

TOWNSHIP OF SOUTH WHITEHALL
LEHIGH COUNTY, PENNSYLVANIA
LANDSCAPE AND SHADE TREE COMMISSION

March 23, 2026 - 6:00 PM

AGENDA

AGENDA ITEM # 1 - CALL TO ORDER

AGENDA ITEM # 2 - ACCEPTANCE OF MINUTES

Minutes of the February 23, 2026 meeting

AGENDA ITEM # 3 – CORRESPONDENCE REVIEW

- A. St. Joseph’s Solar**
Major Plan 2025-103 (Preliminary/Final)
Plan Date February 12, 2026

- B. Chase Bank at Roma**
Major Plan 2025-104 (Preliminary/Final)
Plan Date February 3, 2026

- C. PSD Transportation Center – Lot Consolidation**
Major Plan 2025-101 (Preliminary/Final)
Plan Date February 12, 2026

- D. PSD Transportation Center – Land Development**
Major Plan 2025-106 (Preliminary/Final)
Plan Date February 12, 2026

AGENDA ITEM # 4 – SUBDIVISION AND LAND DEVELOPMENT REVIEW

- A. St. Joseph’s Solar**
Major Plan 2025-103 (Preliminary/Final)
Plan Date March 12, 2026

AGENDA ITEM # 5 – COURTESY OF THE FLOOR

AGENDA ITEM # 6 – ADJOURNMENT

TOWNSHIP OF SOUTH WHITEHALL
LEHIGH COUNTY, PENNSYLVANIA
LANDSCAPE AND SHADE TREE COMMISSION

PUBLIC MEETING

MINUTES

FEBRUARY 23, 2026

The Regular Meeting of the South Whitehall Township Landscape and Shade Tree Commission was held on the above date in the Township Municipal Building located at 4444 Walbert Avenue, Allentown, Lehigh County, Pennsylvania.

Members in attendance:

Stacey Nash

Tim Nash

Staff members in attendance:

Chris Strohler, Long-Range Planner

Public in attendance:

Emily Lenneville

AGENDA ITEM #1 – CALL TO ORDER

The meeting was called to order at 6:00 PM

AGENDA ITEM #2 – ACCEPTANCE OF MINUTES

The minutes of the December 15, 2025 meeting were accepted as submitted

AGENDA ITEM #3 – ELECTION OF OFFICERS

The Commission members decided to table Election of Officers until next meeting when all members could be present.

AGENDA ITEM #4 – CORRESPONDENCE REVIEW

A. St. Paul Orthodox Church

Major Plan 2023-104 (Preliminary/Final)

Plan Date November 6, 2025

Accepted as submitted.

B. Chase Bank at Roma – 1603 N. Cedar Crest

Minor Plan 2025-104 (Sketch)

Plan Date June 23, 2025

Accepted as submitted.

C. Al-Ahad Islamic Center

Major Plan 2025-108 (Sketch)

Plan Date November 6, 2025

Accepted as submitted.

AGENDA ITEM # 5– SUBDIVISION AND LAND DEVELOPMENT REVIEW

A. St. Joseph’s Solar

Major Plan 2025-103 (Preliminary/Final)

Plan Date February 12, 2026

The Commission reviewed the latest revisions to the plan noting the buffers surrounding the solar array. The Commission also reviewed Parcel 546781520384-1 on the corner of Applewood Drive and Clauser Road, since this parcel has been added to the lot consolidation plan and determined the planting of shade trees shall apply in coordination with any other frontage requirements. The Commission also reviewed the relevant waiver and deferral requests. Specific comments related to waiver and deferral requests will be outlined in the staff memorandum.

B. Chase Bank at Roma – 1603 N. Cedar Crest

Minor Plan 2025-104 (Preliminary/Final)

Plan Date February 3, 2026

The Commission noted that some of the proposed landscaping species surrounding the building were not listed on the plant schedule. The Commission discussed the frontage improvements and recent work to Walbert Avenue and Cedar Crest Boulevard related to the Ridge Farms Highway Occupancy Permit. The Commission noted that shade trees have been planted recently as part of the Ridge Farms project and should be identified on the plan to confirm the shade tree requirements have been met.

C. PSD Transportation Center – Lot Consolidation

Major Plan 2025-101 (Preliminary/Final)

Plan Date February 12, 2026

The Commission noted that this project is just a lot consolidation for a proposed, separate land development. The Commission will review the landscape and shade tree related details during their review of the proposed land development for this project.

D. PSD Transportation Center – Land Development

Major Plan 2025-106 (Preliminary/Final)

Plan Date February 12, 2026

The Commission reviewed the required shade tree and buffering requirements. The Commission noted that existing vegetation was identified to remain as part of the road frontage and buffer areas. The Commission members expressed concern about what kind of vegetation will remain and if this vegetation would be compromised by grading other related site work. The Commission requested more information on the existing vegetation to address these concerns. Additionally, the Commission noted that small shrubs are proposed at the base of the large retaining wall. These will likely serve primarily as decorative dressing and provide minimal auditory or visual buffering. The Commission recommended the applicant consider more trees to help buffer areas of sparse existing vegetation.

AGENDA ITEM #6 – ANNUAL REPORT/WORKPLAN

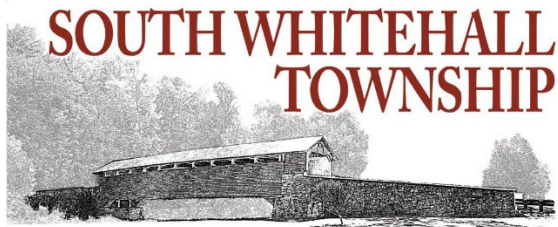
The Commission members decided to table review of the Annual Report until next meeting when all members could be present.

AGENDA ITEM #7 – COURTESY OF THE FLOOR

Emily Lenneville commented for the record that she thinks the Landscape and Shade Tree Commission is doing a great job.

AGENDA ITEM #8 - ADJOURNMENT

The meeting was adjourned at 6:56 PM.



MEMORANDUM

TO: Planning Commission
FROM: Chris Strohler, Long-Range Planner
DATE: February 25, 2026
SUBJECT: Subdivision Plan Review
St. Joseph's Solar
Major Plan 2025-103 (Preliminary/Final)
Plan Dated February 12, 2026

COPIES: K. Baird, D. Manhardt, A. Wilk, A. Tallarida, E. Bet, J. Alderfer,
Esq., Applicant

At their February 23, 2026, meeting, the Landscape and Shade Tree Commission reviewed the above-mentioned plan and determined the following:

The Commission determined the buffer surrounding the solar array is acceptable.

The Commission supports a waiver of SALDO §312-12(b)(36) requiring the submission of a separate landscape plan, noting that all relevant information is shown on Drawing No. C-1.1 and C-9.2.

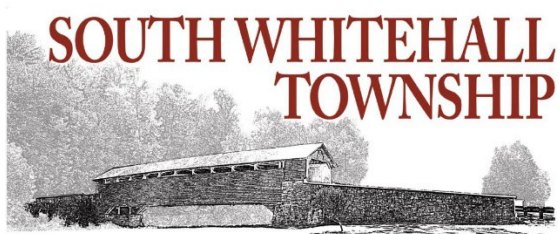
The Commission supports a waiver of SALDO §312-40 requiring the planting of shade trees but only for Parcel 546781173891-1 because shade trees are already in place and Parcel 546772519145-1 noting that the applicant is planting a vegetative buffer between the road and the solar array.

The Commission does not support a waiver of SALDO §312-40 to plant shade trees on Parcel 546781520384-1 where the soccer fields are located and recommend shade trees be planted along Clauser Road. Specifically, the Commission recommends the applicant create a tree line along Clauser Road similar to the western side of Applewood Drive. Due to the presence of overhead utilities, the location of these trees may be permitted on the berm, outside of the public right-of-way similar to the tree line along Clauser Road on the western side of Applewood Drive.

Respectfully submitted,

Christopher Strohler

Christopher Strohler, AICP
Long-Range Planner, Community Development Department



MEMORANDUM

TO: Planning Commission
FROM: Chris Strohler, Long-Range Planner
DATE: February 25, 2026
SUBJECT: Subdivision Plan Review
Chase Bank at Roma
Major Plan 2025-104 (Preliminary/Final)
Plan Dated February 3, 2026

COPIES: K. Baird, D. Manhardt, A. Wilk, A. Tallarida, E. Bet, J. Alderfer,
Esq., Applicant

At their February 23, 2026, meeting, the Landscape and Shade Tree Commission reviewed the above-mentioned plan and determined the following:

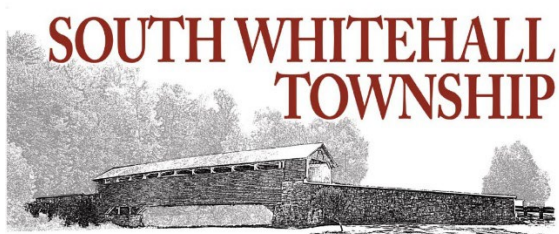
Four grasses or shrubs identified as “PVN” are depicted surrounding the trash enclosure but not identified in the Plant Schedule. Please add the species identified as “PVN” to the Plant Schedule.

More information is needed to determine compliance with SALDO §312-12(B)(28), §312-12(B)(36), and SALDO §312-40. Please identify the location and type of existing shade trees along Walbert Avenue and N. Cedar Crest Boulevard and/or any shade trees proposed to be planted.

Respectfully submitted,

Christopher Strohler

Christopher Strohler, AICP
Long-Range Planner, Community Development Department



MEMORANDUM

TO: Planning Commission
FROM: Chris Strohler, Long-Range Planner
DATE: February 25, 2026
SUBJECT: Subdivision Plan Review
PSD Transportation Center – Lot Consolidation
Major Plan 2025-101 (Preliminary/Final)
Plan Dated February 12, 2026

COPIES: K. Baird, D. Manhardt, A. Wilk, A. Tallarida, E. Bet, J. Alderfer,
Esq., Applicant

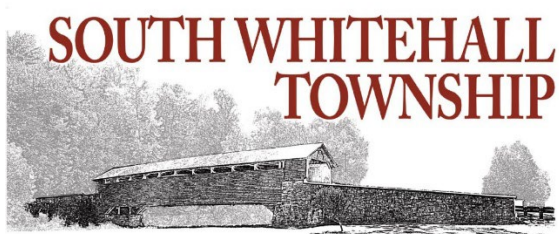
At their February 23, 2026, meeting, the Landscape and Shade Tree Commission reviewed the above-mentioned plan and determined the following:

This plan is for a lot consolidation only, with a separate application to develop the property. The Commission does not have any comments on the lot consolidation, and will review the proposed land development separately.

Respectfully submitted,

A handwritten signature in cursive script that reads "Christopher Strohler".

Christopher Strohler, AICP
Long-Range Planner, Community Development Department



MEMORANDUM

TO: Planning Commission
FROM: Chris Strohler, Long-Range Planner
DATE: February 25, 2026
SUBJECT: Subdivision Plan Review
PSD Transportation Center – Land Development
Major Plan 2025-106 (Preliminary/Final)
Plan Dated February 12, 2026

COPIES: K. Baird, D. Manhardt, A. Wilk, A. Tallarida, E. Bet, J. Alderfer,
Esq., Applicant

At their February 23, 2026, meeting, the Landscape and Shade Tree Commission reviewed the above-mentioned plan and determined the following:

The Commission notes the applicant's intent to keep existing vegetation bordering the property. Understanding the extensive grading proposed for this site, the Commission requests more detailed information on the types of existing vegetation to remain and how it will be protected during land development to ensure that it can satisfy necessary shade tree and buffering requirements.

The Commission notes a mixture of decorative shrubs proposed in front of the large retaining wall. The Commission recommends the applicant consider additional groupings of large trees and understory vegetation in areas on the southern side of the property near Stadium Drive to add more of a visual and auditory buffer where existing vegetation is sparse.

Respectfully submitted,

A handwritten signature in cursive script that reads "Christopher Strohler".

Christopher Strohler, AICP
Long-Range Planner, Community Development Department



March 12, 2026

STJC 2501

South Whitehall Township

Attn: Mr. David Manhardt, AICP, Director of Community Development

4444 Walbert Avenue

Allentown, PA 18104

**Re: St. Joseph the Worker Church - Solar
South Whitehall Township, Lehigh County, Pennsylvania
Major Plan #2025-103
Preliminary/Final Plan – Landscape and Shade Tree Commission Review**

Dear Mr. Manhardt:

On behalf of the Applicant, St. Joseph the Worker Church, we have revised the Preliminary/Final Land Development Plans per the Township's Landscape and Shade Tree Commission's memorandum dated February 25, 2026. Our **responses** correspond with the *comments* as listed in their review:

The Commission determined the buffer surrounding the solar array is acceptable.

No response required.

The Commission supports a waiver of SALDO §312-12(b)(36) requiring the submission of a separate landscape plan, noting that all relevant information is shown on Drawing No. C-1.1 and C-9.2.

No response required.

The Commission supports a waiver of SALDO §312-40 requiring the planting of shade trees but only for Parcel 546781173891-1 because shade trees are already in place and Parcel 546772519145-1 noting that the applicant is planting a vegetative buffer between the road and the solar array.

No response required.



Emmaus Office – 326 South Second Street, Emmaus, PA 18049



610.928.4690



www.arroconsulting.com

The Commission does not support a waiver of SALDO §312-40 to plant shade trees on Parcel 546781520384-1 where the soccer fields are located and recommend shade trees be planted along Clauser Road. Specifically, the Commission recommends that applicant create a tree line along Clauser Road similar to the western side of Applewood Drive. Due to the presence of overhead utilities, the location of these trees may be permitted on the berm, outside of the public right-of-way similar to the tree line along Clauser Road on the western side of Applewood Drive.

We have added street trees along Clauser Road as requested. The location of these trees is aligned with an existing tree to the east of the parcel, and the spacing is aligned with the trees on the southern side of Clauser Road.

Thank you for your assistance in this matter. Please feel free to contact the undersigned with any questions or comments.

Sincerely,

ARRO CONSULTING, INC.

Jason W. Buchta

Jason Buchta, R.L.A.

Senior Landscape Architect

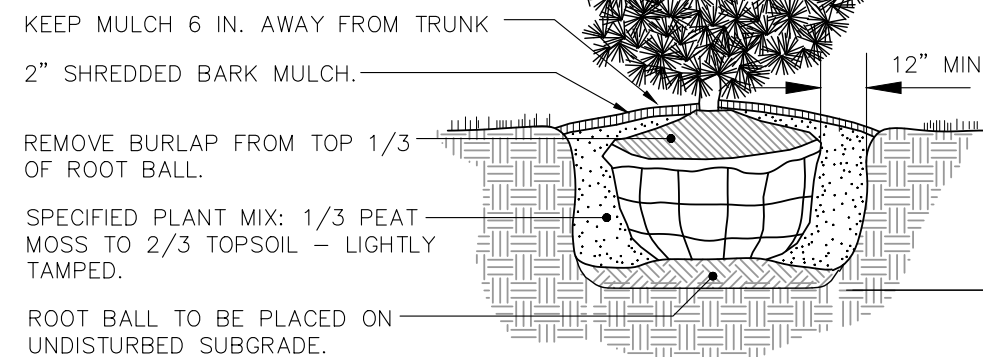


NOTES:
SET TOP OF ROOT BALL LEVEL WITH FINISHED GRADE, OR 1-2" HIGHER IN WET SOIL AREAS.

SET TREES PLUM, AND FACE TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT AREAS.

NEVER CUT LEADER.

PRUNE ONLY TO REMOVE DAMAGED OR BROKEN BRANCHES.



EVERGREEN TREE PLANTING

N.T.S.

BMP 5.6.3 RE-VEGETATE AND RE-FOREST DISTURBED AREAS, USING NATIVE SPECIES - PART 2 REVEGETATE AND REFOREST.

- TREES MUST BE NATIVE SPECIES, MINIMUM 2" CALIPER. MINIMUM TREE HEIGHT IS 6 FEET.
- TREES SHALL BE ADEQUATELY PROTECTED DURING CONSTRUCTION.
- TREES CREDITED FOR STORMWATER MANAGEMENT SHALL BE CLEARLY LABELED ON THE CONSTRUCTION DRAWINGS AND RECORDED ON RECORD PLAN FOR PROJECT.
- TREES SHALL BE MAINTAINED AND PROTECTED FOR THE LIFE OF THE PROJECT (50 YEARS) OR UNTIL REDEVELOPMENT OCCURS.
- NO MORE THAN 25% OF THE RUNOFF VOLUME CAN BE MITIGATED THROUGH THE USE OF TREES.
- ESCROW SHALL BE PROVIDED FOR THE REPLACEMENT OF ANY PROTECTED TREES USED FOR STORMWATER CREDIT THAT DIE WITHIN 5 YEARS OF CONSTRUCTION. DEAD TREES SHALL BE REPLACED WITHIN 6 MONTHS.
- SHALL BE LOCATED ON THE DEVELOPMENT PROJECT.
- MAY BE APPLIED FOR TREES REQUIRED UNDER STREET TREE OR LANDSCAPING REQUIREMENTS.
- MAY BE APPLIED FOR TREES PLANTED AS PART OF RIPARIAN BUFFER IMPROVEMENT.
- NON-NATIVE SPECIES ARE NOT APPLICABLE.

ENVIRONMENTAL DUE DILIGENCE AND CLEAN FILL

- CLEAN FILL MAY BE USED IN AN UNRESTRICTED MANNER. HOWEVER, CLEAN FILL MAY ONLY BE PLACED IN WATERS OF THE COMMONWEALTH IF OTHER ENVIRONMENTAL PROGRAMS AUTHORIZE SUCH USE. TO DETERMINE WHETHER CLEAN FILL IS UNCONTAMINATED, A PERSON SHOULD PERFORM ENVIRONMENTAL DUE DILIGENCE. IF THERE IS EVIDENCE OF A RELEASE, THE MATERIAL DOES NOT QUALIFY AS CLEAN FILL AND MAY NOT BE MANAGED UNDER THIS POLICY.
- ENVIRONMENTAL DUE DILIGENCE—INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF OWNERSHIP AND USE HISTORY OF PROPERTY, SANDBORNE MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ENVIRONMENTAL ASSESSMENTS AND AUDITS.
- CLEAN FILL—UNCONTAMINATED, NONWATER-SOLUBLE, NONDECOMPOSABLE INERT SOLID MATERIAL USED TO LEVEL AN AREA OR BRING THE AREA TO GRADE. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH. THE TERM DOES INCLUDE THE FOLLOWING MATERIALS: SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND RECOGNIZABLE AS SUCH.
- THE SITE CONTRACTOR RESPONSIBLE FOR THE PROJECT WILL BE RESPONSIBLE TO COMPLETE THE ENVIRONMENTAL DUE DILIGENCE ON ANY CLEAN FILL BROUGHT TO THE SITE.

UNFORESEEN EROSION CONDITIONS NOTES

- SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS.
- THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 6.4. EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, D.E.P., SUB-PART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
- METHODS TO PROTECT EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE UNNECESSARY DAMAGE.

PERMANENT SEEDING SPECIFICATION

SPECIES OR MIXTURE	PERCENT BY WEIGHT	SEEDING RATES IN LBS. PER 1,000 SQ FT	RECOMMENDED SEEDING DATES
-PERENNIAL RYEGRASS MIXTURE	20%	2.4	9/5 TO 10/5
-CREEPING RED FESCUE OR CHEWING FESCUE	30%	2.4	2/15 TO 6/1
-KENTUCKY BLUEGRASS MIXTURE	50%	2.4	8/1 TO 10/15

MULCH APPLICATION RATES

MULCH TYPE	PER ACRE	APPLICATION RATE PER 1,000 SF	PER 1,000 SY	NOTES
STRAW	3 TONS	140 LB	1,240 LB	EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT CHOPPED OR FINELY BROKEN. TIMOTHY, MIXED CLOVER AND TIMOTHY OR OTHER NATIVE FORAGE GRASSES.
HAY	3 TONS	140 LB	1,240 LB	
WOOD	1,000 LB CELLULOSE	25 LB	210 LB	FORN USED OVER STRAW OR HAY
WOOD CHIPS	4-6 TONS	185-275 LB	1,650-2,300 LB	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES

MULCH ANCHORING GUIDE

STRAW AND HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "COMB" THE STRAW OR HAY INTO THE SOIL. THIS METHOD IS LIMITED TO SLOPES NO STEEPER THAN 3:1. THE MACHINERY SHALL BE OPERATED ON THE CONTOUR. (NOTE: CRIMPING OF HAY OR STRAW BY RUNNING OVER IT WITH TRACKED MACHINERY IS NOT RECOMMENDED.)

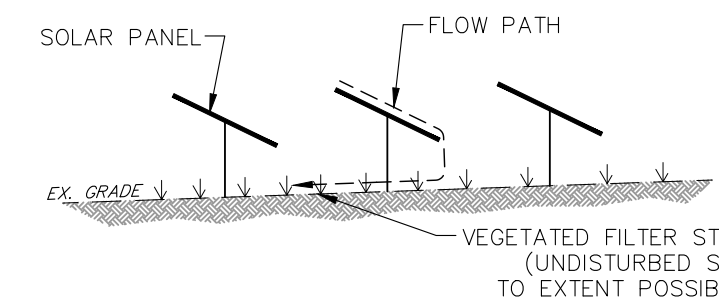
ASPHALT, EITHER EMULSIFIED OR CUT-BACK, CONTAINING NO SOLVENTS OR OTHER DILUENT AGENTS TOXIC TO PLANT OR ANIMAL LIFE, UNIFORMLY APPLIED AT THE RATE OF 31 GALLONS PER 1,000 SQ. YD. MAY BE USED TO TACK MULCH.

SYNTHETIC BINDERS (CHEMICAL BINDERS) MAY BE USED AS SHOWED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DILUTION IS PROVIDED TO REMOVED BY THE MANUFACTURER TO NATIVE PLANT AND ANIMAL SPECIES.

LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

PERMANENT SEEDING NOTES

- PERMANENT STABILIZATION OF ALL EXPOSED EARTH SURFACES AFTER THE COMPLETION OF THE SITE GRADING AND IMPROVEMENTS SHALL BE ACCOMPLISHED BY THE FOLLOWING METHODS AND MATERIALS:
- AFTER INSTALLATION OF THE NEEDED SURFACE WATER CONTROL MEASURES, PERFORM ALL CULTIVATION OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
- SPREAD AND FINE DRAIN AT TOPSOIL ON ALL AREAS TO BE PERMANENTLY SEEDING.
- APPLY LIME AT THE RATE OF SIX (6) TONS LIMESTONE PER ACRE (240 LBS. PER 1,000 SQUARE FEET). WORK IN FERTILIZER AT THE RATE OF 100 LBS. AT THE RATE OF 10-20-10 OR EQUIVALENT PER ACRE.
- SMOOTH AND FIRM SEEDING AREAS WITH CULTIPACKER, OR OTHER SIMILAR EQUIPMENT, PRIOR TO SEEDING.
- APPLY SEED.
- COVER GRASS SEEDS WITH 1/4 INCH OF TOPSOIL WITH SUITABLE EQUIPMENT.
- INSTALL EROSION CONTROL BLANKETS WHERE INDICATED ON THE PLANS AND APPLY STRAW MULCH AT A RATE OF THREE (3) TONS PER ACRE OVER ALL REMAINING DISTURBED AREA.
- WATER AND MAINTAIN ALL LAWN AREAS. RESEED BARE OR THIN AREAS AS NEEDED TO ACHIEVE STABILIZATION.
- HYDROSEED WHERE THERE IS A HEAVY CONCENTRATION OF WATER AND IT IS IMPORTANT TO GET A QUICK VEGETATIVE COVER IN ORDER TO PREVENT DRAINING.
- HYDROSEEDING SHALL BE AN ALTERNATIVE WHEN PERFORMED IN ACCORDANCE WITH PENNDOT PUB. 408 SECTIONS 804 AND 805 AND APPROVED BY THE SITE ENGINEER.

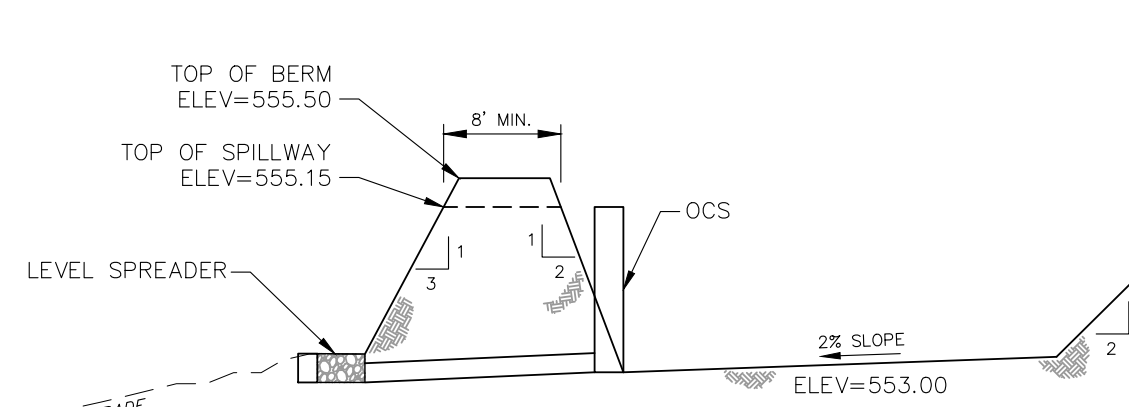


SOLAR PANEL DETAIL

N.T.S.

OPERATION AND MAINTENANCE PROCEDURES

- VEGETATED FILTER STRIP:
- VEGETATED FILTER STRIP COMPONENTS THAT RECEIVE OR TRAP SEDIMENT AND DEBRIS SHOULD BE INSPECTED FOR CLOGGING, DENSITY OF VEGETATION, DAMAGE BY FOOT OR VEHICULAR TRAFFIC, EXCESSIVE ACCUMULATIONS, AND CHANNELIZATION.
 - INSPECTIONS SHOULD BE MADE ON A QUARTERLY BASIS FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION, AND THEN ON A BIENNIAL BASIS THEREAFTER.
 - INSPECTIONS SHOULD ALSO BE MADE AFTER EVERY STORM EVENT GREATER THAN 1 IN DURING THE ESTABLISHMENT PERIOD.
 - SEDIMENT AND DEBRIS SHOULD BE ROUTINELY REMOVED, OR UPON OBSERVATION, WHEN BUILDUP EXCEEDS 2 INCHES IN DEPTH IN EITHER THE STRIP ITSELF OR THE LEVEL SPREADER.
 - IF EROSION IS OBSERVED, MEASURES SHOULD BE TAKEN TO IMPROVE THE LEVEL SPREADER OR OTHER DISPERSION METHOD TO ADDRESS THE SOURCE OF EROSION.
 - RILLS AND GULLIES OBSERVED ALONG THE STRIP MAY BE FILLED WITH TOPSOIL, STABILIZED WITH EROSION CONTROL MATTING, AND EITHER SEEDED OR SODDED, AS DESIRED.
 - SEDIMENT SHOULD BE REMOVED WHEN THE FILTER STRIP IS THROUGH DRY.

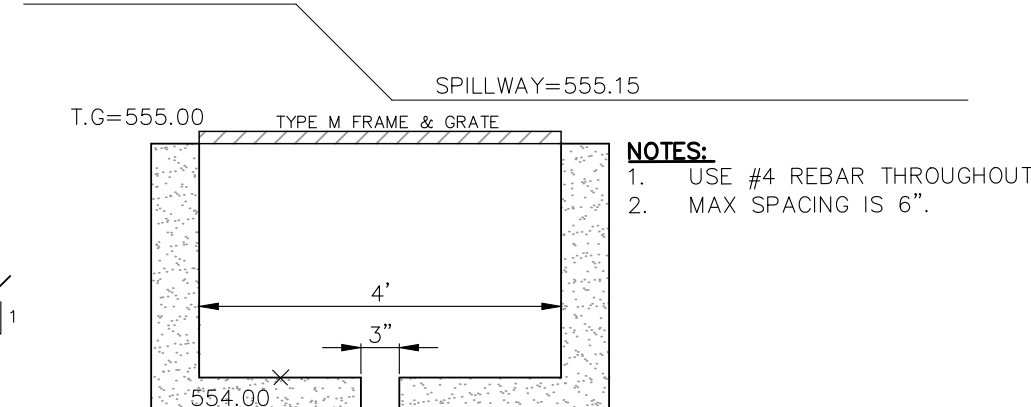


DETECTION BASIN DETAIL

N.T.S.

OPERATION AND MAINTENANCE PROCEDURES:

- DETECTION BASIN:
- MAINTENANCE IS NECESSARY TO ENSURE PROPER FUNCTIONALITY OF THE EXTENDED DETENTION BASIN AND SHALL TAKE PLACE ON A QUARTERLY BASIS. A BASIN MAINTENANCE PLAN MUST BE DEVELOPED WHICH INCLUDES THE FOLLOWING MEASURES:
- ALL BASIN STRUCTURES EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT SHALL BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES PER YEAR, AS WELL AS AFTER EVERY STORM GREATER THAN 1 INCH.
 - STRUCTURES INCLUDE BASIN BOTTOMS, TRASH RACKS, OUTLETS STRUCTURES, RIPRAP OR GABION STRUCTURES, AND INLETS.
 - SEDIMENT REMOVAL SHALL BE CONDUCTED WHEN THE BASIN IS COMPLETELY DRY. SEDIMENT SHALL BE DEPOSED OF PROPERLY AND ONCE SEDIMENT IS REMOVED, DISTURBED AREAS NEED TO BE IMMEDIATELY STABILIZED AND REVEGETATED.
 - MOWING AND/OR TRIMMING OF VEGETATION SHALL BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM, BUT ALL DETRIUSUS SHOULD BE REMOVED FROM THE BASIN.
 - VEGETATED AREAS SHALL BE INSPECTED ANNUALLY FOR EROSION.
 - SEED VEGETATIVE FILTER STRIP WITH ERNST SOLAR FIELD MIX. LIGHTLY SCARIFY THE SOIL IN THE AREA.

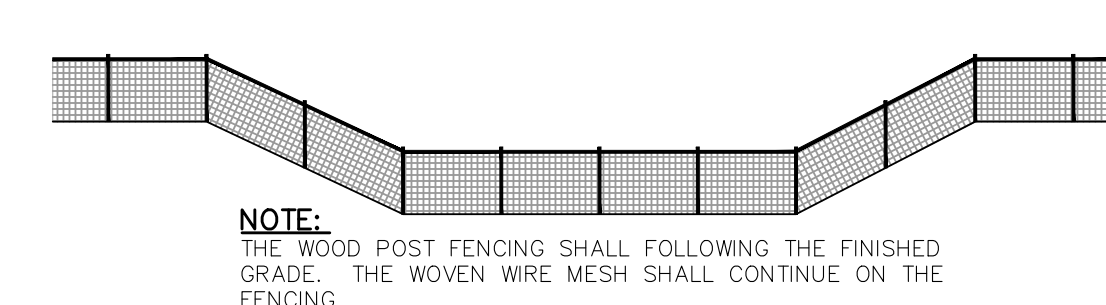


OCS 101 DETAIL

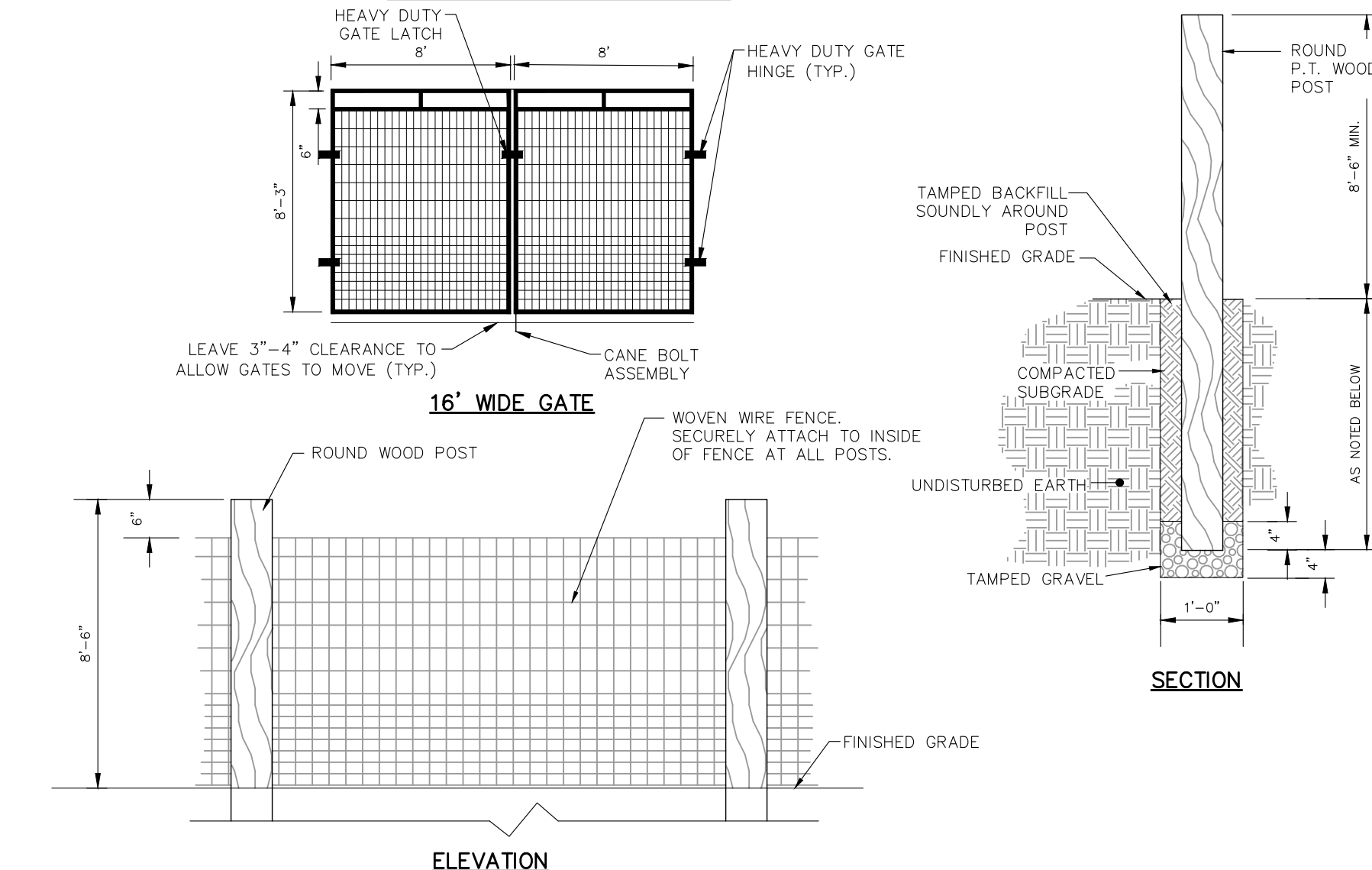
SCALE: N.T.S.

BMP CONSTRUCTION SEQUENCE:

- DETECTION BASIN:
- INSTALL ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS.
 - THE AREA IMMEDIATELY ADJACENT TO THE BASIN MUST BE STABILIZED IN ACCORDANCE WITH THE PADEP'S EROSION AND SEDIMENT CONTROL POLLUTION CONTROL PROGRAM MANUAL (2000 OR LATEST EDITION) PRIOR TO BASIN EXCAVATION.
 - PREPARE SITE FOR EXCAVATION AND/OR EMBANKMENT CONSTRUCTION.
 - ALL EXISTING VEGETATION SHALL REMAIN IF FEASIBLE AND SHALL ONLY BE REMOVED IF NECESSARY FOR CONSTRUCTION.
 - CARE SHALL BE TAKEN TO PREVENT COMPACTION OF THE BASIN BOTTOM.
 - IF EXCAVATION IS REQUIRED, CLEAR THE AREA TO BE EXCAVATED OF ALL VEGETATION. REMOVE ALL TREE ROOTS, ROCKS, AND BOULDERS ONLY IN EXCAVATION AREA.
 - EXCAVATE BOTTOM OF BASIN TO DESIRED ELEVATION (IF NECESSARY).
 - INSTALL SURROUNDING EMBANKMENTS AND INLET AND OUTLET CONTROL STRUCTURES.
 - GRADE SUBSOIL IN BOTTOM OF BASIN, TAKING CARE TO PREVENT COMPACTION. COMPACT SURROUNDING EMBANKMENT AREAS AND AROUND INLET AND OUTLET STRUCTURES.
 - APPLY AND GRADE PLANTING SOIL.
 - APPLY GEO-TEXTILES AND OTHER EROSION-CONTROL MEASURES.
 - SEED, PLANT AND MULCH ACCORDING TO PLANTING PLAN.
 - INSTALL ANY ANTI-GRAZING MEASURES, IF NECESSARY.



ELEVATION AT GRADE BREAKS



ELEVATION

8' HIGH AGRICULTURAL-STYLE FENCE:

- FENCE PURPOSE: FENCE SHALL SERVE AS A WILDLIFE AND HUMAN BARRIER.
- FENCE HEIGHT: PROVIDE WOVEN-WIRE FENCE 8'-0" ABOVE FINISHED GRADE.
- FENCE TYPE: INSTALL HIGH-TENSILE WOVEN-WIRE FENCING WITH VERTICAL STAYS SPACED 6"-12" O.C.; MESH SHALL HAVE GRADUATED OPENINGS (SMALLER AT BOTTOM, LARGER AT TOP).
- WIRE SPECIFICATION: MINIMUM 12.5-GAUGE GALVANIZED STEEL WIRE WITH CLASS 3 ZINC COATING. PROVIDE OPTIONAL SMOOTH TOP TENSION WIRE WHERE REQUIRED.
- OPENING SIZE: GRADUATED MESH (SMALLER OPENINGS NEAR THE BOTTOM, LARGER AT TOP).
- LINE POSTS: PRESSURE-TREATED WOOD, MINIMUM 4" DIAMETER, SET 12'-16" O.C., EMBEDDED 3"-0" MINIMUM.
- CORNER & END POSTS: PRESSURE-TREATED WOOD, 6"-8" DIAMETER, EMBEDDED 4"-0" MINIMUM; BRACE WITH H-BRACE ASSEMBLY.
- BRACING: PROVIDE H-BRACE SYSTEM AT ALL CORNERS, ENDS, AND GATE OPENINGS. HORIZONTAL BRACE SHALL BE 4"-5" DIAMETER WOOD, SET 36" BELOW TOP OF FENCE, WITH DIAGONAL HIGH-TENSILE BRACE WIRE AND RATCHET TIGHTENER.
- GATES: INSTALL TWO (2) 8'-0" WIDE EQUIPMENT ACCESS GATE. GATE SHALL BE TUBULAR STEEL FRAME OR WOOD FRAME CLAD WITH WOVEN WIRE. GATE POSTS SHALL BE HEAVY-DUTY CORNER-STYLE POSTS WITH H-BRACING.
- GROUND CLEARANCE: MAINTAIN 3"-4" GROUND CLEARANCE AT FENCE BOTTOM UNLESS TOTAL EXCLUSION IS REQUIRED.
- INSTALLATION STANDARDS: ALL POSTS SHALL BE INSTALLED PLUMB AND SET IN AUGERED HOLES. ALL WOOD SHALL CONFORM TO AWPA UC4B STANDARDS FOR GROUND CONTACT.
- UNIFORMITY: MAINTAIN CONSISTENT FENCE HEIGHT RELATIVE TO GRADE; TENSION WIRES USING PROPER STRETCHERS TO PREVENT SAGGING.
- CONTRACTOR VERIFICATION: CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, AND MATERIALS PRIOR TO INSTALLATION AND REPORT DISCREPANCIES TO THE ENGINEER.

H-BRACE ASSEMBLY

- PROVIDE H-BRACE AT ALL CORNERS, ENDS, AND GATE OPENINGS.
- H-BRACE ASSEMBLY SHALL CONSIST OF TWO (2) POSTS, 6"-8" DIAMETER TREATED WOOD, SET 4'-0" MINIMUM EMBEDMENT.
- HORIZONTAL BRACE MEMBER SHALL BE 4"-5" DIAMETER TREATED WOOD, SET APPROXIMATELY 36" BELOW THE TOP OF FENCE, SECURELY NOTCHED OR BOLTED INTO PLACE.
- INSTALL ONE (1) DIAGONAL 12.5-GAUGE HIGH-TENSILE GALVANIZED BRACE WIRE, TENSIONED WITH A RATCHET TIGHTENER.
- ALL BRACE MEMBERS SHALL BE PRESSURE-TREATED TO AWPA UC4B STANDARDS FOR GROUND CONTACT.

16' GATE INSTALLATION

- PROVIDE TWO (2) 8'-0" WIDE EQUIPMENT ACCESS GATES AT THE LOCATION SHOWN ON PLANS.
- GATES SHALL BE TUBULAR STEEL FRAME OR WOOD FRAME CLAD WITH WOVEN-WIRE FENCING TO MATCH ADJACENT FENCE.
- GATE POSTS SHALL BE 8" MINIMUM DIAMETER TREATED WOOD, EMBEDDED 4"-0" MINIMUM WITH H-BRACE SUPPORT ASSEMBLY.
- HINGES SHALL BE HEAVY-DUTY, GALVANIZED, FIELD-ADJUSTABLE, AND CAPABLE OF FULL 180° SWING.
- LATCH SHALL BE LOCKABLE, GALVANIZED STEEL, AND SUITABLE FOR AGRICULTURAL/WILDLIFE EXCLUSION.
- GATE BOTTOM SHALL MAINTAIN CONSISTENT GROUND CLEARANCE OF 3"-4" UNLESS OTHERWISE DIRECTED.
- CONTRACTOR SHALL VERIFY GATE ALIGNMENT, SWING CLEARANCE, AND INSTALLATION PRIOR TO FINAL ACCEPTANCE.

8' HIGH AGRICULTURAL-STYLE FENCE DETAIL

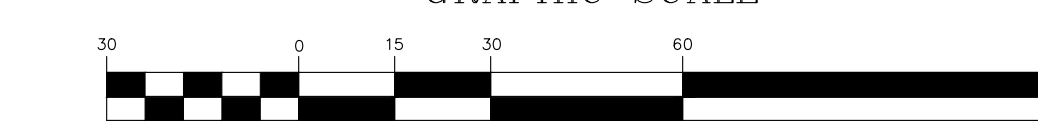
N.T.S.

BMP OPERATIONS:

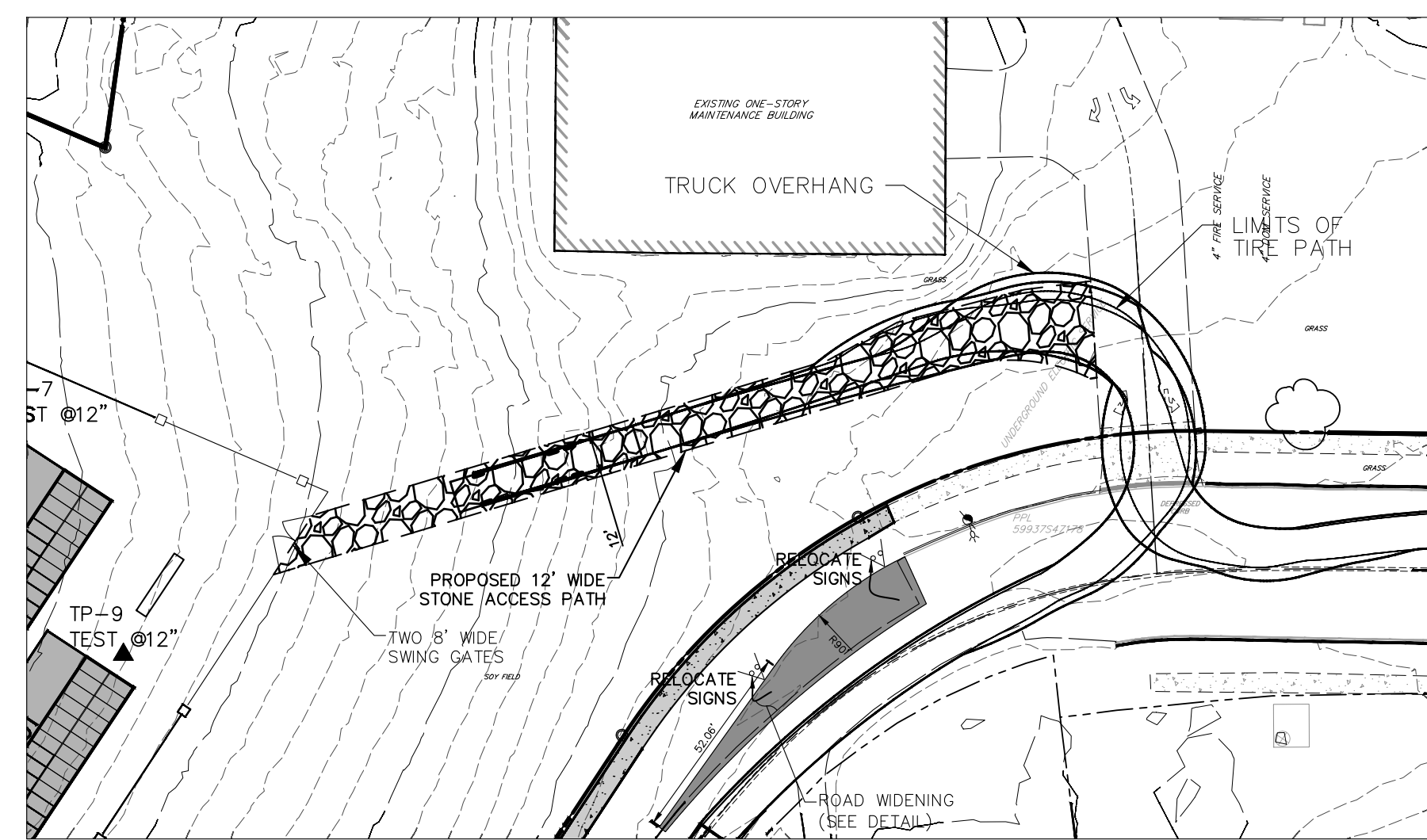
THE BMP OPERATIONS AND MANAGEMENT PLAN, AS REQUIRED IN ARTICLE VII, DESCRIBING HOW EACH PERMANENT STORMWATER BMP WILL BE OPERATED AND MAINTAINED AND THE IDENTITY OF THE PERSON(S) RESPONSIBLE FOR OPERATIONS AND MAINTENANCE. A STATEMENT MUST BE INCLUDED, SIGNED BY THE LANDOWNER, ACKNOWLEDGING THAT THE STORMWATER BMPs ARE FIXTURES THAT CANNOT BE ALTERED OR REMOVED WITHOUT APPROVAL BY THE TOWNSHIP.

IT SHALL BE UNLAWFUL TO ALTER OR REMOVE ANY PERMANENT STORMWATER BMP REQUIRED BY AN APPROVED BMP OPERATIONS AND MAINTENANCE PLAN OR TO ALLOW THE PROPERTY TO REMAIN IN A CONDITION WHICH DOES NOT CONFORM TO AN APPROVED BMP OPERATIONS AND MAINTENANCE PLAN UNLESS AN EXCEPTION IS GRANTED IN WRITING BY THE TOWNSHIP.

GRAPHIC SCALE

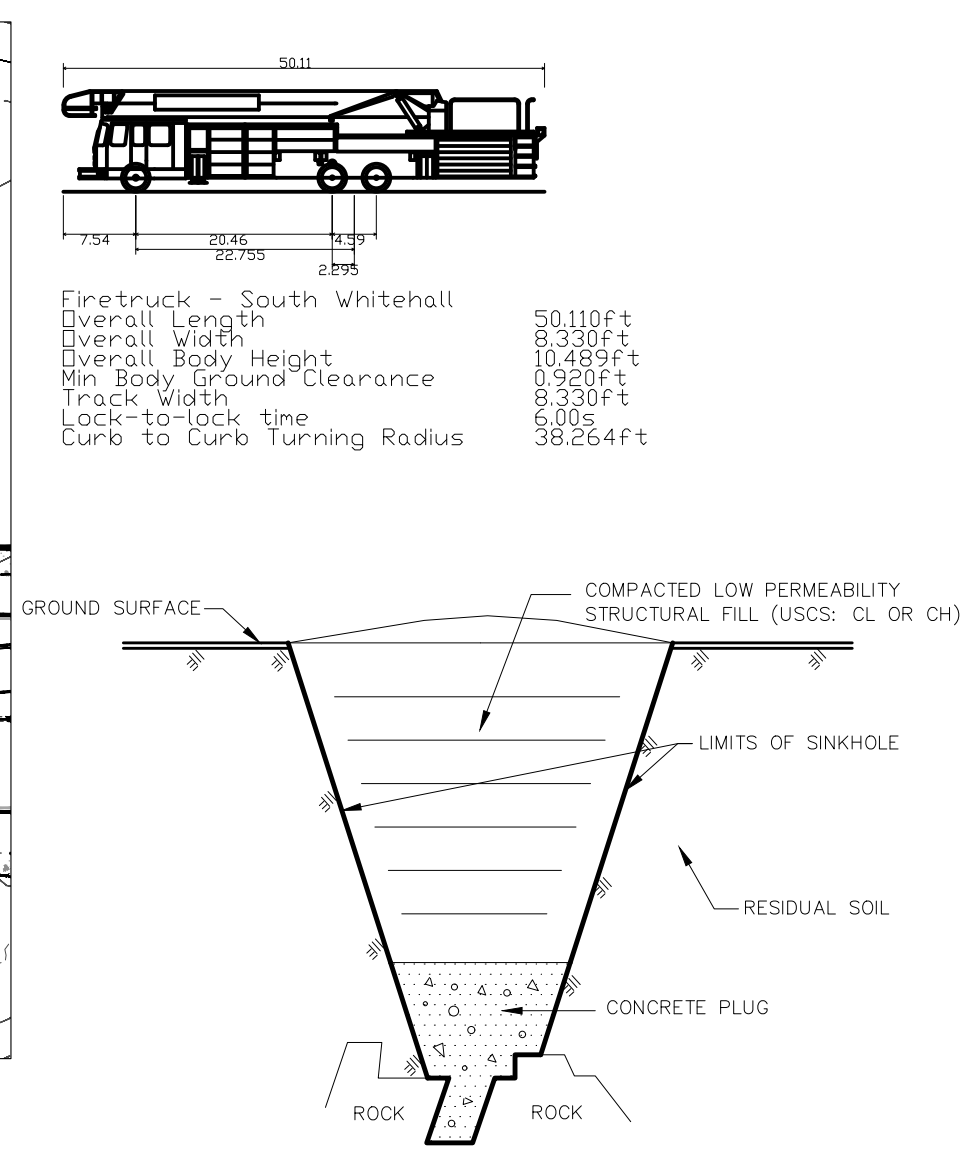


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FIRE TRUCK TURNING MOVEMENTS AND ROAD WIDENING DETAIL

SCALE: 1"=30'



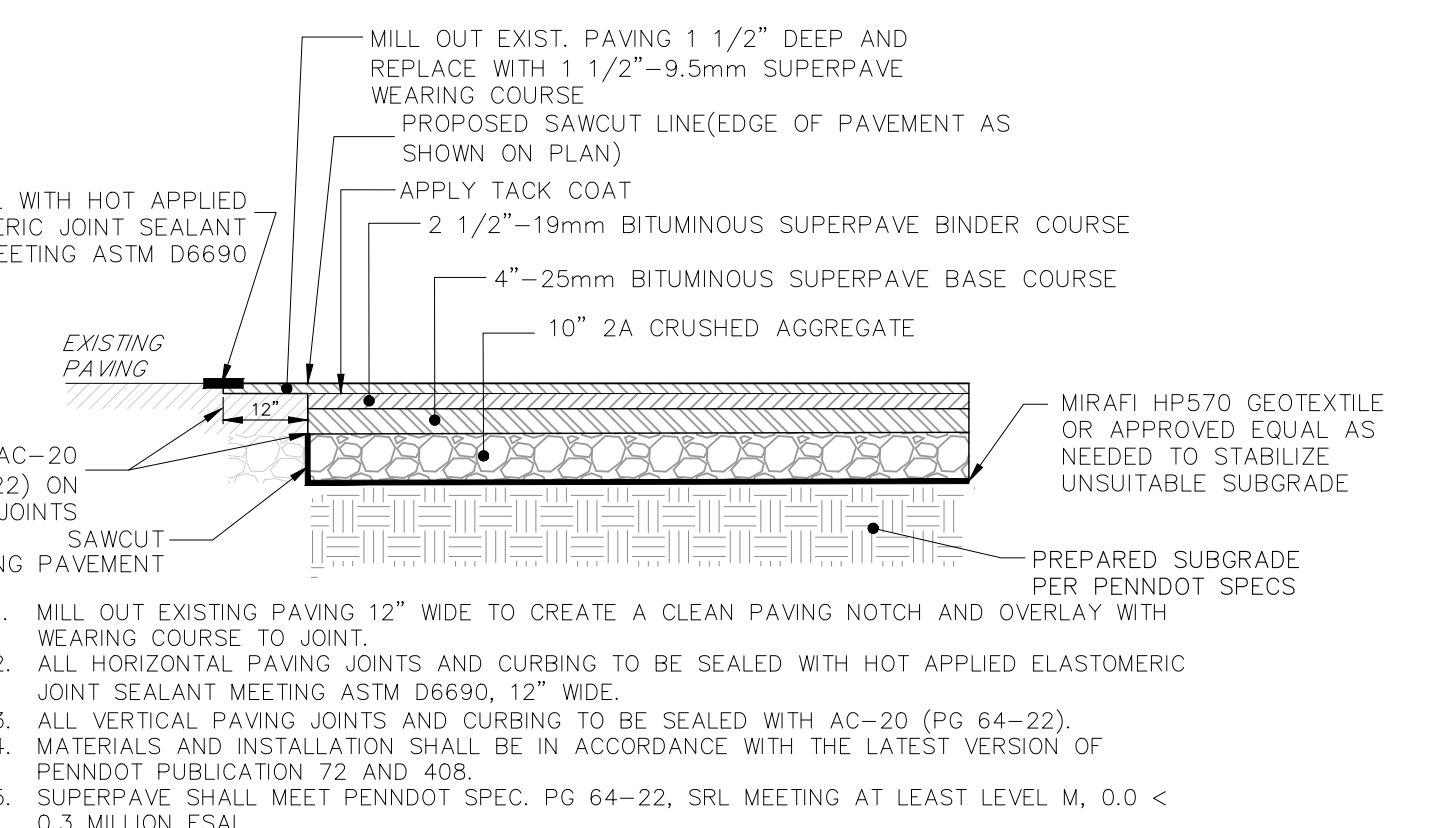
SINKHOLE REPAIR DETAIL

- NOTES:**
- SINKHOLES ENCOUNTERED DURING CONSTRUCTION SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE GEOTECHNICAL ENGINEER.
 - OVER-EXCAVATE LOOSE SOIL AND ROCK FROM THROAT OF SINKHOLE UNTIL STABLE ROCK OR SOIL IS ENCOUNTERED.
 - PLACE LOW SLUMP CONCRETE INTO THROAT TO FORM A PLUG. CONCRETE SHOULD EXTEND A MINIMUM OF 3" FROM THE BOTTOM OF OVER-EXCAVATION.
 - FOLLOWING CONCRETE CURING, BACKFILL REMANENS OF EXCAVATION W/ LOW PERMEABILITY COMPACTED STRUCTURAL FILL MEETING USCS DESIGNATION OF CL OR CH. BACKFILL SHOULD BE PLACED IN 8" LOOSE LIFTS AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY PER ASTM D-1585, STANDARD PROCTOR.
 - PROVIDE POSITIVE DRAINAGE AWAY FROM SINKHOLE REPAIR AREA BY OVERTERRILING, IF PRACTICAL.
 - ALTERNATIVE METHODS OF REPAIR MAY BE DEVELOPED BY THE GEOTECHNICAL ENGINEER BASED ON THE SITE CONDITIONS.

STORM DRAINAGE:

NOTWITHSTANDING ANY PROVISIONS OF THE TOWNSHIP STORMWATER MANAGEMENT PLAN, INCLUDING EXEMPTION AND WAIVER PROVISIONS, ANY LANDOWNER AND ANY PERSON ENGAGED IN THE ALTERATION OR DEVELOPMENT OF LAND WHICH MAY AFFECT STORMWATER RUNOFF CHARACTERISTICS SHALL IMPLEMENT SUCH MEASURES AS ARE REASONABLY NECESSARY TO PREVENT INJURY TO HEALTH, SAFETY OR OTHER PROPERTY. SUCH MEASURES SHALL INCLUDE SUCH ACTIONS AS ARE REQUIRED TO MANAGE THE RATE VOLUME, DIRECTION AND QUALITY OF RESULTING STORMWATER RUNOFF IN A MANNER WHICH OTHERWISE ADEQUATELY PROTECTS HEALTH AND PROPERTY FROM INJURY AND DAMAGE.

"TOWNSHIP REVIEW AND APPROVAL OF THE DRAINAGE PLAN OR THE SUBSEQUENT OBSERVATION AND APPROVAL OF STORMWATER MANAGEMENT FACILITIES, SHALL NOT CONSTITUTE LAND DEVELOPMENT ON BEHALF OF OR BY THE TOWNSHIP OR OTHERWISE CAUSE THE TOWNSHIP TO BE ENGAGED IN THE ALTERATION OR DEVELOPMENT OF LAND. BY SUBMITTING AN APPLICATION UNDER THE TOWNSHIP STORMWATER MANAGEMENT PLAN, THE DEVELOPER HEREBY AGREES TO INDEMNIFY, DEFEND, AND HOLD HARMLESS THE TOWNSHIP AND ALL ITS REPRESENTATIVES, SERVANTS, EMPLOYEES, OFFICIALS AND CONSULTANTS OF AND FROM ANY AND ALL CLAIMS, DEMANDS, CAUSES OF ACTION OR SUITS WHICH ARISE OUT OF OR RELATE TO THE REVIEW, APPROVAL, CONSTRUCTION OR OBSERVATION OF THE DEVELOPER'S DRAINAGE PLAN AND STORMWATER MANAGEMENT FACILITIES."



APPLEWOOD DRIVE PAVEMENT CROSS-SECTION

N.T.S.

- MILL OUT EXISTING PAVING 12" WIDE TO CREATE A CLEAN PAVING NOTCH AND OVERLAY WITH WEARING COURSE TO JOINT.
- ALL HORIZONTAL PAVING JOINTS AND CURBING TO BE SEALED WITH HOT APPLIED ELASTOMERIC JOINT SEALANT MEETING ASTM D6690, 12" WIDE.
- ALL VERTICAL PAVING JOINTS AND CURBING TO BE SEALED WITH AC-20 (PG 64-22).
- MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF PENNDOT PUBLICATION 72 AND 408.
- SUPERPAVE SHALL MEET PENNDOT SPEC. PG 64-22, SRL MEETING AT LEAST LEVEL M, 0.0 < 0.5 MILLION ESAL.

NO.	DATE	REVISION	BY
5	3/12/26	PER TWP. COMMENTS	JLO
4	2/26/26	BASELINE ADJUSTMENTS	DJC
3	2/12/26	PER TWP. COMMENTS	JLO
2	12/11/25	PER TWP. COMMENTS	JLO
1	10/09/25	PER TWP. COMMENTS	JLO

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"CALL BEFORE YOU DIG"
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800-242-1776
SERIAL NO. 2025092451

ST. JOSEPH THE WORKER CATHOLIC CHURCH
SOLAR ARRAY
TOWNSHIP OF SOUTH WHITEHALL
LEHIGH COUNTY, PENNSYLVANIA

PRELIMINARY/FINAL
PCSM DETAILS

DRAWN BY	DATE	PROJECT NO.	DRAWING NO.
DH	6/20/25	STJC 2501	

APPROVED BY: JLO SCALE: AS NOTED SHEET NO: 6 OF 8

C-9.2