



COMPANY: AT&T  
 ADDRESS: 1100 3RD AVE  
 ALTOONA, PA. 16602  
 CONTACT: PAT SUTTON  
 EMAIL: ps4364@att.com  
 PHONE: 814-321-6470

COMPANY: HONEY BROOK TOWNSHIP  
 ADDRESS: 500 SUPLEE RD  
 HONEY BROOK, PA. 19344  
 CONTACT: KRIS BRY  
 EMAIL: kbry@honeybrooktp.org  
 PHONE: 610-273-3970

COMPANY: AQUA PENNSYLVANIA  
 ADDRESS: 792 LANCASTER AVE  
 BRYN MAWR, PA. 19010  
 CONTACT: THOMAS WADDY  
 EMAIL: twaddy@aquamerica.com  
 PHONE: 610-525-1400 EXT. 52105

COMPANY: COMCAST  
 ADDRESS: 1250 HADDONFIELD-BERLIN RD  
 CHERRY HILL, NJ. 08034  
 CONTACT: WYATT PARRISH  
 EMAIL: WYATT\_PARRISH@CABLE.COMCAST.COM  
 PHONE: 484-368-4391

COMPANY: PECO AN EXELON COMPANY C/O USIC  
 ADDRESS: 450 S HENDERSON ROAD SUITE B  
 KING OF PRUSSIA, PA. 19406  
 CONTACT: NIKKIA SIMPKINS  
 EMAIL: nikkiasimpkins@usic.com  
 PHONE: 484-681-5720

COMPANY: NORTHWESTERN CHESTER COUNTY  
 MUNI AUTH  
 ADDRESS: 187 DAMPMAN ROAD  
 PO BOX 308  
 HONEY BROOK, PA. 19344  
 CONTACT: DEREK INK  
 EMAIL: PLANT@WCCMA.NET  
 PHONE: 610-273-2264

COMPANY: PPL ELECTRIC UTILITIES CORPORATION  
 ADDRESS: 437 BLUE CHURCH RD  
 PAXINOS, PA. 17860  
 CONTACT: DOUG HAUPT  
 EMAIL: dhaupt@pplweb.com  
 PHONE: 570-490-5684

COMPANY: ENERGY TRANSFER  
 ADDRESS: 1300 MAIN ST  
 HOUSTON, TX. 77002  
 CONTACT: SAUL SHAW  
 EMAIL: saul.shaw@energytransfer.com  
 PHONE: 713-989-7342

COMPANY: SERVICE ELECTRIC CABLEVISION INC  
 ADDRESS: PO BOX 8  
 BIRDSBORO, PA. 19508  
 CONTACT: MIKE SPAYD  
 EMAIL: mike.spayd@secv.com  
 PHONE: 610-582-5317

COMPANY: TEXAS EASTERN/ENBRIDGE  
 ADDRESS: SUITE 400  
 2601 MARKET PLACE  
 HARRISBURG, PA. 17110  
 CONTACT: RYAN LUMBATIS  
 EMAIL: Ryan.Lumbatis@enbridge.com  
 PHONE: 717-540-8330

COMPANY: UGI UTILITIES INC  
 ADDRESS: 225 MORGANTOWN RD  
 READING, PA. 19611  
 CONTACT: KURT ZIELASKOWSKI  
 EMAIL: kzielaskowski@ugi.com  
 PHONE: 610-736-5571

COMPANY: VERIZON BUSINESS FORMERLY MCI  
 ADDRESS: 7000 WESTON PKWY  
 CARY, NC. 27513  
 CONTACT: VICTOR WOOD  
 EMAIL: victor.s.wood@verizon.com  
 PHONE: 919-414-2782

# PROPOSED AGRICULTURAL WASTE BMPS

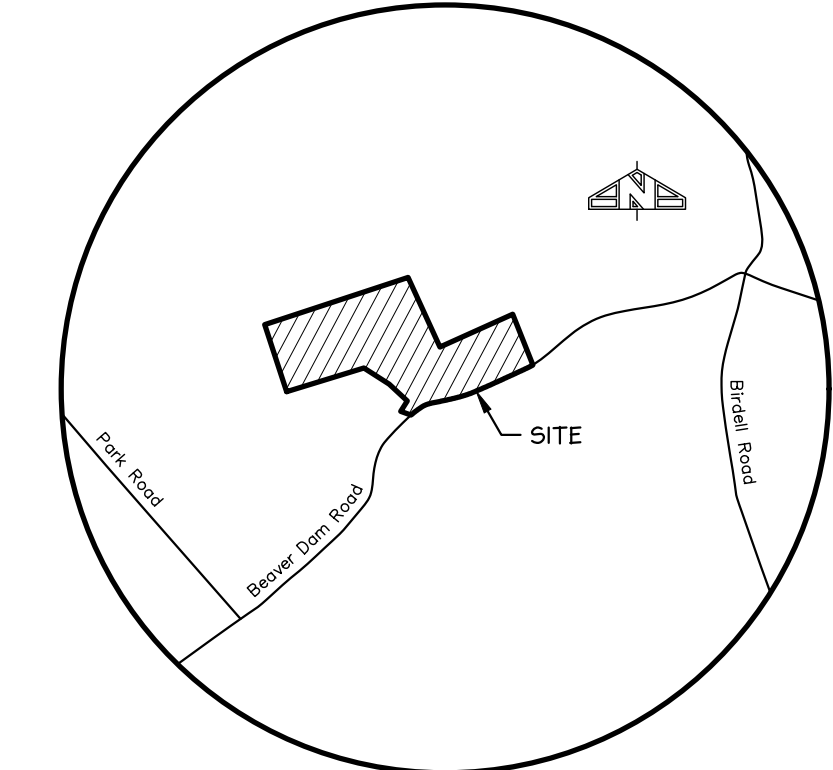
FOR

DAVID KAUFFMAN

SITE ADDRESS:

549 BEAVER DAM ROAD  
 HONEYBROOK, PA 19344

HONEYBROOK TOWNSHIP  
 CHESTER COUNTY, PA



Site Location Map  
 Scale: 1" = 2000'

### SHEET INDEX

- TS-1 - TITLE SHEET
- SP-1 - OVERALL SITE PLAN
- SP-2 - SITE PLAN
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- ES-2 - EROSION CONTROL NOTES & DETAILS
- TANK-1 - WSF ROUND TANK PLAN AND DETAILS
- TANK-2 - PUMP TRANSFER DETAILS
- TANK-3 - UNDERHOUSE STORAGE DETAILS
- STACK-1 - STACKING DETAILS
- STACK-2 - STACKING DETAILS
- RHUA-1 - ROOFED HUA PLANS
- RHUA-2 - CROSS-SECTIONS AND UNDER-HOUSE STORAGE
- RHUA-3 - ROOFED HUA PROFILES AND DROP BOX
- RHUA-4 - ROOFED HUA WALLS AND CONCRETE DETAILS
- RHUA-5 - ROOF DETAILS
- RHUA-6 - ROOF DETAILS
- STORM-1 - STORMWATER DETAILS

### GENERAL NOTES

- Existing Site Data  
 UPI# : 22-7-95.3  
 Total Number of Parcels : 1  
 Source of Title : Book 9649, Page 510  
 Developer : David L. Kauffman  
 Owner : David L. Kauffman and Linda A. Kauffman  
 Existing and Continued Use of Land: Agriculture  
 Zoning: Agricultural District
  - The proposed use of the property, agriculture, is a Permitted Use as defined by the Township Zoning Ordinance. The proposed development will add three agricultural buildings.
  - The proposed use meets the following requirements of the Agricultural Zoning District:
 

	REQUIRED	PROPOSED
Minimum lot size (Area)	10 Acres	48 Acres
Minimum lot width at building line	150 FT	1,630 FT
Minimum Front yard	40 FT	165 FT
Minimum Side yard	20 FT	825 FT
Minimum Rear yard	60 FT	302 FT

  
 Maximum Height  
 Single-family detached dwellings, other permitted uses : 35 FT < 35 FT  
 Farm Buildings : 80 FT < 80 FT  
 Maximum Lot Coverage : 5% 50,481 SF = 2.41%  
 NOTE: Any building containing animals must comply with Section 1703.A.9 of the Honey Brook Township Zoning Ordinance.
  - Information for this site plan is based on the recorded deed, County GIS mapping, and aerial mapping.
  - Property boundary information obtained from County GIS information and aerial mapping.
  - FEMA flood boundaries are present on the property per FEMA Flood Map Service Center Map Number 42029C0080G.
  - No historic structures or geological features exist on the property.
  - No wetlands are present in the project area per the National Wetlands Inventory Mapper, accessed March 22, 2024.
  - The proposed buildings are for general agricultural use.
  - No changes shall be made to these plans without the written permission of the client, owner, Honey Brook Township, and TeamAg. TeamAg will not be responsible for unauthorized revisions to the plan.
  - All federal, state, and local laws, rules and regulations covering the construction of this facility shall be strictly followed.
  - Act 187: It is the duty of the contractors to comply with the provisions of the 'PA One-Call' utility check before performing any excavation work. The toll-free number of the One-Call system is 1-800-242-1776.
- ### STORMWATER NOTES
- No person shall modify, remove, fill, landscape, alter or impair the effectiveness of any stormwater BMPs, conveyances, facilities, areas or structures unless the activity is part of an approved maintenance program, without the written approval of the municipality.
  - No person shall place any structure, fill, landscaping, additional vegetation, yard waste, brush cuttings, or other waste or debris into a BMP or conveyance, or stormwater easement, that would limit or alter the functioning of the stormwater BMP or conveyance, without the written approval of the municipality.
  - A blanket stormwater easement is proposed to grant the municipality the right, but not the duty, to access the BMPs and conveyance from the public right-of-way of Beaver Dam Road to conduct periodic inspections and to undertake other actions that may be necessary to enforce the requirements of the Township Stormwater Ordinance.
  - 10,280 SF of impervious coverage is being added on-site.



ROBERT W. SWEPPENHEISER II, P.E.

To the best of my professional knowledge, judgment and belief, the design meets or exceeds the Pennsylvania technical guide standards and specifications and the DEP Manure Management Manual.

### NOTES

- Regulations: All federal, state and local laws, rules and regulations covering the construction of this facility shall be strictly followed. The owner is responsible for obtaining all construction permits.
- Act 187: It is the duty of the contractors to comply with the provisions of the 'PA One Call' utility check before performing any excavation work. The toll-free number of the One-Call system is 1-800-242-1776.
- Pre-construction meeting: A meeting between the owner, contractor and engineer shall be required prior to any construction work.
- Certification of performance: The certification of conformance shall certify that all work was performed according to the Pennsylvania Technical Guide.
- Warning sign: Install warnings at clearly visible locations. Signs shall state, "Danger - Drowning Hazard" or approved equivalent.
- Capacity (gallons): 10X72 Round Tank = 304,548 gallons, Rectangular Storage - 59,603 gallons, Reception Pit - 32,478 gallons
- The items below are included as part of this contract package:
  - construction specifications
  - PA 313 waste storage structure
  - PA342 critical area planting
  - PA367 roofs and covers
  - PA382 Fence
  - PA558 roof runoff structure
  - PA560 access road
  - PA575 trails and walkways
  - PA651 heavy use area protection
  - PA608 subsurface drain
  - PA620 underground outlet
  - PA587 structure for water control
  - PA634 waste transfer system
  - PA533 pumping plant
  - PA578 stream crossing
  - PA468 lined waterway or outlet
  - PA500 obstruction removal
  - PA391 Riparian Forest Buffer
- Benchmark Information:  
 BM-1: 605.15 nail in hub  
 BM-2: 624.06 nail in wood berm
- This project has been designed according to the Pennsylvania Technical Guide.
- Contractor shall notify TeamAG 48 hours prior to pouring concrete.

To the best of my knowledge, I certify that the practices have been installed as per the attached drawings and specifications, based on my observations and information provided to me.

Signature of Quality Assurance Person \_\_\_\_\_ Date \_\_\_\_\_

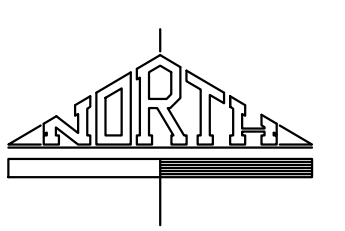
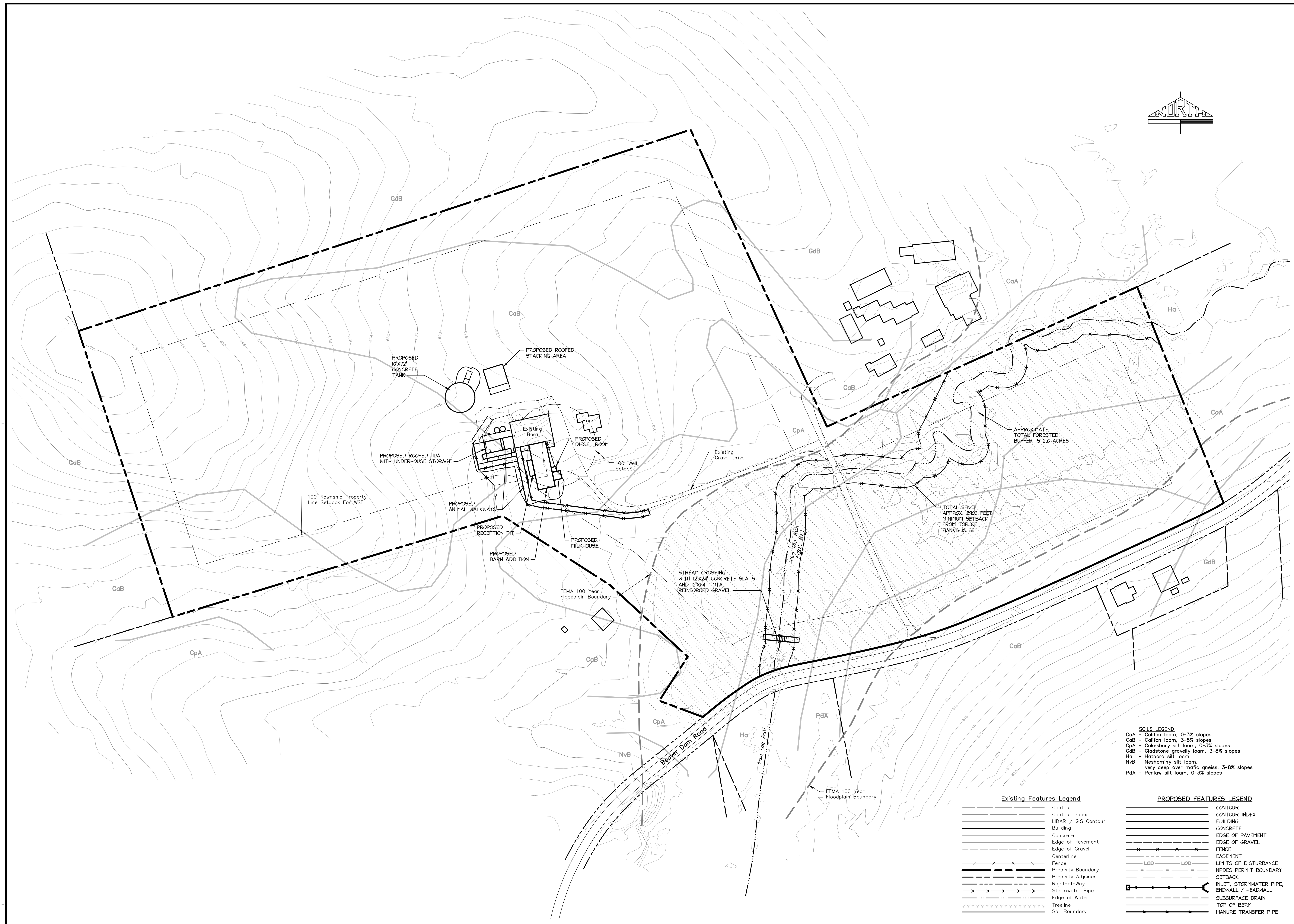
In my professional opinion, I certify that the practices have been installed as per the attached drawings and specifications, based on the information provided to me and/or observations I have made.

Signature of Engineer \_\_\_\_\_ Date \_\_\_\_\_

REVISION					
BY					
DATE					
PROJECT MANAGER	ROB SWEPPENHEISER	DESIGN BY :	RMS	DRAWN BY :	RMS/LHR
		DATE :	APRIL 19, 2024	PROJECT NO.:	2743-23-01
SEAL					
PROJECT TITLE	AGRICULTURAL WASTE BMPS	TOWNSHIP	HONEYBROOK TOWNSHIP	CHESTER COUNTY	
CLIENT	DAVID KAUFFMAN 549 BEAVER DAM ROAD HONEYBROOK, PA 19344 610-868-4222				
TITLE SHEET					
DRAWING :	TS-1				







REVISION	DATE	BY

PROJECT MANAGER  
ROB SNEPPENHEISER

DESIGN BY : RMS

DRAWN BY : RMS/LHR

DATE : APRIL 19, 2024

PROJECT NO.: 2743-23-01



**TeamAg inc**  
120 LAKE STREET  
EPHRATA, PA 17522  
PHONE: 717-721-6795 FAX: 717-721-9275  
www.teamaginc.com TeamAg@teamaginc.com

SCALE: 1" = 100'  
0' 100' 200' 300'

PROJECT TITLE  
**AGRICULTURAL WASTE BMPS**  
HONEYBROOK TOWNSHIP CHESTER COUNTY

CLIENT  
**DAVID KAUFFMAN**  
649 BEAVER DAM ROAD  
HONEYBROOK, PA 19344  
610-868-4222

**OVERALL SITE PLAN**

DRAWING : **SP-1**

**SOILS LEGEND**

CaA - Calton loam, 0-3% slopes  
CaB - Calton loam, 3-8% slopes  
CpA - Cokesbury silt loam, 0-3% slopes  
GdB - Gladstone gravelly loam, 3-8% slopes  
Ha - Harboro silt loam  
NvB - Neshaminy silt loam, very deep over mafic gneiss, 3-8% slopes  
PdA - Penlaw silt loam, 0-3% slopes

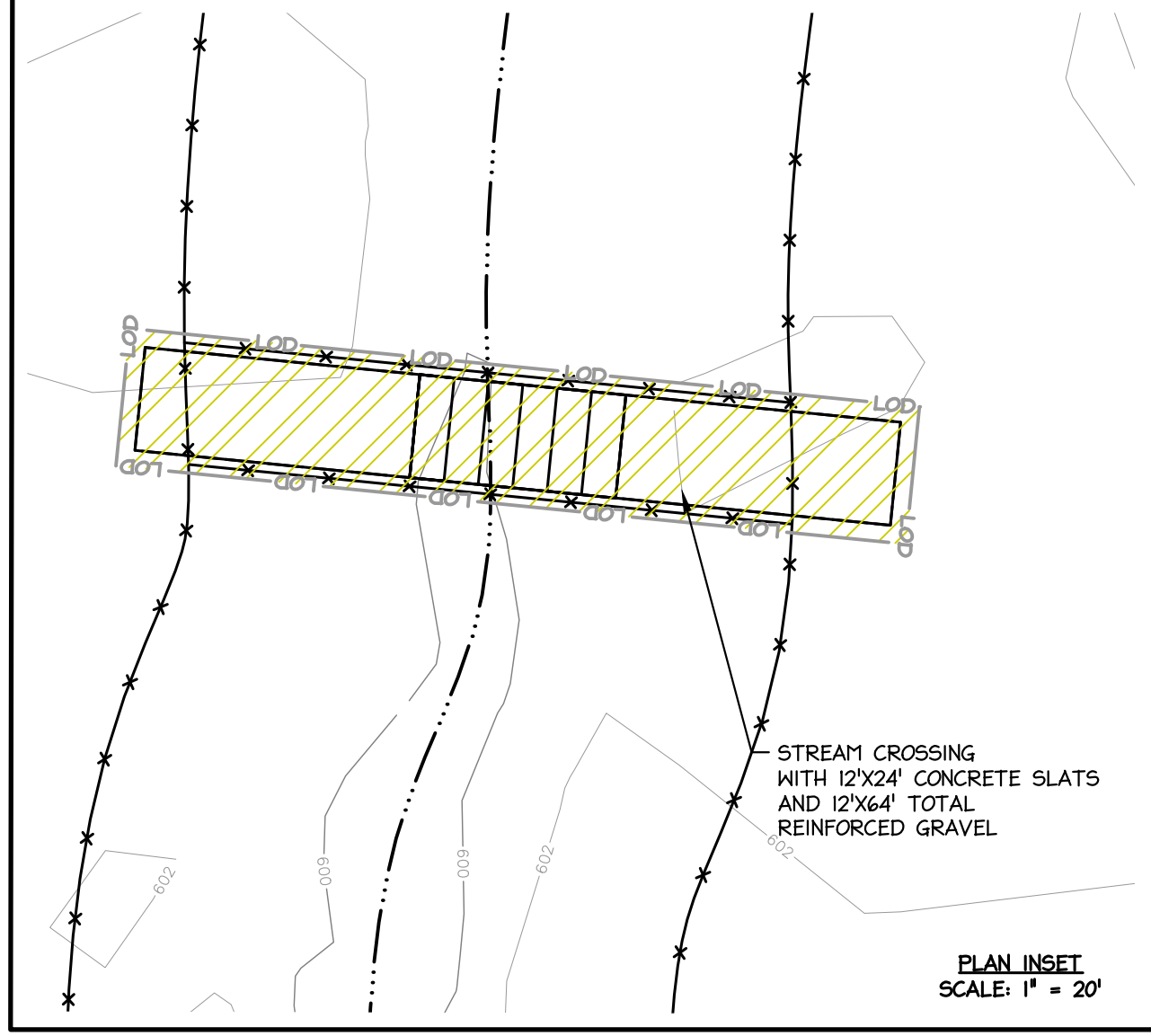
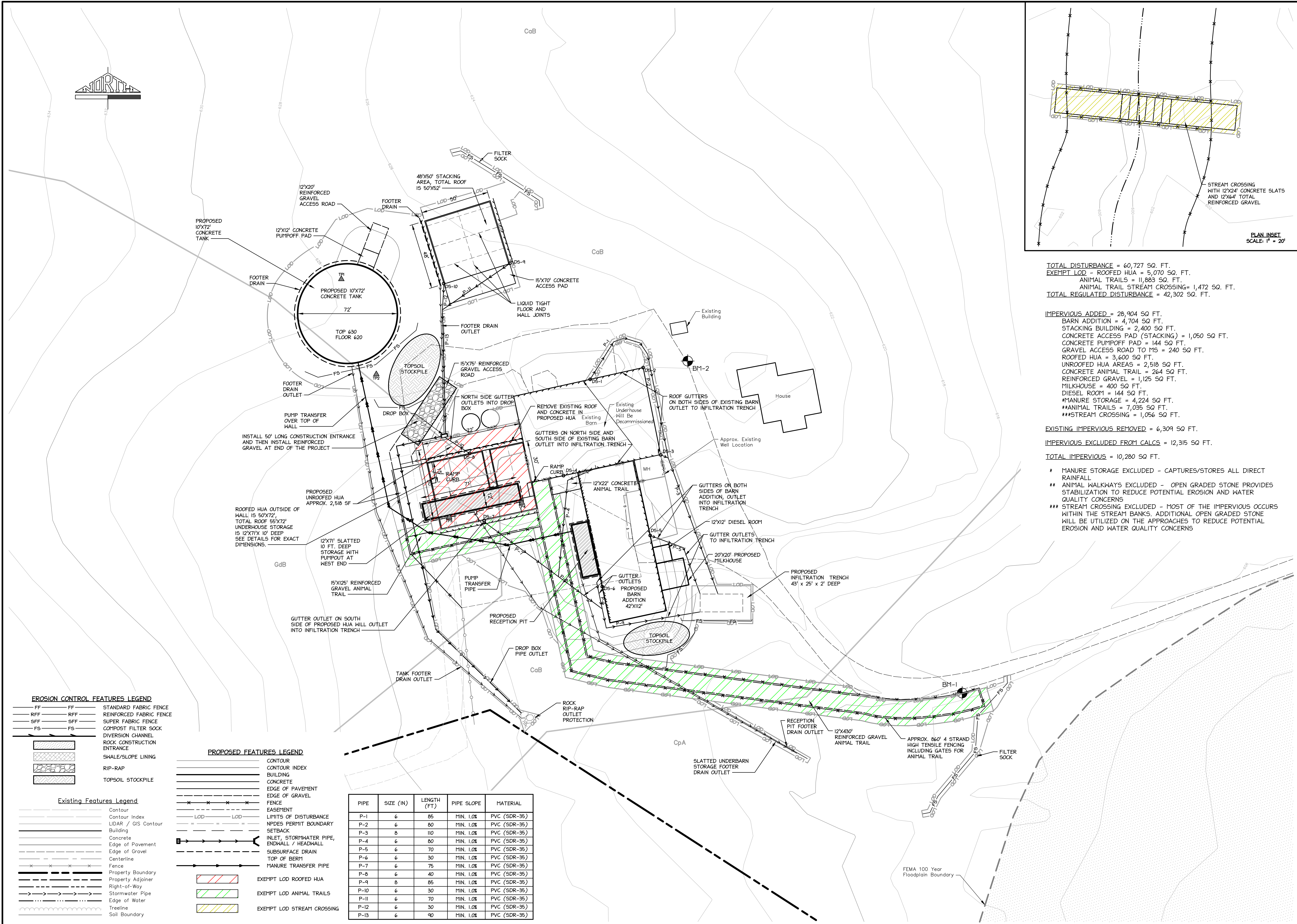
**Existing Features Legend**

- Contour
- Contour Index
- LIDAR / GIS Contour
- Building
- Concrete
- Edge of Pavement
- Edge of Gravel
- Centerline
- Fence
- Property Boundary
- Property Adjoiner
- Right-of-Way
- Stormwater Pipe
- Edge of Water
- Treeline
- Soil Boundary

**PROPOSED FEATURES LEGEND**

- CONTOUR
- CONTOUR INDEX
- BUILDING
- CONCRETE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- FENCE
- EASEMENT
- LIMITS OF DISTURBANCE
- NPDES PERMIT BOUNDARY
- SETBACK
- INLET, STORMWATER PIPE, ENDWALL / HEADWALL
- SUBSURFACE DRAIN
- TOP OF BERM
- MANURE TRANSFER PIPE





TOTAL DISTURBANCE = 60,727 SQ. FT.  
 EXEMPT LOD - ROOFED HUA = 5,070 SQ. FT.  
 ANIMAL TRAILS = 11,883 SQ. FT.  
 ANIMAL TRAIL STREAM CROSSING = 1,472 SQ. FT.  
 TOTAL REGULATED DISTURBANCE = 42,302 SQ. FT.

IMPERVIOUS ADDED = 28,904 SQ. FT.  
 BARN ADDITION = 4,704 SQ. FT.  
 STACKING BUILDING = 2,400 SQ. FT.  
 CONCRETE ACCESS PAD (STACKING) = 1,050 SQ. FT.  
 CONCRETE PUMPOFF PAD = 144 SQ. FT.  
 GRAVEL ACCESS ROAD TO M5 = 240 SQ. FT.  
 ROOFED HUA = 3,600 SQ. FT.  
 UNROOFED HUA AREAS = 2,518 SQ. FT.  
 CONCRETE ANIMAL TRAIL = 264 SQ. FT.  
 REINFORCED GRAVEL = 1,125 SQ. FT.  
 MILKHOUSE = 400 SQ. FT.  
 DIESEL ROOM = 144 SQ. FT.  
 \*MANURE STORAGE = 4,224 SQ. FT.  
 \*\*ANIMAL TRAILS = 7,035 SQ. FT.  
 \*\*\*STREAM CROSSING = 1,066 SQ. FT.

EXISTING IMPERVIOUS REMOVED = 6,309 SQ. FT.  
 IMPERVIOUS EXCLUDED FROM CALCS = 12,315 SQ. FT.

TOTAL IMPERVIOUS = 10,280 SQ. FT.

- \* MANURE STORAGE EXCLUDED - CAPTURES/STORES ALL DIRECT RAINFALL
- \*\* ANIMAL WALKWAYS EXCLUDED - OPEN GRADED STONE PROVIDES STABILIZATION TO REDUCE POTENTIAL EROSION AND WATER QUALITY CONCERNS
- \*\*\* STREAM CROSSING EXCLUDED - MOST OF THE IMPERVIOUS OCCURS WITHIN THE STREAM BANKS. ADDITIONAL OPEN GRADED STONE WILL BE UTILIZED ON THE APPROACHES TO REDUCE POTENTIAL EROSION AND WATER QUALITY CONCERNS

REVISION	DATE	BY

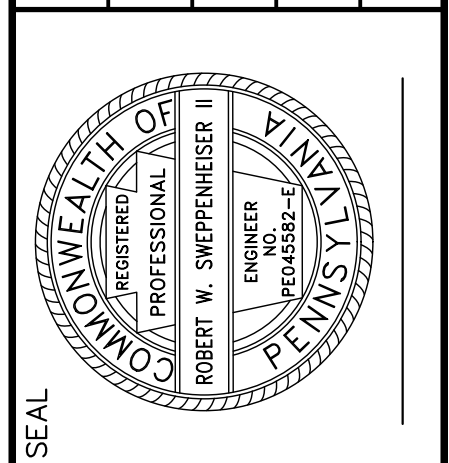
PROJECT MANAGER  
**ROB SHEPPENHEISER**

DESIGN BY : **RMS**

DRAWN BY : **RMS/MLHR**

DATE : **APRIL 19, 2024**

PROJECT NO.: **2743-23-01**



**TeamAg inc**  
 120 LAKE STREET  
 EPHRATA, PA 17522  
 PHONE: 717-721-6795 FAX: 717-721-9275  
 www.teamaginc.com TeamAg@teamaginc.com

SCALE: 1" = 30'

PROJECT TITLE  
**AGRICULTURAL WASTE BMPs**  
 CHESTER COUNTY

CLIENT  
**DAVID KAUFFMAN**  
**649 BEAVER DAM ROAD**  
**HONEYBROOK, PA 19344**  
**610-868-4222**

**SITE PLAN**

DRAWING : **SP-2**

**EROSION CONTROL FEATURES LEGEND**

FF	FF	STANDARD FABRIC FENCE
RFF	RFF	REINFORCED FABRIC FENCE
SFF	SFF	SUPER FABRIC FENCE
FS	FS	COMPOST FILTER SOCK
		DIVERSION CHANNEL
		ROCK CONSTRUCTION ENTRANCE
		SWALE/SLOPE LINING
		RIP-RAP
		TOPSOIL STOCKPILE

**PROPOSED FEATURES LEGEND**

		CONTOUR
		CONTOUR INDEX
		BUILDING
		CONCRETE
		EDGE OF PAVEMENT
		EDGE OF GRAVEL
		FENCE
		EASEMENT
		LIMITS OF DISTURBANCE
		NPDES PERMIT BOUNDARY
		SETBACK
		INLET, STORMWATER PIPE, ENDWALL / HEADWALL
		SUBSURFACE DRAIN
		TOP OF BERM
		MANURE TRANSFER PIPE
		EXEMPT LOD ROOFED HUA
		EXEMPT LOD ANIMAL TRAILS
		EXEMPT LOD STREAM CROSSING

PIPE	SIZE (IN)	LENGTH (FT)	PIPE SLOPE	MATERIAL
P-1	6	85	MIN. 1.0%	PVC (SDR-35)
P-2	6	80	MIN. 1.0%	PVC (SDR-35)
P-3	8	110	MIN. 1.0%	PVC (SDR-35)
P-4	6	80	MIN. 1.0%	PVC (SDR-35)
P-5	6	70	MIN. 1.0%	PVC (SDR-35)
P-6	6	30	MIN. 1.0%	PVC (SDR-35)
P-7	6	75	MIN. 1.0%	PVC (SDR-35)
P-8	6	40	MIN. 1.0%	PVC (SDR-35)
P-9	8	85	MIN. 1.0%	PVC (SDR-35)
P-10	6	30	MIN. 1.0%	PVC (SDR-35)
P-11	6	70	MIN. 1.0%	PVC (SDR-35)
P-12	6	30	MIN. 1.0%	PVC (SDR-35)
P-13	6	90	MIN. 1.0%	PVC (SDR-35)

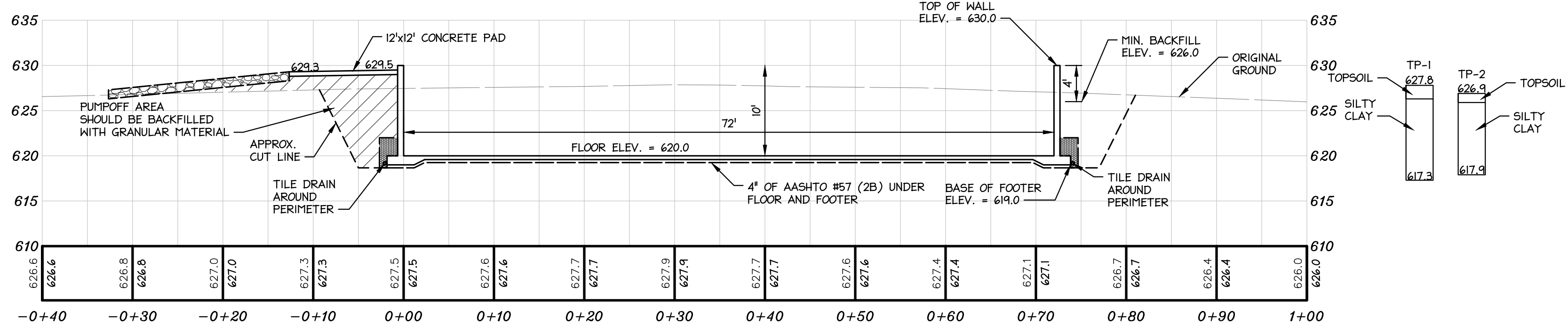




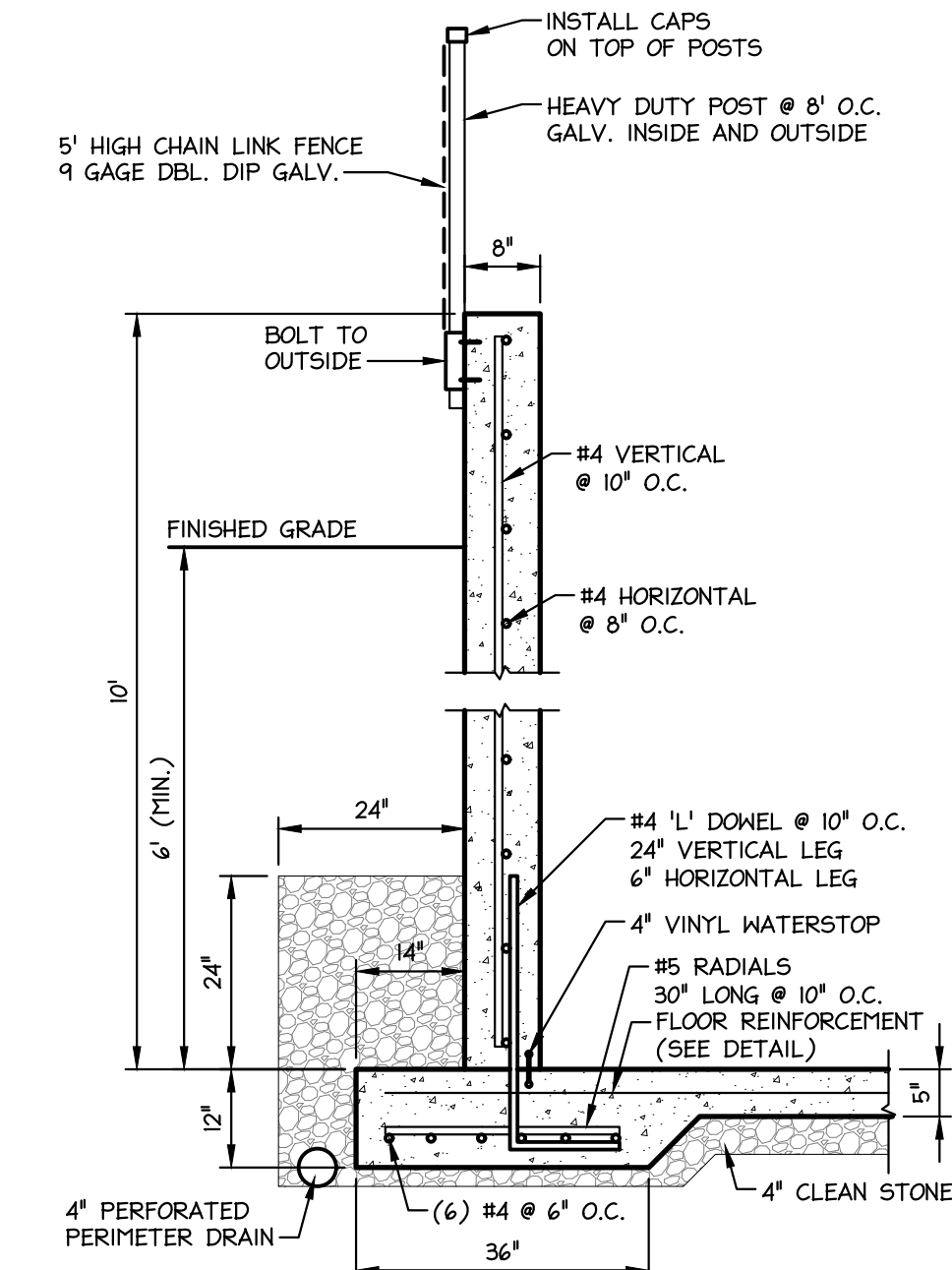
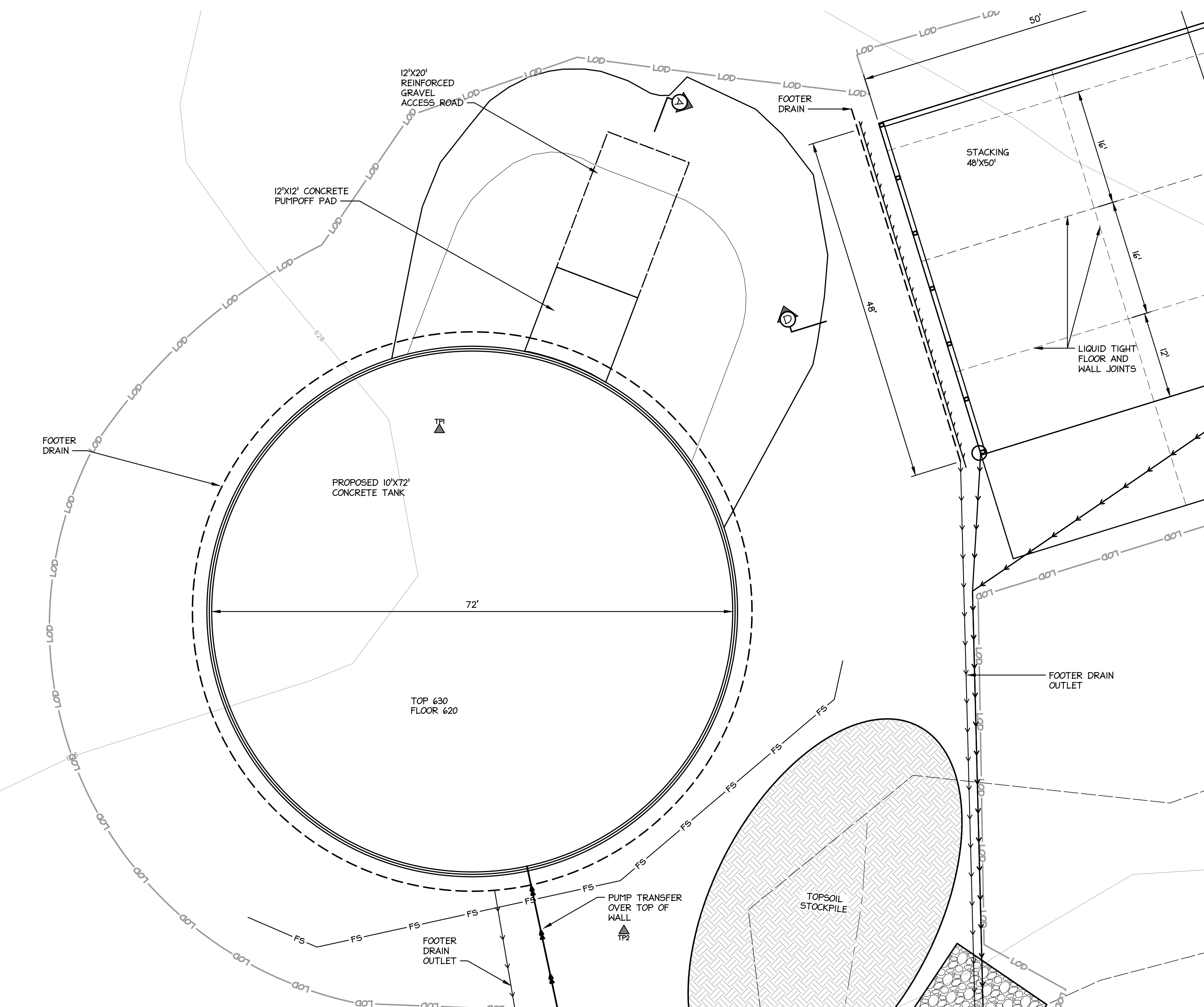








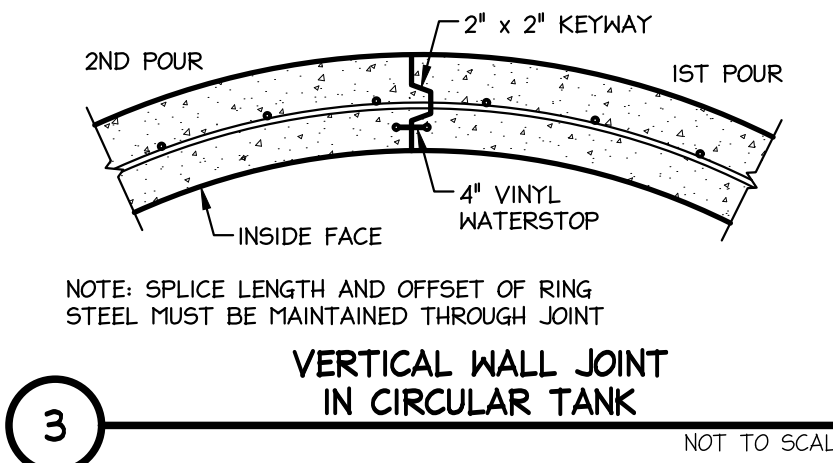
CROSS-SECTION AA  
HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1" = 10'



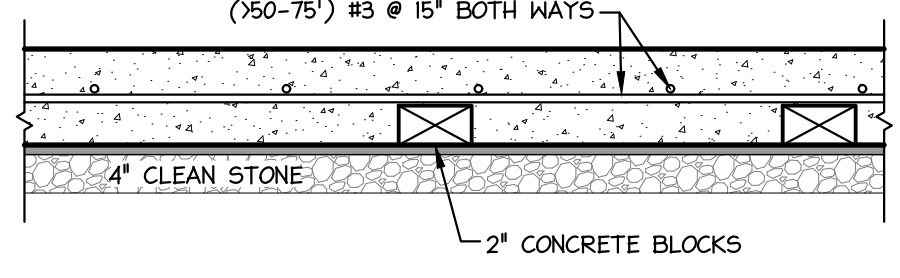
1 72' DIAMETER CIRCULAR TANK (10' HIGH)  
TR-9 DESIGN NOT TO SCALE

2 SPLICE LENGTH AND OFFSET OF RING STEEL FOR CIRCULAR TANKS  
PER NRCS PA083 NOT TO SCALE

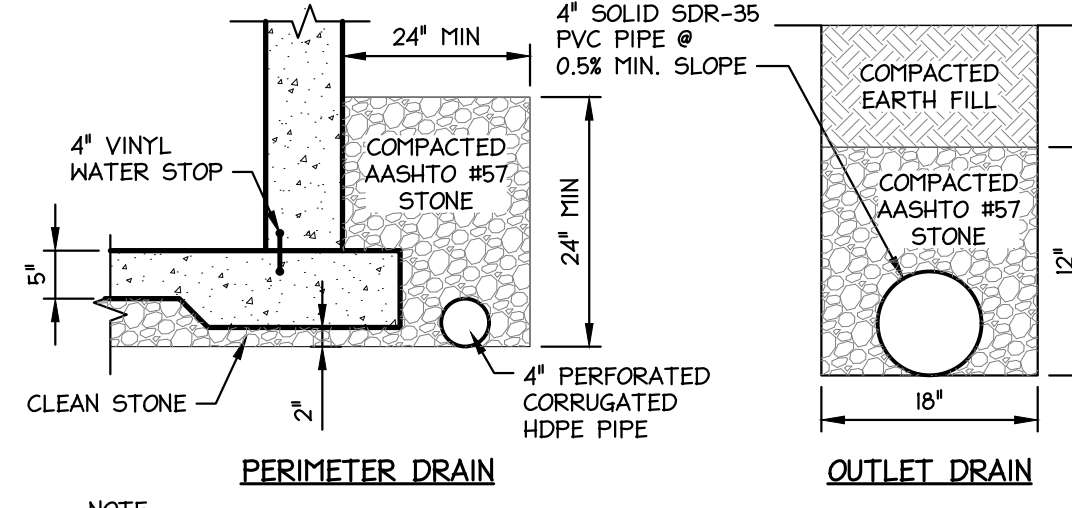
BAR SIZE	SPLICE LENGTH
#3	18"
#4	25"
#5	32"
#6	38"



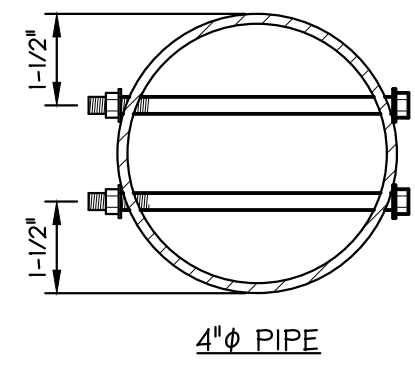
3 VERTICAL WALL JOINT IN CIRCULAR TANK  
NOT TO SCALE



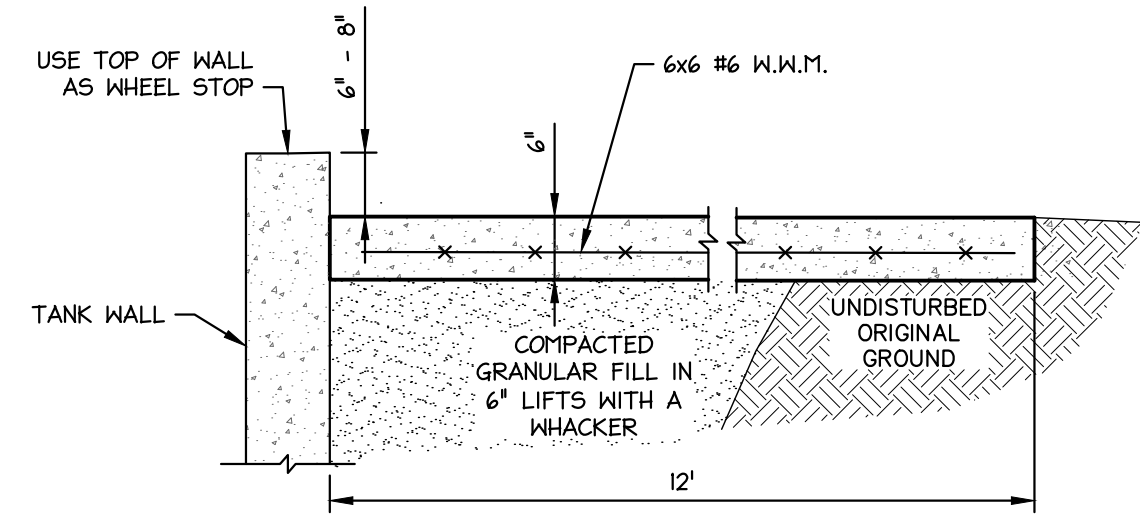
4 FLOOR REINFORCEMENT MANURE STORAGE STRUCTURE  
NOT TO SCALE



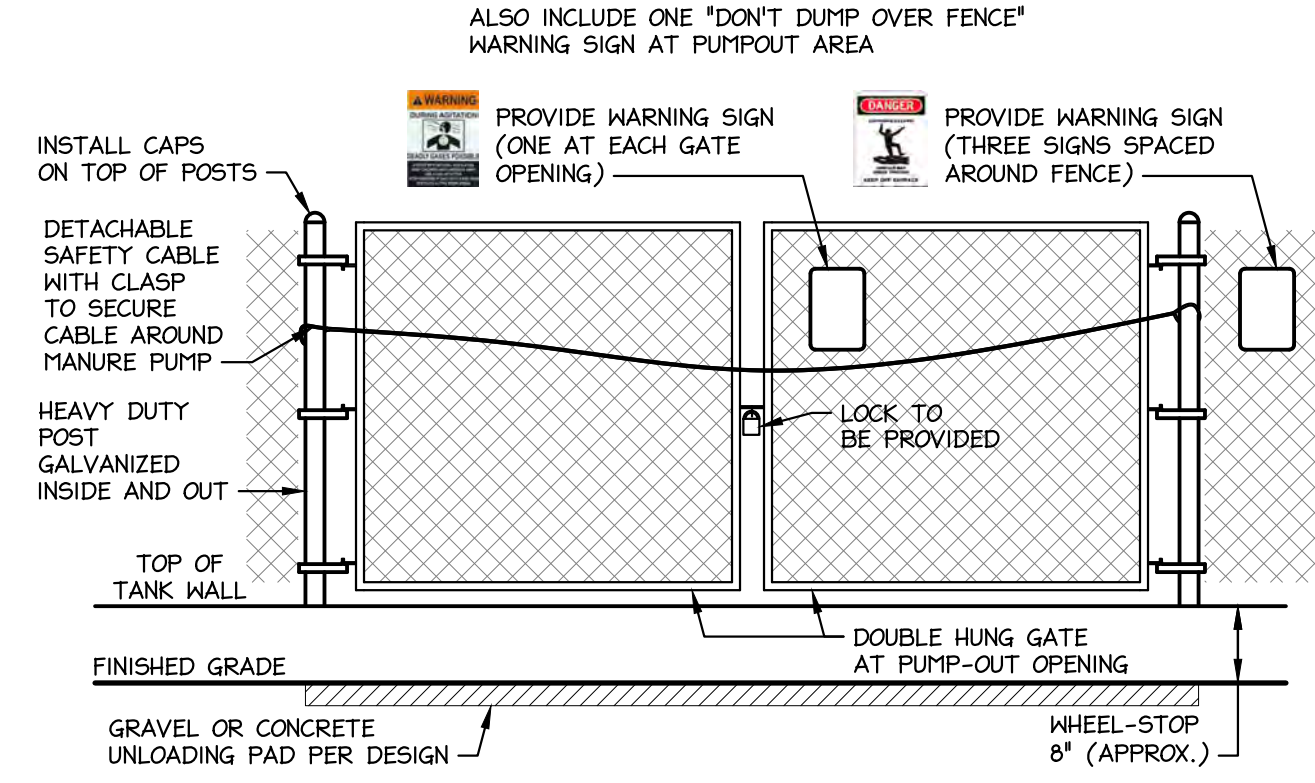
5 PERIMETER DRAIN  
NOT TO SCALE



6 ANIMAL GUARD  
NOT TO SCALE



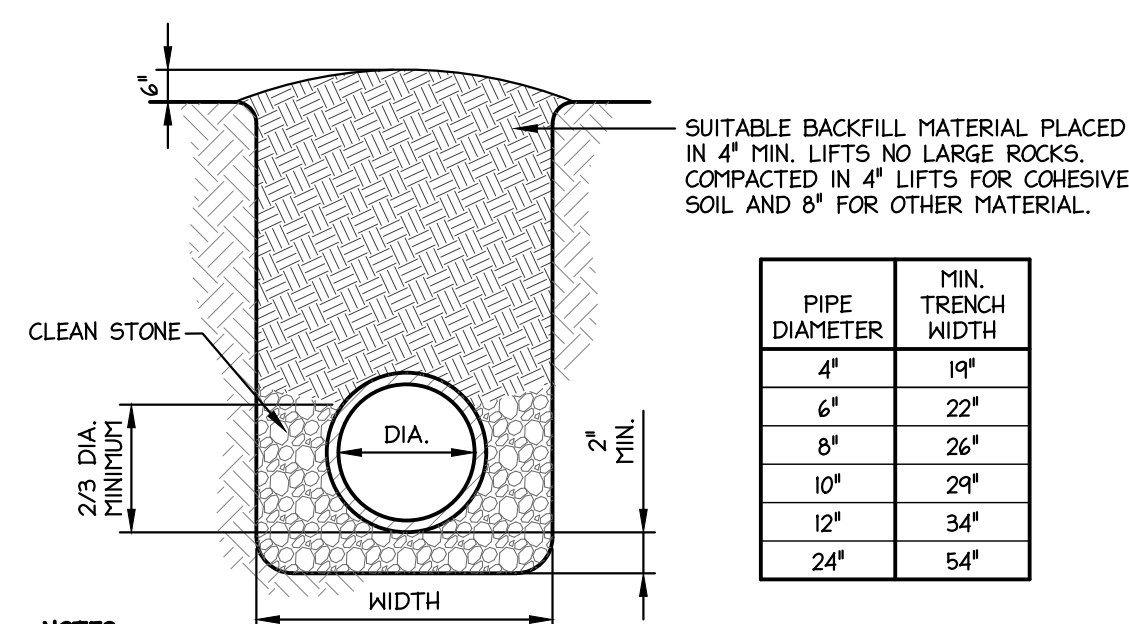
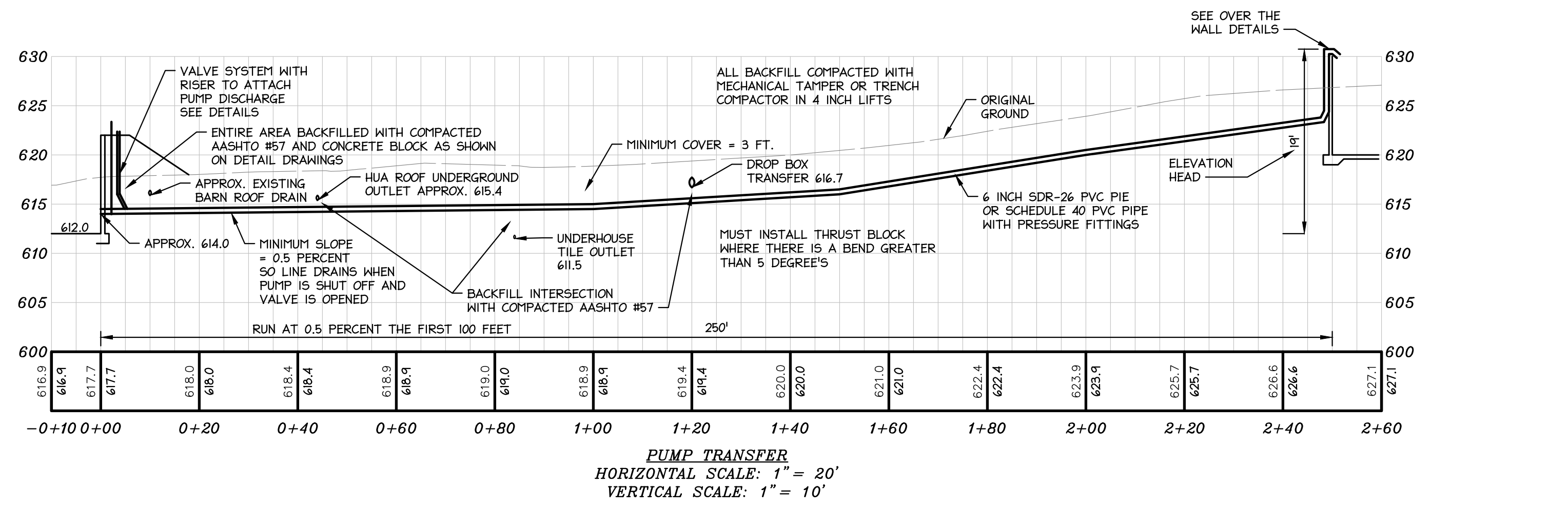
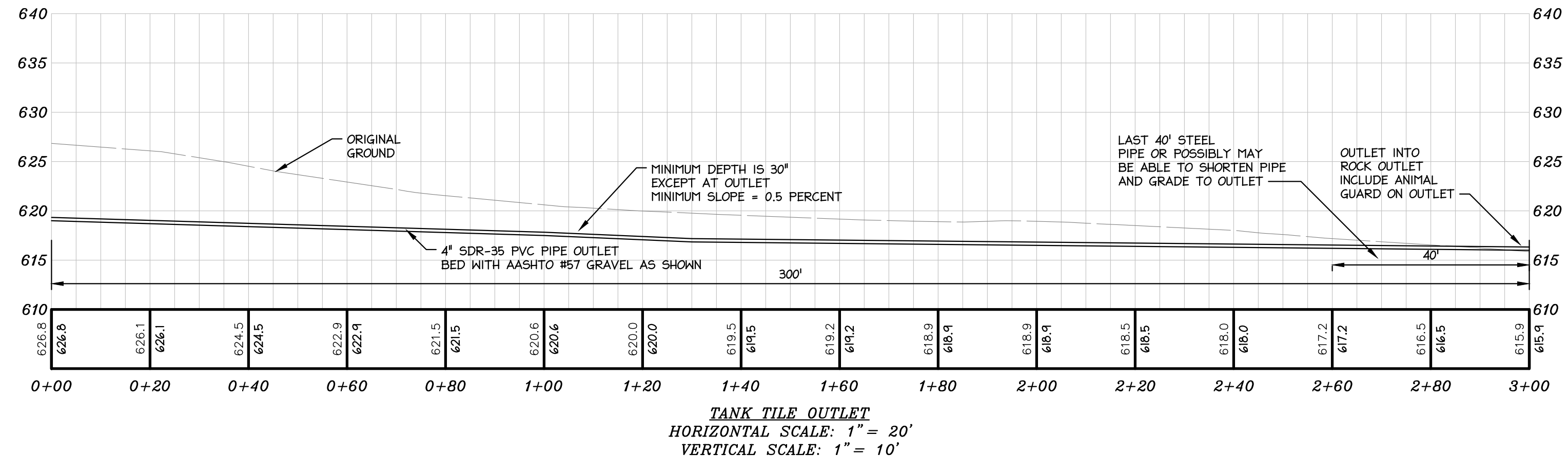
7 CONCRETE SLAB FOR LIGHT UNLOADING EQUIPMENT  
NOT TO SCALE



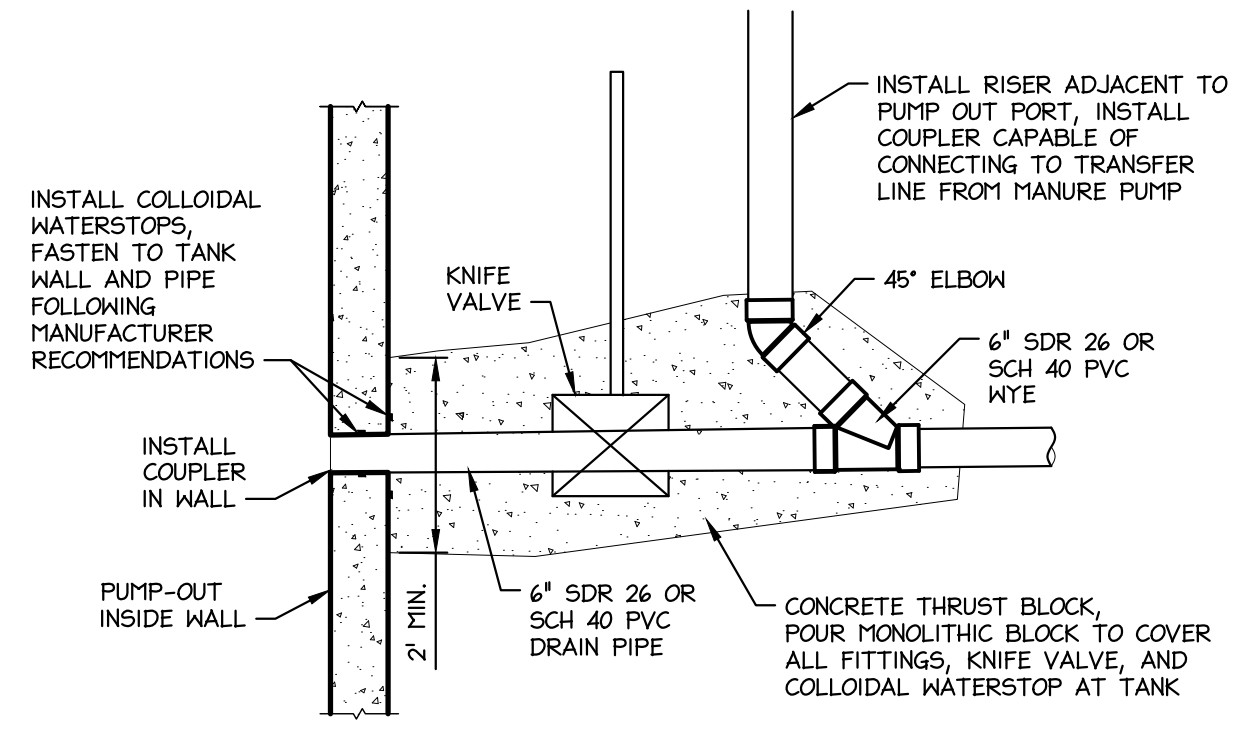
8 PUMP-OUT GATE  
NOT TO SCALE

PROJECT TITLE	ACRUCULTURAL WASTE BMPS
TOWNSHIP	HONEYBROOK TOWNSHIP
COUNTY	CHESTER COUNTY
CLIENT	DAVID KAUFFMAN 649 BEAVER DAM ROAD HONEYBROOK, PA 19344 610-868-4222
PROJECT MANAGER	ROB SHEPPEHEISER
DESIGN BY	RMS
DRAWN BY	RMS/LHR
DATE	APRIL 19, 2024
PROJECT NO.	2743-23-01
REVISION	
BY	
DATE	
SEAL	
SCALE	AS NOTED
PHONE	717-721-6795
FAX	717-721-9275
WWW	www.teamaginc.com
EMAIL	TeamAg@teamaginc.com
PROJECT TITLE	TANK DETAILS
DRAWING	TANK-1

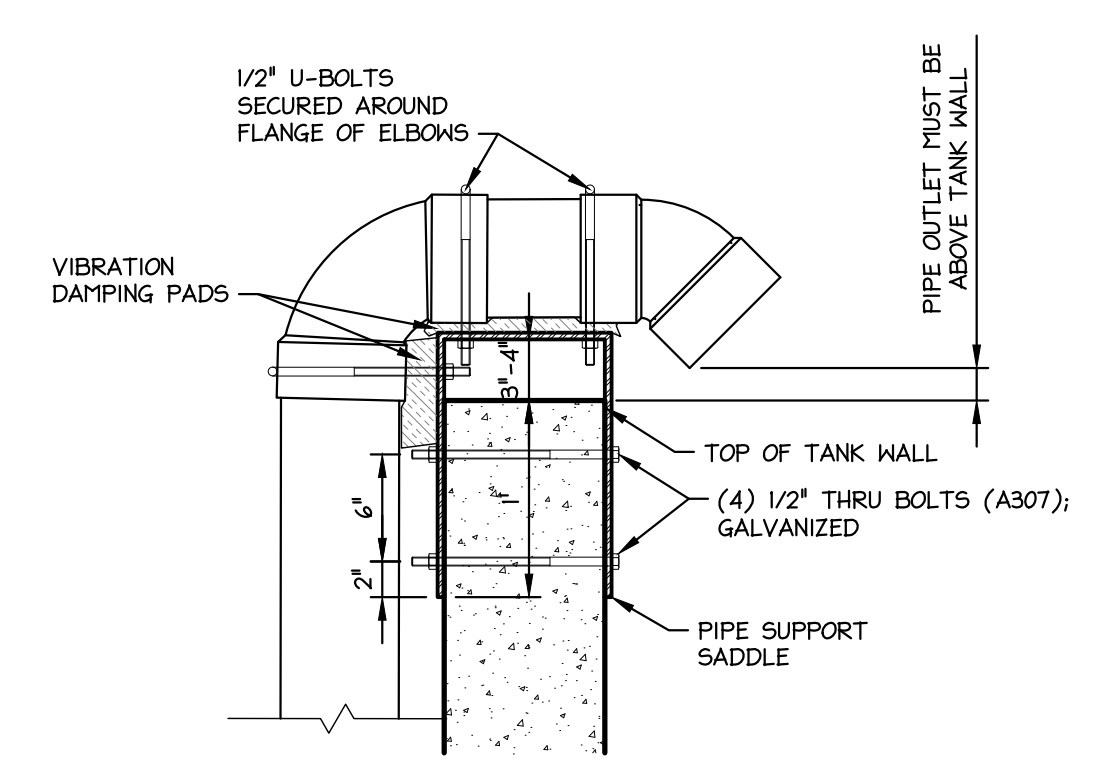




- NOTES:**
- PRESSURE OR PUMPED TRANSFER PIPES**
- PIPE LENGTHS SHALL BE JOINED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL PIPE SHALL BE INSTALLED WITH WATER TIGHT, PRESSURE RATED JOINTS.
  - ELBOWS OR BENDS IN THE PIPE ALIGNMENT GREATER THAN 5 DEGREES SHALL BE SUPPORTED BY THRUST BLOCKS, OR OTHER MECHANICAL THRUST RESTRAINTS.
- GRAVITY TRANSFER PIPES**
- PIPE SHALL BE INSTALLED TO PROVIDE WATER TIGHT JOINTS. JOINTS IN PVC AND HDPE GRAVITY PIPELINES WITH PUSH-ON (GASKETED) JOINTS SHALL MEET THE FULL REQUIREMENTS OF ASTM-D3212 FOR JOINT TIGHTNESS.
  - HDPE PIPE AND JOINTS SHALL BE ADVERTISED AS WT (WATER TIGHT), ST OR SILT TIGHT FITTINGS SHALL NOT BE USED.

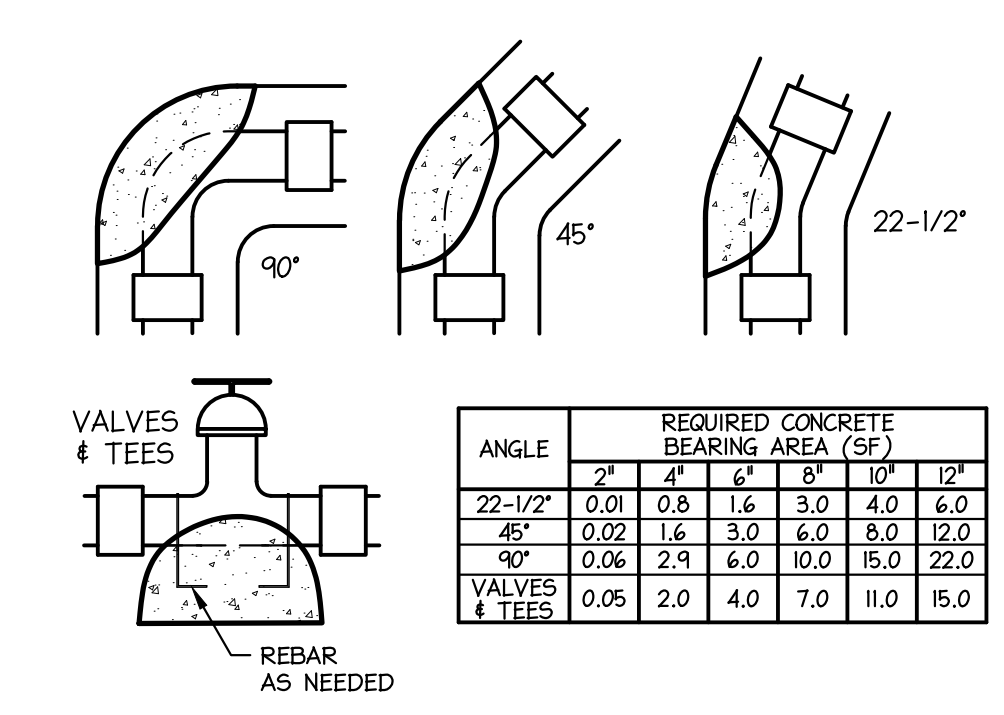


**2 JOINT AT RECEPTION PIT PUMP-OUT**  
 NOT TO SCALE



- NOTES**
- SADDLE TO BE 1/2" STEEL.
  - EXPOSED PIPE OPENING MUST BE INSTALLED ENTIRELY ABOVE TANK WALL.
  - APPLY SIKAFLEX I-A AT BOLT HEADS.
  - STRAP VERTICAL PIPE TO WALL IN AT LEAST ONE LOCATION BELOW SADDLE, ABOVE GRADE. PROVIDE VIBRATION DAMPING PAD AT STRAP LOCATION.

**3 PIPE SUPPORT SADDLE**  
 NOT TO SCALE



**4 THRUST BLOCK AND ANCHOR**  
 NOT TO SCALE

REVISION

BY

DATE

PROJECT MANAGER  
 ROB SHEPPENHEISER

DESIGN BY : RMS

DRAWN BY : RMS/LHR

DATE : APRIL 19, 2024

PROJECT NO.: 2743-23-01

SEAL

PROFESSIONAL ENGINEER  
 ROBERT W. SHEPPENHEISER II  
 PENNSYLVANIA

TeamAg inc  
 120 LAKE STREET  
 EPHRATA, PA 17522  
 PHONE: 717-721-6795 FAX: 717-721-9275  
 www.teamAginc.com TeamAg@teamAginc.com

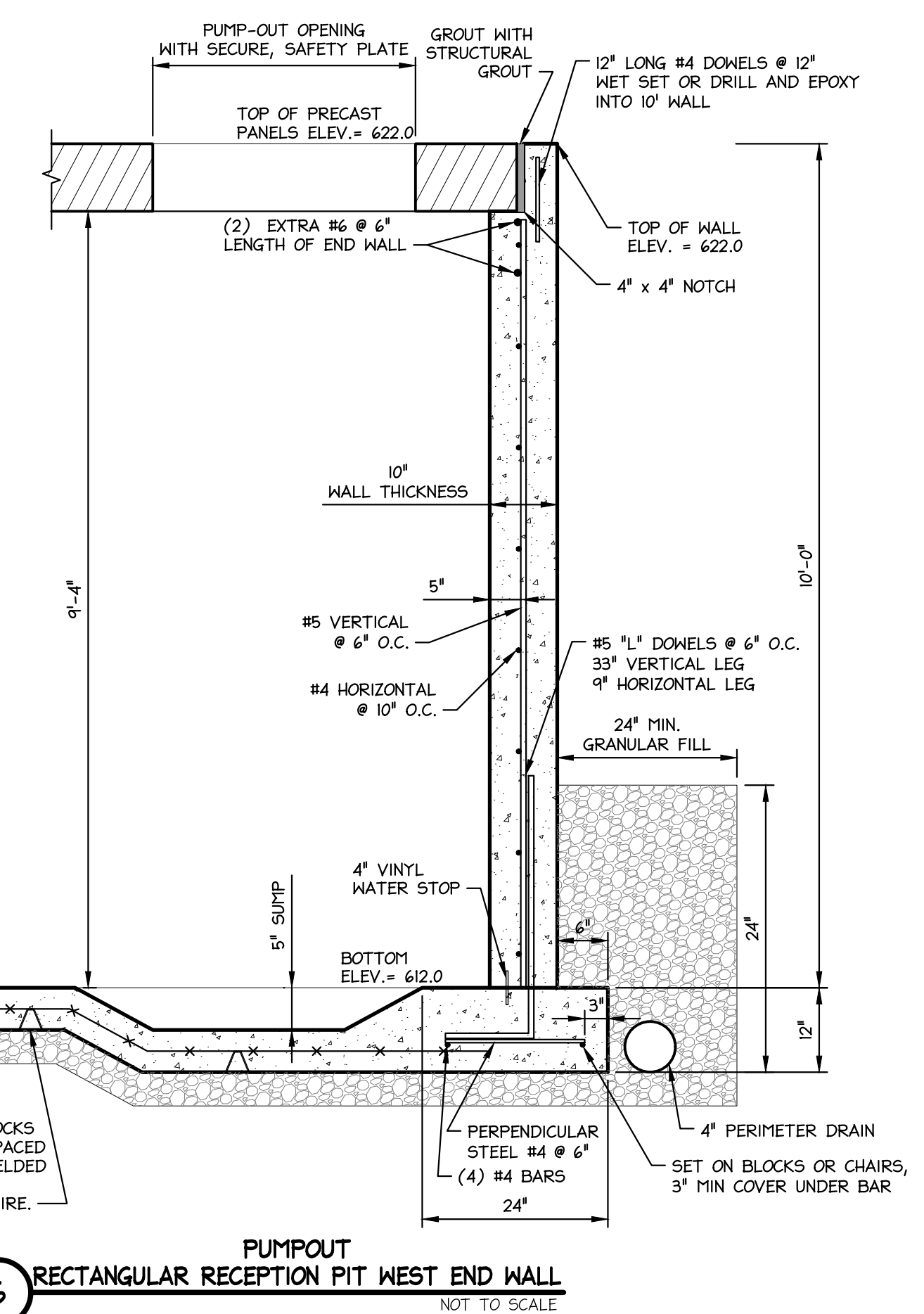
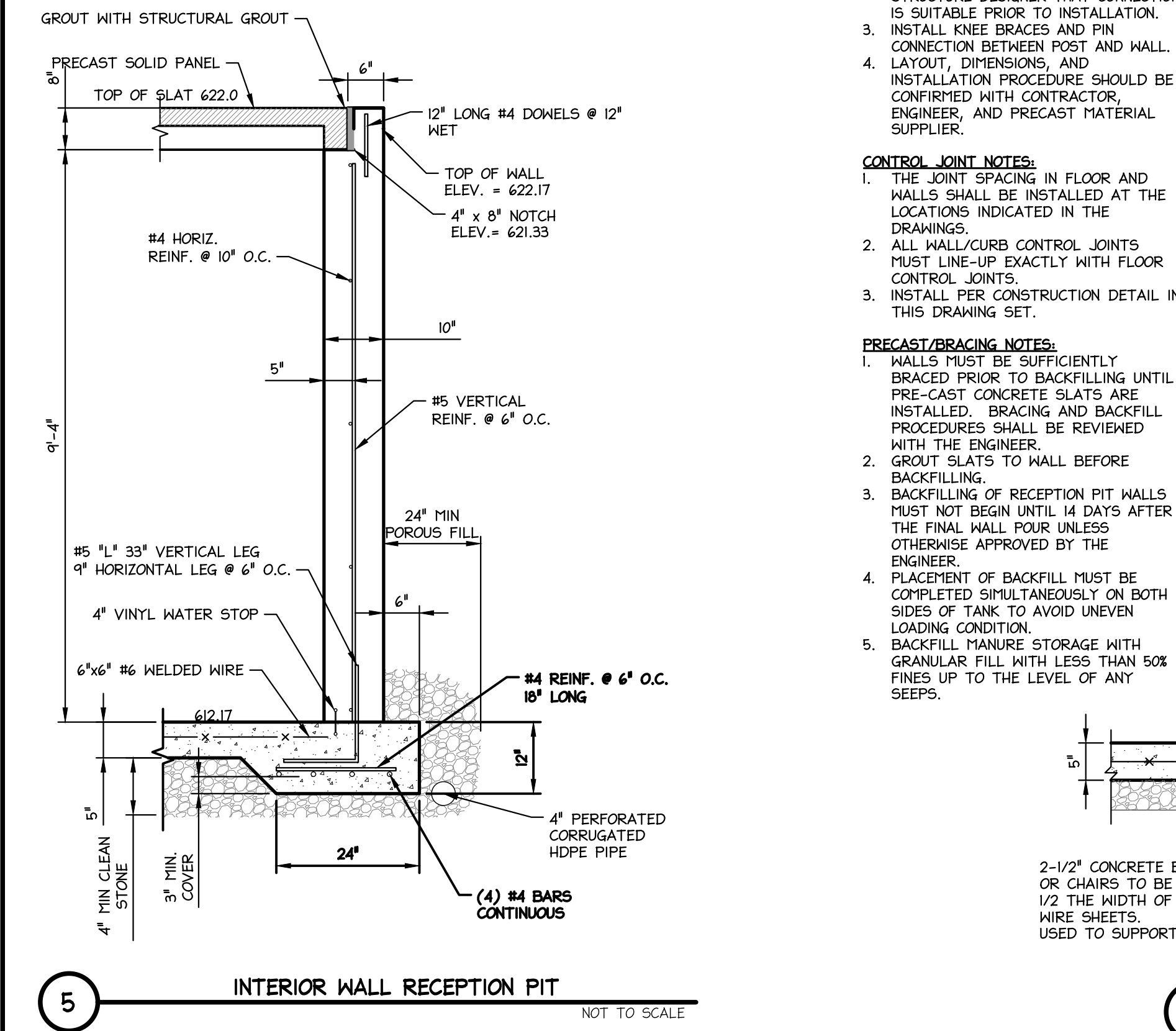
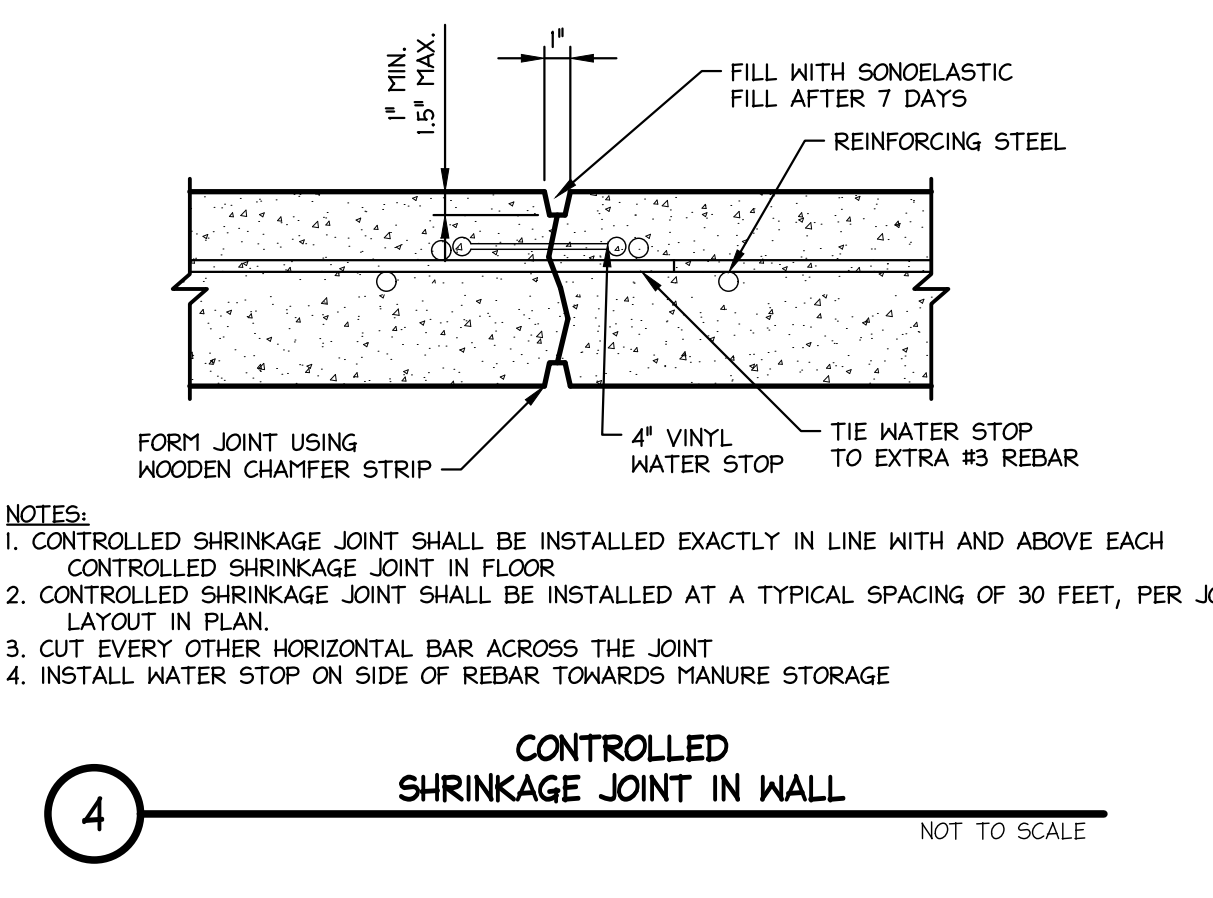
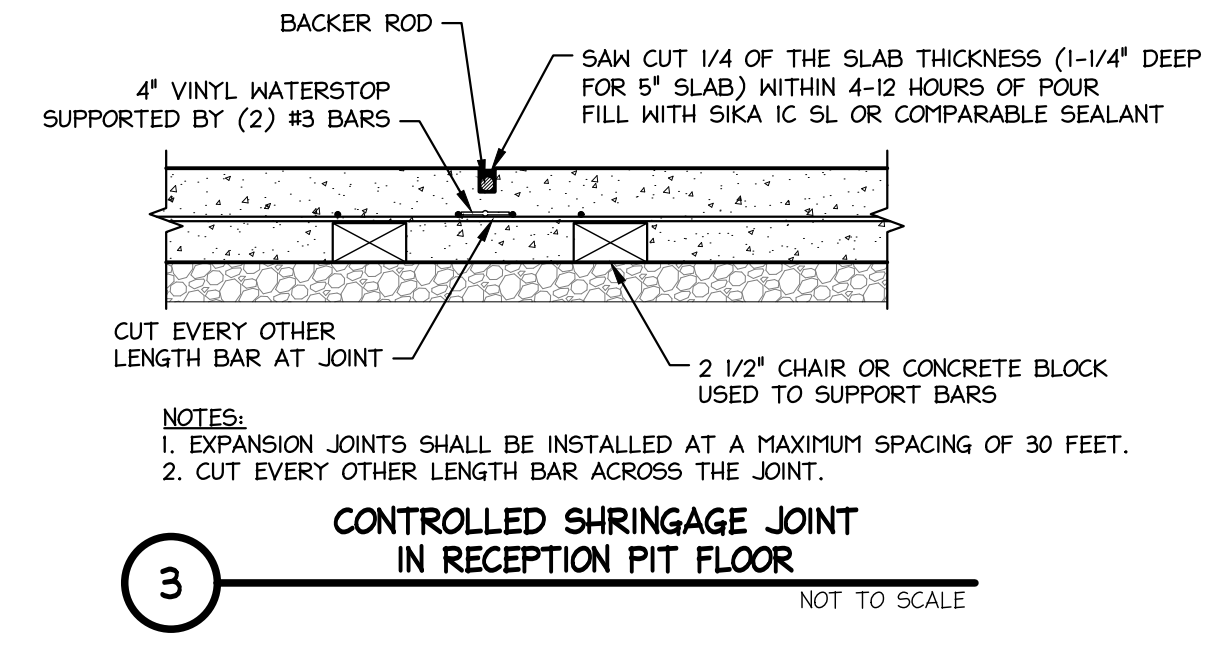
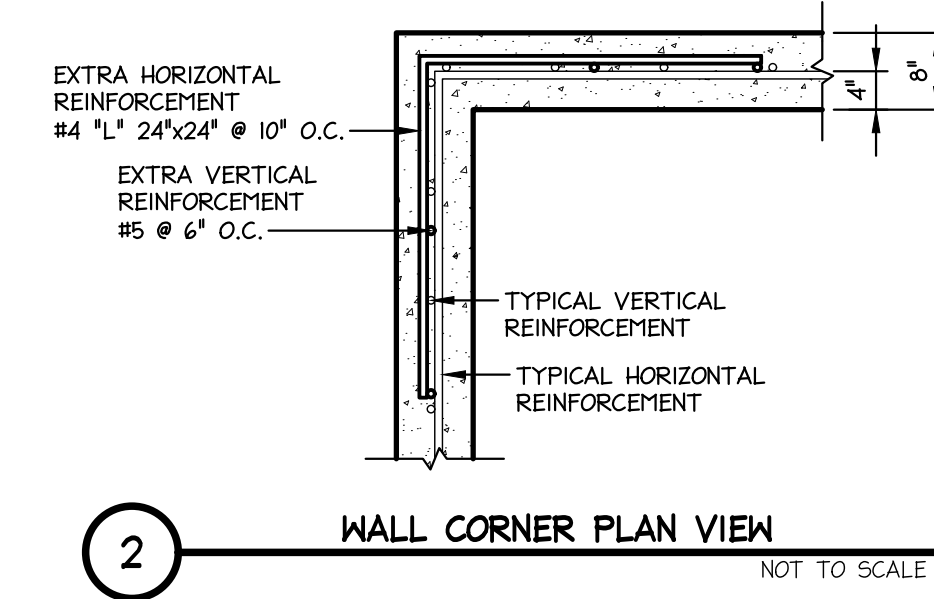
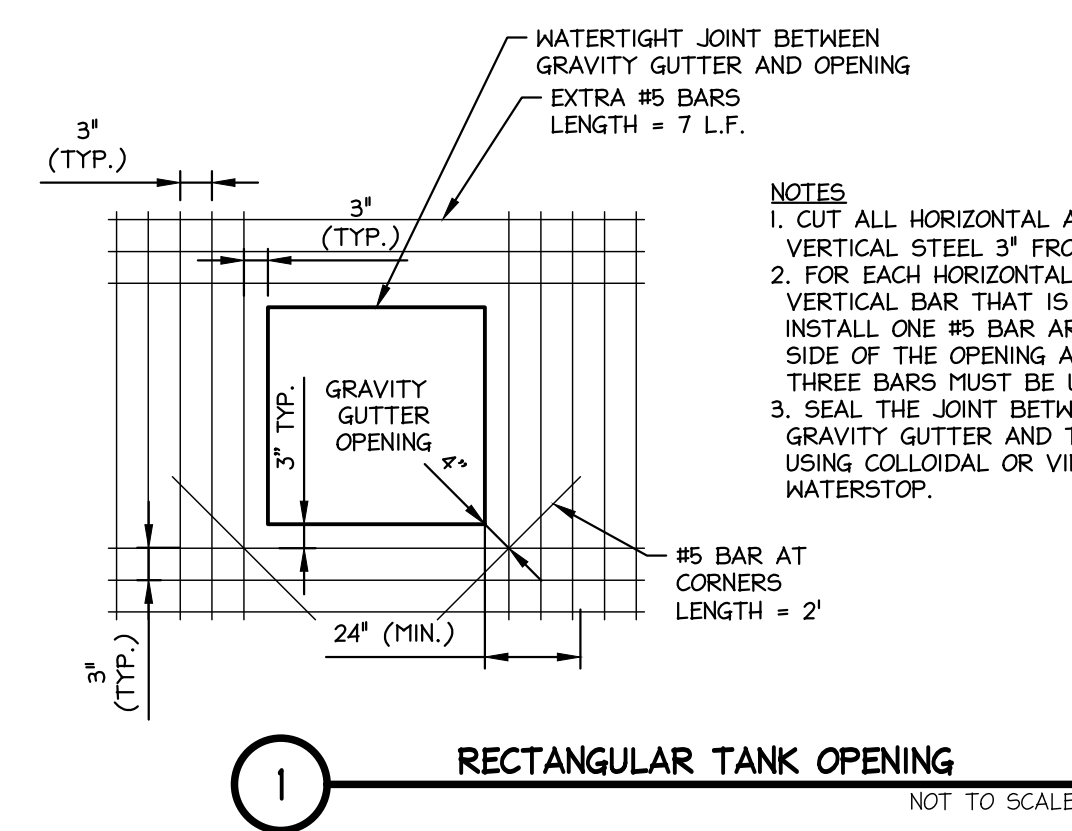
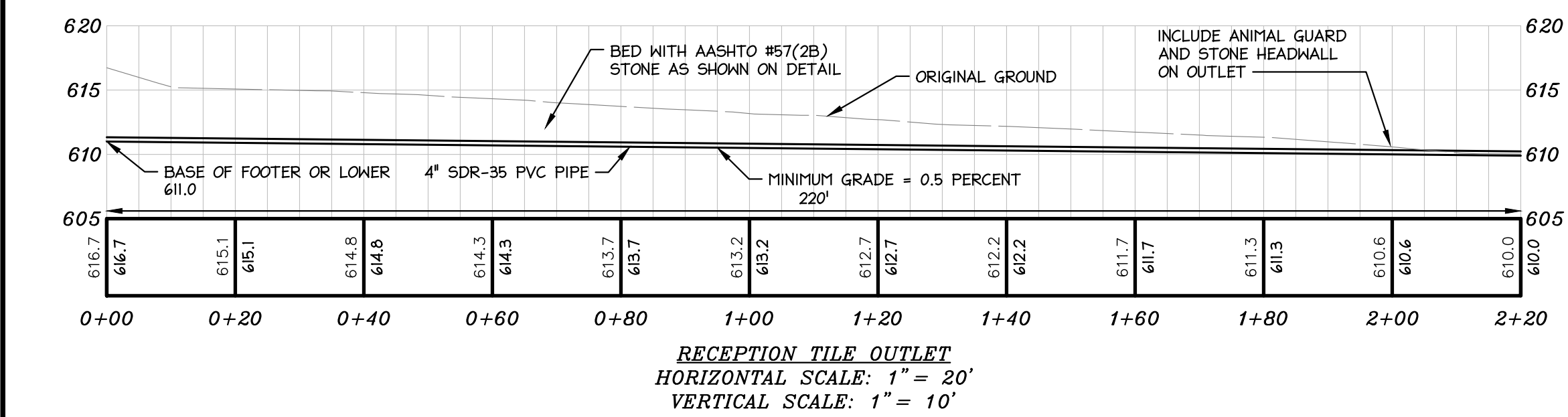
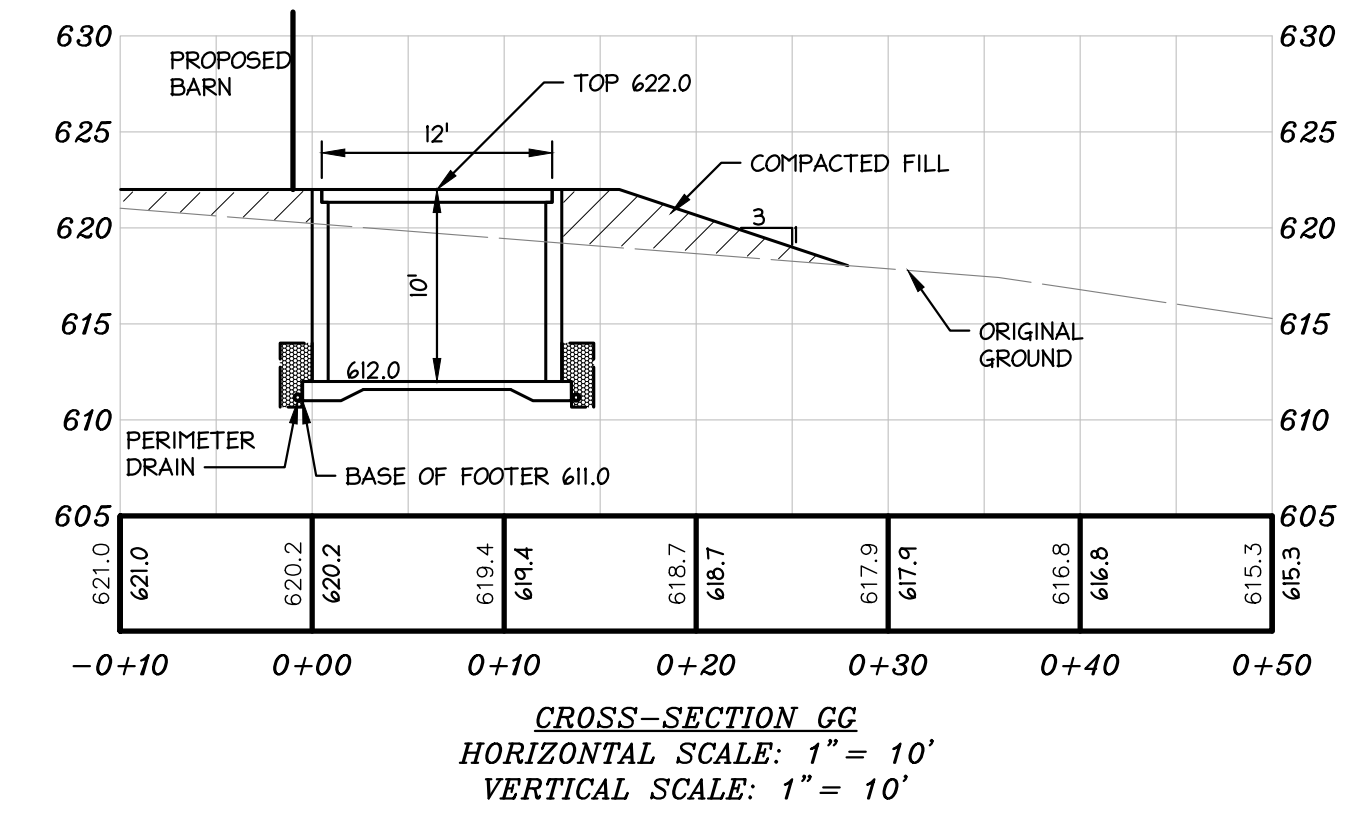
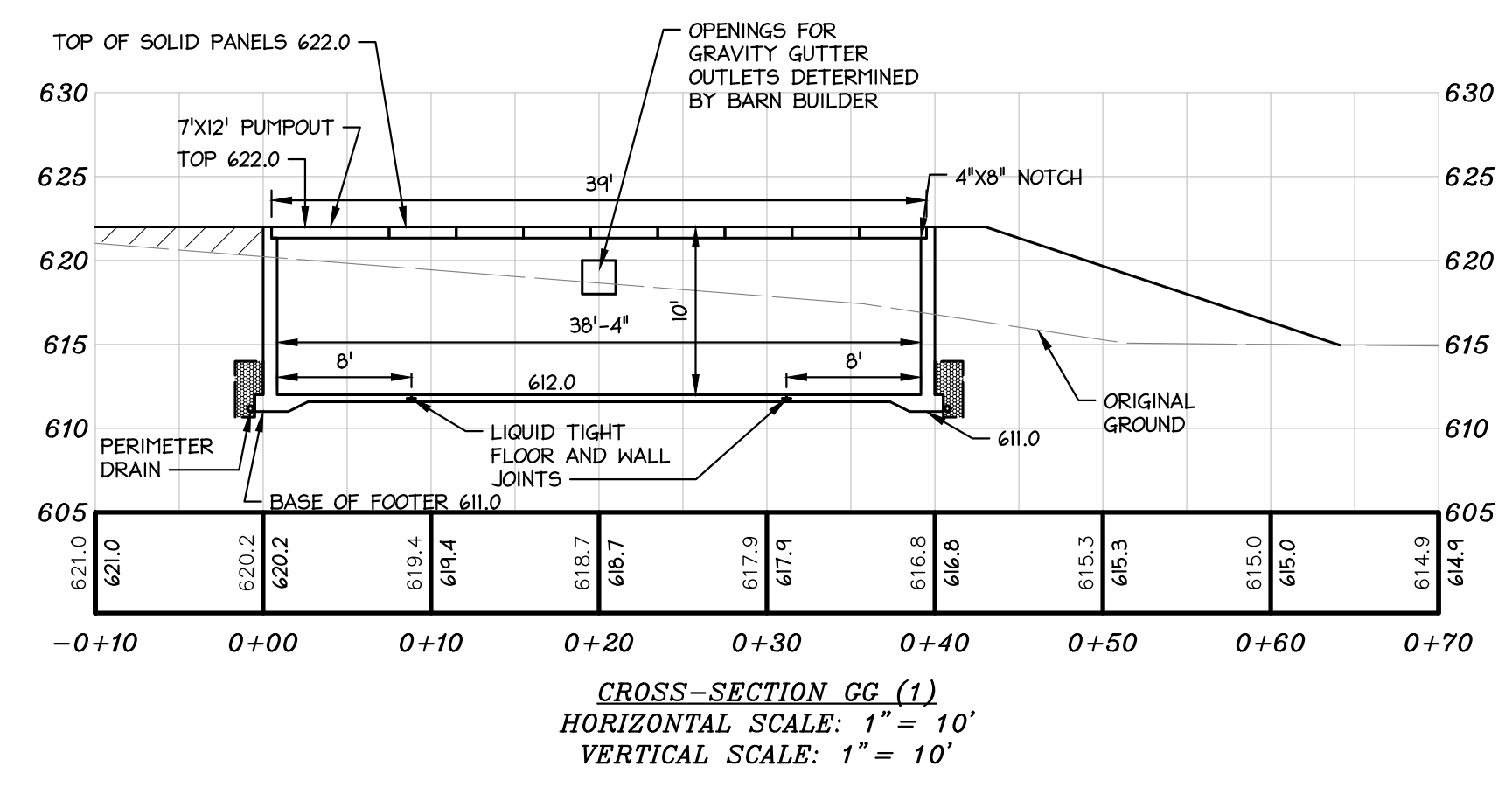
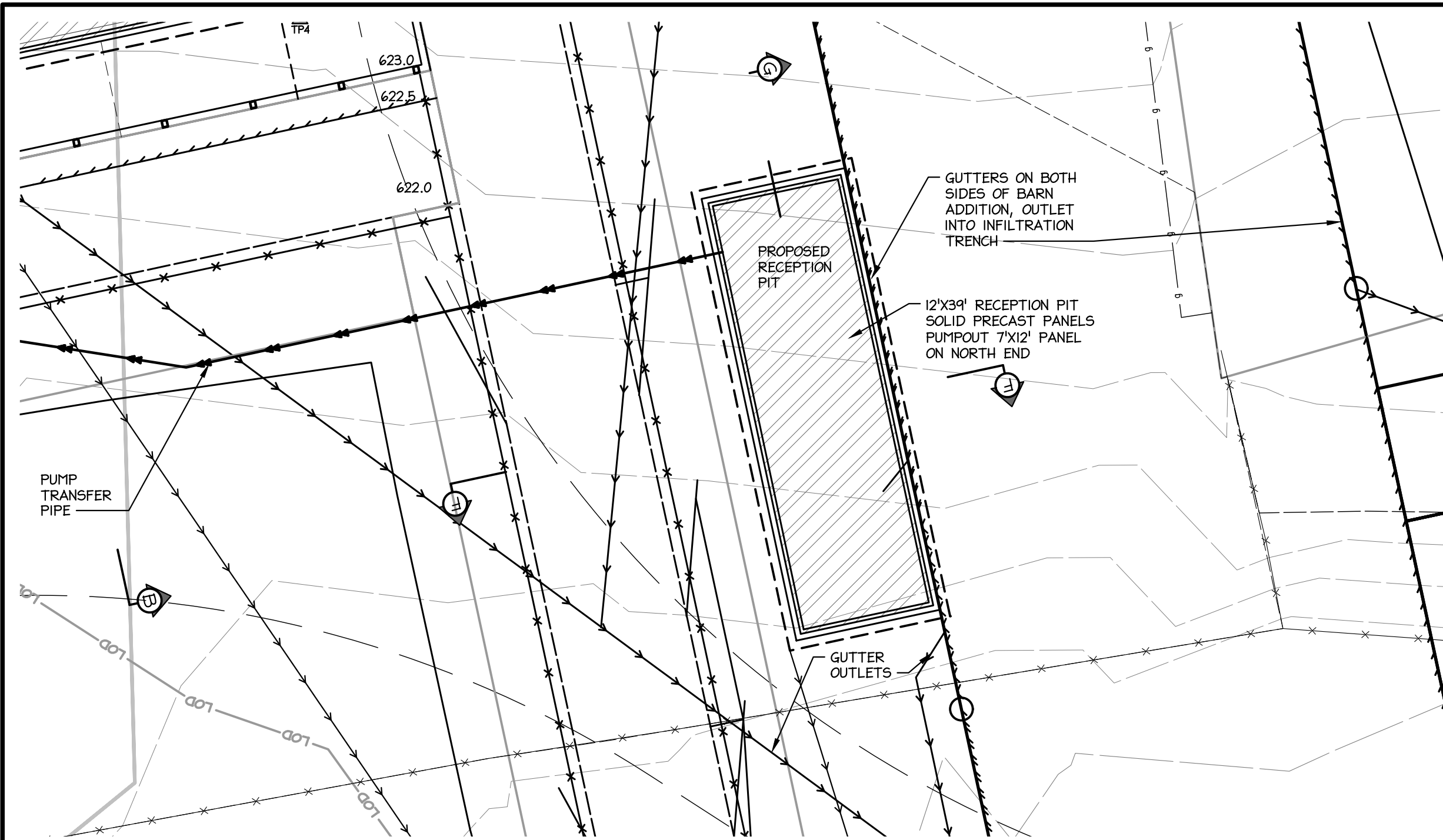
SCALE  
 AS NOTED

PROJECT TITLE  
 AGRICULTURAL WASTE BMPS  
 CHESTER COUNTY

CLIENT  
 DAVID KAUFFMAN  
 549 BEAVER DAM ROAD  
 HONEYBROOK, PA 19344  
 610-868-4222

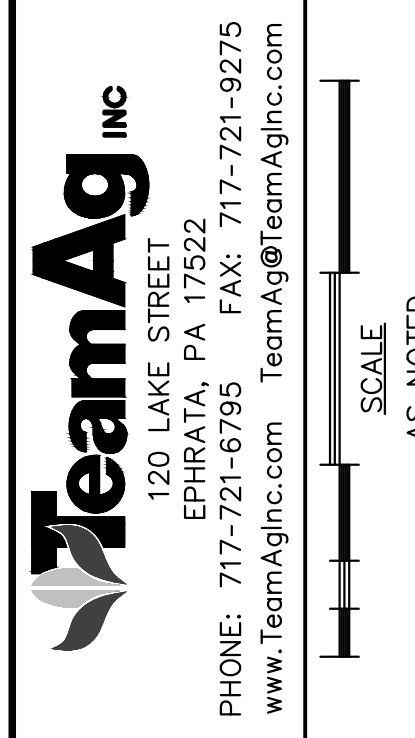
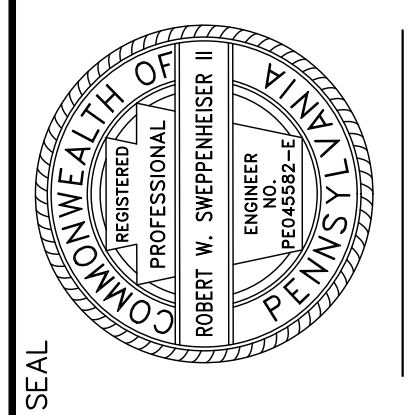
TANK DETAILS

DRAWING : TANK-2



- GENERAL NOTES:**
1. THE STRUCTURAL DESIGN AND CONSTRUCTION OF THE HEIFER BUILDING TO BE DONE BY OTHERS.
  2. MANURE STORAGE WALL DESIGN ASSURES NO MOMENT TRANSFER FROM STRUCTURAL POSTS. CONNECTION MUST NOT BE "FIXED." ENGINEER MUST VERIFY WITH CONTRACTOR AND ROOF STRUCTURE DESIGNER THAT CONNECTION IS SUITABLE PRIOR TO INSTALLATION.
  3. INSTALL KNEE BRACES AND PIN CONNECTION BETWEEN POST AND WALL.
  4. LAYOUT, DIMENSIONS, AND INSTALLATION PROCEDURE SHOULD BE CONFIRMED WITH CONTRACTOR, ENGINEER, AND PRECAST MATERIAL SUPPLIER.
- CONTROL JOINT NOTES:**
1. THE JOINT SPACING IN FLOOR AND WALLS SHALL BE INSTALLED AT THE LOCATIONS INDICATED IN THE DRAWINGS.
  2. ALL WALL/CURB CONTROL JOINTS MUST LINE-UP EXACTLY WITH FLOOR CONTROL JOINTS.
  3. INSTALL PER CONSTRUCTION DETAIL IN THIS DRAWING SET.
- PRECAST/BRACING NOTES:**
1. WALLS MUST BE SUFFICIENTLY BRACED PRIOR TO BACKFILLING UNTIL PRE-CAST CONCRETE SLATS ARE INSTALLED. BRACING AND BACKFILL PROCEDURES SHALL BE REVIEWED WITH THE ENGINEER.
  2. GROUT SLATS TO WALL BEFORE BACKFILLING.
  3. BACKFILLING OF RECEPTION PIT WALLS MUST NOT BEGIN UNTIL 14 DAYS AFTER THE FINAL WALL POUR UNLESS OTHERWISE APPROVED BY THE ENGINEER.
  4. PLACEMENT OF BACKFILL MUST BE COMPLETED SIMULTANEOUSLY ON BOTH SIDES OF TANK TO AVOID UNEVEN LOADING CONDITION.
  5. BACKFILL MANURE STORAGE WITH GRANULAR FILL WITH LESS THAN 5% FINES UP TO THE LEVEL OF ANY SEEPS.

PROJECT TITLE	ACRUCULTURAL WASTE BMPS
TOWNSHIP	HONEYBROOK TOWNSHIP
COUNTY	CHESTER COUNTY
CLIENT	DAVID KAUFFMAN 549 BEAVER DAM ROAD HONEYBROOK, PA 19344 610-868-4222
PROJECT MANAGER	ROB SNEPPENHEISER
DESIGN BY	RMS
DRAWN BY	RMS/LHR
DATE	APRIL 19, 2024
PROJECT NO.	2743-23-01
SCALE	AS NOTED
REVISION	
BY	
DATE	
DRAWING : TANK-3	







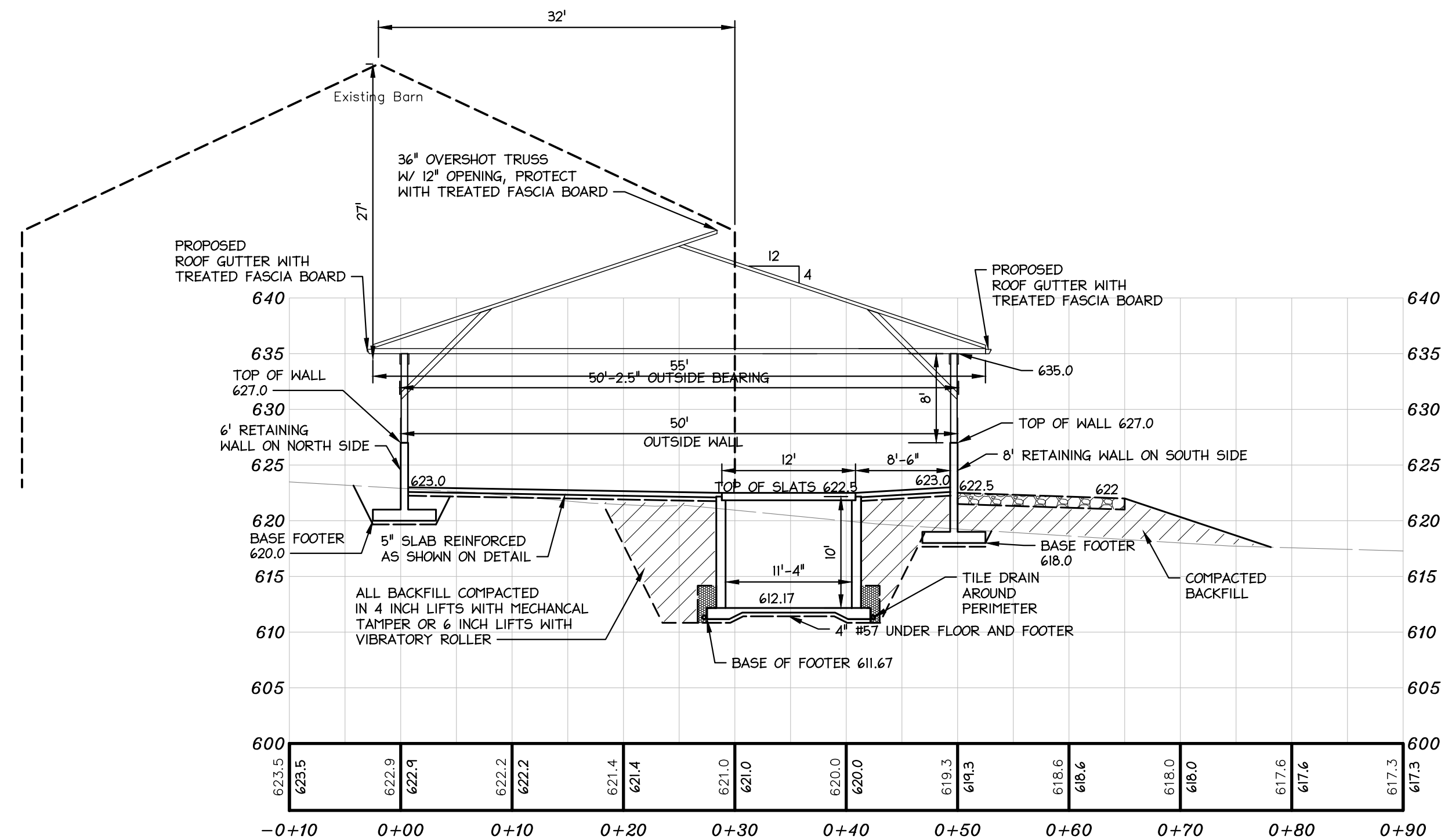




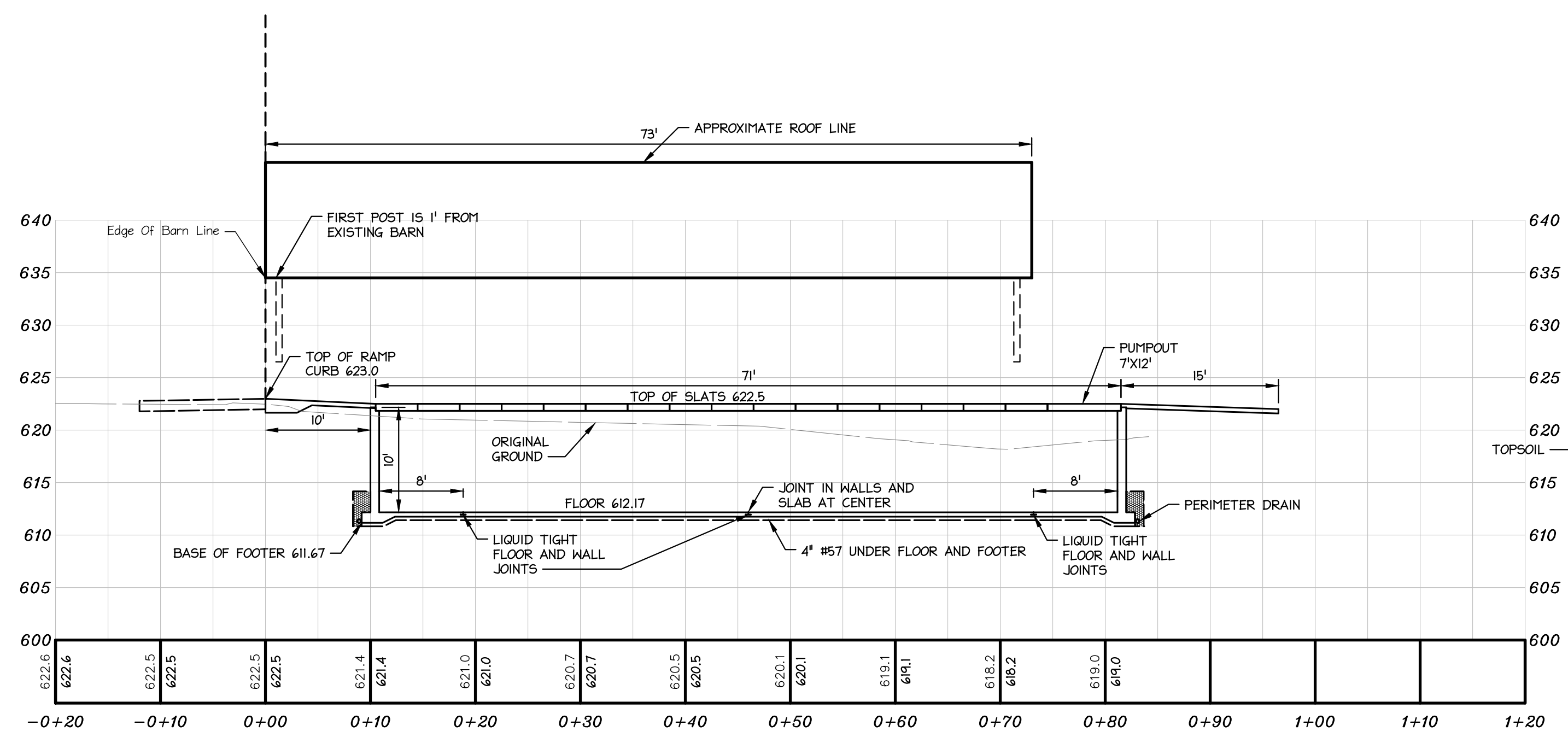








CROSS-SECTION BB  
HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1" = 10'



CROSS-SECTION CC  
HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1" = 10'

**GENERAL NOTES:**

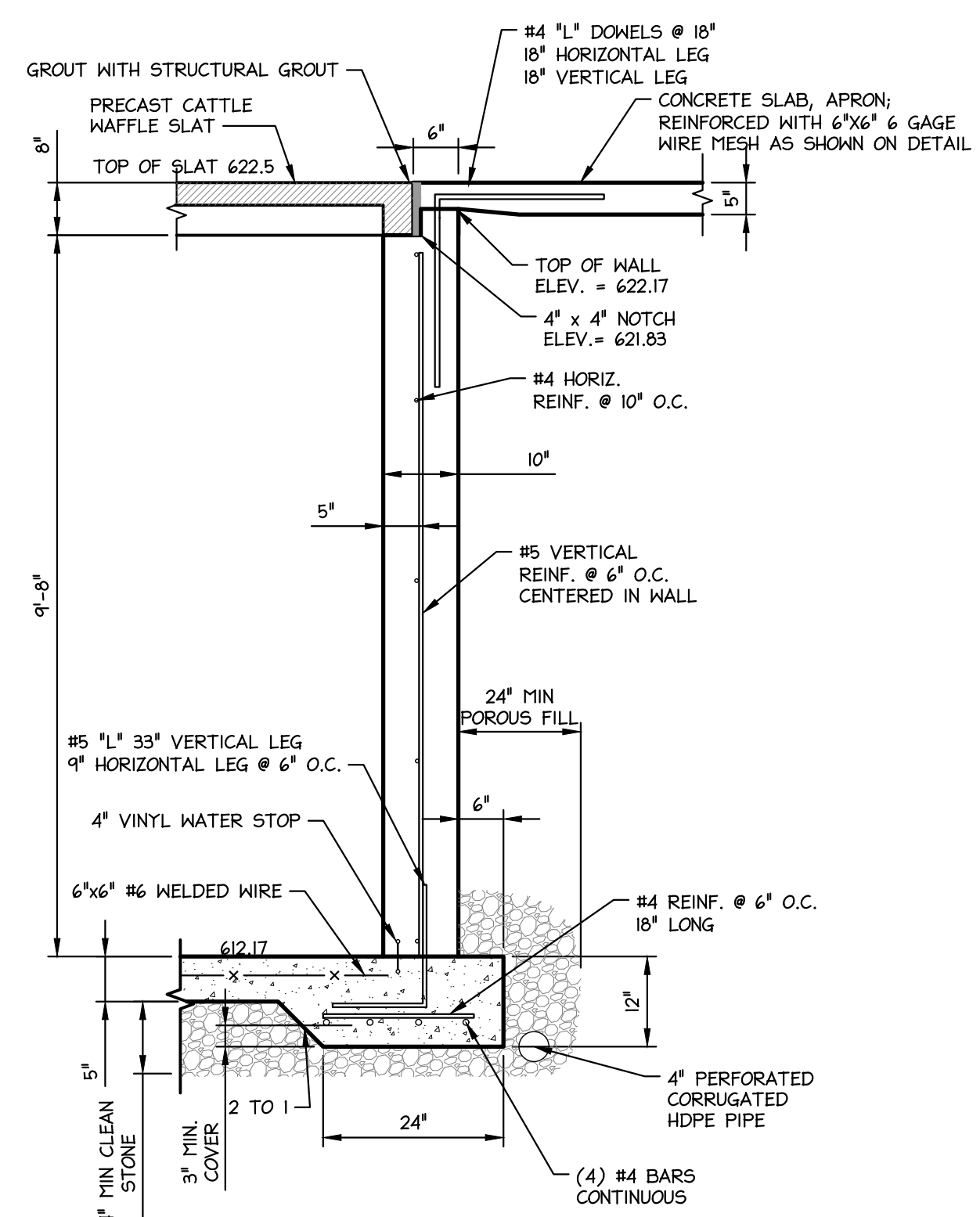
1. THE STRUCTURAL DESIGN AND CONSTRUCTION OF THE HEIFER BUILDING TO BE DONE BY OTHERS.
2. MANURE STORAGE WALL DESIGN ASSUMES NO MOMENT TRANSFER FROM STRUCTURAL POSTS. CONNECTION MUST NOT BE "FIXED." ENGINEER MUST VERIFY WITH CONTRACTOR AND ROOF STRUCTURE DESIGNER THAT CONNECTION IS SUITABLE PRIOR TO INSTALLATION.
3. INSTALL KNEE BRACES AND PIN CONNECTION BETWEEN POST AND WALL.
4. LAYOUT, DIMENSIONS, AND INSTALLATION PROCEDURE SHOULD BE CONFIRMED WITH CONTRACTOR, ENGINEER, AND PRECAST MATERIAL SUPPLIER.

**CONTROL JOINT NOTES:**

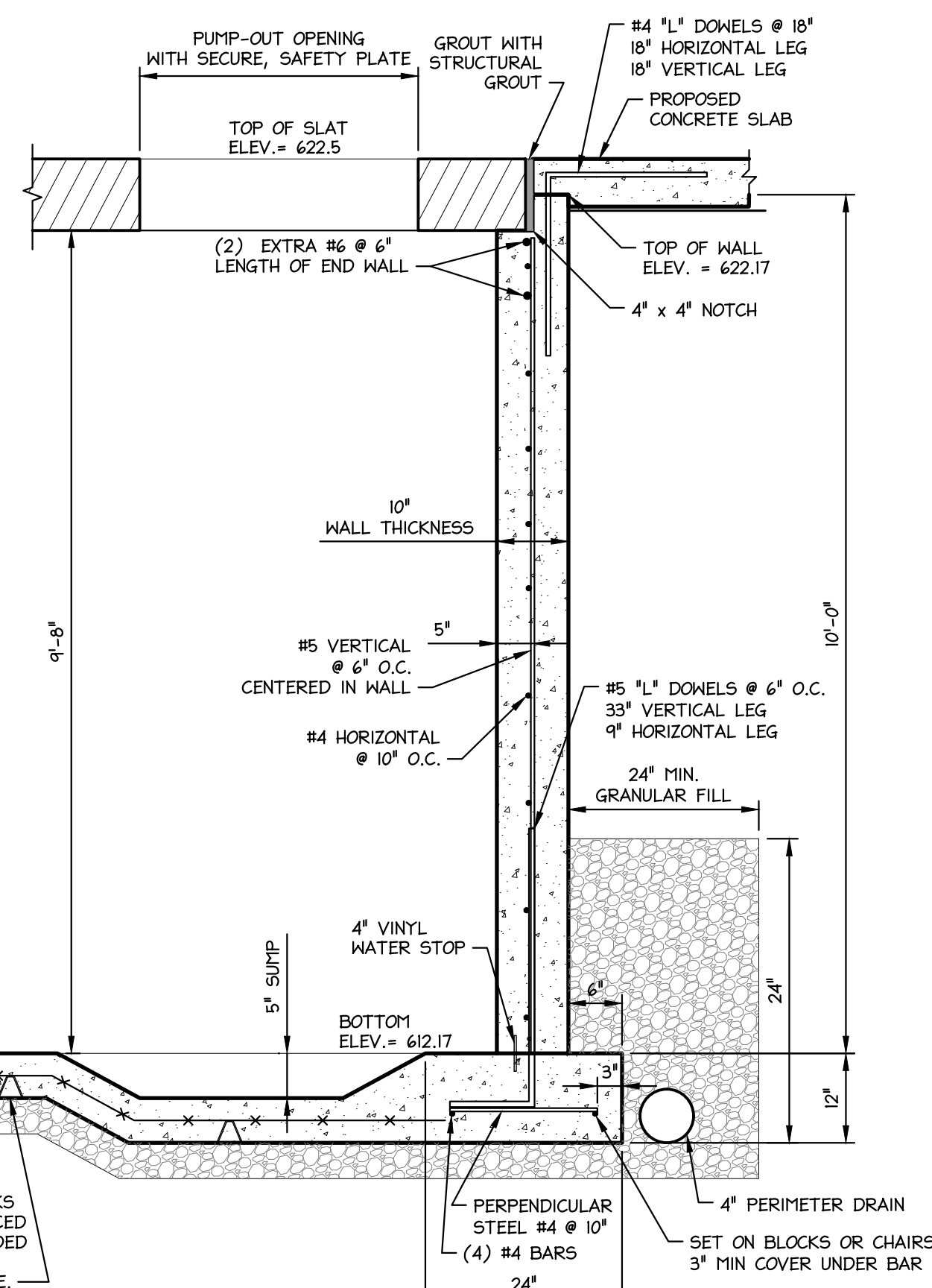
1. THE JOINT SPACING IN FLOOR AND WALLS SHALL BE INSTALLED AT THE LOCATIONS INDICATED IN THE DRAWINGS.
2. ALL WALL/CURB CONTROL JOINTS MUST LINE-UP EXACTLY WITH FLOOR CONTROL JOINTS.
3. INSTALL PER CONSTRUCTION DETAIL IN THIS DRAWING SET.

**PRECAST/BRACING NOTES:**

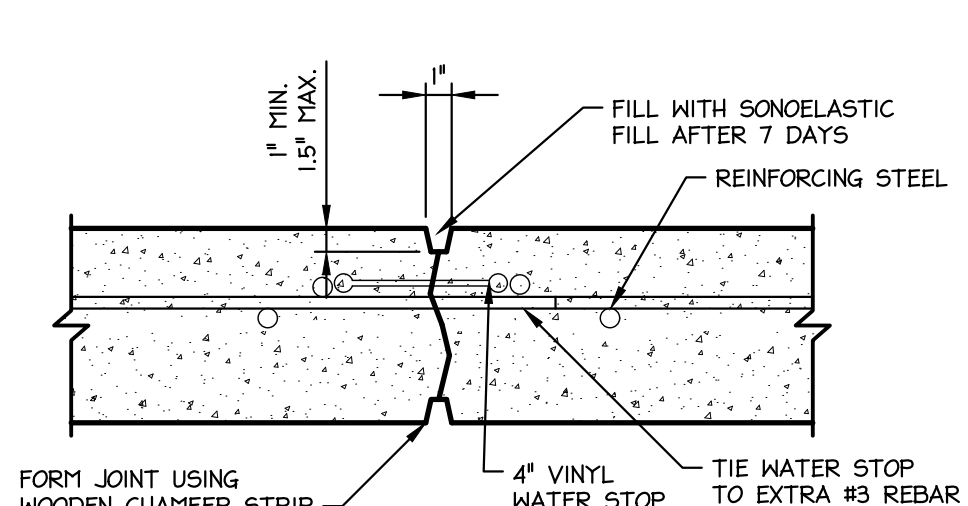
1. WALLS MUST BE SUFFICIENTLY BRACED PRIOR TO BACKFILLING UNTIL PRE-CAST CONCRETE SLATS ARE INSTALLED. BRACING AND BACKFILL PROCEDURES SHALL BE REVIEWED WITH THE ENGINEER.
2. GROUT SLATS TO WALL BEFORE BACKFILLING.
3. BACKFILLING OF RECEPTION PIT WALLS MUST NOT BEGIN UNTIL 14 DAYS AFTER THE FINAL WALL POUR UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. PLACEMENT OF BACKFILL MUST BE COMPLETED SIMULTANEOUSLY ON BOTH SIDES OF TANK TO AVOID UNEVEN LOADING CONDITION.
5. BACKFILL MANURE STORAGE WITH GRANULAR FILL WITH LESS THAN 50% FINES UP TO THE LEVEL OF ANY SEEPS.



1 RECTANGULAR MANURE STORAGE SIDE WALLS  
NOT TO SCALE



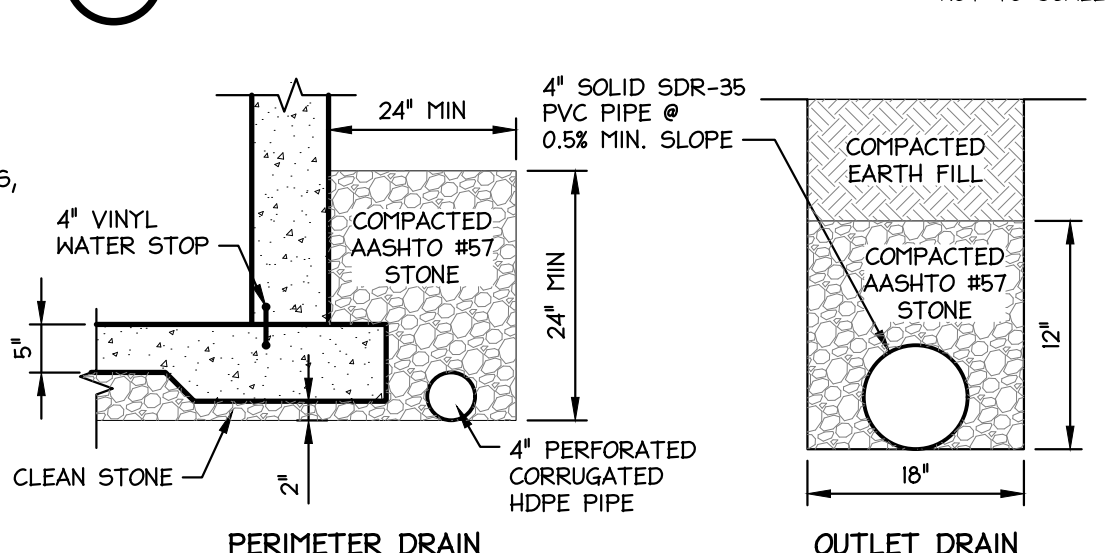
2 RECTANGULAR MANURE STORAGE END WALLS  
NOT TO SCALE



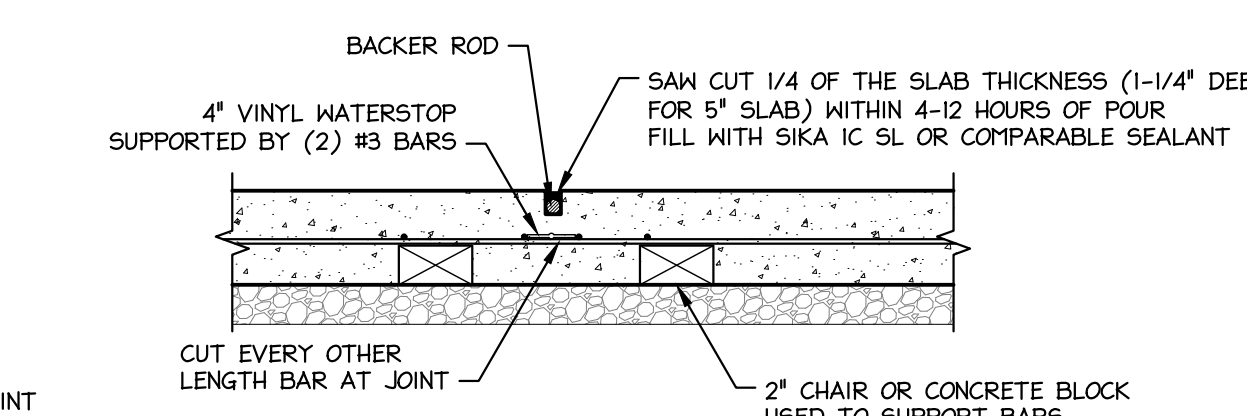
3 CONCRETE UNDERHOUSE FLOOR  
NOT TO SCALE

- NOTES:**
1. CONTROLLED SHRINKAGE JOINT SHALL BE INSTALLED EXACTLY IN LINE WITH AND ABOVE EACH CONTROLLED SHRINKAGE JOINT IN FLOOR.
  2. CONTROLLED SHRINKAGE JOINT SHALL BE INSTALLED AT A TYPICAL SPACING OF 30 FEET, PER JOINT LAYOUT IN PLAN.
  3. CUT EVERY OTHER HORIZONTAL BAR ACROSS THE JOINT.
  4. INSTALL WATER STOP ON SIDE OF REBAR TOWARDS MANURE STORAGE.

4 CONTROLLED SHRINKAGE JOINT IN WALL  
NOT TO SCALE

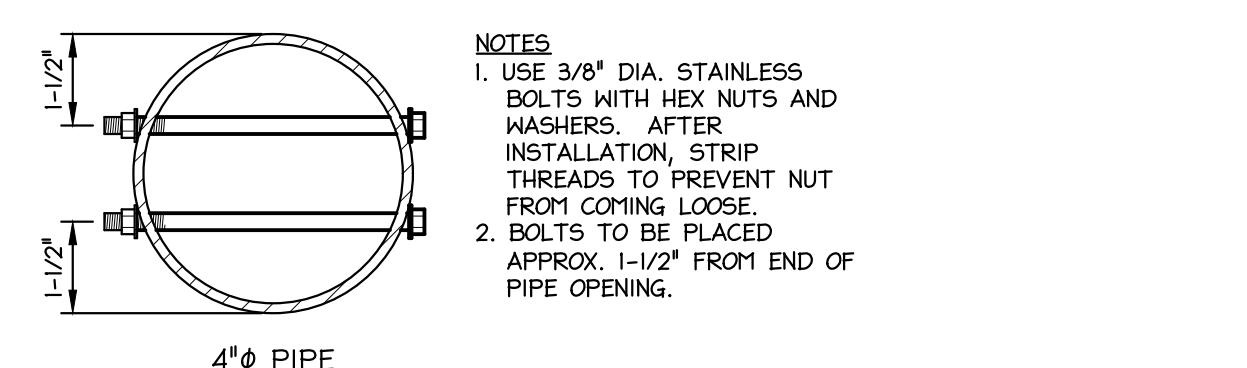


6 PERIMETER DRAIN  
NOT TO SCALE



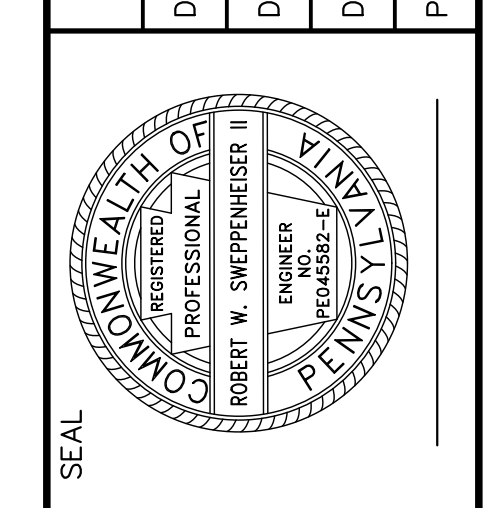
5 CONTROLLED SHRINKAGE JOINT IN UNDERHOUSE FLOOR  
NOT TO SCALE

- NOTES:**
1. EXPANSION JOINTS SHALL BE INSTALLED AT A MAXIMUM SPACING OF 30 FEET. SEE JOINT LAYOUT IN DESIGN.
  2. CUT EVERY OTHER LENGTH BAR ACROSS THE JOINT.



7 ANIMAL GUARD  
NOT TO SCALE

REVISION	
BY	
DATE	
PROJECT MANAGER	ROB SHEPPENHEISER
DESIGN BY	RMS
DRAWN BY	RMS/LHR
DATE	APRIL 19, 2024
PROJECT NO.	2743-23-01



**TeamAg inc**  
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PROJECT TITLE: **AGRICULTURAL WASTE BMPS** CHESTER COUNTY  
CLIENT: **DAVID KAUFFMAN**  
649 BEAVER DAM ROAD  
HONEYBROOK, PA 19344  
610-868-4222



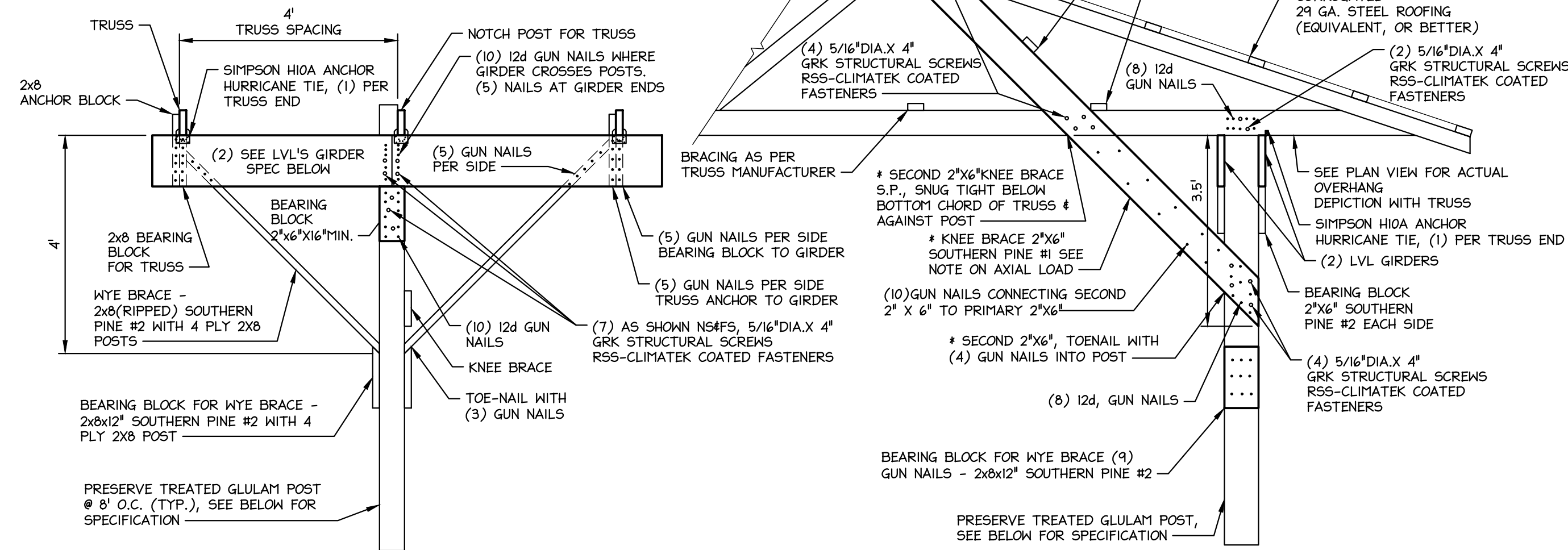








- NOTE:**
- TRUSS SHALL BE DESIGNED FOR OPEN OR PARTIALLY ENCLOSED CONDITIONS. TO BE CERTIFIED TO TRUSS PLATE INSTITUTE (TPI) STANDARDS
  - TRUSS MANUFACTURER SHALL CONSIDER AN AXIAL FORCE IN KNEE BRACE (COMPRESSION OR TENSION) OF 2,000 LB. FOR WIND, ASCE 0.75 REDUCED IN COMBINATION WITH SNOW, AND 2,300 LB. AXIAL FORCE SNOW, ASCE 0.75 REDUCED IN COMBINATION WITH WIND. TOTAL REDUCED AXIAL LOAD = 4,300 LB (MAX. COMPRESSION)/3,200 LB (MAX. TENSION)
  - SEE TRUSS BRACING DETAILS-PLAN VIEW FOR ADDITIONAL SNOW DRIFT LOADING ON TRUSSES.
  - ALL GUN NAILS 12d, MUST BE GALVANIZED WITH A MINIMUM DIAMETER = 0.148" AND LENGTH = 3 1/4"
  - ALL NAILS PENETRATING TREATED WOOD MUST BE RING OR SPIRAL SHANK ALL BOLTS AND WASHERS MUST BE GALVANIZED



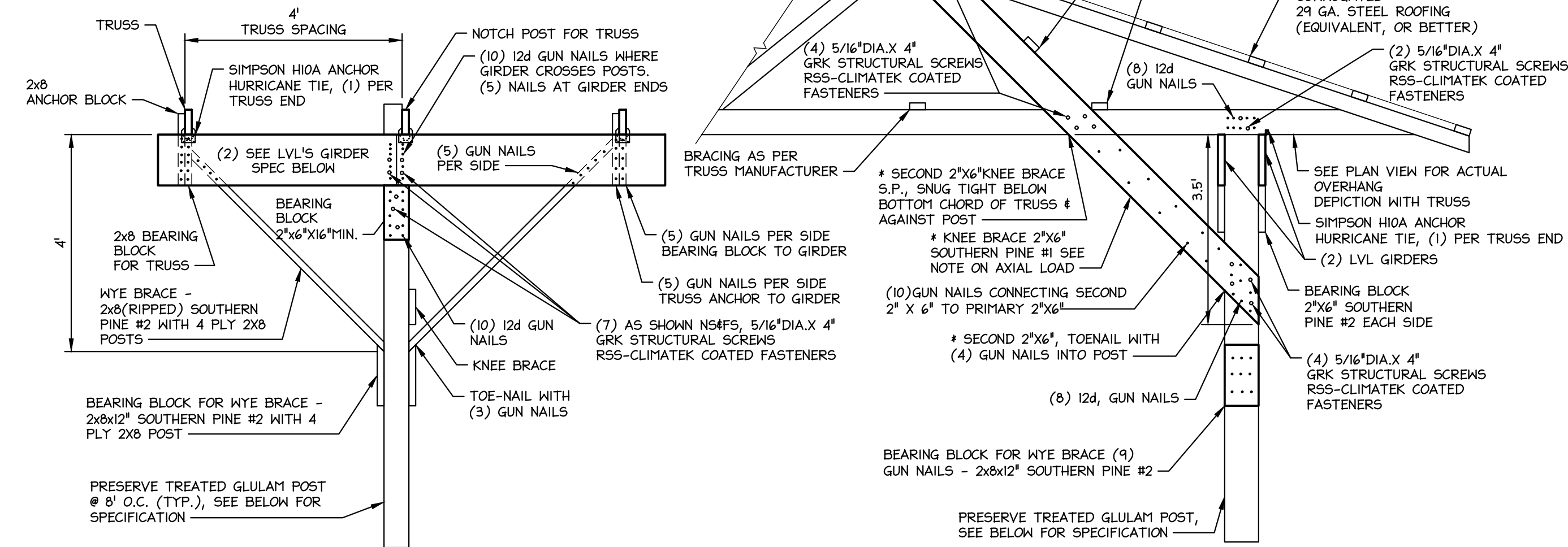
**GIRDERS:**  
GIRDERS WITH 8' SPANS SHALL BE (2) 1 3/4\" x 11 1/4\" LVL'S, MINIMUM F<sub>b</sub> = 2,600 psi, E = 2,000,000 psi.

**POSTS:**  
POSTS SHALL BE 4 PLY, 2\" x 8\", 7\" x 5 3/8\", RIGID-PLY GLU-LAM, EQUIVALENT OR BETTER F<sub>b-y</sub> = 2,350 psi, F<sub>c</sub> = 2,150 psi, E<sub>y-y</sub> = 1,700,000 psi  
POSTS AT GABLE END WALLS SHALL BE 4 PLY, 2\" x 6\", 5 1/4\" x 5 3/8\", RIGID-PLY GLU-LAM, EQUIVALENT OR BETTER F<sub>b-y</sub> = 2,350 psi, F<sub>c</sub> = 2,150 psi, E<sub>y-y</sub> = 1,700,000 psi

**TYPICAL BRACING DETAIL ROOF STRUCTURE HUA AND STACKING FOR POST SPACING @ 8' OC**

NOT TO SCALE

- NOTE:**
- TRUSS SHALL BE DESIGNED FOR OPEN OR PARTIALLY ENCLOSED CONDITIONS. TO BE CERTIFIED TO TRUSS PLATE INSTITUTE (TPI) STANDARDS
  - TRUSS MANUFACTURER SHALL CONSIDER AN AXIAL FORCE IN KNEE BRACE (COMPRESSION OR TENSION) OF 2,000 LB. FOR WIND, ASCE 0.75 REDUCED IN COMBINATION WITH SNOW, AND 2,300 LB. AXIAL FORCE SNOW, ASCE 0.75 REDUCED IN COMBINATION WITH WIND. TOTAL REDUCED AXIAL LOAD = 4,300 LB (MAX. COMPRESSION)/3,200 LB (MAX. TENSION)
  - SEE TRUSS BRACING DETAILS-PLAN VIEW FOR ADDITIONAL SNOW DRIFT LOADING ON TRUSSES.
  - ALL GUN NAILS 12d, MUST BE GALVANIZED WITH A MINIMUM DIAMETER = 0.148\" AND LENGTH = 3 1/4"
  - ALL NAILS PENETRATING TREATED WOOD MUST BE RING OR SPIRAL SHANK ALL BOLTS AND WASHERS MUST BE GALVANIZED



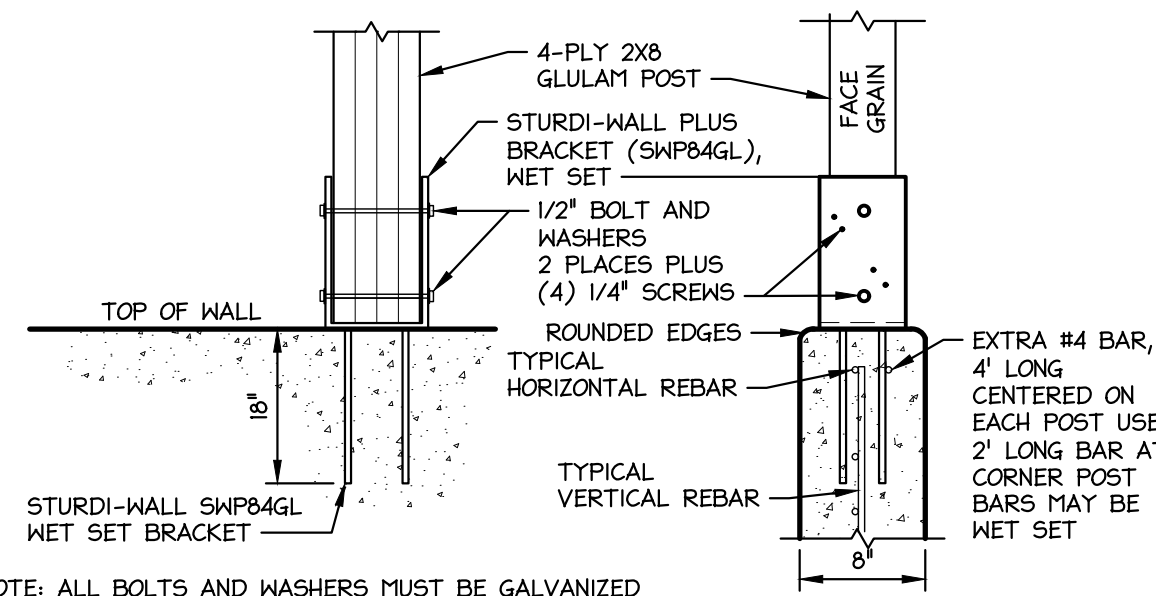
**GIRDERS:**  
GIRDERS FOR THE FIRST TWO SPANS OFF THE EXISTING BARN SHALL BE (2) 1 3/4\" x 16\" LVL'S, MINIMUM F<sub>b</sub> = 2,600 psi, E = 2,000,000 psi.

**POSTS:**  
POSTS SHALL BE 4 PLY, 2\" x 8\", 7\" x 5 3/8\", RIGID-PLY GLU-LAM, EQUIVALENT OR BETTER F<sub>b-y</sub> = 2,350 psi, F<sub>c</sub> = 2,150 psi, E<sub>y-y</sub> = 1,700,000 psi  
POSTS AT GABLE END WALLS SHALL BE 4 PLY, 2\" x 6\", 5 1/4\" x 5 3/8\", RIGID-PLY GLU-LAM, EQUIVALENT OR BETTER F<sub>b-y</sub> = 2,350 psi, F<sub>c</sub> = 2,150 psi, E<sub>y-y</sub> = 1,700,000 psi

**TYPICAL BRACING DETAIL ROOF STRUCTURE HUA FOR FIRST TWO SPANS FROM BARN FOR POST SPACING @ 8' OC**

NOT TO SCALE

FOR GABLE ENDS THAT WILL BE SIDED, THE POSTS WILL BE 4 PLY 2\" x 6\" GLULAM POSTS. THE POSTS CAN BE ATTACHED WITH STANDARD STURDI-WALL S464GL BRACKETS ATTACHED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

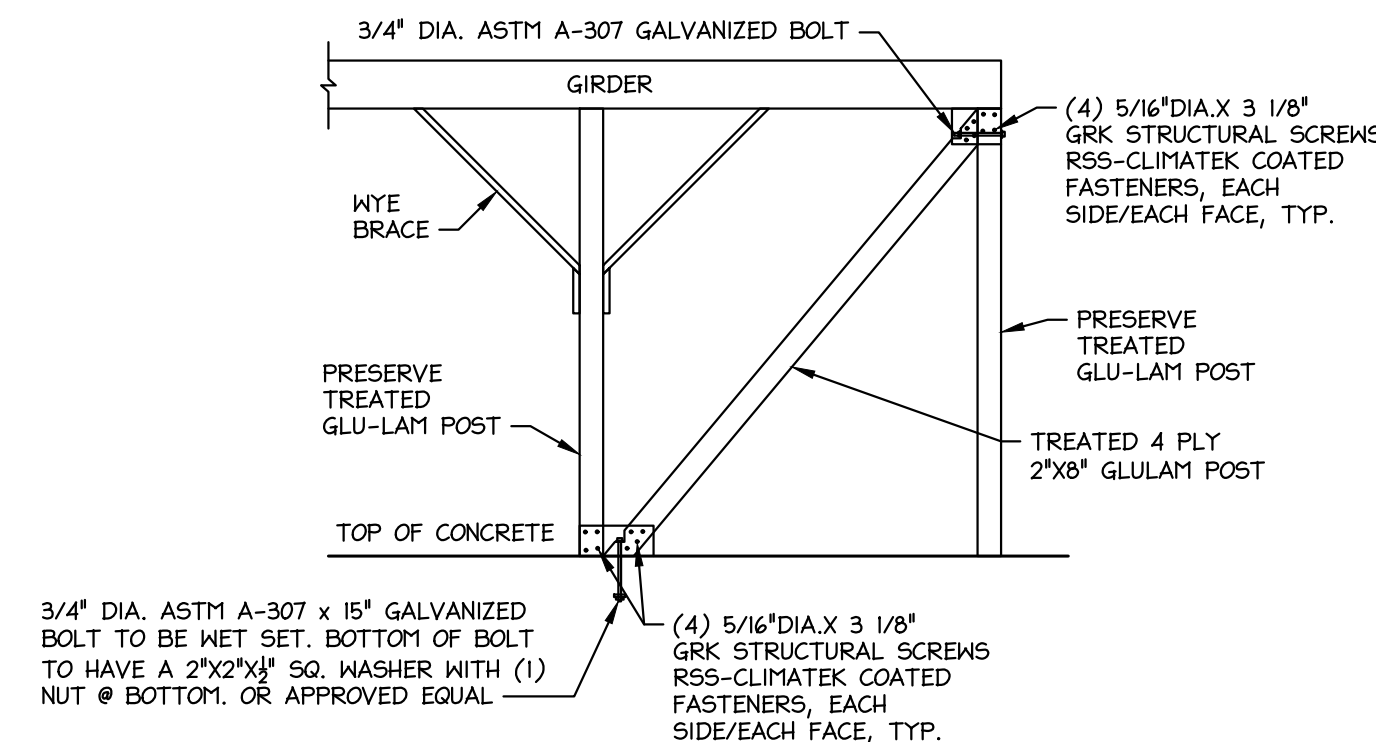


**NOTE:** ALL BOLTS AND WASHERS MUST BE GALVANIZED  
SEE MANUFACTURER'S RECOMMENDATIONS FOR ADDITIONAL INSTALLATION NOTES.

**ROOFED STRUCTURE POST TO WALL CONNECTION**

3

NOT TO SCALE

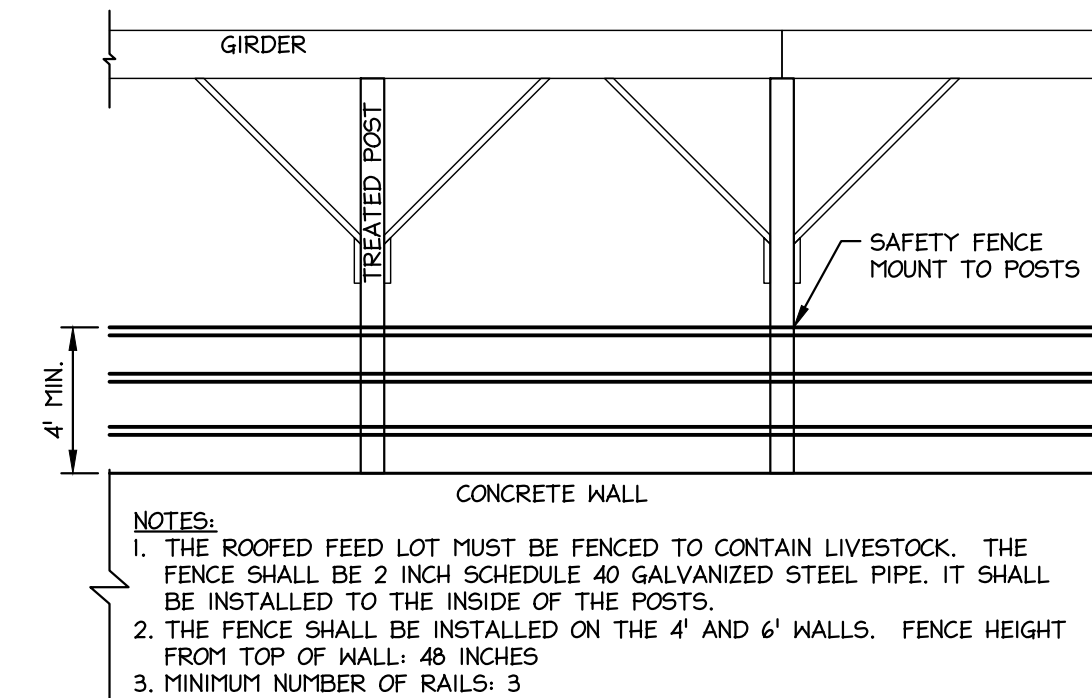


3/4\" DIA. ASTM A-307 x 15\" GALVANIZED BOLT TO BE WET SET. BOTTOM OF BOLT TO HAVE A 2\" x 2\" SQ. WASHER WITH (1) NUT @ BOTTOM. OR APPROVED EQUAL

**K-BRACE**

4

NOT TO SCALE

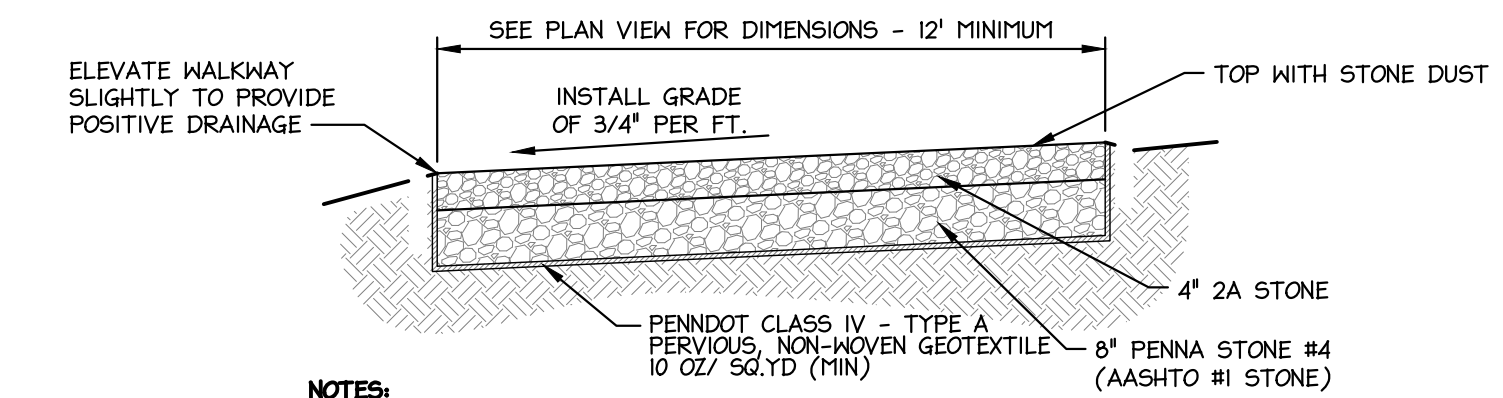


**NOTES:**  
1. THE ROOFED FEED LOT MUST BE FENCED TO CONTAIN LIVESTOCK. THE FENCE SHALL BE 2 INCH SCHEDULE 40 GALVANIZED STEEL PIPE. IT SHALL BE INSTALLED TO THE INSIDE OF THE POSTS.  
2. THE FENCE SHALL BE INSTALLED ON THE 4\" AND 6\" WALLS. FENCE HEIGHT FROM TOP OF WALL: 48 INCHES  
3. MINIMUM NUMBER OF RAILS: 3

**SAFETY FENCE DETAILS**

5

NOT TO SCALE



**NOTES:**  
1. GRADE SUBGRADE TO CREATE SMOOTH SURFACE AND CREATE GRADE TOWARDS DOWNSLOPE SIDE.  
2. GEOTEXTILE SHALL MEET REQUIREMENTS IN CONSTRUCTION SPECIFICATION. PLACEMENT SHOULD ALLOW FOR 12 INCH OVERLAP BETWEEN PANELS.  
3. STONE DEPTH WILL BE MEASURED AFTER COMPACTION.  
4. ALL STONE SHALL BE COMPACTED WITH A VIBRATORY ROLLER.

**ACCESS ROAD AND ANIMAL TRAIL**

6

NOT TO SCALE

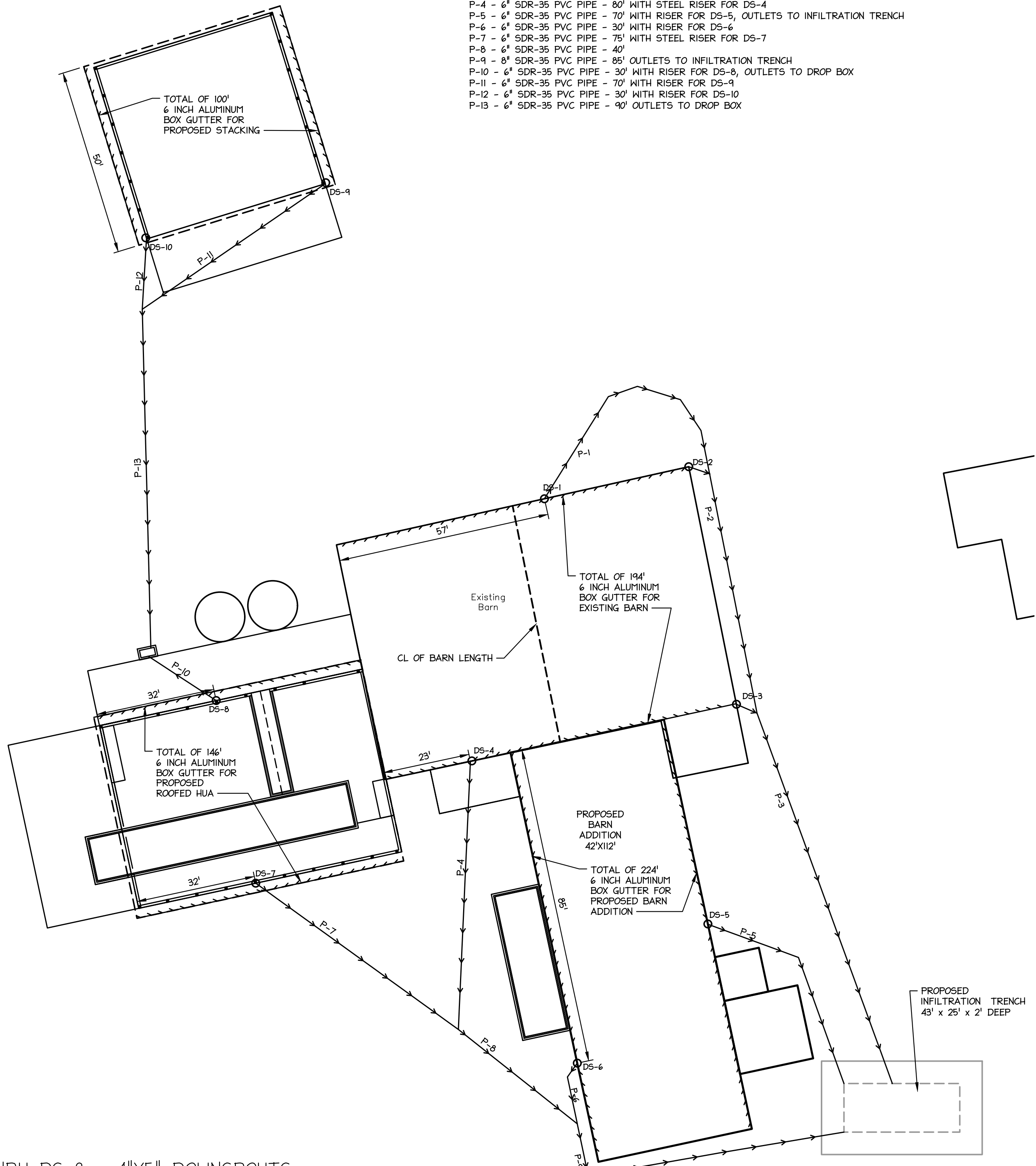
REVISION					
BY					
DATE					
PROJECT MANAGER	ROB SHEPPENHEISER	DESIGN BY	RMS	DRAWN BY	RMS/LJR
				DATE	APRIL 19, 2024
				PROJECT NO.	2743-23-01
SEAL					
	120 LAKE STREET EPHRATA, PA 17522 PHONE: 717-721-6795 FAX: 717-721-9275 www.teamaginc.com TeamAg@teamaginc.com				
	PROJECT TITLE: <b>AGRICULTURAL WASTE BMPS</b> CHESTER COUNTY CLIENT: <b>DAVID KAUFFMAN</b> <b>649 BEAVER DAM ROAD</b> <b>HONEYBROOK, PA 19344</b> 610-868-4222				
	<b>RHUA DETAILS</b> DRAWING: <b>RHUA-5</b>				



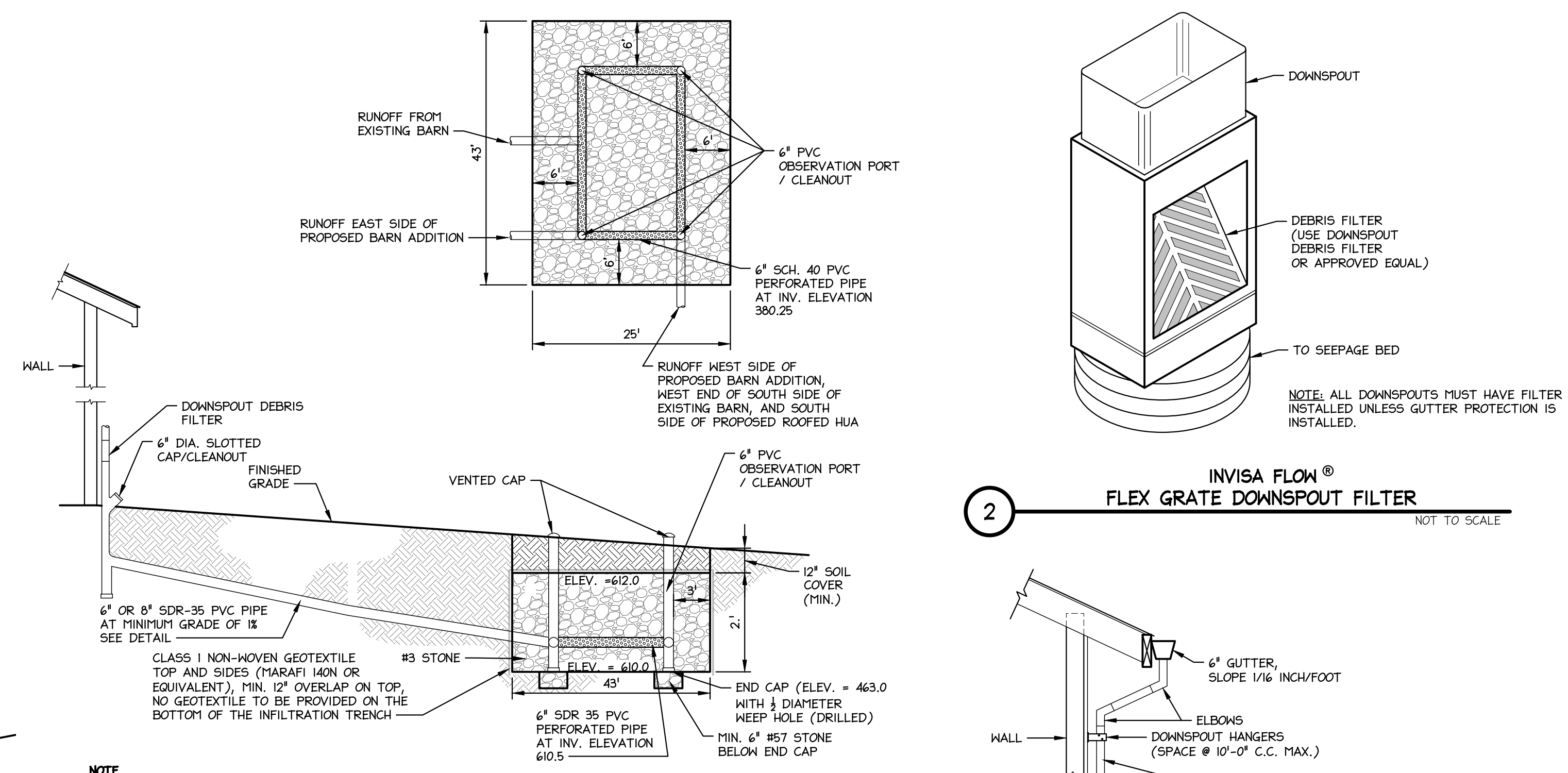




- P-1 - 6" SDR-35 PVC PIPE - 85' WITH RISER FOR DS-1
- P-2 - 6" SDR-35 PVC PIPE - 80' WITH RISER FOR DS-2
- DS-3 - 6" SDR-35 PVC PIPE - 20' WITH RISER, CONNECTS TO P-3
- P-3 - 8" SDR-35 PVC PIPE - 110' OUTLETS TO INFILTRATION TRENCH
- P-4 - 6" SDR-35 PVC PIPE - 80' WITH STEEL RISER FOR DS-4
- P-5 - 6" SDR-35 PVC PIPE - 70' WITH RISER FOR DS-5, OUTLETS TO INFILTRATION TRENCH
- P-6 - 6" SDR-35 PVC PIPE - 30' WITH RISER FOR DS-4
- P-7 - 6" SDR-35 PVC PIPE - 75' WITH STEEL RISER FOR DS-7
- P-8 - 6" SDR-35 PVC PIPE - 40'
- P-9 - 8" SDR-35 PVC PIPE - 85' OUTLETS TO INFILTRATION TRENCH
- P-10 - 6" SDR-35 PVC PIPE - 30' WITH RISER FOR DS-8, OUTLETS TO DROP BOX
- P-11 - 6" SDR-35 PVC PIPE - 70' WITH RISER FOR DS-9
- P-12 - 6" SDR-35 PVC PIPE - 30' WITH RISER FOR DS-10
- P-13 - 6" SDR-35 PVC PIPE - 90' OUTLETS TO DROP BOX



DS-1 THRU DS-8 - 4"x5" DOWNSPOUTS  
 DS-9 THRU DS-10 - 3"x4" DOWNSPOUTS  
 ALL RISERS AND DOWNSPOUT PIPES ARE 6" PIPE, RISERS DS-4 AND DS-7 MUST BE PROTECTED WITH STEEL PIPE BECAUSE OF ANIMAL ACCESS  
 P-1, P-2, P-4, P-5, P-6, P-7, P-8, P-10, P-11, P-12, P-13 ARE 6" SDR-35 PVC PIPES  
 P-3 AND P-9 ARE 8" SDR-35 PVC PIPES  
 ALL PIPES HAVE A MINIMUM SLOPE OF 1.0 PERCENT.  
 MINIMUM DEPTHS ARE 30".

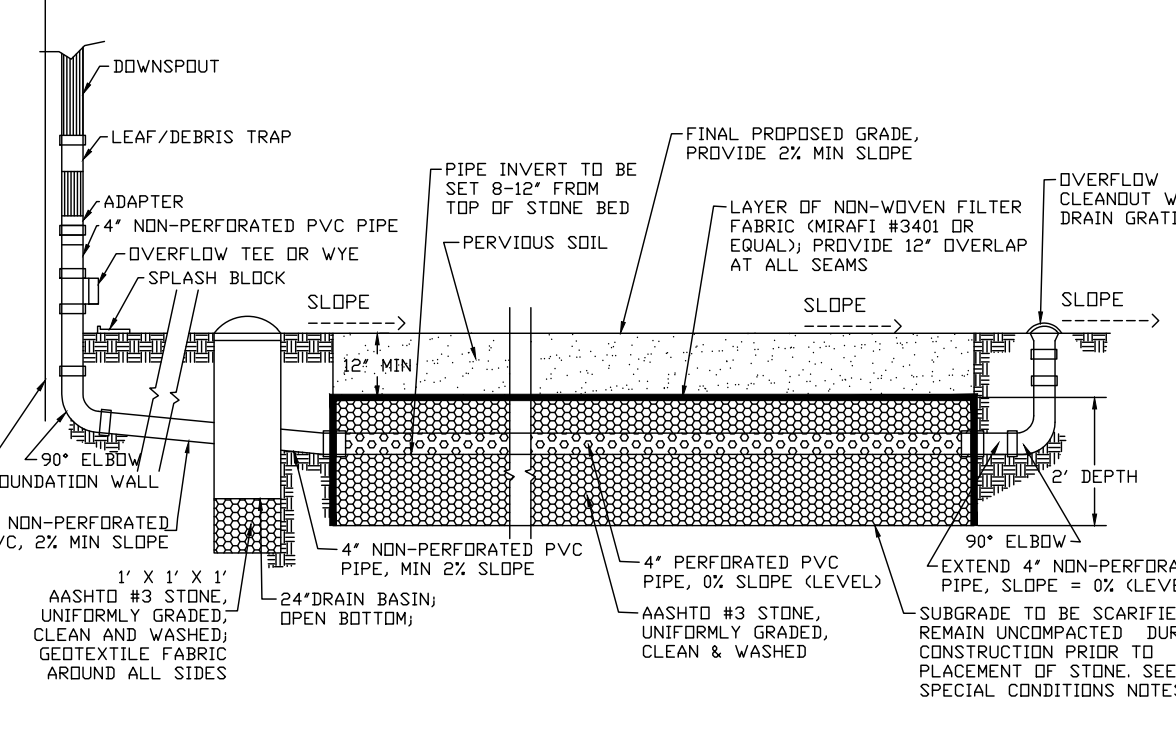
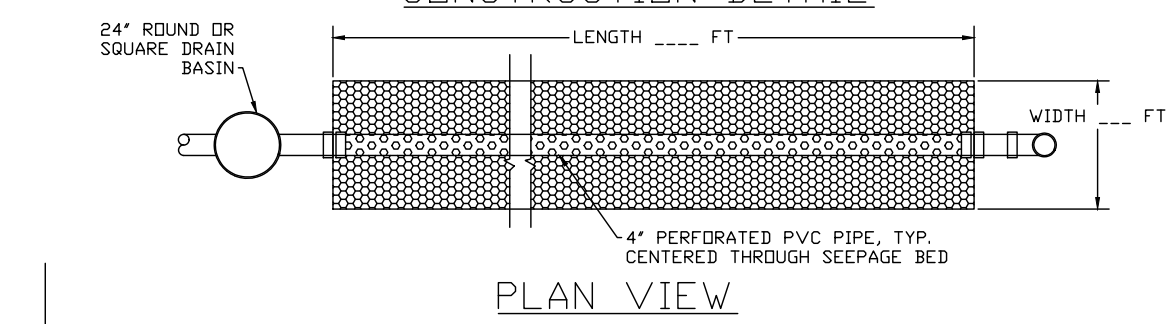


**NOTE**  
 1. ALL PIPE TO THE INFILTRATION TRENCH SHALL BE SOLID PIPE  
 2. ALL PIPE BETWEEN CLEANOUTS (LATERALS) (SEE PLAN VIEW) SHALL BE PERFORATED  
 3. THE BOTTOM OF THE TRENCH SHALL BE LEVEL, SCARIFIED, AND PROTECTED FROM COMPACTION.

- CONSTRUCTION NOTES (GUTTERS)**
- Gutter shall be corrosion resistant material of sufficient thickness to prevent flexing between supports. Aluminum gutters shall have a nominal thickness of (0.027) inches. Aluminum downspouts shall have a nominal thickness of (0.020) inches. Galvanized steel gutters shall have a minimum thickness of (28) gauge. All gutters shall have end caps.
  - Downspouts shall be securely fastened at the top and bottom with support brackets and shall have intermediate support brackets at a minimum spacing of (10) feet where not housed within a protective sleeve.
  - Gutters shall have continuous backing with a vertical face. A wedge shaped stringer may be used for support. Rafter ends and fascia boards shall be sound.
  - Hangers shall be located a maximum of 2 feet apart and nailed to fascia boards or roof sheathing at rafter locations.
  - Downspouts shall be placed below the roof slope line projection with a minimum clearance of 2".
  - Gutter and leader slope shall be a minimum of 1" per 16 feet.
  - When downspout empties onto ground, there shall be an elbow or splash pad.
  - A protective sleeve of pvc sch.-40 or steel pipe shall be placed around downspout if exposed to machinery traffic or livestock. Sleeve shall be a minimum height of (6) feet.
  - Downspouts shall be 3" x 4" (min) unless otherwise noted.

**SIMPLIFIED APPROACH TO STORMWATER MANAGEMENT**

**SIMPLIFIED APPROACH STONE INFILTRATION TRENCH CONSTRUCTION DETAIL**



- GENERAL NOTES:**
- STONE INFILTRATION BED SHALL BE SIZED PER PROPOSED IMPERVIOUS SURFACE DRAINING TO IT.
  - STONE SHALL BE AASHTD #3, UNIFORMLY GRADED, CLEAN AND WASHED, WITH 40% VOID RATIO.
  - LEAF SCREENS SHALL BE INSTALLED OVER GUTTERS OR LEAF DEFLECTOR GUARDS INSTALLED IN THE DOWNSPOUT, OR OTHER APPROVED LEAF PROTECTION DEVICE.
  - PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF STORMWATER FACILITIES IN ACCORDANCE WITH THE HONEY BROOK TOWNSHIP STORMWATER ORDINANCE, CHAPTER 20, AND THE RECORDED OPERATIONS & MAINTENANCE AGREEMENT.
- CONSTRUCTION NOTES:**
- INSTALLATION OF STONE INFILTRATION TRENCH SHALL BE INSPECTED BY THE TOWNSHIP ENGINEER OR DESIGNATED REPRESENTATIVE, WITH A MINIMUM 24 HOURS NOTICE.
  - REQUIRED INSPECTIONS INCLUDE EXCAVATION - PRIOR TO PLACEMENT OF STONE, STONE/PIPE PRIOR TO TOP LAYER OF FABRIC, AND FINAL GRADING AND SEEDING. ADDITIONAL INSPECTIONS MAY BE NECESSARY AS DETERMINED BY TOWNSHIP ENGINEER.
  - PRIOR TO PLACEMENT OF STONE IN THE INFILTRATION TRENCH, THE CONTRACTOR OR PROPERTY OWNER SHALL MAKE A TEST PIT 2 FEET BELOW THE BOTTOM OF INFILTRATION TRENCH TO ENSURE THAT BEDROCK AND/OR GROUNDWATER ARE NOT PRESENT IN THIS ZONE. IF GROUNDWATER/BEDROCK IS ENCOUNTERED, IMMEDIATELY CONTACT THE TOWNSHIP ENGINEER TO DISCUSS REDESIGN AND RELOCATION OF THE INFILTRATION TRENCH.
  - EXCAVATION FOR THE INFILTRATION TRENCH SHALL BE PERFORMED WITH EQUIPMENT THAT WILL NOT COMPACT THE BOTTOM OF THE BED AREA.
  - INFILTRATION TRENCHES SHALL BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL HAS ENTERED THE INFILTRATION TRENCH, THEN APPROPRIATE MEASURES (IE. CLEANING OF SOIL, FROM FABRIC/STONE ETC. AND REPLACEMENT OF FABRIC/STONE) SHALL BE ADDRESSED.
  - AFTER INFILTRATION TRENCH IS INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT SHALL BE RESTRICTED FROM THE TRENCH AREA TO ELIMINATE IMPACTS THAT MAY COMPROMISE IT. IN THE EVENT ANY IMPACTS COMPROMISE THE FUNCTIONALITY OF THE INFILTRATION TRENCH, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO DESIGN SPECIFICATIONS.
- TRENCH DIMENSIONS:**  
 FINAL TRENCH DIMENSIONS MAY VARY ACCORDING TO SITE CONDITIONS BUT FINAL DIMENSIONS MUST PROVIDE THE REQUIRED TRENCH VOLUME (LENGTH \* WIDTH \* DEPTH) AND BE APPROVED BY THE TOWNSHIP.

PROJECT MANAGER <b>ROB SHEPPENHEISER</b>	DESIGN BY : <b>RMS</b>	DRAWN BY : <b>RMS/LHR</b>	DATE : <b>APRIL 19, 2024</b>	PROJECT NO. : <b>2743-23-01</b>
PROJECT TITLE <b>AGRICULTURAL WASTE BMPS</b>	CHESTER COUNTY	CLIENT <b>DAVID KAUFFMAN</b> 649 BEAVER DAM ROAD HONEYBROOK, PA 19344 610-868-4222	REVISION	BY
DATE	DATE	DATE	DATE	DATE
<b>STORM-1</b>				