

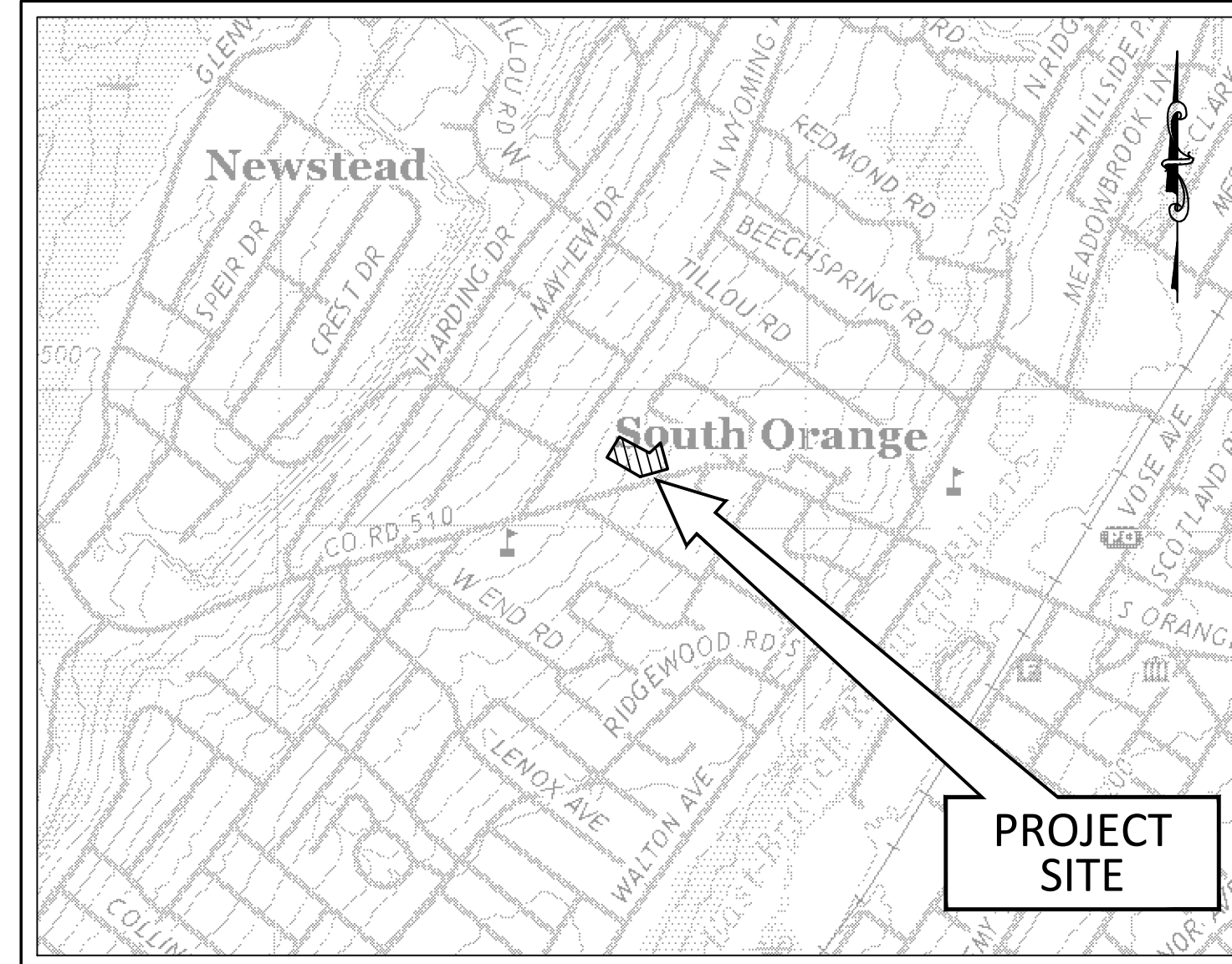
MINOR SUBDIVISION AND PRELIMINARY & FINAL MAJOR SITE PLANS FOR 353 WEST SOUTH ORANGE AVENUE BLOCK 1802, LOT 41 ZONE: RA-100 (RESIDENTIAL) TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY, NEW JERSEY

OWNER/APPLICANT:
ANDREA MAZARA
353 WEST SOUTH ORANGE AVE.
SOUTH ORANGE, NJ 07079
(678) 575-8183

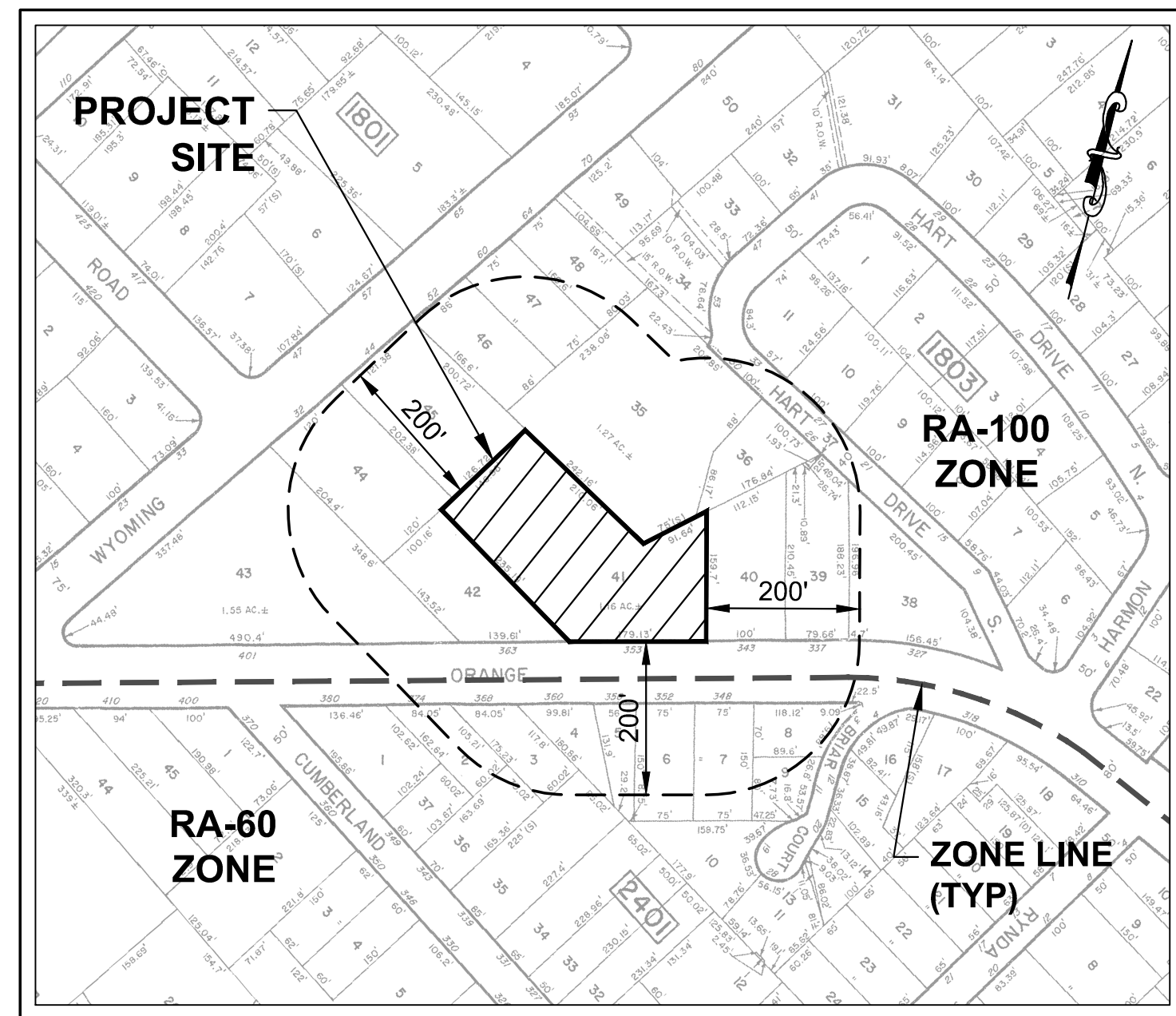
| INDEX OF SHEETS | |
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| SHEET | DESCRIPTION |
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| 2 | SITE PREPARATION PLAN |
| 3 | LAYOUT AND DIMENSIONING PLAN |
| 4 | GRADING, UTILITY AND SOIL EROSION & SEDIMENT CONTROL PLAN |
| 5 | CONSTRUCTION DETAILS |

GENERAL NOTES

- BOUNDARY INFORMATION AND TOPOGRAPHIC INFORMATION SHOWN HEREON FROM PLAN ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY, 353 W SOUTH ORANGE AVE, BLOCK 1802, LOT 41" PREPARED BY OMLAND & OSTERKORN, INC. DATED NOVEMBER 30, 2020. VERTICAL DATUM NAVD88.
- THE PROPERTY IS WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) BASED ON THE FLOOD INSURANCE RATE MAP WITH AN EFFECTIVE DATE OF JUNE 4, 2007.
- THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION GEO-WEB MAPPING DOES NOT REVEAL ANY WETLANDS AND/OR WETLAND TRANSITION AREAS ON THE SUBJECT PROPERTY. THIS STATEMENT IS BASED ON THE NJDEP RESOURCE MAPPING AND DOES NOT QUALIFY AS A FORMAL INTERPRETATION/WETLAND DETERMINATION.
- CONTRACTORS AND SUBCONTRACTORS ARE RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS REGARDING SUBSURFACE CONDITIONS, INCLUDING BUT NOT LIMITED TO SOIL CHARACTERISTICS, AS WELL AS DEPTH TO ROCK AND GROUNDWATER. THE DESIGN ENGINEER WAS NOT CONTRACTED TO MAKE ANY SUCH DETERMINATIONS.
- THE ENGINEER SIGNING THIS PLAN IS NOT QUALIFIED TO MAKE A DETERMINATION AS TO THE PRESENCE OR ABSENCE OF CONTAMINATION OR OTHER ENVIRONMENTAL CONDITIONS ON THE SITE. THEREFORE, NO STATEMENT IS BEING MADE OR IMPLIED BY THE FACT THAT NO EVIDENCE OF CONTAMINATION OR OTHER ENVIRONMENTAL CONDITIONS IS SHOWN ON THIS PLAN.
- UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND BASED SOLELY UPON ABOVE GROUND OBSERVATIONS, MARK-OUTS AND/OR PLANS PROVIDED BY UTILITY COMPANIES. THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN REGARDING UNDERGROUND UTILITIES IS NOT GUARANTEED BY THE ENGINEER. CONNECTIONS BETWEEN STRUCTURES, IF AND WHERE SHOWN, MAY NOT REPRESENT ACTUAL BELOW GROUND CONDITIONS. CONTRACTOR AND SUBCONTRACTORS ARE RESPONSIBLE FOR ORDERING MARK-OUTS, COORDINATION WITH THE VARIOUS UTILITY COMPANIES AND FOR MAKING THEIR OWN DETERMINATION AS TO THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION TO ASSURE DISTURBANCE AND/OR DISRUPTION OF EXISTING UTILITIES IS AVOIDED WHERE POSSIBLE AND MINIMIZED IN ALL CASES. AS THE EXACT ELEVATION OF EXISTING UTILITIES MAY BE UNKNOWN TO ENGINEER, CONTRACTOR IS ADVISED THAT THE POTENTIAL FOR CONFLICTS WITH PROPOSED WORK MAY EXIST. EXPLORATORY EXCAVATIONS, CONTRACT CONTINGENCIES OR EXCLUSIONS WITH OWNERS SHOULD BE MADE TO ACCOMMODATE SUCH AN EVENT. IN THE EVENT THE CONTRACTOR IDENTIFIES A CONFLICT BETWEEN THE PROPOSED WORK AND EXISTING UTILITIES, THE CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER AND THE OWNER PRIOR TO ANY WORK BEING PERFORMED.
 - THE CONTRACTOR SHALL DETERMINE THE LOCATION AND DEPTH OF THE EXISTING UTILITY TO WHICH CONNECTION IS BEING MADE BEFORE LAYING ANY PIPE, CONDUIT, ETC. DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER.
 - ANY TEMPORARY INTERRUPTION OF SERVICE TO THE SITE AND/OR ADJACENT PROPERTIES SHALL BE PRE-APPROVED IN WRITING (EMAIL) BY THE RESPECTIVE UTILITY.
 - ELECTRIC, TELEPHONE, CABLE TELEVISION AND ALL OTHER UTILITY SERVICES SHALL BE INSTALLED UNDERGROUND AT LOCATIONS DETERMINED BY EACH RESPECTIVE UTILITY ENTITY, SUBJECT TO ANY REQUIRED MUNICIPAL APPROVAL. REGARDLESS OF WHETHER OR NOT THE UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF ALL UTILITY MAINS AND SERVICES WITH EACH UTILITY ENTITY AND PROVIDE WHATEVER CONSTRUCTION SUPPORT IS REQUIRED FOR ACHIEVING UTILITY SERVICE. THE CONTRACTOR IS ADVISED TO CONTACT EACH RESPECTIVE UTILITY COMPANY PRIOR TO CONSTRUCTION TO IDENTIFY AND COORDINATE ANY SCHEDULING REQUIREMENTS.
 - SHOULD IT BE REQUIRED TO EXCAVATE ONE OR MORE TRENCHES IN EXISTING ROADWAYS, BACKFILLING AND PAVEMENT REPLACEMENT/REPAIR SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MUNICIPALITY OR COUNTY, AS APPLICABLE. VERIFICATION OF BACKFILL REQUIREMENTS SHALL BE MADE PRIOR TO BID.
- THE OWNER SHALL PROVIDE A COPY OF ALL PERMITS AND APPROVALS ISSUED FOR THE PROJECT TO THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND COMPLYING WITH THE TERMS AND CONDITIONS OF ALL PERMITS, APPROVALS AND AUTHORITY REGULATORY AGENCIES FOR THE PROJECT. THE CONTRACTOR IS ALSO RESPONSIBLE FOR OBTAINING WITH THE PERMITS AND APPROVALS PROVIDED BY THE OWNER'S COMPLETE RESPONSIBILITY FOR ANY ADDITIONAL PERMITS REQUIRED AS CONSTRUCTION PROGRESSES, SUCH AS BUILDING PERMITS (INCLUDING BUILDING PERMITS FOR RETAINING WALLS) AND ROAD OPENING PERMITS SHALL BE COORDINATED BETWEEN THE CONTRACTOR AND OWNER.
- PRIOR TO ANY CONSTRUCTION OR SITE PREPARATION ACTIVITY, THE CONTRACTOR SHALL COMPLETE THE FOLLOWING:
 - VERIFY THE PLANS CONTAIN THE RAISED SEAL OF THE ENGINEER AND DISPLAY THE LATEST REVISION AS "ISSUED FOR CONSTRUCTION." THE USE OF ANY OTHER PLANS IS AT THE CONTRACTOR'S RISK.
 - VERIFY THE INFORMATION SHOWN ON THESE PLANS IS CONSISTENT WITH THE INFORMATION SHOWN ON ALL OTHER PLANS (ARCHITECTURAL, LANDSCAPING, ETC.) BEING USED FOR CONSTRUCTION OF THE PROJECT. ALSO, VERIFY THE PLANS ARE CONSISTENT WITH ALL CONDITIONS AND REQUIREMENTS SET FORTH IN THE PERMITS. REPORT ANY DISCREPANCIES/INCONSISTENCIES TO THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY CONSTRUCTION.
 - DETERMINE ALL APPLICABLE SPECIFICATIONS, AS WELL AS ALL REQUIREMENTS FOR SHOP DRAWINGS, INSPECTIONS AND TESTING APPLICABLE TO PROJECT BY CONTACTING THE LOCAL BUILDING OFFICIAL, MUNICIPAL ENGINEER AND EACH AFFECTED UTILITY COMPANY (OR AGENCY). IN THE EVENT OF A CONFLICT BETWEEN ANY SPECIFICATIONS AND THE INFORMATION SHOWN ON THESE PLANS, THE DESIGN ENGINEER AND THE OWNER SHALL BE NOTIFIED IN ORDER TO RESOLVE THE CONFLICT PRIOR TO ANY CONSTRUCTION.
 - CONTACT THE LOCAL POLICE DEPARTMENT RELEVANT TO ANY WORK TO BE PERFORMED IN OR NEAR PUBLIC STREETS, AS WELL AS INGRESS AND EGRESS REQUIREMENTS DURING CONSTRUCTION. TRAFFIC CONTROL REQUIREMENTS SHALL BE ESTABLISHED BETWEEN THE CONTRACTOR AND POLICE DEPARTMENT AT THIS TIME.
- RELEVANT DOCUMENTATION PERTAINING TO ANY PRODUCT PROPOSED BY THE CONTRACTOR ON THE BASIS OF AN "APPROVED EQUAL" SHALL BE SUBMITTED TO THE MUNICIPAL ENGINEER AND THE DESIGN ENGINEER AT LEAST TWO WEEKS IN ADVANCE OF ORDERING PRODUCT. THE PRODUCT MUST BE APPROVED FOR INCORPORATION INTO THE PROJECT BY BOTH THE MUNICIPAL ENGINEER AND THE DESIGN ENGINEER.
- ALL CONFIRMATIONS/VERIFICATIONS BETWEEN THE CONTRACTOR, OWNER AND/OR ENGINEER SHALL BE VIA EMAIL OR OTHER WRITTEN FORM(S) OF COMMUNICATION.
- THE CONTRACTOR TO CALL THE NEW JERSEY ONE CALL SYSTEM (800-272-1000) TO HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO ANY SITE DISTURBANCE.
- THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE DESIGN ENGINEER WITH A LIST OF ALL SHOP DRAWINGS, INSPECTIONS, TESTING, CERTIFICATIONS, AS-BUILT PLANS AND SIMILAR POST-CONSTRUCTION APPROVAL REQUIREMENTS PERTAINING TO THE PROJECT. THE LIST SHALL ALSO IDENTIFY THE SPECIFIC INDIVIDUAL RESPONSIBLE FOR PERFORMING EACH TEST AND/OR PROVIDING EACH CERTIFICATION AND/OR AS-BUILT MAP. IN PARTICULAR, SHOULD NJDEP PERMITS APPLY TO ANY UTILITY CONSTRUCTION AND SHOULD THE PERMIT REQUIRE A CERTIFICATION OF THE WORK UPON COMPLETION, THE CONTRACTOR SHALL DETERMINE THE INDIVIDUAL RESPONSIBLE FOR PROVIDING THE CERTIFICATION. THE CONTRACTOR SHALL THEN BE RESPONSIBLE FOR COORDINATING WITH EACH INDIVIDUAL IDENTIFIED ON THE LIST AND SCHEDULING HIS WORK TO ASSURE EACH INDIVIDUAL HAS SUFFICIENT OPPORTUNITY TO CONDUCT THE REQUIRED TESTS, OBTAIN REQUIRED MEASUREMENTS AND/OR PERFORM ANY SERVICES OR WORK REQUIRED TO PREPARE THE REQUIRED POST-CONSTRUCTION APPROVAL DOCUMENTS.
- CONTRACTOR TO COORDINATE ALL WORK WITH ALL UTILITY COMPANIES AND/OR PUBLIC AGENCIES PROVIDING UTILITY SERVICE, AS APPLICABLE, AND ABIDE BY ALL OF THEIR REQUIREMENTS RELEVANT TO THE PERFORMANCE AND INSPECTION OF ALL WORK AFFECTING THEIR UTILITIES, INCLUDING COMPLYING WITH ANY AND ALL TESTING REQUIREMENTS. IN THE EVENT REQUIREMENTS OR SPECIFICATIONS OF THE UTILITY COMPANY OR PUBLIC AUTHORITY CONFLICT WITH THE PLANS, THE MUNICIPAL REQUIREMENTS SHALL GOVERN. IN SUCH CASE, THE CONTRACTOR SHALL ADVISE THE OWNER AND ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
- PRIOR TO ANY CONSTRUCTION, THE HORIZONTAL LIMITS OF THE WORK (LIMITS OF DISTURBANCE - LOD) SHALL BE ESTABLISHED AND SILT FENCE IS BE INSTALLED. DISTURBANCE BEYOND THESE PERMITTED LIMITS EXPOSES THE CONTRACTOR TO FINES AND PENALTIES BY REGULATORY AGENCIES.
- SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION IN ACCORDANCE WITH THE LOCAL SOIL CONSERVATION DISTRICT'S REQUIREMENTS. AS NOTED ON THE PLAN, THE LIMIT OF DISTURBANCE IS OVER 5,000 SQUARE FEET THEREFORE SESC CERTIFICATION IS REQUIRED. CONTRACTOR TO NOTIFY THE APPLICABLE SOIL CONSERVATION DISTRICT IN WRITING AT LEAST 72 HOURS PRIOR TO ANY SITE PREPARATION OR CONSTRUCTION ACTIVITIES.
- CONTRACTOR IS RESPONSIBLE FOR THEIR OWN VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION. SHOULD THERE BE ANY SUSPECTED DISCREPANCIES WITH THE TOPOGRAPHY DEPICTED ON THE PLANS AND ACTUAL PHYSICAL CONDITIONS, ANY CONFIRMED DISCREPANCY IDENTIFIED BY THE CONTRACTOR'S VERIFICATION SHALL BE REPORTED TO THE ENGINEER FOR RESOLUTION PRIOR TO ANY SITE DISTURBANCE. ONCE ANY SITE DISTURBANCE OCCURS, THE CONTRACTOR SHALL HAVE NO CLAIM FOR EXTRA WORK BASED UPON SUSPECTED OR CONFIRMED TOPOGRAPHIC DISCREPANCIES.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SITE SAFETY AND FOR DETERMINING THE MEANS AND METHODS FOR ALL CONSTRUCTION ACTIVITIES. ALL SAFETY PRECAUTIONS MUST BE UNDERTAKEN AND MAINTAINED AS REQUIRED BY LOCAL, STATE AND FEDERAL CODES.
- CONTRACTOR TO COMPLY WITH THE TRAFFIC CONTROL PLAN, IF PROVIDED. IF A TRAFFIC CONTROL PLAN IS NOT PROVIDED, THE CONTRACTOR SHALL DETERMINE AND COMPLY WITH ANY AND ALL TRAFFIC CONTROL REQUIREMENTS OF THE LOCAL POLICE DEPARTMENT AND ANY PUBLIC AGENCY HAVING JURISDICTION RELEVANT TO ANY CONSTRUCTION IN OR NEAR PUBLIC STREETS AS WELL AS FOR INGRESS AND EGRESS DURING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL MEASURES AS MAY BE NECESSARY WITHIN THE PROJECT FOR THE PROTECTION AND SAFETY OF THE PUBLIC. ALL SUCH TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED IN SATISFACTORY CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
- THE PROPOSED IMPROVEMENTS HAVE BEEN DESIGNED WITH THE INTENT TO COMPLY WITH ALL APPLICABLE REQUIREMENTS FOR BARRIER FREE ACCESS, INCLUDING THE SATISFYING OF ALL REQUIREMENTS OF THE NEW JERSEY INTERNATIONAL BUILDING CODE, CHAPTER 11, AS WELL AS THE AMERICANS WITH DISABILITIES ACT (ADA). IN GENERAL, BARRIER FREE ACCESS FOR SITE CONSTRUCTION IS TO BE PROVIDED (BETWEEN ALL PARKING SPACES DESIGNATED AS ADA AND THE FRONT DOOR OF ADJACENT BUILDINGS). HOWEVER, PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE ROUTES REQUIRED TO BE BARRIER FREE WITH THE LOCAL BUILDING CODE OFFICIAL. SHOULD ANY IDENTIFIED ROUTES CONFLICT WITH THE GRADING SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER FOR RESOLUTION PRIOR TO ANY CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ASSURING ALL CONSTRUCTION ALONG BARRIER FREE ROUTES COMPLIES WITH ALL REQUIREMENTS PRIOR TO THE ACTUAL POURING OF CONCRETE ALONG BARRIER FREE ROUTES. THE CONTRACTOR SHALL CHECK ALL FORMWORK TO VERIFY COMPLIANCE WITH THE APPLICABLE BARRIER FREE REQUIREMENTS AND REQUEST CONFIRMATION OF SAME BY THE INSPECTING AUTHORITY.
- GARBAGE TO BE STORED INTERNAL TO DWELLING AND PICKED UP AT CURB ON TRASH DAY.



(REFERENCE: CALDWELL & ROSELLE, NJ USGS MAP)
LOCATION MAP
SCALE: 1" = 1,000'



(REFERENCE: TOWNSHIP OF SOUTH ORANGE VILLAGE TAX MAP SHEETS 18 & 24)
ZONING MAP
SCALE: 1" = 200'

UTILITY COMPANY LIST

- New Jersey American Water
167 John F Kennedy Pkwy – Bldg A
Short Hills New Jersey 07078
- Public Service Electric & Gas Co.
Manager – Corporate Properties
80 Park Place, T6B
Newark, New Jersey 07102
- Verizon
540 Broad Street
Newark, New Jersey 07101
- CABLEVISION
186 West Mark Street
Newark, New Jersey 07103

APPROVALS:

I HAVE REVIEWED THIS SITE PLAN AND CERTIFY THAT IT COMPLIES WITH ALL APPROVALS GRANTED BY THE APPROVING AUTHORITY.

BOARD ENGINEER _____ DATE _____

APPROVED BY THE PLANNING BOARD OF THE TOWNSHIP OF SOUTH ORANGE VILLAGE.

CHAIRPERSON _____ DATE _____

SECRETARY _____ DATE _____

ZONING TABLE

| BLOCK 1802, LOT 41 | | | | |
|---|---|--|--|--|
| TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY, NEW JERSEY | | | | |
| EXISTING LOT 41 AREA = 50,432 SF | | | | |
| PROPOSED LOT 41.01 AREA = 34,947 SF | | | | |
| PROPOSED LOT 41.02 AREA = 15,485 SF | | | | |
| ZONE: RA-100 (RESIDENTIAL) ZONE DISTRICT | | | | |
| EXISTING USE: SINGLE-FAMILY DWELLING ON SUBJECT PROPERTY | | | | |
| PROPOSED USE: SUBDIVISION OF PROPERTY INTO TWO PARCELS PROPOSING A SINGLE-FAMILY DWELLING ON EACH LOT | | | | |
| BULK REQUIREMENTS | PERMITTED | EXISTING (LOT 41) | PROPOSED (LOT 41.01) | PROPOSED (LOT 41.02) |
| Minimum Lot Size | 10,000 SF (Measured within 100 feet of the front street property line.) | 50,432 SF (Total Lot Area) | 34,947 SF (Total Lot Area) | 15,485 SF (Total Lot Area) |
| Lot Frontage (Measured at right-of-way line) | N/A | 179.13 Ft. | 66.44 Ft. | 112.69 Ft. |
| Minimum Lot Width | 175 Ft. (The minimum lot width shall be measured at the minimum required setback line and maintained for a minimum distance of 40 feet to the rear of the minimum setback line. The minimum lot width at the right-of-way line shall be not less than 50% of the minimum required lot width.) | 225.4 Ft. (Measured at the minimum required setback line.) | 112.7 Ft. (VARIANCE) (Measured at the minimum required setback line.) | 112.7 Ft. (VARIANCE) (Measured at the minimum required setback line.) |
| Minimum Front Yard Setback | 47.1 Ft. (See Sheet 2 - Based on the average setback within 200 feet on each side of the lot, but there shall be no requirement for a setback greater than 50 feet.) | 53.6 Ft. | 47.2 Ft. | 47.2 Ft. |
| Minimum Side Yard Setback | 4 Ft. (Plus one inch for each foot of average lot width in excess of 48 feet to a maximum of 22 feet.) | 20.1 Ft. | Required: 9.4 Ft. Proposed: 17.0 Ft. | Required: 9.4 Ft. Proposed: 17.7 Ft. |
| Minimum Rear Yard Setback | 16 Ft. (But not less than 20% of the average lot depth.) | 7.6 Ft. (Pre-existing nonconforming condition) | Required: 41.8 Ft. Proposed: 62.3 Ft. | Required: 28.3 Ft. Proposed: 36.3 Ft. |
| Maximum Building Height | 2.5 Stories & 35 Feet | 2.5 Stories & < 35 Feet | 2.5 Stories & < 35 Feet Building Height Calculation Finished floor to highest point of roof structures is 31.0 feet maximum. Average of the existing ground elevation at the perimeter of the foundation to the finished floor is 3.9 feet. Building height = 31.0' + 3.9' = 34.9' | 2.5 Stories & < 35 Feet Building Height Calculation Finished floor to highest point of roof structures is 30.4 feet maximum. Average of the existing ground elevation at the perimeter of the foundation to the finished floor is 4.5 feet. Building height = 30.4' + 4.5' = 34.9' |
| Maximum Lot (Impervious) Coverage | 30% | 16.1% | 11.8% | 25.3% |
| Minimum Parking | Residential Site Improvement Standards (RSIS) for Single-Family Detached Dwelling 2 Bedroom: 1.5 Spaces 3 Bedroom: 2.0 Spaces 4 Bedroom: 2.5 Spaces 5 Bedroom: 3.0 Spaces | Single family dwelling with detached garage | Conceptual single family dwelling with attached garage is shown for purposes of subdivision. The project is to be reviewed for compliance with parking requirement at time of the development for each lot. | |
| VARIANCE REQUESTED | | | | |
| Minimum Lot Width | 185 Attachment 3- District Lot, Yard And Bulk Regulations, Schedule 2 | The minimum required lot width is 175 feet where 112.7 feet is proposed for Lot 41.01 and Lot 41.02. | | |

COVERAGE TABLE

| Existing Coverage (Lot 41) | | | | | | Proposed Coverage (Lots 41.01 & 41.02) | | | | | |
|--------------------------------------|--------------|--------------|--|--------------|--------------|--|-----------|------------|------------------------------|-----------|------------|
| TOTAL LOT AREA (SF) = 50,432 | | | TOTAL LOT AREA (SF) = 50,432 | | | TOTAL LOT AREA (SF) = 50,432 | | | TOTAL LOT AREA (SF) = 15,485 | | |
| Description | Area (SF) | Percentage | Description | Area (SF) | Percentage | Description | Area (SF) | Percentage | Description | Area (SF) | Percentage |
| Dwelling | 2,646 | | Dwellings | 4,200 | | | | | | | |
| Detached Garage | 808 | | | | | | | | | | |
| Total Building Coverage | 3,454 | 6.8% | Total Building Coverage | 4,200 | 8.3% | | | | | | |
| Driveway | 2,597 | | Driveway | 2,785 | | | | | | | |
| Front Walkways and Landing | 1,135 | | Front Walkways and Landing | 478 | | | | | | | |
| Rear Walkways, Landing, and Patio | 954 | | Rear Walkways, Landing, and Patio | 600 | | | | | | | |
| Total Impervious Coverage | 8,140 | 16.1% | Total Impervious Coverage | 8,063 | 16.0% | | | | | | |
| | | | Increase In Impervious Coverage | -77 | -0.2% | | | | | | |
| Proposed Coverage (Lot 41.01) | | | | | | Proposed Coverage (Lot 41.02) | | | | | |
| TOTAL LOT AREA (SF) = 34,947 | | | TOTAL LOT AREA (SF) = 15,485 | | | TOTAL LOT AREA (SF) = 34,947 | | | TOTAL LOT AREA (SF) = 15,485 | | |
| Description | Area (SF) | Percentage | Description | Area (SF) | Percentage | Description | Area (SF) | Percentage | Description | Area (SF) | Percentage |
| Dwelling | 2,100 | | Dwelling | 2,100 | | | | | | | |
| Total Building Coverage | 2,100 | 6.0% | Total Building Coverage | 2,100 | 13.6% | | | | | | |
| Driveway | 1,526 | | Driveway | 1,259 | | | | | | | |
| Front Walkways and Landing | 212 | | Front Walkways and Landing | 266 | | | | | | | |
| Rear Deck/Patio | 300 | | Rear Deck/Patio | 300 | | | | | | | |
| Total Impervious Coverage | 4,138 | 11.8% | Total Impervious Coverage | 3,925 | 25.3% | | | | | | |

- LIST OF REQUIRED LAND USE APPROVALS:**
- TOWNSHIP OF SOUTH ORANGE VILLAGE PLANNING BOARD
 - ESSEX COUNTY PLANNING BOARD
 - HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

MINOR SUBDIVISION AND PRELIMINARY & FINAL MAJOR SITE PLANS FOR
 353 WEST SOUTH ORANGE AVENUE
 COVER SHEET / LOCATION MAP / KEY MAP
 BLOCK 1802, LOT 41
 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY, NEW JERSEY

MICHAEL J. ROTH
 PROFESSIONAL ENGINEER
 NEW JERSEY LICENSE NO. 24605262600
 ALL RIGHTS RESERVED. COPY, REPRODUCTION OR DISTRIBUTION OF THIS PLAN OR ANY PORTION IS PROHIBITED WITHOUT THE WRITTEN PERMISSION OF ROTH ENGINEERING, LLC.

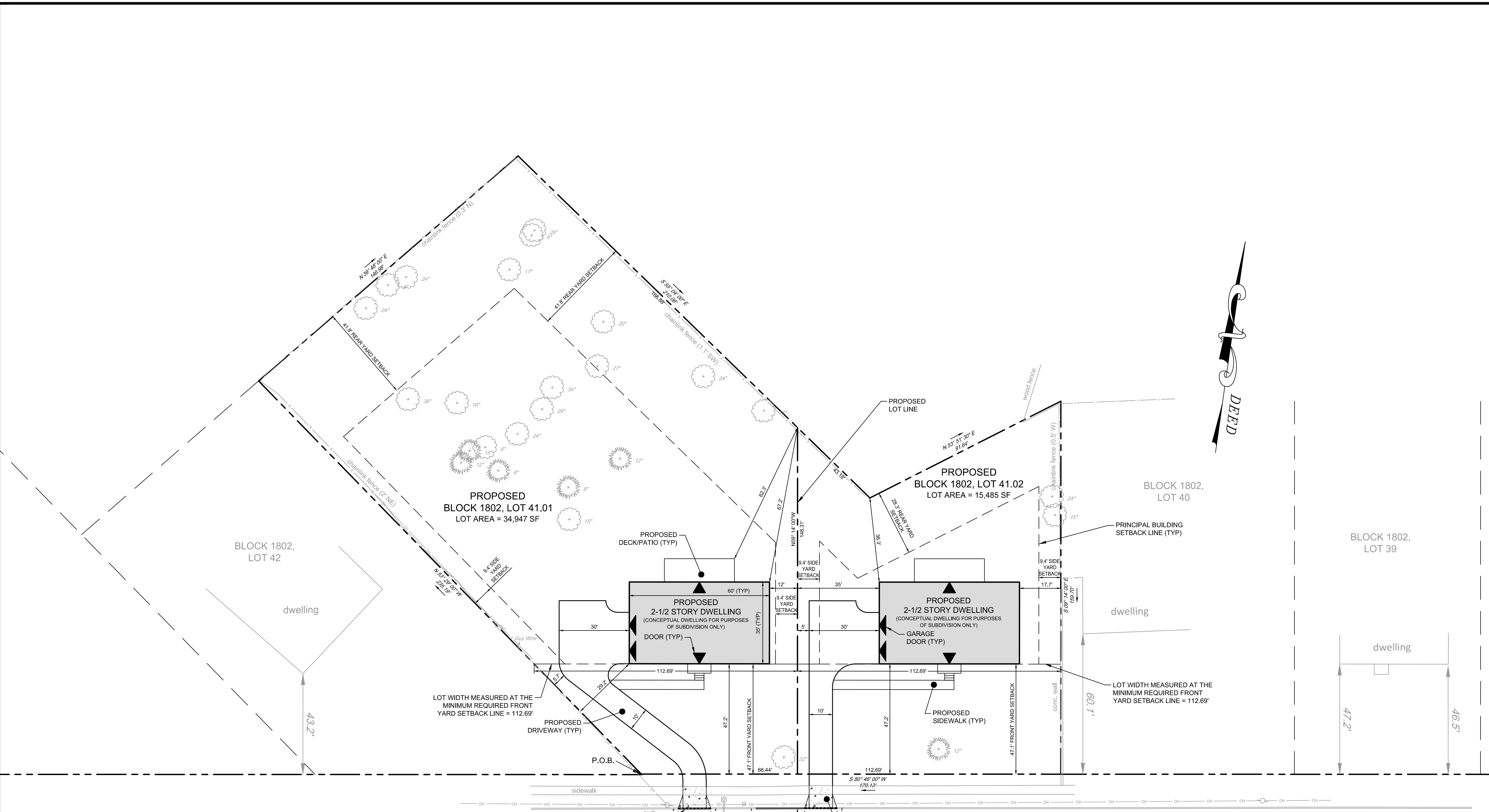
ROTH ENGINEERING
 LICENSE OF AUTHORIZATION NO. 24602809800
 ROTH ENGINEERING, LLC
 52 QUAIL RUN, LONG VALLEY, NJ 07863
 EMAIL: MJE@ROTHENGINEERS.COM

PER BOARD PLANNER'S COMPETENCY REPORT #1 DATED JANUARY 29, 2021
 02/05/21
 REV #1
 DATE

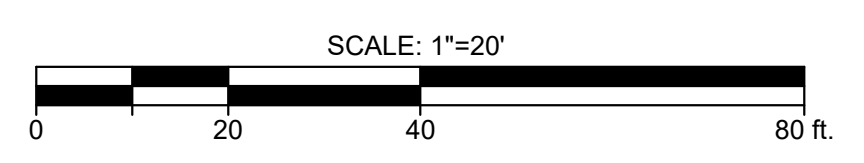
DATE: 01/07/21
 PROJECT NO.: 201103
 SHEET NO.:
1 OF 5

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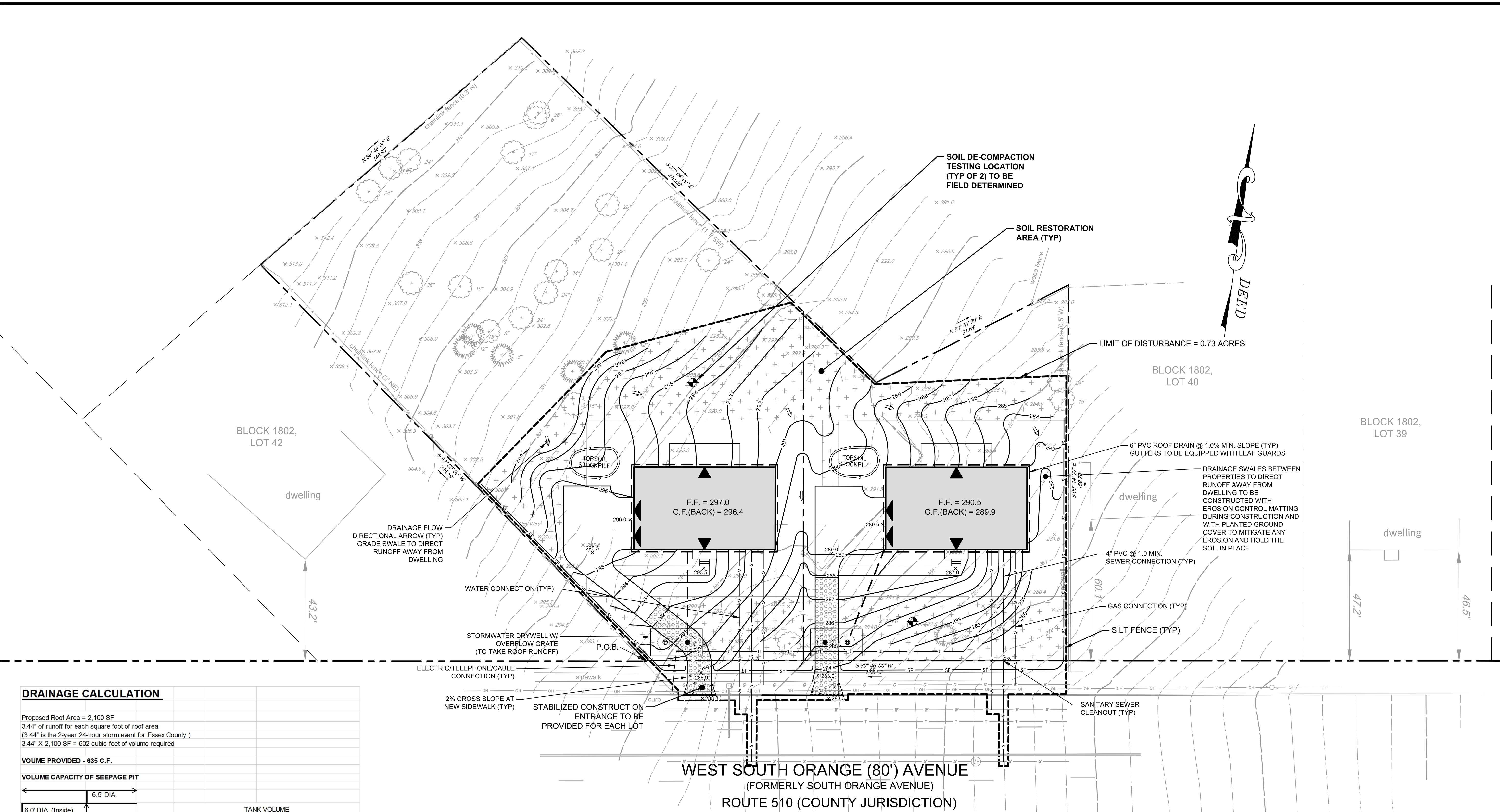


- PROJECT SPECIFIC NOTES:**
- SUBDIVISION - THE PROPERTY IS TO BE SUBDIVIDED BY DEED AND NOT BY PLAT.
 - LIGHTING - PROPOSED LIGHTING TO BE DESIGNED AT THE TIME OF PLOT PLAN SUBMISSION. LIGHTING TO BE DESIGNED IN ACCORDANCE WITH TOWNSHIP'S ORDINANCE WITH NO LIGHT SPILLAGE ONTO ADJACENT PROPERTIES.
 - LANDSCAPING - PROPOSED LANDSCAPING TO BE DESIGNED AT THE TIME OF PLOT PLAN SUBMISSION. LANDSCAPING TO BE DESIGNED TO PROVIDE 16 TREES FOR EACH LOT (32 TREES TOTAL) WHICH IS A 1 TREE REPLACEMENT COMMITMENT WHERE 32 TREES ARE BEING REMOVED AS SHOWN ON SHEET 2. A VARIETY OF TREES ARE TO BE PROPOSED INCLUDING TREES FOR BUFFERING AND TO BE PLACED ALONG THE STREET. DRAINAGE SWALES BETWEEN PROPERTIES TO DIRECT RUNOFF AWAY FROM DWELLING TO BE CONSTRUCTED WITH PLANTED GROUND COVER TO MITIGATE ANY EROSION AND HOLD THE SOIL IN PLACE.



THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION
SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

| | |
|---|--|
| <p>ROTH ENGINEERING</p> <p>ROTH ENGINEERING, LLC 52 QUAIL RUN, LONG VALLEY, NJ 07853 PHONE: 973-715-7427 EMAIL: MIKE@ROTHENGINEERS.COM</p> | <p>MICHAEL J. ROTH</p> <p><i>Michael J. Roth</i></p> <p>PROFESSIONAL ENGINEER NEW JERSEY LICENSE NO. 24GE05262600</p> |
| <p>MINOR SUBDIVISION AND PRELIMINARY & FINAL MAJOR SITE PLANS FOR 353 WEST SOUTH ORANGE AVENUE LAYOUT & DIMENSIONING PLAN</p> | |
| <p>BLOCK 1802, LOT 41 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY, NEW JERSEY</p> | |
| <p>DATE: 01/07/21 PROJECT NO.: 201103</p> | |
| <p>SHEET NO.: 3 OF 5</p> | |
| <p>1 02/05/21 PER BOARD PLANNER'S COMPLETENESS REPORT #1 DATED JANUARY 29, 2021 REV # DATE REVISION</p> | |



DRAINAGE CALCULATION

Proposed Roof Area = 2,100 SF
 3.44" of runoff for each square foot of roof area
 (3.44" is the 2-year 24-hour storm event for Essex County)
 3.44" X 2,100 SF = 602 cubic feet of volume required

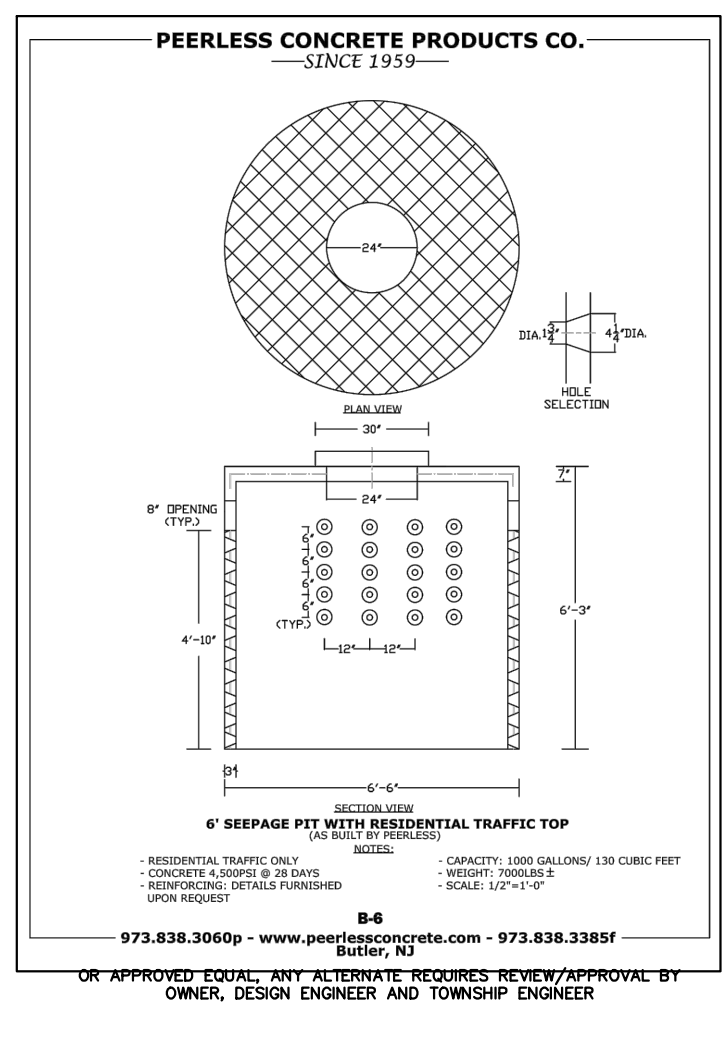
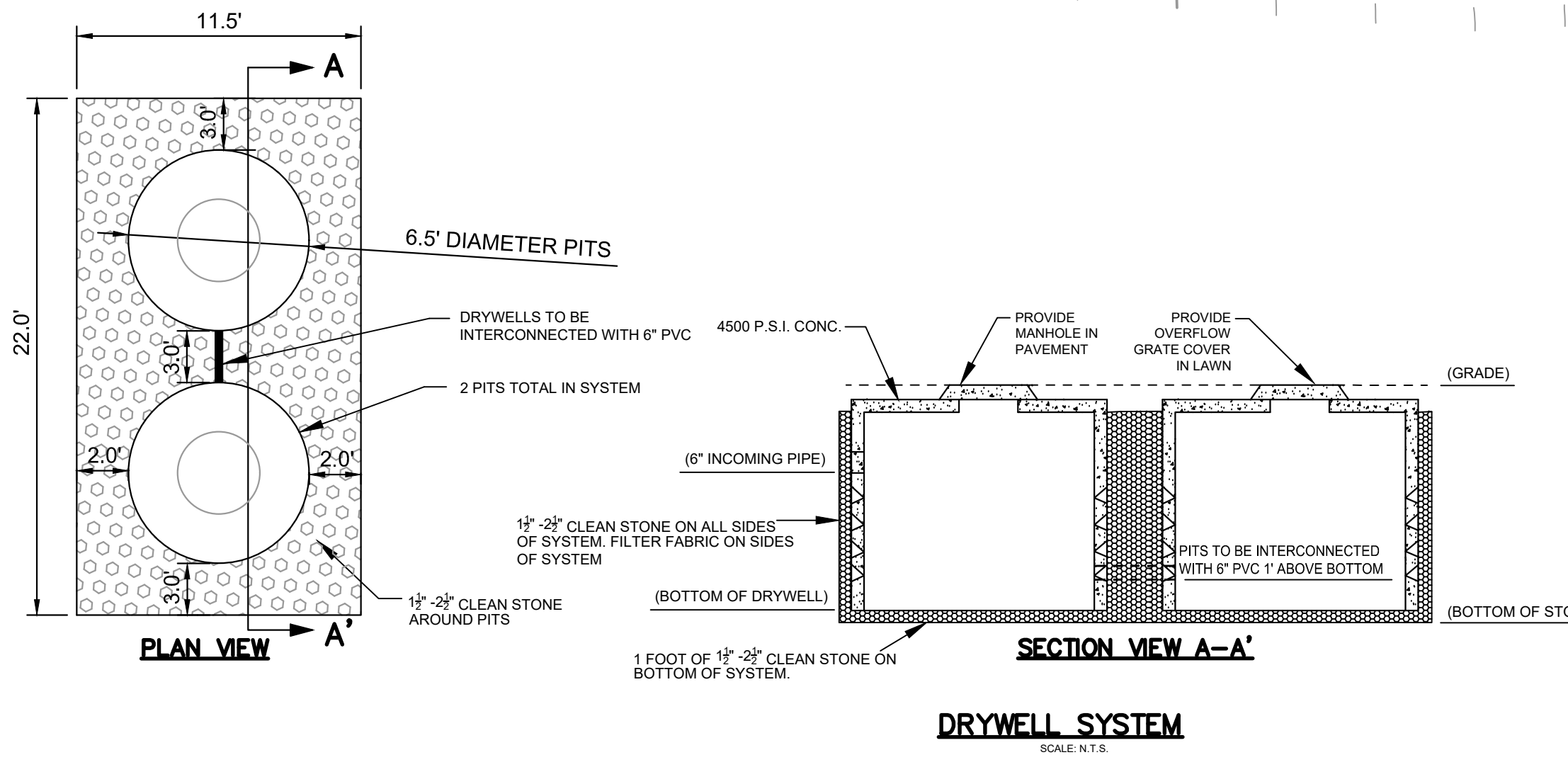
VOLUME PROVIDED - 635 C.F.

VOLUME CAPACITY OF SEEPAGE PIT

| | |
|------------------------------------|--|
| 6.5" DIA. | TANK VOLUME |
| 6.0" DIA. (inside) | V Tank = (pi) (3) ² (4'-10") = 137 C.F. |
| 4'-10" Depth To Invert Opening | V Tank = 137 C.F. |
| SEE DETAIL FOR STONE CONFIGURATION | V (two tanks) = 137 x 2 = 274 C.F. |
| | STONE VOLUME |
| | Stone Envelope is 22' x 11.5' |
| | V total = 22' x 11.5' x 4.83' = 1,222 C.F. |
| | V outside of tanks = (pi) (3.25) ² x 4.83 = 160 C.F. x 2 = 320 C.F. |
| | V stone = 1,222 - 320 = 902 C.F. |
| | (DOES NOT CONSIDER BASE STONE) |
| | STONE VOLUME TOTAL ASSUMING 40% VOIDS |
| | V Stone = 0.40 (902) = 361 C.F. |
| | TOTAL SEEPAGE PIT VOLUME |
| | V Pit = V Tank + V Stone = 635 C.F. |

Drain Time Calculation

Drain Time = Runoff Volume / Overflow Rate
 Runoff Volume = 602 CF
 Overflow Rate = Design Permeability Rate x Cross Sectional Area
 Permeability Rate = 0.5 in/hr (To be field verified - assuming a permeability rate of 1 in/hr in the field)
 Cross Sectional Area = 22' x 11.5' = 253 SF
 Overflow Rate = 0.5 in/hr x 253 SF x 1 ft/12 in = 10.5 CF/hr
 Drain Time = 602 CF / 10.5 CF/hr = 57 hours
 57 hours < Allowable maximum drain time of 72 hours based on Chapter 9.3 of BMP Manual



STORMWATER MANAGEMENT NOTES:

- CONTRACTOR IS TO REQUEST THE SOIL PERMEABILITY AND GROUNDWATER TABLE TEST TO BE PERFORMED BY DESIGN ENGINEER PRIOR TO ORDERING THE DRYWELL STRUCTURE AND INSTALLING ANY STORMWATER MANAGEMENT COMPONENTS. SHOULD SOIL TESTS REVEAL A HIGH GROUND WATER TABLE OR LOW PERMEABILITY RATE, A REVISED DRAINAGE DESIGN MAY BE REQUIRED FROM THE DESIGN ENGINEER.
- THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF THE PROPOSED DRYWELLS. AN OPERATION & MAINTENANCE MANUAL IS TO BE PREPARED BY THE DESIGN ENGINEER AT THE TIME OF THE PLOT PLAN SUBMISSION TO REFLECT THE PROPOSED STORMWATER MANAGEMENT SYSTEM. MAINTENANCE FOR THE DRYWELLS INCLUDE KEEPING THE SYSTEM AS FREE AS POSSIBLE OF DIRT, SILT, LEAVES AND ANY OTHER LITTER THAT MAY HINDER THE FREE FLOW OF WATER THROUGH THE SYSTEM. THE STRUCTURE IS TO BE CLEANED OF SILT AND DEBRIS AS REQUIRED.

SOIL DE-COMPACTION TESTING

- THIS PROJECT IS SUBJECT TO THE SOIL RESTORATION STANDARD (SRS).
- TOTAL RESTORATION AREA SUBJECT TO TESTING OR COMPACTION MITIGATION = 0.28 ACRES

RESTORATION AREA (SEE PLAN)

TEST LOCATION (SEE PLAN)

TOTAL LIMIT OF DISTURBANCE IS 0.73 ACRES THEREFORE TWO (2) SOIL DE-COMPACTION TESTS SHALL BE PERFORMED.

SCALE: 1"=20'

0 20 40 80 ft.

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MINOR SUBDIVISION AND PRELIMINARY & FINAL MAJOR SITE PLANS FOR
 353 WEST SOUTH ORANGE AVENUE
 GRADING, UTILITY AND SOIL EROSION
 & SEDIMENT CONTROL PLAN
 BLOCK 1802, LOT 41
 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY, NEW JERSEY

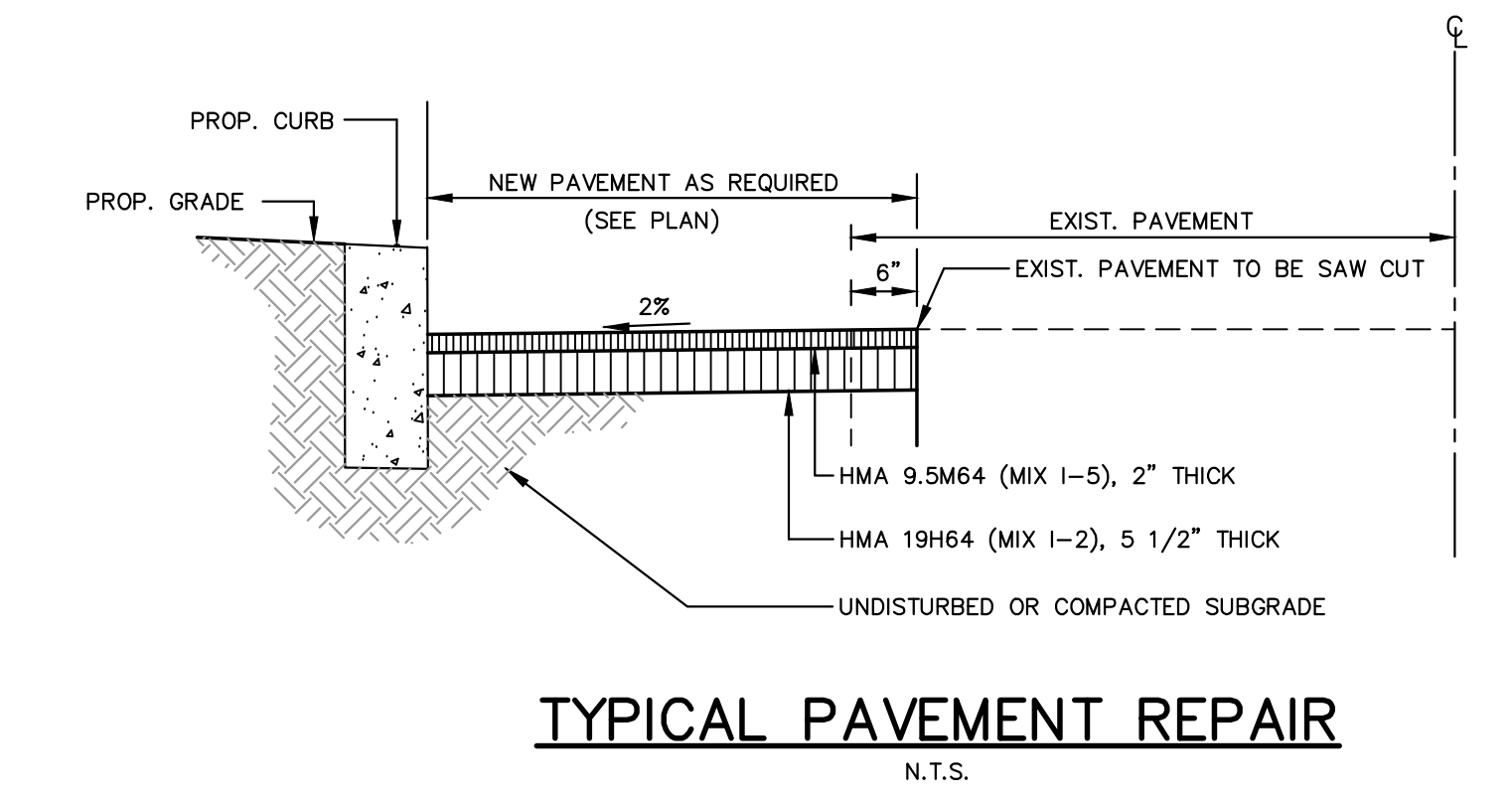
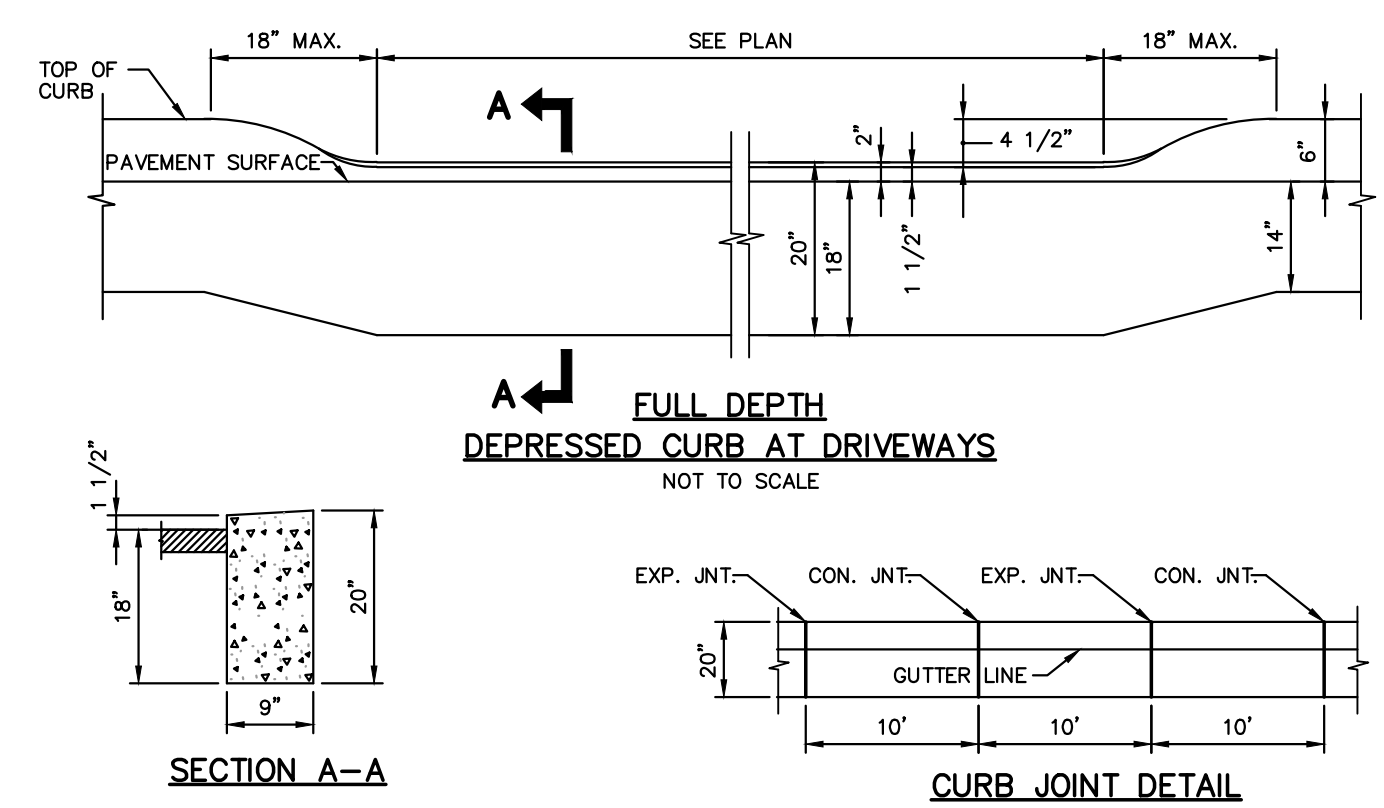
PER BOARD PLANNER'S COMPLETENESS REPORT #1 DATED JANUARY 29, 2021

| REV # | DATE | REVISION |
|-------|----------|----------|
| 1 | 02/05/21 | |

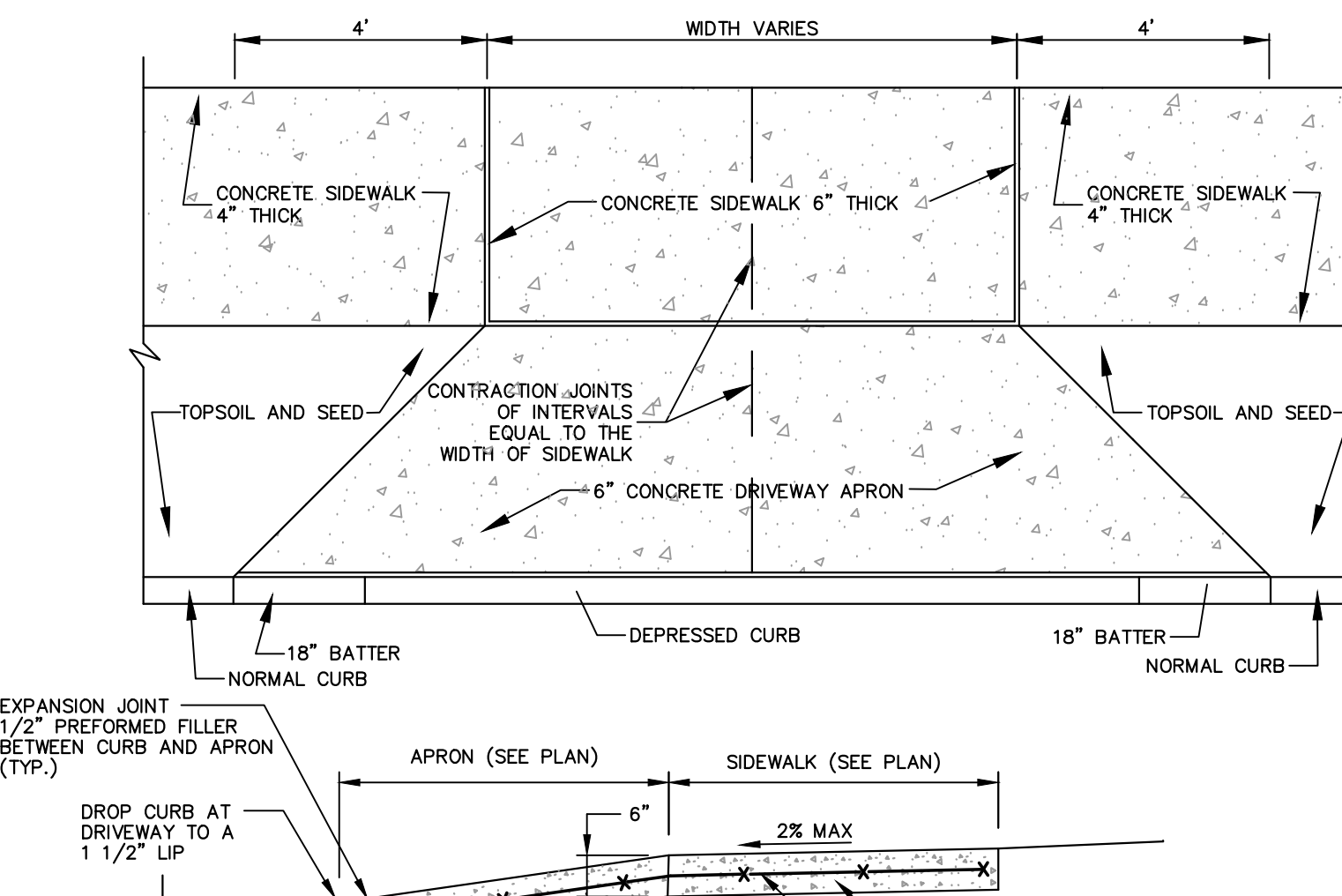
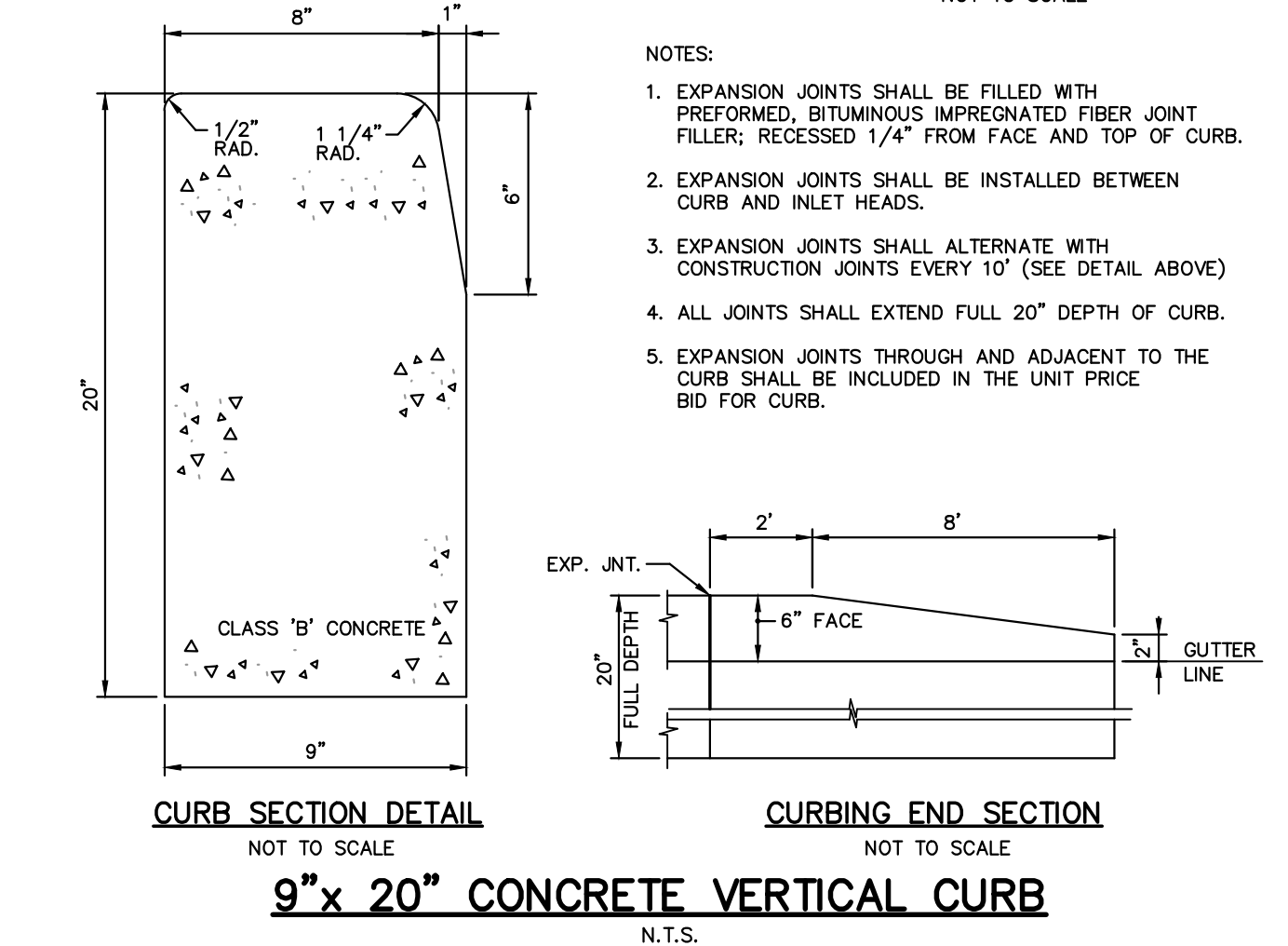
DATE: 01/07/21
 PROJECT NO.: 201103
 SHEET NO.: 4 OF 5

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION
 SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

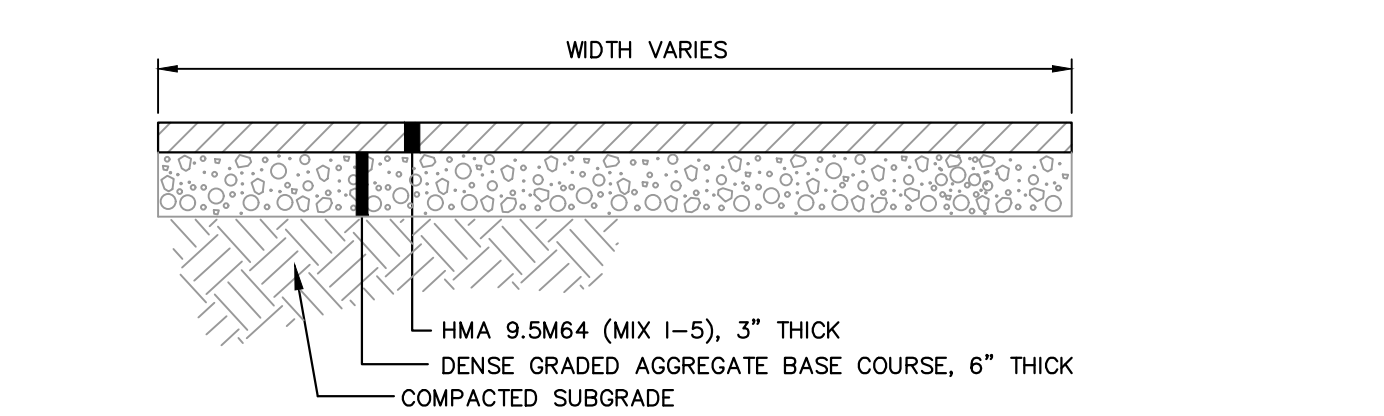
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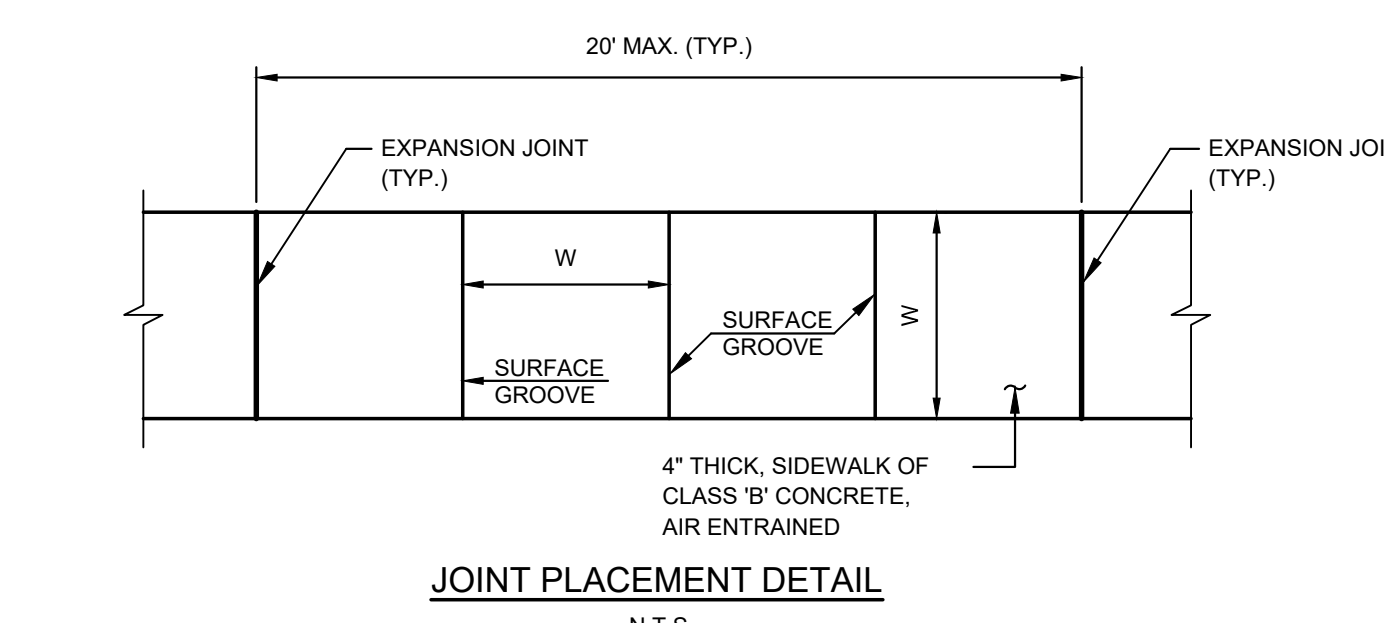
TYPICAL PAVEMENT REPAIR N.T.S.



DETAIL OF STANDARD CONCRETE APRON N.T.S.



TYPICAL SECTION HOT MIX ASPHALT N.T.S.

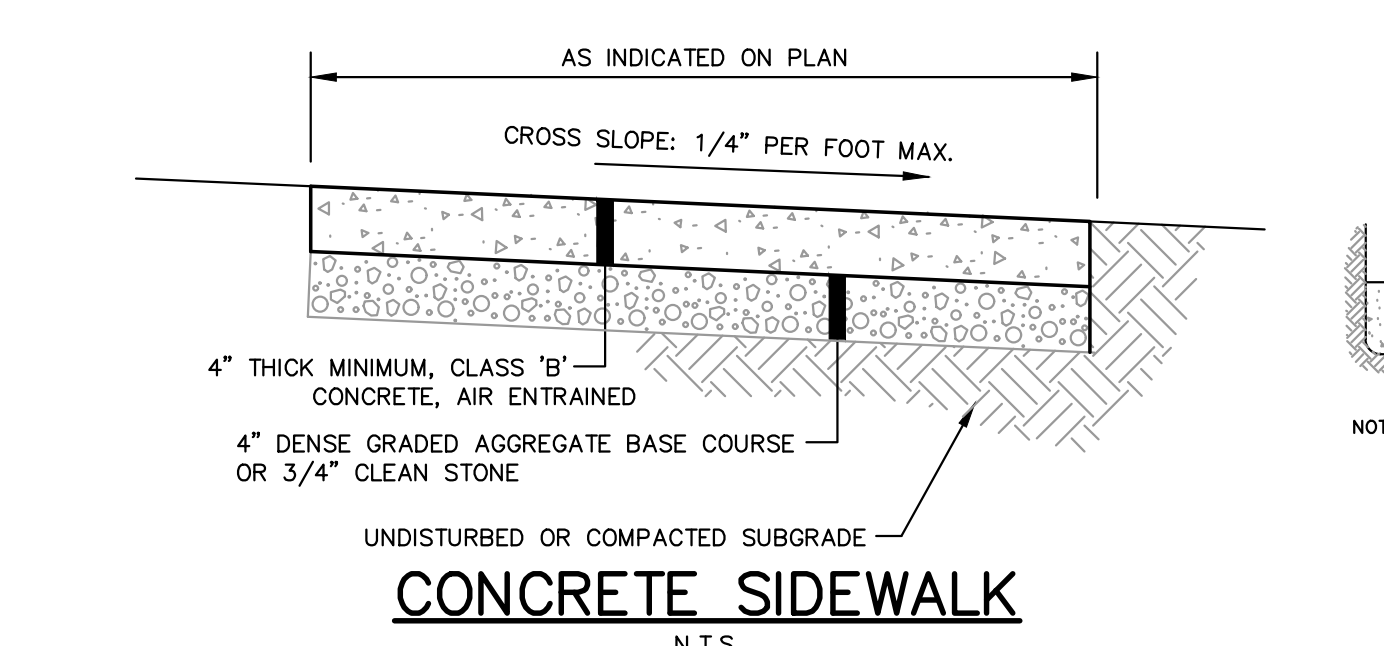


JOINT PLACEMENT DETAIL N.T.S.

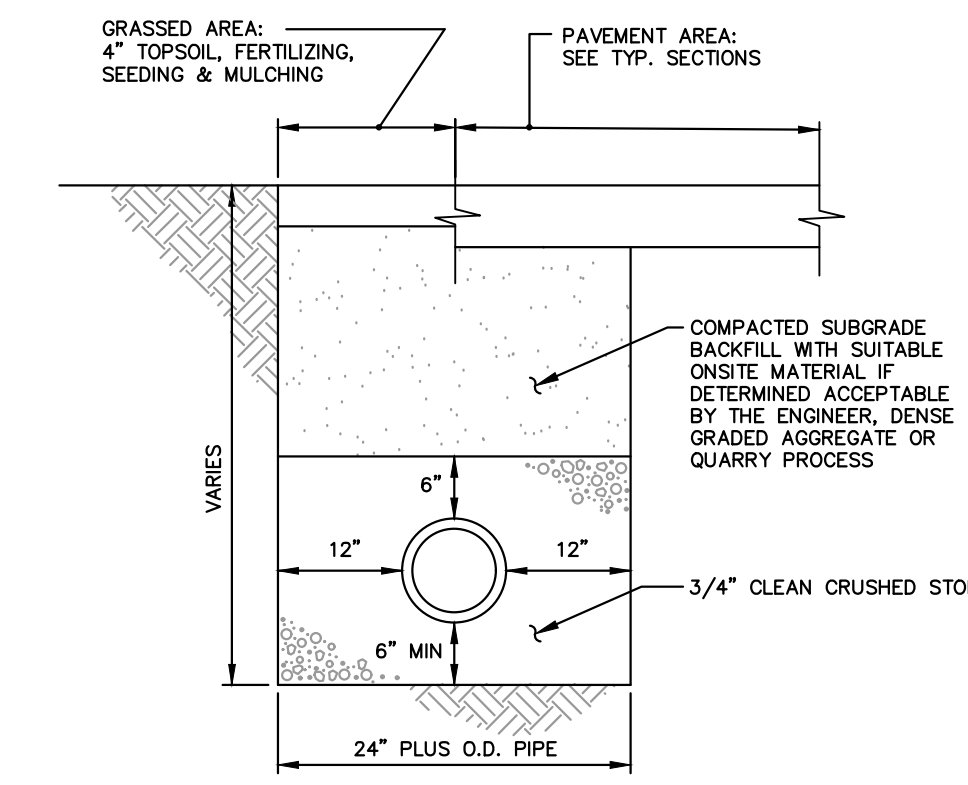
NOTES:

- 4" CLEAN STONE SUBBASE SHALL BE COMPACTED TO A FIRM AND EVEN SURFACE TO THE SATISFACTION OF THE ENGINEER.
- ALL CONCRETE SHALL BE AIR-ENTRAINED AND CONTAIN AN AIR CONTENT OF 6% ± 1.5%
- CONCRETE SHALL BE STRUCK OFF WITH A TRANSVERSE TEMPLATE AND FINISHED WITH FLOATS AND STRAIGHTEDGES UNTIL A SMOOTH SURFACE HAS BEEN OBTAINED.
- THE SURFACE SHALL BE FINISHED WITH A WOODEN FLOAT AND BRUSHED PERPENDICULAR TO PATH WITH A WET, SOFT-HAIRED BRUSH.
- ALL EDGES SHALL BE FINISHED AND ROUNDED WITH AN EDGING TOOL HAVING A RADIUS OF 1/4 INCH.
- PREFORMED EXPANSION JOINT FILLER, 1/4" INCH THICK, SHALL BE FORMED AROUND ALL APPURTENANCES, SUCH AS MANHOLES AND UTILITY POLES, EXTENDING INTO OR THROUGH THE CONCRETE.
- THE SURFACE OF THE CONCRETE SHALL BE SO FINISHED AS TO DRAIN COMPLETELY AT ALL TIMES.

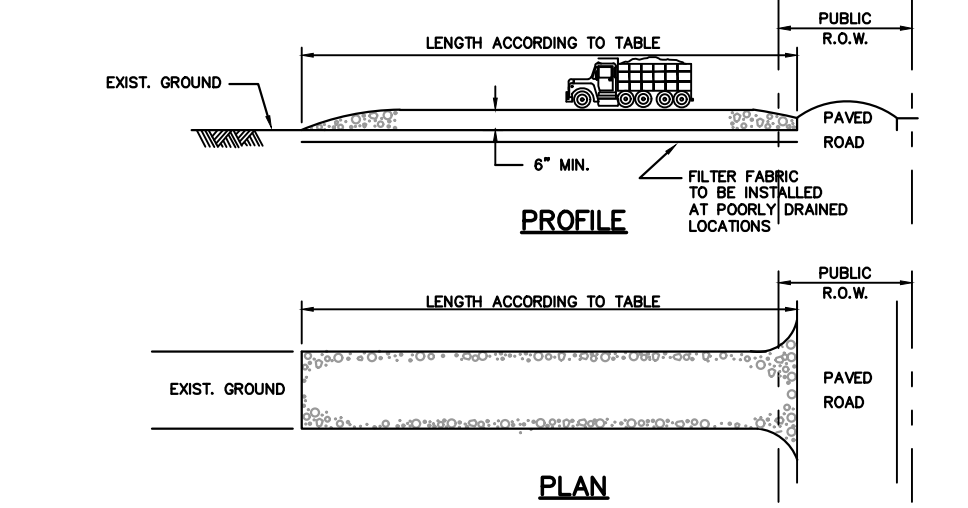
CONCRETE SIDEWALK N.T.S.



CONCRETE SIDEWALK N.T.S.



TYPICAL UTILITY TRENCH DETAIL N.T.S.



NOTES:

STONE SIZE 1 1/2" - 2 1/2" CRUSHED STONE

WIDTH NOT LESS THAN FULL WIDTH AT POINTS OF EGRESS AND INGRESS.

WASHING: WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC R.O.W. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.

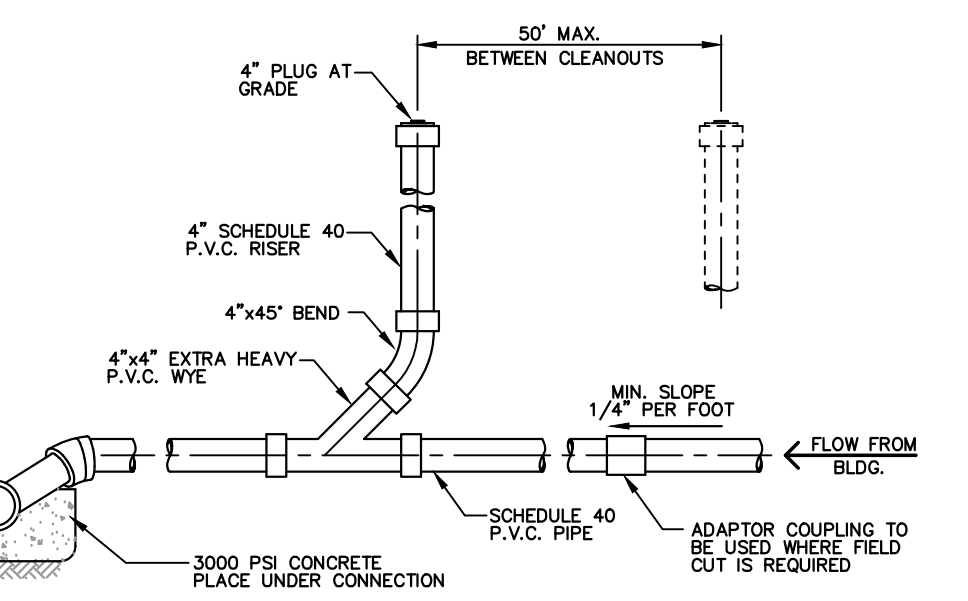
MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC R.O.W. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRAPPED ONTO PUBLIC R.O.W. MUST BE REMOVED IMMEDIATELY.

WHEN THE CONSTRUCTION ACCESS EXITS ONTO A MAJOR ROADWAY, A PAVED TRANSITION AREA MAY BE INSTALLED BETWEEN THE MAJOR ROADWAY AND THE STABILIZED ENTRANCE TO PREVENT LOOSE STONES FROM BEING TRANSPORTED OUT ONTO THE ROADWAY BY HEAVY EQUIPMENT ENTERING OR LEAVING THE SITE.

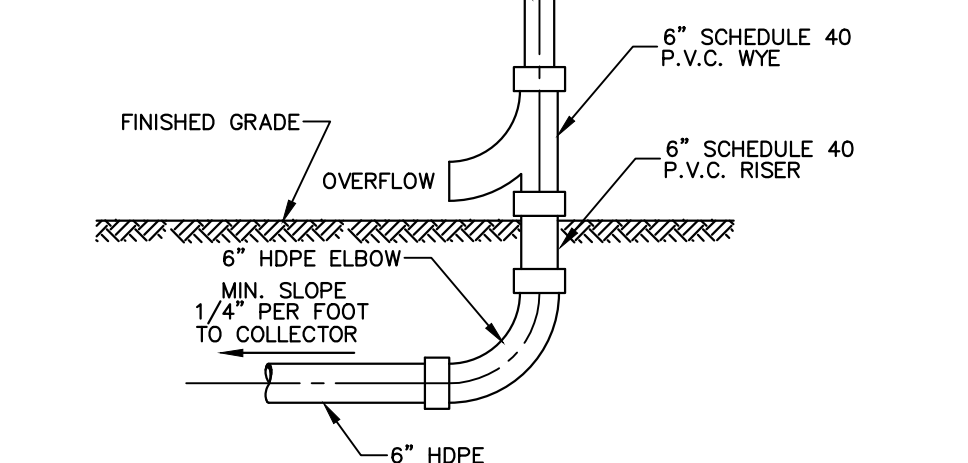
| PERCENT SLOPE OF ROADWAY | LENGTH OF STONE REQUIRED |
|--------------------------|---|
| 0 TO 2% | COARSE GRAINED SOLS 50 FT. FINE GRAINED SOLS 100 FT. |
| 2 TO 5% | 100 FT. 200 FT. |
| >5% | ENTIRE SURFACE STABILIZED WITH HMA BASE COURSE MIX 1-2 ¹ |

1. AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY

STABILIZED CONSTRUCTION ENTRANCE N.T.S.



SANITARY SEWER LATERAL N.T.S.



ROOF DRAIN DETAIL N.T.S.

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 mitigation verification 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)
- Cube 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.

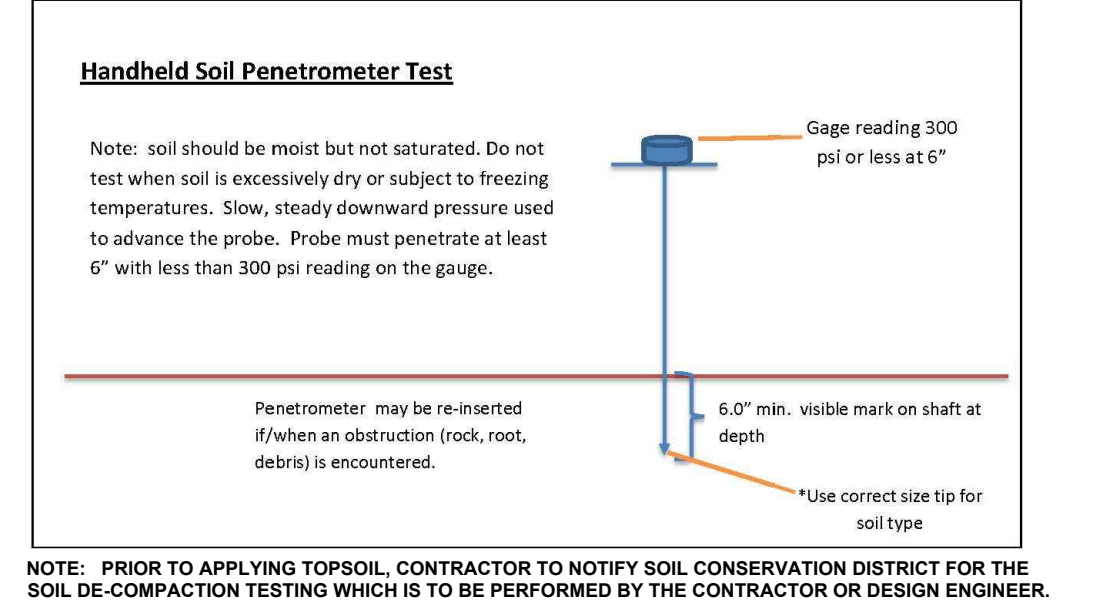
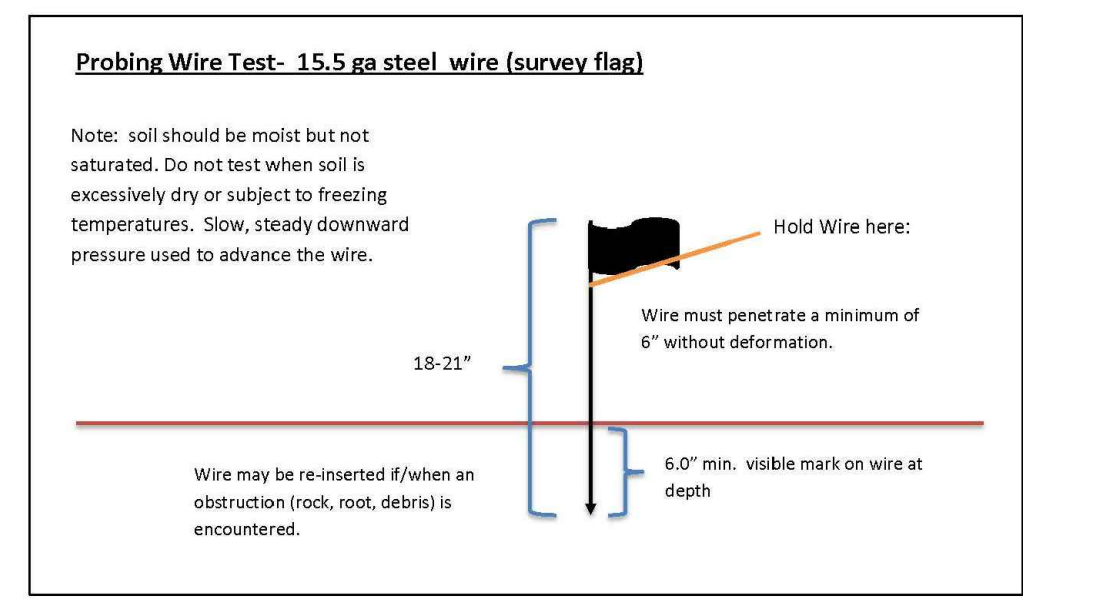
Soil compaction testing is not required if when subsol compaction remediation (scarification/tilage (6" minimum depth) or similar) is proposed as part of the sequence of construction.

Procedures for Soil Compaction Mitigation

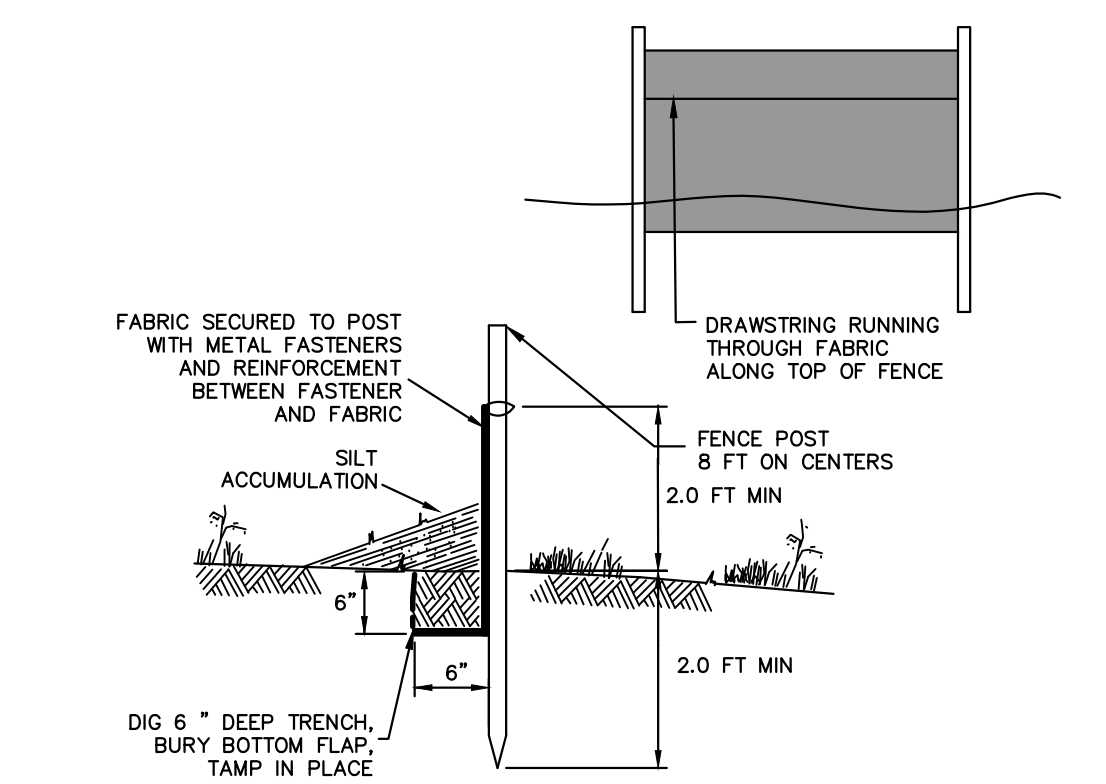
Procedures shall be used to mitigate excessive soil compaction prior to placement of topsoil and establishment of permanent vegetative cover.

Restoration of compacted soils shall be through deep scarification/tilage (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 maybe substituted subject to District Approval.

Simplified Testing Methods



NOTE: PRIOR TO APPLYING TOPSOIL, CONTRACTOR TO NOTIFY SOIL CONSERVATION DISTRICT FOR THE SOIL DE-COMPACTION TESTING WHICH IS TO BE PERFORMED BY THE CONTRACTOR OR DESIGN ENGINEER.



SILT FENCE DETAIL N.T.S.

| TASK No. | ITEM | APPROX. DURATION |
|----------|--|------------------|
| 1 | INSTALL SOIL EROSION AND SEDIMENT CONTROL DEVICES INCLUDING SILT FENCE, INLET FILTERS, AND TRACKING PAD. | 1 WEEK |
| 2 | DEMOLISH EXISTING DWELLING AND SITE IMPROVEMENTS. | 1 WEEK |
| 3 | CLEAR AND ROUGH GRADE SITE | 1 WEEK |
| 4 | BEGIN DWELLING CONSTRUCTION | 7 MONTHS |
| 5 | INSTALL UTILITIES | 1 WEEKS |
| 6 | FINAL GRADE AROUND BUILDING. STABILIZE ALL DISTURBED AREAS. | 2 DAYS |
| 7 | SOIL COMPACTION TESTING (CONTRACTOR TO COORDINATE W/ SCD & DESIGN ENGINEER) | 1 DAY |
| 8 | UNIFORMLY APPLY TOPSOIL TO AN AVERAGE DEPTH OF 5", MINIMUM OF 4", FIRMED IN PLACE | 1 DAY |
| 9 | PERMANENT SEED ALL AREAS. | 1 DAY |
| 10 | REMOVE REMAINING SOIL EROSION CONTROL DEVICES WHEN SITE IS STABILIZED. | 1 DAY |

APPROXIMATE PROJECT DURATION 8 MONTHS

NOTE: THIS SEQUENCE OF CONSTRUCTION IS GENERAL FOR THE CONSTRUCTION OF EACH LOT AND TASKS MAY OVERLAP.

HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT GENERAL NOTES:

- 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 protection is established.
- 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 A3. This temporary cover shall be maintained until such time whereby permanent revegetation is established.
- Seeding Dates: The following seeding dates are recommended to best establish permanent vegetative cover within most locations in the HEPSCD: Spring - 3/1-3/15 and Fall - 8/15-10/1
- Sediment fences are to be properly trenched and maintained until permanent vegetative cover is established
- All storm drainage inlets shall be protected by one of the practices accepted in the Standards, and protection shall remain until permanent stabilization has been established. Storm drainage outlet points shall be protected as required before they become functional.
- Mulch materials shall be un-rotted small grain straw applied at the rate of 70 to 90 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting tie down. Other suitable materials may be used if approved by the Soil Conservation District.
- All erosion control devices shall be periodically inspected, maintained and corrected by the contractor. Any damage incurred by erosion shall be rectified immediately.
- The Hudson-Exset-Passaic Soil Conservation District will be notified in writing at least 48 hours prior to any soil disturbing activities. Fax: (982) 233-4507 OR email - INFORMATION@HEPSCD.ORG
- The applicant must obtain a District issued Report of Compliance prior to applying for the Certificate of Occupancy or Temporary Certificate of Occupancy from the respective municipality, NJ - DCA or any other controlling agency. Contact the District at 982-233-4507 to request a Final Inspection, giving advanced notice upon completion of the stabilization measures. A performance deposit may be posted with the District when winter weather or snow cover prohibits the proper application of seed, mulch, fertilizer or hydro-seed.
- Paved roadways must be kept clean at all times. Do not utilize a fire or garden hose to clean roads unless the runoff is directed to a properly designed and functioning sediment basin. Water pumped out of the excavated areas contains sediments that must be removed prior to discharging to receiving bodies of water using removable pumping stations, sump pits, portable sedimentation tanks and/or silt control bags.
- All surfaces having lawn or landscaping as final cover are to be provided topsoil prior to re-seeding, sodding or planting. A depth of 5.0 inches, firm in place, is required, as per the Standards for Topsoiling and Land Grading, effective December 2017.
- All plan revisions must be submitted to the District for proper review and approval.
- A crushed stone wheel cleaning tracking pad is to be installed at all site exits using 2 1/2" - 1" crushed angular stone (ASTM 2 or 3) to a minimum length of 50 feet and minimum depth of 6". All driveways must be provided with crushed stone until paving is complete.
- Step slopes incurring disturbance may require additional stabilization measures. These "special" measures shall be designed by the applicant's engineer and be approved by the Soil Conservation District.
- The Hudson-Exset-Passaic Soil Conservation District shall be notified, in writing, for the sale of any portion of the project or for the sale of individual lots. New owners information shall be provided. Additional measures deemed necessary by District officials shall be implemented as conditions warrant.

VEGETATIVE STANDARDS

- TOPSOIL STOCKPILE PROTECTION**
- Apply ground limestone at a rate of 90 lbs/1000 S.F.
 - Apply fertilizer (10-20-10) at a rate of 11 lbs/1000 S.F.
 - Apply Perennial Ryegrass seed at a rate of 1 lb/1000 S.F. and Annual Ryegrass at 1 lb/1000 S.F.
 - Mulch stockpile with straw or hay at a rate of 90 lbs/1000 S.F.
 - Apply a liquid mulch binder or tack to straw or hay mulch.
 - Properly entrench a silt fence at the bottom of the stockpile.
- TEMPORARY STABILIZATION SPECIFICATIONS**
- Apply ground limestone at a rate of 90 lbs/1000 S.F.
 - Apply fertilizer (10-20-10) at a rate of 11 lbs/1000 S.F.
 - Apply Perennial Ryegrass at 1 lb/1000 S.F. and Annual Ryegrass at 1 lb/1000 S.F.
 - Mulch stockpile with straw or hay at a rate of 90 lbs/1000 S.F.
 - Apply a liquid mulch binder or tack to straw or hay mulch.

- PERMANENT STABILIZATION SPECIFICATIONS**
- Apply topsoil to a depth of 6 inches.
 - Apply ground limestone at a rate of 90 lbs/1000 S.F. and work four inches into soil.
 - Apply fertilizer (10-20-10) at a rate of 11 lbs/1000 S.F.
 - Apply Hard Fescue seed at 2.7 lbs/1000 S.F. and Creeping Red Fescue seed at 0.7 lbs/1000 S.F. and Perennial Ryegrass seed at 0.25 lbs/1000 S.F.
 - Mulch stockpile with straw or hay at a rate of 90 lbs/1000 S.F.
 - Apply a liquid mulch binder or tack to straw or hay mulch.

STANDARD FOR DUST CONTROL (Per Standards... Dust Control 16-1, May 2012)

DEFINITION-The 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.

CONDITION WHERE PRACTICE APPLIES- This practice is applicable to areas subject to dust blowing and movement where on- and off-site damage is likely without treatment. Consult with local municipal ordinances on any restrictions.

WATER QUALITY ENHANCEMENT- Sediments deposited as "dust" are often fine colloidal material which is extremely difficult to remove from water once it becomes suspended. Use of this standard will help to control the generation of dust from construction sites and subsequent blowing and deposition into local surface water resources.

PLANNING CRITERIA- The following methods should be considered for controlling dust:

- Mulches-See Standards for Stabilization with mulches Only (p. 5-1)
- Vegetative Cover-See Standards for Temporary Vegetative Cover (p. 7-1), Permanent Vegetative Cover for Soil Stabilization (p. 4-1) and Permanent Stabilization with Sod (p. 6-1)
- Spray-on Adhesives-On Mineral soils (not effective on muck soils). Keep traffic off these areas.

Table 16-1: Dust Control Materials.

| | Water Dilution | Type of Nozzle | Gal./Acra |
|----------------------------------|---|----------------|-----------|
| Anionic asphalt emulsion | 7:1 | Coarse Spray | 1,200 |
| Latex Emulsion | 12.5:1 | Fine Spray | 235 |
| Resin in Water | 4:1 | Fine Spray | 300 |
| Polyacrylamide (PAM) - spray on | Apply according to manufacturer's instructions. May also be used as an additive to sediment basins to flocculate and precipitate suspended colloids. See Sediment Basin standard (pg 26-1). | | |
| Polyacrylamide (PAM) - dry spray | | | |
| Acidulated Soy Bean Soap Stick | None | Coarse Spray | 1,200 |

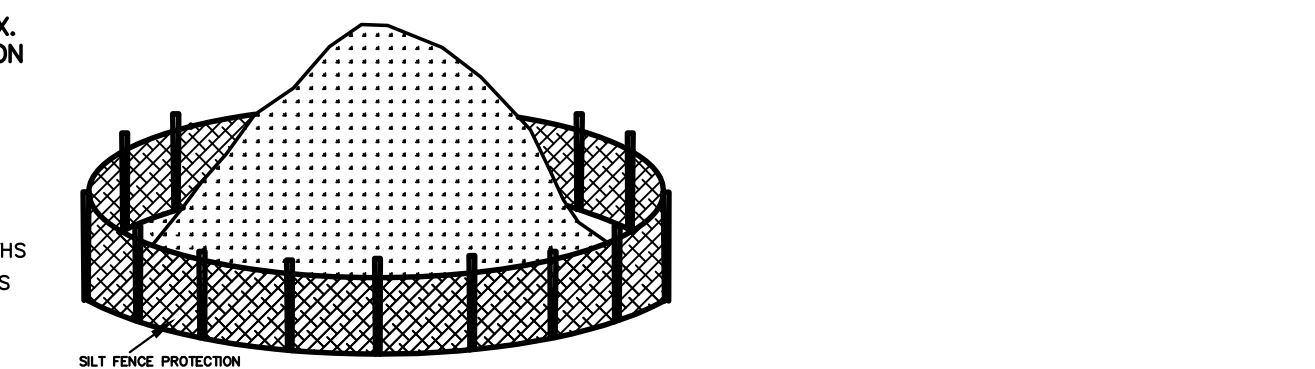
Tillage: To roughen surface and bring clods to the surface. This is a temporary emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, and spring-toothed harrows are examples of equipment which may produce 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 currents and soil blowing.

Calcium Chloride: Shall be in the form of loose, dry granules of flakes fine enough to feed through commonly used spreaders at a rate that will keep surface moist 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.

Stones: Cover surface with crushed stone or coarse gravel.



TOPSOIL STOCK PILE DETAIL

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

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