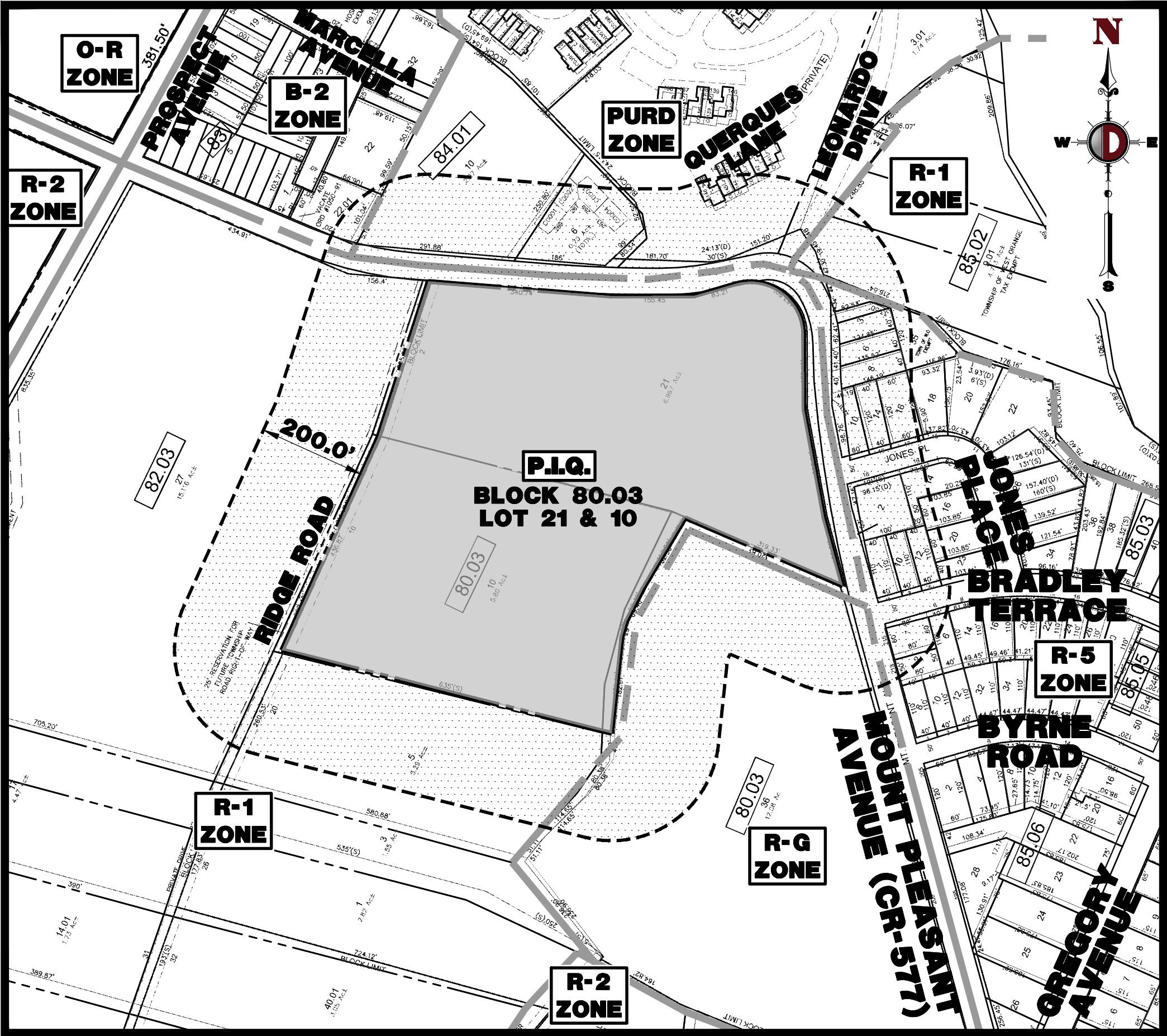


PRELIMINARY AND FINAL SUBDIVISION
FOR
WILLIAM CUMMINGS
PROPOSED RESIDENTIAL SUBDIVISION
BLOCK 80.03, LOT 21 & 10; TAX MAP SHEET #32 - LATEST REV. DATED JUNE 2011
2 & 10 RIDGE ROAD
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

200' PROPERTY OWNERS LIST

PROPERTY OWNER	BLOCK	LOT	PROPERTY OWNER	BLOCK	LOT
MOUNTAIN RESOURCES CORP. PO BOX 1874 LIVINGSTON, NJ 07039	80.03	5, 10, 21	FEYON, EDWARD A. & MARGARET M. 5 BRADLEY TERRACE WEST ORANGE, NJ 07052	85.04	12
CREST RIDGE REALTY, LLC 2 EXECUTIVE DRIVE #400 FORT LEE, NJ 07024	80.03	36	HOMALO, EDGAR & MAZOUAT, ZACHARY 16 JONES PL. WEST ORANGE, NJ 07052	85.04	14
BREA WO EMERTUS, LLC/ECOVA 3349 PO BOX 2447 SPOKANE, WA 99210	82.03	27	DIXON, EDDIE & SHEILA OWEN-DIXON 8 JONES PLACE WEST ORANGE, NJ 07052	85.04	16
SKYLINE COURTS 267-269 MT PLEASANT AVE WEST ORANGE, NJ 07052	84.01	6	ZAKESKI, MICHAEL & FELICETTI, A 4 JONES PLACE WEST ORANGE, NJ 07052	85.04	20
BLOOM, ANDREW & LOBELLO, SALVATORE 263 MOUNT PLEASANT AVE WEST ORANGE, NJ 07052	84.01	6	RELIAN, JOHN A. & W. JOANNE M. 9 BRADLEY TERRACE WEST ORANGE, NJ 07052	85.04	23
MILLER, WILLIAM & QUINCEY 267 MT PLEASANT AVE #2B WEST ORANGE, NJ 07052	84.01	6	BRAVO, JULIO & KYOUNGSUN CHOI 215 MT PLEASANT AVE WEST ORANGE, NJ 07052	85.05	1
BEAMON, LEE D JR 265 MOUNT PLEASANT AVE #C WEST ORANGE, NJ 07052	84.01	6	ALSTON, CARLOS & LISA S. 213 MT PLEASANT AVE WEST ORANGE, NJ 07052	85.05	2
HUNT, THURMAN & STACEY 7 LA SALLE AVENUE PIEDMONT, CA 94611	84.01	6	AYRES, JOHN & CAROL M. 6 BRADLEY TERRACE WEST ORANGE, NJ 07052	85.05	6
MO TELE CORP/VERISON PROP TAX DPT PO BOX 2149 ADDISON, TX 75001	84.01	10, 22	VILLAS AT EAGLE RIDGE 454 PROSPECT AVE WEST ORANGE, NJ 07052	105	3.01, 6
ATC WATER TOWN LLC 10 PRESIDENTIAL WAY WESBURN, MA 01801	84.01	22.01	CHACKO, SHEBA 142 OVERLOOKS LANE WEST ORANGE, NJ 07052	105	6
TOWNSHIP OF WEST ORANGE 66 MAIN STREET WEST ORANGE, NJ 07052	85.02	9.01	BARRY, MEGAN 143 OVERLOOKS LANE WEST ORANGE, NJ 07052	105	6
CHANDLER, LAURA R 237 MT PLEASANT AVENUE WEST ORANGE, NJ 07052	85.03	3	STOLTZBERG, ALAN & ANNETTE 144 OVERLOOKS LANE WEST ORANGE, NJ 07052	105	6
NICKERLINGER, RACHEL 235 MOUNT PLEASANT AVE WEST ORANGE, NJ 07052	85.03	6	HENDRICKS, TRISHA J & FREDERICK D 145 OVERLOOKS LANE WEST ORANGE, NJ 07052	105	6
FACEY, DEVON C & ANNARAY 233 MOUNT PLEASANT AVE WEST ORANGE, NJ 07052	85.03	8	SPENCE, ABRAHAM & LANETHA 146 OVERLOOKS LANE WEST ORANGE, NJ 07052	105	6
L. M. REALTY 19 JONES PLACE WEST ORANGE, NJ 07052	85.03	10			
STILES, LINDA M. 19 JONES PLACE WEST ORANGE, NJ 07052	85.03	14			
BRIGHT, THERESA & FAUOYE, DAPO 17 JONES PLACE WEST ORANGE, NJ 07052	85.03	16			
TOWNSHIP OF WEST ORANGE 66 MAIN STREET WEST ORANGE, NJ 07052	85.03	35			
WATLEY, DURECHER/MICHAEL WATLEY 130 MAIN STREET ORANGE, NJ 07050	85.04	2			
SHAWNEE, RICK & RANFUS, LINDHY G 1 BRADLEY TERRACE WEST ORANGE, NJ 07052	85.04	7			
KREIN, PETER M & KATHRYN A 3 BRADLEY TERRACE WEST ORANGE, NJ 07052	85.04	10			

ALSO TO BE NOTIFIED:
PUBLIC SERVICE ELECTRIC & GAS COMPANY
MANAGER- CORPORATE PROPERTIES
80 PARK PLAZA, T08
NEWARK, NJ 07102
NEW JERSEY AMERICAN WATER COMPANY
167 JOHN F. KENNEDY PARKWAY
SHORT HILLS, NJ 07078
COMCAST CABLEVISION
800 RAINWAY AVENUE
UNION, NJ 07083
VERIZON
1 VERIZON WAY
BASKING RIDGE, NJ 07920-1025
TOWNSHIP OF WEST ORANGE
MUNICIPAL BUILDING
66 MAIN STREET
WEST ORANGE, NJ 07052



AREA MAP
1" = 200'



KEY MAP
1" = 2000'

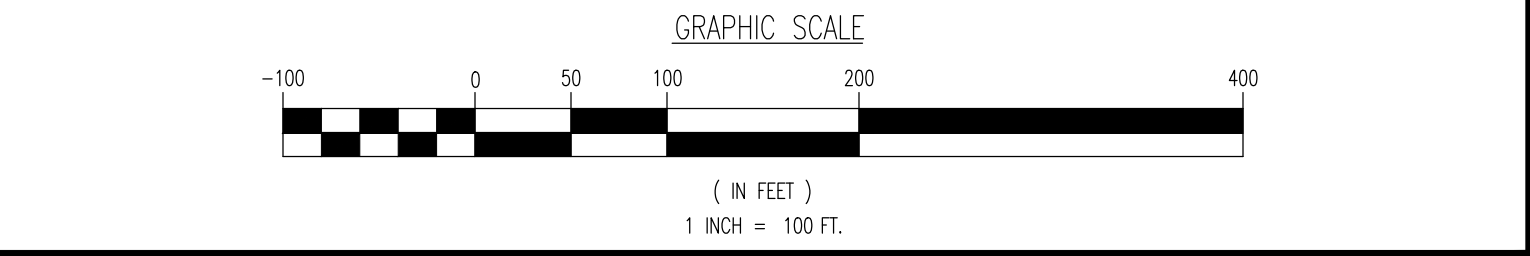
DRAWING INDEX	
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PLANNING BOARD APPROVAL	
APPROVED BY THE PLANNING BOARD OF TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY	
CHAIRMAN	DATE
SECRETARY	DATE
MUNICIPAL ENGINEER	DATE

PREPARED BY
DYNAMIC ENGINEERING CONSULTANTS, P.C.
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LAKE COMO, NJ 07719
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TITLE: COVER SHEET	
PROJECT: WILLIAM CUMMINGS PROPOSED RESIDENTIAL SUBDIVISION BLOCK 80.03, LOT 21 & 10 2 & 10 RIDGE ROAD TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY	JOB No: 4266-99-001 DATE: 07/27/2022 DRAWN BY: JCG DESIGNED BY: RMW CHECKED BY: RPF CHECKED BY: -
ROBERT P. FREUD PROFESSIONAL ENGINEER NEW JERSEY LICENSE No. 41938	JOHN A. PALUS PROFESSIONAL ENGINEER NEW JERSEY LICENSE No. 41975
811 PROTECT YOURSELF ALL STATES REQUIRE NOTIFICATION OF CONCRETE, REINFORCING, OR ANY OTHER PREPARED TO ORDER THE SERVICE FOR STATE-SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM	
1 OF 14 Rev. # 1	

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File: P:\DECPC PROJECTS\4266 SHI Builders\99-001 West Orange\DWG\Site Plans\02 Aerial Map.dwg, -----> 02 AERIAL MAP



THE AERIAL IMAGE DEPICTED ON THIS PLAN IS BASED ON IMAGERY PREPARED BY DIGITAL GLOBE, GEO EYE AND USDA FARM SERVICE AGENCY. THIS IMAGERY WAS PROVIDED BY GOOGLE MAPS ON 07/13/22. THE CONDITIONS OF THE SITE AND SURROUNDING AREAS MAY HAVE CHANGED SINCE THE DATE OF AERIAL PHOTOGRAPHY AND THEREFORE THIS PLAN MAY NOT ACCURATELY REFLECT ALL CURRENT EXISTING CONDITIONS.

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Newtown, Pennsylvania 1-267-685-0276 | Philadelphia, Pennsylvania 1-215-253-4858 | Bethlehem, Pennsylvania 1-610-398-4400

1934 Main Street
Lake Como, NJ 07719
T: 732.974.0198
F: 732.974.3521
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TITLE: AERIAL MAP	
PROJECT: WILLIAM CUMMINGS PROPOSED RESIDENTIAL SUBDIVISION BLOCK 80.03, LOT 21 & 10 RIDGE ROAD TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY	JOB No: 4266-99-001 DRAWN BY: JCG DESIGNED BY: RMW CHECKED BY: RPF
DATE: 07/27/2022 SCALE: (H) 1"=100' (V) SHEET No: 2 OF 14	Rev. # 1

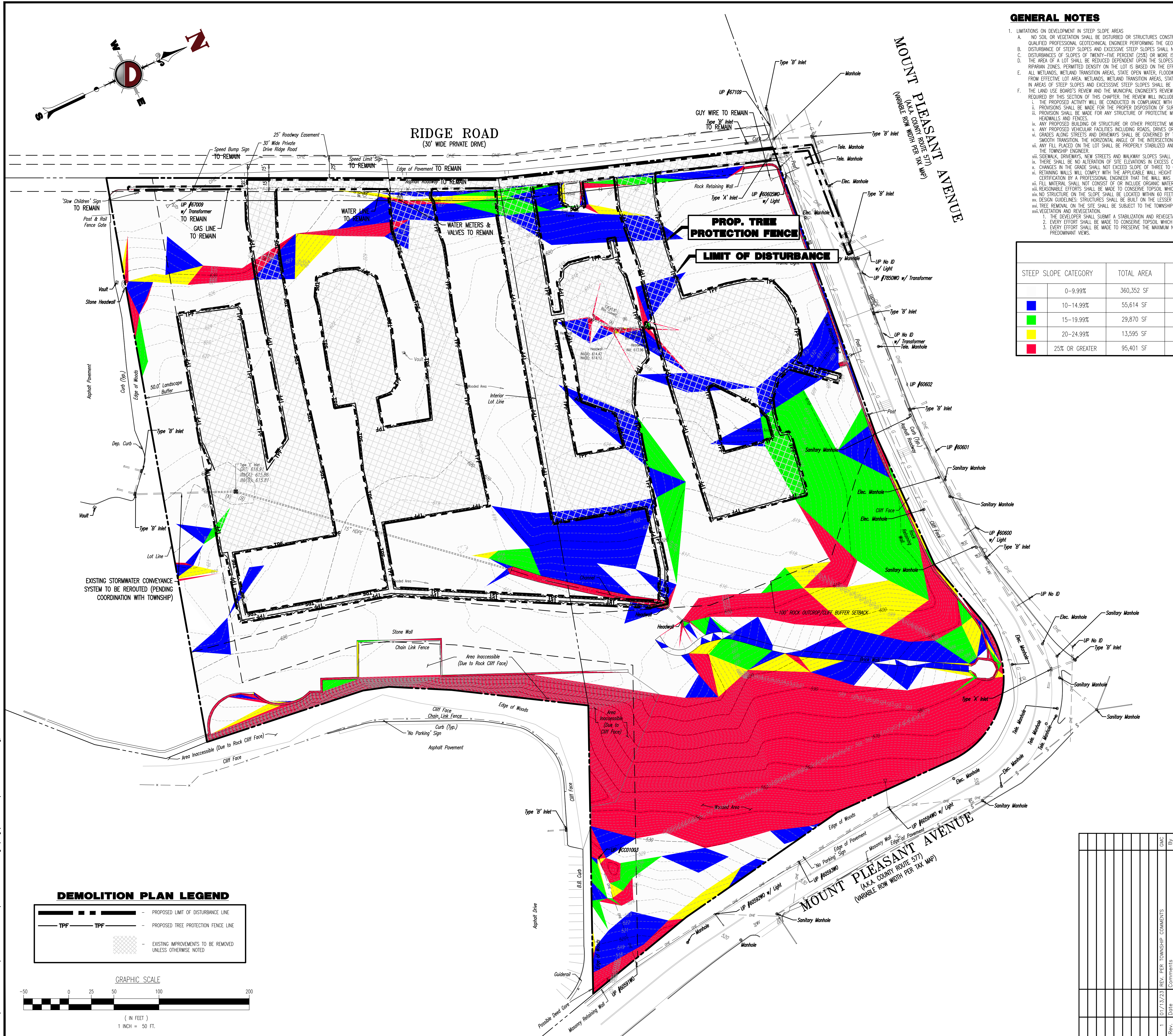
ROBERT P. FREUD

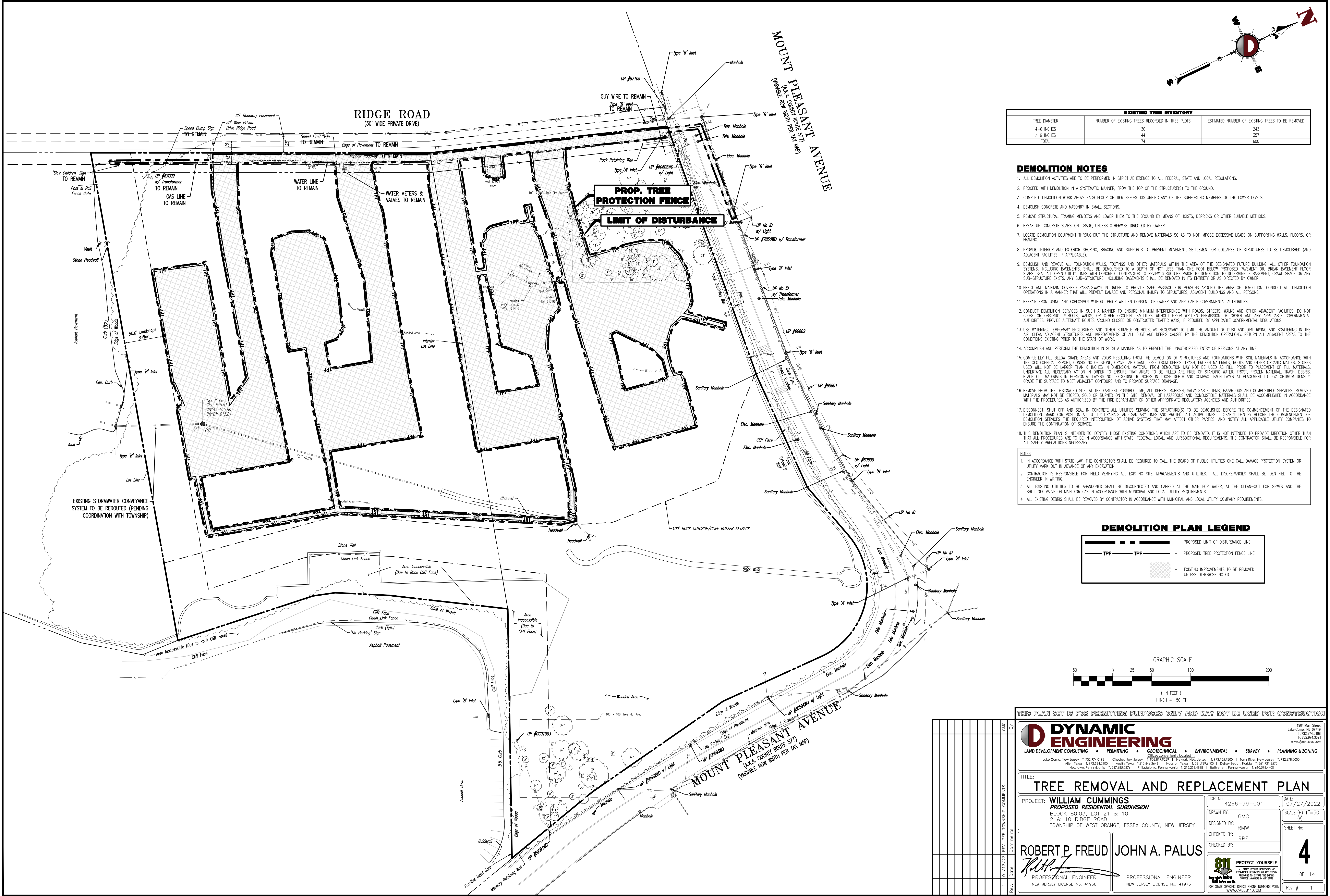
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NEW JERSEY LICENSE No. 41938

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

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Product Ver: 24.2a (LMS Tech)
Plotted: 01/19/23 -- 12:54 PM, By: crowsdrick
File: P:\BECPC PROJECTS\4286 SHI Builders\99-001 West Orange\DWG\Site Plans\03 DEMOLITION STEEP SLOPE AND NATURAL FEATURES PLAN

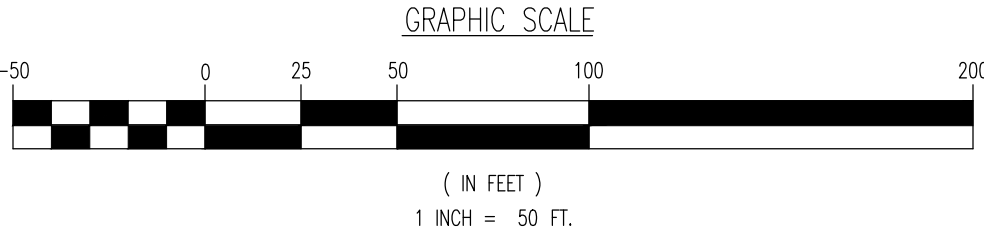




DEMOLITION NOTES

01. DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE AND LOCAL REGULATIONS.
02. PROCEED WITH DEMOLITION IN A SYSTEMATIC MANNER, FROM THE TOP OF THE STRUCTURE(S) TO THE GROUND.
03. COMPLETE DEMOLITION WORK ABOVE EACH FLOOR OR TIER BEFORE DISTURBING ANY OF THE SUPPORTING MEMBERS OF THE LOWER LEVELS.
04. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS.
05. REMOVE STRUCTURAL FRAMING MEMBERS AND LOWER THEM TO THE GROUND BY MEANS OF HOSTS, DERIVKOS OR OTHER SUITABLE METHODS.
06. BREAK UP CONCRETE SLABS-ON-GRADE, UNLESS OTHERWISE DIRECTED BY OWNER.
07. LOCAL DEFORMATION EQUIPMENT THROUGH THE STRUCTURE TO REMOVE MATERIALS SO AS TO NOT IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, FLOORS, OR FRAMING.
08. PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING AND SUPPORTS TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED (AND ADJACENT FACILITIES, IF APPLICABLE).
09. DEMOLISH AND REMOVE ALL FOUNDATION WALLS, FOOTINGS AND OTHER MATERIALS WITHIN THE AREA OF THE DESIGNATED FUTURE BUILDING. ALL OTHER FOUNDATION STRUCTURES, INCLUDING BASINMENTS, SHALL BE DEMOLISHED TO A DEPTH OF NOT LESS THAN ONE FOOT BELOW PROPOSED PAVEMENT OR, BREAK BASES OR FLOOR SLABES TO EXPOSE UNDERLYING LAYERS. BASES EXCEEDING 6 INCHES IN THICKNESS SHALL BE REMOVED BY CUTTING, SEGMENT, CRACK, SPACE OR FILL SUB-STRUCTURE EXPOSURE. ANY SUB-STRUCTURE, INCLUDING BASINMENTS SHALL BE REMOVED IN ITS ENTIRETY OR AS DIRECTED BY OWNER.
10. ERECT AND MAINTAIN COVERED PASSAGeways IN ORDER TO PROVIDE SAFE PASSAGE FOR PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT ALL DEMOLITION OPERATIONS IN A MANNER THAT WILL PREVENT DAMAGE AND PERSONAL INJURY TO STRUCTURES, ADJACENT BUILDINGS AND ALL PERSONS.
11. REFRAIN FROM USING ANY EXPLOSIVES WITHOUT PRIOR WRITTEN CONSENT OF OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES.
12. CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF OWNER AND ANY APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.
13. USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THEIR ORIGINAL EXISTING PRIOR TO THE START OF WORK.
14. ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
15. COMPLETELY FILL BELOW GRADE AREAS AND Voids RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS IN ACCORDANCE WITH GEOTECHNICAL REPORTS. REPAIR AND RELEVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. STONES USED MUST NOT BE LARGER THAN 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL PRIOR TO PLACEMENT OF FILL MATERIALS. UNDERLIE ALL NECESSARY ACTION IN ORDER TO ENSURE THAT GRADES ARE TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, DEBRIS AND OTHER HAZARDOUS MATERIALS IN HORIZONTAL LAYERS. BURN EXCEEDING 6 INCHES IN LENGTH SPOTS AND COMPACT EACH LAYER IN PLACE TO SUE OBTAIN DESIRED GRADE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE.
16. REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS, RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD OR BURNED ON THE SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN COMPLIANCE WITH PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND AUTHORITIES.
17. DISCONNECT, SHUT OFF AND SEAL IN CONCRETE ALL UTILITIES SERVING THE STRUCTURE(S) TO BE DEMOLISHED BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION WORK. ALL PROJECTING UTILITIES SHALL BE IDENTIFIED AND PROTECTED BY ALL ACTIVE UTILITIES - CLEARLY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO ENSURE THE CONTINUATION OF SERVICE.
18. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL PROCEEDINGS SHALL BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS NECESSARY.

 - PROPOSED LIMIT OF DISTURBANCE LINE
 - PROPOSED TREE PROTECTION FENCE LINE
 - EXISTING IMPROVEMENTS TO BE REMOVED UNLESS OTHERWISE NOTED



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TITLE:	
TREE REMOVAL AND REPLACEMENT PLAN	

PROJECT: WILLIAM CUMMINGS <i>PROPOSED RESIDENTIAL SUBDIVISION</i> BLOCK 80.03, LOT 21 & 10 2 & 10 RIDGE ROAD TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY	JOB No: 4266--99--001 DATE: 07/27/2022 DRAWN BY: GMC DESIGNED BY: RMW CHECKED BY: RPF CHECKED BY: _____
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ROBERT P. FREUD PROFESSIONAL ENGINEER NEW JERSEY NUMBER NO. 41938	JOHN A. PALUS PROFESSIONAL ENGINEER NEW JERSEY NUMBER NO. 41975
--	--

CALL BEFORE YOU DIG
 OR ANY OTHER INFORMATION OF
 EXISTING UTILITIES, OR AN ACTION
 REQUIRED TO AVOID THE DAMAGE
 TO EXISTING UTILITIES.

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4

OF 14

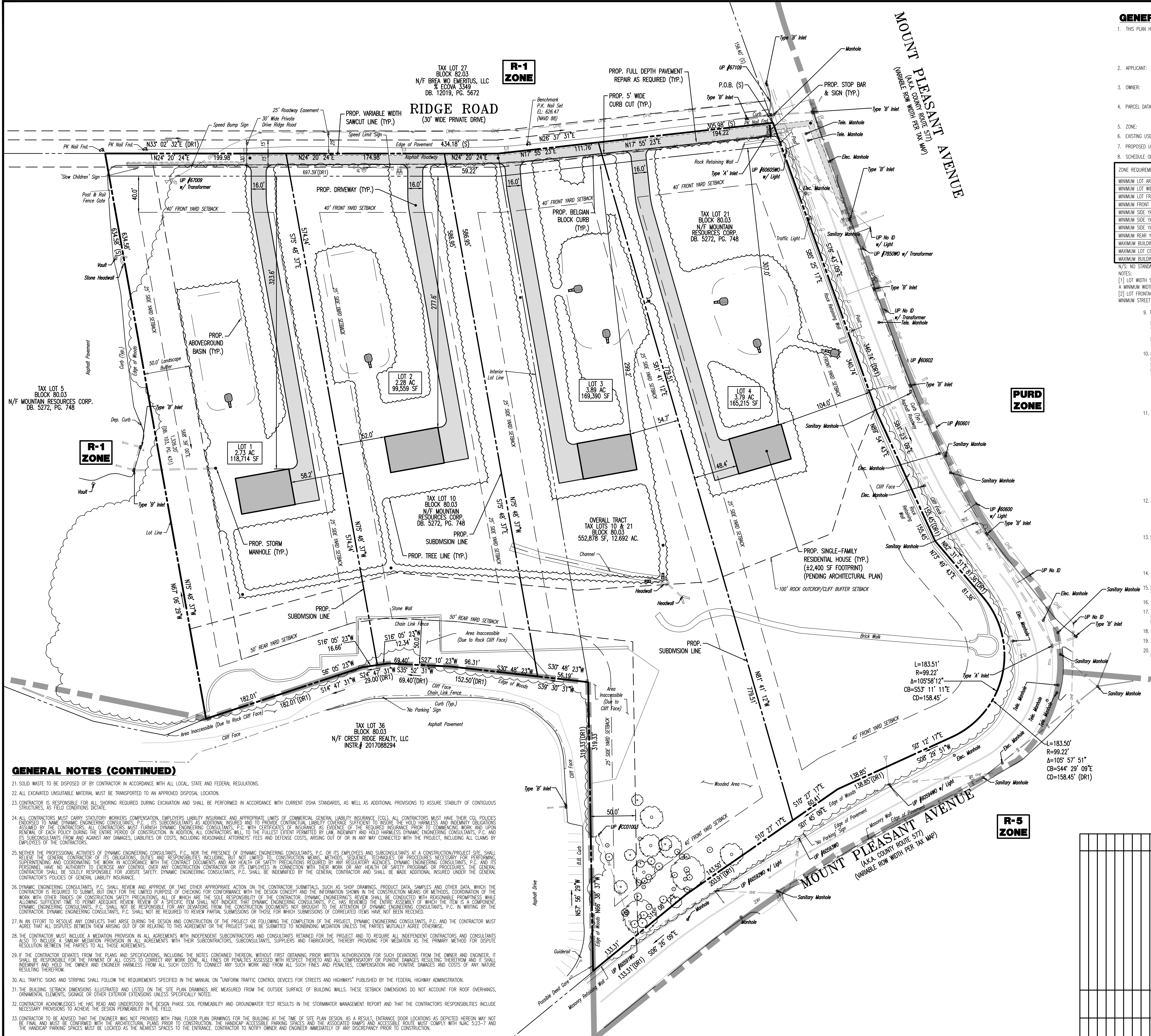
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Plotted: 01/19/23 - 12:54 PM, By: cswendrick, File: P:\VEPCP PROJECTS\4268 SH Builders\99-001 - West Orange Dwg\Site Plans\0426899001SXS.dwg, ----> OVERALL SITE PLAN

GENERAL NOTES (CONTINUED)

- SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
- CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES AS FIELD CONDITIONS DICTATE.
- ALL CONTRACTORS MUST CARRY STATUTORY WORKERS COMPENSATION, EMPLOYERS LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR FOR ANY EMPLOYEES OR SUBCONTRACTORS IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.
- NEITHER THE PROFESSIONAL ACTIVITIES OF DYNAMIC ENGINEERING CONSULTANTS, P.C. NOR THE PRESENCE OF DYNAMIC ENGINEERING CONSULTANTS, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR FOR ANY EMPLOYEES OR SUBCONTRACTORS IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.
- DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS. COORDINATION OF THE WORK WITH OTHER TRADES OR CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. DYNAMIC ENGINEERING'S REVIEW SHALL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT DYNAMIC ENGINEERING CONSULTANTS, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF DYNAMIC ENGINEERING CONSULTANTS, P.C. IN WRITING BY THE CONTRACTOR. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
- IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, DYNAMIC ENGINEERING CONSULTANTS, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.
- THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.
- IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL CLAIMS OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES OR FINES AND IT SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.
- ALL TRAFFIC SIGNS AND STRIPING SHALL FOLLOW THE REQUIREMENTS SPECIFIED IN THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
- THE BUILDING SETBACK DIMENSIONS ILLUSTRATED AND LISTED ON THE SITE PLAN DRAWINGS ARE MEASURED FROM THE OUTSIDE SURFACE OF BUILDING WALLS. THESE SETBACK DIMENSIONS DO NOT ACCOUNT FOR ROOF OVERHANGS, ORNAMENTAL ELEMENTS, SLOPES OR OTHER EXTERIOR EXTENSIONS UNLESS SPECIFICALLY NOTED.
- CONTRACTOR ACKNOWLEDGES HE HAS READ AND UNDERSTOOD THE DESIGN PHASE SOIL PERMEABILITY AND GROUNDWATER TEST RESULTS IN THE STORMWATER MANAGEMENT REPORT AND THAT THE CONTRACTOR'S RESPONSIBILITIES INCLUDE NECESSARY PROVISIONS TO ACHIEVE THE DESIGN PERMEABILITY IN THE FIELD.
- CONTRACTOR TO BE ADVISED THAT THE ENGINEER WAS NOT PROVIDED WITH FINAL FLOOR PLAN DRAWINGS FOR THE BUILDING AT THE TIME OF SITE PLAN DESIGN. AS A RESULT, ENTRANCE DOOR LOCATIONS AS DEPICTED HEREON MAY NOT BE FINAL AND MUST BE CONFIRMED WITH THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. THE HANDICAP ACCESSIBLE PARKING SPACES AND THE ASSOCIATED RAMPS AND ACCESSIBLE ROUTE MUST COMPLY WITH NJAC 5:23-7 AND THE HANDICAP PARKING SPACES MUST BE LOCATED AS THE NEAREST SPACES TO THE ENTRANCE. CONTRACTOR TO NOTIFY OWNER AND ENGINEER IMMEDIATELY OF ANY DISCREPANCY PRIOR TO CONSTRUCTION.

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GENERAL NOTES

- THIS PLAN HAS BEEN PREPARED BASED ON REFERENCES INCLUDING:

ALTA/NSPS LAND TITLE SURVEY
DYNAMIC SURVEY, LLC
1904 MAIN STREET
LAKE COME, NJ 07719
SURVEYOR PROJECT NO: 4266-99-001S

- APPLICANT:

WILLIAM CUMMINGS
280 WOODLAND AVENUE
SUMMIT, NJ 07901

- OWNER:

MOUNTAIN RESOURCES CORP.
P.O. BOX 1874
LIVINGSTON, NJ 07039

- PARCEL DATA:

BLOCK 80.03, LOTS 10 & 21
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

- ZONE:

RESIDENTIAL (R-1 ZONE)

- EXISTING USE:

UNDEVELOPED

- PROPOSED USE:

SINGLE-FAMILY RESIDENTIAL SUBDIVISION (PERMITTED USE) (§25-7.1, 25 ATTACHMENT 2)

- SCHEDULE OF ZONING REQUIREMENTS (§25-7.1, 25 ATTACHMENT 3)

ZONE REQUIREMENT	ZONE R-1	EXISTING TRACT (LOTS 10 & 12)	PROPOSED LOT 1	PROPOSED LOT 2	PROPOSED LOT 3	PROPOSED LOT 4
MINIMUM LOT AREA	80,000 SF (1.84 AC)	552,878 SF (12.692 AC)	118,714 SF (2.73 AC)	99,559 SF (2.28 AC)	169,390 SF (3.89 AC)	165,215 SF (3.79 AC)
MINIMUM LOT WIDTH [1]	150 FT	150 FT (MINOR)	200.0 FT	175.0 FT	175.0 FT	186.0 FT
MINIMUM LOT FRONTAGE [2]	112.50 FT	112.50 FT	200.0 FT	175.0 FT	175.0 FT	194.2 FT
MINIMUM FRONT YARD	40 FT	N/A	323.6 FT	277.6 FT	299.2 FT	307.0 FT
MINIMUM SIDE YARD	25 FT	N/A	58.2 FT	52.0 FT	54.7 FT	48.4 FT
MINIMUM SIDE YARD (CORNER LOT)	40 FT	N/A	N/A	N/A	N/A	104.0 FT
MINIMUM SIDE YARD (COMBINED)	50 FT	N/A	136.8 FT	112.2 FT	142.8 FT	N/A
MINIMUM REAR YARD	50 FT	N/A	194.0 FT	211.0 FT	222.3 FT	N/A
MAXIMUM BUILDING COVERAGE	20%	N/A	2.0% (2,400 SF)	2.4% (2,400 SF)	1.4% (2,400 SF)	1.5% (2,400 SF)
MAXIMUM LOT COVERAGE	30%	2.98%	14.6% (17,379 SF)	17.1% (17,080 SF)	14.1% (23,070 SF)	10.1% (16,750 SF)
MAXIMUM BUILDING HEIGHT	35 FT (2 1/2 STYS)	N/A	< 35 FT	< 35 FT	< 35 FT	< 35 FT

N/S: NO STANDARD N/A: NOT APPLICABLE (E): EXISTING NON-CONFORMANCE (V): VARIANCE

- NOTES:
- LOT WIDTH SHALL MEAN THE SHORTEST DISTANCE BETWEEN SIDE LINES MEASURED AT A POINT ALONG THE REQUIRED FRONT SET-BACK LINE OF THE LOT. ALL LOTS SHALL BE REQUIRED TO HAVE A MINIMUM WIDTH AT ALL POINTS IN THE LOT OF FORTY (40) FEET OR SEVENTY-FIVE PERCENT (75%) OF THE REQUIRED LOT WIDTH, WHICHEVER IS GREATER. (§ 25-4)
 - LOT FRONTAGE SHALL MEAN THE DISTANCE MEASURED BETWEEN THE SIDE LOT LINES AT THE STREET LINE OF THE LOT. EVERY LOT MUST FRONT ON A DESIGNATED AND ACCEPTED STREET AND THE MINIMUM STREET FRONTAGE FOR ANY LOT MUST BE FORTY (40) FEET OR SEVENTY-FIVE PERCENT (75%) OF THE REQUIRED LOT WIDTH, WHICHEVER IS GREATER. (§ 25-4)

- THE SPACE IN A REQUIRED FRONT, SIDE, FRONT YARD OR REAR YARD SHALL BE OPEN AND UNOBSTRUCTED EXCEPT FOR: (§ 25-8.2.)
 - AN UNROOFED TERRACE PROJECTING NOT MORE THAN EIGHT (8) FEET INTO THE REQUIRED REAR YARD.
 - STEPS PROJECTING NOT MORE THAN SIX (6) FEET LEADING TO A BASEMENT OR FIRST FLOOR.
 - DOORWAYS, WINDOWS, SILLS, LINTELS, WALL ORNAMENTS OR LEADERS PROJECTING NOT MORE THAN TWO (2) FEET. A VARIANCE SHALL BE REQUIRED FOR ANY FEATURE THAT PROJECTS MORE THAN TWO (2) FEET INTO A REQUIRED YARD.
 - CHIMNEYS, NOT OVER FOUR (4) FEET WIDE, PROVIDED THAT THE BUILDING INSPECTOR SHALL DETERMINE THAT SUCH PROJECTIONS ARE SO PLACED AS NOT TO OBSTRUCT LIGHT OR VENTILATION.

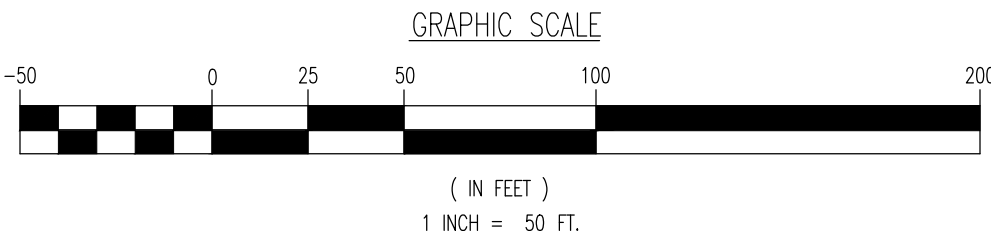
- EVERY DWELLING SHALL PROVIDE A MINIMUM RESIDENTIAL LIVING AREA PER UNIT ON FINISHED FLOORS. THE MINIMUM STIPULATED HEREIN SHALL BE DEEMED TO BE EXCLUSIVE OF PORCHES, BREKFASTS, GARAGE AREA, BASEMENT, CELLAR AREAS AND LAUNDRY ROOMS. THAT IN THE CASE OF A DWELLING WITH LIVING ACCOMMODATIONS ON TWO (2) OR MORE LEVELS, COMMONLY KNOWN AS A SPLIT LEVEL OR BI-LEVEL, ANY ROOM, THE FLOOR OF WHICH AVERAGES MORE THAN TWO (2) FEET BELOW THE OUTSIDE GROUND LEVEL, SHALL NOT BE CONSIDERED AS PART OF THE RESIDENTIAL LIVING AREA. (§ 25-8.8.)

A. ONE STORY ONE-FAMILY DWELLING	2,200 SF
B. ONE AND ONE-HALF STORY ONE-FAMILY DWELLING, WITH UNFINISHED ATTIC FLOOR	2,200 SF
C. ONE AND ONE-HALF STORY ONE-FAMILY DWELLING, WITH FINISHED ATTIC FLOOR	2,200 SF
D. TWO STORY ONE-FAMILY DWELLING, WITH UNFINISHED SECOND STORY	2,200 SF
E. TWO STORY ONE-FAMILY DWELLING, WITH FINISHED SECOND FLOOR	3,000 SF
F. ONE-FAMILY DWELLING, MORE THAN TWO STORES IN HEIGHT	3,000 SF
G. A DWELLING WITH LIVING ACCOMMODATIONS ON TWO OR MORE LEVELS, COMMONLY KNOWN AS A SPLIT LEVEL OR BI-LEVEL	3,000 SF

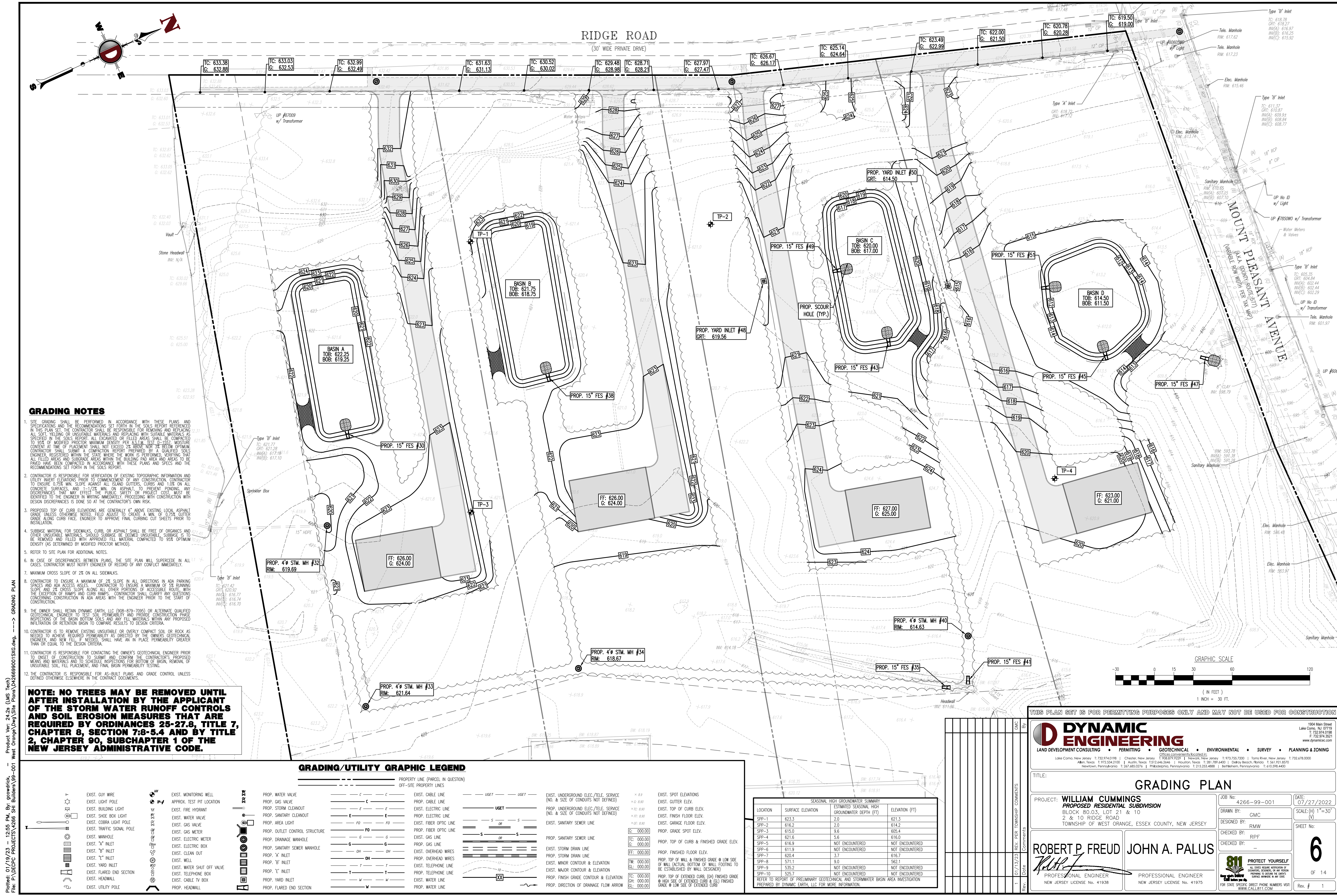
- PARKING REQUIREMENTS
 - ONE-FAMILY (§ 25-12.2A.1)
 - 1 BEDROOM = 1.5 PER UNIT
 - 2 BEDROOM = 2.0 PER UNIT
 - 3 BEDROOM = 2.5 PER UNIT
 - 4 BEDROOM = 3.0 PER UNIT
 - IF NUMBER OF BEDROOMS PER UNIT IS NOT SPECIFIED, THIS PARKING REQUIREMENT SHALL APPLY.
 - GARAGE AND DRIVEWAY COMBINATIONS SHALL BE COUNTED AS FOLLOWS: (§ 25-12.2A.2)
 - EACH GARAGE CAR SPACE SHALL BE COUNTED AS ONE (1) OFF-STREET PARKING SPACE REGARDLESS OF THE DIMENSIONS OF THE DRIVEWAY.
 - A ONE-CAR GARAGE AND DRIVEWAY COMBINATION SHALL COUNT AS TWO (2) OFF-STREET PARKING SPACES, PROVIDED THE DRIVEWAY MEASURES A MINIMUM OF EIGHTEEN (18) FEET IN LENGTH BETWEEN THE FACE OF THE GARAGE DOOR AND THE RIGHT-OF-WAY.
 - A TWO-CAR GARAGE AND DRIVEWAY COMBINATION SHALL COUNT AS THREE AND ONE-HALF (3.5) OFF-STREET PARKING SPACES, PROVIDED A MINIMUM PARKING AREA WIDTH OF TWENTY (20) FEET IS PROVIDED FOR A MINIMUM LENGTH OF EIGHTEEN (18) FEET AS SPECIFIED FOR A ONE-CAR GARAGE AND DRIVEWAY COMBINATION.
 - PRIVATE GARAGES SHALL BE UTILIZED AS AN ACCESSORY TO THE PRINCIPAL USE. (§ 25-12.2B.1)
 - NOT MORE THAN THIRTY PERCENT (30%) OF THE AREA OF A MINIMUM REQUIRED FRONT YARD, REAR YARD OR SIDE YARD SHALL BE USED AS A PARKING AREA. (§ 25-12.2B.2)

- WALL AND FENCE REQUIREMENTS
 - WALLS AND FENCES WHICH ARE NOT MORE THAN FIFTY PERCENT (50%) SOLID ARE PERMITTED ANYWHERE ON THE PROPERTY, PROVIDED THEY ARE NOT HIGHER THAN FOUR (4) FEET. (§ 25-8.4A.)
 - SOLID WALLS AND FENCES NOT HIGHER THAN SIX (6) FEET ARE PERMITTED IN THE REAR YARD AND ON THE SIDE PROPERTY LINE UP TO THE REAR LINE OF THE HOUSE. IF THE DISTANCE ON EACH SIDE OF SUCH A FENCE IS MORE THAN FIVE (5) FEET TO EACH ADJACENT HOUSE, SUCH SOLID FENCE MAY BE LOCATED IN THE SIDE PROPERTY UP TO THE FRONT OF THE HOUSE. (§ 25-8.4B.)
- BUFFER REQUIREMENTS
 - A BUFFER STRIP FIFTY (50) FEET IN WIDTH SHALL BE PLANTED AND MAINTAINED IN PERPETUITY WITH TREES AND SHRUBBERY OF SUCH SIZES AND DENSITIES AS TO ADEQUATELY SCREEN THE BUILDINGS FROM SUCH ADJUTING RESIDENTIAL USE FOR RESIDENTIAL SUBDIVISION OF A PROPERTY THAT IS TEN (10) ACRES OR GREATER IN AREA. (§ 25-11.3A.)
 - ABOVEGROUND STORMWATER MANAGEMENT FACILITIES SHALL NOT BE PERMITTED IN BUFFER STRIPS. (§ 25-11.3B.)

- THE APPLICANT REQUESTS ANY AND ALL SUBMISSION WAIVERS THAT ARE NOT SPECIFICALLY IDENTIFIED HEREIN. TESTIMONY WILL BE SUPPLIED AT THE PUBLIC HEARING TO SUPPORT SHD SUBMISSION WAIVERS.
- 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 BY ALL OF THE PERMITTING AUTHORITIES.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
- THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT & PLANS.
- SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
- THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.
- ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.



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TITLE: OVERALL SITE PLAN	
PROJECT: WILLIAM CUMMINGS PROPOSED RESIDENTIAL SUBDIVISION BLOCK 80.03, LOT 21 & 10 2 & 10 RIDGE ROAD TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY	JOB No: 4266-99-001 DATE: 07/27/2022 DRAWN BY: GMC DESIGNED BY: RMW CHECKED BY: RPF CHECKED BY: -
ROBERT P. FREUD PROFESSIONAL ENGINEER NEW JERSEY LICENSE NO. 41938	JOHN A. PALUS PROFESSIONAL ENGINEER NEW JERSEY LICENSE NO. 41975
ALL STATE REQUIREMENTS FOR CONSTRUCTION OF CONSTRUCTION DOCUMENTS, OR ANY OTHER PREPARING TO OBTAIN THE STATE'S SERVICE LICENSES, IN NEW JERSEY FOR STATE-SPECIFIC BEST PRACTICES VISIT: WWW.CALL811.COM	
SHEET No: 5 OF 14 Rev. # 1	



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PROJECT: **WILLIAM CUMMINGS**
PROPOSED RESIDENTIAL SUBDIVISION
BLOCK 80.03, LOT 21 & 10
2 & 10 RIDGE ROAD
TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY

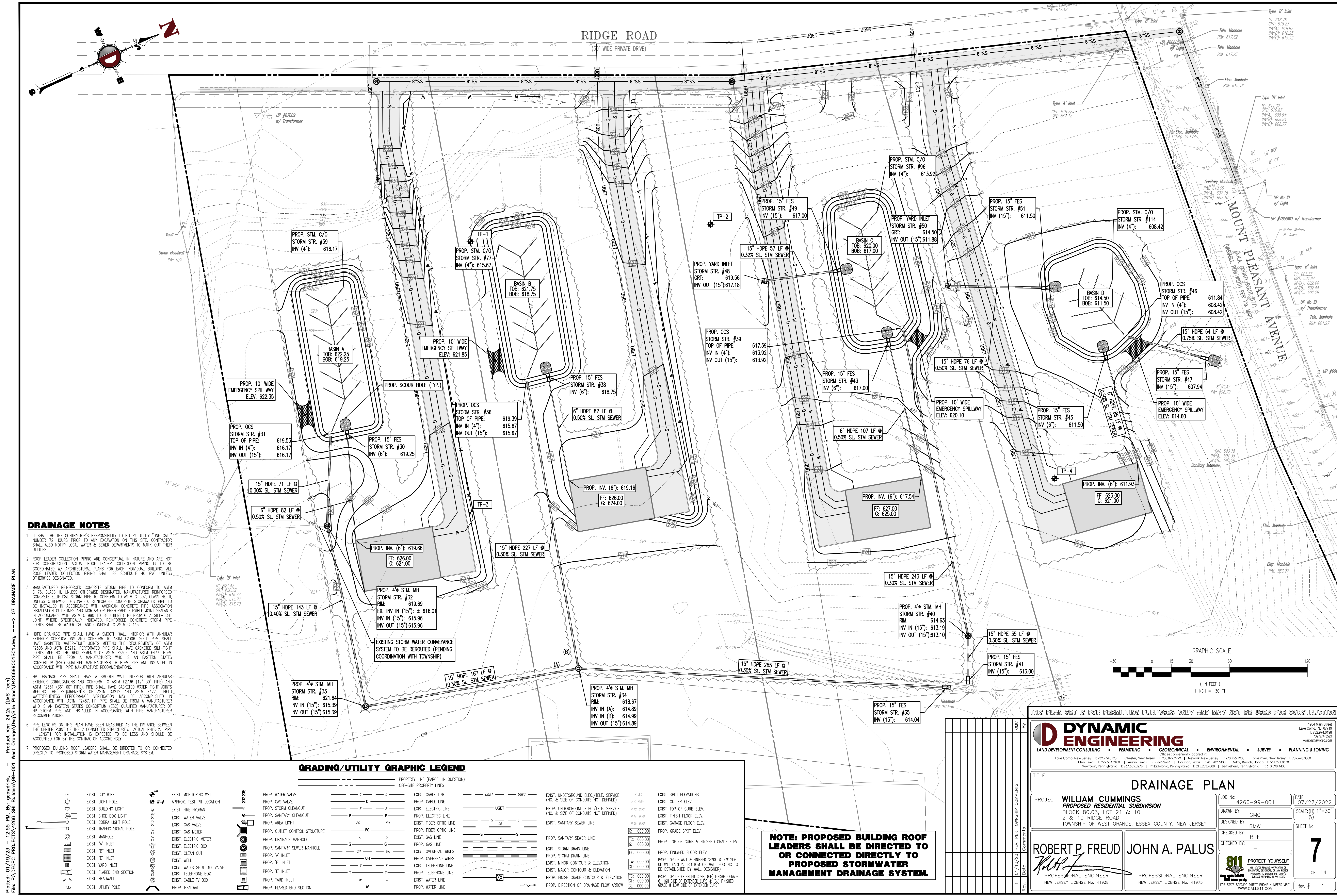
JOB No: 4266-99-001
DATE: 07/27/2022
DRAWN BY: GMC
DESIGNED BY: RMW
CHECKED BY: RPF
CHECKED BY: -

ROBERT P. FREUD
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41938

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Rev. # 1



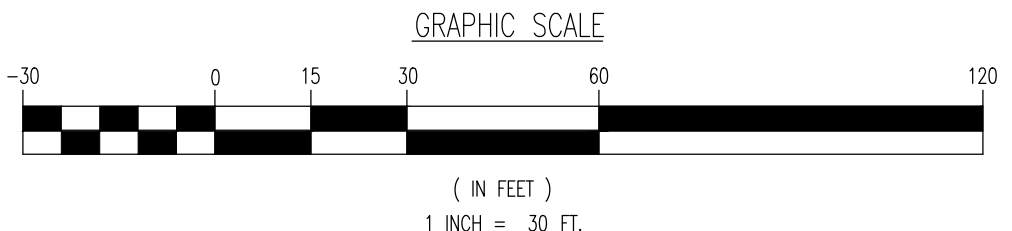
DRAINAGE NOTES

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK-OUT THEIR UTILITIES.
- ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
- MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-II, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH ASTM C-290 TO BE UTILIZED TO PROVIDE A SELF-TIGHT JOINT. WHERE SPECIFICALLY INDICATED, REINFORCED CONCRETE STORM PIPE JOINTS SHALL BE WATERTIGHT AND CONFORM TO ASTM C-443.
- HDPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNUAL EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SPLIT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM F477. HDPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HDPE PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
- HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNUAL EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATER-TIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
- PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ADJUSTED FOR BY THE CONTRACTOR ACCORDINGLY.
- PROPOSED BUILDING ROOF LEADERS SHALL BE DIRECTED TO OR CONNECTED DIRECTLY TO PROPOSED STORM WATER MANAGEMENT DRAINAGE SYSTEM.

GRADING/UTILITY GRAPHIC LEGEND

- | | | |
|------------------------------------|---|---|
| PROPERTY LINE (PARCEL IN QUESTION) | EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED) | EXIST. SPOT ELEVATIONS |
| OFF-SITE PROPERTY LINES | EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED) | EXIST. GUTTER ELEV. |
| EXIST. GUY WIRE | EXIST. SANITARY SOWER LINE | EXIST. TOP OF CURB ELEV. |
| EXIST. LIGHT POLE | EXIST. STORM DRAIN LINE | EXIST. FINISH FLOOR ELEV. |
| EXIST. BUILDING LIGHT | EXIST. STORM DRAIN LINE | EXIST. GARAGE FLOOR ELEV. |
| EXIST. SHOE BOX LIGHT | EXIST. MINOR CONTOUR & ELEVATION | PROP. GRADE SPOT ELEV. |
| EXIST. CORRA LIGHT POLE | PROP. FINISH GRADE CONTOUR & ELEVATION | PROP. TOP OF CURB & FINISHED GRADE ELEV. |
| EXIST. TRAFFIC SIGNAL POLE | PROP. DIRECTION OF DRAINAGE FLOW ARROW | PROP. FINISHED FLOOR ELEV. |
| EXIST. MANHOLE | | PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER) |
| EXIST. "A" INLET | | PROP. TOP OF EXTENDED CURB @ FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (a) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB |
| EXIST. "B" INLET | | |
| EXIST. YARD INLET | | |
| EXIST. FLARED END SECTION | | |
| EXIST. HEADWALL | | |
| EXIST. UTILITY POLE | | |
| EXIST. MONITORING WELL | | |
| APPROX. TEST PIT LOCATION | | |
| EXIST. FIRE HYDRANT | | |
| EXIST. WATER VALVE | | |
| EXIST. GAS VALVE | | |
| EXIST. GAS METER | | |
| EXIST. ELECTRIC METER | | |
| EXIST. ELECTRIC BOX | | |
| EXIST. CLEAN OUT | | |
| EXIST. WELL | | |
| EXIST. WATER SHUT OFF VALVE | | |
| EXIST. TELEPHONE BOX | | |
| EXIST. CABLE TV BOX | | |
| PROP. WATER VALVE | | |
| PROP. GAS VALVE | | |
| PROP. STORM CLEANOUT | | |
| PROP. SANITARY CLEANOUT | | |
| PROP. AREA LIGHT | | |
| PROP. OUTLET CONTROL STRUCTURE | | |
| PROP. DRAINAGE MANHOLE | | |
| PROP. SANITARY SOWER MANHOLE | | |
| PROP. "A" INLET | | |
| PROP. "B" INLET | | |
| PROP. "E" INLET | | |
| PROP. YARD INLET | | |
| PROP. FLARED END SECTION | | |

NOTE: PROPOSED BUILDING ROOF LEADERS SHALL BE DIRECTED TO OR CONNECTED DIRECTLY TO PROPOSED STORMWATER MANAGEMENT DRAINAGE SYSTEM.



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PROJECT: **WILLIAM CUMMINGS PROPOSED RESIDENTIAL SUBDIVISION**
BLOCK: 80.03, LOT: 21 & 10
2 & 10 RIDGE ROAD
TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY

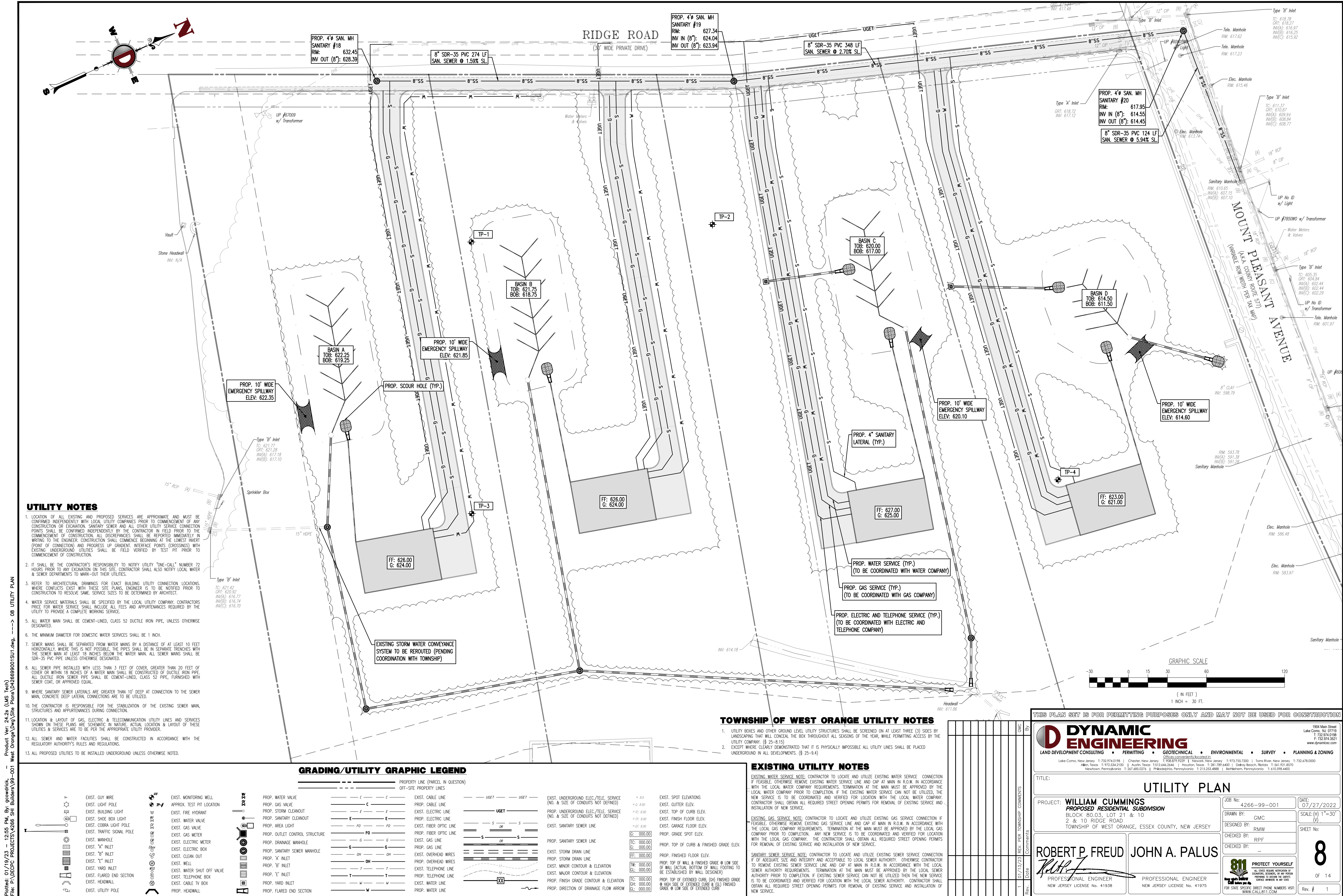
TITLE: **DRAINAGE PLAN**

JOB No: 4266-99-001
DATE: 07/27/2022
DRAWN BY: GMC
SCALE: (H) 1"=30' (V)
DESIGNED BY: RMW
CHECKED BY: RPF
SHEET No: 7 OF 14

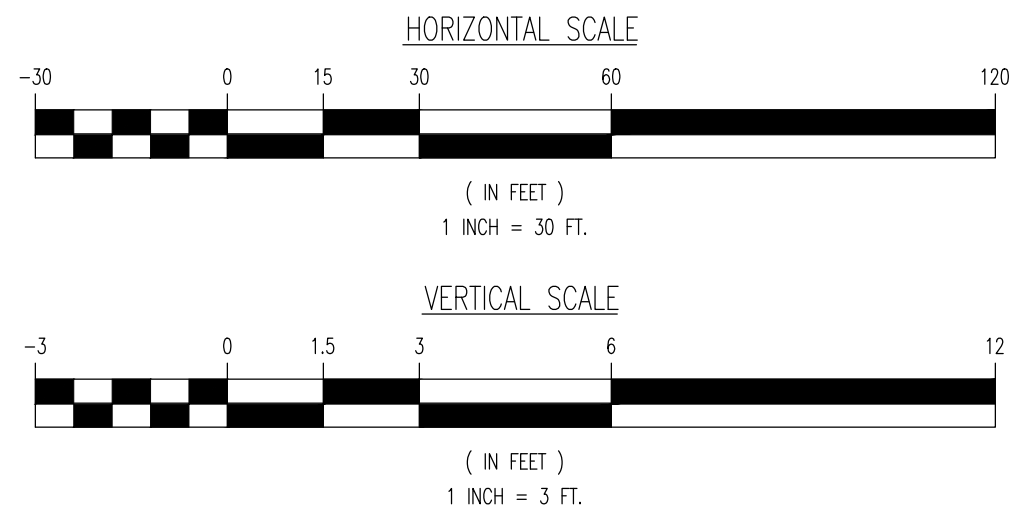
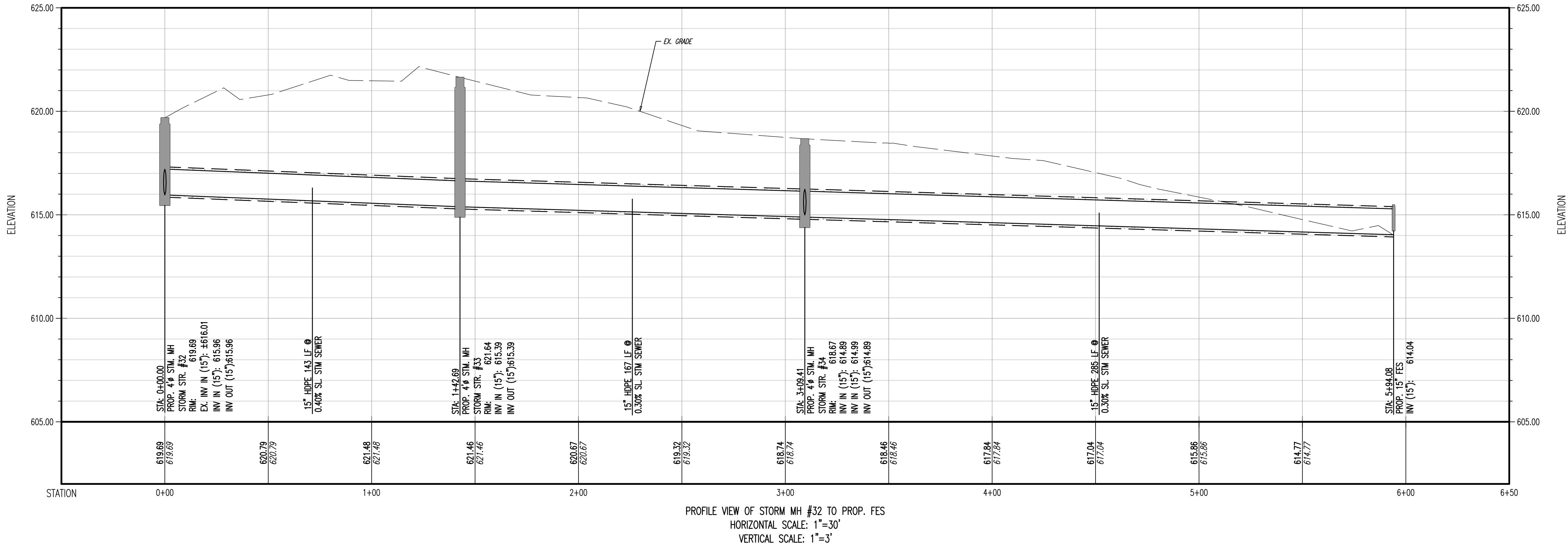
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Product Ver. 24.2a (LMS Tech)
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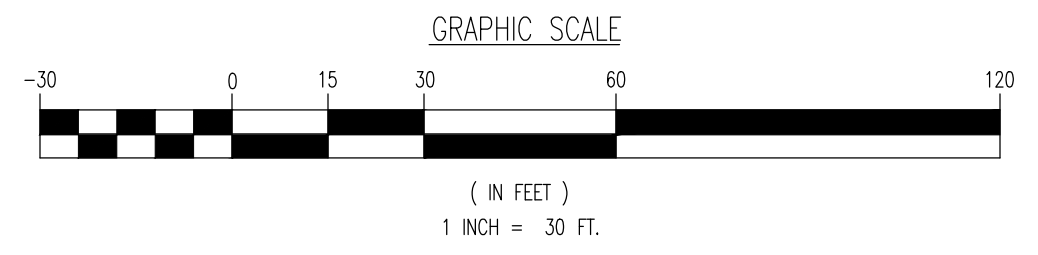
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TITLE: STORM SEWER PROFILE	
PROJECT: WILLIAM CUMMINGS PROPOSED RESIDENTIAL SUBDIVISION BLOCK 80.03, LOT 21 & 10 2 & 10 RIDGE ROAD TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY	JOB No: 4266-99-001 DATE: 07/27/2022 DRAWN BY: GMC DESIGNED BY: RMW CHECKED BY: RPF CHECKED BY: -
ROBERT P. FREUD PROFESSIONAL ENGINEER NEW JERSEY LICENSE No. 41935	JOHN A. PALUS PROFESSIONAL ENGINEER NEW JERSEY LICENSE No. 41975
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Plotted: 01/19/23 - 12:56 PM, By: gowdick,
File: P:\VEPCP PROJECTS\4286 SHI Builders\99-001 - West Orange Dwg\Site Plans\0428699001SE1.dwg, ----> SOIL EROSION AND SEDIMENT CONTROL PLAN



EROSION CONTROL LEGEND

- PROP. LIMIT OF DISTURBANCE LINE
- PROP. SILT FENCE LINE
- PROP. TREE PROTECTION FENCE LINE
- PROP. INLET FILTER
- PROP. HAYBALE SEDIMENT BARRIER



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TITLE: **SOIL EROSION AND SEDIMENT CONTROL PLAN**

PROJECT: **WILLIAM CUMMINGS
PROPOSED RESIDENTIAL SUBDIVISION**
BLOCK 60.03, LOT 21 & 10
2 & 10 RIDGE ROAD
TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY

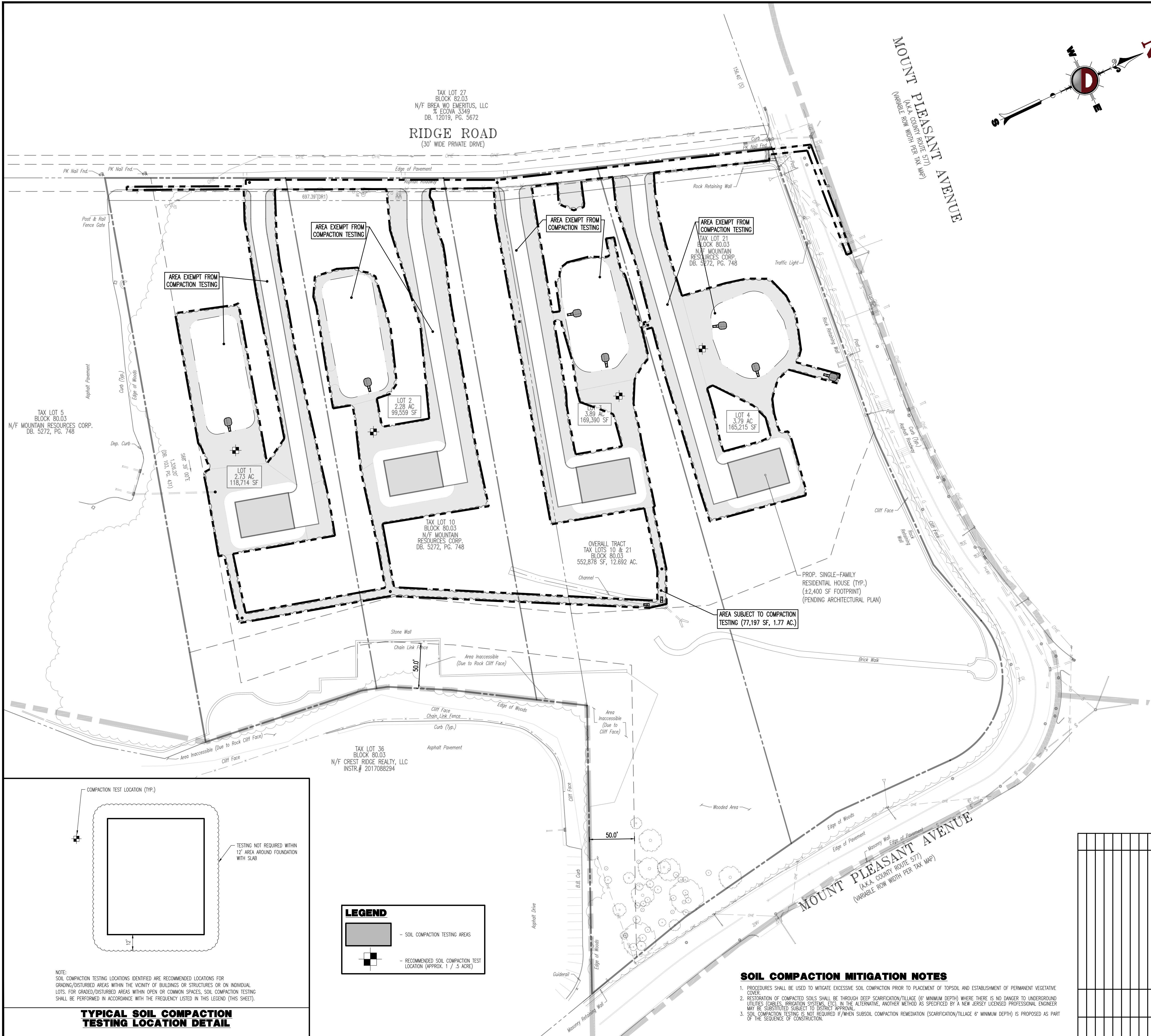
JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41938

ROBERT P. FREUD
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41938

DATE: 07/27/2022
SCALE: (H) 1"=30'
(V) 1"=10'
SHEET No: 11
OF 14

Rev. # 1

Plotted: 01/19/23 At: 12:56 PM, By: gowendrick, Product Ver: 24.2a (LMS Tech)
File: P:\DEPC PROJECTS\4286 SHI Builders\99-001 West Orange\DWG\Site Plans\0428699001SM1.dwg, ----> SOIL MANAGEMENT AND PREPARATION PLAN



Soil De-compaction and Testing Requirements

Soil Compaction Testing Requirements

- Subgrade soils **prior to the application of topsoil** (see permanent seeding and stabilization notes for topsoil requirements) shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative cover.
- Areas of the site which are subject to compaction testing and/or mitigation are **graphically denoted** on the certified soil erosion control plan.
- Compaction testing locations** are denoted on the plan. A copy of the plan or portion of the plan shall be used to mark locations of tests, and attached to the compaction remediation form, available from the local soil conservation district. This form must be filled out and submitted prior to receiving a certificate of compliance from the district.
- In the event that testing indicates compaction in excess of the maximum thresholds indicated for the simplified testing methods (see details below), the contractor/owner shall have the option to perform either (1) compaction mitigation over the entire mitigation area denoted on the plan (excluding exempt areas), or (2) perform additional, more detailed testing to establish the limits of excessive compaction whereupon only the excessively compacted areas would require compaction mitigation. Additional detailed testing shall be performed by a trained, licensed professional.

Compaction Testing Methods

- Probing Wire Test (see detail)
- Hand-held Penetrometer Test (see detail)
- Tube Bulk Density Test (licensed professional engineer required)
- Nuclear Density Test (licensed professional engineer required)

Note: Additional testing methods which conform to ASTM standards and specifications, and which produce a dry weight, soil bulk density measurement may be allowed subject to District approval.

Soil compaction testing is **not required** if/when subsoil compaction remediation (scarification/tillage (6" minimum depth) or similar) is proposed as part of the sequence of construction.

Procedures for Soil Compaction Mitigation

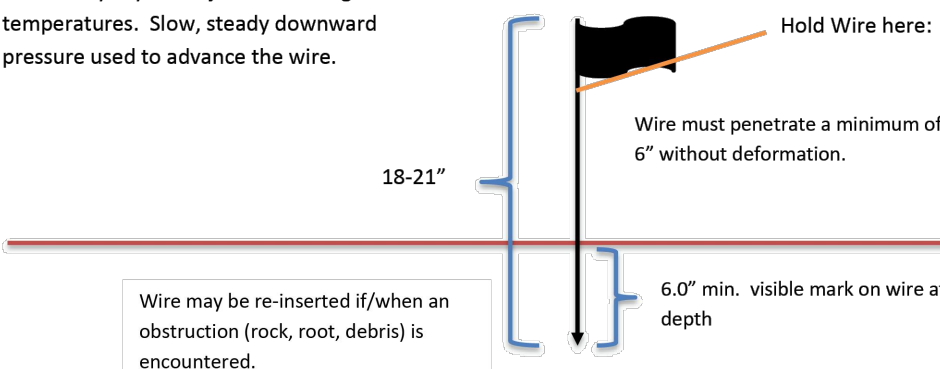
Procedures shall be used to mitigate excessive soil compaction **prior to placement of topsoil** and establishment of permanent vegetative cover.

Restoration of compacted soils shall be through deep scarification/tillage (6" minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method as specified by a New Jersey Licensed Professional Engineer may be substituted subject to District Approval.

Simplified Testing Methods

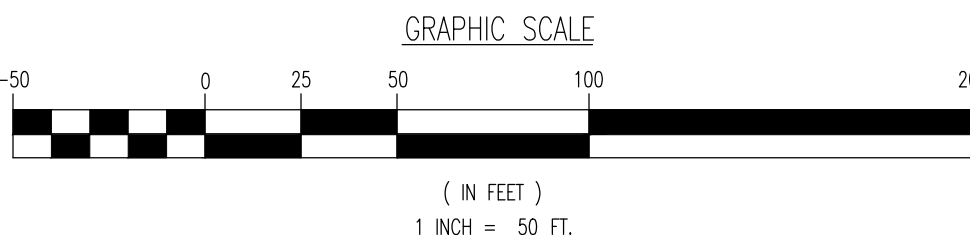
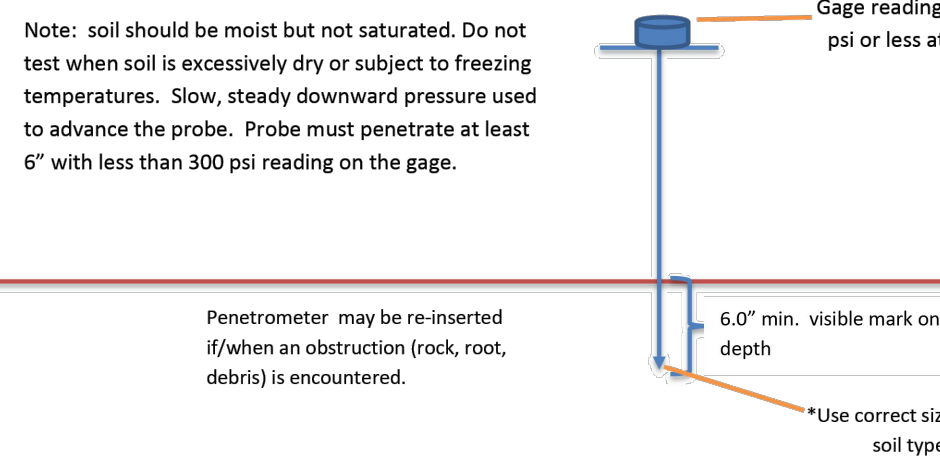
Probing Wire Test- 15.5 ga steel wire (survey flag)

Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the wire.



Handheld Soil Penetrometer Test

Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the probe. Probe must penetrate at least 6 inches with less than 300 psi reading on the gage.



SOIL COMPACTION MITIGATION NOTES

- PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
- RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAY BE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.
- SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6" MINIMUM DEPTH)) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.

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

D

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Newtown, Pennsylvania 1-267.685.0276 | Philadelphia, Pennsylvania 1-215.253.4888 | Baltimore, Pennsylvania 1-410.598.4400

TITLE:
SOIL MANAGEMENT AND PREPARATION PLAN

PROJECT: **WILLIAM CUMMINGS**
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BLOCK 80.03, LOT 21 & 10
2 & 10 RIDGE ROAD
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JOB No:
4266-99-001
DATE:
07/27/2022
DRAWN BY:
GMC
SCALE: (H) 1"=30'
(V)
DESIGNED BY:
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CHECKED BY:
RPF
PROTECT YOURSELF
ALL STATES REQUIRE REGISTRATION OF
GEOTECHNICAL ENGINEERS. IF ANY OTHER
PERSONS TO SIGN THE SHEET'S
DATE: 08/01/2022
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT:
WWW.CALL811.COM

ROBERT P. FREUD
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Product Ver. 24.2a (US Tech)
File: P:\GEOPC Projects\4246 SH Builders\98-001 West Orange Dwg\Site Plans\0246sgn001SET.dwg, ----> SOIL EROSION AND SEDIMENT CONTROL PLAN NOTES AND DETAILS

Plotted: 01/19/2025 - 12:56 PM, By: cgowdwick,
1 - 07/13/23 REV. PER TOWNSHIP COMMENTS

STANDARD FOR DUST CONTROL

DEFINITION – TO CONTROL OF DUST 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 CONTROLLING DUST:
MULCHES – SEE STANDARDS FOR STABILIZATION WITH MULCHES ONLY
VEGETATIVE COVER – SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER, PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD.
SPRAY-ON ADHESIVES – ON MINERAL SOILS (NOT EFFECTIVE ON ROCK 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 INWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING – TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

SPRINKLING – SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
BARRIERS – SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR BURSTS AND SOIL BLOWING.

CALCIUM CHLORIDE – SHALL BE IN THE FORM OF LOOSE, DRY 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.

STANDARD FOR STABILIZATION WITH MULCH ONLY

1. SITE PREPARATION
A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
B. IMMEDIATELY POST SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL 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.
D. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPDRESSING.
E. IMMEDIATELY NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
2. PROTECTIVE MATERIALS
A. UNROTTED SMALL-GRAIN STRAW AT 2.0 TO 2.5 TONS PER ACRE, IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING THE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, I.E. THE SOIL CANNOT BE SEEN BELOW THE MULCH.
B. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.
C. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.
D. MULCH NETTING, SUCH AS PAPER JUTE, EXCELORON, COTTON, OR PLASTIC, MAY BE USED.
E. WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT.
F. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.
3. MULCH ANCHORING – SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH 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 AND STEEPNESS OF SLOPES.
A. PEG AND TWINE
B. MULCH NETTINGS
C. CRAMPER MULCH ANCHORING COULTER TOOL
D. LIQUID MULCH-BINDERS

SEQUENCE OF CONSTRUCTION:

1. PHASE 1: INSTALL STONE ANTI-TRACKING PAD AND OTHER SOIL EROSION SEDIMENT CONTROL MEASURES INCLUDING DOWN SLOPE PERMETER HAY BALES AND SILT FENCING.
2. PHASE 2: CLEAR AND ROUGH GRADE FOR NEW BUILDING SITE AND OTHER STRUCTURES REQUIRING EXCAVATION.
3. PHASE 3: EXCAVATION, CONSTRUCTION, AND STABILIZATION OF DETENTION BASINS, EXCAVATE AND INSTALL UNDERGROUND PIPING AND DRAINAGE STRUCTURES.
4. PHASE 4: EXCAVATE FOR BUILDING FOUNDATION.
5. PHASE 5: COMPLETE BUILDING CONSTRUCTION.
6. PHASE 6: EXCAVATE AND INSTALL ON SITE IMPROVEMENTS INCLUDING CURBING, UNDERGROUND PIPING, AND DRAINAGE STRUCTURES.
7. PHASE 7: FINAL GRADING ON SITE.
8. PHASE 8: INSTALL PAVING, CONCRETE, AND FINAL VEGETATION INCLUDING SEEDING AND LANDSCAPING.

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION
A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
B. IMMEDIATELY POST SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL 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.
D. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPDRESSING.
E. IMMEDIATELY NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
2. SEEDED 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 CO-OPERATIVE 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 10-10-10 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 SEEDED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
B. WORK 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 SEEDING IS PREPARED.
C. HIGH ACID PRODUCING SOILS HAVING A PH OF 4 OR LESS OR CONTAINING RICH SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDED PREPARATION. SEE STANDARDS FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS FOR SPECIFIC RECOMMENDATIONS.
3. SEEDING
A. PERMANENT VEGETATIVE MIXTURES & PLANTING RATES
(1) HARD FESCUE – 175 LBS/ACRE 4 LBS/1000 SQ.FT.
(2) CHEWING FESCUE – 175 LBS/ACRE 4 LBS/1000 SQ.FT.
(3) STRONG CREeping REED FESCUE – 175 LBS/ACRE 4 LBS/1000 SQ.FT.
(4) PERENNIAL PINEGRASS – 45 LBS/ACRE 1 LBS/1000 SQ.FT.
(5) KY. BLUEGRASS – 45 LBS/ACRE 1 LBS/1000 SQ.FT.
B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR OUTPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDER OR OUTPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDED 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. SHORTBRED 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 DETERMINED 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 CRAMPER 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 FIRE 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 70 TO 90 POUNDS WITH 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. CRAMPER MULCH ANCHORING COULTER TOOL
4. LIQUID MULCH-BINDERS

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. PELLETED 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 SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETED 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, SEEDING AREAS WHERE WEED-SEED FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FLUID 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

STANDARD FOR PERMANENT STABILIZATION WITH SOD

METHODS AND MATERIALS

1. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.
2. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
3. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. EXCEPTLY TOP GROWTH.
4. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP.
5. BROKEN PADS OR TORN AND UNEVEN EDGES WILL NOT BE ACCEPTABLE.
6. FOR DRAUGHT SITES, A SOD OF KENTUCKY ST. TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD.
7. ONLY MOST, FRESH, UNWEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS.

I. SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, AND SOIL PREPARATION. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING, PAGE 4.11.
- B. IMMEDIATELY NEEDED EROSION CONTROL PRACTICES AND FACILITIES, SUCH AS INTERCEPTOR DITCHES, DIKES AND TERRACES, EROSION STOPS, AND DE-SILTING BASINS. SEE STANDARDS 4.2 THROUGH 4.16.

II. SOIL PREPARATION

- A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL CO-OPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN AND INCORPORATED INTO THE SURFACE 4". IN ADDITION, 300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOP-DRESSING. APPLY LIMESTONE AS FOLLOWS:
TONS/ACRE LBS/1000 SQ. FT.
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL 1.35
SHADY LOAM, LOAM, SILT LOAM 2 90
LOAMY SAND, SAND 1 45
B. WORK LINE AND FERTILIZER INTO THE SOIL 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 REASONABLY UNIFORM, FINE SEEDBED IS PREPARED.
C. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
D. INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.

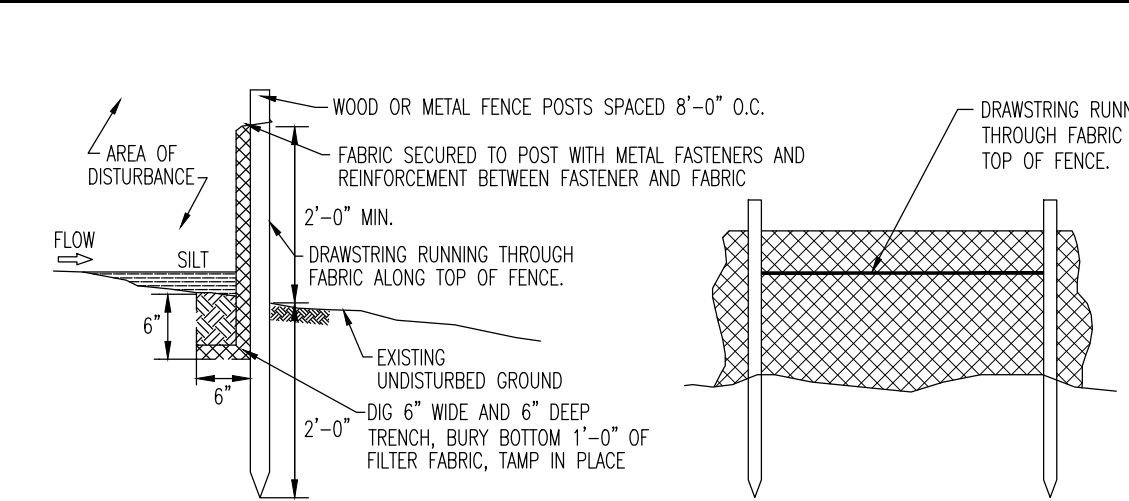
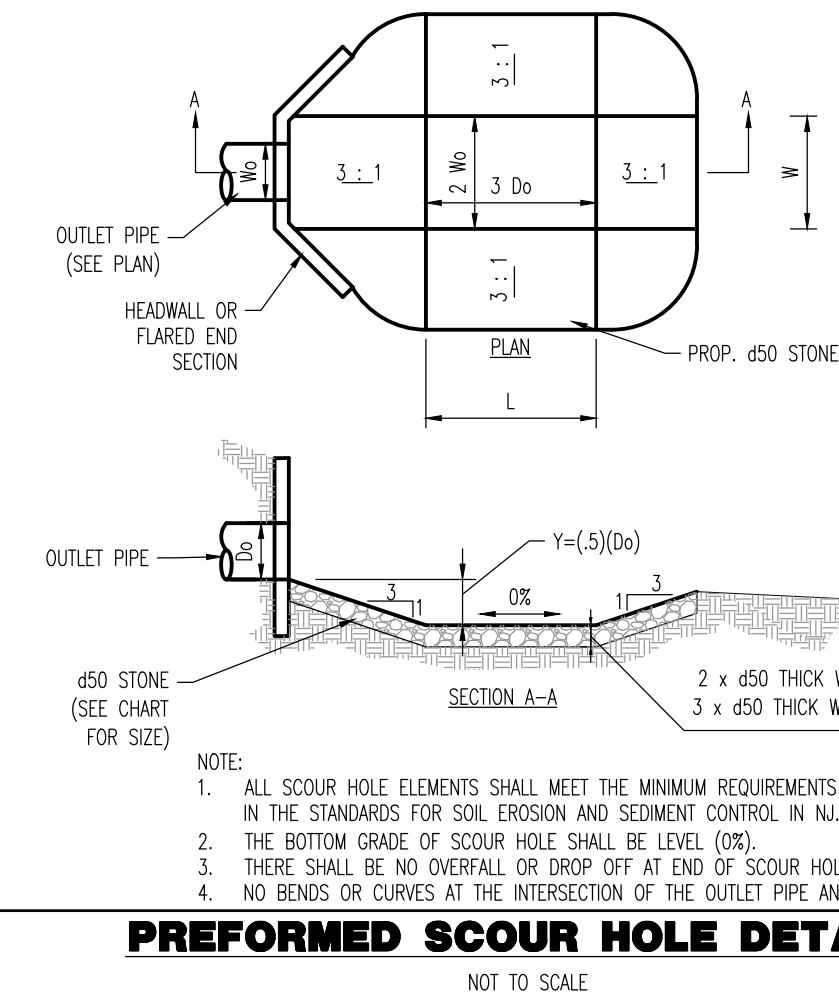
III. SOD PLACEMENT

- A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY PRORATE THE SOD IMMEDIATELY PRIOR TO LAYING THE SOD.
- B. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES WHITE EROSION.
- C. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT JOINTS WHICH WOULD CAUSE DRYING OF THE ROOTS.
- D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).
- E. SURFACE WATER CANNOT BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
- F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.

IV. TOP-DRESSING

IF SOIL RELEASE NITROGEN IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOP DRESSING IS NOT MANDATORY, EXCEPT WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP.

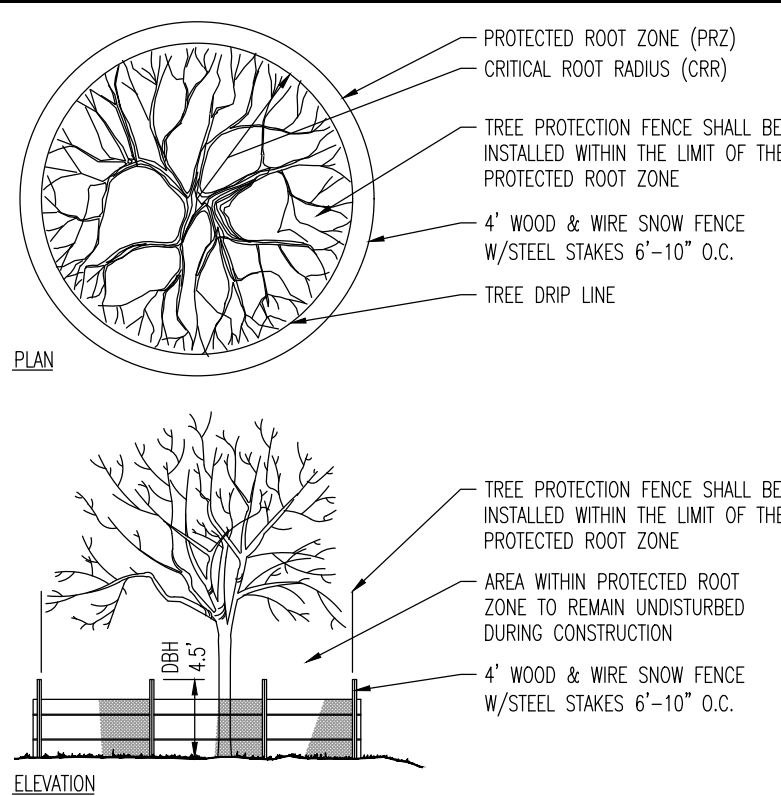
TOP-DRESS WITH 10-0-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED.



1. PLACE SILT FENCE AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. THE SLOPE OF THE LAND FOR AT LEAST 30 FEET ADJACENT TO ANY SILT FENCE SHALL NOT EXCEED 5 PERCENT.
3. SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS THE FENCE AROUND THE SIDES.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE AS PROMPTLY AS POSSIBLE.
5. SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE INSTRUCTED BY THE TOWNSHIP ENGINEER OR SOIL CONSERVATION DISTRICT.
6. THE BARRIER SHALL BE REMOVED WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER, BUT THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD A MIN. DIAMETER THICKNESS OF 1 1/2 INCHES.
8. A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEEDING LOGISTICS ARE EXPECTED.
9. A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE GROUND. FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GRAPNELS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAINING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

SILT FENCE DETAIL

NOT TO SCALE

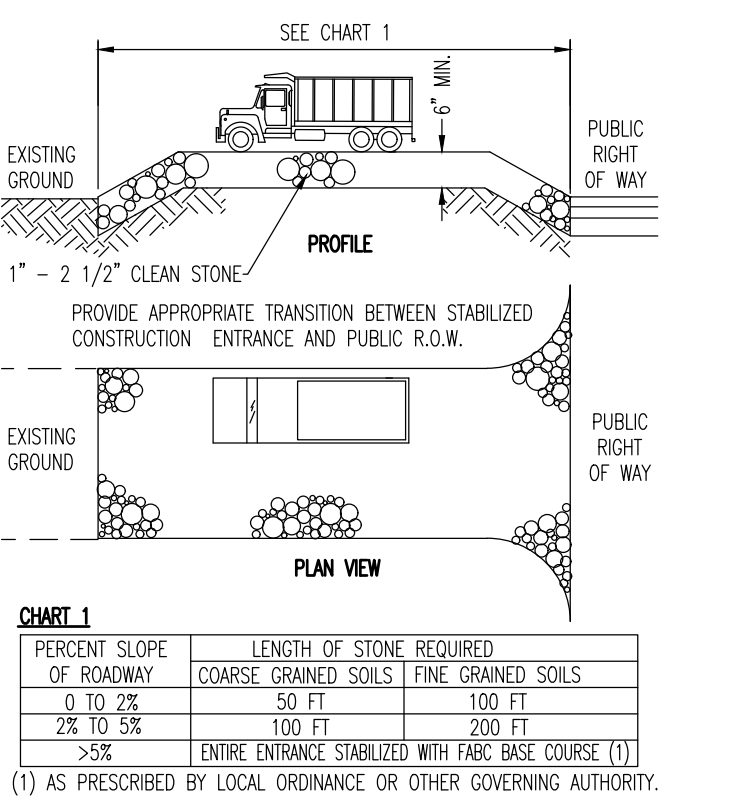


ESTIMATE A TREE'S PROTECTED ROOT ZONE (PRZ) BY CALCULATING THE CRITICAL ROOT RADIUS (CRR)
1. MEASURE THE DBH (DIAMETER OF TREE AT GREATEST HEIGHT, 4.5' ABOVE GROUND ON THE UPHILL SIDE OF TREE) IN INCHES.
2. MULTIPLY MEASURED DBH BY 1.5 OR 1.0. EXPRESS THE RESULT IN FEET

DBH x 1.5: CRITICAL ROOT RADIUS FOR OLDER, UNHEALTHY, OR SENSITIVE SPECIES.
DBH x 1.0: CRITICAL ROOT RADIUS FOR YOUNGER, HEALTHY OR TOLERANT SPECIES.

TREE PROTECTION DURING SITE CONSTRUCTION DETAIL

NOT TO SCALE



STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

HAYBALE SEDIMENT BARRIER DETAIL

NOT TO SCALE

THIS PLAN SET IS TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING, PG. 19-1.
- B. IMMEDIATELY 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 POST 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.).

2. SEEDED 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 CO-OPERATIVE 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. WORK LINE AND FERTILIZER INTO THE SOIL 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. 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 STANDARDS FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG. 1-1.

3. SEEDING

A. TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTHS

— COOL SEASON GRASSES

- (1) PERENNIAL PINEGRASS – 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 – 86 LBS / ACRE; PLANT BETWEEN MARCH 1 AND MAY 15 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 PINEGRASS – 100 LBS / ACRE; PLANT BETWEEN MARCH 1 AND JUNE 15 BETWEEN AUGUST 15 AND SEPTEMBER 15; AT A DEPTH OF 0.5 INCHES.
- (5) WINTER CEREAL RYE – 112 LBS / ACRE; PLANT BETWEEN AUGUST 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 OUTPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDER OR OUTPACKED 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 BELOW). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. 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 DETERMINED 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 CRAMPER 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 FIRE 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 70 TO 90 POUNDS WITH 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. CRAMPER MULCH ANCHORING COULTER TOOL
4. LIQUID MULCH-BINDERS

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. THIS 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. PELLETED 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 SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETED 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, SEEDING AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.

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

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN WILL BE CONSTRUCTED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL 7TH EDITION LAST REVISED JULY 2017, EFFECTIVE DECEMBER 2017. THESE MEASURES WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.

2. SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, MAY BE REQUIRED TO BE TEMPORARILY MULCHED, AND SEEDED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER AS PER APPENDIX A-3. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED.

3. SEEDING DATES: THE FOLLOWING SEEDING DATES ARE RECOMMENDED TO BEST ESTABLISH PERMANENT VEGETATIVE COVER WITH MOST LOCATIONS IN THE HEPSCD. 329862 - 3/1-5/15 AND 329862 - 8/15 - 1/15

4. SEDIMENT FENCES ARE TO BE PROPERLY FENCED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED

5. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STAND

