

PRELIMINARY AND FINAL SITE PLAN
FOR
MORRIS MOUNT OLIVE ASSOCIATES, LLC
PROPOSED WAREHOUSE FACILITY

BLOCK 400, LOTS 1 & 2; TAX MAP SHEET #4.01 - LATEST REV. DATED 09-09-91
217 & 219 WATERLOO VALLEY ROAD
TOWNSHIP OF MOUNT OLIVE
MORRIS COUNTY, NEW JERSEY

200' PROPERTY OWNERS LIST

PROPERTY OWNER	BLOCK	LOT
GNAUDAN FRAGRANCES CORP 1199 EDISON DR CINCINNATI, OH 45216	400	3
COUNTY OF MORRIS P.O. BOX 900 MORRISTOWN, NJ 07960	400	4
COUNTY OF MORRIS ADMIN/REC BLDG, COURT ST MORRISTOWN, NJ 07960	401	1
GNAUDAN FRAGRANCES CORP 1199 EDISON DR CINCINNATI, OH 45216	402	2
GNAUDAN ROUSE CORP ATTN, TAX DEPT 1199 EDISON DR CINCINNATI, OH 45216	402	5
OCF II - NJ1801 LLC PO BOX 32052 CHARLOTTE, NC 28232	500	2
OCF II - NJ1801 LLC 1 BEACON ST, STE 2800 BOSTON, MA 02108	500	3
ALSO TO BE NOTICED:		
BRUCE D. SMITH HACKETTSTOWN MUNICIPAL UTILITIES AUTHORITY P.O. BOX 450 HACKETTSTOWN, NJ 07840		
R. ALBANESE NEW JERSEY NATURAL GAS 1415 WYCKOFF ROAD WALL, NJ 07719		
BRUCE REYNOLDS COLUMBIA GAS TRANSMISSION CORP 1470 POORHOUSE ROAD DOWNTOWN, PA 19335		
MT. OLIVE TOWNSHIP, WATER & SEWER DEPARTMENT P.O. BOX 450 204 FLANDERS-DRAKESTOWN ROAD MT. OLIVE, NJ 07828		
NJ DEPARTMENT OF TRANSPORTATION 1035 PARKWAY DR CN 600 TRENTON, NJ 08625		
PUBLIC SERVICE ELECTRIC & GAS COMPANY MANAGER - CORPORATE PROPERTIES 80 PARK PLAZA, T60 NEWARK, NJ 07102		
NEW JERSEY - AMERICAN WATER CO, INC P.O. BOX 5627 CHERRY HILL, NEW JERSEY 08034		
APPLIED WASTEWATER MANAGEMENT 7 CLEGG LANE HILLSBOROUGH, NJ 08844		

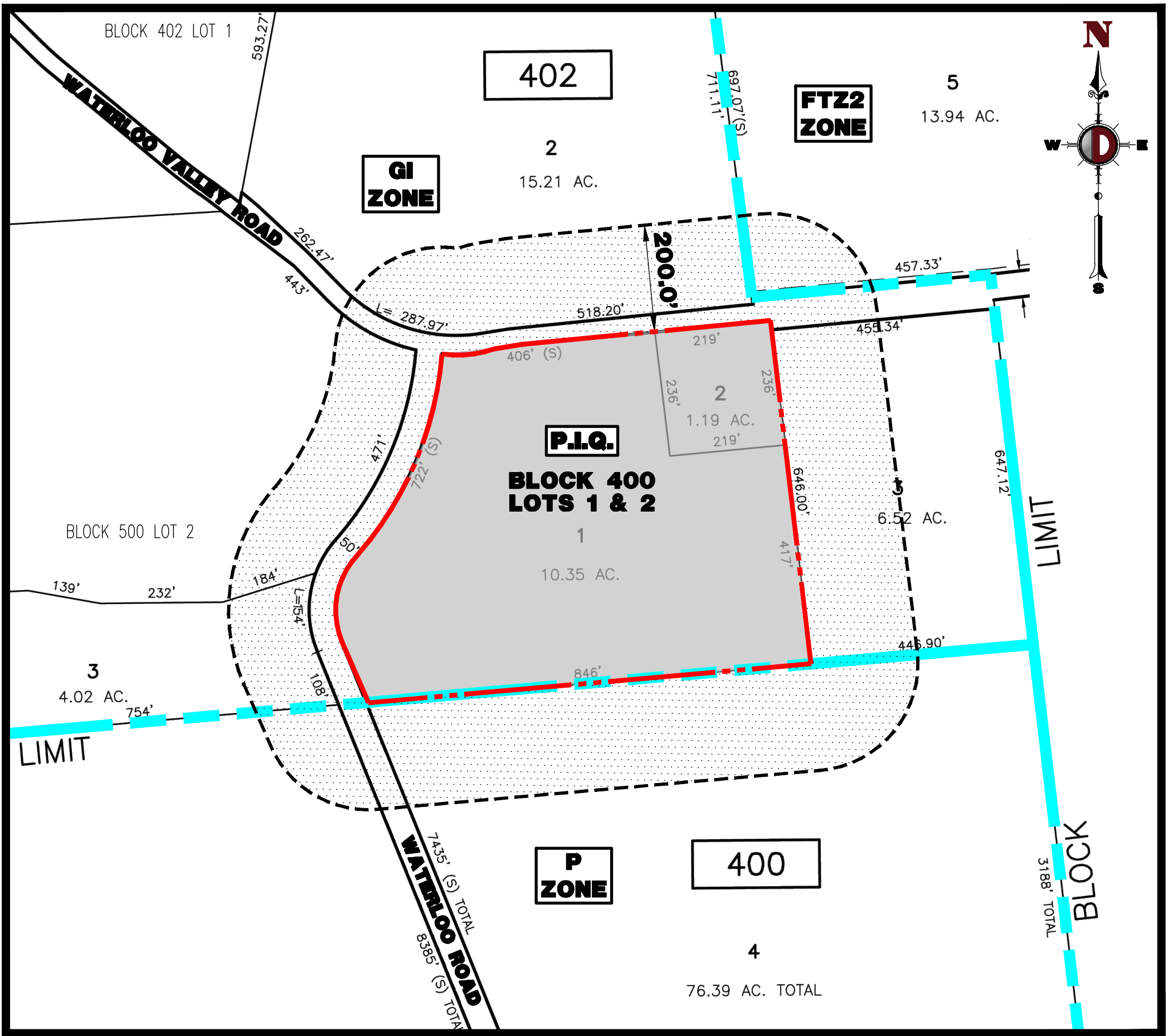
LIST OF VARIANCES & WAIVERS

- LOTS 1 & 2
- § 550-36B - STORMWATER MANAGEMENT WITHIN THE 25 FOOT BUFFER IN THE FRONT YARD. (M)
 - § 550-39.2.A - DEVELOPMENT WITHIN CRITICAL SLOPE AREAS. (M)
 - § 550-39.2.B - DEVELOPMENT WITHIN MODERATE SLOPE AREAS.VARIANCE FROM § 550-56K.7 - TO ALLOW PARKING STALLS IN THE FRONT YARD SET BACK. (M)
 - § 550-62A.2 - RETAINING WALLS GREATER THAN SIX (6) FEET IN HEIGHT. (M)
 - § 550-62A.3 - RETAINING WALLS GREATER THAN SIX (6) FEET IN HEIGHT TO BE TERRACED IN FIFTEEN (15) FOOT INCREMENTS AND HORIZONTALLY DISTANCED FOUR (4) FEET APART. (M)
 - § 550-103F.6 - A BUILDING WITHIN THE FRONT YARD SETBACK. (M)
 - § 550-103F.6 - A BUILDING WITHIN THE SIDE YARD SETBACK. (M)

PLANNING BOARD APPROVAL

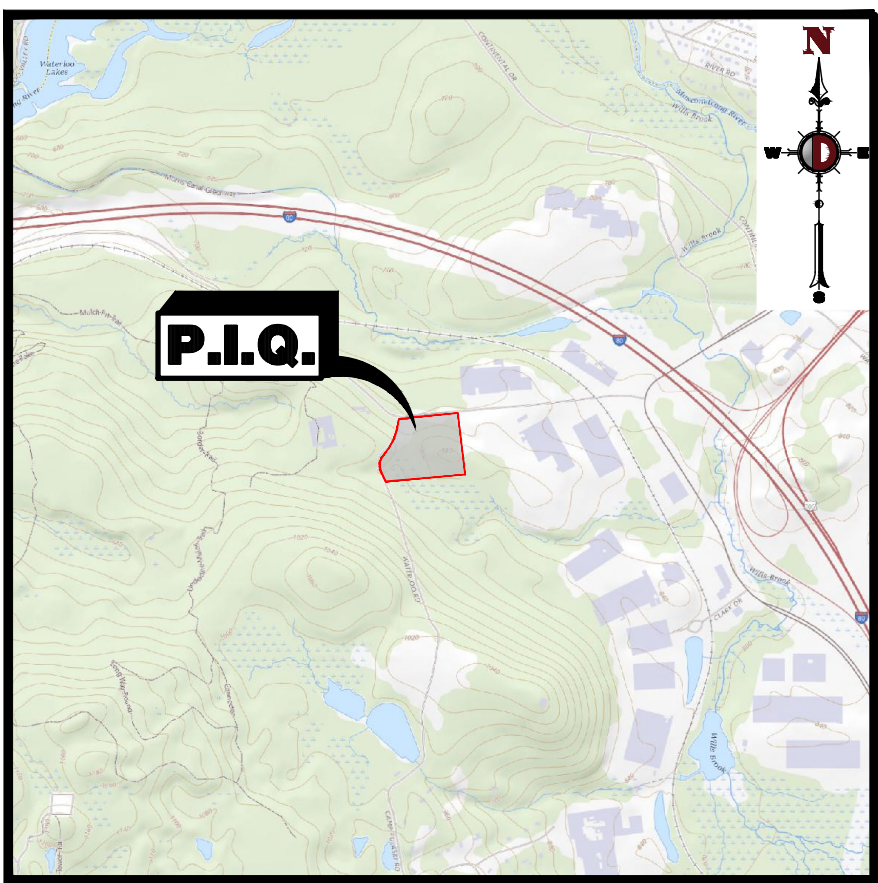
APPROVED AT THE PLANNING BOARD OF TOWNSHIP OF MT. OLIVE, MORRIS COUNTY, NEW JERSEY

CHAIRMAN	DATE
SECRETARY	DATE
BOARD ENGINEER	DATE



AREA MAP

1" = 200'



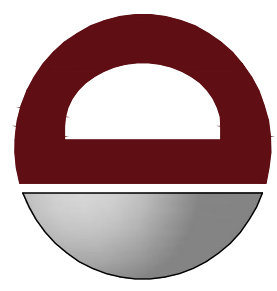
USGS MAP

1" = 2000'

DRAWING INDEX

COVER SHEET	1 of 21
AERIAL MAP	2 of 21
GENERAL NOTES	3 of 21
DEMOLITION & TREE MANAGEMENT PLAN	4 of 21
OVERALL SITE PLAN	5 of 21
SITE PLAN	6 of 21
GRADING PLAN	7 of 21
STEEP SLOPE ANALYSIS	8 of 21
DRAINAGE PLAN	9 of 21
UTILITY PLAN	10 of 21
LIGHTING PLAN	11 of 21
LANDSCAPE PLAN	12 of 21
SOIL EROSION & SEDIMENT CONTROL PLAN	13 of 21
SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS	14 of 21
CONSTRUCTION DETAILS	15 - 19 of 21
VEHICLE CIRCULATION PLAN (FIRE TRUCK)	20 of 21
VEHICLE CIRCULATION PLAN (WB-67)	21 of 21
BOUNDARY & TOPOGRAPHIC SURVEY	1 of 1

PREPARED BY
DYNAMIC ENGINEERING CONSULTANTS, P.C.
245 MAIN STREET - SUITE 110
CHESTER, NJ 07930
WWW.DYNAMICEC.COM



DYNAMIC
ENGINEERING • SURVEY • TRAFFIC

THIS PLAN SET IS FOR PERMITTING PURPOSES
ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: EJK
DESIGNED BY: JMW
CHECKED BY: SLS

PROJECT: MORRIS MOUNT OLIVE ASSOCIATES, LLC
PROPOSED WAREHOUSE FACILITY
BLOCK 400, LOTS 1 & 2
217 & 219 WATERLOO VALLEY ROAD
TOWNSHIP OF MOUNT OLIVE, MORRIS COUNTY, NEW JERSEY



PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF
EXCAVATORS, DESIGNERS, OR ANY PERSON
PREPARING TO DISRUPT THE EARTH'S
SURFACE ANYWHERE IN ANY STATE
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT:
WWW.CALL811.COM

DYNAMIC
ENGINEERING

LAND DEVELOPMENT CONSULTING • PERMITTING
GEOTECHNICAL • ENVIRONMENTAL
TRAFFIC • SURVEY • PLANNING & ZONING
245 Main Street, Suite 110
Chester, NJ 07930
T: 908.879.9229 | F: 908.879.0222
Offices conveniently located at:

Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229

www.dynamiccec.com

STEPHEN L. SCHWARTZ

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 48126

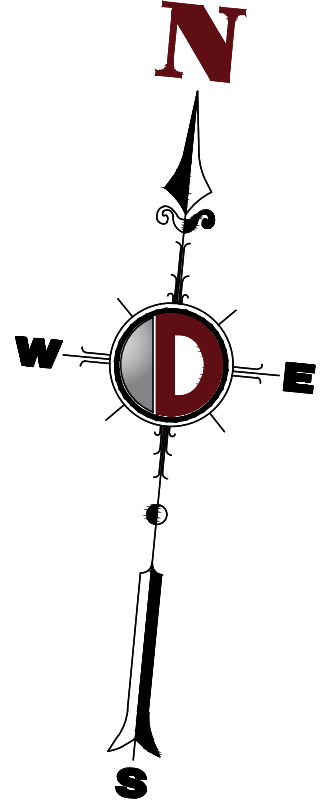
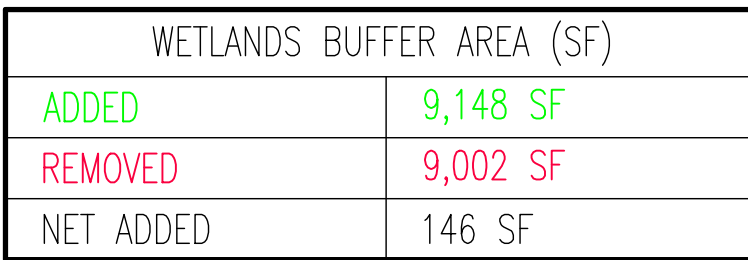
JOSHUA W. WIRRY

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 55268

TITLE:
COVER SHEET

SCALE: (H) AS SHOWN
PROJECT No: 1212 22-03061
DATE: 08/07/2023

SHEET No: 1
Rev. #: 0
OF 21



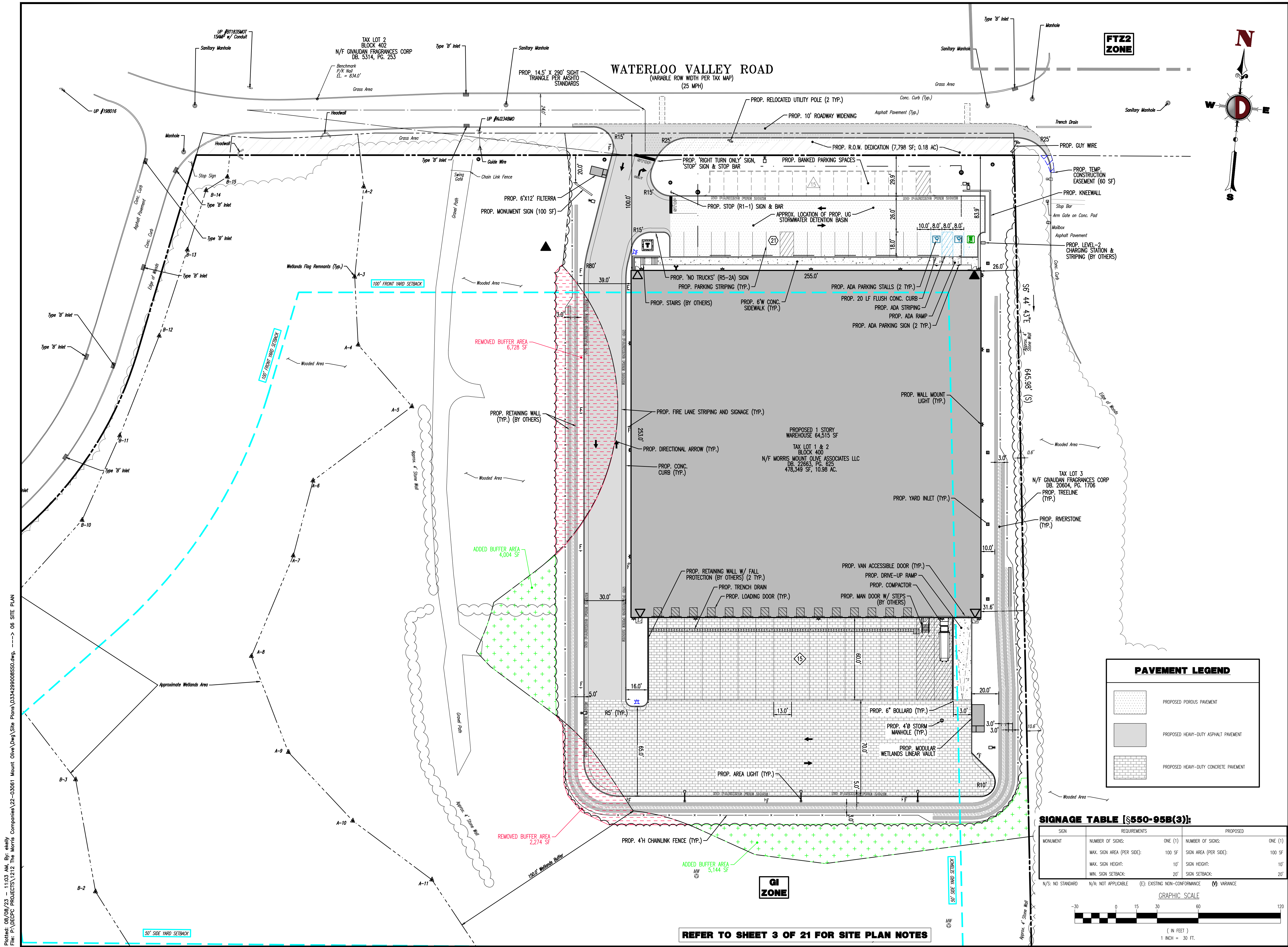
THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION			
OWNER: ELJK		DESIGNER: JWM	
DRAWN BY:		CHECKED BY:	
		SLS	
PROJECT: MORRIS MOUNT OLIVE ASSOCIATES, LLC PROPOSED WAREHOUSE FACILITY 217 & 219 WATERLOO VALLEY ROAD TOWNSHIP OF MOUNT OLIVE, MORRIS COUNTY, NEW JERSEY			



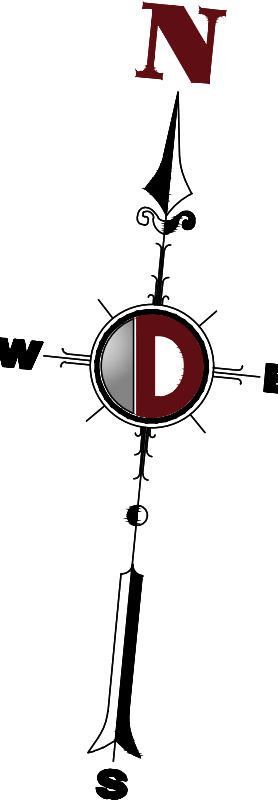
STEPHEN L. SCHWARTZ
Steve L. Schwartz
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 48126

TITLE: OVERALL SITE PLAN

SHEET No:	5	Rev. #:	
	OF 21		0



FT22
ZONE

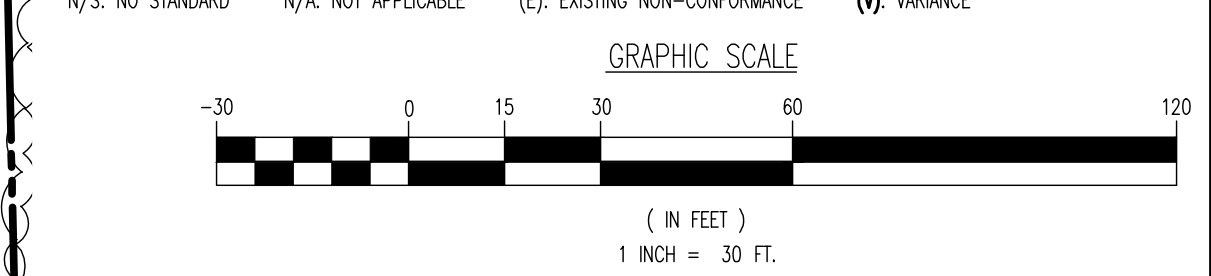


PAVEMENT LEGEND

	PROPOSED POROUS PAVEMENT
	PROPOSED HEAVY-DUTY ASPHALT PAVEMENT
	PROPOSED HEAVY-DUTY CONCRETE PAVEMENT

SIGNAGE TABLE (§550-95B(3)):

SIGN	REQUIREMENTS	PROPOSED
MONUMENT	NUMBER OF SIGNS: ONE (1)	NUMBER OF SIGNS: ONE (1)
	MAX. SIGN AREA (PER SIDE): 100 SF	SIGN AREA (PER SIDE): 100 SF
	MAX. SIGN HEIGHT: 10'	SIGN HEIGHT: 10'
	MIN. SIGN SETBACK: 20'	SIGN SETBACK: 20'



REFER TO SHEET 3 OF 21 FOR SITE PLAN NOTES

DYNAMIC
ENGINEERING • SURVEY • TRAFFIC

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION.	DESIGNED BY: EJK	CHECKED BY: JMW	SLS	DATE: 08/07/2023
PROJECT: MORRIS MOUNT OLIVE ASSOCIATES, LLC PROPOSED WAREHOUSE FACILITY BLOCK 400, LOTS 1 & 2 2111 & 219 WATERLOO VALLEY ROAD TOWNSHIP OF MOUNT OLIVE, MORRIS COUNTY, NEW JERSEY				

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF
EXCAVATORS, DESIGNERS, OR ANY PERSON
PREPARING TO DISRUPT THE EARTH'S
SURFACE ANYWHERE IN ANY STATE
FOR STATE-SPECIFIC DIRECT PHONE NUMBERS VISIT:
WWW.CALL811.COM

DYNAMIC ENGINEERING

LAND DEVELOPMENT CONSULTING • PERMITTING
GEOTECHNICAL • ENVIRONMENTAL
TRAFFIC • SURVEY • PLANNING & ZONING

245 Main Street, Suite 110
Chester, NJ 07930
T: 908.879.9229 | F: 908.879.0222
Offices conveniently located at:

Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229
Clark, NJ • 908.879.9229

www.dynamiccec.com

STEPHEN L. SCHWARTZ

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 48126

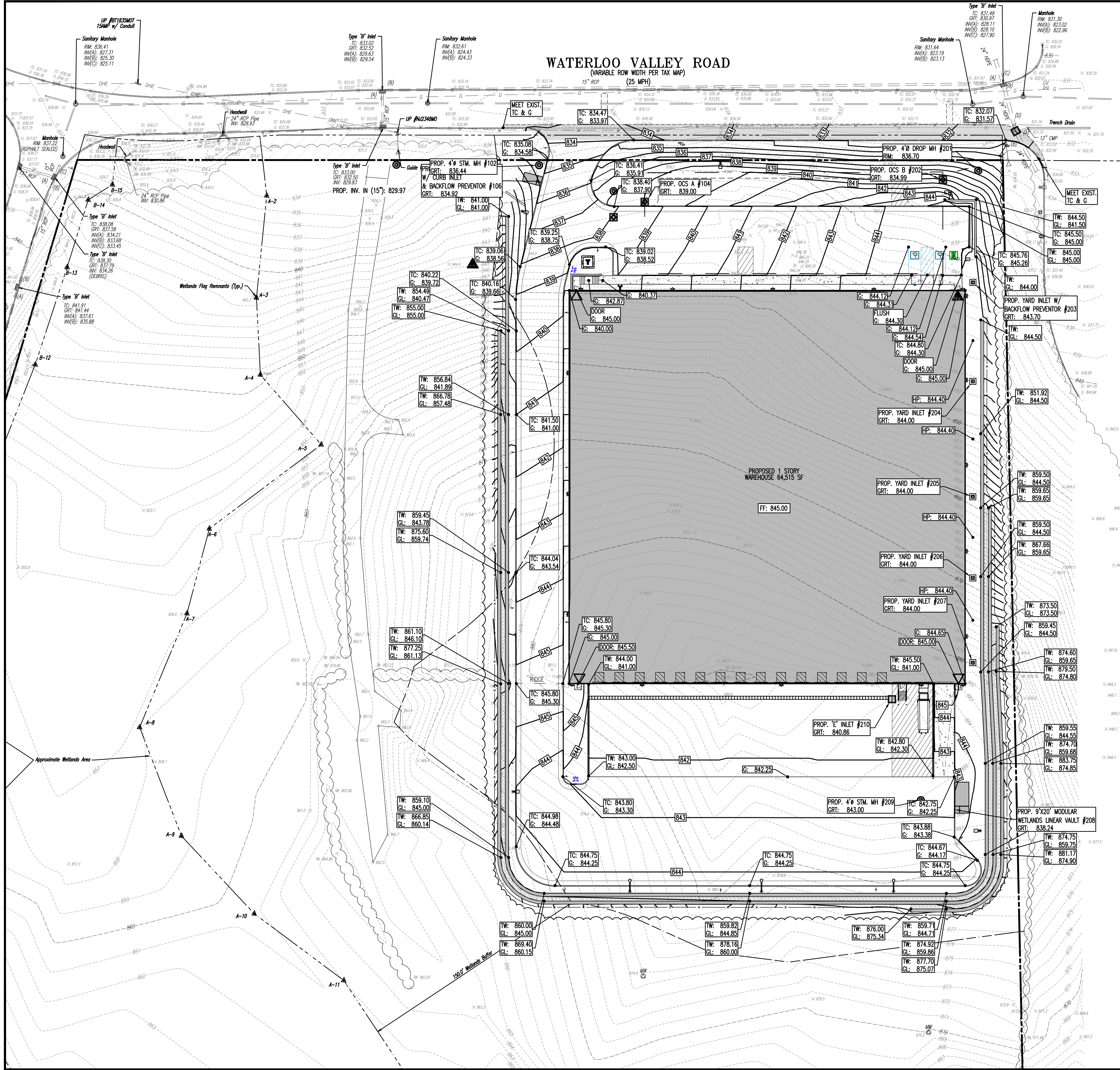
JOSHUA W. WIRRY

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 55268

TITLE: SITE PLAN	DATE: 08/07/2023
SCALE: (H) 1" = 30'	PROJECT No: 1212 22-03061
SHEET No: 6	Rev. #:

Plotted: 08/08/23 - 11:03 AM, By: ekelly
File: P:\JECPC PROJECTS\1212 The Morris Companies\22-03061 Mount Olive\DWG\Site Plans\034290008550.dwg --> 06 SITE PLAN

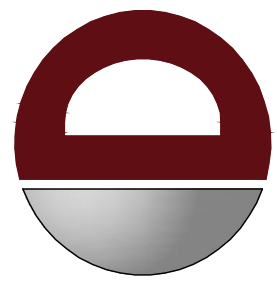
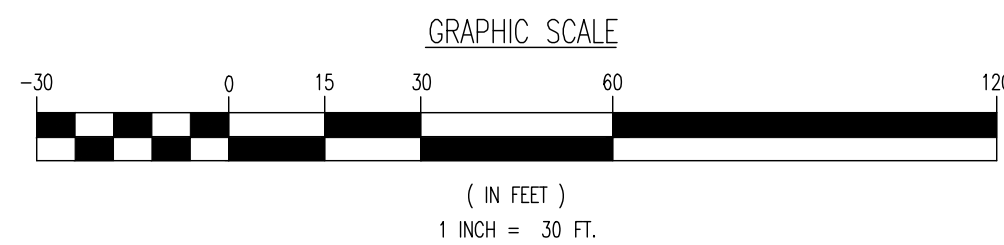
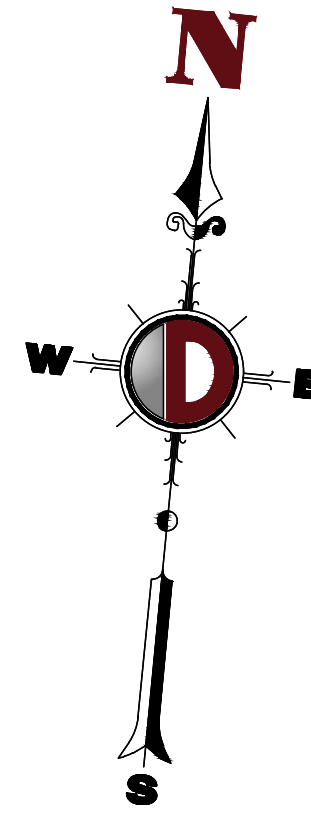
Plotted: 08/08/23 - 11:11 AM, By: ekelly
File: P:\JCEPC PROJECTS\1212 The Morris Companies\22-03061 Mount Olive\DWG\Site Plans\034290008500.dwg, ----> 07 GRADING PLAN



SEE SHEET 3 OF 21 FOR GRADING NOTES

GRADING GRAPHIC LEGEND

	PROPERTY LINE (PARCEL IN QUESTION)
	OFF-SITE PROPERTY LINES
	EXIST. MINOR CONTOUR & ELEVATION
	EXIST. MAJOR CONTOUR & ELEVATION
	PROP. FINISH GRADE CONTOUR & ELEVATION
	PROP. DIRECTION OF DRAINAGE FLOW ARROW
	EXIST. SPOT ELEVATIONS
	EXIST. GUTTER ELEV.
	EXIST. TOP OF CURB ELEV.
	EXIST. FINISH FLOOR ELEV.
	EXIST. GARAGE FLOOR ELEV.
	PROP. GRADE SPOT ELEV.
	PROP. TOP OF CURB & FINISHED GRADE ELEV.
	PROP. FINISHED FLOOR ELEV.
	PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
	PROP. TOP OF EXTENDED CURB, (H) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (L) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB



DYNAMIC
ENGINEERING
SURVEY • TRAFFIC

THIS PLAN SET IS FOR PERMITTING PURPOSES
ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DESIGNED BY: EJK
CHECKED BY: SLS
DATE: 08/07/2023

PROJECT: MORRIS MOUNT OLIVE ASSOCIATES, LLC
PROPOSED WAREHOUSE FACILITY
BLOCK 400, LOTS 1 & 2
211W & 219 WATERLOO VALLEY ROAD
TOWNSHIP OF MOUNT OLIVE, MORRIS COUNTY, NEW JERSEY



PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF
EXCAVATORS, DESIGNERS, OR ANY PERSON
PREPARING TO DISRUPT THE EARTH'S
SURFACE ANYWHERE IN ANY STATE
FOR STATE-SPECIFIC DIRECT PHONE NUMBERS VISIT:
WWW.CALL811.COM

DYNAMIC
ENGINEERING

LAND DEVELOPMENT CONSULTING • PERMITTING
TRAFFIC • SURVEY • ENVIRONMENTAL
GEOTECHNICAL • PLANNING & ZONING
245 Main Street, Suite 110
Chester, NJ 07930
T: 908.879.9229 | F: 908.879.0222
Offices conveniently located at:

Long Island City, New York • T: 718.751.1111
Cherry Hill, New Jersey • T: 856.679.9229
Newark, New Jersey • T: 973.751.1111
Long Beach, New Jersey • T: 754.687.0000
New York, New York • T: 212.687.0000
Hoboken, New Jersey • T: 201.333.0000
Bridgewater, Pennsylvania • T: 610.333.0000
Waco, Texas • T: 767.333.0000
Dallas, Texas • T: 214.333.0000
Del Rio, Texas • T: 361.333.0000

www.dynamiccec.com

STEPHEN L. SCHWARTZ
Professional Engineer
NEW JERSEY LICENSE NO. 48126

JOSHUA W. WIRRY
Professional Engineer
NEW JERSEY LICENSE NO. 55268

TITLE:
GRADING PLAN

SCALE: (H) 1" = 30'
(V) 1" = 10'
PROJECT NO:
1212 22-03061

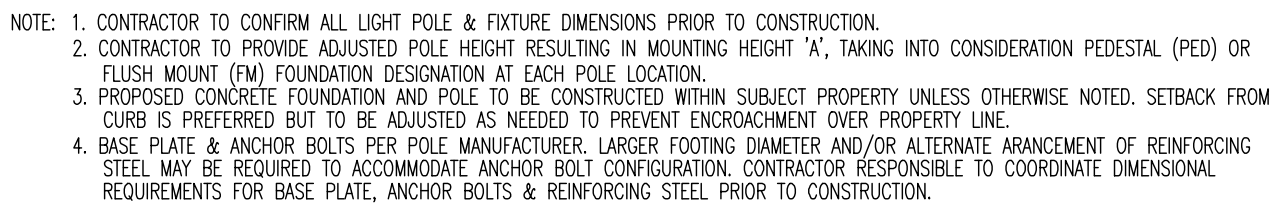
SHEET NO:
7
Rev. #:
OF 21



ISO CURVES ARE MAINTAINED AND SHOWN AT 0.5 AND 0.1 FC.

(FM) - FLUSH MOUNT FOUNDATION (WM) - WALL MOUNT

THE CALCULATIONS SHOWN WERE MADE UTILIZING ACCEPTED PROCEDURES OF THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. VARIATIONS IN LAMP OUTPUT, BALLAST OUTPUT, LINE VOLTAGE, DIRT DEPRECIATION, AND OTHER FACTORS MAY AFFECT ACTUAL RESULTS. UNLESS OTHERWISE STATED, ALL RESULTS ARE MAINTAINED VALUES, UTILIZING ACCEPTED LIGHT LOSS FACTORS (LLF).



1. FOOTING DESIGN BASED ON ASSUMED MAXIMUM ALLOWABLE SOILS BEARING CAPACITY OF 2,000 SF PSF. CONTRACTOR RESPONSIBLE TO VERIFY ADEQUACY OF ASSUMED BEARING CAPACITY PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED IF INCONSISTENCIES EXIST.
2. SUBGRADE TO BE FREE OF ORGANICS AND BE SUITABLE, COMPACTED MATERIAL.

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
3. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED (WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.
4. REINFORCING FRAMEWORK AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING CODES AND REGULATIONS AS WELL AS THE ACT AND UNIFORM BUILDING CODE.
5. ALTERNATE POLE FOUNDATIONS MAY BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL FOR PLACEMENT WITHIN ROCK.

NOT TO SCALE

REFER TO SHEET 18 OF 21 FOR LIGHTING DETAILS



THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

[illegible]

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

OWNED BY:	OWNED BY:	OWNED BY:
EJK	JW	SLS
		-

PROJECT: **MORRIS MOUNT OLIVE ASSOCIATES, LLC**
PROPOSED WAREHOUSE FACILITY
 BLOCK 400 LOTS 1 & 2

217 & 219 WATERLOO VALLEY ROAD
TOWNSHIP OF MOUNT OLIVE, MORRIS COUNTY, NEW JERSEY



PROTECT YOURSELF

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT:
WWW.CALL811.COM

DYNAMIC ENGINEERING

LAND DEVELOPMENT CONSULTING • PERMITTING
GEOTECHNICAL • ENVIRONMENTAL
TRAFFIC • SURVEY • PLANNING & ZONING

245 Main Street, Suite 110
Chester, NJ 07930

T: 908.879.9229 | F: 908.879.0222
Offices conveniently located at:

Lake County, New Jersey • T: 732.674.0198
 Chester, New Jersey • T: 908.079.9229
 Newark, New Jersey • T: 973.555.7200
 Toms River, New Jersey • T: 732.262.0000
 Norwalk, Pennsylvania • T: 282.855.0074
 Philadelphia, Pennsylvania • T: 215.553.4888
 Bethlehem, Pennsylvania • T: 610.598.4400
 Allen, Texas • T: 972.534.2100
 Houston, Texas • T: 281.788.6400
 Austin, Texas • T: 512.644.2444
 Delray Beach, Florida • T: 561.927.8570

www.dynamicc.com

STEPHEN L. SCHWARTZ


PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 48126

JOSHUA W. WIRRY

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 55268

TITLE: **LIGHTING PLAN**

SCALE: (H) 1" = 30' (V)	DATE: 08/07/2023
PROJECT No: 1212 22-03061	

SHEET No: **11**

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

COPYRIGHT © 2023 - DYNAMIC ENGINEERING CONSULTANTS, PC - ALL RIGHTS RESERVED

Diagram illustrating the cross-section of a raised garden bed structure. The layers, from top to bottom, are:

- PLANT MATERIAL SPACED AS SPECIFIED ON CENTER (O.C.) (SEE SPACING ON LANDSCAPE PLAN)
- INCORPORATE 2" OF PEAT INTO 6" OF PLANTING MIXTURE AS SPECIFIED
- 4" SHREDDED HARDWOOD BARK MULCH
- FINISHED GRADE
- MINIMUM TOPSOIL
- EXISTING SUBSOIL

NOT TO SCALE

-
- Diagram illustrating the correct method for planting a tree, showing the hole preparation and the layers of material around the root ball.
- Labels and Instructions:**
- 1" VINYL GLUING
 - DIA. HARDWOOD STAKES
TREE HT. 3 PER TREE
 - SPARED SOIL FOR TREES
 - 1 PART PEAT MOSS
 - 1 PART COW MANURE
 - 3 PARTS TOPSOIL
 - UNDISTURBED
SUBGRADE
 - DIG WIDE SHALLOW HOLE
WITH TAMPED SIDES
 - TAMP SOIL SLOWLY AROUND
BASE OF ROOT BALL
 - AVOID PURCHASING TREES WITH TWO
LEADERS OR REMOVE ONE AT PLANTING;
OTHERWISE, DO NOT PRUNE TREE AT PLANTING
EXCEPT FOR SPECIFIC STRUCTURAL
CORRECTIONS.
 - FOLD BURLAP AWAY FROM TOP OF ROOT BALL
 - SET ROOT BALL FLUSH TO GRADE OR SEVERAL
INCHES HIGHER IN POORLY DRAINING SOILS.
 - 4" BUILT-UP EARTH SAUCER
 - 4" BARK MULCH (DO NOT PLACE MULCH IN CONTACT WITH
TREE TRUNK)
 - BETWEEN PLANTING ADD 3 TO 4" OF WELL-COMPOSTED
LEAVES OR RECYCLED YARD WASTE TO BEDD AND TILL
WIND TOP 4" OF PREPARED SOIL
 - 4" - 6" DEEPER THAN ROOT BALL
 - CUT BANDS OF WIRE BASKET AND FOLD AWAY FROM
TOP OF ROOT BALL
 - SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE

NOT TO SCALE

-
- Diagram illustrating the components of a tree planting hole:
- 1" VINYL GUYING
 - 2" DIA. HARDWOOD STAKES
 - 3/4 TREE HT. 3 PER TREE
 - PREPARED SOIL FOR TREES
 - 1 PART PEAT MOSS
 - 1 PART COM MANURE
 - 3 PARTS TOPSOIL
 - UNSHOULDERED SUBGRADE
 - DIG WIDE SHALLOW HOLE WITH TAMPED SIDES
 - TAMP SOIL SOLIDLY AROUND
 - LEADERS OR REMOVE ONE AT PLANTING
 - OTHERWISE, DO NOT PRUNE TREE AT PLANTING EXCEPT FOR SPECIFIC STRUCTURAL CORRECTIONS.
 - FOLD BURLAP AWAY FROM TOP OF ROOT BALL
 - SET ROOT BALL FLUSH TO GRADE OR SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS.
 - 4" BUILT-UP EARTH SAUCER
 - 4" BARK MULCH (DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK)
 - BEFORE PLANTING ADD 3 TO 4" OF WELL-COMPOSTED LEAVES OR RECYCLED YARD WASTE TO BED AND TEND INTO TOP 6" OF PREPARED SOIL.
 - 4-6" DEEPER THAN ROOT BALL
 - CUT BANDS OF WIRE BASKET AND FOLD AWAY FROM TOP OF ROOT BALL
 - SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE

NOT TO SCALE

PLANT SHALL BE TRANSPLANTED AT THE SAME GRADE AS IT GROW IN THE NURSERY. THE ROOT BALLS AND BURLAPPING, CUT AND BUNDLED TOGETHER, SHALL BE ONE-THIRD OF ROOT BALL AS SHOWN.

6-12"

24" MINIMUM

PLANTING MIXTURE

PLANTING MIXTURE

TRENCH

TRENCH

PREPARED SOIL

REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS, 1936, CLIMATIC SUPPLEMENT

NOT TO SCALE

GRAPHIC SCALE

(IN FEET)
1 INCH = 30 FT.



THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION			
DOWN BY:	DECDED BY:	DECDED BY:	DECDED BY:
EJK	JW	SLS	—

**DYNAMIC
ENGINEERING**

LAND DEVELOPMENT CONSULTING • PERMITTING
GEOTECHNICAL • ENVIRONMENTAL
TRAFFIC • SURVEY • PLANNING & ZONING

245 Main Street, Suite 110
Chester, NJ 07930

T: 908.879.9229 | F: 908.879.0222

Offices conveniently located at:

www.dynamicec.com

MARLA A. ROLLER

LICENSED LANDSCAPE ARCHITECT
NEW JERSEY LICENSE No. 21AS00053700

SHEET No: 12	Rev. #: 0
OF 21	0

[illegible]

Plotted: 08/09/23 -- 11:14 AM, By: ebelly
File: P:\JCEPC PROJECTS\1212 The Morris Companies\22--03061 Mount Olive\Draw\Site Plans\03490908SED04.dwg ----> 14. SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS

**MORRIS COUNTY SOIL CONSERVATION DISTRICT
SOIL EROSION AND SEDIMENT CONTROL NOTES**

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, AND WILL BE IN PLACE PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON FOR TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH STRAW OR HAY AND TRACKED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS. SEE NOTE 22 BELOW.
3. PERMANENT VEGETATION IS TO BE ESTABLISHED ON EXPOSED AREA WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH IS TO BE USED FOR PROTECTION UNTIL VEGETATION IS ESTABLISHED. SEE NOTE 23 BELOW.
4. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS (STEEP SLOPES, SANDY SOILS, AND WET CONDITIONS) SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN ACCORDANCE WITH NOTE 22 BELOW.
5. TEMPORARY DIVERSION BERMS ARE TO BE INSTALLED ON ALL CLEARED ROADWAYS AND EASEMENT AREAS. SEE THE DIVERSION DETAIL.
6. PERMANENT SEEDING AND STABILIZATION IS TO BE IN ACCORDANCE WITH THE "STANDARDS FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION". SPECIFIED RATES AND LOCATIONS SHALL BE ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
7. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SO THAT ALL STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
8. ALL SEDIMENTATION STRUCTURES (SILT FENCE, INLET FILTERS, AND SEDIMENT BASINS) SHALL BE INSPECTED AND MAINTAINED DAILY.
9. STOCKPILES SHALL NOT BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, DRAINAGE FACILITY, OR ROADWAY. ALL STOCKPILE BASES SHALL HAVE A SILT FENCE PROPERLY ENTRENCHED AT THE TOP OF THE SLOPE.
10. A STABILIZED CONSTRUCTION ACCESS WILL BE INSTALLED, WHENEVER AN EARTHEN ROAD INTERSECTS WITH A PAVED ROAD. SEE THE STABILIZED CONSTRUCTION ACCESS DETAIL AND CHART FOR DIMENSIONS.
11. ALL NEW ROADWAYS WILL BE TREATED WITH SUITABLE SUB-BASE UPON ESTABLISHMENT OF FINAL GRADE ELEVATIONS.
12. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
13. BEFORE DISCHARGE POINTS BECOME OPERATIONAL, ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED AS REQUIRED.
14. ALL DETAHERING OPERATIONS MUST BE DISCHARGED DIRECTLY INTO A SEDIMENT FILL AREA. THE FILTER SHOULD BE COMPOSED OF A FABRIC OR APPROVED MATERIAL. SEE THE DETAHERING DETAIL.
15. ALL SEDIMENT BASINS WILL BE CLEARED WHEN THE CAPACITY HAS BEEN REDUCED BY 50%. A CLEAN OUT ELEVATION WILL BE IDENTIFIED ON THE PLAN AND A MARKER INSTALLED ON THE SITE.
16. DURING AND AFTER CONSTRUCTION THE APPLICANT WILL BE RESPONSIBLE FOR THE MAINTENANCE AND UPKEEP OF THE DRAINAGE STRUCTURES, VEGETATION COVER, AND ANY OTHER MEASURES DEEMED APPROPRIATE BY THE DISTRICT. SAID RESPONSIBILITY WILL END WHEN COMPLETED WORK IS APPROVED BY THE MORRIS COUNTY SOIL CONSERVATION DISTRICT.
17. ALL TREES OUTSIDE THE DISTURBANCE LIMIT INDICATED ON THE SUBJECT PLAN OR THOSE TREES WITHIN THE DISTURBANCE AREA WHICH ARE DESIGNATED TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH TREE PROTECTION DEVICES. SEE THE TREE PROTECTION DETAIL.
18. THE MORRIS COUNTY SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON-SITE OR OFF-SITE EROSION PROBLEMS DURING CONSTRUCTION.
19. THE MORRIS COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED, IN WRITING, AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE AND A PRE-CONSTRUCTION MEETING HELD.
20. CONTRACTOR TO SET UP A MEETING WITH THE INSPECTOR FOR PERIODIC INSPECTIONS OF THE TEMPORARY SEDIMENT BASIN PRIOR TO AND DURING ITS CONSTRUCTION.
21. TOPSOIL STOCKPILE PROTECTION
 - A. APPLY GROUND LIMESTONE AT A RATE OF 90 LBS. PER 1,000 SF.
 - B. APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1,000 SF.
 - C. APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1,000 SF.
 - D. MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1,000 SF.
 - E. APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.
 - F. PROPERLY ENTRENCH A SILT FENCE AT THE BOTTOM OF THE STOCKPILE.
22. TEMPORARY STABILIZATION SPECIFICATIONS
 - A. APPLY GROUND LIMESTONE AT A RATE OF 90 LBS. PER 1,000 SF.
 - B. APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1,000 SF.
 - C. APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1,000 SF.
 - D. MULCH DISTURBED SOIL WITH STRAW OR HAY AT A RATE OF 90 LBS PER 1,000 SF.
 - E. APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.
23. PERMANENT STABILIZATION SPECIFICATIONS
 - A. APPLY TOPSOIL TO A DEPTH OF 5 INCHES (UNSETTLED).
 - B. APPLY GROUND LIMESTONE AT A RATE OF 90 LBS. PER 1,000 SF. AND WORK FOUR INCHES INTO SOIL.
 - C. APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1,000 SF.
 - D. APPLY HARD FESCUE SEED AT 2.7 LBS PER 1,000 SF. AND CREEPING RED FESCUE SEED AT 0.7 LBS. PER 1,000 SF. AND PERENNIAL RYEGRASS SEED AT 0.25 LBS. PER 1,000 SF.
 - E. MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1,000 SF.
 - F. APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.
24. 48 HOURS PRIOR TO ANY SOIL DISTURBANCE, NOTICE IN WRITING SHALL BE GIVEN TO THE MORRIS COUNTY SOIL CONSERVATION DISTRICT AND A PRE-CONSTRUCTION MEETING HELD.

STANDARD FOR DUST CONTROL

DEFINITION – TO PREVENT OR BLAST ON CONSTRUCTION SITES AND ROADS.
PURPOSE – TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON-AND OFF- SITE DAMAGE AND HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY, WHERE APPLICABLE – THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR DUST CONTROL:
MULCHES – SEE STANDARDS FOR STABILIZATION WITH MULCHES ONLY
VEGETATIVE COVER – SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER, PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOO.
SPRAY-ON ADHESIVES – ON MINERAL SOILS (NOT EFFECTIVE ON MOCK SOILS), KEEP TRAFFIC OFF THESE AREAS.

	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT	7:1	COARSE SPRAY	1,200
EMULSION			
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300

TILLAGE – TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE, THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRINGS – TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

SPRINKLING – SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
BARRIERS – SOLID BARRIERS, SNOW FENCES, BURIAL FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
CALCIUM CHLORIDE – SHALL BE IN THE FORM OF LOOSE, FINE GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.

STONE – COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

**STABILIZATION SPECIFICATIONS
TEMPORARY SEEDING AND MULCHING:**

- SITE PREPARATION:**
- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING, PG. 19-1.
 - B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
 - C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
- COOL SEASON:**
- PERENNIAL RYE GRASS 100LBS/ACRE OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1.
- WARM SEASON:**
- PEARL MILLET AT 20 LBS/AC. OR OTHER APPROVED SEEDS; PLANT BETWEEN MAY 15 AND AUGUST 15.
- MULCH** – UNROTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, OR SALT HAY AT A RATE OF 2-2.5 TONS PER ACRE TO 70 TO 90 LBS/1,000 SF TO BE APPLIED ACCORDING TO THE STATE STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, LIQUID MULCH BINDER, OR CRIMPER).

PERMANENT SEEDING:

- SITE PREPARATION:**
- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
 - B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SURFACE SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
 - C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
 - D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- SEEDING METHODS**
- SEEDING**
1. SELECT A MIXTURE FROM TABLE 4-3 OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 10 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.
 1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN THE RATIO OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO THE RATIO OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS BOTH VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MONITOR ONCE.
 2. WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85°F AND ABOVE. SEE TABLE 4-3 MIXTURES 1 TO 7. PLANTING RATES FOR WARM-SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.
 3. COOL-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85°F. MANY GRASSES BECOME ACTIVE AT 65°F. SEE TABLE 4-3. MIXTURES 8-20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL SEASON GRASSES.
- B. CONVENTIONAL SEEDING** IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
- C. AFTER SEEDING**, FIRING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
- D. HYDROSEEDING** IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4-MULCHING BELOW) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.
- FERTILIZER** – 500 LBS/ ACRE OR 11 LBS/ 1000 SF OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE.

- GENERAL SITE SEEDING MIX:**
- | | | |
|----------------------|--------------|---|
| TALL FESCUE – | 265 LBS/ACRE | 6.0 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15 |
| KY. BLUEGRASS – | 20 LBS/ACRE | 0.5 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15 |
| PERENNIAL RYEGRASS – | 20 LBS/ACRE | 0.5 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15 |
- BASIN SEEDING MIX:**
- | | | |
|-----------------------|-------------|---|
| CREEPING BENTGRASS – | 45 LBS/ACRE | 1.0 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15 |
| CREEPING RED FESCUE – | 40 LBS/ACRE | 1.0 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15 |
| ALKALI SALICORNIA – | 45 LBS/ACRE | 1.0 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15 |

- PERMANENT STABILIZATION SPECIFICATIONS:**
- A. MULCHING MULCH MATERIALS TO BE UNROTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, OR SALT HAY AT THE RATE OF 2.0 TO 2.5 TONS PER ACRE OR 70 TO 90 POUNDS PER 1,000 SF. EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.
 - B. SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% OF SOIL SURFACE WILL BE COVERED.
 - C. MULCH ANCHORING TO BE DONE IMMEDIATELY AFTER PLACEMENT BY ONE OF THE FOLLOWING METHODS:
 - (1) PEG AND TWINE
 - (2) MULCH NETTING
 - (3) LIQUID MULCH-BINDERS
 - (4) CRIMPER (MULCH ANCHORING COULTER TOOL)

STABILIZATION:

PERMANENT, EROSION RESISTANT GROUND COVER TO BE PROVIDED BETWEEN PANEL ROWS AND UNDER PANEL ROWS AS WELL AS OTHER DISTURBED AREAS. ESTABLISHING VEGETATION UNDER PANELS DUE TO LACK OF SUN AND LIMITED PRECIPITATION. THOUGHT SHOULD BE GIVEN TO ESTABLISHING VEGETATION GROUND COVER PRIOR TO PANEL CONSTRUCTION. INSTALLATION MAY BE FACILITATED BY PHASING THE GRADING AND STABILIZATION SEQUENCE OF SUBSEQUENT PROJECT AREAS TO ALLOW SUFFICIENT TIME TO ALLOW VEGETATION TO BECOME ESTABLISHED PRIOR TO PANEL INSTALLATION.

**STANDARD FOR TEMPORARY VEGETATIVE
COVER FOR SOIL STABILIZATION**

- SITE PREPARATION:**
- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING, PG. 19-1.
 - B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SURFACE SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
 - C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
 - D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- 2. SEEDBED PREPARATION:**
- A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES.
 - FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE.
 - CALCIUM CARBONATE IS THE EQUIVALENT STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
- B. WOOD-LINE AND FERTILIZER** INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- C. INSPECT SEEDBED** JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
- D. SOILS HIGH IN SULFIDES** OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG. 1-1.

- SEEDING:**
- A. TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTHS
 - (1) PERENNIAL RYEGRASS – 100 LBS / ACRE; PLANT BETWEEN MARCH 1 AND MAY 15 BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 0.5 INCHES.
 - (2) SPRING OATS – 85 L / ACRE; PLANT BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 1.0 INCHES.
 - (3) WINTER BARLEY – 96 LBS / ACRE; PLANT BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 1.0 INCHES.
 - (4) ANNUAL RYEGRASS – 100 LBS / ACRE; PLANT BETWEEN MARCH 1 AND JUNE 15 BETWEEN AUGUST 1 AND SEPTEMBER 15; AT A DEPTH OF 0.5 INCHES.
 - (5) WINTER CERIAL RYE – 112 LBS / ACRE; PLANT BETWEEN MARCH 1 AND NOVEMBER 15; AT A DEPTH OF 1.0 INCHES.
- WARM SEASON GRASSES:**
- (1) PEARL MILLET – 20 LBS / ACRE; PLANT BETWEEN MAY 15 AND AUGUST 15; AT A DEPTH OF 1.0 INCHES.
 - (2) MILLET (GERMAN OR HUNGARIAN) – 30 LBS / ACRE; PLANT BETWEEN MAY 15 AND AUGUST 15; AT A DEPTH OF 1.0 INCHES.
- B. CONVENTIONAL SEEDING** APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
- C. HYDROSEEDING** IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4-MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.
- D. AFTER SEEDING**, FIRING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

- 4. MULCHING:**
- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

- A. STRAW OR HAY, UNROTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE TO 70 TO 90 POUNDS WITHIN EACH SECTION.

ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS IN ACCORDANCE WITH THE STATE STANDARDS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COST.

1. PEG AND TWINE
2. MULCH NETTINGS
3. CRIMPER MULCH ANCHORING COULTER TOOL

- B. WOOD-FIBER OR PAPER-FIBER MULCH SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

- C. PELLETEDZED MULCH, COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS, THE DRY PELLETS, WHEN APPLIED TO A SEEDD AREA AND WATERED, FORM A MULCH MAT. PELLETEDZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS. SEEDD AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.

APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETEDZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

**STANDARD FOR PERMANENT VEGETATIVE
COVER FOR SOIL STABILIZATION**

- SITE PREPARATION:**
- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
 - B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SURFACE SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
 - C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
 - D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- 2. SEEDBED PREPARATION:**
- A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NAJES.RUTGERS.EDU/COUNTY/).
 - FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME. FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
- B. WOOD-LINE AND FERTILIZER** INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- C. HIGH ACID PRODUCING SOILS** HAVING A PH OF 4 OR LESS, CONTAINING RAIN SULFIDE SHALL BE COVERED WITH MINIMUM OF 1/2 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH-ACID PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

- 3. SEEDING:**
- A. PERMANENT VEGETATIVE MIXTURES & PLANTING RATES
 - (1) HARD FESCUE – 175 LBS/ACRE 4 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15
 - (2) CHEWING FESCUE – 175 LBS/ACRE 4 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15
 - (3) STRONG CREEPING RED FESCUE – 175 LBS/ACRE 4 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15
 - (4) PERENNIAL RYEGRASS – 45 LBS/ACRE 1 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15
 - (5) KY. BLUEGRASS – 45 LBS/ACRE 1 LBS/1000 SQ.FT.; PLANT BETWEEN MARCH 1 AND APRIL 30; BETWEEN AUGUST 15 AND OCTOBER 15
- B. CONVENTIONAL SEEDING** IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
- C. AFTER SEEDING**, FIRING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
- D. HYDROSEEDING** IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORTER-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4-MULCHING BELOW) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

- 4. MULCHING:**
- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

- A. STRAW OR HAY, UNROTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1.5 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE TO 70 TO 90 POUNDS WITHIN EACH SECTION.

ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS IN ACCORDANCE WITH THE STATE STANDARDS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COST.

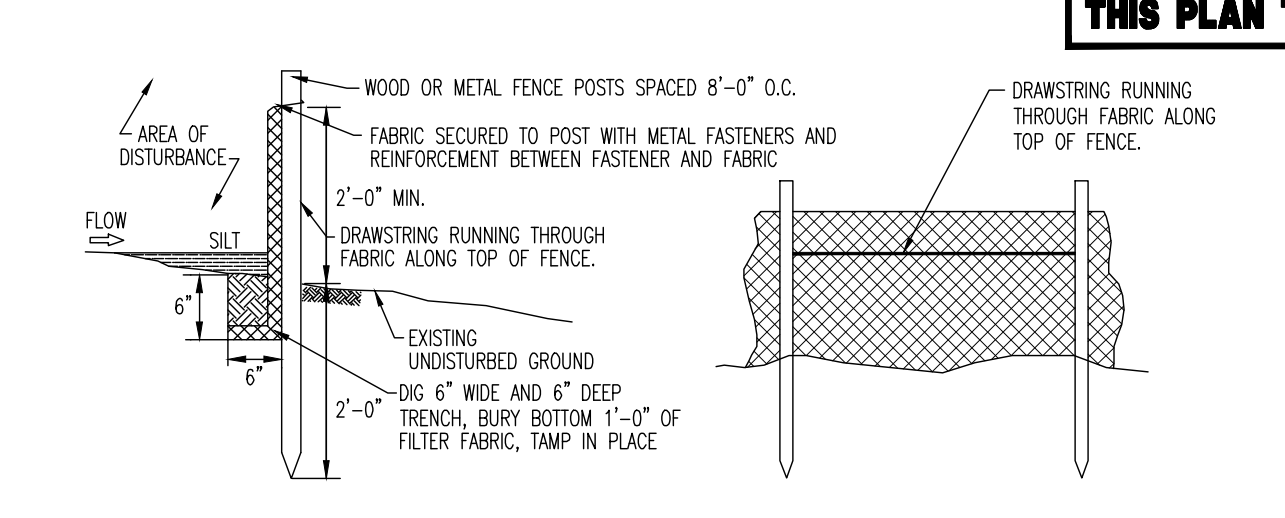
1. PEG AND TWINE
2. MULCH NETTINGS
3. CRIMPER MULCH ANCHORING COULTER TOOL

- B. WOOD-FIBER OR PAPER-FIBER MULCH – SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

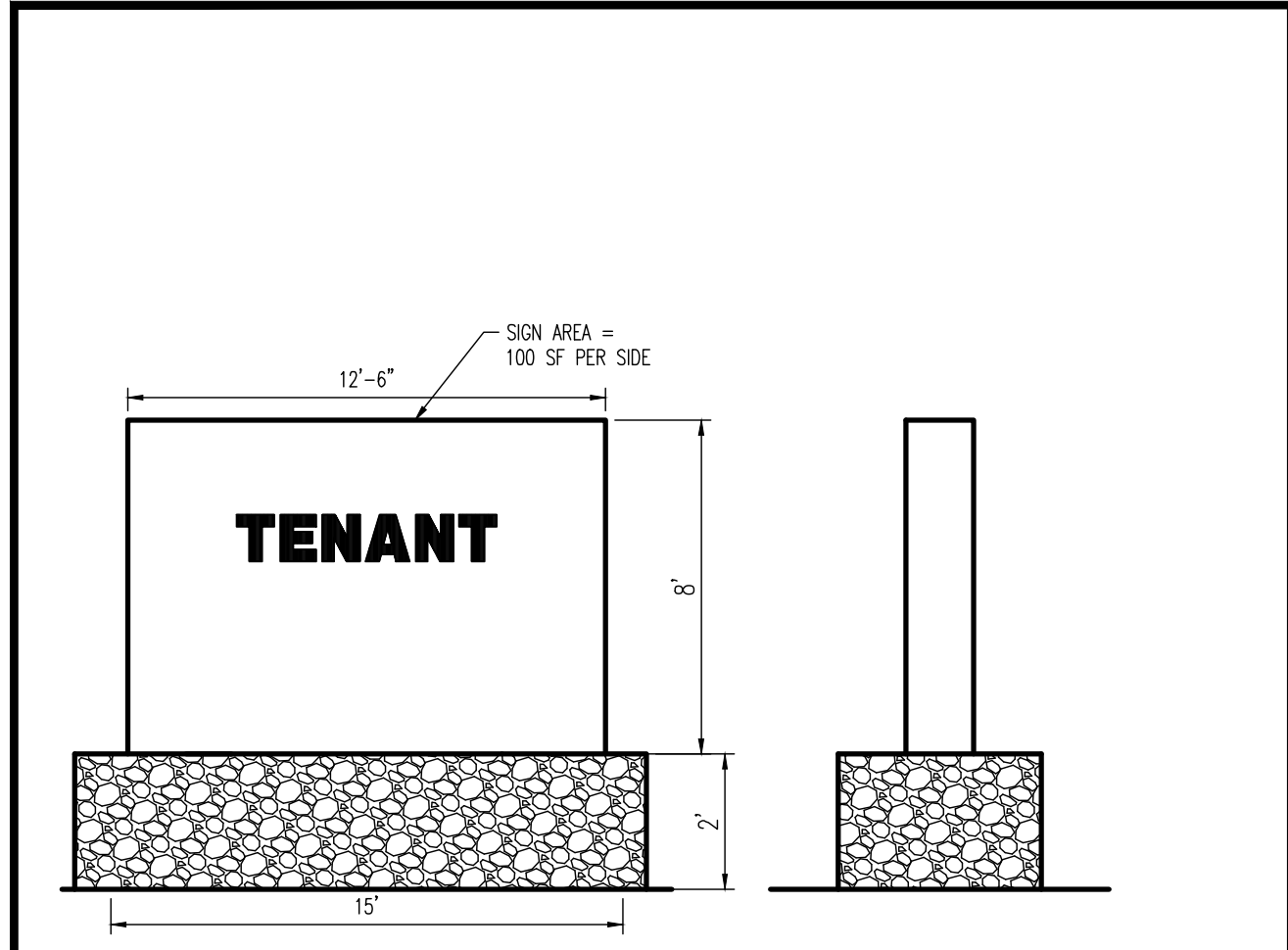
- C. PELLETEDZED MULCH – COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS, THE DRY PELLETS, WHEN APPLIED TO A SEEDD AREA AND WATERED, FORM A MULCH MAT. PELLETEDZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS. SEEDD AREAS WHERE WEEDSEED FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETEDZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

SEQUENCE OF CONSTRUCTION

- PHASE 1: INSTALL STONE ANTI-TRACKING PAD AND OTHER SOIL EROSION SEDIMENT CONTROL MEASURES INCLUDING DOWN SLOPE PERIMETER HAY BALES AND SILT FENCING. (1-2 WEEKS)
- PHASE 2: CLEAR AND ROUGH GRADE FOR NEW BUILDING SITE AND OTHER STRUCTURES REQUIRING EXCAVATION. (8-10 MONTHS)
- PHASE 3: EXCAVATION, CONSTRUCTION, AND STABILIZATION OF DETENTION BASINS), EXCAVATE AND INSTALL UNDERGROUND PIPING AND DRAINAGE STRUCTURES. (3 WEEKS)
- PHASE 4: EXCAVATE FOR BUILDING FOUNDATION. (2-3 WEEKS)
- PHASE 5: COMPLETE BUILDING CONSTRUCTION. (6-8 MONTHS)
- PHASE 6: EXCAVATE AND INSTALL ON-SITE IMPROVEMENTS INCLUDING CURBSING, UNDERGROUND PIPING, AND DRAINAGE STRUCTURES. (4-6 WEEKS)
- PHASE 7: FINAL GRADING ON-SITE. (4 WEEKS)
- PHASE 8: INSTALL PAVING, CONCRETE, AND FINAL VEGETATION INCLUDING SEEDING AND LANDSCAPING. (4 WEEKS)
- PHASE 9: REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES UPON COMPLETION OF CONSTRUCTION. (1 WEEK)

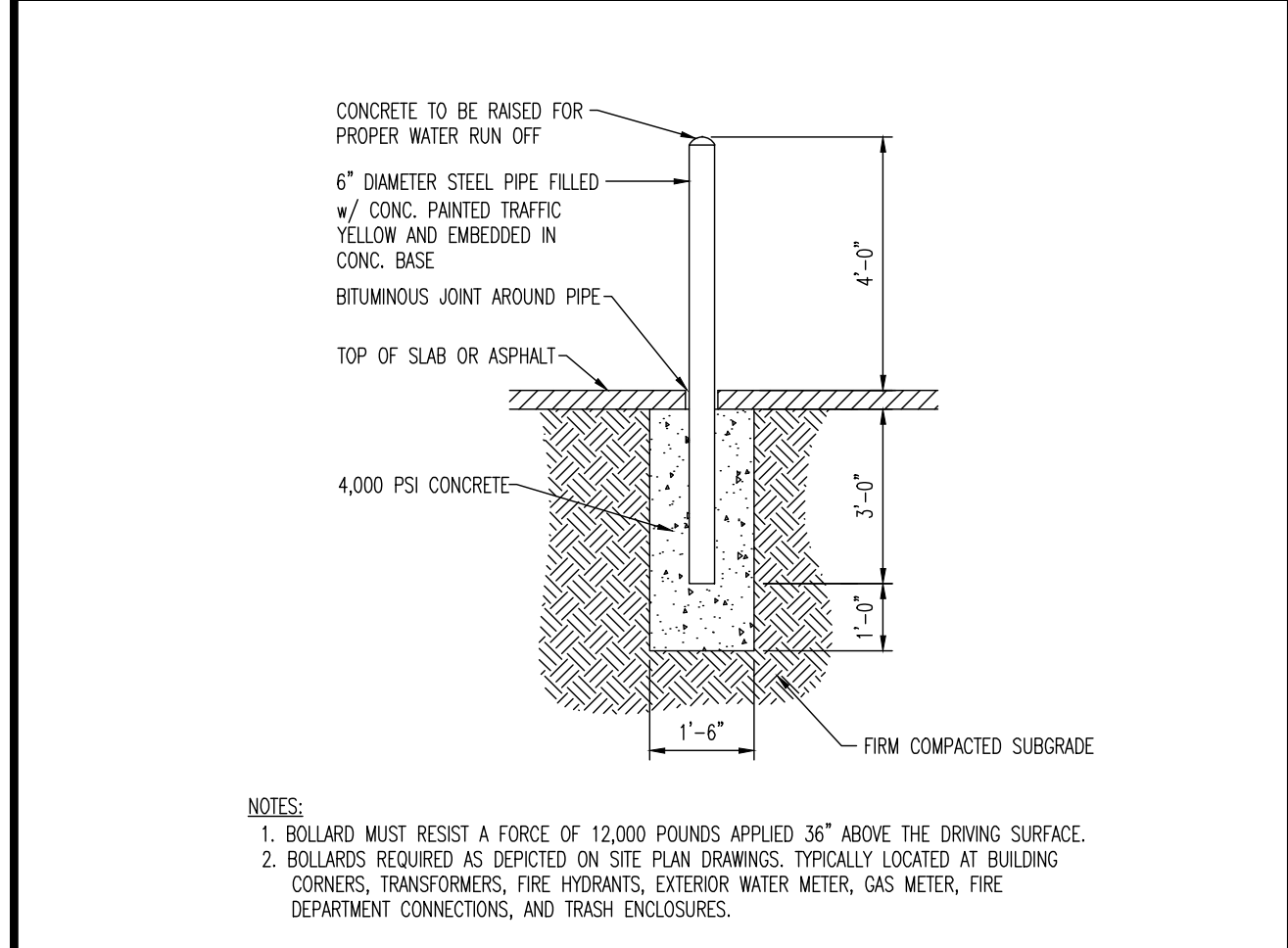


1. PLACE SILT FENCE AT LOCATIONS AS SHOWN ON



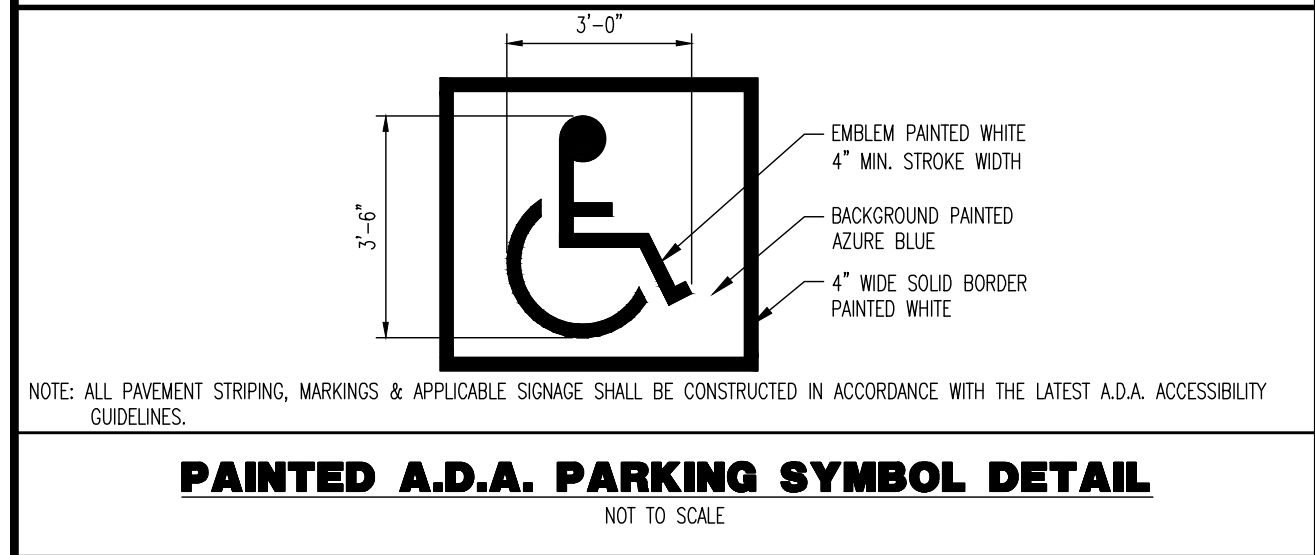
MONUMENT SIGN DETAIL

NOT TO SCALE



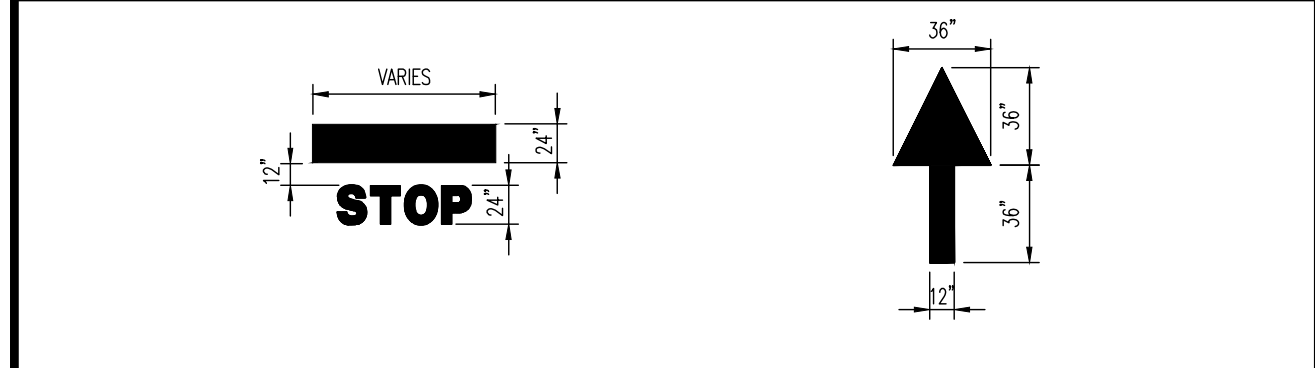
6" BOLLARD DETAIL

NOT TO SCALE



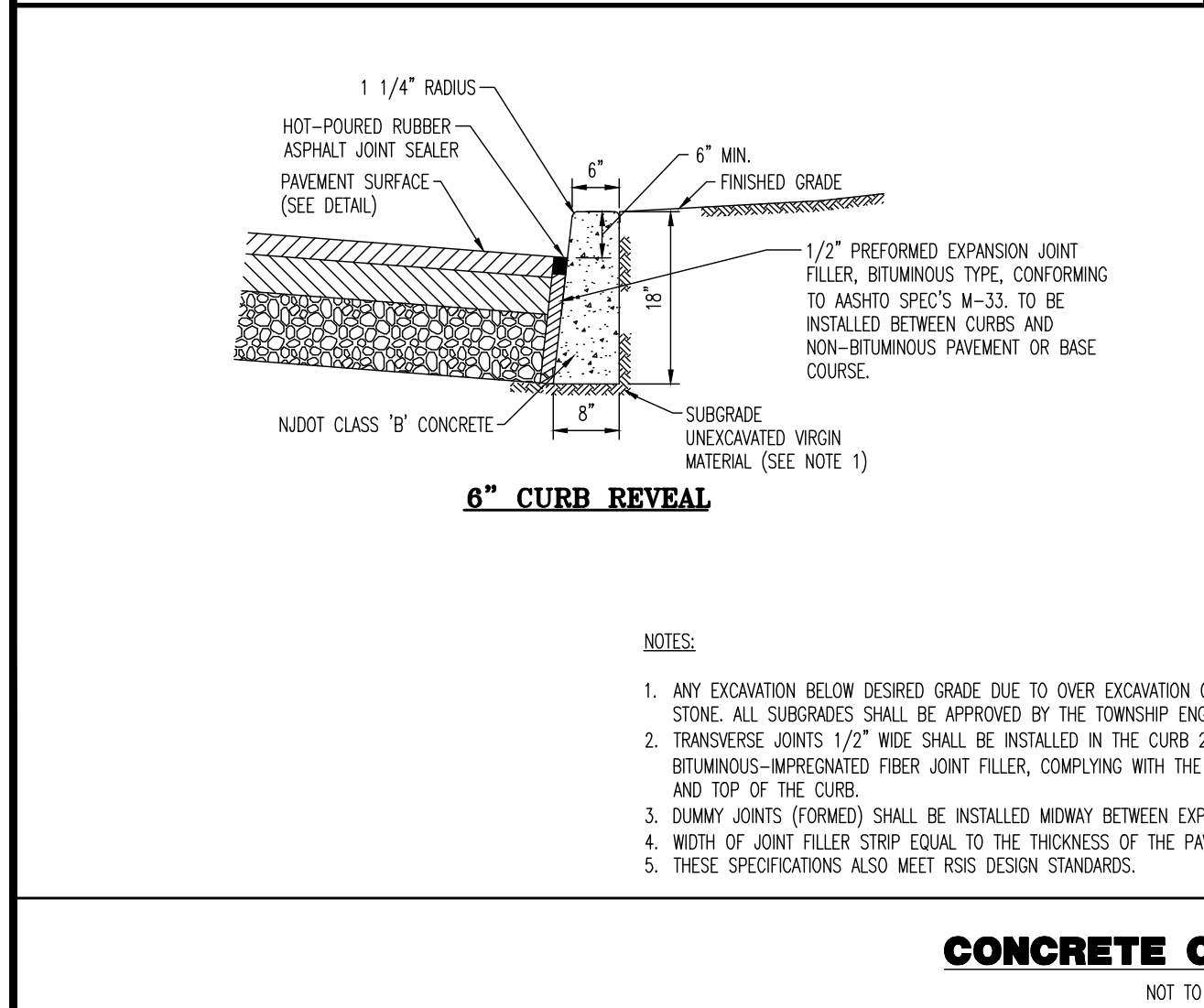
PAINTED A.D.A. PARKING SYMBOL DETAIL

NOT TO SCALE



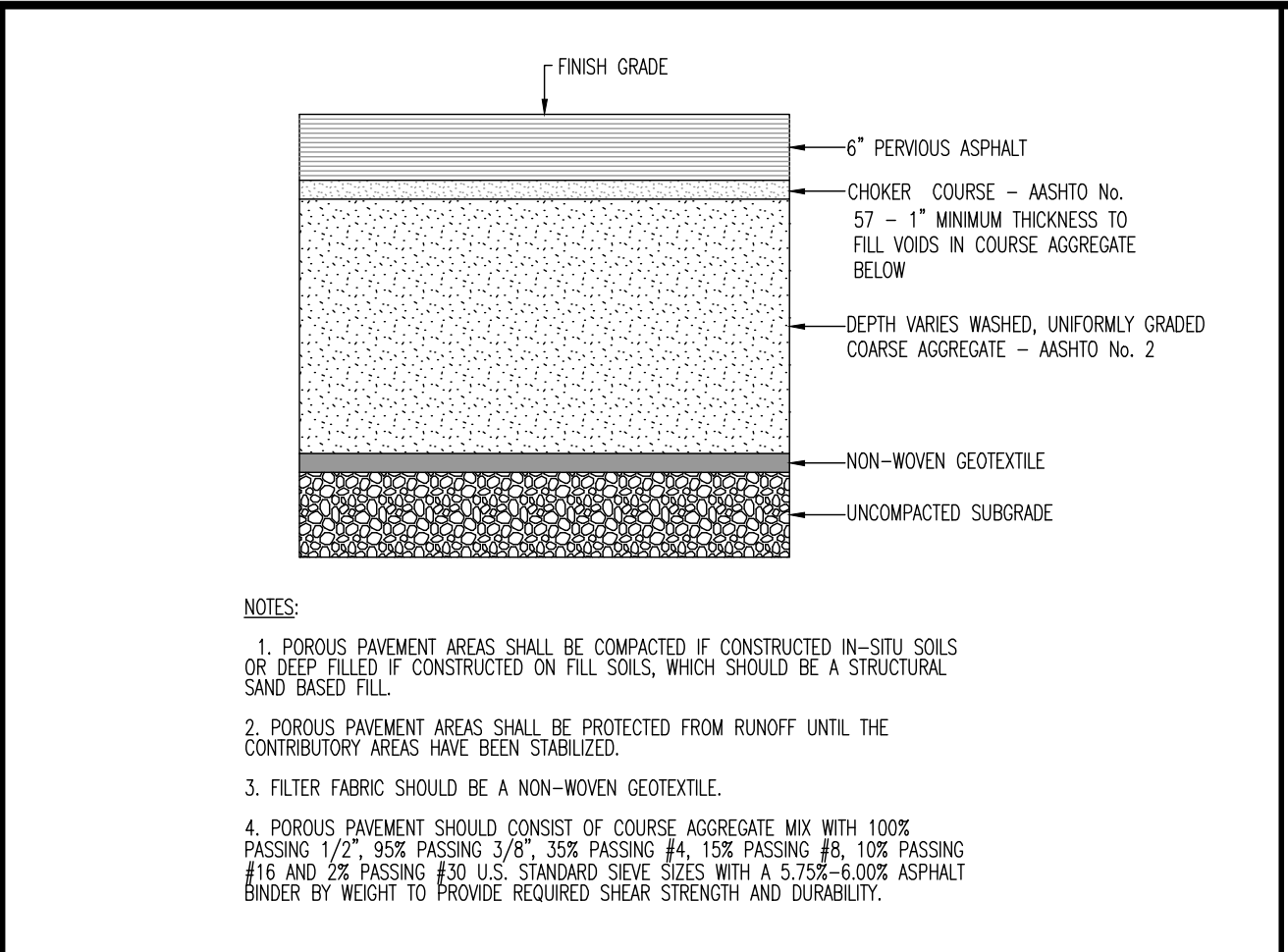
PAINTED MARKING DETAILS

NOT TO SCALE



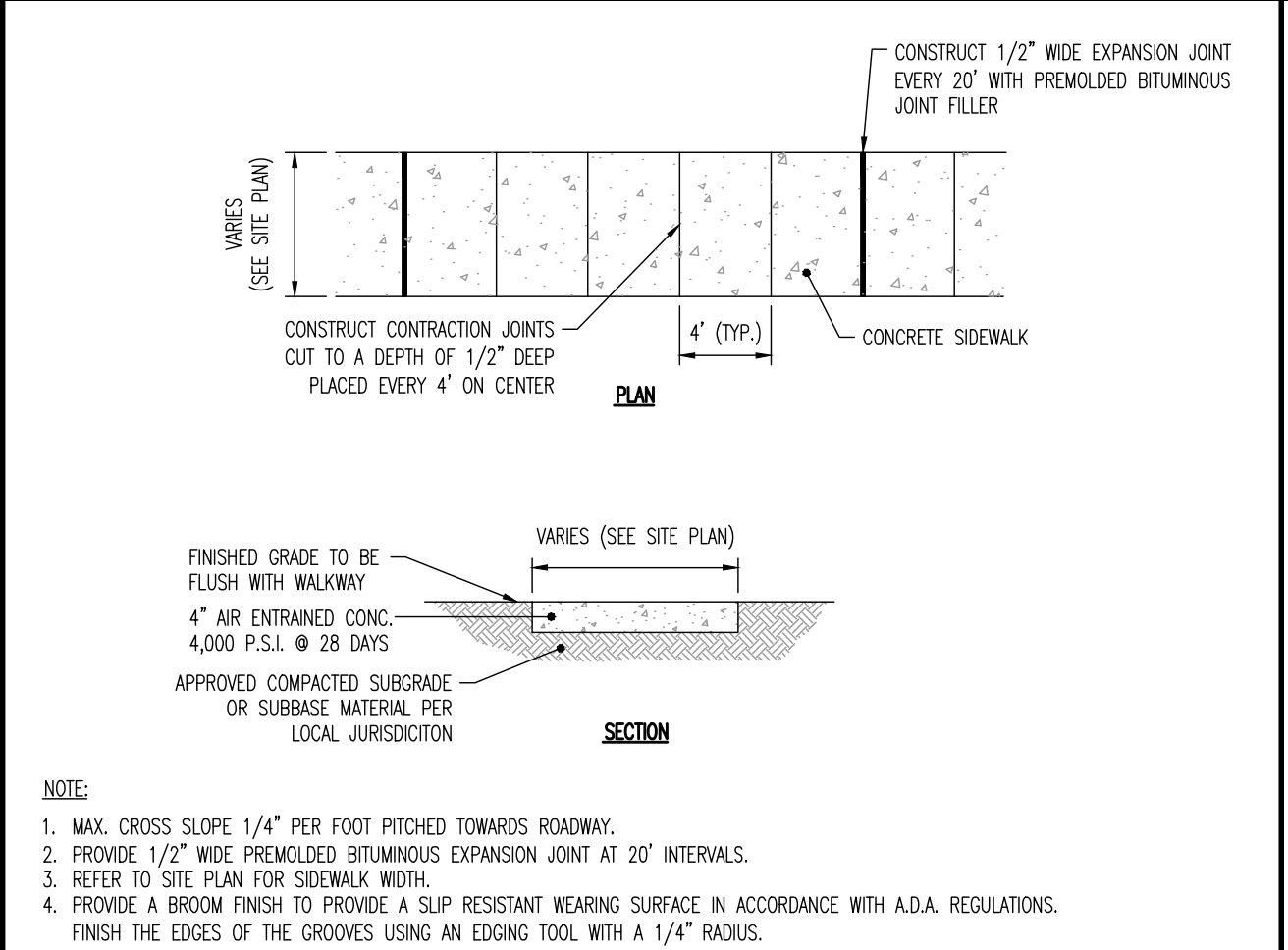
CONCRETE CURB DETAIL

NOT TO SCALE



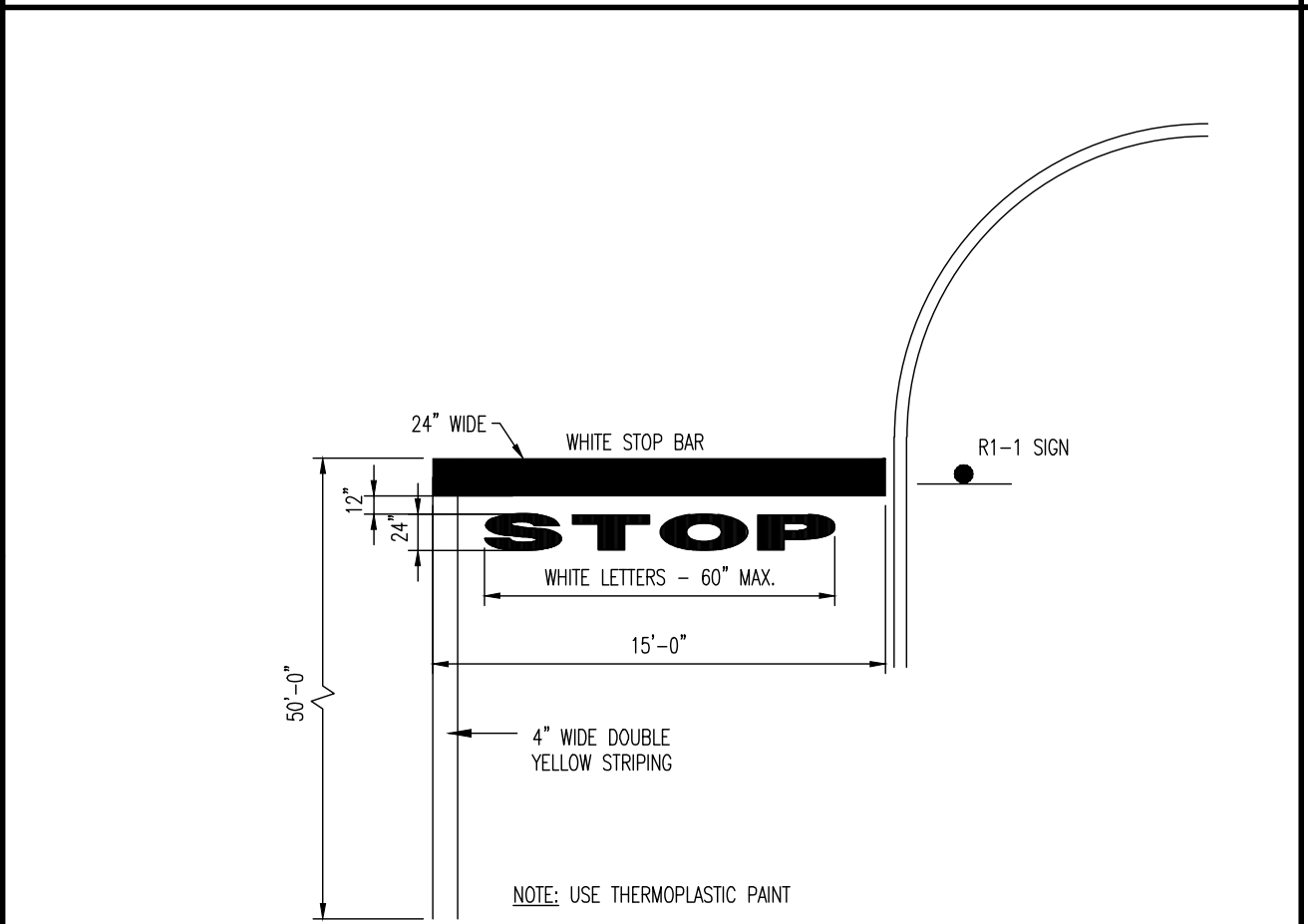
POROUS PAVEMENT DETAIL

NOT TO SCALE



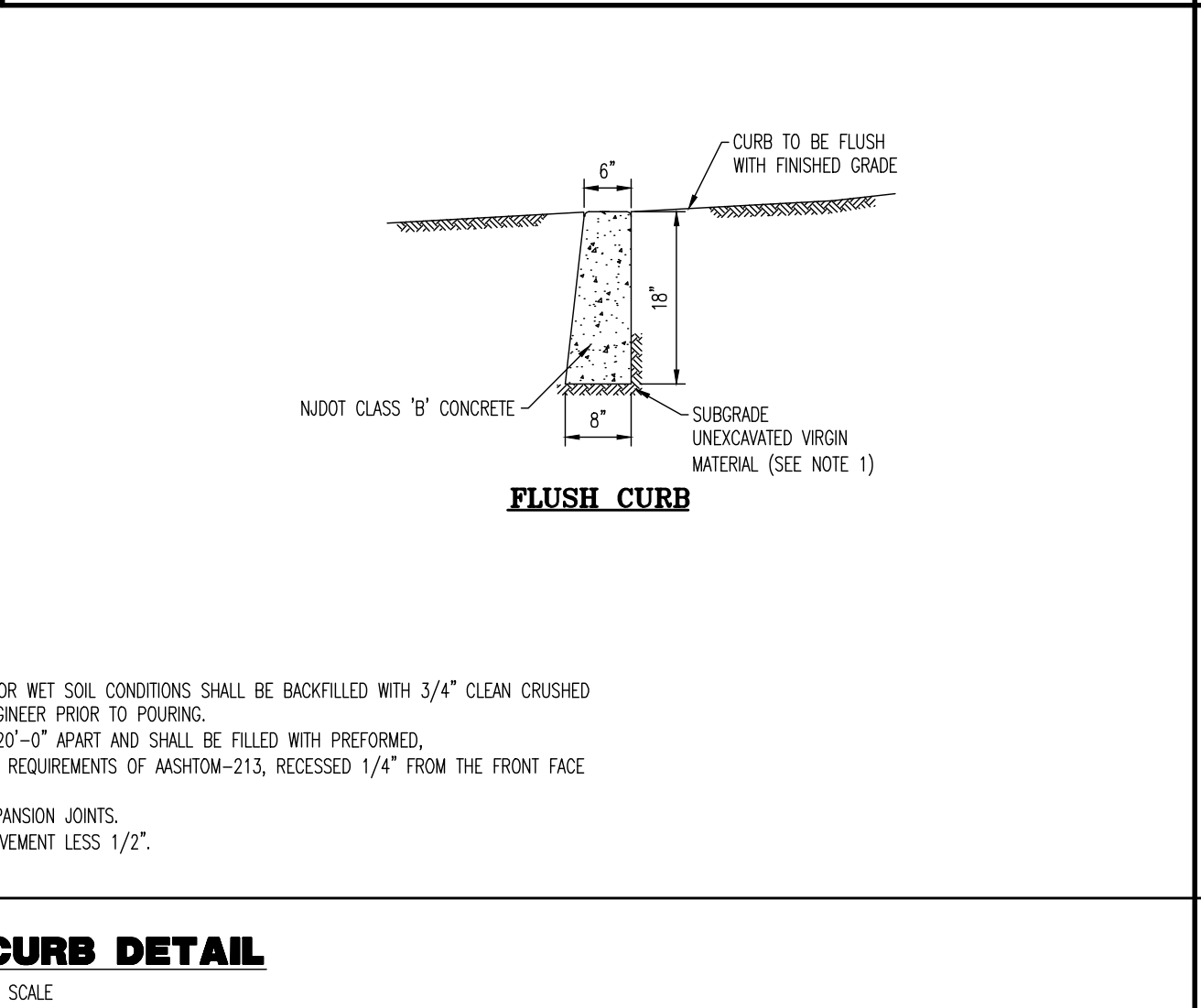
SIDEWALK DETAIL

NOT TO SCALE

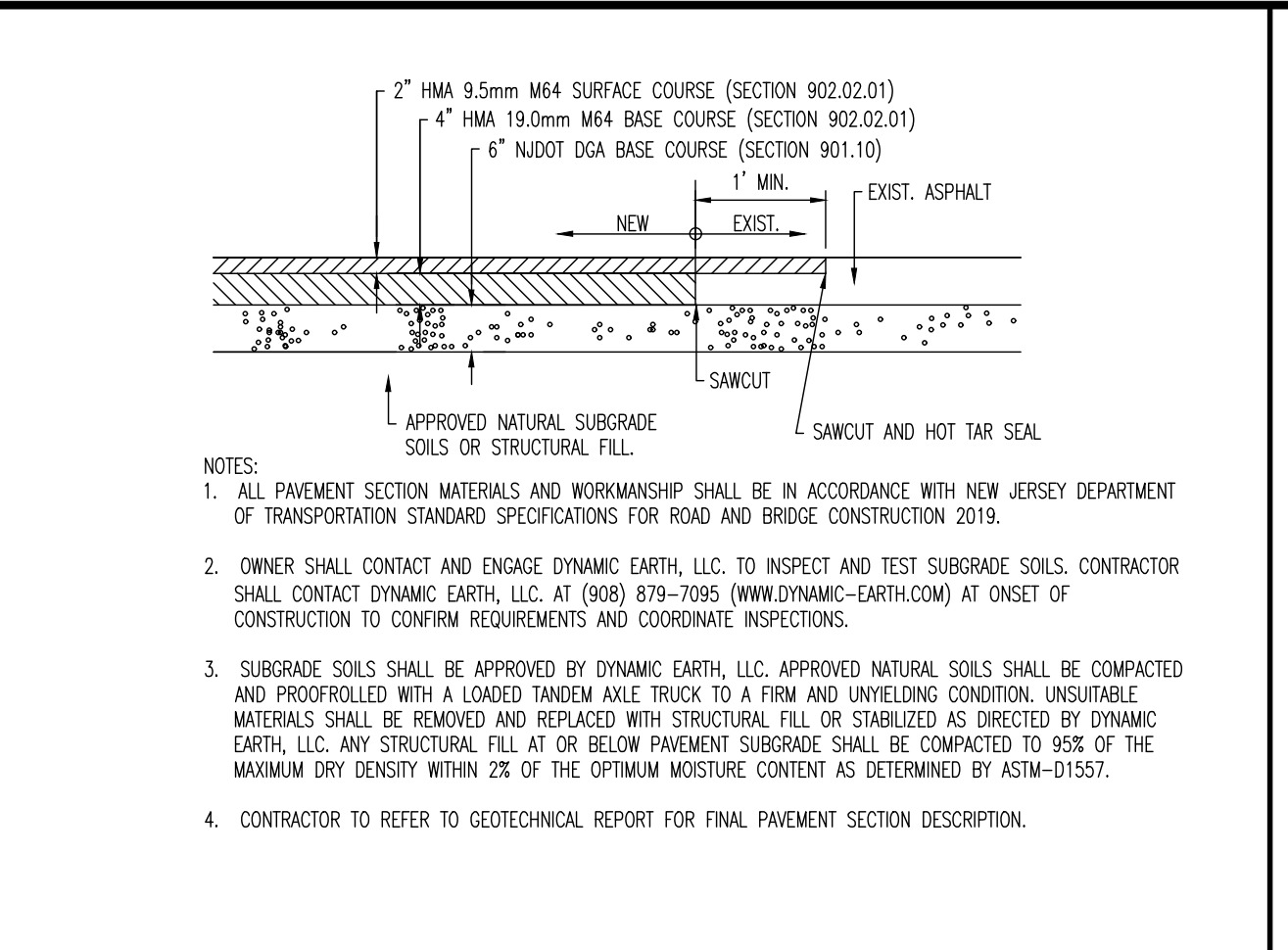


CONTROLLED INTERSECTION STRIPING AND SIGNAGE DETAIL

NOT TO SCALE

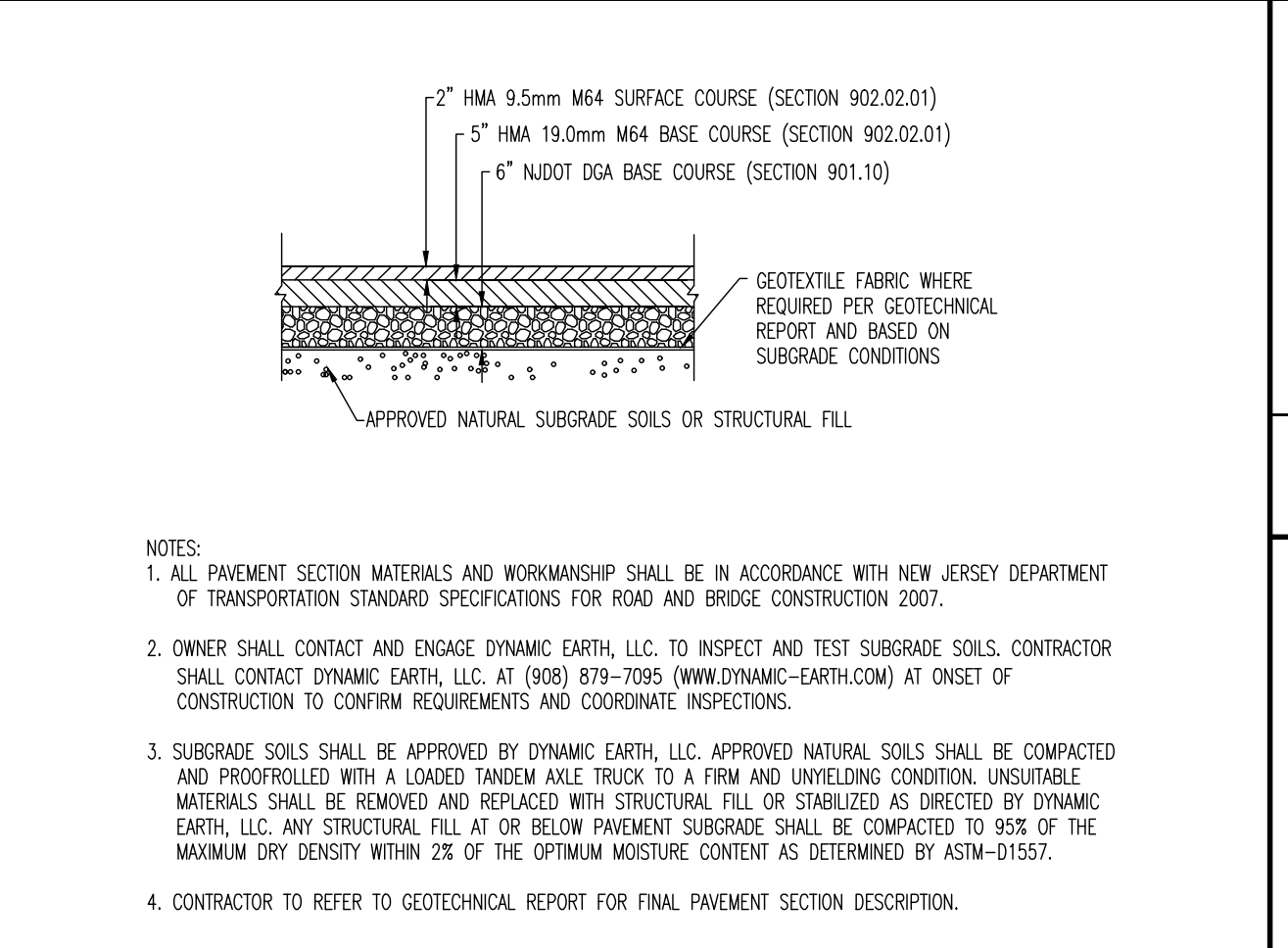


FLUSH CURB



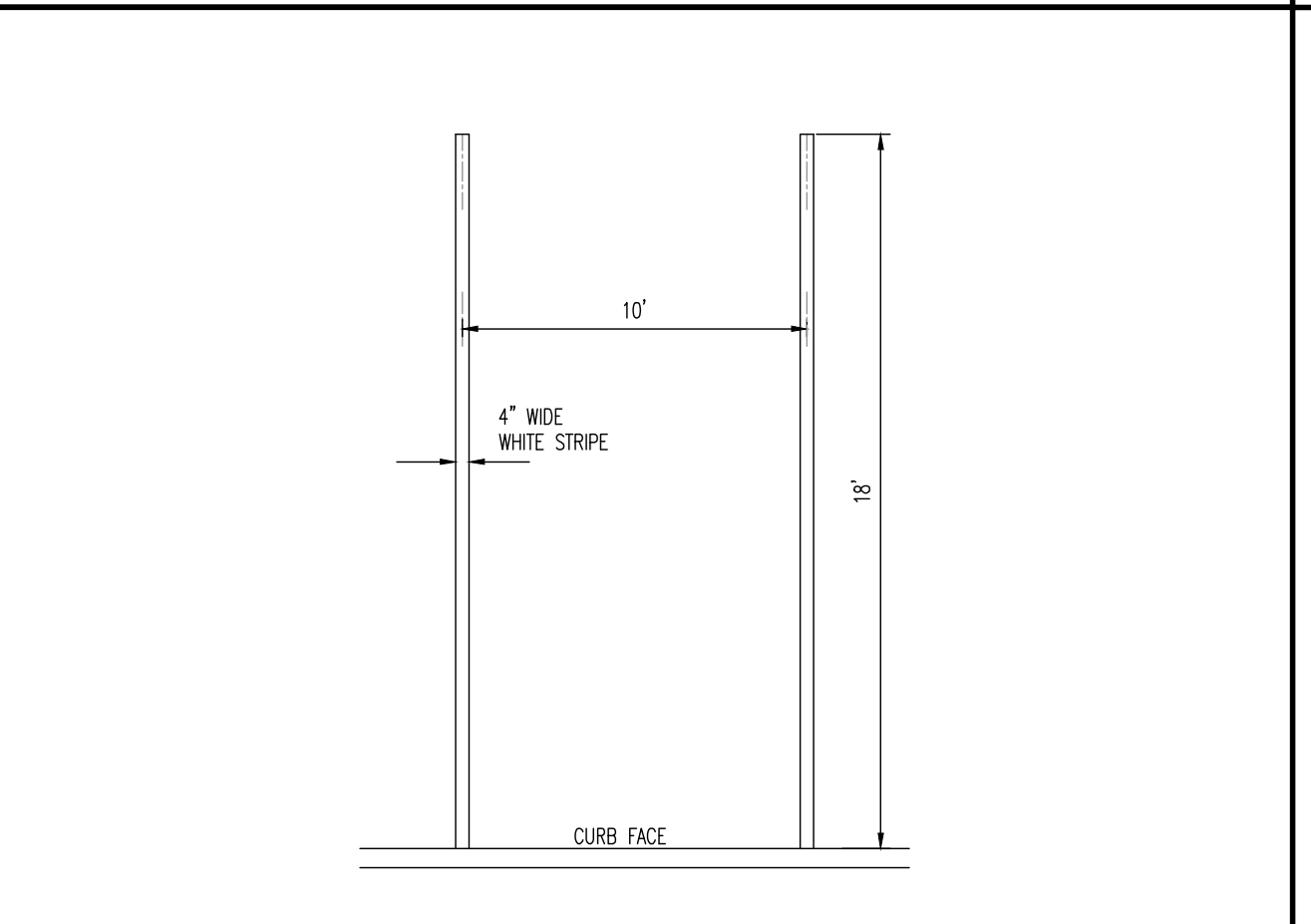
STANDARD PAVING DETAIL

NOT TO SCALE



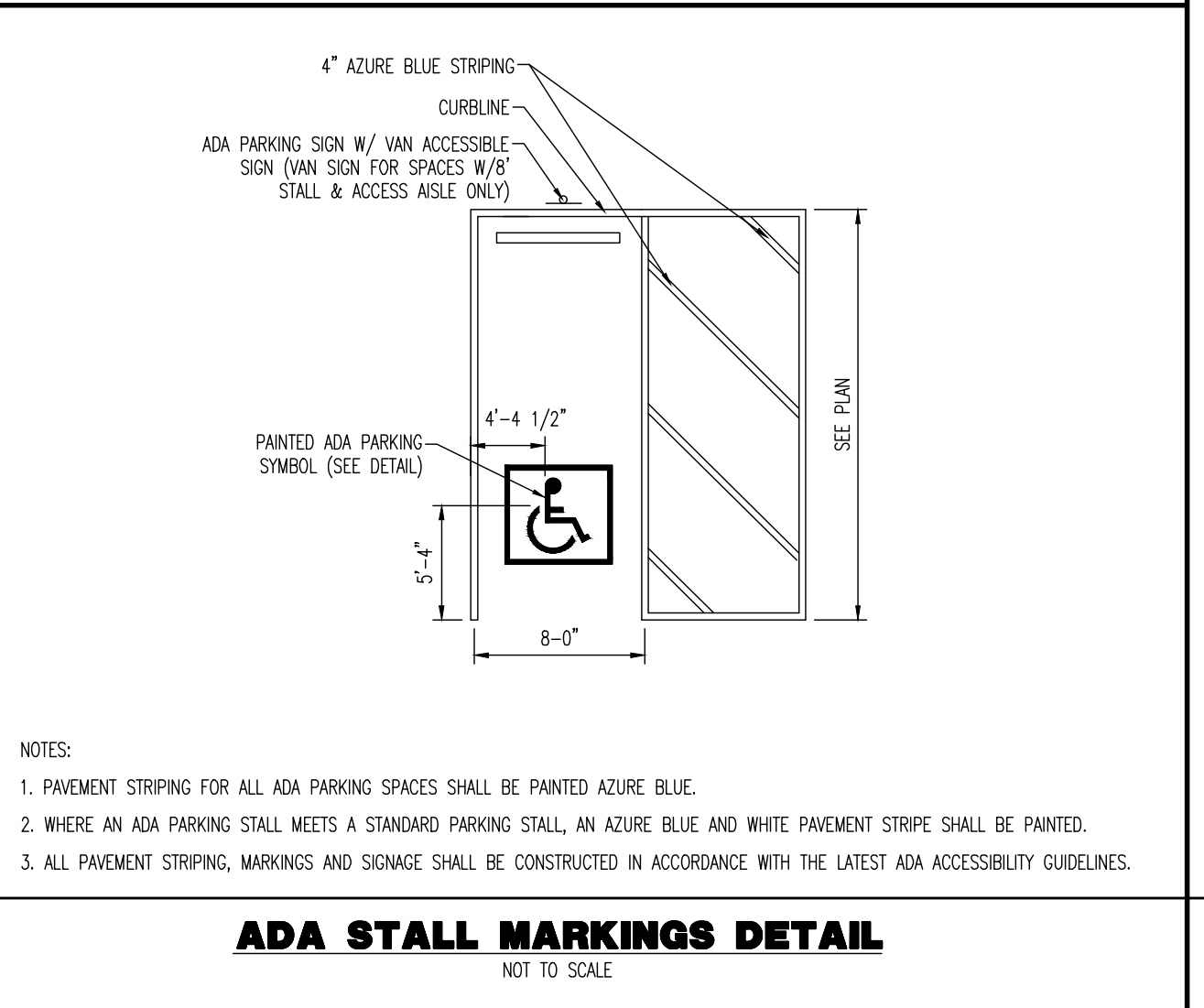
HEAVY DUTY PAVEMENT SECTION

NOT TO SCALE



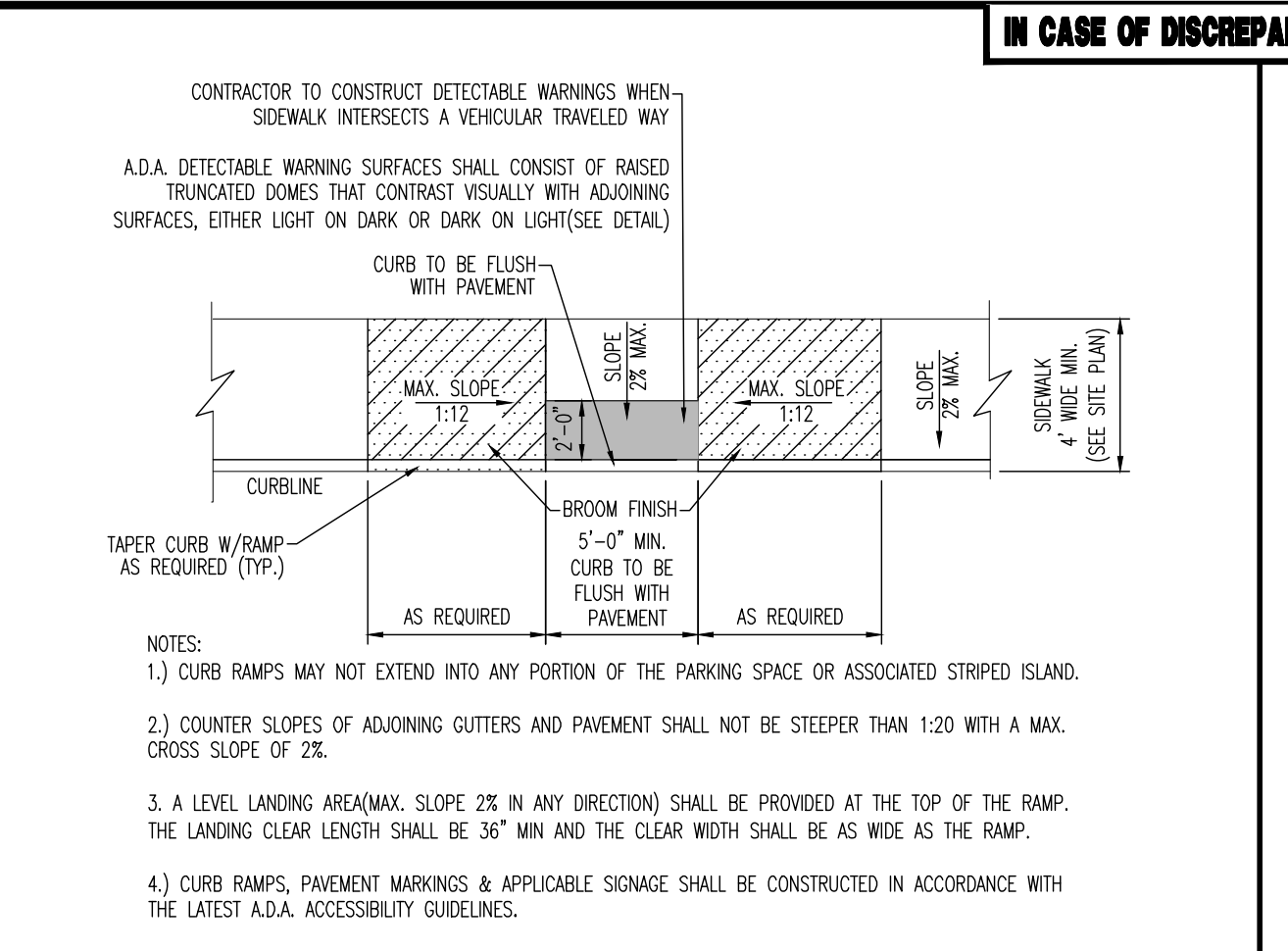
PARKING STALL STRIPING DETAIL

NOT TO SCALE



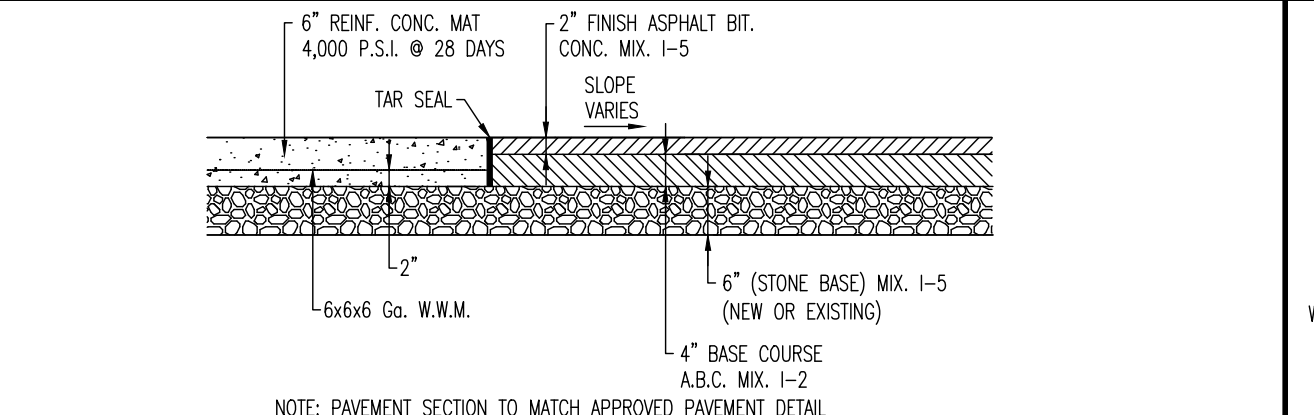
ADA STALL MARKINGS DETAIL

NOT TO SCALE



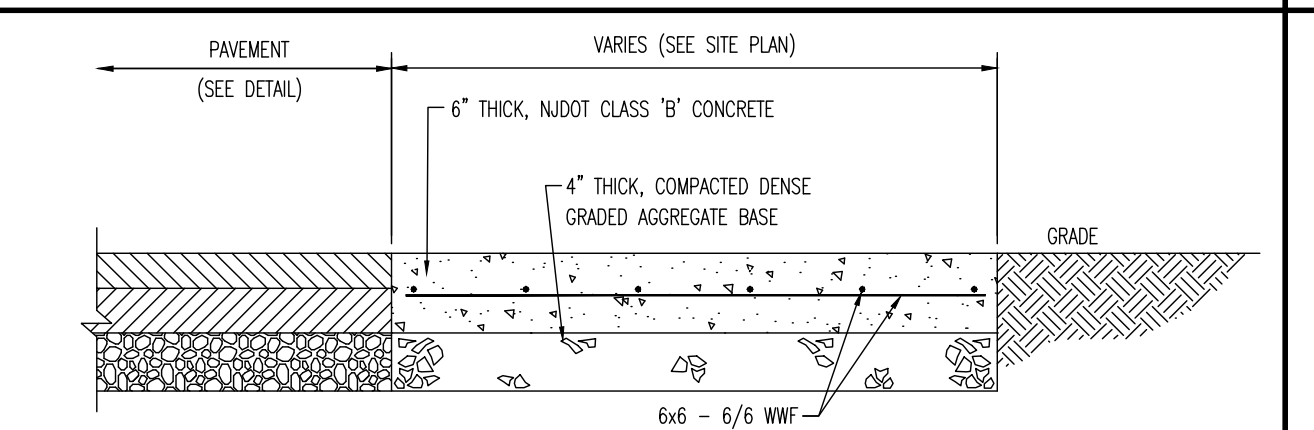
A.D.A. PARALLEL CURB RAMP DETAIL

NOT TO SCALE



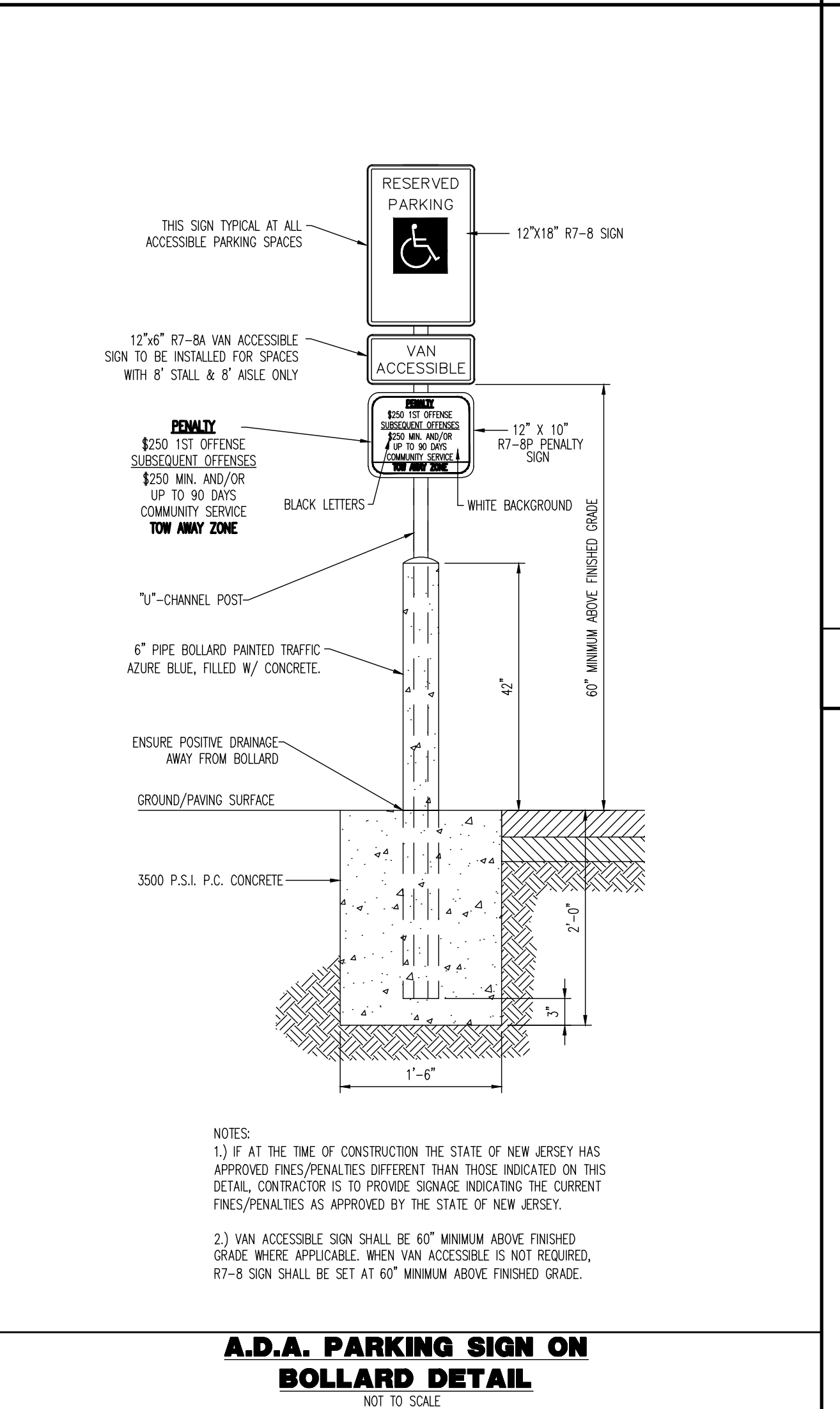
CONCRETE & PAVING DETAIL

NOT TO SCALE



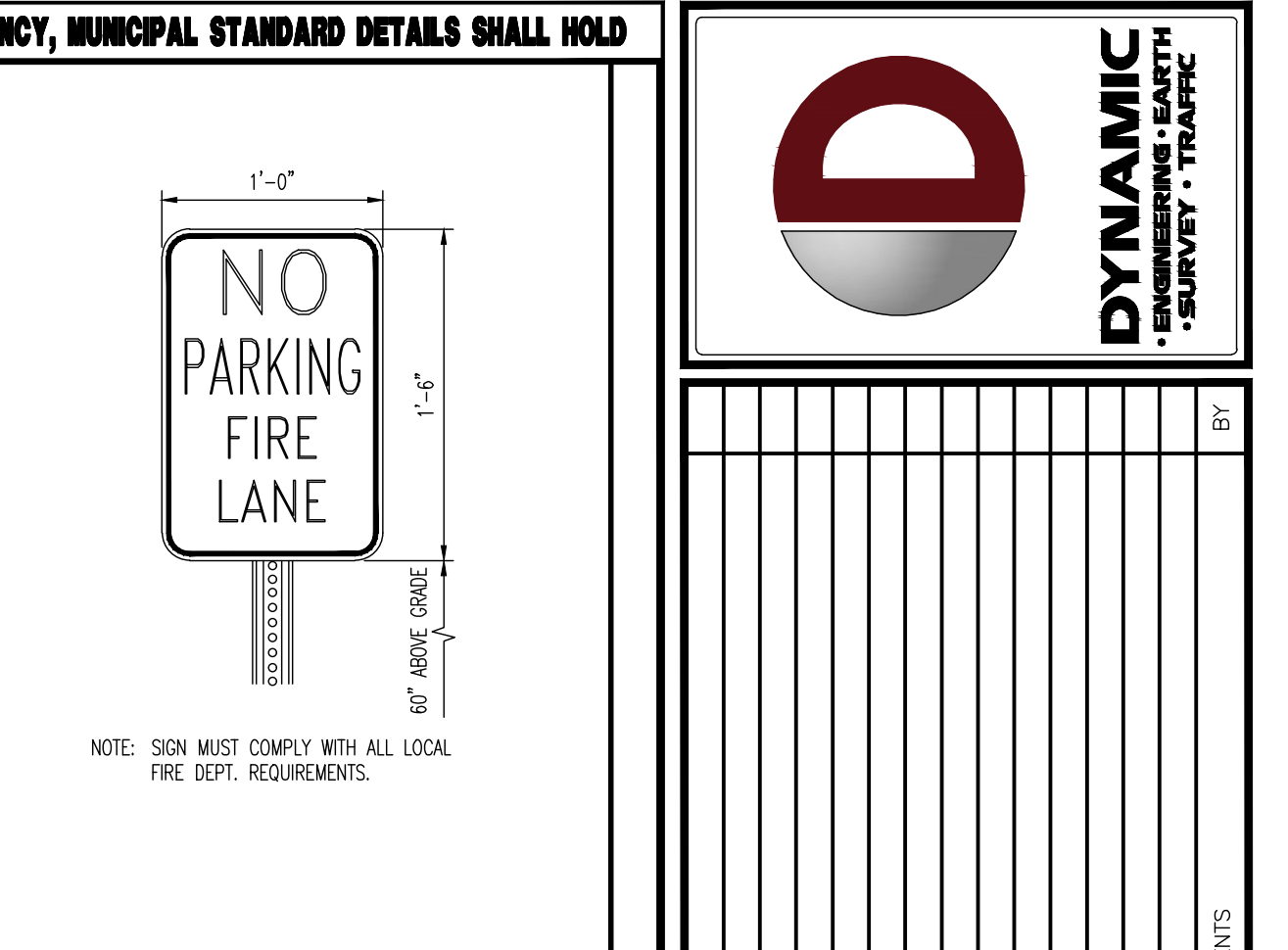
CONCRETE COMPACTOR/DUMPSTER PAD DETAIL

NOT TO SCALE



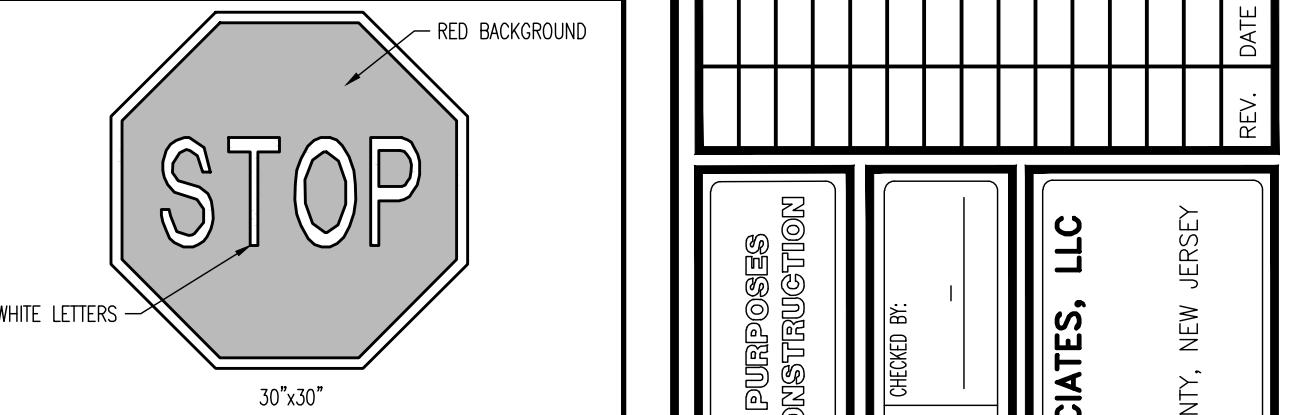
A.D.A. PARKING SIGN ON BOLLARD DETAIL

NOT TO SCALE



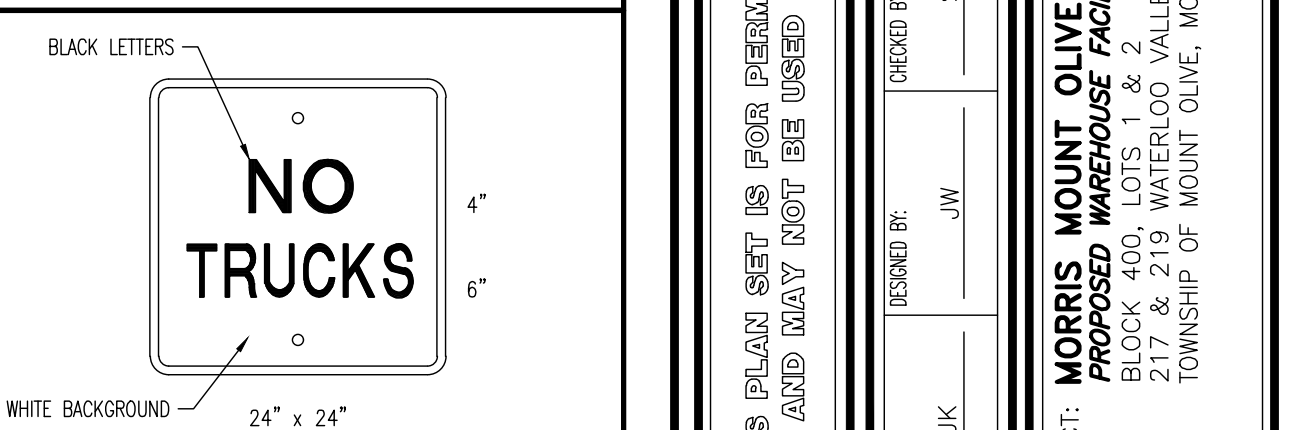
FIRE LANE SIGN DETAIL

NOT TO SCALE



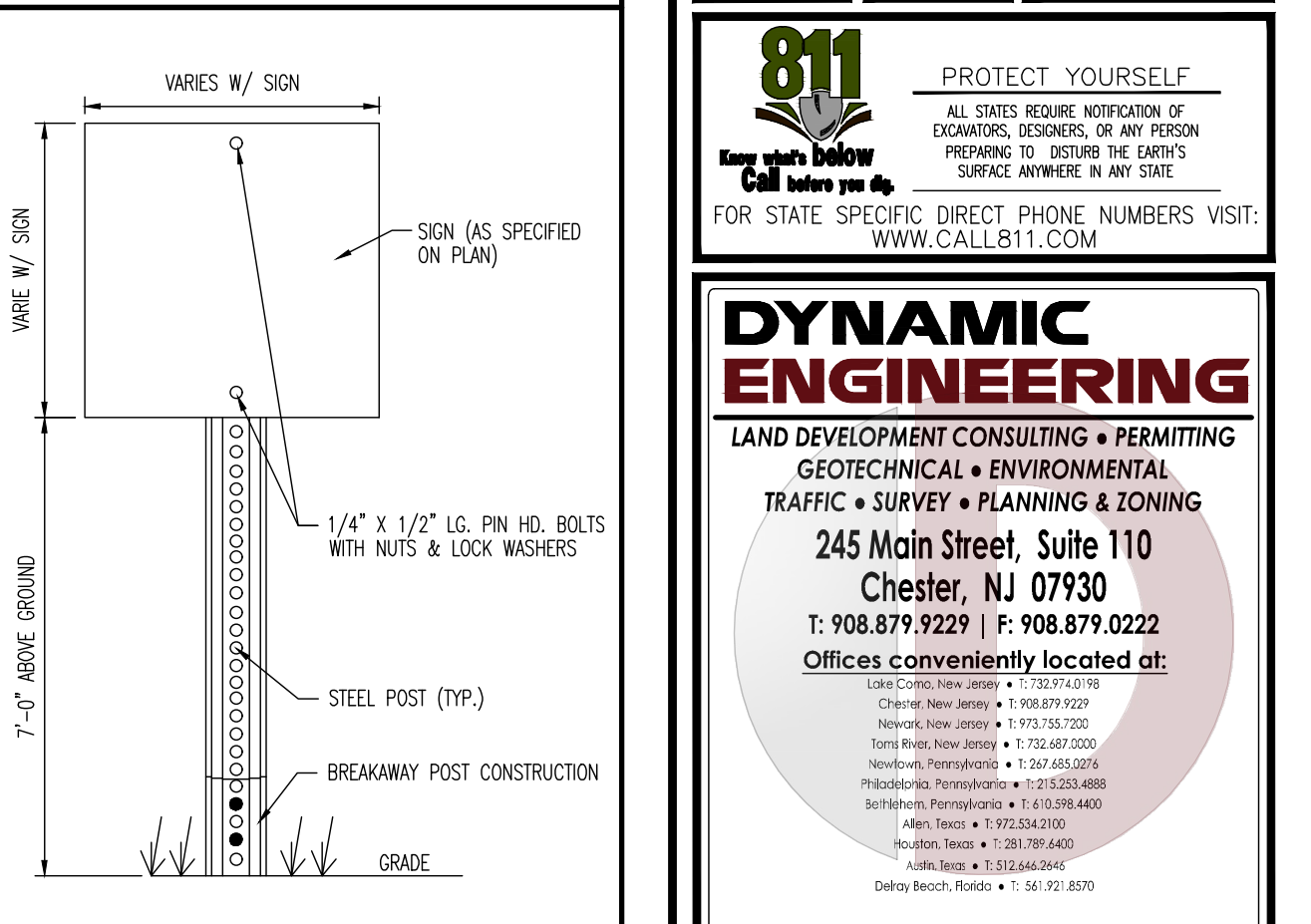
R1-1 SIGN DETAIL

NOT TO SCALE



R5-2A SIGN DETAIL

NOT TO SCALE



SIGN POST DETAIL

NOT TO SCALE

DYNAMIC ENGINEERING
• SURVEY • PLANNING • PERMITTING

DATE	08/07/2023
PROJECT No.	1212 22-03061
SHEET No.	15
Rev. #	0

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION.

DESIGNED BY: EJK
CHECKED BY: SLS
DATE: 08/07/2023

PROJECT: MORRIS MOUNT OLIVE ASSOCIATES, LLC
PROPOSED WAREHOUSE FACILITY
BLOCK 400, LOTS 1 & 2
21N 070 219 WATERLOO VALLEY ROAD
TOWNSHIP OF MOUNT OLIVE, MORRIS COUNTY, NEW JERSEY

811
PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISRUPT THE EARTH'S SURFACE ANYWHERE IN ANY STATE
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

DYNAMIC ENGINEERING
LAND DEVELOPMENT CONSULTING • PERMITTING
TRAFFIC • SURVEY • PLANNING & ZONING
245 Main Street, Suite 110
Chester, NJ 07930
T: 908.879.9229 | F: 908.879.0222
Offices conveniently located at:
Long Valley, New Jersey • T: 908.879.9229
Chester, New Jersey • T: 908.879.9229
Newark, New Jersey • T: 908.879.9229
Long Beach, New Jersey • T: 908.879.9229
Newark, Pennsylvania • T: 908.879.9229
Horseshoe Bend, Pennsylvania • T: 908.879.9229
Scranton, Pennsylvania • T: 908.879.9229
Allentown, Pennsylvania • T: 908.879.9229
Pottsville, Pennsylvania • T: 908.879.9229
Delaware, Pennsylvania • T: 908.879.9229

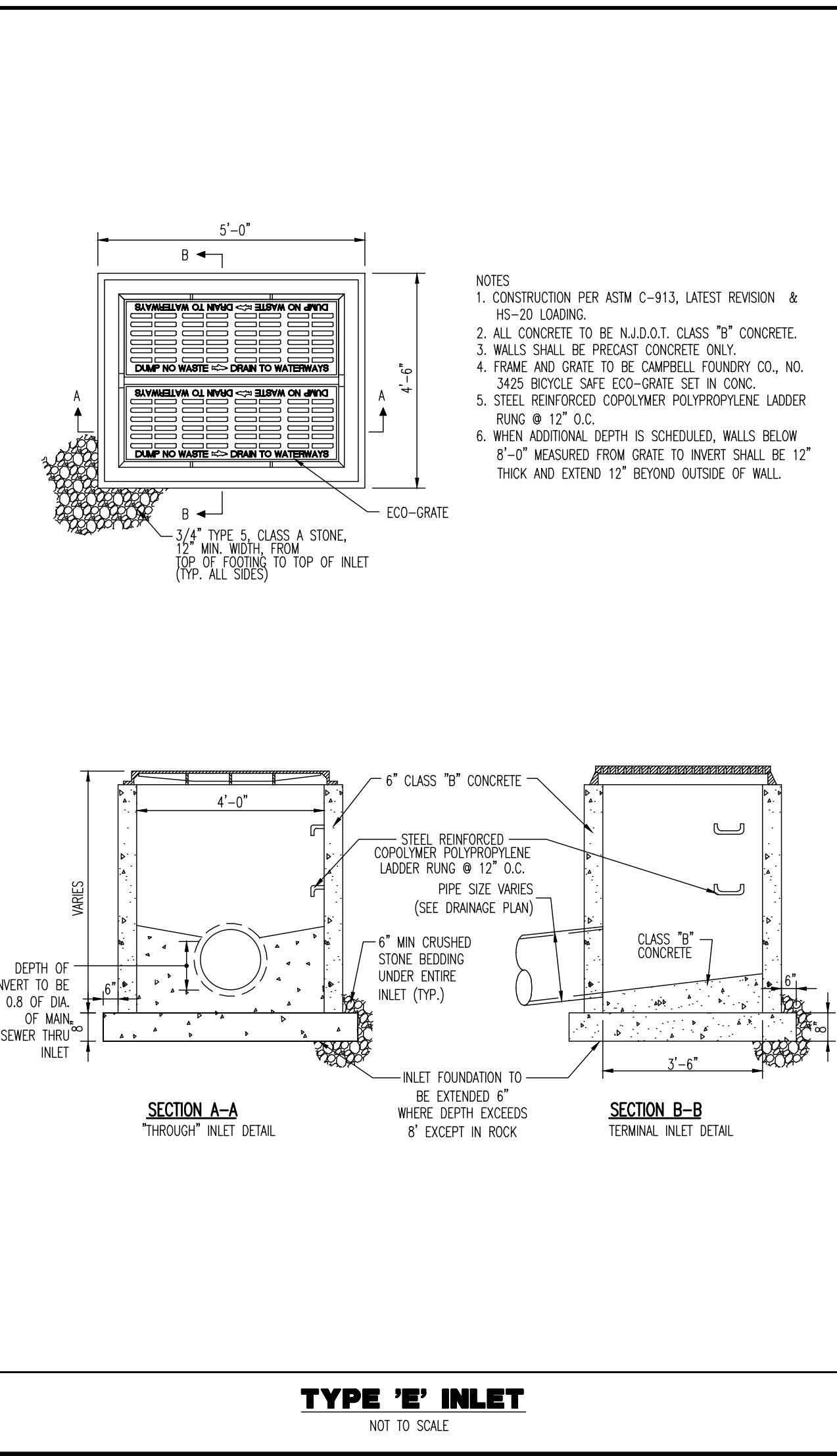
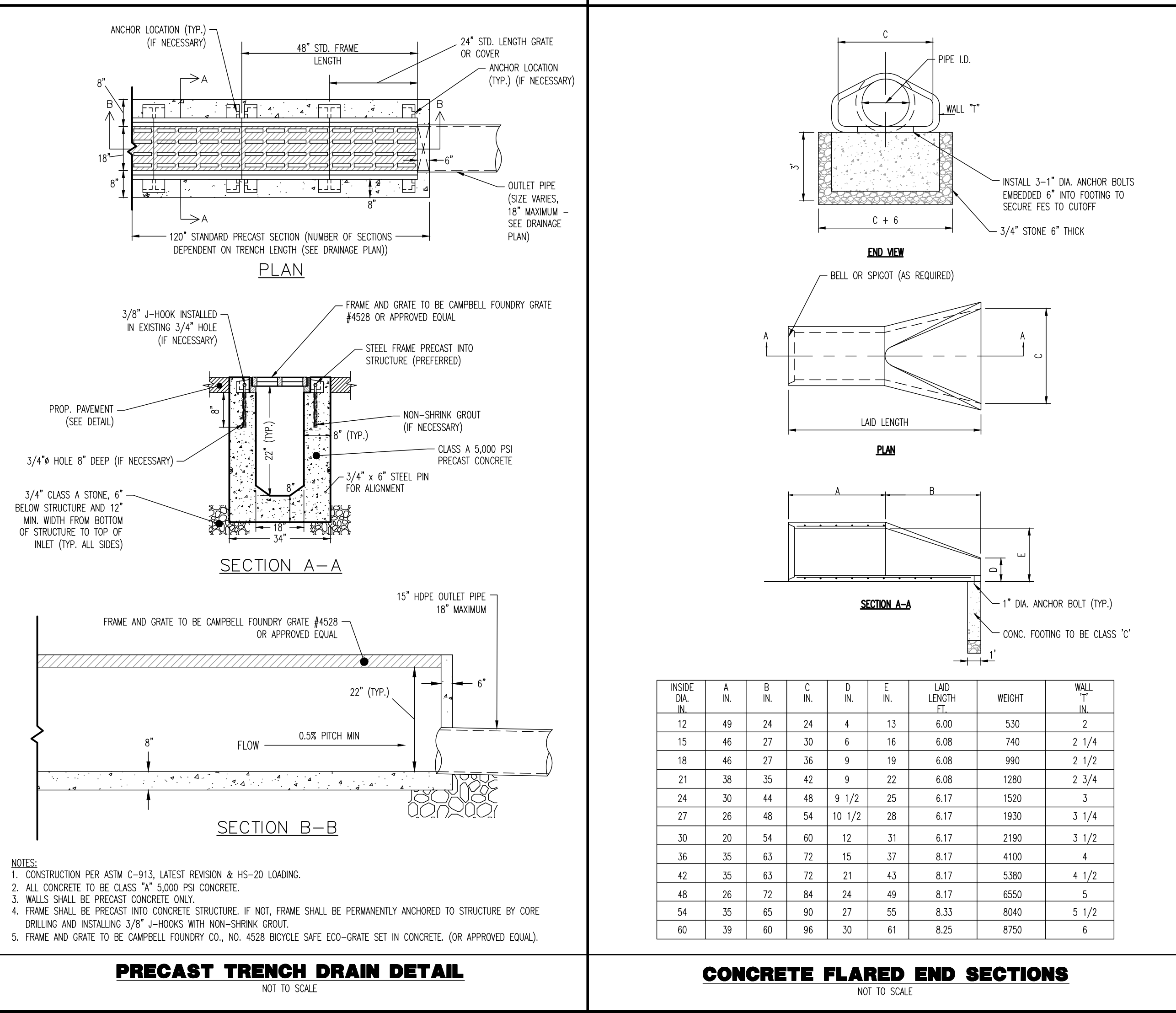
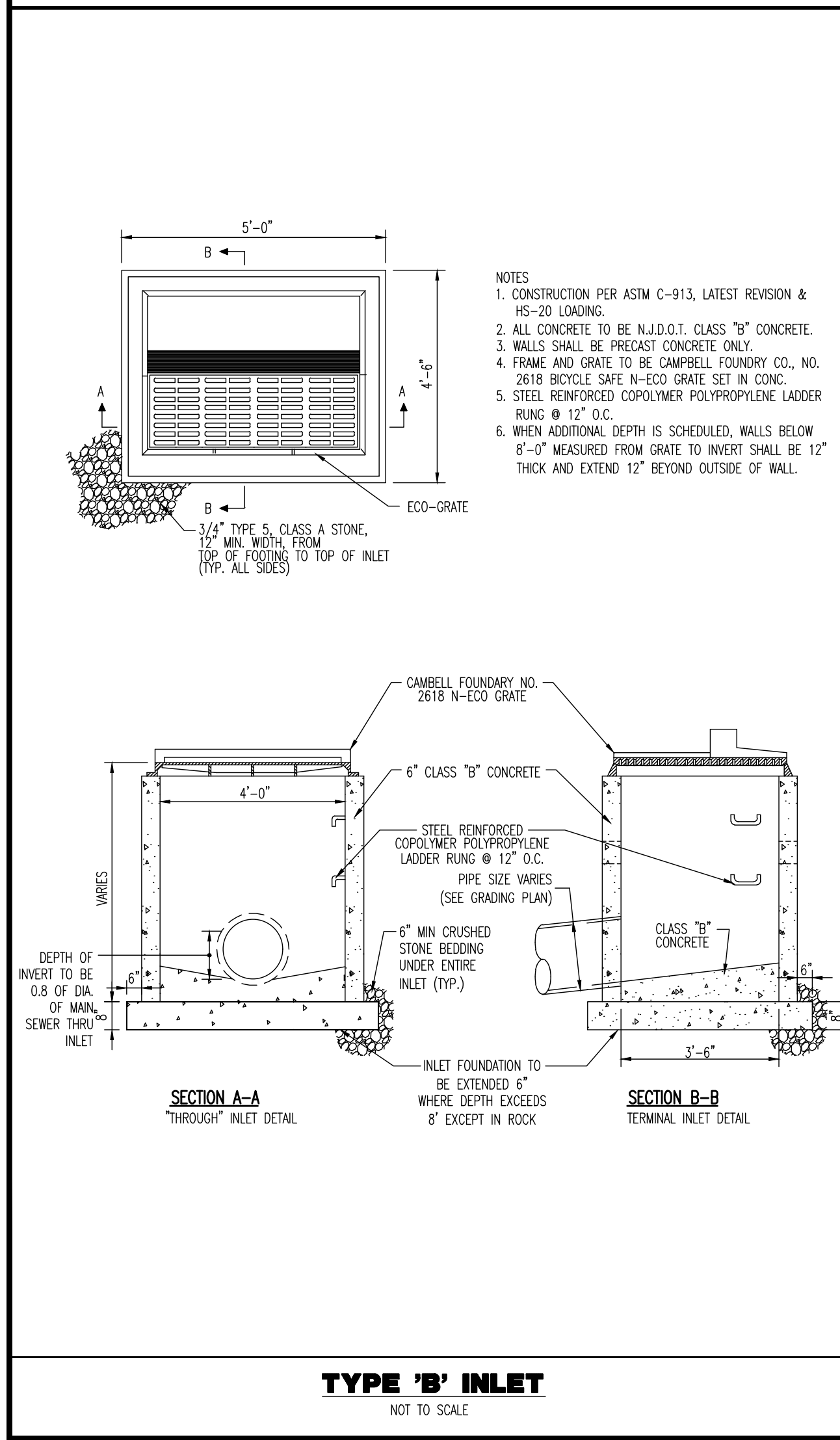
www.dynamiccec.com

STEPHEN L. SCHWARTZ
Professional Engineer
NEW JERSEY LICENSE No. 48126

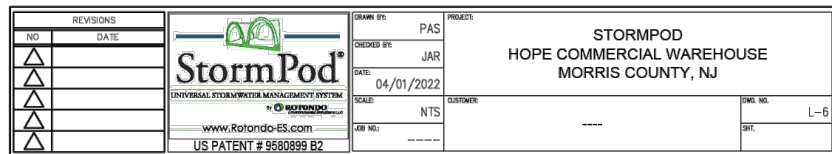
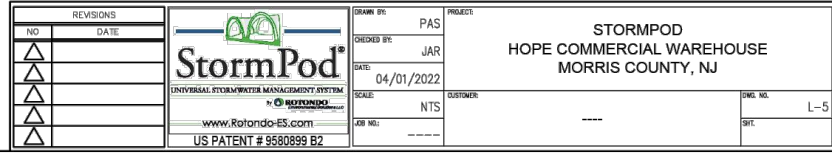
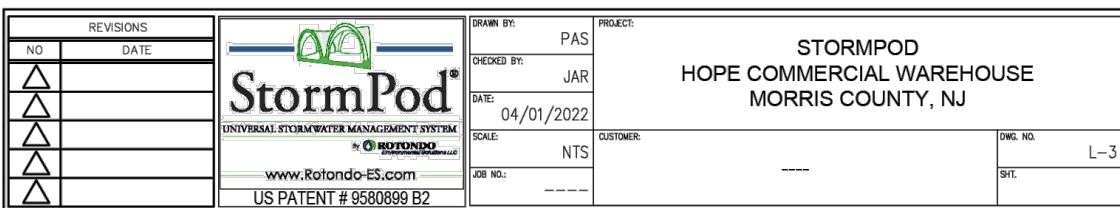
JOSHUA W. WIRRY
Professional Engineer
NEW JERSEY LICENSE No. 55268

CONSTRUCTION DETAILS

SCALE: (H) AS SHOWN
DATE: 08/07/2023
PROJECT No.: 1212 22-03061
SHEET No.: 15
Rev. #:

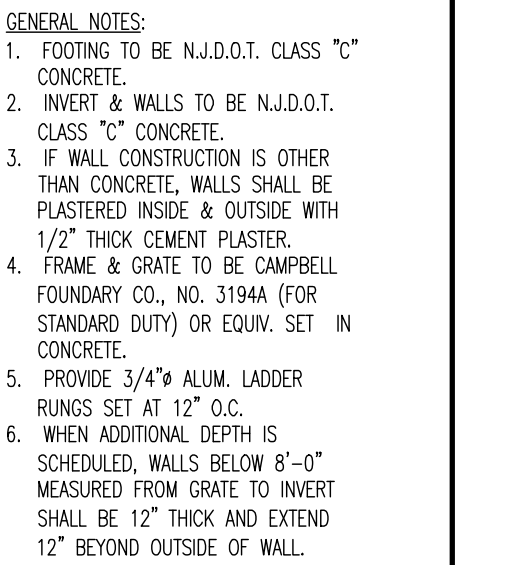


INSIDE DIA. IN.	A. IN.	B. IN.	C. IN.	D. IN.	E. IN.	LAID LENGTH FT.	WEIGHT	WALL T IN.
12	49	24	24	4	13	6.00	530	2
15	46	27	30	6	16	6.08	740	2 1/4
18	46	27	36	9	19	6.08	990	2 1/2
21	38	35	42	9	22	6.08	1280	2 3/4
24	30	44	48	9 1/2	25	6.17	1520	3
27	26	48	54	10 1/2	28	6.17	1930	3 1/4
30	20	54	60	12	31	6.17	2190	3 1/2
36	35	63	72	15	37	8.17	4100	4
42	35	63	72	21	43	8.17	5380	4 1/2
48	26	72	84	24	49	8.17	6550	5
54	35	65	90	27	55	8.33	8040	5 1/2
60	39	60	96	30	61	8.25	8750	6



CONSTRUCTION NOTES:

- LATERAL PIPE OPENINGS TO BE CAST INTO THE STRUCTURE AT THE PRECAST FACILITY.
- LATERAL PIPES TO EXTEND INTO THE STRUCTURE FLUSH WITH THE INSIDE WALL, WITH THE ANNULAR SPACE BETWEEN THE PIPE AND WALL OPENING SEALED WITH AN EXPANDABLE WATER-STOP AND AN APPROVED NON-SHRINK GROUT.
- ACCESS RISERS AND MANHOLE COVERS TO BE INSTALLED AND GROUTED ON SITE TO MEET FINISH GRADE BY THE CONTRACTOR.

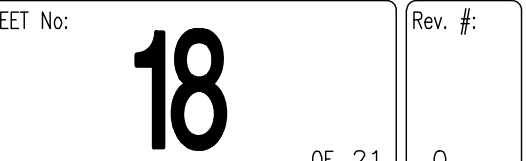





1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT BIO CLEAN.



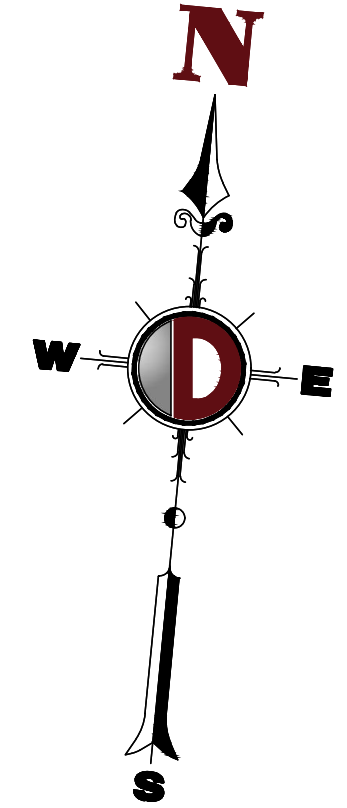
NOT TO SCALE



[illegible]

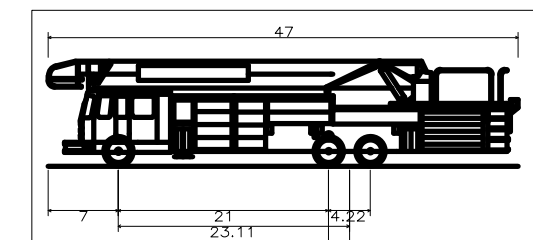


DYNAMIC
• ENGINEERING • EARTH
• SURVEY • TRAFFIC

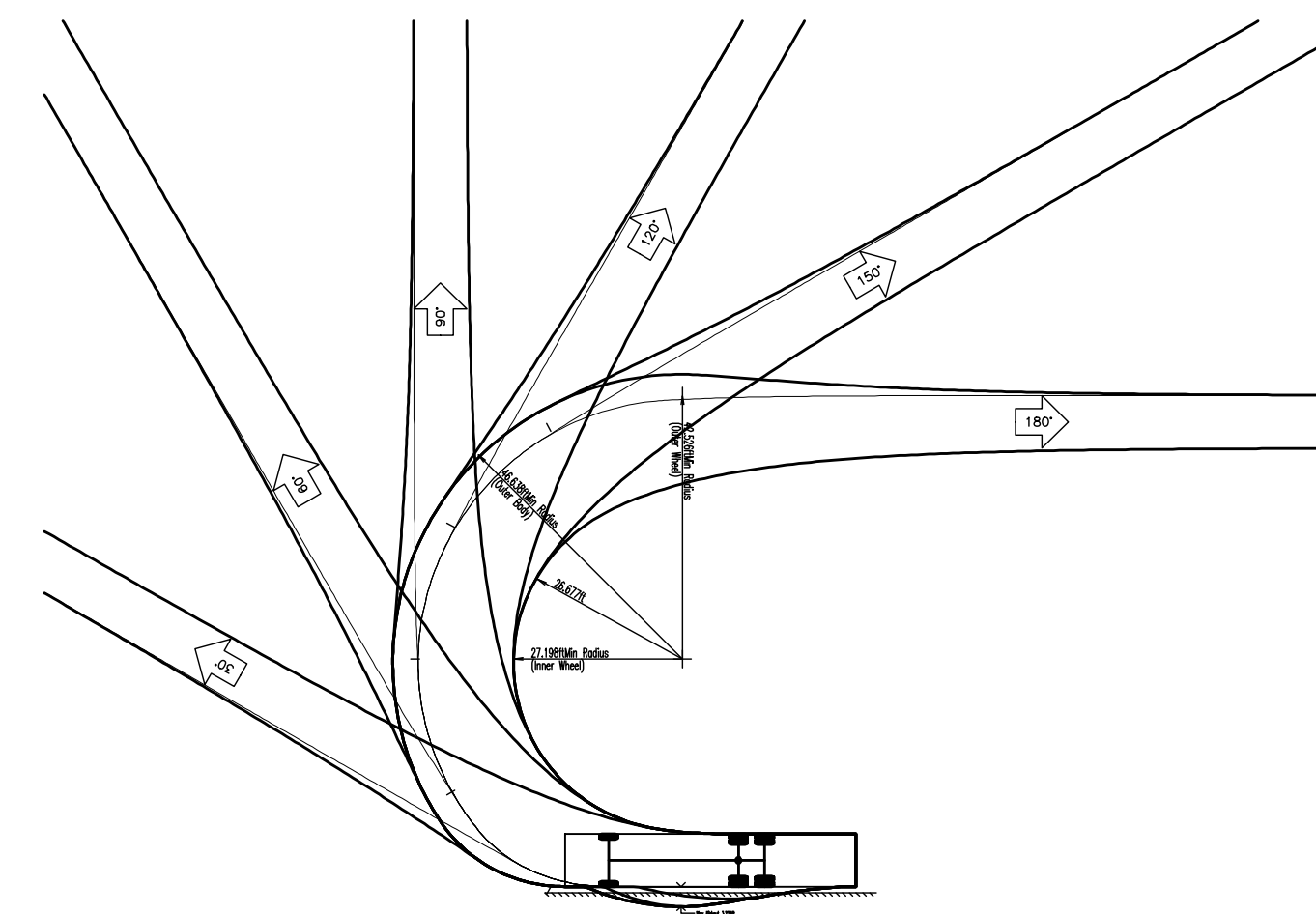


PROP. INV. IN (15^m): 829.97

PROPOSED 1 STORY
WAREHOUSE 64,515 SF



Firetruck - Generic	
Overall Length	47.000ft
Overall Width	8.500ft
Overall Body Height	10.519ft
Min Body Ground Clearance	0.950ft
Track Width	8.500ft
Lock-to-lock time	6.00s
Max Wheel Angle	40.00°



GRAPHIC SCALE

(IN FEET)
1 INCH = 30 FT.

THIS PLAN SET IS FOR PERMITTING PURPOSES
ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DESIGNED BY:	DESIGNED BY:	CHECKED BY:	CHECKED BY:
EJK	JW	SLS	-

PROJECT: **MORRIS MOUNT OLIVE ASSOCIATES, LLC**
PROPOSED WAREHOUSE FACILITY
BLOCK 400, LOTS 1 & 2
217 & 219 WATERLOO VALLEY ROAD
TOWNSHIP OF MOUNT OLIVE, MORRIS COUNTY, NEW JERSEY

811
Know what's below
Call before you dig.

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF
EXCAVATORS, DESIGNERS, OR ANY PERSON
PREPARING TO DISTURB THE EARTH'S
SURFACE ANYWHERE IN ANY STATE

**DIRECT PHONE NUMBERS VISIT:
CALL811.COM**

DYNAMIC ENGINEERING

**LAND DEVELOPMENT CONSULTING • PERMITTING
GEOTECHNICAL • ENVIRONMENTAL
TRAFFIC • SURVEY • PLANNING & ZONING**

**245 Main Street, Suite 110
Chester, NJ 07930**

T: 908.879.9229 | F: 908.879.0222

Offices conveniently located at:

Kia Como, New Jersey • T: 732.974.0198
Chesler, New Jersey • T: 908.879.9229
Newark, New Jersey • T: 973.55.7200
Coral River, New Jersey • T: 732.687.0000
Pawlowsky, Pennsylvania • T: 267.685.0276
Jadlovsky, Pennsylvania • T: 215.253.4888
Mikhaluk, Pennsylvania • T: 610.598.4400
Allen, Texas • T: 972.534.2100
Houston, Texas • T: 281.768.6400
Austin, Texas • T: 512.646.2646
Delray Beach, Florida • T: 561.921.8570

www.dynamicec.com

STEPHEN L. SCHWARTZ

Steve L. Schwartz
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 48126

JOSHUA W. WIRRY

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 55268

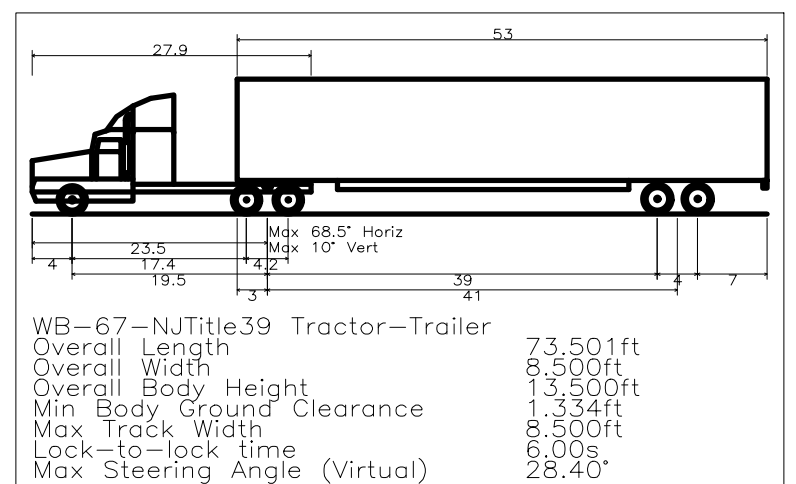
TITLE:
VEHICLE CIRCULATION
PLAN (FIRE TRUCK)

SCALE: (H) 1" = 30' (V).	DATE: 08/07/2023
PROJECT No: 1212 22-03061	

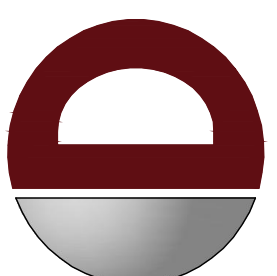
SHEET No: **20** OF 21

Plotted: 08/08/23 - 11:18 AM, By: ekelly
File: P:\DEPC PROJECTS\1212 The Morris Companies\22-03061 Mount Olive Dwg\Site Plans\20 VEHICLE CIRCULATION PLAN (FIRE TRUCK).dwg

COPYRIGHT © 2023 - DYNAMIC ENGINEERING CONSULTANTS, PC - ALL RIGHTS RESERVED



THIS PLAN TO BE UTILIZED FOR VEHICLE CIRCULATION PURPOSES ONLY

[illegible]

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

ADMIN BY:	DESIGNED BY:	CHECKED BY:	CHECKED BY:
EJK	JW	SLS	-

PROJECT: **MORRIS MOUNT OLIVE ASSOCIATES, LLC**
PROPOSED WAREHOUSE FACILITY
BLOCK 400, LOTS 1 & 2
217 & 219 WATERLOO VALLEY ROAD
TOWNSHIP OF MOUNT OLIVE, MORRIS COUNTY, NEW JERSEY



PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF
EXCAVATORS, DESIGNERS, OR ANY PERSON
PREPARING TO DISTURB THE EARTH'S
SURFACE ANYWHERE IN ANY STATE

**CALL DIRECT PHONE NUMBERS VISIT:
V.CALL811.COM**

**DYNAMIC
ENGINEERING**

**LAND DEVELOPMENT CONSULTING • PERMITTING
GEOTECHNICAL • ENVIRONMENTAL
TRAFFIC • SURVEY • PLANNING & ZONING**

**245 Main Street, Suite 110
Chester, NJ 07930**

T: 908.879.9229 F: 908.879.0222

Offices currently located at:

- Greenville, SC 29615 • 724.781.0171
- Clayton, New Jersey • 610.889.9229
- Island Lake, Illinois • 708.578.7222
- Toronto, New Jersey • 973.522.0000
- St. Louis, Missouri • 314.241.0000
- Philadelphia, Pennsylvania • 215.253.4668
- Savannah, Pennsylvania • 610.284.4600
- Alto, Texas • 937.232.2400
- location, Texas • 714.381.4643
- San Jose, CA • 415.554.4643
- Dulles, Virginia • 703.281.8570

www.dynamicec.com

STEPHEN L. SCHWARTZ
Stephen L. Schwartz
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 48126

JOSHUA W. WIRRY

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 55268

TITLE:
VEHICLE CIRCULATION
PLAN (WB-67)

SCALE: (H) 1" = 30' (V)	DATE: 08/07/2023
PROJECT No: 1212 22-03061	

SHEET No: 21	Rev. #: 0
OF 21	0