# PRELIMINARY / FINAL LAND DEVELOPMENT PLAN BUILDING AND PARKING LOT EXPANSION

# ANTONINO PURPURA

2210 ASPEN DRIVE UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PENNSYLVANIA

> PREPARED FOR: ANTONINO PURPURA 2210 ASPEN DRIVE MECHANICSBURG, PA 17055

> > UNIFORM PARCEL INFORMATION

42-29-2454-366

STREET ADDRESS

2210 ASPEN DRIVE

LOT NO.

4.A AND 4.B

# MODIFICATION REQUESTS RECORDER OF DEEDS CERTIFICATE RECORDED IN THE OFFICE FOR RECORDING OF DEEDS, IN AND FOR CUMBERLAND COUNTY, PENNSYLVANIA, IN LAND RECORD BOOK \_\_\_\_\_\_, PAGE \_\_\_\_\_ ON THIS \_\_\_\_\_\_, DAY OF \_\_\_\_\_\_, 20\_\_\_\_ UPPER ALLEN TOWNSHIP BOARD OF COMMISSIONERS CONDITIONALLY APPROVED BY THE BOARD OF COMMISSIONERS OF THE UPPER ALLEN TOWNSHIP, TRAFFIC AND LOW VEHICULAR TRAFFIC DESIGN SPEED. CUMBERLAND COUNTY, PENNSYLVANIA, THIS\_\_\_\_\_ DAY OF \_\_\_\_\_ THE CONDITIONS OF APPROVAL WERE SATISFIED, THIS\_\_\_\_ DAY OF\_\_\_\_ PLANTINGS SHALL BE OF THE EVERGREEN TYPE. AREAS IN AN EFFORT TO REDUCE HEADLIGHT GLARE ATTEST: SECRETARY UPPER ALLEN TOWNSHIP PLANNING COMMISSION REVIEWED BY THE PLANNING COMMISSION OF THE UPPER ALLEN TOWNSHIP, CUMBERLAND CONTAIN AT LEAST ONE SHADE OR CANOPY TREE PROPOSED UNDERGROUND INFILTRATION BASIN. ATTEST: SECRETARY UPPER ALLEN TOWNSHIP ENGINEER REVIEW THIS PLAN REVIEWED BY THE TOWNSHIP ENGINEER OF UPPER ALLEN TOWSNHIP, THIS DEFERRALS AND MODIFICATIONS VARIANCE FOR THE FOLLOWING (DOCKET 05-12):

CUMBERLAND COUNTY PLANNING DEPARTMENT

THIS PLAN REVIEWED BY THE CUMBERLAND COUNTY PLANNING DEPARTMENT THIS\_\_\_\_\_\_

DIRECTOR OF PLANNING

THE FOLLOWING MODIFICATION(S) FROM THE UPPER ALLEN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, CHAPTER 220, HAVE BEEN REQUESTED AND APPROVED BY THE UPPER ALLEN TOWNSHIP BOARD OF COMMISSIONERS AT A MEETING HELD

- A MODIFICATION IS REQUESTED TO REDUCE THE REQUIRED MINIMUM RADIUS OF 30 FFF TO 20 FEET. A MODIFICATION WAS PREVIOUSLY APPROVED ON APRIL 16, 2015 FOR GEORGE SULLENGBERGER PRELIMINARY/FINAL LAND DEVELOPMENT PLAN TO REDUCE RADUIS TO 15 FEET. THE PROPOSED ACCESS DRIVE HAS NO ANTICIPATED TRUCK
- SHRUB PER 20 LINEAR FEET OF BUFFER YARD SCREEN. AT LEAST 60% OF SHRUB A MODIFICATION IS REQUESTED TO THE REQUIRED PLANTINGS AS STATED IN LANDSCAPE REQUIREMENTS NOTE ON SHEET C-7, DUE TO MAJORITY OF BUFFER YARD BEING
- ADDITIONAL SCREEN PLANTING HAS BEEN PLACED ADJACENT TO PROPOSED PARKING 3. SECTION 220-5.13.B.2.q(2) - THE ENDS OF THE PARKING ROWS SHALL BE DESIGNATED BY LANDSCAPING ISLANDS WITH CONTINUOUS CONCRETE CURBING.
- A MODIFICATION IS REQUESTED OMIT A CURBED LANDSCAPE ISLAND AT THE END OF PARKING ROW IN SOUTHERN PORTION OF PROPOSED FACILTY. IN LIEU, THE ISLAND IS PROPOSED TO BE STRIPED IN ORDER TO PROVIDE ADDITIONAL AREA FOR VEHICULAR 4. SECTION 220-5.13.B.2.b - PLANTING ISLANDS: EACH REQUIRED PLANTING ISLAND SHALL
- A MODIFICATION IS REQUESTED TO PLANT A TREE IN ONLY SIX (6) PLANTING ISLANDS OF SEVEN (7) PROPOSED PLANTING ISLANDS. ONE PLANTING ISLAND IS LOCATED OVER A
- 5. SECTION 220-5.19.A LIGHTING: MINIMUM AVERAGE OF TWO FOOTCANDLES A MODIFICATION IS REQUESTED TO REDUCE THE MINIMUM AVERAGE FOOTCANDLES FROM TWO TO ONE DUE TO THE PROXIMITY OF THE PROJECT SITE TO THE ADJACENT RESIDENTIAL ZONE AND LIGHT POLLUTION CONCERNS AT NOVEMBEER 15, 2023 BOARD OF

# PREVIOUSLY APPROVED VARIANCES. WAIVERS.

ON JUNE 9, 2005, THE ZONING HEARING BOARD OF UPPER ALLEN TOWNSHIP, GRANTED A

SECTION 1102.C.1 - REDUCE THE REQUIRED BUILDING SETBACK OF FIFTY (50) FEET ALONG SECTION 2003.B - REDUCE THE REQUIRED BUFFER YARD OF FIFTY (50) FEET TO THIRTY

ON SEPTEMBER 8, 2005, THE ZONING HEARING BOARD OF UPPER ALLEN TOWNSHIP, GRANTED A VARIANCE FOR THE FOLLOWING (DOCKET 05-17):

(30) FEET ALONG ASPEN DRIVE AND FROM FIFTY (50) FEET TO FIFTEEN (15) FEET ALONG

SECTION 2402.C.3 - REDUCE THE REQUIRED 125 FOOT CLEAR SIGHT TRIANGLE FROM THE PROPOSED ACCESS DRIVE FOR THE PROPERT'

ON OCTOBER 13, 2022, THE ZONING HEARING BOARD OF UPPER ALLEN TOWNSHIP, GRANTED A VARIANCE FOR THE FOLLOWING (CASE # 22-08):

SECTION 245-6.4.C(1) AND 245-16.5.C - TO ALLOW A PROPOSED BUILDING ADDITION IN

ANGLE ACROSS A BUFFER YARD WITH TURNING AND MANEUVERING ABILITY FOR VEHICLES THAT EXCEEDS CODE ALLOWANCES.

BOARD OF COMMISSIONERS ON APRIL 16, 2015:

SECTION 220-16.A(2) - INSTALLATION OF CURBING ALONG SOUTH MARKET STREET. SECTION 220-16.B(3) - INSTALLATION OF SIDEWALK ALONG SOUTH MARKET STREET. NOTE: DEFERMENTS ARE VALID UNTIL SUCH TIME AS THE BOARD OF COMMISSIONERS DEEMS THE IMPROVEMENT NECESSARY.

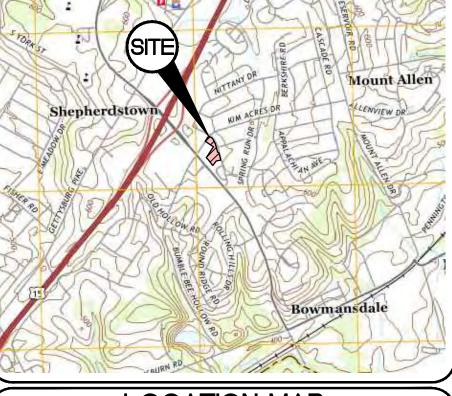
- SECTION 220-5.4.B(3)(g) ACCESS DRIVE INTERSECTIONS SHALL BE ROUNDED BY A
- 2. SECTION 220-5.13.B.1 BUFFERYARD, TYPE 2: ONE SHADE TREE PER 40 LINEAR FEET AND ONE EVERGREEN TREE PER 30 LINEAR FEET AND ONE DECIDUOUS OR EVERGREEN
- LOCATED IN PROPOSED 20' WIDE DRAINAGE EASEMENTS AND ELECTRICAL EASEMENT.

# 

SECTION 2003.G.1 AND 3 - TO ALLOW THE ACCESS DRIVE FOR THE PARKING AREAS TO BE

SECTION 245-16.5.F(3) - TO ALLOW AN ACCESS DRIVE AT AN INCREASED HORIZONTAL

THE FOLLOWING DEFERRALS(S) FROM THE UPPER ALLEN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, CHAPTER 220, WERE APPROVED BY THE UPPER ALLEN TOWNSHIP



LOCATION MAP SCALE: 1" = 2,000' COPYRIGHT BY: UNITED STATES GEOLOGICAL SURVEY DEPARTMENT

PRELIMINARY / FINAL LAND			
DEVELOPMENT PLAN SHEET			
INDEX			
DRAWING			
SHEET NO.	DRAWING TITLE		
C-1	TITLE SHEET		
C-2	GENERAL NOTES AND PLAN LEGEND		
C-3	EXISTING SITE CONDITIONS AND DEMOLITION PLAN		
C-4	EXISTING RIGHT-OF-WAY VACATION PLAN		
C-5	SITE LAYOUT PLAN		
C-6	SITE GRADING PLAN		
C-7	SITE LANDSCAPE PLAN		
C-8	POST CONSTRUCTION STORMWATER MANAGEMENT PROFILES AND DETAILS		
C-9	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS		
C-10	SITE DETAILS		
C-11	SITE LIGHTING PLAN		

# LAND SURVEYOR

I GRANT ALLEN ANDERSON, HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, OR REGISTERED ENGINEER IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA; THAT THIS PLAN CORRECTLY REPRESENTS A SURVEY COMPLETED BY ME IN OCTOBER 2023; THAT ALL THE MOMUMENTS SHOWN THERON ACTUALLY EXIST; AND THAT THEIR LOCATION, SIZE, TYPE AND MATERIAL ARE ACCURATELY SHOWN

(AGENT FOR SITE DESIGN CONCEPTS, INC.)

# **ENGINEER**

I HEREBY STATE THAT, TO THE BEST OF MY KNOWLEDGE, THE PROPOSED LAND DEVELOPMENT PLANS SHOWN AND DESCRIBED HEREON ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE UPPER ALLEN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

REGISTRATION NO. PE 079416

(AGENT FOR SITE DESIGN CONCEPTS, INC.)

# CARBONATE GEOLOGY STATEMENT

I HEREBY STATE THAT, TO THE BEST OF MY KNOWLEDGE, THE PROPOSED STORMWATER MANAGEMENT FACILITIES ARE UNDERLAIN BY CARBONATE GEOLOGY. COPYRIGHT BY AND

(AGENT FOR SITE DESIGN CONCEPTS, INC.)

ACT 121 OF THE PENNSYLVANIA GENERAL ASSEMBLY IN PREPARING THIS PLAN. LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE BASED UPON SURFACE EVIDENCE AND EXISTING DRAWINGS AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. CONTRACTOR SHOULD CONTACT THE PA ONE CALL SYSTEM (1-800-242-1776) PRIOR TO ANY EXCAVATION AS REQUIRED BY THE PA ACT 121, AS PER THE LATEST AMENDMENT OF PA ACT 287 OF 1974, EFFECTIVE OCTOBER 09, 2008.

#### DESIGN SERIAL NUMBER 20232683843 (UPPER ALLEN TOWNSHIP)

PITTSBURGH, PA 15221 CONTACT: DEBORAH BARUM EMAIL: DEBORAH.D.DELIA@VERIZON.COM

PHONE: 412-344-3901 FIRSTENERGY CORPORATION 21 S MAIN ST AKRON, OH 44308

EMAIL: MADAMS@FIRSTENERGYCORP.COM PHONE: 330-604-4073 COMCAST 4601 SMITH STREET HARRISBURG, PA 17109

CONTACT: MICHAEL SWEIGARD

EMAIL: MIKE\_SWEIGARD@CABLE.COMCAST.COM **UPPER ALLEN TOWNSHIP** 100 GETTYSBURG PIKE MECHANICSBURG, PA 17055 CONTACT: KODI HOCKENBERRY EMAIL: KHOCKENBERRY@UATWP.ORG

6310 ALLENTOWN BOULEVARD

CONTACT: CHRISTOPHER BRIDE EMAIL: CHRISTOPHER.BRIDE@VEOLIA.COM PHONE: 717-901-6317

PPL ELECTRIC UTILITIES CORPORATION 437 BLUE CHURCH RD PAXINOS, PA 17860 CONTACT: DOUG HAUPT

PHONE: 570-490-5684 UPPER ALLEN TOWNSHIP PUBLIC WORKS DEPT

MECHANICSBURG, PA 17055 CONTACT: COLLIN BARGE EMAIL: CBARGE@UATWP.ORG

UGI UTILITIES INC 1301 AIP DR MIDDLETOWN, PA 17057 CONTACT: STEPHEN BATEMAN EMAIL: SBATEMAN@UGI.COM

#### STORMWATER BMP OWNERSHIP ACKNOWLEDGEMENT NOTE

I, ANTONINO PURPURA, AM AWARE OF AND ACCEPT RESPONSIBILITY FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT BMPS SHOWN HEREON.

IN WITNESS WHEREOF, I HEREUNTO SET MY HAND AND OFFICIAL SEAL:

NOTARY PUBLIC:

MY COMMISSION EXPIRES

# CERTIFICATE OF OWNERSHIP, ACKNOWLEDGMENT

FORM OF AFFIDAVIT

, ANTONINO PURPURA, THE UNDERSIGNED, OWNERS OF THE REAL ESTATE SHOWN AND DESCRIBED HEREIN, DO HEREBY CERTIFY THAT WE HAVE LAID OFF, PLATTED AND SUBDIVIDED, AND HEREBY LAY OFF, PLAN AND SUBDIVIDE, SAID REAL ESTATE IN ACCORDANCE WITH THE

BUILDING SETBACK LINES ARE HEREBY ESTABLISHED AS SHOWN ON THIS PLAN, BETWEEN WHICH LINES AND THE PROPERTY LINES OF THE STREET THERE SHALL BE ERECTED OR MAINTAINED NO BUILDING OR

COMMONWEALTH OF PENNSYLVANIA

WITHIN INSTRUMENT, AND ACKNOWLEDGED THAT\_\_\_

COUNTY OF CUMBERLAND

MY COMMISION EXPIRES: \_\_\_\_\_

PUBLIC, PERSONALLY CAME\_\_\_\_ (OR SATISFACTORILY PROVEN) TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE

NOTARY STAMP SEAL

EMAIL: DLHAUPT@PPLWEB.COM

100 GETTYSBURG PIKE

PHONE: 717-756-9169

ANTONINO PURPURA – LAND OWNER



# OF PLAN AND OFFER OF DEDICATION (OWNER - TAX MAP 42-29-2454-366, PARCEL 366)

WITNESS OUR HANDS AND SEALS THIS\_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_.

ON THIS, THE \_\_\_\_\_ DAY OF\_\_\_\_ \_\_\_\_\_\_, THE UNDERSIGNED NOTARY

SAME FOR THE PURPOSES THEREIN CONTAINED. IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC

DRAWN BY AWA 11.01.23

访

1484.1A-LD-1

2024, SITE DESIGN CONCEPTS, INC. - ALL RIGHTS RESERVED. THESE PLANS ARE THE PROPERTY OF SITE DESIGN CONCEPTS, INC. ANY USE OR REPRODUCTION OF THESE PLANS, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF SITE DESIGN CONCEPTS, INC. IS FORBIDDEN.

## UTILITY NOTES

CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE (1) FOOT OF CLEARANCE BETWEEN ALL UTILITIES

OTHERWISE NOTED HEREON. CONTRACTOR SHALL CONTACT SITE DESIGN CONCEPTS, INC. IF THESE

NCHES SHALL BE MAINTAINED BETWEEN ALL WATER AND SANITARY SEWER CROSSINGS. IF THIS

THE CONTRACTOR SHALL MAINTAIN FIELD RECORDS OF THE LOCATION AND DEPTH OF ALL UTILITY

LOCATIONS AND SHALL PROVIDE THIS INFORMATION TO SITE DESIGN CONCEPTS, INC. FOR OWNER'S

ALL SANITARY SEWERS SHALL BE CONSTRUCTED FROM SDR-35 PVC UNLESS OTHERWISE NOTED ON

THE PLANS. IN AREAS WHERE COVER EXCEEDS 14 FEET, SDR-26 PVC SHALL BE USED FOR BOTH

CLEARANCE CANNOT BE MAINTAINED, A CONCRETE ENCASEMENT SHALL BE PROVIDED, UPON

APPROVAL BY MUNICIPALITY AND SITE DESIGN CONCEPTS, INC.

RECORDS AND/OR PREPARATION OF RECORD DRAWINGS.

MINIMUM CLEARANCES CANNOT BE ACHIEVED. A MINIMUM VERTICAL SEPARATION OF EIGHTEEN (18)

L SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE MUNICIPALITY

AND A MINIMUM TWO (2) FEET OF CLEARANCE BETWEEN UTILITIES AND UTILITY POLES UNLESS

DESIGN REQUIREMENTS AND CONSTRUCTION SPECIFICATIONS OF THE PUBLIC WATER SUPPLIER. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE PUBLIC WATER SUPPLIER'S CONSTRUCTION STANDARDS AND SPECIFICATIONS.

TYPES OF STRUCTURES REFER TO THE LATEST PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, UNLESS OTHERWISE NOTED.

ALL UTILITY STRUCTURES (I.E. SEWER MANHOLES, INLETS, VALVE BOXES, ETC.) LOCATED WITHIN THE PROPOSED STREETS OR PAVED AREAS SHALL BE ADJUSTED TO MEET PROPOSED FINISHED GRADES. 13. EXISTING UTILITIES, ROADS, DRIVEWAYS, AND STRUCTURES SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS SATISFACTION PRIOR CONSTRUCTION. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT

THE CONTRACTOR SHALL ADJUST ALL EXISTING UTILITIES AS NECESSARY TO MATCH PROPOSED GRADES AND/OR PROVIDE THE REQUIRED MINIMUM COVER

EXISTING UTILITY SERVICES AND MAINS.

NATURAL GAS, WATER, ELECTRIC AND TELECOM UTILITY LINES ARE APPROXIMATE AN THERE EXAC' LOCATION AND DESIGN ARE TO BE CONFIRMED WITH THE APPLICABLE UTILITY PROVIDER.

#### STORMWATER MANAGEMENT FACILITIES CONSTRUCTION NOTES (AS APPLICABLE)

AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORK SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. WHERE POSSIBLE, ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. UNLESS RESTRICTED FROM SUCH, ALL TREES SHALL BE CLEARED AND GRUBBED WITHIN 15 FEET OF THE TOE OF THE EMBANKMENT. AREAS TO BE COVERED BY THE STORMWATER FACILITIES SHALL BE CLEARED OF ALL TREES, BRUSH, LOGS, FENCES, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE DESIGNATED ON THE PLANS. TREES, BRUSH, AND STUMPS SHALL BE CUT APPROXIMATELY LEVEL WITH THE GROUND SURFACE. FOR DRY STORMWATER MANAGEMENT PONDS, A MINIMUM OF A 25-FOOT RADIUS AROUND THE OUTLET STRUCTURE SHALL BE CLEARED. ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE DAM AND THE STORMWATER FACILITIES AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED. A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.

A. MATERIAI THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6". FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT, AND CUTOFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL AND MUST HAVE AT LEAST 30% PASSING THE 200 SIEVE. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGNED BY A GEOTECHNICAL ENGINEER. SUCH SPECIAL DESIGNS MUST HAVE CONSTRUCTION SUPERVISED BY A GEOTECHNICAL ENGINEER. MATERIALS USED IN THE OUTER SHELL OF THE EMBANKMENT MUST HAVE THE CAPABILITY TO SUPPORT VEGETATION OF THE QUALITY REQUIRED TO PREVENT EROSION OF THE EMBANKMENT.

AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN MAXIMUM 8 INCH THICK (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST PERMEABLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT. THE PRINCIPAL SPILLWAY MUST BE INSTALLED CONCURRENTLY WITH FILL PLACEMENT AND NOT EXCAVATED INTO THE EMBANKMENT.

THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD TRACK OF HEAVY EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION WILL BE OBTAINED WITH THE EQUIPMENT USED. THE FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT IF FORMED INTO A BALL IT WILL NOT CRUMBLE ET NOT BE SO WET THAT WATER CAN BE SQUEEZED OUT. WHEN REQUIRED BY THE REVIEWING AGENCY HE MINIMUM REQUIRED DENSITY SHALL NOT BE LESS THAN 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN  $\pm 1$ -2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY, AND IS TO BE CERTIFIED BY THE GEOTECHNICAL ENGINEER AT THE TIME OF CONSTRUCTION. ALL COMPACTION IS TO BE DETERMINED BY AASHTO METHOD T-99 (STANDARD

CUTOFF TRENCH THE CUTOFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST TWO FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF HE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

THE CORE SHALL BE PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE CORE SHALL BE A MINIMUM OF FOUR FEET. THE HEIGHT SHALL EXTEND UP TO AT LEAST THE 10 YEAR WATER SURFACE ELEVATION OR AS SHOWN ON THE PLANS. THE SIDE SLOPES SHALL BE 1 TO 1 OR FLATTER. THE CORE SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY. IN ADDITION, THE CORE SHALL BE PLACED CONCURRENTLY WITH THE OUTER SHELL OF EMBANKMENT.

5. STRUCTURE BACKFILL WITH FLOWABLE FILL BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL SHALL COMPLETELY FILL ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE, UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A CONCRETE STRUCTURE OR PIPE, UNLESS THERE IS A COMPACTED FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE. THE MIXTURE SHALL HAVE A 100-200 PSI, 28 DAY UNCONFINED COMPRESSIVE STRENGTH. THE FLOWABLE FILL SHALL HAVE A MINIMUM PH OF 4.0 AND A MINIMUM RESISTIVITY OF 2,000 OHM-CM. MATERIAL SHALL BE PLACED SUCH THAT A MINIMUM OF 6" (MEASURED PERPENDICULAR TO THE OUTSIDE OF THE PIPE) OF FLOWABLE FILL SHALL BE UNDER (BEDDING), OVER, AND ON THE SIDES OF THE PIPE. IT ONLY NEEDS TO EXTEND UP TO THE SPRING LINE FOR RIGID CONDUITS. AVERAGE SLUMP OF THE FILL SHALL BE 7" TO ASSURE FLOWABILITY OF THE MATERIAL. ADEQUATE MEASURES SHALL BE TAKEN (SAND BAGS, ETC.) TO PREVENT FLOATING THE PIPE. THE MATERIAL SHALL COMPLETELY FILL ALL VOIDS ADJACENT TO THE FLOWABLE FILL ZONE. BACKFILL MATERIAL OUTSIDE THE STRUCTURAL BACKFILL (FLOWABLE FILL) ZONE SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE CORE OF THE EMBANKMENT OR OTHER EMBANKMENT MATERIALS.

ALL PIPES SHALL BE CIRCULAR IN CROSS-SECTION UNLESS OTHERWISE SPECIFIED.

7. REINFORCED CONCRETE PIPE

A. MATERIALS - REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM C-361.

B. BEDDING - REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAID IN A CONCRETE BEDDING/CRADLE FOR THEIR ENTIRE LENGTH. THIS BEDDING/CRADLE SHALL CONSIST OF HIGH SLUMP CONCRETE PLACED UNDER THE PIPE AND UP THE SIDES OF THE PIPE AT LEAST 50% OF ITS OUTSIDE DIAMETER WITH A MINIMUM THICKNESS OF 6 INCHES. WHERE A CONCRETE CRADLE IS NOT SPECIFIED, FLOWABLE FILL MAY BE USED AS DESCRIBED IN THE "STRUCTURE BACKFILL" SECTION OF THIS STANDARD. GRAVEL BEDDING IS NOT PERMITTED.

C. LAYING PIPE - BELL AND SPIGOT PIPE SHALL BE PLACED WITH THE BELL END UPSTREAM. JOINTS SHALL BE MADE IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL. AFTER THE JOINTS ARE SEALED FOR THE ENTIRE LINE, THE BEDDING SHALL BE PLACED SO THAT ALL SPACES UNDER HE PIPE ARE FILLED. CARE SHALL BE EXERCISED TO PREVENT ANY DEVIATION FROM THE ORIGINAL LINE AND

D. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL", ABOVE.

8. PLASTIC PIPE

A. MATERIALS - PVC PIPE SHALL BE A MINIMUM OF SDR-35 CONFORMING TO ASTM D-1785 OR ASTM D-2241. CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) PIPE, COUPLINGS AND FITTINGS SHALL CONFORM TO THE FOLLOWING: 4" THROUGH 10" PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M252 TYPE S. AND 12" THROUGH 60" SHALL MEET THE REQUIREMENTS OF AASHTO M294 TYPE S OR ASTM F2306

B. JOINTS AND CONNECTIONS TO ANTI-SEEP COLLARS SHALL BE COMPLETELY WATERTIGHT

C. BEDDING -THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

D. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL", ABOVE.

9. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS, OR AS REQUIRED

A. CONCRETE SHALL MEET THE REQUIREMENTS OF LATEST EDITION PENNSYLVANIA DEPARTMENT OF RANSPORTATION PUBLICATION 408, SECTIONS 605, 606 AND 714; AND AS MODIFIED HEREON. B. REINFORCEMENT SHALL MEET THE MINIMUM REQUIREMENTS OF LATEST EDITION PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408, SECTION 709.

ROCK RIP-RAP SHALL MEET THE REQUIREMENTS OF LATEST EDITION PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408.

# STORM DRAINAGE PIPE INSTALLATION NOTES

INSTALLATION MUST BE COORDINATED WITH A MANUFACTURER'S REPRESENTATIVE.

1. STORM DRAIN PIPES SHALL BE ADS N-12 ST IB HDPE PIPE WITH BELL & SPIGOT PIPE JOINTS (FOR SOIL TIGHT CONNECTIONS), ADS N-12 WT HDPE PIPE (FOR WATER TIGHT CONNECTIONS), AND/OR ASTM C-76 RCP WITH BELL AND SPIGOT JOINTS OR APPROVED EQUAL. REFER TO PLAN AND PROFILES FOR MATERIALS USED.

2. CURVILINEAR INSTALLATION OF ADS (N-12) PIPE SHALL USE PRO-LINK WT JOINTS FOR WATER TIGHT CONNECTIONS AND SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND INSTALLATION REQUIREMENTS. CURVILINEAR PIPE WITH PRO-LINK WT BELL/BELL COUPLER OR MITERED BELL COUPLER SHALL BE INSTALLED WITH A MAXIMUM THREE INCH (3") DEFLECTION AT EACH JOINT. TO ACHIEVE A RADIUS OF LESS THAN 200 FEET, INSTALL TEN FOOT (10') PIPE LENGTHS WITH A GASKETED BELL/BELL COUPLER. ALL

3. ALL EMBEDMENT MATERIALS USED FOR BEDDING, HAUNCHING AND INITIAL BACKFILL FOR HDPE PIPE SHALL CONFORM TO AASHTO SECTION 30 AND ASTM D-2321 PER MANUFACTURER'S INSTALLATION REQUIREMENTS.

WHERE ANY PART OF THE PROPOSED STORM DRAIN SYSTEM IS TO BE CONSTRUCTED WITHIN A FILL SECTION, THE CONTRACTOR SHALL COMPACT ALL SELECT FILL MATERIAL TO 95% OF ASTM D-698 (AASHTO T-99) WITH A MOISTURE CONTENT ± 3% OF OPTIMUM UP TO THE PIPE BEDDING

# SINKHOLE PRONE SOILS

ANY PORTION OF THE SITE THAT IS UNDERLAIN BY LIMESTONE MAY GENERALLY BE PRONE TO SOLUTION ACTIVITY AND FORMATION OF SINKHOLES. IF SINKHOLES ARE DISCOVERED DURING CONSTRUCTION OPERATIONS:

1. THE CONTRACTOR SHOULD CEASE OPERATIONS WITHIN THE AFFECTED AREA AND CONTACT THE GEOTECHNICAL

2. ALL SOFT SOILS SHOULD BE EXCAVATED TO REVEAL THE THROAT OF THE SINKHOLE. PINNACLES AND OVERHANGS SHOULD BE REMOVED AND CREVICES CLEANED-OUT AND FILLED WITH LEAN CONCRETE AS

3. THE APPROPRIATE REMEDIAL TREATMENT - WHICH MAY CONSIST OF GROUT OR CONCRETE PLACEMENT, REVERSE FILTER CONSTRUCTION UTILIZING ROCK AND AGGREGATE, AND/OR STABILIZATION VIA PLACEMENT OF GEOTEXTILES

4. DURING EARTHMOVING OPERATIONS, EXCAVATIONS SHOULD BE BACKFILLED AS SOON AS PRACTICAL AND ANY DEPRESSIONS SHOULD BE RE-GRADED TO AVOID PONDED WATER.

#### **GENERAL CONSTRUCTION NOTES**

1. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION SITE MEETING WITH THE UPPER ALLEN TOWNSHIP ENGINEER AND THE CUMBERLAND COUNTY CONSERVATION DISTRICT AT LEAST 48 HOURS PRIOR TO STARTING SITE CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL ADHERE TO THE SEQUENCE OF CONSTRUCTION OUTLINED IN SOIL EROSION AND SEDIMENTATION CONTROL PLAN, UNLESS APPROVED OTHERWISE BY THE LOCAL CONSERVATION DISTRICT, THE MUNICIPALITY, AND SITE DESIGN CONCEPTS, INC.

ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO SITE DESIGN CONCEPTS, INC. PRIOR TO CONSTRUCTION.

3. EXTREME CARE SHOULD BE TAKEN DURING SITE DEMOLITION AND CONSTRUCTION ACTIVITIES SO AS NOT TO DISTURB EXISTING PROPERTY CORNER MONUMENTATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH REPLACEMENT OF ANY PROPERTY CORNERS DAMAGED DURING SITEWORK OPERATIONS.

UNLESS NOTED OTHERWISE HEREIN, MISCELLANEOUS SIGNS, MAILBOXES, FENCES, ETC. LOCATED WITHIN CONSTRUCTION AREAS SHALL BE REMOVED AND RELOCATED BY THE CONTRACTOR, AS REQUIRED.

5. IF DISCREPANCIES BETWEEN SCALED AND LABELED DIMENSIONS SHOWN ON THESE PLANS ARE DISCOVERED, THE CONTRACTOR SHALL IMMEDIATELY CONTACT SITE DESIGN CONCEPTS, INC. FOR CLARIFICATION.

6. UNLESS NOTED OTHERWISE, IN CASE OF CONFLICTS BETWEEN THE PLANS AND DETAILS SHOWN HEREIN AND MUNICIPAL ORDINANCES OR CONSTRUCTION SPECIFICATIONS, THE MUNICIPAL REQUIREMENTS SHALL TAKE

ANY EXISTING BITUMINOUS PAVING, CONCRETE CURB, CONCRETE PADS, SIDEWALK, UTILITY OR OTHER EXISTING IMPROVEMENT (SCHEDULED TO REMAIN) THAT IS DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REMOVED AND REPLACED, OR REPAIRED WITH MATERIAL EQUAL TO OR EXCEEDING THAT WHICH WAS DISTURBED, OR AS SPECIFIED BY THE OWNER, PROJECT OR MUNICIPAL ENGINEER, AS APPLICABLE. WHEN REMOVING AND REPLACING CONCRETE CURB, CONCRETE PADS AND/OR SIDEWALK, REMOVAL SHALL BE TO THE NEAREST EXPANSION JOINT IF POSSIBLE, TO CREATE A CLEAN, TOOLED (NON-SAWCUT) JOINT. PROVIDE DOWELS AT JOINTS AND INSTALL NEW EXPANSION JOINT MATERIAL AS REQUIRED

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC AND TRAFFIC CONTROL, AS APPLICABLE. THE CONTRACTOR SHALL COORDINATE ANY TEMPORARY ROAD CLOSING WITH THE

9. TEMPORARY TRAFFIC CONTROLS AND TRAFFIC SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC

CONTRACTOR SHALL MONITOR CONSTRUCTION VEHICLES AS REQUIRED TO AVOID TRACKING MUD AND DEBRIS ONTO ANY PAVED STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP THE STREET(S) AND/OR

ACCESS DRIVE(S) CLEARED AND THE SITE IN AN APPROPRIATE WORKMAN-LIKE MANNER. ALL EXISTING LAWN AREAS DISTURBED BY PROPOSED CONSTRUCTION SHALL BE RESTORED TO PROVIDE A MINIMUM SIX INCHES (6") TOPSOIL, GRADED TO SMOOTH, TRUE LINES AND SEEDED AND MULCHED PER

12. ANY LAND AREA THAT CANNOT BE ADEQUATELY STABILIZED WITH SEEDING AND MULCHING SHALL BE STABILIZED WITH AN EROSION CONTROL OR TURF REINFORCEMENT MATTING

HANDICAP CURB RAMPS SHALL BE PROVIDED TO PROPOSED SIDEWALKS AT ALL PROPOSED STREET INTERSECTIONS AND AT LOCATIONS INDICATED ON THE SITE PLAN(S). RAMPS SHALL BE CONSTRUCTED PER

MUNICIPAL AND A.D.A REQUIREMENTS.

14. PROPOSED STORMWATER MANAGEMENT FACILITIES: PROPOSED STORMWATER MANAGEMENT FACILITIES HAVE BEEN DESIGNED TO MANAGE POST DEVELOPMENT STORM

MANAGE STORMWATER RUNOFF FROM ADDITIONAL FUTURE IMPERVIOUS AREAS NOT SHOWN ON THIS PLAN ALL PROPOSED STORM INLETS LOCATED WITHIN EXISTING/PROPOSED PUBLIC RIGHTS-OF-WAY SHALL BE PENNDOT 2'x4' TYPE M OR C AS SPECIFIED ON THE PROFILES, UNLESS OTHERWISE NOTED OR REQUIRED DUE TO PIPE SIZES, CONFIGURATIONS OR GEOMETRY. THE REAR EDGE OF THE TOP OF GRATE OF ALL TYPE-C INLETS LOCATED IN PROPOSED STREETS SHALL BE DEPRESSED ONE AND ONE-HALF (1-1/2) INCHES BELOW THE FLOWLINE. VANE GRATES SHALL BE PROVIDED ON INLETS AS SPECIFIED ON THE PROFILES. ALL INLETS

SHALL INCLUDE A BICYCLE-SAFE INLET GRATE. ALL PROPOSED STORM PIPES SHALL BE WATERTIGHT SMOOTH

RUNOFF FROM PROPOSED IMPERVIOUS AREAS SHOWN ON THIS PLAN. NO PROVISIONS HAVE BEEN MADE TO

THE DESIGN OF THE PERMANENT STORMWATER INFILTRATION AND/OR STORMWATER QUALITY BMPS IS BASED ON REPRESENTATIVE SOIL TESTING PROCEDURES ACCEPTED BY PA DEP. DUE TO POSSIBLE VARIANCES IN THE SOIL PROPERTIES ENCOUNTERED WITHIN THE AREA OF THE ACTUAL BMP FACILITY, AND THE POTENTIAL ALTERATION OF PERCOLATION PROPERTIES OF THE SOIL DURING CONSTRUCTION, SITE DESIGN CONCEPTS, INC. DOES NOT GUARANTEE OR WARRANTY THAT THE BMPS WILL FUNCTION IN ACCORDANCE WITH THE PARAMETERS USED TO

15. PROPOSED SITE GRADING HAS BEEN SHOWN TO PROVIDE A GENERAL REPRESENTATION OF THE FINISHED GROUND CONTOUR AND DRAINAGE PATTERNS FOR STORMWATER DESIGN PURPOSES.

LINED CORRUGATED POLYETHYLENE (SLCP) UNLESS NOTED OTHERWISE.

16. ALL DIMENSIONS IN AREAS OF PROPOSED CURBING ARE FACE OF CURB TO FACE OF CURB UNLESS OTHERWISE

17. ALL ELEVATIONS ARE AT THE CENTER OF STRUCTURE AT THE FLOWLINE OF THE FACE OF CURB OR AT THE CENTER OF STRUCTURE IN GRASSED AREAS, UNLESS OTHERWISE NOTED.

18. FAILURE TO SPECIFICALLY MENTION ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.

19. THE MEASURES REQUIRED IN THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN SHALL APPLY AS IF SHOWN ON THIS PLAN AND SHALL BE COMPLETED AND IN SERVICE PRIOR TO THE COMMENCEMENT OF ANY SITE

20. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES,

PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.

21. CURB AND PAVEMENT SHALL BE INSTALLED IN A MANNER AS TO ENSURE POSITIVE DRAINAGE IN ALL AREAS.

FIELD ADJUSTMENTS SHALL BE MADE AS NECESSARY TO PROVIDE A SMOOTH TRANSITION BOTH HORIZONTALLY AND VERTICALLY FROM THE EXISTING TO PROPOSED PAVING SECTIONS AND CURBS.

23. WHERE IT IS NECESSARY TO CONNECT TO OR EXTEND AN EXISTING ROAD OR PAVEMENT, SAW CUT THE

EXISTING EDGE OF PAVEMENT AND MILL AND OVERLAY AT THE POINT OF TIE-IN TO ENSURE A SMOOTH 24. SITE CONTRACTOR SHALL PROVIDE DETAILED AS-BUILT INFORMATION TO PROJECT ENGINEER FOR ALL PROPOSED

SANITARY SEWER AND STORMWATER MANAGEMENT, CONVEYANCE AND B.M.P. STRUCTURES / FACILITIES (PUBLIC AND PRIVATE) FOR PROJECT ENGINEER'S USE IN PREPARATION OF RECORD DRAWINGS. AS-BUILT MYLAR PLANS AND ELECTRONIC DATA FILES SHALL BE PROVIDED TO THE TOWNSHIP. ALL DRAWINGS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR LAND SURVEYOR ATTESTING TO THE CORRECTNESS OF THE FACILITY INFORMATION SHOWN, IN ACCORDANCE WITH SECTION 220-4.2.C(3) OF THE CODIFIED ORDINANCES.

# HE SITE IS GENERALLY SUITABLE FOR CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE FOLLOWING

1. CLEARING, GRUBBING, DEMOLITION OF EXISTING STRUCTURES, AND THE STRIPPING OF ORGANIC SURFACE SOILS SHOULD BE PERFORMED IN ADVANCE OF ANY GRADING OPERATIONS IN STRUCTURAL AREAS.

2. AFTER CLEARING, GRUBBING, AND STRIPPING HAVE BEEN COMPLETED, THE RESULTING STRUCTURAL FILL SUBGRADE SHOULD BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK TO LOCATE ANY UNSUITABLE OR UNSTABLE AREAS PRIOR TO STRUCTURAL FILL PLACEMENT. ANY SUBGRADE SOILS IDENTIFIED AS BEING UNSUITABLE OR UNSTABLE SHOULD BE UNDERCUT TO A STABLE SOIL STRATUM AND BACKFILLED WITH CONTROLLED, COMPACTED STRUCTURAL FILL

3. SOILS SHALL BE DRIED BY PLACING IN LIFTS NOT TO EXCEED EIGHT (8) INCHES IN LOOSE THICKNESS AND DISCING AND AERATING THE SOIL OR TREATING WITH LIME OR CEMENT UNTIL MOISTURE FALLS WITHIN THE

SPRINGS AND AREAS OF HIGH GROUNDWATER TABLE ENCOUNTERED DURING CONSTRUCTION SHALL BE DEWATERED USING A PUMPED WATER FILTER BAG. IN AREAS OF PERMANENT EXCAVATION, CEASE WORK AND

5. STRUCTURAL FILLS SUPPORTING FOUNDATIONS, SLABS, AND ROADWAYS AND WITHIN EMBANKMENT SLOPES STEEPER THAN 3(H):1(V) SHALL BE PLACED IN LIFTS NOT TO EXCEED EIGHT (8) INCHES IN LOOSE THICKNESS AND SHALL BE COMPACTED TO 95% OF ASTM D-698 (AASHTO T-99) AT +/- 3% OF THE OPTIMUM MOISTURE CONTENT. WHERE HAND-GUIDED COMPACTION EQUIPMENT SUCH AS JUMPING-JACKS OR PLATE-TAMPERS ARE USED, THE LOOSE LIFT THICKNESS SHOULD NOT EXCEED FOUR (4) INCHES.

6. STRUCTURAL FILLS WITHIN THE TOP ONE (1) FOOT OF PAVEMENT SUBGRADE SHALL BE PLACED IN LIFTS NOT TO EXCEED EIGHT (8) INCHES IN LOOSE THICKNESS AND SHALL BE COMPACTED TO 98% OF ASTM D-698 (AASHTO T-99) AT +/- 2% OF THE OPTIMUM MOISTURE CONTENT. WHERE HAND-GUIDED COMPACTION EQUIPMENT SUCH AS JUMPING-JACKS OR PLATE-TAMPERS ARE USED, THE LOOSE LIFT THICKNESS SHOULD NOT EXCEED FOUR (4)

7. STRUCTURAL FILLS IN STORMWATER MANAGEMENT FACILITIES SHALL BE PLACED IN LIFTS NOT TO EXCEED EIGHT (8) INCHES IN LOOSE THICKNESS AND SHALL BE COMPACTED TO 95% OF ASTM D-698 (AASHTO T-99) AT 2 TO 5% OF THE OPTIMUM MOISTURE CONTENT. WHERE HAND-GUIDED COMPACTION EQUIPMENT SUCH AS JUMPING-JACKS OR PLATE-TAMPERS ARE USED, THE LOOSE LIFT THICKNESS SHOULD NOT EXCEED FOUR (4)

8. UNLESS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER, THE MAXIMUM PARTICLE SIZE FOR STRUCTURAL FILLS WITHIN THE UPPERMOST ONE (1) FOOT OF FLOOR SLAB SUBGRADE AND PAVEMENT AND FILLS IN THE VICINITY OR UTILITIES SHOULD BE LIMITED TO FOUR (4) INCHES. FOR FILLS BELOW THE UPPERMOST ONE ( FOOT AND FILLS WITHIN NON—STRUCTURAL AND LANDSCAPED AREAS, THE MAXIMUM PARTICLE SIZE SHOULD BE

9. ALL BLASTING REQUIRED FOR ROCK REMOVAL FOR SITE GRADING, INSTALLATION OF PROPOSED SANITARY SEWER AND OTHER UTILITIES OR FACILITIES SHALL BE COMPLETED AT THE SAME TIME IN ACCORDANCE WITH ALL GOVERNING REGULATORY REQUIREMENTS.

10. PAVEMENT SUBGRADE SHOULD BE GRADED AND SEALED AT THE END OF EACH WORKDAY. PLACEMENT OF SUBBASE AND ASPHALT PAVING SHOULD BE PERFORMED AS QUICKLY AS POSSIBLE TO MINIMIZE THE IMPACT OF REPEATED SATURATION OF THE SUBGRADE SOILS.

11. ALL NEW FILL SLOPES STEEPER THAN 5(H):1(V) SHOULD BE KEYED INTO THE EXISTING SLOPES TO PROTECT THE

12. FILL CONTAINING A MAJORITY OF ROCKY MATERIAL MAY BE DIFFICULT TO EXCAVATE IF LOCATED IN AREAS OF UTILITY TRENCH AND FOOTING EXCAVATIONS. THEREFORE, THE CONTRACTOR MAY WANT TO CONSIDER LIMITING THE USE OF ROCK FILL IN AREAS OF PROPOSED EXCAVATION, OR TO STAGE THE EARTHWORK OPERATIONS TO ALLOW THE PLACEMENT OF ROCK FILL AT THE BOTTOM OF THE DEEPER FILL AREAS, BELOW ANY ANTICIPATED

13. ALL UNSUITABLE MATERIAL MUST BE REMOVED AND REPLACED WITH SUITABLE MATERIAL TO A DEPTH AS DIRECTED BY THE GEOTECHNICAL ENGINEER AND/OR PROJECT ENGINEER.

14. A GEOTECHNICAL ENGINEER OR OTHER TECHNICAL PROFESSIONAL SHALL BE PRESENT DURING THE CONSTRUCTION OF SLOPES EXCEEDING 3:1 FILL OR 2:1 CUT.

15. AVOID RUNNING UTILITIES ALONG FOUNDATIONS LINES.

STABILITY OF THE EMBANKMENT.

16. MINIMIZE IRRIGATED LANDSCAPED AREAS ADJACENT TO BUILDINGS.

17. COMPACTION TESTING TO ENSURE, ADEQUATE COMPACTION IS ACHIEVED PER REQUIREMENTS NOTED HEREIN OR THOSE OF ANY AGENCY WITH JURISDICTION, IS REQUIRED AT THE BASE OF ALL STORM, SANITARY SEWER AND WATER SYSTEM STRUCTURES AND PIPES THAT ARE LOCATED IN FILL AREAS, PRIOR TO INSTALLATION OF SAID FACILITIES. RESULTS OF ALL COMPACTION TESTS SHALL BE PROVIDED TO THE OWNER, PROJECT ENGINEER AND

# LAND DEVELOPMENT NOTES

- 1. THE PURPOSE OF THIS LAND DEVELOPMENT PLAN IS TO DEPICT A PROPOSED BUILDING ADDITION. PATIO AREA. AND PARKING LOT EXPANSION ON PARCEL 366 LOCATED AT 2210 ASPEN DRIVE, UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PENNSYLVANIA.
  - 2. PARCEL INFORMATION: UNIFORM PARCEL IDENTIFIER: 42-29-2454-366
- DEED REFERENCE: DEED/RECORD BOOK 202230244 PLAN REFERENCE: PLAN/RECORD BOOK 202200350
- 3. EXISTING LAND TRACT IS ZONED: C2, HIGHWAY COMMERCIAL 4. ADJACENT LAND TRACTS ARE ZONED:

PROPOSED LAND TRACT USE: RESTAURANT

- NORTH: C2, HIGHWAY COMMERCIAL SOUTH: C2. HIGHWAY COMMERCIAL R2. MEDIUM DENSITY RESIDENTIAL
- WEST: C2, HIGHWAY COMMERCIAL 5. EXISTING LAND TRACT(S) USE: RESTAURANT
- 6. EXISTING LOT IS SERVED BY AN EXISTING PUBLIC WATER SUPPLY BY VEOLIA AND AN EXISTING PUBLIC SANITARY SEWAGE DISPOSAL SYSTEM PROVIDED BY UPPER ALLEN TOWNSHIP.
- 7. MINIMUM REQUIRED LOT AREA: AS REQUIRED PER DIMENSIONAL REGULATIONS EXISTING LOT AREA: 90,116 S.F. (2.07 AC.) GROSS/NET
- PROPOSED LOT AREA: 98,940 S.F. (2.271AC.) GROSS/NET
- 8. MINIMUM REQUIRED LOT WIDTH: 150 FT. (AT BLDG. SETBACK LINE) EXISTING LOT WIDTH (ALONG ASPEN DRIVE): 590 FT. (ALONG KIM ACRES DRIVE): 125 FT
- MINIMUM REQUIRED SETBACKS PRINCIPAL BUILDINGS & STRUCTURES: FRONT: 30 FT

\*VARIANCES GRANTED TO PERMIT A 15' BUILDING SETBACK ALONG SOUTH MARKET STREET (ZHB APP. 05-12). \*WHEN A WRITTEN AGREEMENT IS PROVIDED BY ADJOINING PROPERTY OWNERS, NO SIDE YARD SHALL BE

10. MAXIMUM ALLOWABLE BUILDING HEIGHT: 35 FT. (PRINCIPAL BLDGS./STRUCTURES).

REQUIRED WHERE TWO OR MORE COMMERCIAL PROPERTIES ABUT SIDE BY SIDE

EXISTING/PROPOSED BUILDING HEIGHT: <35 FT.

11. MAXIMUM ALLOWABLE BUILDING COVERAGE: 50%. EXISTING BUILDING COVERAGE: 6% (5,640 S.F.±/90,116 S.F.) PROPOSED BUILDING COVERAGE: 9% (8,680 S.F.±/98,940 S.F.)

12. MAXIMUM ALLOWABLE LOT COVERAGE: 70%.

EXISTING LOT COVERAGE: 31% (30,514 S.F.±/90,116 S.F.) PROPOSED LOT COVERAGE: 61% (60,213 S.F.±/98,940 S.F.)

13. PARKING REQUIREMENTS: BASIS: RESTAURAN REQUIREMENTS = ONE SPACE FOR EVERY 4 SEATS OF DESIGN CAPICITY, PLUS 1 SPACE FOR EVERY 2

ANALYSIS: EXISTING 68 SEATS / 4 + 12 EMPLOYEES / 2 = 23 SPACES PROPOSED 150 SEATS / 4 + 12 EMPLOYEES / 2 = 44 SPACES

TOTAL REQUIRED NO. OF SPACES = 67 EXISTING NO. OF SPACES = 60PROPOSED NO. OF SPACES = 45 . OF SPACES TO BE REMOVED = 1 TOTAL NO. OF SPACES = 104

REQUIRED NO. OF ADA HANDICAP PARKING SPACES = 5 EXISTING NO. OF ADA HANDICAP PARKING SPACES = 3 PROPOSED NO. OF ADA HANDICAP PARKING SPACES = 2 TOTAL NO. OF ADA HANDICAP PARKING SPACES = 5

MINIMUM REQUIRED PARKING SPACE SIZE = 18'L. X 9.5'W.

14. LOADING REQUIREMENTS: BASIS: RESTAURAN

TOTAL REQUIRED NO. OF LOADING SPACES = 1 EXISTING NO. OF LOADING SPACES = 1 PROPOSED NO. OF LOADING SPACES = 0 TOTAL NO. OF LOADING SPACES = 1

MINIMUM LOADING SPACE SIZE = 35'L. x 10'W. x 14'H.

15. NO NEW STREETS PROPOSED WITH THIS PROJECT 16. PROJECT SITE IS <u>NOT</u> LOCATED WITHIN A MAPPED 100 YEAR FLOOD PLAIN BASED UPON A REVIEW OF THE FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWNSHIP OF UPPER ALLEN, COMMUNITY NUMBER 420372, PANEL 0286, SUFFIX F, MAP NUMBER 42041C0286F, EFFECTIVE DATE: SEPTEMBER 7, 2023.

17. SITE PROPERTY LINE AND TOPOGRAPHIC INFORMATION IS BASED ON AN ACTUAL FIELD SURVEY BY SITE DESIGN CONCEPTS, INC., COMPLETED IN OCTOBER, 2023.

18. PROPERTY LINE BEARING BASIS DESCRIBED HERFIN AS "PLAN NORTH" IS BASED UPON THE PROPERTY LI

BEARING BASIS AS SHOWN ON A SUBDIVISION PLAN FOR 2210 ASPEN DRIVE, RECORDED IN CUMBERLAND COUNTY RECORDER OF DEEDS, INSTRUMENT NO. 202200350. 19. THIS PROPERTY WAS SURVEYED AND THIS PLAN WAS PREPARED USING DEEDS AND PLANS OF RECORD WITHOUT THE BENEFIT OF A TITLE SEARCH. THIS SURVEY IN NO WAY GUARANTEES, WARRANTS OR IMPLIES THAT THE PROPERTY IS NOT AFFECTED BY RIGHTS-OF-WAY, EASEMENTS, RESTRICTIONS, ETC. WHICH MAY BE DISCOVERED

20. SITE BENCH MARK: CONCRETE MONUMENT (PRIMARY CONTROL POINT) LOCATED ON THE NORTH SIDE OF SOUTH MARKET STREET ELEV. = 564.83. VERTICAL ELEVATIONS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM

FROM 1988 (NAVD 88 DATUM) AND ESTABLISHED BY USING GPS TECHNOLOGY.

21. CLEAR SIGHT TRIANGLE REQUIREMENTS FOR ALL INTERSECTIONS OF STREETS WITH STREETS, DRIVES, DRIVE WITH STREETS AND PRIVATE ROAD WITH STREETS: 75 FT. MEASURED ALONG CENTERLINE OF INTERSECTING STREETS 45 FT. MEASURED ALONG CENTERLINE OF A PRIVATE DRIVE OR PRIVATE ROAD AND THE INTERSECTED STREET. NO BUILDING OR STRUCTURE IS PERMITTED WITHIN CLEAR SIGHT TRIANGLE. HOWEVER, OBSTRUCTIONS AND PLANTINGS LESS THAN THREE (3) FEET IN HEIGHT SHALL BE PERMITTED.

22. THE NATIONAL WETLANDS INVENTORY MAP DEPICTS NO EXISTING WETLAND AREAS ON THIS SITE.

23. ALL PROPERTY CORNERS NOT CURRENTLY SET SHALL BE SET IN ACCORDANCE WITH UPPER ALLEN TOWNSHIP

24. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENNDOT SPECIFICATION, PUBLICATION 408, CURRENT EDITION OR UPPER ALLEN TOWNSHIP CONSTRUCTION SPECIFICATIONS.

25. ALL EXTERIOR LIGHTING SHALL CONFORM TO REQUIREMENTS CONTAINED IN THE UPPER ALLEN TOWNSHIP ZONING ORDINANCE AND BE ARRANGED SO AS NOT TO REFLECT OR GLARE ON ADJOINING LOTS OR STREETS.

26. ALL PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND, UNLESS PROHIBITED BY THE UTILITY COMPANY. 27. THE OWNER HEREBY GRANTS UPPER ALLEN TOWNSHIP OR ITS REPRESENTATIVE A GENERAL ACCESS EASEMENT

ACROSS THE ENTIRE LOT FOR ACCESS TO THE STORMWATER MANAGEMENT FACILITIES. 28. NOTHING SHALL BE PLACED. PLANTED. SET OR PUT WITHIN THE AREA OF AN EASEMENT OR PLANTING STRIP THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR PLANTING STRIP OR CONFLICT WITH AN EASEMENT AGREEMENT. NO STRUCTURES SHALL BE PLACED IN ANY EASEMENT OR PLANTING STRIP UNLESS DTHERWISE NOTED IN AN AGREEMENT WITH UPPER ALLEN TOWNSHIP. THE PROPOSED WALKWAY FROM THE PROPOSED PARKING LOT TO THE PROPOSED PATIO AND BUILDING ADDITION AREA TRAVERSE THE PROPOSED DRAINAGE EASEMENT AND ONE PROPOSED PARKING LIGHT POLE IS LOCATED IN THE EASEMENT. THESE FACILITIES ARE PRIVATELY OWNED AND THE PROPERTY OWNER IS RESPONSIBLE FOR ANY REPAIR, REMOVAL, AND

NO SUCH TIME SHOULD THE FACILITIES BE DEDICATED TO THE TOWNSHIP. FURTHERMORE, NO ADDITIONAL STRUCTURES, WALLS OR FENCE SHALL BE PERMITTED TO BE ERECTED IN THE EASEMEN' 29. THERE ARE NO KNOWN PROTECTIVE COVENANTS OR DEED RESTRICTIONS ASSOCIATED WITH THIS PARCEL

GENERAL MAINTENANCE OF THE FACILITIES AND STRUCTURES LOCATED IN PROPOSED DRAINAGE EASEMENT. AT

30. THE CONTRACTOR SHALL REFERENCE THE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND DOOR

31. THE CONTRACTOR SHALL SAW CUT ALL JOINTS WHERE PROPOSED CONSTRUCTION MEETS EXISTING PAVEMENT 32. ALL PARKING LOT LINE STRIPING SHALL BE 4 INCH WHITE STANDARD TRAFFIC PAINT UNLESS OTHERWISE NOTED.

33. THE PROJECT SITE IS UNDERLAIN BY CARBONATE OR DOLOMITE GEOLOGY AND THE AREA IS SUBJECT

SINKHOLES. SPECIAL CONSTRUCTION REQUIREMENTS MAY BE NECESSARY TO MITIGATE THE EFFECTS OF THE POTENTIAL FOR SINKHOLES. 34. THERE ARE NO SIGNIFICANT STEEP SLOPES AREAS (25% OR GREATER), NATURAL OR HISTORICAL FEATURES,

STREAMS, WETLANDS, ROCK OUTCROPS, SOIL SUBSIDENCES FLOODPLAINS OR CONTAMINATED SOILS LOCATED ON

35. A HIGHWAY OCCUPANCY PERMIT IS REQUIRED PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (PL

1242 NO. 428) KNOWN AS THE 'STATE HIGHWAY LAW', OR AMENDMENTS THEREOF, BEFORE ANY IMPROVEMENTS ARE INITIATED WITHIN A STATE HIGHWAY, OR A STREET, ACCESS DRIVE, OR DRIVEWAY INTERSECTION TO A STATE 36. SIGNAGE SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS WITHIN UPPER ALLEN TOWNSHIP ZONING CHAPTER 245, ARTICLE XVIII OF THE CODIFIED ORDINANCES OR ANY SUCH APPLICABLE ORDINANCES THAT ARE IN EFFECT

AT THE TIME OF THE APPLICATION SUBMISSION FOR SIGNAGE. 37. THE APPLICANT AGREES TO PAY A FEE TO UPPER ALLEN TOWNSHIP IN LIEU OF PROVIDING RECREATIONAL OR

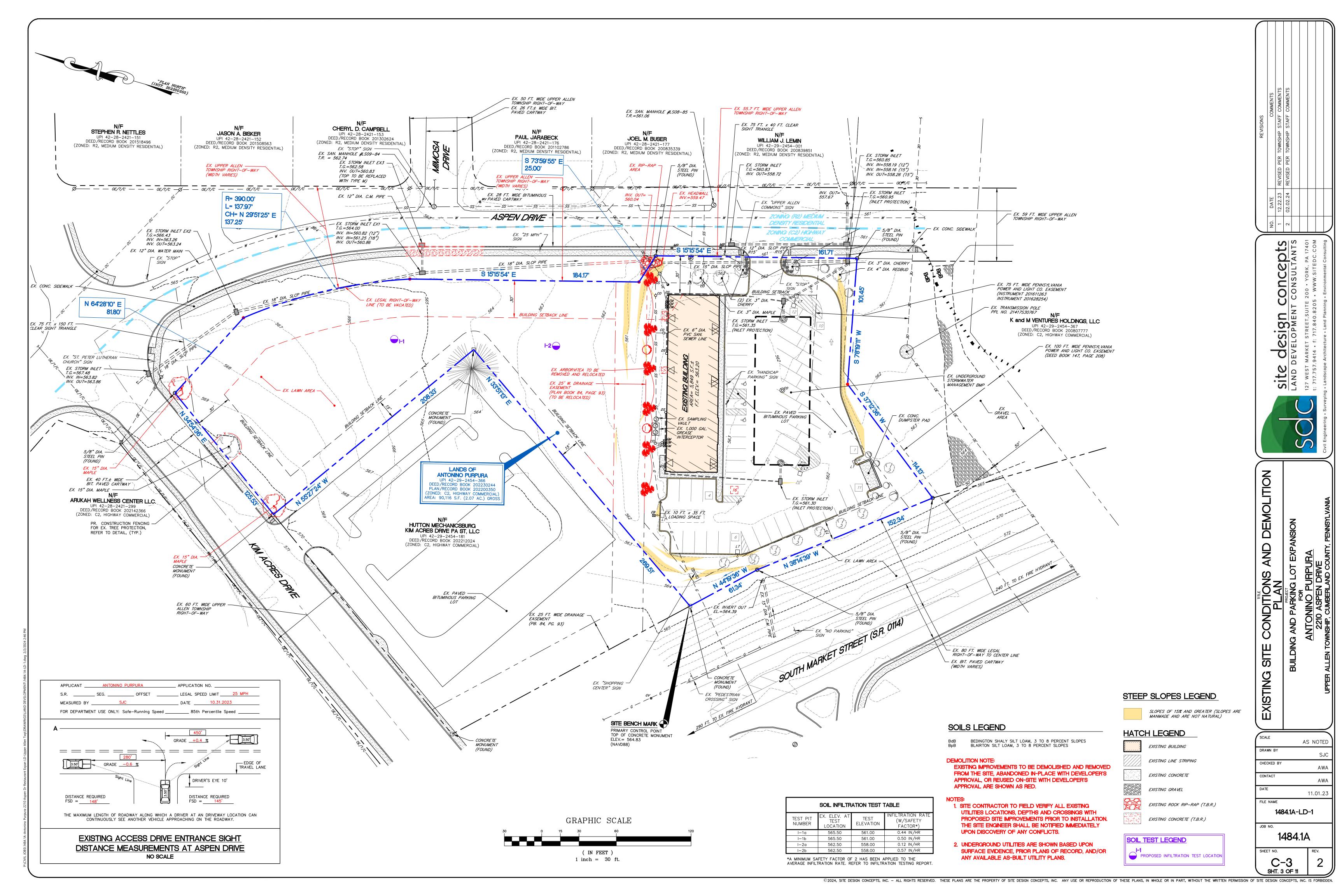
38. PROPOSED SITE FEATURES SHOWN ON ADJACENT PROPERTY OWNED BY HUTTON MECHANICSBURG KIM ACRES DRIVE PA, LLC ARE BASED OFF OF AMENDED LAND DEVELOPMENT PLANS FOR MODWASH - UPPER ALLEN TOWNSHIP, PA DATED OCTOBER 27, 2023.

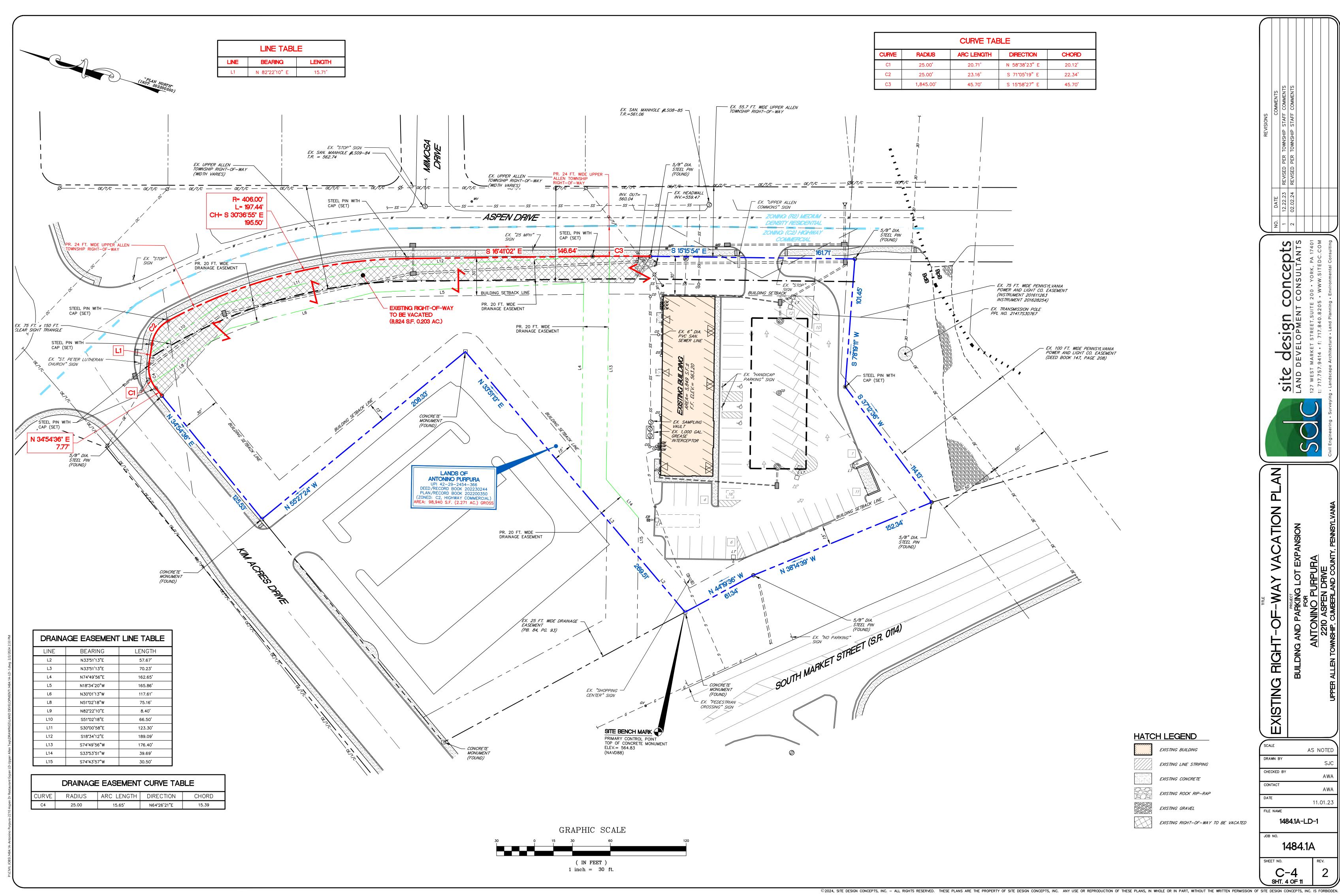
39. A KNOX BOX IS TO BE INSTALLED SO THAT IT CONTAINS KEYS OR THERE IS A MEANS OF ACCESS FOR ALL STRUCTURES/SUITES ONSITE (CURRENT KNOX BOX IS INSTALLED IN THE AREA MARKED FOR THE PROPOSED BUILDING ADDITION). IF THE CURRENT KNOX BOX IS NOT MOVED PRIOR TO PLAN RECORDING, COORDINATE WITH THE FIRE MARSHAL TO ENSURE COMPLIANCE WITH ANY RULES. REGULATIONS. OR LAWS.

ANTONINO PURPURA 2210 ASPEN DRIV MECHANICSBURG, PA 17055 2210 ASPEN DRIVE MECHANICSBURG, PA 17055

1484.1A-LD-1

2024, SITE DESIGN CONCEPTS, INC. — ALL RIGHTS RESERVED. THESE PLANS ARE THE PROPERTY OF SITE DESIGN CONCEPTS, INC. ANY USE OR REPRODUCTION OF THESE PLANS, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF SITE DESIGN CONCEPTS, INC. IS FORBIDDEN.

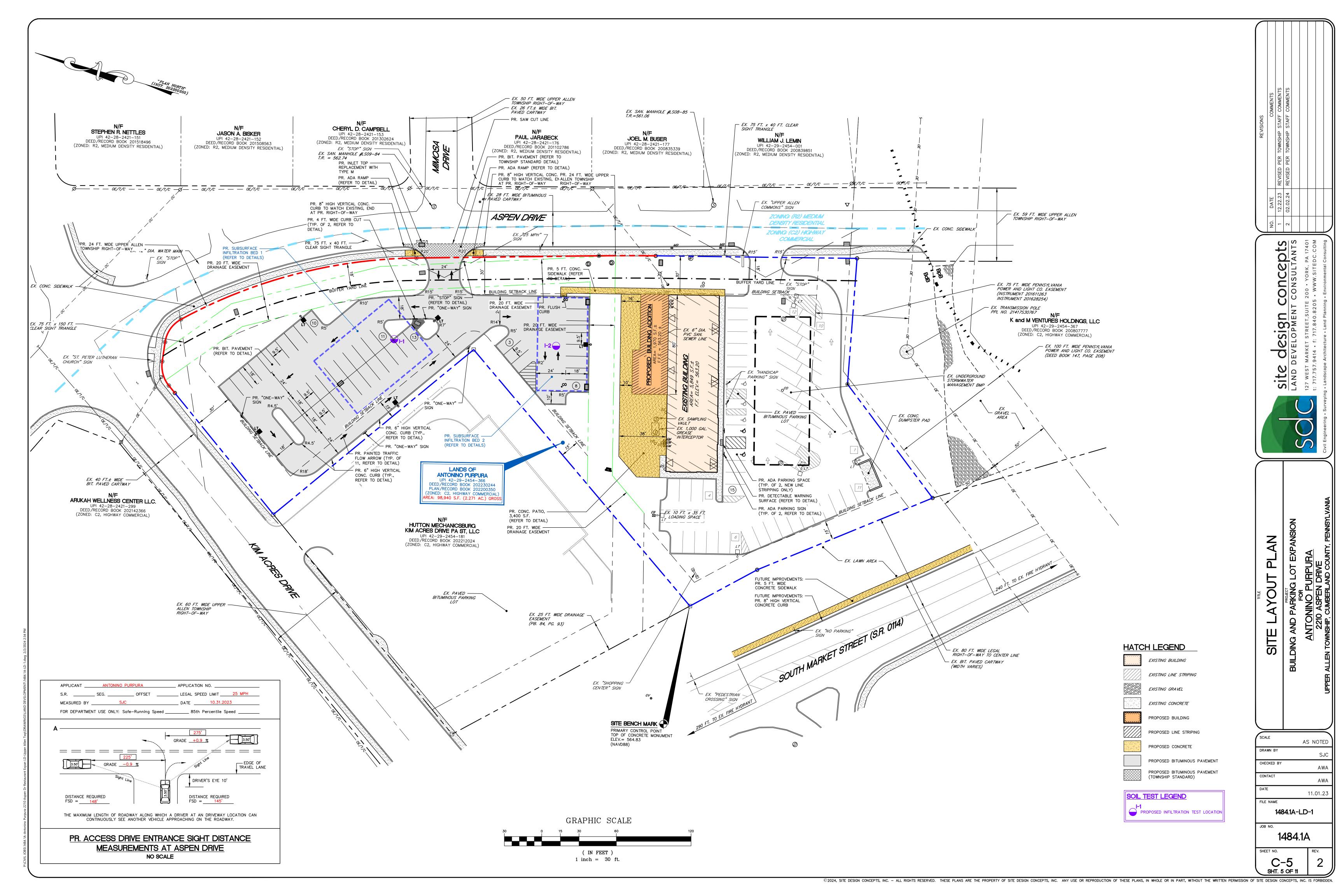


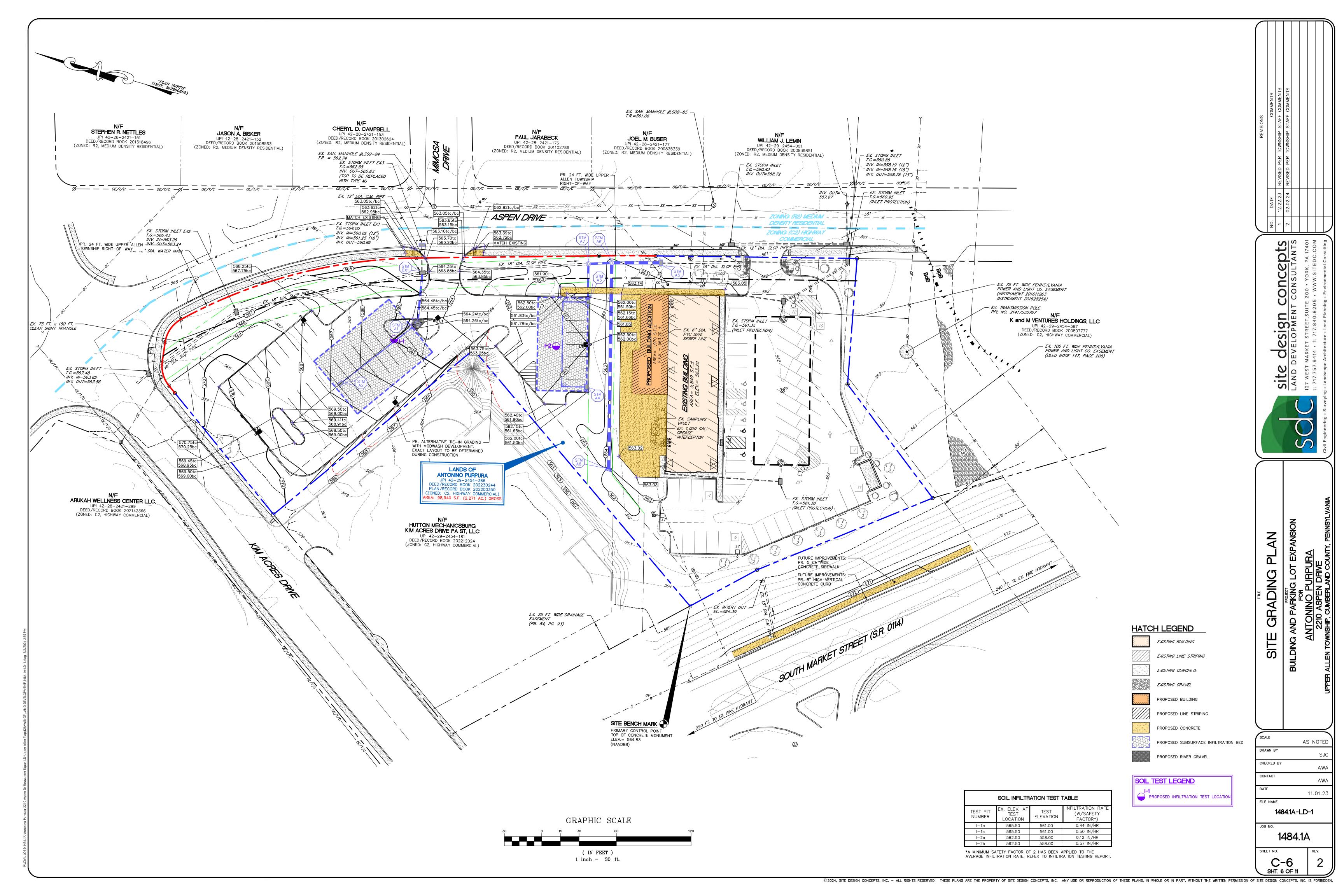


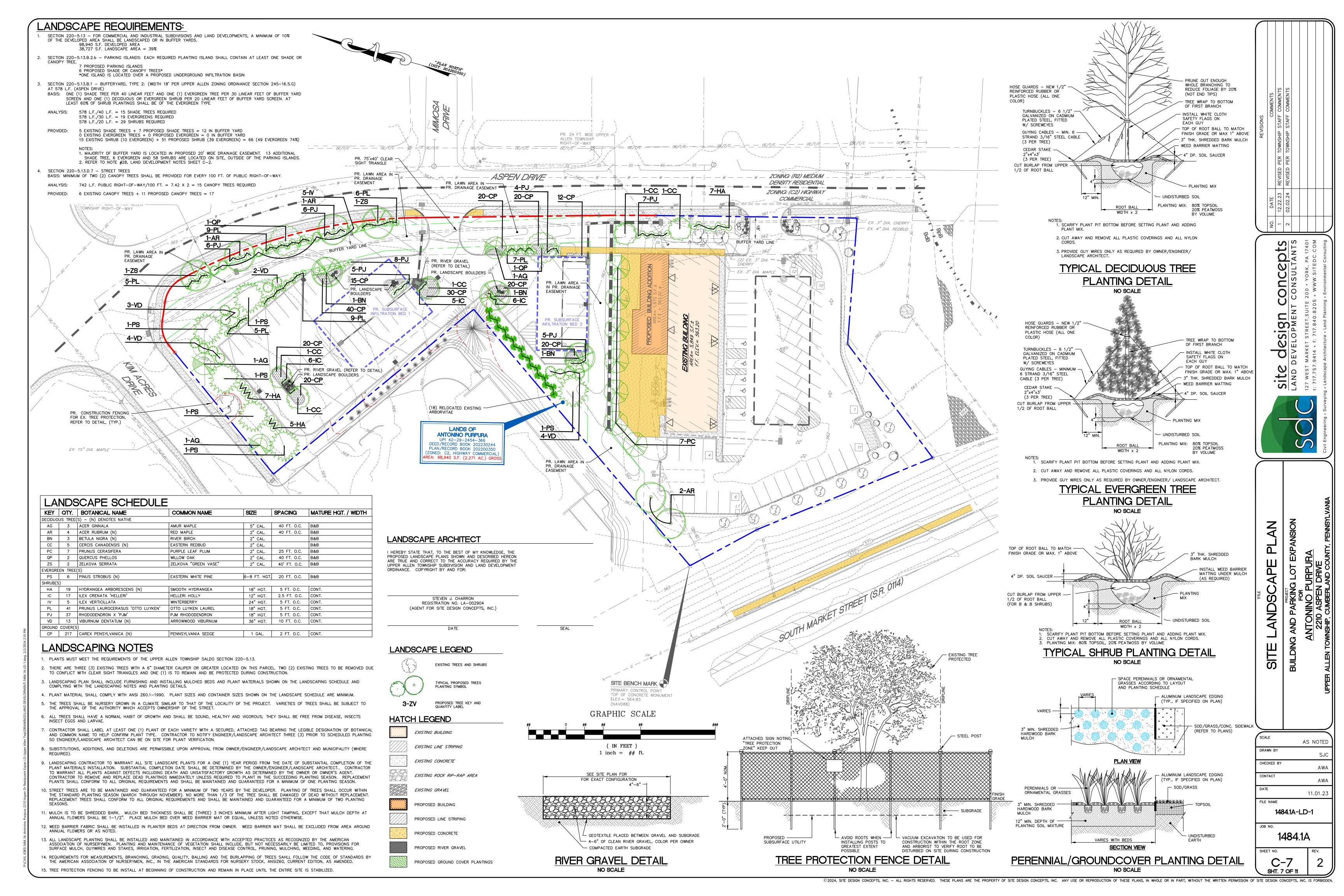
Sign OPMEN DEV

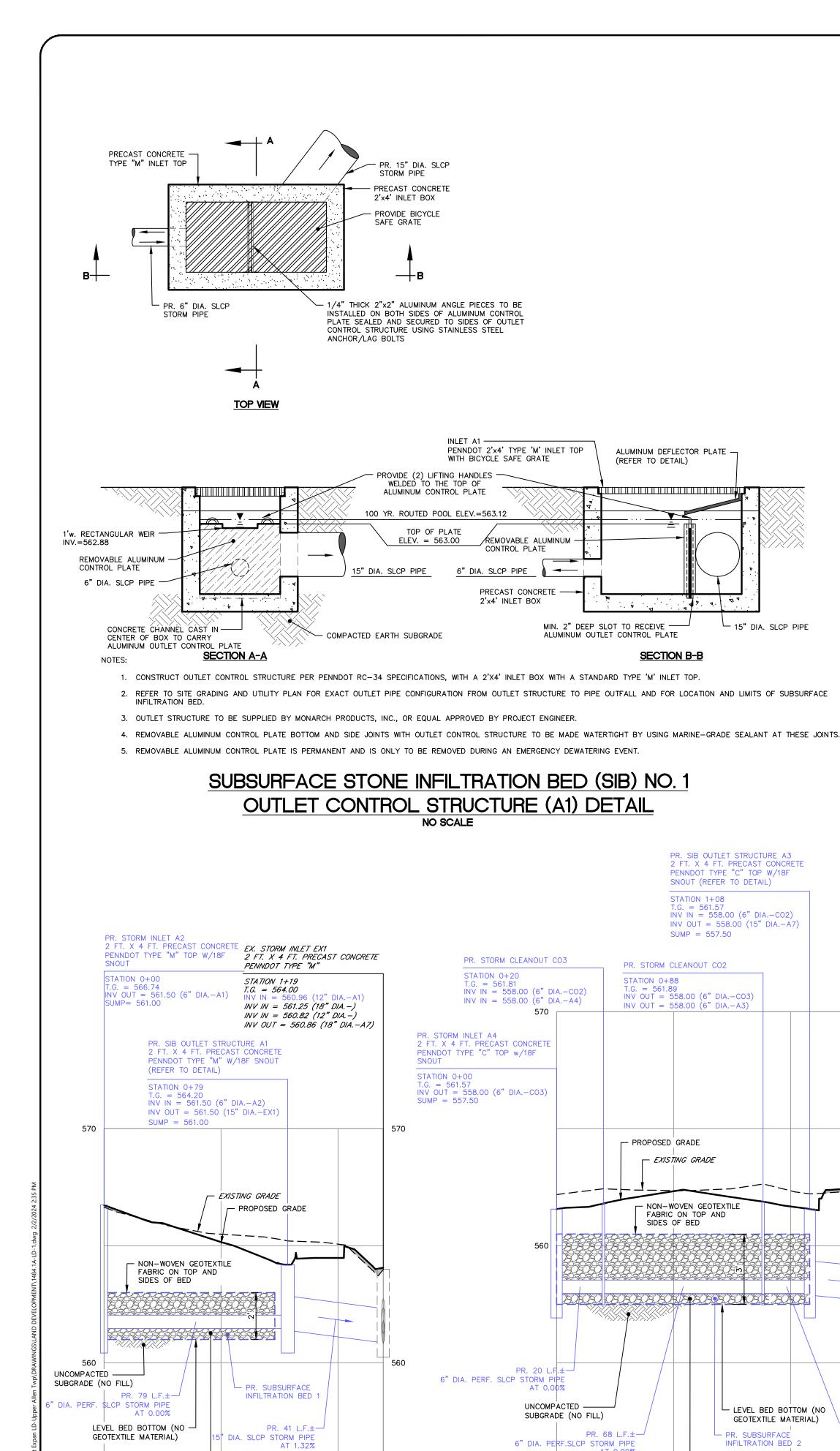
AS NOTED 11.01.23

1484.1A-LD-1 1484.1A









PR. STORM SEWER PROFILE

INLET A2 TO INLET EX-1

HORIZONTAL SCALE: 1" = 30'

PENNDOT 2'x4' TYPE 'M' INLET TOP

REMOVABLE ALUMINUM CONTROL PLATE

PRECAST CONCRETE -

2'x4' INLET BOX

WITH BICYCLE SAFE GRATE

ELEV. = 563.00

ALUMINUM DEFLECTOR PLATE -

<u>SECTION B-B</u>

PR SIB OUTLET STRUCTURE A3 2 FT. X 4 FT. PRECAST CONCRETE

PR. STORM SEWER PROFILE

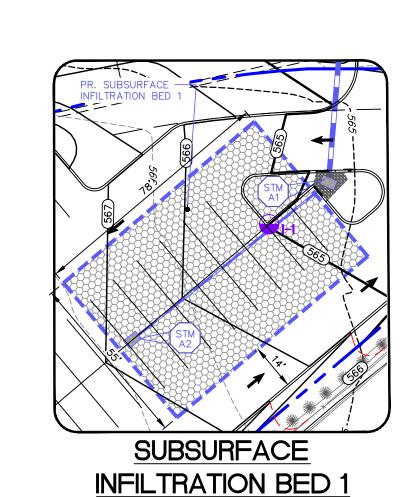
INLET A4 TO MANHOLE A6

HORIZONTAL SCALE: 1" = 30'

(REFER TO DETAIL)

MIN. 2" DEEP SLOT TO RECEIVE -

ALUMINUM OUTLET CONTROL PLATE



PLAN VIEW

SCALE: 1" = 30"

SUBSURFACE **INFILTRATION BED 2** PLAN VIEW

SCALE: 1" = 30'

PR. STORM SEWER PROFILE

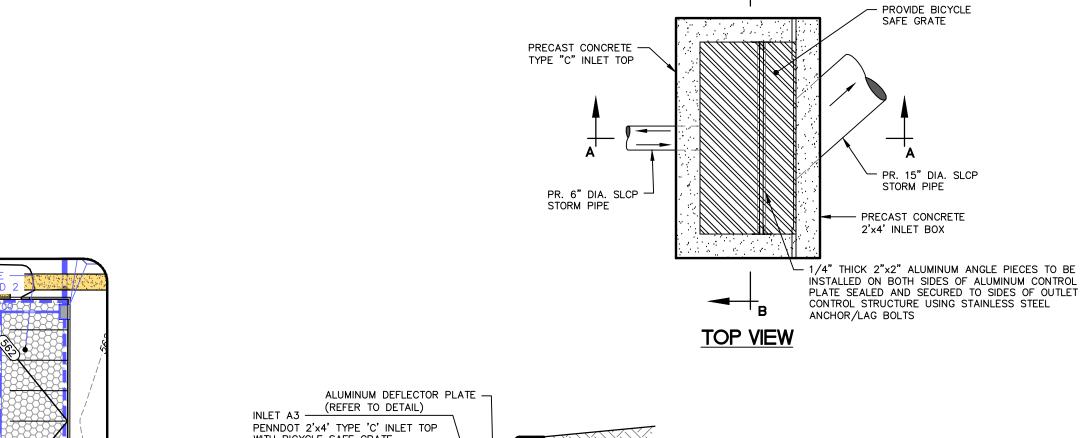
HEADWALL A8 TO INLET A5

HORIZONTAL SCALE: 1" = 30'

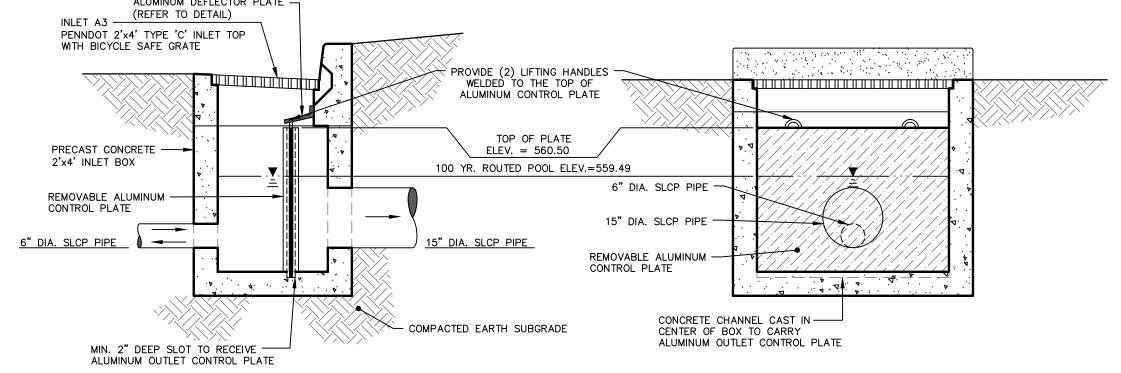
BED AREA (SF.) STONE TOP ELEV. STONE BOTTOM ELEV. PERF. PIPE SIZE 4,290 | 563.00 | 561.00 | 561.50 3,000 560.50 557.50 558.00

- 2. DISTRIBUTION PIPES FOR SUBSURFACE INFILTRATION BED SHALL BE CONTINUOUSLY PERFORATED SMOOTH INTERIOR, WITH A MINIMUM INSIDE DIAMETER OF 6 INCHES.
- 3. CLEANOUTS WITH GRATES MAY BE PROVIDED AT ENDS OF DISTRIBUTION PIPES CONSISTING OF HIGH DENSITY POLYETHYLENE (HDPE) PIPE SHALL MEET ASSHTO M252, TYPE S OR AASHTO M294, TYPE S.
- 4. SIB BACKFILL MATERIAL SHALL BE AASHTO NO. 3 STONE (OR APPROVED EQUAL) WHEN SIB IS LOCATED UNDER ANY PROPOSED PAVEMENT AREA.
- 5. REFER TO SITE PLAN FOR STONE BED CONFIGURATION.

SUBSURFACE STONE INFILTRATION BED (S.I.B.) DETAIL



SECTION A-A



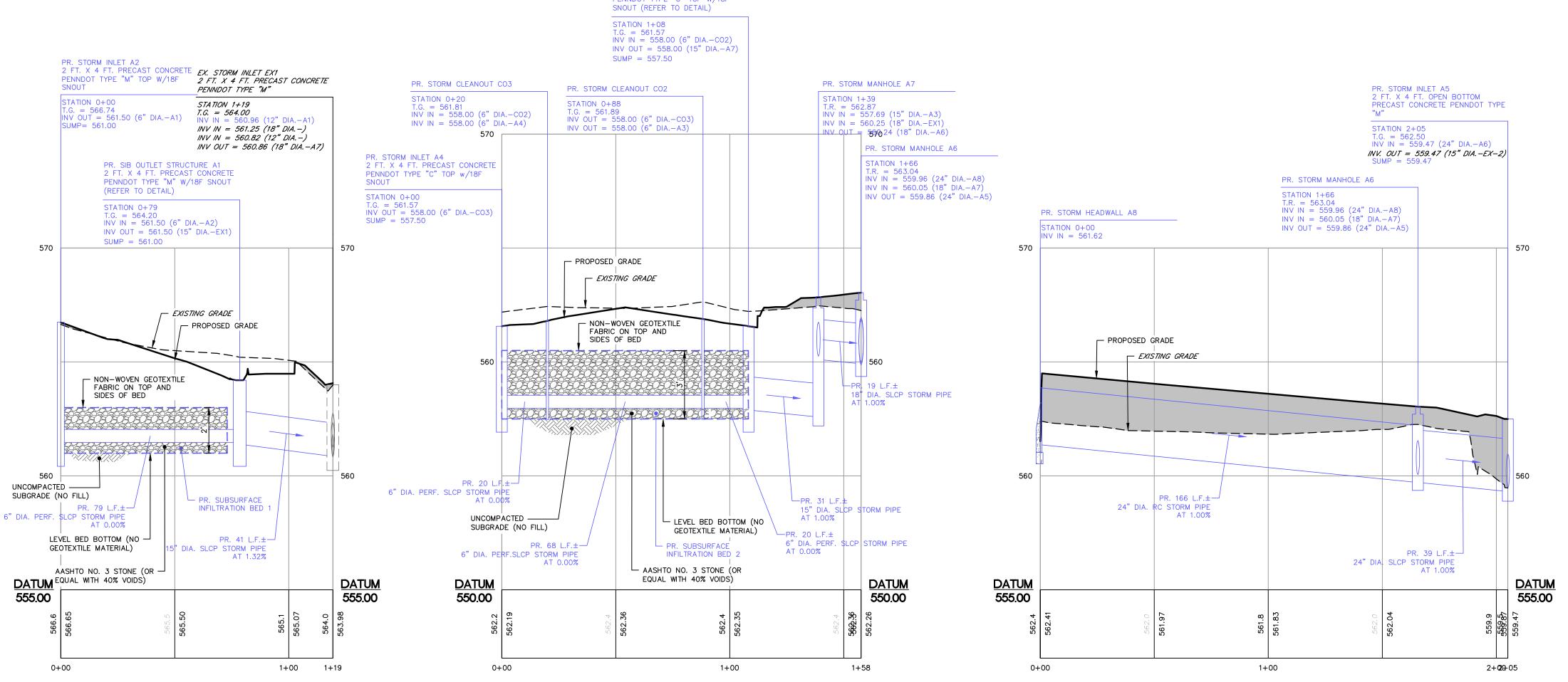
1. CONSTRUCT OUTLET CONTROL STRUCTURE PER PENNDOT RC-34 SPECIFICATIONS, WITH A 2'X4' INLET BOX WITH A STANDARD TYPE 'C' INLET TOP.

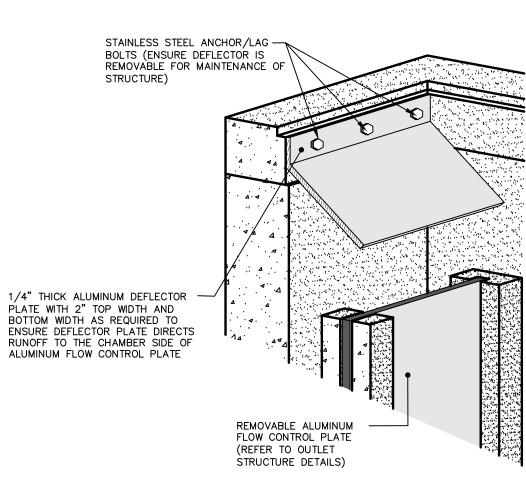
- 2. REFER TO SITE GRADING AND UTILITY PLAN FOR EXACT OUTLET PIPE CONFIGURATION FROM OUTLET STRUCTURE TO PIPE OUTFALL AND FOR LOCATION AND LIMITS OF SUBSURFACE INFILTRATION BED.
- 3. OUTLET STRUCTURE TO BE SUPPLIED BY MONARCH PRODUCTS, INC., OR EQUAL APPROVED BY PROJECT ENGINEER.
- 4. REMOVABLE ALUMINUM CONTROL PLATE BOTTOM AND SIDE JOINTS WITH OUTLET CONTROL STRUCTURE TO BE MADE WATERTIGHT BY USING MARINE-GRADE SEALANT AT THESE JOINTS.

SECTION B-B

5. REMOVABLE ALUMINUM CONTROL PLATE IS PERMANENT AND IS ONLY TO BE REMOVED DURING AN EMERGENCY DEWATERING EVENT.

SUBSURFACE STONE INFILTRATION BED (SIB) NO. 2 OUTLET CONTROL STRUCTURE (A3) DETAIL





**OUTLET STRUCTURE REMOVABLE** ALUMINUM DEFLECTOR PLATE DETAIL

> 1. REFER TO SIB SECTION VIEWS FOR STRUCUTRE AND INVERT ELEVATION

AS NOTED DRAWN BY CHECKED BY AWA CONTACT AWA 11.01.23

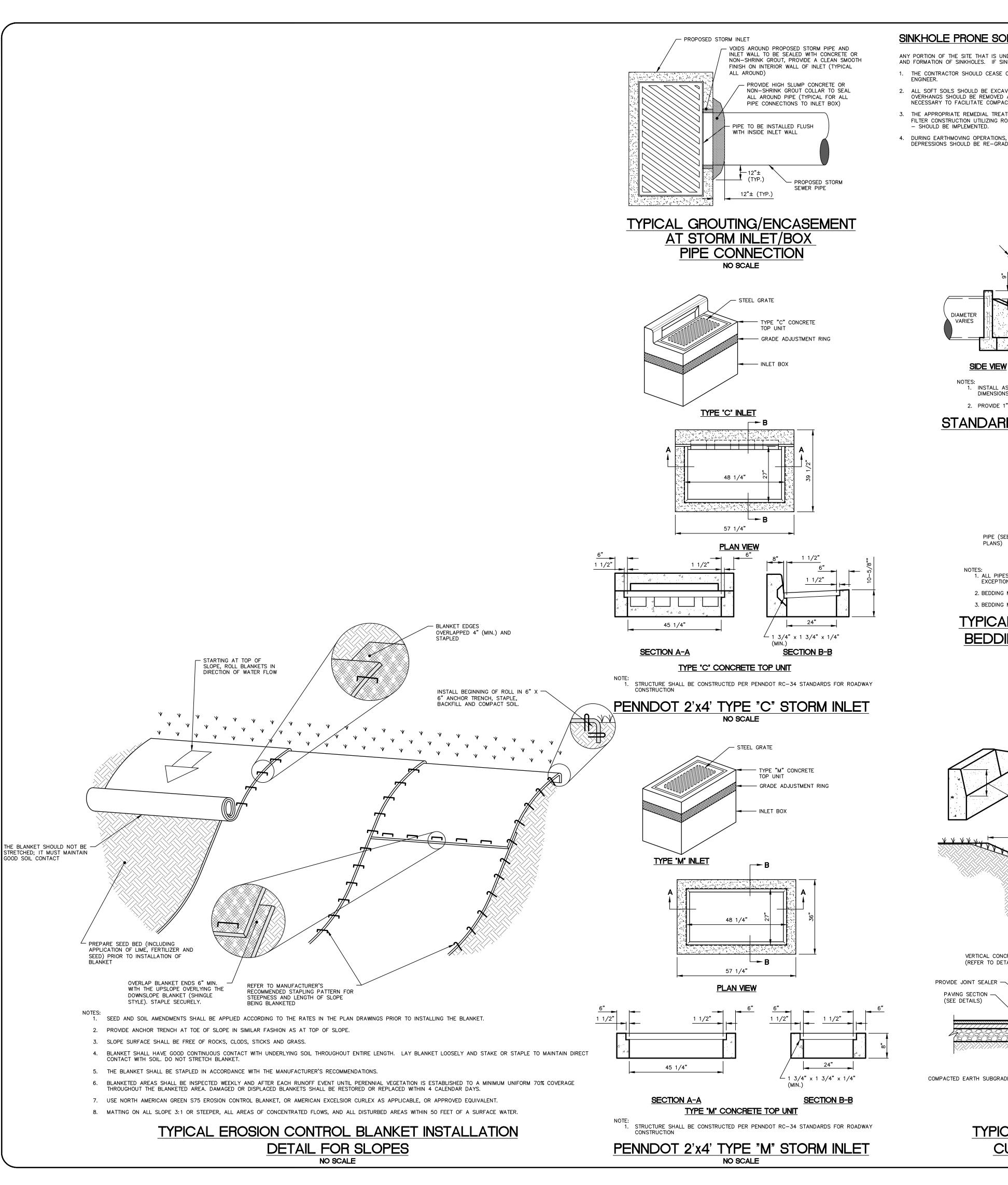
DE

SIAN

1484.1A-LD-1 1484.1A

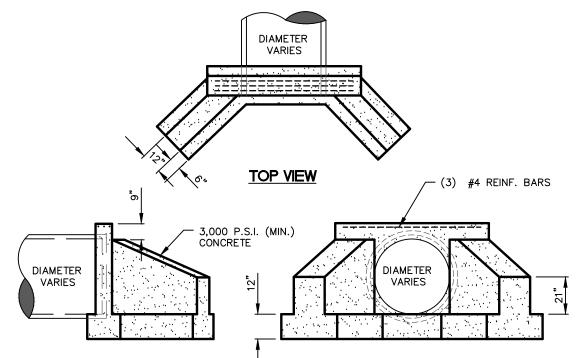
C-8 SHT. 8 OF 11

© 2024, SITE DESIGN CONCEPTS, INC. - ALL RIGHTS RESERVED. THESE PLANS ARE THE PROPERTY OF SITE DESIGN CONCEPTS, INC. ANY USE OR REPRODUCTION OF THESE PLANS, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF SITE DESIGN CONCEPTS, INC. IS FORBIDDEN



# SINKHOLE PRONE SOILS

- ANY PORTION OF THE SITE THAT IS UNDERLAIN BY LIMESTONE MAY GENERALLY BE PRONE TO SOLUTION ACTIVITY AND FORMATION OF SINKHOLES. IF SINKHOLES ARE DISCOVERED DURING CONSTRUCTION OPERATIONS: 1. THE CONTRACTOR SHOULD CEASE OPERATIONS WITHIN THE AFFECTED AREA AND CONTACT THE GEOTECHNICAL
- 2. ALL SOFT SOILS SHOULD BE EXCAVATED TO REVEAL THE THROAT OF THE SINKHOLE. PINNACLES AND OVERHANGS SHOULD BE REMOVED AND CREVICES CLEANED-OUT AND FILLED WITH LEAN CONCRETE AS NECESSARY TO FACILITATE COMPACTION.
- 3. THE APPROPRIATE REMEDIAL TREATMENT WHICH MAY CONSIST OF GROUT OR CONCRETE PLACEMENT, REVERSE FILTER CONSTRUCTION UTILIZING ROCK AND AGGREGATE, AND/OR STABILIZATION VIA PLACEMENT OF GEOTEXTILES
- 4. DURING EARTHMOVING OPERATIONS, EXCAVATIONS SHOULD BE BACKFILLED AS SOON AS PRACTICAL AND ANY DEPRESSIONS SHOULD BE RE-GRADED TO AVOID PONDED WATER.

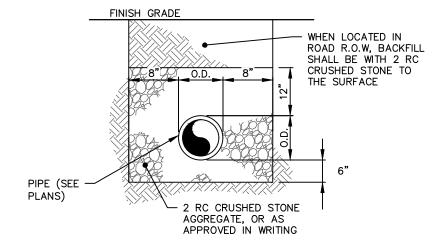


. INSTALL AS PER PENNDOT RC-31 CONSTRUCTION SPECIFICATIONS; ENDWALL DIMENSIONS AND CONFIGURATION SHALL BE BASED ON PIPE DIAMETER.

2. PROVIDE 1" CHAMFER ON ALL EXPOSED EDGES.

#### STANDARD PENNDOT TYPE 'DW' ENDWALL NO SCALE

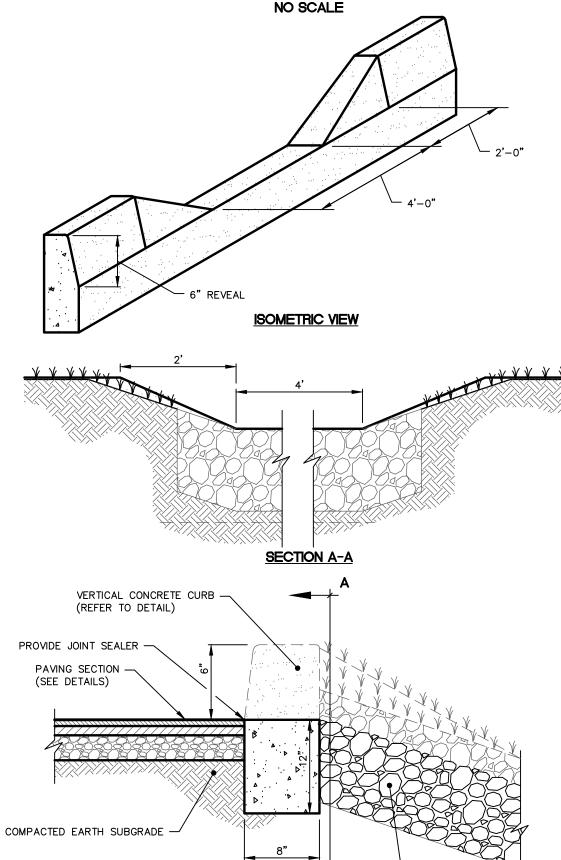
**END VIEW** 



1. ALL PIPES SHALL BE BEDDED AS SHOWN ABOVE USING 2 RC STONE WITH THE EXCEPTION OF PVC PIPE AND PLASTIC PIPE

2. BEDDING MATERIALS FOR ALL DIAMETERS OF PVC PIPE SHALL BE NO. 1B STONE. 3. BEDDING MATERIALS FOR ALL DIAMETERS OF PLASTIC PIPE SHALL BE 1A STONE.

# TYPICAL STORM SEWER PIPE TRENCH BEDDING AND BACKFILLING DETAIL



TYPICAL 18" VERTICAL CONCRETE CURB WITH 4 FT. CURB CUT

#### INSPECTION / MAINTENANCE / REPAIRS FOR BMP FACILITIES

STORMWATER MANAGEMENT BMP'S SHALL BE INSPECTED BY THE LANDOWNER OR THE OWNER'S DESIGNEE ACCORDING TO THE FOLLOWING LIST OF MINIMUM FREQUENCIES:

AT LEAST TWO TIMES EACH YEAR. DURING OR IMMEDIATELY AFTER THE CESSATION OF A STORM EVENT EXCEEDING 1 INCH OF RAINFALL.

ALL WASTE AND MATERIALS DEPOSITED IN AND REMOVED FROM POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) BMP FACILITIES AND FROM IMPERVIOUS AREAS (EX. SWEEPING OF STREETS AND PARKING LOTS) DURING OPERATION AND MAINTENANCE SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENTS SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE

STRUCTURES AND MEADOW AND GRASS AREAS DRAINING TO BEDS. IMMEDIATELY IMPLEMENT NEEDED REPAIRS OR ACTIONS.

#### SUBSURFACE INFILTRATION BEDS

#### MAINTENANCE & INSPECTION

- INSPECTION SHALL INCLUDE SUBSURFACE INFILTRATION BED, OUTLET CONTROL STRUCTURE, INLET STRUCTURES, AND MEADOW OR GRASS AREAS DRAINING TO BEDS. • IF FOUND DURING INSPECTIONS, REMOVE SEDIMENT, TRASH AND OTHER DEBRIS FROM SUBSURFACE INFILTRATION BED, INLET
- DURING INSPECTIONS AFTER RAIN EVENTS, INSPECT SUBSURFACE INFILTRATION BED, INLETS, AND MEADOW OR GRASS AREAS DRAINING TO BED TO DETERMINE IF THE FACILITIES DRAIN BETWEEN 24 AND 72 HOURS. ALUMINUM CONTROL PLATE IN OUTLET CONTROL STRUCTURES A1 AND A2 ARE PERMANENT AND ONLY TO BE REMOVED DURING AN
- MAINTAIN SUBSURFACE INFILTRATION BED MEADOW AREAS IN GOOD CONDITION (I.E. UNIFORM PERENNIAL VEGETATIVE COVERAGE).
- IMMEDIATELY STABILIZE BARE SPOTS OR ERODED AREAS. • PROHIBIT STORAGE OF HAZARDOUS MATERIALS ON ANY AREA THAT DRAINS TO SUBSURFACE INFILTRATION BEDS.
- REPAIR OR REPLACEMENT SUBSURFACE INFILTRATION BEDS

DESIGN THAT WOULD ALLOW BEDS TO BE USED FOR RATE CONTRÓL ONLY.

• IF STANDING WATER CONSISTENTLY REMAINS WITHIN 72 HOURS OF A STORM EVENT EXCEEDING 1" OF RAINFALL, CONTACT THE ENGINEER FOR RECOMMENDATIONS INCLUDING INCLUDING FLUSHING/VACUUMING SERVICES OR POSSIBLY ADDITIONAL STORMWATER

## INLET SUMPS

#### MAINTENANCE & INSPECTION

• INLETS SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. POST-CONSTRUCTION, THEY SHALL BE EMPTIED WHEN OVER HALF FULL OF SEDIMENT (AND TRASH) AND CLEANED AT LEAST TWICE A YEAR.

• IT IS BEST TO SCHEDULE MAINTENANCE BASED ON THE SOLIDS COLLECTED IN THE SUMP. OPTIMALLY, THE STRUCTURE SHOULD BE

- THEY SHALL BE INSPECTED AFTER RUNOFF EVENTS OF 1 INCH OR GREATER. CHECKING SEDIMENT DEPTH AND NOTING THE SURFACE POLLUTANTS IN THE STRUCTURE WILL BE HELPFUL IN PLANNING MAINTENANCE THE POLLUTANTS COLLECTED IN STRUCTURES WILL CONSIST OF GRIT AND SEDIMENT ON THE BOTTOM OF THE STRUCTURE.
- CLEANED WHEN THE SUMP IS HALF FULL (e.g. WHEN 6 INCHES OF MATERIAL COLLECTS IN A 12 INCH SUMP, CLEAN IT OUT). · STRUCTURES SHOULD ALSO BE CLEANED IF A SPILL OR OTHER INCIDENT CAUSES A LARGER THAN NORMAL ACCUMULATION OF POLLUTANTS IN A STRUCTURE.
- MAINTENANCE IS BEST DONE WITH A VACUUM TRUCK. • ALL COLLECTED WASTES SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL AGENCY REQUIREMENTS

#### PERMANENT SEEDING AND MULCHING SPECIFICATIONS AND NOTES

PERMANENT GRASS OR LEGUME COVER.

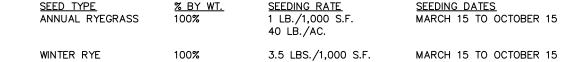
- A. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED SHALL BE COVERED WITH GRASS OR A LEGUME IN ORDER TO MINIMIZE EROSION, UNLESS OTHERWISE DIRECTED BY THE OWNER.
- B. MULCHING SHALL BE USED TO PROTECT SEEDING AND TO REDUCE RUNOFF. STRAW MULCH SHALL BE APPLIED TO ALL DISTURBED AREAS AT A RATE OF 3 TONS/ACRE.
- C. THE BELOW PERMANENT SEEDING MIXTURES ARE FROM THE PENN STATE AGRONOMY GUIDE. THE SEED MIXTURES SHALL CONSIST OF:

SEED TYPE	% BY WT.	SEEDING RATE	SEEDING DATES
LAWN MIX (U	JSED THROUGHOUT SITE)		
KY. BLUEGRA	ASS 30%	4 LBS./1,000 S.F.	MARCH 15 TO JUNE 1
CREEP RED	FESCUE 55%	·	AUGUST 1 TO OCTOBER
PERENNIAL F	RYEGRASS 15%		

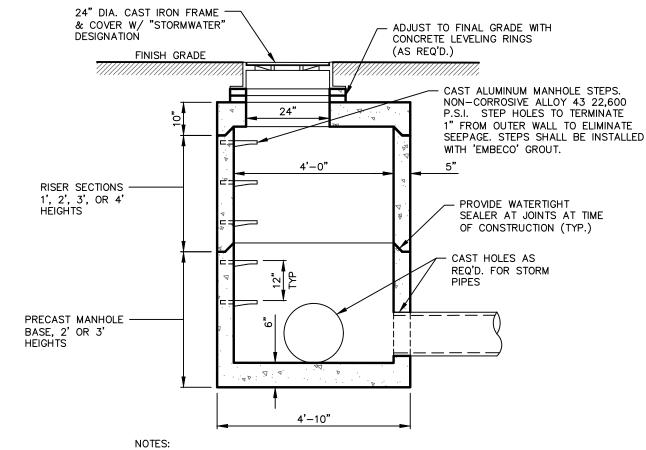
- D. IN THE ABSENCE OF SOIL TEST RESULTS, FERTILIZER OF 10-20-20 AT AN APPLICATION RATE OF 1,000 LB./ACRE SHALL BE APPLIED WITH THE PERMANENT SEEDING.
- E. IN THE ABSENCE OF SOIL TEST RESULTS, LIME AT AN APPLICATION RATE OF 6 TONS/ACRE OF AGRICULTURAL GRADE LIME SHALL BE APPLIED WITH THE PERMANENT SEEDING.
- F. 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.

## TEMPORARY SEEDING AND MULCHING SPECIFICATIONS AND NOTES

- A. IN ORDER TO ESTABLISH A QUICK GRASS COVER OVER DISTURBED AREAS, A TEMPORARY SEED MIXTURE SHALL BE USED.
- B. STABILIZATION EFFORTS DURING THE NON-GERMINATING PERIOD, OCT. 15 TO MARCH 15 SHOULD CONSIST OF MULCHING WITH CLEAN STRAW AT A RATE OF 3 TONS/AC. (EQUIVALENT TO 0.75" TO 1" DEEP). CLEAN STRAW MULCH SHOULD NOT BE FINELY CHOPPED OR BROKEN DURING APPLICATION.
- C. THE BELOW MIXTURES ARE FROM THE PENN STATE AGRONOMY GUIDE. THE MIX TO BE USED SHALL BE DEPENDENT UPON THE DATE UTILIZED.



- D. STRAW MULCH SHALL BE APPLIED TO ALL DISTURBED AREAS AT A RATE OF 3 TONS/AC. FERTILIZER MIX. OF 5-5-5 AT AN APPLICATION RATE OF 1,000 LB./ACRE SHALL BE APPLIED WITH THE TEMPORARY SEEDING
- E. LIME SHALL BE APPLIED AT A RATE OF 2,000 LB./ACRE OF AGRICULTURAL GRADE LIME APPLIED WITH THE
- F. 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.



1. PROVIDE 8" MIN. THICK STONE BEDDING UNDER MANHOLE. 2. USE PRECAST MANHOLE FROM MONARCH PRODUCTS, INC. OR APPROVED EQUAL.

TYPICAL PRECAST CONCRETE

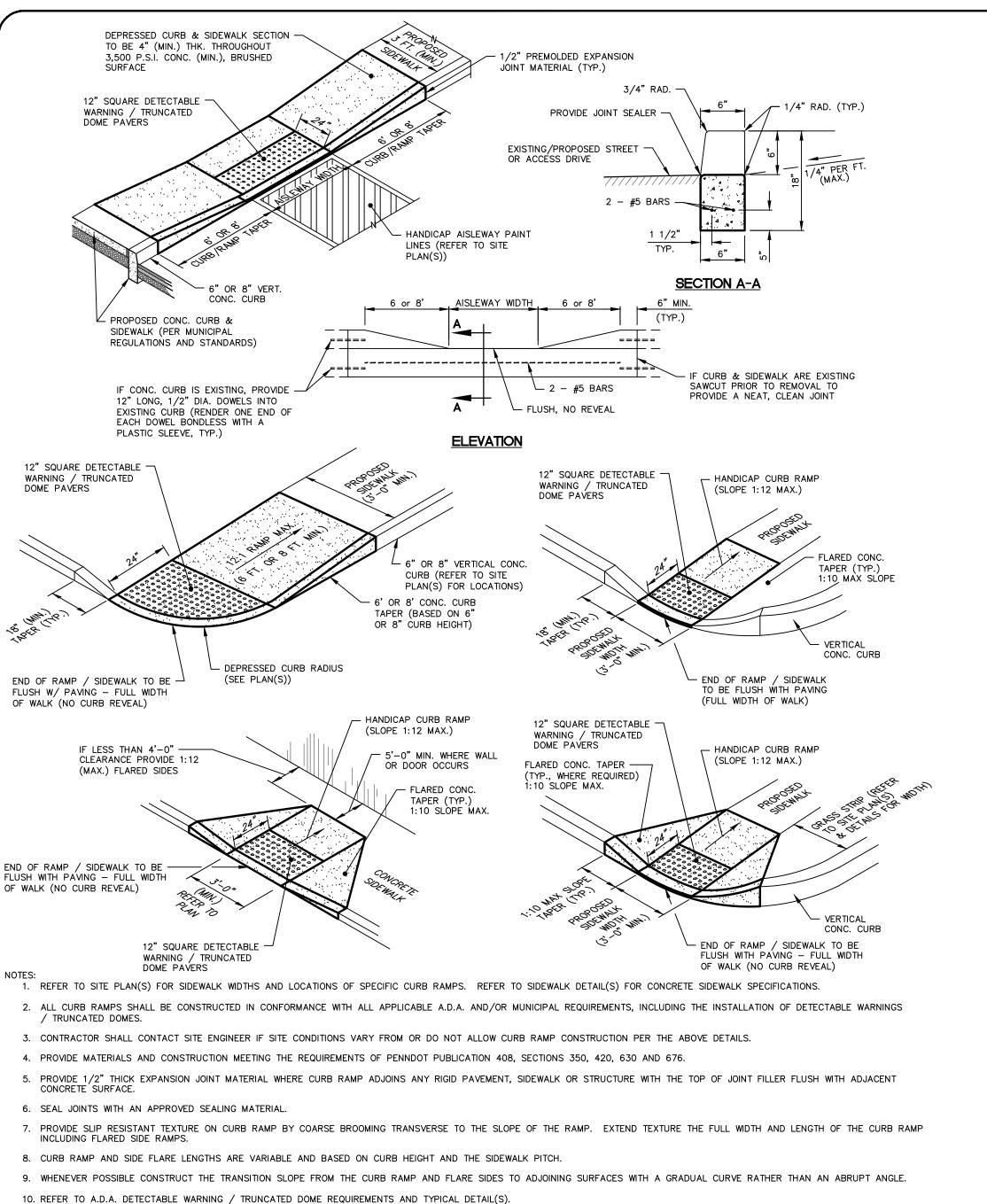
FLAT LID STORMWATER MANHOLE

1484.1A-LD-1 1484.1A

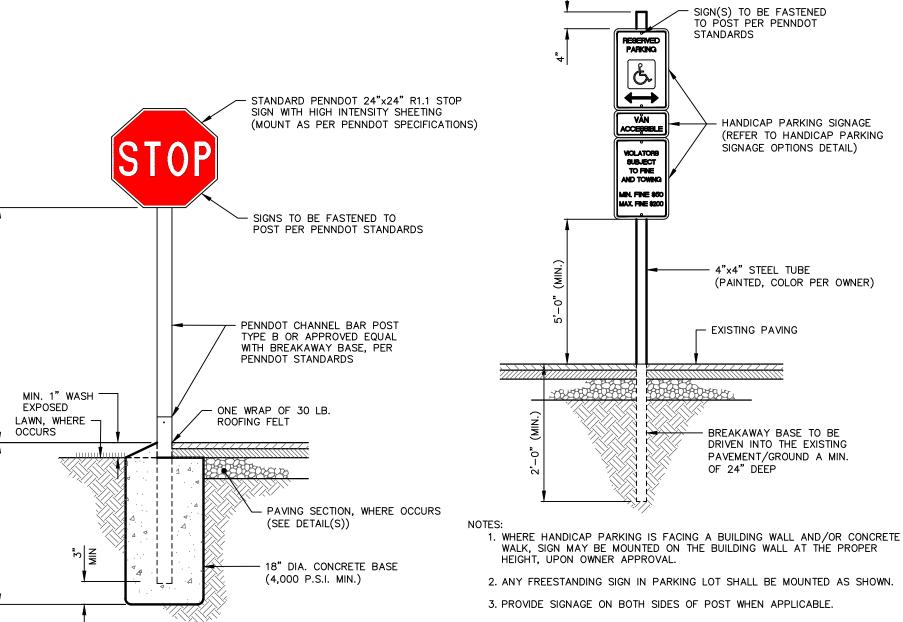
2024, SITE DESIGN CONCEPTS, INC. — ALL RIGHTS RESERVED. THESE PLANS ARE THE PROPERTY OF SITE DESIGN CONCEPTS, INC. ANY USE OR REPRODUCTION OF THESE PLANS, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF SITE DESIGN CONCEPTS, INC. IS FORBIDDEN.

S S

11.01.23



# TYPICAL SIDEWALK CURB RAMP DETAILS NO SCALE

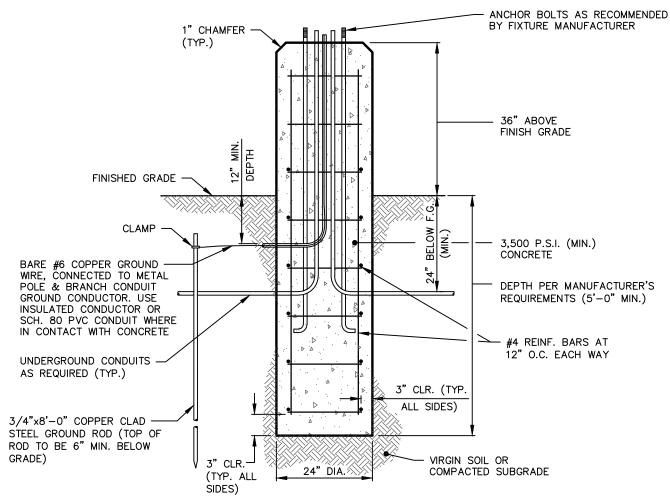


. ANY FREESTANDING SIGN IN PARKING LOT SHALL BE MOUNTED AS SHOWN. 2. REFER TO SITE PLAN FOR LOCATION AND TYPE OF SIGN.

TYPICAL STOP SIGN WITH STEEL POST DETAIL NO SCALE

4. USE EXTREME CARE WHEN INSTALLING SIGNS NEAR/OVER EXISTING UTILITY 5. PRIOR TO INSTALLATION, CONTRACTOR SHALL CONFIRM THE INTERPRETATION OF THE MUNICIPAL BUILDING INSPECTOR REGARDING A.D.A. ACCESSIBLE PARKING SPACE STRIPING AND SIGNAGE INSTALLATION REQUIREMENTS.

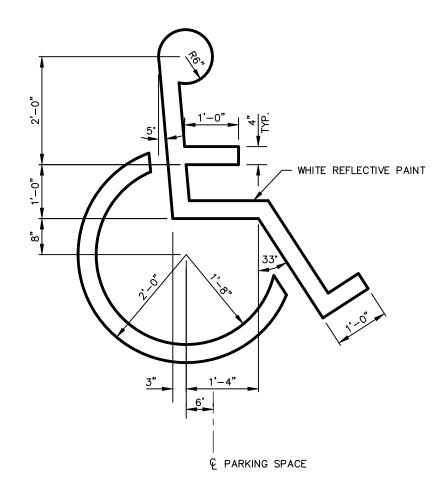
TYPICAL HANDICAP PARKING SIGN WITH STEEL POST DETAIL NO SCALE



1. ALL CONCRETE IS TO MEET LATEST EDITION OF ACI-318 CONSTRUCTION STANDARDS. 2. REINFORCING TO BE GRADE 60 DEFORMED.

3. FOUNDATION TO BE INSTALLED PER LIGHT POLE MANUFACTURERS SPECIFICATIONS.

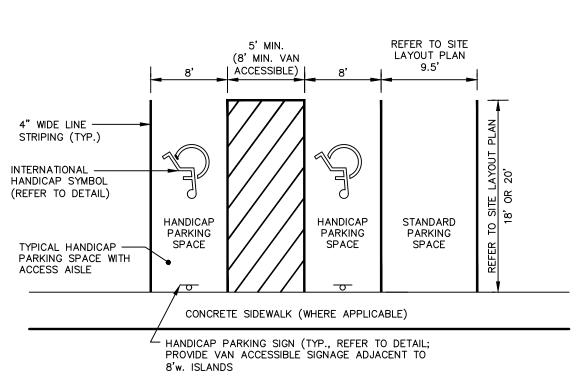
# TYPICAL LIGHT POLE FOUNDATION DETAIL



1. REFER TO SITE PLAN FOR SYMBOL LOCATIONS. 2. PRIOR TO INSTALLATION, CONTRACTOR SHALL CONFIRM THE INTERPRETATION OF THE MUNICIPAL BUILDING INSPECTOR REGARDING A.D.A. ACCESSIBLE

PARKING SPACE STRIPING AND SIGNAGE INSTALLATION REQUIREMENTS

# INTERNATIONAL HANDICAP PAINTED PARKING SPACE SYMBOL NO SCALE



1. A.D.A. ACCESSIBLE VEHICLE STANDING (PARKING) SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 (2%) IN ALL DIRECTIONS.

2. LINE WIDTH SHALL BE 4" UNLESS INDICATED OTHERWISE. COLOR SHALL BE WHITE, SURFACES SHALL BE DRY, CLEAN AND FREE OF TRAFFIC. ALL LINES SHALL BE STRAIGHT, TRUE AND NEAT. PAINT SHALL BE APPLIED IN TWO COATS HAVING A FINAL DRY THICKNESS OF 12 MILS. MINIMUM.

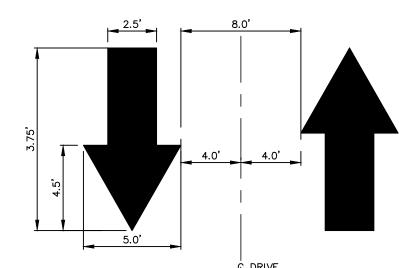
3. LINE PAINTING, AS INDICATED ON DRAWINGS, SHALL BE HIGHWAY APPROVED TYPE, IN ACCORDANCE WITH PENNDOT SPECIFICATIONS.

4. STANDARD HANDICAP SYMBOL SHALL BE PAINTED WHITE ON BLUE PAINTED CIRCLE AS REQUIRED BY UNIFORM ACCESSIBILITY STANDARDS AND DETAIL PROVIDED BY THE ENGINEER.

5. A.D.A. STANDARDS FOR ACCESSIBLE DESIGN, LISTED IN APPENDIX A OF THE TITLE III REGULATIONS, SECTION 4.1.2(5)(B) STATES ONE IN EVERY EIGHT ACCESSIBLE SPACES, BUT NO LESS THAN ONE SHALL BE SERVED BY AN ACCESS AISLE 96" MIN. WIDE AND SHALL BE DESIGNATED "VAN ACCESSIBLE" AS REQUIRED BY 4.6.4. IN THIS CASE A "VAN ACCESSIBLE" SIGN MUST BE PROVIDED IN ADDITION TO A "RESERVED PARKING" SIGN.

6. PRIOR TO INSTALLATION, CONTRACTOR SHALL CONFIRM THE INTERPRETATION OF THE MUNICIPAL BUILDING INSPECTOR REGARDING A.D.A. ACCESSIBLE PARKING SPACE STRIPING AND SIGNAGE INSTALLATION

TYPICAL HANDICAP PARKING SPACE STRIPING



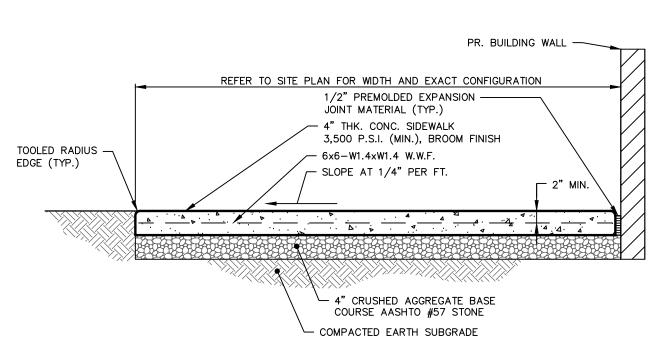
ALL TRAFFIC ARROWS TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT AS PER DIMENSIONS. SURFACES SHALL BE DRY, CLEAN AND FREE OF TRAFFIC. ALL LINES SHALL BE STRAIGHT. TRUE AND NEAT. PAINT SHALL BE APPLIED IN TWO COATS HAVING A FINAL DRY THICKNESS

2. LINE PAINTING, AS INDICATED ON DRAWINGS, SHALL BE HIGHWAY APPROVED TYPE, IN ACCORDANCE WITH SECTION 962, OF PENN DOT 408 SPECIFICATIONS.

3. REFER TO SITE PLAN(S) FOR SPECIFIC ARROW PAVEMENT MARKING LOCATIONS AND CONFIGURATIONS.

4. FOR ONE WAY FLOW, DIRECTIONAL ARROW(S) SHALL BE CENTERED IN CARTWAY/TRAVEL LANE.

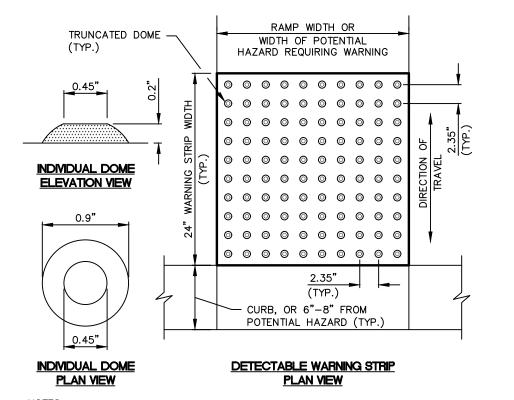
# TYPICAL ONE OR TWO WAY TRAFFIC FLOW ARROW PAVEMENT MARKING



1. PROVIDE EXPANSION JOINTS AT MINIMUM 20 FT. CENTER TO CENTER. 2. PROVIDE SCORED CONTROL JOINTS AT MINIMUM 5 FT. CENTER TO CENTER.

3. ALL CONCRETE IS TO MEET ACI-318 CONSTRUCTION STANDARDS. 4. PROVIDE TOOLED RADIUS EDGES ON ALL EXPOSED EDGES/CORNERS

### TYPICAL CONCRETE PATIO/SIDEWALK DETAIL NO SCALE



1. REFER TO SITE PLAN(S) FOR LOCATIONS OF CURB RAMPS AND OTHER POTENTIAL HAZARD AREAS REQUIRING DETECTABLE WARNINGS. REFER TO SITE DETAILS FOR

2. DETECTABLE WARNINGS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH ALL APPLICABLE A.D.A. STANDARDS.

3. DETECTABLE WARNINGS SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE. WARNINGS SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE OR OTHER POTENTIAL HAZARD IS 6 TO 8 INCHES FROM THE CURB LINE OR OTHER POTENTIAL HAZARD. WHERE ISLANDS OR MEDIANS ARE LESS THAN 48 INCHES WIDE. THE DETECTABLE WARNING SHALL EXTEND ACROSS THE FULL LENGTH OF THE CUT THROUGH THE ISLAND OR MEDIAN.

4. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.

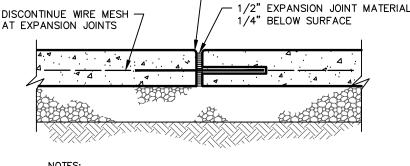
5. THERE SHALL BE A MINIMUM OF 70% CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE (LIGHT ON DARK, DARK ON LIGHT, OR SAFETY YELLOW). THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE 6. DETECTABLE WARNINGS SHALL BE STAMPED CONCRETE, APPLIED MATS, PANELS

TYPICAL A.D.A. DETECTABLE WARNING TRUNCATED DOME DETAIL

NO SCALE

OR PAVERS INSTALLED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND

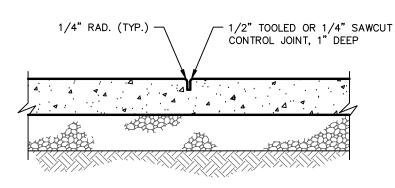
MANUFACTURER'S RECOMMENDATIONS.



- TOOLED RADIUS EDGE (TYP.)

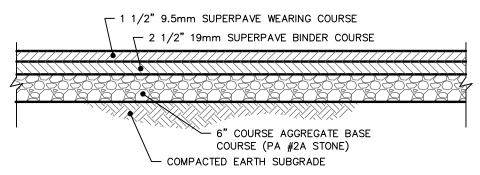
1. PROVIDE EXPANSION JOINTS AT MINIMUM 20' ON CENTER, OR AS SPECIFIED OTHERWISE ON THE PLANS/DETAILS. NO. 4 REBAR SPACED AT 24" ON CENTER (MAXIMUM) -ONE END TO BE RENDERED BONDLESS.

# TYPICAL CONCRETE **EXPANSION JOINT DETAIL** NO SCALE



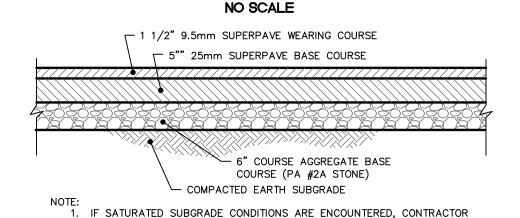
1. PROVIDE SCORED CONTROL JOINTS AT MINIMUM 5 FT.

# TYPICAL CONCRETE SIDEWALK **CONTROL JOINT DETAIL** NO SCALE



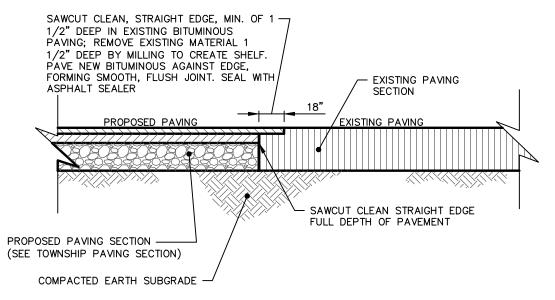
IF SATURATED SUBGRADE CONDITIONS ARE ENCOUNTERED, CONTRACTOR SHOULD NOTIFY ENGINEER IMMEDIATELY.

# TYPICAL NORMAL DUTY BITUMINOUS PAVING SECTION



SHOULD NOTIFY ENGINEER IMMEDIATELY

# TYPICAL BITUMINOUS PAVING SECTION (TOWSNHIP STANDARD, ASPEN DRIVE)



NOTES:

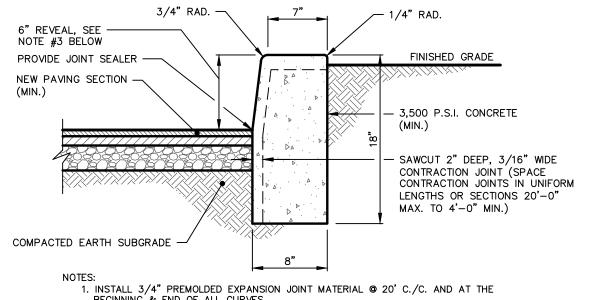
1. PROVIDE PROPOSED PAVING NOTCH AT ALL LOCATIONS ALONG

OUTPUT

OUTPU CONNECTION OF PROPOSED BITUMINOUS PAVING WITH EXISTING

2. CONTRACTOR TO VERIFY THAT SUFFICIENT PAVEMENT DEPTH OF EXISTING ASPHALT UNDERLINES BITUMINOUS OVERLAP.

# PROPOSED BITUMINOUS PAVING SAWCUT AND MILLING AT JOINT WITH EXISTING PAVING NO SCALE



BEGINNING & END OF ALL CURVES.

2. INSTALL CURB AS PER PENNDOT RC-64 CONSTRUCTION SPECIFICATIONS. 3. PROPOSED CONCRETE CURB TO BE 8" HIGH FROM PROPOSED ADA RAMPS ALONG ASPEN

DRIVE TO EXISTING CONCRETE CURB.

STANDARD 18" VERTICAL CONCRETE CURB NO SCALE

¥

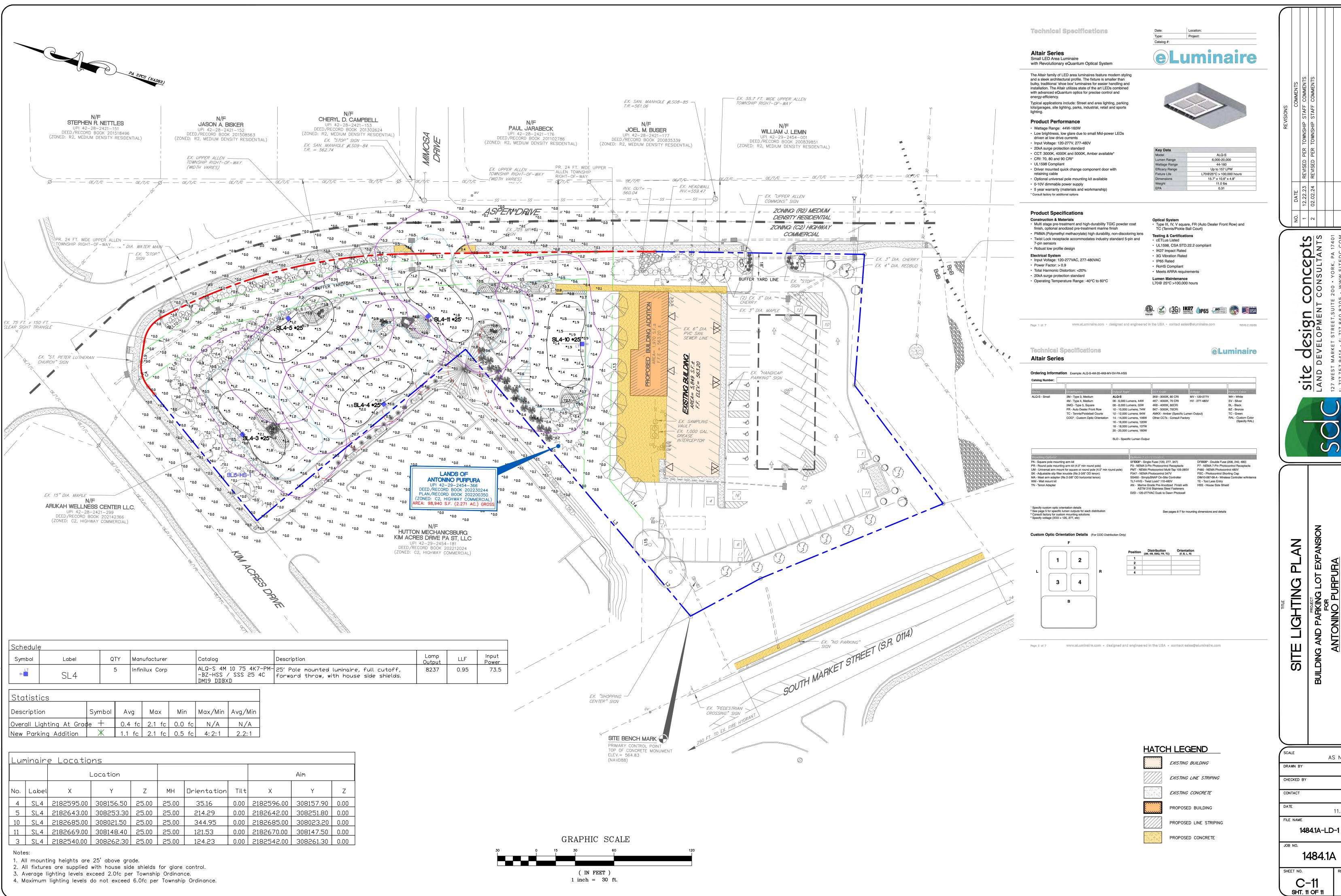
SITE

AS NOTED DRAWN BY CHECKED BY AWA CONTACT AWA 11.01.23 FILE NAME 1484.1A-LD-1

1484.1A

SHT. 10 OF 11

2024, SITE DESIGN CONCEPTS, INC. - ALL RIGHTS RESERVED. THESE PLANS ARE THE PROPERTY OF SITE DESIGN CONCEPTS, INC. ANY USE OR REPRODUCTION OF THESE PLANS, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF SITE DESIGN CONCEPTS, INC. IS FORBIDDEN.



©2024, SITE DESIGN CONCEPTS, INC. – ALL RIGHTS RESERVED. THESE PLANS ARE THE PROPERTY OF SITE DESIGN CONCEPTS, INC. ANY USE OR REPRODUCTION OF THESE PLANS, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF SITE DESIGN CONCEPTS, INC. IS FORBIDDEN.

AS NOTED

AWA

AWA

11.01.23