

Spec. Div. 1: General Requirements

BUILDING CODE: All work under this contract shall be subject to the **RESIDENTIAL CODE OF OHIO for One-, Two- and Three-Family Dwellings**, latest edition, and all municipal and local laws and regulations.

CONTRACT: *The Owner* will enter into a working relationship with the selected *General Contractor* based on one of the following two agreements: (1) *"Standard Form of Agreement Between Owner and Contractor-AIA Document A105-2007,"* or (2) an agreement format proposed by *General Contractor* and approved by *The Owner*, which shall include *The General Conditions of A105*, which are hereby made a part of these *Specifications and The Contract Documents. The Contract Documents*, including *The Drawings*, *Specifications*, and *General Conditions* are complimentary and what is required by one shall be as if required by all.

Generally, the *Specifications* take precedence over the *Drawings* and *The General Conditions* of the *Contract* take precedence over the *Specifications*. Should conflicts occur within the *Contract Documents*, *The Contractor* is assumed to have based his cost on the more expensive method of performing the *Work* unless *The Architect* has issued clarification before submittal of the *Bid Proposal* or *The Contractor* has specifically clarified the issue within his proposal.

When applying for subsequent draws, *The Contractor* shall submit to *The Owner* an *Affidavit of Release of Liens (AIA-G706)* for amounts previously paid to *The Contractor* by *The Owner* or a lending institution. *The Release of Liens (AIA-G706)* shall be presented from himself, all subcontractors, suppliers of material and equipment and all performers of *Work*, labor or services.

INSURANCE: Before beginning the *Work*, *The Contractor* shall provide to *The Owner* a *Certificate of Insurance* for an amount equal to the *Contract Amount* and shall also provide a copy of his current *Worker's Compensation Certificate*. He shall also provide proof of *Builder's Risk and Liability Insurance*. *The Owner* will obtain or increase existing *Homeowner's Insurance* to cover work incorporated into the job.

JOB SITE SECURITY/SAFETY/CONDITION: Barriers, barricades, signs or warning lights, and other safety devices shall be provided to insure safety to *The Owner*, workers, and the general public from hazardous conditions which may arise as a result of the *work*. *The Contractor* shall utilize all means necessary during demolition and construction to insure that all new construction and existing finished spaces are thoroughly protected from vandalism, theft, water and wind damage; and shall remedy/replace, at *The Contractor's* expense, any such damage that does occur.

Debris: On a daily basis *The Contractor* shall place all construction debris in a mobile refuse container, located where agreed with *The Owner*, to insure a safe, orderly and clean construction site. All debris shall be removed at completion of the project. No burying or burning of construction debris shall be permitted unless approved in advance by *The Owner*.

PORTABLE TOILET: *The Contractor* shall provide a portable toilet for use by all personnel, located where directed by *The Owner*, which shall be cleaned and serviced on a regular basis. *The Contractor* may use existing facilities only if *The Owner* has provided written approval prior to signing a contract. Expectations of cleaning and use shall be clearly discussed in advance.

MATERIALS PROTECTION/STORAGE: Construction materials stored outside shall be covered and protected with weatherproof tarps. Wood and similar materials shall not be stored in contact with the ground.

WARRANTY: *The Contractor* shall provide to *The Owner* a minimum one-year guarantee on materials, equipment and workmanship to commence at the point of substantial completion for all contract work. *The Contractor* shall furnish *The Owner* with copies of all equipment guarantees and Owner's Manuals

WORK: Before submitting his *Bid Proposal*, *The Contractor* shall visit the *Project Site* and familiarize himself with existing conditions and shall carefully study and compare the *Contract Documents* with the existing conditions and report to *The Architect* any errors, discrepancies, inconsistencies or omissions, and materials, products, systems, procedures, and construction methods shown or specified which are incorrect, inadequate, obsolete, or unsuitable for actual field conditions discovered, or which *The Contractor* would not warrant as required by *The Contract Documents*.

Prior to ordering materials or doing work at the site, *The Contractor* shall verify dimensions and conditions affecting materials to be ordered or work to be done, to insure that information shown on *The Contract Documents* accurately reflects actual conditions, and shall not proceed without *The Architect's* instructions if there are omissions, errors, discrepancies or inconsistencies.

The Contractor shall provide all labor, material, equipment, apparatuses and accessories required to complete all work shown on these drawings, or reasonably implied and necessary for the completion of the project. **All materials and equipment to be installed following manufacturers' instructions and best construction methods and standards.**

The Contractor shall obtain and pay for all required permits, royalties, shipping charges, fees and licenses and shall arrange for all inspections necessary for the proper execution of the *Work*. Approval *Certificates* shall be posted in a prominent, central location and per local authority's requirements.

Substitutions for items herein specified, or shown on *Drawings*, must be approved by *The Architect*. The phrase "or equal" in the *Drawings* or *Specifications* shall be interpreted as meaning equal in the opinion of the *Architect*, and must have his approval prior to ordering.

A copy of the Drawings and Specifications, any Addenda issued before or during construction, and all detail drawings submitted during construction, shall be kept and maintained in a suitable condition on the site for use by the Owner, Architect, General Contractor, and all tradesmen.

PROJECT CLEANING: At the completion of the project, and during the project as may be appropriate, *The Contractor* shall thoroughly clean all work, including, but not limited to, the following: removal of mortar spatters or stains from all interior and exterior masonry; removal of masonry waterproofing above finish grade; removal of any spatters or stains from exterior siding, roofing, or other exterior materials; removal of all stains from all exposed concrete work, except for Crawl Space concrete; removal of stains and cleaning of counter tops, ceramic tile, plumbing fixtures and fittings, etc.; thorough cleaning of faucet screens and plumbing traps; vacuuming of all floors, followed by wet mopping of hardwood, ceramic, stone or other hard surface floors; dusting of all walls, ceilings, trim, doors, windows, cabinets, etc., including the interiors of all cabinets; removal of all window and door stickers, paint or stain overlapping on glass, and other glass spatters; polishing of all windows, mirrors or other glass.

In addition, *The Contractor* shall be responsible for the removal, including final vacuuming, of all construction, or other, debris from joist, rafter, stud, or other cavities prior to concealing with flooring, drywall.

Spec. Div. 2: Site Work and Excavation

SITE ACCESS: *The Contractor* shall access the site, stockpile construction materials and park construction vehicles and equipment where agreed with *The Owner*. Work shall be executed in a manner to minimize damage to existing drives, walks, lawns, plantings, trees, house, utilities, etc. Any such items that are damaged by construction activities shall be repaired to their original condition at *The Contractor's* expense.

The Contractor shall remove topsoil in areas of new excavations, if any, and stockpile where agreed with *The Owner* for reuse as finish grading material. *The Contractor* shall limit site disturbance to minimum required for access and mobility.

SOIL EROSION PROTECTION: Slopes greater than 12% and open and exposed soil areas including any stockpiles of subsoil or topsoil shall be enclosed with straw wattles, fiber rolls, straw bale dams, or other recycled materials to prevent soil from washing onto adjacent property or into drainage paths. Such barriers shall be maintained during all construction phases of work, through final grading.

EXCAVATION: Prior to beginning any excavation work, *The Contractor* shall ascertain the location of all underground utilities and services, using utility company location services if necessary, and carefully avoid damage to these items, or interruption of service, to include electric, phone, water, gas, sanitary/storm sewers, etc. The cost to repair and restore any damage to such services shall be paid for by *The Contractor*.

The Contract Documents have been prepared with an assumed soil bearing capacity of 2,000 psf. No sub-surface geotechnical report or soil bearing logs have been provided or reviewed prior to design of this work. *The Contractor* shall verify soil conditions and shall notify *The Architect* and *The Owner* of any suspected or unusual soil conditions that may affect the footing or foundation work, and shall not proceed until so directed. No new work shall bear on unusual or questionable soil. Excavate to depths as required to provide floor levels as shown on *Drawings*. Provide a minimum footing depth of 3'-6" below grade. If existing footings are shallower than new adjacent footings, DO NOT disturb soil, call *The Architect* for further instructions BEFORE proceeding. Minimize over-digging and do not allow water to stand in excavation (pump as required). Stockpile excavated subsoil needed for back-filling and grading where agreed with the Owner and dispose of any remaining soil off-site.

DOWNSPOUT DRAINS: *The Contractor* shall connect new boots to the existing downspout drainage system. No connection with the footing drainage system is allowed, except downstream combination to storm main exit pipe.

BACK-FILLING: Foundations shall not be back-filled until Crawlspace or Basement floor slab and First Floor deck are in place or until walls are adequately braced to accommodate loading. Before backfilling, thoroughly clean all excavations around foundations and any retaining walls of all masonry and other construction debris. Backfill around foundation shall be smooth washed river stone to within 6" of finished grade. Backfill top 6" with clean soil. Excavations for utilities under steps and/or terraces shall be filled with granular material.

GRADING: Prior to final grading, clean site of all construction debris. Rough grade with clean excavated subsoil in a fashion to continue natural contours and provide good drainage away from house. Provide drainage swales or yard drains connected to storm sewers for any low areas where surface water is likely to collect. *The Contractor* shall be responsible for insuring that finish grades are a minimum of 8" below siding/sill plate, and that all surface water drains away from house. Finish grade with stockpiled topsoil and provide additional topsoil if necessary. New grading to be reseeded.

Spec. Div. 3: Concrete

GENERAL: Cast-in-place concrete construction shall conform to the latest edition of American Concrete Institute ACI-301, 305, 306, 315, 318, and 347, unless noted otherwise.

Slump for all classes of concrete to be between 4" and 5" (ASTM C-143).

Concrete shall be discharged at the site within 1 ½ hours after water has been added to the cement and aggregates. Addition of water to the mix at the project site will not be permitted.

CONCRETE WASTE and wash water should be returned with each concrete truck for disposal at the concrete batch plant. If this is not possible, operators can install prefabricated or built-on-site concrete washout area per *The Architect's* instructions. Contractor must not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams. Do not allow excess

concrete to be dumped onsite, except in designated concrete washout areas.

COMPRESSIVE STRENGTH: The compressive strength of concrete in 28 days shall be as follows:

Grout:	2,500 psi minimum
Footings and Interior slabs:	3,000 psi
Exterior and Garage slabs-on-grade:	4,000 psi with 6% +/- 1% Air-entrainment

Water/Cement Ratio: The water/cement ratio shall not exceed the following:

Comp. Strength	Non Air-entrained	Air-entrained
3,000 psi	0.58	
4,000 psi	0.53	0.44

REINFORCING: Concrete steel reinforcing bars shall conform to ASTM A-615, Grade 60. Welded wire fabric (w.w.f.) shall conform to ASTM A-185-79 (60,000 psi yield). All detailing, fabrication, and placement of reinforcing steel shall conform to the Manual of Standard Practice for Detailing Reinforced Concrete Members.

For footings and concrete walls: Lap all reinforcing bar splices 45 bar diameters minimum. Bend all horizontal bars 36 bar diameters past each corner or provide equivalent corner bars matching horizontal reinforcing.

For slabs: Wire shall lap one full mesh +2" and be securely wired each side and end. Reinforcing placed at 1/3 of slab thickness from top of slab, typical.

Properly support all reinforcing and wire mesh on chairs. Minimum coverage for concrete reinforcing shall be:

- Concrete deposited against the ground: 3"
- Concrete exposed to the weather: 2"
- Slabs/wall not exposed to the weather: ¾"
- Beams/columns (over main reinforcing): 2"

FOOTING: Sizes and reinforcement shall be as detailed on the *Drawings* but shall not be less than **10" thick, 8" wider than the wall supported**, and reinforced with (2) #5 bars, bot. Below masonry chimney construction, footings to be min. 12" thick, 12" wider than masonry above, with #5 bar @ 12" each way, bot. Carefully form all footings with 2x material staked and adequately supported. Verify that footing layout is square and the tops of all footings are level. Construction over footings shall not commence for 48 hours after casting minimum, or per local code. Footings to reach 3000 psi compressive strength at 28 days, water/cement ratio not to exceed 0.58

MUDSLAB: Crawlspace mudslabs to be minimum 3½" thick, unreinforced, over 10 mil vapor barrier and 4" sand or gravel base. Finish to be wood floated to a smooth finish.

COLD WEATHER CONCRETE: Calcium Chloride shall not be used, nor shall any admixture that contains calcium chloride. All new work shall be protected from freezing or curing too rapidly.

Cast-in-place concrete construction shall conform to the strictest Version of American Concrete Institute ACI-301, 304R, 308R, and ASTM C 494/C 494M. Euclid Chemical "Accelguard 80", BASF "Pozzolith NC 534", Silka "Silkast NC" are all approved admixtures. Contractor to use heated aggregate and water as needed to obtain concrete temperatures at time of placement. Do not place concrete on frozen ground or any ground surface contaminated with organic materials. After placement protect concrete against temperatures below 40 degrees Fahrenheit for a minimum of 72 hours after placement. Protect concrete against freezing temperatures for 7 calendar days by the use of heated enclosures or thermal insulating blankets. If gas fired heaters are used, protect against fire and accumulation of carbon-dioxide gases.

Spec. Div. 4: Masonry

GENERAL: Construct all masonry walls in accordance with ACI 530.1 specifications (with requirements for Owner Inspection and Acceptance deleted), unless otherwise noted. Anti-freeze admixtures shall not be used and uncured walls shall be protected from freezing as may be required. The tops of walls under construction shall be covered at the end of each day and protected from rain or snow. The minimum Masonry Prism Strength (f'm) shall be 1500 p.s.i. at 28 days, unless noted otherwise.

CLEANING: 3-7 days after masonry construction is complete; Masonry Work shall be cleaned with a stiff bristle brush and clean water. Larger particles should be removed with non-metallic scrapers. Prosoco Sure Klean Products may be used with Architects approval.

SEALING: Glaze N Seal Multi-Purpose Sealer or approved alternate for sealing all exterior brick.

Spec. Div. 5: Metals

STRUCTURAL STEEL: Structural steel shall be detailed, fabricated, and erected in accordance with the latest AISC Specification for Structural Steel Buildings, Allowable Stress Design, and Code of Standard Practice.

Fitch Plates: Steel fitch plates shall be ASTM A-36 steel (Fy = 36 KSI). Fitch plates shall be connected to wood members with 1/2" dia. flush mounted through bolts. Minimum edge and end distance to be 2". See plans for size of plates and spacing of bolts.

Lintels for masonry openings shall conform to the following schedule unless otherwise noted on the *Drawings*.

Clear span	Lintel
up to 4'-0"	L 3½" x 3½" x 1/4"
4'-1" to 6'-0"	L 4" x 3½" x 5/16" LLV
6'-1" to 8'-0"	L 5" x 3½" x 5/16" LLV
8'-1" to 9'-0"	L 6" x 3½" x 5/16" LLV

All lintels shall have 1" of bearing for each foot of span with a minimum of 6" at each end. All lintels at exterior walls shall be hot-dipped galvanized.

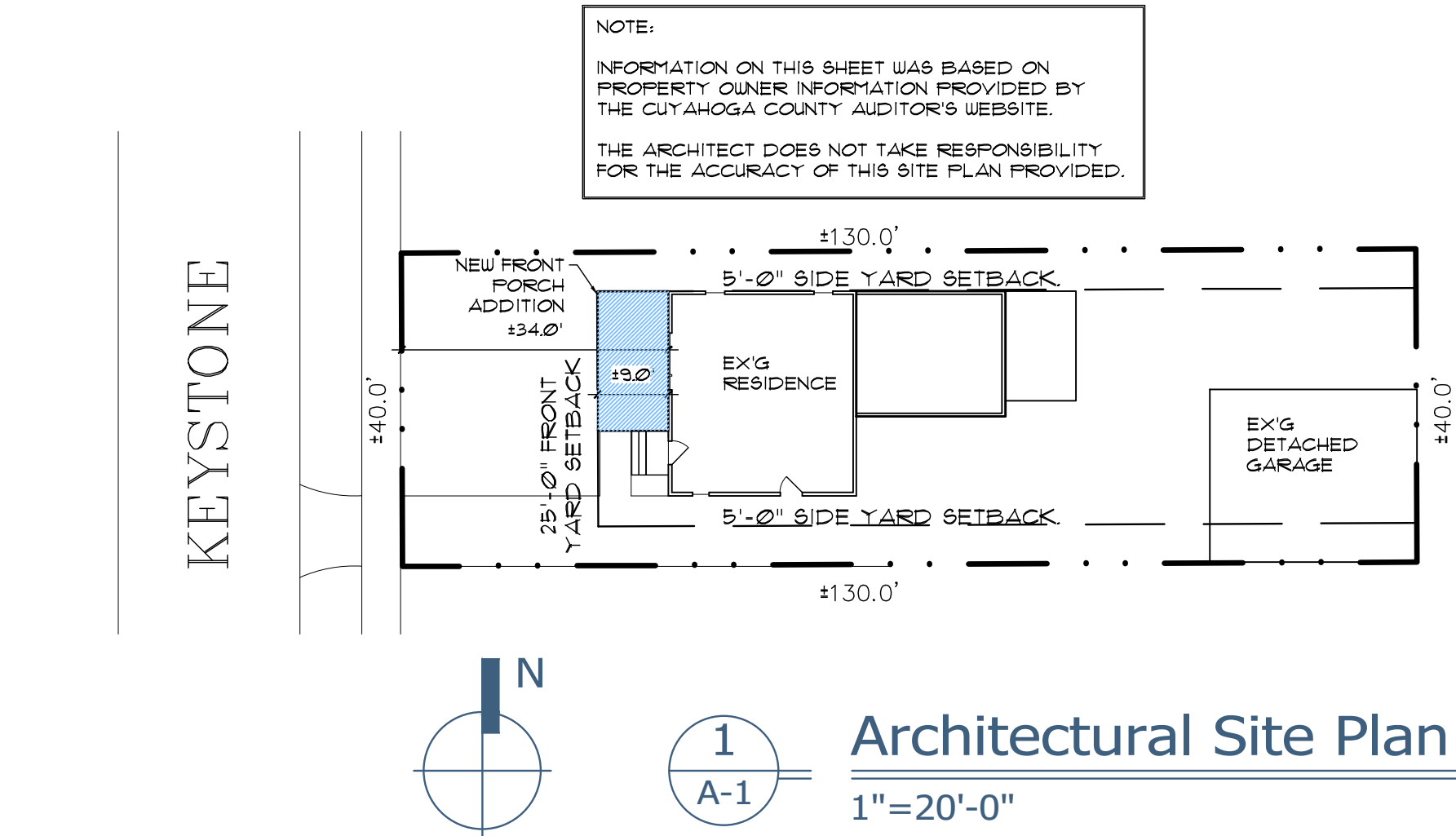
Beams: shall be ASTM A-992 steel (Fy = 50 ksi), sizes as shown on drawings, in continuous lengths between bearing points. Steel beams bearing on masonry walls shall bear on steel bearing plates (sizes shown on plans) and masonry grouted solid 16" wide by 8" deep.

Columns: Steel columns shall be ASTM A-53 steel (Fy=35 ksi), sizes as noted on *The Drawings*. Columns shall be continuous from footing to beam, with ½" top and bottom bearing plates (unless otherwise noted) welded to columns. Light gauge steel posts to be H.U.D. and B.O.C.A. approved, size as shown on the *Drawings*, as manufactured by Tel-O-Post, Tapco Mono Post, or equal, and shall be installed with adjustment nut at bottom. Basement columns and posts shall be installed and adjusted prior to casting concrete floors. Beams shall be bolted to cap plates w/(4) ¾" dia. bolts. Column base plates shall be connected to footing with a minimum of (2) ¾" anchor bolts.

Shop Painting: Structural steel to be finished with two shop coats of rust inhibitive paint.

Connectors: Connectors and Accessories to be included as required for complete structural support. All shop connections to be made with ASTM A307 bolts or welded using E70 electrodes and shall conform to the specification set forth in the AWS Structural Welding Code. All field connections to be ASTM A307 bolts, unless noted otherwise. Anchor bolts, nuts, washers, straps, framing anchors, hangers, masonry ties, and other accessories to be hot-dipped galvanized.

EXTERIOR METAL RAILINGS: to be aluminum powder-coated welded railing system detailed as shown on *Drawings*. Color as selected by Owner. Cap to be composite with composite sub-rail.



The Blackman Residence



Existing Front Elevation
NTS For Reference Only

Project Description

THE PROJECT SCOPE INCLUDES A NEW FRONT PORCH ADDITION TO AN EXISTING RESIDENCE.

Design Loads

SEISMIC DESIGN CATEGORY:	"B"
WIND SPEED (mph):	115
1. FLOOR LIVE LOADS:	
FIRST FLOOR:	40 psf
SECOND FLOOR:	30 psf
FLOOR DEAD LOADS:	10 psf
2. ROOF LIVE LOADS (SNOW):	30 psf
ROOF/CEILING DEAD LOAD:	12 psf
TOTAL ROOF LOADING:	42 psf

Project Area

NEW FRONT PORCH AREA:	+160 SF
EXG FIRST FLOOR:	850 SF
EXG SECOND FLOOR:	572 SF
EXG DETACHED GARAGE:	440
TOTAL LOT COVERAGE:	1450 SF
LOT AREA:	5200 SF
PERCENTAGE LOT COVERAGE:	27.8%

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- A-3 Elevations
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Proposed Front Elevation
NTS For Reference Only

Project Team

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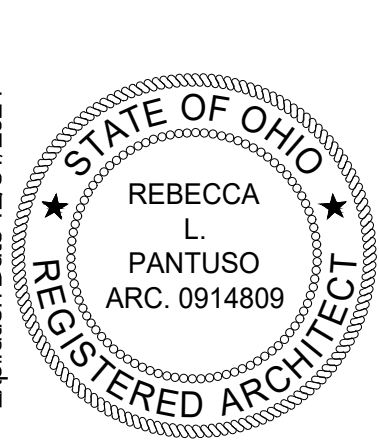
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Additions and Renovations to
The Blackman Residence
905 Keystone Drive, Cleveland Heights, OH 44121
Title Sheet, Site Plan, Spec 1-5

Job Number	Drawn By
2425	AR
2024.11.13 ARB Submittal	



Rebecca L. Pantuso, License No. 0914809
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A. ROUGH FRAMING: GENERAL

Framing: All structural framing members shall be single lengths between points of support.

1. Floor and ceiling joists shall have solid bridging at minimum 8'-0" intervals or at mid-spans, with minimum 2" bearing at ends. Floor joists to be doubled under partitions parallel to joist direction. Solid blocking required under partitions perpendicular to joist direction. Solid blocking required at 32' o.c. to tie first joist back to parallel foundation walls, where foundation walls run parallel to joist direction.
2. Sill plates and wall plates on concrete block or slabs shall be pressure-treated wood and bear over 1/2" compressible sill sealer as manufactured by Dow, Celotex, or Amoco. Sill plates shall be anchored with 1/2" anchor bolts @ 4'-0" o.c. (max.) and 1'-0" from corners and openings. Minimum (2) bolts per plate. Embedment of anchor bolts shall be no less than 12".
3. Exterior stud framing to be spaced 16" o.c., doubled at openings, framed for solid backing at corners and angles for drywall. Inner trimmer/jack studs at window/door, etc., openings shall be cut to support the header over the opening and shall extend in one piece from header to bearing. Jack studs shall be doubled at openings exceeding 8'-0". Walls taller than 9'-0" shall receive solid, horizontal blocking at mid-height.
4. **Wall opening headers** shall be minimum (2) 2x 8's with plywood spacers for spans less than 3'-6" and (2) 2x10's with 1/4" plywood for spans equal to or greater than 3'-6" unless indicated otherwise on Drawings.
5. Dormers: provide double rafters and headers at all dormers and skylights, unless noted otherwise. Connect doubled headers to rafters with galvanized hangers.
6. Hearth and other floor openings: Provide doubled joists as minimum at perimeter of hearths and all floor openings. Headered members to be hanged to doubled joists where interrupted.

Framing Member	Fb (psi)	Fv (psi)	Fc (psi)	E (psi)
Beams and Headers	1000	130	1000	1,400,000
Floor Joists	1000	130	1000	1,400,000
Rafters & Cl'g Jst's	1000	130	1000	1,400,000
Studs & Misc. Fram'g	875	110	1000	1,400,000
Microcllam (LVL)	2600	285	2510	1,900,000

Sill plates, all framing against masonry or concrete, and framing exposed to weather: shall be pressure-treated lumber.

MATERIAL: $\frac{3}{4}$ " for roofs, APA-rated exterior plywood, span rated for the rafter or truss spacing shown

PRESERVATIVE PRESSURE TREATED WOOD shall meet the following AWPAs

Above ground (decking & joists, etc.)	0.25 lb/cu.ft
Ground contact (posts)	0.40 lb/cu.ft
Permanent Foundations (poles)	0.60 lb/cu.ft

standards for ACQ Preservative retention rates:	
Above ground (decking & joists, etc.)	0.25 lb/cu.ft
Ground contact (posts)	0.40 lb/cu.ft
Permanent Foundations (poles)	0.60 lb/cu.ft

EXTERIOR TRIM:

EXTERIOR SIDING:

INSULATION: N/A

A. General Exterior Sealant to be OSI's Quad Advanced
B. Secondary Exterior Sealants to be DAP 756 SMS Building Sealant / DAP 758 Silicone Weather Barrier

C. General Interior Sealant and DYNAFLEX 230 Premium
Completely seal with caulking compound, joints around frames and sills of doors, windows, joints of dissimilar material and other openings in exterior masonry. Use Bond Breakers, backer rods and Primers as recommended by caulking mfr.

GUTTERS: shall be pre-finished aluminum 5" ogee or k style, 0.32 ga aluminum, pre-finished white polyester or baked enamel. PVC boot to protect maximum 6" above grade to accept downspout and be painted to match downspout. **DOWNSPOUTS:** shall be .019" thickness 4" diameter round prefinished aluminum. Finish to match gutters. Downspout connection at gutter shall be located so that downspout is centered directly over boots with no bends in its vertical drop. If necessary, relocate downspout drain to achieve straight drops. If it is impractical, or undesirable, to locate downspouts where shown on *The Drawings*, contact *The Architect* for approval of alternate location.

N/A

EXTERIOR PAINTING AND STAINING:

NEW WOOD PRIMING: prime and back-prime all new exterior wood trim and wood siding prior to installation. Prime all cut ends or rips prior to installation.

N/A

N/A

N/A

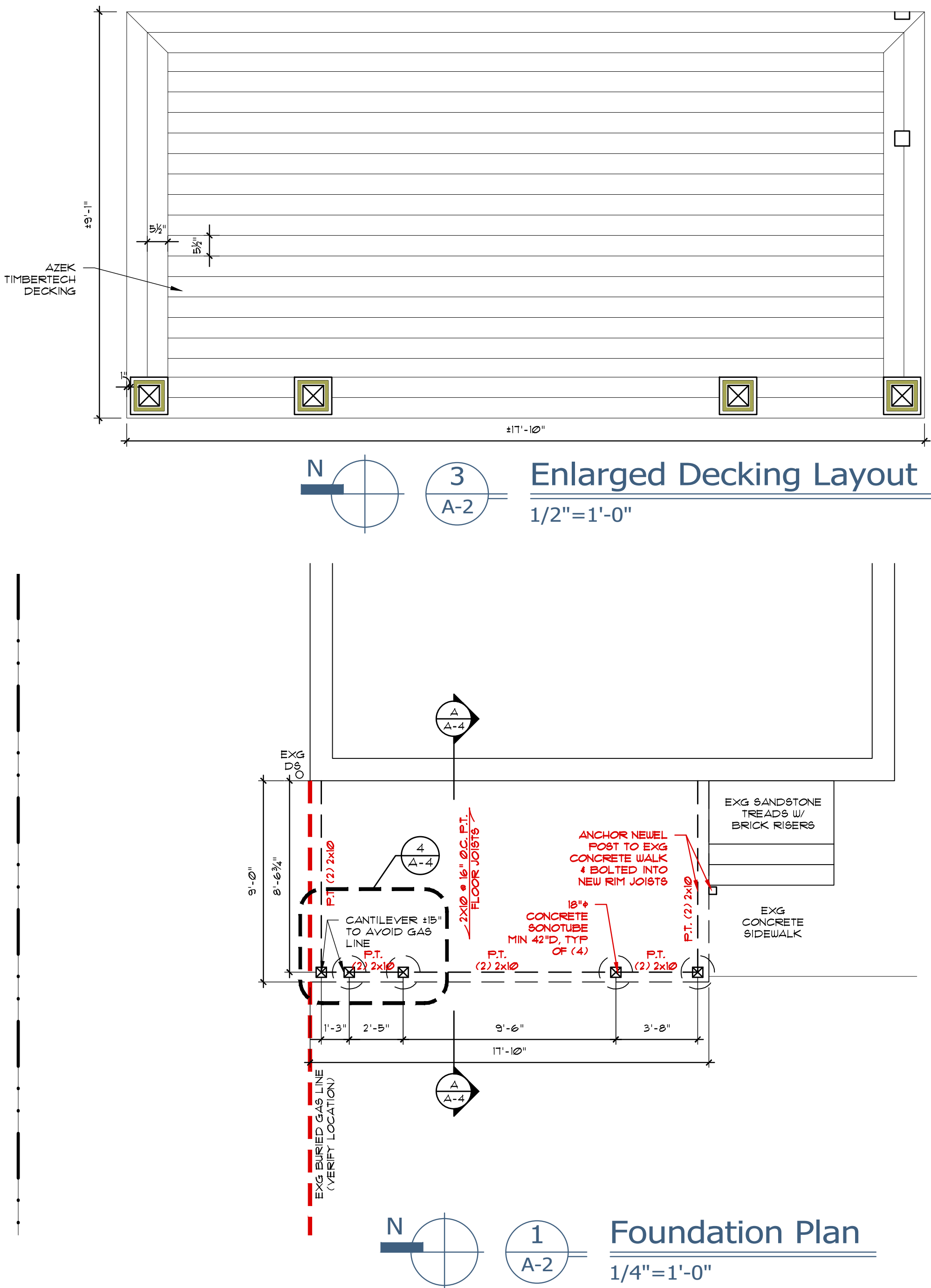
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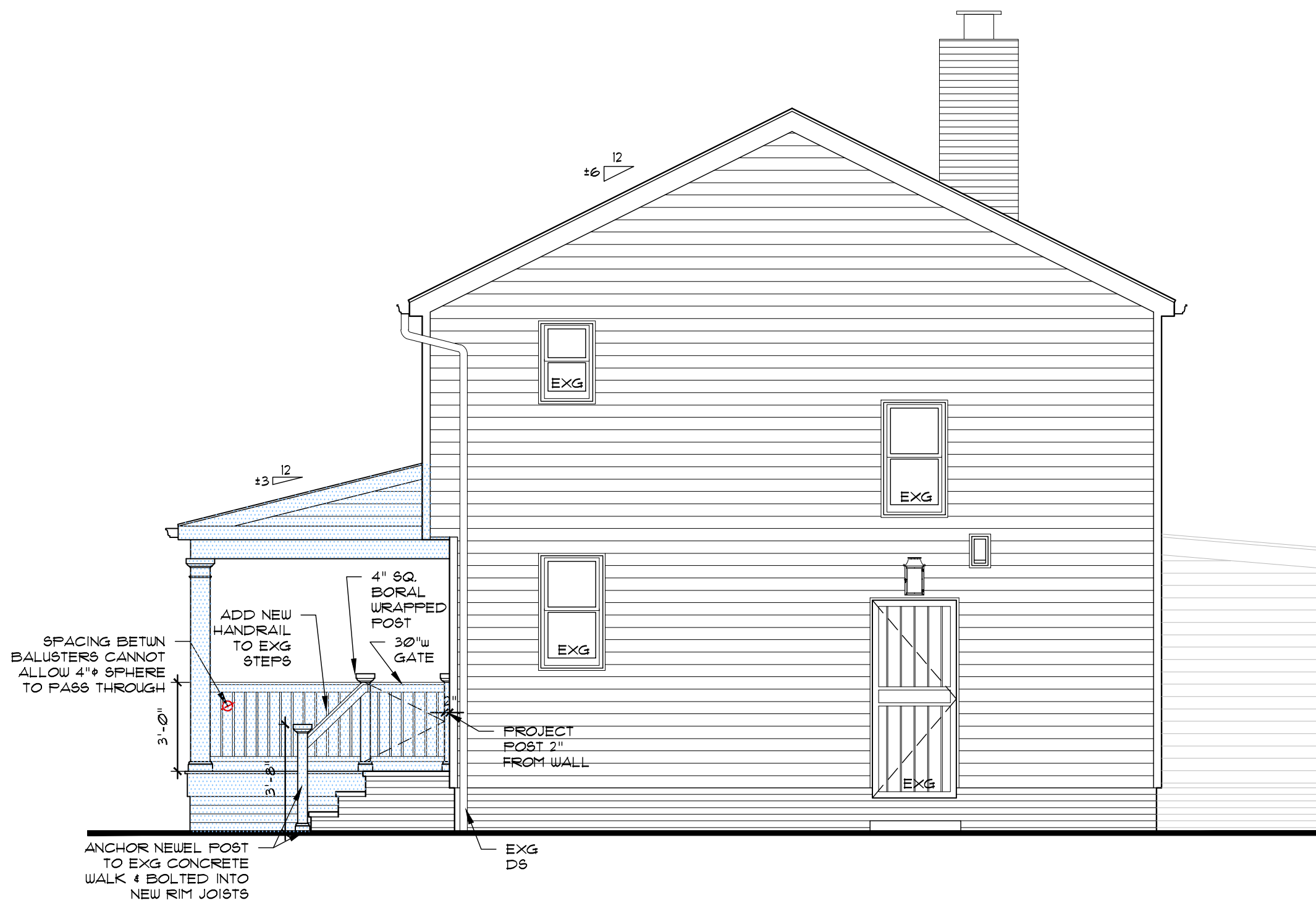
Porch Plan

1/4" = 1'-0"

FLOODLIGHTS: Double floodlights shall be minimum 70 watt LED type with white finish and shall be included in the Base Bid.

DOORBELLS: Include wiring and installation of doorbells at front, side and rear entry doors, whether shown on The Drawings or not.





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A-3

Proposed Side Elevation (E)

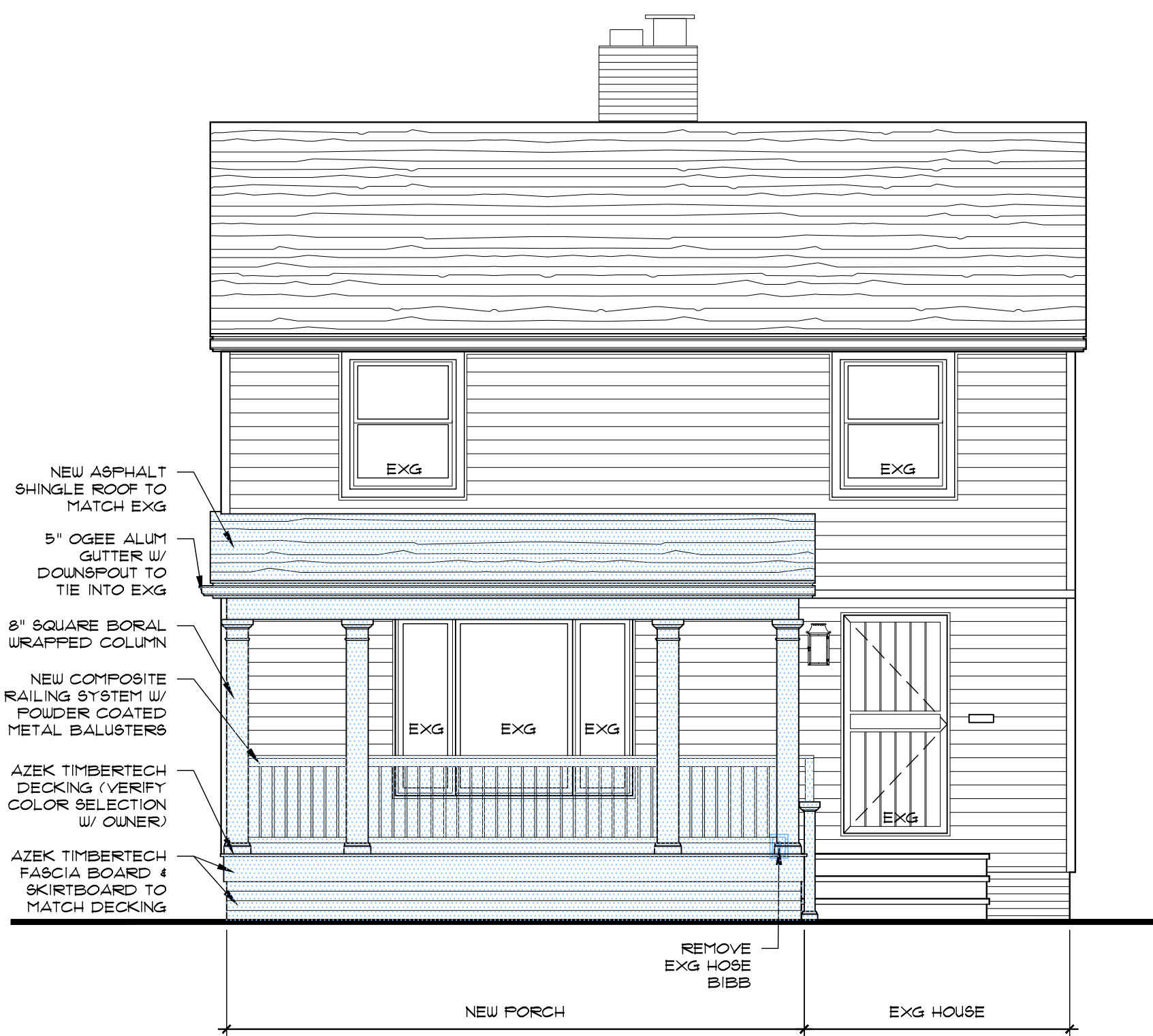
1/4"=1'-0"



2
A-3

Proposed Side Elevation (N)

1/4"=1'-0"



1
A-3

Proposed Front Elevation (W)

1/4"=1'-0"









