There will be no changes in specification, dimensions, or materials unless approved by the engineer responsible for this drawing.

The drawings are prepared cooperatively by the Natural Resources Conservation Service (NRCS) for the named landowner. Construction found not in accordance with these drawings and specifications shall violate the cooperative agreement and all drawings, specifications, and quantities estimate shall immediately be returned to the local NRCS office.

The contractor/owner is to notify the SOIL CONSERVATION DISTRICT at least 72 hours prior to construction to schedule a pre-construction meeting, facilitate any scheduling, layout, or preliminary mobilization necessary to ensure proper construction inspection to enable appropriate certification of the project. A conservation technician shall verify cut/grade stakes at the contractors request.

The owner/operator gives permission for Maryland Department of the Environment (MDE) and U.S. Army Corps of Engineers (COE) inspection.

It is the landowner's responsibility to obtain all county, state, and federal permits that may be needed, and to maintain this structure and related

All excavation and methods of construction shall be in accordance with the Maryland Occupational Safety and Health (MOSH) standards as set forth in the latest version of the code of Maryland regulations.

#### **GENERAL NOTES:**

- Please contact the local SOIL CONSERVATION DISTRICT at least 3 days prior to construction to arrange a pre-construction meeting @ Phone #
- A permanent water supply line shall be installed in the structure with required backflow preventer
- Grade site to allow water to flow away from structure



# Know what's **below**. **Call** before you dig.

"The Soil Conservation District makes no representation as to the existence or Non-existence of any utilities at the construction site. Shown on these construction drawings are those utilities which have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard exists or damage will occur to utilities"

#### **CRITICAL INSPECTION ITEMS - (Agrichemical Handling Facilities)**

1. The landowner will arrange for a pre-construction meeting between the contractor, NRCS and landowner to review

Water supply with Backflow Preventer:

- the plans, standards and specifications prior to the start of construction.
- 2. There will be no changes in specifications, dimensions, or materials unless approved by the engineer responsible for
- 3. The drawings are prepared cooperatively by the Natural Resources Conservation Service for named owner/operator. Construction found not in accordance with these drawings and specifications shall violate the cooperative agreement and all drawings, specifications, and Quantities Estimate shall immediately be returned to the local NRCS office.
- 4. The following is a list of items that must be inspected by the Technician-in-Charge. If financial assistance is involved

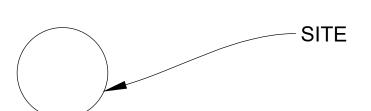
,	Preconstruction Meeting	Date:	Initials:
	Verify layouts:	Date:	Initials:
	Verify all subgrades:	Date:	Initials:
	Verify all subgrade materials CR-6 etc:	Date:	Initials:
	Verify reinforcing steel grade, size and placement:		
	Footings:	Date:	Initials:
	Walls and/or curbs:		Initials:
	Floor:	Date:	Initials:
	Concrete Mix Type II or Type V Cement. 5,000 psi, 5% to 7.5% air entrainment and a slump of 1.5 to 3 inches (A Concrete Mix Design may be required by the Engineer)	Date:	Initials:
	Inspect all concrete in accordance with specifications:		
	Footings:	Date:	Initials:
	Walls and/or curbs:	Date:	Initials:
	Full dimension wall ties:	Date:	
	Floor:	Date:	
	Proper curing of concrete:		Initials:
	Patching wall ties, holes and honeycombing:	Date:	Initials:
	Silica Fume admixture	Date:	Initials:
	Building inspection in accordance with plans:		
	Posts size, material and installation:	Date:	Initials:
	Preservative treatment or use code:		Initials:
	Anchors or embedment installation:	Date:	Initials:
	Header size, material and installation:	Date:	Initials:
	Hardware size, spacing, and type:	Date:	Initials:
	Knee brace (post to truss) size and material:	Date:	Initials:
	Hardware size, spacing, and type:	Date:	
	Y brace (post to header) size and material:	Date:	Initials:
	Hardware size, spacing, and type:	Date:	Initials:
	Hurricane straps:	Date:	Initials:
	Received/reviewed truss design sheet:	Date:	Initials:
	Purlins and girts, material and installation:	Date:	Initials:
	Hardware size, spacing, and type:	Date:	Initials:
	Siding and roofing, material and installation:	Date:	Initials:
	Hardware size, spacing, and type:	Date:	Initials:
8	Subsurface Drainage (if applicable)		
	Orain placement and installation:	Date:	
F	Proper outlet and rodent guard:	Date:	Initials:
	Backfill placement and compaction	Date:	Initials:
	All disturbed areas seeded and mulched:	Date:	Initials:
	Eye wash station:	Date:	Initials:
	Fire extinguisher (Type ABC 20Lb Minimum):	Date:	Initials:
	Warning Signs in Place (Made of all-weather material):	Date:	

Date: \_\_\_\_\_ Initials: \_\_\_\_\_

# Landowner-Site Name

Agrichemical Handling Facility (309)





# **REVISED 12/18/2024**

**LOCATION MAP** 

# USER TO ENTER CONSTRUCTION SEQUENCE

AGRICHEMICAL HANDLING FACILITY CONSTRUCTION SEQUENCE

Scale: 1" = 100' 1. A pre-construction meeting is **REQUIRED** a minimum of 3 days prior to construction

with the landowner, contractor, and SCD Technician.

2. LANDOWNER IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS.

3. Install sediment controls by direction of technician/engineer or as shown on plan (including all stockpiles).

4. Strip topsoil and safely stockpile as shown on plan.

Excavate site.

Install electrical conduit and waterlines to structure.

Set post, girders, trusses, and brace boards.

8. Install stone where concrete will be installed.

9. Set forms, placement of steel, and set reinforcement wire. 10. Pour slab, footer, wall, curbs, etc.

11. Install footer drain/stone, gutter outlets as directed by technician/engineer.

12. Install safety eye wash and shower and signs. 13. Backfill and grade site to allow water to flow away from building, establish seedbed.

14. Seed all disturbed areas to establish vegetative cover (as per recommended).

USER TO INSERT SHEET LIST TABLE

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST NRCS SPECIFICATIONS FOR EACH CONSERVATION PRACTICE LISTED ON THE PLANS. IF NOT PROVIDED IN THE PLANS AND SPECIFICATIONS, THE SPECIFICATIONS FOR EACH CONSERVATION PRACTICE CAN BE FOUND IN SECTION IV OF THE MARYLAND ELECTRONIC FIELD OFFICE TECHNICAL GUIDE (eFOTG) LOCATED AT: https://efotg.sc.egov.usda.gov/#/state/MW UNDER 'Conservation Practice Standards & Support Documents'

AS	-BUILT	STATEMENT	
THE CONSERVATION STAND		E(S) MEETS OR E SPECIFICATION	
INSPECTED BY	SIGNATUF	RE	DATE
CONSTRUCTION APPROVAL	SIGNATUR	RE	DATE
VERIFIED DISTRICT CONSERVATIONIST	SIGNATUF	RE	DATE
AS BUILT CONTRACT	ITFMS:		
DPACTICE		AS-BUILT	AS-BUILT

AS BUILT CONTRACT ITEMS:	40 DI III T	40 BUILT
PRACTICE	AS-BUILT Reportable Amount	AS-BUILT Contract Amount
	-	
	1	

USER TO ENTER INFO AFTER AS BUILT HAS BEEN COMPLETED

## OWNER/CONTRACTOR STATEMENT

I CERTIFY THAT THIS DESIGN HAS BEEN EXPLAINED TO ME BY A REPRESENTATIVE OF THE COUNTY SOIL CONSERVATION DISTRICT, AND I UNDERSTAND THE CONTENTS, ALL CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND SPECIFICATIONS, I FURTHER UNDERSTAND THAT ALL CONSTRUCTION WILL BE UNDER THE INSPECTION OF THIS OFFICE.

WNER/OPERATOR	SIGNATURE	DATE

CONTRACTOR'S SIGNATURE DATE

Ground lime 50% o'Ground lime 50% oxides

All disturbed areas All disturbed areas to be stabilized within 7 days of vithin 7 days of completion, using troompletion, using the following recommendations. mmendations. Tall Fescue Tall Fescue 65 lb/ac Perennial RyegrassPerennial Ryegrass or 5 lb/ac 5 lb/ac Redtop (tolerates mRedtop (tolerates moist sites) 2 lb/ac 2 lb/ac White Clover White Clover 5 lb/ac 5 lb/ac 20-40-40 Fertilizer 20-40-40 Fertilizer 500 lb/ac 500 lb/ac

Straw Mulch Straw Mulch 2 tons/ac 2 tons/ac Seeding Dates March 15 thru May 31

August 1 thru September 30

3 tons /ac

r 15

3 tons /ac

It is the landowner it is the landowner responsibility to obtain All County, ibtain All County, State, and Federal State, and Federal permits that may be needed, and be needed, and to maintain this struto maintain this structure and those regulations. USER TO SELECT CORRECT SEEDING TABLE AND ENTER CORRECT SEEDING RECOMMENDATIONS

> Producers are responsible for securing grading, building, electrical, and plumbing permits to install the required facilities and for properly managing the facility.

INFORMATION CAN BE FILLED OUT BY TYPING IN

COMMAND	LINE "DWGPROPS" AND SELECT "CUSTOM" TAB			a R	
Owner:					
Site Address:				tura	
Tax Map & Parcel:				Nat	
Contact Person:			File Name	:	
Topography Source:	Shown on plans as 1ft contour intervals derived from total station survey dated	MD_	1040_AgCh	emFacilit	.dwg

irom total station survey dated XY Coordinate System: NAD\_1983\_StatePlane\_Maryland\_FIPS\_1900\_Feet Horizontal Datum:

D\_North\_American\_1983 Vertical Datum: Assumed

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Sheet 1 of

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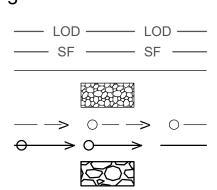
District

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Legend

Limit Of Disturbance Silt Fence **Existing Structure Existing Access Road Existing Pipeline** Proposed Pipe Proposed Rock **Existing Contours** 



----*EL*----

**PLAN VIEW** 

TBM #1 (IP): Elev = ???.??

building.

Existing ground surface generated by local survey. Survey completed using Topcon

- Outlet drains, holes through the concrete and/or curbs, are not permitted in the chemical storage, mixing, loading and collection areas.
- Producers are responsible for securing the necessary permits to install the required facilities and for properly managing the facility.
- To prevent the surface from contamination from chemicals, all concrete exposed to chemicals must have a Silica Fume admixture for concrete meeting the requirements of ASTM 1240 Designation C or be sealed with a chemically resistant non-vapor forming coating.

**Agrichemical Mixing Facility** Construction Notes: (12/26/2023)

- Use a chemically resistant submersible pump or an above ground centrifugal or piston pump that creates a minimum of turbulence within the sump. The pump may be operated either electrically or manually. Provide a filter between the sump pump and sprayer or rinsate tanks.
- All electrical components shall be waterproof and explosion proof for the submersible pump and waterproof for the above ground pump. Install all electrical components in accordance with local and national electrical codes.
- A water supply is required inside the facility for an emergency washing area. Locate the emergency washing area where it is easily accessible to the facility user. A drop shower is strongly recommended (See Detail). An emergency eyewash station is required. Portable eyewash stations may be used.
- All parts of the plumbing system shall be corrosion resistant. Design all plumbing to allow for easy drainage to prevent freezing and in accordance with local codes.
- A permanent water supply line is required at the facility for an emergency washing area. Locate the emergency washing area where it is easily accessible to the facility user. Include with the emergency washing area a faucet and emergency eye wash station. A drop shower is strongly recommended.
- The entrance to the chemical-mixing pad shall be graveled and/or paved, or otherwise treated to provide a suitable entrance for the equipment and to prevent erosion and the tracking of sediment onto the chemical-mixing pad. Minimum width of the entrance shall be 4 feet wider than the widest piece of equipment used at the facility. The length of the entrance shall be a minimum of 1.5 times the largest wheel circumference of the equipment used at the facility. If entrance doors contain locks on inside, please provide additional lockable access door into the
- A mixing platform may be used to facilitate the filling of the spray equipment. The recommended minimum platform size is 2.5 to 3 feet high, with a minimum work area of 3 feet by 4 feet and is moveable on the pad.
- Provide a rinsate storage tank to temporarily hold rinsates resulting from cleaning the chemical mixing pad or sprayer. Locate the rinsate tank(s) on the chemical-mixing pad.
- Label the tanks with type of chemicals. Tanks shall be fiberglass, polyethylene, or other durable material and have the capacity to meet the requirements of the operation plan. Provide a separate tank for each target crop. Herbicides should be kept in separate tanks from any other compounds.
- Post highly visible waterproof warning signs, such as "CAUTION, CHEMICAL STORAGE AREA," or similar signs at all entrances to the facility. Place "NO SMOKING" signs both outside and inside the facility. Bilingual signs are recommended. All signs (size, location, color, etc.) shall meet the requirements of Occupational Safety and Health Administration (OSHA) 29.
- CFR 1910.144 and 29 CFR 1910.144; American National Standards Institute (ANSI) Z35.1-1979, Z35.4-1973, Z525.1-1991, and Z535.2-1991; and any applicable federal, state, or local laws and regulations.
- Where small chemical containers are stored on-site, provide a secure area for protection against vandalism or unauthorized access. The small chemical storage area shall elevated and include appropriate safety devices including locking doors, ventilation, lighting, fire extinguisher (ABC use rating, dry chemical, minimum 20 pound capacity), and a smoke detector with an audible alarm

Compaction Requirements (12/26/2023)

Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller.

If subgrade of the facility is located on fill material, a geotechnical engineer must certify the foundation subgrade as meeting or exceeding 2000 PSF soil bearing capacity and provide a signed and sealed report or letter. A copy must be provided to the field office prior to any further work being completed.

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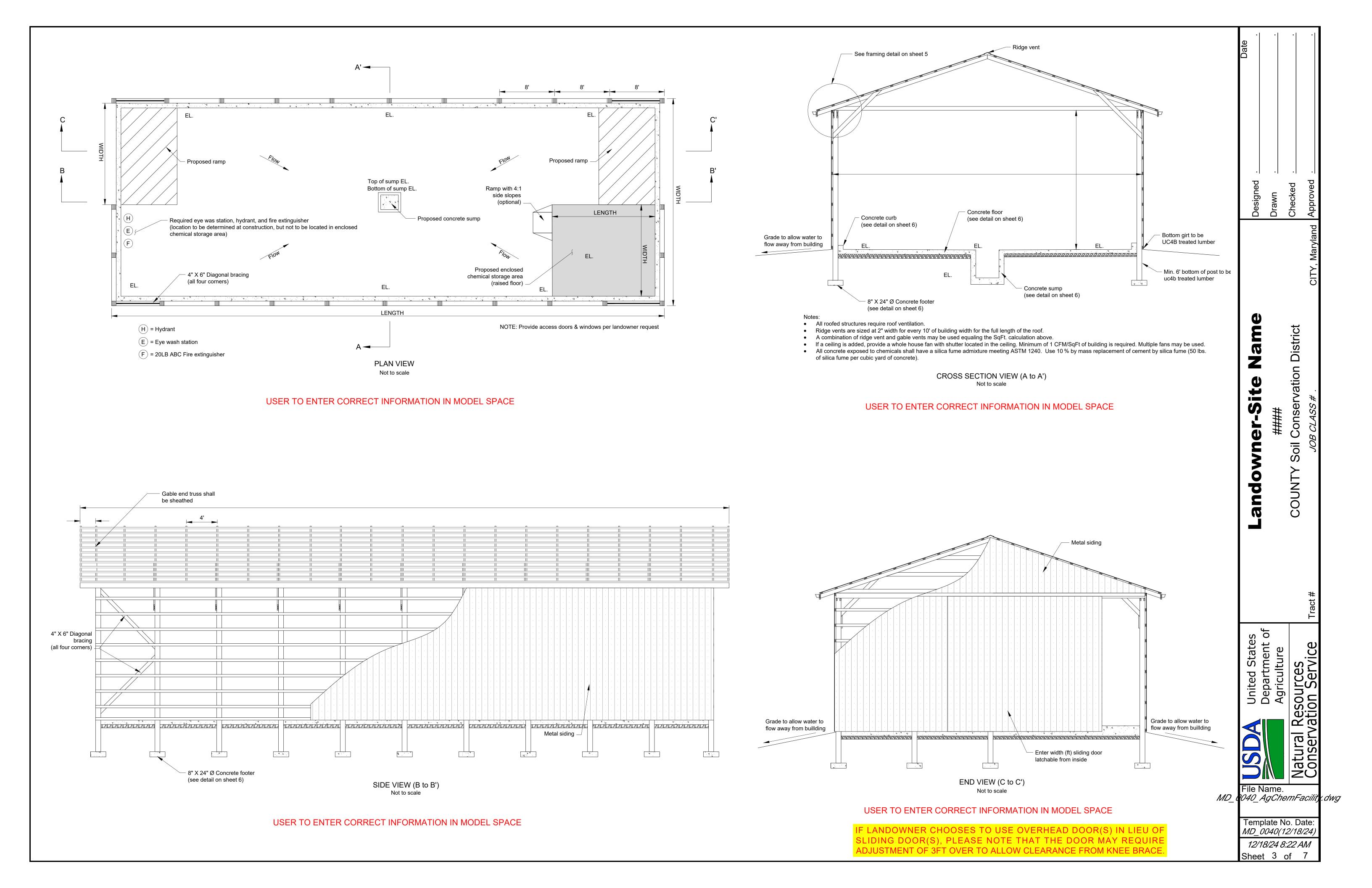
BENCH MARK DESCRIPTIONS

Top of 1" X 2" wooden hub, marked by witness lath.

TBM #2: Elev = ???.?? Top of 1" X 2" wooden hub, marked by witness lath, near NW corner of

TBM #3: Elev = ???.?? Top of bolt in NW corner of concrete.

Hybrid system in NAD83 Datum .



	Date Date Date Drawn Checked
SECTION A - A'  USER TO SHOW SECTIONS A THRU C ON THIS SHEET FOR THE DESIGN SEE PLAN VIEW ON SHEET 3 TO SEE LOCATIONS OF THE SECTIONS REQUIRED	Landowner-Site Name  ####  COUNTY Soil Conservation District
	United States USIDA United States Department of Agriculture Agriculture Agriculture Agriculture Agriculture

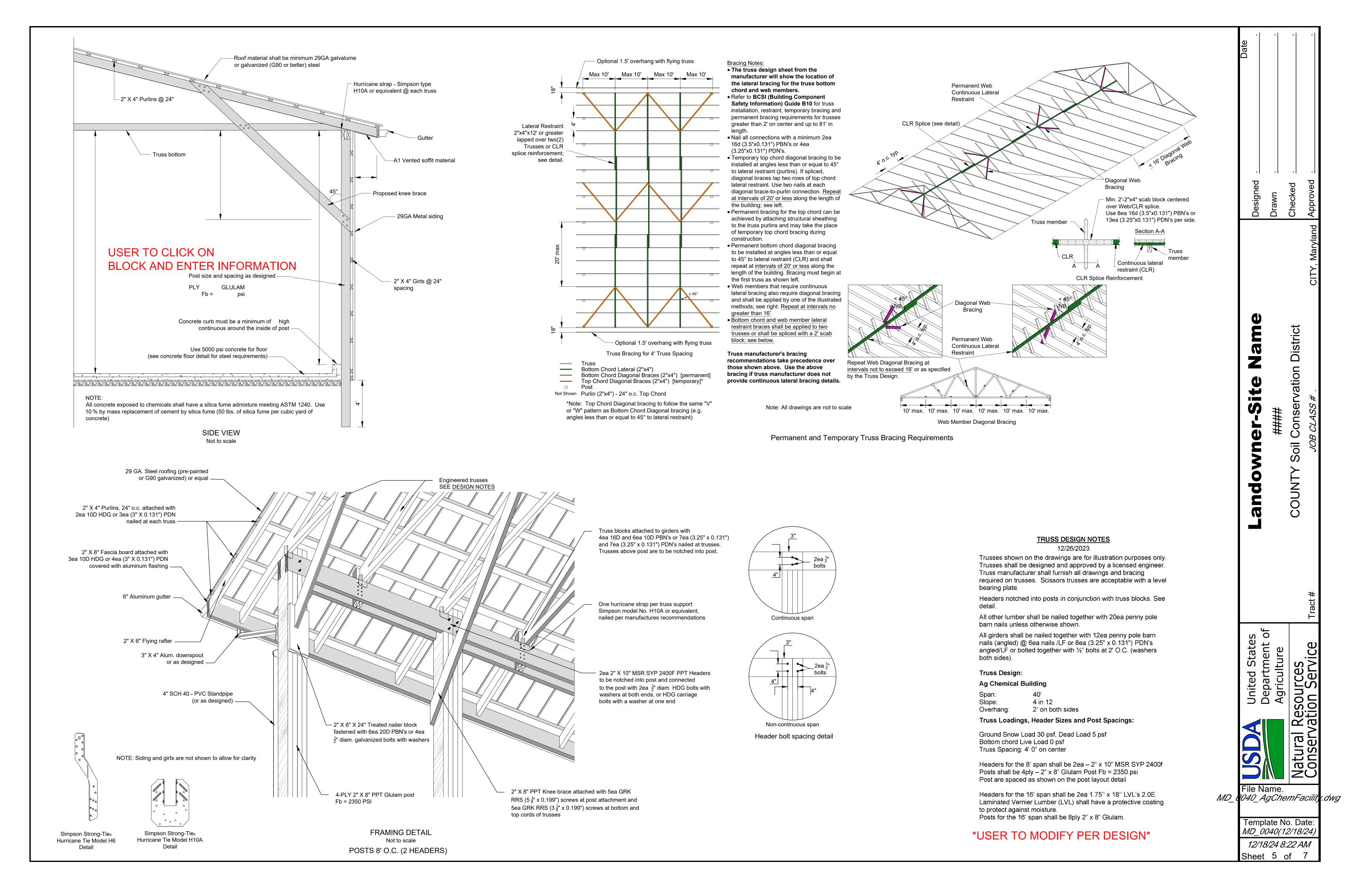
SECTION B - B' SECTION C - C'

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Sheet 4 of 7



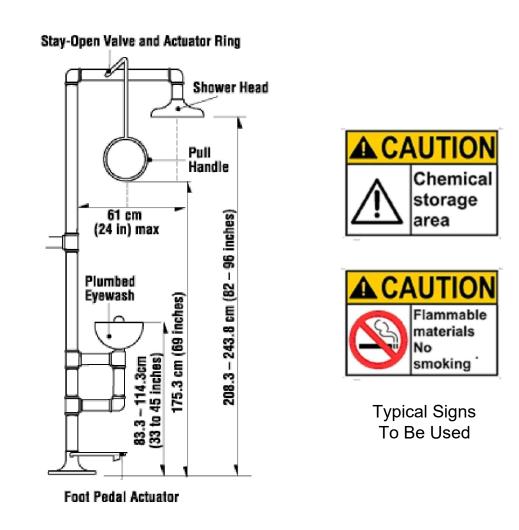
# **USER TO SELECT CONCRETE CURB HEIGHT** waterstop - #4 Re-bar "L" @ 12" spacing (3' long) 1) 5000 psi concrete 2) Grade 60 steel

6" High Concrete Curb

Not to scale

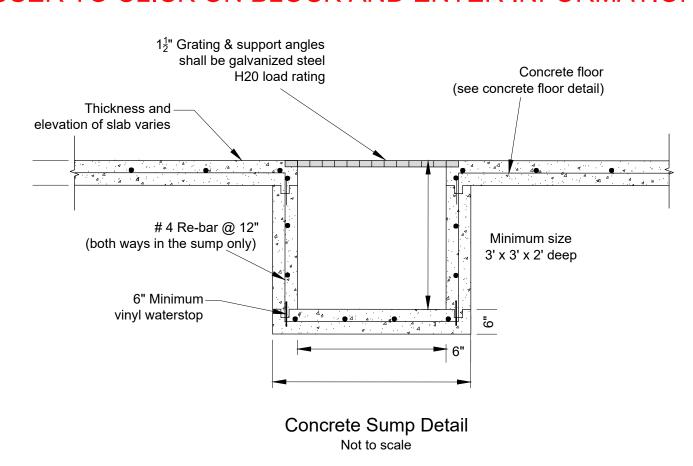
# Concrete floor (see concrete floor detail) Compacted earthfill 1ea 15" long X $\frac{1}{2}$ " dia. steel rod through posts where concrete collar is placed (required) 1' Thick placed concrete collar (concrete wet mix) −8" X 24" diam. Concrete footing (may be precast "cookie" or cast in place, minimum set time 24 hours) minimum concrete strength 3,000 psi NOTE: This detail represents the typical embedment of a perimeter post for the structure Post Embedment Detail

Not to scale



Typical Eyewash Station

## USER TO CLICK ON BLOCK AND ENTER INFORMATION



# #4 Re-bar @ 12" grid spacing

5" of CR6 or MSHA #57 stone as base material Notes:

1) 5000 psi concrete 2) Grade 60 steel

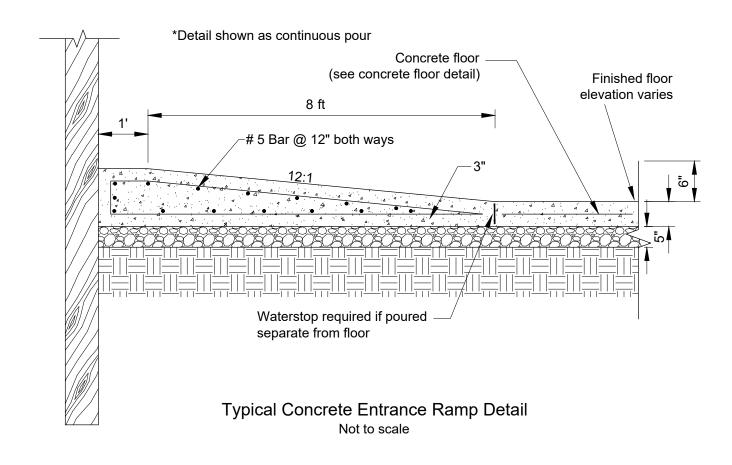
3) See additional notes in Concrete Construction Specifications

4) If tractor trailers (HS20 rating) will be traveling on concrete, increase concrete

thickness to  $7\frac{1}{2}$ ", #4 re-bar @ 12" grid spacing.

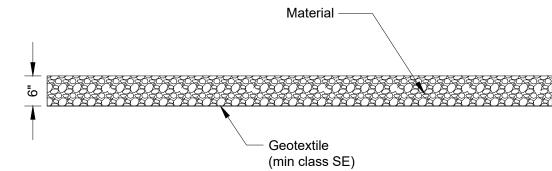
Concrete Floor Detail Not to scale

## USER TO CLICK ON BLOCK AND ENTER INFORMATION



#### USER TO CLICK ON BLOCK AND ENTER INFORMATION

# USER TO CLICK ON BLOCK AND ENTER INFORMATION



- Remove topsoil prior to grading and stockpile outside limits of access lane construction.
- Overlap all filter fabric at least 2 feet.

**GENERAL NOTES:** 

 Topsoil shall be used to facilitate revegetation. Seed all disturbed areas according to the seeding specifications.

> Access Lane Not to scale

#### Note: Geotextile to meet the following Maryland State Highway Administration requirements

Maryland State Highway Administration requirements.						
Maryland Application Class	Type of Geotextile	Grab Strength Lb D 4632	Puncture Strength Lb D 4833	Permitivity Sec 1	Apparent Opening Size Max Mm D 4751	Trapezoid Tear Strength Lb D 4533
C.F.	NONWOVEN	200	80	0.2	0.3	80
SE	WOVEN	250	90	0.2	0.3	90

#### TIMBER CONSTRUCTION NOTES FOR SIDED AGRICHEMICAL HANDLING FACILITIES

#### 4/9/2018

1. All lumber below the fascia board level shall be Southern Yellow Pine, No.2 KD, 19% m.c. or better unless specified otherwise. All other lumber may be either Southern Yellow Pine or Spruce-Pine-Fir No. 2 or better unless specified otherwise. All lumber with ground contact including the skirt board shall be pressure treated in accordance with the chart below. The portion of the post that is above ground does not require pressure treatment.

Use Codes for Treated Building Materials		
Use Code for Ground or Manure Contact Lumber	UC4B	
Use Code for all other Treated Lumber	UC4A	

2. All metal hardware and nails shall be stainless steel or hot-dip galvanized (HDG). Stainless steel shall be grade types 304 or 316. Hot dipped galvanized fasteners shall conform to ASTM A 153 and hot-dip galvanized connectors shall conform to ASTM Standard A 653 (Class G-185).

#### All fasteners, connectors, and any other metal contacting ACZA, ACQ or CA treated wood shall be stainless steel.

There may be additional products (other than stainless steel and hot-dip galvanized) which are suitable for use in treated wood except for the types listed in the note above. These screws and connectors have proprietary anti-corrosion technologies and are acceptable for treated wood exposed to moisture when used according to the hardware manufacturer's recommendations and must be clearly marked "for use with" the type of treated wood being used.

- 3. Laminated Vernier Lumber (LVL) shall have a protective coating to protect against
- 4. All structural nail connections must be nailed with twisted or ring shank nails.
- 5. Power driven nails (PDN) shall be 0.131 Diameter or larger, deformed shank, and helical (spiral) or annular (ring) type. The number and length of 0.131 diameter power driven nails is specified in parenthesis next to each connection. Pressure shall be applied to wood members to insure tight joints when using power driven nails. The head of the nail may not be countersunk more then 1/16" into the wood.

#### **CONSTRUCTION NOTES (ROOFED STRUCTURES)** 12/26/2023

- 1. All materials and construction shall be in accordance with applicable NRCS standards and construction specifications.
- 2. All components of the completed system shall conform to the lines, grades, elevations, dimensions and material shown on the plans.
- 3. Any changes in the plans or specifications must be approved by the original approver prior to being made. Changes are to be reviewed by the landowner for concurrence.
- 4. All lumber shall be Southern Yellow Pine, No. 2 KD, 19% m.c., unless otherwise
- 5. All truss bracing shall be required as recommended by the truss fabricator and as detailed on the plans and specifications.
- 6. The finished floor elevation shall be a min. 2' above normal water table.
- 7. Roof material shall be minimum 29 gage Gavalume or Galvanized (G90 or better)
- 8. Roofing material shall be stored properly in accordance with the manufacturer's recommendations. Roofing material must be covered if stored outside to prevent premature deterioration.
- 9. Aluminum may be substituted for the steel. The aluminum roofing needs to be properly designed for expansion and contraction and compatibility with other metals. The aluminum roofing shall have a minimum thickness of 0.018 inches, maximum length of 16 feet, sufficient overlap, stainless steel screws for fastening, slotted holes drilled, and neoprene washers used.
- 10. All structures require lateral bracing. Lateral bracing shall be installed as shown on the plans using the appropriate details. Any changes to type of bracing must be made by the engineer responsible for these plans.

#### **AGRI-CHEMICAL HANDLING FACILITY CONCRETE CONSTRUCTION SPECIFICATIONS** Revised 12/26/2023

- All materials and construction shall be in accordance with applicable NRCS Practice Standards, ACI-318 and ACI-350 Appendix H. Cold weather concreting procedures shall conform to ACI-306. Hot weather concreteing procedures shall conform to ACI-305.
- Any changes in the plans or specifications must be approved by the design approver prior to being made. Changes are to be reviewed by the landowner for concurrence.
- Concrete shall have Type II or Type V Portland cement with a water to cement ratio of less than or equal to 0.40, 28-day compressive strength of 5,000 psi, 5% to 7.5% air entrainment and a slump of 1.5 to 3 inches prior to adding superplasticizer and a slump of 3 to 5 inches if superplasticizer is not used. Waterreducing, set-retarding, or other admixture may be used. High range, water reducing agents (superplasticizers) may be used to increase workability, reduce water content, and control concrete temperature in hot weather. The maximum slump after adding high range water reducing agents shall be 7.5 inches. Air entrainment admixtures shall conform to ASTM C260.
- All concrete exposed to chemicals shall have a Silica Fume admixture meeting ASTM C1240. Use 10 % by mass replacement of cement by Silica Fume (50 lbs. of Silica Fume per cubic yard of concrete). Reinforcing steel shall conform to ASTM A615, Grade 60 steel. All reinforcing material shall be free of dirt, loose rust, scale, oil, paint or other coatings. The steel shall be accurately placed into position, as shown on the plans, and securely restrained and blocked (rebar chairs, concrete bricks, etc. Red bricks not permitted) into position prior to placement of concrete. Insertion of steel into fresh concrete is not permitted. Reinforcement steel shall have a minimum of 2 inches of concrete cover against all forms and 3 inches against soil, unless otherwise shown on the plans. All other reinforcement steel splices shall overlap a minimum of 18 inches. Welded wire mesh shall conform to ASTM A1064 and overlap a minimum of 8 inches. The welding of reinforcing steel is not permitted.
- Waterstop will be used as shown on the plans and at all cold and construction joints. The type of waterstop, if not shown on the plans and specifications shall be approved by the field technician prior to use. Waterstop shall not come in contact with principal steel.
- Plasticizing or plasticizing and retarding admixtures shall conform to ASTM C494 Types F or G or ASTM C1017 as applicable. When using a Silica Fume only Type F shall be used.
- Concrete shall not be placed when the daily minimum atmospheric temperature is less than 40° F. The daily temperature must also reach 55° F for the day of placement and for 3 days after placement. Concrete may be placed below these conditions IF facilities are provided to prevent the concrete from freezing during placement and when temperatures are below freezing. Concrete shall also be covered or protected overnight when temperatures are below freezing and shall remain covered for 7 days in accordance with
- When temperatures are below 55° F, the curing period is 7 days. When temperatures are above 55° F, the curing period is 3 days. Accelerating or water-reducing and accelerating admixtures shall be noncorrosive and conform to the requirements of ASTM C494, Types C and E. Cold weather concreting procedures shall conform to ACI-306.
- All concrete has a cuing period as outlined above. Concrete shall be kept continuously moist for the curing period after the placement of the concrete. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Alternatively, the forms may be left on walls for the curing period, wet burlap may be placed over concrete, or curing compounds may be used in lieu of the application of moisture. Curing compounds shall conform to ASTM C309, type 2 and applied within 24 hours of concrete placement. Concrete shall not be exposed to freezing during the curing period.
- 10. Concrete surfaces shall be screeded, floated, troweled and broom finished unless otherwise approved.
- Walls may be backfilled 7 days after the placement of concrete, unless otherwise approved. Posts may be set in column anchors 7 days after placement of concrete.
- 12. Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with quickset, non-shrink hydraulic cement.

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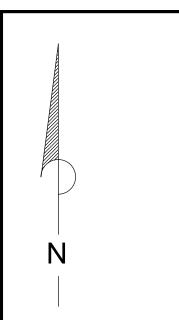
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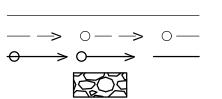
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Legend

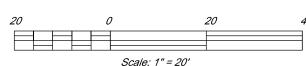
NATURAL RESOURCES CONSERVATION SERVICE

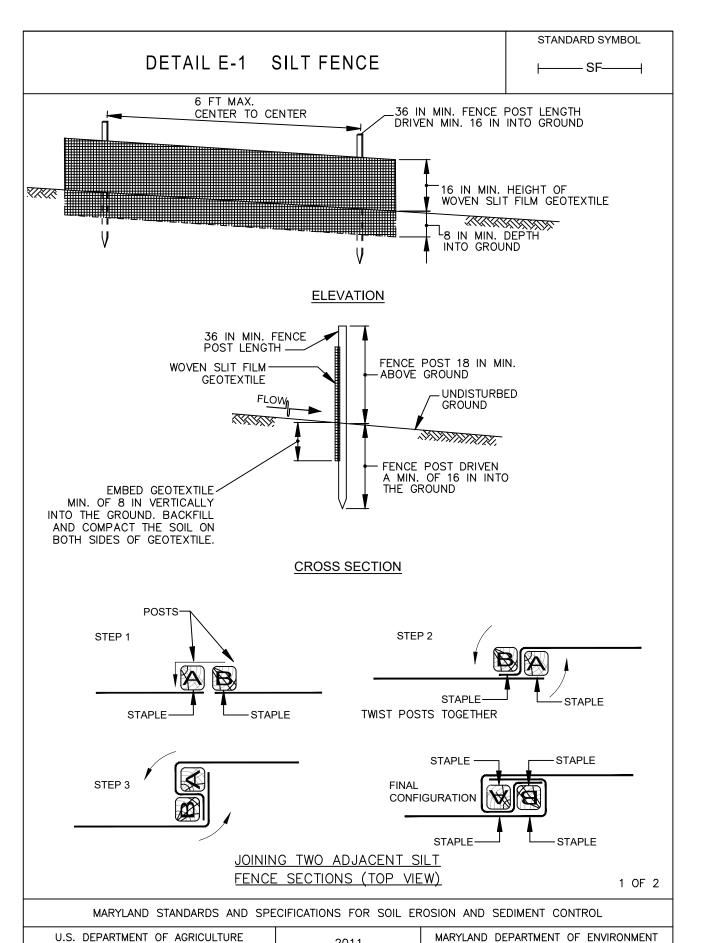
Existing Structure **Existing Pipeline** Proposed Pipe Proposed Rock



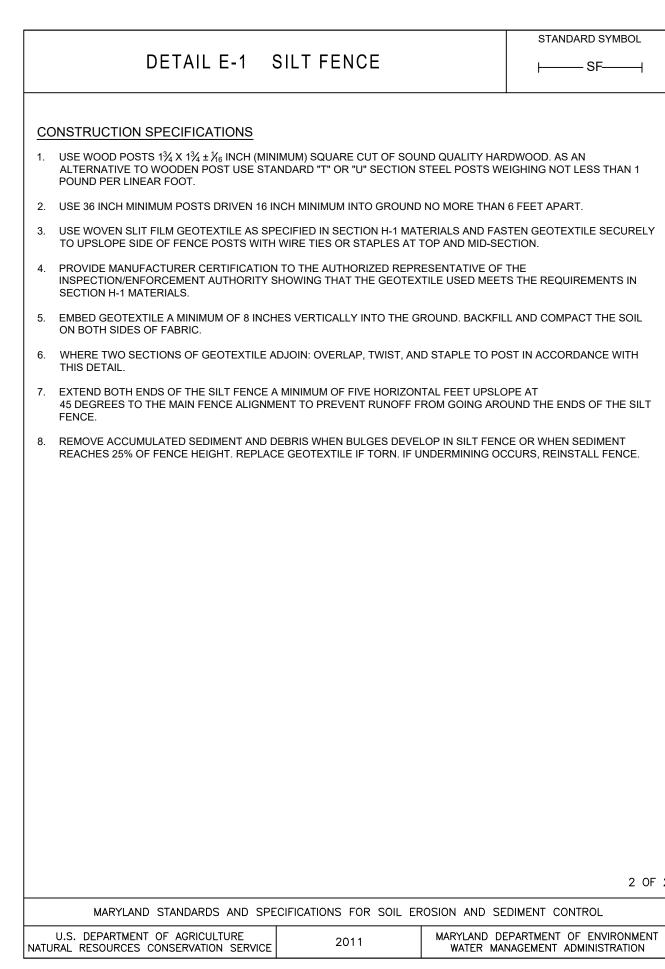
### OUTLET PIPE PROFILE AND ROOF RUNOFF PLAN VIEW

# **PLAN VIEW**





WATER MANAGEMENT ADMINISTRATION



#### " \_Style gutter @ \_\_ ft/ft or % gutter material. Nominal thickness (min. 0.027") Use hidden hangers @ 24" spacing " x " Fascia (SEE NOTE) Downspout, \_\_\_" Diam. or \_\_" x \_\_" Nominal thickness (see sheet for gutter location) (minimum nominal thickness 0.027 in) Downspout hangers (spacing @ 10' o.c. max) (10 FT. MIN) Install a flap or fork type self cleaning (or equivalent) animal guard Existing ground -Riser unit- "Dia. SCH 40 PVC(non-perforated) (2FT MIN) with 90° elbow ELEV. SLOPE %

1) Fascia board material to be spruce, pine, fir or better. Cover with aluminum/vinyl flashing or paint prior to installation of roof gutter 2) No pressure treated lumber allowed

(as needed)

Corrugated plastic tubing " diam.,

\*DOUBLE CLICK TO EDIT BLOCK\*

meeting the requirements of ASTM F667

#### **Gutter Outlet Detail** Not to scale

Outlet section

(last 10' section)

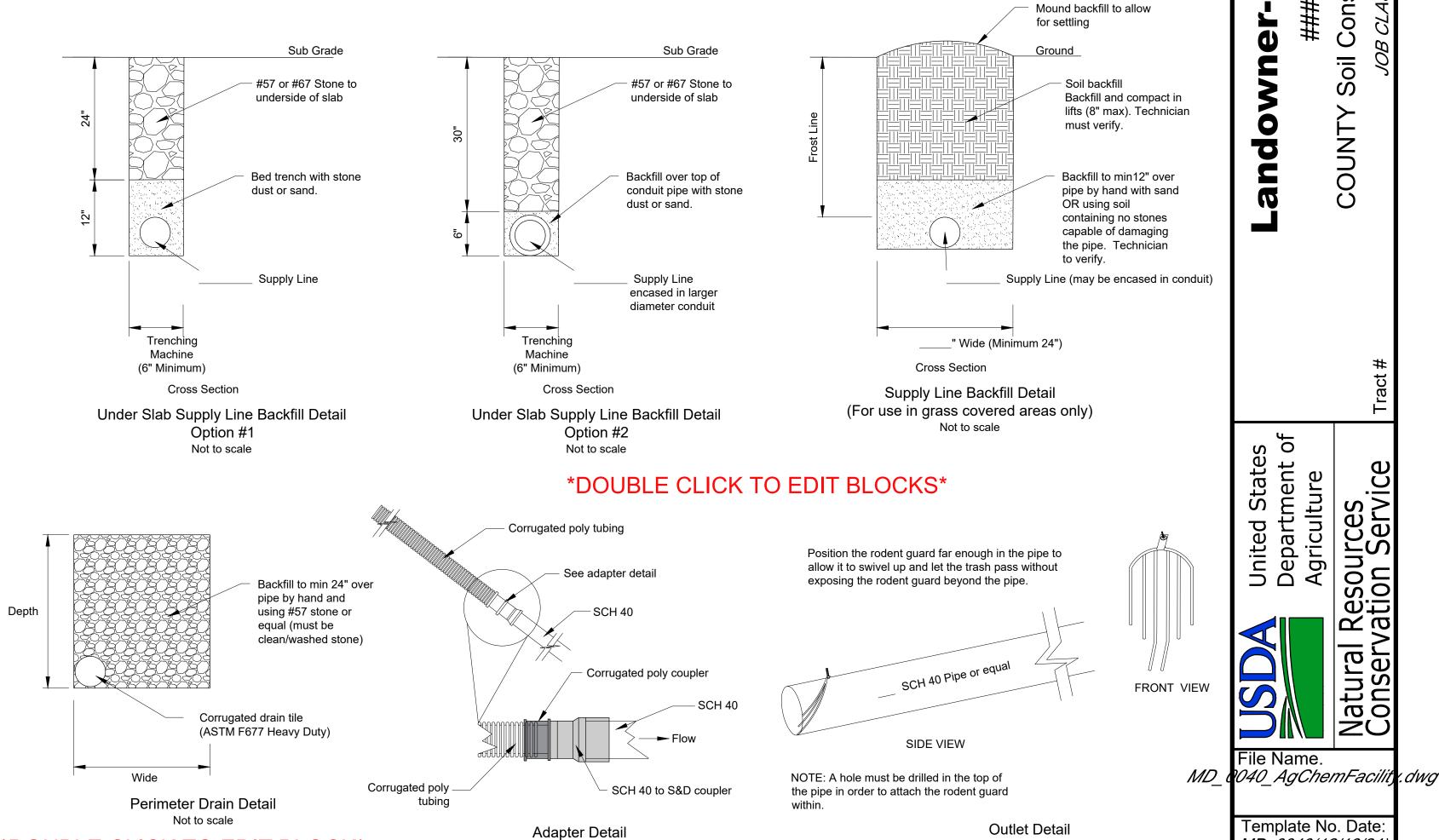
" Dia. solid SCH 40 PVC

4ft x 4ft x 3ft Thick

Riprap outlet

(MSHA Class I) -

#### \*USER TO MODIFY PER DESIGN\*



Not to scale

#### ROOF GUTTER CONSTRUCTION SPECIFICATIONS

- 1. All materials and construction shall be in accordance with applicable NRCS standards and construction specifications.
- 2. All components of the completed system shall conform to the lines, grades, elevations, dimensions and materials shown on the plans.
- 3. Any changes in the plans or specifications must be approved by the original plan approver prior to being made. Changes are to be reviewed by the landowner for concurrence.
- 4. All disturbed areas shall be fertilized, seeded, and mulched or otherwise stabilized as required on the construction plans.
- 5. Existing fascia boards that are damaged, rotten, otherwise unstable or with a nominal thickness less than 2 inches, shall be replaced.
- 6. Rafter ends that are damaged or rotted shall be repaired.
- 7. All lumber used for fascia boards or for rafter end repair shall have a nominal thickness of 2 inches. Cover all fascia boards with aluminum or vinyl flashing or paint before the roof gutter is installed.

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「emplate No. Date:

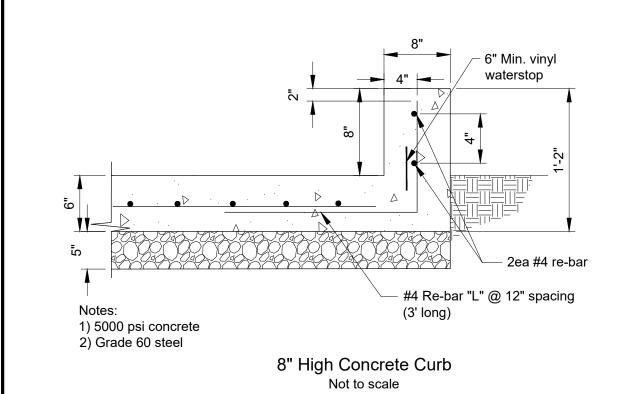
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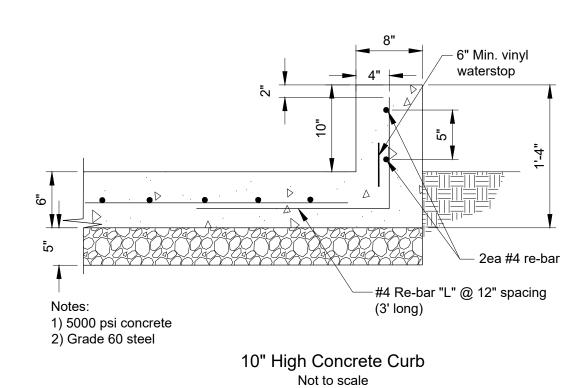
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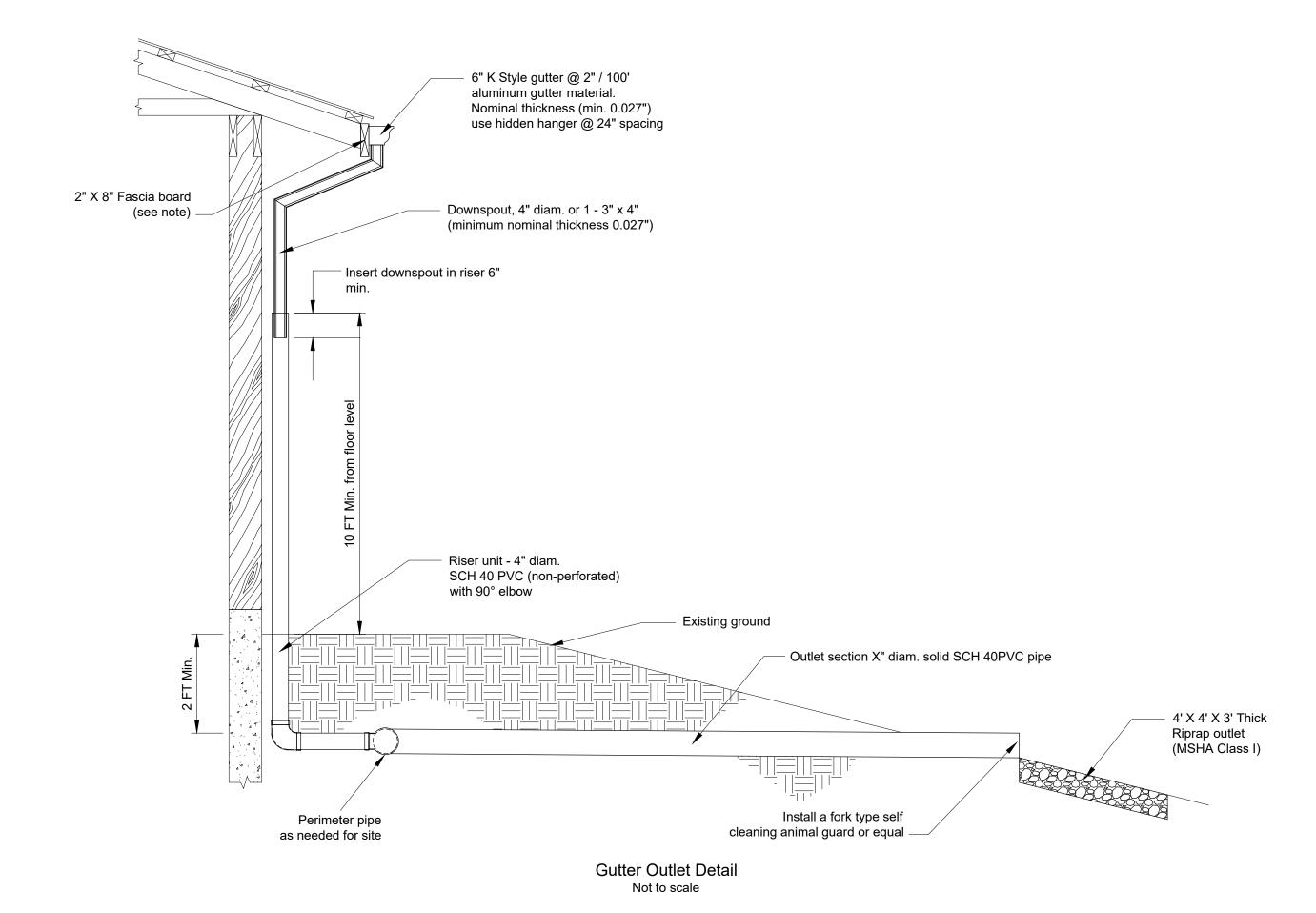
Sheet 7 of

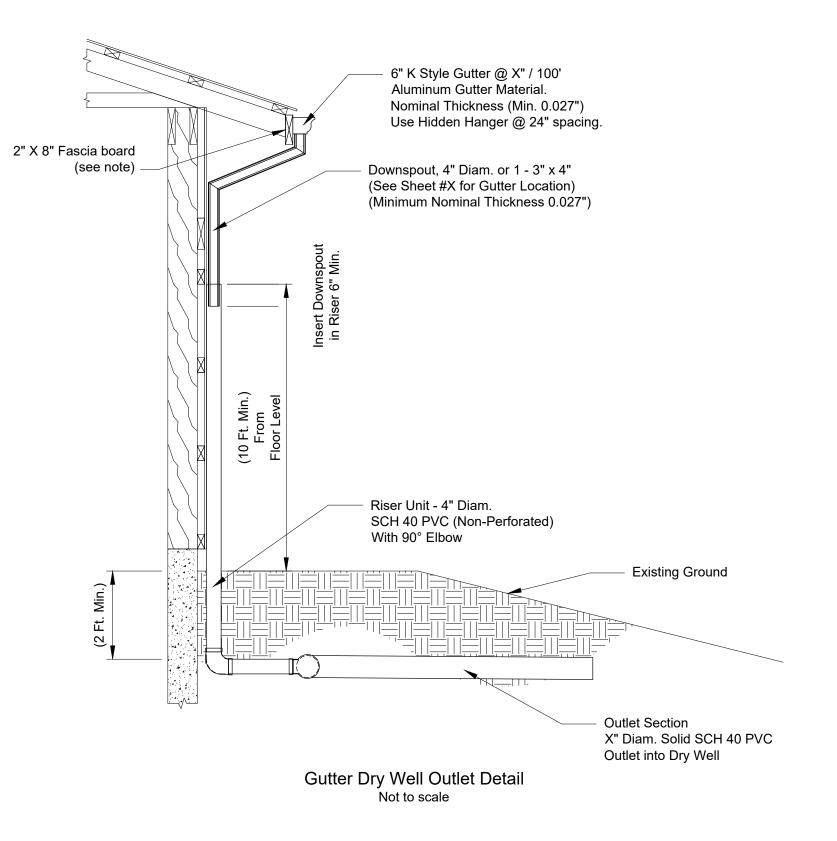
Not to scale

- 8. Down spout outlet connections shall be the manufacturer's preformed (insert) outlets for the given size shown on the design, unless otherwise approved.
- 9. Aluminum gutters and downspouts shall have a minimum thickness of 0.027 inch.
- 10. Galvanized steel gutters and downspouts shall have a minimum thickness of 28
- 11. Where animals or equipment may come in contact with downspouts, steel pipe, schedule 40 PVC or similar material will be used for the downspout.
- 12. Roof gutter supports shall have a maximum spacing of 24 inches unless otherwise approved. Roof gutters shall be mounted to the fascia board using hidden hangers, bolts and ferrules, gutter screws and ferrules, or cradles. Other methods must be approved by the engineer. Spike and ferrules are not approved.
- 13. Itemized invoices from suppliers shall be provided to verify gutter and downspout size, length, material, material gage, and hanger type.
- 14. The Soil Conservation District makes no representation as to the existence or nonexistence of any utilities at the construction site. Shown on these construction drawings are those utilities, which have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard exists or damage will occur to utilities. Miss Utility should be contacted at 1 800-257-7777.





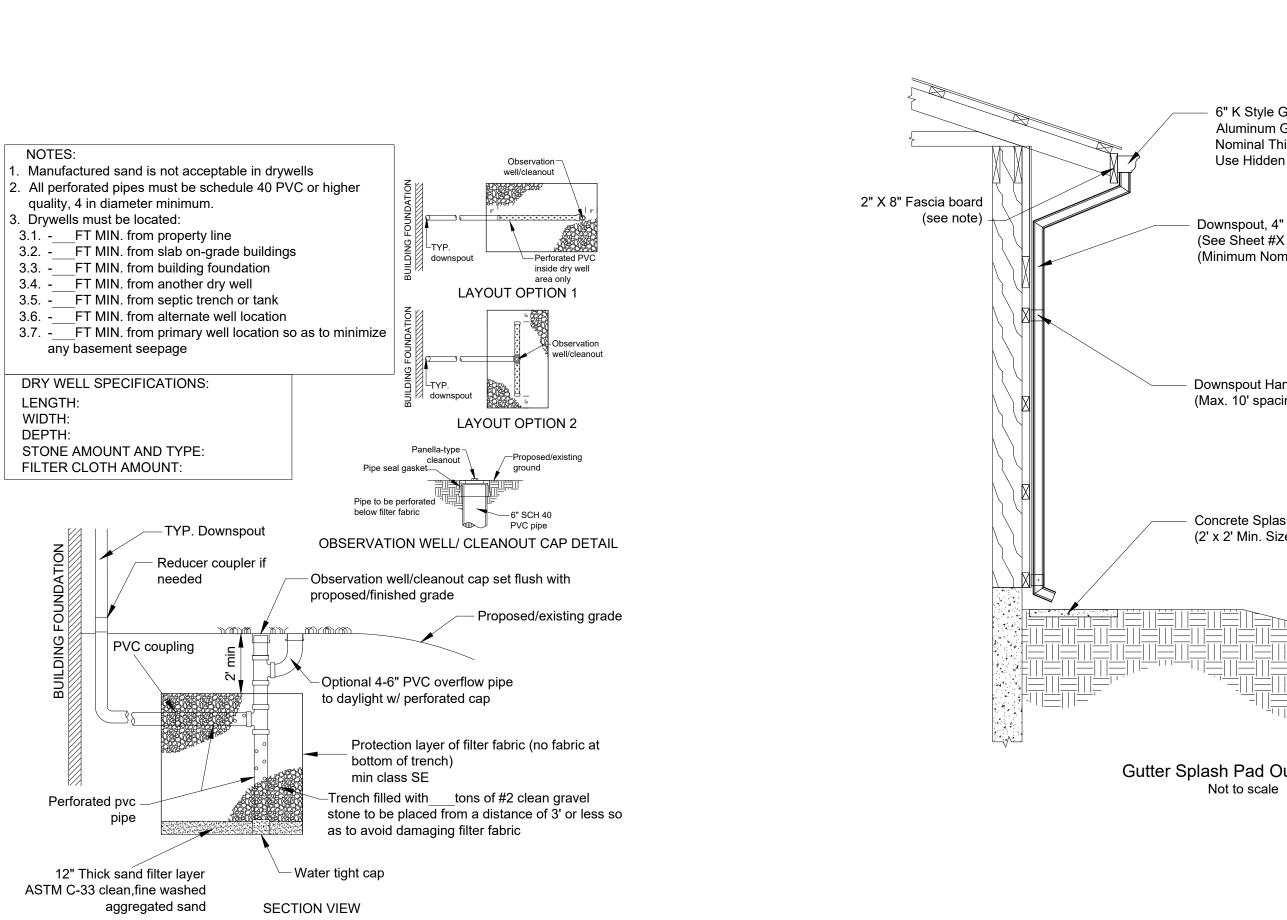


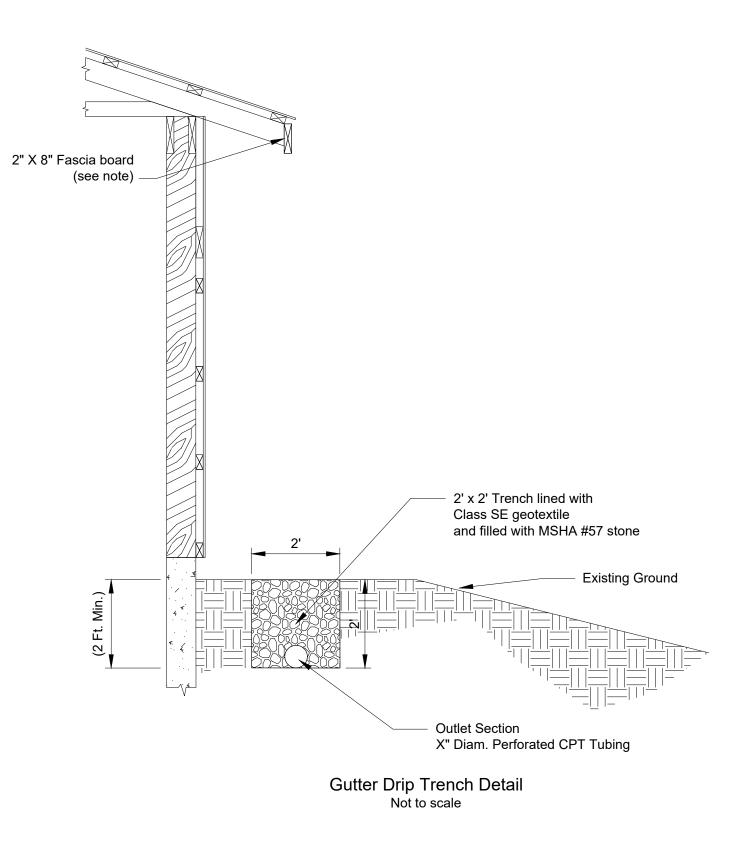


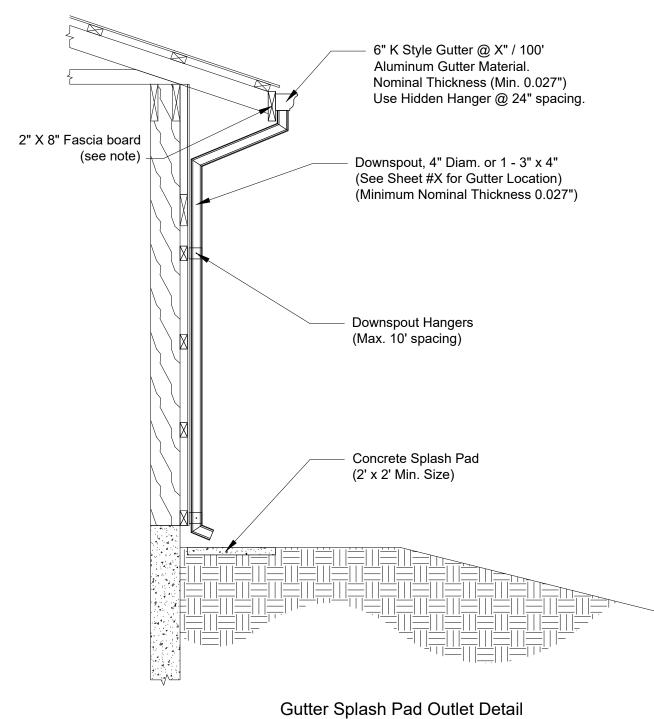
Dry Well Not to scale

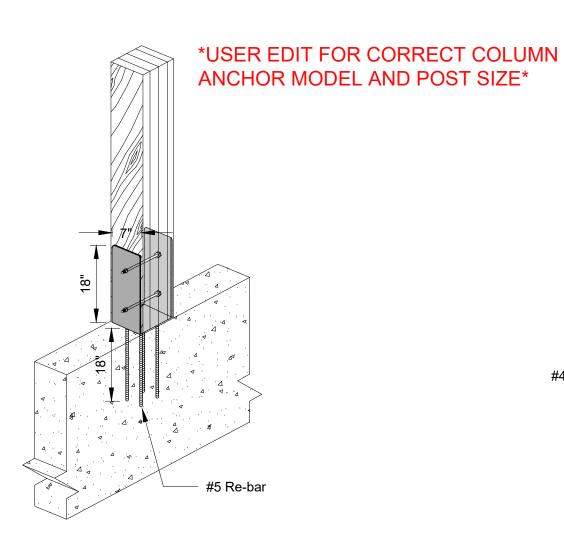
WIDTH:

DEPTH:





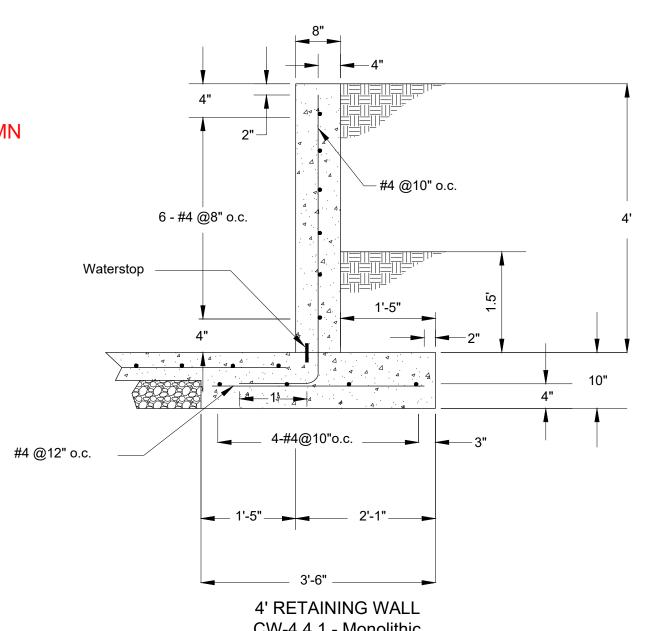




- Permacolumn sturdi-wall plus column anchor (Model # SWP84GL)
- To be used with 4-ply 2" x 8" glulam post
- Equivalent manufactured column anchor can be used and must be
- approved by the engineerPlace column anchor in center of wall prior to pouring the wall
- Follow manufacture's instructions
- Posts may be set a minimum 7 days after the concrete wall is poured

Column Anchor Detail

Not to scale

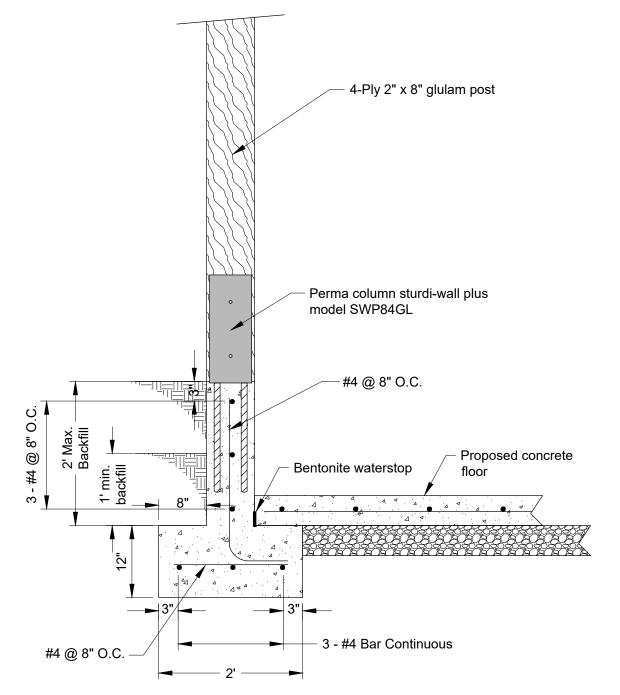


CW-4.4.1 - Monolithic Not to scale

1) 4000 psi concrete
2) Grade 60 steel
3) Maximum backfill top of wall (4ft)

4) Minimum backfill 1.5ft 5) Concrete slab must be placed before wall is backfilled
6) Maximum surcharge 100 PSF

7) On a monolithic pour, floor steel shall overlap footer steel 12"



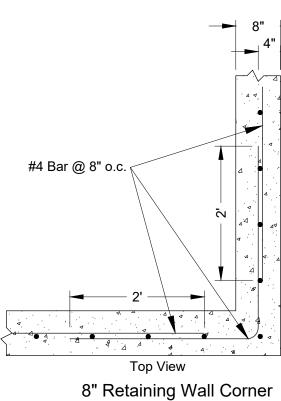
2' RETAINING WALL WITH POST ON TOP CW-2.2.1W

Not to scale

1) 4000 psi concrete 2) Grade 60 steel 3) Minimum backfill 1ft

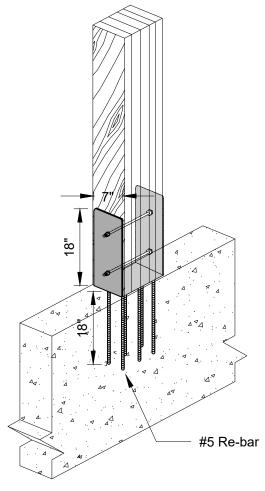
Notes:

4) Maximum backfill top of wall (2ft)



Not to scale

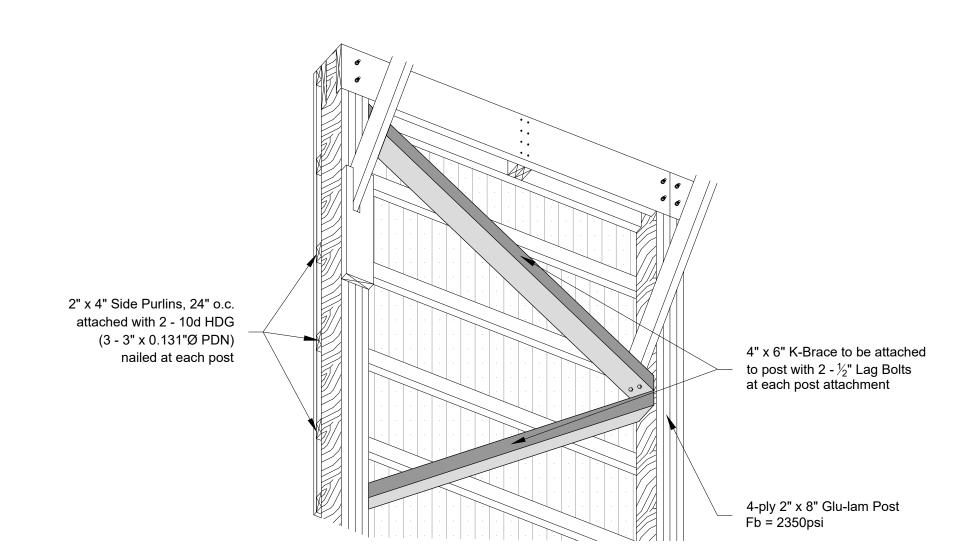
1) 4000 psi concrete 2) Grade 60 steel



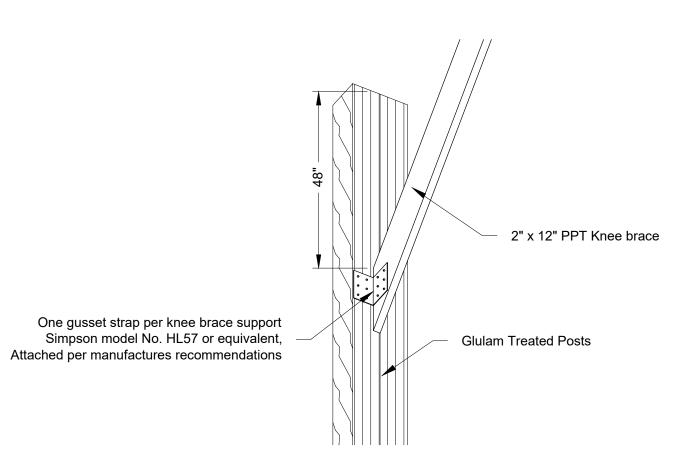
- Permacolumn sturdi-wall plus column anchor (Model # SWP85GL)
- To be used with 5-ply 2" x 8" glulam post
- Equivalent manufactured column anchor can be used and must be
- approved by the engineer
- Place column anchor in center of wall prior to pouring the wall Follow manufacture's instructions

• Posts may be set a minimum 7 days after the concrete wall is poured

Column Anchor Detail Not to scale



K Brace Detail Not to scale



Optional Knee Brace Detail Not to scale