

# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF MILITARY AND VETERANS' AFFAIRS

ANNVILLE, PENNSYLVANIA

JOSH SHAPIRO, GOVERNOR

MAJOR GENERAL MARK J. SHINDLER, THE ADJUTANT GENERAL

**PROJECT NO.: 42220145**  
**REPAVE ARTILLERY ROAD**

UNION TOWNSHIP, LEBANON COUNTY, PENNSYLVANIA

DESIGN PROFESSIONALS:  
OFFICE OF FACILITIES AND ENGINEERING  
BUREAU OF DESIGN AND PROJECT MANAGEMENT  
BUILDING 0-10, CHAPEL ROAD, FORT INDIANTOWN GAP  
ANNVILLE, LEBANON COUNTY, PENNSYLVANIA

## INDEX TO DRAWINGS

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### GENERAL CONSTRUCTION

CIVIL DWGS.  
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C.1.1 SITE PLAN 6+00 TO 12+00  
C.1.2 SITE PLAN 12+00 TO END  
C.2.0 DETAILS

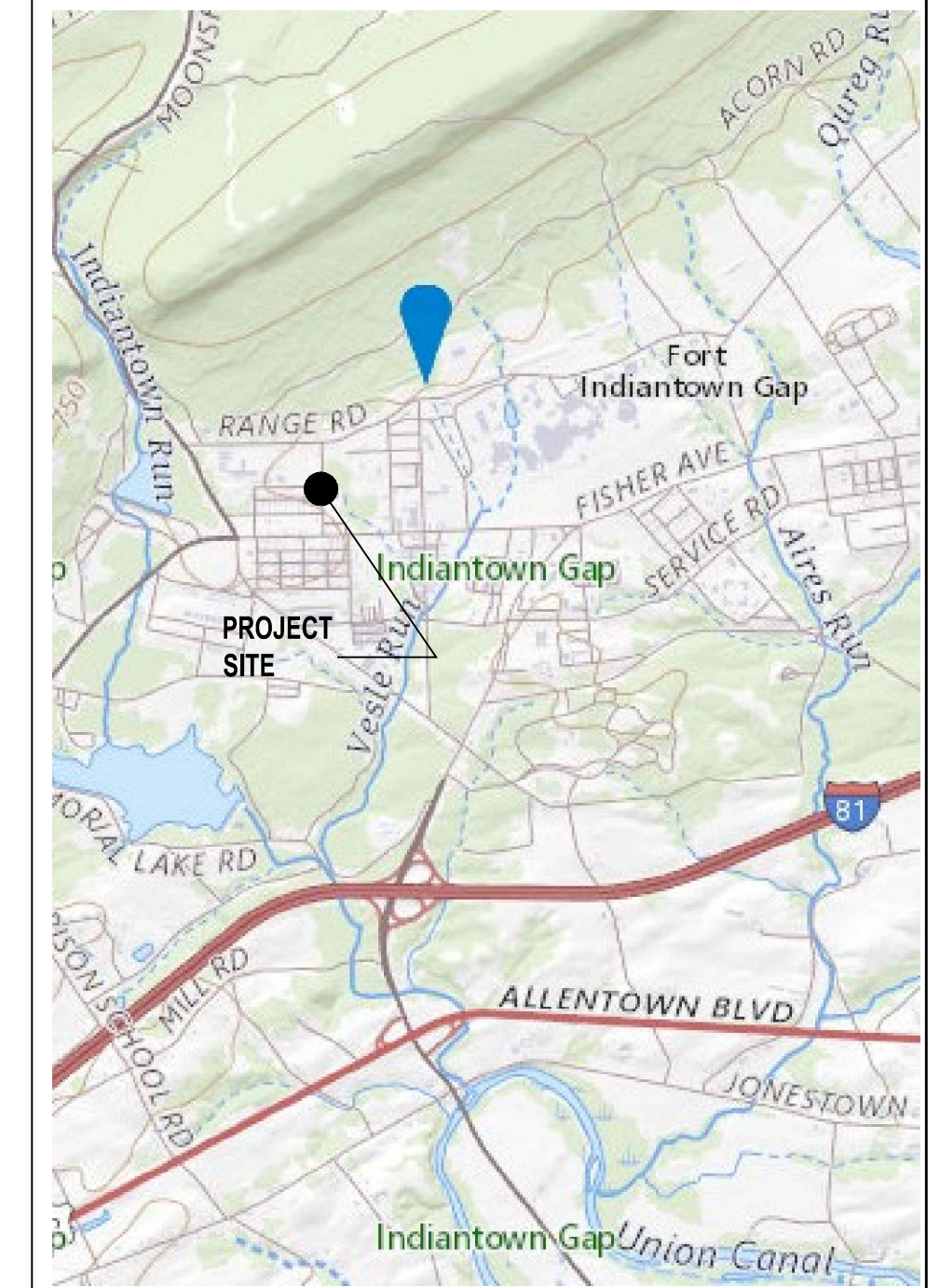
### Plan Notes

1. Prior to starting construction, the contractor shall be responsible to make sure that all required permits and approvals have been obtained. No construction or fabrication shall begin until the contractor has received and thoroughly reviewed all plans and other documents approved by all of the permitting authorities.
2. All work shall be performed in accordance with these plans, specifications and the requirements and standards of the governing authority.
3. The contractor shall be responsible for removing and replacing all soft, yielding or unsuitable materials and replacing with suitable materials.
4. The locations of underground facilities shown on these plans are based on field surveys, and local utility company records. It shall be the contractor's responsibility to contact the appropriate utility company. No compensation shall be paid to the contractor for damage and repair to these facilities caused by his work force. All underground utilities must be verified at the time of construction.
5. All dimensions and grades shown on these plans shall be field verified by the contractor prior to construction. Contractor shall notify the construction manager if any discrepancies exist, prior to proceeding with construction for necessary plan or grade changes.
6. Contractor to verify all existing site conditions.
7. PADOT 408 Specifications and Publication 72M details apply.

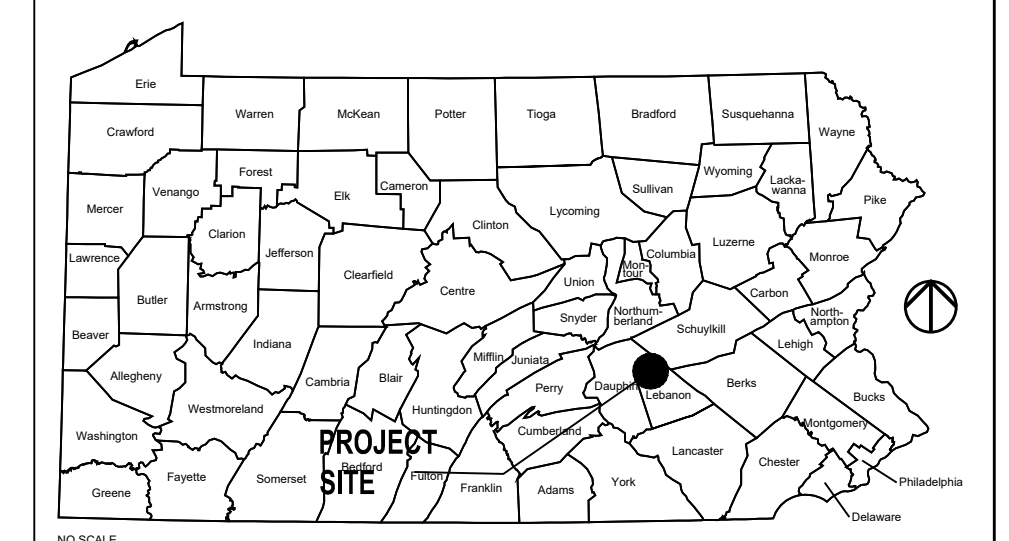
CALL BEFORE YOU DIG!  
PENNSYLVANIA LAW REQUIRES  
3 WORKING DAYS NOTICE FOR  
CONSTRUCTION PHASE AND 10 WORKING  
DAYS IN DESIGN STAGE - STOP CALL  
Pennsylvania One Call System, Inc



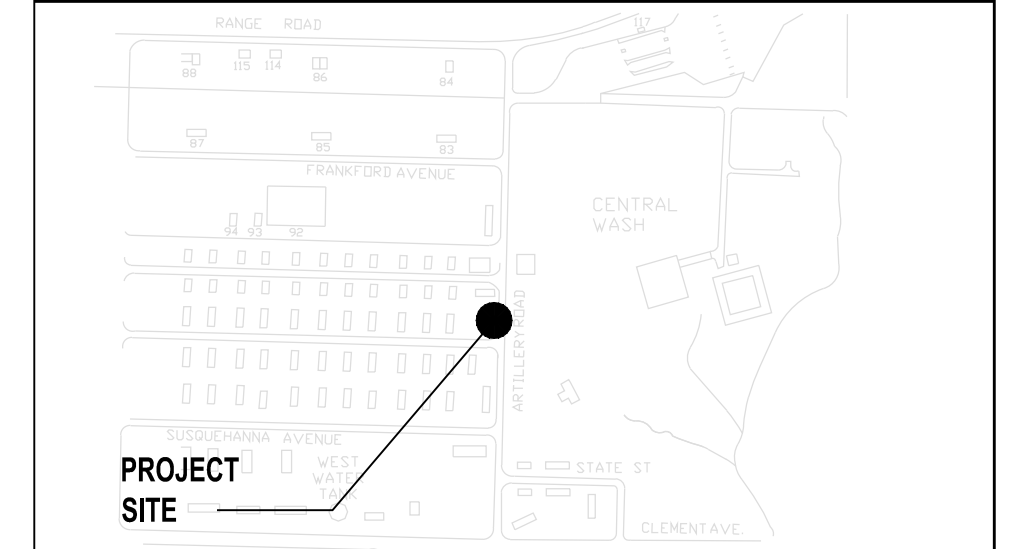
1-800-242-1776



PROJECT LOCATION MAP



VICINITY MAP



CAMPUS / KEY PLAN

NO.	DESCRIPTION	DATE

### REVISIONS

NO.	DESCRIPTION	DATE

Professional's Signature Date Professional's Signature Date

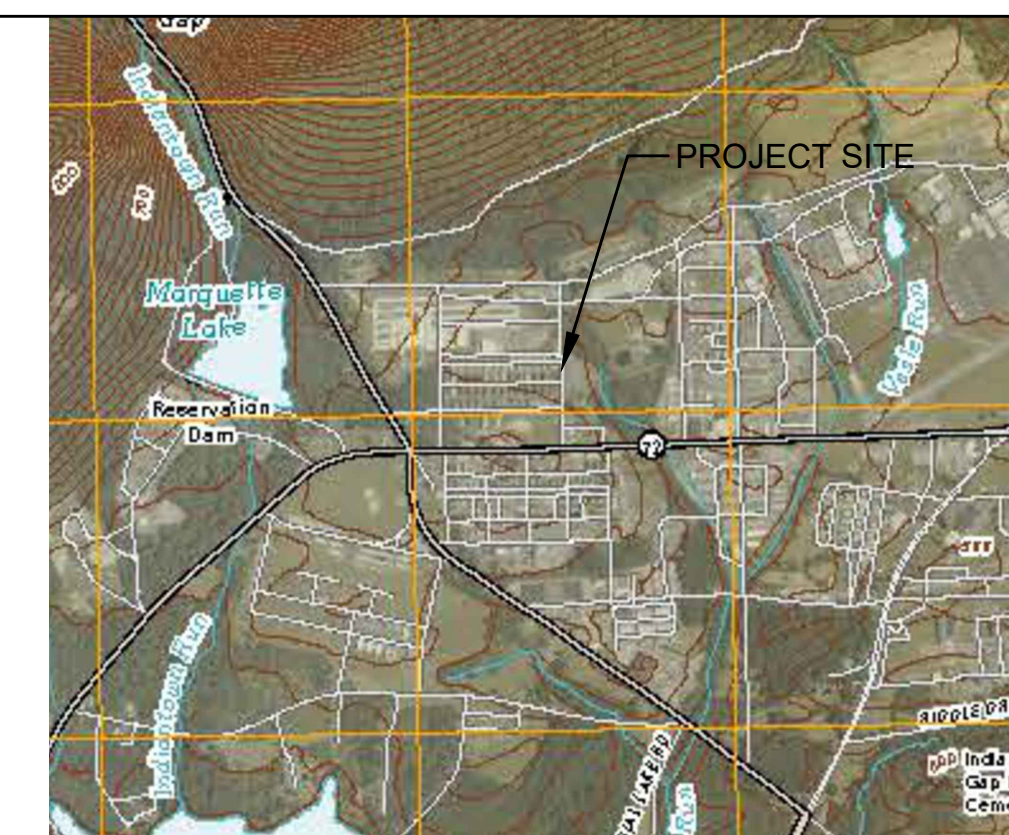
COMMONWEALTH OF PENNSYLVANIA  
DEPT. OF MILITARY & VETERANS' AFFAIRS  
ANNVILLE, PENNSYLVANIA 17003

DESIGN PROFESSIONALS:  
OFFICE OF FACILITIES AND ENGINEERING  
BUREAU OF DESIGN AND PROJECT MANAGEMENT  
BLDG. 0-10, FORT INDIANTOWN GAP  
ANNVILLE, LEBANON COUNTY, PENNSYLVANIA

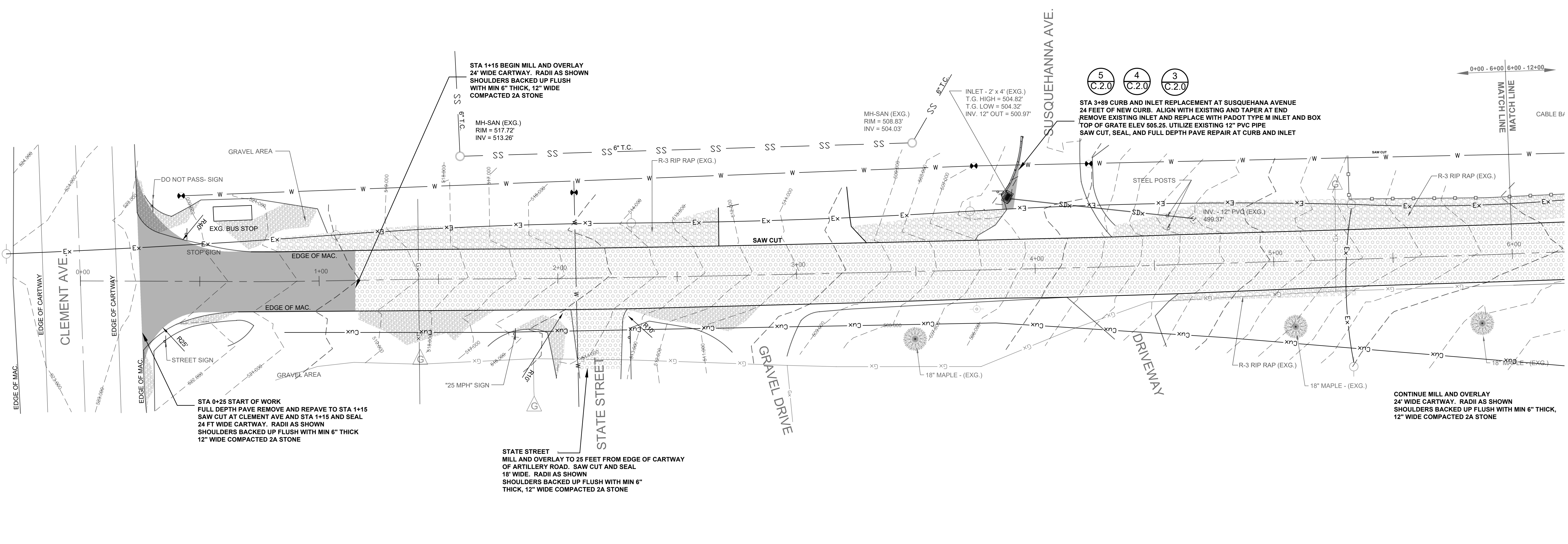
PROJECT NO.: 42220145  
**REPAVE ARTILLERY ROAD**  
**Area 12, Ft. Indiantown Gap**  
UNION TOWNSHIP  
LEBANON COUNTY, PENNSYLVANIA

### COVER SHEET

DRAWN BY	DATE	DRAWING NO.
D. STERNER	01 MAY 23	G.1.1
CHECKED BY	SCALE	
K. LLOYD	AS NOTED	



**LOCATION**  
SCALE: 1" = 2,000'



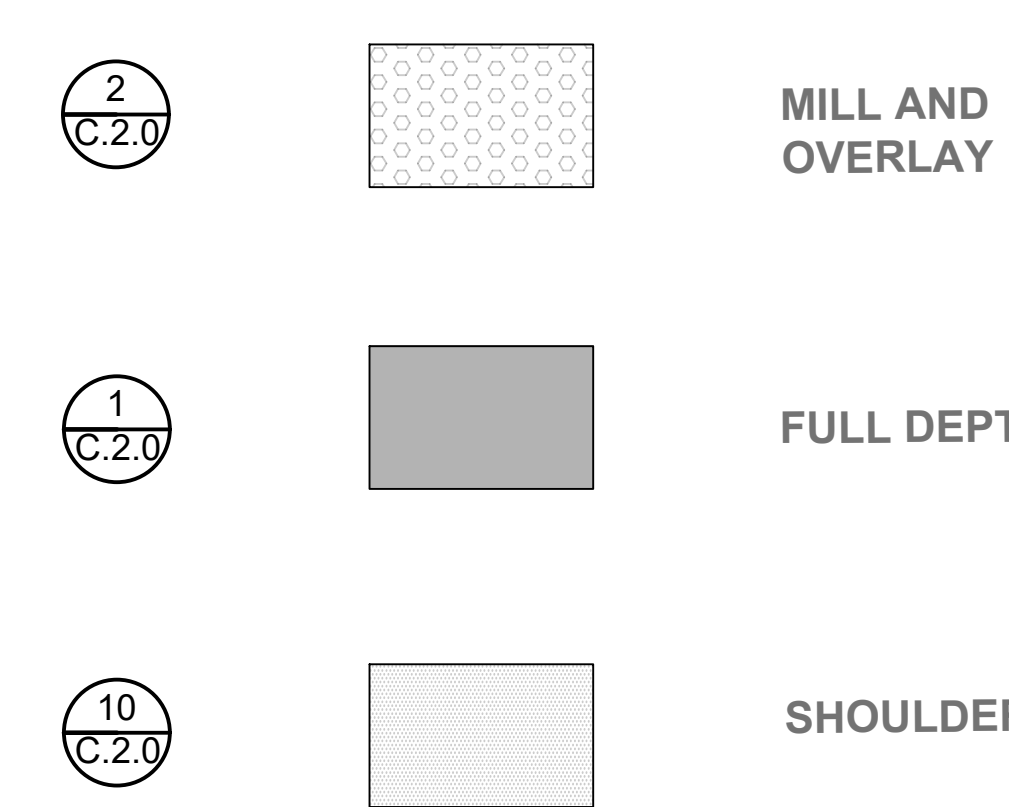
**PAVING SITE PLAN 0+00 - 6+00**

SCALE: 1" = 20'  
SCALE IN FEET

**GENERAL NOTES**

- THE CONTRACTOR IS REQUIRED TO SUBMIT A REQUEST FOR A DIGGING PERMIT, THROUGH THE DIVISION OF INSTALLATION MANAGEMENT (DIM) 717-861-6224 10 DAYS PRIOR TO STARTING EXCAVATION.
- THE CONTRACTOR/UNIT WILL PROVIDE 3 DAY NOTICE PRIOR TO ALL UTILITY CONNECTIONS. THE CONTRACTOR WILL NOTIFY DIM UPON COMPLETION OF THE CONNECTIONS, BUT PRIOR TO BACKFILLING. THE CONTRACTOR/UNIT WILL NOT BACKFILL ANY UTILITY CONNECTIONS UNTIL A REPRESENTATIVE FROM DIM INSPECTS AND APPROVES THE WORK.
- SURVEY AND REFERENCE DATUM WAS ACQUIRED FROM A GPS/RTK SURVEY COMPLETED ON 21 MARCH 2023. STATE PLANE COORDINATE PA SOUTH, NAD83. FIG MONUMENT #52, NORTHING = 402991.414', EASTING = 2296920.957', ELEVATION = 473.31' (U.S. SURVEY FEET).
- THE DUMP SITE FOR MILLINGS AND REMOVED MATERIALS IS LOCATED AT JOHNSON TRAIL, SOUTH OF RANGE ROAD.

SITE / CIVIL LEGEND	
EXISTING	PROPOSED
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)
(Symbol)	(Symbol)



NO.	DESCRIPTION	DATE
REVISIONS		

Professional's Signature \_\_\_\_\_ Date \_\_\_\_\_

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**REPAVE ARTILLERY ROAD**  
Area 12, Ft. Indiantown Gap  
UNION TOWNSHIP  
LEBANON COUNTY, PENNSYLVANIA

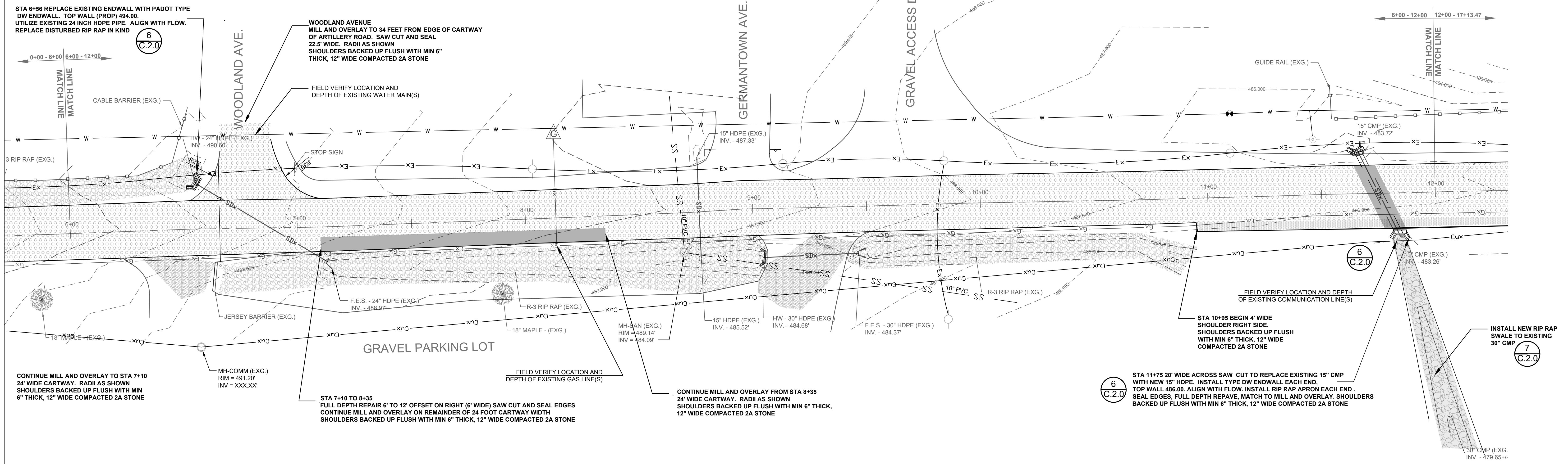
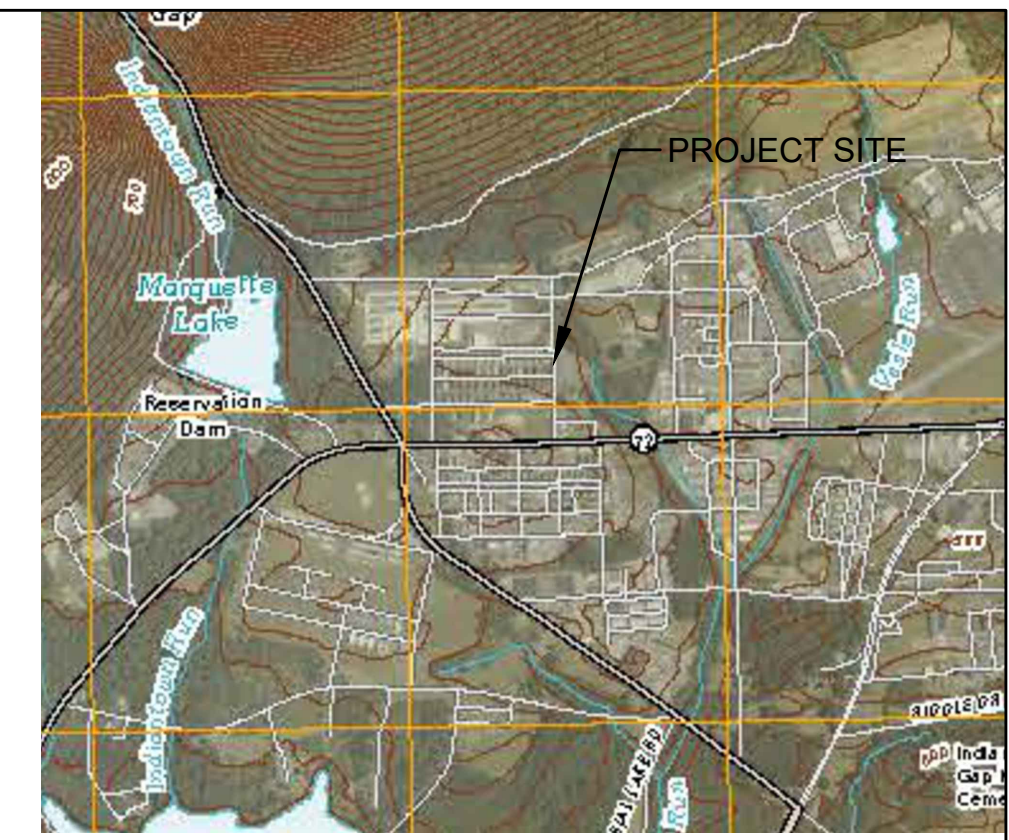
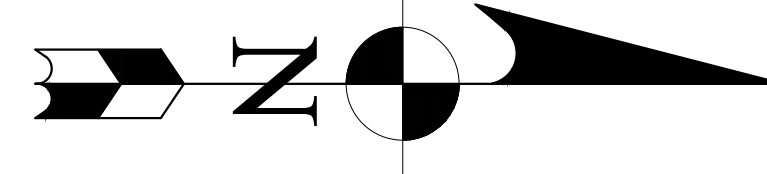
**SITE PLAN 0+00 TO 6+00**

VERIFY SCALE	
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:	0  1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY	
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.	
VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT BUREAU OF ENGINEERING AND ARCHITECTURE APPROVAL.	

**CALL BEFORE YOU DIG!**  
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL  
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.  
VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT BUREAU OF ENGINEERING AND ARCHITECTURE APPROVAL.

PKCS SERIAL NUMBER  
20231011261 04 Apr 23  
20231011265 04 Apr 23

DRAWN BY D. STERNER	DATE 01 MAY 23	DRAWING NO. <b>C.1.0</b>
CHECKED BY K. LLOYD	SCALE AS NOTED	



SITE / CIVIL LEGEND	
EXISTING	PROPOSED
	CONTOUR LINE
	SANITARY SEWER
	WATER LINE
	ELECTRIC - UNDERGROUND
	ELECTRIC - OVERHEAD
	FENCELINE
	COMMUNICATION - UNDERGROUND
	GAS
	STORM SEWER
	WATER VALVE
	MANHOLE
	SPOT ELEVATION
	BENCHMARK ELEVATION
	FLOW ARROW
	UTILITY POLE
	FIRE HYDRANT
	CONCRETE HATCH
	TREE
	POLE MOUNTED AREA LIGHTING
	PENNDOT STANDARD GUIDE RAIL
	GAS VALVE
	STORM INLET
	SANITARY YARD CLEAN OUT
	ELECTRICAL TRANSFORMER W/ WALL T
	GENERATOR
	COMMUNICATIONS MANHOLE
	ELECTRIC PULL BOX
	BOLLARD
	RIP-RAP
	ENDWALL

**PAVING SITE PLAN 6+00 - 12+00**  
 SCALE: 1" = 20'  
 SCALE IN FEET

- GENERAL NOTES**
1. THE CONTRACTOR IS REQUIRED TO SUBMIT A REQUEST FOR A DIGGING PERMIT, THROUGH THE DIVISION OF INSTALLATION MANAGEMENT (DIM) 717-861-6224 10 DAYS PRIOR TO STARTING EXCAVATION.
  2. THE CONTRACTOR/UNIT WILL PROVIDE 3 DAY NOTICE PRIOR TO ALL UTILITY CONNECTIONS. THE CONTRACTOR WILL NOTIFY DIM UPON COMPLETION OF THE CONNECTIONS, BUT PRIOR TO BACKFILLING. THE CONTRACTOR/UNIT WILL NOT BACKFILL ANY UTILITY CONNECTIONS UNTIL A REPRESENTATIVE FROM DIM INSPECTS AND APPROVES THE WORK.
  3. SURVEY AND REFERENCE DATUM WAS ACQUIRED FROM A GPS/RTK SURVEY COMPLETED ON 21 MARCH 2023, STATE PLANE COORDINATE PA SOUTH, NAD83, FIG MONUMENT #32, NORTHING = 402691.414; EASTING = 2296600.957; ELEVATION = 473.31' (U.S. SURVEY FEET).
  4. THE DUMP SITE FOR MILLINGS AND REMOVED MATERIALS IS LOCATED AT JOHNSON TRAIL, SOUTH OF RANGE ROAD.

	<b>MILL AND OVERLAY</b>
	<b>FULL DEPTH</b>
	<b>SHOULDER</b>

NO.	DESCRIPTION	DATE
REVISIONS		

COMMONWEALTH OF PENNSYLVANIA  
 DEPT. OF MILITARY & VETERAN'S AFFAIRS  
 ANNVILLE, PENNSYLVANIA 17003

DESIGN PROFESSIONALS:  
 OFFICE OF FACILITIES AND ENGINEERING  
 BUREAU OF DESIGN AND PROJECT MANAGEMENT  
 BLDG. 0-10, FORT INDIANTOWN GAP  
 ANNVILLE, LEBANON COUNTY, PENNSYLVANIA

PROJECT NO.: 42220145  
**REPAVE ARTILLERY ROAD**  
 Area 12, Ft. Indiantown Gap  
 UNION TOWNSHIP  
 LEBANON COUNTY, PENNSYLVANIA

<b>SITE PLAN 6+00 TO 12+00</b>	
DRAWN BY D. STERNER	DATE 01 MAY 23
CHECKED BY K. LLOYD	SCALE AS NOTED
<b>C.1.1</b>	

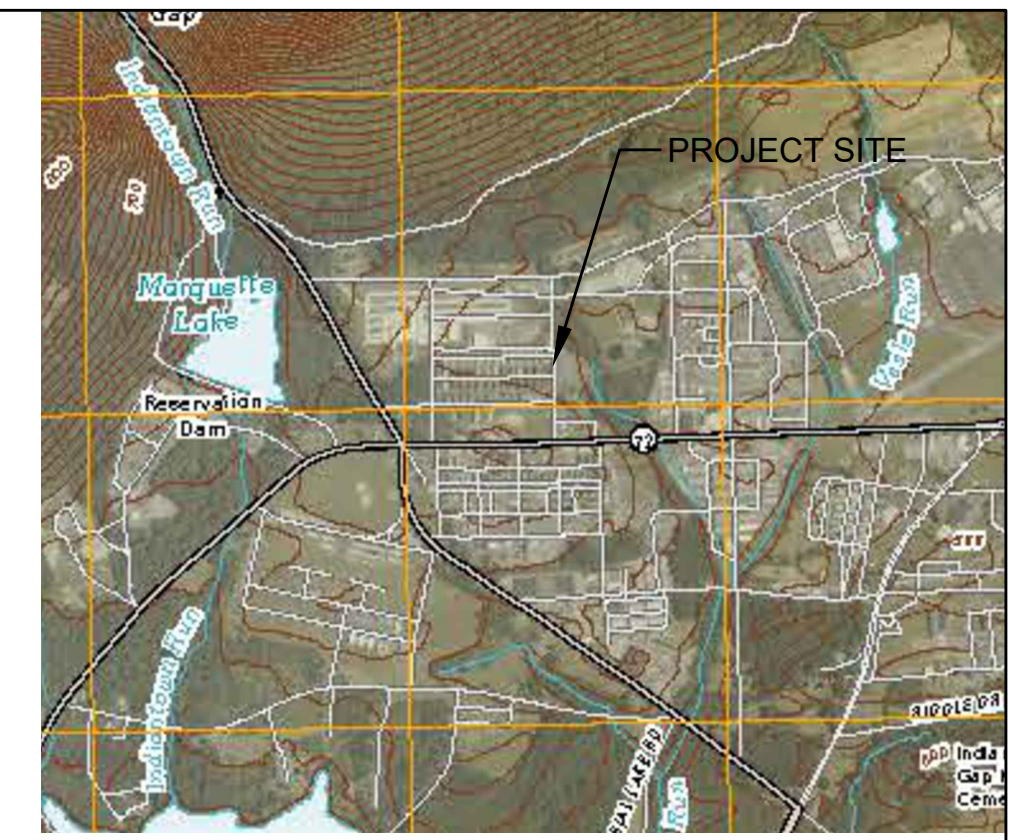
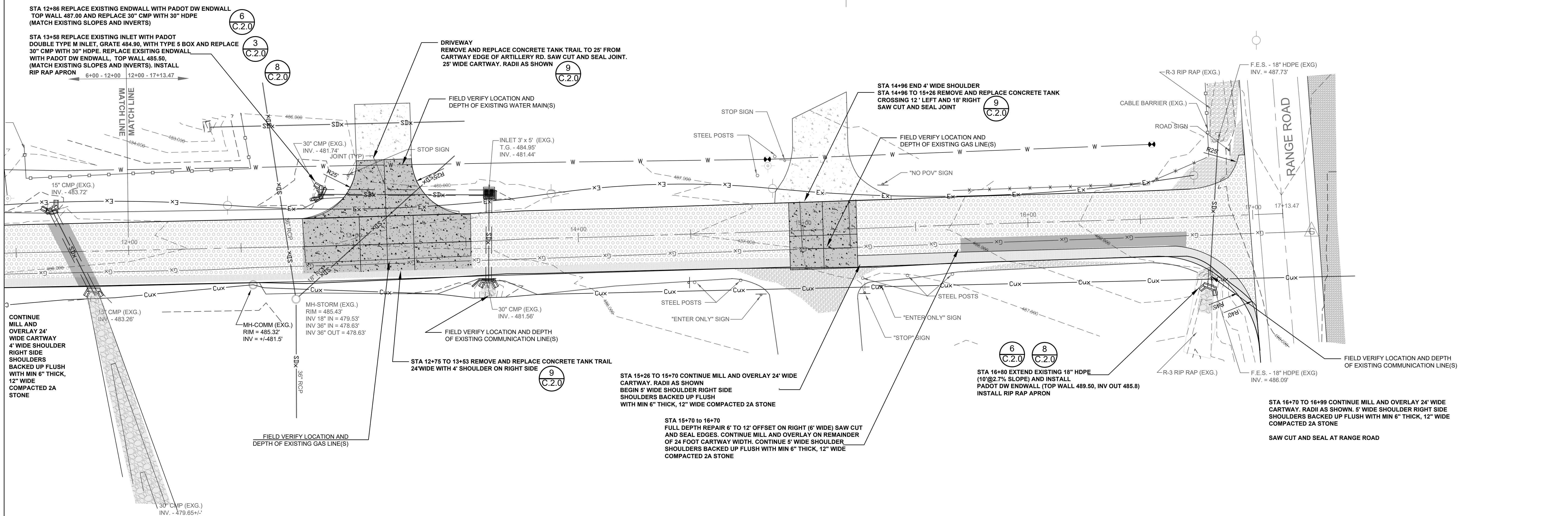
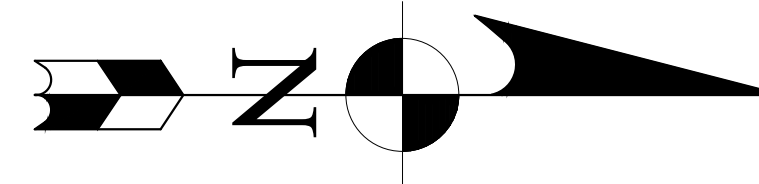
**CALL BEFORE YOU DIG!**  
 PENNSYLVANIA LAW REQUIRES  
 3 WORKING DAYS NOTICE FOR  
 CONSTRUCTION PHASE AND 10 WORKING  
 DAYS IN DESIGN STAGE - STOP CALL

POCS SERIAL NUMBER  
 20231011261 04 Apr 23  
 20231011265 04 Apr 23

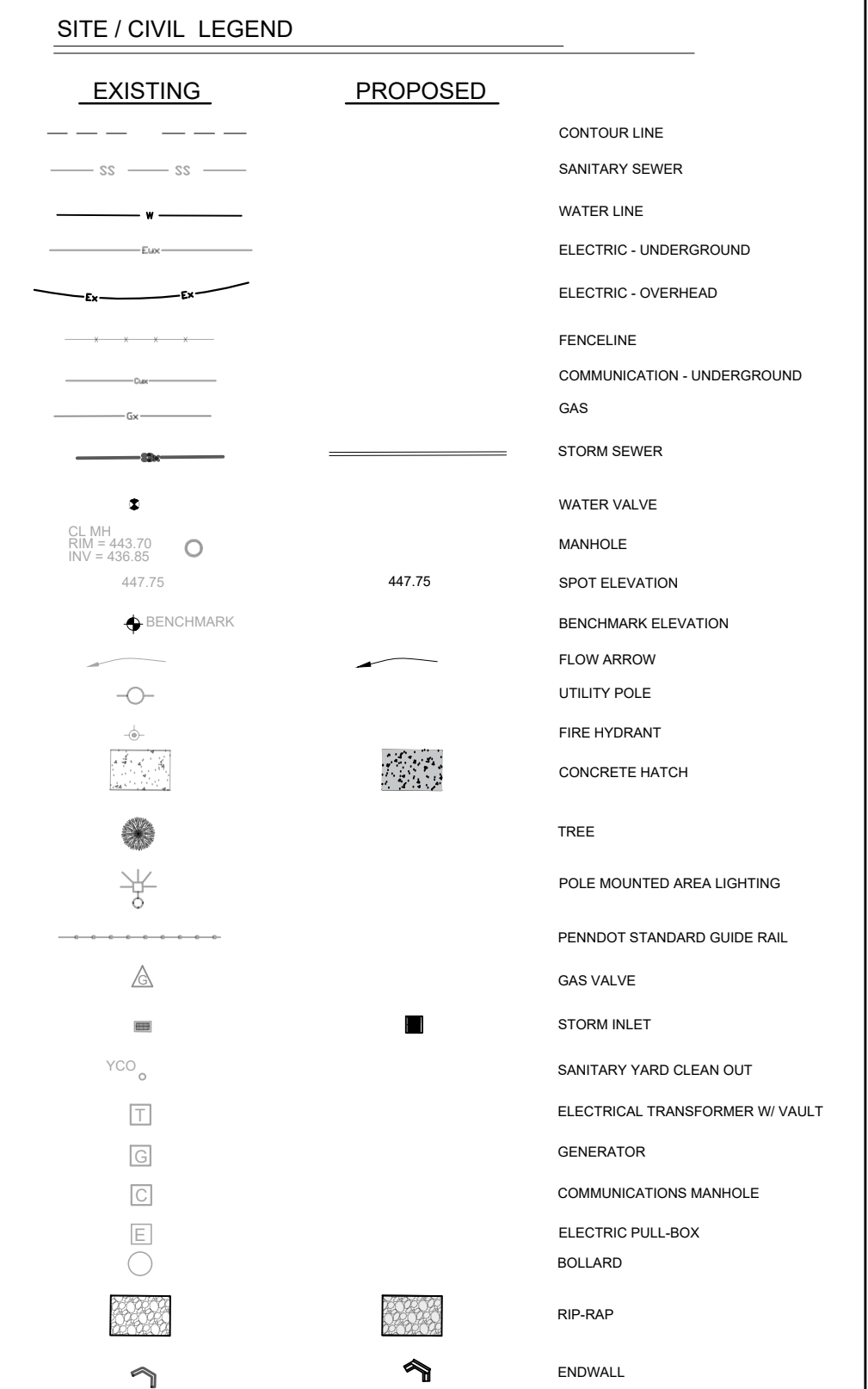
**PA**  
 1-800-242-1776

**VERIFY SCALE**  
 BAR IS ONE (1) INCH LONG  
 ON ORIGINAL DRAWING:  
 0 1  
 IF BAR IS NOT ONE (1) INCH LONG,  
 ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY  
 ALL DIMENSIONS.  
 VARIANCE FROM CONTRACT  
 DOCUMENTS NOT PERMITTED  
 WITHOUT BUREAU OF ENGINEERING  
 AND ARCHITECTURE APPROVAL.

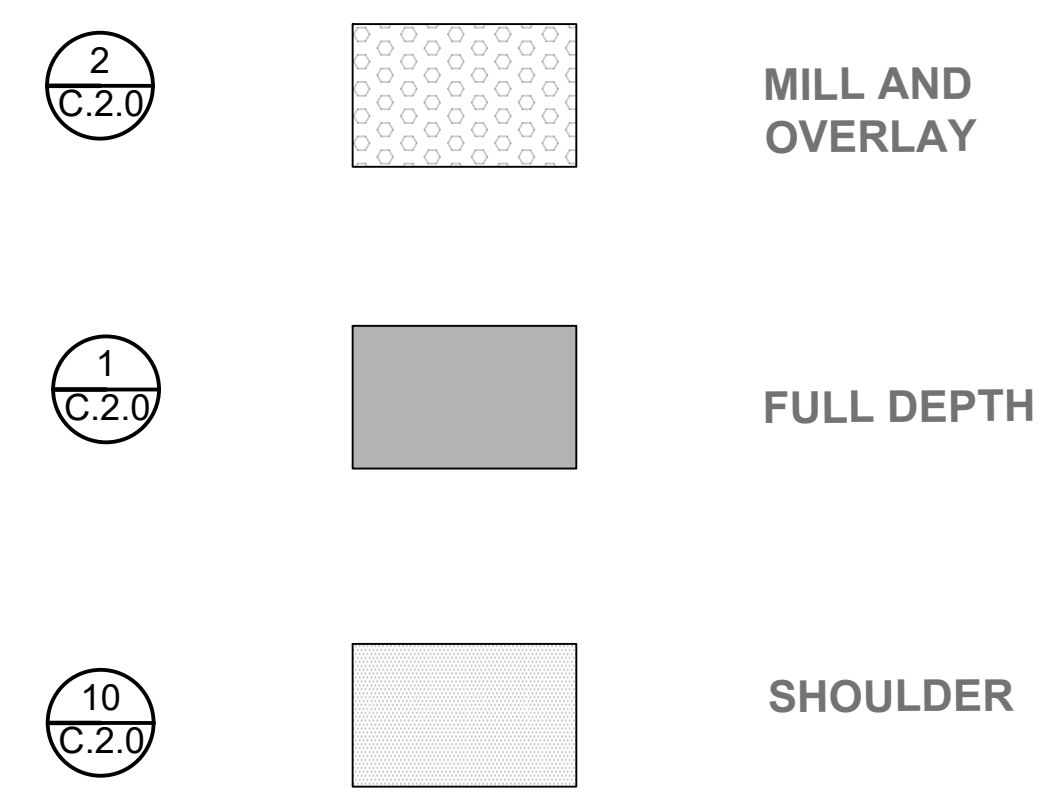


**LOCATION**  
SCALE: 1" = 2,000'



### PAVING SITE PLAN 12+00 - 17+13.47

SCALE: 1" = 20'  
SCALE IN FEET



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REVISIONS		

Professional's Signature \_\_\_\_\_ Date \_\_\_\_\_

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UNION TOWNSHIP  
LEBANON COUNTY, PENNSYLVANIA

### SITE PLAN 12+00 TO END

#### VERIFY SCALE

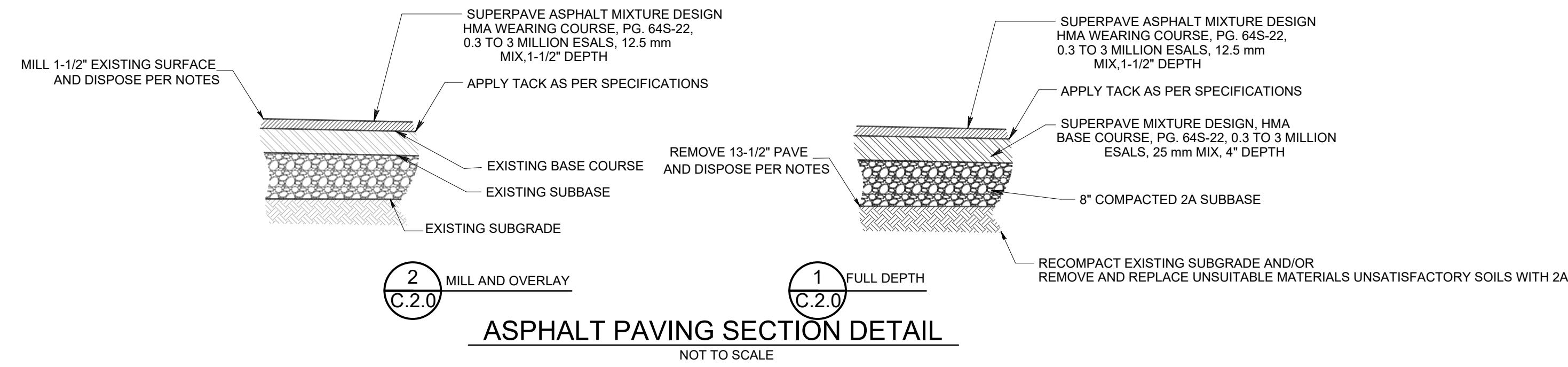
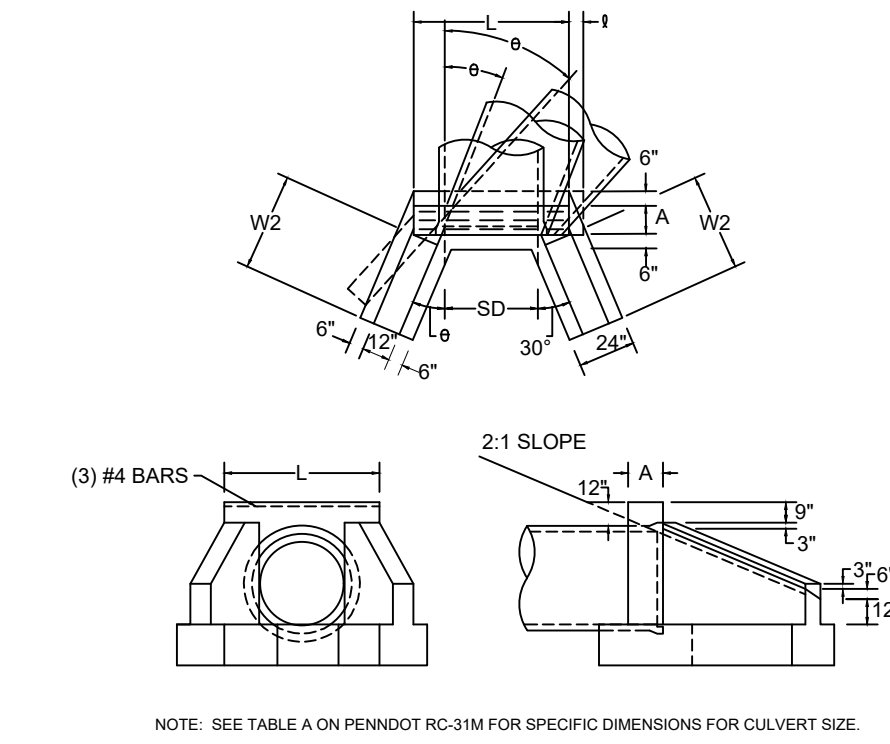
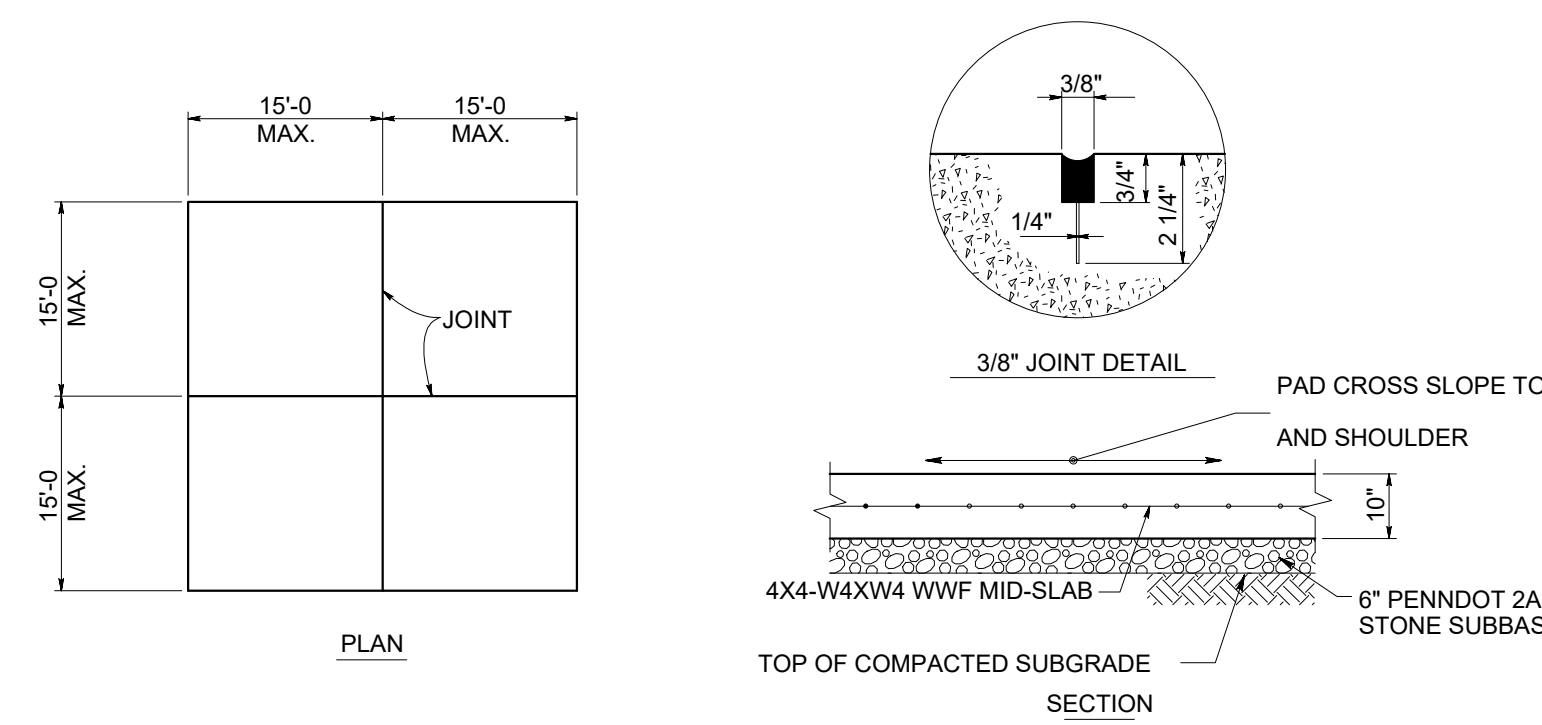
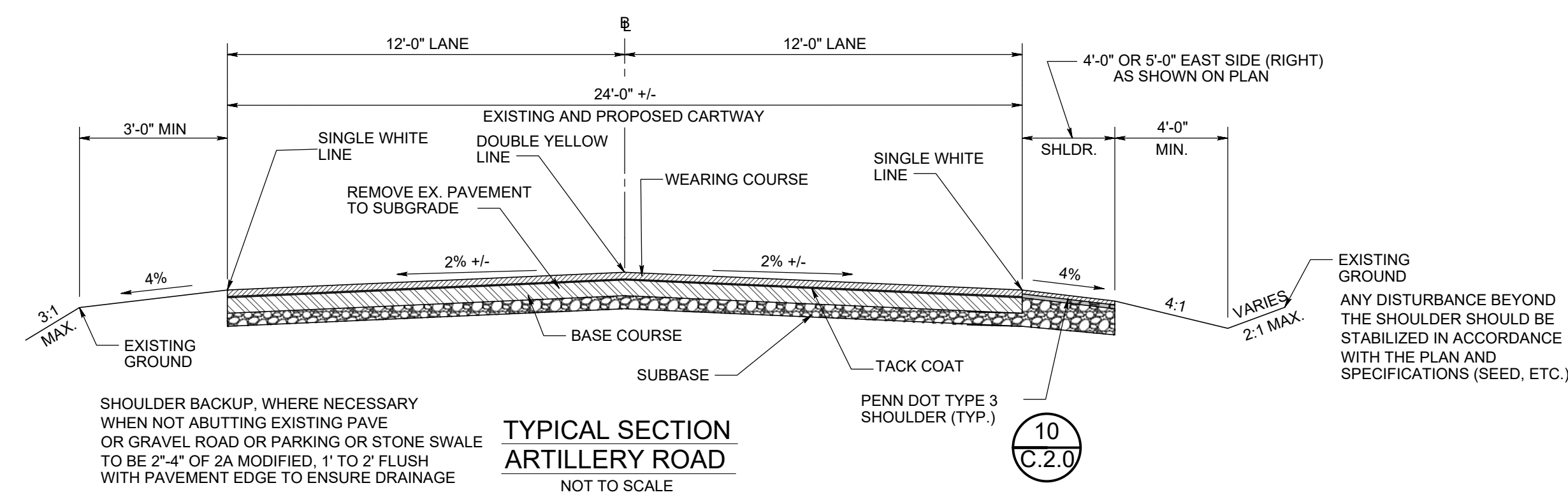
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:  
0 \_\_\_\_\_ 1  
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY.

#### CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN PHASE - STOP CALL  
POK'S SERIAL NUMBER  
20231011261 04 Apr 23  
20231011265 04 Apr 23  
1-800-242-1776

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.  
VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT BUREAU OF ENGINEERING AND ARCHITECTURE APPROVAL.

DRAWN BY <b>D. STERNER</b>	DATE <b>01 MAY 23</b>	DRAWING NO. <b>C.1.2</b>
CHECKED BY <b>K. LLOYD</b>	SCALE <b>AS NOTED</b>	



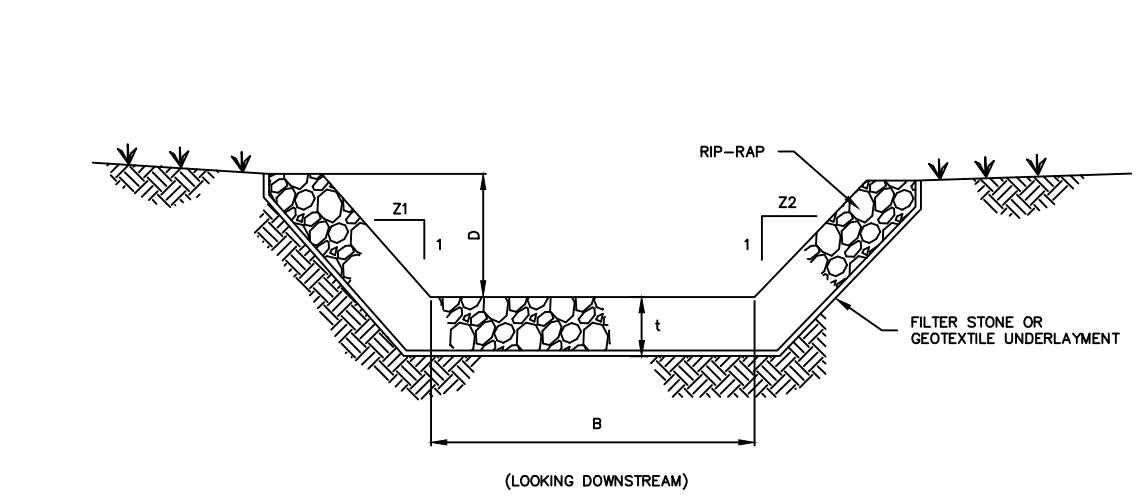
Concrete to Asphalt joint seal. Rubberized joint sealing material ASTM D6690-Type III. Seams and work area to be completely dry and above 40 degrees F. Use compressed air to blow off dirt and other foreign materials. Sealing material to be max 400 degrees F and min 380 degrees F. Install sealing 1/8\"/>

**Permanent Seeding**  
Permanent seeding shall take place in all disturbed areas as follows:  
**Fertilization:** The following shall be spread and worked into the topsoil to a depth of 3 to 4 inches.  
Agricultural Lime - 275 pounds per 1,000 square feet  
Fertilizer - 25 pounds per 1,000 square feet  
The fertilizer shall be a commercial type 10-20-20.  
**Note:** If agricultural lime and fertilizer have been applied previously to the ground where the permanent seed is to be applied, the lime and fertilizer rates shall be reduced by the amount by what has been applied previously.  
**Permanent Seed Mixture:** The following seed mixtures shall be applied as follows:

**TEMPORARY SEEDING**  
PADOT Formula E - Annual Ryegrass (*Lolium multiflorum*) 88.2% PLS, 48 lbs/ac  
Seeding dates Mar 15 to Oct 15  
**PERMANENT SEEDING**  
PADOT Formula B - Perennial ryegrass 88.2% PLS, 20 lbs/ac  
Creeping Red Fescue 83.3% PLS, 29 lbs/ac  
Kentucky Bluegrass mix, 78.4% PLS, 53 lbs/ac  
Seeding dates Mar 15 to Jun 1 and Aug 1 to Oct 15  
**PERMANENT SEEDING - STEEP SLOPES**  
PADOT Formula D - Tall fescue, 88.3% PLS, 73 lbs/ac  
Creeping red fescue, 88.3% PLS, 29 lbs/ac  
(Ref. Penn State Agronomy Guide and PADOT Publication 408)

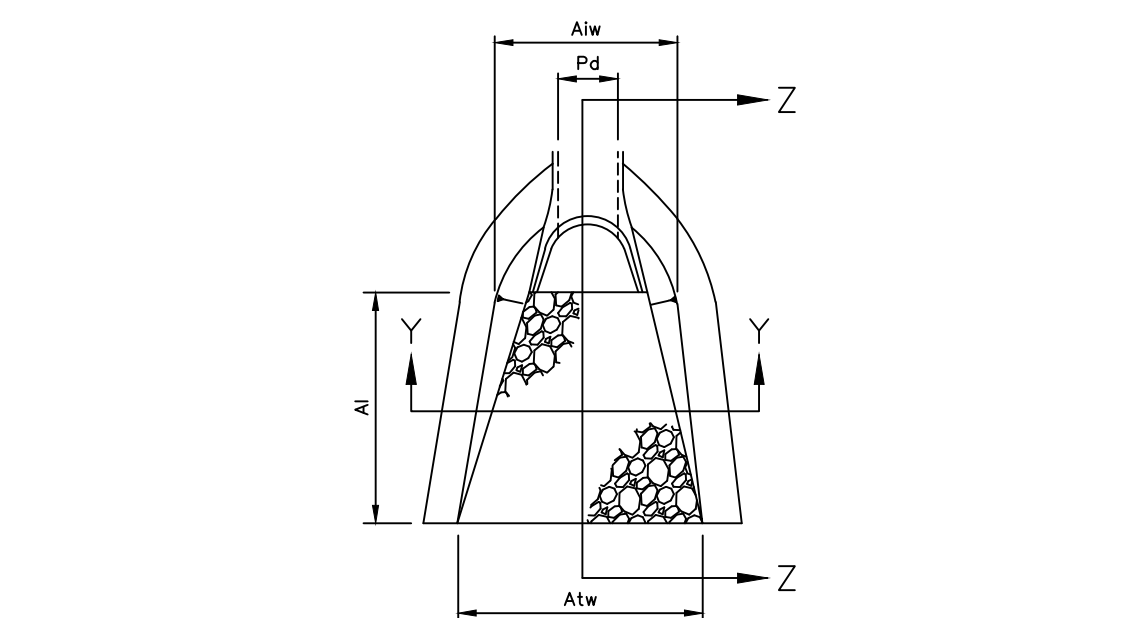
\*All mixtures given above are for PLS - Pure Live Seed 100%. To calculate PLS, the percentage of pure seed is multiplied by the percentage of germination, and the product is divided by 100 (85% pure seed x 72% germination) divided by 100 = 61% PLS. To determine how much seed to plant, divide the percentage into 100. Example: 100 divided by 61 = 1.63. Thus, every pound of seed mixture called for should then be 1.63 lbs.  
**Mulch:** Apply mulch to all permanently seeded areas.  
**Materials:** Straw, air-dried and free from undesirable seeds and coarse materials.  
Application: 140 pounds per 1,000 square feet.

**Final Stabilization and Maintenance**  
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 sufficient to resist sliding or other movements.  
Revegetation shall occur immediately after completion of the final grading. Should conditions prohibit permanent revegetation efforts, the area will be temporarily stabilized through the use of quick-growing grasses, nylon erosion control mats or similar measures. The Contractor shall be responsible for the permanent stabilization of all areas exposed or disturbed during the Project.  
The contractor shall maintain all temporary erosion and sedimentation control facilities in good condition until establishment of ground cover over tributary areas. This will include cleaning and, if required, repair of any filter fabric fence which may become torn, and seeding of eroded areas, as necessary.  
Permanent erosion control measures will not require maintenance other than lawn mowing.  
Permanent erosion and sedimentation control measures will become the responsibility of the State Reservation Maintenance personnel upon completion of all aspects of the Project.



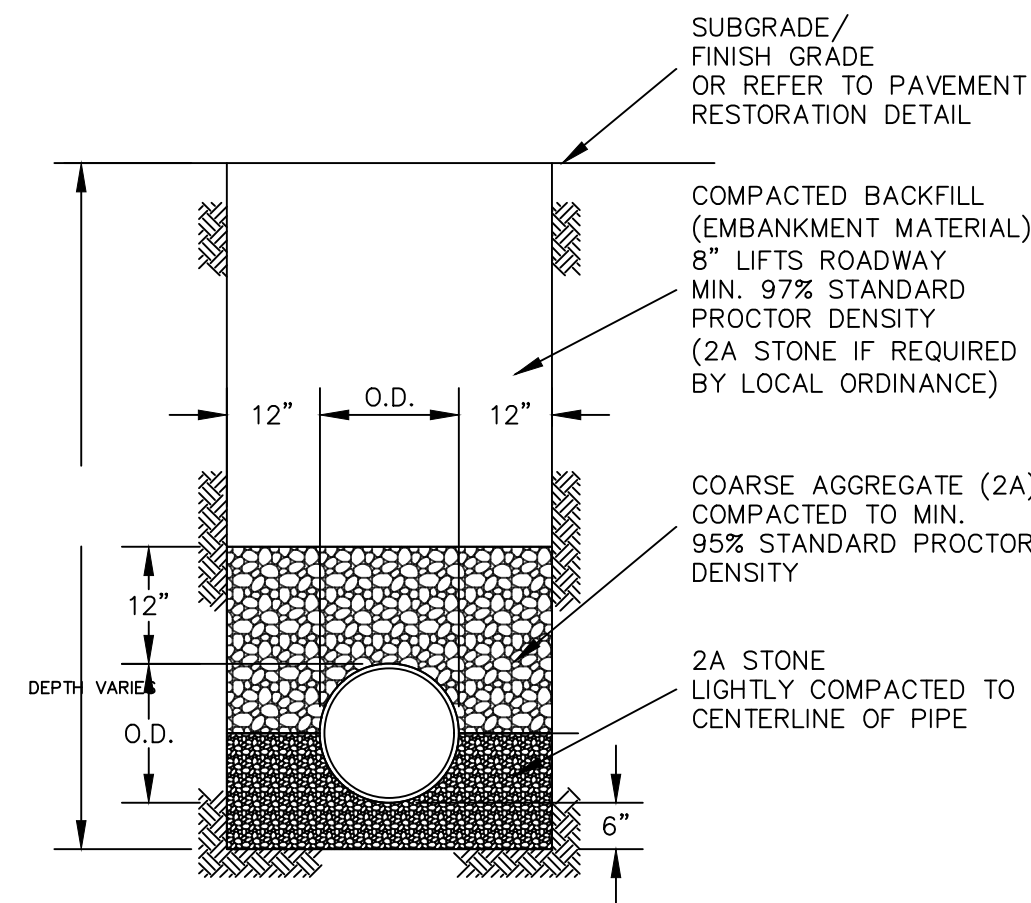
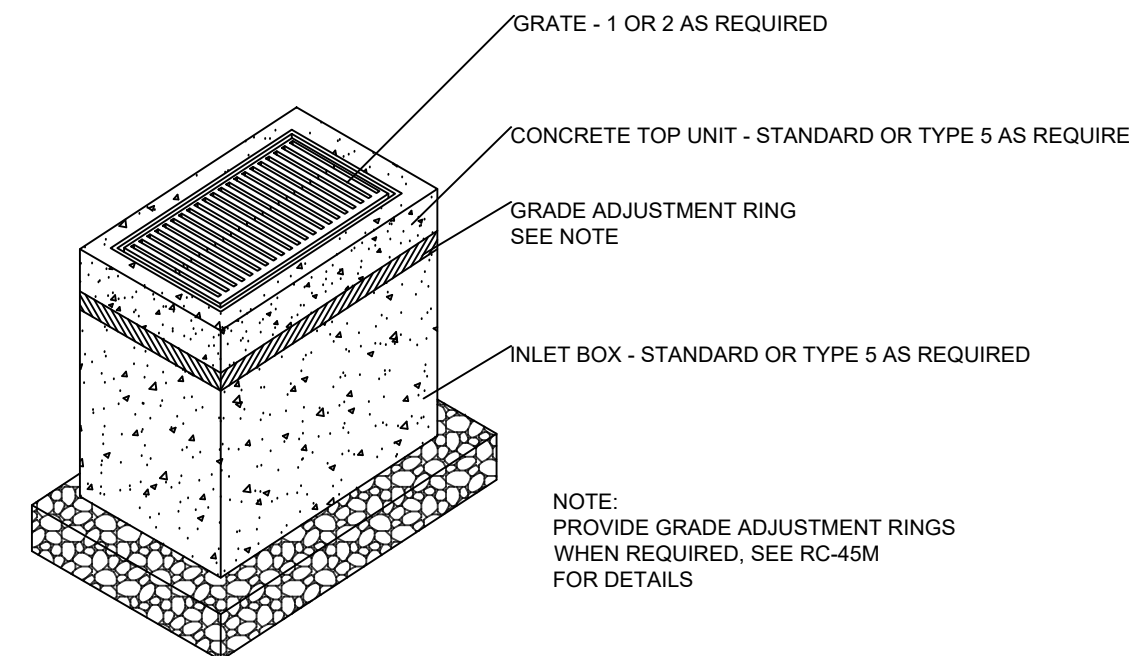
CHANNEL NO.	SLOPE	BOTTOM WIDTH (FT)	DEPTH (FT)	DEPTH (FT)	DEPTH (FT)	DEPTH (FT)	DEPTH (FT)	DEPTH (FT)	UNDERLAYMENT	UNDERLAYMENT THICKNESS
A	2%	2	2	2	2	2	2	2	16	3"

**NOTES:**  
FILTER STONE UNDERLAYMENT SHALL BE USED.  
CHANNEL DIMENSIONS ARE FOR THE COMPLETED CHANNEL. AFTER ROCK PLACEMENT, CHANNEL MUST BE OVER-EXCAVATED A SUFFICIENT AMOUNT TO ALLOW FOR THE VOLUME OF ROCK PLACED WITHIN THE CHANNEL WHILE PROVIDING THE SPECIFIED CHANNEL DIMENSIONS.  
CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY ONE (1) INCH OR MORE. CHANNELS SHALL BE REPAIRED WITHIN 24 HOURS OF DISCOVERY OF SUCH AS THE CONTRACTOR PERMITS ACCESS TO CHANNEL. WITHOUT FURTHER CHANGE.  
CHANNEL LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.  
THE MINIMUM ROCK THICKNESS (T) SHALL BE 1.5 TIMES THE MAX ROCK SIZE.

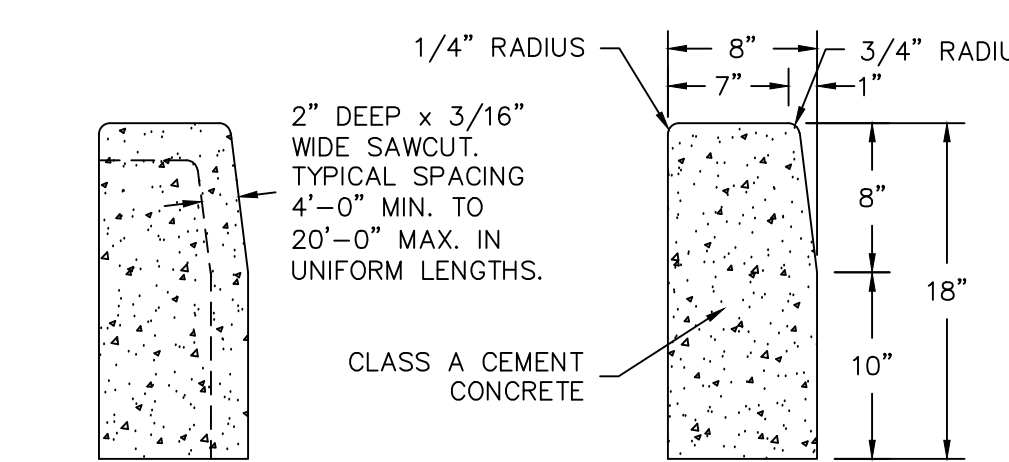


OUTLET NO.	PIPE DIA (IN)	RIPRAP		APRON	
		SIZE (IN)	LENGTH (FT)	INITIAL WIDTH (FT)	TERMINAL WIDTH (FT)
1 AND 2	VARIES	4	18	10	6

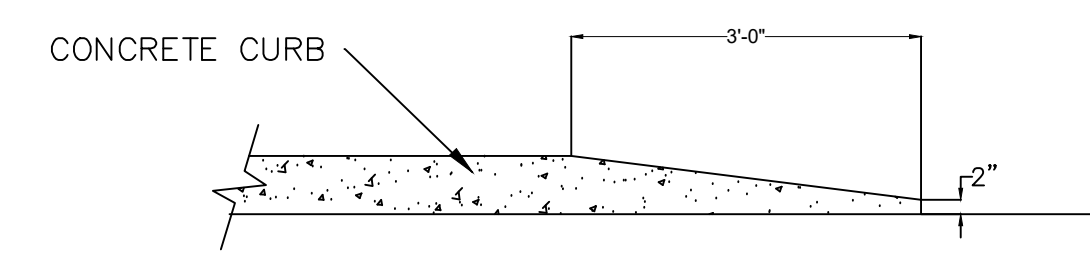
**NOTES:**  
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.  
ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.



STORM TRENCH DETAIL  
N.T.S.



CONCRETE CURB DETAIL  
N.T.S.



CURB TAPER DETAIL  
N.T.S.

**CALL BEFORE YOU DIG!**  
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POCS SERIAL NUMBER 20231011261 04 Apr 23 20231011265 04 Apr 23  
1-800-242-1776

**VERIFY SCALE**  
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING.  
0 1  
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT BUREAU OF ENGINEERING AND ARCHITECTURE APPROVAL.

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REVISIONS		
Professional's Signature _____ Date _____		
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DESIGN PROFESSIONALS: OFFICE OF FACILITIES AND ENGINEERING BUREAU OF DESIGN AND PROJECT MANAGEMENT BLDG. 0-10, FORT INDIANTOWN GAP ANNVILLE, LEBANON COUNTY, PENNSYLVANIA		
PROJECT NO.:		42220145
<b>REPAVE ARTILLERY ROAD</b> Area 12, Ft. Indiantown Gap UNION TOWNSHIP LEBANON COUNTY, PENNSYLVANIA		
<b>DETAILS</b>		
DRAWN BY	DATE	DRAWING NO.
D. STERNER	01 MAY 23	C.2.0
CHECKED BY	SCALE	
K. LLOYD	AS NOTED	