



**785 Bismark Avenue – Stream Buffer Variance Request (3rd Submittal)**

City of Glendale, Missouri

To: City of Glendale – Board of Adjustment

Subject Property Address: 785 Bismark Avenue, Glendale, Missouri

Re: Variance Request – Stream Buffer Intrusion Related to Rock Hill Creek

Dear Members of the Board of Adjustment,

This letter is submitted in support of a **revised variance request** for the property located at 785 Bismark Avenue, related to the required stream buffer protection associated with Rock Hill Creek.

Since our previous submittal, the project team has continued to work closely with Sterling Engineering and City staff to further refine the site plan in response to comments and to reduce impacts within the stream buffer to the greatest extent practicable.

**1. Site Characteristics & Ongoing Hardship**

The subject property is a legally platted, residentially zoned lot intended for single-family use. The proposed home design continues to comply with all other applicable City of Glendale requirements, including setbacks, height, lot coverage, and floor area ratio.

As outlined previously, the hardship is created by a unique combination of site conditions:

- The **alignment of Rock Hill Creek**, which traverses the rear of the property at an angle
- The **required stream buffer and additional setback**, significantly limiting buildable depth
- **Steep topography**, with approximately 18–22 feet of elevation change
- **Standard zoning and access requirements**, including driveway feasibility

Together, these conditions compress the buildable area toward the front of the lot, leaving insufficient depth to construct a reasonably sized residence without limited intrusion into the buffer setback area.

These conditions are inherent to the property and are not self-created.

## **2. Location of Creek & Buffer Impact**

The creek's diagonal alignment across the rear of the property creates an atypical constraint not generally present on surrounding parcels. As a result, the buildable envelope is disproportionately restricted compared to similarly zoned lots along Bismark Avenue.

No improvements are proposed within the **primary 25-foot vegetative buffer**, and the creek corridor and top-of-bank will remain undisturbed.

The variance request applies only to **limited improvements within the additional 25-foot setback area**, including:

- A portion of the rear foundation
- Associated grading necessary for safe construction
- A retaining wall system for slope stabilization

## **3. Revisions Since Previous Submittal**

In response to prior feedback, the site plan has been further refined to reduce overall impact, including:

- **Additional shifting and refinement of the building footprint** to reduce encroachment
- **Further grading adjustments** to better align with existing contours and minimize disturbance
- **Reduction in overall disturbance limits where feasible**
- **Refinement of stormwater management strategies** to improve runoff control
- Continued incorporation of **stabilization measures**, including riprap and erosion control

These revisions reflect a continued good-faith effort to minimize intrusion while maintaining a functional and code-compliant residential design.

#### 4. Evolution of Site Design Across Submittals

To further illustrate the extent of revisions and the project team's continued effort to minimize impacts, we have included prior submittal exhibits for comparison, including:

- **Exhibit 1 – Site Plan (Original Submittal)**
- **Exhibit 2 – Site Plan (Second Submittal / Variance Review Plan)**
- **Exhibit 3 – Site Plan (Current Revised Submittal – 04/15/2026)**

Across these iterations, the site design has undergone significant refinement, particularly with respect to the location of the residence, foundation elevation, and retaining wall in relation to the stream buffer.

- **Initial Submittal:**

The original layout included a retaining wall and grading approach that resulted in greater intrusion within the regulated buffer areas due to the constraints of the lot and topography.
- **Second Submittal:**

In response to feedback, both the **home and retaining wall were shifted forward and pulled closer together**, reducing the extent of encroachment and limiting disturbance within the buffer.
- **Current Submittal (Third Iteration):**

The plan has been further refined through measurable design adjustments, including:

  - The **home being brought forward from 43 feet from front property line to 39.15 feet from front property line**, increasing separation from the stream corridor
  - The **retaining wall being pulled further toward the residence**, resulting in it now being **fully located outside of the primary 25-foot vegetative buffer**
  - The **finished floor elevation being lowered from 550.67 to 547.02**, reducing the overall height from street elevation and better aligning with the natural topography, improving grading slopes around home.

These changes provide multiple site and environmental benefits, including:

- Eliminating intrusion into the **primary 25-foot buffer**
- Reducing the **steepness of grading transitions**, which improves stormwater management and reduces runoff velocity
- Allowing for **more controlled drainage patterns** across the site
- **Reducing the perceived height and massing of the home from the street**, improving compatibility with surrounding properties
- Minimizing the extent of overall disturbance while maintaining necessary stabilization measures

This progression reflects a substantial and deliberate reduction in impact across each iteration and demonstrates a continued good-faith effort to respond to City feedback while preserving reasonable residential use of the property.

## **5. Environmental Impact & Mitigation**

The project has been designed to maintain the intent of the City's stream buffer protections through:

- Preservation of the **primary vegetative buffer**
- **No disturbance to the creek channel or top-of-bank**
- Implementation of **engineered stormwater management systems**
- Use of **temporary and permanent erosion control BMPs**
- Incorporation of **retaining walls and stabilization measures** to reduce overall disturbance

As noted in FEMA and SEMA mapping, the property is not located within a regulated floodway, and the proposed improvements will not alter hydraulic conditions or increase flood risk.

## **6. Neighborhood Context & Reasonable Use**

The proposed residence remains consistent with the scale and character of surrounding homes along Bismark Avenue.

Strict enforcement of the stream buffer setback would effectively prevent development of a home comparable to others in the neighborhood, resulting in an undue hardship and limiting reasonable residential use of the property.

## **7. Additional Variance Requests**

In addition to the stream buffer variance outlined above, the Applicant is requesting two minor variances that are directly related to the same site constraints and design adjustments described herein.

### **Front Yard Setback Variance**

The project includes a request for a variance from the required front building setback line.

- **Required Front Setback:** 42.5 feet
- **Proposed Setback:** 39.15 feet

As described in prior sections, the residence has been intentionally **shifted forward on the lot** to:

- Increase separation from the stream corridor
- Eliminate intrusion into the primary 25-foot buffer
- Reduce overall environmental impact



The requested front setback variance is minimal in nature (approximately 3.35 feet) and is a direct result of these efforts. This adjustment allows the home to be positioned in a manner that:

- Better responds to the site's topography and constraints
- Maintains functional driveway access and circulation
- Preserves reasonable residential use of the property

The proposed setback remains consistent with the character and spacing of surrounding homes along Bismark Avenue and does not create any adverse impact to the streetscape.

#### **Fence Installation within Buffer Area**

The Applicant is also requesting approval for the installation of a residential fence, portions of which may extend into the stream buffer area.

This request is limited in scope and impact:

- The fence is a **non-impervious improvement**
- Installation will require **minimal disturbance**, limited to post placement
- The fence will not alter grading, drainage patterns, or creek conditions

Importantly, any minor intrusion associated with the fence is **significantly less impactful** than the previously proposed retaining wall improvements that have since been relocated outside of the primary buffer.

As such, the fence represents a **low-impact, accessory improvement** that does not compromise the intent of the stream buffer protections and is consistent with typical residential use.



**NJL Custom Homes**  
556 Leffingwell Ave, Second Floor  
Kirkwood, MO 63122

## **Conclusion**

The hardship associated with this property is the result of unique natural conditions, including creek alignment and topography, and is not self-imposed.

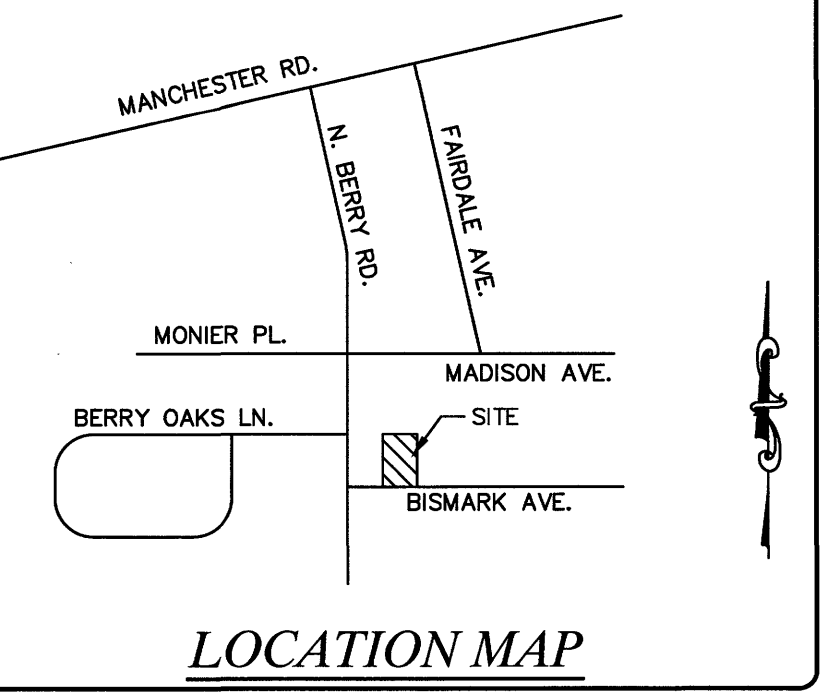
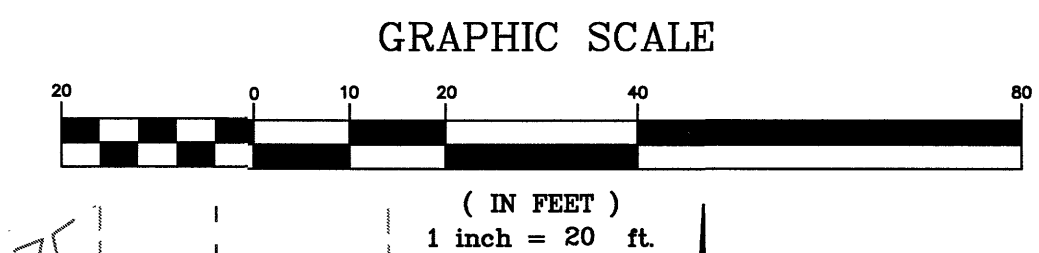
Through multiple design iterations, the proposed plan has been refined to minimize environmental impact while maintaining reasonable use of the property. The current design represents the **most balanced and least intrusive solution** achievable under the circumstances.

We respectfully request approval of this variance.

Thank you for your time and consideration.

Respectfully submitted,  
**NJL Custom Homes**

**A TRACT OF LAND BEING ALL OF LOTS 197, 198, 199, 200 & PART OF VACATED ALLEY  
OF "ALGONQUIN VIEW" (P.B. 22 PG. 28) LOCATED IN SECTION 29, 30 & 32, TOWNSHIP 45 NORTH,  
RANGE 6 EAST, CITY OF GLENDALE, ST. LOUIS COUNTY, MISSOURI.**

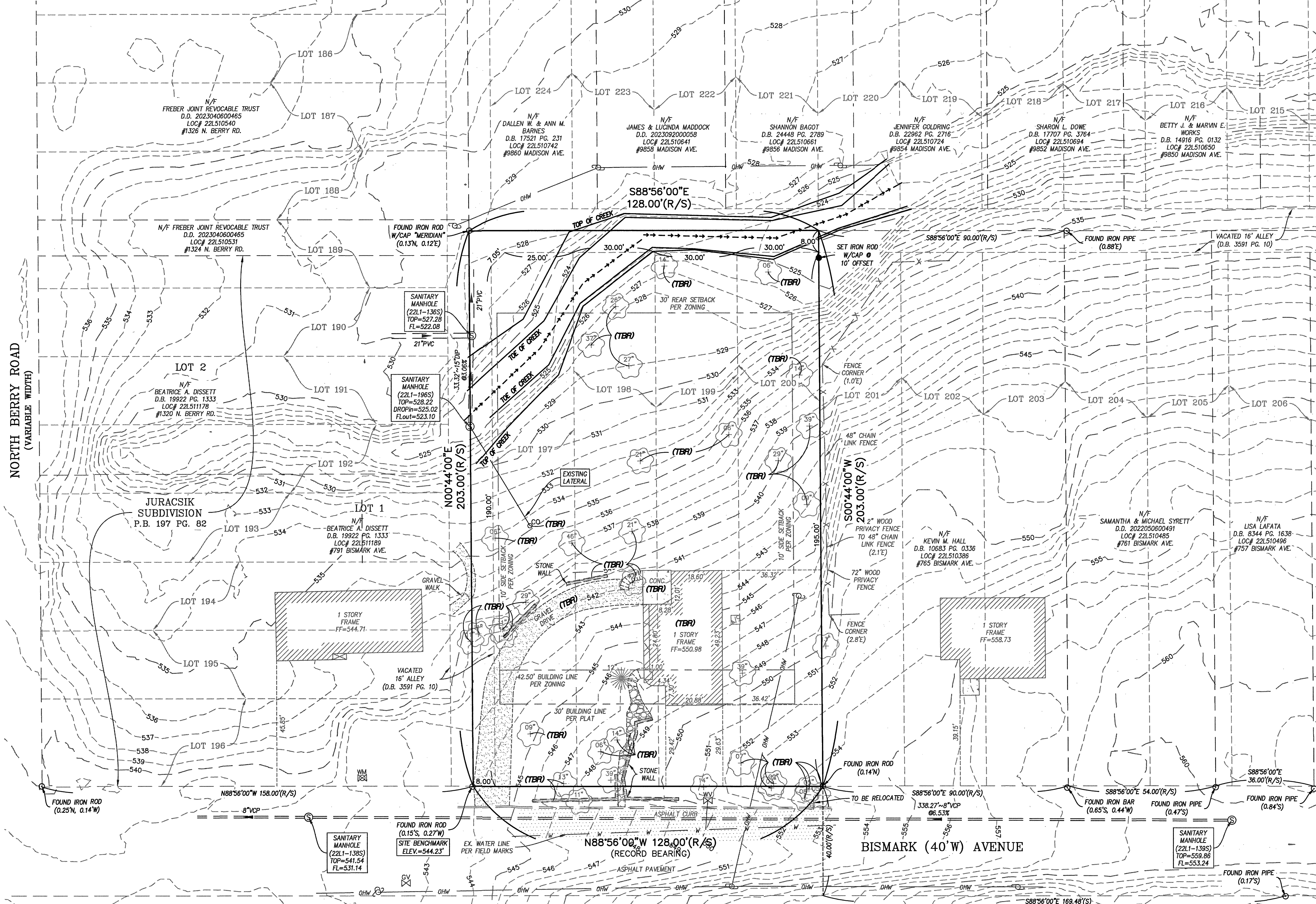


**ABBREVIATIONS:**

|         |                 |
|---------|-----------------|
| CONC.   | CONCRETE        |
| N/F     | NOW OR FORMERLY |
| P.B.    | PLAT BOOK       |
| D.B.    | DEED BOOK       |
| D.D.    | DEED DOCUMENT   |
| PG.     | PAGE            |
| SQ. FT. | SQUARE FEET     |
| (R)     | RECORD          |
| (S)     | SURVEY          |
| FF      | FINISH FLOOR    |
| TF      | TOP FOUNDATION  |
| BF      | BASEMENT FLOOR  |

**LEGEND:**

|  |   |
|--|---|
|  | TREE LINE   |
|  | STILL FENCE   |
|  | FENCE LINE  |
|  | UNDERGROUND CATV LINE   |
|  | UNDERGROUND ELECTRIC LINE   |
|  | UNDERGROUND WATER LINE  |
|  | UNDERGROUND TELEPHONE LINE  |
|  | UNDERGROUND GAS LINE  |
|  | OVERHEAD ELECTRIC   |
|  | OVERHEAD WIRE   |
|  | UNDERGROUND SEWER LINE  |
|  | BUILDING  |
|  | LIGHT STANDARD  |
|  | YARD LIGHT  |
|  | UTILITY POLE  |
|  | UTILITY POLE W/ LIGHT   |
|  | UTILITY POLE W/ TRANSFORMER   |
|  | GUY WIRE  |
|  | TRAFFIC SIGNAL  |
|  | WATER SPIGOT  |
|  | ELECTRIC METER  |
|  | WATER METER   |
|  | GAS METER   |
|  | WATER VALVE   |
|  | GAS VALVE   |
|  | GAS DRIP  |
|  | ELECTRIC BOX  |
|  | CABLE TV BOX  |
|  | TELEPHONE BOX   |
|  | TELEPHONE MANHOLE   |
|  | ELECTRIC MANHOLE  |
|  | STREET/ROAD SIGN  |
|  | MISC. POLE/POST   |
|  | PARCEL TIE (SAME OWNER)   |
|  | FIRE HYDRANT  |
|  | UTILITY MANHOLE   |
|  | MAIL BOX  |
|  | A/C UNIT  |
|  | SANITARY MANHOLE  |
|  | SANITARY CLEANOUT   |
|  | STORM MANHOLE   |
|  | CURB INLET / AREA INLET   |
|  | GRATE MANHOLE   |
|  | GRATE INLET   |
|  | BUSH/SHRUB  |
|  | TREE  |
|  | SURFACE FLOW  |
|  | SURFACE FLOW WITH SLOPE   |
|  | DENOTES PERMANENT MONUMENT TO BE PLACED UPON COMPLETION OF GRADING AND ROADWAY IMPROVEMENTS 5/8"x24" REBAR WITH METAL CAP STAMPED LS 307-D. |
|  | DENOTES SEMI-PERMANENT MONUMENT TO BE SET   |
|  | FOUND IRON PIPE   |
|  | CONC. MON./STONE  |
|  | CROSS   |
|  | CROSS WITH ANCHOR   |



**SITE INFO:**  
N/F FOUNDATION UP  
D.D. 2023090800502  
LOC. # 22L511255  
#755 BISMARK AVE.  
25,984 SQ. FT. OR 0.597 AC.±

**ZONING INFO:**  
R-1 SINGLE FAMILY RESIDENTIAL DISTRICT  
FRONT: AVERAGE OF ADJACENT HOMES  
(45.85' + 39.15' = 85.00' / 2 = 42.50')  
FRONT: 30' SETBACK PER PLAT  
SIDE: 10' SETBACK  
REAR: 30' SETBACK  
HEIGHT: 35' OR 2 1/2 STORIES.

**ABBREVIATIONS:**

|         |                 |
|---------|-----------------|
| CONC.   | CONCRETE        |
| N/F     | NOW OR FORMERLY |
| P.B.    | PLAT BOOK       |
| D.B.    | DEED BOOK       |
| D.D.    | DEED DOCUMENT   |
| PG.     | PAGE            |
| SQ. FT. | SQUARE FEET     |
| (R)     | RECORD          |
| (S)     | SURVEY          |
| RAD.    | RADIAL          |
| FF      | FINISH FLOOR    |
| TF      | TOP FOUNDATION  |
| BF      | BASEMENT FLOOR  |
| UP      | USE IN PLACE    |
| DB      | TO BE REMOVED   |
| DS      | DOWNSPOUT       |
| F/P     | FIREPLACE       |
| W/W     | WINDOW WELL     |
| APPRO.  | APPROXIMATE     |

**EXISTING UTILITIES NOTES**

- ALL DESTRUCTION OF EXISTING UTILITY TAPS SHALL BE IN ACCORDANCE WITH EACH UTILITY PROVIDER'S SPECIFICATIONS, INCLUDING FEDERAL, STATE, AND LOCAL REGULATIONS.
- CONTRACTOR IS RESPONSIBLE TO CONTACT AND IDENTIFY ALL UTILITIES AND PERFORM WORK IN A SAFE AND RESPONSIBLE MANNER.
- THE SERVICEABILITY OF ALL UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR / HOMEOWNER. ANY AND ALL REQUIREMENTS FOR EXISTING OR PROPOSED FLOW RATES, FIRE PROTECTION, CONNECTION FEES OR REQUIRED STUDIES ARE NOT THE RESPONSIBILITY OF THE STERLING COMPANY.
- THE STERLING COMPANY ASSUMES NO RESPONSIBILITY FOR CONTRACTOR'S WORK OR FOR ANY WORK NOT SPECIFICALLY MENTIONED.

**SITE BENCHMARK:**  
IRON ROD WITH CAP - 544.23' (NAVOD88)  
FOUND IRON ROD AT THE SOUTHWEST CORNER OF THE SUBJECT TRACT AS SHOWN HEREIN.

**BENCHMARK:**  
ST. LOUIS COUNTY BENCHMARK  
BENCHMARK: 14351; ELEVATION: 584.24' (NAVOD88)  
"I" ON TOP CONCRETE RETAINING WALL AT SOUTH SIDE OF STEPS AT HOUSE #1364 BERRY ROAD; 20' EAST OF CENTERLINE OF BERRY ROAD.

**SURVEYOR'S NOTES**

- THIS TRACT CONTAINS 25,984 SQUARE FEET OR 0.597 ACRES MORE OR LESS.
- BASIS OF BEARING: THE BEARINGS ARE BASED ON THE RECORD PLAT OF "ALGONQUIN VIEW" AS RECORDED IN PLAT BOOK 22 PAGE 28 OF THE ST. LOUIS COUNTY, MISSOURI RECORDS.
- SOURCE OF RECORD TITLE: FOUNDATION UP IS DESCRIBED AS THE OWNER AS RECORDED IN DEED DOCUMENT 2023090800502 OF THE ST. LOUIS COUNTY, MISSOURI RECORDS.
- THE PROFESSIONAL WHOSE SEAL AND SIGNATURE APPEARS BELOW ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) ANY RESPONSIBILITY FOR PLANS, SPECIFICATIONS, ESTIMATES, REPORTS OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT FOR WHICH THIS PAGE REFERS.



**CALL BEFORE  
YOU DIG!  
1-800-DIG-RITE**

**TITLE NOTES**

A CURRENT TITLE COMMITMENT OF THE SUBJECT TRACT HAS NOT BEEN PROVIDED TO THE SURVEYOR. IT IS POSSIBLE THERE ARE EASEMENTS AND OTHER INSTRUMENTS OF RECORD THAT AFFECT THE SUBJECT TRACT THAT WOULD BE EXPOSED IN THE TITLE COMMITMENT REPORT AND ARE UNKNOWN TO THE SURVEYOR AT THE TIME OF SURVEY WAS EXECUTED AND THEREFORE NOT PLOTTED HEREON. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. BUILDING LINES OF THE SUBJECT TRACT ARE SHOWN PER PLAT BOOK 22 PAGE 28. ADDITIONAL BUILDING LINES ARE SHOWN FROM THE CURRENT ZONING CODE OF GLENDALE.

Plot Plan Prepared by  
**THE STERLING COMPANY (314) 487-0440**

**Notes:**

- Finished grades at the building to be a minimum of 8 inches below top of foundation for wood frame and 6 inches below for wood frame with brick veneer.
- All wood framing members that rest on top of the foundation located less than 8 inches above the exposed ground and all other wood less than 6 inches from the ground shall be pressure treated in accordance with section R319.1.
- Grade shall be noted to slope away from foundation a minimum of a 6 inch drop or min. 5% within the first 10 feet or to a swale.
- Foundation footings shall be constructed so as to maintain a 2' 6" depth of earth cover or as required by local building codes.
- This plot plan conforms to "GLENDALE CODE".
- Elevation Example: 714.0(E)=Existing Elevation, 714.0(P)=Proposed Elevation.

THIS IS NOT A SURVEY AND DOES NOT MEET THE MISSOURI STANDARDS FOR PROPERTY BOUNDARY SURVEYS IN EFFECT AS OF THE DATE OF THIS PLOT PLAN.

THE STERLING COMPANY  
MO. REG. 307-D

*James A. Henson*  
10-7-2025  
JAMES A. HENSON, P.L.S. - VICE PRESIDENT  
MO. REG. L.S. #007017983



**ISSUE REMARKS/DATE**

|   |                                     |
|---|-------------------------------------|
| 1 | Update House/Garage Plan - 10/06/25 |
| 2 |                                     |
| 3 |                                     |

**NJL Custom Homes**  
#556 Leffingwell Ave.  
Kirkwood, MO 63122  
(314) 575-7481

**THE STERLING CO.**  
**ENGINEERS & SURVEYORS**  
5055 New Baumgartner Road  
St. Louis, Missouri 63129  
Ph 314-487-0440 Fax 314-487-8944  
www.sterling-eng-survey.com  
Corporate Certificate of Authority #001348

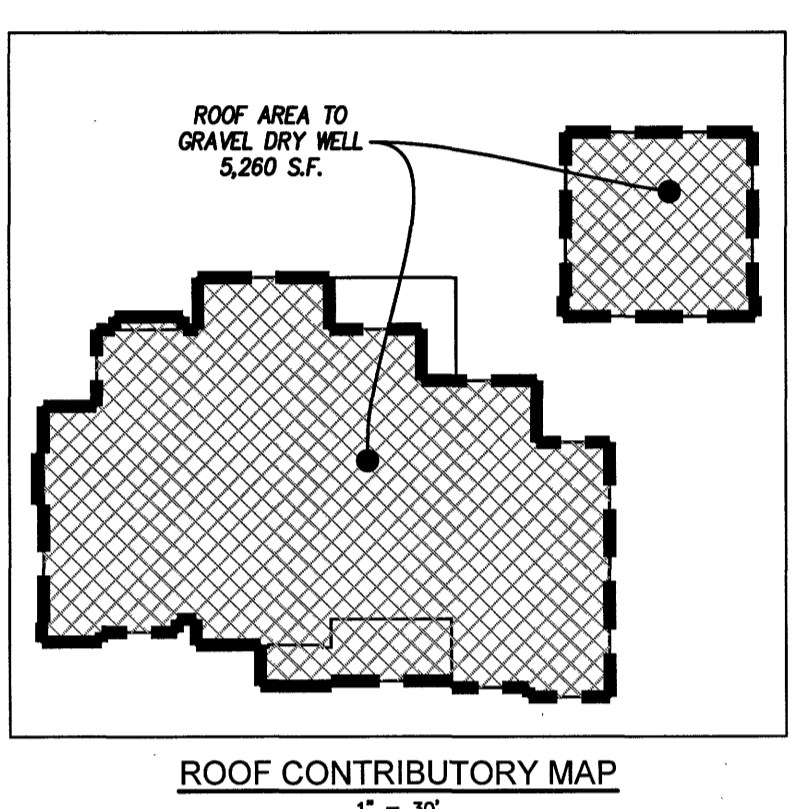
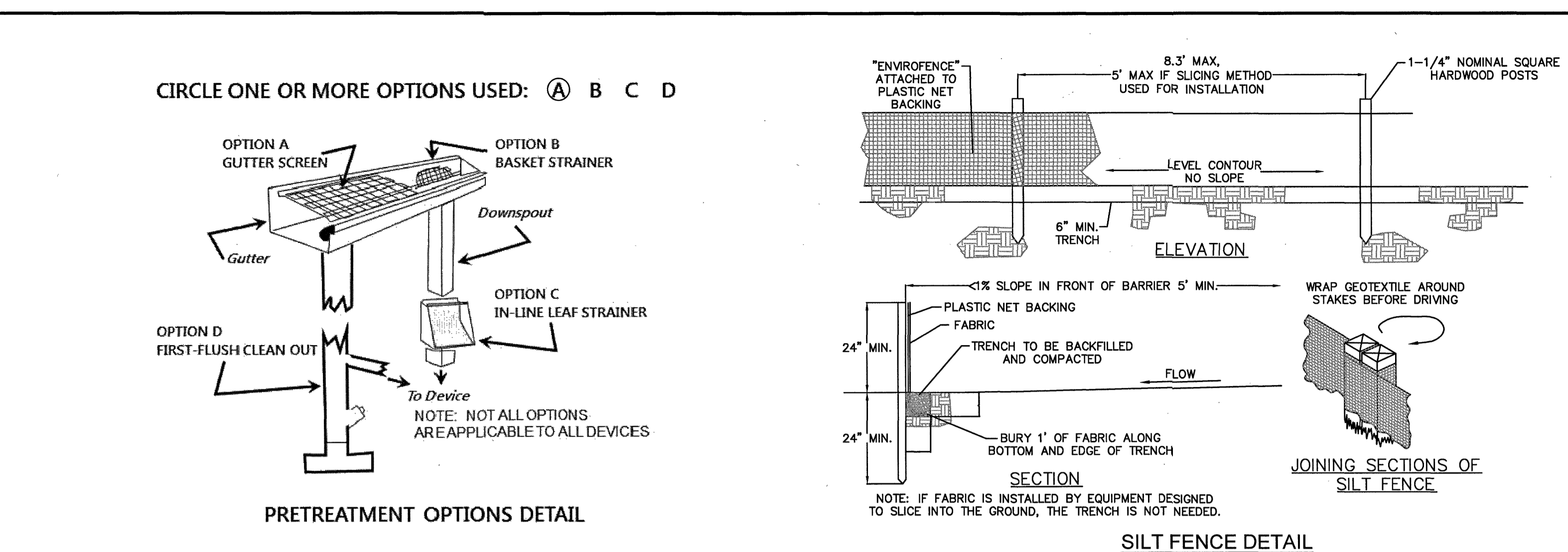
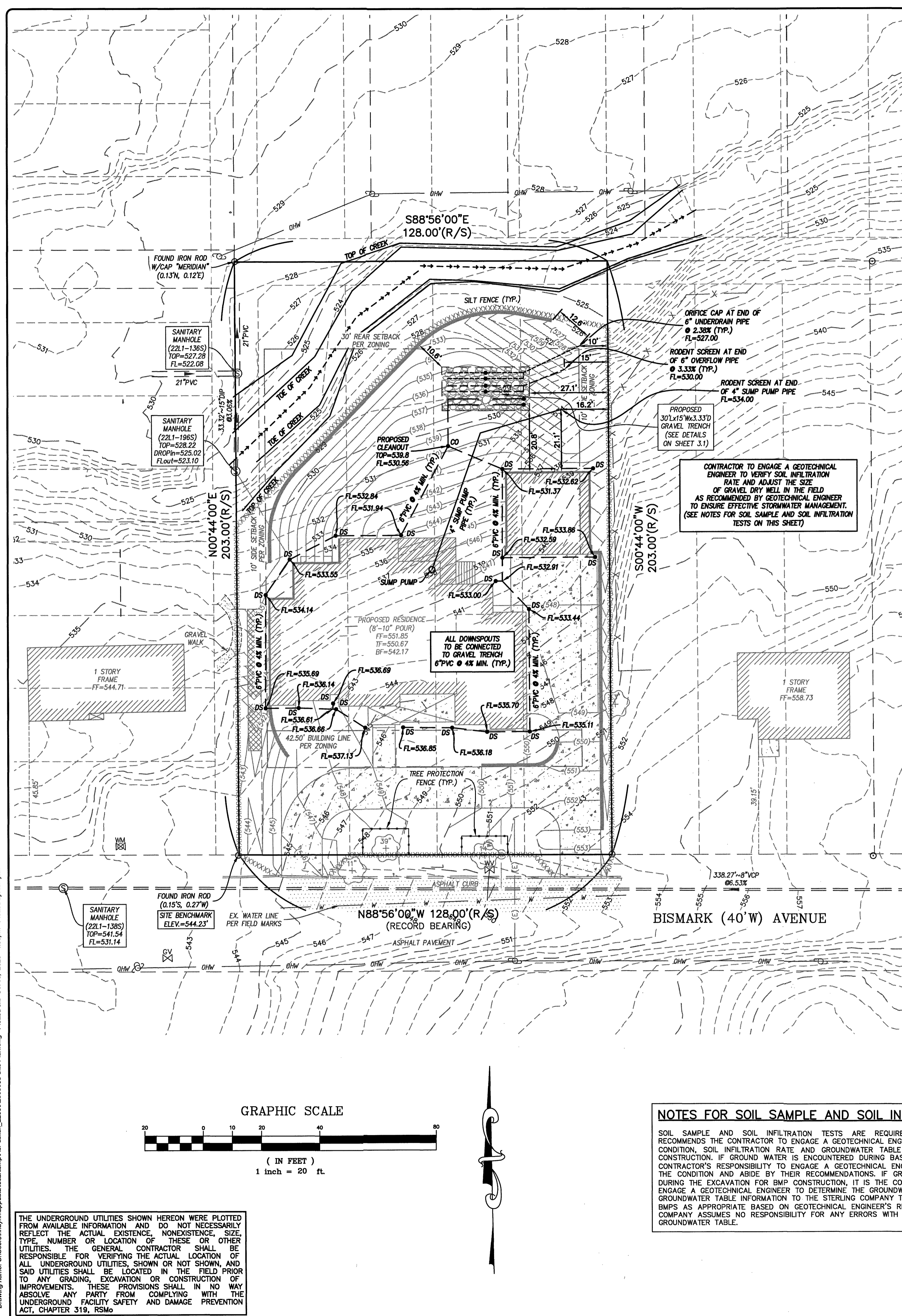
**#785 BISMARK AVENUE**  
GLENDALE, MISSOURI 63122

EXISTING CONDITIONS / DEMOLITION PLAN

Date: 10/06/2025  
Henry H. Huynh, PE  
License # PE-202203627  
Professional Engineer

|               |            |
|---------------|------------|
| Job Number    | 25-03-063  |
| Date          | 10/06/2025 |
| Designed: HHH | Sheet      |
| Drawn: HHH    | 1.1        |
| Checked: MGB  | IMP        |



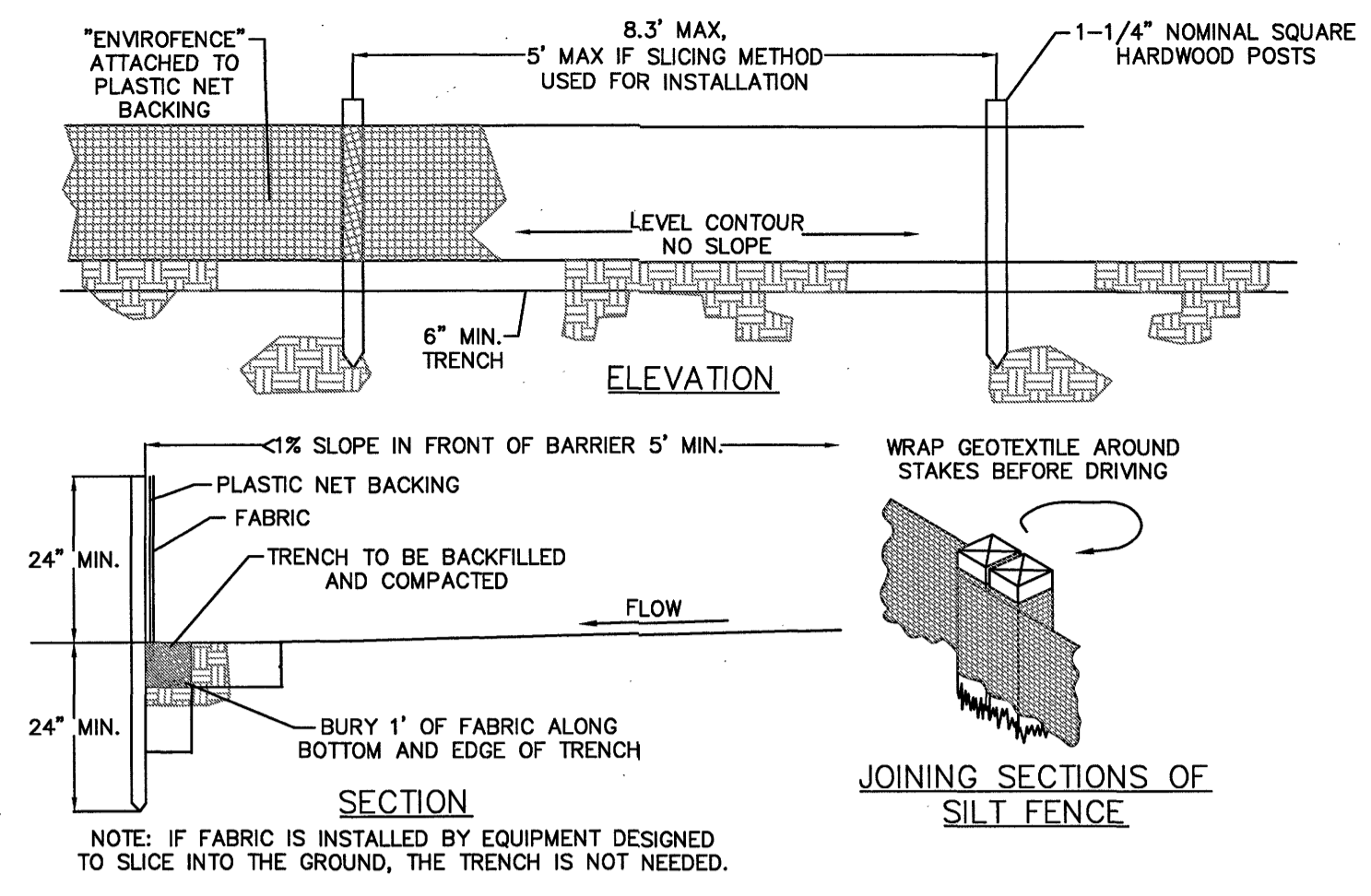


**NOTES**

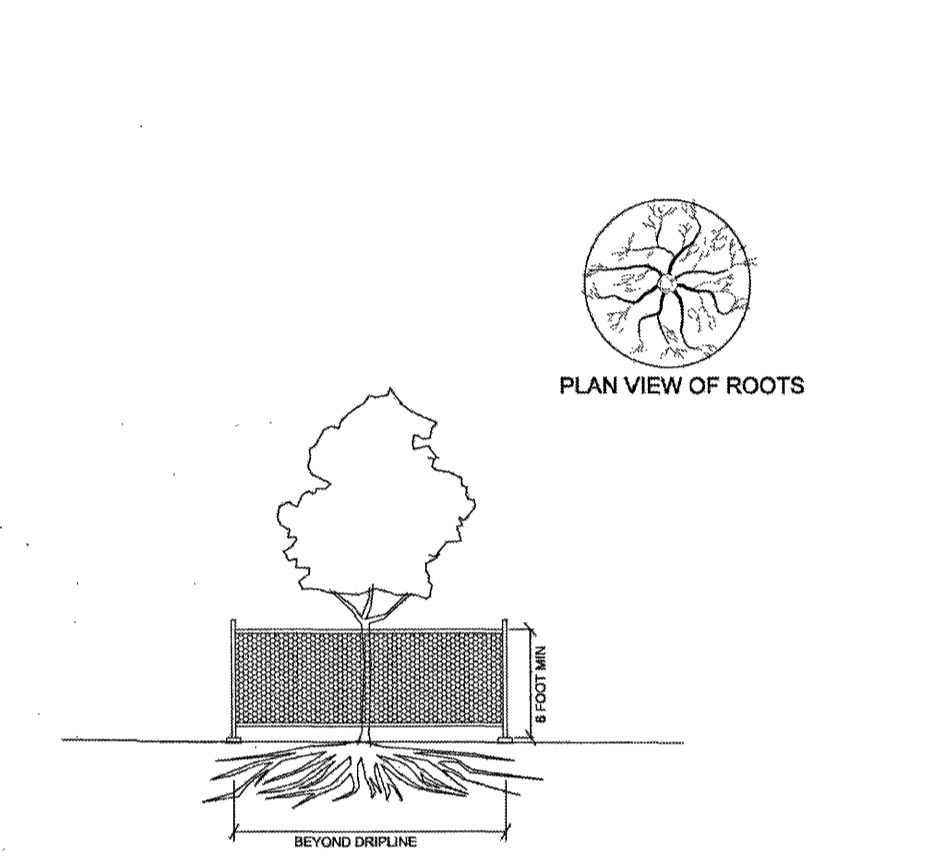
- THE GUTTERS SHALL CONNECT TO GRAVEL TRENCH UNLESS NOTED OTHERWISE.
- THE PLACEMENT OF THE POP-UP EMITTERS TO BE DETERMINED IN THE FIELD. PLACEMENT SHALL ALLOW FOR STORM WATER TO BE ABSORBED PRIOR TO RUNOFF ONTO ADJACENT PROPERTY.
- THE CONTRACTOR IS TO MAINTAIN THE SHEET FLOW FOR THE STORM WATER AND SHALL NOT CONCENTRATE RUNOFF ONTO ADJACENT PROPERTIES.
- THE POINT OF STORMWATER DISCHARGE SHALL BE AT LEAST 10 FEET FROM ANY PROPERTY LINE.
- DO NOT CONNECT WINDOW WELL DRAINS TO THE DOWNSPOUT PIPING.

**STORM WATER DESIGN CALCULATIONS**

TOTAL PROPOSED ROOF AREA = 5,260 S.F. ≈ 0.121 ac.  
 15 YEAR 20 MINUTE RUNOFF = 0.121 ac. (3.54) = 0.428 CFS  
 THE REQUIRED VOLUME = 0.428 x 1200 = 513.60 C.F.  
 25' L x 18' W x 3.33' D GRAVEL INFILTRATION TRENCHES ARE PROPOSED TO PROVIDE THE ATTENUATION. ASSUMING 40% VOIDS IN THE GRAVEL. 540.00 C.F. OF VOLUME IS PROVIDED  
 540.00 C.F. TOTAL VOLUME IS PROVIDED > 535.20 C.F. IS REQUIRED  
 (ALL DOWNSPOUTS FROM ROOF AREA TO BE CONNECT TO GRAVEL TRENCH)

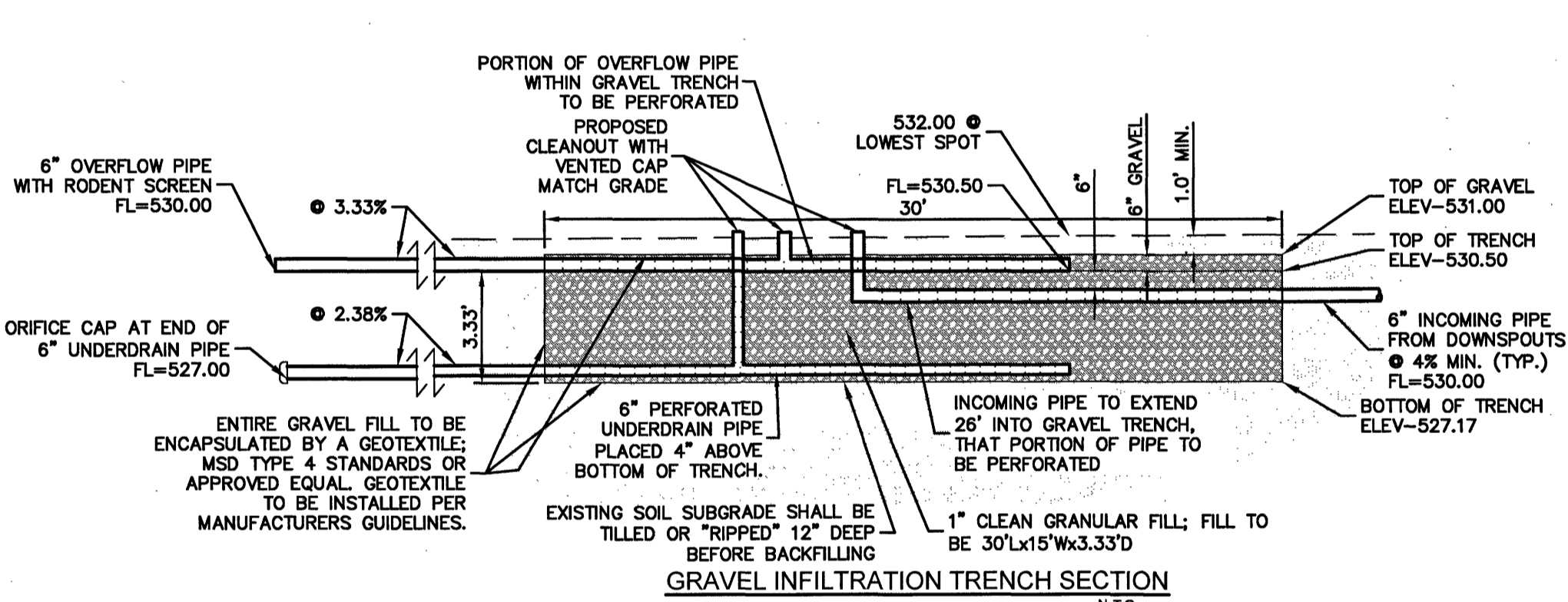


**SILT FENCE DETAIL**



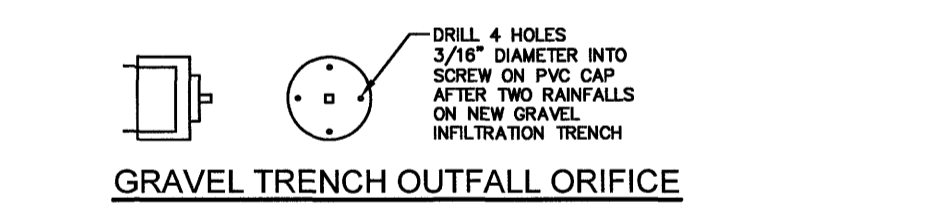
**TREE PROTECTION**  
 NOT TO SCALE

ALL EXISTING TREES ARE TO REMAIN UNLESS NOTED OTHERWISE. TREE PROTECTION IS TO BE INSTALLED TO ENSURE THAT THE TREES REMAIN UNHARMED DURING CONSTRUCTION. THE TREE PROTECTION FENCE SHALL BE EITHER CHAIN LINK OR PLASTIC LINK PER CITY STANDARDS.



- ALL PIPES TO BE SDR-35 OR SCHEDULE 40 PVC OR EQUIVALENT.
- MSD TYPE 4 STANDARDS LAP SPICE MINIMUM LENGTH = 18 INCHES.
- ALL PIPE TERMINATING INSIDE GRAVEL TRENCH SHALL HAVE ENDS CAPPED.
- PVC STANDBYPIPE ON CONCRETE BLOCK OR PAD
- ANCHOR PIPE INTO ROCK
- PERFORATED PIPE SHALL BE WRAPPED WITH POLYESTER FILTER SOCK.
- LESTONITE SHALL NOT BE USED IN GRAVEL INFILTRATION TRENCH

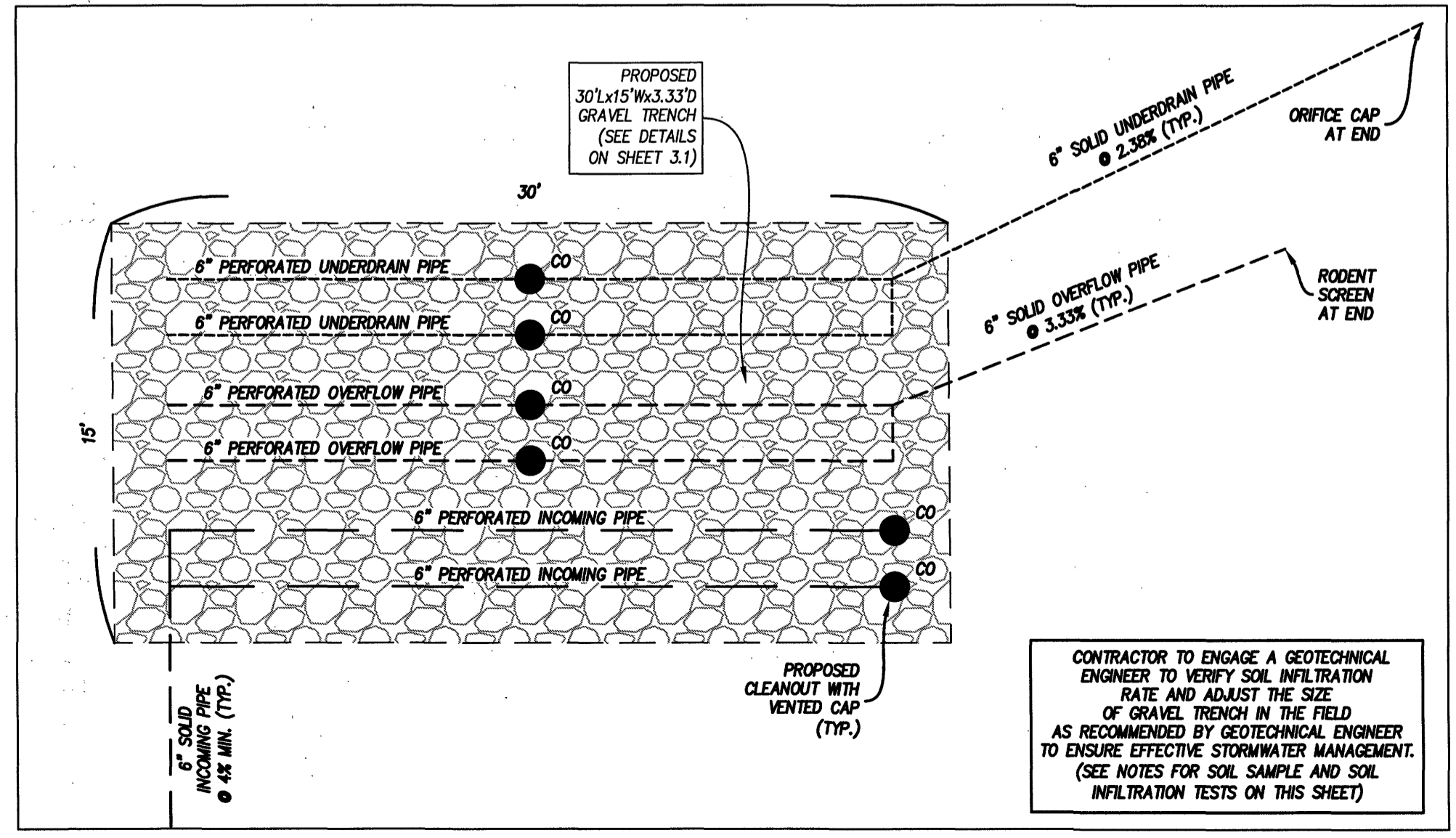
| For WQy less than value below (cf) | 4 holes of this diameter required |
|------------------------------------|-----------------------------------|
| 350                                | 1/8"                              |
| 800                                | 3/16"                             |
| 1500                               | 1/4"                              |
| 3300                               | 3/8"                              |
| 6000                               | 1/2"                              |
| 9075                               | 5/8"                              |



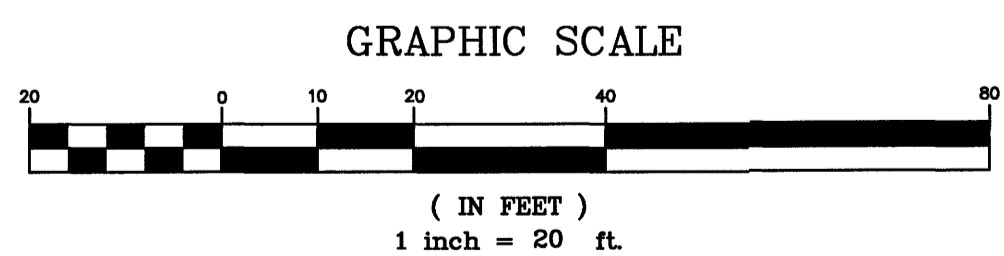
**GRAVEL TRENCH OUTFALL ORIFICE**

**NOTES FOR SOIL SAMPLE AND SOIL INFILTRATION TESTS:**

SOIL SAMPLE AND SOIL INFILTRATION TESTS ARE REQUIRED. THE STERLING COMPANY RECOMMENDS THE CONTRACTOR TO ENGAGE A GEOTECHNICAL ENGINEER TO VERIFY THE SITE SOIL CONDITION, SOIL INFILTRATION RATE AND GROUNDWATER TABLE (IF ENCOUNTERED) PRIOR TO CONSTRUCTION. IF GROUND WATER IS ENCOUNTERED DURING BASEMENT EXCAVATION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENGAGE A GEOTECHNICAL ENGINEER TO PROPERLY ADDRESS THE CONDITION AND ABIDE BY THEIR RECOMMENDATIONS. IF GROUND WATER IS ENCOUNTERED DURING THE EXCAVATION FOR BMP CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENGAGE A GEOTECHNICAL ENGINEER TO DETERMINE THE GROUNDWATER TABLE AND PROVIDE THE GROUNDWATER TABLE INFORMATION TO THE STERLING COMPANY TO REDESIGN THE STORM WATER BMPS AS APPROPRIATE BASED ON GEOTECHNICAL ENGINEER'S RECOMMENDATION. THE STERLING COMPANY ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WITH THE SITE SOIL CONDITION AND GROUNDWATER TABLE.



**GRAVEL INFILTRATION TRENCH DETAIL**



THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMo

REVISIONS

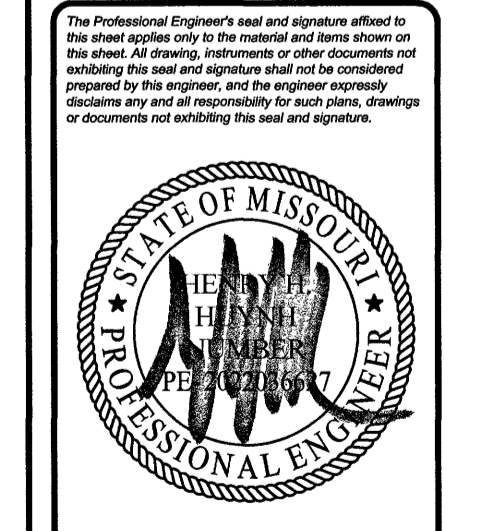
| NO. | DATE | DESCRIPTION                         |
|-----|------|-------------------------------------|
| 1   |      | Update House/Garage Plan - 10/06/25 |
| 2   |      |                                     |
| 3   |      |                                     |

**N/JL Custom Homes**  
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 Kirkswood, MO 63122  
 (314) 575-7481

**THE STERLING CO.**  
**ENGINEERS & SURVEYORS**  
 5065 New Baumgartner Road  
 St. Louis, Missouri 63129  
 Ph: 314-487-0440 Fax: 314-487-8944  
 www.sterling-eng-survey.com  
 Corporate Certificate of Authority #001348

**#785 BISMARCK AVENUE**  
 GLENDALE, MISSOURI 63122

**STORM WATER PLAN**

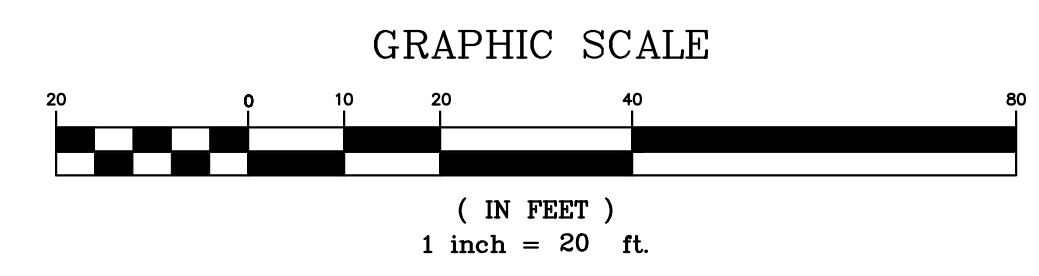
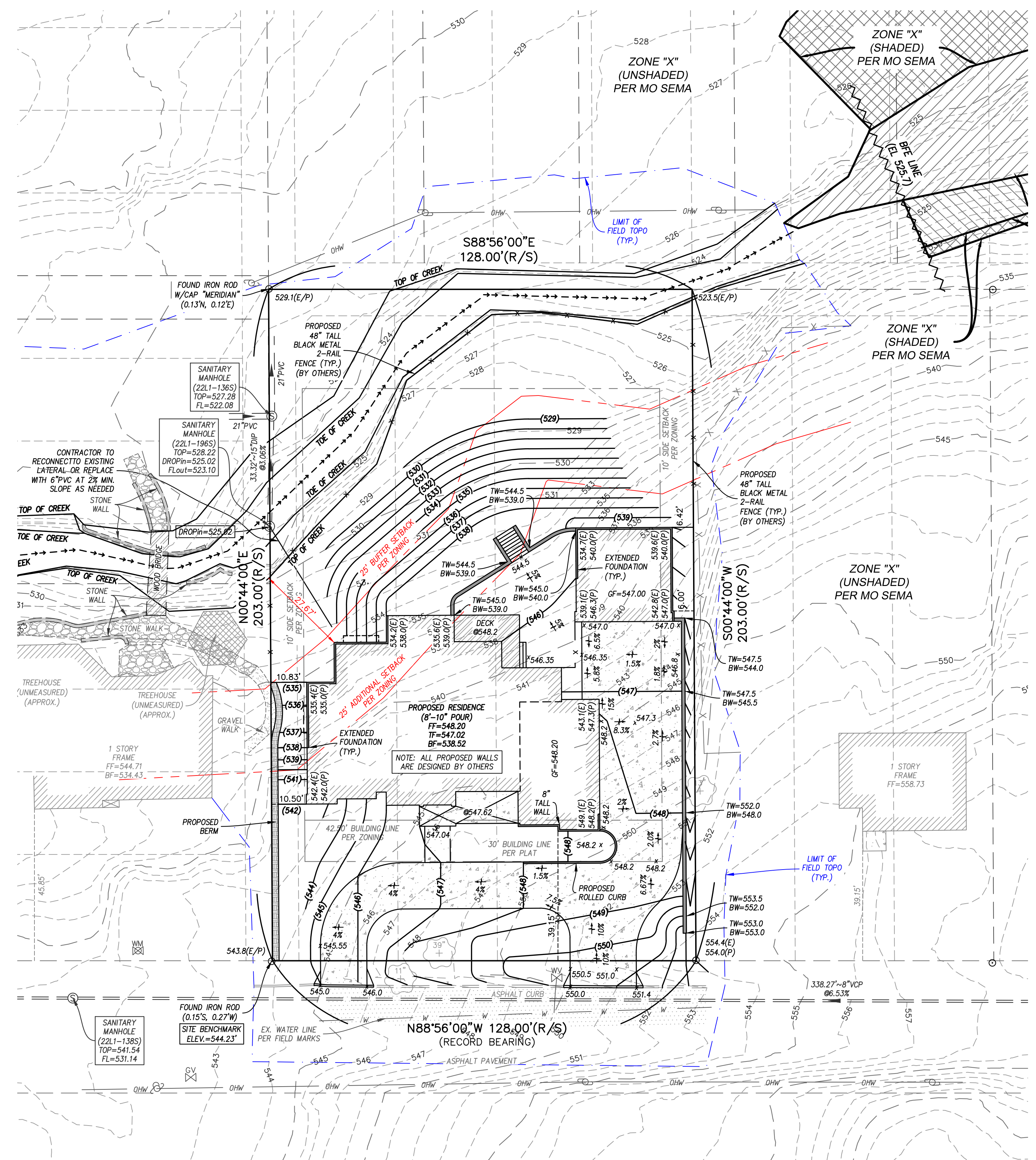


Date: 10/06/2025  
 Henry H. Huynh, PE  
 License # PE-2022036627  
 Professional Engineer

Job Number: 25-03-063  
 Date: 10/06/2025  
 Designed: HHH Sheet  
 Drawn: HHH 3.1  
 Checked: MGB IMP



Drawing name: V:\2503063\785 Bismark Ave\Drawings\Surveying\Plot Plan\2503063 Site Plan - Option 1.dwg Plotted on: Apr 15, 2026 - 1:46pm Plotted by: thuyth



**NOTES FOR THE DEPTH TO WATER TABLE:**  
 ACCORDING TO NRCS WEB SOIL SURVEY, THE DEPTH TO WATER TABLE ON THE PROPERTY IS APPROXIMATE 1.6 FEET TO 4.2 FEET BELOW GRADE. CONTRACTOR TO ENGAGE A GEOTECHNICAL ENGINEER TO VERIFY THE SITE SOIL CONDITION AND WATER TABLE.

**NOTES FOR GROUND WATER:**  
 1. THE GROUNDWATER LEVEL DEPENDS ON SEASONAL AND CLIMATIC VARIATIONS AND MAY BE PRESENT AT DIFFERENT DEPTHS IN THE FUTURE.  
 2. IF GROUND WATER IS ENCOUNTERED DURING BASEMENT EXCAVATION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENGAGE A GEOTECHNICAL ENGINEER TO PROPERLY ADDRESS THE CONDITION AND ABIDE BY THEIR RECOMMENDATIONS.  
 3. IF GROUND WATER IS ENCOUNTERED DURING THE EXCAVATION FOR BMP CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENGAGE A GEOTECHNICAL ENGINEER TO DETERMINE THE ACCURATE GROUNDWATER TABLE AND PROVIDE THE GROUNDWATER TABLE INFORMATION TO THE STERLING COMPANY TO REDESIGN THE STORM WATER BMP'S AS APPROPRIATE BASED ON GEOTECHNICAL ENGINEER'S RECOMMENDATION.

**SITE NOTES:**  
 1. THE GROUND WATER SERVICE CONNECTION: 1 1/4" TAP  
 2. CONTRACTOR TO VERIFY THE SEWER CONNECTION WILL HAVE POSITIVE FLOW TO THE MAIN PRIOR TO STARTING CONSTRUCTION.  
 3. THE UTILITY CONNECTION LOCATION AND COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.  
 4. THE EXISTING SANITARY CONNECTION LOCATION IS ASSUMED AND SHALL BE VERIFIED BY THE CONTRACTOR FOR THE USABILITY OF THE CONNECTION.  
 5. ALL PROPOSED WALLS ARE DESIGNED BY OTHERS.

**F-A-R CALCULATIONS**

|                        |               |
|------------------------|---------------|
| LOT AREA               | 25,984 SQ.FT. |
| HOUSE FIRST FLOOR      | 3,214 SQ.FT.  |
| HOUSE SECOND FLOOR     | 1,582 SQ.FT.  |
| HOUSE TOTAL            | 4,796 SQ.FT.  |
| ATTACHED GARAGE        | 760 SQ.FT.    |
| ATTACHED GARAGE (50%)  | 380 SQ.FT.    |
| TOTAL FLOOR AREA       | 5,176 SQ.FT.  |
| FLOOR AREA RATIO       | 0.20          |
| MAXIMUM FAR IS         | 0.30          |
| PER ARCHITECTURAL PLAN |               |

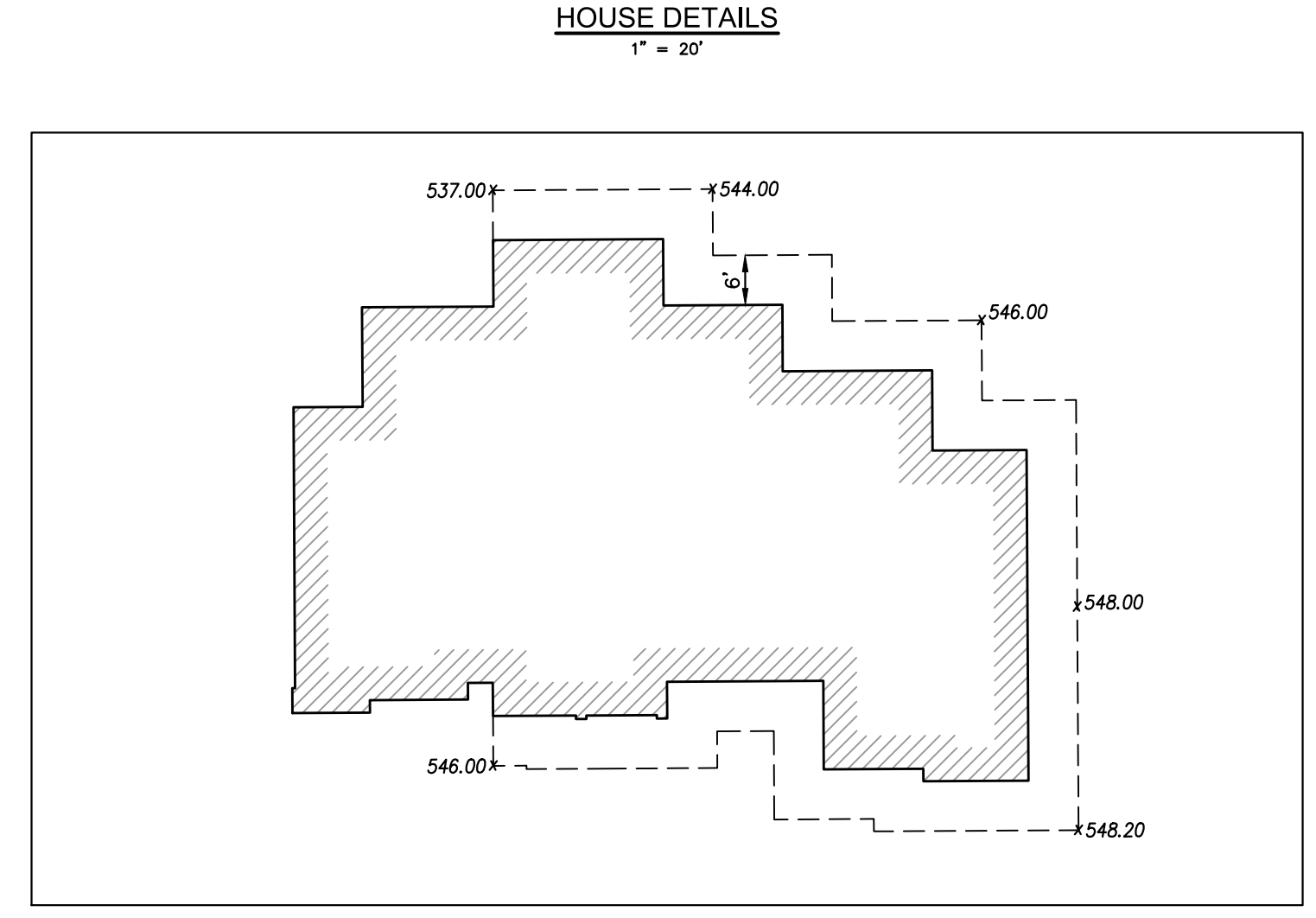
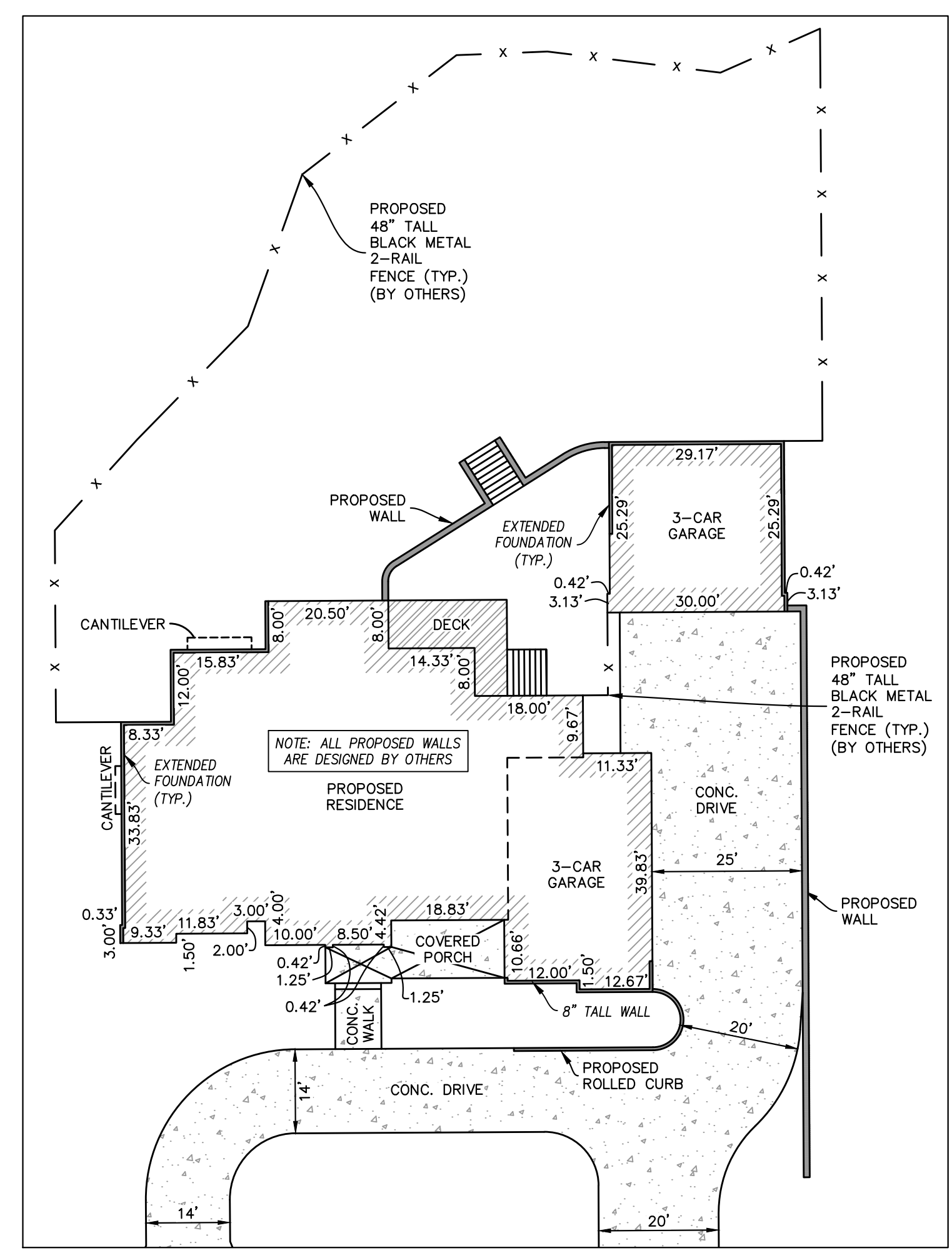
**GREEN SPACE CALCULATIONS**

|                     |               |
|---------------------|---------------|
| LOT AREA            | = 25,984 S.F. |
| TOTAL IMPROVEMENTS  | = 9,163 S.F.  |
| TOTAL PERVIOUS AREA | = 16,821 S.F. |
| GREEN SPACE AREA    | = 64.74%      |

**AVERAGE GRADE ELEVATION CALCULATION:**  
 $537.00' + 544.00' + 546.00' + 548.00' + 548.20' + 546.00' = 3269.20' / 6 = 544.87'$   
 THE MAXIMUM HEIGHT OF THE HOUSE SHALL NOT EXCEED 544.87' + 35.00' = 579.87' PER THE CITY OF GLENDALE ZONING ORDINANCE.

**DISTURBANCE LIMITS:**  
 TOTAL DISTURBANCE = 18,555 S.F. OR 0.426 AC.  
 TOTAL DISTURBANCE WITHIN 25' BUFFER SETBACK = 990 S.F. OR 0.023 AC.  
 TOTAL DISTURBANCE WITHIN 25' ADDITIONAL SETBACK = 4,278 S.F. OR 0.098 AC.

**TOTAL INTRUSION LENGTH AND AREA:**  
 TOTAL INTRUSION AREA WITHIN 25' BUFFER SETBACK = 990 S.F. OR 0.023 AC.  
 TOTAL INTRUSION LENGTH WITHIN 25' BUFFER SETBACK = 88 FT.  
 TOTAL INTRUSION AREA WITHIN 25' ADDITIONAL SETBACK = 3,335 S.F. OR 0.077 AC.  
 TOTAL INTRUSION LENGTH WITHIN 25' ADDITIONAL SETBACK = 152 FT.



THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMo

**ISSUE REMARKS/DATE**

|   |   |
|---|---|
| 1 | Update House/Garage Plan - 10/06/25         |
| 2 | Update Stormwater Calcs and Plan - 11/10/25 |
| 3 | BOA Variance Comments - 01/16/26            |
| 4 | Client Comments - 03/11/26                  |
| 5 | Client Comments - 04/14/26                  |

**NIL Custom Homes**  
 #556 Leffingwell Ave.  
 Kirkwood, MO 63122  
 (314) 575-7481

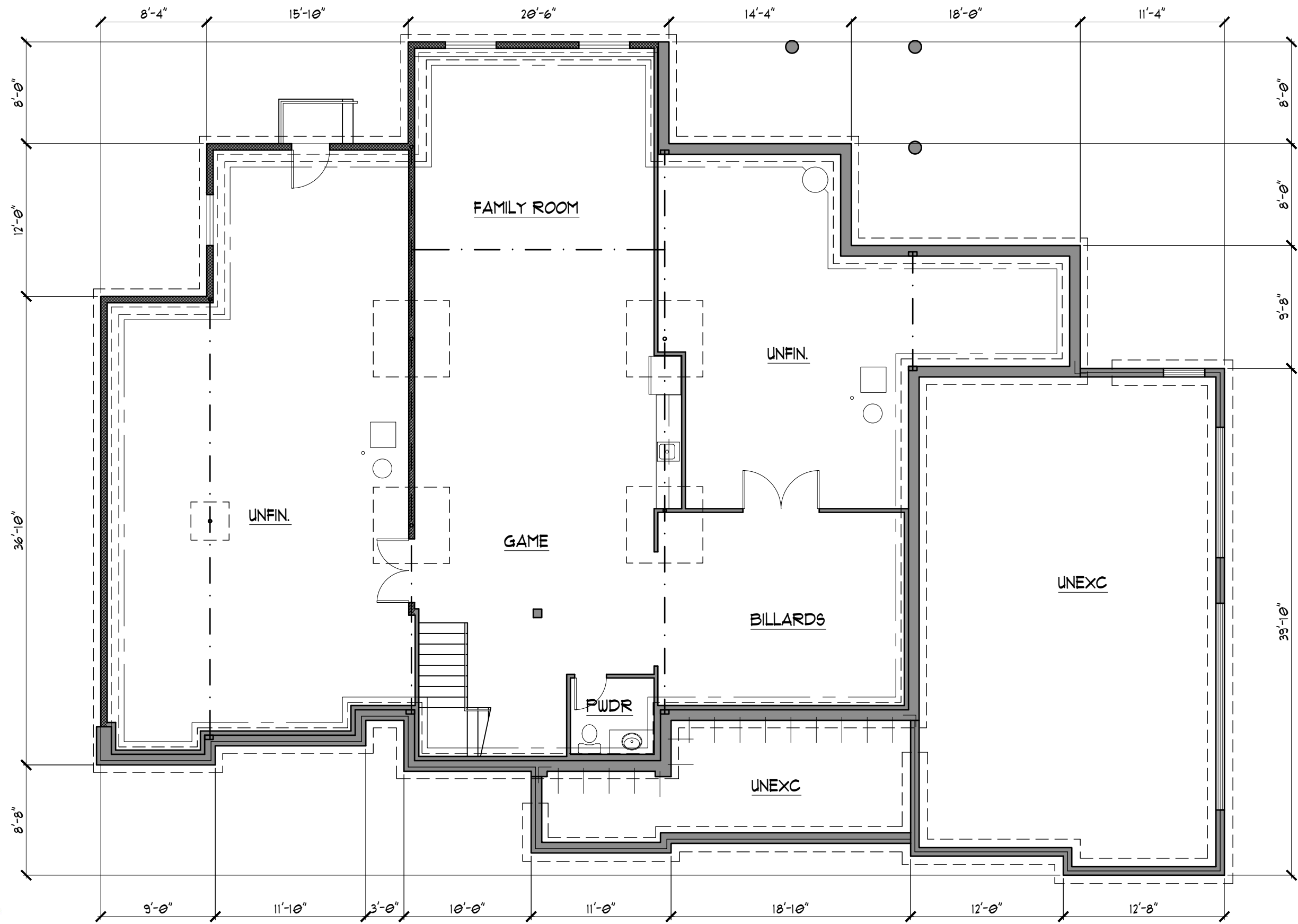
**THE STERLING CO.**  
**ENGINEERS & SURVEYORS**  
 5055 New Baumgartner Road  
 St. Louis, Missouri 63120  
 Ph: 314-487-0440 Fax: 314-487-8944  
 www.sterling-eng-survey.com  
 Corporate Certificate of Authority #001548

**#785 BISMARCK AVENUE**  
 GLENDALE, MISSOURI 63122  
 OPTION #1  
 SITE / GRADING PLAN

NOT APPROVED FOR CONSTRUCTION!  
 FOR REVIEW ONLY

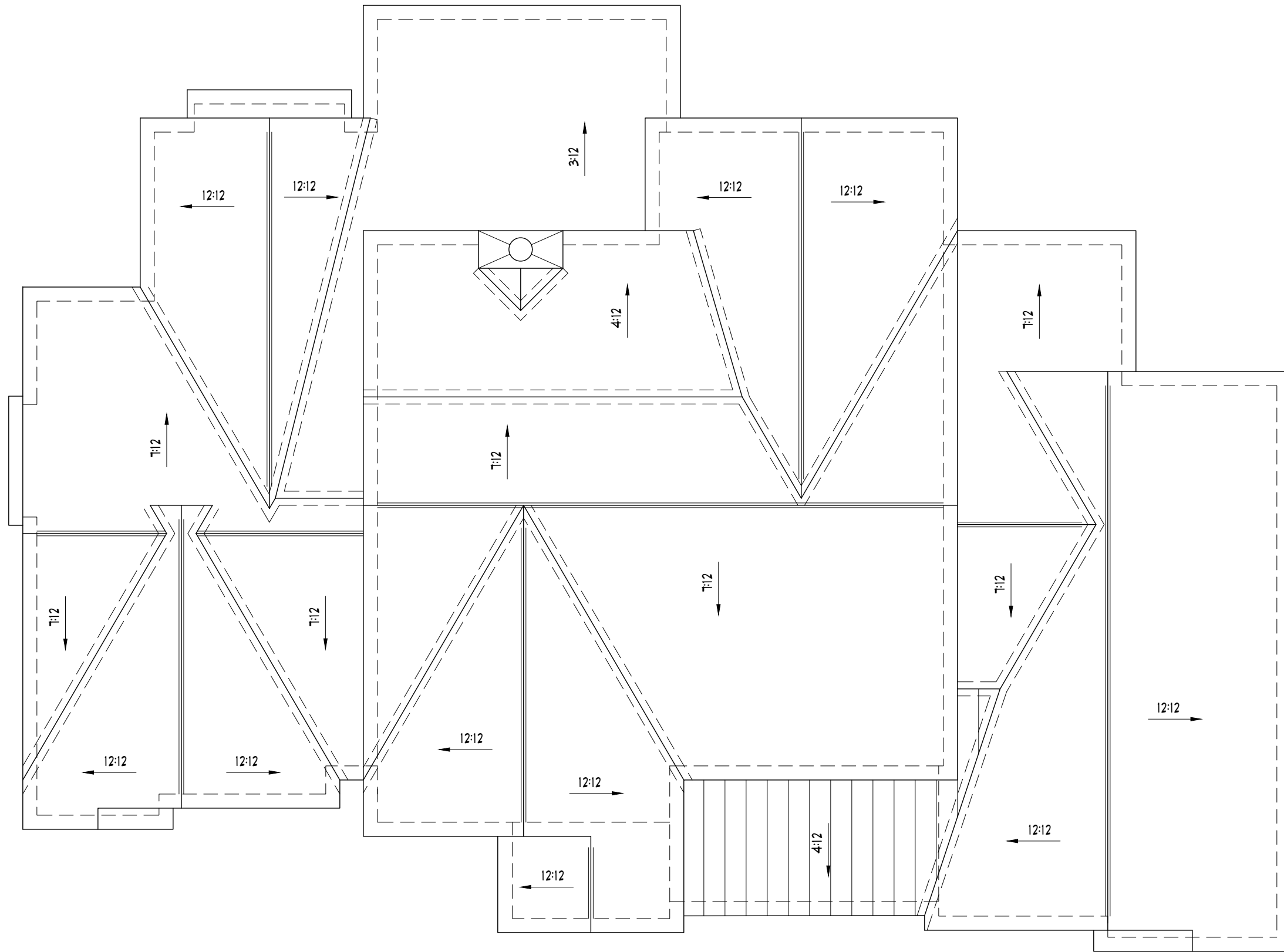
Date: Henry H. Huynh, PE  
 License # PE-2022036827  
 Professional Engineer

Job Number: **25-03-063**  
 Date: **04/15/2026**  
 Designed: HHH Sheet  
 Drawn: HHH **2.1**  
 Checked: MGB IMP





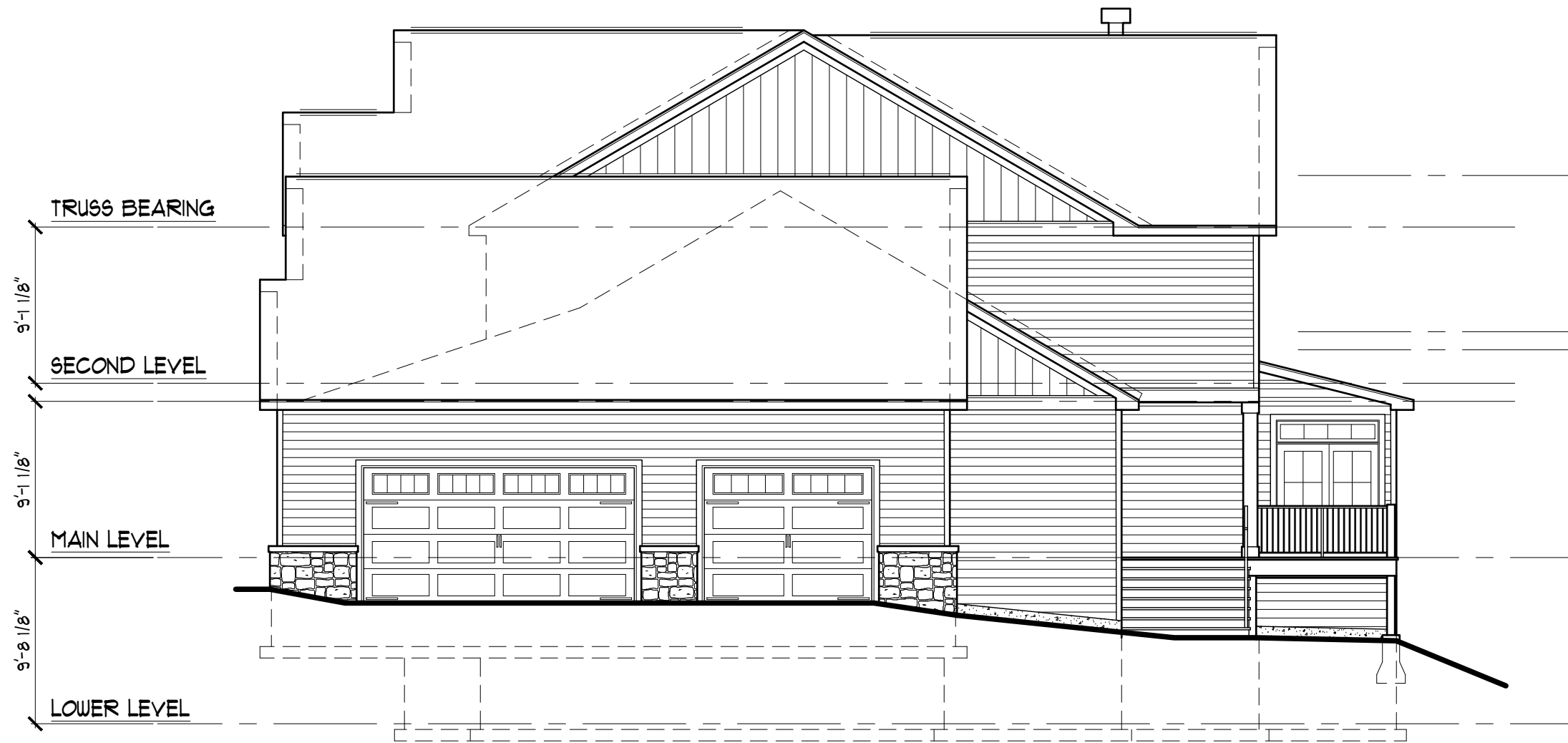






**FRONT ELEVATION**

SCALE: 1/8" = 1'-0"



**RIGHT SIDE ELEVATION**

SCALE: 1/8" = 1'-0"

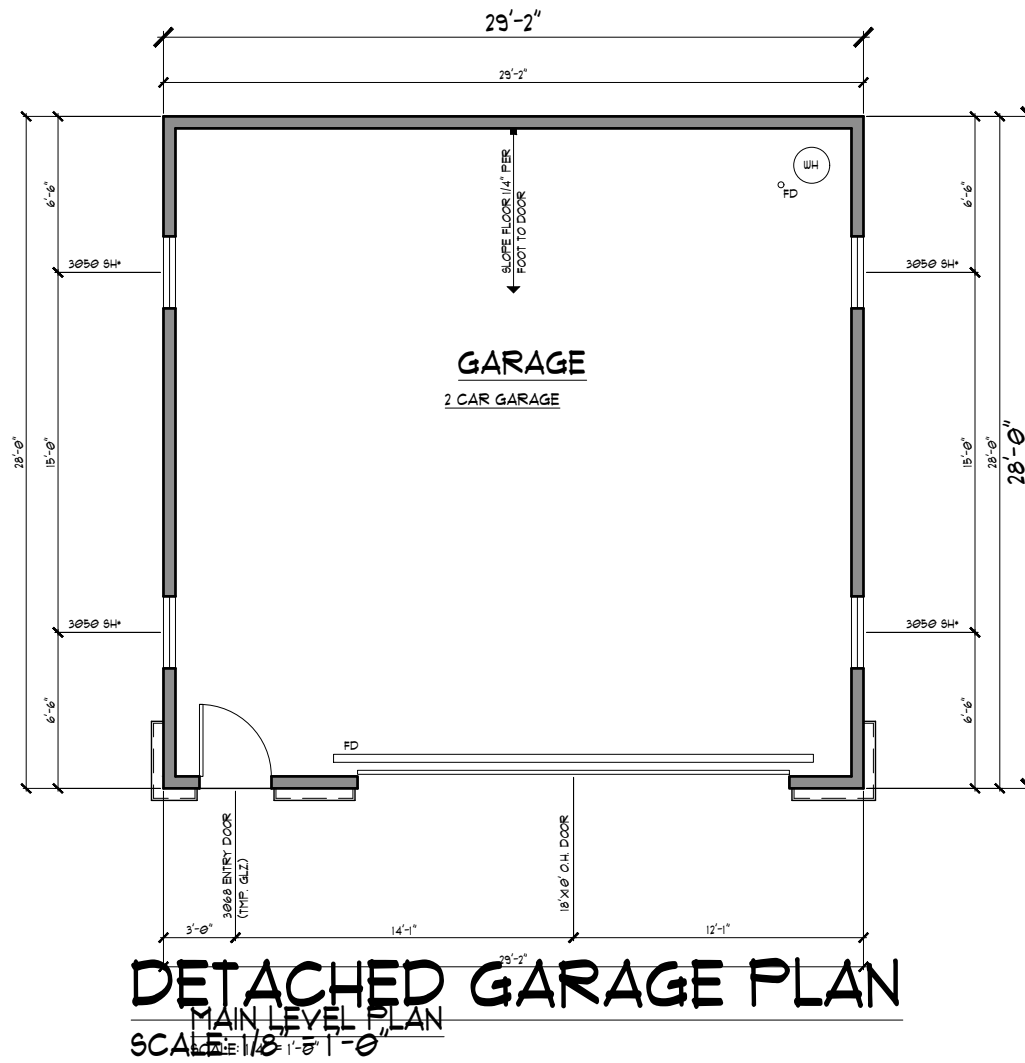


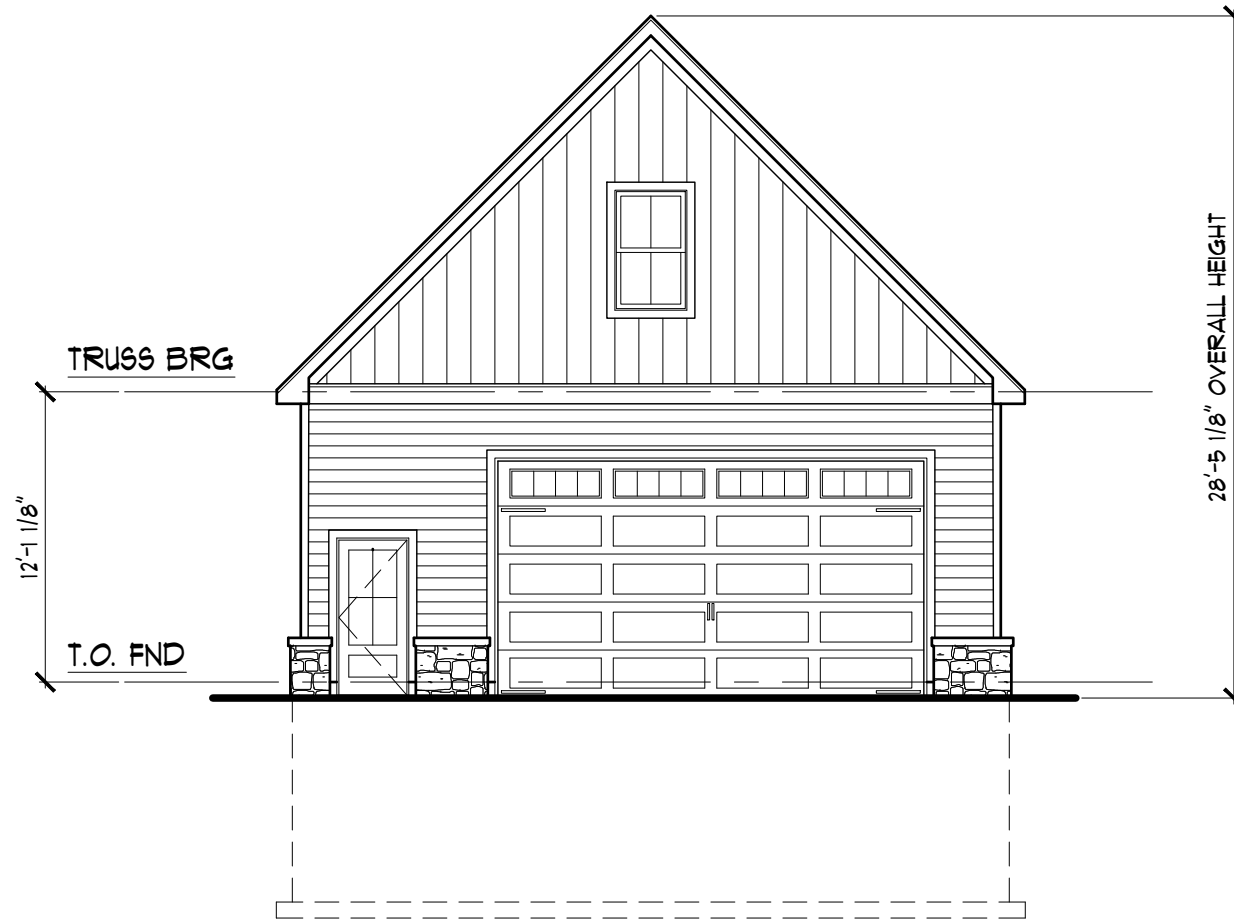
**REAR ELEVATION**  
 SCALE: 1/8" = 1'-0"



**LEFT SIDE ELEVATION**

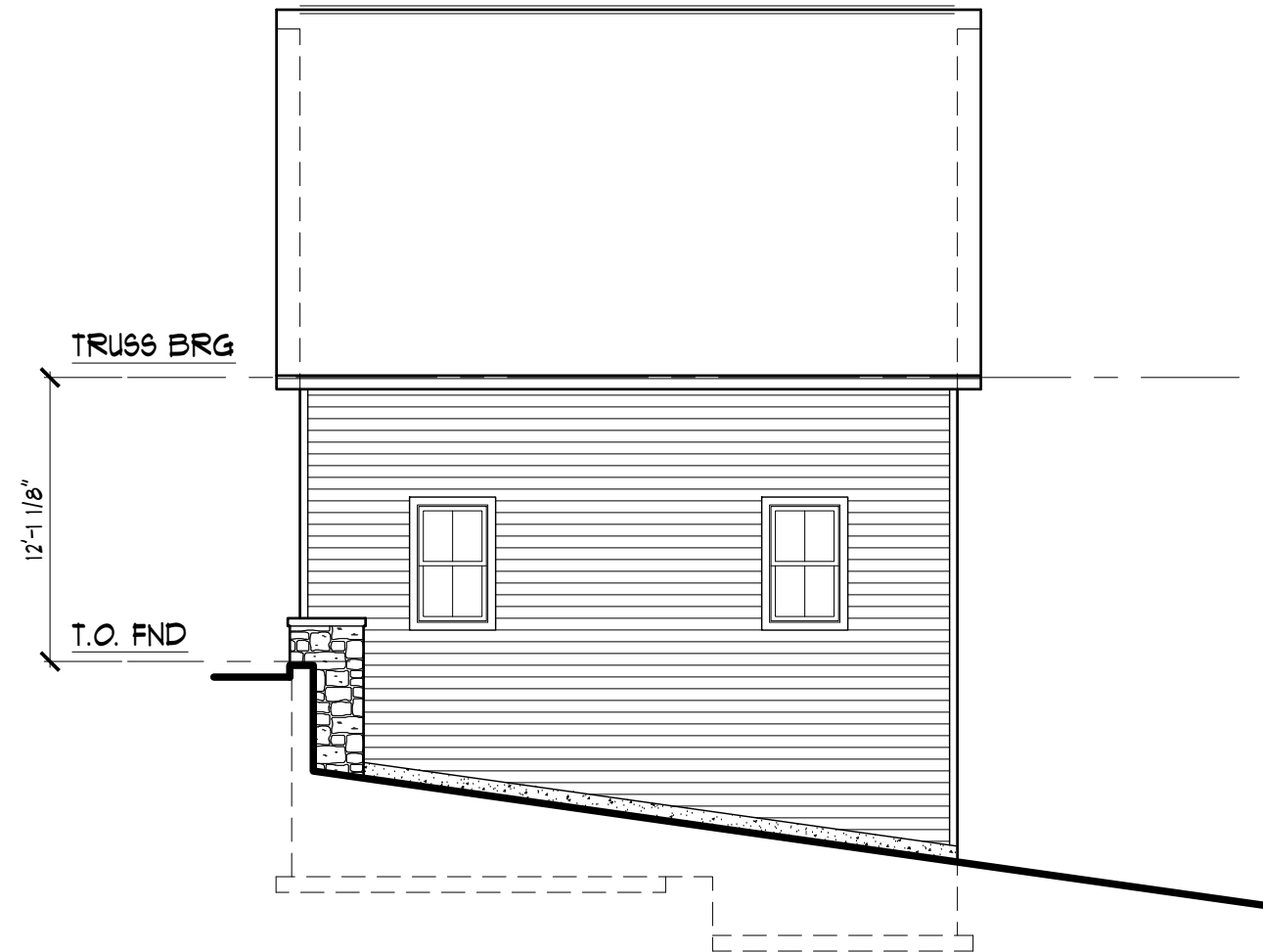
SCALE: 1/8" = 1'-0"





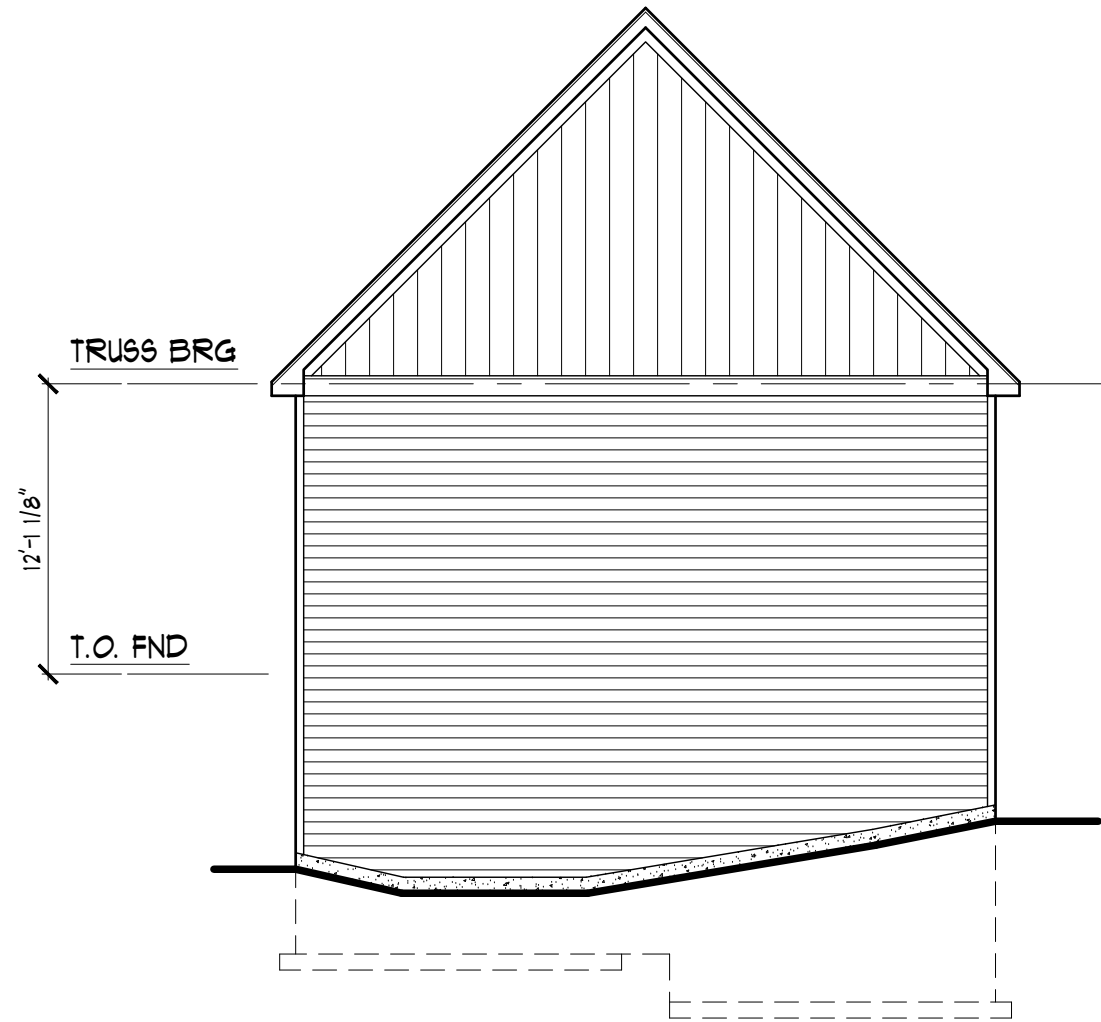
**DETACHED GARAGE FRONT ELEV**

SCALE: 1/8" = 1'-0"



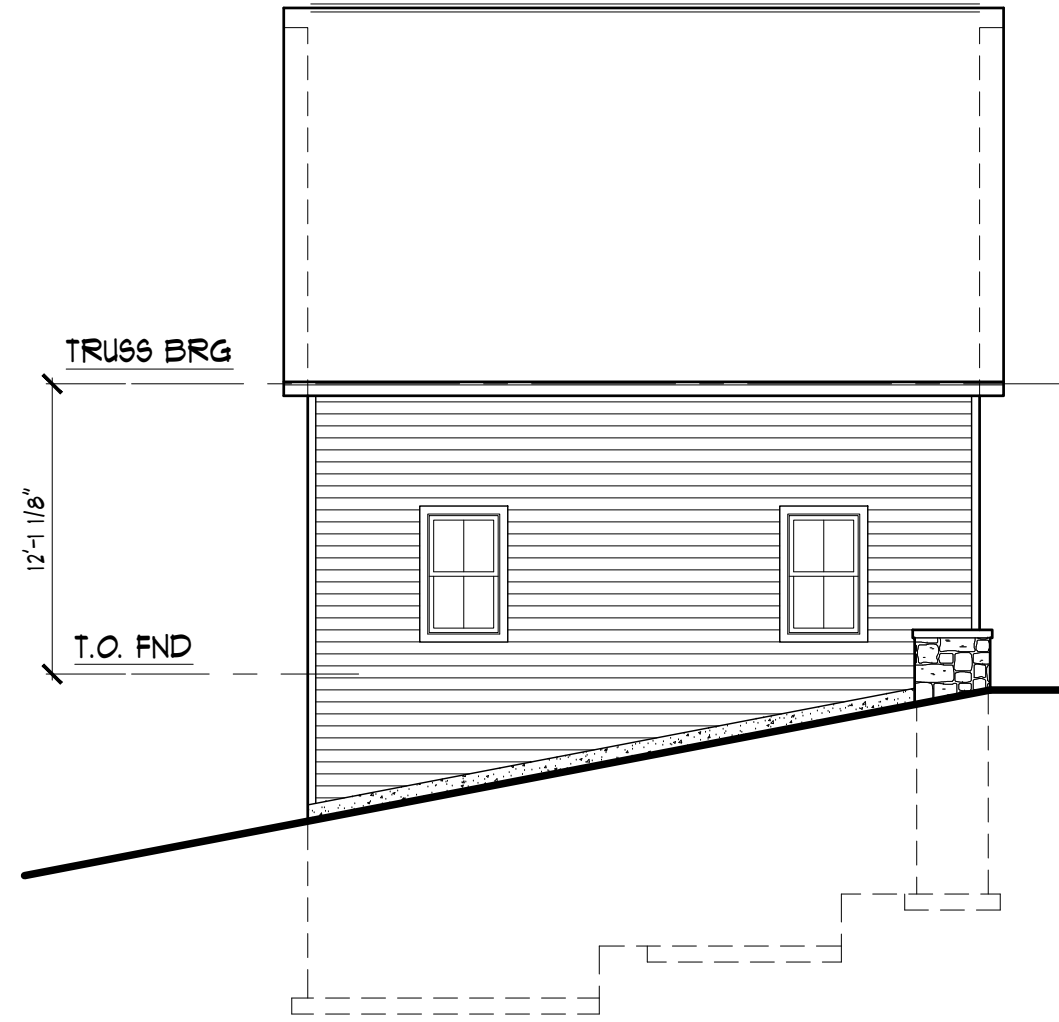
**DETACHED GARAGE RIGHT ELEV**

SCALE: 1/8" = 1'-0"



**DETACHED GARAGE REAR ELEV**

SCALE: 1/8" = 1'-0"



**DETACHED GARAGE LEFT ELEV**

SCALE: 1/8" = 1'-0"



**NJL**  
CUSTOM HOMES

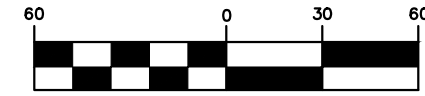
785 BISMARCK  
GLENDALE, MO



TIM HOLLERBACH  
DESIGNS

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ARNOLD, MD 63010  
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GRAPHIC SCALE



( IN FEET )  
1 inch = 60 ft.



THE **STERLING** CO.  
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(314)-487-0440 FAX 487-8944  
www.sterling-eng-sur.com

M.S.D.

|                  |           |          |  |                                   |
|------------------|-----------|----------|--|-----------------------------------|
| DRAWN:<br>H.H.H. | DESIGNED: | CHECKED: | PROJECT:<br><b>#785 BISMARK<br/>AVENUE</b> | SHEET TITLE:<br>AERIAL PHOTO PLAN |
|                  |           |          |  |                                   |
| ISSUE            |           |          | SHEET                                      |                                   |
|                  |           |          | 1<br>OF 1                                  |                                   |