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CONTACT: KELLY DUNFORD, P.S.

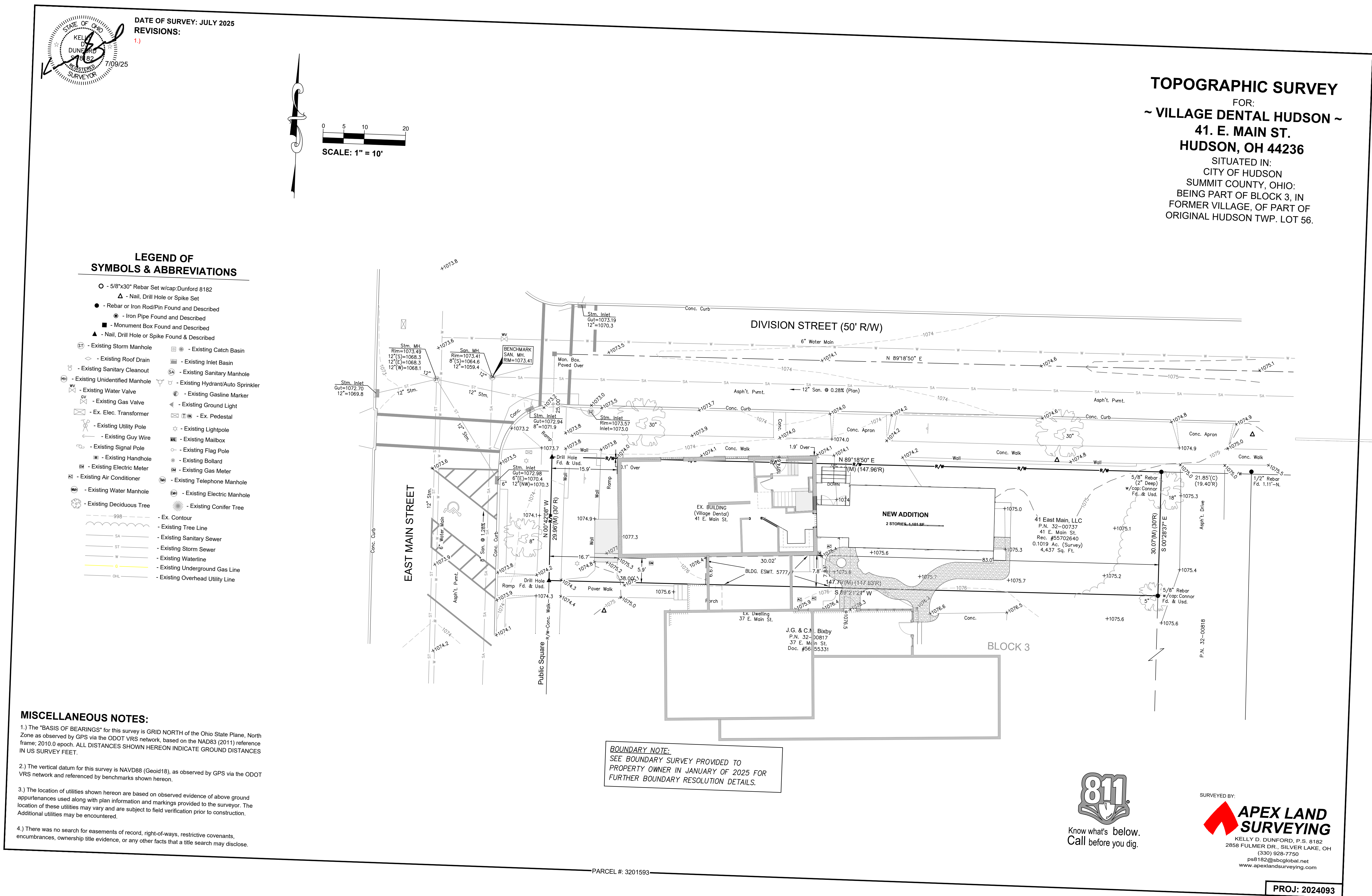
GUTOSKEY & ASSOCIATES
10185 GOTTSCHALK PARKWAY #4,
CHAGRIN FALLS, OHIO
P: 440.543.6900

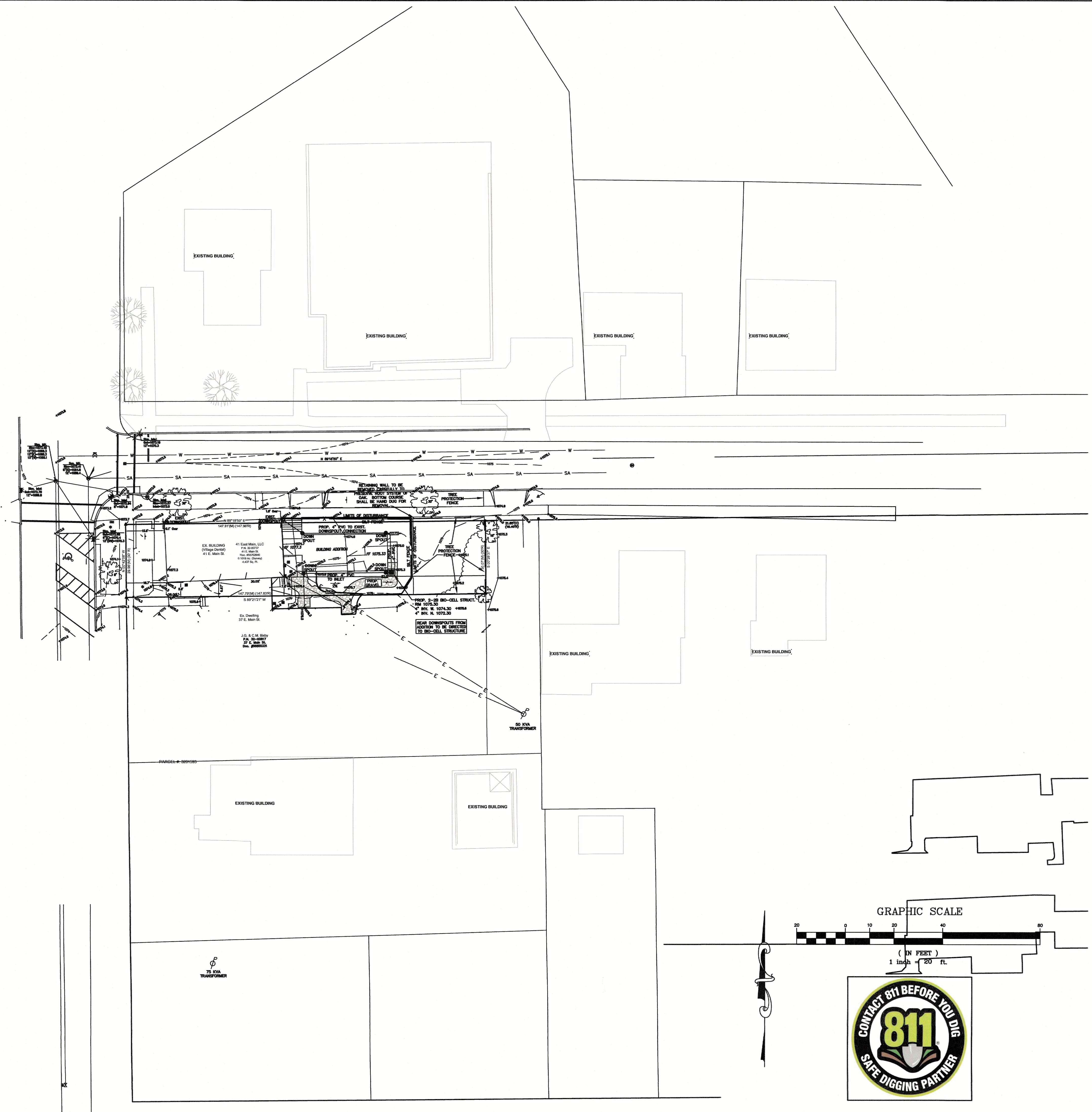
CONTACT: JOE GUTOSKEY

MEP CONSULTANTS

STRUCTURAL

A3.00	EXTERIOR ELEVATIONS
A4.00	BUILDING SECTIONS
A4.01	BUILDING SECTIONS
A5.00	SPECIFICATIONS
A5.01	SPECIFICATIONS





Revisions:

1	NEW SHEET	10/27/25
2	11/25/25	
3	12/17/25	
4	12/23/25	
5		
6		
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VILLAGE DENTAL

P.P.N.32-00737

41 EAST MAIN ST.

HUDSON - SUMMIT COUNTY - OHIO

GUTOSKEY & ASSOCIATES, INC.

Civil Engineers, Surveyors and Land Planners

10135 GOTTSCALK PKWY, SUITE 4 TEL (440) 543-8900

CHAGRIN FALLS, OHIO 44023 JOEGUTOSKEY@GUTOSKEY.COM

OVERALL PLAN

JOSEPH GUTOSKEY

51851

REGISTERED PROFESSIONAL ENGINEER

Date: 10/27/25

Scale: Hor. 1" = 20'

Vert. _____

Filename: _____

Checked By: _____

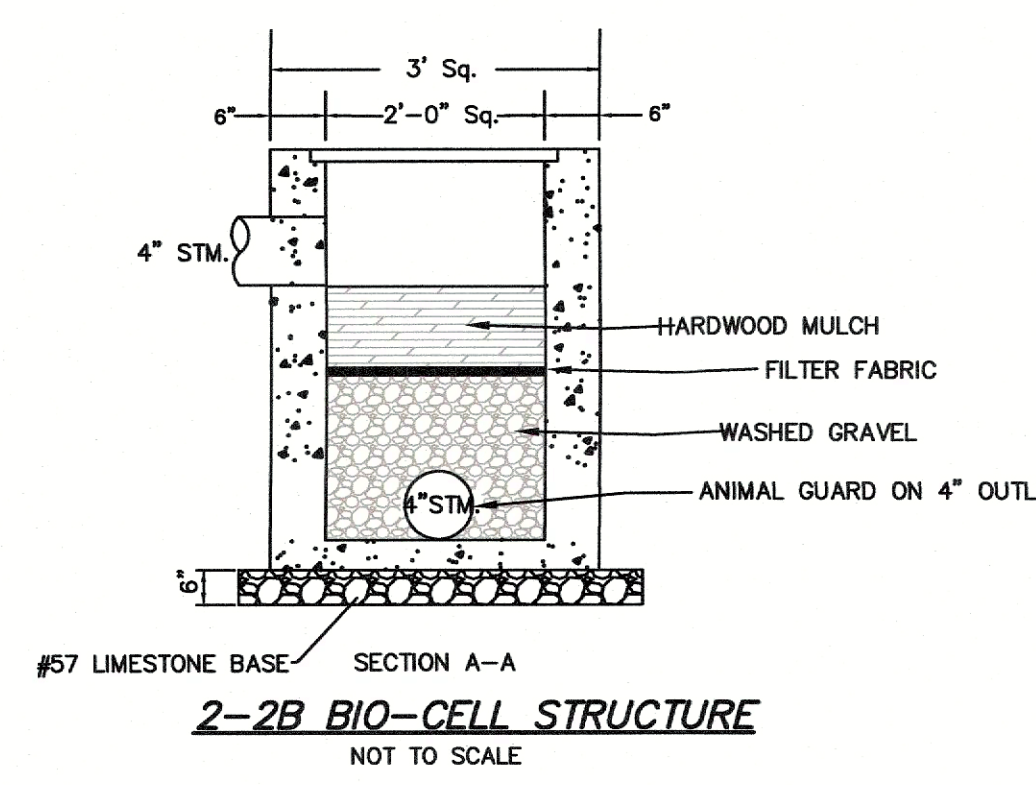
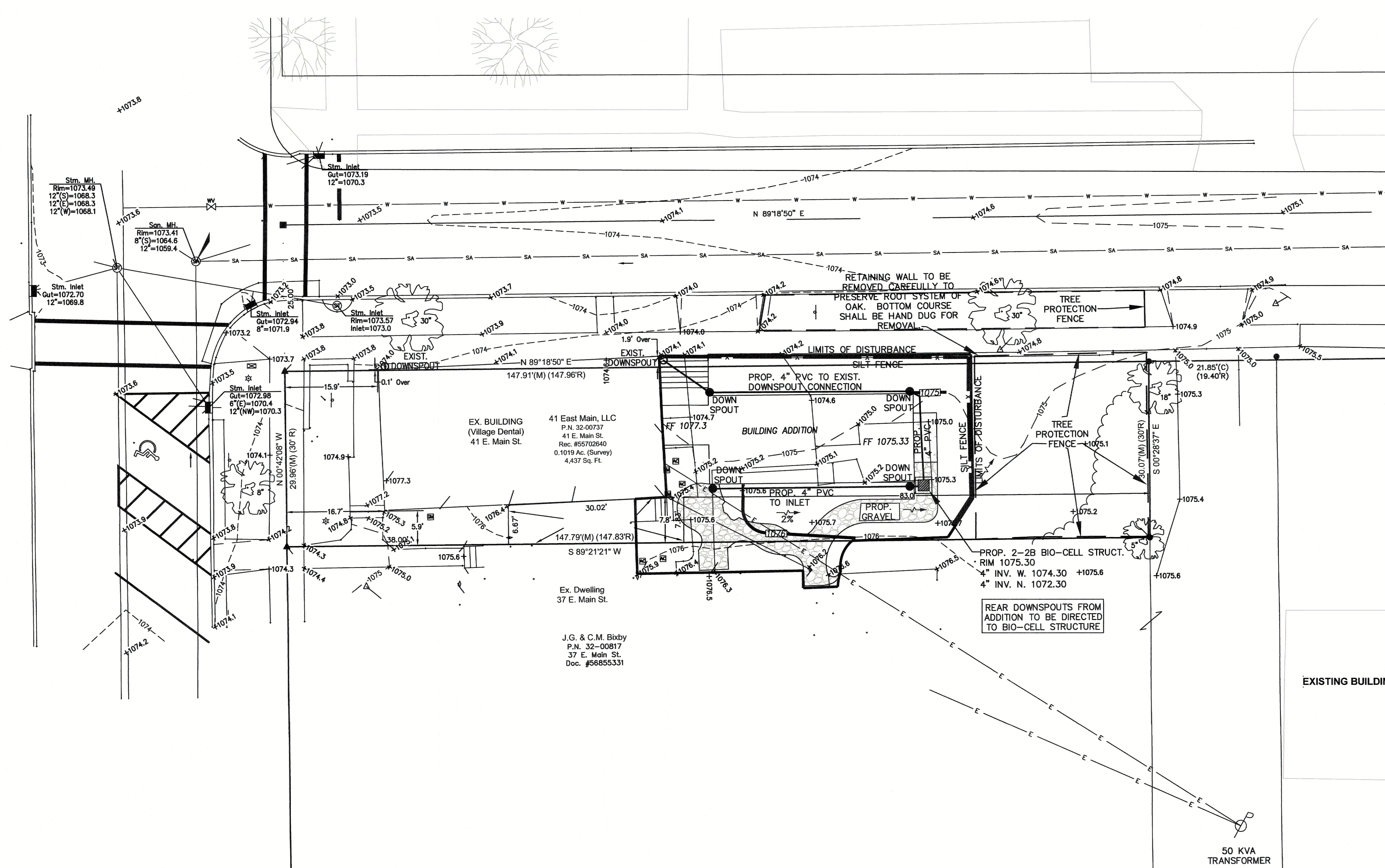
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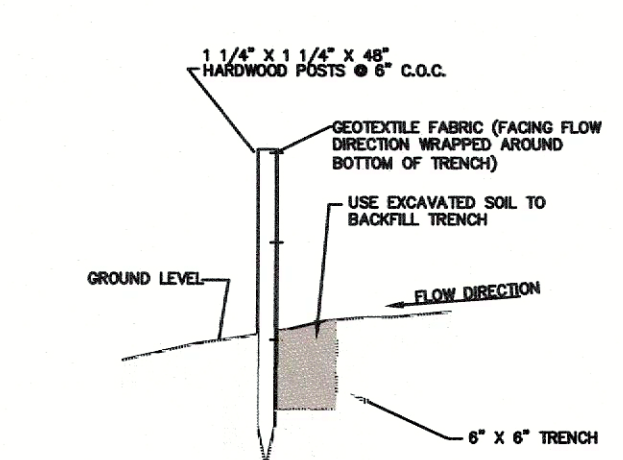
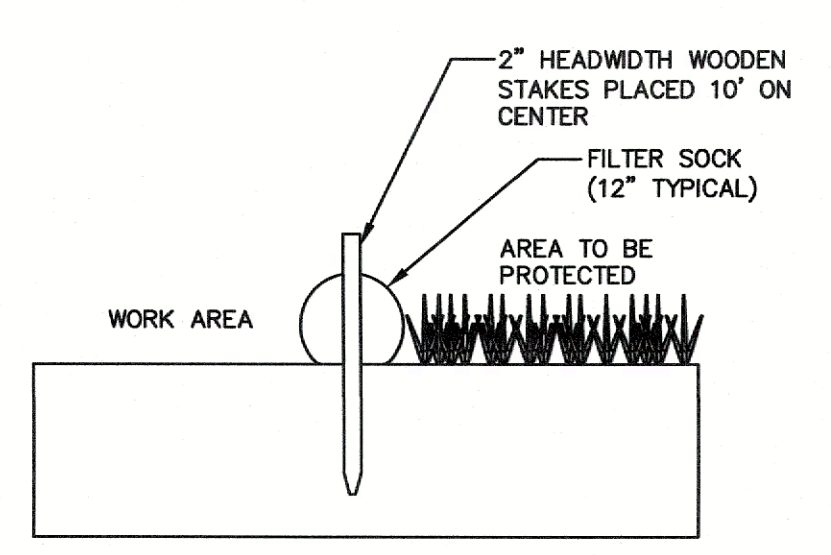
CONTRACT No.

25-4246



EXISTING IMPERVIOUS AREA = 2176 SQ. FT.
PROPOSED IMPERVIOUS AREA = 2160 SQ. FT.

NOTES:
SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS.
TOPOGRAPHIC & EXISTING CONDITIONS SURVEY PROVIDED BY CLIENT.
THERE SHALL BE NO STAGING OF EQUIPMENT, MATERIALS, OR EMPLOYEE VEHICLES IN THE RIGHT OF WAY.
CONTRACTOR TO VERIFY ALL UNDERGROUND UTILITIES WITHIN THE PROJECT AREA.
THIS PLAN MEETS THE REQUIREMENTS OF THE OHIO EPA GENERAL PERMIT AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY OH000006.



Street Sweeping & Vacuuming
Practices to remove tracked sediment to prevent the sediment from entering a storm drain or watercourse.
These practices are implemented anywhere sediment is tracked from the project site onto public or private paved roadways, typically at points of ingress/egress.
** Inspect potential sediment tracking locations daily.*
** Visible sediment tracking shall be swept and/or vacuumed daily.*
** If not mixed with debris or trash, consider incorporating the removed sediment bank into the project.*
** Use caution to not sweep up any unknown substance or any object that may be potentially hazardous.*
** Adjust brooms frequently: maximize efficiency of sweeping operations.*
** After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.*

CITY NOTES:
A \$2,000 INSPECTION ESCROW WILL BE NEEDED AT THE FINAL APPROVAL OF THE PLANS, PRIOR TO A PRE-CONSTRUCTION MEETING.
A PERFORMANCE BOND IN THE AMOUNT OF 110% OF THE ITEMS OUTSIDE OF THE RIGHT-OF-WAY AND ALL STORM SEWER WORK. THAT NUMBER SHALL BE TAKEN FROM AN ENGINEERS ESTIMATED CONSTRUCTION COST STAMPED AND SIGNED BY THE ENGINEER.
A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF HUDSON PRIOR TO ANY WORK BEGINNING.
THERE SHALL BE NO STAGING OF EQUIPMENT, MATERIALS, OR EMPLOYEE VEHICLES IN THE R/W.
NO ROAD CLOSURES WILL BE PERMITTED WITHOUT A WRITTEN APPROVAL FROM THE CITY MANAGER.

LEGEND

LIMITS OF DISTURBANCE

SILT CONTROL FENCE/SOCK (SF)

INLET PROTECTION (IP)

NOTE: EROSION MEASURES ARE NOT SHOWN TO SCALE

TEMPORARY SEEDING & MULCHING (SEED MIX NO. 1):
TEMPORARY SEEDING SHALL BE APPLIED WITHIN SEVEN (7) DAYS ON ALL BARE AREAS THAT WILL NOT BE DISTURBED FOR 14 DAYS.
-PERENNIAL RYE GRASS 2 LBS./1000 S.F.
-COMMERCIAL FERTILIZER SHALL BE (12-12-12) AND CONFORM TO ORLD 10 LBS./1000 S.F.
-MULCH & STRAW 2 TONS/ACRE

ALL TEMPORARY SEEDING ITEMS & PROCEDURES SHALL CONFORM TO ORLD UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.

TEMPORARY STABILIZATION

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREA WITHIN 50 FEET OF A WATERCOURSE AND NOT AT FINAL GRADE.	WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE, IF THAT AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS.
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREA, INCLUDING SOIL STOCKPILES, THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A WATERCOURSE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THAT AREA.
DISTURBED AREAS THAT WILL BE IDLE OVER THE WINTER.	PRIOR TO NOVEMBER 1.

NOTE: WHERE VEGETATIVE STABILIZATION TECHNIQUES MAY CAUSE STRUCTURAL INSTABILITY OR OTHERWISE UNOBTAINABLE, ALTERNATIVE STABILIZATION TECHNIQUES MUST BE EMPLOYED. THESE TECHNIQUES MAY INCLUDE MULCHING, EROSION MATTING, OR PLACEMENT OF STONE.

PERMANENT SEEDING AND MULCHING (SEED MIX NO. 2):
SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING AND MULCHING IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISHED GRADING IN ACCORDANCE WITH ORLD OR AS DIRECTED BY THE CITY ENGINEER. THE FOLLOWING MIXTURES SHALL BE USED FOR SEEDING IN ACCORDANCE WITH ORLD:

KENTUCKY BLUEGRASS-40%
CREEPING RED FESCUE-40% 3LBS./1000 S.F.
PERENNIAL RYEGRASS-20%
FERTILIZER 12 LBS./1000 S.F. (12-12-12)
MULCH/STRAW 2 TONS/ACRE

RESTORATION OF ALL DISTURBED AREAS SHALL IMMEDIATELY FOLLOW EXCAVATION AND GRADING OPERATIONS. DELAY IN RESTORATION SHALL NECESSITATE TEMPORARY EROSION CONTROL MEASURES APPROVED BY THE ENGINEER AND AT THE CONTRACTOR'S COST.

PERMANENT STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREA THAT WILL LIE DORMANT FOR ONE YEAR OR MORE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THAT AREA.
ANY AREA WITHIN 50 FEET OF A WATERCOURSE AND AT FINAL GRADE.	WITHIN 2 DAYS OF REACHING FINAL GRADE.
ANY AREA AT FINAL GRADE.	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.

GRAPHIC SCALE

(IN FEET)
1 inch = 10 ft.

50 KVA TRANSFORMER

CONTACT 811 BEFORE YOU DIG
SAFE DIGGING PARTNER

Revisions:

1	9/15/25
2	10/27/25
3	11/25/25
4	12/17/25
5	12/23/25
6	
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CHAGIN FALLS, OHIO 44023 JOEGUTOSKEY@GUTOSKEY.COM

SWM PLAN

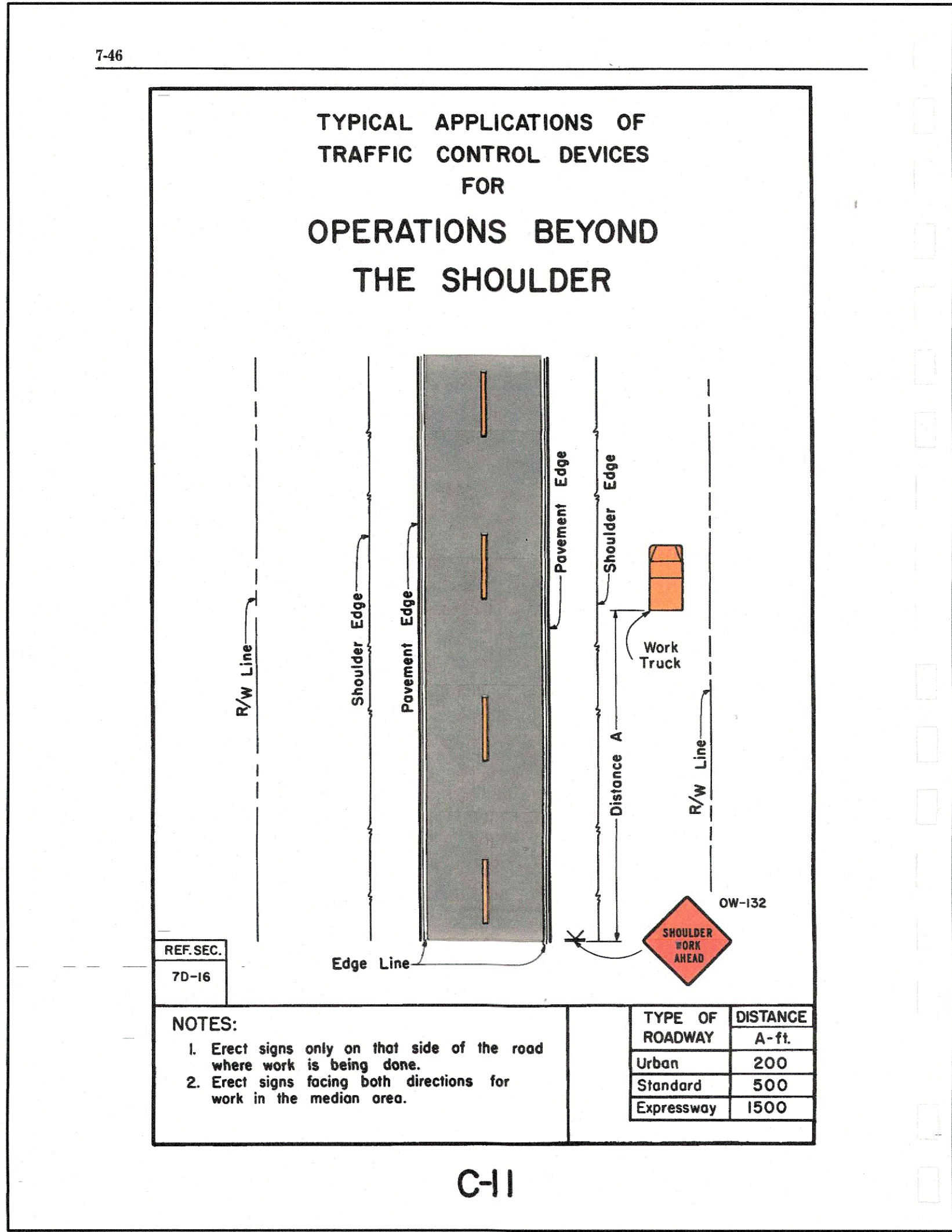
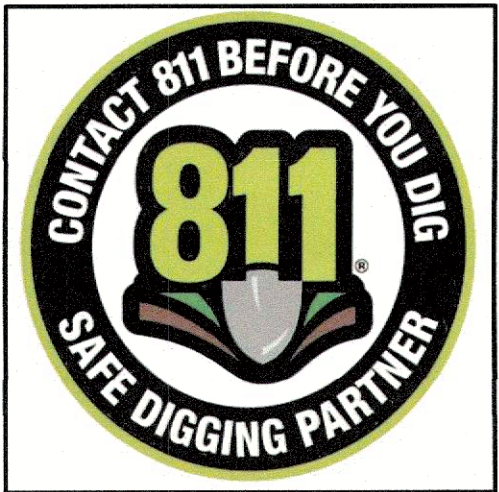
JOSEPH GUTOSKEY
51681
PROFESSIONAL ENGINEER

Date: 8/8/25
Scale: Hor. 1" = 10'
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C-1.2
CONTRACT No.
25-4246

EXHIBIT A
GENERAL CONSTRUCTION NOTES

- CONSTRUCTION OF THE SITE WORK AND UTILITIES SHALL BE GOVERNED BY THE CITY OF HUDSON'S "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS REQUIRED FOR THE PROJECT.
- THE CONTRACTOR MUST ALERT THE OHIO UTILITY PROTECTION SERVICES AT 1-800-362-2764 AT LEAST 48 HOURS BEFORE ANY EXCAVATION IS TO BEGIN.
- ALL EXISTING APPURTENANCES (UTILITY POLES, VALVES, HYDRANTS, MANHOLES, ETC.) ARE TO BE MAINTAINED BY THE CONTRACTOR UNLESS OTHERWISE SHOWN ON THE PLANS.
- THE DESIGN ENGINEER CERTIFIES THAT ALL UTILITIES ARE SHOWN AS THEY APPEAR ON EXISTING RECORDS OR FIELD LOCATED.
- ALL KNOWN ABOVE AND UNDERGROUND SERVICES HAVE BEEN NOTED ON THE DRAWINGS. THE CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR ANY SERVICES DAMAGED DURING THE CONSTRUCTION OF THE PROJECT WHETHER SHOWN OR NOT ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE SERVICE AS SOON AS POSSIBLE AT THE CONTRACTOR'S OWN EXPENSE.
- VIDEO TAPING OF PROJECT SHALL BE DELIVERED AND ACCEPTED BY THE CITY OF HUDSON ENGINEERING DEPARTMENT A MINIMUM OF 14 CALENDAR DAYS PRIOR TO START OF CONSTRUCTION ACTIVITIES.
- NOTIFY THE CITY OF HUDSON ENGINEERING DEPARTMENT A MINIMUM OF FORTY- EIGHT HOURS (2 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION.
- A PRECONSTRUCTION MEETING SHALL BE SCHEDULED A MINIMUM OF 48 HOURS (2 WORKING DAYS) AFTER SUBMISSION OF A MINIMUM OF 6 APPROVED SETS OF PLANS AND ALL SHOP DRAWINGS APPLICABLE TO THE PROPOSED IMPROVEMENTS. A PRECONSTRUCTION MEETING MUST BE HELD PRIOR TO START OF ANY CONSTRUCTION.
- THE LIMITS OF CLEARING AND GRADING SHALL BE FIELD STAKED AND LINED WITH ORANGE CONSTRUCTION FENCING 48 HOURS (2 WORKING DAYS) PRIOR TO THE PRECONSTRUCTION MEETING. AREAS BEYOND THE LIMITS OF CLEARING AND GRADING SHALL NOT BE DISTURBED INCLUDING THE STOCKPILE OF ANY MATERIALS OR CONSTRUCTION TRAFFIC.
- ALL ROAD SURFACES, EASEMENTS, OR RIGHT-OF-WAY DISTURBED BY THE CONSTRUCTION OF ANY PART OF THESE IMPROVEMENTS ARE TO BE RESTORED ACCORDING TO THE CITY OF HUDSON "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION" AS DIRECTED BY THE CITY OF HUDSON AND/OR ITS ENGINEER.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY OF HUDSON OR ITS REPRESENTATIVE IF SUSPECTED HAZARDOUS MATERIAL OR ANY OTHER MATERIAL THAT MAY CREATE A HEALTH RISK IS DISCOVERED ON SITE.
- ALL DISTURBED STORM SEWERS AND/OR APPURTENANCES, SIGNS, GUARD RAILING, MAIL AND/OR PAPER BOXES, DRIVE CULVERTS, FENCES, TREES, LANDSCAPING, OR OTHER ITEMS DISTURBED BY THE CONSTRUCTION SHALL BE RESTORED OR REPAIRED TO AT LEAST THE BEFORE-CONSTRUCTION CONDITION.
- ANY DEFECTS DISCOVERED IN NEW CONSTRUCTION, WORKMANSHIP, EQUIPMENT OR MATERIALS SHALL BE REPAIRED, OR CORRECTED BY APPROVED METHODS AS DIRECTED BY THE CITY OF HUDSON.
- NUCLEAR COMPACTION TESTING SHALL BE REQUIRED FOR ALL FILL AREAS OVER TWO FEET (2') IN DEPTH, AT 6" LIFTS PER ASTM A-1557, 95% MODIFIED.
- APPROVAL BY THE CITY OF HUDSON ENGINEER CONSTITUTES NEITHER EXPRESSED NOR IMPLIED WARRANTIES AS TO THE FITNESS, ACCURACY, OR SUFFICIENCY OF PLANS, DESIGNS OR SPECIFICATIONS.
- DURING TAPPING OF EXISTING UTILITIES, ANY TRAFFIC CONTROL REQUESTED OR REQUIRED BY THE CITY OF HUDSON WILL BE PROVIDED BY THE CONTRACTOR AT NO COST TO THE CITY.
- COMPLIANCE WITH THE OCCUPATIONAL AND SAFETY ACT OF 1970 IS REQUIRED BY ALL CONTRACTORS ON THIS PROJECT.
- ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
- ALL DISTURBED AREAS SHALL RECEIVE 4" OF TOPSOIL AND BE SEEDED AND MULCHED AS PER SECTION 9 - LANDSCAPING AND STREET TREES OF THE CITY'S "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION.
- IF MUD, SOIL, OR OTHER DEBRIS IS DEPOSITED ON ADJACENT STREETS, ROADS, OR OTHER PROPERTY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SUCH AS DIRECTED BY THE CITY OF HUDSON OR ITS ENGINEER AT THE END OF EACH WORK DAY, OR AS REQUIRED DURING THE WORK DAY.
- ALL PROPOSED SLOPES 3:1 OR STEEPER AND ALL EARTHEN DRAINAGE WAYS SHALL RECEIVE JUTE OR EXCELSIOR MATTING AS PER ODOT 667 OR 668.
- ALL STORM SEWERS WITHIN PUBLIC RIGHTS-OF-WAY AND CITY OF HUDSON EASEMENTS SHALL BE PER SECTION 4 - STORM COLLECTION OF THE CITY'S "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION.
- ALL PIPES SHALL BE PLACED OVER 4" OF BEDDING. BEDDING MATERIAL SHALL BE AS SPECIFIED IN CITY'S "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION, FOR THE TYPE OF PIPE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROL SHALL BE COORDINATED WITH THE CITY OF HUDSON POLICE DEPARTMENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PLANT TICKETS FOR ALL MATERIALS DELIVERED TO THE SITE. PLANT TICKETS MUST SHOW NET QUANTITY OF DELIVERED MATERIAL. MATERIAL DELIVERED OR PLACED WITHOUT PLANT TICKETS SHALL BE REMOVED AND PROPERLY DISPOSED AT THE EXPENSE OF THE CONTRACTOR.
- ALL DELIVERED MATERIALS SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF HUDSON OR OTHER APPLICABLE AGENCIES. THE CITY OF HUDSON, OR ITS REPRESENTATIVE, RESERVES THE RIGHT TO REJECT ANY DELIVERED MATERIAL WHICH DOES NOT CONFORM TO THE APPLICABLE STANDARDS AND SPECIFICATIONS.
- THE CITY OF HUDSON OR ITS REPRESENTATIVE, RESERVES, THE RIGHT TO HALT ALL CONSTRUCTION ACTIVITY FOR NONCONFORMANCE OF PLANS, SPECIFICATIONS AND OTHER APPLICABLE STANDARDS OR REGULATIONS.
- ALL CHANGES TO APPROVED DRAWINGS AND/OR SPECIFICATIONS MUST BE REAPPROVED BY THE CITY OF HUDSON PRIOR TO CONSTRUCTION.
- ALL PAVING MATERIAL MUST BE PROVIDED BY ODOT CERTIFIED SUPPLIER. WRITTEN PROOF SHALL BE REQUIRED UPON DELIVERY OF MATERIALS. THE CERTIFIED MIX DESIGN MUST BE SUBMITTED TO, AND APPROVED BY, THE CITY OF HUDSON PRIOR TO SCHEDULING A PRECONSTRUCTION MEETING.
- CONTRACTOR/DEVELOPER SHALL PROVIDE ALL REQUIRED ROADWAY SIGNAGE AS PER ODOT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES INCLUDING STREET IDENTIFICATION SIGNAGE PER CITY STANDARDS FOR ALL ASPECTS OF THE IMPROVEMENT.
- ALL BONDS AND OR LETTERS OF CREDIT SHALL NOT BE RELEASED OR REDUCED AND NO WATER OR SANITARY SEWER CUSTOMERS CAN BE CONNECTED UNTIL ALL RECORD DRAWINGS HAVE BEEN SUBMITTED, REVIEWED AND APPROVED BY THE CITY OF HUDSON.
- ALL WORK AS PART OF THESE PLANS SHALL BE COMPLETED, INCLUDING ALL PUNCH LIST AND DEFICIENCY WORK WITHIN 1 YEAR OF THE START OF CONSTRUCTION.
- FAILURE TO COMPLETE THE PROJECT IN ITS ENTIRETY AS APPROVED BY THE PLANNING COMMISSION, INCLUDING PUNCH LIST ITEMS, WILL RESULT IN THE CITY OF HUDSON HOLDING ALL FUTURE ZONING CERTIFICATES UNTIL ALL WORK HAS BEEN COMPLETED AND APPROVED.
- MANUFACTURERS OR SUPPLIERS AFFIDAVIT FOR ALL CONSTRUCTION MATERIALS SHALL BE PROVIDED AS PER THE CITY'S "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION PRIOR TO THE START OF CONSTRUCTION.
- THE CONSTRUCTION OF SANITARY SEWERS, WATER MAINS, LIFT STATIONS AND APPURTENANCES IS PROHIBITED UNTIL ALL PLANS HAVE BEEN APPROVED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY.
- ALL SANITARY SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HUDSON "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION.
- ALL SANITARY SEWERS CONSTRUCTED IN SUMMIT COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES (SC-DOES) SERVICE DISTRICTS AND SERVED BY SC-DOES SHALL COMPLY WITH SC-DOES REQUIREMENTS.



Revisions:
1 NEW SHEET 10/27/25
2
3
4
5
6
7

VILLAGE DENTAL
P.P.N.32-00737
41 EAST MAIN ST.
HUDSON - SUMMIT COUNTY - OHIO

GUTOSKEY & ASSOCIATES, INC.
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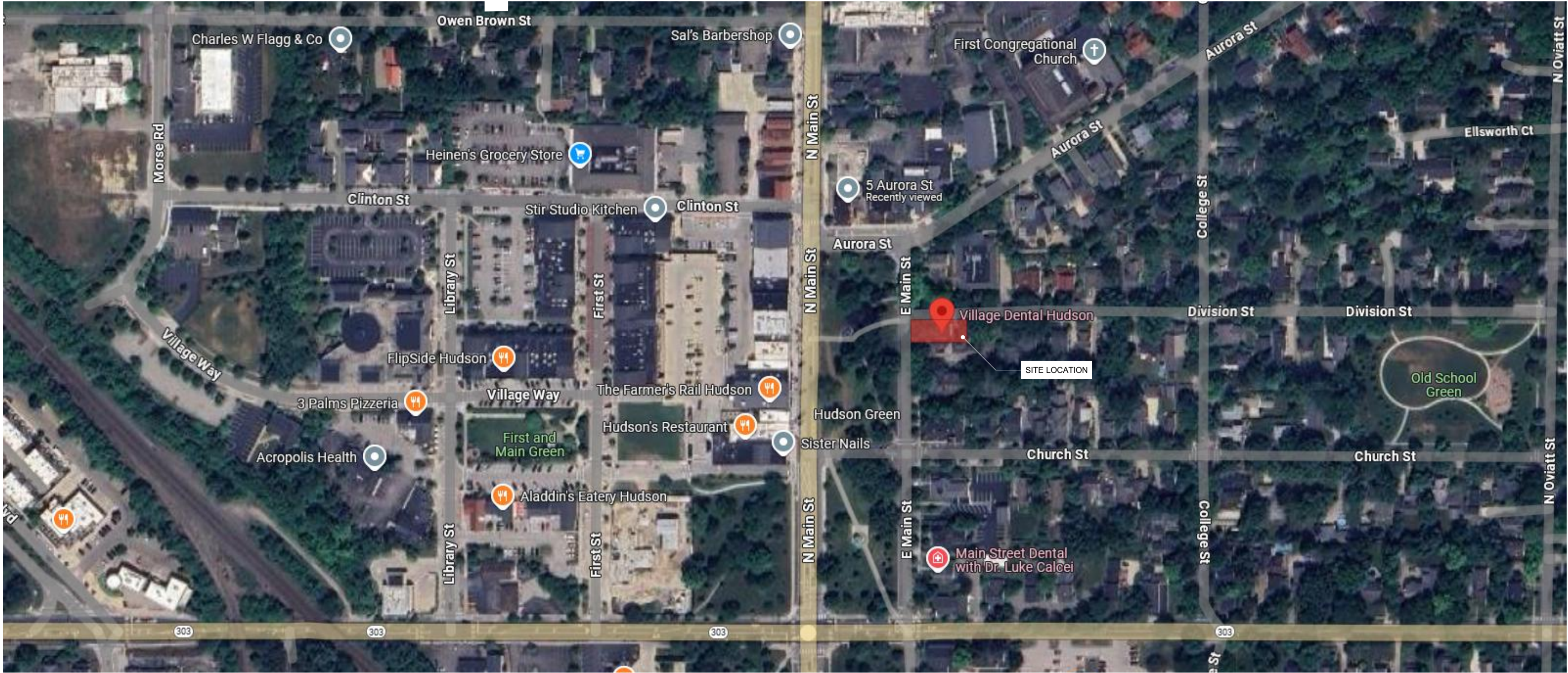
GENERAL NOTES

JOSEPH GUTOSKEY
51851
REGISTERED PROFESSIONAL ENGINEER

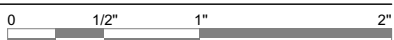
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Sheet
C-1.3

CONTRACT No.
25-4246



1 VICINITY MAP
NOT TO SCALE



Peninsula

www.pa-architects.com

1775 Main Street
Peninsula, Ohio 44264
T 330.557.2800

PROGRESS
NOT FOR
CONSTRUCTION
12/23/2025

PROJECT TEAM:

P PENINSULA
ARCHITECTS

CIVIL ENGINEER:
GUTOSKEY AND ASSOCIATES
P 406.543.6900

STRUCTURAL ENGINEER:
ORATEC DESIGN BUILD
P 330.552.8211

MEP ENGINEER:
DEW ASSOCIATES
P 216.531.8860

VILLAGE DENTAL
41 E. MAIN STREET, HUDSON, OH 44236

PROJECT #: 2501
ISSUE:
AHBR REVIEW 04-01-2025
VARIANCE SET 04-17-2025
PLANNING COMMISSION 09-15-2025
PLANNING COMMISSION 10-27-2025
PLANNING COMMISSION 12-17-2025

SITE PHOTOS

AS1.00a

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PRECEDENT IMAGE 1



PRECEDENT IMAGE 2



PRECEDENT IMAGE 3



PRECEDENT IMAGE 4



RENDERED IMAGE 1



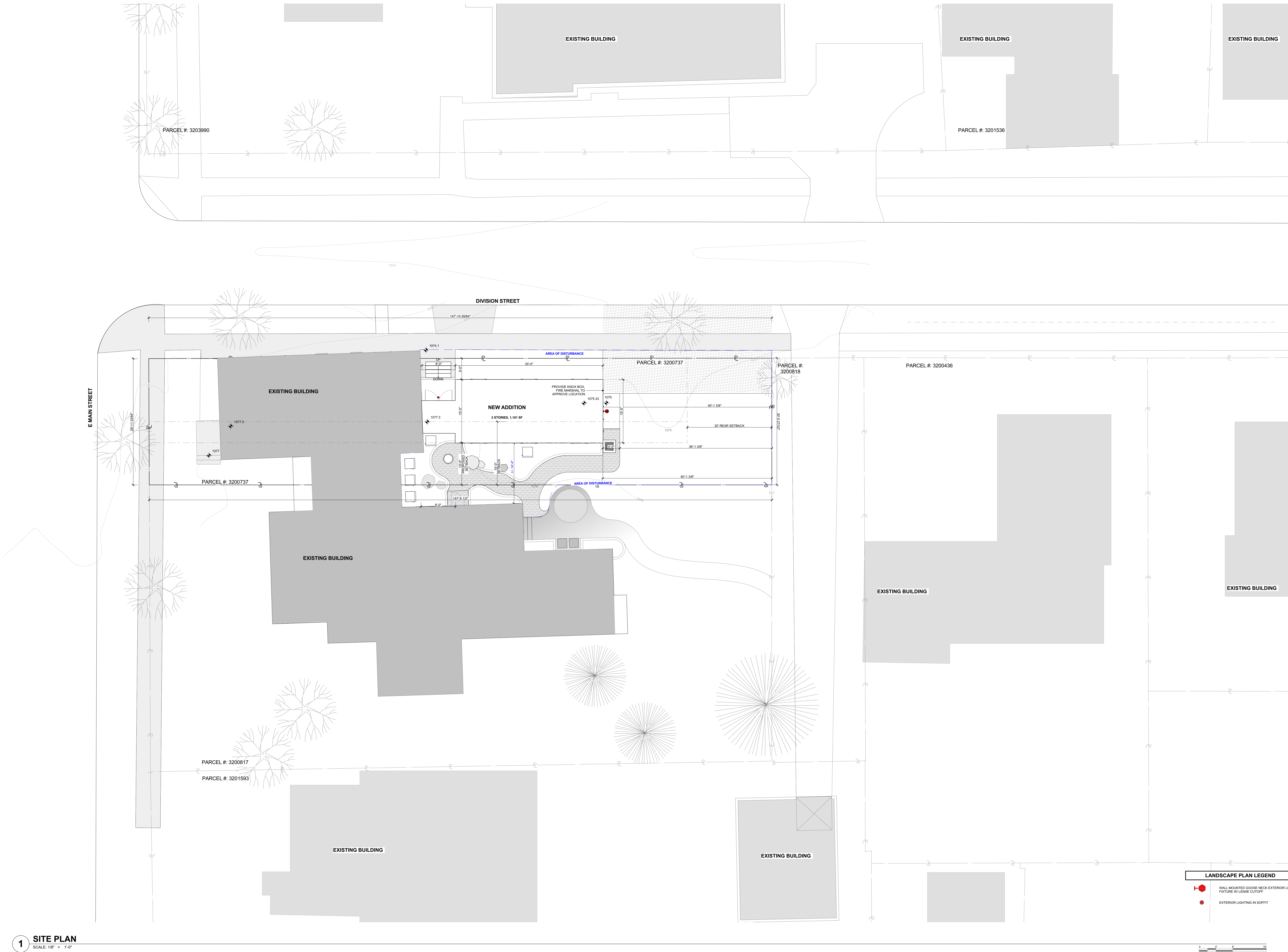
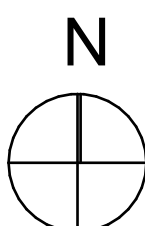
RENDERED IMAGE 2



RENDERED IMAGE 3



RENDERED IMAGE 4



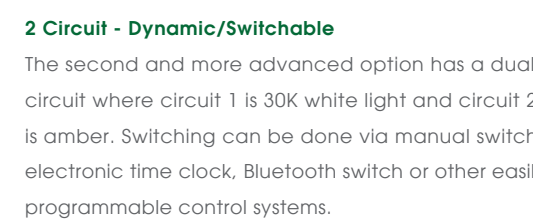
1. GARBAGE CANS ARE TO BE STORED INSIDE ADDITION.
2. ALL EXISTING VEGETATION THAT IS TO BE REMOVED AND NEW PLANTINGS ON THE WEST SIDE OF THE PROPERTY TO BE DONE BY HAND.
3. NEW MULCHED AREAS SURROUNDING THE EXISTING OAK TREE TO REMAIN IN PLACE FOR A YEAR.

SCALE: 1/4" = 1'-0"

SCALE: 1/4" = 1'-0"

1

SCALE: 1/4" = 1'-0"



SECTION 31 22 19 - FINISH GRADING

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. This Section applies to the final subgrade preparation, placement of Soil Mixes and amending of in-place (in-Situ) soil or on-site stockpiled soils. Sections 32 91 00 – 32 91 50 (Topsoil – Planting Mixes) for testing, soil mix components and preparation, amendments, and hauling apply.

1.02 SUMMARY

- A. This Section includes the following:
- Preparation of subgrade soils in planting areas for each specified soil mix and type.
 - Includes ripping of subgrade and in situ soils, and debris removal.
 - Placement of Soil Mix(s) and Amendments.
 - Fine Grading of Turfgrass and Planting Area Soil Surfaces.

1.03 REFERENCES

- A. ASTM – ASTM International: D 1557 - Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort.
- B. EPA – Environmental Protection Agency:
- Method 8015.
 - Method 8020.
- C. SSSA – Soil Science Society of America, Inc.
- Methods of Soil Analysis Part 1 – Physical and Mineralogical Methods, 1986.
 - Methods of Soil Analysis Part 3 – Chemical Methods, 1996.
- D. USDA – United States Department of Agriculture:
- Texture Triangle Classification.
 - Handbook No. 60.

1.04 DEFINITIONS

- A. Acceptance, Acceptable, or Accepted: Acceptance by the Architect in writing.
- B. Aesthetic Acceptance of Grades: Acceptance by the Architect in writing of the aesthetic correctness of the contours. Aesthetic acceptance does not address whether areas drain properly, are at the correct elevations, or whether the soil has been compacted properly.
- C. Backfill: Soil material or controlled low-strength material used to fill an excavation.
- D. Debris or Deleterious Materials: Elements including, but not limited to, concrete, concrete masonry, wood, excavated rock and rock fragments, rubble, overburden soils, abandoned utility structures, trash, refuse, and litter.
- E. Excessive Compaction: Planting area soil or soil compaction greater than 75 percent maximum dry density as determined by ASTM D 1557.
- F. Finished Grades: The required final soil surface elevations and contours indicated on the Drawings.
- G. Planting Soil Mix: A specified profile of soil system components, such as, soil, sand and compost homogeneously blended to produce a specified planting soil mix.

2501 – Village Dental FINISH GRADING
31 22 19 - 1

- E. Verify placement locations and depths for each specified soil mix and type.
- F. Place the specified planting soil or mix in 6-inch lifts over the Transition Layer to the depths specified on the drawings.
- G. Carefully settle soils to eliminate air pockets and to minimize future settling. Lightly scarify previously placed lift surfaces prior to placing subsequent lifts.
- H. Compact each lift by applying enough water to achieve optimum moisture allowing consolidation and locking of soil particles.
- A vibratory plate compactor, or other suitable method, shall be used to achieve greater than 80 to 85 percent maximum dry density as determined by the Standard Proctor Test ASTM D698-12. Moisture content and compaction shall be verified using ASTM D6936-15.
 - After any additional settlement has occurred, restore areas to finished grade prior to additional work within the area commencing.
- I. For Lawn Areas, roll the whole surface of lawn bed with a hand roller weighing approximately one hundred pounds (100 lb.) per foot (12") of roller width. Fill all depressions caused by compaction operations with additional soil and re-grade. Lightly roll and rake until the surface presents a smooth, even, uniform in finish and to grade.
- J. Backfill for Trees: Unless noted otherwise or approved in writing by Architect, the excavated tree pit soil is not acceptable backfill material for trees. Remove excavated soil from site and use specified soil mix in this section. Install as specified in Section 32 93 00 "Plants" and per drawing details. Placing, shading, or anchoring is the responsibility of the Contractor as shown on the drawings.
- K. Protect areas where soil has been placed and prepared against construction activity with site protection fence. See Section 32 92 00 Turf Grass and Sod for additional protection.

3.05 FINISH GRADING

- A. Perform, grading within contract limits, including adjacent transition areas, to new elevations, levels, profiles, and contours indicated. Provide subgrade surfaces parallel to finished surface grades. Provide uniform levels and slopes between new elevations and existing grades.
- B. General:
- Uniformly grade areas to a smooth uniform surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 - Provide a smooth transition between adjacent existing grades and new grades.
 - Out out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
 - Slope finish grades to drain surface water away from buildings, walks, paving, and other structures unless indicated otherwise.
 - Slope finish grades to drain surface water to drainage swales, catch basins, area drains, or trench drains as shown on the Drawings.
 - Grade soil surface smooth to be free of high and low areas which will inhibit surface drainage.
 - Grade the soil surface at the edges of lawn areas, along paving areas, and curbs to an elevation 1 inch below the finished surface of adjacent paving and curbs, unless indicated otherwise.
 - Hand-rake soil surface using screed boards, string lines, and laser levels to achieve smooth surfaces acceptable to the Architect.

2501 – Village Dental FINISH GRADING
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2.05 SAND JOINT FILLERS

- A. Stabilized Sand for Joints: Gator Supersand Bond by Alliance Designer Products Inc., 225 Boulevard Bellerose West, Laval Quebec H7L 6A1.
- Color: To be selected from manufacturer's full range.
- B. Herbicide: Commercial chemical for weed control, registered with the EPA. Provide in granular, liquid, or wettable powder form.

PART 3 - EXECUTION

3.01 GENERAL EXCAVATION AND EMBANKMENT

- A. Excavate to the line and grade specified in the contract documents. Minimize over-excavation.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 698:
- Under structures, building slabs, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 98 percent.
 - Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 98 percent.
- D. Subbase: Install aggregate subbase to a compacted depth of 8 to 12-inches minimum. Install the subbase in minimum 3 to 4-inch lifts, and compact to a minimum 95% Standard Proctor Density (ASTM D698).

3.02 STONE RETAINING AND FREE-STANDING WALLS

- A. Stone walls shall be placed at locations as shown on the drawings and installed with the following requirements:
- Stone "retaining" stacked walls shall be constructed to the dimensions shown on the drawings and shall be constructed with a vertical batter on the front and back face as shown on the drawings.
 - Stone "Freestanding" walls to be vertical with no batter unless noted on drawings.
 - All walls to be dry laid.
 - The stone of the wall shall be laid to form substantial masonry presenting a neat, finished appearance.
 - Face Stones:
 - Face stones shall be laid to break joints.
 - Minimum overlap: 12-inches unless noted on drawings.
 - Freestanding wall to overlap 50/50 with joints in middle to adjacent stone course.
 - Rock shall be hand finished as needed to keep regular face profiles and batter.
 - All face stones shall be ploughed with a string line on straight walls or laid to batter status. Where batter is required, batter to be consistent with respect to all parts of the wall and shall meet the minimum requirements set forth in the detail.
 - The degree of roughness on the exposed face shall be measured with a six-foot (6') straightedge supported between adjacent projections and stone face.

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- H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appearances, or other man-made stationary features constructed above or below the ground surface.
- I. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or soil materials.
- J. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically soil; but in disturbed areas such as urban environments, the surface soil can be subsoil.
- K. Transition Layer: The specified planting soil mix for a planting area is homogeneously blended into the existing (ripped) native soil substrate to create a "transition" layer between the subgrade and specified planting soil mix. Transition layers vary pending specified soil mix for each planting area.
- L. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.05 SUBMITTALS

- A. Equipment Data: Submit descriptive information with ground pressure load data for each proposed item of equipment to be used. Equipment data will be evaluated for compost mix compaction potential. All equipment used in placing the compost shall have a ground pressure level of 4.5 psi or lower.
- Large earth moving equipment (D4, D6 dozers) must have rubberized base tracks with low ground pressure.
 - Equipment with metal cleats will not be permitted.

1.06 QUALITY ASSURANCE

- A. Qualifications:
- Installation and mixing foreman on the job shall be competent English-speaking supervisor(s), experienced in planting soil preparation for lawn and planting installations. Supervisor shall remain on the site during the entire installation process.
 - Perform work with personnel totally familiar with planting and lawn soil preparation and planting installations under the supervision of a foreman experienced with landscape work.
 - Testing Laboratory: Experienced person(s) employed by public or private testing laboratory, qualified and capable of performing tests, making soil recommendations, and issuing reports as specified. The Testing Laboratory shall submit a Statement of Qualifications regarding the specified testing. The Testing Laboratory shall be as approved by the Architect.
 - It shall be the responsibility of the Contractor to see that the specifications are being adhered to. Failure of the Architect to immediately reject unsatisfactory workmanship or to notify the Contractor of higher deviation from the specifications shall not relieve the Contractor of his/her responsibility to repair and/or replace unsatisfactory work.
- B. Pre-Installation Conferences: Person(s) responsible for soil preparation and mixes of this Section shall attend Pre-Installation Conference(s) to coordinate with other sections.
- C. Testing and Inspection Service: A qualified independent geotechnical testing and inspection laboratory shall perform soil testing and inspection services under the supervision of a registered professional engineer during earthwork and finish grading operations.
- D. Finished Grading Smoothness Mock-Up:
- Prepare a 20-foot by 20-foot area of finished graded soil representing the finished graded surface of the planting areas.
 - Locate mockup on site in an area easily referenced during fine grading operations.

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- C. Equipment: Use equipment and hand tools of appropriate size and type to achieve the profiles, and a smooth soil surface free of high areas, depressions, equipment tracks, and excessive compaction.
- D. Depressions and Loose Material: Fill any depressions and remove loose material to finish surface true to line and grade, presenting a smooth and unyielding surface.
- E. Excessive Compaction:
- Take precautions to prevent finished graded surfaces from becoming excessively compacted.
 - Protect finished graded surfaces from excessive compaction from vehicular, equipment, and foot traffic by laying down planks, plywood, or other accepted protective devices.
 - Do not store or stockpile materials on finished graded surfaces.
 - Mechanically loosen excessively compacted soil areas to full depth.
- 3.06 TOLERANCES
- A. Planting Areas:
- Grade soil surface to within 0.05-foot of grades indicated on the Drawings, except bring soil surface grades along paving, curbs, and other structures to within 0.01-foot of grades indicated on the Drawings.
 - Transition soil surface grades along paving, curbs, and other structures to areas of less strict acceptance over a 5-foot distance.
- B. Allowances: Make proper allowances for settlement.

3.07 ADJUSTING

- A. Soil Finished Grade:
- Provide allowance for 32 hours of adjustment grading work with a 4-person hand-grading crew to smooth and shape the soil surfaces using hand rakes, shovels, and other hand tools.
 - After the soil surface elevations have been graded to be within the specified tolerances, perform adjustment grading Work under the direction of the Architect in the field.
 - Do not rely on adjustment grading to bring finished grade elevations to within specified tolerances.

3.08 FIELD QUALITY CONTROL

- A. Aesthetic Acceptance of Grades:
- Upon completion of finish grading Work, schedule a review by the Architect to obtain aesthetic acceptance.
 - Provide 3 days advance written notification.
 - Do not commence seeding, sodding, or other planting Work until receiving aesthetic acceptance in writing.
- B. Test for Excessive Compaction:
- Where excessive compaction is suspected by Architect, have a Geotechnical Engineer perform nuclear density field tests.
 - Correct excessively compacted soil areas to the depth of the excessive compaction by means and methods acceptable to the Architect prior to installing plant material.

END OF SECTION 31 37 19

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- e. Variations more than 1/2 inch in 10 feet measured from the straight edge to the extreme depression in the stone, will not be permitted.
- f. Rear faces shall present approximately plane surfaces and shall in general conform to the detail.
- g. Clean and wash face and top of walls such that the visual surfaces of the rocks are free of soil and staining to provide a clean natural appearance. If washing does not clean off unwanted residue, then Contractor shall wash off residue with muriatic acid and water, using a brush to scrub off the residue.
6. Backfill retaining wall as detailed. Fill each course as wall is assembled to maintain structural stability and batter.

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- Protect accepted mockup from physical damage and erosion until date of Final Completion.
 - The accepted mockup shall be the standard by which finish grading will be judged.
- E. The Architect reserves the right to inspect and test grading operations at any time and as deemed necessary for verification of conformance to specification requirements. Any subsurface or grading conditions not meeting the requirements of the Specifications to be corrected by the Contractor before continuing with any further operation of the project and at no cost to the project.

1.07 PROJECT CONDITIONS

- A. Examination: Promptly notify Construction Manager and Architect of unexpected subsurface conditions. Discontinue work until notification to resume work is provided by the Construction Manager.
- B. Environmental Requirements:
- Do not work soil when moisture content is so great that excessive compaction will occur, nor when it is so dry that dust will form in the air or that clouds will not break readily.
 - Apply water, if necessary, to bring soil to optimum moisture content for fine grading operations.
 - Do not perform fine grading work when subgrade and/or soils are muddy or frozen.
- C. Existing Conditions:
- Locate existing underground utilities in areas of work. If utilities are indicated to remain in place, provide adequate means of support and protection during fine grading operations.
 - If uncharted, or incorrectly charted, piping, or other utilities are encountered during the Work, consult utility owner immediately for directions. Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of utility owner.
 - Do not interrupt existing utilities serving facilities occupied by Owner or others, during occupied hours, except when permitted in writing by Construction Manager and then only after acceptable temporary utility services have been provided.
 - Provide minimum 48-hour notice to Construction Manager and receive written notice to proceed before interrupting any utility.
 - Contact the Local Utilities Protection Service before commencement.

1.08 SEQUENCING

- A. Soil Placement: To prevent excessive soil compaction, avoid placing soil in areas subject to construction vehicle and equipment traffic. Coordinate work of this section with other project work as contained in all other Sections of the project specifications.

PART 2 - PRODUCTS

2.01 SOILS

- A. Refer to Sections 32 91 00 through 32 91 50 for Soil Mixes.

PART 3 - EXECUTION

3.01 FIELD ENGINEERING

- A. General:

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- A. Protecting Fine Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
- B. Repair and restorable grades to specified tolerances where, completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Scarify or remove and replace soil material to depth as directed by Soils Engineer; reshape and recompact.
- D. Repair erosion that occurs before and during plant or lawn installation.
- E. During construction, maintain temporary soil erosion and sedimentation control measures in place. Inspect, repair, and replace damaged or missing items as work progresses.
- 3.10 DISPOSAL AND CLEAN UP
- A. Promptly remove soil and debris created by soil work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Legally dispose of off-site all refuse and debris from these operations. Do not dump or burn materials on site.
- C. Maintain the site in an orderly condition during the progress of the Work. Continuously and promptly remove excess waste materials; Keep lawn areas, walks, and roads clear. Store materials and equipment where directed. Promptly remove equipment, surplus materials, and debris and trash resulting from operations under this Contract upon completion and prior to initial acceptance or Work. Leave the site in a neat, order condition "broom clean".

END OF SECTION 31 22 19

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SECTION 32 13 13 - CONCRETE PAVING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes exterior cement concrete pavement for the following:
- Pedestrian Concrete Pavement.
 - Curbs and Gutters.
 - Steps and Ramps
 - Sub-base Slabs-on-Grade for Unit Pavements.
 - Job-Built Concrete Edge Restraints.
 - Curing and/or Sealing.

1.02 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash and other pozzolans, and ground granulated blast-furnace slag.
- B. Construction Joint: Joint produced when one pour is placed up against an existing one (cold joint)
- C. Contrction Joint: Joint produced that isolates the crack (control joint).
- D. Isolation Joint: Joint containing expansion material and/or caulking material to allow the joint to "flex" based on air temperature (expansion joint). Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash, slag cement, and other pozzolans.
- E. W/C Ratio: The ratio by weight of water to cementitious materials.

1.03 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
- Review methods and procedures related to concrete paving, including but not limited to, the following:
 - Concrete mixture design
 - Quality control of concrete materials and concrete paving construction practices.
 - Finishes
 - Require representatives of each entity directly concerned with concrete paving to attend, including the following:
 - Contractor's superintendent.
 - Independent testing agency responsible for concrete design mixtures.
 - Ready-mix concrete manufacturer.
 - Concrete paving Subcontractor.
 - Manufacturer's representative of stamped concrete paving system used for stamped detectable warnings.

1.04 ACTION SUBMITTALS

- A. Product Data: For each type of product.

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- Provide all layout work required. Establish extent of fine grading by area and elevation; designate and identify datum elevation and project engineering reference points. Set required lines, levels, and elevations.
- Provide as many grade stakes and string lines as required to achieve smooth finish grades acceptable to the Architect. Mark each stake to indicate design finished grade indicated.
- Swale Flow Lines, Bottom of Slopes, Top of Slopes and Grade breaks: Install grade stakes at maximum 20 feet on center.
- High Points and Low Points: Install grade stakes at high points and low points including top of berms, catch basins and area drain runs.

3.02 EXAMINATION

- A. Examine areas and conditions under which work is to be performed. Obtain and examine the records and drawings of adjacent work and of existing utilities and their connections for conditions which may affect the work under this Section.
- B. Verify all work requiring access through or adjacent to areas where each planting soil mix is to be placed has been completed and no further access will be required. If access will be required, this must be coordinated with the Contractor.
- C. Confirm subgrade is clear of all construction debris, trash, rubble, and any foreign material. If fuels, oils, concrete washout silt or other material harmful to plants have been spilled into the subgrade material, excavate the soil sufficiently to remove the harmful material. Fill any over excavation with approved fill and compact to the required subgrade compaction.
- D. Confirm subgrade is at the proper elevation, parallel to the finished grade and compacted as shown on the Drawings.
- E. Verify that conditions are suitable to receive Work and that no defects or errors are present which would cause defective installation of products or cause latent defects in workmanship and function.
- F. Excessive Compaction: Verify subgrade in planting area is not excessively compacted.
- G. Soil Preparation: Verify off-site soil preparation is complete and ready for transporting to site.
- H. Notify Architect of any unacceptable sub-grade conditions. Do not start the installation of the soil mix until sub-grade conditions have been corrected.

3.03 PREPARATION

- A. Review soil analysis testing results and requirements needed for each specified soil mix and amendment. Testing Agency recommendations may vary and require contractor to provide additional testing or preparations prior to placement of soils.
- B. Protection of Existing Conditions:
- Protect structures, utilities, sidewalks, pavements, irrigation systems, paving, plant materials, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by fine grading operations.
 - Provide barricades, fences, or other barriers to protect existing conditions to remain from damage during construction.
 - Use every possible precaution to prevent excessive compaction of planting area soil within or adjacent to the areas of Work.
 - Do not store material or equipment, permit burning, or operate or park equipment under the branches of existing trees to remain.
 - Submit written notification of conditions damaged during construction immediately to the Owner.

SECTION 31 37 19 – LANDSCAPE STONework

PART 1 - GENERAL

1.01 SUMMARY

- A. The work shall consist of furnishing and installing natural landscape stone, such as ledge rock and/or boulders, constructed and in conformance with the details shown on the contract drawings, and/or as directed by the Architect.
- B. Stonework shall consist of the following:
- Dry – Stacked Sandstone Free Standing Wall
 - Dry – Stacked Sandstone Retaining Wall
- 1.02 REFERENCES
- A. The following is a list of standards which may be referenced in this section:
- ASTM International (ASTM):
 - D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³ (600 kN-m/m³)).

1.03 DEFINITIONS

- A. Terms "boulders," and "rock," may be used interchangeably in this section.
- B. Boulders: Shall be granite, limestone, sandstone (as indicated on the drawings), of an approved size, shape, and type. Boulder dimensions shall be as shown on the contract drawings.
- C. Ledge Rock: Irregular naturally flat pieces of limestone or sandstone protruding to form a ledge. Typically used along stream beds, irregular wall structures and steps.
- D. Flagstone: Irregular naturally flat pieces of limestone or sandstone used for walkways, patios, and flooring. Dimensions vary with each piece approximately 4 sq. ft. or larger.

1.04 SUBMITTALS

- A. Contractor shall cooperate with Architect in obtaining and providing samples of all specified materials.
- B. Contractor shall submit certified laboratory test certificates for all items required in this section.

1.05 QUALITY ASSURANCE

- A. Mock-up:
- Prior to the construction of the dry stacked stonework, Contractor shall show Architect an example of similar rock features equal to or better than they had constructed previously.
 - After acceptance of this previous work, Contractor shall construct approximately 3 full step risers as shown on the drawings and 3 courses of stone wall by 6 ft length (of each wall type) for approval by Architect.
 - If the construction is approved, Contractor shall construct the rest of the steps. If the construction is not approved, Contractor shall make any changes required by Owner and Architect to obtain approval and construct the remainder of the steps as approved.

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- B. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
- C. Jointing Plan: Shop drawings indicating locations for all Construction, Contraction, and Isolation/Expansion joints.

1.05 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer, ready-mix concrete manufacturer and testing agency.
- B. Material Certificates: For the following, from manufacturer:
- Cementitious materials.
 - Steel reinforcement and reinforcement accessories.
 - Admixtures.
 - Curing and Sealing compounds.
 - Bonding agent or epoxy adhesive.
 - Joint fillers.
- C. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated, based on comprehensive testing of current materials:
- Aggregates: Include service-record data indicating absence of deleterious expansion of concrete due to alkali-aggregate reactivity.
 - Field quality-control reports.
 - Minutes of Preinstallation conference.

1.06 QUALITY ASSURANCE

- A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94 requirements for production facilities and equipment.
- B. Testing Agency Qualifications: Qualified according to ASTM C 1017 and ASTM E 329 for testing indicated.
- C. Installer Qualifications:
- Minimum of five (5) years' experience installing finished concrete paving in climates that experience seasonal freeze-thaw cycles.
 - Installer shall demonstrate minimum of five (5) years successful experience installing exposed/seeded aggregate special finish concrete paving and cite five (5) successful installations in climates within the same climate region as the project. At least one project shall be 3,000 sf minimum. For each project, include the following information:
 - Project description
 - Project location
 - Date of installation
 - Completed project photos

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- C. Assure all grass and weed growth has been extinguished prior to placing the specified soil mix as indicated on the drawings. Respray areas still exhibiting grass, weed, or other plant growth. Follow manufacturer's recommendation for allowing grass and weed control to properly kill vegetation prior to amending soils.
- D. De-compact sub-grade soils and in situ soils by soil ripping.
- Prior to placing each specified soil mix or, rip areas to receive the specified soil on the same day soil mix is placed.
 - Rip subgrade to a depth of 6 inches. Place ripping lines at 18 inches on center.
 - Make second ripping pass in the direction 90 degrees to the direction of the first ripping pass.
 - Do not rip closer than 24 inches to installed underground utility lines and structures.
 - Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so soil material will bond with existing material.
 - Once the subgrade is ripped, only equipment with a ground pressure not to exceed 4.5 p.s.i. shall be used, ex. padded, wide-tracked LGP rated dozers and/or excavators, small to medium tractors with turf tires, etc.

- E. Transition Layer:
- Uniformly place 3 inches or as designated by the drawings, the specified soil over the ripped areas. Using mechanical equipment, blend the specified soil into the ripped subgrade approx. 2-4 inches in depth and/or as designated on the drawings.
 - For 32 91 30 - HSCS Soil Mix, uniformly place 3 inches (or as designated by the drawings) HSCS Base Mix soil over the ripped areas. Using mechanical equipment, blend the Base Mix soil into the ripped subgrade approx. 2-4 inches in depth or as designated on the drawings.
 - Do not place final lifts of specified soil until the Transition Layer has been blended.
 - Remove any debris (see Definitions) greater than 1 inch in diameter or 2 inches in length that has been worked to the surface of the transition zone.
 - Tree Root Protection
 - All work inflicting on root systems of existing plant material shall be reviewed and approved by the Architect prior to beginning work.
 - Protect tree root systems from damage adjacent to soil work where ripping is required.
 - Soil ripping may not be conducted when existing roots are in the immediate vicinity. All work inflicting on root systems of existing plant material shall be reviewed and approved by the Architect prior to beginning work.
 - Where tree roots are present within the designated soils zone, carefully blend native soils with the Compost using hand tools.
 - Uniformly moisten or aerate Transition Layer before compaction to within 2 percent of optimum moisture content.

3.04 PLACEMENT OF SOIL MIXES

- A. Verify proper placement and blending of Transitions Layer has been completed.
- B. Lightly scarify Transition Layer prior to placing the specified soil mix.
- C. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
- D. Remove and replace or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Source Limitations: Obtain each type of paver, joint material, and setting material from single source with resources to provide materials and products of consistent quality in appearance and physical properties.

2.02 NATIVE STONE WALLS – BARN STONE

- A. Native sandstone by:
- Basis of Design Manufacturer:

The Bear Hill Stone Company
12470 State Rd. 520
P.O. Box 457
Glenmont, OH 44428
Ph. No. 330 – 377-5110
www.bearhillstone.com
 - Wall Type 2a and 2b:
 - Match stone type and finish as per Architecture (Ph. No. 440-543-8300)
 - Size: 8" x 8" x 30"

2.03 SUB-BASE AND SUB-SLABS

- A. Compacted Aggregate Base Course (without concrete sub-slabs): Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve unless noted otherwise drawings.

2.04 GEOTEXTILES

- A. Separation Geotextile: Woven geotextile fabric, manufactured for separation applications, made from polyolefins or polyesters, with elongation less than 50 percent, complying with AASHTO M 288 and the following, measured per test methods referenced:
- Survivability: Class 2; AASHTO M 288.
 - Survivability: As follows:
 - Grab Tensile Strength: 247 lbf; ASTM D 4632.
 - Sewn Seam Strength: 222 lbf; ASTM D 4632.
 - Tear Strength: 90 lbf; ASTM D 4533.
 - Puncture Strength: 90 lbf; ASTM D 4833.
 - Apparent Opening Size: No. 60sieve, maximum; ASTM D 4751.
 - Permeability: 0.02 per second, minimum; ASTM D 4491.
 - UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.
 - Manufacturer: Subject to compliance with requirements, provide products by one of the following:
 - Mirafi 140N nonwoven drainage fabric manufactured by Mirafi, Inc., Charlotte, NC 28224.

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- D. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.
- E. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
- Build mockups of full-thickness sections of concrete paving to demonstrate typical joints; surface finish, texture, and color; curing; and standard of workmanship and as indicated in the pre-construction meeting.
 - Where concrete is called to be sealed, seal one half of the mockup area for color and finish review by Architect.
 - Notify Architect as soon as possible in advance of dates and times when mockups will be constructed.
 - Obtain Architect's approval of mockups before starting construction.
 - Maintain approved mockups during construction in an undisturbed condition as a standard for judging the completed pavement.
 - Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.07 PRECONSTRUCTION TESTING

2. Retarding Admixtue: ASTM C494, Type B.		2. When automatic machine placement is used, determine design mixtures, and obtain laboratory test results that comply with or exceed requirements.	B. Proof-roll prepared subbase surface below concrete paving to identify soft pockets and areas of excess yielding.	2. Extend joint fillers full width and depth of joint.	www.pa-architects.com
2.01 CONCRETE, GENERAL	A. ACI Publications: Comply with ACI 301 unless otherwise indicated.	B. Cementitious Materials: Use fly ash, pozzolan, slag cement, and silica fume as needed to reduce the total amount of portland cement, which would otherwise be used, by not less than 40 percent.	1. Completely proof-roll subbase in one direction and repeat in perpendicular direction. Limit vehicle speed to 3 mph.	3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.	1775 Main Street Perris, Ohio 42624 T 330.657.2390
	1. Fly Ash or Pozzolan: 25 percent.	1. Fly Ash or Pozzolan: 25 percent.	2. Proof-roll with a pneumatic-tired and loaded, 10-wheel, tandem-axle dump truck weighing not less than 15 tons.	4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.	
2.02 FORMS	A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, and smooth exposed surfaces.	2. Plasticizing and Retarding Admixtue: ASTM C1017, Type II.	3. Correct subbase with soft spots and areas of pumping or rutting exceeding depth of 1/2 inch according to requirements in Section 31 20 00 "Earth Moving."	5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.	
	1. Use flexible or uniformly curved forms for curves with a radius of 100 feet or less. Do not use notched and bent forms.	E. Water: Potable and complying with ASTM C94.	C. Proceed with installation only after unsatisfactory conditions have been corrected.	6. During concrete placement, protect top edge of joint filler with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.	
2.03 STEEL REINFORCEMENT	B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and that will not impair subsequent treatments of concrete surfaces.	A. Moisture-Retaining Cover: ASTM C171, polyethylene film or white burlap-polyethylene sheet.	D. Paving thickness varies. See plans and details for each specific condition. Any concrete paving thickness not shown in plan shall be 4-inch minimum thickness.	D. Contraction Joints (Control Joints): Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows:	
	A. Reinforcing Bars: ASTM A615, Grade 60, deformed.	B. Water: Potable.	1. Air Content: 6 percent plus or minus 1-1/2 percent for 3/4-inch nominal maximum aggregate size.	1. Sawn Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.	
2.04 CONCRETE MATERIALS	B. Steel Bar Mats: ASTM A184; with ASTM A615, Grade 60 deformed bars; assembled with clips.	C. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C309, Type 1, Class B, dissipating (Standard Broom Finishes)	2. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.	a. Curbs and Gutters: Provide saw cut joints at 10 ft on-center unless noted otherwise. Throat-cut top 6 inches of straight curb.	
	C. Joint Dowel Bars: ASTM A615, Grade 60 plain-steel bars. Cut bars true to length with ends square and free of burrs.	1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:	E. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.	a. Tolerance: Ensure that sawed joints are within 3 inches either way from centers of dowels.	
2.05 CURING MATERIALS	1. Sleeves for Round Dowels: "Speed Dowel", size to fit dowel, as available from Greenstreak, Inc., St. Louis, MO (800-8325-9504), www.greenstreak.com ; or equal.	a. Dayton Superior Corporation; Day Chem Res Cure (J-11-W).	1. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.	b. Walks, Walls, and Concrete Paved Surfaces: Refer to drawings for details and general layout.	
	D. Tie Bars: ASTM A615, Grade 60, deformed.	b. Euclid Chemical Company (The); Kurex DR VOX.	F. Concrete Mixtures: Normal-weight concrete.	c. Tolerance: Ensure that sawed joints are within 3 inches either way from centers of dowels.	
2.06 RELATED MATERIALS	E. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded-wire reinforcement, and dowels in place. Manufacture bar supports according to CRSi's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete specified, and as follows:	c. L&M Construction Chemicals, Inc.; L&M Cure R.	2. Maximum W/C Ratio at Point of Placement: 0.45.	2. Dowelled Contraction Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.	
	1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.	d. Meadows, W. R., Inc.; Series 1100.		E. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 1/4-inch radius. Do not re-tool edges after applying surface finishes. Eliminate tool marks on concrete surfaces. "Picture Framing" tooling anywhere is not to be done, unless noted.	
2.07 CONCRETE MIXTURES	A. Expansion and Isolation Joint-Filler Strips: ASTM D 1752. Provide with joint caps.	2. The curing compound shall not be used as the final sealer for the concrete.			
	1. Basis of design: Products by WR Meadows.	3. For concrete indicated to be sealed, curing compound shall be compatible with sealer.			
2.08 CONCRETE MIXING	a. Cork: ASTM-D1752 Type II.				
	b. Typical Thickness: 1/4 inch.				
2.09 CONCRETE MIXTURES	c. Joint Cap: Two-piece device with upper portion removable after curing period; width corresponding to joint filler.				
	2. Plastic strips with a removable top for placing caulking or sealant that is designed specifically for expansion between concrete pours.				
2.10 CONCRETE MIXTURES	B. Epoxy-Bonding Adhesive: ASTM C881, two-component epoxy resin capable of humid curing and bonding to damp surfaces; of class suitable for application temperature, of grade complying with requirements, and of the following types:				
	1. Types I and II, non-load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.				
2.11 CONCRETE MIXTURES	C. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.				
2501 – Village Dental	CONCRETE PAVING 32 13 13 - 4	2501 – Village Dental	CONCRETE PAVING 32 13 13 - 5	2501 – Village Dental	CONCRETE PAVING 32 13 13 - 6
square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislodging reinforcement dowels and joint devices.					
H. Spread paving surface with a straightedge and strike off.					
I. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.					
J. Curbs, Gutters, and Edge Restraints: If automatic machine placement is used for curb, gutter, and edge restraint placement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results are not approved, remove, and replace with formed concrete.					
K. When adjoining pavements are placed in separate pours, do not operate equipment on concrete until pavement has attained 85 percent of its 28-day compressive strength. Do not drive vehicles on pavement until the full 28-day strength is attained.					
L. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.					
3.07 SUB-BASE SLABS FOR UNIT PAVING					
A. General: Comply with ACI 301 for formwork, placement, and screeding of concrete.					
B. Deposit and consolidate concrete for sub-base slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.					
1. Consolidate concrete during placement and screed slab surfaces with a straightedge and strike off to correct elevations.					
2. Slope surfaces uniformly to drains where required.					
C. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane before excess bleed water appears on the surface. Do not further disturb slab surfaces before starting finishing operations.					
1. Class B Finish: Finished concrete surface for subbases shall be wood floated to a slightly rough surface. Surface shall not deviate more than 1/4 in. in 10 ft.					
3.08 INSTALLATION OF MISCELLANEOUS CONCRETE ITEMS					
A. Curbs and Edge Restraints: Provide monolithic finish by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.					
3.09 FLOAT FINISHING					
A. General: Do not add water to concrete surfaces during finishing operations.					
B. Bull Float Finish: After striking off initial pour of concrete, begin the second floating operation when bleed water sheen has disappeared, and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.					
3.10 BROOM FINISH					
A. Monolithic Broom Finish: After bull floating concrete surface and prior to applying curing compound or curing and sealing compounds, provide a monolithic broom finished concrete surface as specified below.					
1. Medium-to-Fine-Textured Broom Finish: Draw a soft-bristle broom across float-finished concrete surface, perpendicular to line of traffic, to provide a uniform, fine-line texture.					
2501 – Village Dental	CONCRETE PAVING 32 13 13 - 9	2501 – Village Dental	CONCRETE PAVING 32 13 13 - 10	2501 – Village Dental	CONCRETE PAVING 32 13 13 - 11
a. Available Products:					
1) Sika Corporation; Sikaflex – 2c NS.					
2) DynaTred by Pecora, Harleyville, PA; (800) 523-6688, (215) 723-6051; www.pecora.com .					
b. Color: To be selected by Architect from manufacturer's "Color Pack" system.					
2.04 JOINT-SEALANT BACKER MATERIALS					
A. Joint-Sealant Backer Materials: Nonstaining; compatible with joint substrates, sealants, primers, and other joint fillers; and approved for applications indicated by joint-sealant manufacturer, based on field experience and laboratory testing.					
B. Round Backer Rods for Cold- and Hot-Applied Joint Sealants: ASTM D 5249, Type 1, of diameter and density required to control sealant depth and prevent bottom-side adhesion of sealant.					
C. Round Backer Rods for Cold-Applied Joint Sealants: ASTM D 5249, Type 3, of diameter and density required to control sealant depth and prevent bottom-side adhesion of sealant.					
D. Backer Strips for Cold- and Hot-Applied Joint Sealants: ASTM D 5249; Type 2; of thickness and width required to control joint-sealant depth, prevent bottom-side adhesion of sealant, and fill remainder of joint opening under sealant.					
2.05 PRIMERS					
A. Primers: Product recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated.					
PART 3 - EXECUTION					
3.01 EXAMINATION					
A. Examine joints to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.					
1. Proceed with installation only after unsatisfactory conditions have been corrected.					
3.02 PREPARATION					
A. Surface Cleaning of Joints: Before installing joint sealants, clean out joints immediately to comply with joint-sealant manufacturer's written instructions.					
1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.					
B. Joint Priming: Prime joint substrates where indicated or where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.					
3.03 INSTALLATION OF JOINT SEALANTS					
A. Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated unless more stringent requirements apply.					
B. Joint-Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions.					
2501 – Village Dental	CONCRETE PAVING JOINT SEALANTS 32 13 13 - 3	2501 – Village Dental	CONCRETE PAVING JOINT SEALANTS 32 13 13 - 4	2501 – Village Dental	CONCRETE PAVING JOINT SEALANTS 32 13 13 - 5
1. Joint Location:					
a. Joints between concrete and asphalt paving.					
b. Joints between concrete curbs and asphalt paving.					
c. Other joints as indicated.					
2. Joint Sealant: Refer to Civil Asphalt Work specifications.					
3.06 PROTECTION					
A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately and replace with joint sealant so installations in repaired areas are indistinguishable from the original work.					
END OF SECTION 32 13 13					
SECTION 32 14 00 - UNIT PAVING					
PART 1 - GENERAL					
1.01 SUMMARY					
A. This Section includes all labor, materials, equipment, and testing requirements necessary to complete the installation of unit pavers as specified on the drawings:					
1. Clay Brick Pavers on concrete subbase slab with sand setting bed.					
2. Steel edge restraints for retaining paver systems.					
1.02 PREINSTALLATION MEETINGS					
A. Preinstallation Conference: Conduct conference at Project site.					
1.03 REFERENCES AND STANDARDS					
A. Federal, State, and local laws and regulations governing this Work are hereby incorporated into and made part of this Section. When this Section calls for certain materials, workmanship, or a level of construction that exceeds the level of Federal, State, or local requirements, provisions of this Section take precedence.					
B. The following references are used herein and shall mean:					
1. ASTM: American Society of Testing Materials					
a. ASTM C-33 Standard Specification for Concrete Aggregates.					
b. ASTM C-136 Standard Method for Sieve Analysis for Fine and Coarse Aggregates					
2. BIA: The Brick Institute of America					
3. American Disabilities Act, Part 36, Appendix A- Standards for Accessible Design.					
1.04 ACTION SUBMITTALS					
A. Product Data: For materials other than water and aggregates.					
B. Product Data: For the following:					
1. All paver types.					
2. Setting bed materials.					
3. Joint materials.					
4. Edge restraints.					
5. Joint Sand					
C. Sieve Analyses: For aggregate setting-bed materials, according to ASTM C136.					
D. Samples for Initial Selection: For the following:					
1. Each type of unit paver indicated.					
2. Joint materials involving color selection.					
3. Exposed edge restraints involving color selection.					
E. Samples for Verification:					
1. Full-size units of each type of unit paver indicated. Assemble not less than five Samples of each type of unit on suitable backing and grout joints.					
2. Joint Sand Materials.					
2501 – Village Dental	UNIT PAVING 32 14 00 - 1	2501 – Village Dental	UNIT PAVING 32 14 00 - 2	2501 – Village Dental	UNIT PAVING 32 14 00 - 3
a. Provide three representative 1/4-pound samples in containers of Joint Sand materials.					
3. Exposed edge restraints.					
F. Shop Drawings:					
1. Plans: Show location, laying patterns, and sizes of each type of unit paving.					
2. Plans: Concrete subbase slab expansion and contraction joints.					
3. Details for edge restraint connection methods, including welding and anchor bolt locations.					
4. Details: Show detail of each type of setting assembly and interface between each type of adjoining paving.					
1.05 INFORMATIONAL SUBMITTALS					
A. Qualification Data: For Installer.					
B. Adhesion and Compatibility Test Reports: From latex-additive manufacturer for mortar and grout containing latex additives.					
C. Material Certificates: For unit pavers. Include statements of material properties indicating compliance with requirements, including compliance with standards. Provide for each type and size of unit.					
D. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for unit pavers, indicating compliance with requirements.					
1. For solid interlocking paving units, include test data for freezing and thawing according to ASTM C 67.					
E. Cleaning and Maintenance Instructions:					
1. Brick Pavers					
2. Joints					
1.06 QUALITY ASSURANCE					
A. Source Limitations: Obtain each type of unit paver, joint material, and setting material from one source with resources to provide materials and products of consistent quality in appearance and physical properties.					
B. Certificates: Provide certificates as required by law for transportation and inspections of materials. Inspection and/or approval by governmental agencies does not preclude rejection of materials at project site.					
C. Paver Manufacturer's Qualifications:					
1. The manufacturer shall demonstrate a minimum of 5 years successful experience in the manufacture of interlocking pavers or clay pavers respectively.					
2. The manufacturer shall have sufficient production capacity and established quality control procedures to produce, transport, and deliver the required number of pavers with the quality specified, without causing a delay to the work.					
3. The manufacturer shall have suitably experienced personnel and a management capability sufficient to produce the number of quality pavers as depicted on the contract drawings and as specified herein.					
D. Installer Qualifications:					
1. A qualified unit paving installer. Installer's field supervisor shall have Concrete Paver Installer Certification from the Interlocking Concrete Pavement Institute (ICPI) with the following designations:					
a. Commercial Paver Technician Designation.					
PROJECT TEAM:					
PENINSULA ARCHITECTS					
CIVIL ENGINEER GUTOWSKY AND ASSOCIATES P 406.463.6900					
STRUCTURAL ENGINEER ORAVEC DESIGN BUILD P 330.352.3211					
MEP ENGINEER DENK ASSOCIATES P 216.531.8880					
PROJECT #: 2501					
ISSUE: AHRB REVIEW					
DATE: 04-01-2022					
VARIANCE SET: 04-17-2022					
PLANNING COMMISSION: 09-15-2022					
PLANNING COMMISSION: 10-27-2022					
PLANNING COMMISSION: 12-12-2022					
LANDSCAPE SPECIFICATIONS					
L0.04					

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PROJECT TEAM:



CIVIL ENGINEER:
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P 406.453.6900

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P 330.552.8211

MEP ENGINEER:
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P 216.531.8880

PROJECT #: 2501
ISSUE:
AHER REVIEW 04-01-2025
VARIANCE SET 04-17-2025
PLANNING COMMISSION 09-15-2025
PLANNING COMMISSION 10-27-2025
PLANNING COMMISSION 12-17-2025

I.	Analysis for levels of heavy metals to include arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc. Test results shall be cited in milligrams per kilogram dry weight with comparisons to USEPA 40 CFR Table 3 of 503.13 Pollutant Concentrations.	2.	Compost, each source, 5 lb, packaged.
			Organic Planting Soil (final mix), 5 lb, packaged.
J.	Particle size analysis shall be performed and compared to the USDA Soil Classification System per ASTM D422 (hydrometer test). The USDA sand and gravel classifications shall be determined on material retained on the #270 sieve following a wet washing procedure.	I.	Submit for approval at least two weeks prior to installation a written plan for mixing, transporting, and storing materials.
K.	Detritious materials shall be determined by ASTM D 5286.		
M.	Percent of organic matter by weight shall be determined by ASTM D 2974 Method C, loss on ignition at 440°C.	1.06 QUALITY ASSURANCE	
N.	Saturated hydraulic conductivity shall be determined by ASTM F1815.	A.	The OPS mix is comprised of approved topsoil, additional organic amendment, and possibly other soil amendment materials, as determined by the testing laboratory. Each component of the OPS mix must meet the specification and be verified by testing as specified herein, prior to delivery to the site.
O.	Analysis for nutrient levels in parts per millions or pound per acre including Nitrate Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Iron, Manganese, Zinc, Copper, Boron, and Sodium as Exchangeable Sodium Percentage (ESP) per NCR221.	B.	Soil System Components of the OPS mix will not be accepted unless they meet all submittal, testing and certification requirements including the testing and certification reports in the format specified herein.
P.	Soluble salts shall be determined by electrical conductivity of a 1:2 soil/water slurry reported in millimhos per cm.	C.	Inspections and Testing
Q.	Cation Exchange Capacity (CEC) per NCR221 using the ammonium acetate method.	1.	Soil, compost, and other material testing as well as "Soil System Mix" testing required in this Section or additionally required by the Architect shall be furnished and paid for by Contractor.
R.	Soil analysis reports shall also show recommendations for soil additives, including organic and inorganic soil amendments, necessary to accomplish particular mix objectives noted.	2.	The Architect reserves the right to take and analyze at any time such additional samples of materials as deemed necessary for verification of conformance to specification requirements. Contractor shall furnish samples for this purpose upon request and shall perform testing as requested.
S.	Compost Component Testing Submittals	3.	Samples of individual components to the OPS mix shall be submitted by the Contractor for testing and analysis to the approved testing laboratory.
T.	Report(s) of analyses from producers of composted organic materials are required. The compost shall be analyzed using the USCS STA test methods and reporting format, unless otherwise noted. Submit USCS STA Compost Technical Data Sheet for the delivered compost and dated within 9 months of delivery.	4.	When OPS mix components shall not be used until test reports from the approved testing laboratory have been received and approved by the Architect.
U.	1) Contact the testing laboratory to review testing and sampling requirements before sending samples.	A.	OPS mix components shall not be used until test reports from the approved testing laboratory have been received and approved by the Architect.
V.	2) Composted organic amendments shall be sampled according to the Ohio EPA State Law / Legislation Code: OAC Chapter 3745-24-46.	B.	OPS Mix Components and Soil System Mix components that do not meet the Specifications will require the Contractor to re-submit additional samples for testing. Costs for re-testing will be the responsibility of the Contractor.
W.	3) Maintain clear and concise records of testing and sampling procedures.	5.	Observations and periodic testing will be made by the Owner or its designated representative on materials delivered to the site. HSCS Mix not meeting the requirements of the Specifications shall be removed or amended by the Contractor at no cost to the project.
X.	F. Testing Agencies: The following firms are acceptable testing agencies for the various components.	D.	Qualifications:
Y.	1. Soils and mixes shall be determined by an A2LA Accredited Lab, such as Turf Diagnostics and Design, 613 E. 1 st Street, Linwood, KS, 66052, tel. 855-769-4231, www.turfdiag.com or other qualified soil physical testing laboratory approved by the Architect.	1.	Testing Laboratory: Experienced person (s) employed by public or private testing laboratory, qualified and capable of performing tests, making soil recommendations, and issuing reports as specified. The Testing Laboratory shall submit a Statement of Qualifications regarding the specified testing.
Z.	a. Certified Local Agencies may be used pending approval by Architect.	2.	It shall be the responsibility of the Contractor to see that the specifications are being adhered to. Failure of the Architect to immediately reject unsatisfactory workmanship or to notify the Contractor of his/her deviation from the specifications shall not relieve the Contractor of his/her responsibility to repair and/or replace unsatisfactory work.
AA.	2. Although the report(s) may contain the laboratory's comments or recommendations to the Architect regarding amendment requirements or procedures, the report shall not be interpreted as prescribing or dictating procedures or indicating quantities of soil materials for the work of this Contract.	E.	Pre-Installation Conferences: Person(s) responsible for soil preparation and mixes of this Section shall attend Pre-Installation Conference(s) to coordinate with work of other sections.
AB.	3. Changing testing laboratories during the mix development phase or for quality assurance testing must be authorized by the Architect.	1.07 PROJECT CONDITIONS	
AC.	G. Statement(s) of Qualifications: Submit within 45 days of notice to proceed to confirm qualifications of the selected testing agencies.	A.	Investigate the conditions of site and public thoroughfares and roads as to availability, clearances, loads, limits, restrictions, and other limitations affecting transportation to, ingress and egress of this work site. Conform to all governmental regulations regarding the transportation of materials to, from, and at the job site, and secure in advance such permits as may be necessary.
AD.	H. Submit samples of all listed materials to the Architect for approval:	B.	Environmental Requirements for Soils, Soil System Components and Soil System Mixes:
AE.	1. Topsoil, each source, 5 lb, packaged.	1.	Perform both off-site mixing and on-site soil work only during suitable weather conditions. Do not work or place soil when frozen, excessively wet, or dry, or in otherwise unsatisfactory condition.
AF.	TOPSOIL – OPS ORGANIC PLANTING SOIL 32 91 20 - 3	2.	HSCS mixes shall not be handled or hauled during rain or wet weather or when near or above the point where maximum compaction will occur.
AG.		3.	When stockpiling is permitted, the Contractor shall install silt fence around the perimeter of the stockpile area and maintain the silt fence until the stockpile is removed. Planting Soil Mixes shall be kept in neat and separate piles from other excavated material.
AH.		C.	Sequencing and Scheduling: Adjust, relate together and otherwise coordinate work of this Section with other Project work as contained in all other Sections of the Project Specifications.
AI.		1.08 PRODUCT DELIVERY, STORAGE AND HANDLING	
AJ.		A.	Packaged Materials: Deliver packaged materials to the location where soils are to be mixed, in unopened bags or containers, each bearing the name, guarantee, and trademark of the producer, material composition, manufacturer's certified analysis, and the weight or the material. Retain packages for the Architect.
AK.		B.	Store and handle packaged materials in strict compliance with manufacturer's instructions and recommendations. Protect all materials from weather, damage, and theft.
AL.		C.	HSCS mixes or amendment materials stored on site temporarily in stockpiles prior to placement shall be protected from intrusion of contaminants and erosion. All temporary storage means, and methods shall be approved by the Architect.
AM.		D.	After mixing, soil mixes shall be covered with a tarpaulin until time of actual use and protected from contamination, excessive rainfall, excess water entering the site or erosion.
AN.		E.	Stockpiling
AO.		1.	On-site and Certified Mixing Facility stockpiles should be restricted to no more than the needs of what can be used in a 72-hr. period. Under no circumstances shall on-site or off-site stored material exceed 1000 cubic yards.
AP.		2.	Stockpiles should be no more than 6 feet in height to prevent anaerobic conditions within the pile. Stockpiled composts should be turned every other week (unless otherwise instructed by the Architect) to prevent anaerobic conditions, excessive water absorption and anaerobic conditions. Storage areas for topsoil shall be constructed on well drained land, away from the stream.
AP.		3.	Provide certification from the supplier that the sand does not contain any toxic substances harmful to plant growth.
AP.		B.	Base Mix Component
AP.		1.	Off-site (borrow) soils meeting the specifications below may be used as the soil component for the HSCS Base Mix. The source or location of the soil used shall be communicated to the Owner's Representative.
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AP.		2.	It shall be the responsibility of the Contractor to see that the specifications are being adhered to. Failure of the Architect to immediately reject unsatisfactory workmanship or to notify the Contractor of his/her deviation from the specifications shall not relieve the Contractor of his/her responsibility to repair and/or replace unsatisfactory work.
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- Verify plant branching requirements with Architect prior to contract growing.
- Architect will review advance-procured trees prior to initial purchase at the place of growth.
- Coordinate and schedule a review by the Architect of advanced procured plant material at the place of growth prior to delivery to the project site.
- Review and acceptance of the advance-procured plant material at the place of growth does not preclude rejection at the project site if damage or unacceptable conditions are found that were not detected at the place of growth.
- Before changes or substitutions can be considered due to unavailability of plant material, the contractor shall submit written evidence that he has advertised for at least a one-month period in a trade journal such as the "Landscape Materials Information Service", with no response, or has undertaken other methods of locating plant material acceptable to the Architect.
- Plant Material Review and Tagging:
 - Trees will be reviewed, photographed, and tagged using irremovable tags by the Architect at the place of growth prior to delivery to the project site.
 - At the Architect's discretion, shrubs may or may not be reviewed, photographed, and tagged at the place of growth.
 - Tagging of plant material at the place of growth does not preclude rejection of all the project site if damage or unacceptable conditions are found that were not detected at the place of growth or in submitted photographs.

PART 3 - EXECUTION

3.01 EXAMINATION

- Examine areas to receive plants, with Installer present, for compliance with requirements and conditions affecting installation and performance of the Work.
 - Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
 - Verify that plants and vehicles loaded with plants can travel to planting locations with adequate overhead clearance.
 - Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
 - Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
 - Uniformly moisten excessively dry soil that is not workable, or which is dusty.
- If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.
- Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- Protect structures, utilities, sidewalks, pavements, and other facilities and turf areas and existing plants from damage caused by planting operations.
 - Use every possible precaution to prevent excessive compaction of planting area soil within or adjacent to the areas of Work.
 - Do not store materials or equipment or operate or park vehicles under the drip line of existing or newly planted trees. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

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- Maclean PowerSystems
481 Muhn St. Suite 300
Fort Mill, SC 29715.
 - Arbor Stake System: 99.9% biodegradable wooden stake with lock caps.
 - Manufacturer:
Arbor Stakes LLC
www.arborstakes.com
(214) 810-6678.
- LANDSCAPE EDGE RESTRAINTS
 - Steel Edging: Standard commercial-steel edging, fabricated in sections of standard lengths, with logs slamped from or welded to face of sections to receive stakes.
 - Basic of Design: Border Guard
 - Manufacturer:
Border Concepts, Inc.
7621 Little Avenue
Suite 426
Charlotte, NC 28226
Ph. No: 800-845-3343
 - Edging Size: 3/16 inch thick by 4 inches deep.
 - Stakes: Tapered steel, a minimum of 24" long (Super Stakes)
 - Accessories: Standard tapered ends, pre-formed corners, and spacers.
 - Finish: Unfinished.

2.11 TREE-WATERING DEVICES

- Slow-Release Watering Device: Standard product manufactured for drip irrigation of plants and emptying its water contents over an extended time period, manufactured from UV-light-stabilized nylon-reinforced polyethylene sheet, PVC, or HDPE plastic.
 - Color: As selected by Architect from manufacturer's full range.

2.12 MISCELLANEOUS PRODUCTS

- Antidesiccant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Deliver in original, sealed, and fully labeled containers and mix according to manufacturer's written instructions.
- Planter Drainage Gravel: Washed, sound crushed stone or gravel complying with ASTM D 448 for Size No. 8.
- Planter Filter Fabric: Nonwoven geotextile manufactured for separation applications and made of polypropylene, polyolefin, or polyester fibers or combination of them.
- Mycorrhizal Fungi: Dry, granular inoculant containing at least 5300 spores per lb. of vesicular-arbuscular mycorrhizal fungi and 95 million spores per lb. of ectomycorrhizal fungi, 33 percent hygrogel, and a maximum of 5.5 percent inert material.

2.13 SOURCE QUALITY CONTROL

- Advanced Tree Procurement:
 - Within 60 days of award of contract, notify Architect in writing of the availability or lack thereof the specified plant material.
 - Procure trees and arrange for contract growing as required to ensure that plant material is available in the quantities, sizes, and quality specified at the time of installation.

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- Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.
- Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 - Composition: Nitrogen, phosphorous, and potassium in amounts recommended by manufacturer's written instructions.
- Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorous, and potassium in the following composition:
 - Composition: (high phosphorous, low nitrogen ratio)

2.06 MULCHES

- Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
 - Type: Shredded hardwood.
 - Size Range: 3 inches maximum, 1/2 inch minimum.
 - Color: Natural.

2.07 WEED-CONTROL BARRIERS

- Composite Fabric: Woven, needle-punched polypropylene substrate bonded to a nonwoven polypropylene fabric, 4.8 oz./sq. yd.

2.08 PESTICIDES

- General: Pesticide registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
- Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

2.09 TREE-STABILIZATION MATERIALS

- Upright and Guy Stakes: Rough-sawn, sound, new [hardwood [softwood with specified wood pressure-preservative treatment], free of knots, holes, cross grain, and other defects, 2-by-2-inch nominal by length indicated, pointed at one end.
- Guying Material
 - Abortive -- as manufactured by DeepRoot Green Infrastructure LLC.
 - Or approved Equal.
 - Tree-Tie Webbing: UV-resistant polypropylene or nylon webbing with brass grommets.
- Flags: Standard surveyor's plastic flagging tape, white, 6 inches long.
- Below Grade - Root-Ball Stabilization Materials:
 - Proprietary at or below-grade stabilization systems to secure each new planting by root ball and that do not encircle the trunk, sized according to manufacturer's written recommendations unless otherwise indicated.
 - Tree Anchor System: Model 68RBL Duckbill Earth Anchors
 - Manufacturer:

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- When the work is accepted in parts, the warranty periods shall extend from each of the partial Substantial Completion Acceptances to the terminal date of the final warranty period. Thus, all warranty periods for each class of plant warranty, shall terminate at one time.
- Immediately remove dead plants and replace unless required in the plant succeeding planting season.
 - Replace plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
 - A limit of one replacement of each plant is required except for losses or replacements due to failure to comply with requirements.
 - Provide extended warranty for period equal to original warranty period, for replaced plant material.
- End of Warranty Final Acceptance - Acceptance of plants at the end of the warranty period.
 - At the end of the warranty period, the Architect shall observe all warranted work, upon written request of the Contractor. The request shall be received at least ten calendar days before the anticipated date for final observation.
 - End of Warranty Final Acceptance will be given only when all the requirements of the work under this specification and in specification sections Planting Soil and Irrigation have been met.

2.02 SHADE AND FLOWERING TREES

- Shade Trees: Single-stem trees with straight trunk, well-balanced crown, and intact leader, of height and caliper indicated, complying with ANSI Z60.1 for type of trees required.
 - Provide balled and burlapped or container-grown trees.
 - Street Trees: Street trees must be limited to 8 feet minimum.
 - Forked Trunks on trees are not acceptable; each tree must have one string central leader.
- Small Upright and Spreading Trees: Branched or pruned naturally according to species and type, with relationship of caliper, height, and branching according to ANSI Z60.1; stem form as follows:
 - Stem Form: Single stem.
 - Multi-Stem: Unless noted otherwise, tree shall have 3-5 trunks forked at or above root fair collar. Overall height determines size of tree.
 - Provide balled and burlapped trees.
 - Forked Trunks on trees are not acceptable; each tree must have one string central leader.

2.03 SHRUBS

- Form and Size: Deciduous shrubs with not less than the minimum number of canes required by and measured according to ANSI Z60.1 for type, shape, and height of shrub.
 - Provide balled and burlapped or container-grown shrubs.
- GROUND COVER / PERENNIAL / ANNUAL PLANTS
 - Ground Covers / Perennials: Provide ground cover of species indicated, established, and well rooted in pots or similar containers and complying with ANSI Z60.1, Sections 1 and 13 apply.
 - Annuaals and Biennials: Provide healthy, disease-free plants of species and variety shown or listed, with well-established root systems reaching to sides of the container to maintain a firm ball, but not with excessive root growth encircling the container. Provide only plants that are acclimated to outdoor conditions before delivery, and that are in bud but not yet in bloom.

2.04 FERTILIZERS

- Refer to Soil Mix specifications test results and Final Grading for soil amendments.
- Bonemeal: Commercial, raw, or steamed, finely ground, a minimum of 1 percent nitrogen and 10 percent phosphoric acid.

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- Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain Architect's acceptance of layout before excavating or planting. Make minor adjustments as required.
- Lay out plants at locations directed by Architect. Stake locations of individual trees and shrubs and outline areas for multiple plantings.
- Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks (before wrapping), branches, stems, twigs, and foliage to protect during digging, handling, and transportation.
 - If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after planting.
- Wrap trees and shrubs with burlap fabric over trunks, branches, stems, twigs, and foliage to protect from wind and other damage during digging, handling, and transportation.

PART 2 - PRODUCTS

2.01 PLANT MATERIAL

- General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, sizes, grades, and ball or container sizes and other features indicated in Plant List, Plant Schedule, or Plant Legend indicated on Drawings and complying with ANSI Z60.1, and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and discoloration.
 - Growing Practices: Nursery grown in accordance with best horticultural industry practices.
 - Nomenclature: Plant nomenclature shall meet requirements of ICBN and ICNCP.
 - Climatic Growing Conditions: Grown under climatic conditions (same USDA hardiness zone) of the like those of the project and within 150 miles of the project site for at least two years unless otherwise accepted by Architect.
 - Container Growth Limitations: Container stock shall have been grown in the containers in which delivered for at least six months, but not over two years.
 - Specimen Quality: Structurally strong, able to stand upright without stakes or guys, exceptionally heavy, symmetrical, tightly knit, so trained, or favored in development and appearance as to be superior in form, number or branches, compactness, and symmetry.
 - Trees with damaged, crooked, or multiple leaders; light vertical branches where bark is squeezed between two branches or between branch and trunk ("included bark"); crossing trunks; cut-off limbs more than 3/4 inch in diameter; or with stem grinding roots will be rejected.
 - Collected Stock: Do not use plants harvested from the wild, from native stands, from an established landscape planting, or not grown in a nursery unless otherwise indicated.
 - Pruning: Do not prune, thin, or shape plants before delivery without acceptance by the Architect.
- Substitutions: Accepted substitute plants shall be true to species and variety and shall meet requirements of this Section except those plants larger than specified may be used, if accepted in

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- Hardpan Layer: Drill 6-inch-diameter holes, 24 inches apart, into free-draining strata or to a depth of 10 feet, whichever is less, and backfill with free-draining material.
- Test fill each tree and planting pit with water, prior to planting to assure proper soil percolation. Pits which do not adequately drain shall be further scarified along outer edges and sides of pit. Do not disturb area supporting true ball. Repeat test.
- Notify Architect and Owner should 2nd fill test fail for additional input and corrective action.
- No allowances shall be made for plant material loss due to improper drainage or if contractor fails to perform fill test. Contractor shall replace lost plant material with same size and species at no additional cost to the owner.
- Drainage: Notify Architect if subsol conditions evidence unexpected water seepage or retention in tree or shrub planting pits.
- Fill excavations with water and allow to percolate away before positioning trees and shrubs.

3.05 TREE, SHRUB, AND VINE PLANTING

- General: Install plant material in accordance with detailed drawings and recommendations of ANLA.
- Inspection: At time of planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.
- Root Pruning:
 - If stem grinding roots are encountered at root ball sides, notify the Architect for field review.
 - Upon Architect's acceptance, remove stem grinding roots and kninked roots by cutting cleanly; do not break. Cut roots on 4 sides of root ball 90 degrees to root ball.
- Root Ball Scarification:
 - After removing plant from container, scarify side of root ball to prevent root-bound condition.
 - Loosen root ball soil surface to depth of 1/8 inch to 1/4 inch without damaging roots or breaking root ball.
- Balled and Burlapped Stock: Set each plant plumb and in center of planting bed or trench with root flare 2 inches above adjacent finish grades.
 - Backfill: Planting soil mix as specified on drawings.
 - After placing some backfill around root ball to stabilize plant, carefully cut and remove upper 1/3 burlap (ANSI A300 - Part 6), rope, and wire baskets from top of root balls and trim sides, but do not remove from under root balls. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.
- Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
- Continue backfilling process. Water again after placing and tamping final layer of soil.
- Container-Grown Stock and Perennials in Containers: Set each plant plumb and in center of planting bed or trench.
 - Container Stock greater than 1 gallon container, place root flare 1 to 2 inches above finish grade.
 - Perennials or plant stock in 1 gallon and less containers, place top of root ball 1 inch above finish grade.
 - Backfill: Planting soil mix as specified on drawings.
 - Carefully remove root ball from container without damaging root ball or plant.

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- Hardpan Layer: Drill 6-inch-diameter holes, 24 inches apart, into free-draining strata or to a depth of 10 feet, whichever is less, and backfill with free-draining material.
- Test fill each tree and planting pit with water, prior to planting to assure proper soil percolation. Pits which do not adequately drain shall be further scarified along outer edges and sides of pit. Do not disturb area supporting true ball. Repeat test.
- Notify Architect and Owner should 2nd fill test fail for additional input and corrective action.
- No allowances shall be made for plant material loss due to improper drainage or if contractor fails to perform fill test. Contractor shall replace lost plant material with same size and species at no additional cost to the owner.
- Drainage: Notify Architect if subsol conditions evidence unexpected water seepage or retention in tree or shrub planting pits.
- Fill excavations with water and allow to percolate away before positioning trees and shrubs.

3.18 SUBSTANTIAL COMPLETION ACCEPTANCE

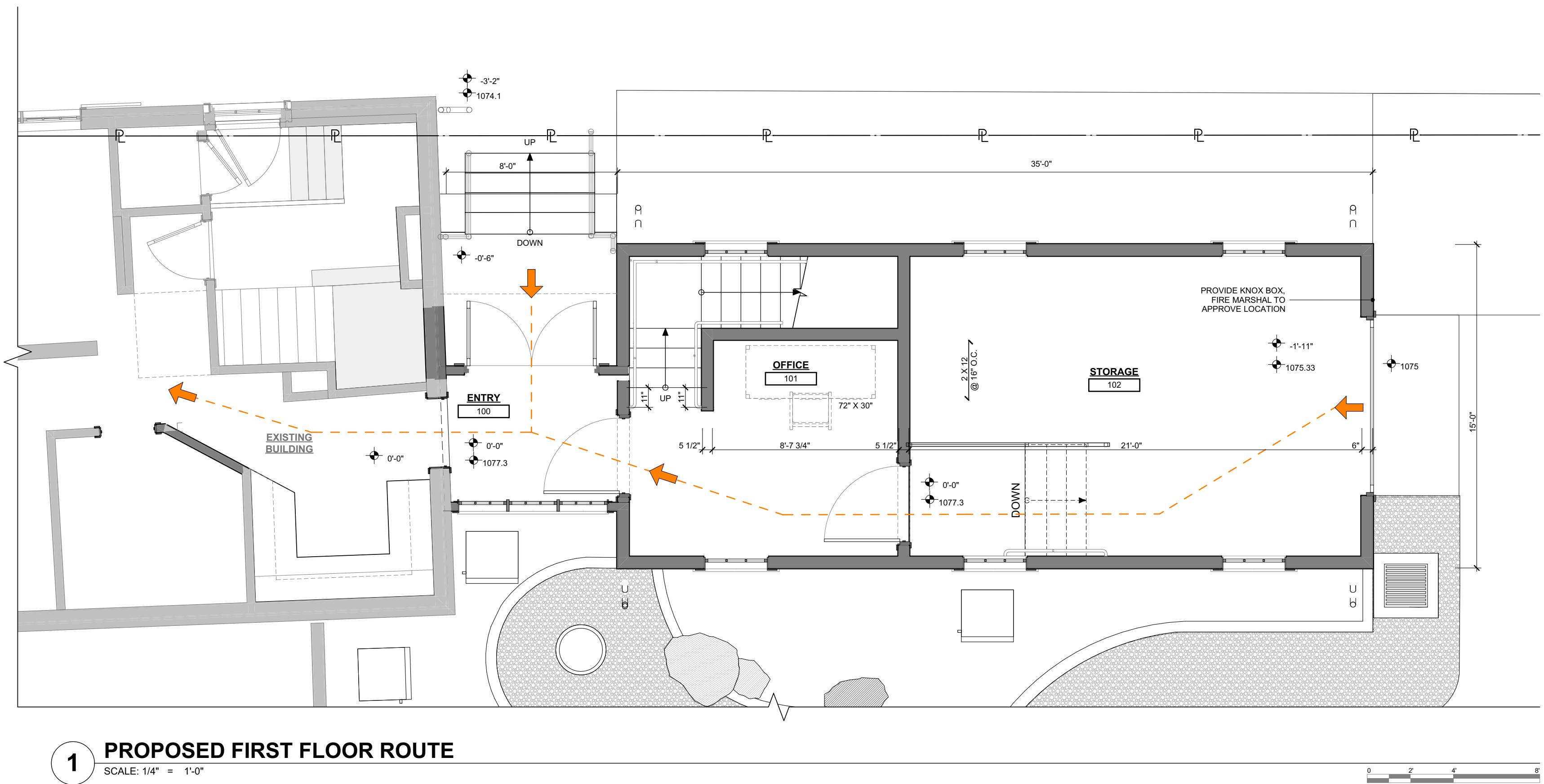
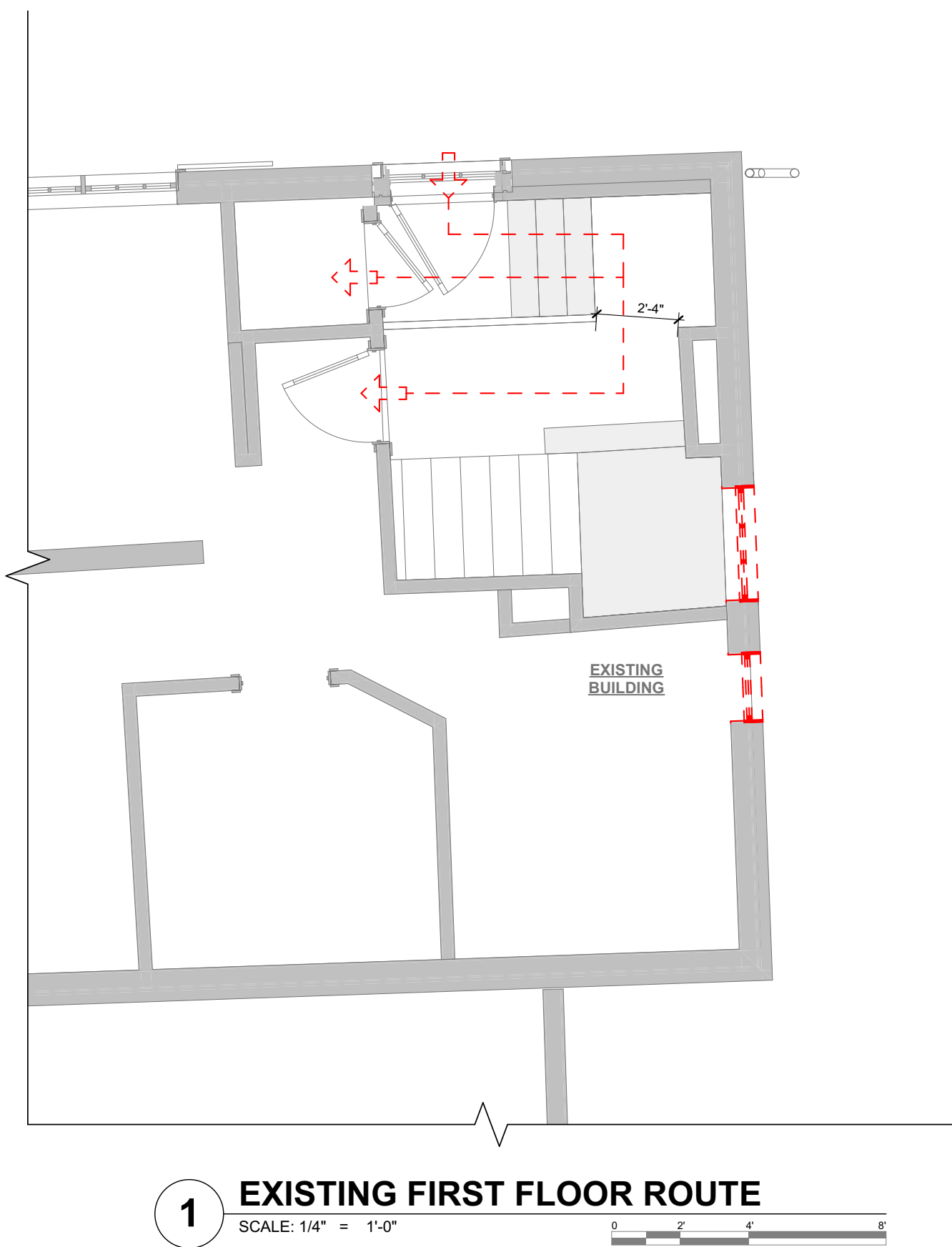
- Upon written notice from the Contractor, the Owners Representative shall review the work and decide if the work is substantially complete.
 - Notification shall be at least 7 days prior to the date the contractor is requesting the review.
- The date of substantial completion of the planting shall be the date when the Architect accepts that all work in Planting, Planting Soil, and Irrigation installation sections is complete.
- The Plant Warranty period begins at date of written notification of substantial completion from the Architect. The date of substantial completion may be different than the date of substantial completion for the other sections of the project.

3.19 MAINTENANCE DURING THE WARRANTY PERIOD (by Client / Others)

- After Substantial Completion Acceptance, the Contractor shall make sufficient site visits to observe the Owner's maintenance and become aware of problems with the maintenance in time to request changes, until the date of End of Warranty Final Acceptance.
 - Notify the Architect in writing if maintenance, including watering, is not sufficient to maintain plants in a healthy condition. Such notification must be made in a timely period so that the Architect may take corrective action.
 - Notification must define the maintenance needs and describe any corrective action required.
 - If the Contractor fails to visit the site and or notify, in writing, the Architect of maintenance needs, lack of maintenance shall not be used as grounds for voiding or modifying the provisions of the warranty.
- END OF WARRANTY FINAL ACCEPTANCE / MAINTENANCE OBSERVATION
 - At the end of the Warranty and Maintenance period the Architect shall observe the work and establish that all provisions of the contract are complete, and the work is satisfactory.
 - If the work is satisfactory, the maintenance period will end on the date of the final observation.
 - If the work is deemed unsatisfactory, the maintenance period will continue at no additional expense to the Owner until the work has been completed, observed, and approved by the Architect.
 - FAILURE TO PASS OBSERVATION: If the work fails to pass final observation, any subsequent observations must be re-scheduled as per above. The cost to the Owner for additional observations will be charged to the Contractor at the prevailing hourly rate of the Owners Representative.

END OF SECTION 32 93 00

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FLOOR PLAN GENERAL NOTES

VERIFY DIMENSIONS AND CONDITIONS IN FIELD. WHEN DIMENSIONS AND/OR CONDITIONS AS INDICATED ON DRAWINGS CONFLICT WITH ACTUAL, CONTACT ARCHITECT FOR CLARIFICATION.

PROVIDE SOUND DEADENING INSULATION AROUND BEDROOMS, BATHROOMS, MECHANICAL ROOMS, AND PLUMBING STACKS.

BLOCK WEBS SOLD AT BEARING WALL LOCATIONS ABOVE.

CONTRACTOR TO EXTEND ALL FIRSTS DOWN TO SOUND FOUNDATION. INSTALL FULL DEPTH SOLID BLOCKING AT ALL POINT LOAD LOCATIONS.

ALL FOOTINGS TO EXTEND DOWN TO FROST LEVEL MIN.

COORDINATE EXACT LOCATIONS OF FLOOR DRAIN WITH MECH CONTRACTOR.

PROVIDE 5/8" GYP BOARD TYPE "X" ON GARAGE CEILINGS.

ALL INTERIOR DOORS TO BE 1 7/8" SOLID CORE WOOD DOORS.

COORDINATE WITH FINISH PLANS FOR FINAL FINISH SELECTIONS.

ALL INTERIOR TRIM TO BE POPLAR OR APPROVED EQUAL.

COORDINATE WITH INTERIOR ELEVATIONS AND MILLWORK DRAWINGS FOR SELECT TYPES AND PROFILES.

ALL MILLWORK TO BE CUSTOM PER DRAWINGS.

REFER TO CONSULTANT DRAWINGS IF APPLICABLE FOR COORDINATION OF WORK BETWEEN TRADES.

FLOOR TRUSS CRITERIA

TCDL = 30 PSF

BDCL = 10 PSF

NET UPLIFT = 15 PSF

180° APART EXPOSURE 1 OSB

ROOF TRUSS CRITERIA

TCDL = 25 PSF

BDCL = 10 PSF

NET UPLIFT = 10 PSF

ATTIC CLL = 40 PSF

UTL = 5,000 LBS

USE (2) SIMPSON SWD015000 SCREWS AT TRUSS BRG

WOOD HEADERS (UN.O.)

OSBEARING HEADERS NON BEARING BEARING

UP TO 4'-0" (2) 2 X 6 1 JACK, 1 KING 1 JACK, 1 KING

4'-0" - 6'-0" (2) 2 X 10 1 JACK, 1 KING 2 JACK, 1 KING

6'-0" - 8'-0" (2) 2 X 12 1 JACK, 1 KING 2 JACK, 1 KING

8'-0" - 10'-0" (2) 2 X 14 1 JACK, 1 KING 2 JACK, 1 KING

10'-0" - 12'-0" (2) 2 X 16 1 JACK, 1 KING 2 JACK, 1 KING

12'-0" - 14'-0" (2) 2 X 18 1 JACK, 1 KING 2 JACK, 1 KING

14'-0" - 16'-0" (2) 2 X 20 1 JACK, 1 KING 2 JACK, 1 KING

16'-0" - 18'-0" (2) 2 X 22 1 JACK, 1 KING 2 JACK, 1 KING

18'-0" - 20'-0" (2) 2 X 24 1 JACK, 1 KING 2 JACK, 1 KING

20'-0" - 22'-0" (2) 2 X 26 1 JACK, 1 KING 2 JACK, 1 KING

22'-0" - 24'-0" (2) 2 X 28 1 JACK, 1 KING 2 JACK, 1 KING

24'-0" - 26'-0" (2) 2 X 30 1 JACK, 1 KING 2 JACK, 1 KING

26'-0" - 28'-0" (2) 2 X 32 1 JACK, 1 KING 2 JACK, 1 KING

28'-0" - 30'-0" (2) 2 X 34 1 JACK, 1 KING 2 JACK, 1 KING

30'-0" - 32'-0" (2) 2 X 36 1 JACK, 1 KING 2 JACK, 1 KING

32'-0" - 34'-0" (2) 2 X 38 1 JACK, 1 KING 2 JACK, 1 KING

34'-0" - 36'-0" (2) 2 X 40 1 JACK, 1 KING 2 JACK, 1 KING

36'-0" - 38'-0" (2) 2 X 42 1 JACK, 1 KING 2 JACK, 1 KING

38'-0" - 40'-0" (2) 2 X 44 1 JACK, 1 KING 2 JACK, 1 KING

40'-0" - 42'-0" (2) 2 X 46 1 JACK, 1 KING 2 JACK, 1 KING

42'-0" - 44'-0" (2) 2 X 48 1 JACK, 1 KING 2 JACK, 1 KING

44'-0" - 46'-0" (2) 2 X 50 1 JACK, 1 KING 2 JACK, 1 KING

46'-0" - 48'-0" (2) 2 X 52 1 JACK, 1 KING 2 JACK, 1 KING

48'-0" - 50'-0" (2) 2 X 54 1 JACK, 1 KING 2 JACK, 1 KING

50'-0" - 52'-0" (2) 2 X 56 1 JACK, 1 KING 2 JACK, 1 KING

52'-0" - 54'-0" (2) 2 X 58 1 JACK, 1 KING 2 JACK, 1 KING

54'-0" - 56'-0" (2) 2 X 60 1 JACK, 1 KING 2 JACK, 1 KING

56'-0" - 58'-0" (2) 2 X 62 1 JACK, 1 KING 2 JACK, 1 KING

58'-0" - 60'-0" (2) 2 X 64 1 JACK, 1 KING 2 JACK, 1 KING

60'-0" - 62'-0" (2) 2 X 66 1 JACK, 1 KING 2 JACK, 1 KING

62'-0" - 64'-0" (2) 2 X 68 1 JACK, 1 KING 2 JACK, 1 KING

64'-0" - 66'-0" (2) 2 X 70 1 JACK, 1 KING 2 JACK, 1 KING

66'-0" - 68'-0" (2) 2 X 72 1 JACK, 1 KING 2 JACK, 1 KING

68'-0" - 70'-0" (2) 2 X 74 1 JACK, 1 KING 2 JACK, 1 KING

70'-0" - 72'-0" (2) 2 X 76 1 JACK, 1 KING 2 JACK, 1 KING

72'-0" - 74'-0" (2) 2 X 78 1 JACK, 1 KING 2 JACK, 1 KING

74'-0" - 76'-0" (2) 2 X 80 1 JACK, 1 KING 2 JACK, 1 KING

76'-0" - 78'-0" (2) 2 X 82 1 JACK, 1 KING 2 JACK, 1 KING

78'-0" - 80'-0" (2) 2 X 84 1 JACK, 1 KING 2 JACK, 1 KING

80'-0" - 82'-0" (2) 2 X 86 1 JACK, 1 KING 2 JACK, 1 KING

82'-0" - 84'-0" (2) 2 X 88 1 JACK, 1 KING 2 JACK, 1 KING

84'-0" - 86'-0" (2) 2 X 90 1 JACK, 1 KING 2 JACK, 1 KING

86'-0" - 88'-0" (2) 2 X 92 1 JACK, 1 KING 2 JACK, 1 KING

88'-0" - 90'-0" (2) 2 X 94 1 JACK, 1 KING 2 JACK, 1 KING

90'-0" - 92'-0" (2) 2 X 96 1 JACK, 1 KING 2 JACK, 1 KING

92'-0" - 94'-0" (2) 2 X 98 1 JACK, 1 KING 2 JACK, 1 KING

94'-0" - 96'-0" (2) 2 X 100 1 JACK, 1 KING 2 JACK, 1 KING

96'-0" - 98'-0" (2) 2 X 102 1 JACK, 1 KING 2 JACK, 1 KING

98'-0" - 100'-0" (2) 2 X 104 1 JACK, 1 KING 2 JACK, 1 KING

100'-0" - 102'-0" (2) 2 X 106 1 JACK, 1 KING 2 JACK, 1 KING

102'-0" - 104'-0" (2) 2 X 108 1 JACK, 1 KING 2 JACK, 1 KING

104'-0" - 106'-0" (2) 2 X 110 1 JACK, 1 KING 2 JACK, 1 KING

106'-0" - 108'-0" (2) 2 X 112 1 JACK, 1 KING 2 JACK, 1 KING

108'-0" - 110'-0" (2) 2 X 114 1 JACK, 1 KING 2 JACK, 1 KING

110'-0" - 112'-0" (2) 2 X 116 1 JACK, 1 KING 2 JACK, 1 KING

112'-0" - 114'-0" (2) 2 X 118 1 JACK, 1 KING 2 JACK, 1 KING

114'-0" - 116'-0" (2) 2 X 120 1 JACK, 1 KING 2 JACK, 1 KING

116'-0" - 118'-0" (2) 2 X 122 1 JACK, 1 KING 2 JACK, 1 KING

118'-0" - 120'-0" (2) 2 X 124 1 JACK, 1 KING 2 JACK, 1 KING

120'-0" - 122'-0" (2) 2 X 126 1 JACK, 1 KING 2 JACK, 1 KING

122'-0" - 124'-0" (2) 2 X 128 1 JACK, 1 KING 2 JACK, 1 KING

124'-0" - 126'-0" (2) 2 X 130 1 JACK, 1 KING 2 JACK, 1 KING

126'-0" - 128'-0" (2) 2 X 132 1 JACK, 1 KING 2 JACK, 1 KING

128'-0" - 130'-0" (2) 2 X 134 1 JACK, 1 KING 2 JACK, 1 KING

130'-0" - 132'-0" (2) 2 X 136 1 JACK, 1 KING 2 JACK, 1 KING

132'-0" - 134'-0" (2) 2 X 138 1 JACK, 1 KING 2 JACK, 1 KING

134'-0" - 136'-0" (2) 2 X 140 1 JACK, 1 KING 2 JACK, 1 KING

136'-0" - 138'-0" (2) 2 X 142 1 JACK, 1 KING 2 JACK, 1 KING

138'-0" - 140'-0" (2) 2 X 144 1 JACK, 1 KING 2 JACK, 1 KING

140'-0" - 142'-0" (2) 2 X 146 1 JACK, 1 KING 2 JACK, 1 KING

142'-0" - 144'-0" (2) 2 X 148 1 JACK, 1 KING 2 JACK, 1 KING

144'-0" - 146'-0" (2) 2 X 150 1 JACK, 1 KING 2 JACK, 1 KING

146'-0" - 148'-0" (2) 2 X 152 1 JACK, 1 KING 2 JACK, 1 KING

148'-0" - 150'-0" (2) 2 X 154 1 JACK, 1 KING 2 JACK, 1 KING

150'-0" - 152'-0" (2) 2 X 156 1 JACK, 1 KING 2 JACK, 1 KING

152'-0" - 154'-0" (2) 2 X 158 1 JACK, 1 KING 2 JACK, 1 KING

154'-0" - 156'-0" (2) 2 X 160 1 JACK, 1 KING 2 JACK, 1 KING

156'-0" - 158'-0" (2) 2 X 162 1 JACK, 1 KING 2 JACK, 1 KING

158'-0" - 160'-0" (2) 2 X 164 1 JACK, 1 KING 2 JACK, 1 KING

160'-0" - 162'-0" (2) 2 X 166 1 JACK, 1 KING 2 JACK, 1 KING

162'-0" - 164'-0" (2) 2 X 168 1 JACK, 1 KING 2 JACK, 1 KING

164'-0" - 166'-0" (2) 2 X 170 1 JACK, 1 KING 2 JACK, 1 KING

166'-0" - 168'-0" (2) 2 X 172 1 JACK, 1 KING 2 JACK, 1 KING

168'-0" - 170'-0" (2) 2 X 174 1 JACK, 1 KING 2 JACK, 1 KING

170'-0" - 172'-0" (2) 2 X 176 1 JACK, 1 KING 2 JACK, 1 KING

172'-0" - 174'-0" (2) 2 X 178 1 JACK, 1 KING 2 JACK, 1 KING

174'-0" - 176'-0" (2) 2 X 180 1 JACK, 1 KING 2 JACK, 1 KING

176'-0" - 178'-0" (2) 2 X 182 1 JACK, 1 KING 2 JACK, 1 KING

178'-0" - 180'-0" (2) 2 X 184 1 JACK, 1 KING 2 JACK, 1 KING

180'-0" - 182'-0" (2) 2 X 186 1 JACK, 1 KING 2 JACK, 1 KING

182'-0" - 184'-0" (2) 2 X 188 1 JACK, 1 KING 2 JACK, 1 KING

184'-0" - 186'-0" (2) 2 X 190 1 JACK, 1 KING 2 JACK, 1 KING

186'-0" - 188'-0" (2) 2 X 192 1 JACK, 1 KING 2 JACK, 1 KING

188'-0" - 190'-0" (2) 2 X 194 1 JACK, 1 KING 2 JACK, 1 KING

190'-0" - 192'-0" (2) 2 X 196 1 JACK, 1 KING 2 JACK, 1 KING

192'-0" - 194'-0" (2) 2 X 198 1 JACK, 1 KING 2 JACK, 1 KING

194'-0" - 196'-0" (2) 2 X 200 1 JACK, 1 KING 2 JACK, 1 KING

196'-0" - 198'-0" (2) 2 X 202 1 JACK, 1 KING 2 JACK, 1 KING

198'-0" - 200'-0" (2) 2 X 204 1 JACK, 1 KING 2 JACK, 1 KING

200'-0" - 202'-0" (2) 2 X 206 1 JACK, 1 KING 2 JACK, 1 KING

202'-0" - 204'-0" (2) 2 X 208 1 JACK, 1 KING 2 JACK, 1 KING

204'-0" - 206'-0" (2) 2 X 210 1 JACK, 1 KING 2 JACK, 1 KING

206'-0" - 208'-0" (2) 2 X 212 1 JACK, 1 KING 2 JACK, 1 KING

208'-0" - 210'-0" (2) 2 X 214 1 JACK, 1 KING 2 JACK, 1 KING

210'-0" - 212'-0" (2) 2 X 216 1 JACK, 1 KING 2 JACK, 1 KING

212'-0" - 214'-0" (2) 2 X 218 1 JACK, 1 KING 2 JACK, 1 KING

214'-0" - 216'-0" (2) 2 X 220 1 JACK, 1 KING 2 JACK, 1 KING

216'-0" - 218'-0" (2) 2 X 222 1 JACK, 1 KING 2 JACK, 1 KING

218'-0" - 220'-0" (2) 2 X 224 1 JACK, 1 KING 2 JACK, 1 KING

220'-0" - 222'-0" (2) 2 X 226 1 JACK, 1 KING 2 JACK, 1 KING

222'-0" - 224'-0" (2) 2 X 228 1 JACK, 1 KING 2 JACK, 1 KING

224'-0" - 226'-0" (2) 2 X 230 1 JACK, 1 KING 2 JACK, 1 KING

226'-0" - 228'-0" (2) 2 X 232 1 JACK, 1 KING 2 JACK, 1 KING

228'-0" - 230'-0" (2) 2 X 234 1 JACK, 1 KING 2 JACK, 1 KING

230'-0" - 232'-0" (2) 2 X 236 1 JACK, 1 KING 2 JACK, 1 KING

232'-0" - 234'-0" (2) 2 X 238 1 JACK, 1 KING 2 JACK, 1 KING

234'-0" - 236'-0" (2) 2 X 240 1 JACK, 1 KING 2 JACK, 1 KING

236'-0" - 238'-0" (2) 2 X 242 1 JACK, 1 KING 2 JACK, 1 KING

238'-0" - 240'-0" (2) 2 X 244 1 JACK, 1 KING 2 JACK, 1 KING

240'-0" - 242'-0" (2) 2 X 246 1 JACK, 1 KING 2 JACK, 1 KING

242'-0" - 244'-0" (2) 2 X 248 1 JACK, 1 KING 2 JACK, 1 KING

244'-0" - 246'-0" (2) 2 X 250 1 JACK, 1 KING 2 JACK, 1 KING

246'-0" - 248'-0" (2) 2 X 252 1 JACK, 1 KING 2 JACK, 1 KING

248'-0" - 250'-0" (2) 2 X 254 1 JACK, 1 KING 2 JACK, 1 KING

250'-0" - 252'-0" (2) 2 X 256 1 JACK, 1 KING 2 JACK, 1 KING

252'-0" - 254'-0" (2) 2 X 258 1 JACK, 1 KING 2 JACK, 1 KING

254'-0" - 256'-0" (2) 2 X 260 1 JACK, 1 KING 2 JACK, 1 KING

256'-0" - 258'-0" (2) 2 X 262 1 JACK, 1 KING 2 JACK, 1 KING

258'-0" - 260'-0" (2) 2 X 264 1 JACK, 1 KING 2 JACK, 1 KING

260'-0" - 262'-0" (2) 2 X 266 1 JACK, 1 KING 2 JACK, 1 KING

262'-0" - 264'-0" (2) 2 X 268 1 JACK, 1 KING 2 JACK, 1 KING

264'-0" - 266'-0" (2) 2 X 270 1 JACK, 1 KING 2 JACK, 1 KING

266'-0" - 268'-0" (2) 2 X 272 1 JACK, 1 KING 2 JACK, 1 KING

268'-0" - 270'-0" (2) 2 X 274 1 JACK, 1 KING 2 JACK, 1 KING

270'-0" - 272'-0" (2) 2 X 276 1 JACK, 1 KING 2 JACK, 1 KING

272'-0" - 274'-0" (2) 2 X 278 1 JACK, 1 KING 2 JACK, 1 KING

274'-0" - 276'-0" (2) 2 X 280 1 JACK, 1 KING 2 JACK, 1 KING

276'-0" - 278'-0" (2) 2 X 282 1 JACK, 1 KING 2 JACK, 1 KING

278'-0" - 280'-0" (2) 2 X 284 1 JACK, 1 KING 2 JACK, 1 KING

280'-0" - 282'-0" (2) 2 X 286 1 JACK, 1 KING 2 JACK, 1 KING

MATERIAL SCHEDULE

ALL MATERIAL ASSEMBLIES LISTED BELOW TO OCCUR OVER THE FOLLOWING UNLESS NOTED OTHERWISE:

W/ WEATHER BARRIER
O 7/16" EXTERIOR GRADE OSB SHEATHING
O 2X STUDS

STONE VENEER (ST-1)
STONE SILL

SIDING (S-1)
HORIZONTAL SIDING

SIDING (S-2)
4" BRICK VENEER W/ MASONRY TIES. BRICK TO BE PAINTED TO MATCH EXISTING BUILDINGS BROWN PAINT

ASPHALT SHINGLE ROOF (R-1)
30 YEAR ARCHITECTURAL SHINGLE

O MANUFACTURER'S RECOMMENDED UNDERLAYMENT
O 1/2" APA RATED EXTERIOR GRADE SHEATHING. ICE GUARD SHOULD BE INSTALLED AT ALL EAVES AND VALLEYS, UP 27" AND WRAPPED OVER THE FACE OF ALL FASCIAS.

GUTTERS
6" HALF ROUND W/ ROUND DOWNSPOUTS

EXTERIOR ELEVATION GENERAL NOTES

ROOF SOFFITS TO BE AG PLYWOOD WITH A CONTINUOUS LINEAR VENT UNLESS NOTED OTHERWISE

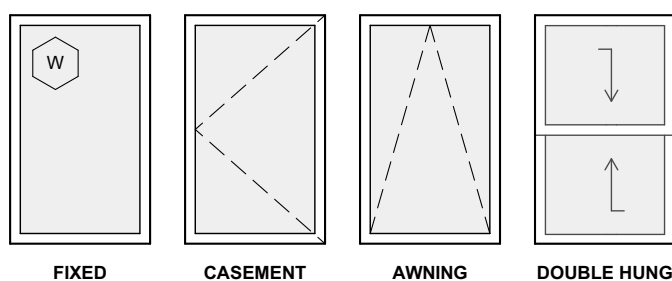
ALL FIBER CEMENT EXTERIOR TRIM TO BE AZEK OR BORAL, PAINTED, OR APPROVED EQUAL

ALL EXPOSED WOOD ELEMENTS AND TONGUE AND GROOVE CEILINGS IS TO BE DOUG FIR, STAINED AND SEALED. COORDINATE FINAL COLOR WITH ARCHITECT AND OWNER

ALL ROOF PENETRATIONS TO BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLTION TO ENSURE AESTHETIC EXPECTATIONS ARE MAINTAINED.

GUTTER PROFILES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING
SAFETY GLAZING TO BE IN ACCORDANCE WITH THE 2019 RESIDENTIAL CODE OF OHIO (SECTION R308)

WINDOW LEGEND



BASIS OF DESIGN:

ALL WINDOWS ARE TO BE PELLA RESERVE - TRADITIONAL DOUBLE HUNG - OR APPROVED EQUAL

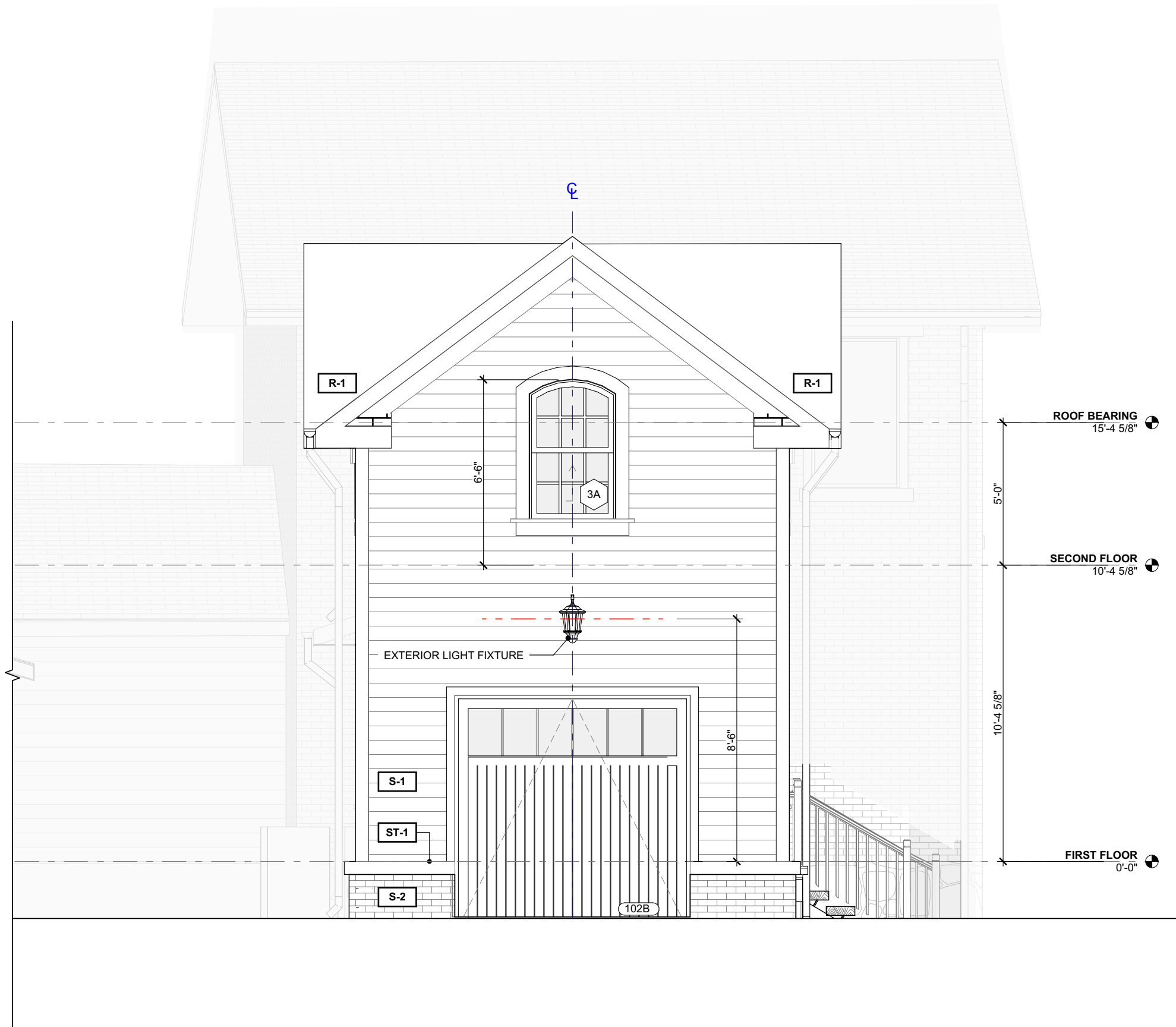
WINDOW HEAD GIVEN ABOVE FIRST AND SECOND FLOOR, CONFIRM WINDOW QUANTITIES WITH ELEVATIONS

* WINDOW COUNT PROVIDED FOR GENERAL REFERENCE AND VERIFICATION ONLY. CONTRACTOR TO VERIFY TOTAL NUMBER OF WINDOWS WITH DOCUMENTS.

WINDOW SCHEDULE			
ID	W x H	OPERATION	REMARKS
1A	3'-0" x 5'-0"	DOUBLE HUNG	---
2A	3'-0" x 4'-0"	FIXED	---
3A	3'-0" x 5'-0"	DOUBLE HUNG	ARCHED WINDOW
4A	2'-4" x 10'-10"	DOUBLE HUNG	---



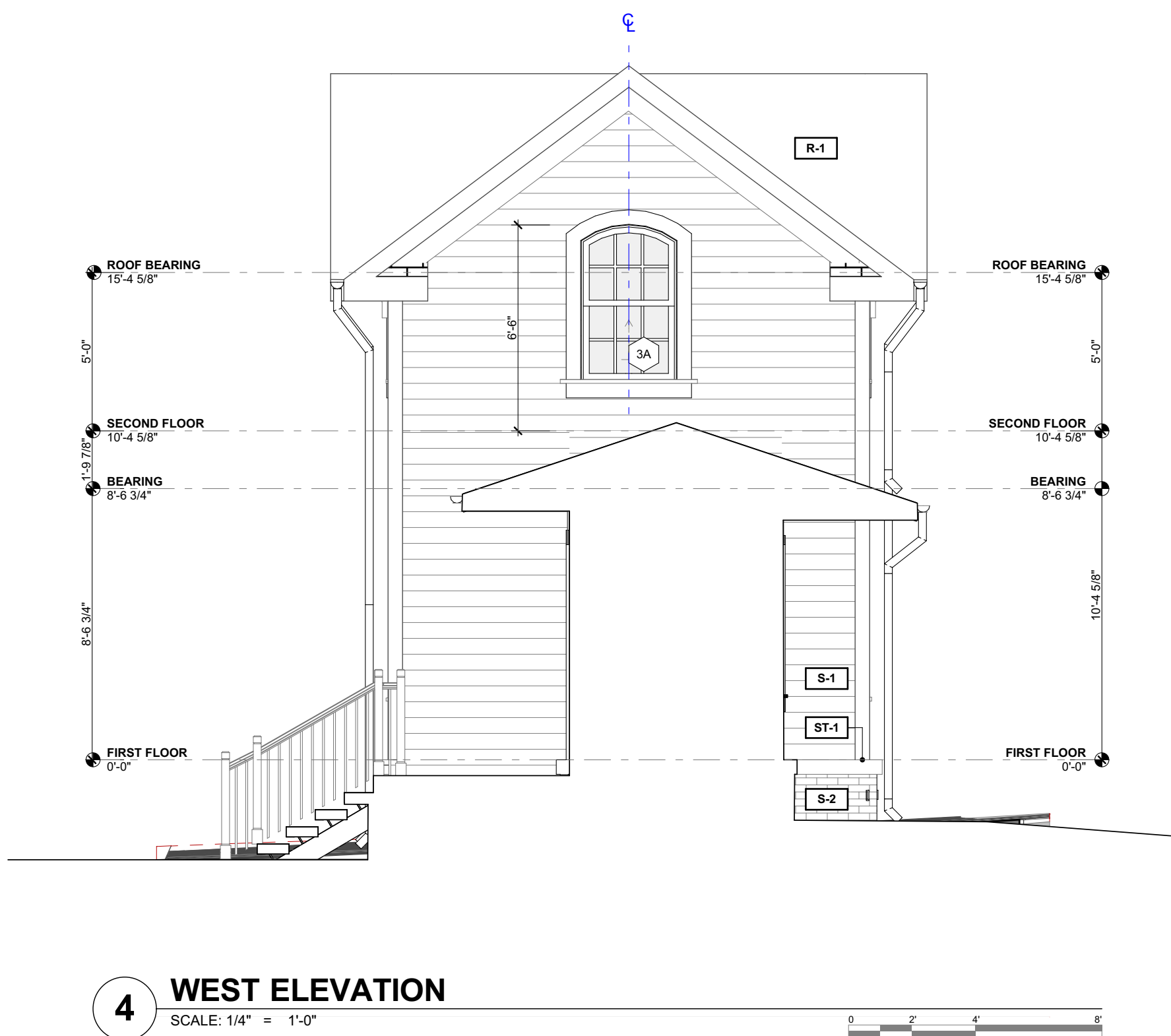
1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



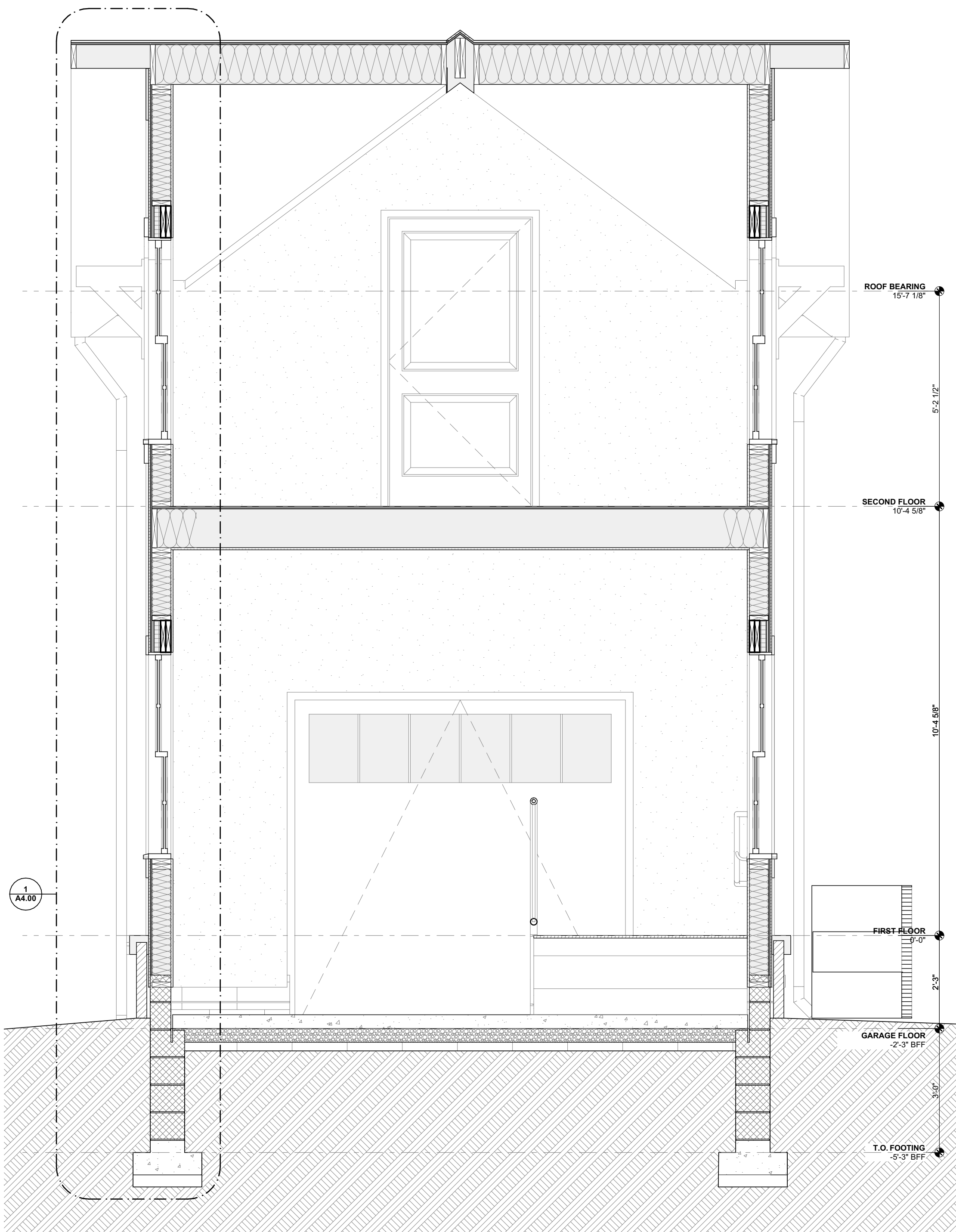
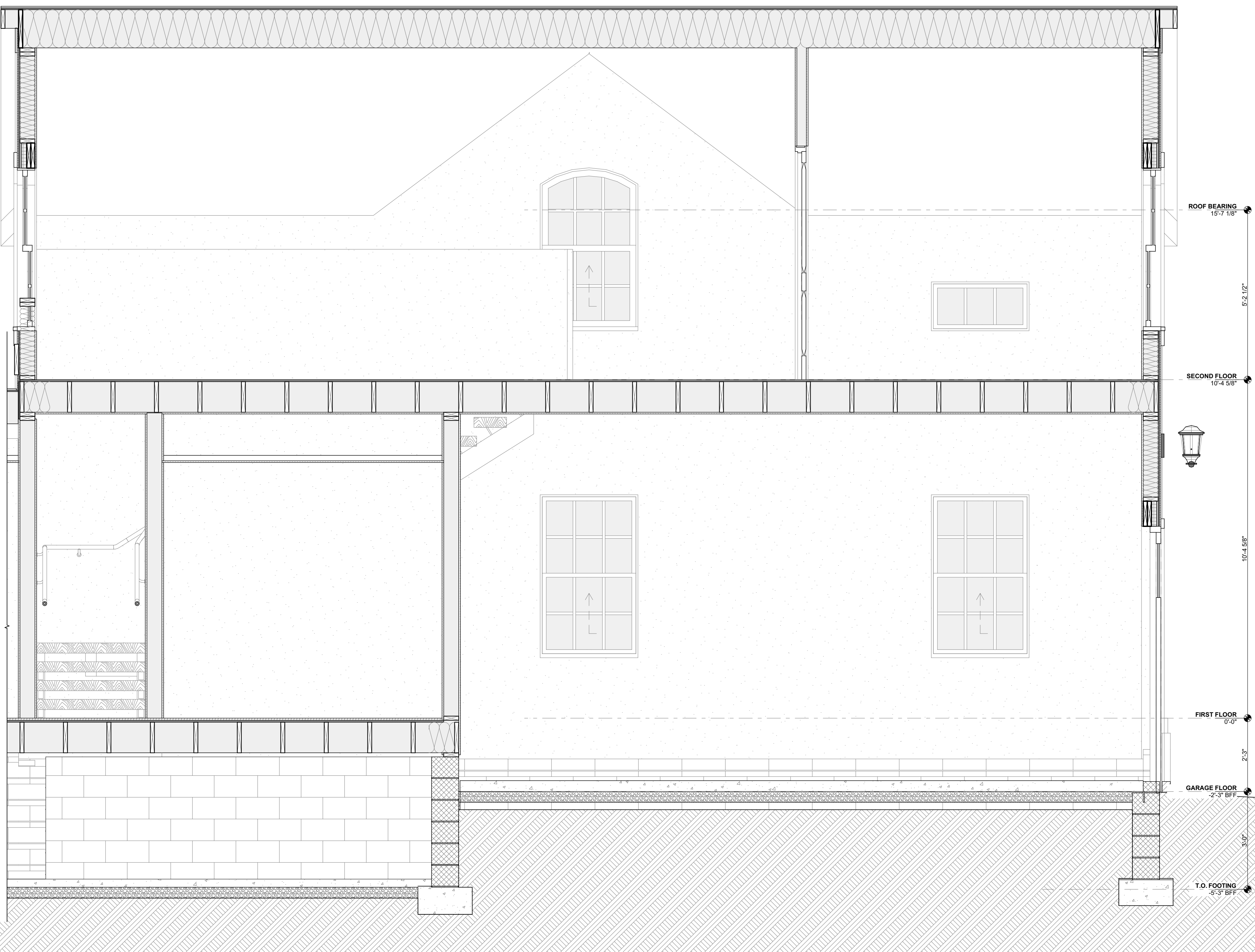
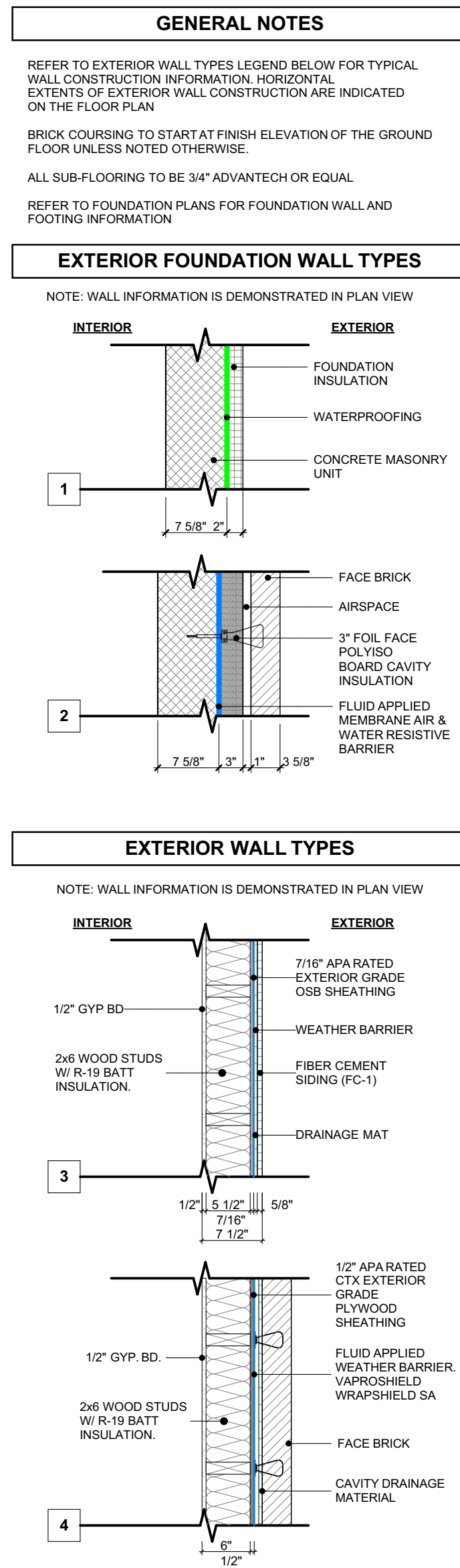
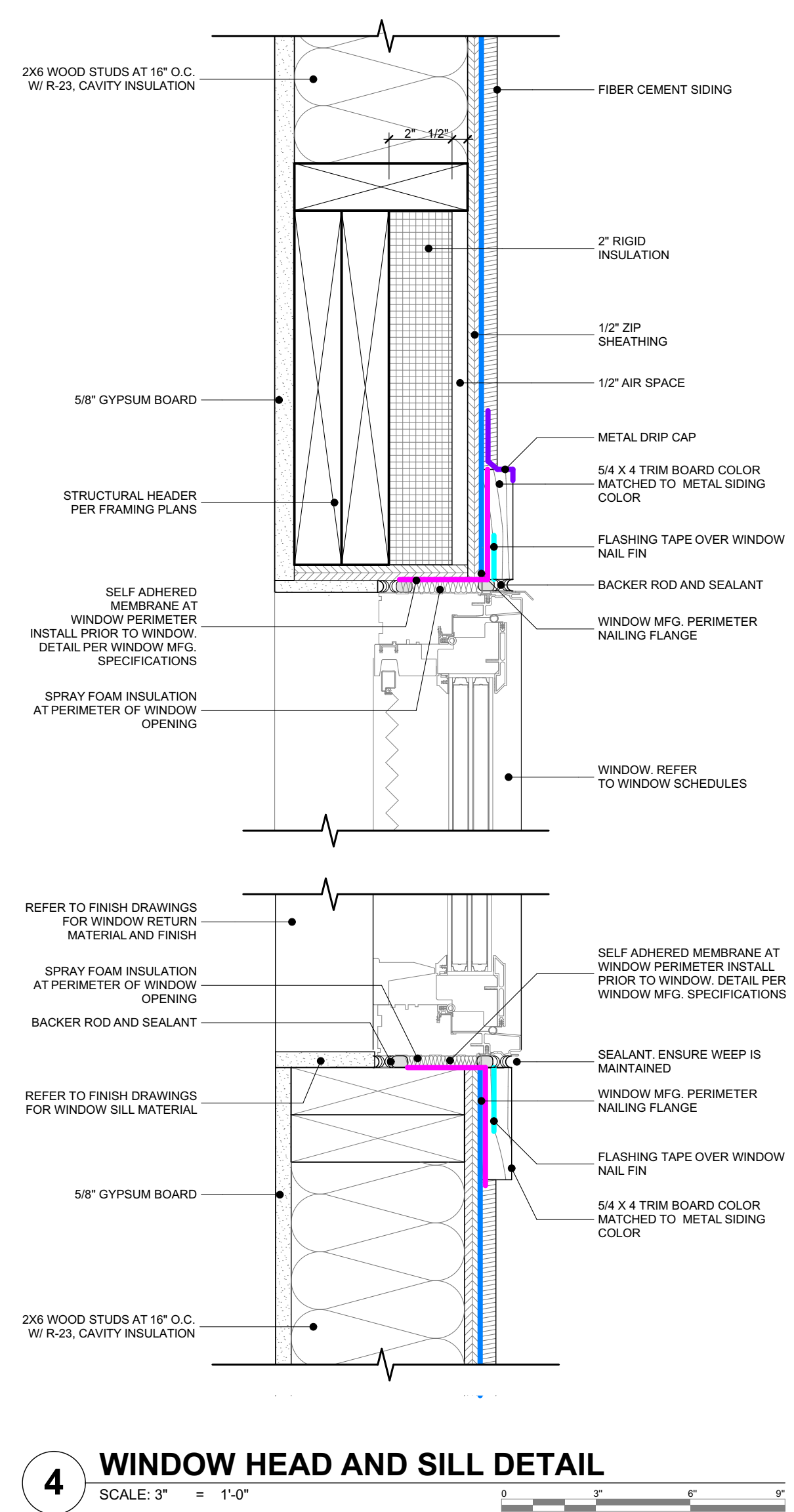
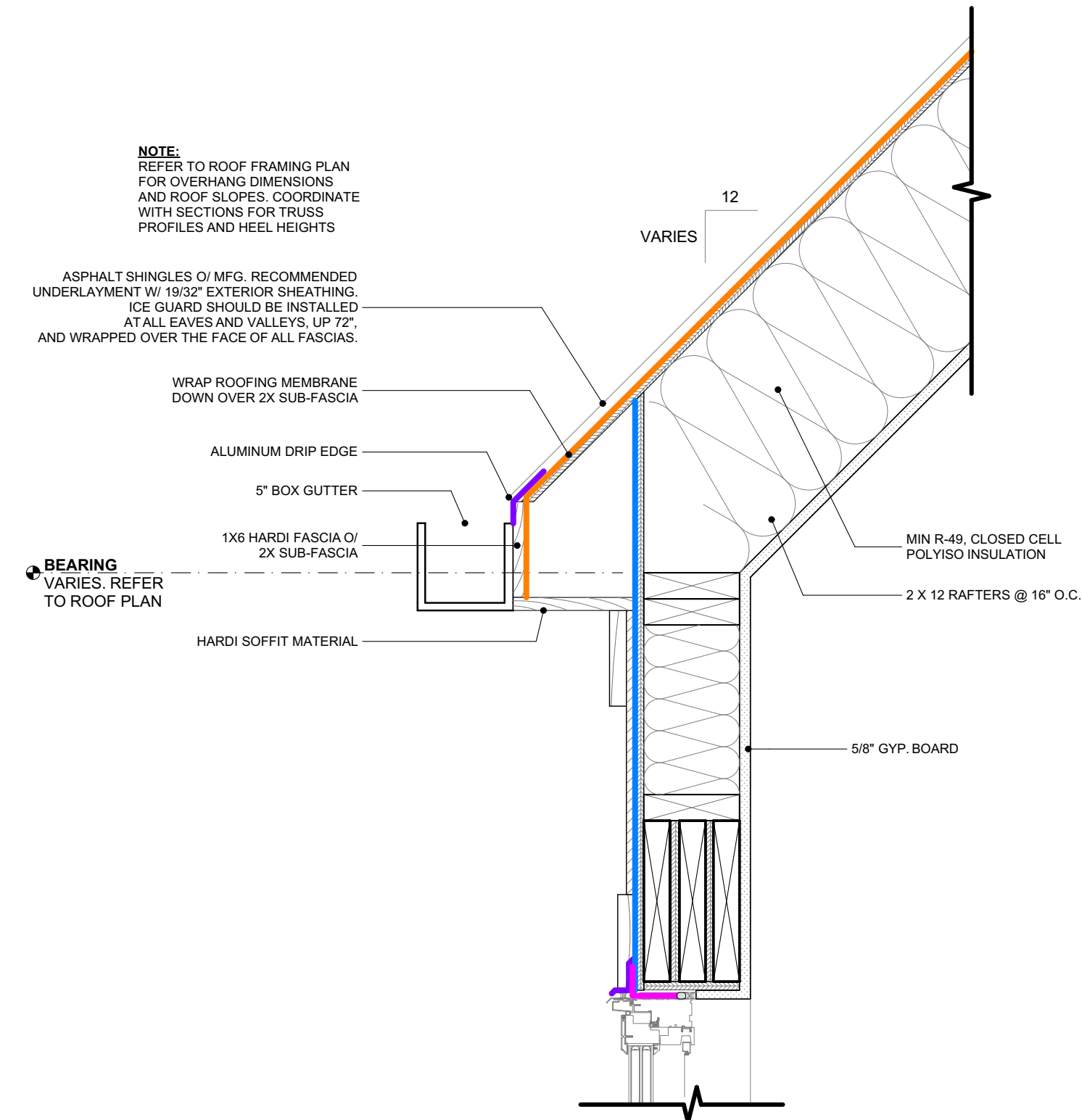
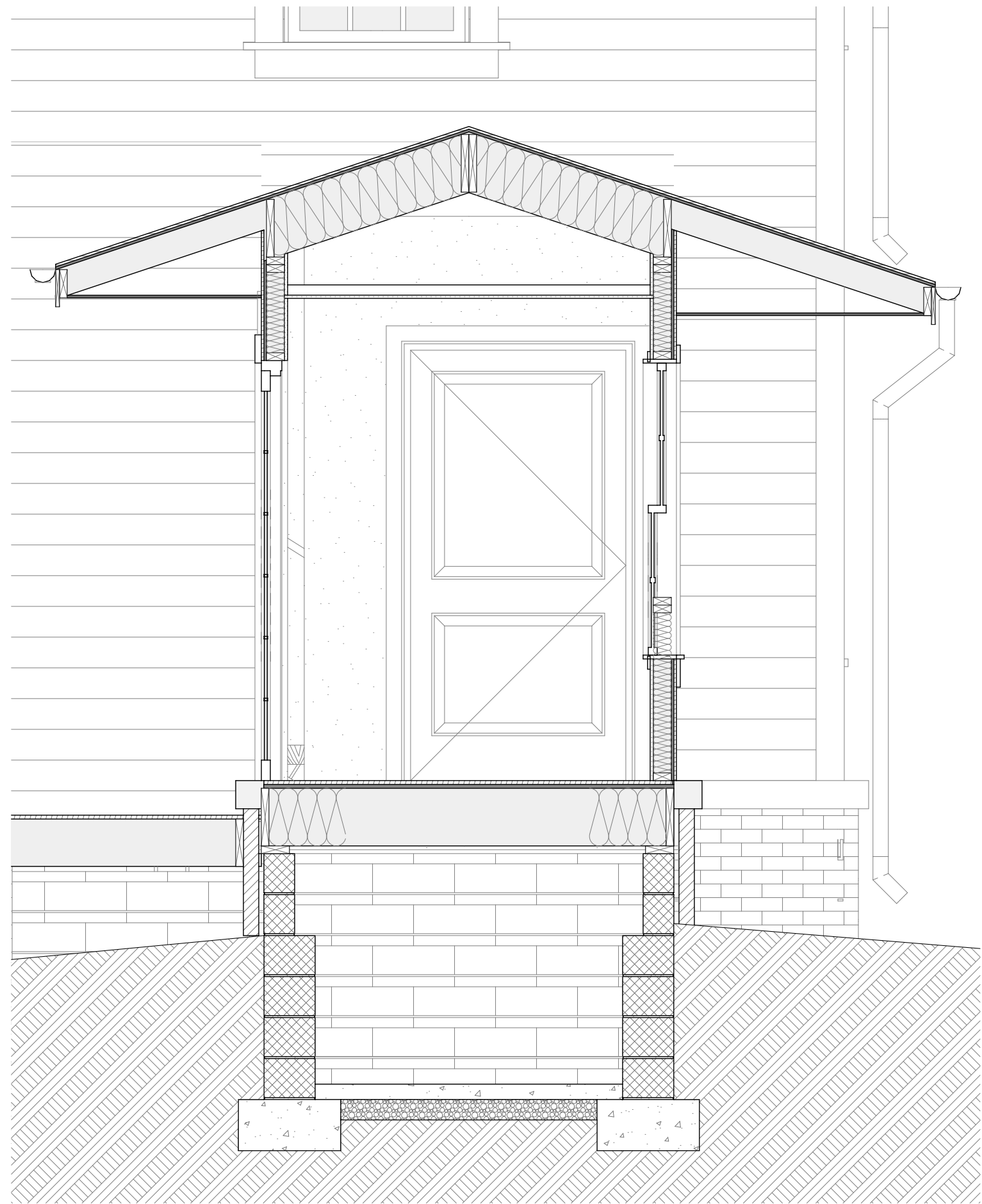
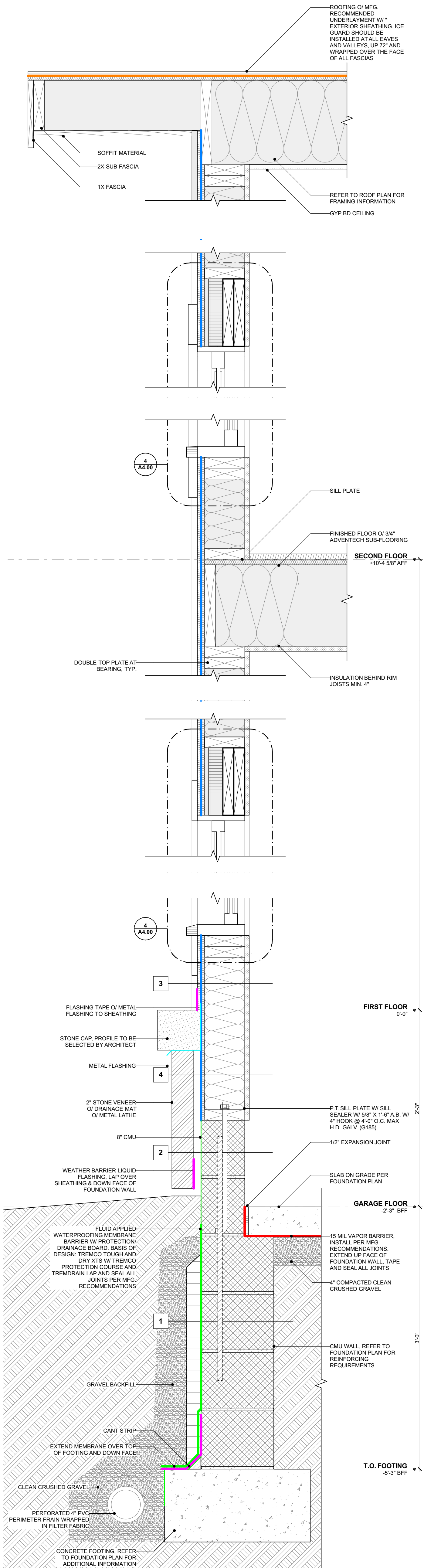
2 EAST ELEVATION
SCALE: 1/4" = 1'-0"



3 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



4 WEST ELEVATION
SCALE: 1/4" = 1'-0"





U.S. DEPARTMENT OF THE INTERIOR

INTERNATIONAL TECHNICAL ASSISTANCE PROGRAM

36 CFR Part 68, RIN 1024-AC24 - THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES, A RULE BY THE INTERIOR DEPARTMENT (PUBLICATION DATE: JULY 12, 1995, EFFECTIVE DATE: August 11, 1995)

[68.3, (b), (2)] THE HISTORIC CHARACTER OF A PROPERTY WILL BE RETAINED AND PRESERVED. THE REMOVAL OF DISTINCTIVE MATERIALS OR ALTERATION OF FEATURES, SPACES AND SPATIAL RELATIONSHIPS THAT CHARACTERIZE A PROPERTY WILL BE AVOIDED.

[68.3, (b), (9)] NEW ADDITIONS, EXTERIOR ALTERATIONS OR RELATED NEW CONSTRUCTION WILL NOT DESTROY HISTORIC MATERIALS, FEATURES AND SPATIAL RELATIONSHIPS THAT CHARACTERIZE THE PROPERTY. THE NEW WORK WILL BE DIFFERENTIATED FROM THE OLD AND WILL BE COMPATIBLE WITH THE HISTORIC MATERIALS, FEATURES, SIZE, SCALE AND PROPORTION, AND MASSING TO PROTECT THE INTEGRITY OF THE PROPERTY AND ITS ENVIRONMENT.

[68.3, (b), (10)] NEW ADDITIONS AND ADJACENT OR RELATED NEW CONSTRUCTION WILL BE UNDERTAKEN IN SUCH A MANNER THAT, IF REMOVED IN THE FUTURE, THE ESSENTIAL FORM AND INTEGRITY OF THE HISTORIC PROPERTY AND ITS ENVIRONMENT WOULD BE UNIMPAIRED.

THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES WITH GUIDELINES FOR PRESERVING, REHABILITATING, RESTORING, & RECONSTRUCTION HISTORIC BUILDINGS

(2017 REVISION OF THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES WITH GUIDELINES FOR PRESERVING, REHABILITATING, RESTORING & RECONSTRUCTING HISTORIC BUILDINGS (1995)):

- "THE REHABILITATION GUIDELINES EMPHASIZE THAT NEW ADDITIONS SHOULD BE CONSIDERED ONLY AFTER IT IS DETERMINED THAT MEETING SPECIFIC NEW NEEDS CANNOT BE ACHIEVED BY ALTERING NON-CHARACTER-DEFINING INTERIOR SPACES. IF THE USE CANNOT BE ACCOMMODATED IN THIS WAY, THEN AN ATTACHED EXTERIOR ADDITION MAY BE CONSIDERED. NEW ADDITIONS SHOULD BE DESIGNED AND CONSTRUCTED SO THAT THE CHARACTER-DEFINING FEATURES OF THE HISTORIC BUILDING, ITS SITE, AND SETTING ARE NOT NEGATIVELY IMPACTED. GENERALLY, A NEW ADDITION SHOULD BE SUBORDINATE TO THE HISTORIC BUILDING. A NEW ADDITION SHOULD BE COMPATIBLE, BUT DIFFERENTIATED ENOUGH SO THAT IT IS NOT CONFUSED AS HISTORIC OR ORIGINAL TO THE BUILDING. THE SAME GUIDANCE APPLIES TO NEW CONSTRUCTION SO THAT IT DOES NOT NEGATIVELY IMPACT THE HISTORIC CHARACTER OF THE BUILDING OR ITS SITE" (PG 79).

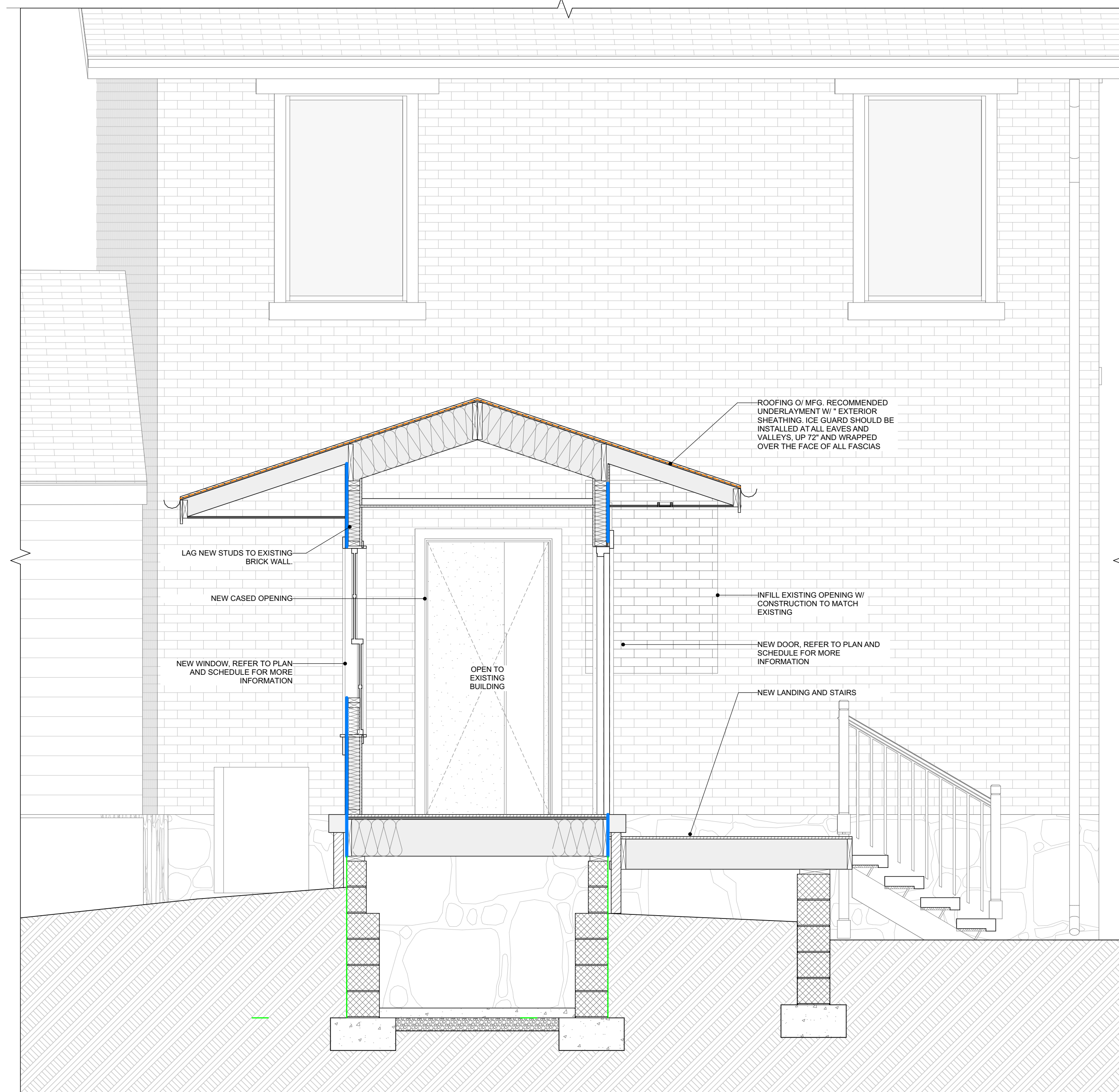
- "LIMITING ANY NEW EXCAVATIONS NEXT TO HISTORIC FOUNDATIONS TO AVOID UNDERMINING THE STRUCTURAL STABILITY OF THE BUILDING OR ADJACENT HISTORIC BUILDINGS. THE AREA NEXT TO THE BUILDING FOUNDATION SHOULD BE INVESTIGATED FIRST TO ASCERTAIN POTENTIAL DAMAGE TO SITE FEATURES OR ARCHEOLOGICAL RESOURCES" (PG 124).

- "CREATING OPEN WORK AREAS, WHEN REQUIRED BY THE NEW USE, BY SELECTIVELY REMOVING WALLS ONLY IN SECONDARY SPACES, LESS SIGNIFICANT UPPER FLOORS, OR OTHER LESS-VISIBLE LOCATIONS TO PRESERVE PRIMARY PUBLIC SPACES AND CIRCULATION SYSTEMS" (PG 134).

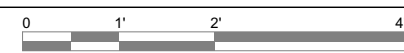
- "CONSTRUCTING A NEW ADDITION ON A SECONDARY OR NON-CHARACTERDEFINING ELEVATION AND LIMITING ITS SIZE AND SCALE IN RELATIONSHIP TO THE HISTORIC BUILDING" (PG 156).

- "CONSTRUCTING A NEW ADDITION THAT RESULTS IN THE LEAST POSSIBLE LOSS OF HISTORIC MATERIALS SO THAT CHARACTER-DEFINING FEATURES ARE NOT OBSCURED, DAMAGED, OR DESTROYED" (PG 156)

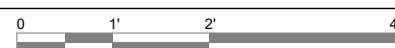
- "INCORPORATING A SIMPLE, RECESSED, SMALL-SCALE HYPHEN, OR CONNECTION, TO PHYSICALLY AND VISUALLY SEPARATE THE ADDITION FROM THE HISTORIC BUILDING" (PG. 157).



1 BUILDING SECTION THROUGH ENTRY 100
SCALE: 1/2" = 1'-0"



2 BUILDING SECTION THROUGH ENTRY
SCALE: 1/2" = 1'-0"



PROJECT TEAM:



CIVIL ENGINEER:
GUTOSKEY AND ASSOCIATES
P 406.543.6900

STRUCTURAL ENGINEER:
ORATEC DESIGN BUILD
P 330.552.8211

MEP ENGINEER:
DEW ASSOCIATES
P 216.531.8880