PUBLIC WORKS FACILITY PROJECT

WYOMISSING BOROUGH
22 READING BOULEVARD
WYOMISSING, PA 19610

ONECALL NOTES:

Pennsylvania811

PENNSYLVANIA ONE CALL SYSTEM INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121 REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.

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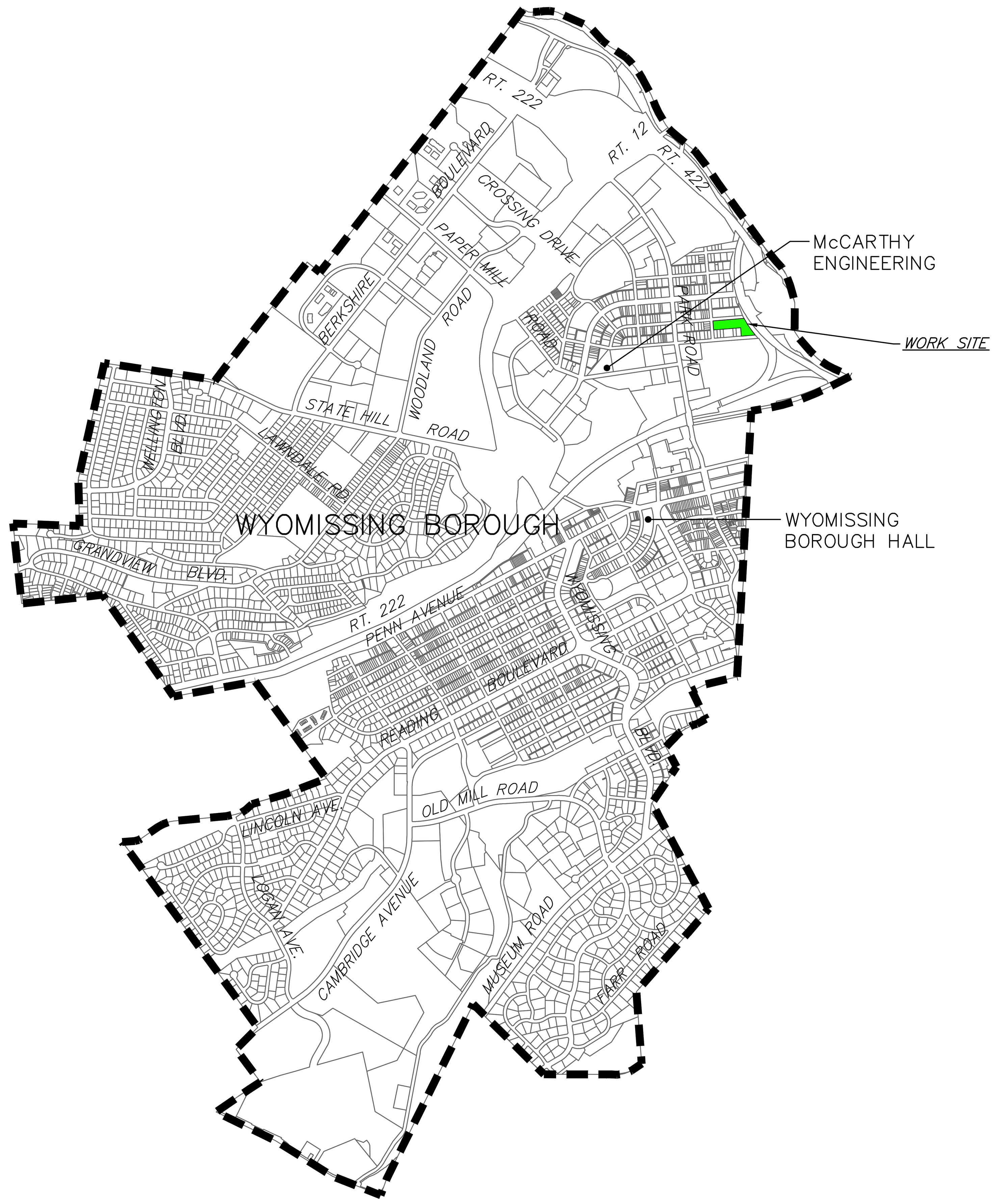


GENERAL NOTES:

1. THE CONTRACTOR SHALL VISIT THE JOB SITE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS. THE CONTRACTOR SHALL MAKE NECESSARY INVESTIGATIONS AND INQUIRIES TO APPROPRIATE PARTIES WITH REGARDS TO THE WORK TO THOROUGHLY UNDERSTAND THE RESPONSIBILITIES PRIOR TO BIDDING.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND DETAILS OF EXISTING CONDITIONS AT THE SITE FOR ASSURANCE OF AN ACCURATE COMPLETION OF THE WORK PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH THE WORK.
3. CONTRACTOR SHALL LOCATE AND VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS FOR ALL EXISTING ON SITE FEATURES AND AMENITIES WITHIN THIS WORK PRIOR TO THE START OF CONSTRUCTION.
4. EXISTING UTILITY LOCATIONS AND DEPTHS ARE APPROXIMATE AND THE CONTRACTOR SHALL VERIFY EXACT DEPTHS AND LOCATIONS PRIOR TO DIGGING IN THAT LOCATION.
5. THE CONTRACTOR SHALL HAND EXCAVATE WITHIN 18 INCHES OF ALL PROPOSED AND EXISTING UTILITY CROSSINGS.
6. THE CONTRACTOR SHALL PROVIDE PROPER CLEARANCE AND PROTECTION FOR ALL ABOVE GROUND EQUIPMENT AND UTILITIES.
7. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN TEMPORARY PROTECTIVE SYSTEMS FOR ALL ADJACENT STRUCTURE STABILITY, EXCAVATION AND TRENCHING INCLUDING BUT NOT LIMITED TO BRACING, SHORING, SLOPING, BENCHING AND SHIELDING AS PER OSHA STANDARDS AND SPECIFICATIONS, LATEST EDITIONS.
8. ALL THE WORK SHALL CONFORM TO THE REGULATIONS OF OSHA AND ALL LOCAL, COUNTY AND STATE LAWS, LATEST EDITIONS.
9. THE LATEST EDITION OF ALL SPECIFIED REFERENCES SHALL APPLY THROUGHOUT THE PLAN SET.
10. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, PRODUCT SPECIFICATIONS AND VENDOR INFORMATION FOR ALL FABRICATION WORK AND MATERIALS TO THE OWNER FOR WRITTEN APPROVAL PRIOR TO PROCEEDING WITH PURCHASE, INSTALLATION, REMOVAL, MANUFACTURE AND ASSOCIATED WORK.
11. THE CONTRACTOR SHALL PLACE AND STORE ANY EQUIPMENT AND MATERIALS IN A RESPONSIBLE LOCATION, APPROVED BY THE OWNER, AS TO NOT INTERFERE WITH PEDESTRIAN AND MOTOR VEHICLE TRAFFIC BOTH DURING AND AFTER A WORK DAY.
12. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ALL CONSTRUCTION ACTIVITIES VIA A WRITTEN APPROVED SCHEDULE TO MINIMIZE DISTURBANCE TO ANY ONGOING OWNER OPERATIONS AT THE SITE. DO NOT BLOCK ACCESS TO THE SITE. THE CONTRACTOR SHALL COORDINATE DELIVERIES AND CONSTRUCTION OPERATIONS WITH THE OWNER.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY UTILITIES REQUIRED FOR THE WORK INCLUDING, BUT NOT LIMITED TO, POWER, WATER, SANITARY SEWER AND TELEPHONE.
14. THE CONTRACTOR SHALL DEMOLISH, FURNISH AND INSTALL IN A RESPONSIBLE CONSTRUCTION SEQUENCE TO ACHIEVE A LEVEL OF QUALITY AS DICTATED ON THIS PLAN SET, SPECIFICATIONS AND APPLICABLE CODES.
15. THE CONTRACTOR SHALL RESTORE ANY DISTURBED AREAS TO THE ORIGINAL CONDITIONS AS THEY WERE FOUND PRIOR TO MOBILIZATION AND CONSTRUCTION.
16. THE OWNER MAY REQUIRE A QUALIFIED INDEPENDENT TESTING AGENCY TO TEST THE QUALITY OF WORKMANSHIP AND MATERIALS THAT WILL PROVIDE WRITTEN REPORTS TO THE CONTRACTOR, OWNER AND ENGINEER. THE CONTRACTOR WILL BE NOTIFIED IMMEDIATELY OF THE DEFICIENT WORK AND REMEDIATE THE DEFICIENCY IN A TIMELY MANNER. RETESTING SHALL BE AT THE CONTRACTOR'S EXPENSE.
17. A PRE–CONSTRUCTION MEETING SHALL BE HELD ON SITE WITH OWNER AND/OR ENGINEER PRIOR TO THE START OF ANY WORK.
18. CONTRACTOR SHALL PROVIDE "AS–BUILT" CONSTRUCTION INFORMATION TO THE OWNER AND ENGINEER UPON COMPLETION OF THIS WORK.
19. THE CONTRACTOR SHALL VERIFY WITH OWNER FOR LOCATION AND SHUT OFF PROCEDURE FOR ALL UTILITIES LOCATED WITHIN THE WORK.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING VALVES, CONNECTIONS OR SHUTOFFS ASSOCIATED WITH DEMOLITION ACTIVITIES FOR THIS WORK.
21. THE CONTRACTOR SHALL DEMOLISH, REMOVE AND DISPOSE OF DEMOLITION DEBRIS INCLUDING, BUT NOT LIMITED TO, PIPING, CONCRETE, EARTH AND BITUMINOUS PAVEMENT IN A PROPER MANNER TO AN OFFSITE DISPOSAL FACILITY AND PROVIDE DISPOSAL INFORMATION AS REQUESTED BY THE OWNER.
22. THE CONTRACTOR SHALL APPLY PROPER ENVIRONMENTAL DUE DILIGENCE WHEN DISPOSING OF DEMOLITION DEBRIS AND EXCESS MATERIALS.
23. THE CONTRACTOR SHALL USE SUPPORTS AND SHORING TECHNIQUES TO PROPERLY SUPPORT EXISTING UTILITY CROSSINGS AND TRENCH WALLS ASSOCIATED WITH DEMOLITION ACTIVITIES AS PER OSHA REGULATIONS.
24. THE CONTRACTOR SHALL SAWCUT EXISTING PAVEMENT AND CONCRETE AS SHOWN ON THE PLAN PRIOR TO THE REMOVAL OF ANY BITUMINOUS PAVEMENT OR DEMOLITION ACTIVITIES ASSOCIATED WITH THIS WORK.
25. THE BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED AND PREPARED BY McCARTHY ENGINEERING ASSOCIATES, INC. IN OCTOBER 2022.
26. UNDERGROUND FACILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND PLANS OF OTHERS AND THEREFORE THEIR ELEVATION AND LOCATION MUST BE CONSIDERED AS APPROXIMATE ONLY. THE VERIFICATION OF EACH FACILITY SHOWN OR NOT SHOWN, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
27. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT NO WORK IS DONE WITHOUT THE PROPER INSPECTIONS BY LOCAL AUTHORITY OR GOVERNING AGENCY.
28. THE CONTRACTOR SHALL NOTIFY THE OWNER AND/OR ENGINEER AS SOON AS POSSIBLE IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS OR SPECIFICATIONS.
29. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE LIMITS OF THE UNDERGROUND FUEL TANKS PRIOR TO ANY DISTURBANCE OF THE AREA.

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev. By
1	8/9/23	Addendum 1	AMK

McCARTHY ENGINEERING ASSOCIATES, INC.
555 Van Reed Road
Suite 2
Wyomissing, PA 19610
www.McCarthy–Engineering.com
Phone: 610.373.8001
2500 East High Street
Suite 630
Pottstown, PA 19464

SEAL:
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES C. McCARTHY
ENGINEER
PE-051494E

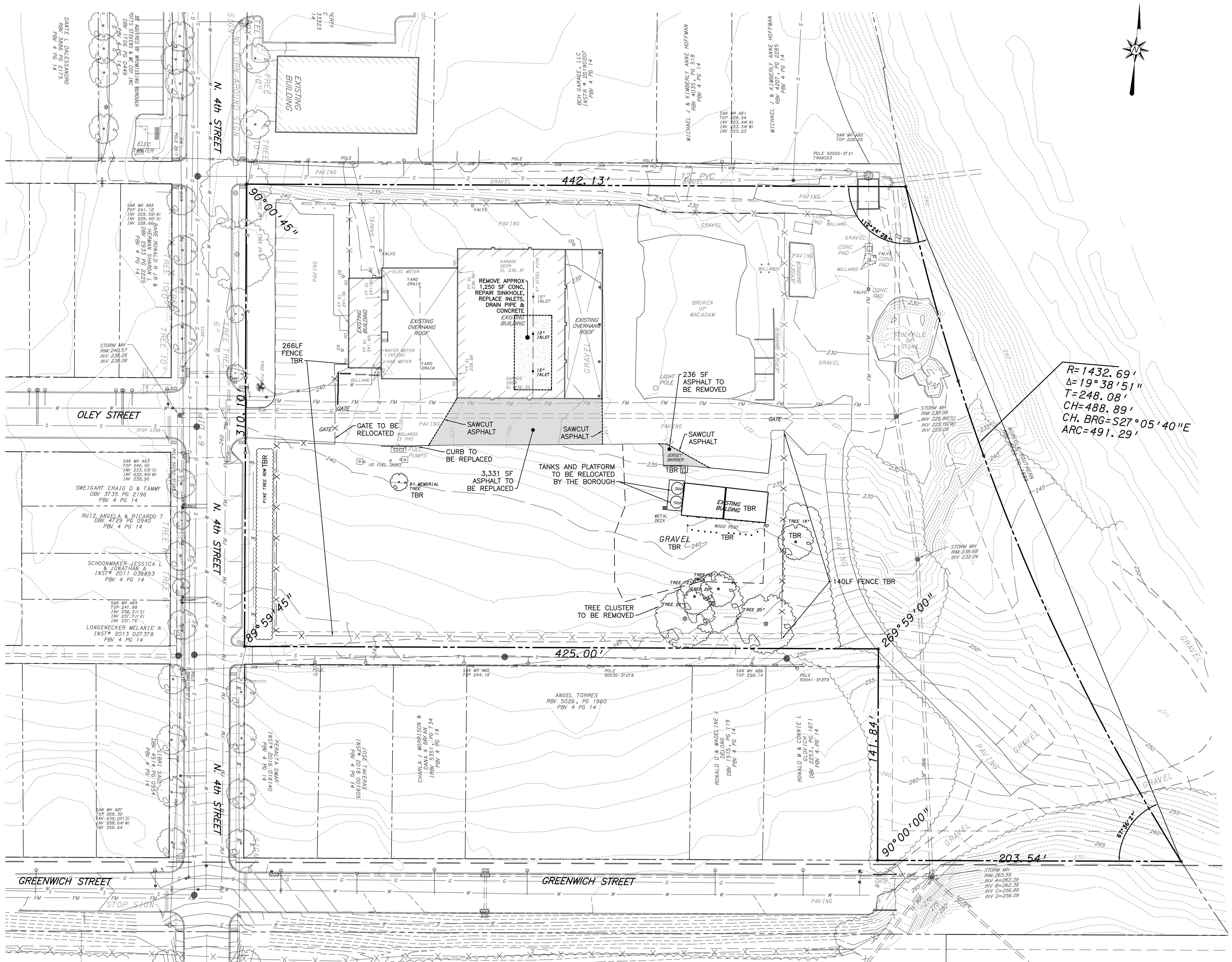
ISSUED FOR BID
COVER SHEET
" PUBLIC WORKS FACILITY "

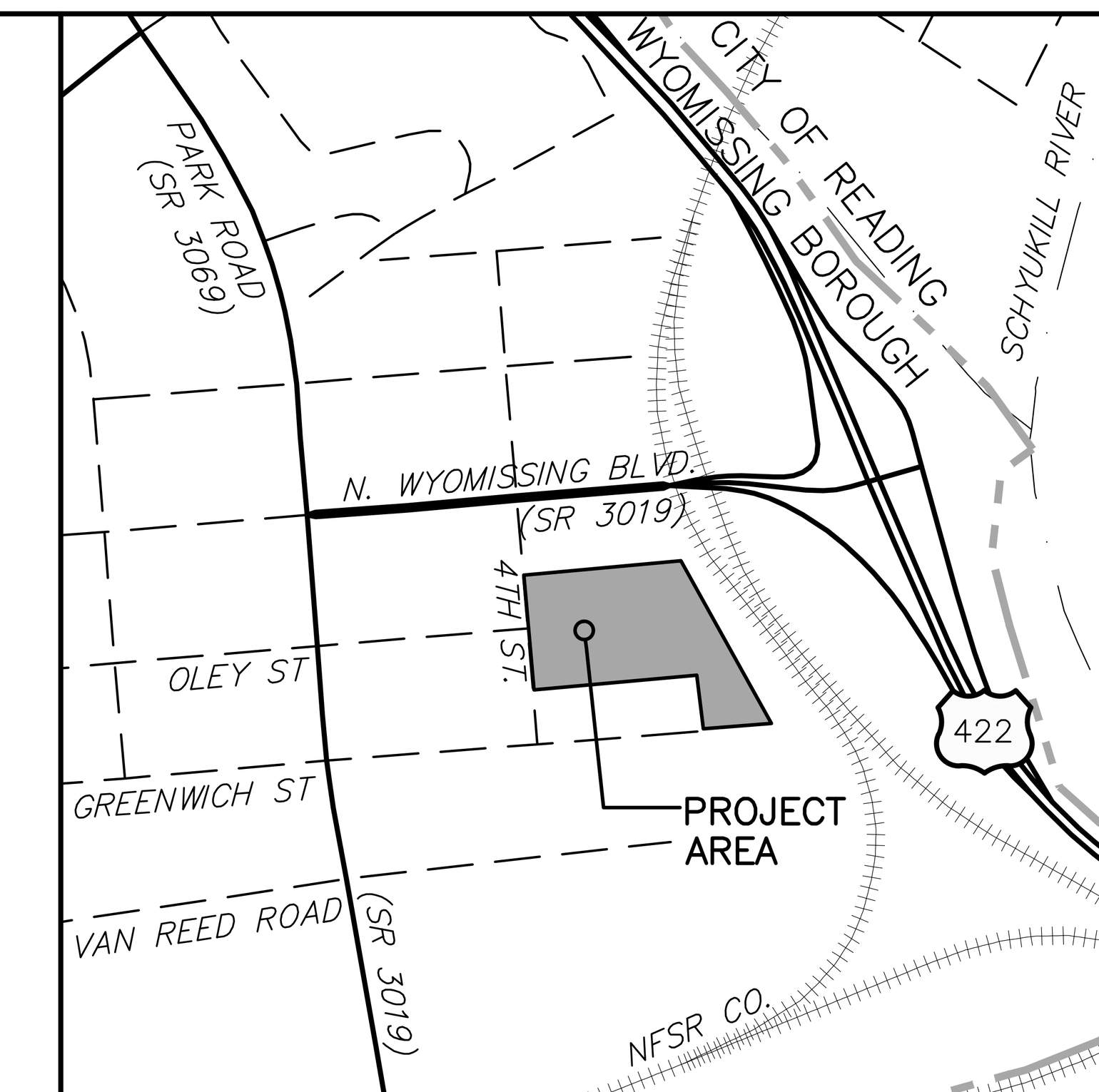
Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 19, 2023

DRAWN BY:	PROJ. MANAGER:
AMK	JCM
PRINCIPAL:	SCALE:
JCM	NOT TO SCALE

SHEET NO.
C1.0

PLAN NO.
230004-08- CO-01





LOCATION MAP
SCALE IN FEET
500 0 500 1000

DEMOLITION NOTES:

1. CONTRACTOR TO DEMOLISH ALL ITEMS NECESSARY TO CONSTRUCT PROPOSED BUILDING AND SITE FEATURES WHETHER OR NOT INDICATED IN THE CONSTRUCTION DOCUMENTS. ADEQUATE AND PROPER PROTECTION SHALL BE PROVIDED TO EXISTING FEATURES NOT BEING REMOVED.
2. EXCAVATIONS THAT ARE LEFT OPEN DURING THE DEMOLITION PROCESS SHALL BE COVERED OR FENCED OFF. THE AREA SHALL BE ADEQUATELY MARKED TO ENSURE WORKER AND PUBLIC SAFETY.
3. THE CONTRACTOR IS RESPONSIBLE FOR TERMINATING ALL APPLICABLE UTILITIES WHERE ITEMS ARE BEING REMOVED IN A SAFE AND CODE CONFORMING MANNER.
4. UNUSABLE MATERIALS AND RUBBISH SHALL BE IMMEDIATELY REMOVED FROM THE SITE. MATERIALS TO BE REUSED WILL BE STOCKPILED IN A SAFE AND SECURE LOCATION. MATERIAL THAT REQUIRES PROTECTION FROM THE WEATHER SHALL BE STORED IN A SECURE DRY LOCATION.
5. DAMAGE CAUSED TO EXISTING FEATURES DURING THE DEMOLITION PROCESS SHALL BE REPAIRED AND RESTORED TO PRE-DEMOLITION CONDITIONS. IF DAMAGE CANNOT BE REPAIRED ADEQUATELY THAN THE DAMAGED ITEM SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. COORDINATE ALL DEMOLITION WITH ARCHITECTURAL DRAWINGS.
7. FEATURES SHOWN IN **BOLD** INDICATE ITEMS THAT MUST BE REMOVED, ALSO SEE NOTE 1.

LEGEND:

- EXISTING SANITARY SEWER & MANHOLE
- EXISTING STORM SEWER & CATCH BASIN
- EXISTING WATER LINE & VALVE
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE & VALVE
- EXISTING TELEPHONE
- EXISTING ELECTRIC
- EXISTING OVERHEAD WIRE
- x 451.25 EXISTING SPOT ELEVATION
- EXISTING CONTOURS
- EXISTING LIGHTING FEATURES
- EXISTING UTILITY POLE
- EXISTING CURB AND DEPRESSED CURB
- EXISTING SIGNS
- EXISTING FENCE
- EXISTING TREE LINE
- EXISTING RIP RAP
- **(TBR)** FEATURE TO BE REMOVED
- PROPOSED SAWCUT LINE

Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

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SEAL:
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES C. McCARTHY
ENGINEER
PE-051494E

ISSUED FOR BID
EXISTING CONDITIONS & DEMOLITION PLAN
" PUBLIC WORKS FACILITY "

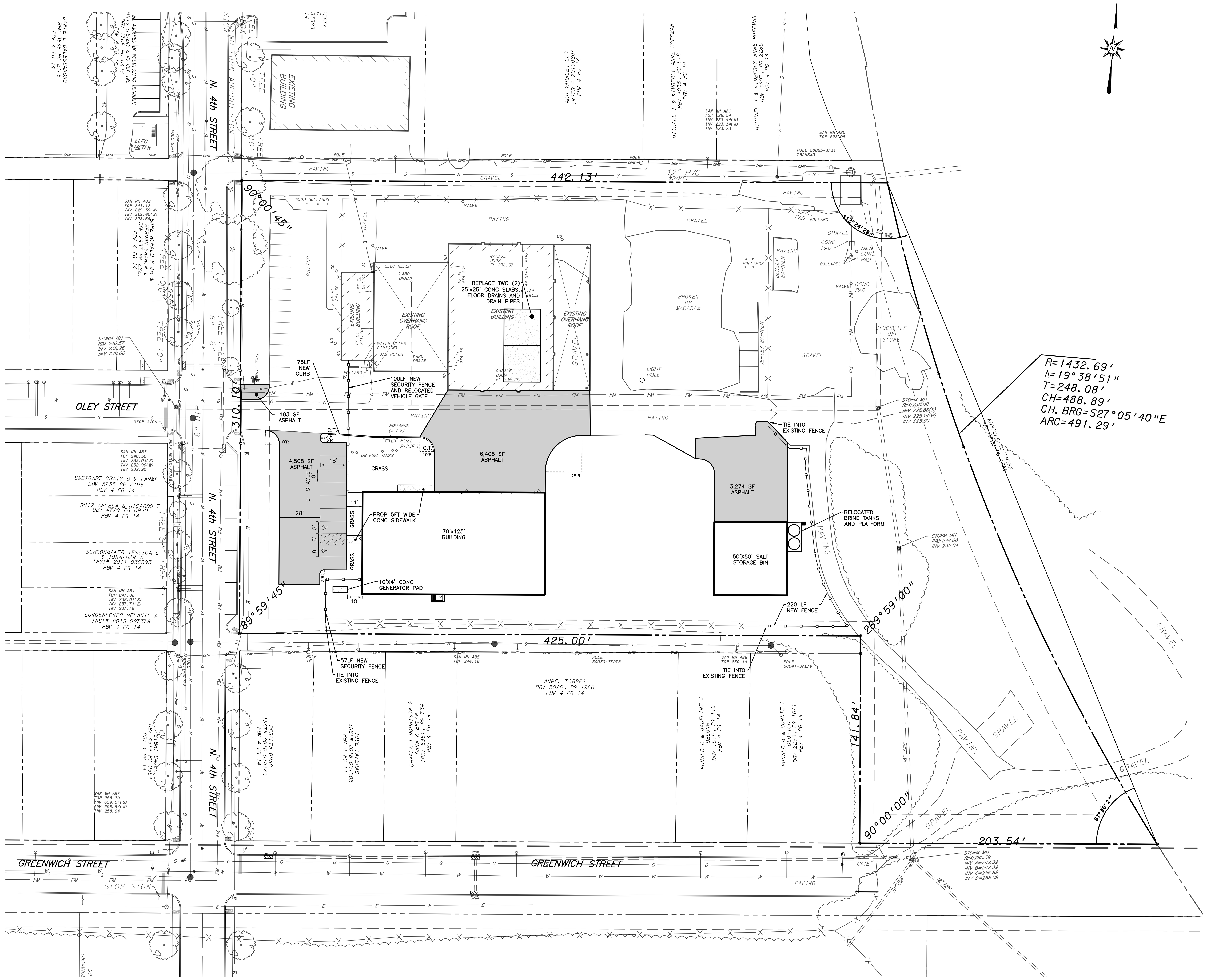
Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 19, 2023

DRAWN BY:	PROJ. MANAGER:
AMK	JCM
PRINCIPAL:	SCALE:
JCM	1"=30'

SHEET NO.
C2.0

PLAN NO.
230004-08- EC-02

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION



ONECALL NOTES:

Pennsylvania811

PENNSYLVANIA ONE CALL SYSTEM INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121 REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.

ACT 287 UNDERGROUND UTILITY PROTECTION ACT, AS AMENDED BY ACT 121

McCARTHY ENGINEERING ASSOCIATES, INC. HEREBY STATES THAT, PURSUANT TO THE PROVISIONS OF ACT NO. 121 OF OCTOBER 2008, OF THE PENNSYLVANIA LEGISLATURE, IT HAS PERFORMED THE FOLLOWING IN PREPARING THESE DRAWINGS REQUIRING EXCAVATION OR DEMOLITION WORK AT SITES WITHIN THE POLITICAL SUBDIVISION(S) SHOWN ON THE DRAWINGS:

1. PURSUANT TO SECTION 4, CLAUSE (2) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. REQUESTED FROM EACH USER'S OFFICE DESIGNATED ON SUCH LIST PROVIDED BY THE ONE CALL SYSTEM NOTIFICATION, THE INFORMATION PRESCRIBED BY SECTION 4, CLAUSE (2) OF SAID ACT, NOT LESS THAN (10) NOR MORE THAN (90) WORKING DAYS BEFORE FINAL DESIGN TO BE COMPLETED.
2. PURSUANT TO SECTION 4, CLAUSE (5) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. HAS MET THEIR OBLIGATIONS OF CLAUSE (2) BY CALLING THE ONE CALL SYSTEM SERVING THE LOCATION WHERE EXCAVATION IS TO BE PERFORMED.
3. PURSUANT TO SECTION 4, CLAUSE (3) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. HAS SHOWN UPON THESE DRAWINGS "THE POSITION AND TYPE OF EACH LINE, AS DERIVED PURSUANT TO THE REQUEST MADE AS REQUIRED BY CLAUSE (2), THE SERIAL NUMBER PROVIDED BY THE ONE CALL SYSTEM, THE TOLL-FREE ONE CALL SYSTEM PHONE NUMBER, AND THE NAME OF THE USER, THE USER'S DESIGNATED OFFICE ADDRESS AND PHONE NUMBER AS SHOWN ON THE LIST REFERRED TO IN SECTION 4, CLAUSE (5) OF SAID ACT."

AND McCARTHY ENGINEERING ASSOCIATES, INC. DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND AS REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT McCARTHY ENGINEERING ASSOCIATES, INC.. IS REFLECTING SAID INFORMATION ON THESE DRAWINGS ONLY DUE TO THE REQUIREMENTS OF THE SAID ACT NO. 121 OF OCTOBER 2008.

ONE CALL SYSTEM SERIAL NO. NOTIFICATION BY McCARTHY ENGINEERING ASSOCIATES, INC..

DATE: JUNE 23, 2021

ONE CALL SYSTEM SERIAL NUMBER: 20211730550

UNDERGROUND UTILITY USERS:

UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND WERE DETERMINED FROM VISIBLE LOCATION, ACT 287, AS AMENDED BY ACT 121, UTILITY RESPONSES AND/OR BEST AVAILABLE PLAN INFORMATION.

McCARTHY ENGINEERING ASSOCIATES, INC. CANNOT GUARANTEE THE EXACT LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. AN EXACT LOCATION CAN ONLY BE OBTAINED BY SUBSURFACE EXPLORATION, WHICH IS NOT A PART OF THIS CONTRACT PERFORMANCE.

PA ONE CALL SYSTEM INFORMATION:

PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121, REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND FIVE (5) WORKING DAYS NOTICE IN DESIGN STAGE.

PA ONE CALL PHONE NUMBER: 1-800-242-1776

LEGEND:

- EXISTING SANITARY SEWER & MANHOLE
- EXISTING STORM SEWER & CATCH BASIN
- EXISTING WATER LINE & VALVE
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE & VALVE
- EXISTING TELEPHONE
- EXISTING ELECTRIC
- EXISTING OVERHEAD WIRE
- EXISTING LIGHTING FEATURES
- EXISTING UTILITY POLE
- EXISTING CURB AND DEPRESSED CURB
- EXISTING SIGNS
- EXISTING FENCE
- EXISTING TREE LINE
- PROPOSED FENCE
- PROPOSED PAVED AREA
- PROPOSED CONCRETE AREA

GRAPHIC SCALE 1" = 30'

0 30' 60' 90'

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev. By
1	8/9/23	Addendum 1	AMK

McCARTHY ENGINEERING ASSOCIATES, INC.
555 Van Reed Road, Suite 2, Wyomissing, PA 19610
2500 East High Street, Suite 630, Pottstown, PA 19464
www.McCarthy-Engineering.com Phone: 610.373.8001

SEAL: REGISTERED PROFESSIONAL ENGINEER JAMES C. McCARTHY PE-055494E

ISSUED FOR BID
SITE PLAN
" PUBLIC WORKS FACILITY "

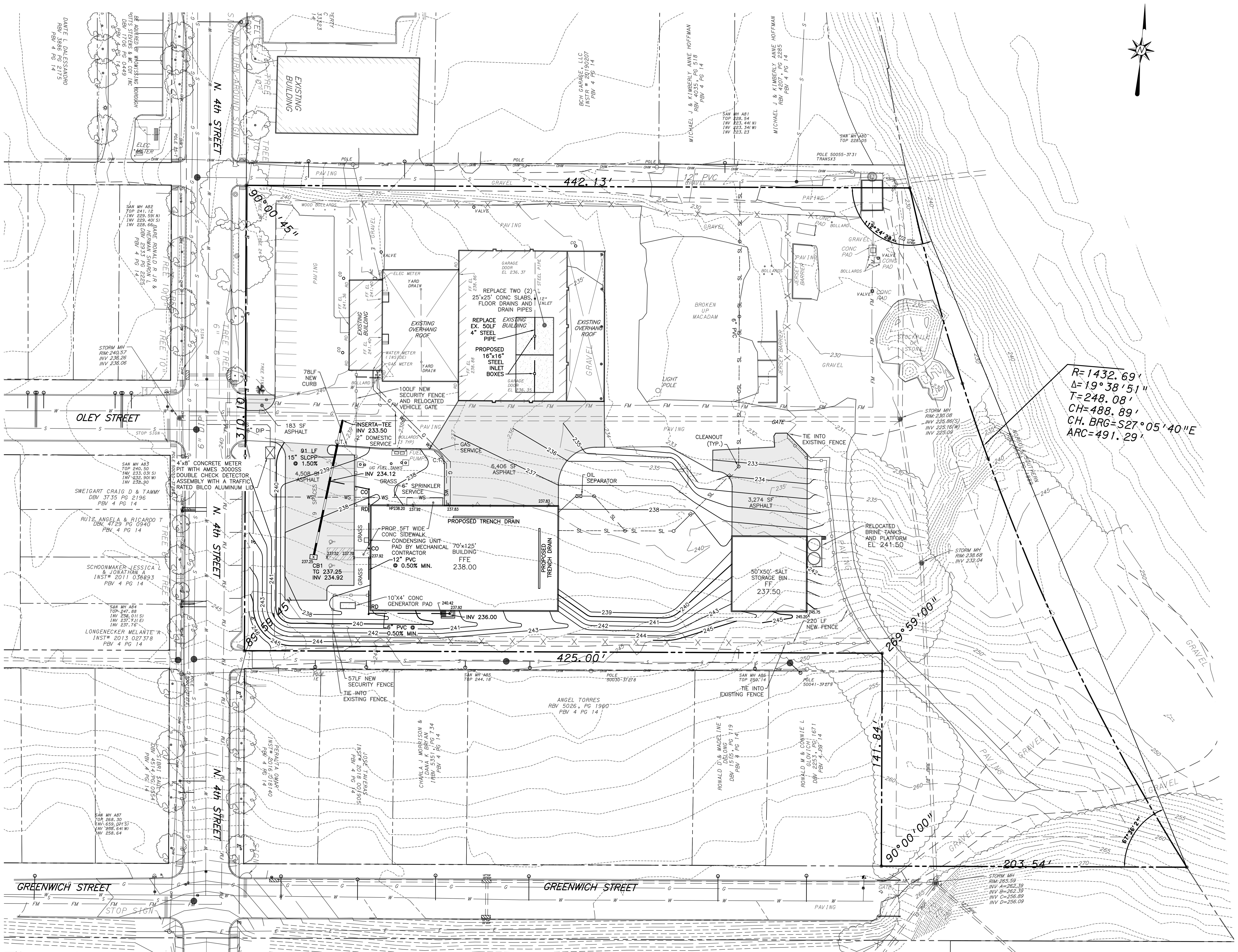
Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 19, 2023

DRAWN BY:	PROJ. MANAGER:
AMK	JCM
PRINCIPAL:	SCALE:
JCM	1"=30'

SHEET NO. C3.0

PLAN NO. 230004-08- SI-03

Plot Date: 8/9/2023 11:46 AM P:\04_Wyomissing\2023\08-Public Works Descope\Design\CADD Files\P-Site.dwg



GENERAL CONSTRUCTION NOTES

1. AREAS WHICH ARE TO BE FILLED SHALL BE COMPACTED TO A MINIMUM DENSITY OF 98% MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D-698) IN THE BUILDING, PAVED AND SIDEWALK AREAS, AND 92% IN OTHER AREAS.
2. DURING EXCAVATION FOR FOOTINGS, IF ANY UNSUITABLE SOIL IS UNCOVERED, THE CONTRACTOR SHALL REMOVE IT AND DEEPEN FOOTINGS AS NECESSARY TO BUILD ON CLEAN VIRGIN SOIL.
3. UNDERGROUND FACILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND PLANS OF OTHERS AND THEREFORE THEIR ELEVATION AND LOCATION MUST BE CONSIDERED AS APPROXIMATE ONLY. THE VERIFICATION OF EACH FACILITY SHOWN OR NOT SHOWN, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL MATERIALS AND METHODS OF CONSTRUCTION FOR STORM, WATER SERVICE AND SANITARY SEWERS TO MEET THE LATEST STANDARDS AND SPECIFICATIONS OF THE LOCAL AUTHORITY OR GOVERNING AGENCY.
5. CONTRACTOR TO VERIFY LOCATION AND FLOW OF EXISTING UTILITIES PRIOR TO INSTALLATION OF PLUMBING. ALL SERVICES TO BE CONNECTED IN ACCORDANCE WITH LOCAL CODES AND/OR UTILITY COMPANIES REQUIREMENT.
6. PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH PENNDOT SPECIFICATIONS PUBLICATION 408, LATEST EDITION.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE LOCAL AUTHORITY OR GOVERNING AGENCY OF THE BEGINNING DATE OF CONSTRUCTION AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT NO WORK IS DONE WITHOUT THE PROPER INSPECTIONS BY LOCAL AUTHORITY OR GOVERNING AGENCY.
8. CONTRACTOR TO NOTIFY ENGINEER AS SOON AS POSSIBLE IF CONDITIONS ON GROUND DIFFER FROM THOSE SHOWN ON THE PLAN.
9. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING MEASUREMENTS AND DETAILS
10. ALL AREAS OTHER THAN PAVED AREAS SHALL HAVE A MINIMUM DEPTH OF SIX INCHES (6") OF TOPSOIL. PRIOR TO SEEDING, THE SURFACE SHALL BE SCARIFIED AND CLEARED OF ALL TRASH, DEBRIS, ROOTS AND OTHER OBJECTS THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.
11. SEEDING AND MULCHING SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408.

LEGEND:

- EXISTING SANITARY SEWER & MANHOLE
- EXISTING SANITARY FORCEMAIN
- EXISTING SANITARY LATERAL
- EXISTING STORM SEWER & CATCH BASIN
- PROPOSED STORM SEWER & CATCH BASIN
- PROPOSED JUNCTION BOX
- PROPOSED END WALL
- EXISTING WATER LINE & VALVE
- EXISTING WATER SERVICE
- EXISTING WELL
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE & VALVE
- EXISTING TELEPHONE
- EXISTING ELECTRIC
- EXISTING OVERHEAD WIRE
- x 451.25 EXISTING SPOT ELEVATION
- x 451.25 PROPOSED SPOT ELEVATION
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING LIGHTING FEATURES
- EXISTING UTILITY POLE
- EXISTING CURB AND DEPRESSED CURB

GRAPHIC SCALE
1" = 30'
0 30' 60' 90'

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

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2500 East High Street, Suite 630, Pottstown, PA 19464
www.McCarthy-Engineering.com
Phone: 610.373.8001

SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JAMES C. McCARTHY PE-051494E

ISSUED FOR BID
GRADING & UTILITY PLAN
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 19, 2023

DRAWN BY:	PROJ. MANAGER:
AMK	JCM
PRINCIPAL:	SCALE:
JCM	1"=30'

SHEET NO. C4.0

PLAN NO. 230004-08- GU-04

ONECALL NOTES:

Pennsylvania811

PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121 REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.

ACT 287 UNDERGROUND UTILITY PROTECTION ACT, AS AMENDED BY ACT 121

McCARTHY ENGINEERING ASSOCIATES, INC. HEREBY STATES THAT, PURSUANT TO THE PROVISIONS OF ACT NO. 121 OF OCTOBER 2008, OF THE PENNSYLVANIA LEGISLATURE, IT HAS PERFORMED THE FOLLOWING IN PREPARING THESE DRAWINGS REQUIRING EXCAVATION OR DEMOLITION WORK AT SITES WITHIN THE POLITICAL SUBDIVISION(S) SHOWN ON THE DRAWINGS:

1. PURSUANT TO SECTION 4, CLAUSE (2) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. REQUESTED FROM EACH USER'S OFFICE DESIGNATED ON SUCH LIST PROVIDED BY THE ONE CALL SYSTEM NOTIFICATION, THE INFORMATION PRESCRIBED BY SECTION 4, CLAUSE (2) OF SAID ACT, NOT LESS THAN (10) NOR MORE THAN (90) WORKING DAYS BEFORE FINAL DESIGN TO BE COMPLETED.
2. PURSUANT TO SECTION 4, CLAUSE (5) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. HAS MET THEIR OBLIGATIONS OF CLAUSE (2) BY CALLING THE ONE CALL SYSTEM SERVING THE LOCATION WHERE EXCAVATION IS TO BE PERFORMED.
3. PURSUANT TO SECTION 4, CLAUSE (3) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. HAS SHOWN UPON THESE DRAWINGS "THE POSITION AND TYPE OF EACH LINE, AS DERIVED PURSUANT TO THE REQUEST MADE AS REQUIRED BY CLAUSE (2), THE SERIAL NUMBER PROVIDED BY THE ONE CALL SYSTEM, THE TOLL-FREE ONE CALL SYSTEM PHONE NUMBER, AND THE NAME OF THE USER, THE USER'S DESIGNATED OFFICE ADDRESS AND PHONE NUMBER AS SHOWN ON THE LIST REFERRED TO IN SECTION 4, CLAUSE (5) OF SAID ACT."

AND McCARTHY ENGINEERING ASSOCIATES, INC. DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND AS REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT McCARTHY ENGINEERING ASSOCIATES, INC.. IS REFLECTING SAID INFORMATION ON THESE DRAWINGS ONLY DUE TO THE REQUIREMENTS OF THE SAID ACT NO. 121 OF OCTOBER 2008.

ONE CALL SYSTEM SERIAL NO. NOTIFICATION BY McCARTHY ENGINEERING ASSOCIATES, INC..

DATE: JUNE 23, 2021

ONE CALL SYSTEM SERIAL NUMBER: 20211730550

UNDERGROUND UTILITY USERS:

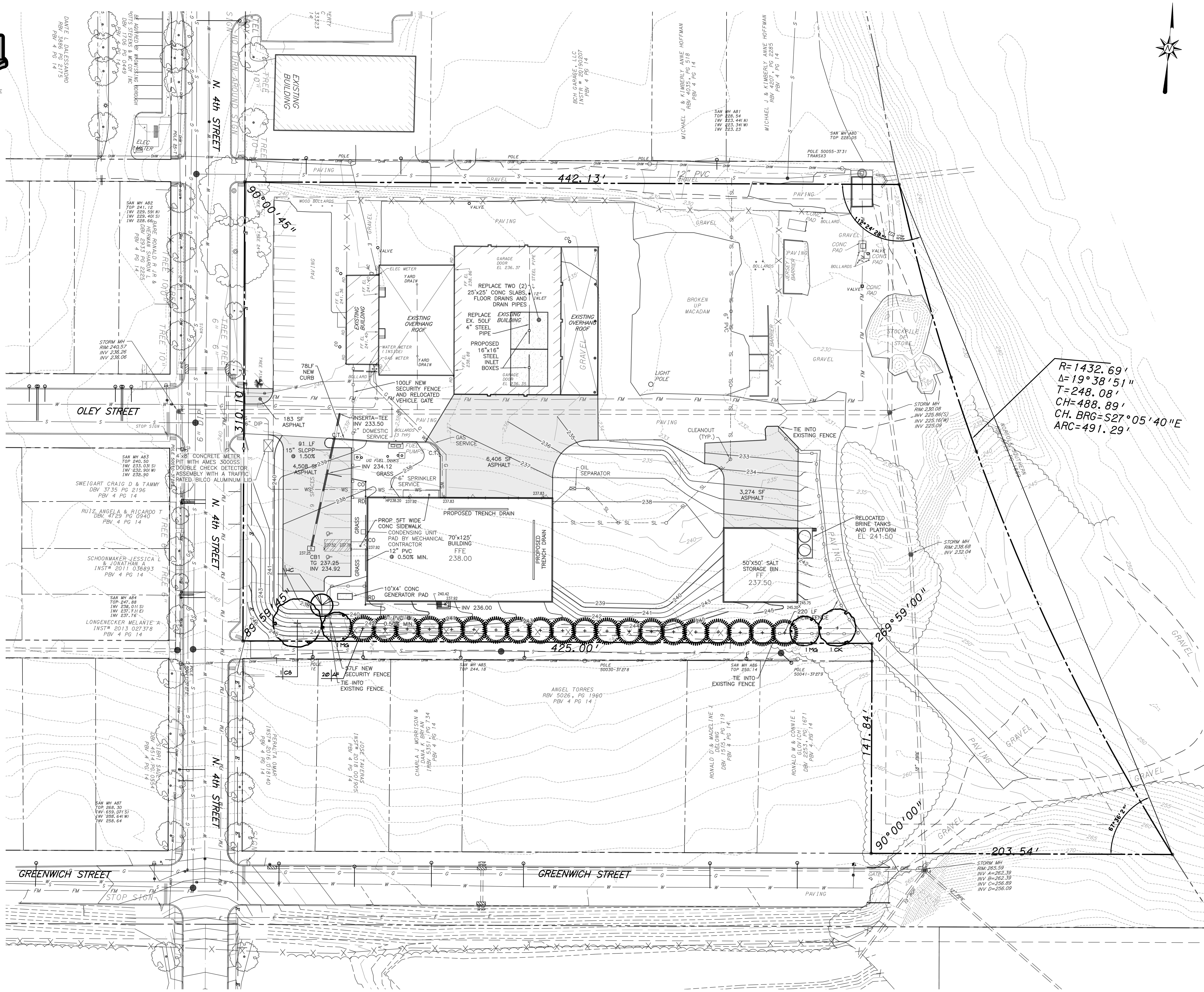
UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND WERE DETERMINED FROM VISIBLE LOCATION, ACT 287, AS AMENDED BY ACT 121, UTILITY RESPONSES AND/OR BEST AVAILABLE PLAN INFORMATION.

McCARTHY ENGINEERING ASSOCIATES, INC. CANNOT GUARANTEE THE EXACT LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. AN EXACT LOCATION CAN ONLY BE OBTAINED BY SUBSURFACE EXPLORATION, WHICH IS NOT A PART OF THIS CONTRACT PERFORMANCE.

PA ONE CALL SYSTEM INFORMATION:

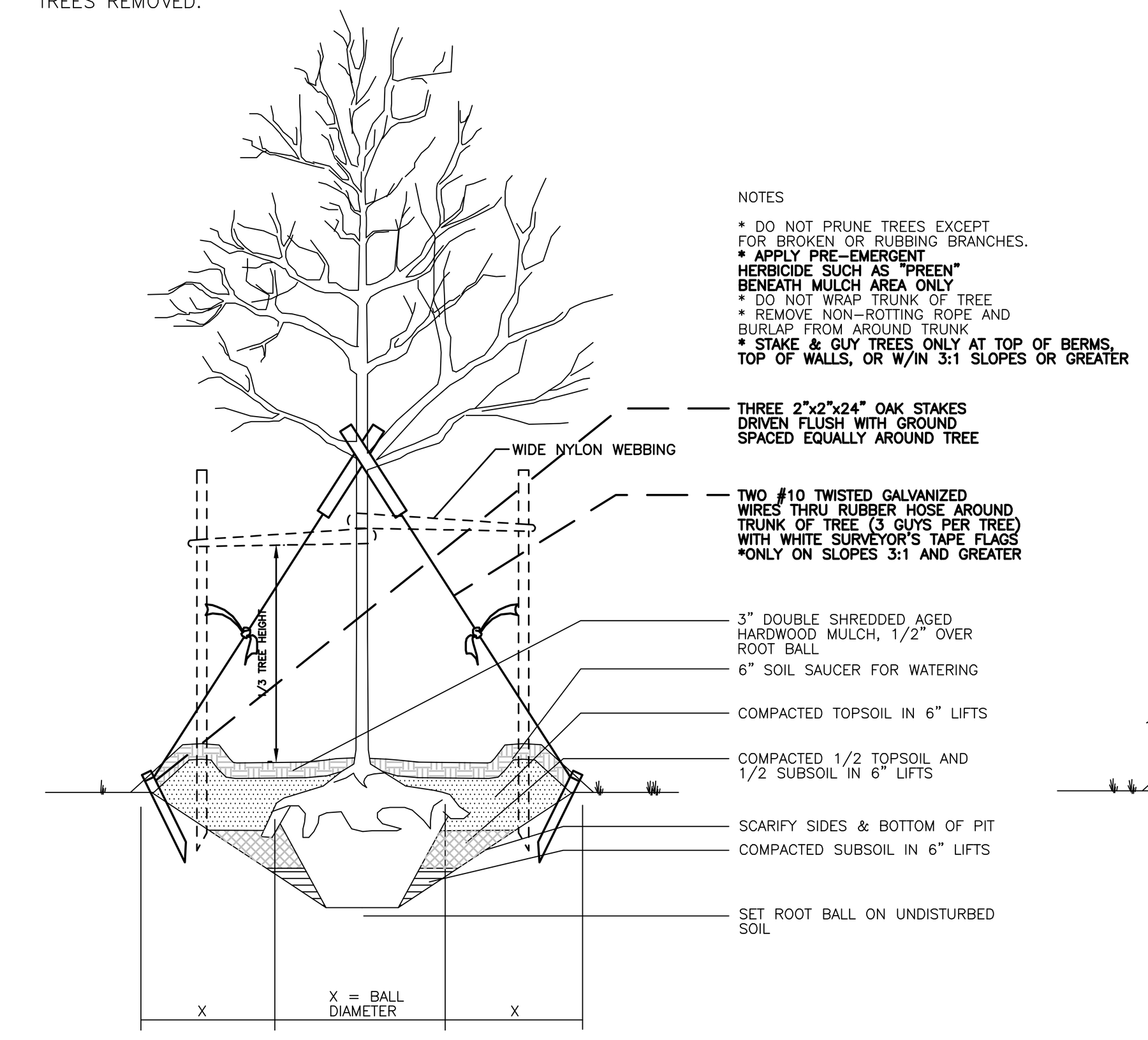
PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121, REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND FIVE (5) WORKING DAYS NOTICE IN DESIGN STAGE.

PA ONE CALL PHONE NUMBER: 1-800-242-1776

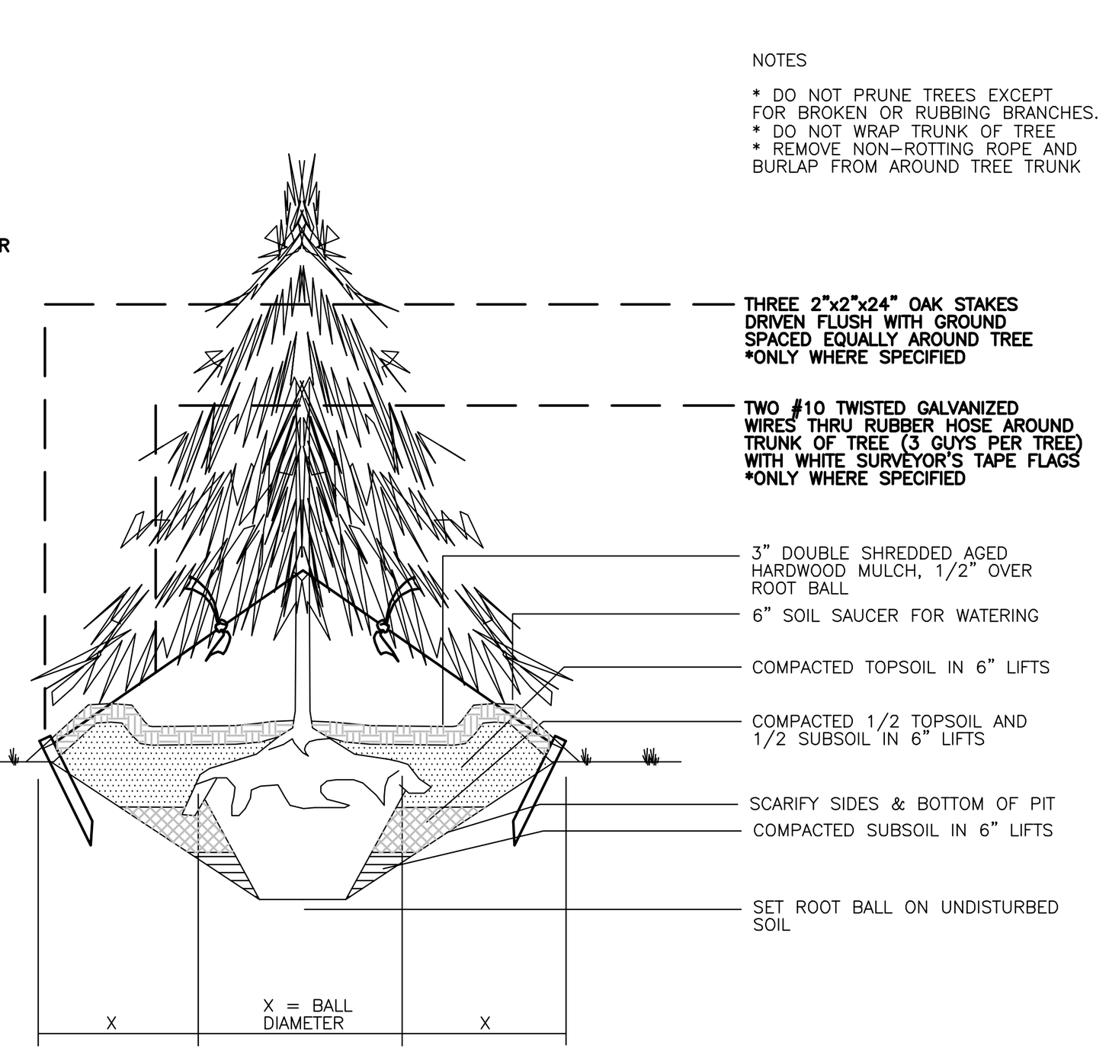


LANDSCAPE NOTES:

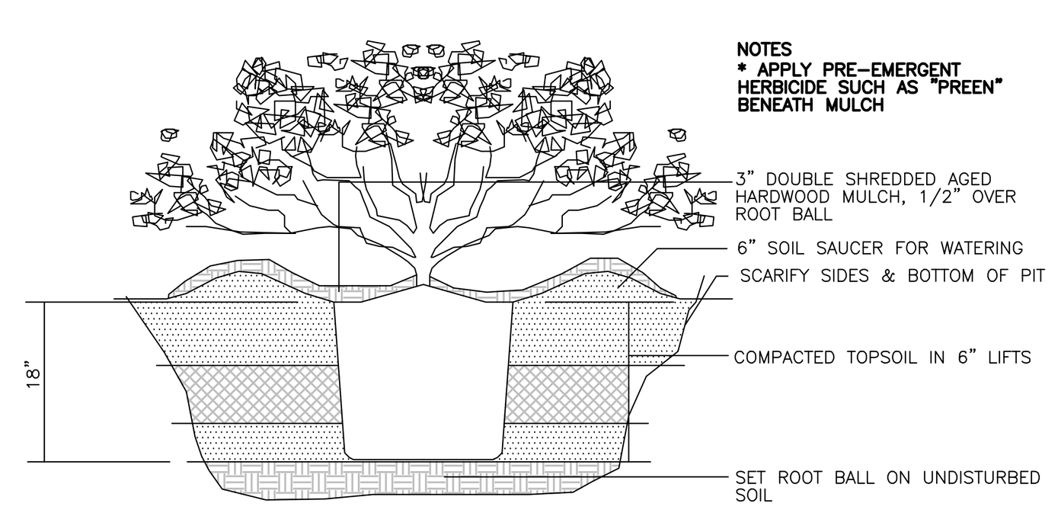
1. ALL VARIETIES ARE TO BE USED AS SPECIFIED, OR AN APPROVED EQUAL.
2. ALL PLANTING MATERIALS MUST BE TO REGIONAL AND NATIONAL NURSERY STANDARDS AND BE APPROVED STOCK FREE OF PESTS.
3. ALL SIZES AND GRADING STANDARDS FOR PLANT MATERIALS SHALL CONFORM WITH THE LATEST EDITION OF AMERICAN STANDARD OF NURSERY STOCK AS SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., AND APPROVED MAY 2, 1986, BY THE AMERICAN NATIONAL STANDARDS INSTITUTE, INC., OR THE LATEST REVISED EDITION OF THIS STANDARD.
4. ALL PLANTING AND RELATED WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE TOWNSHIP. DEAD PLANTS SHALL BE REMOVED IMMEDIATELY AND REPLACEMENTS MADE NOT LATER THAN DURING THE NEXT PLANTING SEASON.
5. STAKE AND GUY TREES ONLY AS NOTED IN DETAIL.
6. ALL PLANTING MOUNDS AND BEDS SHALL BE MULCHED TO A DEPTH OF 3", UNLESS OTHERWISE SPECIFIED.
7. ON MULTIPLE STEM TREES – TOTAL CALIPER OF ALL STEMS (MIN. 3) IS TO BE EQUAL TO 2.5 INCHES.
8. WHEN PLANTED, ALL TREES MUST BE AT LEAST 6 FEET HIGH, WITH A MINIMUM CALIPER OF 2.5 INCHES MEASURED 6 INCHES ABOVE GROUND, OR IF GREATER THAN 4.5", AT 12" ABOVE GROUND.
9. STREET TREES SHALL HAVE A TRUNK THAT IS CLEAN AND STRAIGHT WITHOUT BRANCHES FOR 7 FEET ABOVE THE GROUND.
10. ALL SHADE TREES TO BE AT LEAST 3" CALIPER TO COMPENSATE FOR LARGE TREES REMOVED.



DECIDUOUS TREE PLANTING DETAIL



EVERGREEN TREE PLANTING DETAIL



SHRUB PLANTING DETAIL

PLANT LIST

KEY	AMT	BOTANICAL	COMMON NAME	PLANTING SIZE	NOTES
DECIDUOUS SHADE TREES					
CK	1	CLADRASTIS KENTUKEA	YELLOWWOOD	2 – 2 1/2" CALIPER	BB
CS	1	CATALPA SPECIOSA	NORTHERN CATALPA	2 – 2 1/2" CALIPER	BB
EVERGREEN TREES					
AF	20	ABIES FRASERI	FRASER FIR	8' – 10'	BB
ORNAMENTAL TREES					
HC	1	HALESIA CAROLINA	SILVERBELL	6' – 8'	BB
MA	0	MALUS	APPLE	6' – 8'	BB
MG	2	METASEQUOIA GLYPTOSTROBOIDES	DAWN REDWOOD	2 – 2 1/2" CAL.	BB

LEGEND:

- EXISTING SANITARY SEWER & MANHOLE
- PROPOSED SANITARY SEWER & MANHOLE
- PROPOSED SANITARY LATERAL
- EXISTING STORM SEWER & CATCH BASIN
- EXISTING WATER LINE & VALVE
- EXISTING WATER SERVICE
- PROPOSED WATER LINE & VALVE
- EXISTING FIRE HYDRANT & VALVE
- PROPOSED WATER SERVICE
- EXISTING ELECTRIC
- PROPOSED ELECTRIC
- EXISTING OVERHEAD WIRE
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING GAS LINE & VALVE
- PROPOSED GAS LINE
- PROPOSED GAS SERVICE
- EXISTING TELEPHONE
- PROPOSED TELEPHONE
- EXISTING LIGHTING FEATURES
- EXISTING UTILITY POLE
- EXISTING CURB AND DEPRESSED CURB
- PROPOSED CURB & CURB TRANSITION
- EXISTING SIGNS
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING TREE LINE
- SOIL LINE
- EXISTING RIP RAP
- PROPOSED LARGE DECIDUOUS TREES
- PROPOSED EVERGREEN TREES
- PROPOSED ORNAMENTAL TREE
- PROPOSED DECIDUOUS SHRUB
- PROPOSED EVERGREEN SHRUB
- PROPOSED GROUNDCOVER/PERENNIAL

GRAPHIC SCALE 1" = 30'

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

McCARTHY ENGINEERING ASSOCIATES, INC.
555 Van Reed Road, Suite 2, Wyomissing, PA 19610
www.McCarthy-Engineering.com Phone: 610.373.8001
2500 East High Street, Suite 630, Pottstown, PA 19464

SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES C. McCARTHY ENGINEER PE-051494E

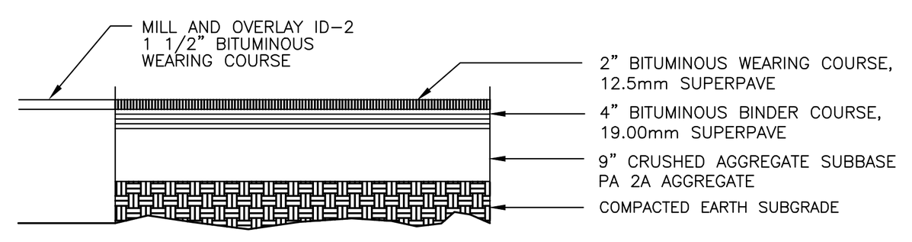
ISSUED FOR BID
LANDSCAPING PLAN
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 19, 2023

DRAWN BY: AMK	PROJ. MANAGER: JCM
PRINCIPAL: JCM	SCALE: 1"=30'

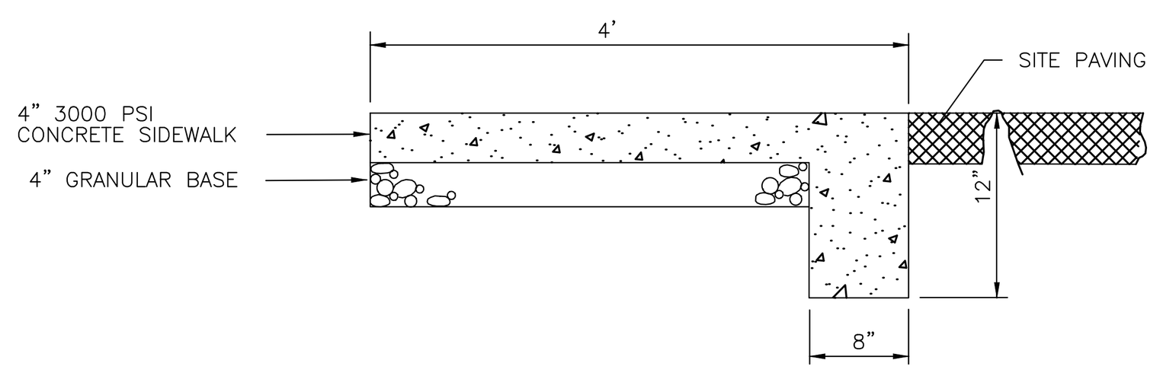
SHEET NO. C5.0

PLAN NO. 230004-08- LA-05

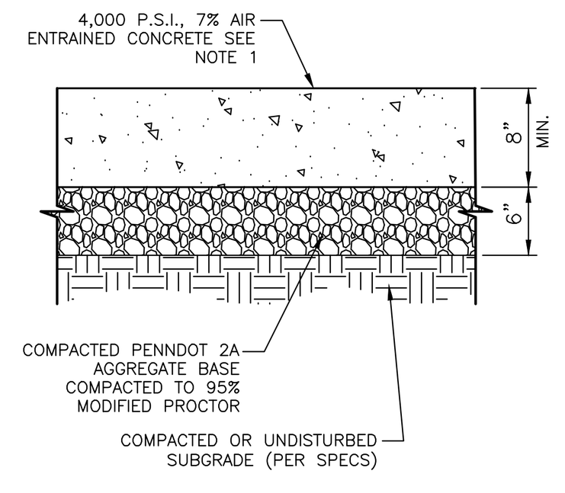


HEAVING DUTY

PAVING SECTIONS



TYPICAL SIDEWALK DETAIL

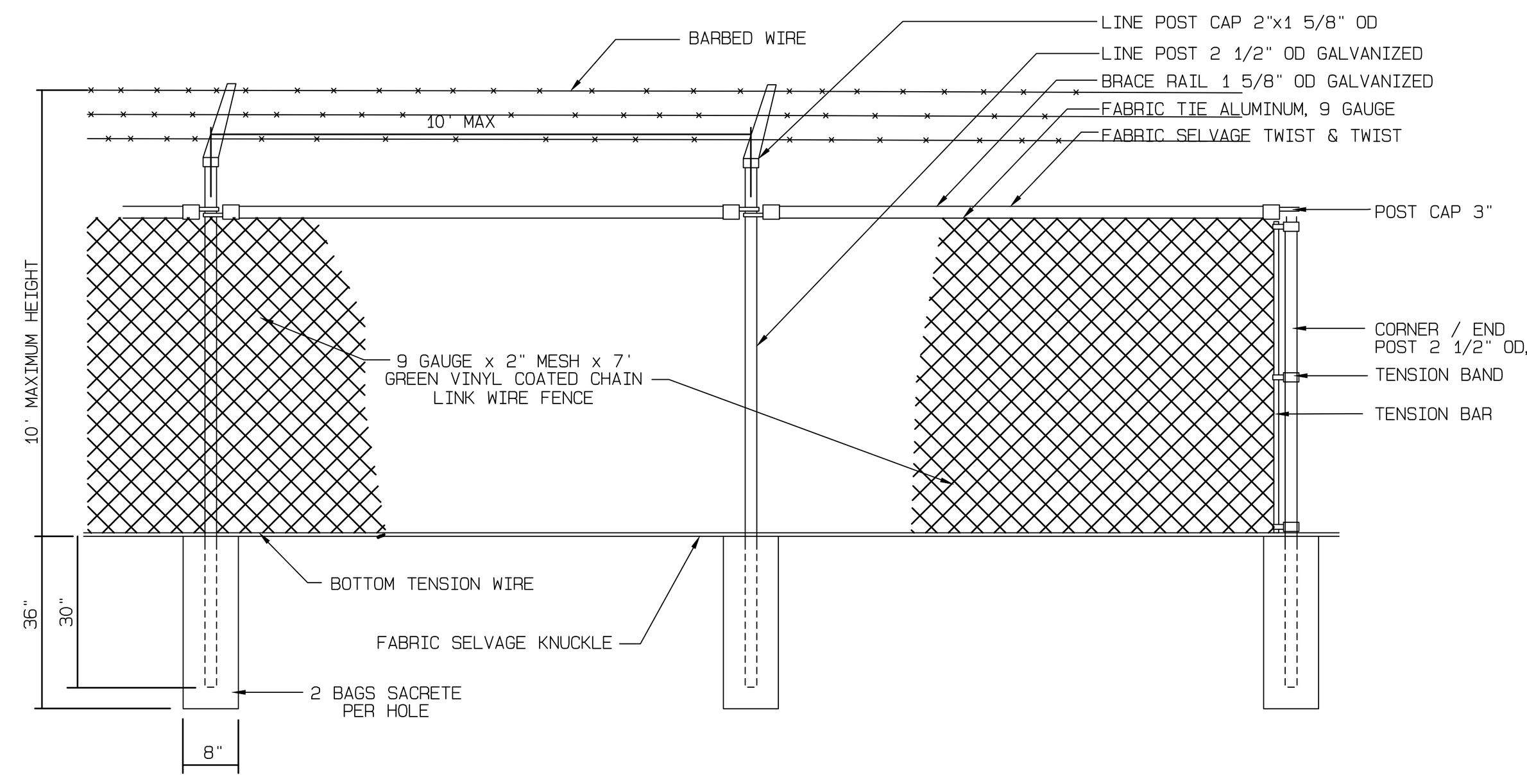


NOTE:
SEE CONCRETE CONTROL JOINT DETAIL

HEAVY DUTY CONCRETE PAVEMENT PAD SECTION

FOR GENERATOR PAD AND FUEL TANK AREA

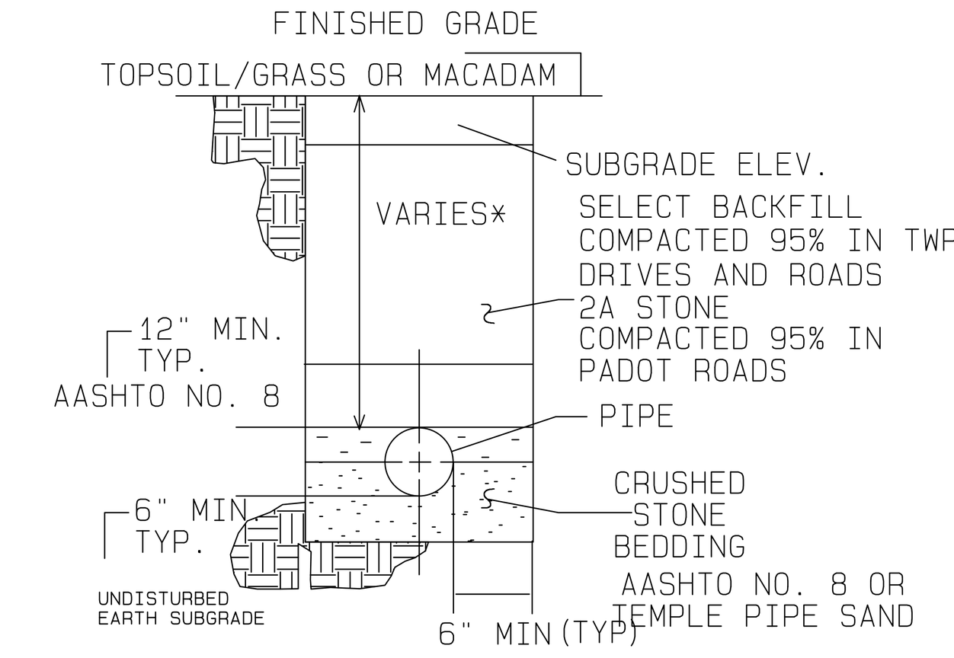
NOTE:
1. SLABS SHALL BE TREATED WITH ONE OF THE FOLLOWING:
   – BARRICADE WB244, EUCLID CHEMICAL CO.
   – SS HARDEN X SI, SEALSOURCE INTERNATIONAL, LLC.
2. REINFORCE CONCRETE WITH MACRO SYNTHETIC FIBER REINFORCEMENT AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.
3. F'C=4000 PSI MINIMUM.



SECURITY FENCE DETAIL

WATER METER PIT

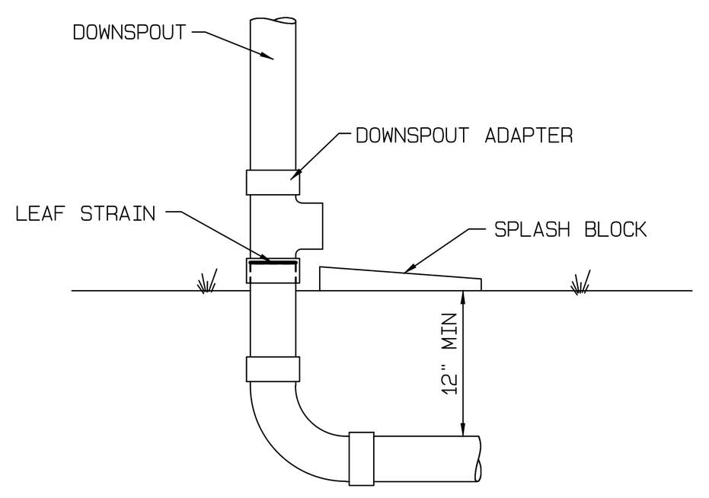
NOTES:
1. METER SHOULD READ IN 100 CUBIC FEET INCREMENTS.
2. PROVIDE POLYPROPYLENE OR FIBERGLASS COATED STEEL MANHOLE STEPS @ 12" O.C. AS MANUFACTURED BY M.A. INDUSTRIES, INC. OR APPROVED EQUAL.
3. PROVIDE EXTERIOR DOOR (TRAFFIC LOAD TYPE) BILCO TYPE J-3AL OR APPROVED EQUAL ACCESS DOOR SHALL BE EQUIPPED WITH COMPRESSION SPRING OPERATORS. AUTOMATIC HOLD OPEN ARM AND RELEASE HANDLE, SNAP LOCK WITH REMOVABLE HANDLE SHALL BE PROVIDED. A 1 1/2" DRAINAGE COUPLING AND PVC DRAIN PIPE TO THE SURFACE SHALL BE PROVIDED FOR DRAINING THE CHANNEL FRAME. STAINLESS STEEL HINGES AND PINS SHALL BE PROVIDED.
4. PROVIDE FRICTION CLAMP AND A-LOK TYPE RUBBER GASKET SEAL TYPICAL AT EACH PIPE OPENING IN BOX.



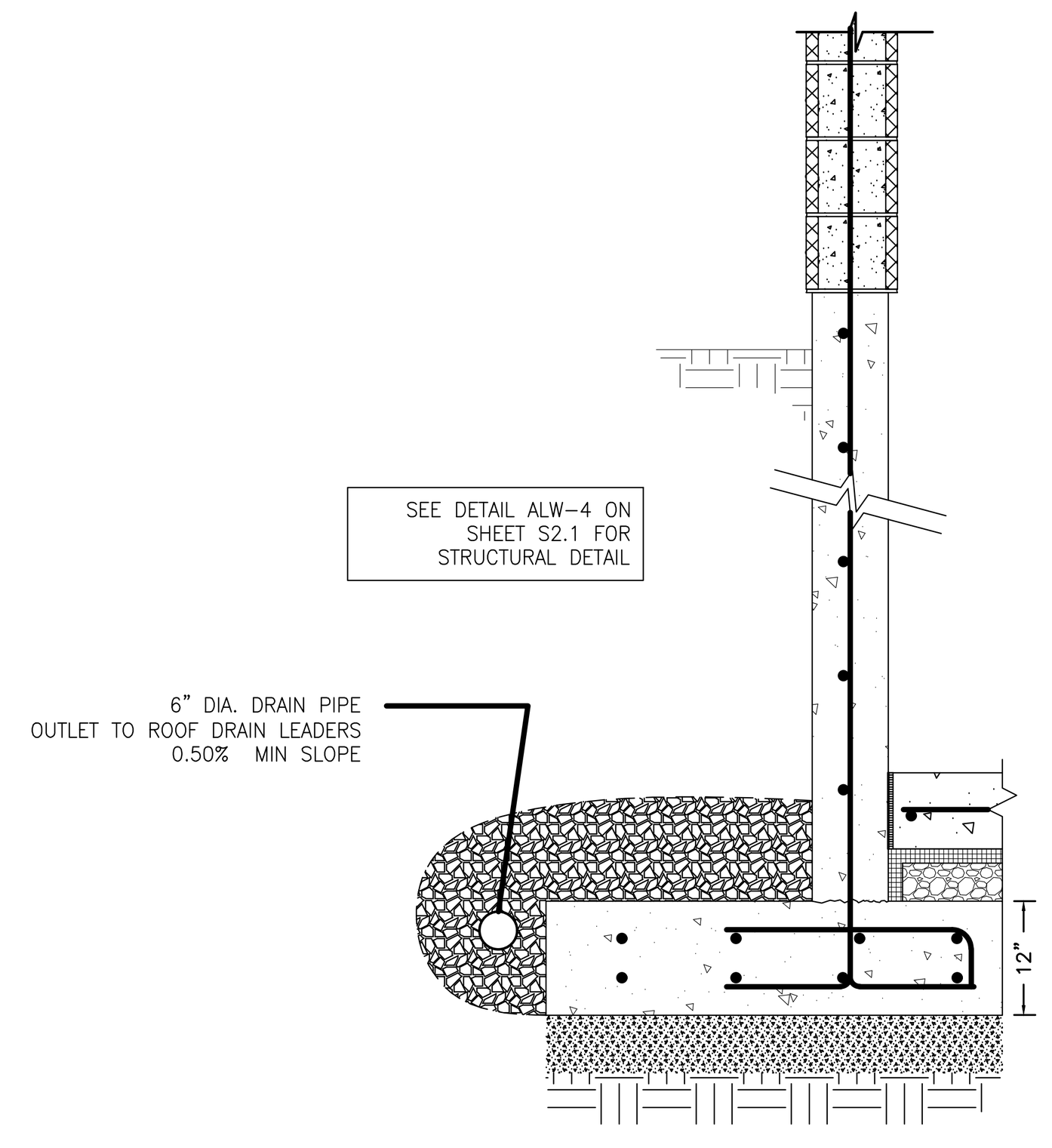
TRENCH DETAIL

N.T.S.

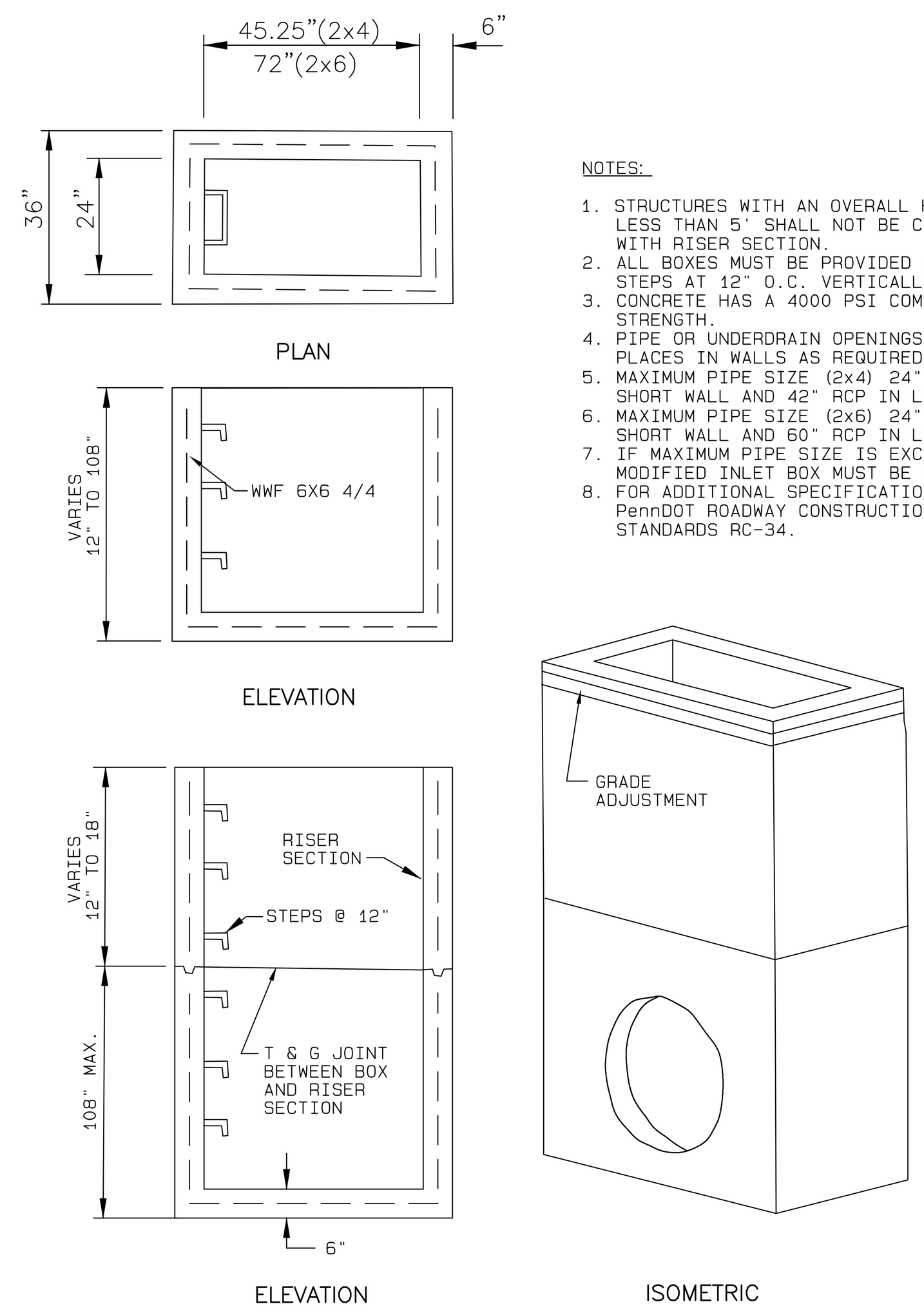
NOTES:
1. ALL BACKFILL MATERIAL IS SUBJECT TO AUTHORITY AND PENNDOT APPROVAL.
2. CLASS A BEDDING: APPROVED TEMPLE PIPE SAND FOR PVC PIPE
3. SELECT BACKFILL: CLEAN DRY EARTH WITH A MAXIMUM STONE SIZE OF 2-INCHES.
4. ORDINARY BACKFILL: CLEAN DRY EARTH WITH A MAXIMUM STONE SIZE OF 6-INCHES.
* - WITHIN ROAD RIGHT-OF-WAY, SURFACE RESTORATION, BACKFILL MATERIALS, AND METHODS SHALL MEET THE APPROPRIATE MUNICIPAL OR PENN-DOT REQUIREMENTS WHICH IS 2A COARSE AGGREGATE.



DOWNSPOUT DETAIL

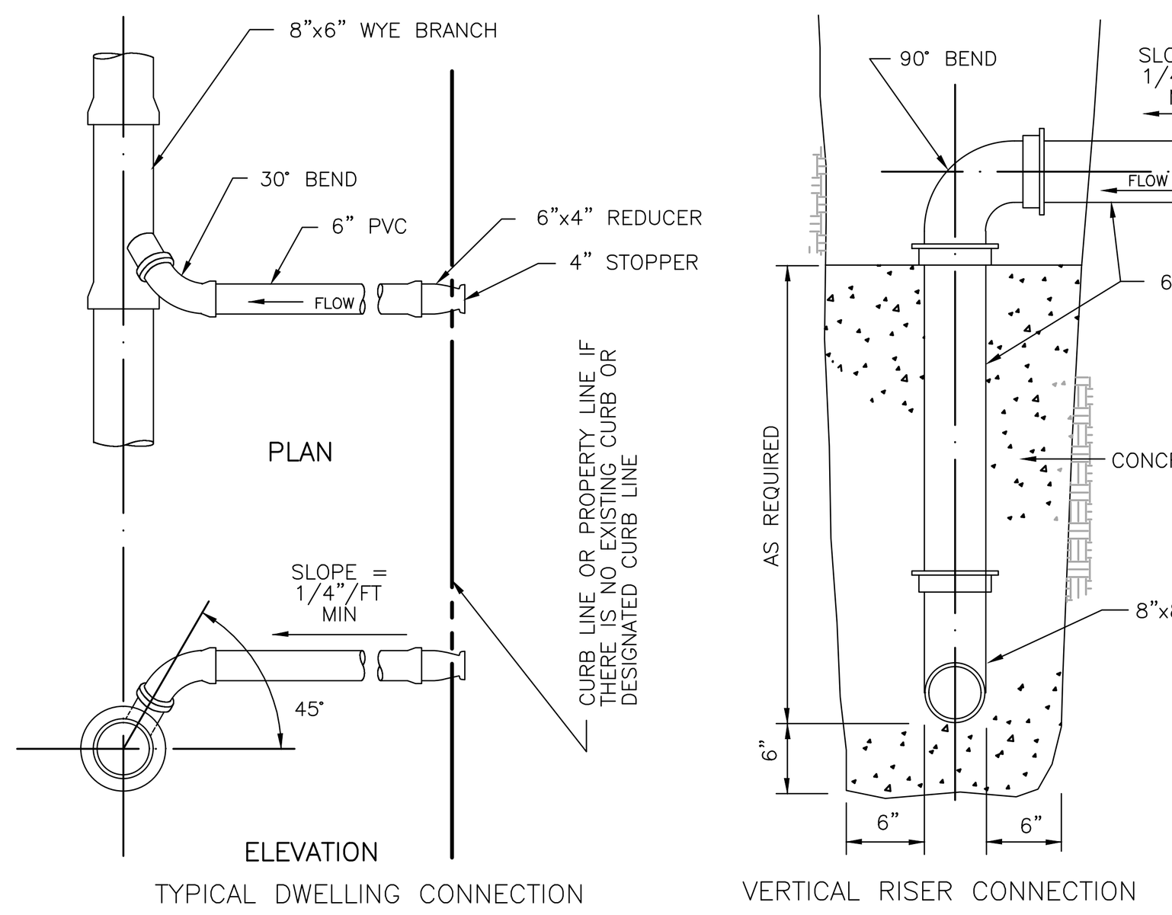


PERIMETER DRAIN DETAIL

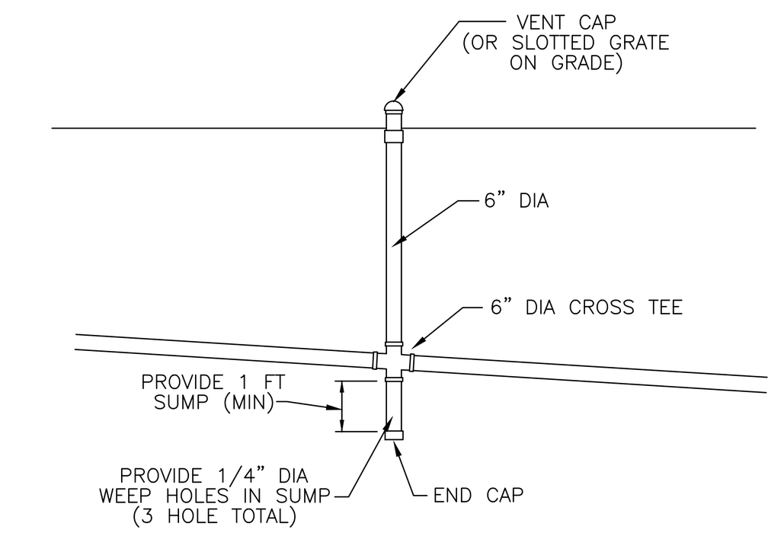


NOTES:
1. STRUCTURES WITH AN OVERALL HEIGHT LESS THAN 5' SHALL NOT BE CONSTRUCTED WITH RISER SECTION.
2. ALL BOXES MUST BE PROVIDED WITH STEPS AT 12" O.C. VERTICALLY.
3. CONCRETE HAS A 4000 PSI COMPRESSIVE STRENGTH.
4. PIPE OR UNDERDRAIN OPENINGS TO BE PLACES IN WALLS AS REQUIRED.
5. MAXIMUM PIPE SIZE (2x4) 24" RCP IN SHORT WALL AND 42" RCP IN LONG WALL.
6. MAXIMUM PIPE SIZE (2x6) 24" RCP IN SHORT WALL AND 60" RCP IN LONG WALL.
7. IF MAXIMUM PIPE SIZE IS EXCEEDED A MODIFIED INLET BOX MUST BE UTILIZED.
8. FOR ADDITIONAL SPECIFICATIONS, SEE PennDOT ROADWAY CONSTRUCTION STANDARDS RC-34.

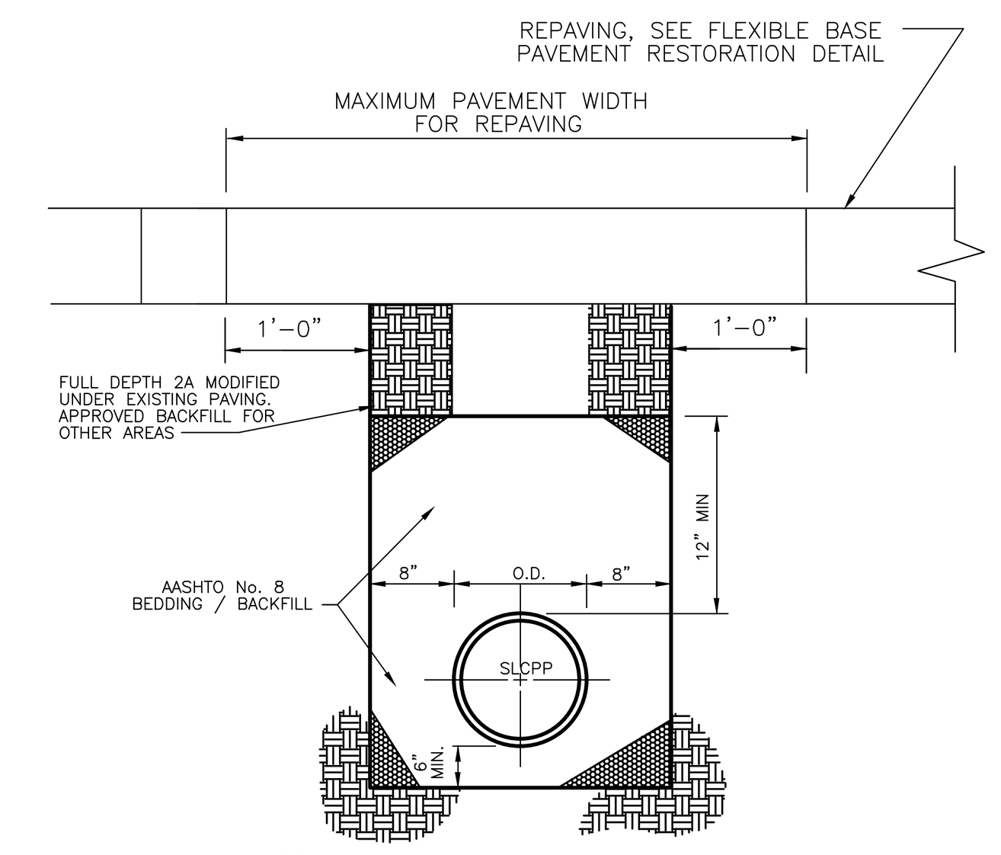
2x4 OR 2x6 PRECAST INLET BOX



SANITARY SEWER LATERAL CONNECTIONS



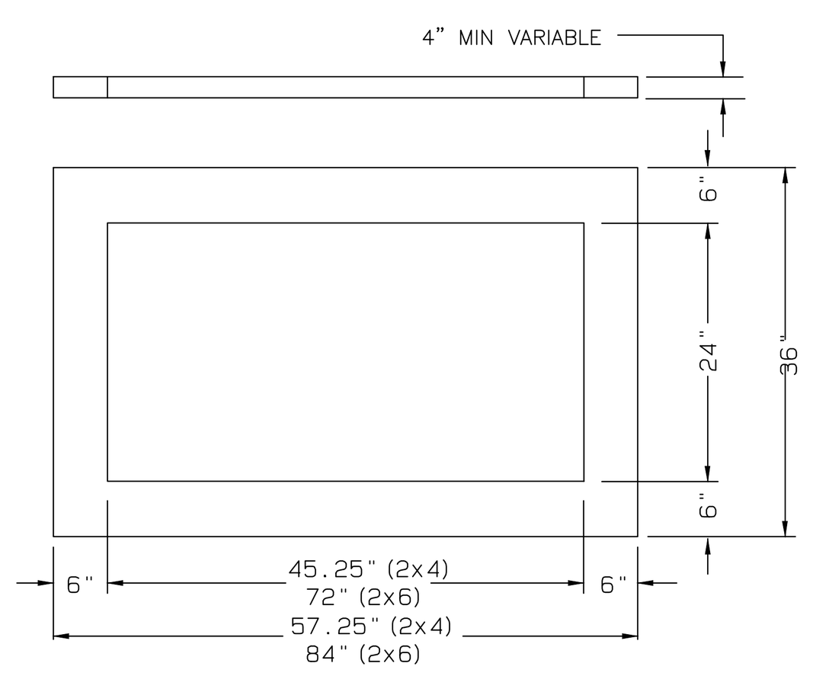
IN-LINE CLEAN-OUT DETAIL



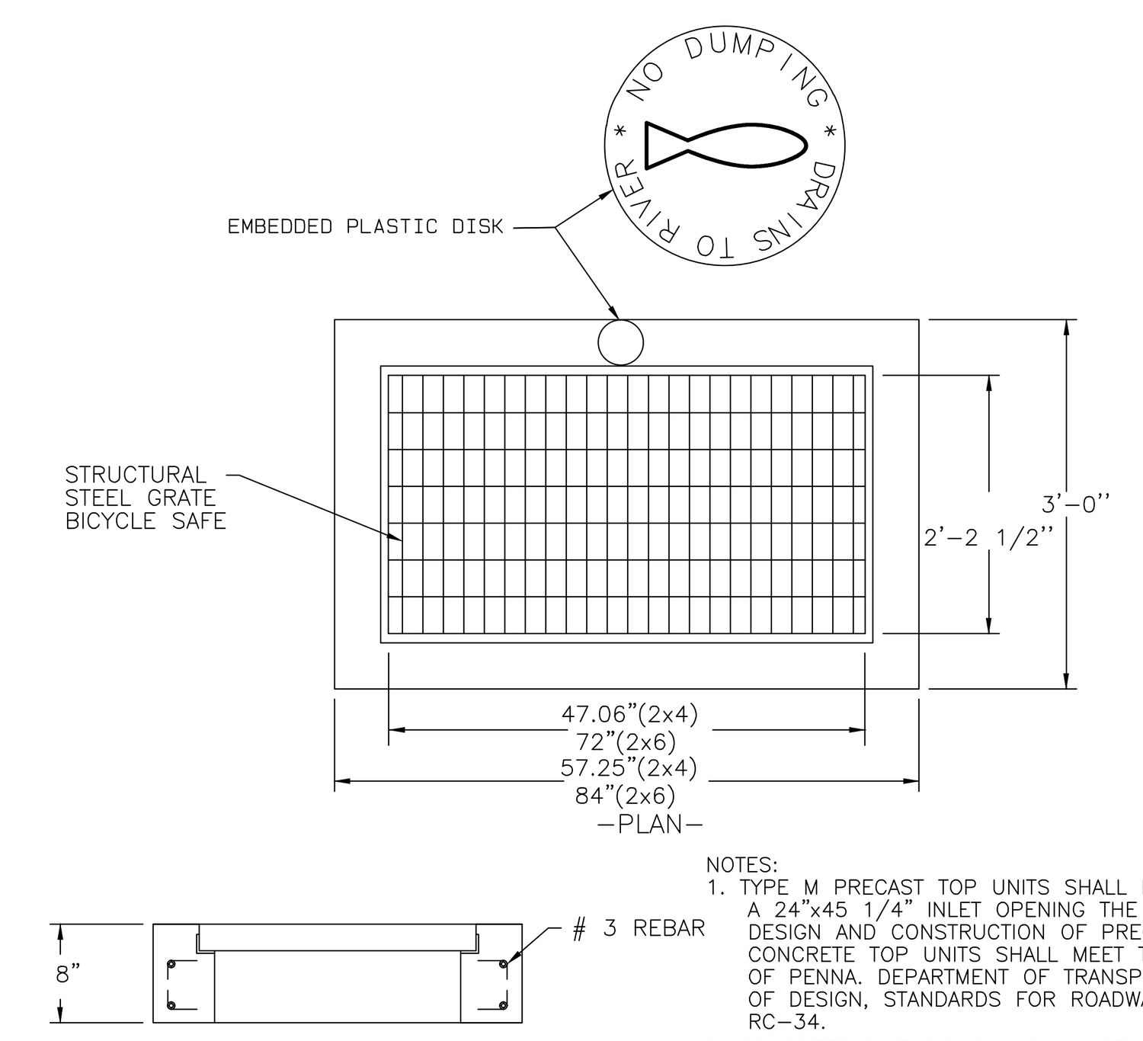
NOTES:
1. ALL BACKFILL MATERIAL TO BE COMPACTED IN MAX. 6" LIFTS.
2. SLCPP PIPES SHALL HAVE WATER TIGHT JOINTS MEETING ASTM STANDARD (ASTM D-3212.)

TRENCH DEPTH	MAXIMUM PAVEMENT WIDTH–REPAVING
0' – 12'	O.D. + 5'-4"
12' – 18'	O.D. + 6'-4"
18' – 34'	O.D. + 7'-4"

STORM SEWER BEDDING AND BACKFILL FOR CORRUGATED POLYETHYLENE PIPE

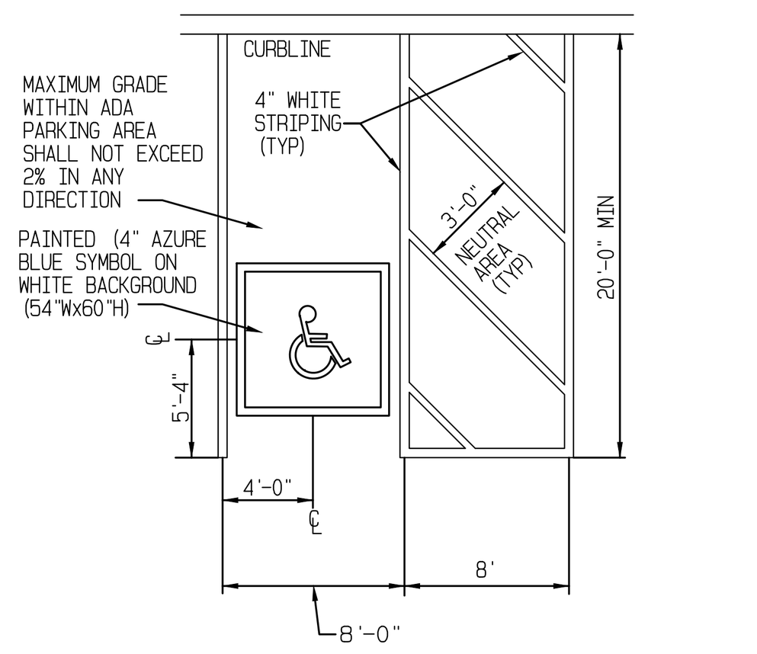


GRADE ADJUST RING (PRECAST)



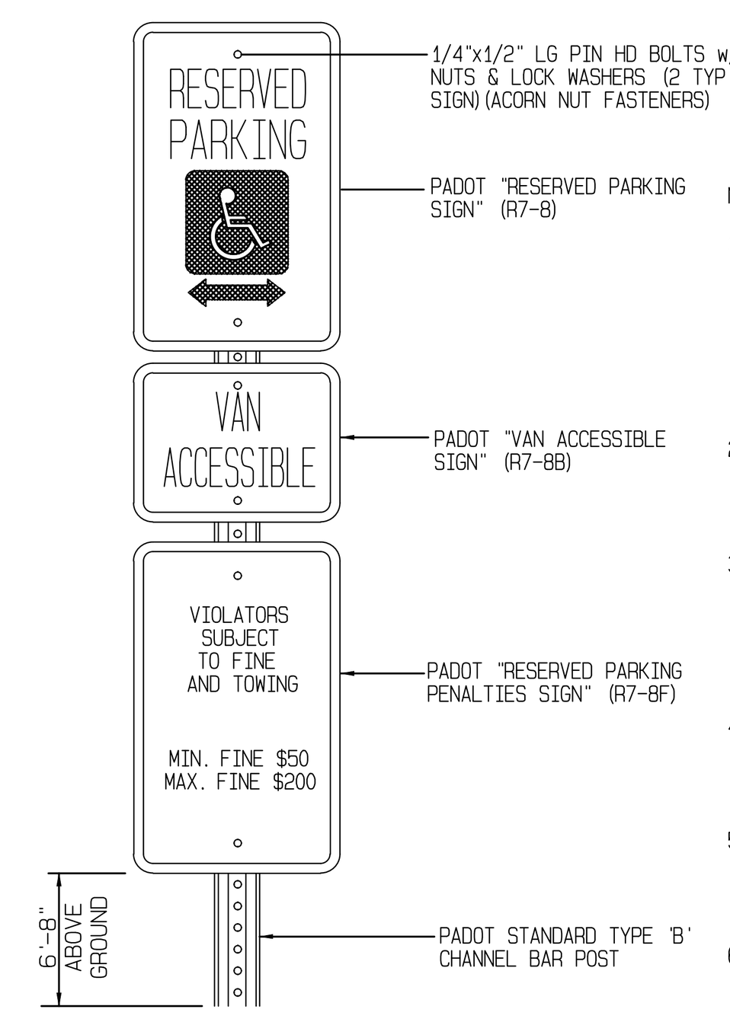
NOTES:
1. TYPE M PRECAST TOP UNITS SHALL BE USED OVER A 24"x45 1/4" INLET OPENING THE MATERIALS. DESIGN AND CONSTRUCTION OF PRECAST REINFORCING CONCRETE TOP UNITS SHALL MEET THE COMMONWEALTH OF PENNA. DEPARTMENT OF TRANSPORTATION BUREAU OF DESIGN, STANDARDS FOR ROADWAY CONSTRUCTION RC-34.
2. CONCRETE DIMENSIONS SHOWN ARE NOMINAL AND MINIMUM DIMENSIONS. ALL VERTICAL SURFACES ARE DRAFTED.
3. TOP UNITS ARE PROVIDED WITH DEFORMED STEEL REINF.
4. USE MASTIC OR EQUIVALENT TO SEAL ALL JOINTS IN THE INLET BOX AND TOP UNIT IN ALL INLETS LOCATED IN GRASS AREAS AND PCSWM BMP AREAS.
5. MANHOLES AND INLETS MUST CONFROM TO THE STANDARDS ESTABLISHED BY PennDOT AND MUST BE SUPPLIED BY A PennDOT BULLETIN 15 APPROVED SUPPLIER

TYPE M INLET



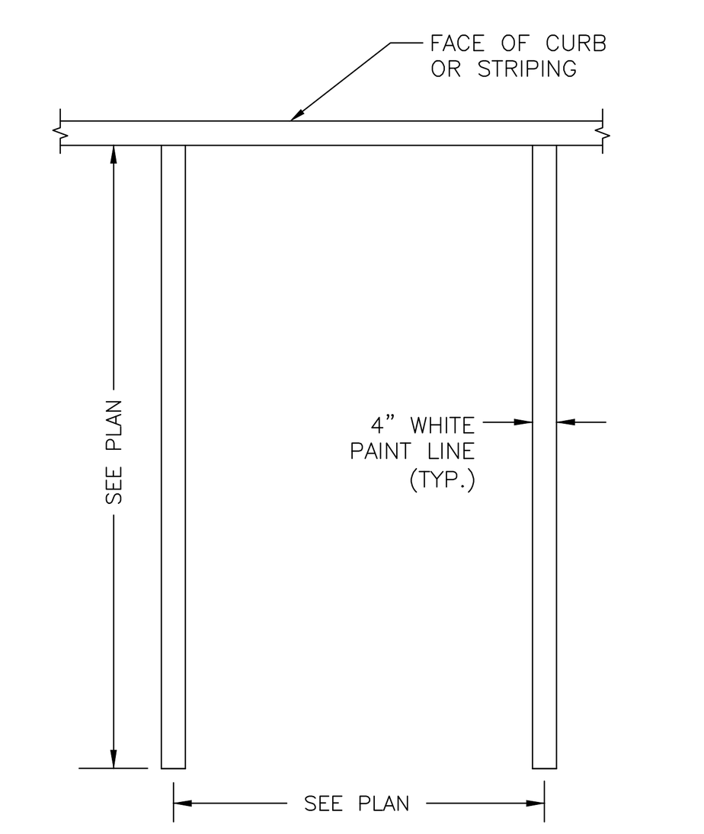
NOTES:
1. CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.
2. CURB RAMPS, PAVEMENT MARKINGS, & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH LATEST ADA ACCESSIBILITY GUIDELINES.

ADA ACCESSIBLE PARKING SPACE STRIPING DETAIL



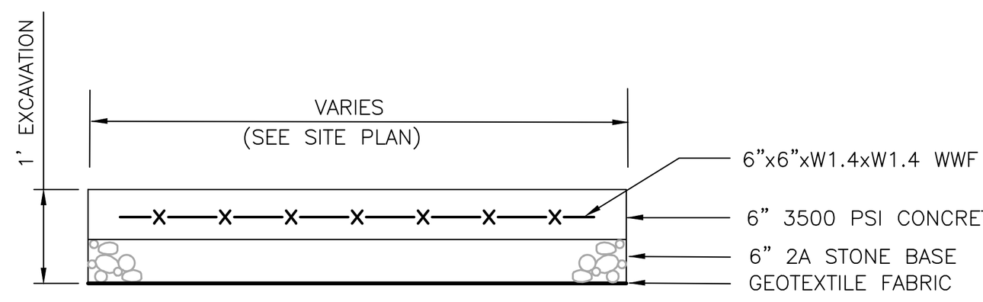
NOTES:
1. POST MOUNTED SIGNS SHALL BE TYPE B CHANNEL BAR POSTS AND SHALL CONFORM TO PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEET 8 THRU 11 OF 11. APPROPRIATE POSTS SHALL BE SELECTED BASED ON THE SIZE OF THE SIGN USING THE SELECTION TABLES CONTAINED THEREIN.
2. SIGN INSTALLATION SHALL BE IN ACCORDANCE WITH PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEET 8 THRU 11, AS AMENDED.
3. SEE CIVIL PLANS FOR EXACT LOCATION, TYPE AND SIZE OF SIGNS. ALL REGULATORY (R SERIES), SIGNS SHALL CONFORM TO THE PADOT "HANDBOOK OF APPROVED SIGNS", PUBLICATION 236M, AS AMENDED, UNLESS OTHERWISE SPECIFIED.
4. SIGNS SHALL BE SETBACK 2.0' FROM SURB LINES OR OTHER OBSTRUCTIONS AS MEASURED FROM THE FACE/EDGE OF THE SIGN.
5. RESERVED PARKING SPACE SIGNS SHALL CONFORM TO DEPARTMENT OF JUSTICE "ADA STANDARDS FOR ACCESSIBLE DESIGN" AS AMENDED.
6. ALL SIGNS SHALL BE INSTALLED WITH ACORN NUT FASTENERS.

RESERVED PARKING SPACE w/ PENALTIES & VAN ACCESSIBLE SIGNS

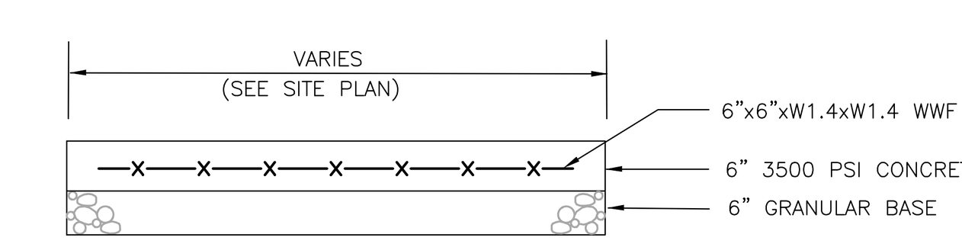


NOTES:
1. PROVIDE 2 COATS OF PAINT ON ALL SURFACES.
2. SEE PLAN FOR SPACE LOCATION AND DIMENSIONS.

TYPICAL PARKING SPACE DETAIL



CONCRETE FLOOR REPAIR DETAIL



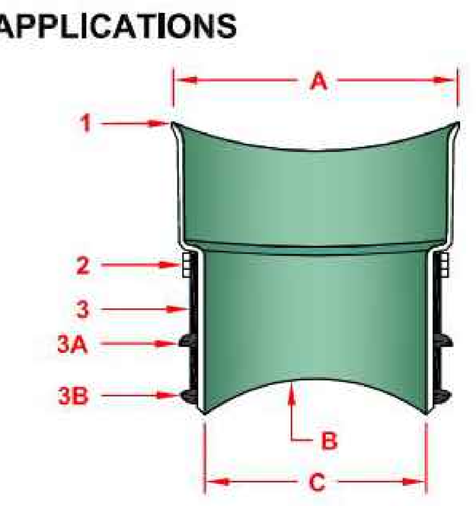
CONCRETE GENERATOR PAD DETAIL

CORRUGATED HDPE/PP BELL GRAVITY APPLICATIONS

A. BELL END ACCEPTS CORRUGATED HDPE/PP DUAL WALL PIPE–ADS/HANCOR INC. SPECIFICATIONS IN 4", 6", 8", 10", 12", 15", 18", 21", 24", AND 30" SIZES.

B. CURVATURE VARIES WITH MAINLINE DIAMETERS.

C. SPIGOT END PVC SDR 35, ASTM D3034 DIAMETERS: 4", 6", 8", 10", 12", 15", 18", 21", 24" AND 30"



PART	PART NAME	MATERIALS
1	HUB ADAPTOR	PVC SDR 26 ASTM D3034
2	SECURING CLAMP*	BAND SS #301 SCREW SS #305 HOUSING SS #301
3	RUBBER SLEEVE (AVAILABLE IN NITRILE AND EPDM BY SPECIAL ORDER)	ASTM F477
3A	UPPER SEGMENT**	
3B	LOWER SEGMENT***	
4	(NOT SHOWN) ADS/HANCOR INC. SUPPLIES VALLEY GASKET	

* OPTIONAL: #316 STAINLESS STEEL BAND, SCREW AND HOUSING
** DISTANCE BETWEEN 4A AND 4B WILL VARY BY PRODUCT TYPE
*** WILL NOT APPEAR ON RUBBER SLEEVES FOR CONCRETE OR CLAY PIPE

INSERTA TEE SIZE		HOLE DIAMETER	
4"	(100 mm)	4 1/2"	(114 mm)
6"	(150 mm)	6 1/2"	(165 mm)
8"	(200 mm)	8 3/4"	(222 mm)
10"	(250 mm)	10 7/8"	(276 mm)
12"	(300 mm)	12 7/8"	(327 mm)
15"	(375 mm)	15 13/16"	(402 mm)
18"	(450 mm)	19 3/16"	(503 mm)
21"	(525 mm)	22 9/16"	(573 mm)
24"	(600 mm)	25 5/16"	(643 mm)
30"	(750 mm)	32 17/32"	(826 mm)

NOTE: RECOMMENDED METHOD OF CUTTING HOLE IS WITH HOLE SAW FOR PVC AND OTHER PLASTICS, AND DIAMOND BIT FOR CONCRETES, CLAY, FRP AND D.I. (SEE INSTALLATION INSTRUCTIONS. HOLE SAWS ARE AVAILABLE FOR PURCHASE OR RENT.)

INSERTA TEE | PO BOX 714
CORNELIUS, OR 97116
PH:(503) 357-2110 FAX:(503) 359-5417
SALES@INSERTATEE.COM

CORRUGATED HDPE/PP BELL GRAVITY APPLICATION SPECIFICATIONS

SCALE: NTS
DATE: 9/12/2013
DRAWN BY: KLJ

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

McCARTHY ENGINEERING ASSOCIATES, INC.
555 Van Reed Road, Suite 2, Wyomissing, PA 19610
www.McCarthy-Engineering.com
Phone: 610.373.8001
2500 East High Street, Suite 630, Pottstown, PA 19464

SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JAMES C. McCARTHY PE-051494E

ISSUED FOR BID
CONSTRUCTION DETAILS
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 19, 2023

DRAWN BY:	PROJ. MANAGER:
AMK	JCM
PRINCIPAL:	SCALE:
JCM	NOT TO SCALE

SHEET NO. C6.0

PLAN NO. 230004-08- CD-06

Plot Date: 8/10/2023 10:24 AM P:\04_Wyomissing\2023\08-Public Works Descope\Design\CADD Files\P-Details.dwg

GENERAL NOTES:

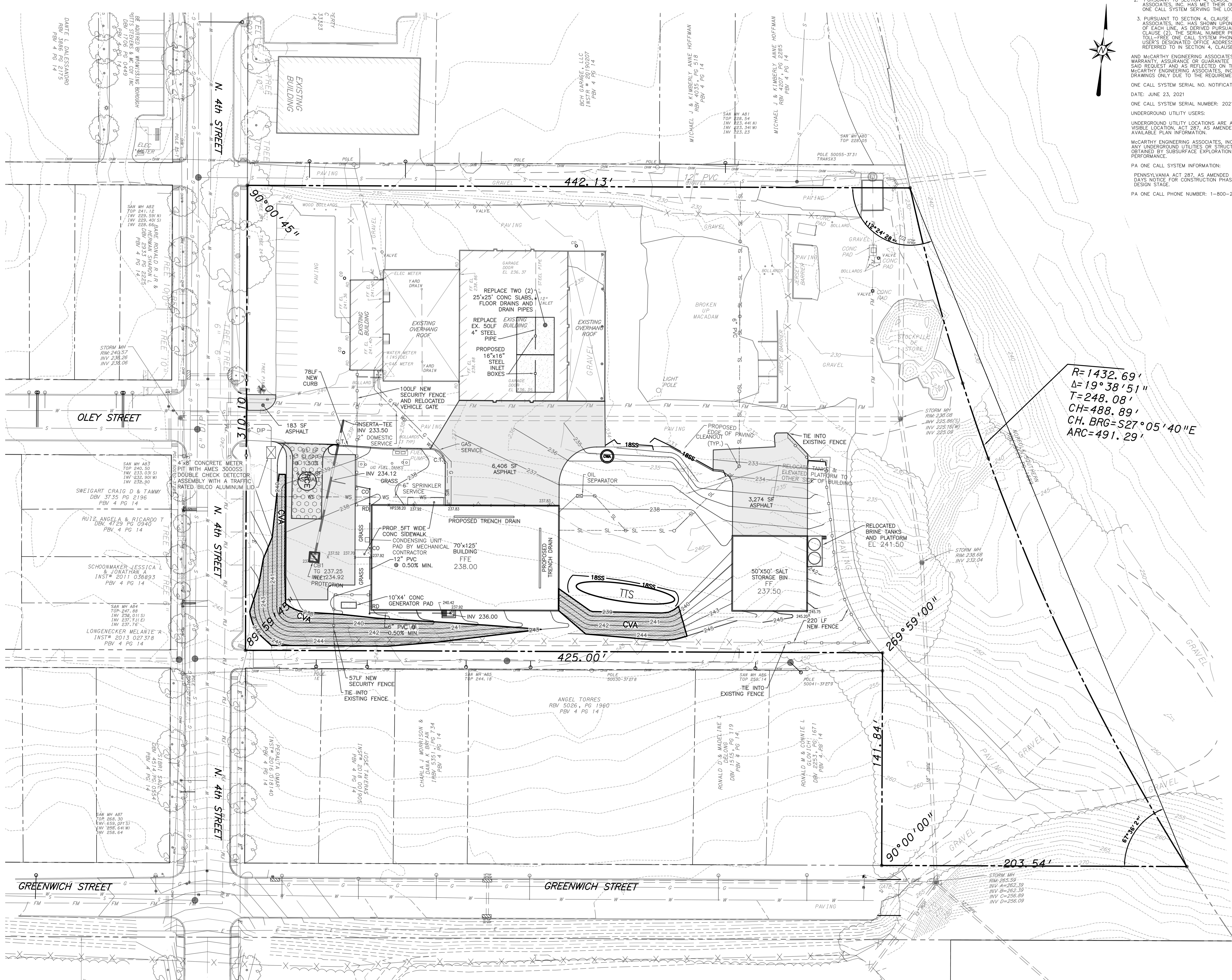
1. THIS PLAN IS FOR IMPLEMENTATION OF E&S CONTROL MEASURES & FACILITIES ONLY, THIS PLAN SHOULD NOT BE USED FOR CONSTRUCTION OF NON-E&S CONTROL IMPROVEMENTS.

SOILS LEGEND

UnB - URBAN LAND-DUFFIELD COMPLEX, 0 TO 8 PERCENT SLOPES (ENTIRE SITE)

RECEIVING WATERSHED AND CHAPTER 93 CLASSIFICATION:

SCHUYLKILL RIVER - WWF,MF



ONECALL NOTES:

PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121 REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.

ACT 287 UNDERGROUND UTILITY PROTECTION ACT, AS AMENDED BY ACT 121

McCARTHY ENGINEERING ASSOCIATES, INC. HEREBY STATES THAT, PURSUANT TO THE PROVISIONS OF ACT NO. 121 OF OCTOBER 2008, OF THE PENNSYLVANIA LEGISLATURE, IT HAS PERFORMED THE FOLLOWING IN PREPARING THESE DRAWINGS REQUIRING EXCAVATION OR DEMOLITION WORK AT SITES WITHIN THE POLITICAL SUBDIVISION(S) SHOWN ON THE DRAWINGS:

1. PURSUANT TO SECTION 4, CLAUSE (2) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. REQUESTED FROM EACH USER'S OFFICE DESIGNATED ON SUCH LIST PROVIDED BY THE ONE CALL SYSTEM NOTIFICATION, THE INFORMATION PRESCRIBED BY SECTION 4, CLAUSE (2) OF SAID ACT, NOT LESS THAN (10) NOR MORE THAN (90) WORKING DAYS BEFORE FINAL DESIGN TO BE COMPLETED.
2. PURSUANT TO SECTION 4, CLAUSE (5) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. HAS MET THEIR OBLIGATIONS OF CLAUSE (2) BY CALLING THE ONE CALL SYSTEM SERVING THE LOCATION WHERE EXCAVATION IS TO BE PERFORMED.
3. PURSUANT TO SECTION 4, CLAUSE (3) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. HAS SHOWN UPON THESE DRAWINGS "THE POSITION AND TYPE OF EACH LINE, AS DERIVED PURSUANT TO THE REQUEST MADE AS REQUIRED BY CLAUSE (2), THE SERIAL NUMBER PROVIDED BY THE ONE CALL SYSTEM, THE TOLL-FREE ONE CALL SYSTEM PHONE NUMBER, AND THE NAME OF THE USER, THE USER'S DESIGNATED OFFICE ADDRESS AND PHONE NUMBER AS SHOWN ON THE LIST REFERRED TO IN SECTION 4, CLAUSE (5) OF SAID ACT."

AND McCARTHY ENGINEERING ASSOCIATES, INC. DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND AS REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT McCARTHY ENGINEERING ASSOCIATES, INC.. IS REFLECTING SAID INFORMATION ON THESE DRAWINGS ONLY DUE TO THE REQUIREMENTS OF THE SAID ACT NO. 121 OF OCTOBER 2008.

ONE CALL SYSTEM SERIAL NO. NOTIFICATION BY McCARTHY ENGINEERING ASSOCIATES, INC..

DATE: JUNE 23, 2021

ONE CALL SYSTEM SERIAL NUMBER: 20211730550

UNDERGROUND UTILITY USERS:

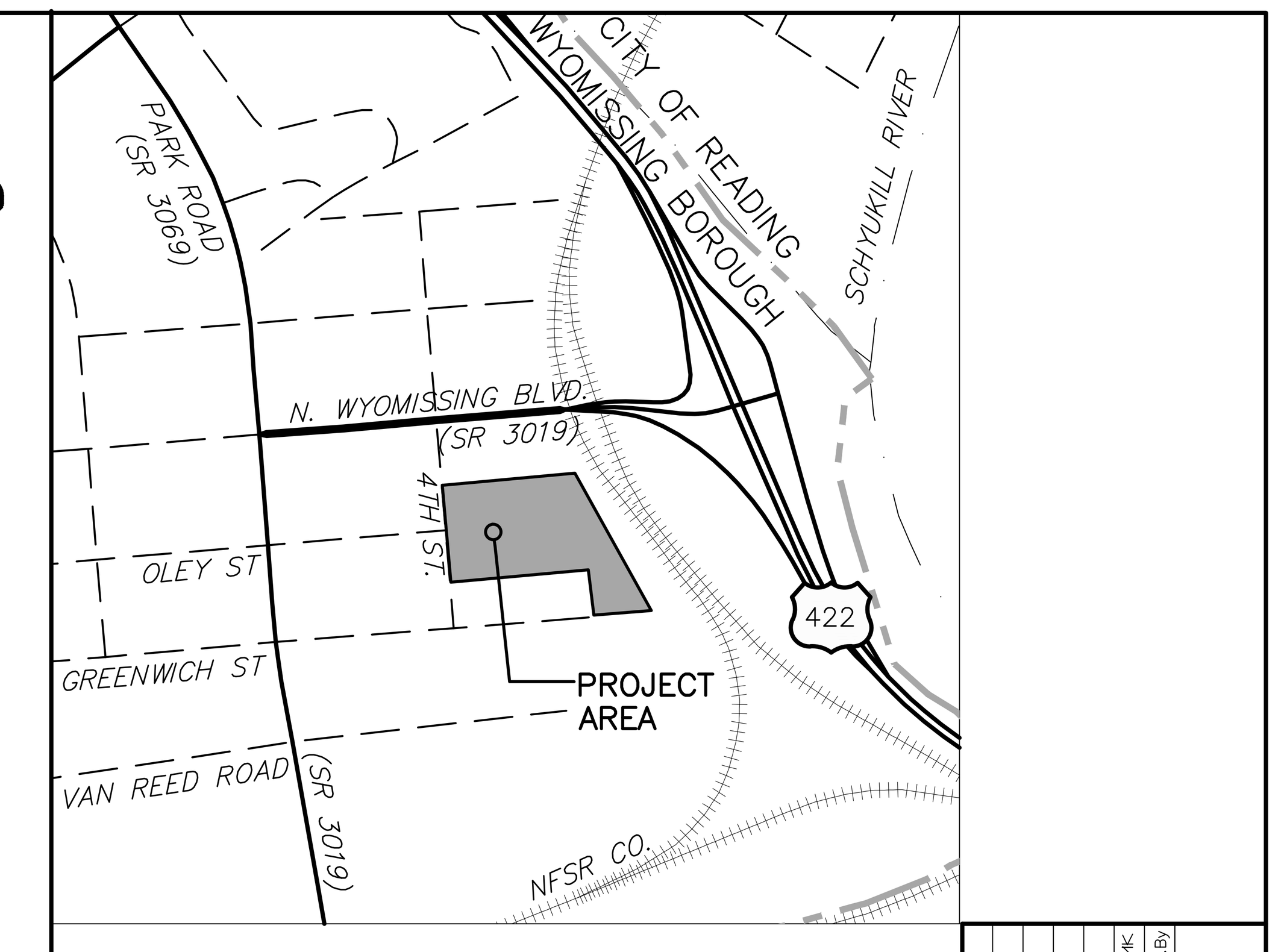
UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND WERE DETERMINED FROM VISIBLE LOCATION, ACT 287, AS AMENDED BY ACT 121, UTILITY RESPONSES AND/OR BEST AVAILABLE PLAN INFORMATION.

McCARTHY ENGINEERING ASSOCIATES, INC. CANNOT GUARANTEE THE EXACT LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. AN EXACT LOCATION CAN ONLY BE OBTAINED BY SUBSURFACE EXPLORATION, WHICH IS NOT A PART OF THIS CONTRACT PERFORMANCE.

PA ONE CALL SYSTEM INFORMATION:

PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121, REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND FIVE (5) WORKING DAYS NOTICE IN DESIGN STAGE.

PA ONE CALL PHONE NUMBER: 1-800-242-1776



LOCATION MAP
SCALE IN FEET
500 0 500 1000

LEGEND:

Symbol	Description
12SS	12" COMPOST FILTER SOCK
18SS	18" COMPOST FILTER SOCK
24SS	24" COMPOST FILTER SOCK
—x—x—	ORANGE CONSTRUCTION FENCE
	SOIL LINE
	LIMIT OF DISTURBANCE
	NPDES PERMIT BOUNDARY
	DIVERSION FILTER LOG
300	TEMPORARY GRADING
	RIP RAP LINED SWALE
RCE	ROCK CONSTRUCTION ENTRANCE
TTS / 18SS	TEMPORARY TOPSOIL STOCKPILE
	ROCK FILTER
CWA	CONCRETE WASHOUT AREA
	CURBED ROADWAY STORM INLET PROTECTION AND BERM(S)
	SILT SACK
	TEMPORARY CHANNEL LINING
C.V.A.	CRITICAL VEGETATIVE AREA (C.V.A.) EAST COAST EROSION CONTROL BLANKET ECSC-2 MATTING OR EQUAL (TO BE USED ON ALL SLOPES 3:1 AND STEEPER)
	CLEANOUT STAKE

SITE LEGEND:

Symbol	Description
S	*EXISTING SANITARY SEWER & MANHOLE*
SL	PROPOSED SANITARY LATERAL
	EXISTING STORM SEWER & CATCH BASIN
W	*EXISTING WATER LINE & VALVE*
W	PROPOSED WATER LINE & VALVE
	EXISTING FIRE HYDRANT & VALVE
WS	PROPOSED WATER SERVICE
E	*EXISTING ELECTRIC*
E	PROPOSED ELECTRIC
OHW	*EXISTING OVERHEAD WIRE*
x 451.25	*EXISTING SPOT ELEVATION*
x 451.25	PROPOSED SPOT ELEVATION
450	*EXISTING CONTOURS*
450 / 448	PROPOSED CONTOURS
G	*EXISTING GAS LINE & VALVE*
G	PROPOSED GAS LINE
	PROPOSED GAS SERVICE
T	*EXISTING TELEPHONE*
T	PROPOSED TELEPHONE
	EXISTING LIGHTING FEATURES
	EXISTING UTILITY POLE
DC	*EXISTING CURB AND DEPRESSED CURB*
C.T.	PROPOSED CURB & CURB TRANSITION
	EXISTING SIGNS
	EXISTING FENCE
	PROPOSED FENCE
	EXISTING TREE LINE
	EXISTING RIP RAP

GRAPHIC SCALE
1" = 30'
0 30' 60' 90'

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

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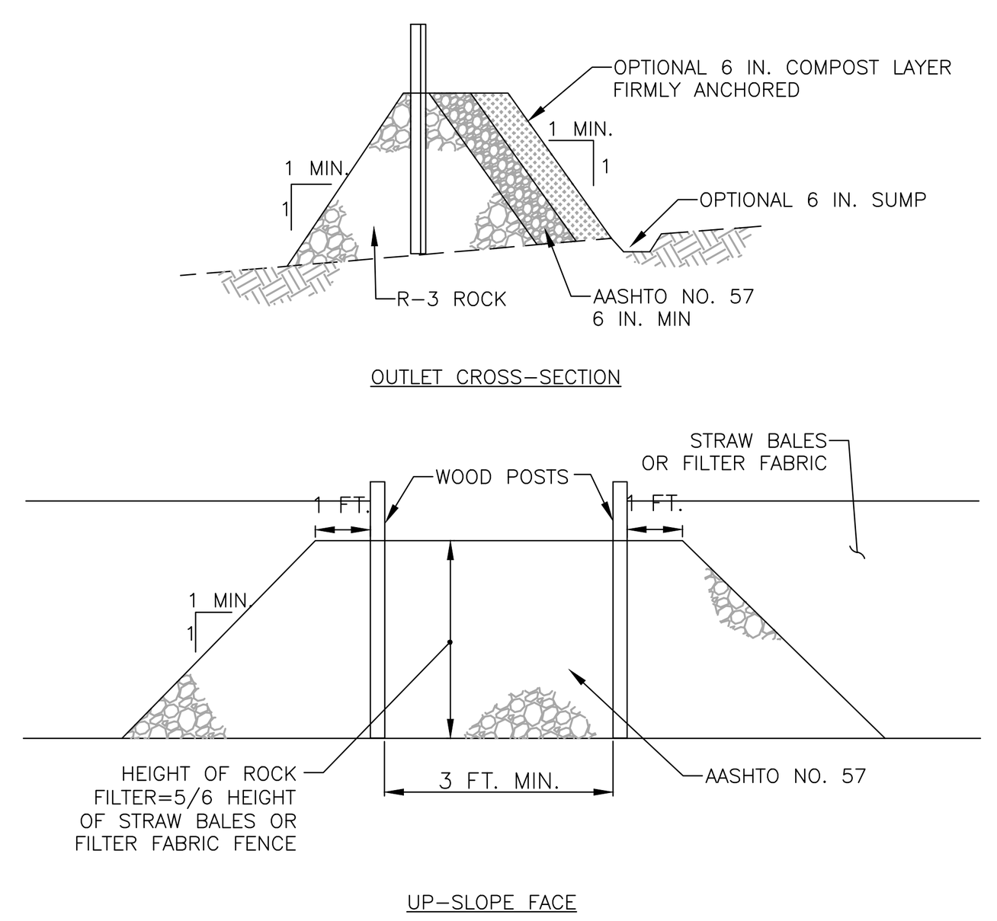
SEAL: REGISTERED PROFESSIONAL ENGINEER JAMES C. McCARTHY PE-054946

ISSUED FOR BID
E&S CONTROL PLAN
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 19, 2023

DRAWN BY: AMK	PROJ. MANAGER: JCM
PRINCIPAL: JCM	SCALE: 1"=30'
SHEET NO. C7.0	
PLAN NO. 230004-08- ES-07	

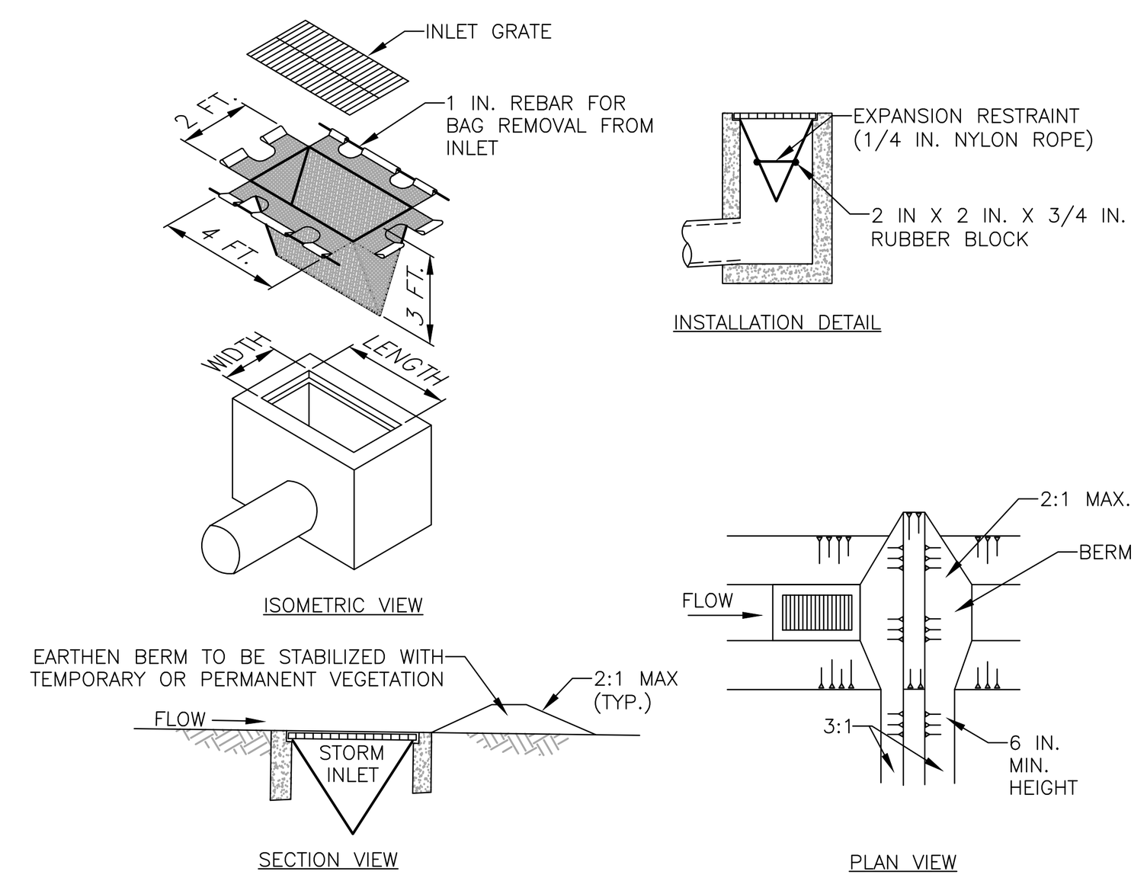


NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

ROCK FILTER OUTLET



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

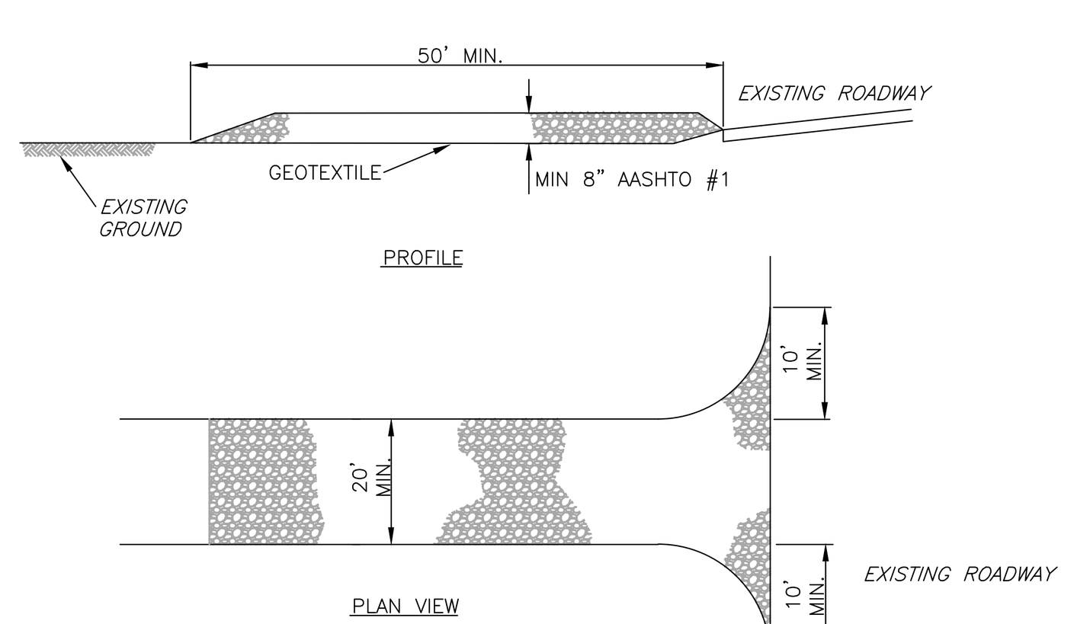
ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

FILTER BAG INLET PROTECTION – TYPE M INLET



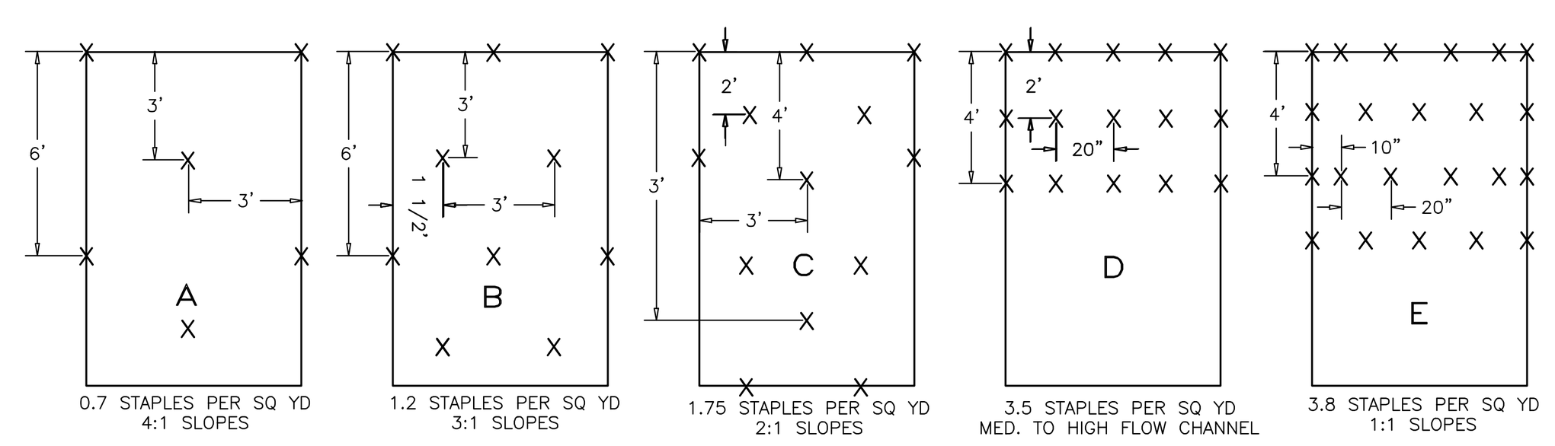
NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

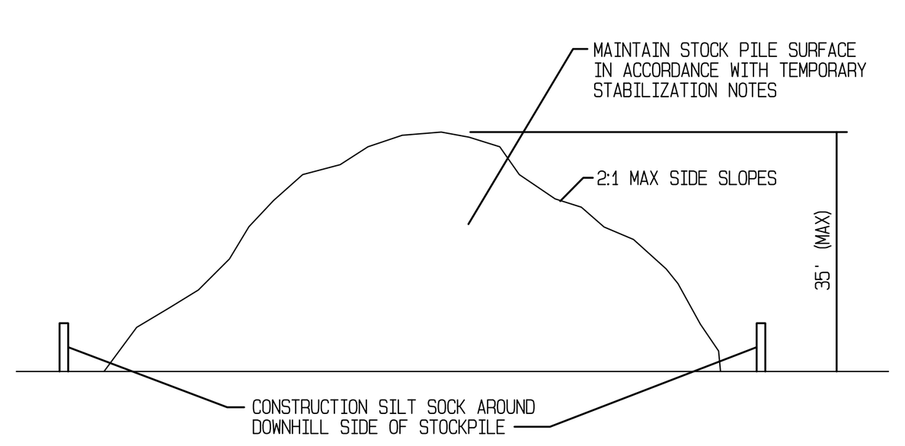
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

ROCK CONSTRUCTION ENTRANCE



STAPLE PATTERN GUIDE



NOTES:
1. STOCKPILES TO BE STABILIZED IMMEDIATELY.
2. STOCKPILE HEIGHTS MUST NOT EXCEED 35'.
3. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

TEMPORARY STOCKPILE DETAIL

TABLE 4.1
Compost Sock Fabric Minimum Specifications

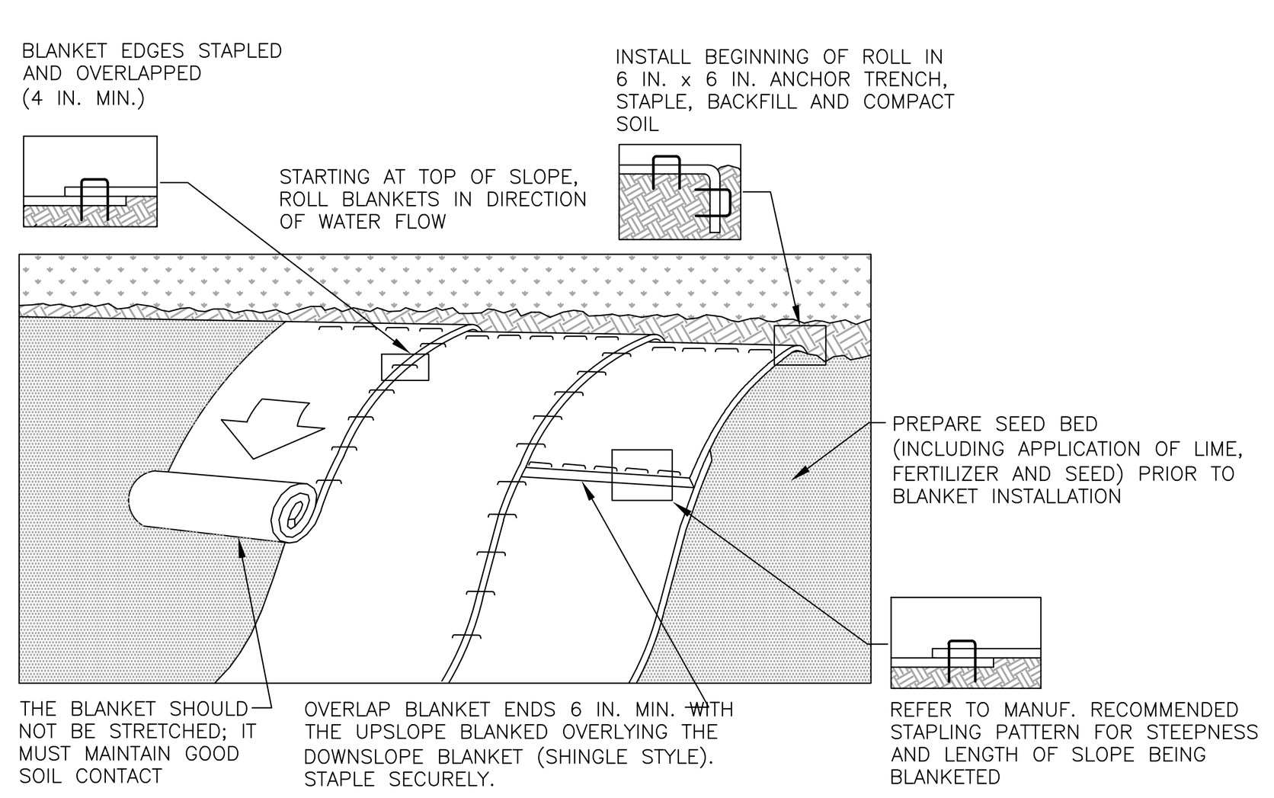
Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years
Two-ply systems					
Inner Containment Netting			HDPE biaxial net; Continuously wound; Fusion-welded junctures; 3/4" X 3/4" Max. aperture size		
Outer Filtration Mesh			Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch); 3/16" Max. aperture size		
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.					

Filtrexx & JMD

TABLE 4.2
Compost Standards

Organic Matter Content	80% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 - 8.0
Moisture Content	35% - 55%
Particle Size	98% pass through 1" screen
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum

Filtrexx



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

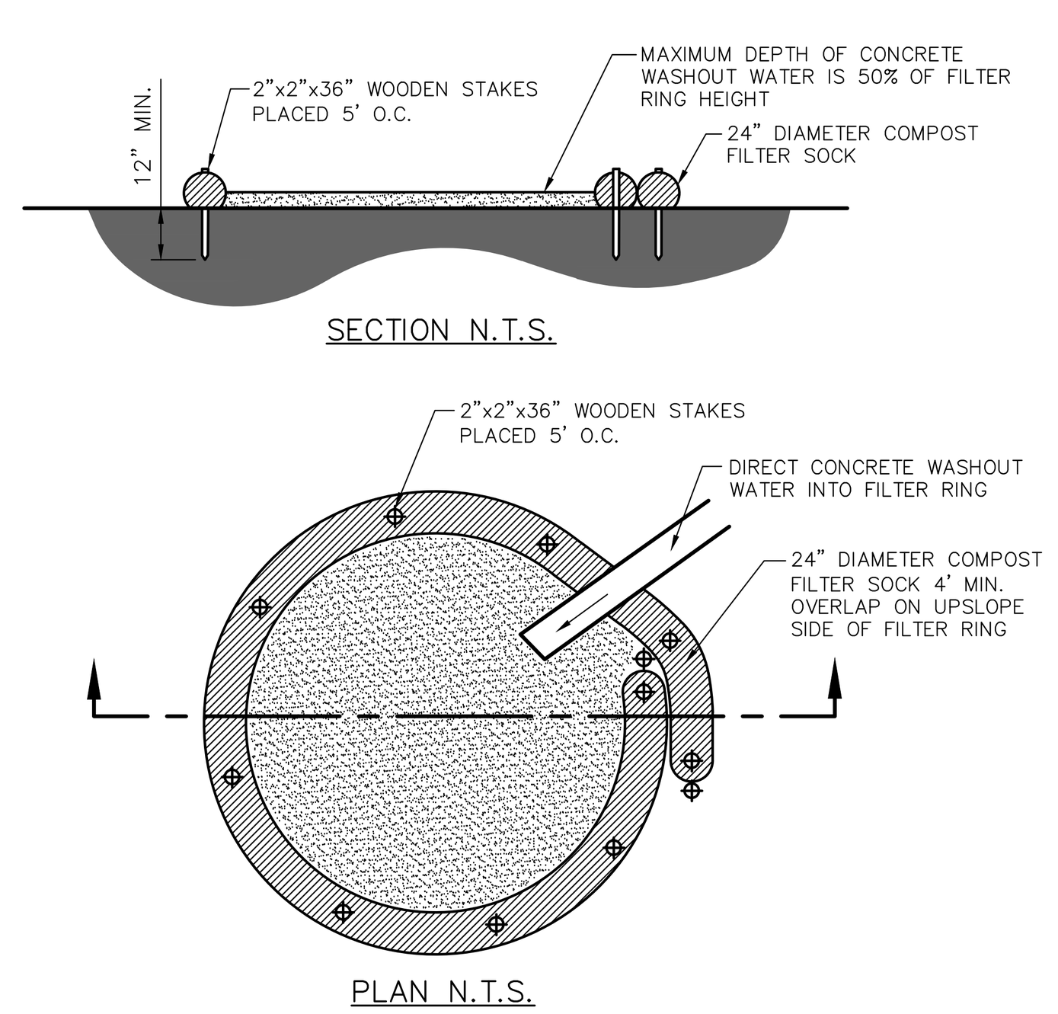
SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

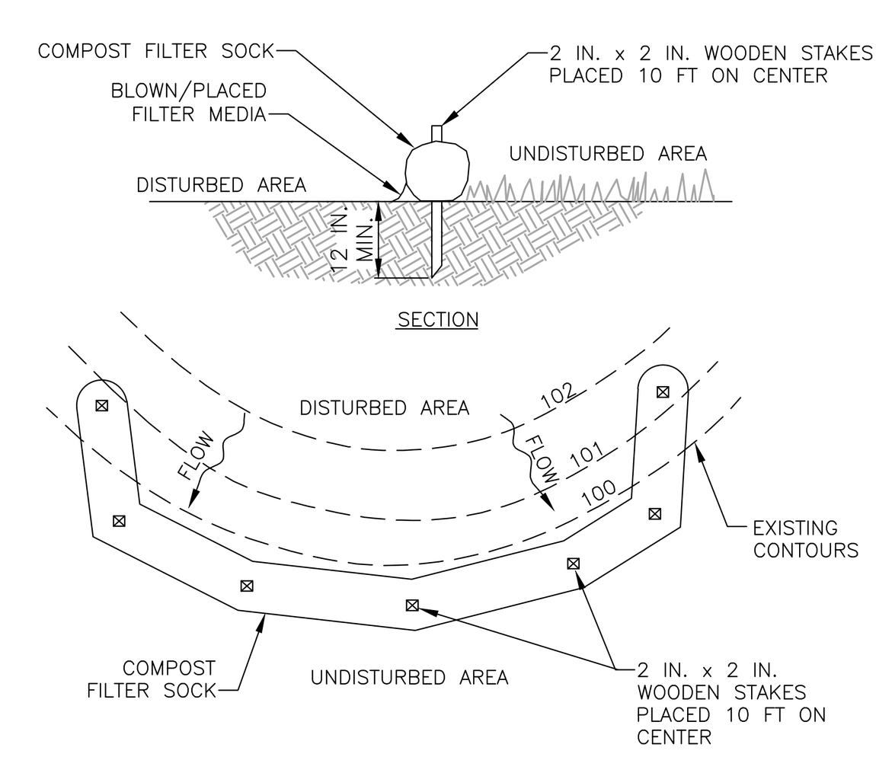
BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

EROSION CONTROL BLANKET INSTALLATION



NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.

COMPOST SOCK WASHOUT INSTALLATION



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

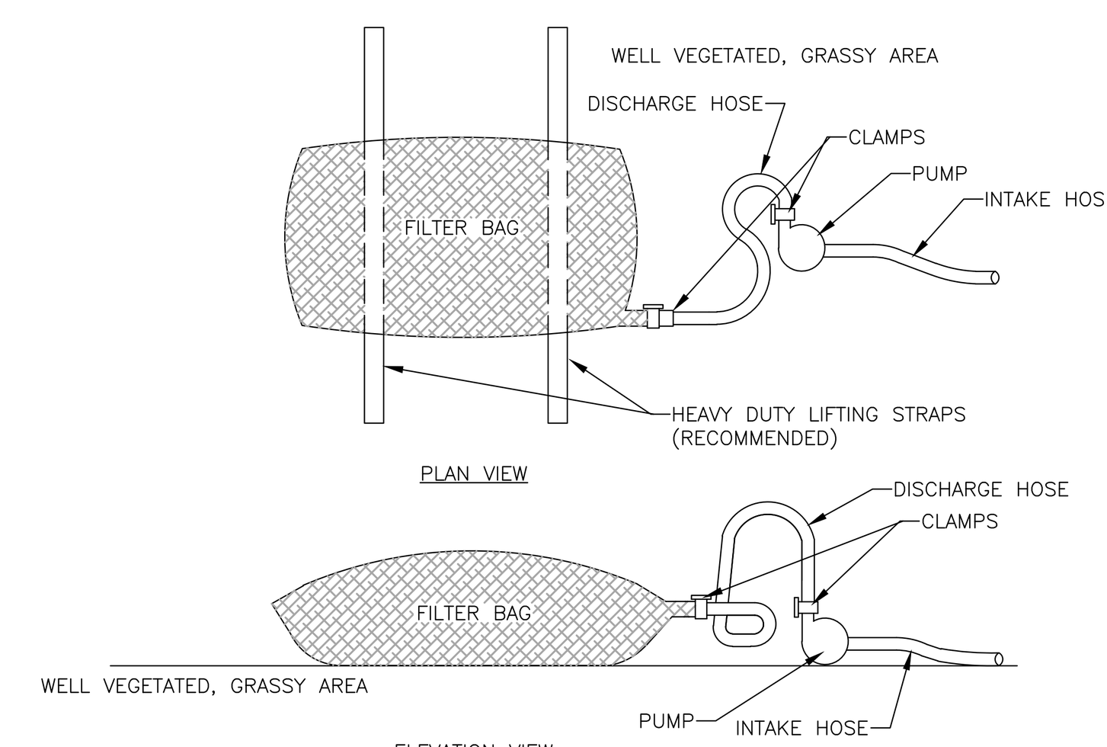
ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST FILTER SOCK



NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PUMPED WATER FILTER BAG

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

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2500 East High Street, Suite 630, Pottstown, PA 19464

SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JAMES C. McCARTHY PE-051494E

ISSUED FOR BID
E&S CONTROL DETAILS
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 19, 2023

DRAWN BY: AMK	PROJ. MANAGER: JCM
PRINCIPAL: JCM	SCALE: NOT TO SCALE

SHEET NO. C7.1

PLAN NO. 230004-08- ESD-08

102.4(b)(3) E&S CONTROL PLAN/NARRATIVE PREPARER QUALIFICATIONS

The Erosion and Sedimentation (E&S) Control Plan & Narrative Plan for this Project has been prepared by the firm of McCarthy Engineering Associates, Inc. The following information is presented in accordance with pertinent regulations regarding provision of qualifications demonstrating the proper training and experience of personnel to perform preparation of E&S Control plans and narratives.

COMPANY INFORMATION

McCarthy Engineering Associates, Inc.
555 Van Reed Road
Wyomissing, PA 19610
(610) 373-8001
(610) 373-8077 (fax).
www.mccarthy-engineering.com

McCarthy Engineering Associates, Inc. is a professional consulting firm located in Wyomissing, Pennsylvania, and incorporated in 2000. The firm provides professional engineering and environmental services to clients in the land development and subdivision business.

102.4(b)(5)(i) THE EXISTING TOPOGRAPHIC FEATURES OF THE PROJECT SITE AND THE IMMEDIATE SURROUNDING AREA

The E&S Control Plan prepared for this Project depicts all existing and proposed topographical features and improvements. All existing streams, wetlands and receiving watercourses are shown on the plan. In addition, the proposed facilities relating to temporary and permanent erosion and sedimentation control are indicated. Existing Topographical information presented was obtained and compiled from actual field surveys. A U.S.G.S. Location Map is provided in the appendix of this report. A location map is also provided on the E&S Control Plan.

EXISTING TOPOGRAPHIC FEATURES OF SPOIL, BORROW AND RELATED AREAS NOT LOCATED WITHIN PRIMARY PROJECT AREA.

All soil disturbance will take place within the boundaries of the tract being developed. Areas required for spoil, borrow, stockpiling and similar activities will be confined to areas of the tract slated for development.

102.4(b)(5)(ii) THE TYPES, DEPTH, SLOPE, LOCATIONS AND LIMITATIONS OF THE SOILS

The project site is comprised of the soils types as listed below. Information relating to soils types were obtained from the Web Soil Survey for Berks County, Pennsylvania. The soils listed below are delineated on the E&S Control Plan.

- Urban Land Duffield Complex.

SOIL LIMITATIONS & RESOLUTIONS

Soil limitations and resolutions can be found in Appendix A of this report.

HYDRIC SOILS

Based on the Web Soil Survey, no hydric soils are present at 601 N. 4th Street.

102.4(b)(5)(iii) THE CHARACTERISTICS OF THE EARTH DISTURBANCE ACTIVITY, INCLUDING THE PAST, PRESENT, AND PROPOSED LAND USES AND THE PROPOSED ALTERATION TO THE PROJECT SITE

This project includes the addition of a new building, as well as several storage units, to the existing Wyomissing Public Works facility. The project is located on the east side of 4th Street, at its intersection with Oley Street. The existing land use is meadows.

The proposed improvements include a 8,750 square foot building containing offices, a mechanic shop and wash bay. In addition to these improvements, there will be a 2,500 square foot salt storage bin. The proposed building will be serviced by public sewer and water.

All proposed physical alterations to the tract have been depicted and indicated on the project plans. The limits of construction have been delineated on the E&S Control Plans and include all proposed alterations as described above. Off-tract development will include connection to water mains and other utilities.

All soil disturbances will take place within the boundaries of the tract being developed.

102.4(b)(5)(v) THE LOCATION OF WATERS OF THE COMMONWEALTH WHICH MAY RECEIVE RUNOFF WITHIN OR FROM THE PROJECT SITE AND THEIR CLASSIFICATION PURSUANT TO CHAPTER 93 OF THIS TITLE

No streams, wetlands and floodplain / floodways exist on the development site.

Receiving watercourse for this project is the Schuylkill River, which has a Chapter 93 Classification of WWF, MF (warm water fishes, migratory fishes). The Schuylkill River also has a TMDL for PCB.

102.4(b)(5)(vi) A WRITTEN DEPICTION OF THE LOCATION AND TYPE OF PERIMETER AND ON SITE BMPs USED BEFORE, DURING, AND AFTER THE EARTH DISTURBANCE ACTIVITY

The following E&S control devices will be employed for the purposes of controlling and mitigating erosion and sediment pollution on this Project, on a temporary basis during the active construction phases of the project. Proper employment, utilization and maintenance of these facilities should result in minimal negative impacts until final stabilization is achieved upon completion of the project.

CONSTRUCTION ENTRANCE / CONSTRUCTION PROTECTION FENCING

Temporary construction entrances are to be constructed of crushed stone with the mat having a minimum depth of eight inches. The entrance mat will extend a minimum of 50 feet into the project from the existing edge of pavement line on the adjacent roadway. The width of the stone mat will be at least the width of access drive.

COMPOST FILTER SOCK

Compost Filter Sock shall be installed as indicated on the project E&S Control Plan at designated downslope, perimeter areas of the tract. The compost filter sock is temporary in nature. Compost Filter Socks consist of a biodegradable or photodegradable mesh tube filled with a coarse compost filter media that meets certain performance criteria including hydraulic flow through rate and solids removal, turbidity reduction, nutrient removal, metals removal and motor oil removal efficiencies.

ROCK FILTER OUTLETS

Rock filter outlets shall be immediately provided at locations where silt sock has been undermined or topped and shall be maintained until the removal of the silt fence. Temporary Rock Filter Outlets shall be constructed as indicated on the detail sheet.

PUMPED WATER FILTER BAG

Pumped Water Filter bag shall be provided as shown on the plans. Pump intake shall be maintained a sufficient distance from the bottom to prevent sediment from entering the system. Pump flow rates are not to exceed 50% of maximum flow rate as indicated by the manufacturer. Monitor and evaluate entire pumping and filtering operation to assure that the bag continues to function properly. Replace the filter bag when it is 1/2 full of sediment or when the sediment has reduced the discharged flow rate to an impractical rate or as directed by the inspector on-site.

EROSION CONTROL BLANKETS

Erosion control blankets should be used on all slopes that are 3H:1V or steeper and where potential exists for sediment pollution to receiving surface waters. Erosion control blankets should be used for all seeded areas within 50 feet of a surface water, or 100 feet of a special protection water, regardless of slope. Erosion control blankets should be installed according to the manufacturer's recommendations.

CONCRETE WASHOUT

A concrete wash area will be provided to clean out concrete delivery trucks and equipment used in concrete work. The diameter of the circular area, bounded by 24" silt sock, will be approximately 12 ft.

GENERAL NOTES

The project developer anticipates commencement of construction activities immediately following the receipt of a Final Plan Approval for the site modifications described above.

The below listed activities are presented in the general order of proper, logical and anticipated occurrence. Deviations to the indicated order may be required at such time as conditions merit. Such deviations should only be undertaken if necessary and in such a manner that the integrity of the overall project E&S Control Plan is maintained. Non-emergency deviations from the approved plans shall be validated by the Berks County Conservation District office before any adjustments are made. In the event of emergency conditions where this is not possible, the Berks County Conservation District shall be notified at the earliest possible time

Permanent stabilization is defined as a minimum uniform perennial 70% vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated erosion. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.

The developer must notify the Berks County Conservation District 72 hours before initiating any earthmoving activities.

A copy of this E&S Control report and plans must be posted at the construction site.

E&S controls must be constructed, stabilized and functional before site disturbance within the tributary areas of those controls.

Only limited disturbance will be permitted to provide access to (construct sediment traps, diversion swales, etc.) for grading and acquiring borrow to construct those controls.

All pumping of sediment laden water shall be through a pumped water filtration device, or equivalent sediment removal facility, over non-disturbed vegetated areas. Discharge points should be established to provide for maximum distance to active waterways.

Sediment must be removed from storm water inlet protection after each runoff event.

Stockpile heights must not exceed 35'. Stockpile slopes must be 2:1 or flatter.

Mulch with mulch control netting or erosion control blankets must be installed on all slopes greater than 3:1.

Hay or straw mulch must be applied at rates of at least 3.0 tons per acre.

Diversion channels, sedimentation basins, sediment traps, and stockpiles must be stabilized immediately.

Stormwater inlets, which do not discharge to sediment traps must be protected until the tributary areas are stabilized.

All excavation for utility line installation shall be limited to the amount that can be excavated, installed, backfilled, and stabilized within one working day. All excavated material shall be deposited on the upslope side of the trench.

At the end of each working day, any sediment tracked or conveyed onto a public roadway will be removed and redeposited onto the construction site. Removal can be completed through use of mechanical or hand tools, but must never be washed off the road by use of water.

Sediment removed from E&SPC controls & facilities shall be disposed of in landscaped areas outside of steep slopes, wetlands, floodplains or drainage swales and immediately stabilized, or placed in topsoil stockpiles.

Should unforeseen erosive 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 of erosion. The operator shall notify the Berks County Conservation District and/or the regional office of the Department.

Until the site has achieved final stabilization the owner and/or contractor shall properly implement, operate and maintain all the best management practices. Maintenance shall include inspections of all erosion and sedimentation control after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, re-mulching, and re-netting, must be performed immediately. If the E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required. The inspector shall provide written documentation of inspection and repair /replacement of BMPs by the contractor.

Until the site has achieved final stabilization the owner and/or contractor shall properly implement, operate and maintain all the best management practices. Maintenance shall include inspections of all erosion and sedimentation control after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, re-mulching, and re-netting, must be performed immediately. If the E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required.

Immediately after earth disturbance activities cease in any area or subarea of the project, the operator shall stabilize all disturbed areas. During non-germinating months, mulch or protective blanketing shall be applied as described on the plan. Areas not at finished grade, which will be reactivated within 1 year, may be stabilized in accordance with the temporary stabilization specifications. Those areas which will not be reactivated within 1 year shall be stabilized in accordance with the permanent stabilization specifications.

After final site stabilization has been achieved, temporary erosion and sedimentation controls must be removed. Areas disturbed during removal of the controls must be stabilized immediately.

The contractor is advised to become thoroughly familiar with the previsions of the Appendix 64, Erosion Control Rules and Regulations, Title 25, Part 1, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article III, Water Resources, Chapter 102, Erosion Control.

Failure to correctly install E&S BMP's, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E&S BMP's may result in administrative, civil, and/or criminal penalties being instituted by the Department as defined in Section 602 of the Pennsylvania Clean Streams Law. The Clean Streams Law provides for up to $10,000 per day in civil penalties, up to $10,000 in summary criminal penalties, and up to $25,000 in misdemeanor criminal penalties for each violation.

All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc. shall be compacted in accordance with local requirements or codes.

All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.

Fill materials shall be free of frozen particles, brush, roots, sod, or other foreign or objectionable materials that would interfere with or prevent construction of satisfactory fills.

Frozen materials or soft, mucky, or highly compressible materials shall not be incorporated into fills.

Fill shall not be placed on saturated or frozen surfaces.

Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.

All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated. Seeded areas within 50 feet of a surface water, or as otherwise shown on the plan drawings, shall be blanketed according to the standards of this plan.

E&S BMPs shall remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the local conservation district or the Department.

Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district to schedule a final inspection prior to removal/conversion of the E&S BMPs.

After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed or converted to permanent post construction stormwater management BMPs. Areas disturbed during removal or conversion of the BMPs shall be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal/conversions are to be done only during the germinating season.

102.4(B)(5)(vii) A SEQUENCE OF BMP INSTALLATION AND REMOVAL IN RELATION TO THE SCHEDULE OF EARTH DISTURBANCE ACTIVITIES, PRIOR TO, DURING AND AFTER EARTH DISTURBANCE ACTIVITIES

CONSTRUCTION SEQUENCE

1. All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed in compliance with Chapter 102 regulations before any following stage is initiated. Clearing and grubbing shall be limited only to those areas described in each stage.

2. At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the E&S Control plan preparer, and a representative of the Berks County Conservation District to schedule an on-site pre-construction meeting. In addition, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System Inc. at 1-800-242-1776 for buried utilities location.

3. Before implementing any revisions to the approved E&S Control Plan or revisions to other plans that may affect the effectiveness of the approved E&S Control Plan, the operator must receive approval of the revisions from the Berks County Conservation District.

4. The operator shall remove from the site, recycle or dispose of all building materials and waste in accordance with the Department's Solid Waste Management Regulations at 25 PA Code 260.1 et seq., 271.1 e. seq. and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.

5. Before disposing of soil or receiving borrow for the site, the operator must assure that each spoil or borrow area has an E&S Control plan approved by the Berks County Conservation District, and which is being implemented and maintained according to Chapter 102 regulations. The operator shall also notify the Berks County Conservation District in writing of all receiving spoil and borrow areas when they have been identified.

6. Mark, flag or stake the limits of disturbance (LOD) prior to any disturbance activities by means deemed acceptable by the Berks County Conservation District (i.e.i.e., survey stakes, posts, and rope, construction fence, etc.

NOTE: Disturbed areas which are not at finished grade and which will not be redisturbed within 4 days must be stabilized in accordance with temporary seeding specifications. Disturbed areas, which are either at finished grade or will not be redisturbed within 1 year, must be stabilized in accordance with permanent seeding specifications.

NOTE: As disturbed areas within a project approach final grade, preparations should be made for seeding and mulching to begin (i.e. anticipate the completion date and schedule the seeder). In no case should an area exceeding 15,000 square feet, which is to be stabilized by vegetation, reach final grade without being seeded and mulched. Waiting until earthmoving is completed before making preparation for seeding and mulching is not acceptable.

NOTE: For any step in this sequence that pertains to grading and achieving finished grade and the replacementthe replacement of topsoil, finished grade in ana lawn area shall be accomplished by replacement of topsoil, per the procedures specified in the Topsoil Application section of this narrative, to bring those areas to finished grade prior to permanent vegetative stabilization. The replacement of topsoil shall be at a depth that is equivalent to the predevelopment topsoil depth in that area unless this predevelopment depth is less than 6-inches. If predevelopment topsoil depth is less than 6-inches, replace topsoil at a minimum depth of 6-inches. Soil testing shall be performed to determine actual lime and fertilizer rates, which shall be used in lieu of the provided application rates.

7. The operator shall assure that the approved erosion and sediment control plan is properly and completely implemented.

8. The operator shall assure that an erosion and sediment control plan has been prepared by the applicant, submitted to and approved by the Berks Conservation District, and is being implemented and maintained for all soil and/or rock spoil and borrow areas, regardless of their locations.

9. Before initiating any revisions to the approved erosion and sediment control plan or revisions to other plans which may affect the effectiveness of the approved E&S control plan, the operator must receive approval of the revisions from the Berks County Conservation District.

10. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.

11. Erosion and sediment BMPs must be constructed, stabilized and functional before site disturbance begins with the tributary areas of those BMPs.

12. Rock construction entrances shall be installed at the intersection of 4th Street and Oley Street, extending into the project site.

13. Install compost filter sock and construction protection fence as shown on the E&S Control Plan. Place construction fence along the perimeter of the infiltration BMPs.

14. Upon installation or stabilization of all perimeter sediment control BMPs and at least 3 days prior to proceeding with the bulk earth disturbance activities, the permittee or co-permittee shall provide notification to the department or the Berks County Conservation District.

16. Following installation and stabilization of E&S BMPs, clearing and grubbing of the site may begin.

17. Strip and stockpile topsoil and store in stockpile storage areas. Stockpile heights must not exceed 35'. Stockpile slopes must be 2:1 or flatter. Stripping of topsoil shall be kept to a minimum for those areas being graded at a given time. Immediately install compost filter sock around topsoil stockpiles as shown on the E&S control plan.

NOTE: Steps 18 - 21 can be completed simultaneously in conjunction with each other.

18. Initiate rough grading activities required to achieve the proposed grades as shown on the E&S Control Plans. Disturbance shall be limited only to that area being graded at a given time.

19. Install utilities including gas, water, sewer, electric, telephone, cable and others at this point, or any time after at owner/developer's discretion. Immediately install temporary seeding and CVA matting if specified on the E&S Control Plan and any other disturbed areas as designated on the plans. Building construction may begin at any point following this step.

The total length of excavated trench open at any one time should not be greater than the total length of pipe line that can be placed in the trench and backfilled in one working day. No open trench should exist when this section of utility installation ceases at the end of the workday. In non-paved areas, soil supplements, seed and mulch should be applied immediately after the utility is installed and backfilled. In paved areas, stone subbase shall be applied immediately after the utility has been installed and backfilled, paving can be completed any time after as required. Excavated materials shall be placed on the upslope side of the trench

If groundwater is encountered during utility installation, use a pumped water filter bag for removal and water quality.

20. Once all underground utilities have been installed, immediately install stone within access driveways and commence building construction. At the discretion of the developer/owner, installation of the asphalt base course may begin.

21. Install all proposed trees and shrubs and complete permanent vegetative stabilization of any and all remaining disturbed lawn areas which are at final grade in accordance with the Permanent Vegetative Surface Stabilization specifications in this narrative.

22. The Berks County Conservation District shall be contacted for a final site inspection prior to removal of E & S BMPs. Upon complete stabilization and vegetation of all previously disturbed areas with a uniform 70% perennial ground cover over the entire disturbed area and roadways / driveways areas should have at least a clean subbase in place, begin removal of temporary erosion control BMPs.

- Conversion should be restricted to the growing season.

23. Upon stabilization of all disturbed areas remove all other E& S BMPs and measures including compost filter sock, inlet protection, concrete washout, rock construction entrance, etc. An area shall be considered to have achieved final stabilization when it has a minimum of 70% uniform perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics to resist sliding or other movements.

After final site stabilization has been achieved, temporary erosion and sedimentation controls must be removed. Areas disturbed during removal of controls must be stabilized immediately.

24. Contact the Berks County Conservation District to have a final inspection of the project in order to finalize construction and to verify the area of disturbance was per plan specifications.

TOPSOIL APPLICATION

Graded areas should be scarified or otherwise loosened to a depth of 6-inches to permit bonding of the topsoil to the surface areas and to provide a roughened surface to prevent topsoil from sliding down slope.

Topsoil should be uniformly distributed across the disturbed area to a depth of 6 inches minimum - 2 inches on fill out slopes. Spreading should be done in such a manner that sodding or seeding can proceed with a minimum of additional preparation or tillage. Irregularities in the surface resulting from topsoil placement should be corrected in order to prevent formation of depressions.

Topsoil should not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seedbed preparation. Compacted soil should be scarified 6 to 12 inches along contour wherever possible prior to seeding.

GENERAL SEEDING AND SURFACE STABILIZATION CRITERIA

All disturbed areas that have not otherwise been stabilized and have significant potential for erosion should be stabilized with vegetation. This includes graded areas where it is anticipated that future earthmoving will take place within the coming year. Areas that will be subject to earthmoving within 12 months may be stabilized with temporary seed mixtures, predominantly annual grasses. All others should be stabilized with permanent seed mixes - predominantly perennial grasses. When final grade is achieved during non-germinating months, the area should be mulched until the beginning of the next planting season at the specified rates under "Stabilization During Non-Germination Periods". However, the area will not be considered stabilized until a minimum uniform 70% vegetative cover of erosion resistant perennial species has been achieved. **NOTE**: Areas that do not receive sufficient sunlight to support vegetation (e.g. under bridge decks) should be stabilized by some means other than vegetation.

As disturbed areas within a project approach final grade, preparations should be made for seeding and mulching to begin (i.e. anticipate the completion date and schedule the seeder). In no case should an area exceeding 15,000 square feet, which is to be stabilized by vegetation, reach final grade without being seeded and mulched. Waiting until earthmoving is completed before making preparations for seeding and mulching is not acceptable.

Before the seeding begins, topsoil should be applied and any required soil amendments worked into the soil to a depth of 4 to 6 inches. If compost is to be added to the topsoil, it should be worked into the soil with the other soil amendments unless it is being applied as an erosion control BMP.

Diversion channels, terraces, interceptor channels, channels of conveyance, sediment basins, sediment traps and stockpiles must be seeded and mulched immediately as specified under "Permanent Vegetative Surface Stabilization".

TEMPORARY VEGETATIVE SURFACE STABILIZATION

Upon temporary cessation of an earth disturbance activity or any stage or phase of an activity where a cessation of earth disturbance activities will exceed 4 days, the site shall be immediately seeded, mulched, or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.

For an earth disturbance activity or any stage or phase of an activity to be considered temporarily stabilized, the disturbed areas shall be covered with one of the following:

a. A minimum uniform coverage of mulch and seed, with a density capable of resisting accelerated erosion and sedimentation.

b. An acceptable BMP which temporarily minimizes accelerated erosion and sedimentation.

The following activities shall be undertaken to achieve temporary stabilization of all exposed and disturbed soil areas as required or directed.

1) Tilling - Upon suspension of grading activities in disturbed areas, surface soil shall be tilled and loosened. Tilling may be omitted if soil is sufficiently loose to permit seeding activities.

2) Lime Application - Ground limestone shall be applied to the loosened soil at a uniform rate of 46 pounds per 1000 square feet. This rate is in pounds of agricultural grade limestone per 1000 square feet. (1 ton/acre * 2000 lb/ton * 1 ac/43.56x10^3 sf = 46 pounds per 1000 square feet)

3) Fertilizer Application - 5-5-5 Fertilizer shall be applied to the loosened soil at a uniform rate of 5 pounds per 1000 square feet.

4) Temporary Seeding - the following seed mixture shall be applied to the prepared soil surface by broadcast spreaders or hydraulic application according to the following rates of application:

Temporary Seeding - Annual rye grass shall be applied at a rate of four pounds Pure Live Seed per 1,000 square feet.

After mechanical seeding, seed shall be covered by means of light raking to a depth of one-quarter inch of soil.

5) Hay or straw mulch shall be applied at a rate of 3 tons/acre.

Rule of thumb: If you are seeing a lot of bare ground, there is not enough straw.
(Caution: Too much straw can be as harmful as too little straw.)

Mulches should be applied at the rates shown in Table 11.6

Straw and hay mulch should be anchored or tackified immediately after application to prevent being windblown. A tractor-drawn implement may be used to "crimp" the straw or hay into the soil -- about 3 inches. This method should be limited to slopes no steeper than 3H:1V. The machinery should be operated on the contour. Note: Crimping of hay or straw by running over it with tracked machinery is not recommended.

Polymeric and gum tackifiers mixed and applied according to manufacturer's recommendations may be used to tack mulch. Avoid application during rain and on windy days. A 24-hour curing period and a soil temperature higher than 45F are typically required. Application should generally be heaviest at edges of seeded areas and at crests of ridges and banks to prevent loss by wind. The remainder of the area should have binder applied uniformly. Binders may be applied after mulch is spread or sprayed into the mulch as it is being blown onto the soil. Applying straw and binder together is generally more effective.

Synthetic binders, or chemical binders, may be used as recommended by the manufacturer to anchor mulch provided sufficient documentation is provided to show they are non-toxic to native plant and animal species.

Mulch on slopes of 8% or steeper should be held in place with netting. Lightweight plastic, fiber, or paper nets may be stapled over the mulch according to manufacturer's recommendations.

Shredded paper hydromulch should not be used on slopes steeper than 5%. Wood fiber hydromulch may be applied on steeper slopes provided a tackifier is used. The application rate for any hydromulch should be 2,000 lb/acre at a minimum.

STABILIZATION DURING NON-GERMINATION PERIODS

During non-germination periods, mulch must be applied to disturbed areas at a rate of 3 tons/acre. The non-germination period shall be determined based on current weather conditions; it is generally the period from October 15 to March 15. Areas mulched during non-germination periods must be limed, fertilized, seeded and mulched immediately.

PERMANENT VEGETATIVE SURFACE STABILIZATION

1) Tilling - Upon completion of finished grading activities, surface soil shall be tilled and loosened. Tilling may be omitted if soil is sufficiently loosened following the final grading activities.

2) Lime Application - Ground limestone shall be applied to the loosened soil at a uniform rate of 184 pounds per 1000 square feet. This rate is in pounds of agricultural grade limestone per 1000 square feet.

3) Base Fertilizer Application - Fertilizer shall be applied to the soil at the rate established by the soil testing, as required to accommodate proper growth of the seed mixture.

The following base fertilizer application rate shall be employed:

As a minimum, 10 - 20 - 20 Fertilizer shall be applied at a uniform rate of 25 pounds per 1,000 square feet.

4) Mixing - Ground limestone and fertilizer shall be mixed with the soil to a depth of four inches through use of suitable equipment.

5) Seeding - Seed mixture shall be applied to the prepared soil surface by broadcast spreaders or hydraulic application according to the following rates of application:

Permanent Seeding - A mixture of Kentucky 31 Tall Fescue - 47%, Creeping Red Fescue - 50%, and Redtop - 3% shall be applied at a rate of two to three pounds per 1,000 square feet.

After seeding, seed shall be covered by means of light raking to a depth of one-quarter inch of soil.

6) Hay or straw mulch shall be applied at a rate of 3 tons/acre.

Rule of thumb: If you are seeing a lot of bare ground, there is not enough straw.
(Caution: Too much straw can be as harmful as too little straw.)

Mulches should be applied at the rates shown in Table 11.6

Straw and hay mulch should be anchored or tackified immediately after application to prevent being windblown. A tractor-drawn implement may be used to "crimp" the straw or hay into the soil -- about 3 inches. This method should be limited to slopes no steeper than 3H:1V. The machinery should be operated on the contour. Note: Crimping of hay or straw by running over it with tracked machinery is not recommended.

Polymeric and gum tackifiers mixed and applied according to manufacturer's recommendations may be used to tack mulch. Avoid application during rain and on windy days. A 24-hour curing period and a soil temperature higher than 45F are typically required. Application should generally be heaviest at edges of seeded areas and at crests of ridges and banks to prevent loss by wind. The remainder of the area should have binder applied uniformly. Binders may be applied after mulch is spread or sprayed into the mulch as it is being blown onto the soil. Applying straw and binder together is generally more effective.

Synthetic binders, or chemical binders, may be used as recommended by the manufacturer to anchor mulch provided sufficient documentation is provided to show they are non-toxic to native plant and animal species.

Mulch on slopes of 8% or steeper should be held in place with netting. Lightweight plastic, fiber, or paper nets may be stapled over the mulch according to manufacturer's recommendations.

Shredded paper hydromulch should not be used on slopes steeper than 5%. Wood fiber hydromulch may be applied on steeper slopes provided a tackifier is used. The application rate for any hydromulch should be 2,000 lb/acre at a minimum.

102.4(b)(5)(x) A MAINTENANCE PROGRAM WHICH PROVIDES FOR INSPECTION OF BMPs ON A WEEKLY BASIS AND AFTER EACH MEASURABLE RAINFALL EVENT, INCLUDING THE REPAIR OF THE BMPs TO ENSURE EFFECTIVE AND EFFICIENT OPERATION

1. Until the site is stabilized, the owner and/or contractor shall properly implement, operate and maintain all erosion and the best management practices (BMP's). Maintenance shall include inspections of all erosion and sedimentation BMP's after each runoff event and on a weekly basis. All site inspections will be documented in an inspection log kept for this purpose. The compliance actions and the date, time, and name of the person conducting the inspection. The inspection log will be kept on site at all times and made available to the District upon request.

2. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, re-mulching, and re-netting, must be performed immediately. If erosion and sedimentation BMP's fail to perform as expected, replacement BMP's or modifications of those installed will be needed.

3. Where BMP's are found to fail to alleviate erosion or sediment pollution, the permittee or co-permittee shall include the following information:

a. The location and severity of the BMP's failure and any pollution events.
b. All steps taken to, reduce, eliminate and prevent the recurrence of the non-compliance.
c. The time frame to correct the non-compliance, including the exact dates when the activity will return to compliance.

4. Upon completion of an earth disturbance activity or any stage or phase of an activity, the operator shall stabilize immediately the disturbed areas to protect from accelerated erosion. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will not be redisturbed within 4 days must be stabilized in accordance with temporary seeding specifications. Disturbed areas, which are either at finished grade or will not be redisturbed within 1 year, must be stabilized in accordance with permanent seeding specifications.

5. Should unforeseen erosive 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 erosion emergencies.

6. Sediment shall be removed from sediment traps when sediment level reaches the elevation indicated on the plan detail.

7. Sediment must be removed from inlet protection after each runoff event, or when the distance between the grate and the sediment level is reduced to 18".

8. The sediment trapped behind the compost filter sock must be removed at the proper time in order for the barriers to be effective. They will be cleaned when the sediment level reaches one-half the height of the sock.

9. At the end of each working day, any and all sediment tracked onto, or conveyed by other means, onto a public roadway, will be removed and redeposited onto the construction site. Removal can be completed though use of either machinery or by hand tools, but under no circumstances shall be washed off the road by use of water.

10. Seeded area will be restored, reseeded and mulched immediately should any damage or disturbance occur. The temporary control facilities shall be properly maintained until final stabilization of the construction area is complete.

11. Sediment removed from E&S Control measures/facilities shall be disposed of in landscaped areas outside of steep slopes, wetlands, floodplains and drainage swales and immediately stabilized or placed in topsoil stockpiles. An E&S Control Plan shall be submitted to the local Conservation District for all off-site spoil areas.

12. All sediment shall be redeposited onto the construction site and immediately stabilized with permanent vegetative surface stabilization. If the material is to be hauled off site it shall be disposed of in accordance with all PADEP regulations including but not limited Chapter 102 and the standards for solid waste management. All recycling and disposal of construction wastes shall be in accordance with PADEP solid waste management regulations.

13. The operator shall remove from the site, recycle or dispose of all building materials and wastes in accordance with PADEP's Solid Waste Management Regulations at 25 PA Code 260.1 et seq., 271.1.e. seq. and 287.1 et seq.

14. All channels must be kept free of obstructions such as fill ground, fallen leaves & woody debris, accumulated sediment, and construction materials/wastes. Channels should be kept mowed and/or free of all weedy, brushy or woody growth. Any underground utilities running across/ through the channel(s) shall be immediately backfilled and the channel(s) repaired and stabilized per the channel cross-section detail.

15. Stormwater inlets, which do not discharge to sediment traps or basins, must be protected until the tributary areas are stabilized.

16. Control Measures and facilities, both temporary and permanent will be maintained during the progress of the work. This will be done by implementing a program of proper disposal of materials and frequent removal of solid materials from the control facilities. The contractor will inform all construction site workers about the major provisions of the E&S Control Plan.

102.4(b)(5)(xi) PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH DEPARTMENT REGULATIONS

Individuals responsible for earth disturbance activities must ensure that proper mechanisms are in place to control waste materials. Construction wastes include, but are not limited to, excess soil materials, building materials, concrete wash water, sanitary wastes, etc. that could adversely impact water quality. Measures should be planned and implemented for housekeeping, materials management, and litter control. Wherever possible, recycling of excess materials is preferred, rather than disposal.

Before disposing of soil or receiving borrow for the site, the operator must assure that each spoil or borrow area has an erosion and sediment control plan approved by the local county conservation district, and which is being implemented and maintained according to DEP Chapter 102 regulations. All recycling or disposal of materials shall be also in accordance with DEP Chapter 102 regulations.

NOTATION REGARDING CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE

If the site will need to import or export material from the site, the responsibility for performing environmental due diligence and determination of clean fill will rest with (Responsible Party).

Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use). Clean Fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP-1a and FP-1b found in the Department's policy "Management of Fill". Any person placing clean fill that has been affected by a spill or release of a regulated substance must use form FP-001 to certify the origin of the fill material and the results of the analytical testing to qualify the material as clean fill. Form FP-001 must be retained by the owner of the property receiving the fill. A copy of Form FP-001 can be found at the end of these instructions. Environmental due diligence: The applicant must perform environmental due diligence to determine if the fill materials associated with the project qualify as clean fill.

Environmental due diligence is Defined as: Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill". Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable. These regulations are available on-line at www.pacode.com .

102.4(b)(5)(xii) GEOLOGIC FORMATION/SOIL CONDITIONS THAT MAY HAVE POTENTIAL TO CAUSE POLLUTION

There is minimal potential for geologic or soil conditions to cause pollution during construction. Major components of the underlying geology are sandstone and shale. Limestone is a minor component. If sinkholes or depressions form, the developer will contact a Professional Geologist or hydrogeologist for recommendations on site mitigation.

Existing waste (i.e. asphalt and concrete) will be disposed in accordance with PaDEP's Solid Waste Management Regulation at 25 PA Code 260.1 et. Seq.; 271.1 et, seq.; and 287.1 et, seq,

102.4(b)(5)(xiii) POTENTIAL THERMAL IMPACTS TO SURFACE WATER

During construction, thermal impacts will be addressed primarily though the use of compost filter sock and temporary vegetative stabilization. Additionally, Stormwater discharges, in both existing and proposed conditions, to a grass swale running through a heavily shaded to the Schuylkill River.

E&S MINIMIZES EARTH DISTURBANCE DURATION & SOIL COMPACTION

The extent and duration of earth disturbance is minimized through the construction sequence by specifying the amount of area that can be disturbed at one time, specifying the immediate placement of stabilization, and by staging the project.

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

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2500 East High Street
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Pottstown, PA 19464

SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES C. McCARTHY ENGINEER PE-051494E

ISSUED FOR BID
E&S CONTROL NOTES
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 19, 2023

DRAWN BY:	PROJ. MANAGER:
AMK	JCM
PRINCIPAL: JCM	SCALE: NOT TO SCALE

SHEET NO. C7.2

PLAN NO. 230004-08- ESN-09

Plot Date: 8/9/2023 1:07 PM P:\04_Wyomissing\2023\08-Public Works Descope\Design\CADD Files\P-E&S.dwg

ONECALL NOTES:

Pennsylvania811

PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121 REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.

ACT 287 UNDERGROUND UTILITY PROTECTION ACT, AS AMENDED BY ACT 121

McCARTHY ENGINEERING ASSOCIATES, INC. HEREBY STATES THAT, PURSUANT TO THE PROVISIONS OF ACT NO. 121 OF OCTOBER 2008, OF THE PENNSYLVANIA LEGISLATURE, IT HAS PERFORMED THE FOLLOWING IN PREPARING THESE DRAWINGS REQUIRING EXCAVATION OR DEMOLITION WORK AT SITES WITHIN THE POLITICAL SUBDIVISION(S) SHOWN ON THE DRAWINGS:

1. PURSUANT TO SECTION 4, CLAUSE (2) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. REQUESTED FROM EACH USER'S OFFICE DESIGNATED ON SUCH LIST PROVIDED BY THE ONE CALL SYSTEM NOTIFICATION, THE INFORMATION PRESCRIBED BY SECTION 4, CLAUSE (2) OF SAID ACT, NOT LESS THAN (10) NOR MORE THAN (90) WORKING DAYS BEFORE FINAL DESIGN TO BE COMPLETED.
2. PURSUANT TO SECTION 4, CLAUSE (5) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. HAS MET THEIR OBLIGATIONS OF CLAUSE (2) BY CALLING THE ONE CALL SYSTEM SERVING THE LOCATION WHERE EXCAVATION IS TO BE PERFORMED.
3. PURSUANT TO SECTION 4, CLAUSE (3) OF SAID ACT, McCARTHY ENGINEERING ASSOCIATES, INC. HAS SHOWN UPON THESE DRAWINGS "THE POSITION AND TYPE OF EACH LINE, AS DERIVED PURSUANT TO THE REQUEST MADE AS REQUIRED BY CLAUSE (2), THE SERIAL NUMBER PROVIDED BY THE ONE CALL SYSTEM, THE TOLL-FREE ONE CALL SYSTEM PHONE NUMBER, AND THE NAME OF THE USER, THE USER'S DESIGNATED OFFICE ADDRESS AND PHONE NUMBER AS SHOWN ON THE LIST REFERRED TO IN SECTION 4, CLAUSE (5) OF SAID ACT."

AND McCARTHY ENGINEERING ASSOCIATES, INC. DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND AS REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT McCARTHY ENGINEERING ASSOCIATES, INC.. IS REFLECTING SAID INFORMATION ON THESE DRAWINGS ONLY DUE TO THE REQUIREMENTS OF THE SAID ACT NO. 121 OF OCTOBER 2008.

ONE CALL SYSTEM SERIAL NO. NOTIFICATION BY McCARTHY ENGINEERING ASSOCIATES, INC..

DATE: JUNE 23, 2021

ONE CALL SYSTEM SERIAL NUMBER: 20211730550

UNDERGROUND UTILITY USERS:

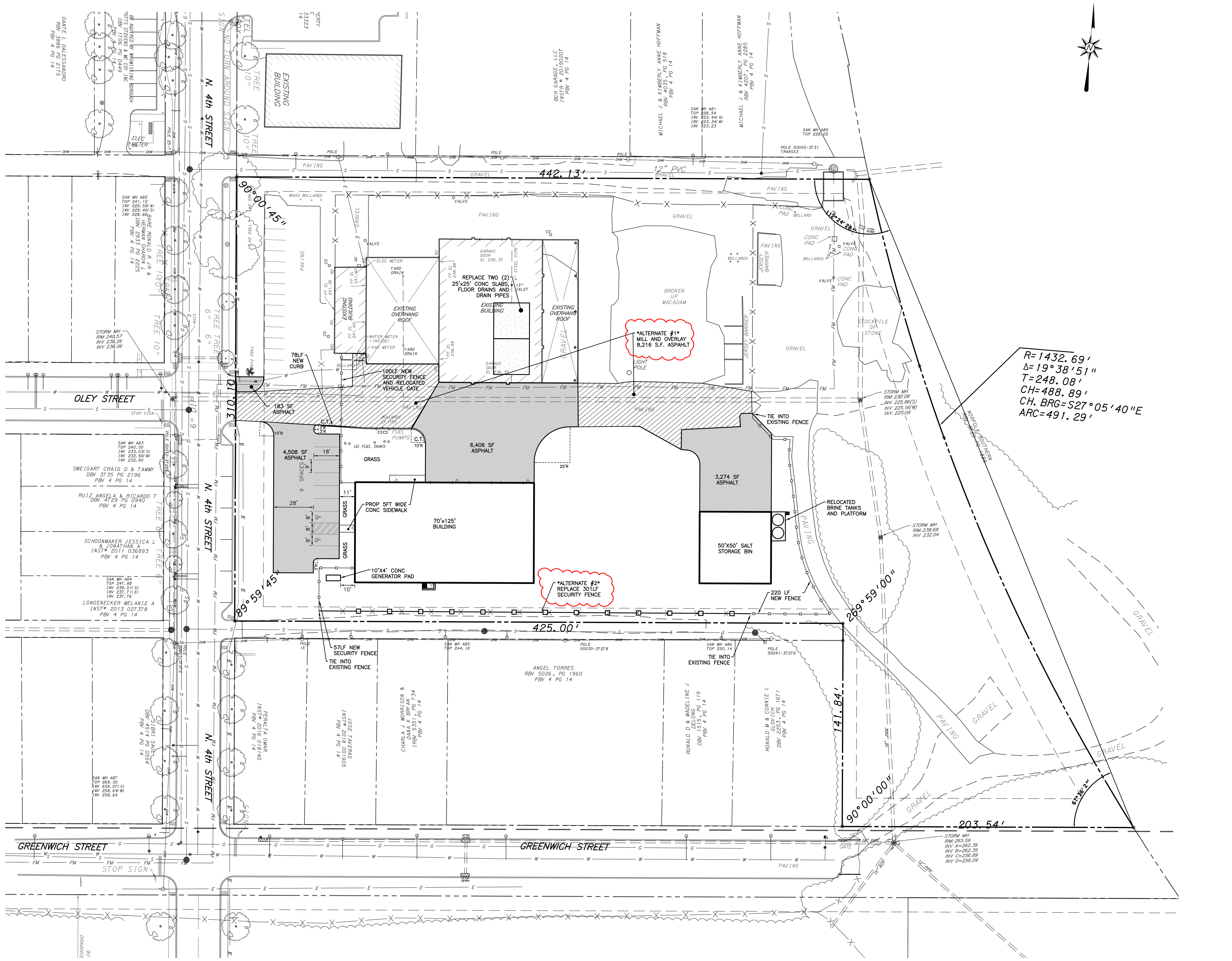
UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND WERE DETERMINED FROM VISIBLE LOCATION, ACT 287, AS AMENDED BY ACT 121, UTILITY RESPONSES AND/OR BEST AVAILABLE PLAN INFORMATION.

McCARTHY ENGINEERING ASSOCIATES, INC. CANNOT GUARANTEE THE EXACT LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. AN EXACT LOCATION CAN ONLY BE OBTAINED BY SUBSURFACE EXPLORATION, WHICH IS NOT A PART OF THIS CONTRACT PERFORMANCE.

PA ONE CALL SYSTEM INFORMATION:

PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121, REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND FIVE (5) WORKING DAYS NOTICE IN DESIGN STAGE.

PA ONE CALL PHONE NUMBER: 1-800-242-1776



LEGEND:

- EXISTING SANITARY SEWER & MANHOLE
- EXISTING STORM SEWER & CATCH BASIN
- EXISTING WATER LINE & VALVE
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE & VALVE
- EXISTING TELEPHONE
- EXISTING ELECTRIC
- EXISTING OVERHEAD WIRE
- EXISTING LIGHTING FEATURES
- EXISTING UTILITY POLE
- EXISTING CURB AND DEPRESSED CURB
- EXISTING SIGNS
- EXISTING FENCE
- EXISTING TREE LINE
- PROPOSED FENCE
- PROPOSED PAVED AREA
- PROPOSED CONCRETE AREA
- PROPOSED PAVED AREA (ALTERNATE #1)
- PROPOSED FENCE (ALTERNATE #2)

GRAPHIC SCALE
1" = 30'
0 30' 60' 90'

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

McCARTHY ENGINEERING ASSOCIATES, INC.
555 Van Reed Road
Suite 2
Wyomissing, PA 19610
www.McCarthy-Engineering.com
Phone: 610.373.8001
2500 East High Street
Suite 630
Pottstown, PA 19464

SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES C. McCARTHY ENGINEER PE-05494E

ISSUED FOR BID
ALTERNATE BIDS
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 19, 2023

DRAWN BY: AMK
PROJ. MANAGER: JCM
PRINCIPAL: JCM
SCALE: 1"=30'
SHEET NO. C8.0
PLAN NO. 230004-08- ALT-10

Plot Date: 8/9/2023 11:47 AM P:\04_Wyomissing\2023\08-Public Works Descope\Design\CADD Files\P-Site.dwg

GENERAL NOTES

1. THE CONTRACTORS ARE SOLELY RESPONSIBLE FOR JOB SAFETY, CONSTRUCTION PROCEDURES, COORDINATION OF THEIR WORK WITH OTHER TRADES ADEN ON-SITE SECURITY.
2. THE STRUCTURAL DRAWINGS TO BE USED IN CONJUNCTION WITH THE MECHANICAL, ELECTRICAL AND HVAC DRAWINGS. REFER TO THOSE SPECIFIC DISCIPLINE DRAWINGS FOR SLEEVES, CURBS, INLETS, ETC. NOT INDICATED ON THESE DRAWINGS.
3. THIS STRUCTURE HAS BEEN DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE CONSTRUCTION OF THE BUILDING HAS BEEN COMPLETED. THE STABILITY OF THE STRUCTURE PRIOR TO THE COMPLETION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THIS RESPONSIBILITY EXTENDS TO ALL RELATED ASPECTS OF THE CONSTRUCTION ACTIVITY INCLUDING, BUT NOT LIMITED TO, ERECTION METHODS, ERECTION SEQUENCE, TEMPORARY BRACING, FORMS, SHORING, USE OF EQUIPMENT, AND SIMILAR CONSTRUCTION PROCEDURES, UNLESS SPECIFICALLY INDICATED ON THE CONTRACT DOCUMENTS. LACK OF COMMENT ON THE PART OF THE ENGINEER WITH REGARD TO CONSTRUCTION PROCEDURES IS NOT TO BE INTERPRETED AS APPROVAL OF THOSE PROCEDURES.
4. SPECIAL INSPECTIONS, AS REQUIRED BY THE PA UCC AND IBC, SHALL BE PERFORMED BY AN APPROVED AGENCY, IN CONTRACT WITH THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE THE REQUIRED SPECIAL INSPECTIONS WITH THE WORK AND SHALL NOT CONCEAL WORK UNTIL THE REQUIRED INSPECTIONS HAVE BEEN COMPLETED AND THE WORK APPROVED.
5. IT IS EACH CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK IN ACCORDANCE WITH THE FEDERAL, STATE, AND LOCAL LAWS, BYLAWS, ORDINANCES AND REGULATIONS IN ANY MANNER AFFECTING THE CONDUCT OF THIS WORK, AS WELL AS ALL ORDERS OR DECREES WHICH HAVE BEEN PROMULGATED OR ENACTED BY ANY LEGAL BODIES OR TRIBUNALS HAVING AUTHORITY OR JURISDICTION OVER THE WORK, MATERIALS, EMPLOYEES, OR CONTRACT.
6. IF FAULTY CONSTRUCTION PROCEDURES, OR MATERIAL, RESULT IN DEFECTIVE WORK THAT REQUIRES ADDITIONAL ENGINEERING TIME TO DEVISE CORRECTIVE MEASURE, PROFESSIONAL FEES MAY BE CHARGED T THE CONTRACTOR AT THE STANDARD HOURLY RATE OF ADDITIONAL SERVICES. SUCH FEES MAY BE WITHHELD FROM THE CONTRACTORS PAYMENT. REFER TO THE PROJECT SPECIFICATIONS.
7. ALL EXISTING CONDITIONS SHALL BE FIELD-VERIFIED PRIOR TO BEGINNING ANY WORK. IF EXISTING CONDITIONS DO NOT PERMIT THE INSTALLATION OF THE WORK IN ACCORDANCE WITH THE DETAILS AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND PROVIDE AN ACCURATE SKETCH OF THE CONDITION, INCLUDING A PROPOSED MODIFICATION OR CORRECTION, FOR REVIEW AND APPROVAL.
8. CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY SHEETING, SHORING AND BRACING DURING CONSTRUCTION.
9. THE CONTRACTOR SHALL CONTACT ALL INVOLVED UTILITY COMPANIES AND LOCATE UNDERGROUND UTILITIES IN THE VICINITY OF THE WORK BEFORE PROCEEDING WITH ANY EXCAVATION WORK.
10. THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITIES FROM DAMAGE.
11. MINOR DETAILS OR INCIDENTAL ITEMS NOT SHOWN OR SPECIFIED, BUT NECESSARY FOR A PROPER AND COMPLETE INSTALLATION SHALL BE INCLUDED AS REQUIRED.
12. THESE STRUCTURAL DRAWINGS SHALL BE USED USED IN CONJUNCTION WITH THE ARCHITECTURAL, SITE DRAWINGS AND SHOP DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, SLEEVES, DEPRESSIONS AND OTHER DETAILS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
13. SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWING SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS.
14. CONTRACTORS SHALL MAKE NO DEVIATION FROM THE DOCUMENTS WITHOUT WRITTEN DIRECTION FROM THE ENGINEER/ARCHITECT.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP ON A DAILY BASIS AND SHALL REMOVE AND DISPOSE OF ALL CONSTRUCTION DEBRIS IN THE VICINITY OF THE WORK.
16. WORK NOT INDICATED ON THE DRAWINGS, BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES OR IS AN ACCEPTED GENERAL CONSTRUCTION STANDARD SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.

FOUNDATION NOTES

1. THE FOUNDATIONS ARE DESIGNED TO BEAR ON UNDISTURBED SOIL OR PROPERLY COMPACTED SUITABLE FILL WITH AN ASSUMED MINIMUM ALLOWABLE BEARING CAPACITY OF 3,000PSF. ACTUAL BEARING CAPACITY SHALL BE VERIFIED BY THE OWNER'S GEOTECHNICAL CONSULTANT PRIOR TO SETTING REINFORCEMENT. ADJUST THE FOOTING ELEVATION AND/OR SIZE OF FOOTING AS DIRECTED BY THE ENGINEER. IF SUITABLE BEARING CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, NO CONCRETE FOUNDATIONS SHALL BE PLACED UNTIL THE SUBGRADE HAS BEEN APPROVED BY THE GEOTECHNICAL ENGINEER.
2. EXCAVATIONS FOR SPREAD AND CONTINUOUS FOOTINGS SHALL BE CLEANED AND HAND-TAMPED TO A UNIFORM SURFACE. CONCRETE SHALL BE PLACED WITHIN 24 HOURS OF EXCAVATION OF THE FOOTING BEARING SURFACE. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL REQUIRED INSPECTIONS, OBSERVATIONS AND TESTING COMPLETED WITHIN THAT TIMEFRAME.
3. ALL SOIL SURROUNDING AND UNDER FOOTINGS SHALL BE PROTECTED FROM FREEZING AND THAWING DURING THE COURSE OF CONSTRUCTION.
4. THE BOTTOM OF EXTERIOR FOOTINGS NOT ON SOLID ROCK SHALL BE AT A MINIMUM 3'-0" BELOW GRADE.
5. IF UNHEATED DURING WINTER CONSTRUCTION, THE INTERIOR FOOTINGS MUST BE PROTECTED FROM FROST ACTION- EITHER ACTING OUTWARD OR UPWARD ON THE FOUNDATION ELEMENT.
6. THE INSPECTION AND TESTING OF ALL SUBGRADE AND COMPACTED EARTHWORK SHALL BE CONDUCTED UNDER THE PROVISION OUTLINED IN THE CONTRACT DOCUMENTS.
7. THE SLAB-ON-GRADE SUB-BASE SHALL BE A CRUSHED STONE-FREE FROM SOFT DISINTEGRATED PIECES, MUD, DIRT, OR OTHER INJURIOUS MATERIAL. THE MATERIAL SHALL HAVE NO STONE GREATER THAN 2" 'IN ANY ONE DIMENSION AND WITH LESS THAN 10% BY WEIGHT PASSING A #100 SIEVE.
8. COMPACT BACKFILL IN LIFTS OF NO MORE THAN 8".
9. ALL INTERIOR FLOOR AND EXTERIOR SIDEWALK SLABS TO BE PLACED ON MATERIAL COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS MEASURED BY THE MODIFIED PROCTOR TEST.
10. PRIOR TO ANY FOUNDATION OR SUB-GRADE PREPARATION WITHIN THE BUILDING AREA, REMOVE ALL TOPSOIL, INCLUDING TREE ROOT MATS. INFILL VOIDS LEFT BY ROOT MATS WITH WELL COMPACTED FILL.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION OF ALL EXCAVATION SLOPES. WHERE NECESSARY, SHEETING AND SHORING OF EXCAVATIONS (DESIGNED BY A PROFESSIONAL ENGINEER HIRED BY THE CONTRACTOR) SHALL BE PROVIDED WITH ALL TIE-BACKS AND BRACING.
12. STEP BOTTOM OF FOOTING ELEVATIONS A MAXIMUM OF TWO HORIZONTAL TO ONE VERTICAL
13. DEWATER EXCAVATIONS AND PROTECT AS REQUIRED TO MAINTAIN REQUIRED SOIL BEARING CAPACITY. ALL SOILS THAT HAVE INSUFFICIENT BEARING CAPACITY DUE TO EXCESSIVE MOISTURE SHALL BE REMOVED AND REPLACED WITH PROPERLY COMPACTED ENGINEERED FILL.
14. CONTRACTOR SHALL PROTECT ADJACENT STRUCTURES AND FOUNDATIONS FROM DAMAGE DURING CONSTRUCTION OF NEW FOUNDATIONS.
15. THE SLAB ON GRADE HAS BEEN DESIGNED ASSUMING A SUBGRADE MODULUS OF K=100PCI AND A UNIFORM LIVE LOADING OF 250SF. THE DESIGNER IS NOT RESPONSIBLE FOR DIFFERENTIAL SETTLEMENT, SLAB CRACKING OR OTHER FUTURE DEFECTS RESULTING FROM UNSUITABLE SUBGRADE CONDITIONS.
16. SOILS EXPOSED AT THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHALL BE PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITIONS, SUCH AS DISTURBANCE FROM RAIN OR FROST. SURFACE RUNOFF SHOULD BE DRAINED AWAY FROM THE EXCAVATIONS AND NOT ALLOWED TO POND. FOUNDATION EXCAVATIONS SHOULD BE ADEQUATELY PROTECTED FROM RAINFALL OR FREEZING CONDITIONS. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION, THEN APPROPRIATE DEWATERING MEASURES SHALL BE EMPLOYED.

LOADS AND CODES

1. THE WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF THE PENNSYLVANIA UNIFORM CONSTRUCTION CODE (PA UCC), BASED UPON THE 2018 INTERNATIONAL BUILDING CODE (IBC) AND THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" ASCE 7-16.
2. DESIGN LOADS

a. ROOF	
LIVE LOAD	20 PSF (UNREDUCED)
b. FLOOR LIVE LOADS	
GROUND FLOOR (MECHANICS SHOPS / LARGE VEHICLE PARKING / COVERED STORAGE)	250 PSF; CONCENTRATED 15,000 LBS ACTING ON 12"x12" AREA
GROUND FLOOR (OFFICE/ BREAK RM./ ETC.)	100 PSF;
GROUND FLOOR (INTERIOR STORAGE)	250 PSF;
STAIRS	100 PSF
2ND FL. (STORAGE/ UTILITIES/CORRIDOR/CONF. RM)	80 PSF
c. SNOW (ENCLOSED BLDG.)	
GROUND SNOW LOAD (Pg)	30 PSF
FLAT SNOW LOAD (Pf)	30 PSF
SLOPE SNOW LOAD (Ps)	30 PSF
SNOW EXPOSURE FACTOR (Ce)	1.0
SNOW LOAD IMPORTANCE - (Is)	1.0
THERMAL FACTOR - (Ct)	1.0
SNOW (3-SIDED STORAGE)	
GROUND SNOW LOAD (Pg)	30 PSF
FLAT SNOW LOAD (Pf)	30 PSF
SLOPE SNOW LOAD (Ps)	30 PSF
SNOW EXPOSURE FACTOR (Ce)	1.0
SNOW LOAD IMPORTANCE - (Is)	1.0
THERMAL FACTOR - (Ct)	1.2
d. WIND	
BASIC WIND SPEED	115 MPH
WIND IMPORTANCE FACTOR (Iw)	1.0
WIND EXPOSURE	B
BASIC VELOCITY PRESSURE (q_z)	
0-15'	19 PSF
20'	20 PSF
25'	21 PSF
e. SEISMIC	
SEISMIC IMPORTANCE FACTOR (Ie)	1.0
SPECTRAL RESPONSE ACCELERATIONS	S_{DS} 0.208 S_{D1} 0.097
SEISMIC DESIGN CATEGORY	B
SITE CLASS	D (ASSUMED)

STRUCTURAL STEEL NOTES

1. DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS," LATEST EDITION, AS ADOPTED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
2. STRUCTURAL STEEL SHALL BE CLEANED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL SPECIFICATIONS SP-3-82 FOR POWER TOOL CLEANING AND PAINTED TO A MINIMUM DRY FILM THICKNESS OF 2 MILS WITH A SHOP COAT OF TNEMEC #10-99 ALKYD RUST INHIBITIVE PRIMER AS MANUFACTURED BY TNEMEC COMPANY, INC., OF KANSAS CITY, MO, OR AN APPROVED EQUAL.
3. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
   a. ALL CHANNELS AND WIDE FLANGE SHAPES SHALL BE ASTM A992 GRADE 50
   b. ALL PLATES, ANGLES & MISC STEEL SHALL BE ASTM A36
   c. ALL SQUARE OR RECTANGULAR TUBING SHALL BE ASTM A500, GRADE B.
   d. ALL ROUND PIPES AND TUBING SHALL BE ASTM A53, TYPE B.
   e. ALL ANCHORS RODS SHALL BE ASTM F1554 GRADE 36 (UNLESS NOTED OTHERWISE)
   f. ALL WELDING ELECTRODES SHALL BE E70XX, LOW HYDROGEN
4. ALL WELDING SHALL CONFORM TO THE CODE FOR THE ARC AND GAS WELDING IN BUILDING CONSTRUCTION OF THE AMERICAN WELDING SOCIETY, AND BE PERFORMED BY A CERTIFIED WELDER IN ACCORDANCE WITH A.W.S. STANDARDS.
5. WELDING ELECTRODES SHALL CONFORM TO ASTM A-233, E70 SERIES. WELDS SHALL BE MADE BY WELDEDS WHO HAVE BEEN PREVIOUSLY QUALIFIED BY TESTS AS PRESCRIBED IN THE AMERICAN WELDING SOCIETY (AWS) STANDARD CODE FOR WELDING IN BUILDING CONSTRUCTION.
6. CERTIFICATES OF COMPLIANCE ARE REQUIRED TO BE SUBMITTED TO THE ENGINEER FOR STRUCTURAL STEEL, BOLTS, NUTS, WASHERS, AND WELD FILLER MATERIAL PRIOR TO THE FABRICATION OF ANY STEEL.
7. PROVIDE WELDED STIFFENER PLATES (3/8" MIN.) ON BOTH SIDES OF THE WEB AT ALL POINTS OF CONCENTRATED LOADS.
8. PROVIDE TEMPORARY BRACING DESIGNED BY THE CONTRACTORS ENGINEER AS REQUIRED TO RESIST ALL LATERAL LOADS UNTIL THE PERMANENT BRACING IS HAS BEEN INSTALLED. TEMPORARY BRACING AND/OR SHORING OF THE STRUCTURAL STEEL ELEMENTS IS THE CONTRACTOR'S RESPONSIBILITY.
9. PROVIDE LOOSE OR HANGING LINTELS NOT SHOWN ON DRAWINGS AS REQUIRED TO COMPLETE JOB. COORDINATE OPENINGS WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.
10. UNLESS NOTED OTHERWISE, STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE WEATHER INCLUDING ALL BRICK SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.
11. REPAIR ALL DAMAGED GALVANIZING WITH ASTM A780-93A
12. BOLTED CONNECTIONS SHALL USE ASTM A325 BOLTS (UNLESS NOTED OTHERWISE)
13. THE DESIGN OF CONNECTIONS NOT SHOWN ON THE DRAWINGS SHALL BE PROVIDED BY THE FABRICATOR. CONNECTIONS SHALL BE DESIGNED FOR THE FORCES SHOWN ON THE DRAWINGS. DESIGN CALCULATIONS SHALL BE PREPARED AND STAMPED BY THE FABRICATOR'S ENGINEER AND SUBMITTED FOR REVIEW.
14. STEEL MEMBERS SHALL BE CUT FROM FULL LENGTH STOCK. UNAUTHORIZED SPLICES WILL BE CAUSE FOR REJECTION.

STEEL DECK NOTES

1. STEEL ROOF DECK SHALL BE FABRICATED AND ERECTED IN ACCORDANCE "SDI SPECIFICATIONS AND COMMENTARY FOR STEEL ROOF DECK" FROM ASTM A653 SHEET STEEL. DECK DEPTH, PROFILE AND THICKNESS ARE AS INDICATED ON THE DRAWINGS
2. ALL STEEL DECK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A924 G90.
3. THE STEEL ROOF DECK SHALL BE SUPPLIED IN MINIMUM LENGTHS AS REQUIRED TO PROVIDE A (3) THREE SPAN CONDITION. END CLOSURES, ROOF SUMPS, CLOSURES AT PENETRATIONS, AND ALL OTHER ACCESSORIES NECESSARY FOR A COMPLETE INSTALLATION ARE REQUIRED.
4. STEEL ROOF DECK SHALL BE FASTENED TO THE SUPPORTING MEMBERS AS INDICATED ON THE DRAWINGS. WELDING WASHERS ARE RECOMMENDED FOR ATTACHING DECK THAT IS 24 GAGE AND THINNER. WELDING WASHERS SHALL BE 16 GAGE. FASTENING OTHER THAN WELDS ARE ARE ACCEPTABLE PROVIDED THE ALTERNATE FASTENERS MEET OR EXCEED THE STEEL DECK INSTITUTE AND DESIGN DRAWING REQUIREMENTS.
5. ALL METAL DECK SHALL BE SHORED AS REQUIRED BY THE MANUFACTURER'S SPAN AND LOAD CONDITION TABLES TO SUPPORT CONSTRUCTION LOADS.
6. PROVIDE A MINIMUM OF 1 1/2" END BEARING AND LAP END JOINTS A MINIMUM OF 2".

STEEL JOISTS

1. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THE "STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, K-SERIES", STEEL JOIST INSTITUTE, (REV. TO MAY 2, 1994).
2. DESIGN OF JOISTS SHALL BE BY MANUFACTURER'S ENGINEER, LICENSED IN THE PROJECTS JURISDICTION, FOR ALL LOADINGS REQUIRED BY THESE DOCUMENTS.
3. SPECIAL JOISTS WHERE INDICATED ON PLANS HAVE SPECIAL DESIGN REQUIREMENTS. REFER TO PLANS AND DETAILS FOR LOADING DIAGRAMS.
4. FOR ROOF JOISTS RESISTING UPLIFT, PROVIDE ADDITIONAL BRIDGING AS REQUIRED BY THE JOIST MANUFACTURER.
5. FOR ALL JOISTS SPANNING 40 FEET OR LONGER, PROVIDE ADDITIONAL BRIDGING AS REQUIRED BY THE JOIST MANUFACTURER.
6. BRIDGING SHALL BE WELDED OR BOLTED AND BE ANCHORED AT END WALLS OR BEAMS. BRIDGING ANCHORS AND JOIST CONNECTIONS SHALL BE COMPLETELY INSTALLED PRIOR TO THE APPLICATION OF ANY CONSTRUCTION LOADS.
7. ALL SUPPORTED ROOFTOP UNITS AND OTHER SUSPENDED EQUIPMENT SHALL BE DIRECTLY SUPPORTED FROM JOIST PANEL POINTS UNLESS ADDITIONAL REINFORCEMENT IS PROVIDED.
8. ALL K-SERIES JOISTS SHALL EXTEND A DISTANCE OF NOT LESS THAN 4 INCHES OVER THE MASONRY OR CONCRETE SUPPORT AND BE ANCHORED TO THE STEEL BEARING PLATE.
9. BRIDGING SHALL SUPPORT BOTH TOP AND BOTTOM CHORDS AGAINST MOVEMENT DURING CONSTRUCTION.

CONCRETE MASONRY NOTES

1. ALL CONCRETE MASONRY WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 530/ASCE 5 (LATEST EDITION). "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES."
2. CONCRETE BLOCK SHALL BE NORMAL WEIGHT MASONRY UNITS CONFORMING TO ASTM C-90, GRADE N-1.
3. PROVIDE CONCRETE UNIT MASONRY THAT DEVELOPS A PRISMATIC STRENGTH EQUAL TO FM1 = 2000 PSI OR BETTER FOR CLASS 1 MASONRY AND FM1 = 1500 PSI OR BETTER FOR CLASS 2 MASONRY. THE MINIMUM AVERAGE WALL NET AREA COMPRESSIVE STRENGTH SHALL EQUAL 2800 PSI FOR CLASS 1 MASONRY, AND SHALL EQUAL 1900 PSI FOR CLASS 2 MASONRY.
4. MORTAR SHALL BE TYPE M OR S AND CONFORM TO ASTM C-270.
5. CEMENT USED IN THE MORTAR AND GROUT SHALL CONFORM TO ASTM C-150.
6. GROUT SHALL CONFORM TO ASTM C476 WITH A MIN. COMPRESSIVE STRENGTH OF 2,500 PSI.
7. STEEL REINFORCING BARS SHALL CONFORM TO ASTM C476 WITH A MIN. COMPRESSIVE STRENGTH OF 2,500 PSI.
8. MASONRY SHALL NOT BE CONSTRUCTED IN TEMPERATURES BELOW 40 DEG.F. PROVIDED A HEAT SOURCE AND PROTECTION AS REQUIRED TO MAINTAIN TEMPERATURE ABOVE 40 DEG.F. COORDINATE ADDITIONAL REQUIREMENTS WITH ACI 530, LATEST EDITION.
9. ALL CELLS WITH REINFORCING BARS OR BOLTS SHALL BE GROUTED SOLID.
10. VERTICAL CELLS TO BE GROUTED SOLID SHOULD HAVE A MINIMUM CLEAR OPENING AS IDENTIFIED IN ACI 530, LATEST EDITION, OF FINE OR COURSE GROUT. COORDINATE GROUT USED WITH OPENING SIZE AND THE REQUIREMENTS OF ASTM C476, AS NOTED ABOVE.
11. ALL MASONRY BEARING BENEATH STEEL BEAMS SHALL HAVE (2) #5 VERT. REINFORCING BARS (ONE PER CELL) AND ALL COURSES OF CMU FILLED WITH GROUT.
12. PROVIDE #5 BAR VERTICALLY AROUND ALL MASONRY OPENINGS LARGER THAN 12 INCHES OR AS INDICATED ON DRAWINGS, FILL CELLS SOLID WITH GROUT UNO.
13. PROVIDE (2) #5 BAR VERTICALLY AT ALL EXTERIOR CORNERS AND AT THE TERMINAL ENDS OF WALL OR AS INDICATED ON DRAWINGS. FILL CELLS SOLID WITH GROUT UNO.
14. CONSOLIDATE GROUT POURS EXCEEDING 12 INCHES IN HEIGHT BY MECHANICAL VIBRATION AND RECONSOLIDATE BY MECHANICAL VIBRATION AFTER INITIAL VAPOR LOSS AND SETTLEMENT HAS OCCURRED.
15. CERTIFICATES OF COMPLIANCE ARE REQUIRED TO BE SUBMITTED TO THE ARCHITECT AND ENGINEER FOR BLOCK GRADE, STRENGTH, GROUT, MORTAR, AND REINFORCING BARS PRIOR TO DELIVERY OF THE BLOCK.
16. ALL WALLS SHALL HAVE A BOND BEAM AT THE ROOF, WHICH TIES INTO THE VERTICAL REINFORCEMENT. BOND BEAMS SHALL BE PROVIDED AT THE TOPS OF ALL CMU WALLS AND AT HORIZONTAL INTERVALS NOT TO EXCEED EIGHTEEN (18) TIMES THE WALL (CMU) THICKNESS. UNLESS INDICATED ON DRAWINGS, REINFORCE ALL BOND BEAMS WITH A MINIMUM (2) CONTINUOUS #5 BARS WITH MINIMUM 3,000 PSI SMALL AGGREGATE CONCRETE (NOTES: MORTAR MIX DOES NOT CONSTITUTE GROUT). PROVIDE WALL ANCHORS TO ALL BUILDING COLUMNS AT MAXIMUM 48" VERTICAL AND ALL BOND BEAMS.
17. PROVIDE HORIZONTAL JOINT REINFORCING IN ALL MASONRY WALL AT 16" OC VERTICALLY. JOINT REINFORCING SHALL BE 3/16" (EXTRA HEAVY) GALVANIZED TRUSS-TYPE WIRE, U.N.O. SEE PLANS AND DETAILS FOR VERTICAL REINFORCING REQUIREMENTS.
18. PERPENDICULAR INTERSECTING WALLS SHALL BE TOOTHED TOGETHER OR HAVE THE HORIZONTAL TRUSS-TYPE WIRE REINFORCEMENT CONTINUOUS THROUGH THE INTERSECTION. NOTES: CORRUGATED SHEET METAL TAB ANCHORS ARE NOT ACCEPTABLE CONNECTORS AT INTERSECTING WALLS PER ACI-530-EMPIRIAL DESIGN ANCHORAGE REQUIREMENTS.
19. INSPECTION OF MASONRY CONSTRUCTION SHALL BE AS OUTLINED IN TABLE 1704.5.1 OF THE PA UCC AND IBC 2009, AS LEVEL 1 SPECIAL INSTRUCTION, LEVEL 2 FOR SHEAR WALL CONSTRUCTION.
20. TEMPORARY BRACING AND/OR SHORING OF MASONRY ELEMENTS IS THE CONTRACTOR'S RESPONSIBILITY.

CONCRETE NOTES

1. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301 (LATEST ADDITION), "SPECIFICATIONS FOR STRUCTURAL CONCRETE IN BUILDINGS" AND ACI 318 (LATEST EDITION), "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
2. ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE LATEST ACI CODE AND THE LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES."
3. PORTLAND CEMENT SHALL CONFORM TO ASTM C 150 TYPE I/II.
4. NORMAL WEIGHT CONCRETE AGGREGATES:
   a. COURSE AGGREGATE: CONFORMING TO ASTM C33, MINIMUM CLASS DESIGNATIONS AS LISTED BELOW:
      1) BELOW GRADE CONSTRUCTION: CLASS 1M.
      2) WALLS NOT EXPOSED TO PUBLIC VIEW: CLASS 3M.
      3) WALLS EXPOSED TO PUBLIC VIEW: CLASS 5M.
      4) SLABS ON GRADE: CLASS 4M.
      5) ALL OTHER CONCRETE: CLASS 5M.
5. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL DEVELOPED THE DESIGNATED DESIGN STRENGTH (f'c) IN 28 DAYS. THE CONTRACTOR SHALL USE THE FOLLOWING RECOMMENDATION FOR THE DESIGN MIX CRITERIA:

   ELEVATED SLABS AND INTERIOR SLABS ON GRADE
   a. 3500 PSI
   b. MAX W/C = 0.45

   FOUNDATION, WALLS, PIERS, GARAGE SLAB ON GRADE & EXTERIOR SLAB ON GRADE
   a. 4,500 PSI
   b. MAX W/C = 0.4
6. CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. TOGETHER WITH LABORATORY REPORTS, CEMENT MILL CERTIFICATIONS, AND STONE GRADATIONS ATTESTING THAT THE MIXES CAN ATTAIN THE MINIMUM DESIGN STRENGTH REQUIRED IN ACCORDANCE WITH CHAPTER 5 OF ACI 301 (LATEST EDITION). IF DURING CONSTRUCTION ANY CLASS CONCRETE FAILS TO MEET THE ACCEPTANCE CRITERIA, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER IN TAKING THE STEPS REQUIRED TO IMPROVE SUBSEQUENT TEST RESULTS AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL ALSO BEAR THE COST OF SPECIAL INVESTIGATION, TESTING, OR REMEDIAL WORK NECESSARY BECAUSE OF EVIDENCE OF LOW-STRENGTH OR NON-CONFORMING CONCRETE OR WORKMANSHIP.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LIMITING PLACEMENTS TO MINIMIZE SHRINKAGE CRACKING. IN GENERAL, WALLS SHALL NOT BE POURED IN CONTINUOUS LENGTH EXCEEDING 40 FEET. THE LOCATION AND CONFIGURATION OF JOINTS EXPOSED TO VIEW SHALL BE COORDINATED WITH THE OWNER.
8. CONTRACTOR SHALL SUBMIT STEEL REINFORCING DRAWINGS THAT DETAIL FABRICATION, BENDING AND PLACEMENT. INCLUDE BAR SIZES, LENGTHS, MATERIAL, GRADE, BAR SCHEDULES, STIRRUP SPACING, BENT BAR DIAGRAMS, BAR ARRANGEMENTS, SPLICES AND LAPS, MECHANICAL CONNECTIONS, TIE SPACING, HOOP SPACING AND SUPPORTS FOR CONCRETE REINFORCING. A 4" X 4" SQUARE AREA NEAR THE TITLE BLOCK SHALL BE RESERVED FOR THE ENGINEER'S REVIEW STAMP. THE ENGINEER'S DRAWINGS MAY NOT BE REPRODUCED IN WHOLE OR PART AS A SHOP DRAWING. SHOP DRAWINGS SHALL BE CHECKED PRIOR TO SUBMITTAL. ANY DISREGARD FOR THE AFORESAID REQUIREMENTS SHALL BE CAUSE FOR REJECTION OF THE SUBMITTAL WITHOUT REVIEW.
9. NO ADMIXTURES ARE PERMITTED WITHOUT THE ENGINEER'S WRITTEN PERMISSION OTHER THAN ENTRAINED AIR. CONCRETE EXPOSED TO THE WEATHER, SUCH AS THAT USED IN FOUNDATION WALLS, SHALL CONTAIN 4% MIN. AND 6% MAX. ENTRAINED AIR.
10. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
11. CONCRETE SLABS SHALL BE PROTECTED FROM LOSS OF SURFACE MOISTURE FOR NOT LESS THAN 7 DAYS BY USING A CURING COMPOUND CONFORMING TO ASTM C-309, BY WET BURLAP, OR A PLASTIC MEMBRANE.
12. NO WELDING OF REINFORCING BARS WILL BE PERMITTED.
13. GROUT SHALL BE NON-SHRINKABLE GROUT CONFORMING TO ASTM C827, AND SHALL HAVE SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS OF 5000 PSI. PREGROUTING OF BASE PLATES WILL NOT BE PERMITTED.
14. MIXING, TRANSPORTING AND PLACING OF CONCRETE SHALL CONFORM TO ACI 301 (LATEST EDITION).
15. MINIMUM CONCRETE COVER PROTECTION FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS: (SEE ACI 318 (LATEST EDITION) SECTION 7.7 FOR CONDITIONS NOT NOTED)

(a) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3
(b) CONCRETE EXPOSED TO EARTH OR WEATHER:	
NO. 6 THROUGH NO. 18 BARS	2
NO. 5 BARS, W31 OR D31 WIRE, AND SMALLER	1-1/2
(c) CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS, JOISTS:	
NO. 11 BAR AND SMALLER	3/4
(d) BEAMS, COLUMNS: PRIMARY REINFORCEMENT, TIES STIRRUPS, SPIRALS	1-1/2

   PROVIDE STANDARD BAR CHAIRS AND SPACERS AS REQUIRED TO MAINTAIN CONCRETE PROTECTION SPECIFIED.
16. REINFORCEMENT DESIGNATED AS "CONTINUOUS" SHALL LAP 36 BAR DIAMETERS AT SPLICES UNLESS NOTED OTHERWISE.
17. HORIZONTAL FOOTING AND HORIZONTAL WALL REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90 DEGREE BENDS AND EXTENSIONS, OR CORNER BARS OF EQUIVALENT SIZE LAPPED 44 BAR DIAMETERS, AT CORNERS AND INTERSECTIONS. NO REINFORCING OR REINFORCING SUPPORTS SHALL BE EMBEDDED INTO THE FOUNDATION SOIL. ALL REINFORCING PROJECTING FROM THE CONCRETE SHALL BE TIED TO THE FOUNDATION OR WALL REINFORCING AND FULLY SUPPORTED FROM MOVEMENT DURING CONCRETE INSTALLATION. NO "WET STICKING" OF REINFORCING IS PERMITTED.
18. HORIZONTAL JOINTING WILL NOT BE PERMITTED IN CONCRETE CONSTRUCTION EXCEPT AS SHOWN ON THE CONTRACT DOCUMENTS. VERTICAL JOINTS SHALL OCCUR AT CENTER OF SPANS AT LOCATIONS APPROVED BY THE ENGINEER.
19. SLABS SHALL HAVE CONSTRUCTION JOINTS OR CONTRACTION JOINTS AT EACH COLUMN LINE IN EACH DIRECTION AND AS SHOWN ON THE DRAWINGS. ADDITIONAL CRACK CONTRACTION JOINTS SHALL BE PROVIDED, SUCH THAT THE MAXIMUM SPACING BETWEEN CONSTRUCTION AND CRACK CONTROL JOINTS DOES NOT EXCEED 15' AND DOES NOT EXCEED A LENGTH TO WIDTH RATION 1.5:1.
20. REPAIR CONCRETE EXHIBITING VOIDS DUE TO SNAP TIES, "HONEYCOMBS," ROCK POCKETS, AND RUNS, SPALLS OR OTHERWISE DAMAGED SURFACES WITH DRY PACK OR CEMENT GROUT, AND FINISH FLUSH WITH ADJOINING SURFACES. AT THE DISCRETION OF THE ENGINEER OR AS QUALIFIED BY LAB TESTING, EXCESSIVE HONEYCOMBS OR EXPOSED REINFORCEMENT THAT JEOPARDIZE THE DESIGN SHALL BE REMOVED AND REPLACED AT THE EXPENSE OF THE CONTRACTOR.
21. PROVIDE TWO (2) #3X4'0" AT ALL RE-ENTRANT CORNERS, PLACED ON THE DIAGONAL WITH 1-1/2" CLEARANCE FROM THE CORNER AND TOP OF SLAB.
22. CONSTRUCTION JOINTS BETWEEN FOOTINGS AND PILASTERS AND SIMILAR JOINTS SHALL BE PREPARED BY ROUGHENING THE CONTACT SURFACE IN AN APPROVED MANNER TO FULL AMPLITUDE OF APPROX. 1/4 INCHES, LEAVING THE CONTACT SURFACE FREE AND CLEAR OF LAITANCE. REINFORCED (DOWELED) JOINTS SHALL HAVE BINDER ADDITIVE APPLIED PRIOR TO POUR.
23. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE INDICATED.
24. CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PROTECT FINISHED SURFACES FROM STAINS OR ABRASIONS. NO FIRE SHALL BE ALLOWED IN DIRECT CONTACT WITH CONCRETE. PROVIDE ADEQUATE PROTECTION AGAINST INJURIOUS ACTION BY SUN OR WIND. FRESH CONCRETE SHALL BE THOROUGHLY PROTECTED FROM HEAVY RAIN, FLOWING WATER, AND MECHANICAL INJURY.
25. TOPS OF FOUNDATION WALLS SHALL BE TROWEL FINISHED AND SMOOTH. ALL SLABS SHALL BE ROUGHENED WITH NON-SLIP BROOM FINISH APPLIED IMMEDIATELY AFTER FLOATING. USE A HEAVY DUTY FIBER BRISTLE BROOM PERPENDICULAR TO THE MAIN TRAFFIC ROUTE.
26. SLUMP TESTS SHALL BE MADE PRIOR TO THE ADDITION OF PLASTICIZERS. CONCRETE FOR THE PREPARATION OF TEST CYLINDERS SHALL BE TAKEN FROM THE HOSE END FOR CONCRETE PLACED BY PUMP.
27. WATER SHALL NOT BE ADDED TO THE CONCRETE AT THE JOBSITE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE REQUIREMENTS OF THE CONCRETE SUPPLIER AND PUMPER TO ENSURE PUMPABLE AND WORKABLE MIX WITHOUT THE ADDITION OF WATER AT THE JOBSITE. THE USE OF PLASTICIZERS, RETARDANTS AND OTHER ADDITIVES SHALL BE AT THE OPTION OF THE CONTRACTOR SUBJECT TO THE APPROVAL OF THE ENGINEER. FOLLOW THE RECOMMENDATIONS OF THE MANUFACTURER FOR PROPER USE OF RETARDANTS AND OTHER ADDITIVES. USE OF CALCIUM CHLORIDE OR OTHER CHLORIDE BEARING SALTS SHALL NOT BE PERMITTED.
28. PLACE CONCRETE IN A MANNER SO AS TO PREVENT SEGREGATION OF THE MIX. DELAY FLOATING AND TROWELING OPERATIONS UNTIL THE CONCRETE HAS LOST SURFACE WATER SHEEN OR ALL FREE SLABS SURFACE WATER. FINISHING OF SLAB SURFACES SHALL COMPLY WITH ACI RECOMMENDATIONS 302 AND 304 (LATEST EDITION) FOR GARAGES.
29. CONTRACTION JOINTS, IF SAW CUT, SHALL MEET THE FOLLOWING REQUIREMENTS:

   JOINT DEPTH: 1/4 OF SLAB THICKNESS
   SOFT-CUT SAW: JOINTS TO BE CUT WITHIN 2 HOURS OF FINISHING WET-CUT SAW: JOINTS TO BE CUT BETWEEN 4 AND 12 HOURS AFTER FINISHING.
30. HOT WEATHER CONCRETING: WHEN CONCRETING IS TO BE DONE IN HOT WEATHER CONDITIONS THAT COULD ADVERSELY AFFECT THE PROPERTIES AND SERVICEABILITY OF CONCRETE, PREPARATIONS AND PROCEDURES OUTLINED IN ACI 305R (LATEST EDITION) SHOULD BE FOLLOWED UNLESS OTHERWISE NOTED IN CONSTRUCTION SPECIFICATIONS.
31. COLD WEATHER CONCRETING: WHEN CONCRETING IS TO BE DONE IN COLD WEATHER CONDITIONS THAT COULD ADVERSELY AFFECT THE PROPERTIES AND SERVICEABILITY OF CONCRETE, PREPARATIONS AND PROCEDURES OUTLINED IN ACI 306R (LATEST EDITION) SHOULD BE FOLLOWED UNLESS OTHERWISE NOTED IN CONSTRUCTION SPECIFICATIONS.
32. TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:
   A. OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAYS POUR OF EACH CONCRETE MIXTURE EXCEEDING 5 CU. YDS. BUT LESS THAN 25 CU YDS., PLUS ONE SET FOR EACH ADDITIONAL 50 CU YD OR FRACTION THEREOF.
   B. CONCRETE SLUMP, AIR CONTENT AND TEMPERATURE SHALL BE TAKEN AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE. PERFORM ADDITIONAL TEST WHEN CONSISTENCY APPEARS TO CHANGE.
   C. COMPRESSION TEST SPECIMENS SHALL BE PER ASTM C31 REQUIREMENTS. CAST AND CURE ONE SET OF FIVE STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.
   D. COMPRESSION STRENGTH TEST SHALL BE PER ASTM C39. TEST TWO LABORATORY-CURED SPECIMENS AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS. MAINTAIN AND CURE ONE FIELD CURED SPECIMEN FOR 56 DAYS OR LONGER AT THE REQUEST OF THE ENGINEER.
33. REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION SHALL BE OUTLINED IN TABLE 1704.4 OF THE PA UCC AND IBC 2006.
34. BEFORE POURING CONCRETE, COORDINATE LOCATION OF ALL CAST-IN-PLACE OR EMBEDDED ITEMS - ANCHOR BOLTS, SLEEVES, CONDUITS, ETC. WITH THE OTHER TRADES.

METAL PLATE CONNECTED WOOD TRUSSES

1. TRUSS PROFILES ARE ONLY ASSIST IN DESIGN INTENT. WOOD TRUSS SHOP DRAWINGS MUST BE SUBMITTED W/ ENGINEER'S SEAL W/ ALL DESIGN CRITERIA INCLUDING SNOW DRIFT & UNBALANCED LOADING AS PER CODE. SEE ARCH DWGS FOR ALL DIMENSIONS.
2. ALL "SIMPSON" HARDWARE INDICATED ARE SUBJECT TO CHANGE UPON REVIEWING OF THE ROOF TRUSS SHOP DWG'S.

A. TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH ANSI/TPI 1, NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION AND THIS SPECIFICATION. WHERE ANY APPLICABLE DESIGN FEATURE IS NOT SPECIFICALLY COVERED BY ANSI/TPI 1 OR THIS SPECIFICATION, DESIGN SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF ANSI/AWC NDS - NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION, AND ALL APPLICABLE LEGAL REQUIREMENTS.

B. TRUSS MANUFACTURER SHALL FURNISH TRUSS DESIGN DRAWINGS PREPARED IN ACCORDANCE WITH ALL APPLICABLE LEGAL REQUIREMENTS.

C. THE TRUSS MANUFACTURER SHALL FURNISH A TRUSS PLACEMENT DIAGRAM WHICH SHALL PROVIDE AT A MINIMUM THE LOCATION ASSUMED FOR EACH TRUSS BASED IN THE TRUSS MANUFACTURER'S INTERPRETATION OF THE CONSTRUCTION DOCUMENTS.

D. THE LOCAL BUILDING OFFICIAL OR APPLICABLE LEGAL REQUIREMENTS, THE TRUSS MANUFACTURER SHALL SUBMIT THE TRUSS SUBMITTAL PACKAGE TO THE BUILDING DESIGNER AND/OR THE LOCAL BUILDING OFFICIAL FOR REVIEW AND APPROVAL PRIOR TO THE MANUFACTURING OF THE TRUSSES.

E. THE TRUSS DESIGN DRAWINGS SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING INFORMATION:
   1. BUILDING CODE USED FOR DESIGN, UNLESS SPECIFIED ON COVER/TRUSS INDEX SHEET
   2. SLOPE OR DEPTH, SPAN, AND SPACING.
   3. LOCATION OF ALL JOINTS AND SUPPORT LOCATION.
   4. NUMBER OF PLIES IF GREATER THAN ONE.
   5. REQUIRED BEARING WIDTHS
   6. DESIGN LOADS AS APPLICABLE, INCLUDE:
      - TOP CHORD LIVE LOAD (FOR ROOF TRUSSES THIS SHALL BE THE CONTROLLING CASE OF LIVE, RAIN OR SNOW LOAD);
      - TOP CHORD DEAD LOAD;
      - BOTTOM CHORD LIVE LOAD;
      - BOTTOM CHORD DEAD LOAD;
      - ADDITIONAL LOADS AND LOCATIONS.
      - ENVIRONMENT LOAD DESIGN CRITERIA (WIND SPEED, SNOW, SEISMIC, AND ALL APPLICABLE FACTORS AS REQUIRED TO CALCULATE THE TRUSS LOADS); AND
      - OTHER LATERAL LOADS, INCLUDING DRAG STRUT LOADS.
   7. ADJUSTMENT TO WOOD MEMBER AND METAL CONNECTOR PLATE DESIGN VALUES FOR CONDITIONS OF USE.
   8. MAXIMUM REACTION FORCE AND DIRECTION, INCLUDING MAXIMUM UPLIFT REACTION FORCE WHERE APPLICABLE.
   9. METAL CONNECTOR PLATE TYPE, MANUFACTURER, SIZE THICKNESS OR GAUGE, AND THE DIMENSIONED LOCATION OF EACH METAL CONNECTOR PLATE EXCEPT WHERE SYMMETRICALLY LOCATED RELATIVE TO THE JOINT INTERFACE.
   10. SIZE, SPECIES AND GRADE FOR EACH WOOD MEMBER;
   11. TRUSS-TO-TRUSS CONNECTION AND TRUSS FIELD ASSEMBLY REQUIREMENTS.
   12. CALCULATED SPAN TO DEFLECTION RATIO AND/OR MAXIMUM VERTICAL AND HORIZONTAL DEFLECTION FOR LIVE AND FOR LIVE PLUS DEAD LOAD AND KCR (CREEP FACTOR) AS APPLICABLE.
   13. REQUIRED PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT LOCATION.
   14. TRUSS DESIGNER.

TRUSSES SHALL BE MANUFACTURED TO MEET QUALITY REQUIREMENTS OF ANSI/TPI 1 AND IN ACCORDANCE WITH THE INFORMATION PROVIDED IN THE FINAL APPROVED TRUSS DESIGN DRAWINGS.

F. CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING, INSTALLATION, AND TEMPORARY RESTRAINT/BRACING OF THE TRUSSES IN A GOOD WORKMANLIKE MANOR AND IN ACCORDANCE WITH THE RECOMMENDATIONS SET FOR IN SBCA/TPI'S BUILDING COMPONENT SAFETY INFORMATION (BCSI): GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.

G. TRUSSES SHALL BE PERMANENTLY RESTRAINED AND BRACED IN A MANNER CONSISTENCE WITH GOOD BUILDING PRACTICES AS OUTLINED IN BCSI AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS. TRUSSES SHALL FURTHERMORE BE ANCHORED OR RESTRAINED TO PREVENT OUT-OF-PLANE MOVEMENT SO AS TO KEEP ALL TRUSS MEMBERS FROM SIMULTANEOUSLY BUCKLING TOGETHER IN THE SAME DIRECTION. SUCH PERMANENT LATERAL RESTRAINT SHALL BE ACCOMPLISHED BY: (A) ANCHORAGE TO SOLID END WALLS; (B) PERMANENT DIAGONAL BRACING IN THE PLANE IN THE PLANE OF THE WEB MEMBERS; OR (C) OTHER SUITABLE MEANS.

PRE-ENGINEERED ROOF TRUSSES

1. TRUSS PROFILES ARE ONLY ASSIST IN DESIGN INTENT. WOOD TRUSS SHOP DRAWINGS MUST BE SUBMITTED W/ ENGINEER'S SEAL W/ ALL DESIGN CRITERIA INCLUDING SNOW DRIFT & UNBALANCED LOADING AS PER CODE. SEE ARCH DWGS FOR ALL DIMENSIONS.
2. WOOD TRUSSES SHALL BE BRACED AND ERECTED IN ACCORDANCE WITH THE "TRUSS PLATED INSTITUTE" STANDARDS AND GENERAL NOTES.
3. BRACING IN THE PLANE OF WEB MEMBERS:
   a. THE TRUSS FABRICATOR SHALL PROVIDE AND LOCATE CONTINUOUS LATERAL BRACING FOR EACH TRUSS WEB MEMBER AS REQUIRED.
   b. LATERAL BRACING SHALL BE RESTRAINED BY DIAGONAL BRACING (MIN. 2" THICK NOMINAL LUMBER). THIS BRACING IS TO BE CONTINUOUS.
   c. A MINIMUM OF TWO ROWS OF DIAGONAL BRACING IS REQUIRED ONE @ EACH VERTICAL WEB MEMBER CLOSEST TO BEARING LOCATIONS.
4. THE BOTTOM CHORDS SHALL BE BRACED BY CONTINUOUS LATERAL BRACING SPACED AT 8 TO 10 FEET, NAILED TO TOP OF THE BOTTOM CHORD. DIAGONALS PLACED AT 45 DEGREES TO THE LATERAL BRACES SHALL BE LOCATED @ EA. END IF BUILDING EXCEEDS 60 FT. IN LENGTH, DIAGONAL BRACING WOULD BE REPEATED @ 20 FOOT INTERVALS.
5. TOP CHORD BRACING:
   a. IF PLYWOOD SHEATHING IS APPLIED DIRECTLY TO TOP CHORD, PROPERLY LAPPED AND NAILED TO DEVELOP DIAGRAM ACTION, THEREFORE BRACING IS NOT REQUIRED.
   b. IF PURLIN ARE USED, DIAGONAL TOP CHORD BRACING IS REQUIRED AT EACH END. IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED AT 20 FOOT INTERVALS.
6. IF PLYWOOD SHEATHING @ VALLEY TRUSS IS NOT INSTALLED PROVIDE 2x4 LATERAL BRACING @ 2'-0" O.C. FASTENED TO TOP CHORD OF TRUSS.
7. PROVIDE "SIMPSON"; VTCR VALLEY TRUSS CLIPS @ ALL CONNECTIONS BETWEEN THE VALLEY TRUSS & SUPPORT FRAMING BELOW.
8. TRUSS MANUFACTURER TO PROVIDE ALL TRUSS TO TRUSS CONNECTIONS AND SPECIFY THE METAL HANGERS ON SHOP DRAWINGS.
9. DESIGN BOTTOM CORD OF TRUSS TO SUPPORT A 20 PSF LIVE LOAD IN ALL AREAS WHERE A RECTANGLE 3'-6" TALL BY 1'-0" WIDE WILL FIT BETWEEN THE BOTTOM CHORD AND ANY OTHER TRUSS MEMBER.
10. ALL "SIMPSON" HARDWARE INDICATED ARE SUBJECT TO CHANGE UPON REVIEWING OF THE ROOF TRUSS SHOP DWG'S.
11. PROVIDE SOLID BLOCKING OR BAND JOIST BETWEEN TRUSSES AT SUPPORTS.

TIMBER AND SHEATHING:

1. ALL 2x6 FRAMING WOOD TO BE HEM-FIR NO. 2 OR BETTER
2. ALL ROOF AND FLOOR FRAMING JOISTS TO BE 2x12 MSR 2400 Fb 2.0E SYP
3. PROVIDE DOUBLE FLOOR JOISTS UNDER ALL PARTITIONS THAT RUN PARALLEL TO FRAMING DIRECTION.
4. PROVIDE DOUBLE 2x HEADERS (MIN.) AT ALL WINDOWS, DOORS AND WALL OPENINGS (UNLESS NOTED OTHERWISE ON PLANS)
5. ALL NAILING SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE (2009 EDITION) TABLES 2304.9.1
6. WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING THAT REST ON EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" FROM EXPOSED EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD.
7. THERE SHALL BE ONE LINE OF BRIDGING FOR EACH 8 FEET OF SPAN. THE BRIDGING SHALL CONSIST OF NOT LESS THAN 1 INCH BY 3 INCH LUMBER DOUBLE NAILED AT EACH END OR EQUIVALENT METAL BRACING OR EQUAL RIGIDITY, FULL DEPTH SOLID BLOCKING OR OTHER APPROVED MEANS.
8. ROOF SHEATHING SHALL BE 24/16 PLYWOOD SPAN RATING (7/16" THICK MIN.) CONTINUOUS OVER 2 OR MORE SUPPORTS.
9. FLOOR SHEATHING SHALL BE 40/20 PLYWOOD SPAN RATING (19/32" THICK MIN.) CONTINUOUS OVER 2 OR MORE SUPPORTS.

LUMBER AND SHEATHING:

1. ALL WOOD FOR STRUTURAL FRAMING SHALL BE STRESS-GRADED, SURFACE DRY HEM-FIR (NORTH) No. 2 OR BETTER. GRADING SHALL BE AS PER "THE NATIONAL DESIGN AND SPECIFICATIONS FOR WOOD CONSTRUCTION, LATEST EDITON BY THE AMERICAN FOREST AND PAPER ASSOCIATION (AFPA). STANDARD GRADE MAY BE USED FOR 2x4 INTERIOR STUD WALL CONSTRUCTION.
2. PROVIDE 2x OR METAL CROSS-BRIDGING NOT OVER 8'-0" ON CENTER FOR ALL WOOD JOISTS AND SOLID BLOCKING BETWEEN JOISTS AND OR TRUSSES OR A BAND JOIST AT SUPPORTS.
3. PROVIDE SOLID BLOCKING UNDER ALL POSTS OR MULTIPLE STUDS, SEE PLANS FOR LOCATIONS, WITHIN THE FLOOR FRAMING.
4. FOR INTERIOR BEARING WALLS, PROVIDE MID-HEIGHT BLOCKING BETWEEN STUDS. THIS BLOCKING IS TO BE INSTALLED PRIOR TO INSTALLING THE FLOOR OR ROOF FRAMING WHICH BEARS ON THIS WALL.
5. TIMBER CONNECTORS ARE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. CONNECTORS BY OTHER MANUFACTURERS MAY BE USED IF THEY HAVE I.C.B.O APPROVAL AND THEIR LOAD CAPACITY IS EQUAL TO OR GREATER THAN THE CONNECTORS SPECIFIED. INSTALL CONNECTOR WITH THE MANUFACTURER'S INSTRUCTIONS.
6. ALL MICRO-LAM AND PARALLAM GIRDERS AND I-JOISTS, DESIGNATED ML, PL AND TJI ON PLAN TO BE MICROLAM AND PARALLAM GIRDERS MANUFACTURED BY WEYERHAEUSER.
7. PLYWOOD SHALL BE AMERICAN PLYWOOD ASSOCIATION (APA) EXTERIOR C-D AND SHALL CONFORM TO APA STANDARD PS1-74. PLACE PANELS WITH 8'-0" DIMENSION PERPENDICULAR TO SPAN OF FRAMING MEMBER AND END JOINTS STAGGERED. ATTACH TO FRAMING WITH 10d ("10 PENNY") NAILS SPACED AT 6" ALONG PANEL EDGES AND 12" AT INTERIOR SUPPORTS UNLESS OTHERWISE NOTED.
8. ROOF SHEATHING SHALL BE 24/16 PLYWOOD SPAN RATING (5/8" THICK MIN.) CONTINUOUS OVER 3 OR MORE SUPPORTS.
9. FLOOR SHEATHING SHALL BE 40/20 PLYWOOD SPAN RATING (3/4" THICK MIN.) CONTINUOUS OVER OR MORE SUPPORTS.

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL VERIFY WITH OWNER FOR LOCATION AND SHUT OFF PROCEDURE FOR ALL UTILITIES LOCATED WITHIN THE WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING VALVES, CONNECTIONS OR SHUTOFFS ASSOCIATED WITH DEMOLITION ACTIVITIES FOR THIS WORK.
3. THE CONTRACTOR SHALL DEMOLISH, REMOVE AND DISPOSE OF DEMOLITION DEBRIS INCLUDING, BUT NOT LIMITED TO, PIPING, CONCRETE, EARTH AND BITUMINOUS PAVEMENT IN A PROPER MANNER TO AN OFFSITE DISPOSAL FACILITY AND PROVIDE DISPOSAL INFORMATION AS REQUESTED BY THE OWNER.
4. THE CONTRACTOR SHALL APPLY PROPER ENVIRONMENTAL DUE DILIGENCE WHEN DISPOSING OF DEMOLITION DEBRIS AND EXCESS MATERIALS.
5. THE CONTRACTOR SHALL ONLY USE CLEAN FILL FOR FILL AREAS. "CLEAN FILL", AS DEFINED BY PADEP, SHALL BE USED AND IS NOT TO CONTAIN ANY DEMOLISHED CONCRETE, BITUMINOUS PAVEMENT, FOREIGN MATERIAL, ETC..
6. IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE CONTRACTOR AND SHALL BE VERIFIED BY THE OWNER.
7. THE CONTRACTOR SHALL USE SUPPORTS AND SHORING TECHNIQUES TO PROPERLY SUPPORT EXISTING UTILITY CROSSINGS AND TRENCH WALLS ASSOCIATED WITH DEMOLITION ACTIVITIES AS PER OSHA REGULATIONS.
8. THE CONTRACTOR SHALL SAWCUT EXISTING PAVEMENT AND CONCRETE AS SHOWN ON THE PLAN PRIOR TO THE REMOVAL OF ANY BITUMINOUS PAVEMENT OR DEMOLITION ACTIVITIES ASSOCIATED WITH THIS WORK.

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

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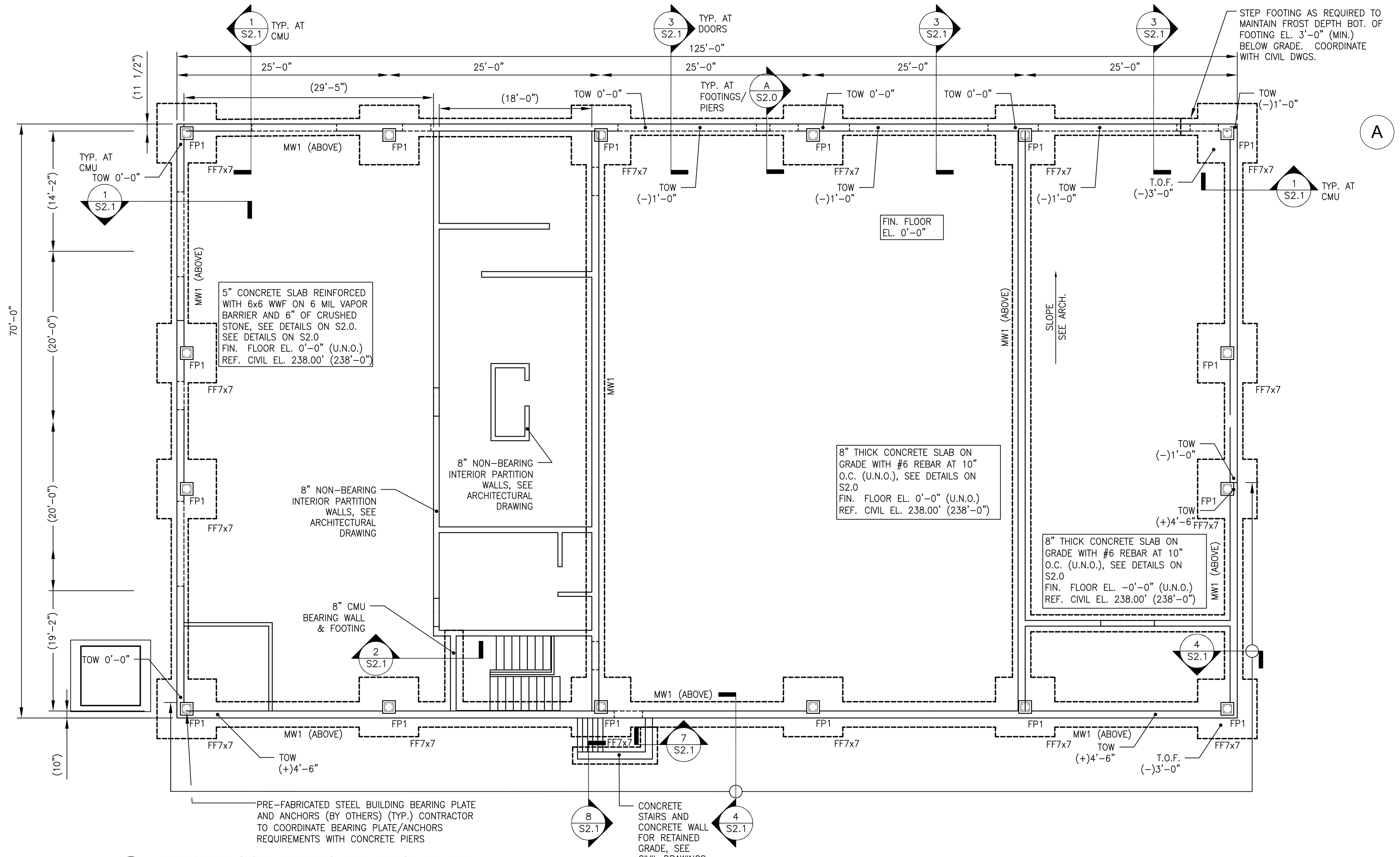
GENERAL STRUCTURAL NOTES
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 13, 2023

DRAWN BY: AMK	PROJ. MANAGER: JCM
PRINCIPAL: JCM	SCALE: AS NOTED
DRAWING NO. S0.0	
PROJECT NO. 210004	



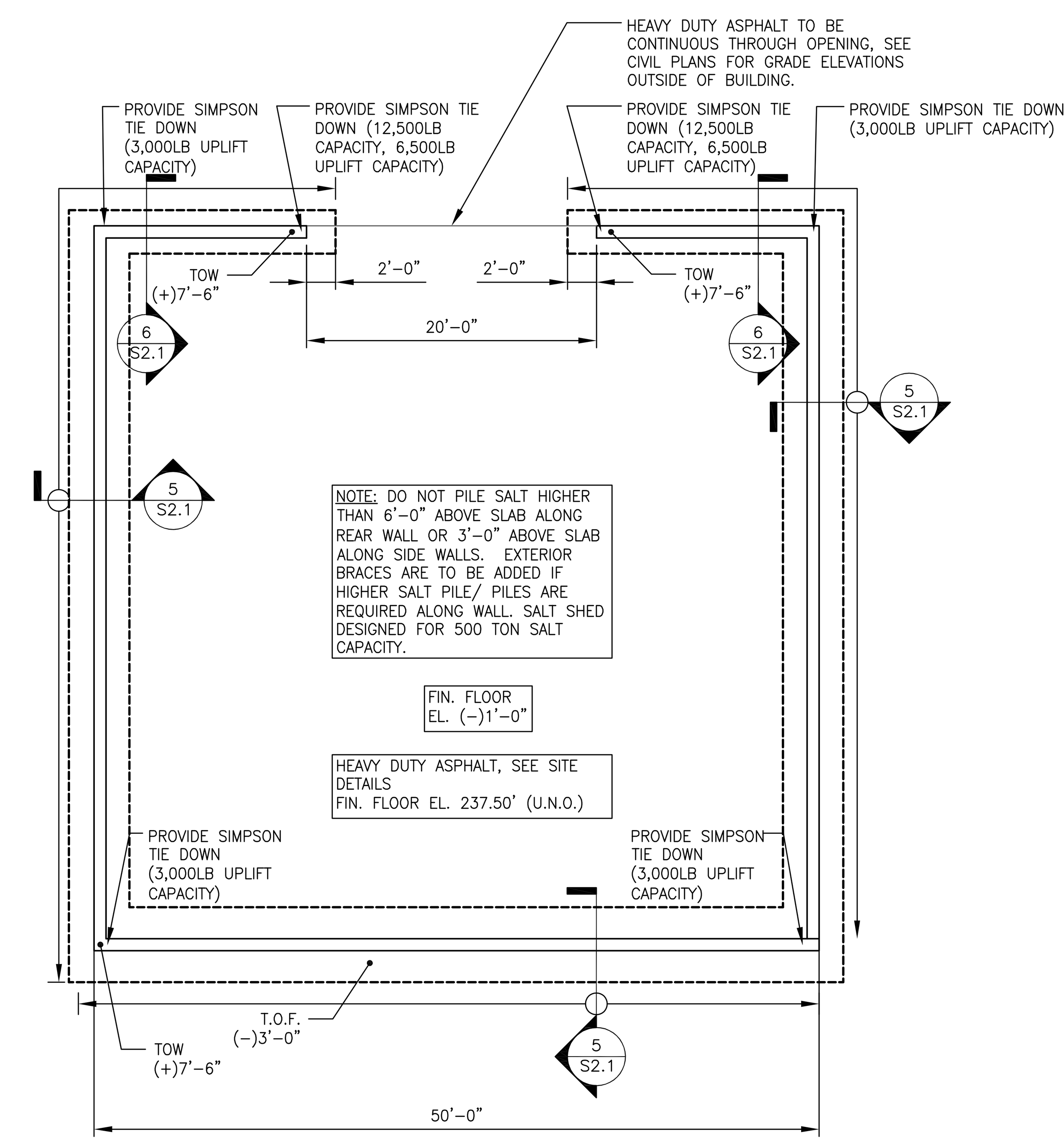
FIRST FLOOR AND FOUNDATION PLAN (1/S1.0)
Scale: 1/8"=1'-0"

SHEET NOTES:

1. ALL EXISTING CONDITIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO BEGINNING OF ANY WORK. IF EXISTING FIELD CONDITIONS DO NOT PERMIT THE INSTALLATION OF THE WORK IN ACCORDANCE WITH THE DETAILS AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY AND PROVIDE A SKETCH OF THE CONDITION WITH THE PROPOSED MODIFICATION FOR REVIEW BY ARCHITECT.
2. CONTRACTOR TO CONFIRM ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF WORK.
3. SEE SHEET S0.0 FOR GENERAL STRUCTURAL NOTES AND DESIGN LOADS.
4. SEE SHEET S2.0 FOR TYPICAL FOUNDATION DETAILS.
5. CONTRACTOR SHALL COORDINATE ALL FLOOR AND WALL OPENINGS WITH MECHANICAL DRAWINGS.
6. AT ALL LOCATIONS WHERE PIPING RUNS BENEATH OR THROUGH CONCRETE FOUNDATION WALLS SEE TYPICAL DETAILS ON S2.0
7. AT ALL LOCATIONS WHERE PIPING RUNS THROUGH CMU AND CONCRETE WALLS, DEEPEN FOOTINGS AS REQUIRED TO ALLOW 12" (MIN.) CLEARANCE BETWEEN PIPE AND FOOTING.
8. SEE ARCHITECTURAL DRAWINGS FOR WATERPROOFING AND INSULATION REQUIREMENTS AND LOCATIONS.
9. ALL FRAMING MEMBERS SHALL BE PROPERLY BRACED BY THE CONTRACTOR UNTIL THE STRUCTURAL DIAPHRAGM HAS BEEN COMPLETELY CONSTRUCTED.
10. MW1= 10" CMU WALL REINFORCED W/ #5 AT 32" VERTICAL. CENTER IN CMU CELLS AND FILL CELLS SOLID WITH CONCRETE AT #5 (TYPICAL EXTERIOR BEARING WALL). PROVIDE 9 GAGE TRUSS TYPE JOINT REINFORCING AT 16" O.C. VERTICALLY.
11. MW2= 8" CMU WALL REINFORCED W/ #5 AT 32" VERTICAL. CENTER IN CMU CELLS AND FILL CELLS SOLID WITH CONCRETE AT #5 (TYPICAL INTERIOR BEARING WALL). PROVIDE 9 GAGE TRUSS TYPE JOINT REINFORCING AT 16" O.C. VERTICALLY.
12. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONING OF ALL CMU WALLS
13. CONTRACTOR SHALL COORDINATE LOCATION OF NEW AND/ OR EXISTING UTILITIES WITH RELATED SUB-CONTRACTORS PRIOR TO PLACING FOOTINGS. STEP OR DROP FOOTING BOTTOM AS REQUIRED, SEE _/_/S2.0.
14. CONTRACTOR SHALL COORDINATE ALL FLOOR, ROOF AND WALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.
15. TOP OF FIRST FLOOR ELEVATION = (DATUM ELEVATION) = 0'-0" (USGS 238'-0").
16. TOP OF FOOTING ELEVATION = -2'-0" UNLESS NOTED THUS (. . .) RELATIVE TO THE TOP OF SLAB ELEVATION (DATUM ELEVATION)=0'-0". STEP FOOTING AS REQUIRED , SEE DETAIL C/S2.0

LEGEND:

SLOPE →	INDICATES SLOPE SEE ARCH.
(E)	INDICATES EXISTING
FFXxX	INDICATES FOOTING TYPE. SEE SCHEDULE ON THIS SHEET
TOF X'-XX"	(EXAMPLE) INDICATES TOP OF FOOTING ELEVATION. TOP OF FOOTING TO BE ELEV. (-)2'-0" (U.N.O.) G.C. TO VERIFY/COORDINATE WITH FINAL GRADES. ALL BOTTOM OF FOOTING ELEVATIONS ARE (-) 3'-0" (MIN.) BELOW FINISHED GRADE.
FPX	INDICATES PIER TYPE. SEE SCHEDULE ON THIS SHEET
TOP X'-XX"	(EXAMPLE) INDICATES TOP OF PIER ELEVATION. TOP OF PIER ELEV. TO MATCH TOP OF WALL ELEV. (U.N.O.)
CJ	INDICATES SLAB CONTRACTION/CONSTRUCTION JOINT SEE DETAILS ON SHEET S2.0
(symbol)	INDICATES CHANGE IN ELEVATION
FS	INDICATES FOOTING STEP. SEE DETAIL ON SHEET S2.0
(hatch)	INDICATES NONLOAD BEARING CMU PARTITION WALLS
TOW X'-XX"	(EXAMPLE) INDICATES TOP OF WALL ELEVATION.
XXX' / (+)X'-X"	INDICATES APPROX. FIN. GRADE EL. SEE CIVIL DWGS.



ISSUED FOR BID JULY 19, 2023
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Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

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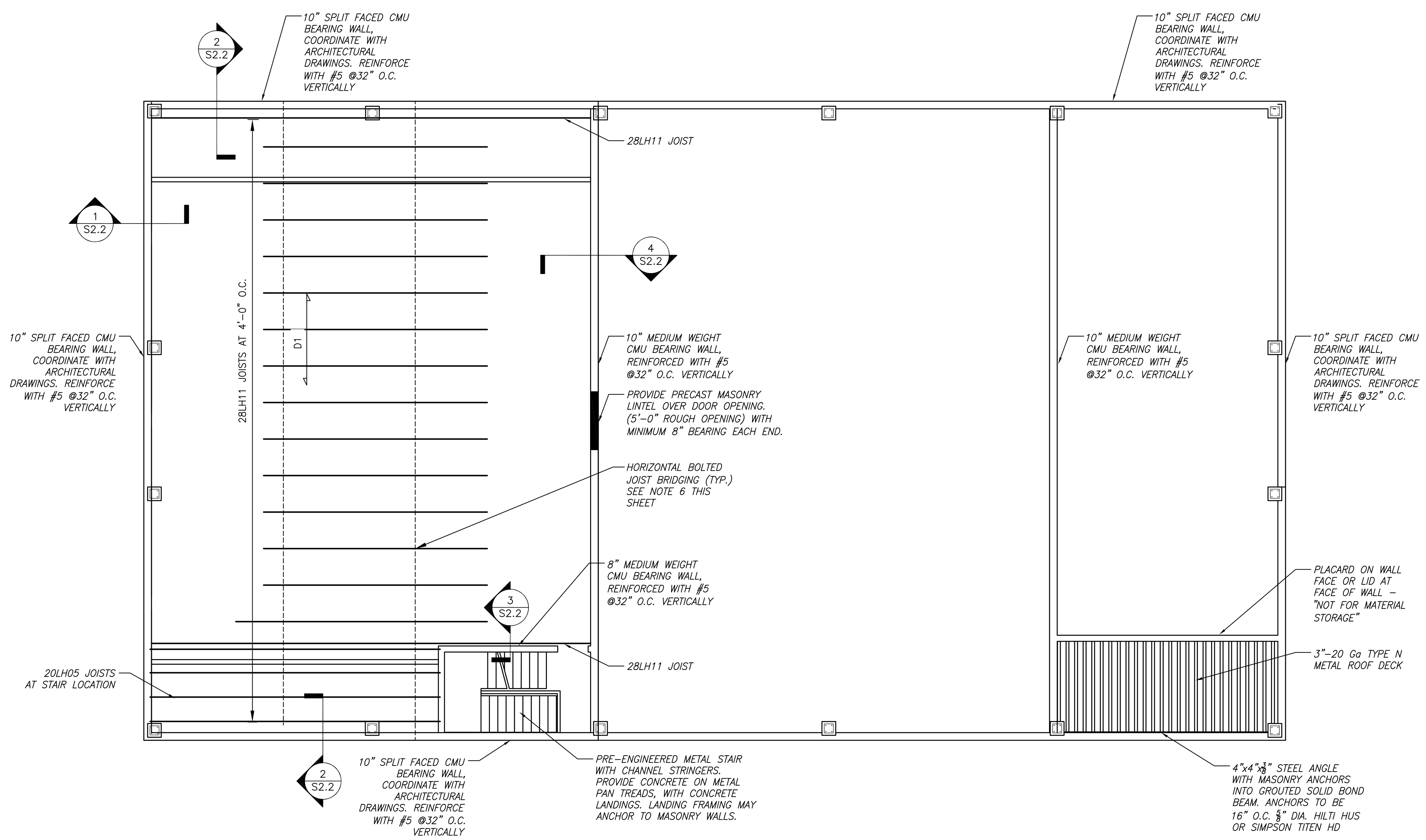
SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JAMES C. McCARTHY PE-051494E

FIRST FLOOR AND FDTN. PLAN – NEW BUILDING " PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 13, 2023

DRAWN BY: AMK	PROJ. MANAGER: JCM
PRINCIPAL: JCM	SCALE: AS NOTED
DRAWING NO. S1.0	
PROJECT NO. 210004	



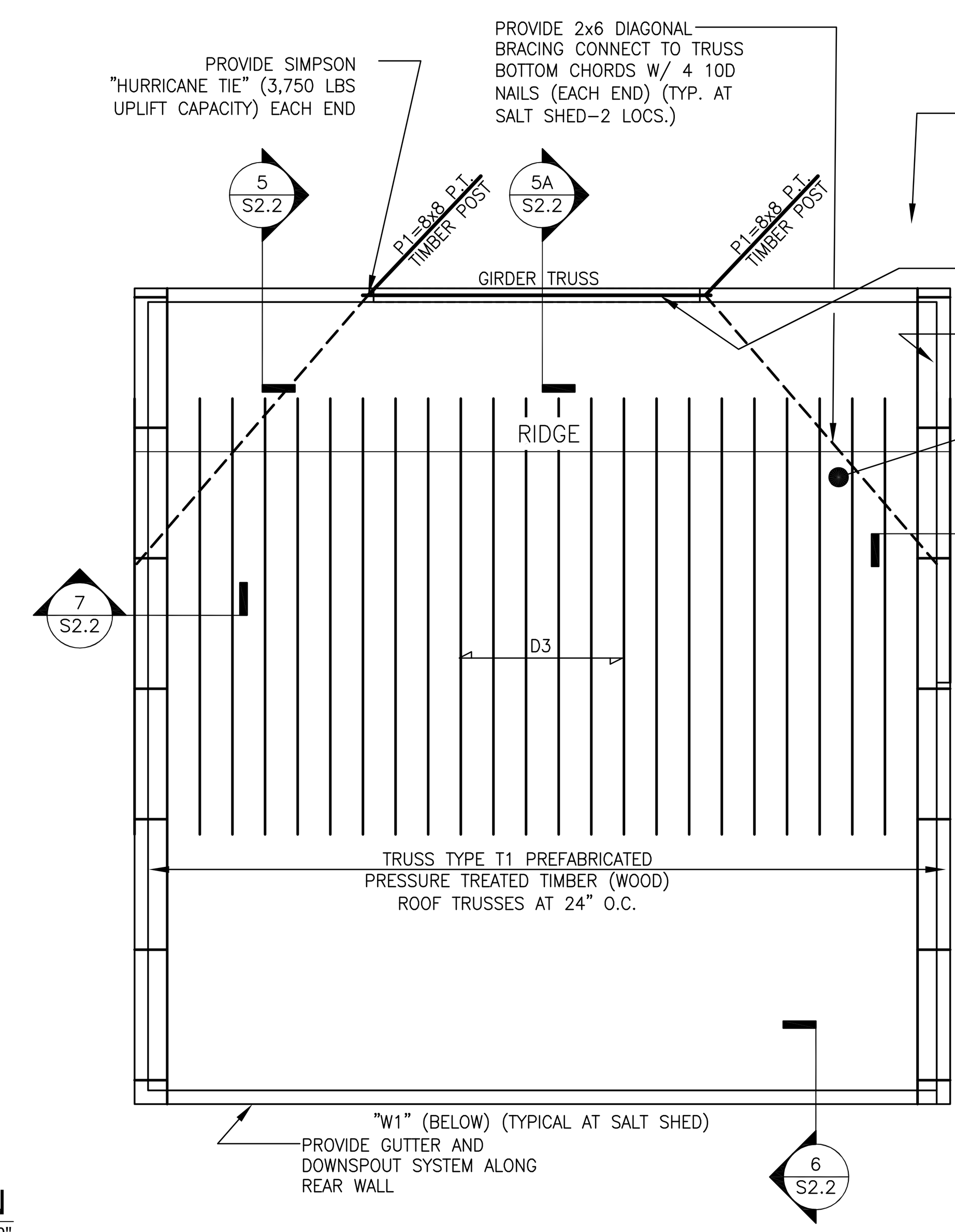
1 S1.1 SECOND FLOOR FRAMING PLAN
Scale: 1/8"=1'-0"

SHEET NOTES:

1. ALL EXISTING CONDITIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO BEGINNING OF ANY WORK. IF EXISTING FIELD CONDITIONS DO NOT PERMIT THE INSTALLATION OF THE WORK IN ACCORDANCE WITH THE DETAILS AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY AND PROVIDE A SKETCH OF THE CONDITION WITH THE PROPOSED MODIFICATION FOR REVIEW BY ARCHITECT.
2. CONTRACTOR TO CONFIRM ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF WORK.
3. FRAMING NOT SPECIFICALLY DIMENSIONED SHALL BE ASSUMED EQUALLY SPACED.
4. SEE SHEET S0.0 FOR GENERAL STRUCTURAL NOTES AND DESIGN LOADS.
5. ALL FRAMING MEMBERS SHALL BE PROPERLY BRACED BY THE CONTRACTOR UNTIL THE STRUCTURAL DIAPHRAGM HAS BEEN COMPLETELY CONSTRUCTED.
6. 24LH13 JOISTS SHALL HAVE (2) ROWS OF EQUALLY SPACED 1½x7/64", r=0.35 HORIZONTAL BRIDGING ANGLES BOLTED TO TOP AND BOTTOM CHORDS.
7. 24LH16 JOISTS SHALL HAVE (2) ROWS OF EQUALLY SPACED 1½x7/64", r=0.35 HORIZONTAL BRIDGING ANGLES BOLTED TO TOP AND BOTTOM CHORDS.
8. 14K3 JOISTS SHALL HAVE (1) ROW OF EQUALLY SPACED 1½x7/64", r=0.35 HORIZONTAL BRIDGING ANGLES BOLTED TO TOP AND BOTTOM CHORDS.
9. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS.

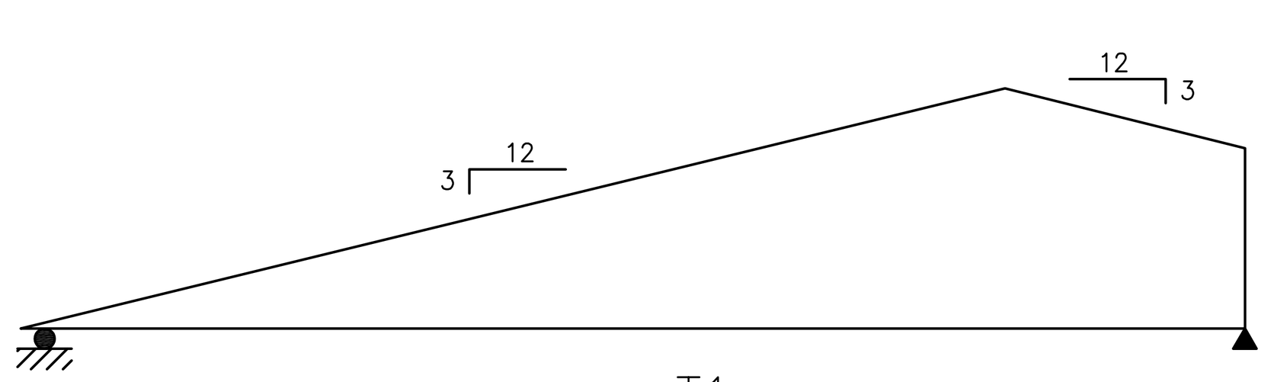
LEGEND:

SLOPE →	INDICATES SLOPE SEE ARCHITECTURAL DRAWINGS
← D1 →	INDICATES DIRECTION OF SPAN 2 ½" NORMAL WEIGHT CONCRETE OVER 1½", 18 GAGE METAL FLOOR DECK (4" TOTAL THICKNESS). REINFORCE SLAB WITH FIBERMESH METAL FLOOR DECK TO BE 1 1/2" TYPE B 18 GAGE METAL DECK INSTALLED IN 3 SPAN CONDITION W/36/4 5/8" DIAMETER WELD PATTERN AND (2) WELDED SIDE LAP CONNECTIONS PER SPAN. SEE GENERAL NOTES ON S0.0. SEE DETAIL A/S2.2 FOR SLAB REINFORCING.
12K	(EXAMPLE) INDICATES TOTAL VERTICAL END REACTION IN KIPS FOR STEEL TO STEEL CONNECTION DESIGN
(E)	INDICATES EXISTING
(SL)	INDICATES SLOPE STEEL BEAM/JOIST
← D2 →	INDICATES DIRECTION OF SPAN 2x3/16 STEEL BAR GRATING – TYPE W-19-4 (2x3/16) STEEL. STEEL BAR GRATING TO BE INSTALLED AND WELDED TO SUPPORTS PER MANUFACTURER'S RECOMMENDATIONS IN 3 SPAN CONDITION. SEE GENERAL NOTES ON S0.0.
← D3 →	INDICATES DIRECTION OF 5/8" (M/M) EXTERIOR GRADE PRESSURE TREATED PLYWOOD ROOF SHEATHING (STAGGER JOINTS)



- G.C. NOTE MAKE ALLOWANCES FOR RIDGE VENT AND LOUVERS

- PROVIDE RUBBER ROOFING SYSTEM (EDPM OR TPO OR EQUAL).
- PROVIDE FASCIA BOARDS AT THE TOP OF WALLS (EXTERIOR).
- PROVIDE DRIP EDGE AROUND EXTERIOR PERIMETER.
- PROVIDE T1-11 EXTERIOR SIDING SHEATHING (BROWN), SEE PLAN NOTES.
- PROVIDE GUTTERS AND DOWNSPOUTS AT 20'-0" ON CENTERS ALONG THE REAR WALL.
- PROVIDE GUTTER AND DOWNSPOUT ALONG FRONT WALL OF SALT SHED.
- PROVIDE METAL SCREEN MESH CEILING TO MATCH EXISTING BUILDING SPECS.



A S1.1 TRUSS TYPE T1
Scale: 1/8"=1'-0"

TRUSS DESIGN PARAMETERS:
–LOADING

TOP CHORD DEAD LOAD =	5 PSF
BOTTOM CHORD DEAD LOAD =	15 PSF
UNIFORM SNOW LOAD =	30 PSF
UNBALANCED SNOW LOAD =	SEE TRUSS DIAGRAMS
WIND NET UPLIFT =	15 PSF
TOP CHORD LIVE LOAD =	20 PSF

–DEFLECTION LIMITS

$\Delta_{LL} = L/240$
$\Delta_{S} = L/240$
$\Delta_{W} = L/240$
$\Delta_{D+L} = L/180$

NOTE: THE TRUSS PROFILES SHOWN ON THIS SHEET ARE GENERAL GRAPHIC REPRESENTATIONS ONLY AND FOR THE PURPOSE OF PROVIDING SPECIAL LOADING REQUIREMENTS. SEE ARCHITECTURAL DRAWINGS FOR ALL TRUSS DIMENSIONS AND CONFIGURATIONS.

2 S1.1 SALT SHED ROOF FRAMING PLAN
Scale: 1/8"=1'-0"

1. TYPICAL TRUSS BEARING ELEVATION = +21'-0" UNLESS NOTED THUS (...) RELATIVE TO DATUM ELEVATION = 0'-0".
2. "W1" = 2x8 PRESSURE TREATED TIMBER (WOOD) STUDS AT 16" O.C. + 8X8 TIMBER POST + SIMPSON POST BASE AT 4'-0" O.C. . PROVIDE ½" EXTERIOR GRADE PRESSURE TREATED PLYWOOD SHEATHING ATTACHED TO SUPPORTS (LONG DIMENSION VERTICAL) W/ 10d NAILS AT 12" (4" AT PANEL EDGES) (INTERIOR FACE OF WALL). PROVIDE 19/32" T1-11 SHEATHING ATTACHED TO SUPPORTS (LONG DIMENSION VERTICAL) W/ 10D NAILS AT 12" (6" AT PANEL EDGES) (EXTERIOR FACE OF WALL).
2. "W1A" = 2X8 PRESSURE TREATED TIMBER (WOOD) STUDS AT 16" O.C. PROVIDE ½" EXTERIOR GRADE PRESSURE TREATED PLYWOOD SHEATHING ATTACHED TO SUPPORTS (BOTH SIDES OF WALL) (LONG DIMENSION VERTICAL) W/ 10D NAILS AT 12" (6" AT PANEL EDGES, BOTH SIDES).
3. "W2" = 2X6 PRESSURE TREATED TIMBER (WOOD) STUDS AT 16". PROVIDE ½" EXTERIOR GRADE PRESSURE TREATED PLYWOOD SHEATHING ATTACHED TO SUPPORTS (LONG DIMENSION VERTICAL) W/ 10D NAILS AT 12" (4" AT PANEL EDGES) (INTERIOR FACE OF WALL). PROVIDE 19/32" T1-11 SHEATHING ATTACHED TO SUPPORTS (LONG DIMENSION VERTICAL) W/ 10D NAILS AT 12" (6" AT PANEL EDGES) (EXTERIOR FACE OF WALL).
4. "W2A" = 2X6 PRESSURE TREATED TIMBER (WOOD) STUDS AT 16" O.C. PROVIDE ½" EXTERIOR GRADE PRESSURE TREATED PLYWOOD SHEATHING ATTACHED TO SUPPORTS (BOTH SIDES OF WALL) (LONG DIMENSION VERTICAL) W/ 10D NAILS AT 12" (6" AT PANEL EDGES, BOTH SIDES).

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Revision	Date	Description
1	8/9/23	Addendum 1

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SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES C. McCARTHY ENGINEER PE-051494E

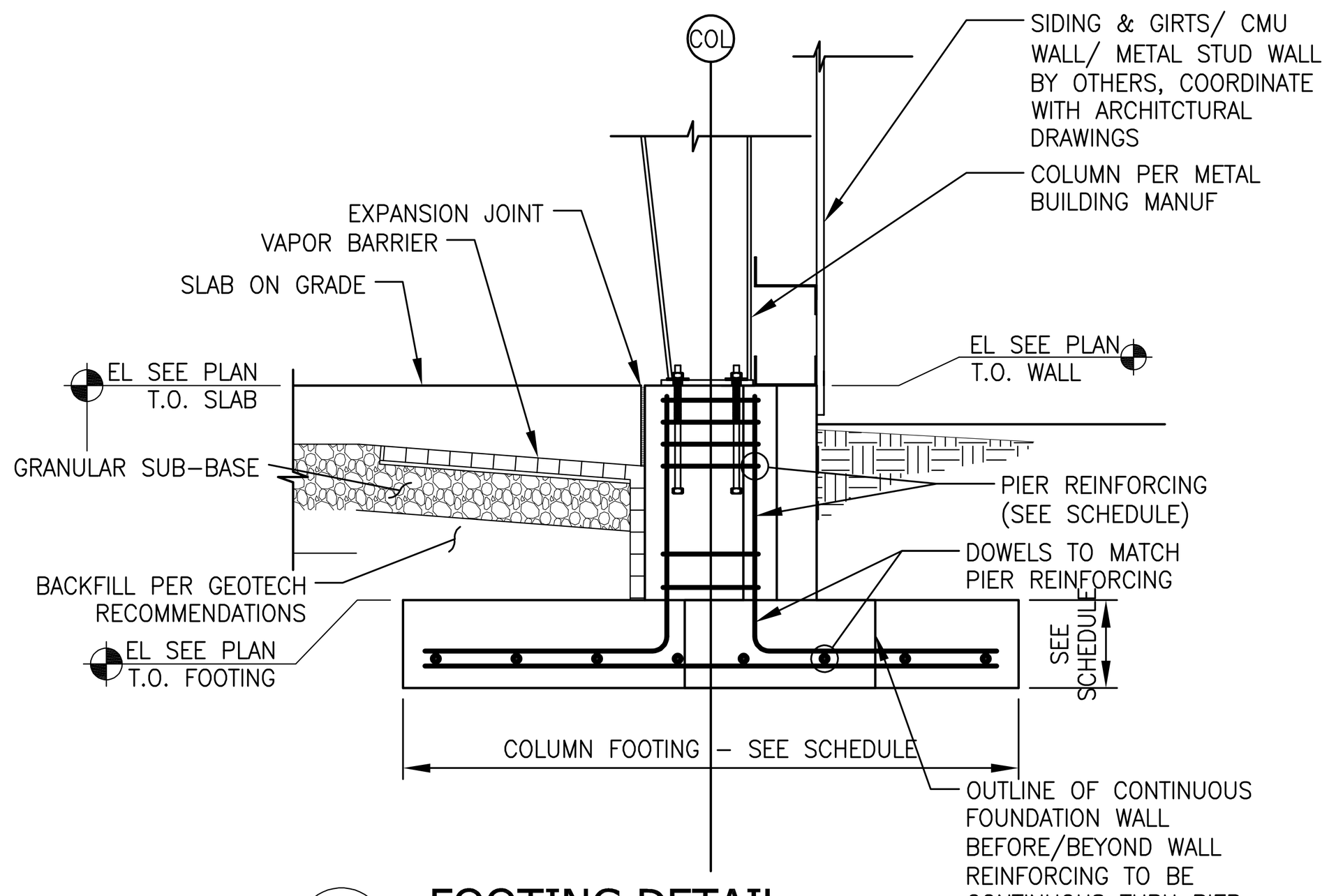
SECOND FLOOR FRAMING PLAN
– NEW BUILDING
" PUBLIC WORKS FACILITY "

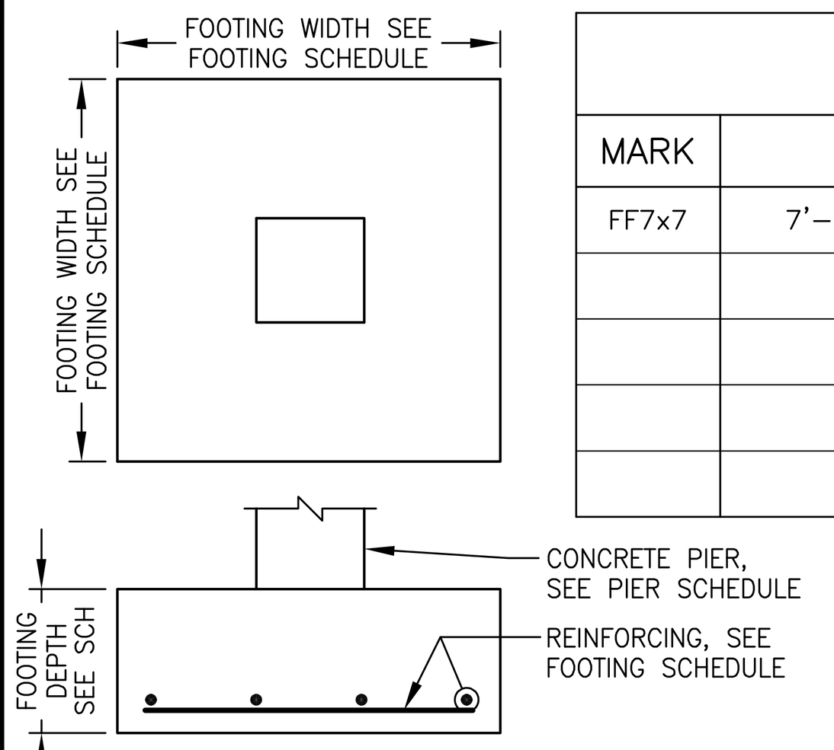
Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 13, 2023

DRAWN BY:	PROJ. MANAGER:
AMK	JCM
PRINCIPAL:	SCALE:
JCM	AS NOTED

DRAWING NO. S1.1
PROJECT NO. 210004

A — FOOTING DETAIL (S2.0)
Scale: 3/4"=1'-0"



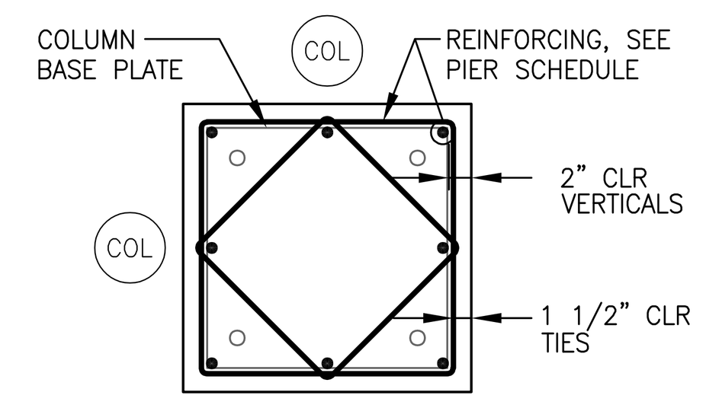


FOOTING SCHEDULE

MARK	SIZE	REINFORCING
FF7x7	7'-0" x 7'-0" x 14"	(6) #6 BOT. E.W.

FINAL FOOTING SIZES AT BUILDING COLUMNS TO BE DETERMINED UPON RECEIPT OF PRE-ENGINEERED BUILDING REACTIONS BY MANUFACTURER.

B — PIER DETAIL (S2.0)
Scale: 3/4"=1'-0"



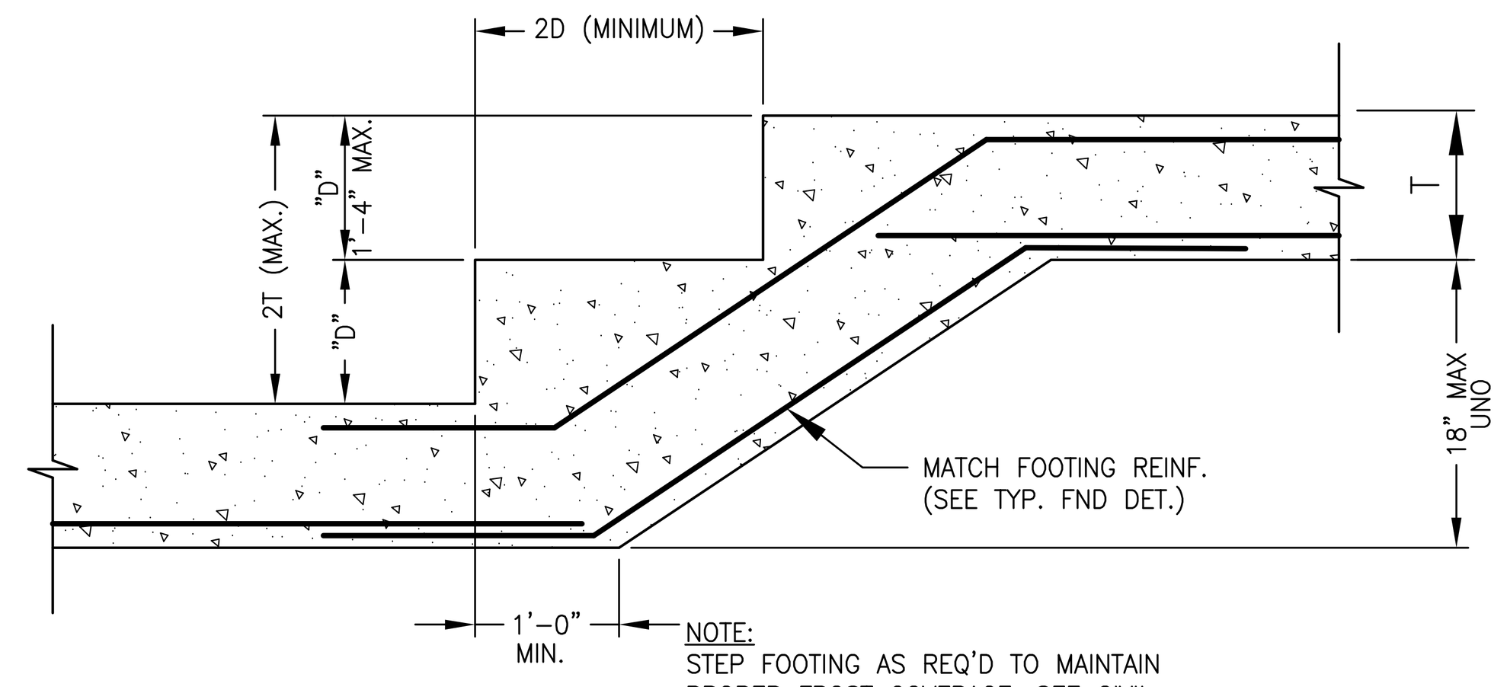
PIER SCHEDULE

MARK	SIZE	REINFORCING	TIES
FP1	18" x 18"	(8) #6 V.	#3 @ 9" O.C.

1. VERTICAL PIER REINFORCING TO BE TIED WITH #3 REBAR AS PER ACI–318 LATEST EDITION AND AS SHOWN.
2. USE (3) #3 TIES WITHIN TOP 5" AT THE TOP OF EACH PIER AND FIRST TIE ABOVE THE FOOTING SHOULD BE = OR < 4" FROM THE TOP OF FOOTING.
3. DOWELS TO BE SAME SIZE AND SPACING OF VERTICAL BARS (PROVIDE TENSION LAP SPLICE).
4. REFER TO ACI–318 FOR COVER REQUIREMENTS,
5. REFER TO SECTIONS FOR WALL REINFORCING.
6. WALL REINFORCING TO BE CONTINUOUS THROUGH PIERS.
7. REFER TO PLAN FOR TOP OF PIER ELEVATION.

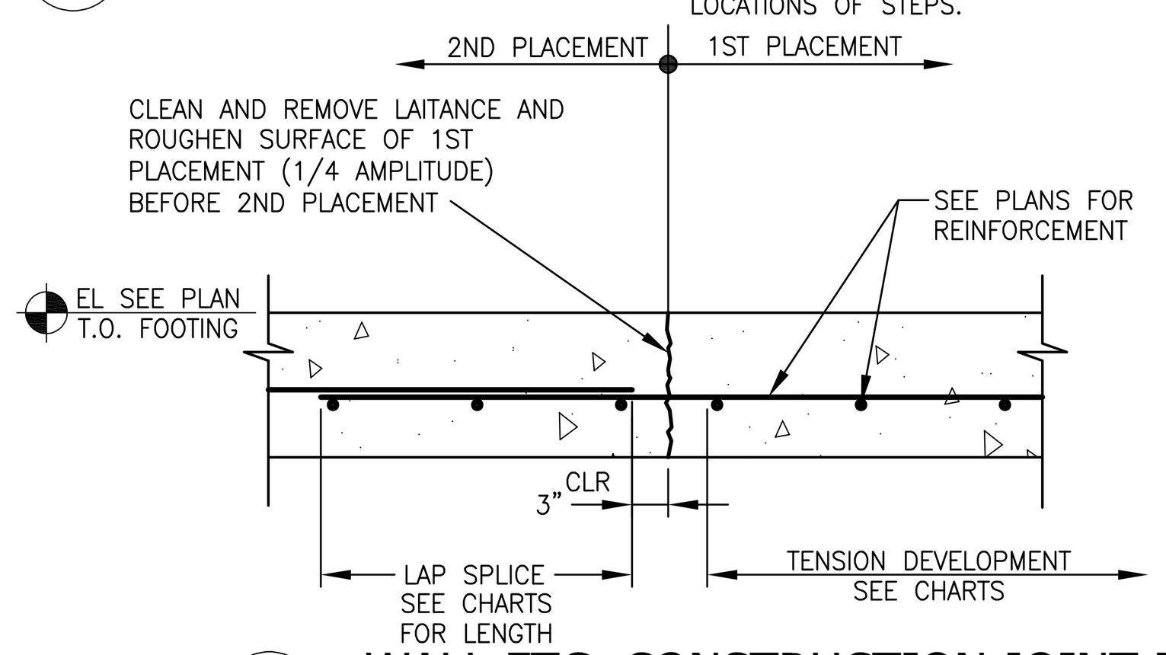
FINAL PIER SIZES TO BE DETERMINED AND COORDINATED WITH PRE–ENGINEERED BUILDING COLUMN AND ANCHOR LAYOUT BY MANUFACTURER.

C — STEPPED FTG. DETAIL (S2.0)
Scale: 3/4"=1'-0"

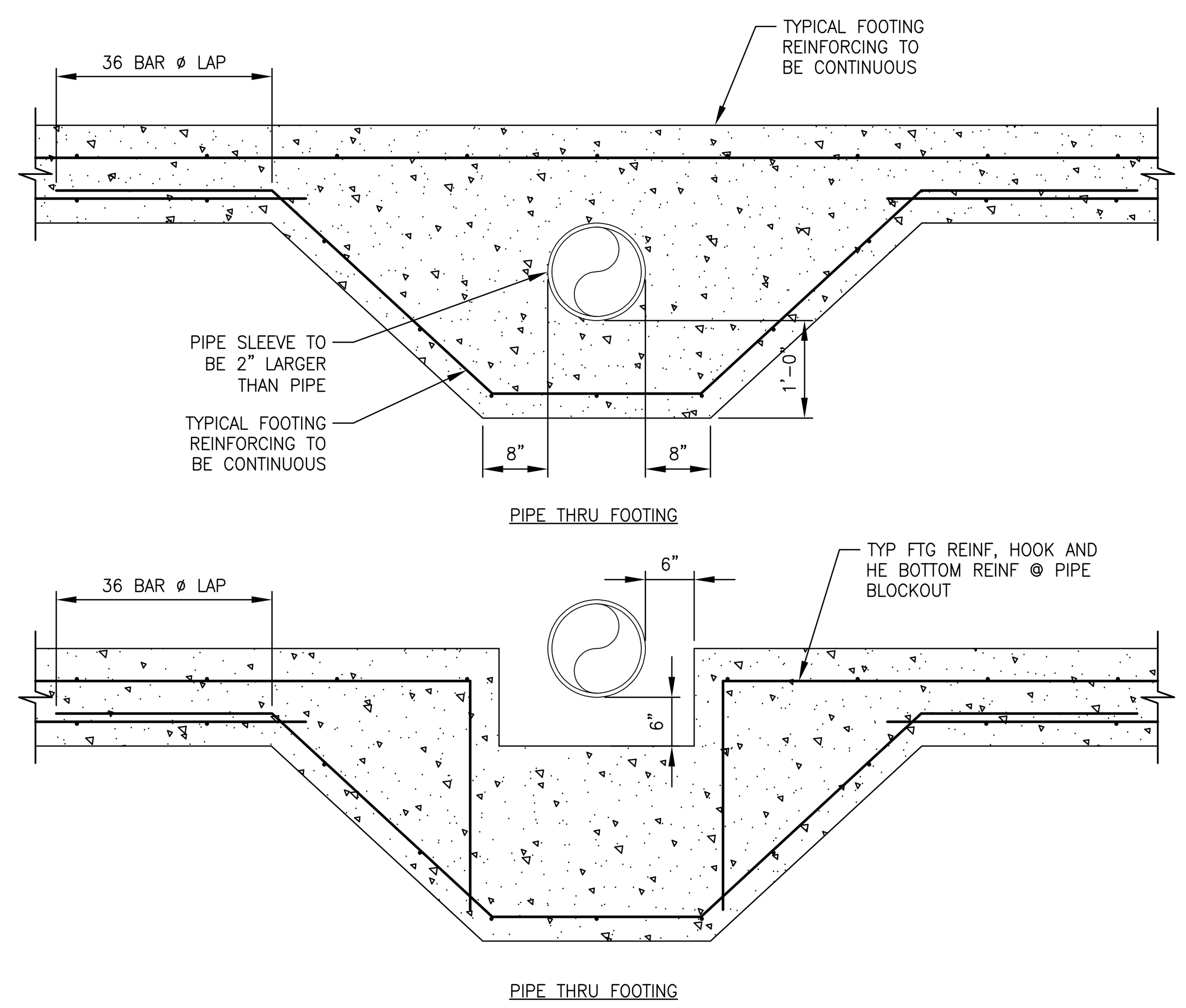


NOTE:
STEP FOOTING AS REQ'D TO MAINTAIN PROPER FROST COVERAGE. SEE CIVIL DRAWINGS FOR GRADE INFORMATION. SEE FOUNDATION PLAN FOR APPROXIMATE LOCATIONS OF STEPS.

D — WALL FTG. CONSTRUCTION JOINT DETAIL (S2.0)
Scale: 3/4"=1'-0"

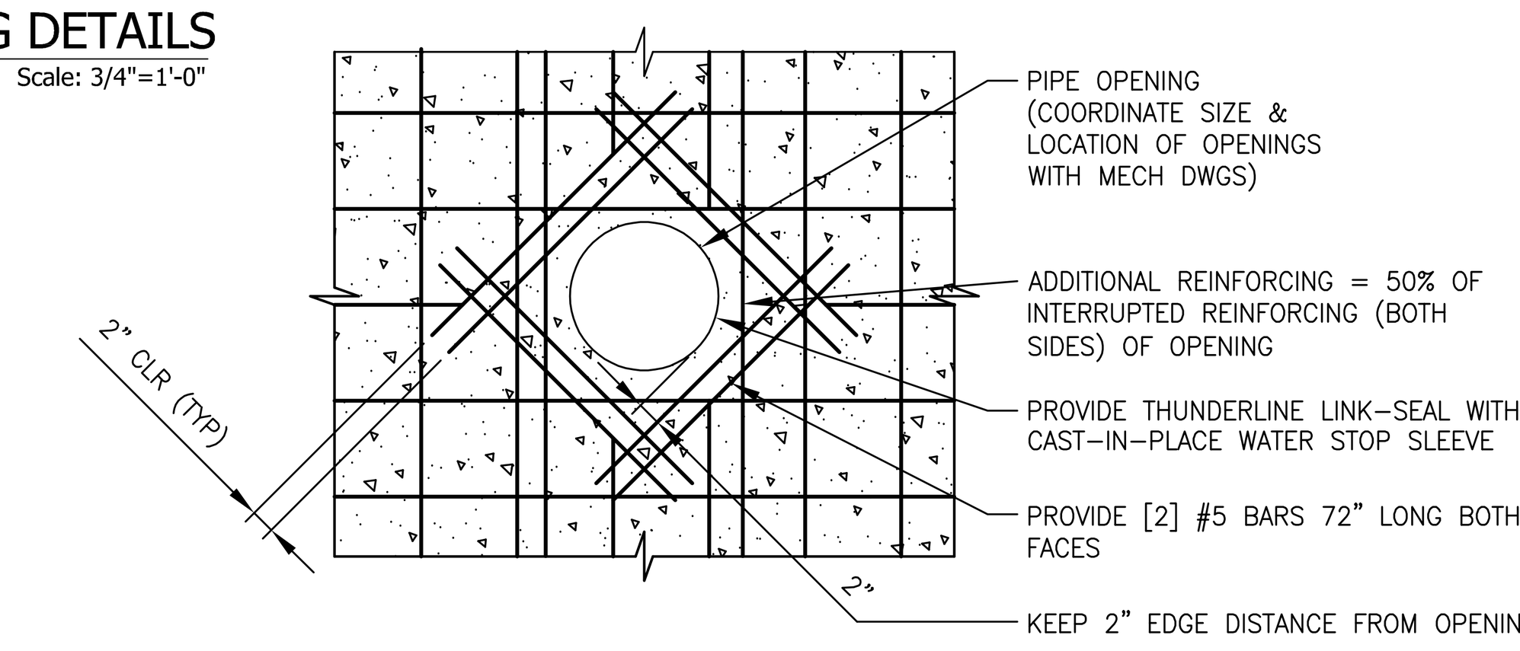


E — DROPPED FOOTING DETAILS (S2.0)
Scale: 3/4"=1'-0"



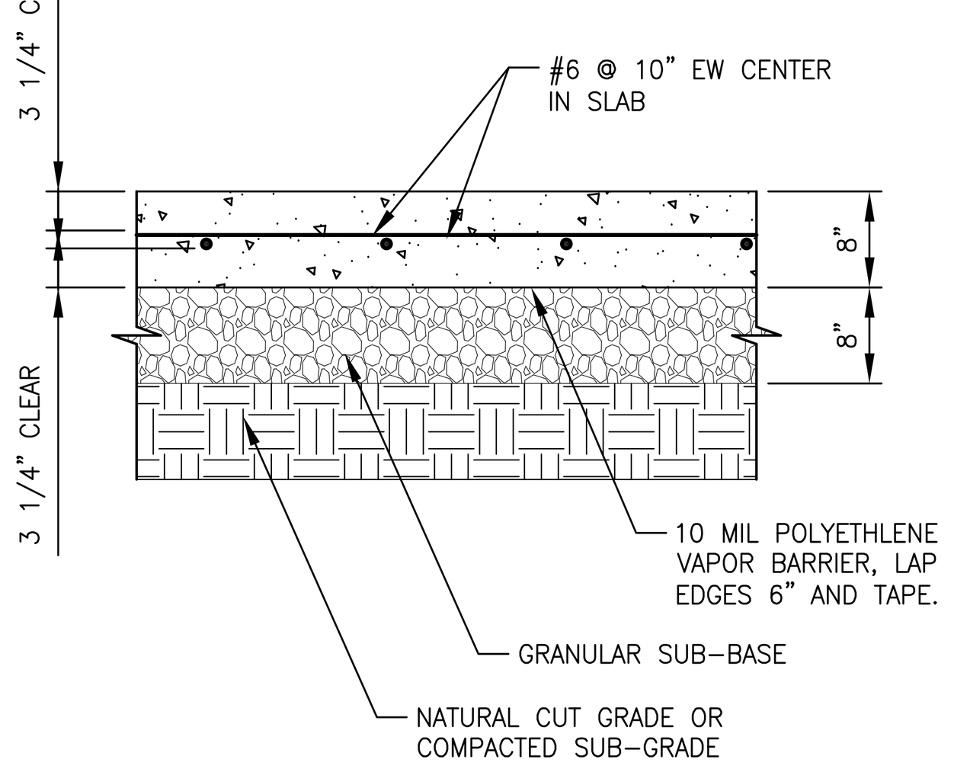
PIPE PENETRATIONS

J — WALL REINF. DETAIL AT OPENINGS (S2.0)
Scale: 3/4"=1'-0"

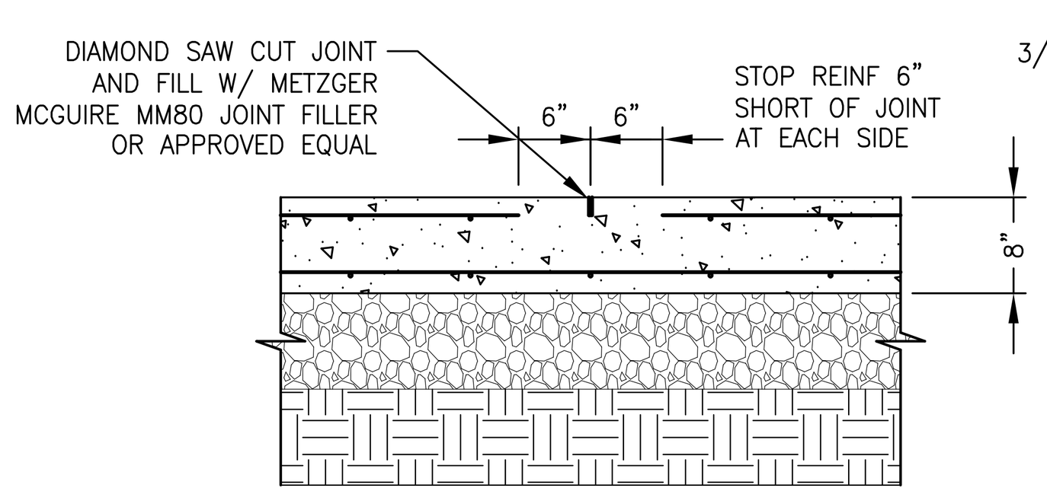


WALL REINF AT PIPE OPENING
SCALE: 3/4"=1'-0"

F — STRUCTURAL SLAB ON GRADE DETAILS (S2.0)
Scale: 3/4"=1'-0"



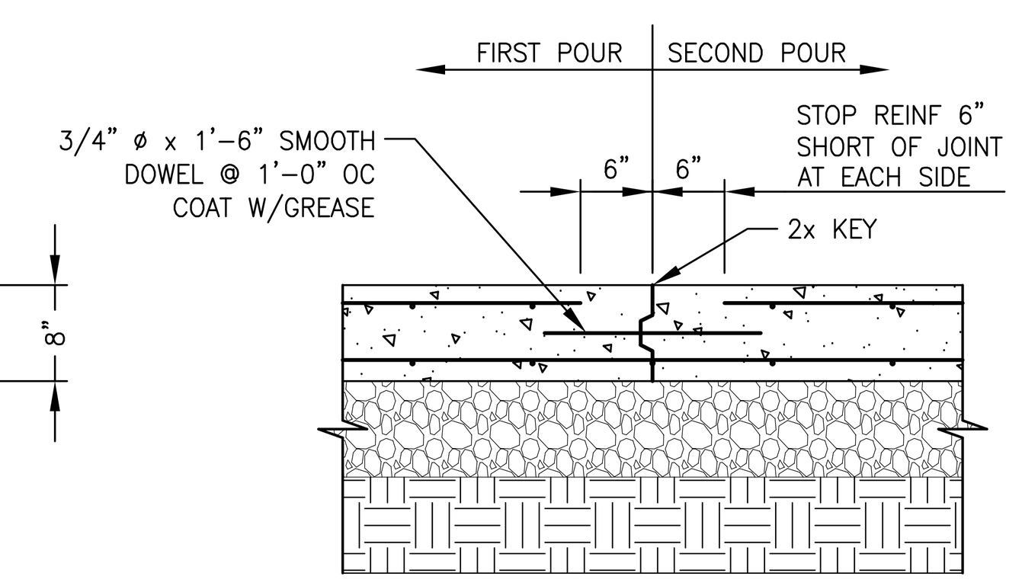
TYPICAL SLAB-ON-GRADE



NOTE:

A. SAW–CUT IS TO BE PERFORMED WITHIN 24 HRS OF THE CONCRETE PLACEMENT, REFER TO ACI 301 AND 302
B. PLACE CONTROL JOINTS AT 15'–0" OC MAX SPACING. SEE PLAN FOR CONTROL JOINT LOCATIONS NOTED CJ.
C. SEE TYP SLAB–ON–GRADE DETAIL FOR INFORMATION NOT SHOWN HERE.

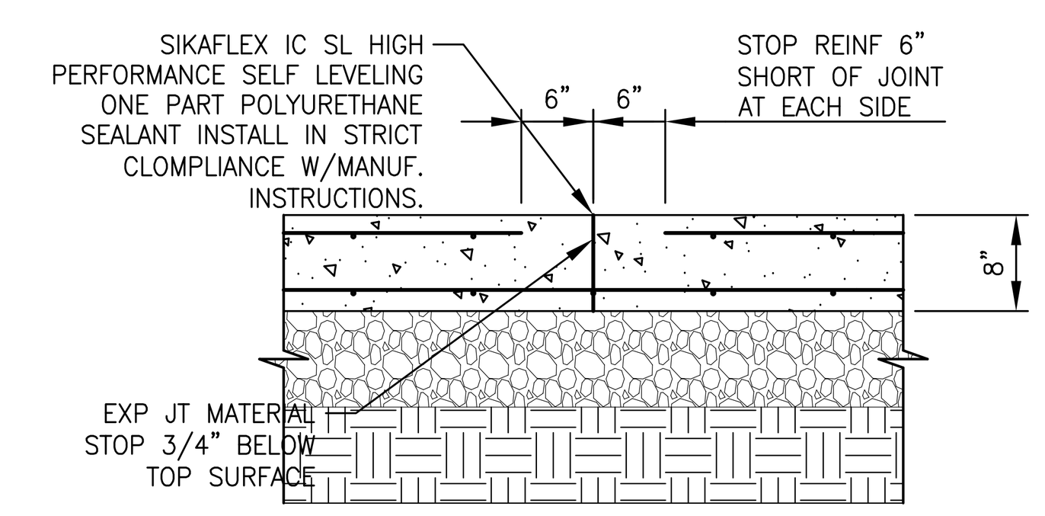
TYPICAL CONTROL JOINT



NOTE:

A. CONSTRUCTION JOINTS TO BE USED WHEN CONCRETING OPERATIONS ARE TO BE INTERUPTED, CONSTRUCTION JOINTS MAY ONLY BE USED AT LOCATIONS SPECIFIED FOR CONTROL JOINTS. SEE FOUNDATION PLAN FOR LOCATIONS NOTED CJ.
B. SEE TYP SLAB–ON–GRADE DETAIL FOR INFORMATION NOT SHOWN HERE.

TYPICAL CONSTRUCTION JOINT

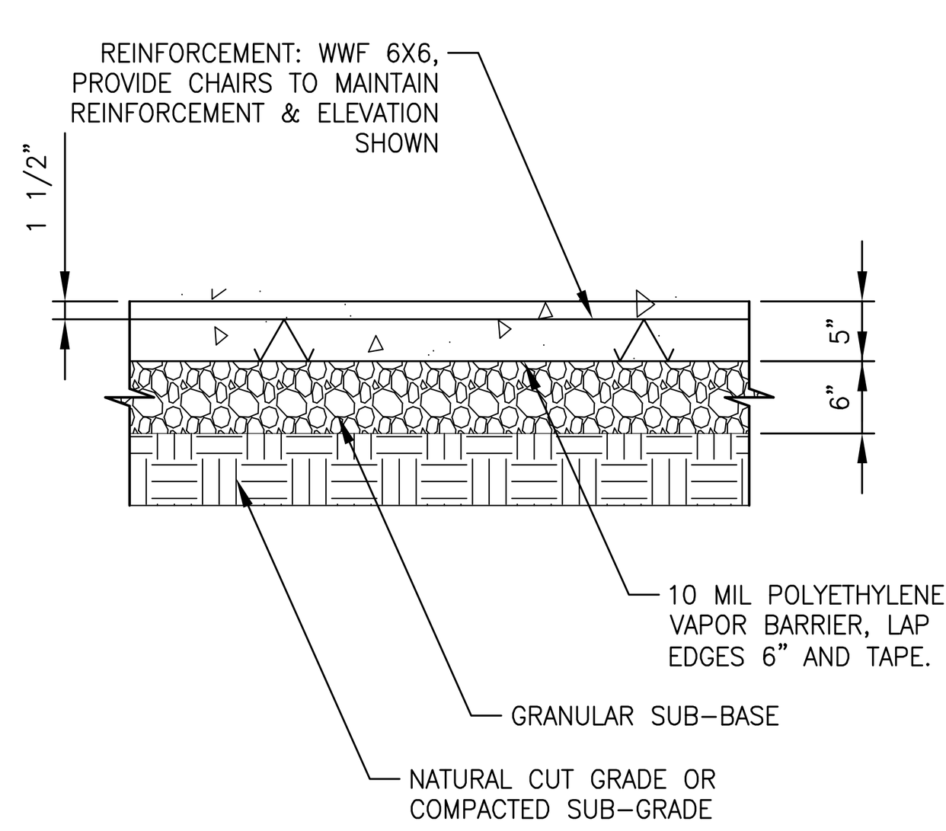


NOTE:

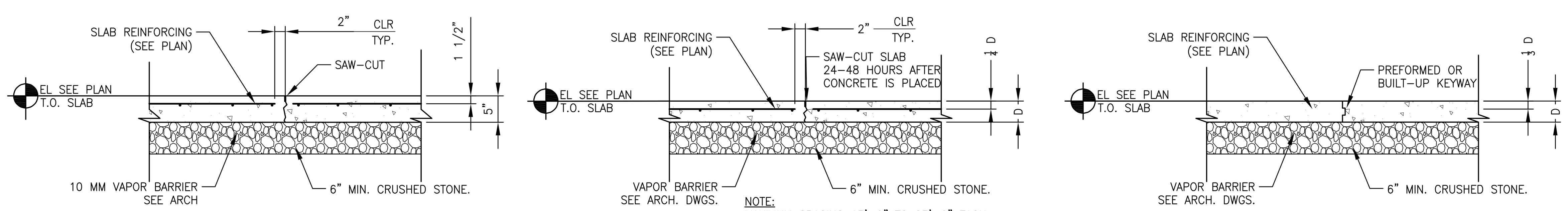
A. SEE TYP SLAB–ON–GRADE DETAIL FOR INFORMATION NOT SHOWN HERE.

TYPICAL EXPANSION JOINT

G — SLAB ON GRADE DETAILS (S2.0)
Scale: 3/4"=1'-0"



5" SLAB ON GRADE DETAILS



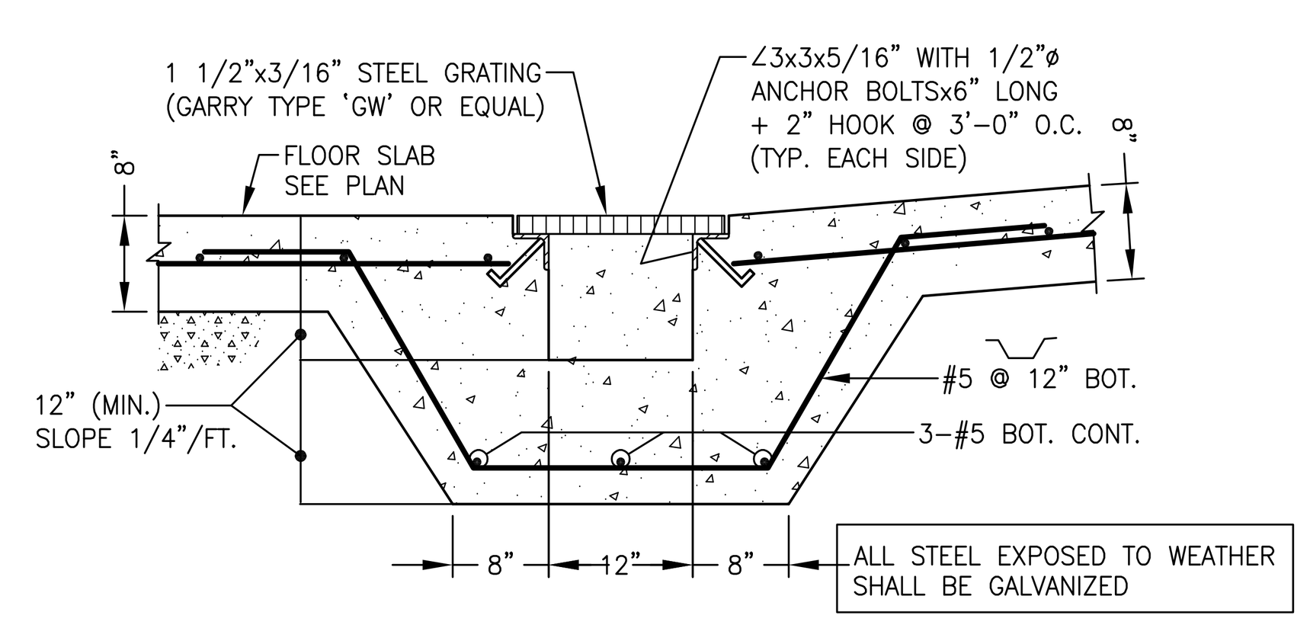
5" SLAB ON GRADE DETAIL

NOTE:
MAXIMUM SPACING 15'–0" TO 25'–0" EACH WAY. (LENGTH TO WIDTH RATIO 1.5 : 1)

CONTRACTION JOINT

CONSTRUCTION JOINT

H — DETAIL (S2.0)
Scale: 3/4"=1'-0"



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1	8/3/23	Addendum 1	AMK

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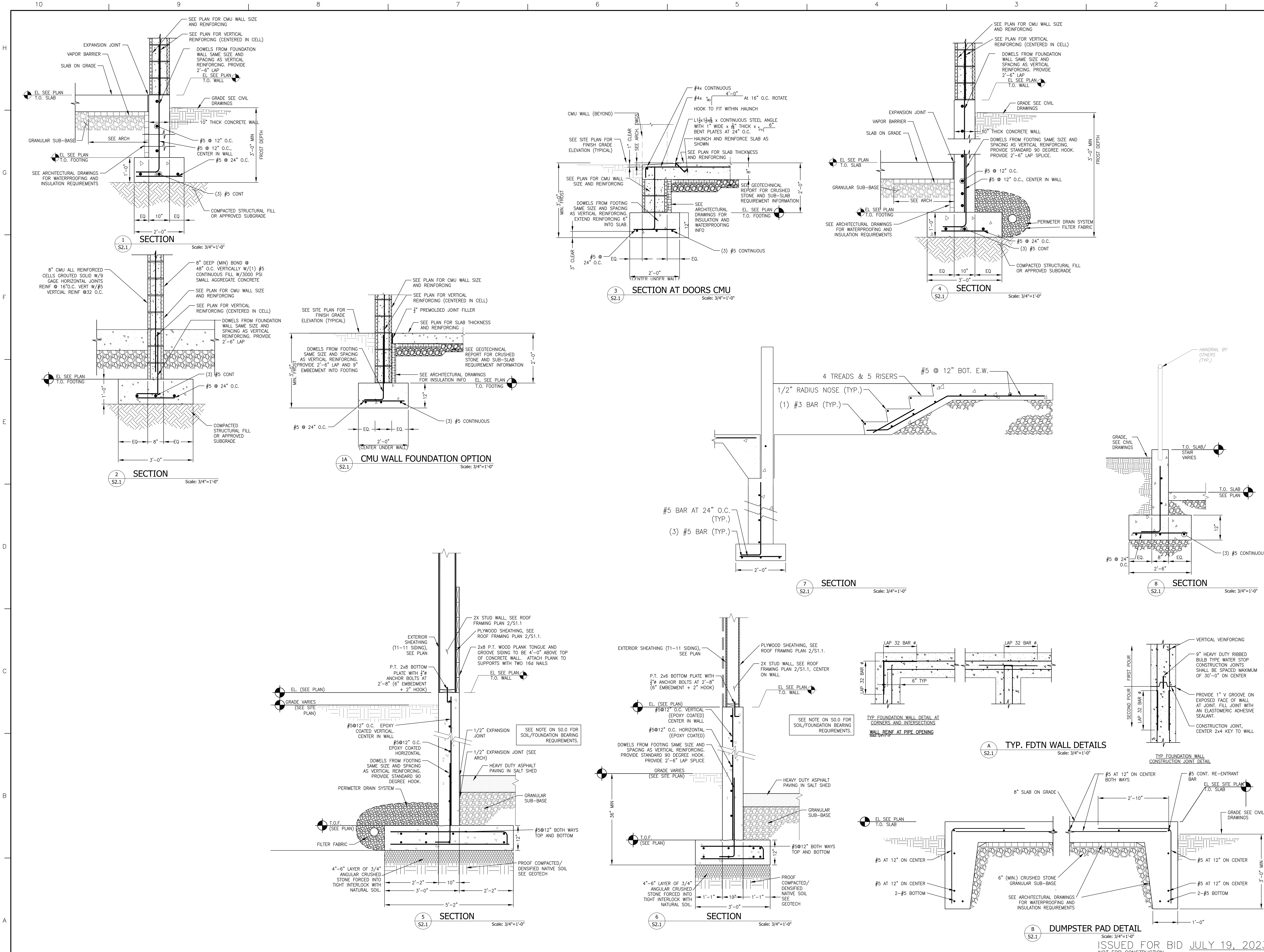
FOUNDATION DETAILS AND SECTIONS
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 13, 2023

DRAWN BY: AMK	PROJ. MANAGER: JCM
PRINCIPAL: JCM	SCALE: AS NOTED
DRAWING NO. S2.0	
PROJECT NO. 210004	



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Revision	Date	Description	Rev By	APPR.
1	8/9/23	Addendum 1		

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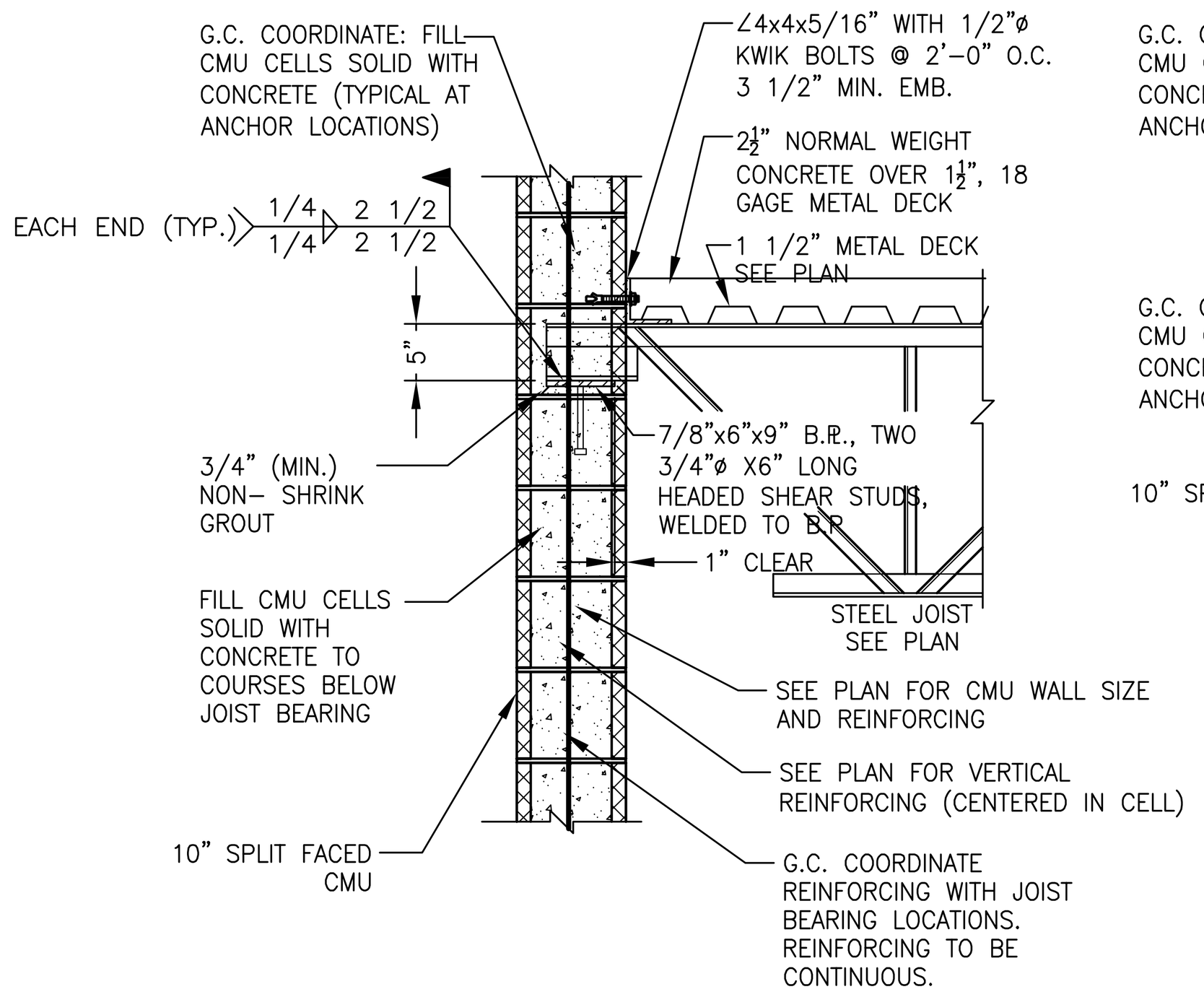
SEAL: REGISTERED PROFESSIONAL ENGINEER JAMES C. McCARTHY PE-051494E

FOUNDATION DETAILS AND SECTIONS
"PUBLIC WORKS FACILITY"

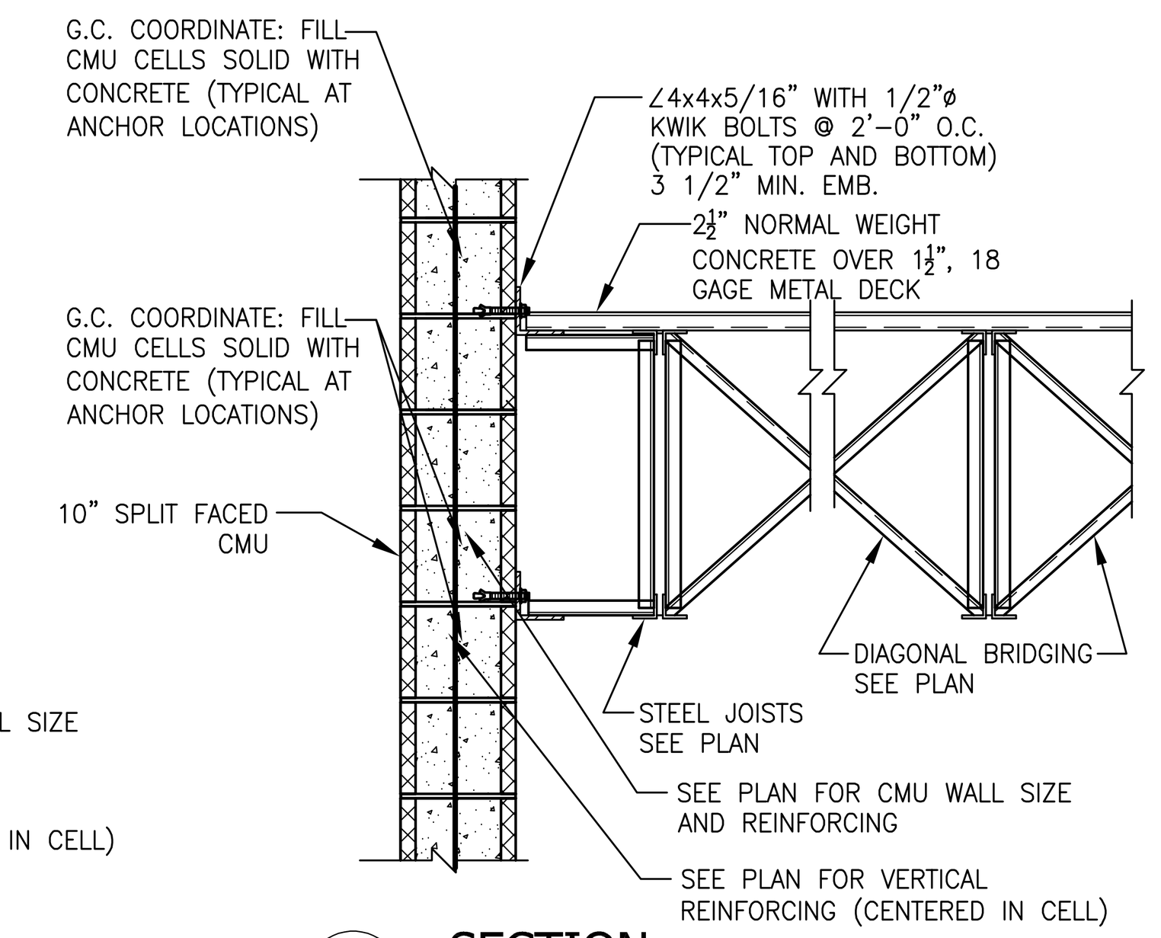
Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 13, 2023

DRAWN BY:	PROJ. MANAGER:
AMK	JCM
PRINCIPAL:	SCALE:
JCM	AS NOTED

DRAWING NO. S2.1
PROJECT NO. 210004



1 / S2.2 **SECTION** Scale: 3/4"=1'-0"



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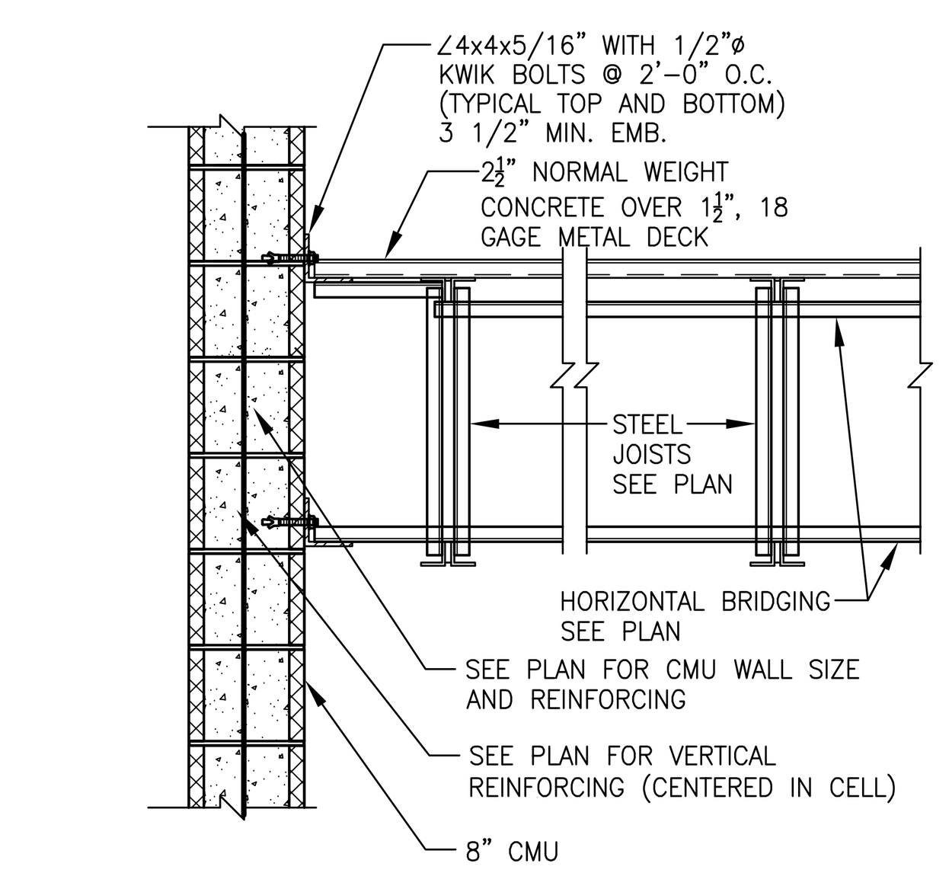

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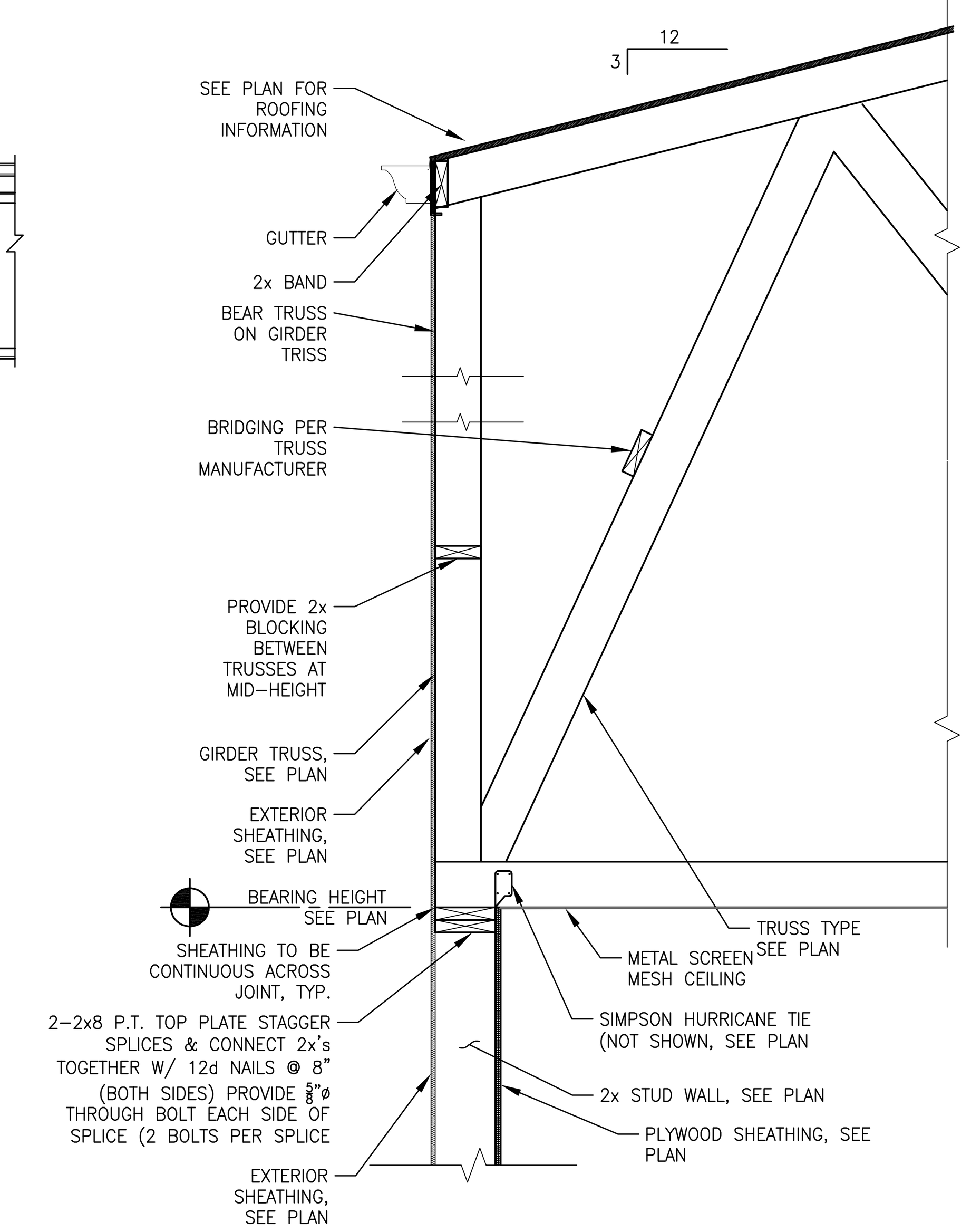
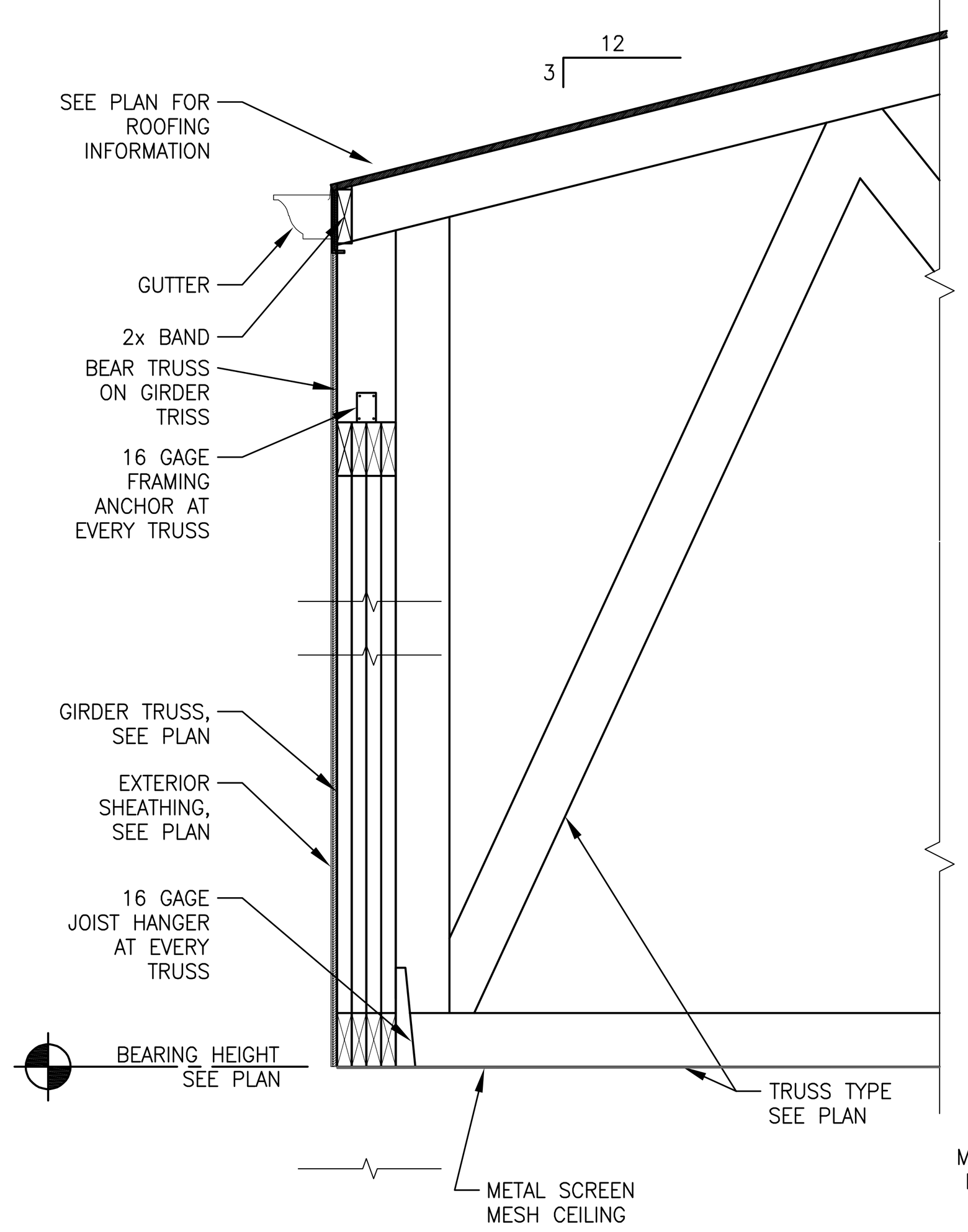
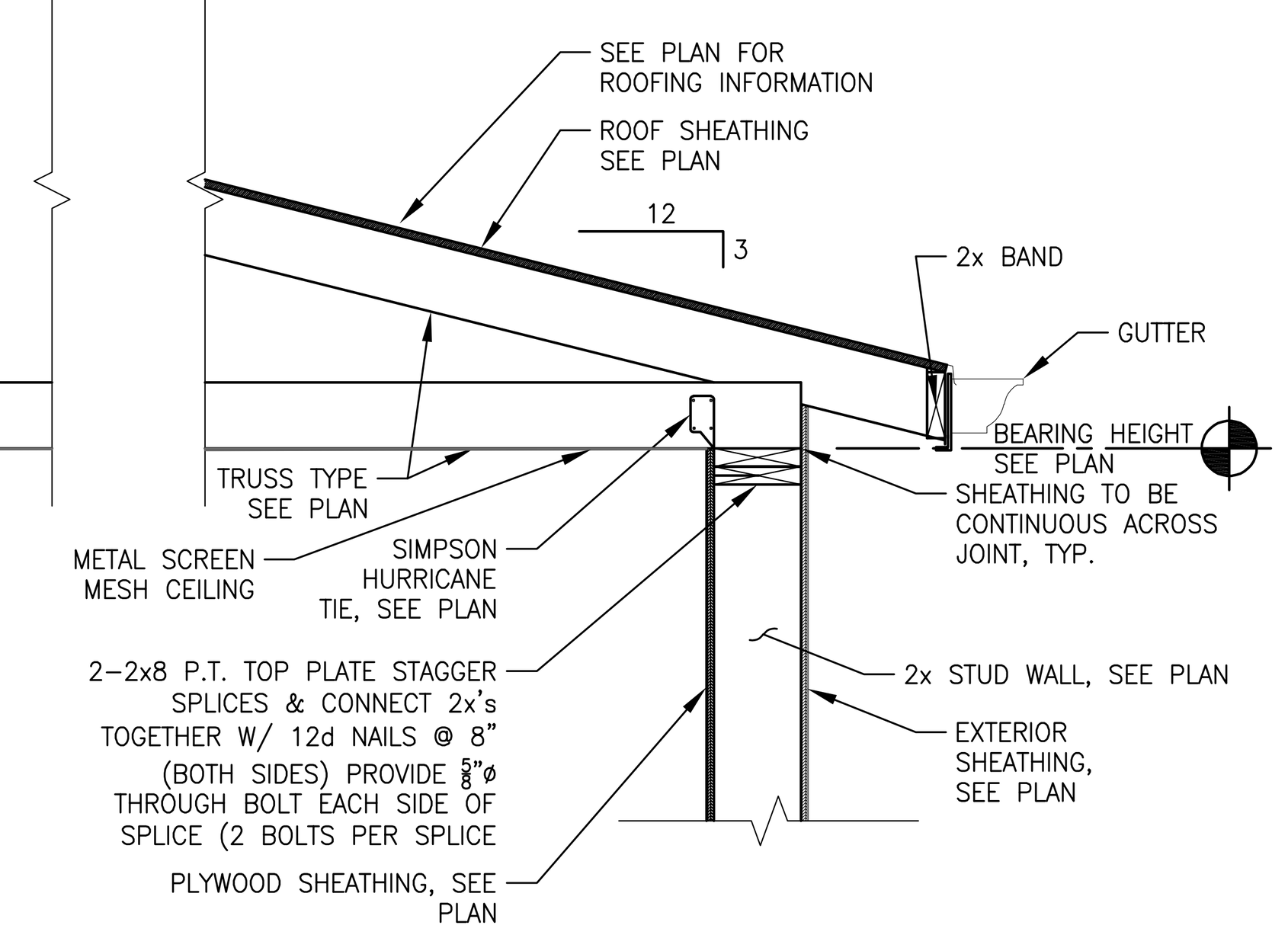


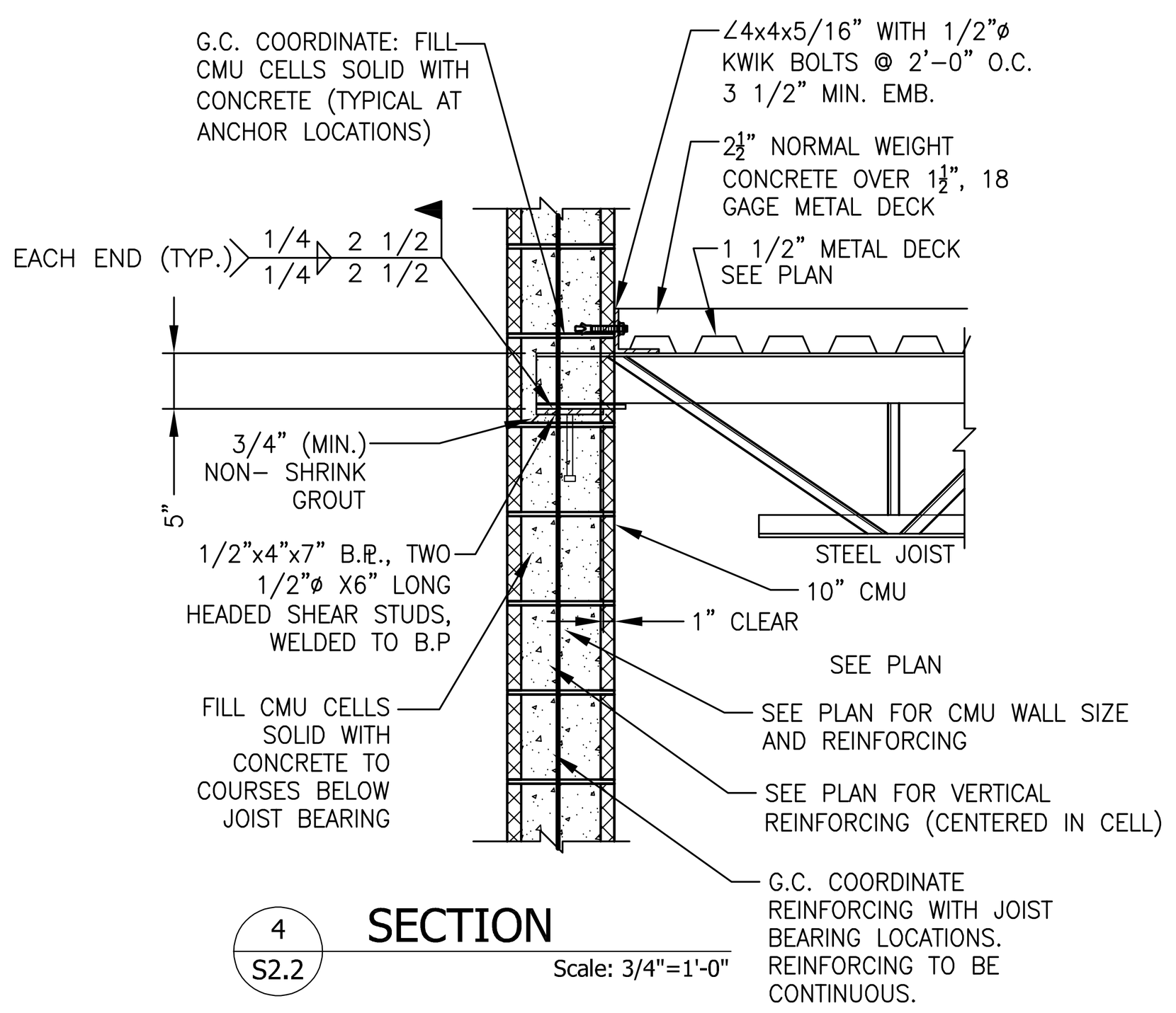
5 / S2.2 **SECTION** Scale: 3/4"=1'-0"



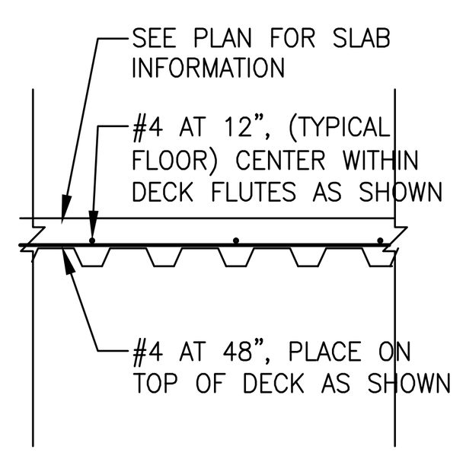
5A / S2.2 **SECTION** Scale: 3/4"=1'-0"



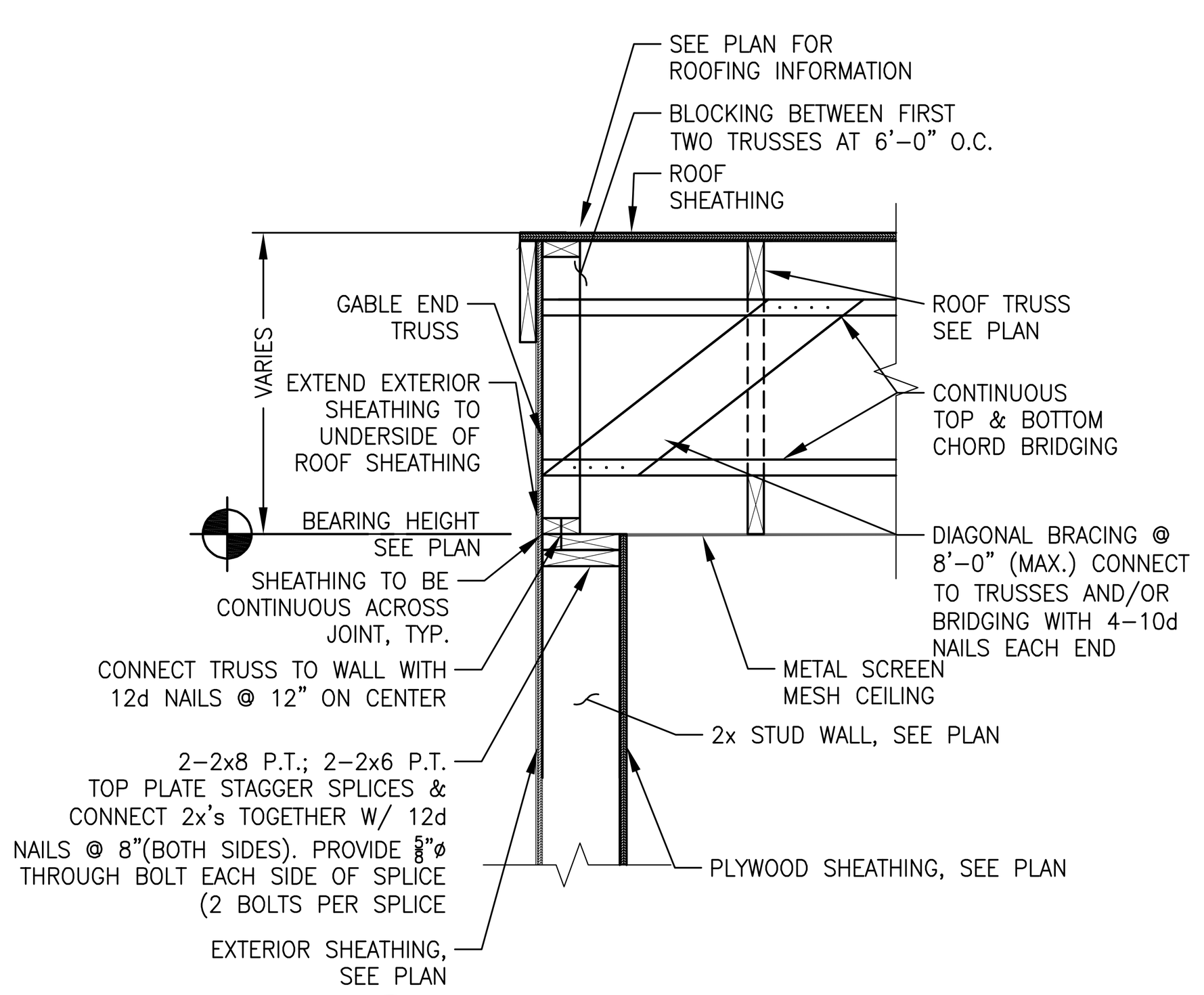
6 / S2.2 **SECTION** Scale: 3/4"=1'-0"



4 / S2.2 **SECTION** Scale: 3/4"=1'-0"



A / S2.2 **SLAB REINFORCING DETAIL** Scale: 3/4"=1'-0"



7 / S2.2 **SECTION** Scale: 3/4"=1'-0"

ISSUED FOR BID JULY 19, 2023
NOT FOR CONSTRUCTION

Revision	Date	Description	Rev.By
1	8/9/23	Addendum 1	AMK

McCARTHY ENGINEERING ASSOCIATES, INC.
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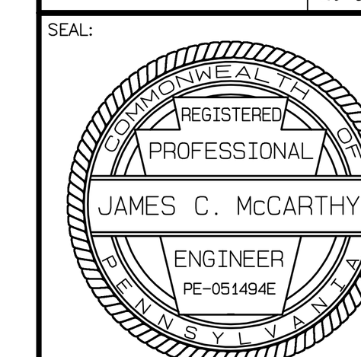
SEAL:



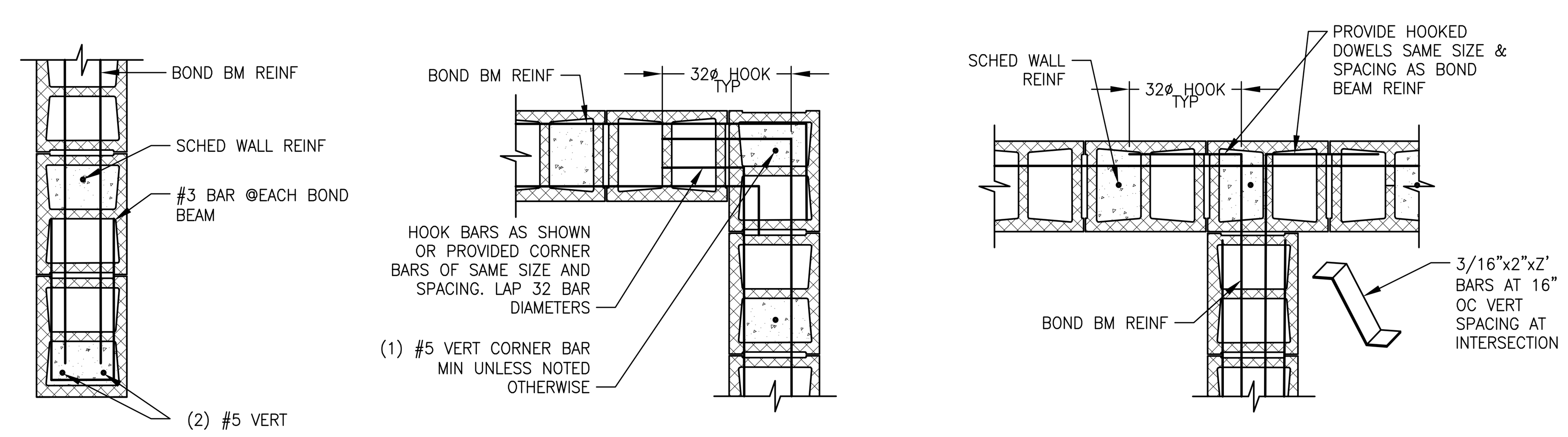
OPEN WEB STEEL JOIST DETAILS AND SECTIONS
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 13, 2023

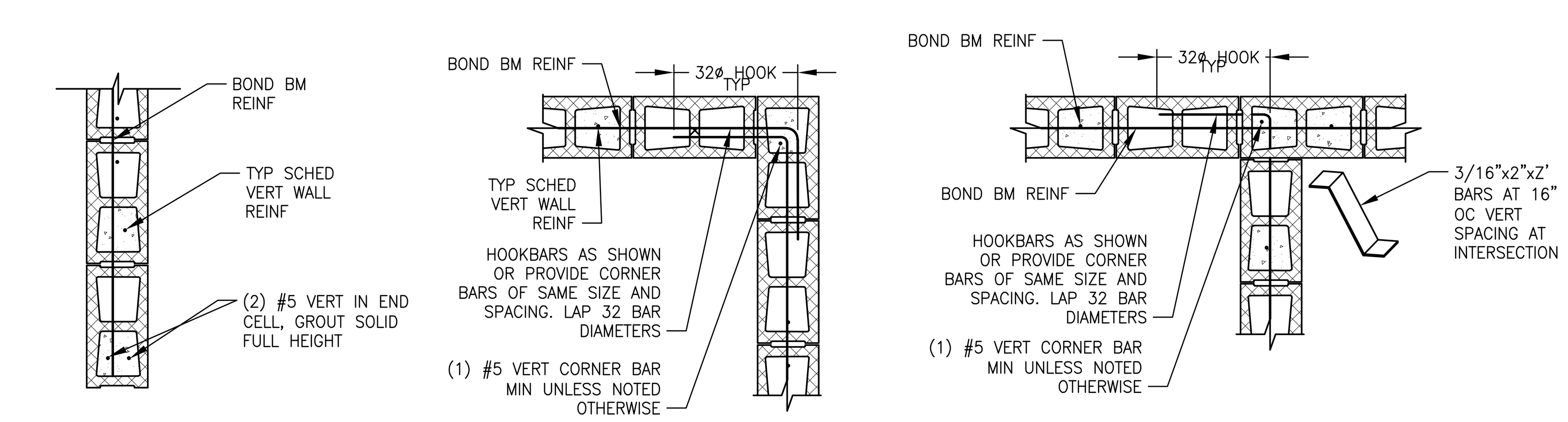
DRAWN BY: AMK	PROJ. MANAGER: JCM
PRINCIPAL: JCM	SCALE: AS NOTED
DRAWING NO. S2.2	
PROJECT NO. 210004	

NOTES:
1. CORNERS AND INTERSECTIONS – AT POINTS WHERE CONCRETE MASONRY WALLS MEET OR INTERSECT, LAY 50% OF UNITS IN MASONRY BOND WITH ALTERNATE UNITS HAVING A BEARING ON NOT LESS THAN 4 INCHES ON THE UNIT BELOW (U.N.O.).

2. DOWELS – PROVIDE DOWELS FROM CONCRETE FOOTING OR WALL BELOW WITH SAME SIZE AND SPACING AS BARS AT LEVEL BELOW (U.N.O.). LAP BARS 48 DIA. MINIMUM (U.N.O.)



TYPICAL CMU WALL DETAILS FOR WALLS 10" OR THICKER



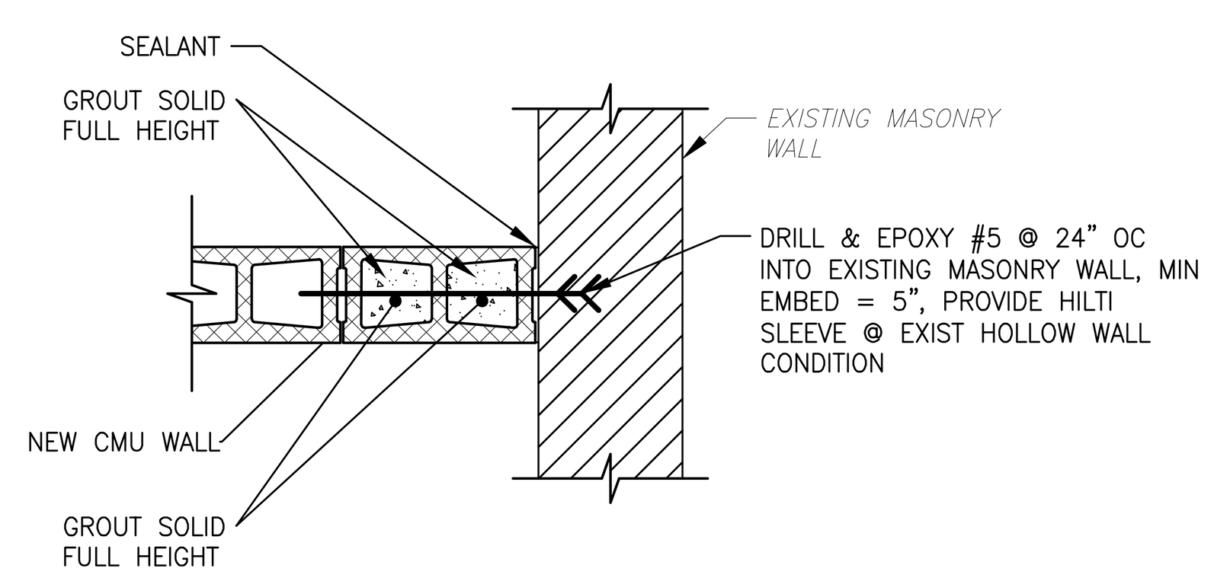
TYPICAL CMU WALL DETAILS FOR WALLS 8"

NON-LOADBEARING LOOSE LINTEL SCHEDULE

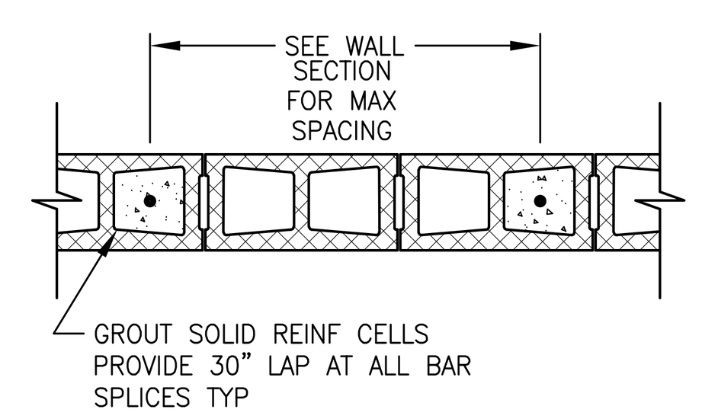
WALL THICKNESS	MASONRY OPENING		
	UP TO 4'–0"	UP TO 6'–4"	UP TO 8'–0"
3 5/8"	L5x3 1/2x5/16"	L5x3 1/2x5/16"	L5x3 1/2x3/8"
5 5/8"	(2) L3 1/2x2 1/2x5/16"	(2) L3 1/2x2 1/2x5/16"	(2) L3 1/2x2 1/2x3/8"
7 5/8"	(2) L4x3 1/2x5/16"	(2) L5x3 1/2x5/16"	(2) L5x3 1/2x3/8"
11 5/8"	(3) L4x3 1/2x5/16"	(3) L5x3 1/2x5/16"	W8x13 W/ 3/8"x11" PL
11 5/8" ALTERNATE	3/8" PLATE ASSEMBLY	3/8" PLATE ASSEMBLY	3/8" PLATE ASSEMBLY

THE ABOVE SCHEDULE IS FOR NON–LOADBEARING MASONRY AND IS INTENDED FOR OPENINGS NOT SHOWN, BUT REQUIRING A LINTEL THE GENERAL CONTRACTOR SHALL PROVIDE STEEL LINTELS IN ALL OPENINGS IN MASONRY WALLS, INCLUDING THE FOLLOWING:
- –ABOVE ALL METAL FRAMES IN MASONRY WALLS (UNLESS NOTED ON THE DOOR SCHEDULE TO BE FRAMED WITH STUDS AND GYPSUM BOARD)
- –ABOVE ALL OPENINGS, PASSAGES, ROLL–UP OR OVERHEAD DOORS IN MASONRY WALLS
- –ABOVE ALL HEATING DUCTS PASSING THROUGH MASONRY WALLS
- –ABOVE ALL BUIL–IN ITEMS (SUCH AS CABINET HEATERS, CONVECTORS, LOUVERS, ACCESS PANELS, ETC.)
- –AT ALL LOCATIONS WHERE NOTED ON THE PLANS AND/OR WALL SECTIONS

SIZES TO BE AS INDICATED IN THE SCHEDULE ABOVE, LENGTHS TO BE FULL OPENINGS AND A MINIMUM 8" BEARING AT EACH END.
ALL EXPOSED TO WEATHER AND EXTERIOR WALL LINTELS TO BE GALVANIZED.

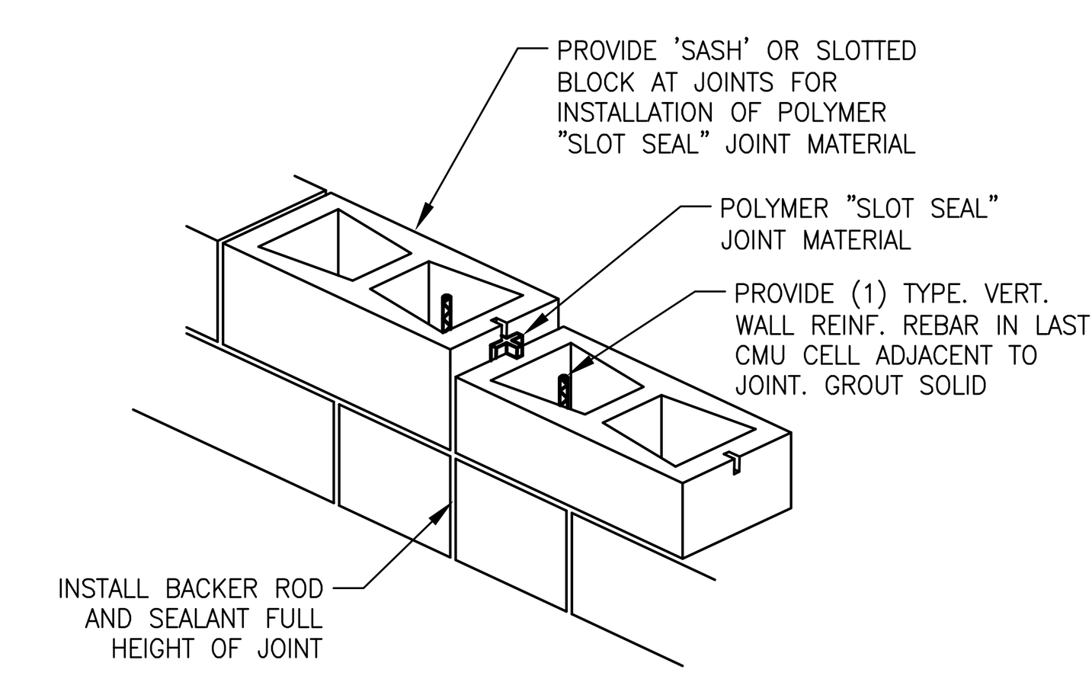


SHEAR CONNECTION @ EXIST WALL

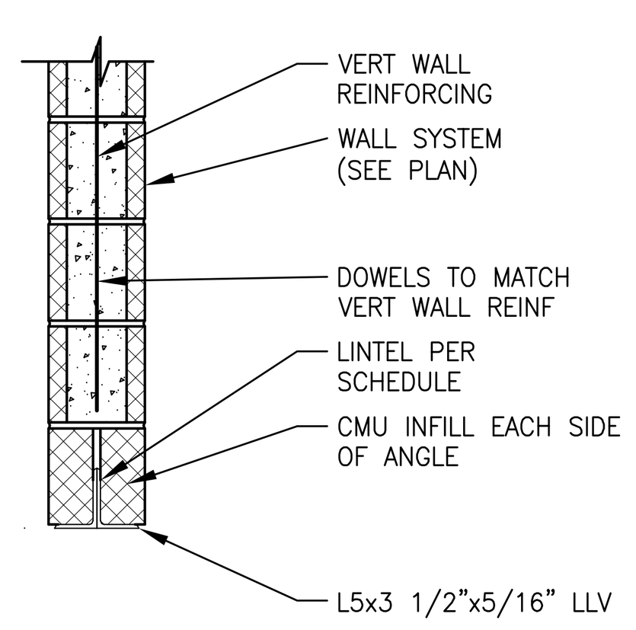


TYPICAL VERTICAL REINFORCEMENT

TYPICAL CMU WALL DETAILS
SCALE: 3/4"=1'–0"



TYP EXPANSION JT DETAIL
SCALE: 3/4"=1'–0"



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SEAL: COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES C. McCARTHY ENGINEER PE-051494E

CMU MASONRY DETAILS AND SECTIONS
" PUBLIC WORKS FACILITY "

Client: WYOMISSING BOROUGH
Location: WYOMISSING BOROUGH, BERKS COUNTY, PENNSYLVANIA
Date: JULY 13, 2023

DRAWN BY: AMK	PROJ. MANAGER: JCM
PRINCIPAL: JCM	SCALE: AS NOTED

DRAWING NO. S2.3
PROJECT NO. 210004

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1.1 PACKAGED ENGINE GENERATOR

A. THE ENGINE GENERATOR SYSTEM SHALL BE A PACKAGED OUTDOOR UNIT OPERATING ON NATURAL GAS WITH A RADIATOR COOLED ENGINE. UNIT STANDBY RATINGS ARE 30 KVA / 37.5 KVA AT 208/120 VOLTS, 104 AMPS, THREE PHASE, FOUR WIRE, 60 HZ. MINIMUM OPERATING ALTITUDE BEFORE DERATING SHALL BE 2300 FEET AND MAXIMUM INTAKE AIR TEMPERATURE BEFORE DERATING SHALL BE 85 DEGREES F. THE NEXT LARGER STANDARD SIZED UNIT SHALL BE PROVIDED IF DERATING EXCEEDS FIVE PERCENT OF THE KW RATING.

B. LOCATION OF INSTALLATION- WYOMISSING, PA

C. AN INTEGRAL 125A, 3P LINE CIRCUIT BREAKER SHALL BE FURNISHED WITH THE GENERATOR.

D. GENERATOR OPERATING PRINCIPLE SHALL BE IN ACCORDANCE WITH ANSI/NFPA 99 AND APPLICABLE NEMA AND IEEE STANDARDS. GENERATOR SHALL ACCEPT 100 PERCENT OF NAMEPLATE KW RATING IN ONE STEP. THE GENERATOR SET SHALL START AND ACCEPT FULL LOAD WITHIN 10 SECONDS MAXIMUM. THE GENERATOR SET SHALL BE IN COMPLIANCE WITH NFPA 110 AND UL 2200. THE GENERATOR SHALL BE EPA CERTIFIED TO MEET EPA EMISSION LIMITS FOR WHICHEVER TIER IS APPLICABLE TO THE FUEL TYPE AND HORSEPOWER RATING OF THE GENERATOR SET, SUCH THAT FUTURE PERIODIC TESTING IS NOT REQUIRED.

E. GENERATOR MANUFACTURER SHALL HAVE A MINIMUM OF FIVE YEARS DOCUMENTED EXPERIENCE SPECIALIZING IN PACKAGE ENGINE GENERATOR SYSTEMS. PACKAGE ENGINE GENERATOR SYSTEM SUPPLIERS SHALL HAVE SERVICE FACILITIES WITHIN 50 MILES OF THE PROJECT SITE. PACKAGE ENGINE GENERATOR SYSTEM SHALL CARRY A FULL FIVE-YEAR COMPREHENSIVE WARRANTY.

F. THE GOVERNOR SHALL BE THE ELECTRONIC ISOCHRONOUS TYPE AND SHALL MAINTAIN ENGINE SPEED WITHIN +/-0.5 PERCENT OF MEAN VALUE FOR CONSTANT LOADS FROM ZERO TO FULL LOAD. VOLTAGE VARIATION FOR CONSTANT LOADS FROM ZERO TO FULL LOAD SHALL NOT EXCEED +/- ONE PERCENT OF MEAN VALUE. TRANSIENT RECOVERY TO STEADY STATE SHALL OCCUR WITHIN TWO SECONDS FOLLOWING SUDDEN LOAD CHANGES. THE GOVERNOR SHALL BE EQUIPPED WITH A MEANS FOR MANUAL OPERATION AND ADJUSTMENT.

G. THE ENGINE ELECTRICAL SYSTEM SHALL EMPLOY PMG EXCITATION, WITH A NEGATIVE GROUND.

H. THE ELECTRICAL GENERATOR SHALL BE A 2/3 PITCH, ROTATING FIELD TYPE 125 DEGREES C TEMPERATURE RISE ABOVE 40 DEGREES C AMBIENT, USE A SOLID STATE VOLTAGE REGULATOR, HAVE CLASS H TEMPERATURE RISE INSULATION WITH VACUUM IMPREGNATED, FUNGUS RESISTANT, EPOXY VARNISH AND EMPLOY A BRUSHLESS EXCITER.

I. THE ALTERNATOR SHALL BE A 12 LEAD RE -CONNECTABLE TYPE.

J. THE MAXIMUM INSTANTANEOUS VOLTAGE DIP FOR THE ENGINE ALTERNATOR COMBINATION SHALL BE 30 PERCENT AS DETERMINED BY NEMA MG-1 AND THE RECOVERY VOLTAGE SHALL BE 100 PERCENT OF RATED VOLTAGE.

K. THE BASIS OF DESIGN IS A(N) MTU MODEL 4R0063 G530 WITH THE BELOW DIMENSIONS, CHARACTERISTICS, AND PERFORMANCE VALUES. THIS INFORMATION IS ONLY PROVIDED TO SET A STANDARD OF QUALITY. COMPARABLE MODELS FROM ANY OF THE APPROVED MANUFACTURERS WHICH MEET THE SPECIFICATIONS ARE ACCEPTABLE. HOWEVER, PROOF THAT A DIFFERENT MODEL IS COMPARABLE SHALL REQUIRE THAT GENERATOR SIZING CALCULATIONS FROM THE MODEL MANUFACTURER BASED, ON THE SAME STEPS AND LOADS, WITH NO ALTERATIONS, SHALL BE SUBMITTED WHICH INDICATE THAT THE UNIT IS ABLE TO START AND OPERATE THE FULL COMPLEMENT OF LOADS AND IS ABLE TO RESTART THE LARGEST MOTOR LOAD WHILE OPERATING THE REMAINING LOADS. THE BASIS OF DESIGN CALCULATION WILL BE PROVIDED IF REQUESTED. THE KW/KVA RATING OF THE SYSTEM SHALL NOT BE LESS THAN THE RATING SPECIFIED EARLIER EVEN IF THE CALCULATION ALLOWS A SMALLER UNIT. HIGHER RATED UNITS MAY BE PROVIDED IF NEEDED TO MEET THE REQUIRED PERFORMANCE ABOVE.

1. THE ENGINE SHALL BE AN IN-LINE 4 CYLINDER, FOUR-CYCLE, 153 CUBIC INCHES DISPLACEMENT, WITH A COMPRESSION RATIO OF 9.7:1, A BORE AND STROKE OF 3.5 X 3.94 INCH, OPERATE AT 1800 RPM AND USE 56.7 CFM OF COMBUSTION AIR.

2. FUEL CONSUMPTION SHALL BE 391 CUBIC FEET PER HOUR AT FULL LOAD.

3. THE ENGINE EXHAUST SYSTEM SHALL OPERATE AT A MAXIMUM ALLOWABLE BACK PRESSURE OF 40 INCHES H2O.

4. THE ENGINE ELECTRICAL SYSTEM SHALL OPERATE 12 VDC.

L. THE ENGINE GENERATOR SHALL BE SKID MOUNTED WITH VIBRATION ISOLATION. INDOOR GENERATOR SETS AND/OR SETS 200KW AND LARGER SHALL HAVE SPRING TYPE VIBRATION ISOLATORS.

M. THE ENGINE GENERATOR PACKAGE SHALL HAVE THE FOLLOWING CONTROL FEATURES:

1. EMERGENCY STOP

2. LOW BATTERY VOLTAGE WARNING

3. OVER-CRANKING SAFETY SHUTDOWN AND RED INDICATING LAMP

4. HIGH-ENGINE TEMPERATURE SAFETY SHUTDOWN AND RED INDICATING LAMP

5. LOW OIL PRESSURE SAFETY SHUTDOWN AND RED INDICATING LAMP

6. OVERSPEED SAFETY SHUTDOWN AND RED INDICATING LAMP

7. RUNNING TIME METER

8. RUN-OFF/RESET-AUTO SWITCH FOR ENGINE START

9. LOW COOLANT TEMPERATURE WARNING

10. METER KIT - INCLUDES AC VOLTMETER, AMMETER, FREQUENCY METER, PHASE SELECTOR SWITCH

11. BATTERY CHARGER AMMETER

12. OIL PRESSURE GAUGE

13. TWO CUSTOMER SELECTABLE FAULT LIGHTS

14. POWER FOR THE GENERATOR CONTROLS SHALL BE PROVIDED FROM THE CONTROL POWER TRANSFORMER IN THE AUTOMATIC TRANSFER SWITCH.

N. A REMOTE ANNUNCIATOR PANEL SHALL BE PROVIDED IN THE ELECTRICAL ROOM OR AS SHOWN ON THE DRAWINGS.

O. THE EXHAUST SYSTEM SHALL USE A STAINLESS STEEL CRITICAL EXHAUST SILENCER WITH A FLEXIBLE EXHAUST CONNECTOR AND INSULATED EXHAUST PIPE (SEE PIPING SPECIFICATIONS). THE EXHAUST SILENCER SHALL BE INSIDE THE WEATHERPROOF ENCLOSURE AND WITH THE EXHAUST DIRECTED UPWARD. PROVIDE RAIN CAP.

P. PROVIDE AN OUTDOOR STAGE 2 SOUND ATTENUATING (APPROXIMATELY 12DBA REDUCTION BELOW THE SKIN-TIGHT ENCLOSURE RATING) WEATHERPROOF ENCLOSURE WITH VENTILATION LOUVERS.

Q. THE ENGINE SHALL HAVE A 1500 WATT, 120 VOLT COOLANT HEATER WITH TEMPERATURE CONTROLLER. ALTERNATE COOLANT HEATERS MAY BE PROVIDED IF THE CONTRACTOR PROVIDES THE WIRE, CONDUIT, AND CIRCUIT BREAKER REQUIRED FOR THE HEATER.

R. THE ENGINE GENERATOR BATTERY SYSTEM SHALL BE MOUNTED ON AN INTERNAL BATTERY RACK AND CHARGED BY A TRICKLE-TYPE BATTERY CHARGER.

S. ALL COOLANT, FILTERS, LUBE OIL, ETC. REQUIRED FOR START-UP SHALL BE PROVIDED WITH THE UNIT.

T. MANUFACTURERS:

1. CATERPILLAR, INC.

2. KOHLER COMPANY

3. MTU ONSITE ENERGY

4. ONAN/CUMMINS

1.2 GENERATOR & ATS INSTALLATION

A. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND IN CONFORMANCE WITH ALL CODES AND GOOD PRACTICES. FOR DIESEL TANKS 1100 GALLONS AND OVER THE CONTRACTOR SHALL PROVIDE THE SERVICES OF A DEPARTMENT OF ENVIRONMENTAL PROTECTION CERTIFIED INSTALLER.

B. PROVIDE A 3-1/2 INCH MINIMUM HOUSEKEEPING PAD FOR ALL GENERATORS. CONFER WITH THE PROJECT STRUCTURAL ENGINEER FOR DESIGN/ OF OUTDOOR PADS.

C. PROVIDE ALL WIRING AND CONDUIT IDENTIFIED AS FIELD INSTALLATION WORK IN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. AS A MINIMUM PROVIDE A ONE-INCH CONTROL CONDUIT TO THE REMOTE ANNUNCIATOR LOCATION AND A 3/4-INCH POWER CONDUIT TO THE PANEL(S) WHICH SUPPLY THE BATTERY CHARGER, RECEPTACLE AND JACKET HEATER IN ADDITION TO THE OUTPUT POWER CONDUIT.

D. PROVIDE A 20A, 120V CIRCUIT FROM THE EMERGENCY POWER SYSTEM FOR THE BATTERY CHARGER (2#12 AND 1#12G WITH 20A, 1P CIRCUIT BREAKER) AND A DUPLEX RECEPTACLE INSIDE THE WEATHERPROOF ENCLOSURE.

E. PROVIDE A 20A, 120V CIRCUIT FOR THE COOLANT HEATER (2#12 AND 1#12G WITH 20A, 1P CIRCUIT BREAKER). IF A COOLANT HEATER OTHER THAN THE SPECIFIED UNIT IS PROVIDED, THE CONTRACTOR SHALL PROVIDE A MODIFIED CIRCUIT TO MATCH THE HEATER INCLUDING LARGER WIRES(S), CONDUIT(S), AND CIRCUIT BREAKER(S) OR GREATER QUANTITY OF THE ABOVE PER THE MANUFACTURER'S INSTRUCTIONS.

F. PROVIDE THE SERVICES OF A MANUFACTURER'S REPRESENTATIVE TO SUPERVISE INSTALLATION, TO PERFORM FINAL COMMISSIONING AND START-UP, AND TO CONDUCT TRAINING.