE,  
ALBANY, CA 94706

PLANS PREPARED BY:  
**W.H. CONSULTANT, INC.**  
NORTH-CA:1590 OAKLAND RD., SUITE 112, SAN JOSE, CA 95131  
SOUTH-CA: 25 MAULCHLY, SUITE 323, IRVINE, CA 92618  
INFO@WHENGINEERINGGROUP.COM  
WWW.WHENGINEERINGGROUP.COM

FORGERS: YJG  
P.C.E. C88467 Exp. 3/31/2022



DESIGNER	DESIGNED BY:	DRAFTED BY:	CHECKED BY:	
			Y.Z.	H.Y.

NO.	DATE	REVISIONS	APPROVED BY:

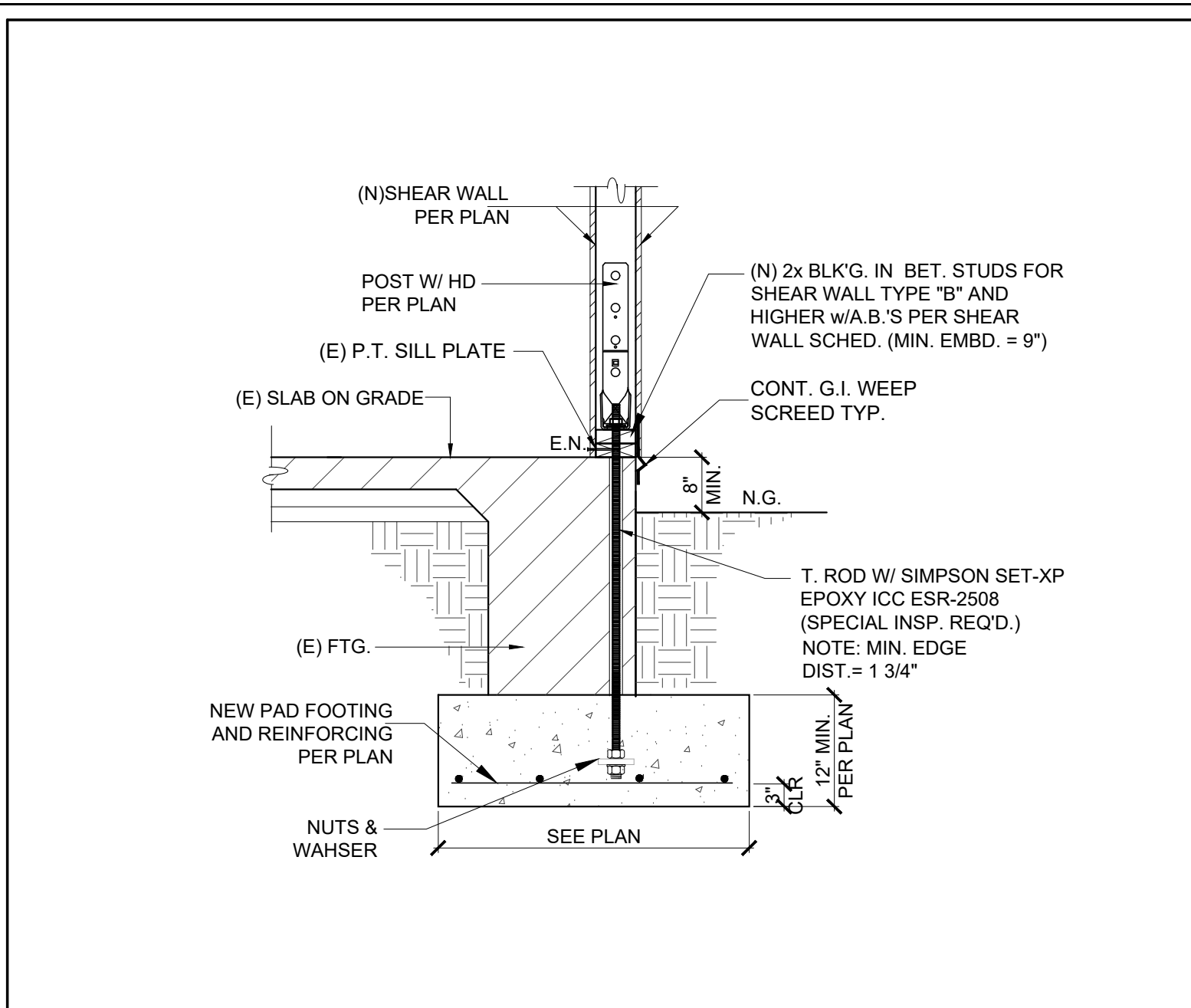
TITLE:

FOUNDATION PLAN

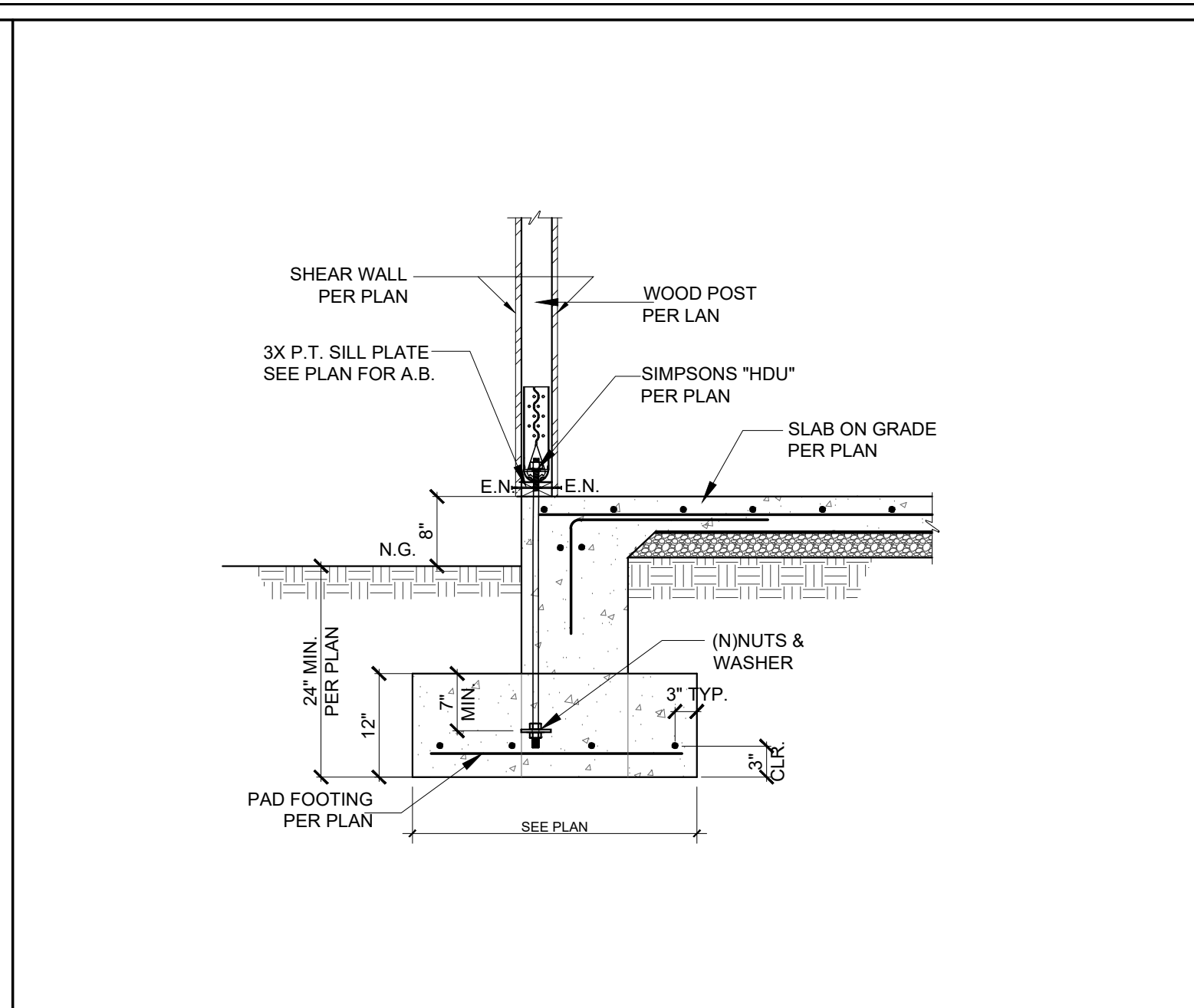
PROJECT NO.:  
22027

SHEET NO.:  
S-1

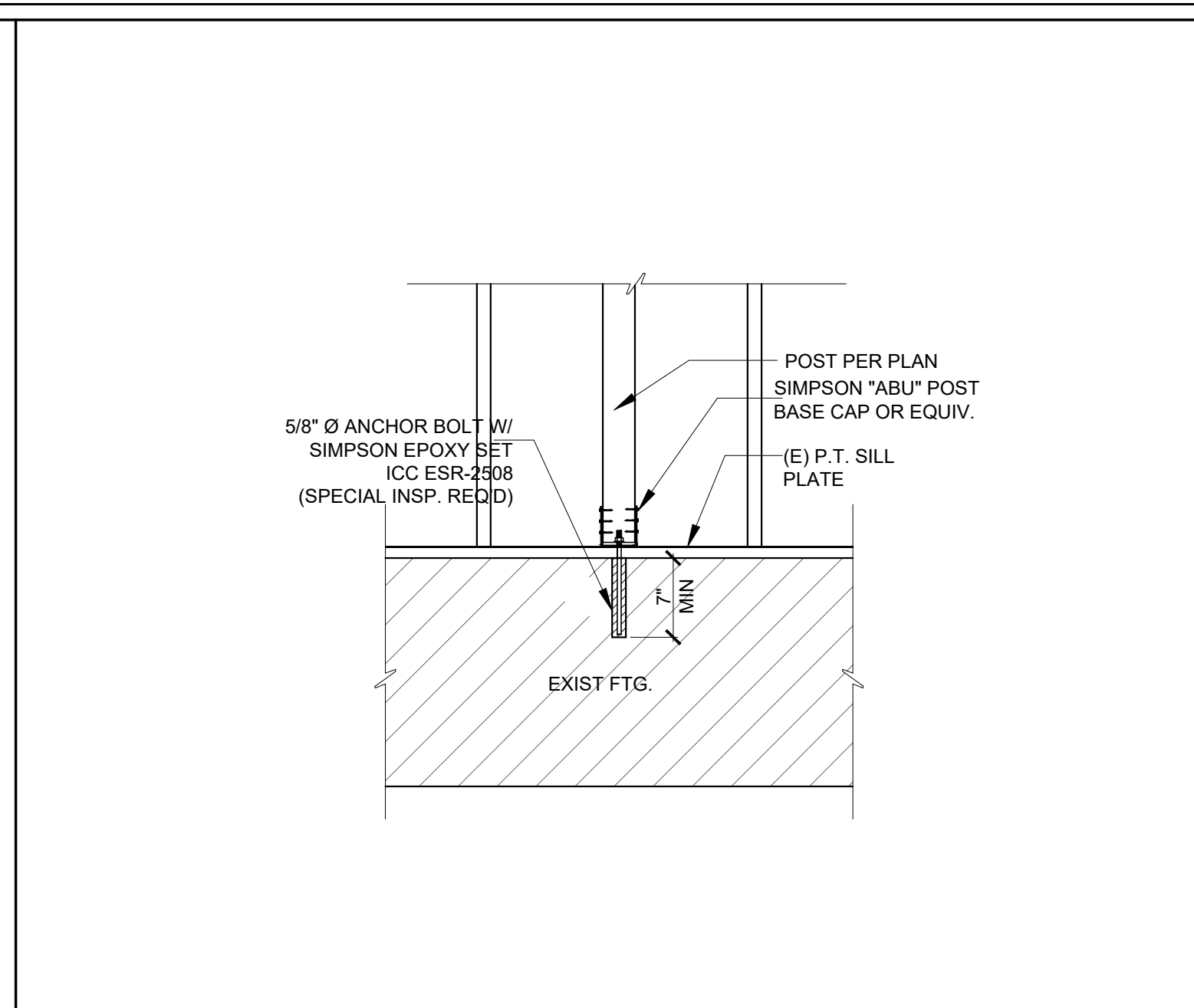




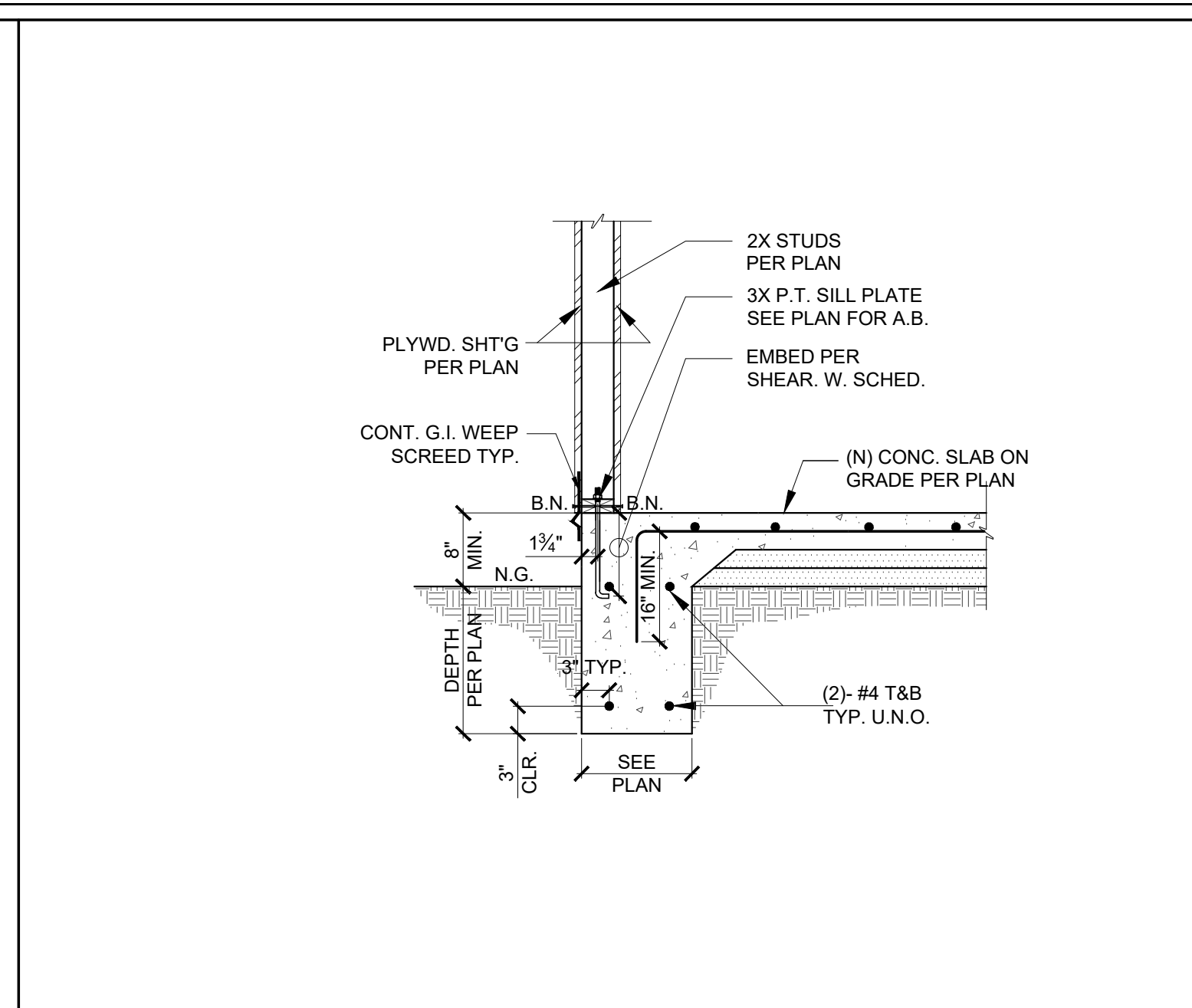
SCALE: 10  
N.T.S.: PAD FOR POST w/HOLDOWN



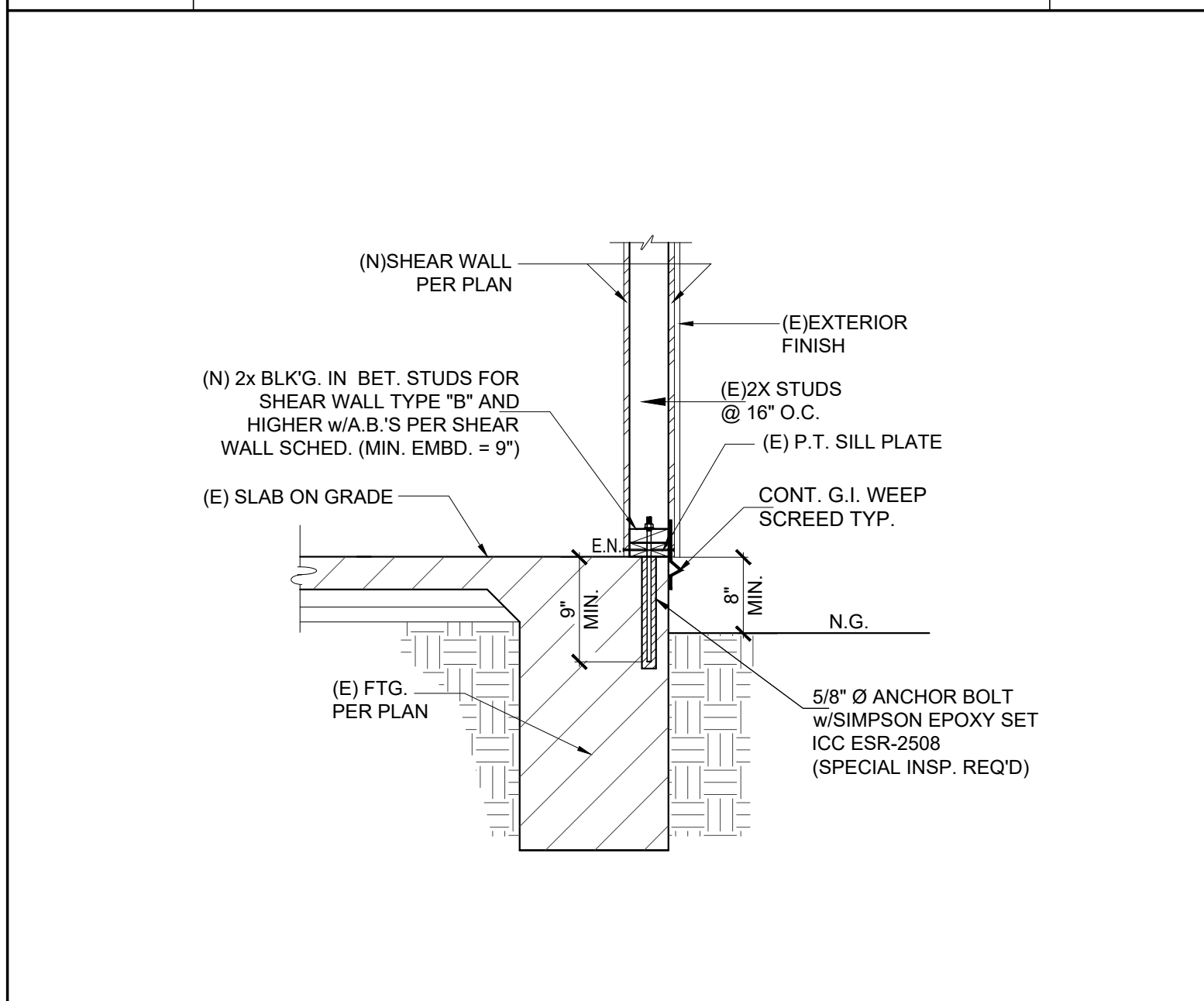
SCALE: 7  
N.T.S.: PAD FOR POST w/HOLDOWN



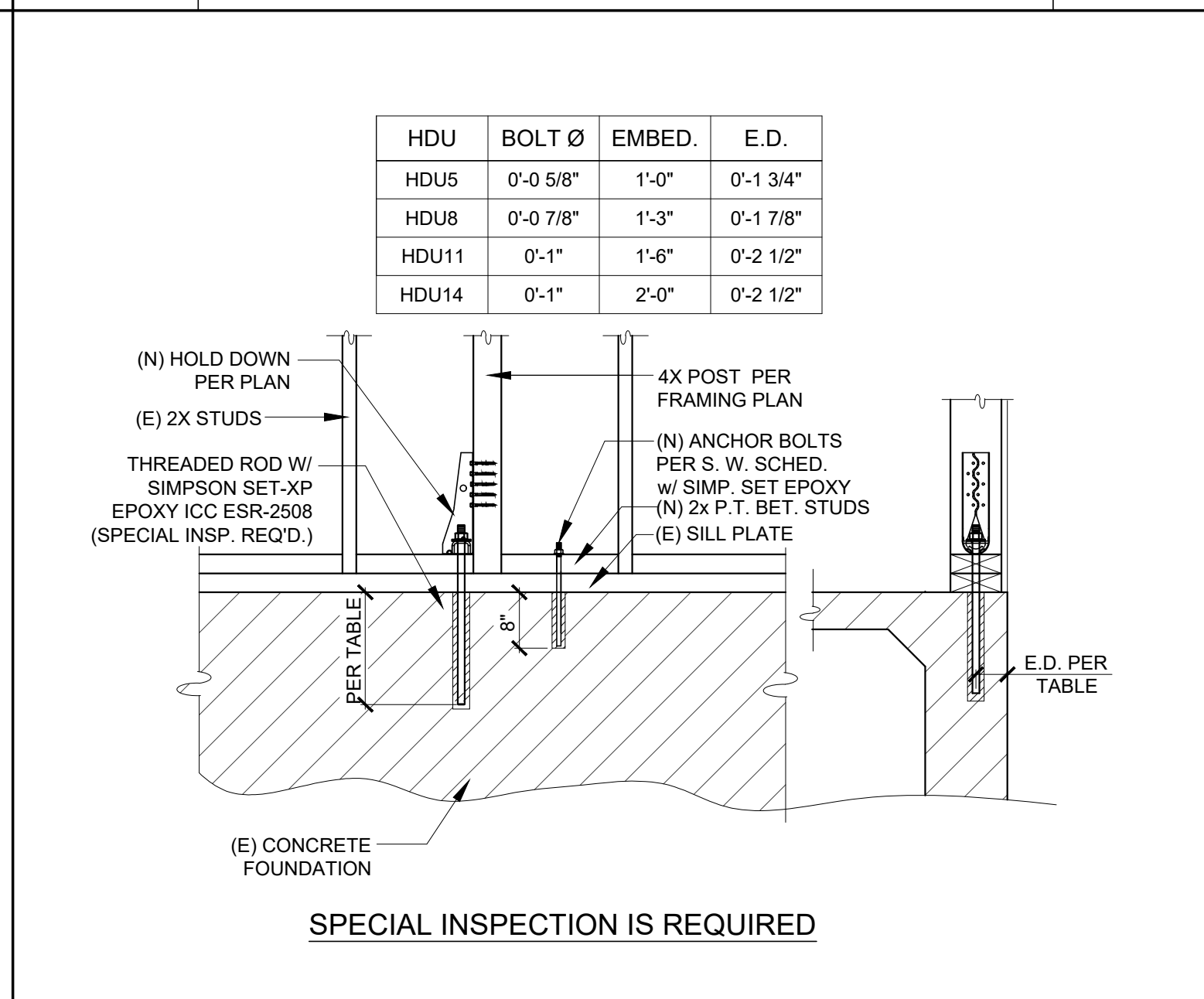
SCALE: 4  
N.T.S.: (N)POST TO (E)CONCRETE FOOTING CONNECTION DETAIL



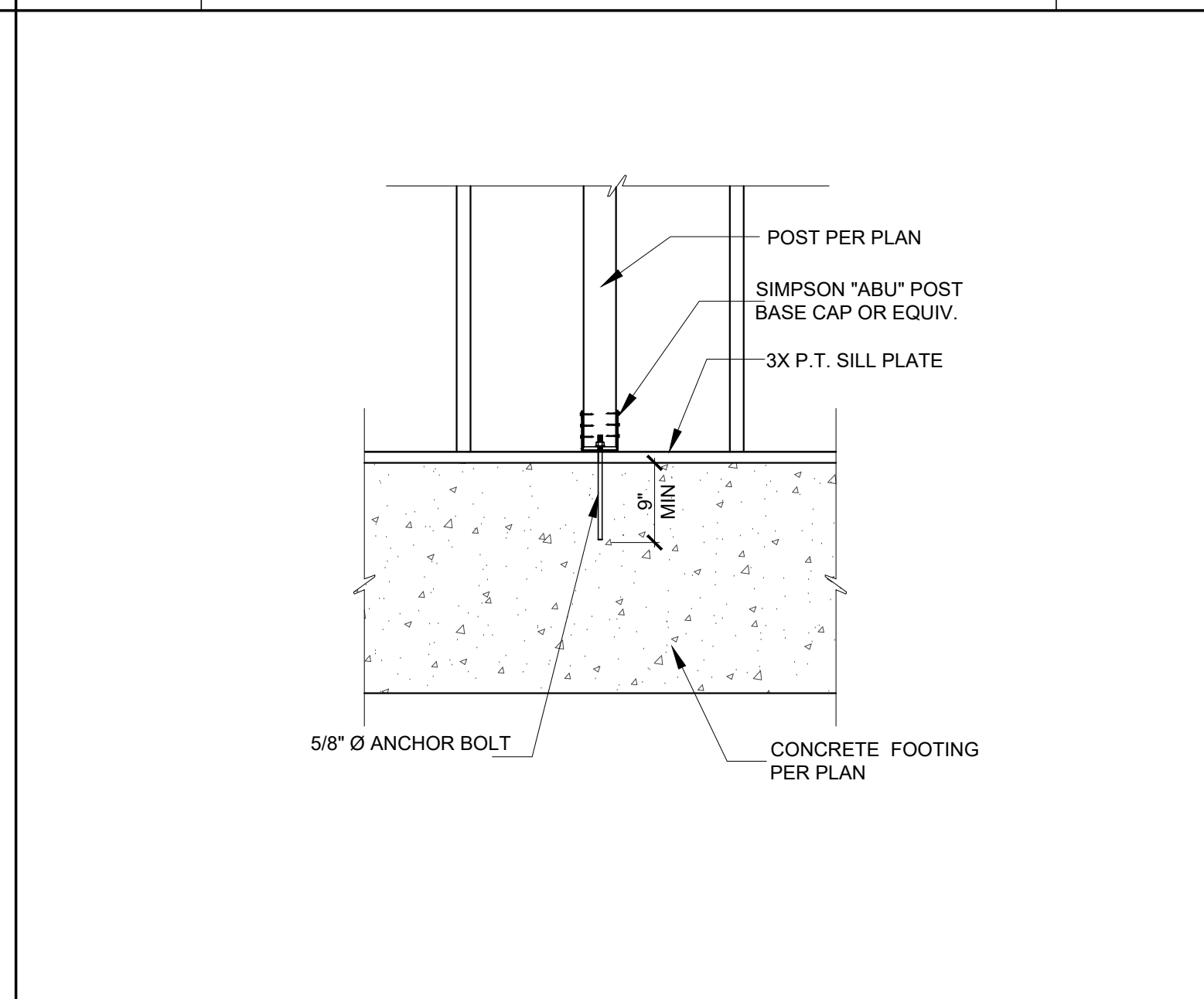
SCALE: 1  
N.T.S.: EXTERIOR SLAB ON GRADE WITH CONTINUOUS FOOTING DETAIL



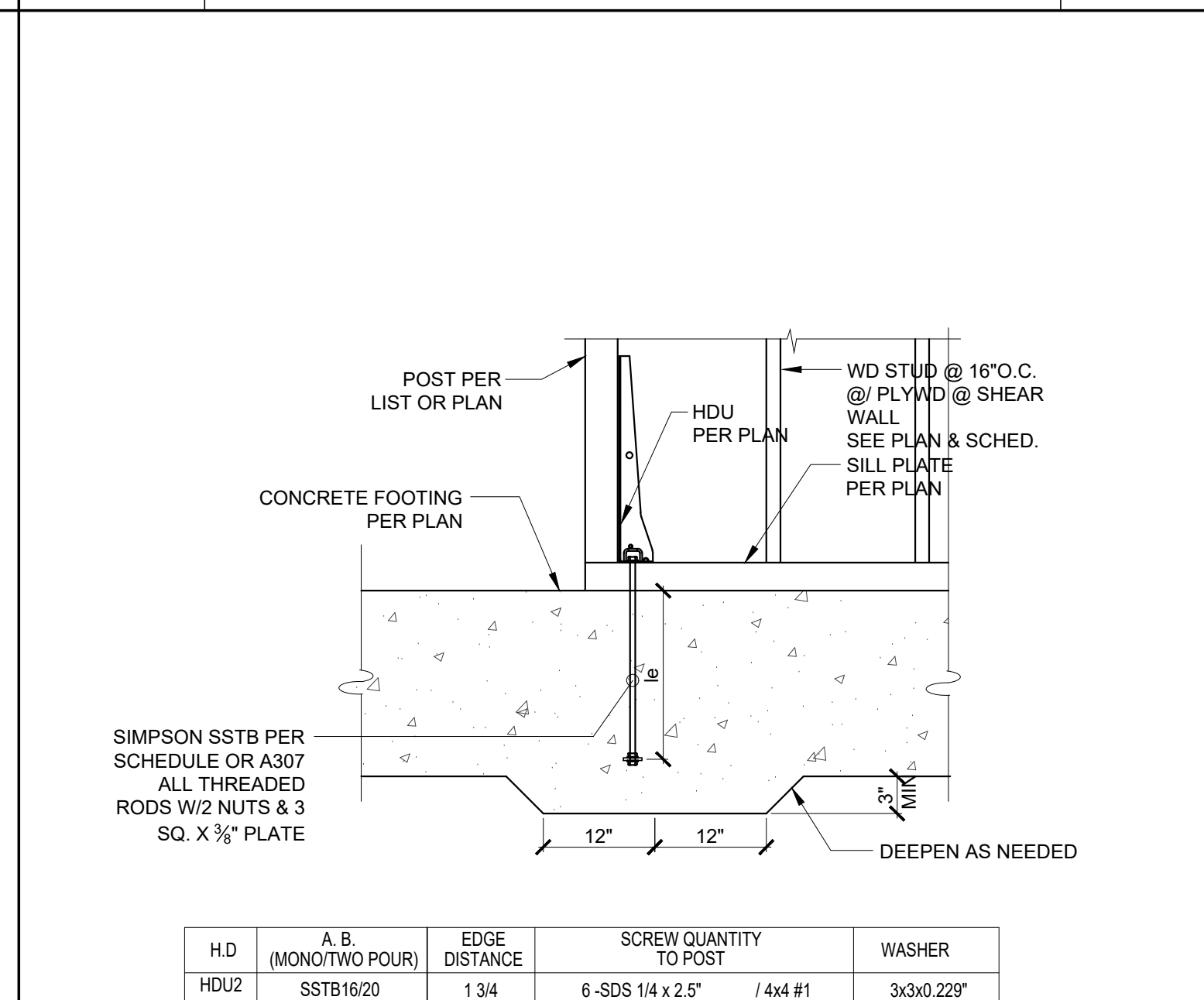
SCALE: 11  
N.T.S.: NEW EXTERIOR SHEAR WALL TO EXISTING CONCRETE FOOTING



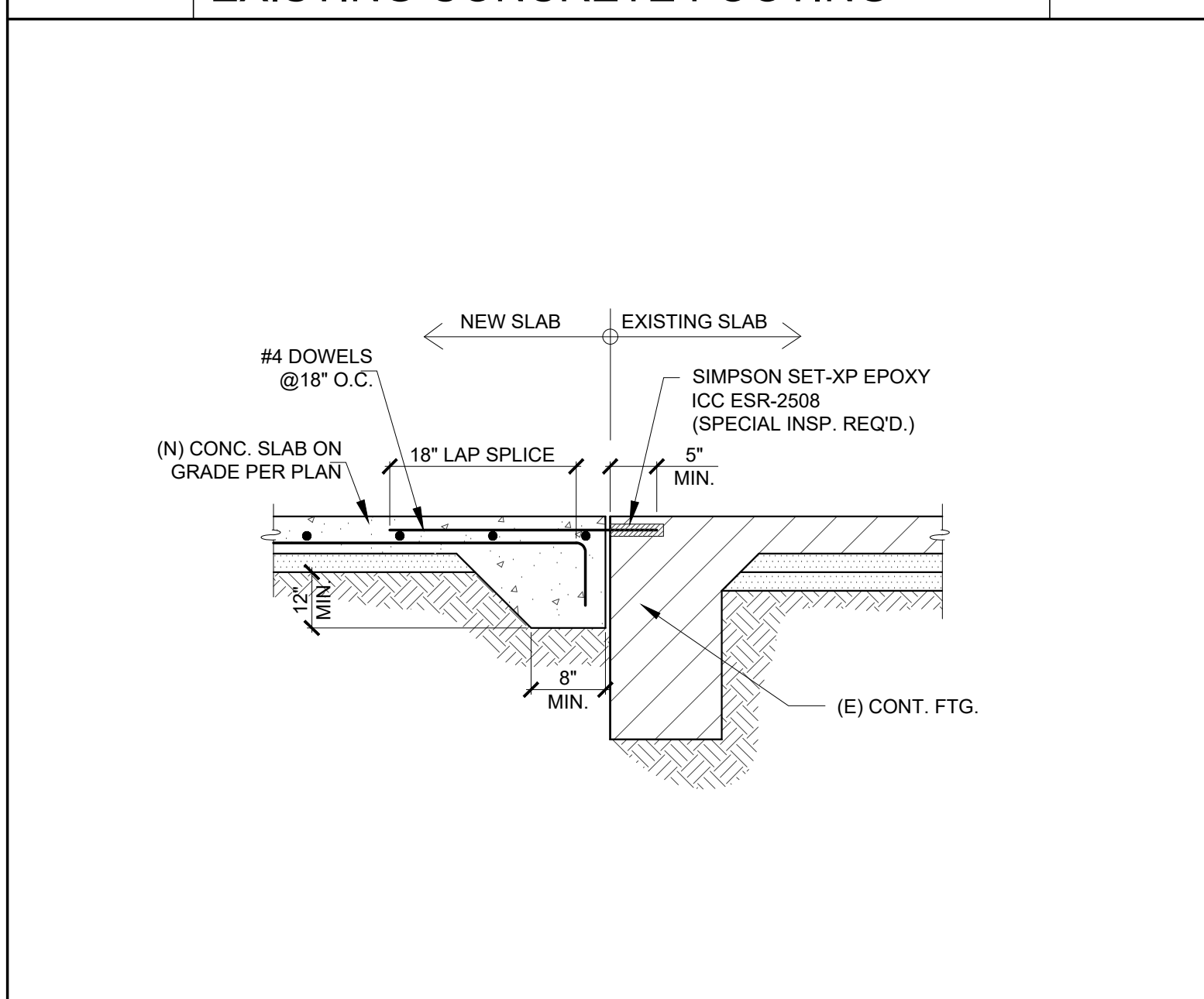
SCALE: 8  
N.T.S.: HOLD DOWN TO EXISTING CONCRETE FOUNDATION



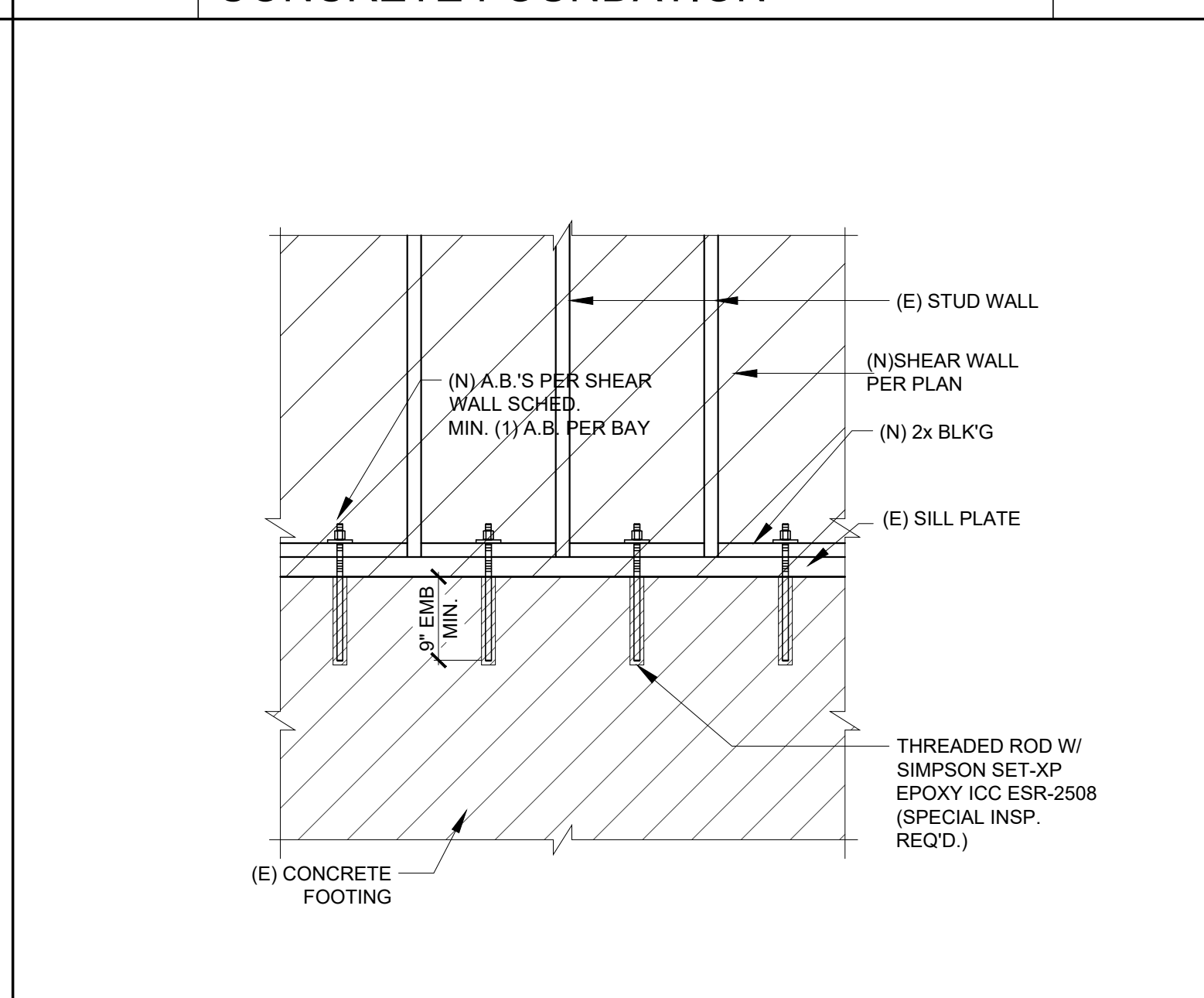
SCALE: 5  
N.T.S.: (N)POST TO (N)CONCRETE FOOTING CONNECTION DETAIL



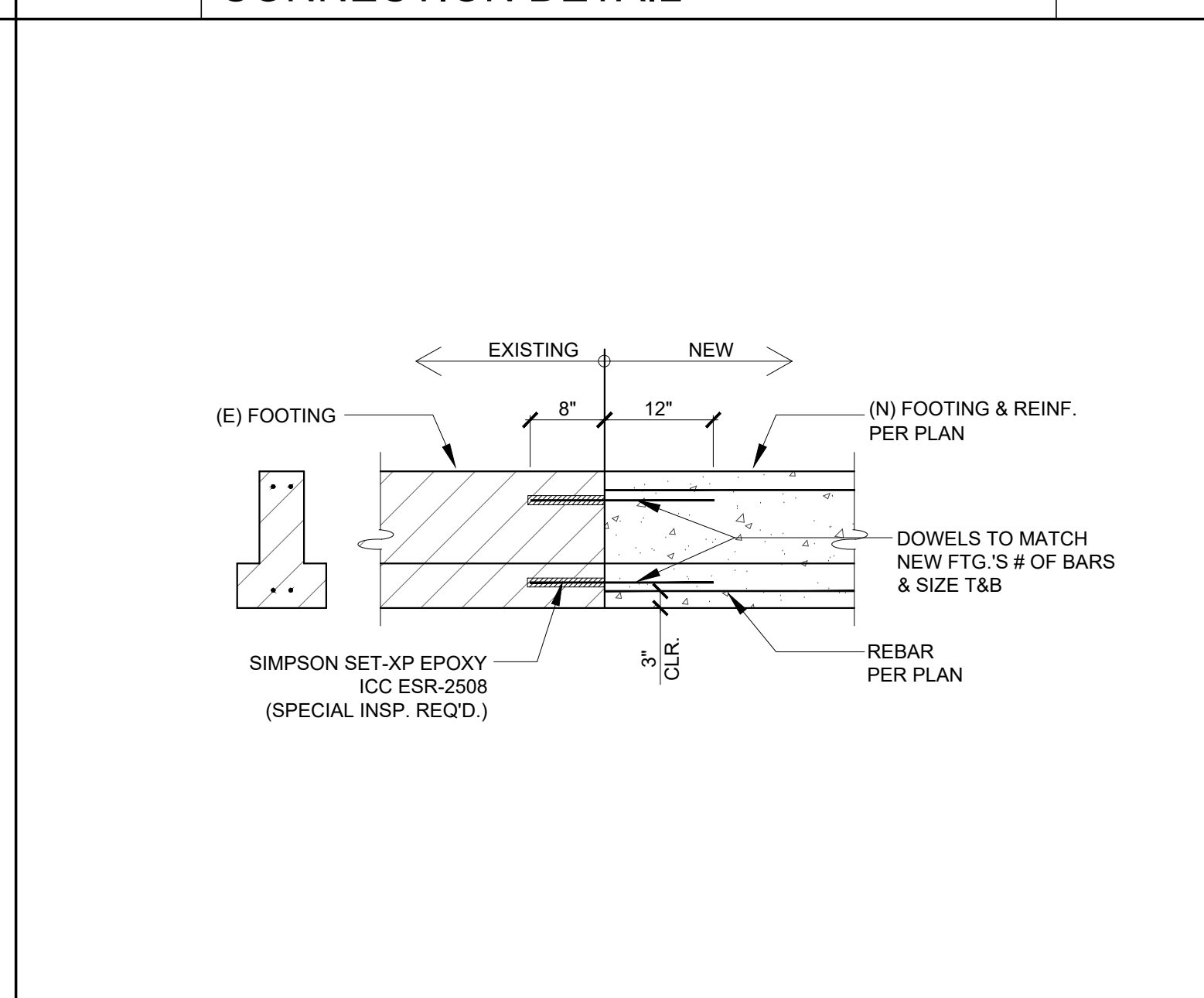
SCALE: 3  
N.T.S.: HOLD DOWN DETAIL



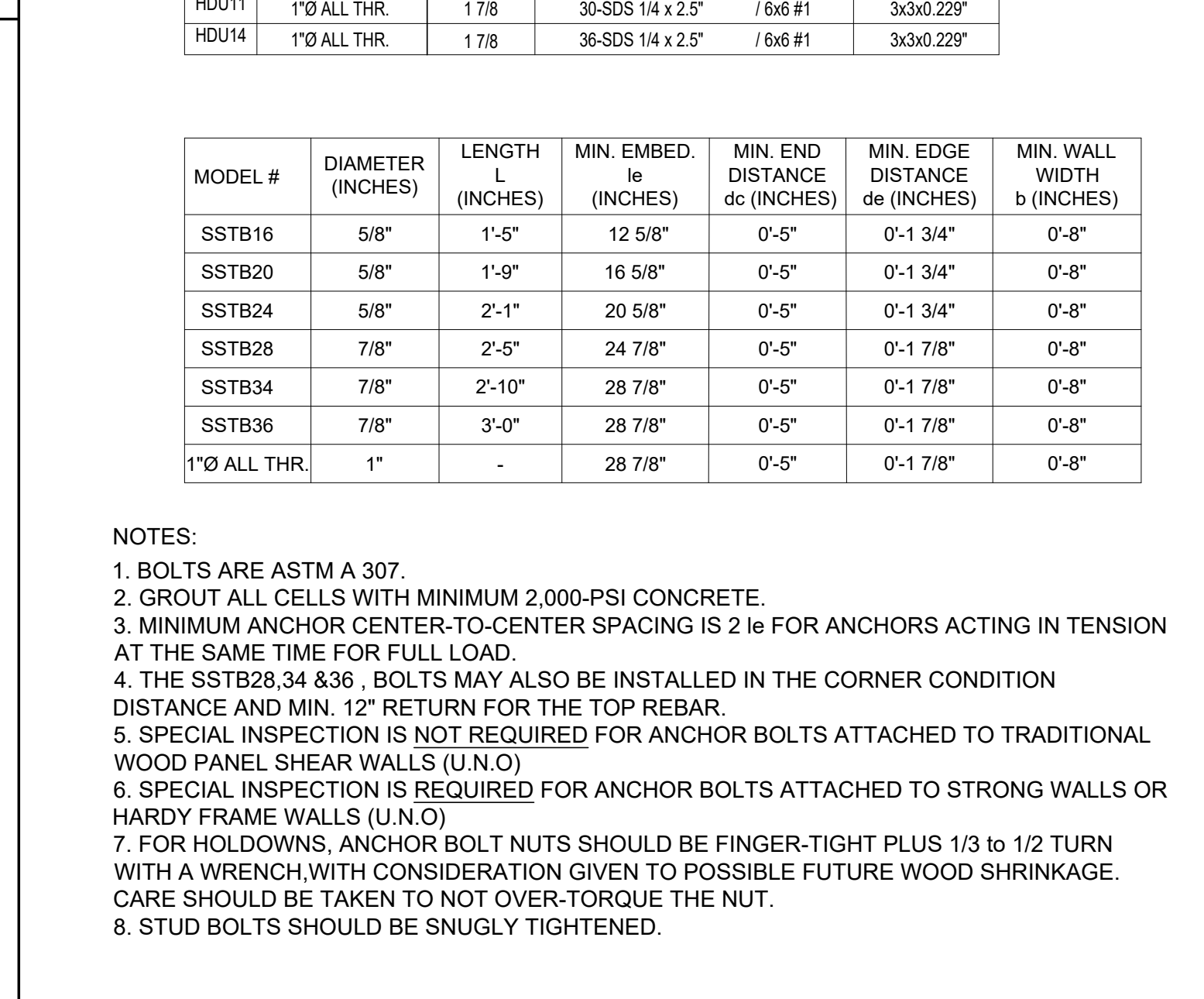
SCALE: 12  
N.T.S.: (N)SLAB-ON-GRADE TO (E)FOOTING CONNECTION DETAIL



SCALE: 9  
N.T.S.: TYPICAL (N)SHEAR WALL TO (E)CONC. FOOTING ELEVATION DETAIL



SCALE: 6  
N.T.S.: NEW FOOTING TO EXISTING FOOTING CONNECTION DETAIL



SCALE: 3  
N.T.S.: HOLD DOWN DETAIL

- NOTES:
- BOLTS ARE ASTM A 307.
  - GROUT ALL CELLS WITH MINIMUM 2,000-PSI CONCRETE.
  - MINIMUM ANCHOR CENTER-TO-CENTER SPACING IS 2 *l<sub>e</sub>* FOR ANCHORS ACTING IN TENSION AT THE SAME TIME FOR FULL LOAD.
  - THE SSTB28.34 & 36. BOLTS MAY ALSO BE INSTALLED IN THE CORNER CONDITION DISTANCE AND MIN. 12" RETURN FOR THE TOP REBAR.
  - SPECIAL INSPECTION IS NOT REQUIRED FOR ANCHOR BOLTS ATTACHED TO TRADITIONAL WOOD PANEL SHEAR WALLS (U.N.O.)
  - SPECIAL INSPECTION IS REQUIRED FOR ANCHOR BOLTS ATTACHED TO STRONG WALLS OR HARDY FRAME WALLS (U.N.O.)
  - FOR HOLD-DOWNS, ANCHOR BOLT NUTS SHOULD BE FINGER-TIGHT PLUS 1/3 TO 1/2 TURN WITH A WRENCH, WITH CONSIDERATION GIVEN TO POSSIBLE FUTURE WOOD SHRINKAGE. CARE SHOULD BE TAKEN TO NOT OVER-TORQUE THE NUT.
  - STUD BOLTS SHOULD BE SNUGLY TIGHTENED.

OWNER/SUBDIVIDER:  
OWNER NAME  
STREET ADDRESS  
CITY, STATE

739 SPOKANE AVE,  
PROJECT ADDRESS  
739 SPOKANE AVE,  
ALBANY, CA 94706

PLANS PREPARED BY:  
W.H. CONSULTANT, INC.  
NORTH CA 1590 OAKLAND RD., SUITE 112, SAN JOSE, CA 95131  
SOUTH CA 25 MAULCHLY, SUITE 323, IRVINE, CA 92618  
WWW.WHENENGINEERINGGROUP.COM  
WWW.WHENENGINEERINGGROUP.NET

HONGBO YANG  
P.C.E. C88467 Exp. 3/31/2022

DESIGNER: [ ]  
DESIGNED BY: [ ]  
DRAFTED BY: [ ]  
CHECKED BY: [ ]  
APPROVED BY: [ ]

NO. DATE REVISIONS

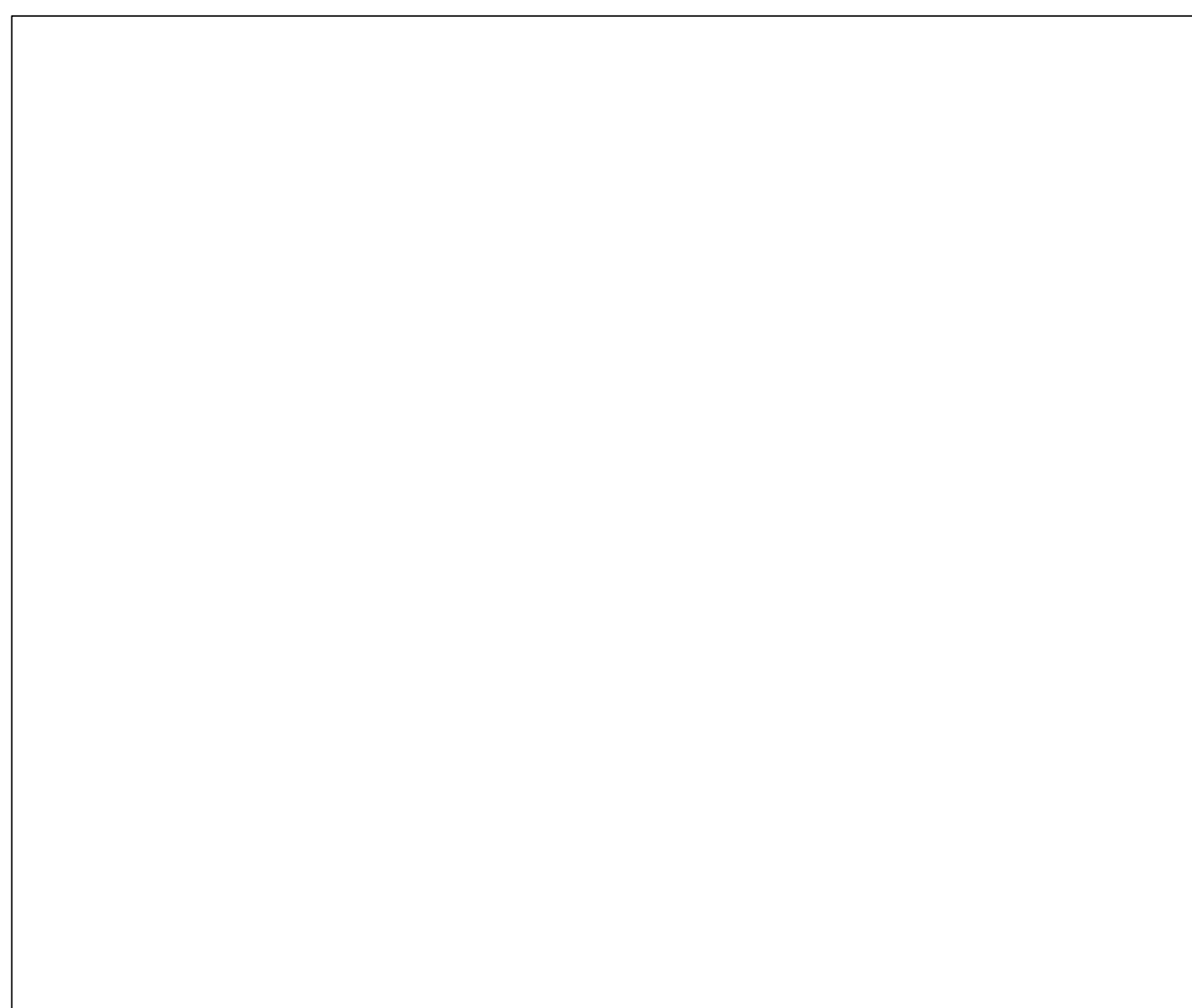
TITLE:  
STRUCTURAL  
DETAILS

PROJECT NO.:  
22027

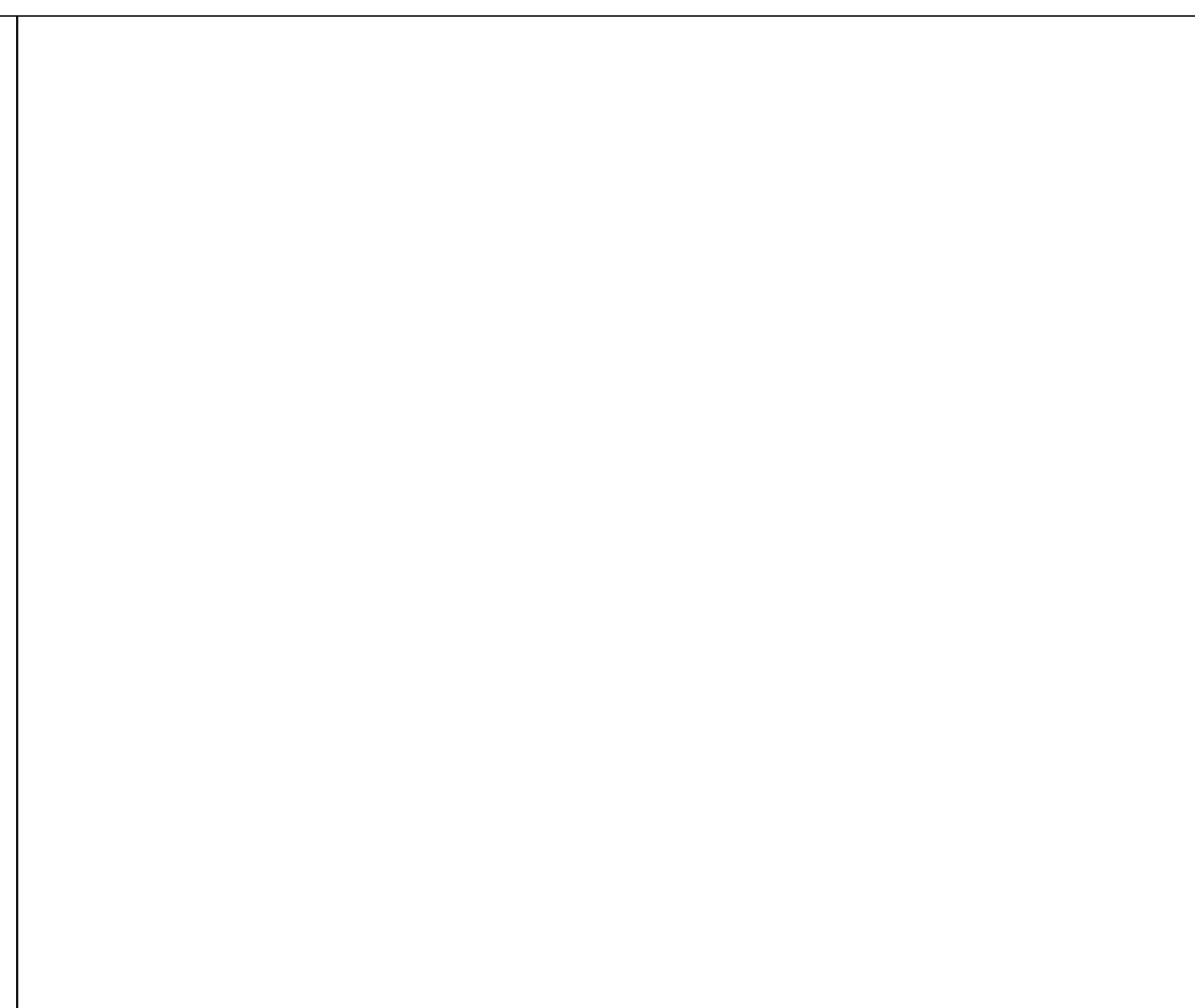
SHEET NO.:  
SD-1



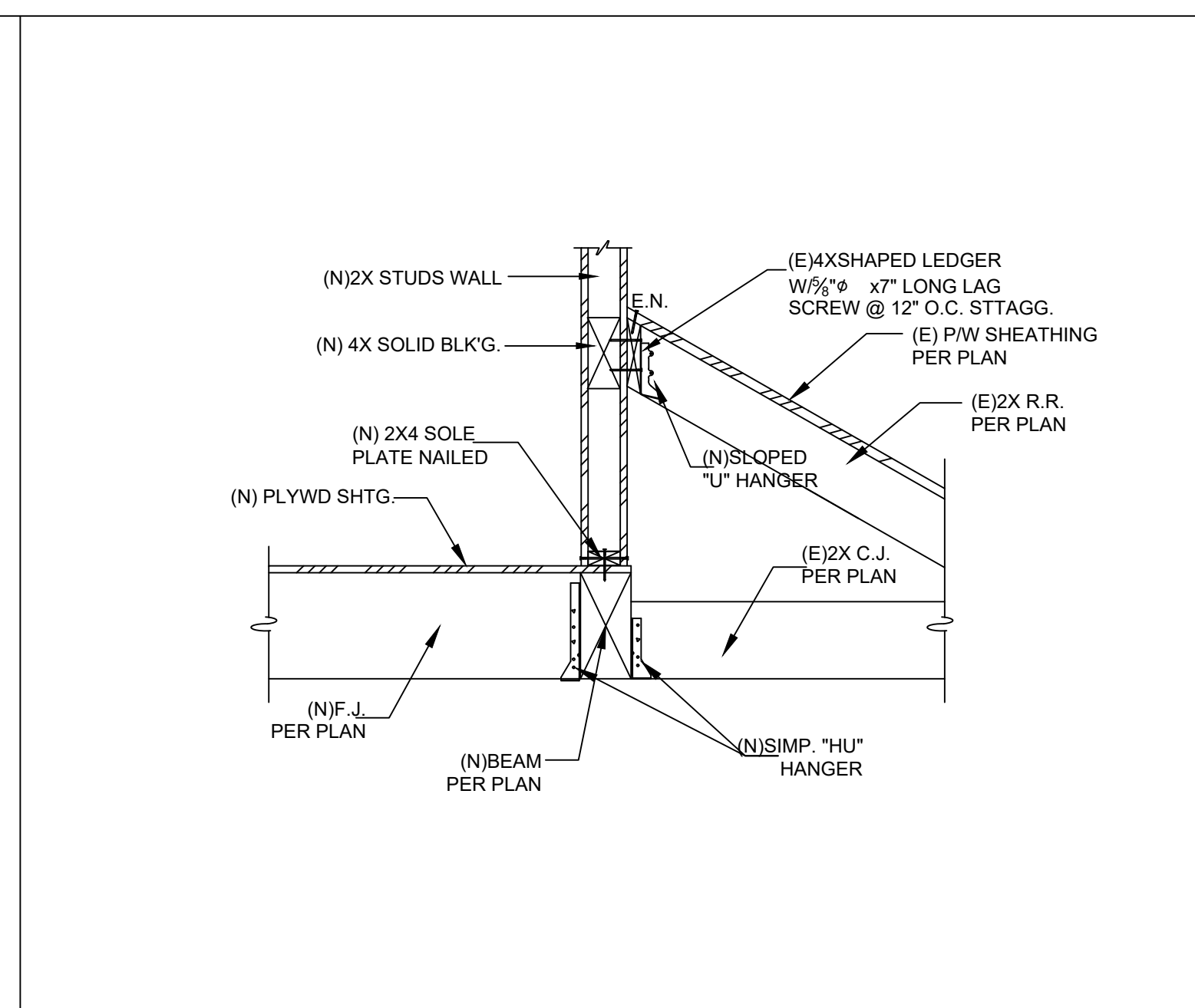




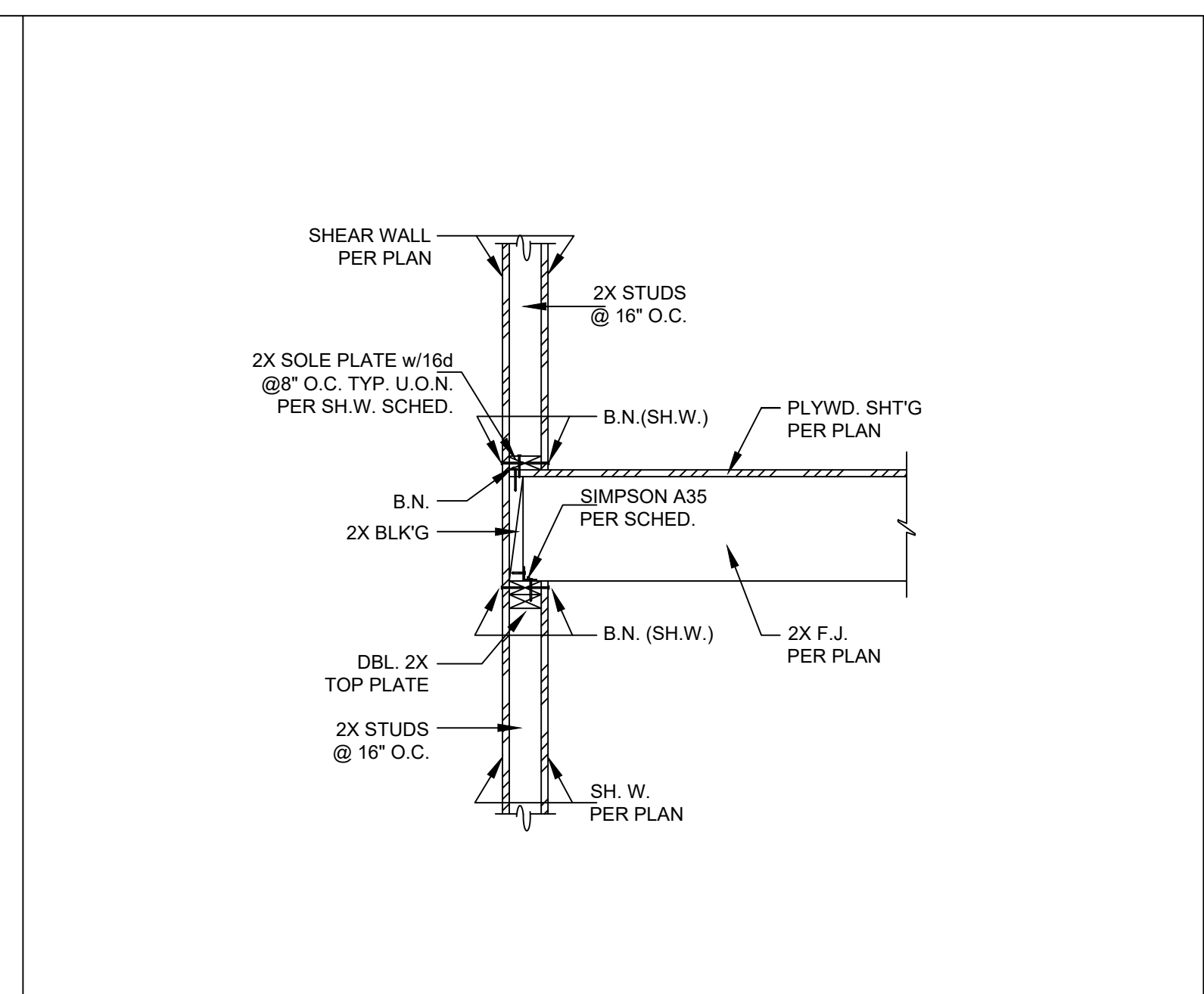
SCALE: N.T.S. 10



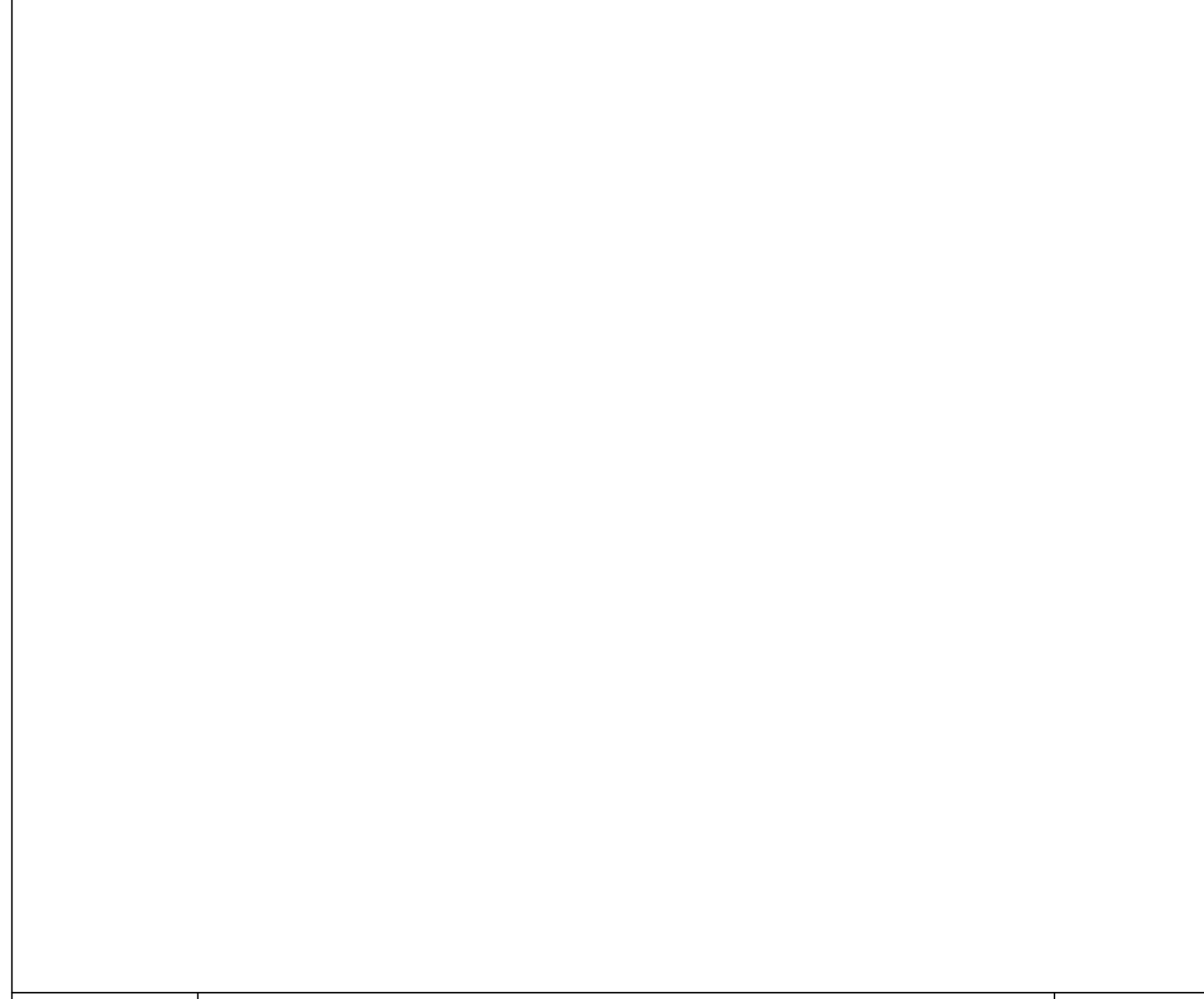
SCALE: N.T.S. 7



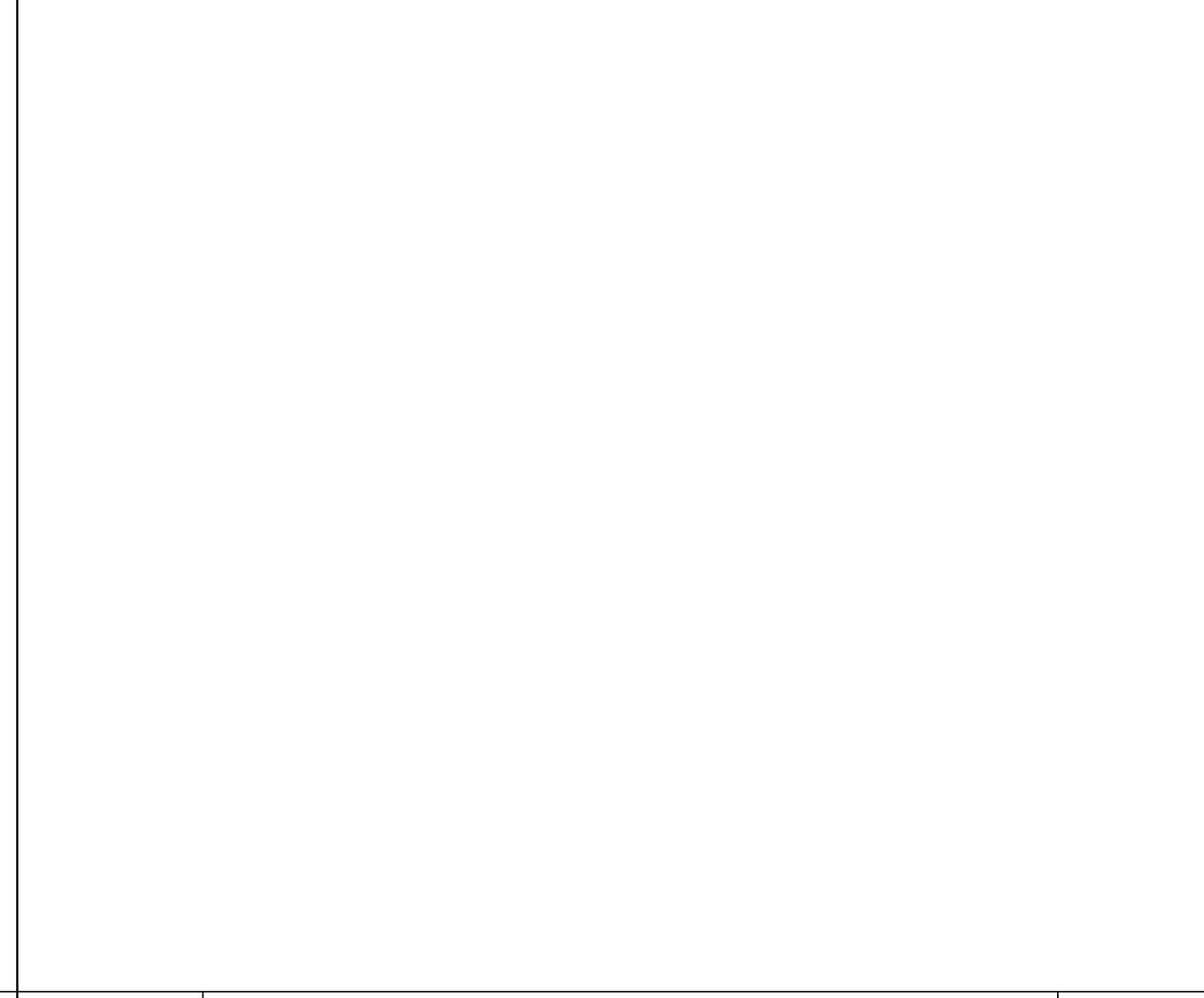
SCALE: N.T.S. 4



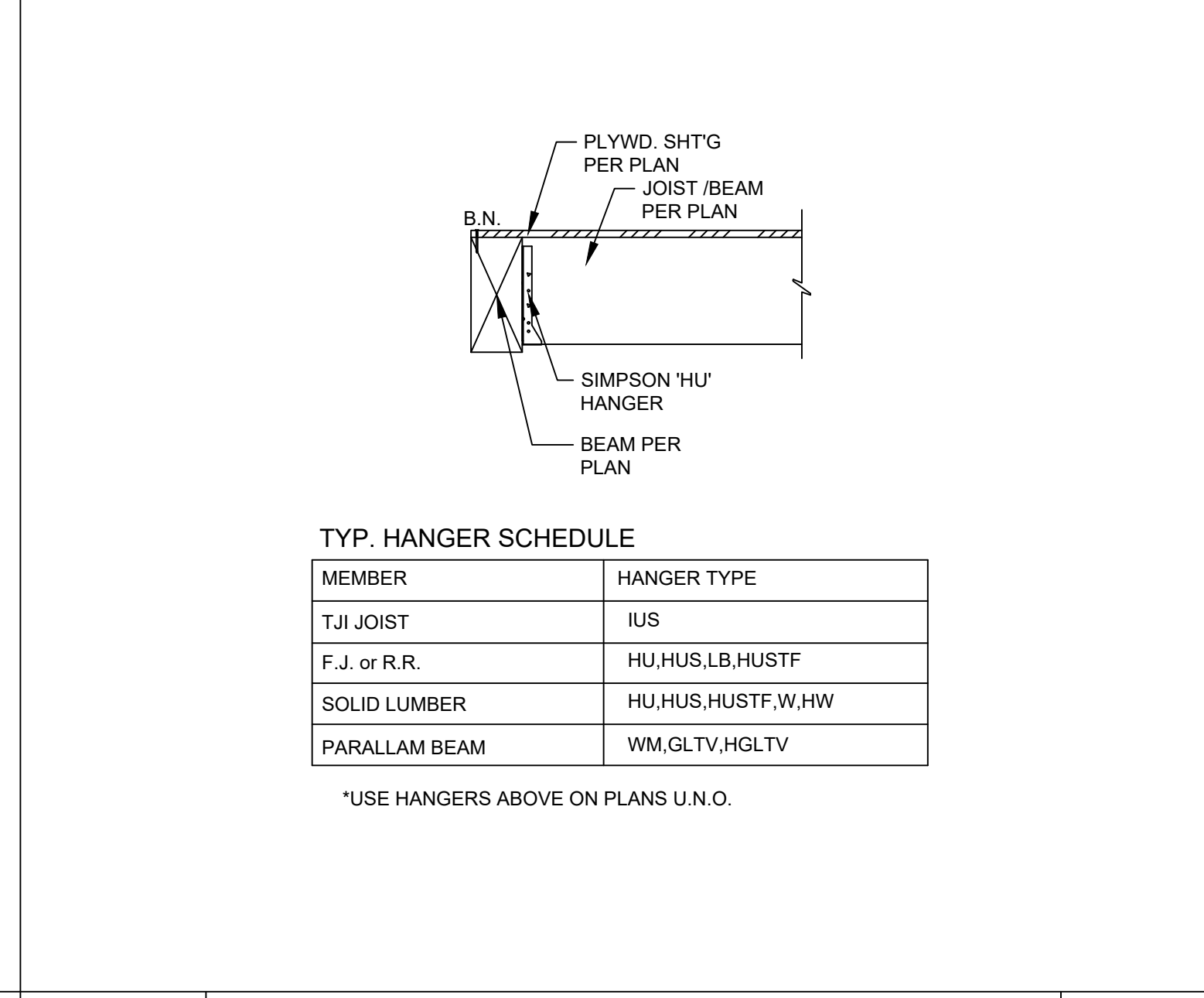
SCALE: N.T.S. 1



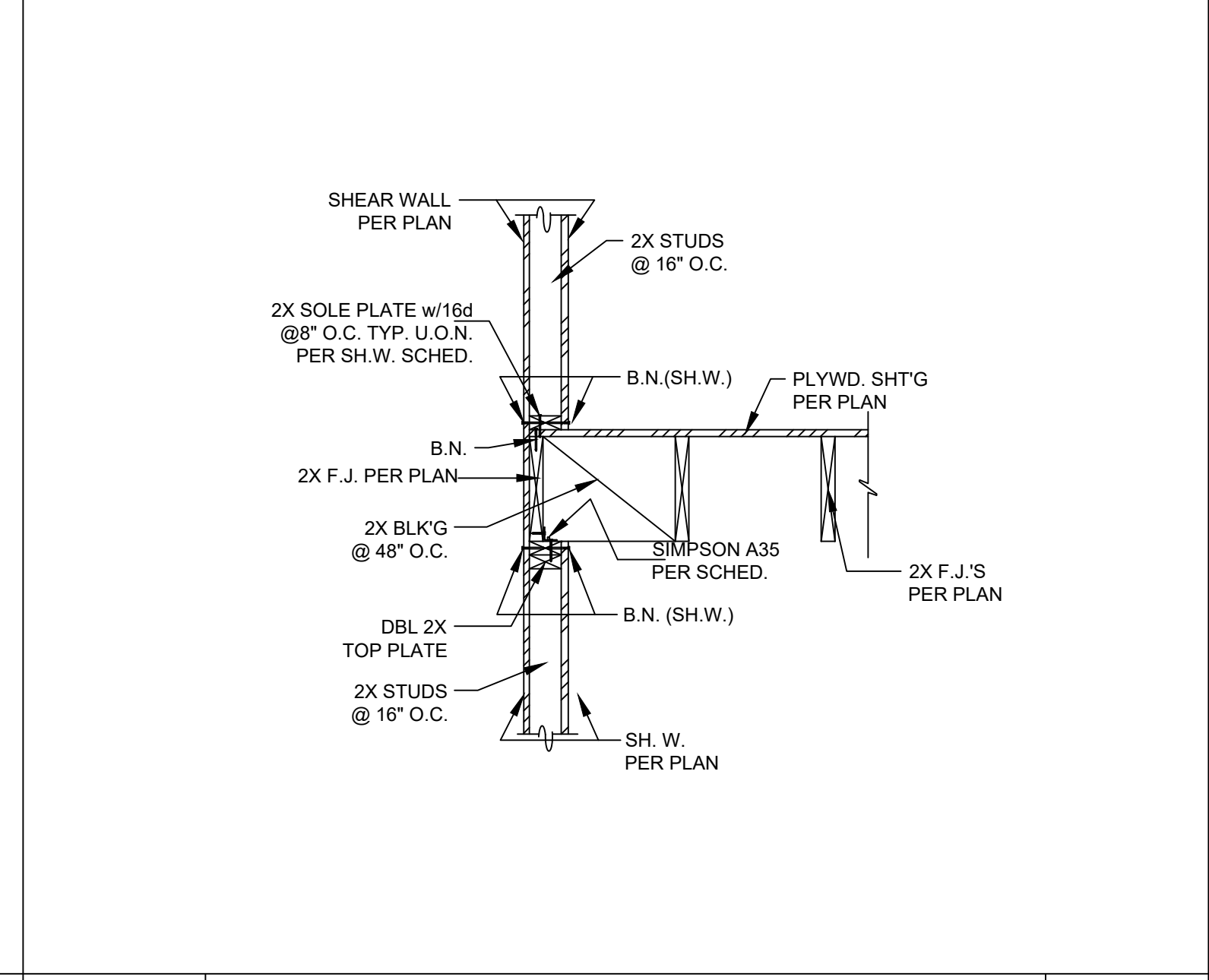
SCALE: N.T.S. 11



SCALE: N.T.S. 8



SCALE: N.T.S. 5



SCALE: N.T.S. 2



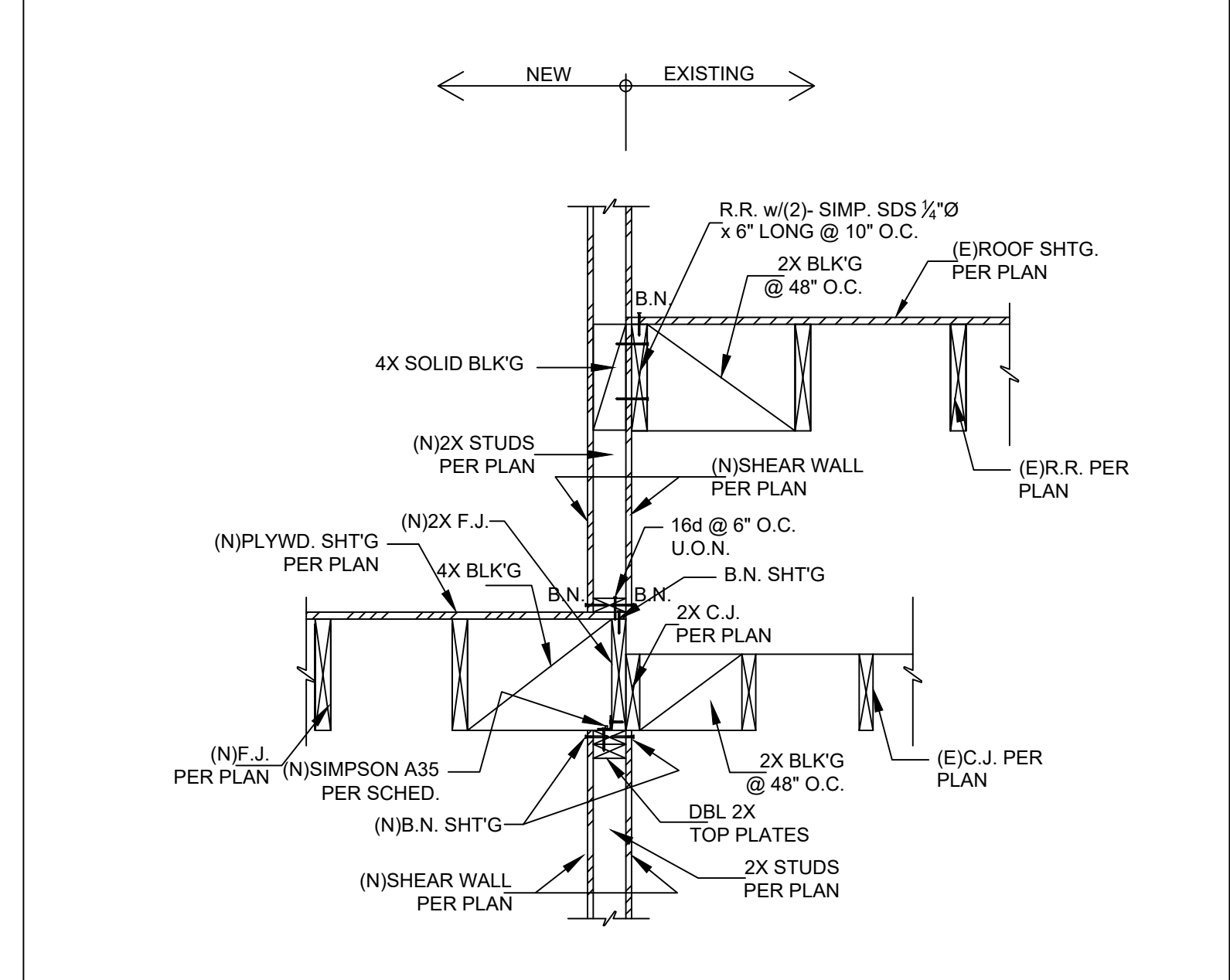
SCALE: N.T.S. 12



SCALE: N.T.S. 9



SCALE: N.T.S. 6

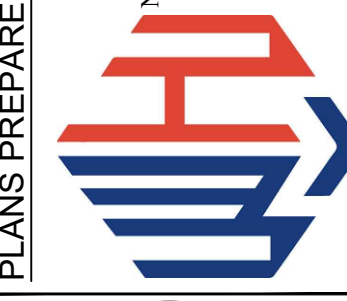


SCALE: N.T.S. 3

OWNER/SUBDIVIDER:  
OWNER NAME  
STREET ADDRESS  
CITY, STATE

739 SPOKANE AVE,  
PROJECT ADDRESS  
739 SPOKANE AVE,  
ALBANY, CA 94706

PLANS PREPARED BY:  
W.H. CONSULTANT, INC.  
NORTH CA 1590 OAKLAND RD, SUITE 112, SAN JOSE, CA 95131  
SOUTH CA 25 MAUCHLY, SUITE 323, IRVINE, CA 92618  
INFO@WHENGINEERINGGROUP.COM  
WWW.WHENGINEERINGGROUP.COM  
HONGBO YANG  
P.C.E. C88467 Exp. 3/31/2022



DESIGNER	DESIGNED BY	DRAFTED BY	CHECKED BY
Y.Z.	Y.Z.	Y.Z.	H.Y.

NO.	DATE	REVISIONS	APPROVED BY

TITLE:  
STRUCTURAL  
DETAILS

PROJECT NO.:  
22027

SHEET NO.:  
SD-3



**CERTIFICATE OF COMPLIANCE**  
**Project Name:** ADU  
**Calculation Description:** Title 24 Analysis  
**Calculation Date/Time:** 2022-03-18 03:09:10-07:00  
**Input File Name:** 14782 739 Spokane add alt adu EAN.r1bd19x  
**CF1R-PRF-01E**  
**(Page 6 of 9)**

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff	1-hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition	Status	Verified Existing Condition
DHW Heater 1	Electric Resistance	Small Storage	1	6	0.92-EF	<= 12 kW	0	98	n/a	n/a	Outside	Existing	No

**WATER HEATING - HERS VERIFICATION**

01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

**SPACE CONDITIONING SYSTEMS**

01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
HP1	Heat pump heating cooling	Heat Pump System 1	Heat Pump System 1	n/a	n/a	Setback	New	No	1	1

**HVAC - HEAT PUMPS**

01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Number of Units	Heating			Cooling		Zonally Controlled	Compressor Type	HERS Verification
Heat Pump System 1	Package Terminal Heat Pump	1	HSPF/COP	Cap 47	Cap 17	SEER	EER/CEER		Single Speed	Heat Pump System 1-hers-htpump
			4	25000	n/a	n/a	12.5	Not Zonal		

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 HERS Provider: Report Generated: 2022-03-18 03:09:35  
 Schema Version: rev 20200901

**CERTIFICATE OF COMPLIANCE**  
**Project Name:** ADU  
**Calculation Description:** Title 24 Analysis  
**Calculation Date/Time:** 2022-03-18 03:09:10-07:00  
**Input File Name:** 14782 739 Spokane add alt adu EAN.r1bd19x  
**CF1R-PRF-01E**  
**(Page 4 of 9)**

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Window	Window	n Wall	Front	0	1	2.6	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
door	Window	n Wall	Front	0	1	33	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
Window 2	Window	n Wall	Front	0	1	2.6	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
Window 3	Window	n Wall	Front	0	1	6	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
Window 4	Window	N	Front	0	1	2.3	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
Window 5	Window	W 2	Right	270	1	9	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
Skylight	Skylight	Roof	Front	0	1	6	0.28	NFR	0.21	NFR	None	New	n/a		

**OPAQUE DOORS**

01	02	03	04	05	06
Name	Side of Building	Area (ft²)	U-factor	Status	Verified Existing Condition
Door sc	n Wall	20	0.2	New	n/a
Door sc	W	20	0.2	New	n/a

**SLAB FLOORS**

01	02	03	04	05	06	07	08	09	10
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated	Status	Verified Existing Condition
Slab-on-Grade	ex	187	0.1	none	0	80%	No	Existing	No
Slab-on-Grade 2	new	137	36	none	0	80%	No	New	n/a

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 HERS Provider: Report Generated: 2022-03-18 03:09:35  
 Schema Version: rev 20200901

**CERTIFICATE OF COMPLIANCE**  
**Project Name:** ADU  
**Calculation Description:** Title 24 Analysis  
**Calculation Date/Time:** 2022-03-18 03:09:10-07:00  
**Input File Name:** 14782 739 Spokane add alt adu EAN.r1bd19x  
**CF1R-PRF-01E**  
**(Page 1 of 9)**

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Project Name	ADU	Run Title	Title 24 Analysis	Project Location	739 SPOKANE AVE.	City	ALBANY	Zip code	94706	Software Version	EnergyPro 8.3	Climate Zone	3	Front Orientation (deg/ Cardinal)	0
Building Type	Single family	Number of Dwelling Units	1	Project Scope	Addition/Alteration	Number of Bedrooms	3	Addition Cond. Floor Area (ft²)	137	Number of Stories	1	Existing Cond. Floor Area (ft²)	187	Fenestration Average U-factor	0.28
Total Cond. Floor Area (ft²)	324	Glazing Percentage (%)	18.98%	ADU Bedroom Count	n/a	ADU Conditioned Floor Area	n/a	Is Natural Gas Available?	Yes						

**COMPLIANCE RESULTS**

01	02
Building Complies with Computer Performance	
This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.	
Building does not incorporate Special Features	

**ENERGY USE SUMMARY**

Energy Use (kWh/yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	9.05	13	-3.95	-43.6
Space Cooling	19.37	12.39	6.98	36
IAQ Ventilation	0	0	0	0
Water Heating	216.94	216.94	0	0
Self Utilization/Flexibility Credit	n/a	n/a	n/a	n/a
Compliance Energy Total	245.36	242.33	3.03	1.2

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 HERS Provider: Report Generated: 2022-03-18 03:09:35  
 Schema Version: rev 20200901

**CERTIFICATE OF COMPLIANCE**  
**Project Name:** ADU  
**Calculation Description:** Title 24 Analysis  
**Calculation Date/Time:** 2022-03-18 03:09:10-07:00  
**Input File Name:** 14782 739 Spokane add alt adu EAN.r1bd19x  
**CF1R-PRF-01E**  
**(Page 7 of 9)**

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge	Verified HSPF	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1-hers-htpump	Not Required	0	Required	Not Required	0	No	Yes	No

**HERS RATER VERIFICATION OF EXISTING CONDITIONS**

**PROJECT NOTES**

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 HERS Provider: Report Generated: 2022-03-18 03:09:35  
 Schema Version: rev 20200901

**CERTIFICATE OF COMPLIANCE**  
**Project Name:** ADU  
**Calculation Description:** Title 24 Analysis  
**Calculation Date/Time:** 2022-03-18 03:09:10-07:00  
**Input File Name:** 14782 739 Spokane add alt adu EAN.r1bd19x  
**CF1R-PRF-01E**  
**(Page 4 of 9)**

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Window	Window	n Wall	Front	0	1	2.6	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
door	Window	n Wall	Front	0	1	33	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
Window 2	Window	n Wall	Front	0	1	2.6	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
Window 3	Window	n Wall	Front	0	1	6	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
Window 4	Window	N	Front	0	1	2.3	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
Window 5	Window	W 2	Right	270	1	9	0.28	NFR	0.4	NFR	Bug Screen	New	n/a		
Skylight	Skylight	Roof	Front	0	1	6	0.28	NFR	0.21	NFR	None	New	n/a		

**OPAQUE DOORS**

01	02	03	04	05	06
Name	Side of Building	Area (ft²)	U-factor	Status	Verified Existing Condition
Door sc	n Wall	20	0.2	New	n/a
Door sc	W	20	0.2	New	n/a

**SLAB FLOORS**

01	02	03	04	05	06	07	08	09	10
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated	Status	Verified Existing Condition
Slab-on-Grade	ex	187	0.1	none	0	80%	No	Existing	No
Slab-on-Grade 2	new	137	36	none	0	80%	No	New	n/a

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 HERS Provider: Report Generated: 2022-03-18 03:09:35  
 Schema Version: rev 20200901

**CERTIFICATE OF COMPLIANCE**  
**Project Name:** ADU  
**Calculation Description:** Title 24 Analysis  
**Calculation Date/Time:** 2022-03-18 03:09:10-07:00  
**Input File Name:** 14782 739 Spokane add alt adu EAN.r1bd19x  
**CF1R-PRF-01E**  
**(Page 2 of 9)**

**REQUIRED SPECIAL FEATURES**

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

- NO SPECIAL FEATURES REQUIRED

**HERS FEATURE SUMMARY**

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

Building-level Verifications:

- None --

Cooling System Verifications:

- Verified EER

Heating System Verifications:

- Verified heat pump rated heating capacity

HVAC Distribution System Verifications:

- None --

Domestic Hot Water System Verifications:

- None --

**BUILDING - FEATURES INFORMATION**

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
ADU	324	1	3	2	0	1

**ZONE INFORMATION**

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
ex	Conditioned	HP1	187	9	DHW Sys 1	N/A
new	Conditioned	HP1	137	9	DHW Sys 1	N/A

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 HERS Provider: Report Generated: 2022-03-18 03:09:35  
 Schema Version: rev 20200901

**CERTIFICATE OF COMPLIANCE**  
**Project Name:** ADU  
**Calculation Description:** Title 24 Analysis  
**Calculation Date/Time:** 2022-03-18 03:09:10-07:00  
**Input File Name:** 14782 739 Spokane add alt adu EAN.r1bd19x  
**CF1R-PRF-01E**  
**(Page 9 of 9)**

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

I, I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Tailored Energy and Testing Services Ltd  
 Signature Date: 3/18/2022  
 Address: 548 Market St #30051  
 City/State/Zip: San Francisco, CA 94120-7775  
 Phone: 1 888 310 0808

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
- I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Kristy Xie  
 Responsible Designer Signature: [Signature]  
 Company: EANOVATION INC.  
 Address: [Address]  
 City/State/Zip: [Address]  
 Phone: 415-880-6490

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 HERS Provider: Report Generated: 2022-03-18 03:09:35  
 Schema Version: rev 20200901

**CERTIFICATE OF COMPLIANCE**  
**Project Name:** ADU  
**Calculation Description:** Title 24 Analysis  
**Calculation Date/Time:** 2022-03-18 03:09:10-07:00  
**Input File Name:** 14782 739 Spokane add alt adu EAN.r1bd19x  
**CF1R-PRF-01E**  
**(Page 5 of 9)**

**OPAQUE SURFACE CONSTRUCTIONS**

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O.C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
roof no attic	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O.C.	R-30	R-9 / None	0.027	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/Decking Cavity / Frame: R-30 / 2x10 Sheathing / Insulation: R-9 Sheathing Inside Finish: Gypsum Board
Wall 0	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O.C.	R-0	None / None	0.277	Inside Finish: Gypsum Board Cavity / Frame: no Insul. / 2x4 Other Side Finish: Gypsum Board

**BUILDING ENVELOPE - HERS VERIFICATION**

01	02	03	04
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

**WATER HEATING SYSTEMS**

01	02	03	04	05	06	07	08	09	10
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification	Status	Verified Existing Condition	Existing Water Heating System
DHW Sys 1	Domestic Hot Water (DHW)	Standby Distribution System	DHW Heater 1 (1)	n/a	None	n/a	Existing	No	

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 HERS Provider: Report Generated: 2022-03-18 03:09:35  
 Schema Version: rev 20200901

**CERTIFICATE OF COMPLIANCE**  
**Project Name:** ADU  
**Calculation Description:** Title 24 Analysis  
**Calculation Date/Time:** 2022-03-18 03:09:10-07:00  
**Input File Name:** 14782 739 Spokane add alt adu EAN.r1bd19x  
**CF1R-PRF-01E**  
**(Page 3 of 9)**

**OPAQUE SURFACES**

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft²)	Tilt (deg)	Wall Exceptions	Status	Verified Existing Condition
e Wall	ex	R-15 Wall	90	Left	120	0	90	none	Altered	No
s Wall	ex	R-15 Wall	180	Back	140	0	90	none	Altered	No
n Wall	ex	R-15 Wall	0	Front	124	642	90	none	Altered	No
W	ex	R-15 Wall	270	Right	120	20	90	none	Altered	No
N	new	R-15 Wall	0	Front	120	2.3	90	Extension	New	n/a
W 2	new	R-15 Wall	270	Right	120	9	90	none	New	n/a
e Wall 2	new	R-15 Wall	90	Left	50	0	90	Extension	New	n/a
s Wall 2	new	R-15 Wall	180	Back	45	0	90	Extension	New	n/a
Interior Surface 1	new>>ex	Wall 0	n/a	n/a	75	0	n/a		New	n/a
Interior Surface 2	new>>ex	Wall 0	n/a	n/a	75	0	n/a		New	n/a
Interior Surface 3	new>>ex	Wall 0	n/a	n/a	75	0	n/a		New	n/a
Interior Surface 4	new>>ex	Wall 0	n/a	n/a	75	0	n/a		New	n/a

**OPAQUE SURFACES - CATHEDRAL CEILING**

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Zone	Construction	Azimuth	Orientation	Area (ft²)	Skylight Area (ft²)	Roof Rise (x in 12)	Roof Reflectance	Cool Roof	Status	Verified Existing Condition	Existing Construction	
Roof	ex	roof no attic	0	Front	187	6	7	0.1	0.85	No	Altered	No	
Roof 2	new	roof no attic	0	Front	137	0	7	0.1	0.85	No	New	n/a	

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 HERS Provider: Report Generated: 2022-03-18 03:09:35  
 Schema Version: rev 20200901

**OWNER**  
 AARON PARSONS & SARAH SPIEGEL  
 739 SPOKANE AVE.  
 ALBANY, CA 94706  
 CALL: -  
 EMAIL: APARSONS@BERKELEY.EDU

**CONSULTANTS**

**DESIGN CONSULTANT**  
 YONG F. LIANG  
 801 FRANKLIN ST APT 304  
 OAKLAND CA 94607  
 CALL: 510-387-6668  
 EMAIL: YONGLIANGDESIGN@GMAIL.COM

**SURVEYOR**  
 KEITH S. BUSH  
 BAY AREA LAND SURVEYING INC.  
 3065 RICHMOND PARK