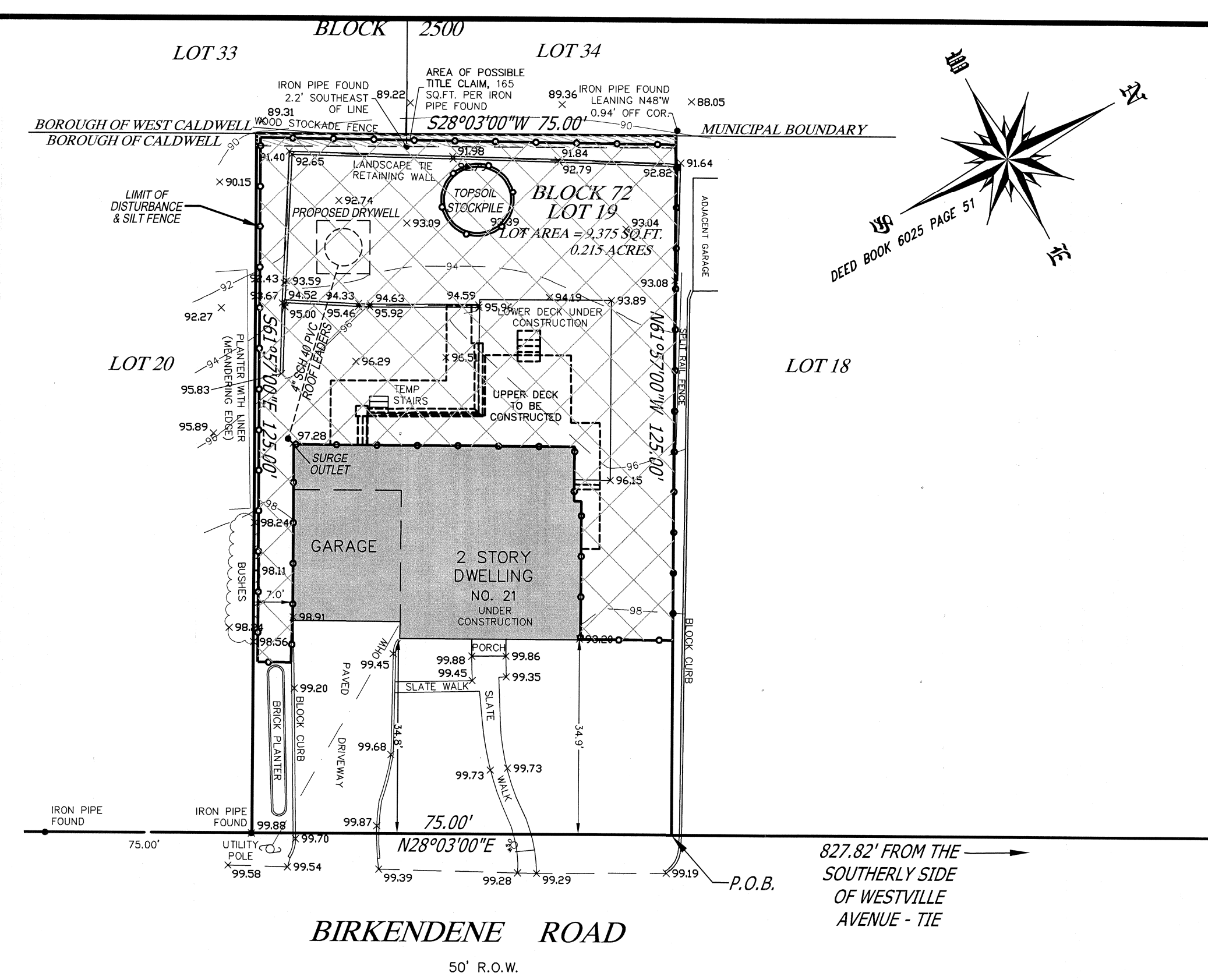
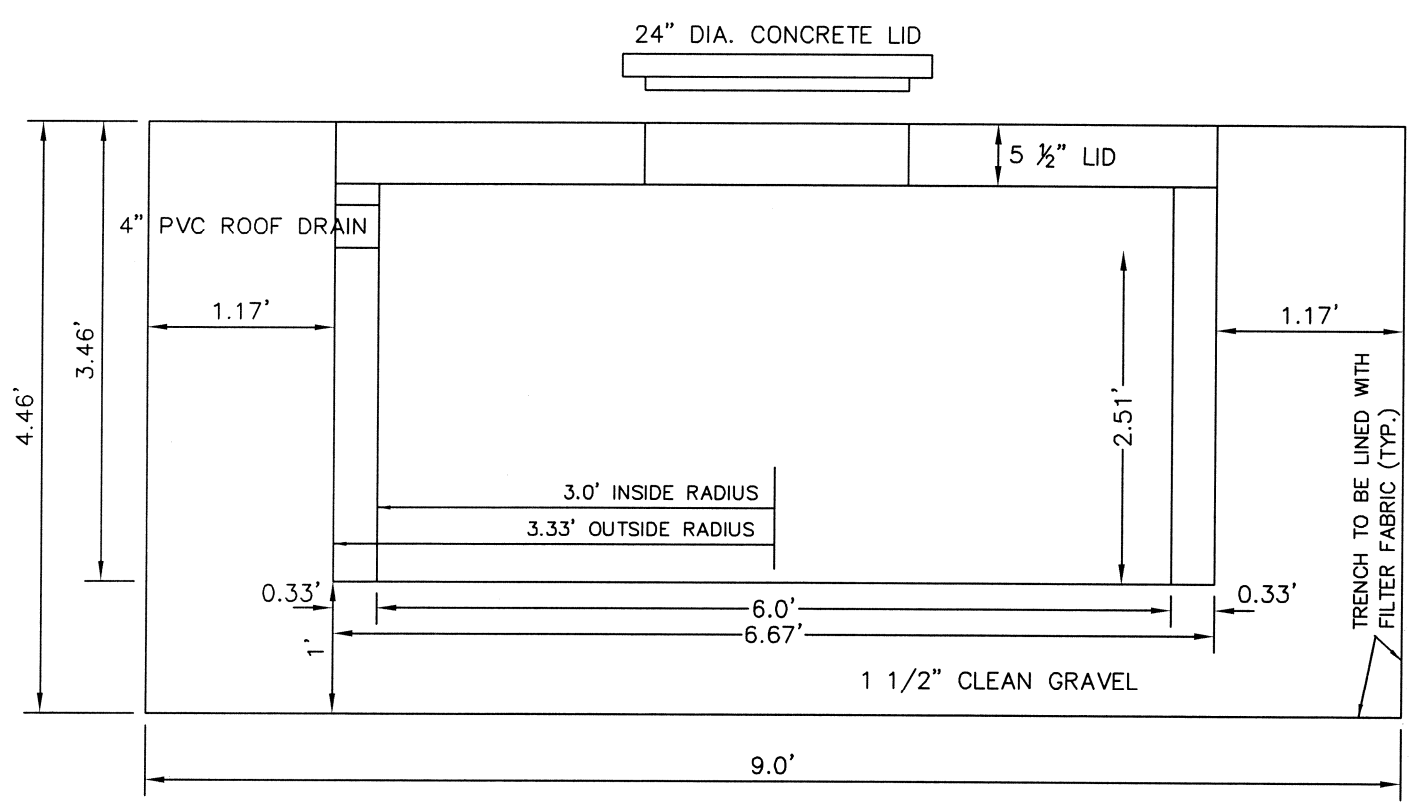


EXISTING CONDITIONS / GRADING PLAN



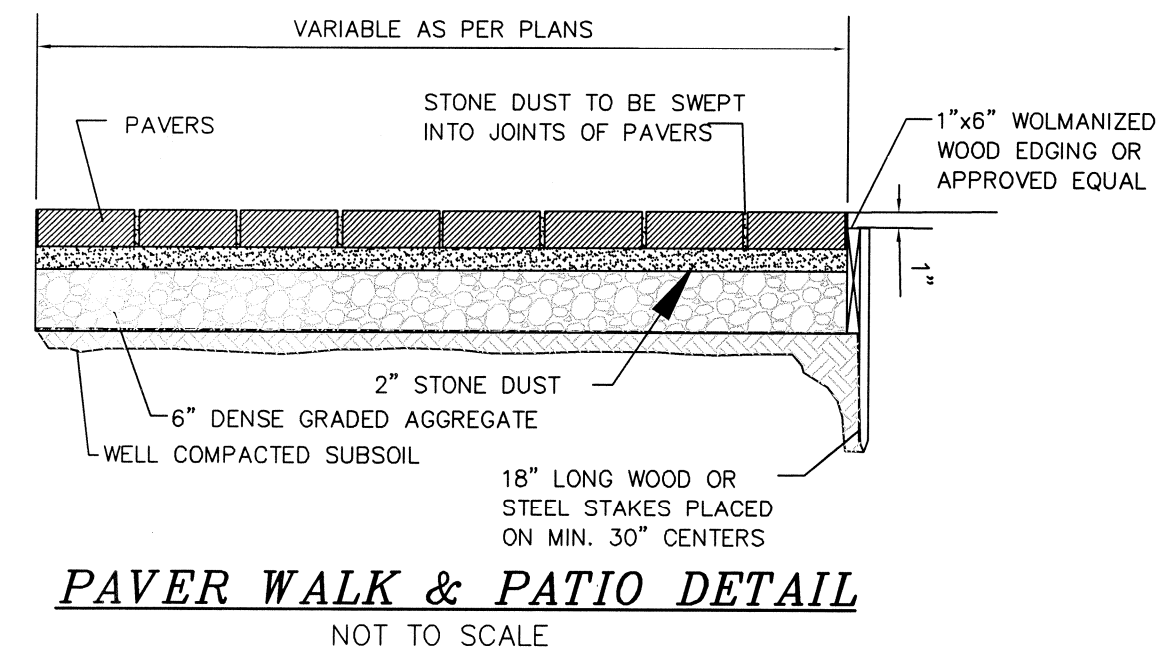
SOIL EROSION & SEDIMENT CONTROL PLAN

- ### H.E.P. SOIL EROSION AND SEDIMENT CONTROL 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 JANUARY 2014. THESE MEASURES WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
 - ALL SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, WILL BE TEMPORARILY SEEDED AND HAY MULCHED OR OTHERWISE PROTECTED WITH VEGETATIVE COVER. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED.
 - SEEDING DATES:** THE FOLLOWING SEEDING DATES ARE BEST RECOMMENDED TO ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HEPSCD: SPRING - 3/1-5/15 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-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT WILL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES. FAX - (973) 364-0784 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 - DOA OR ANY OTHER CONTROLLING AGENCY". CONTACT THE DISTRICT AT 973-364-0786 TO REQUEST A FINAL INSPECTION. ADVANCED NOTICE UPON COMPLETION OF THE RESTABILIZATION 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, SLUMP 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, SOODING OR PLANTING. A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED.
 - 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.
 - STEEP 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-ESSEX-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 OF WARRANTY.

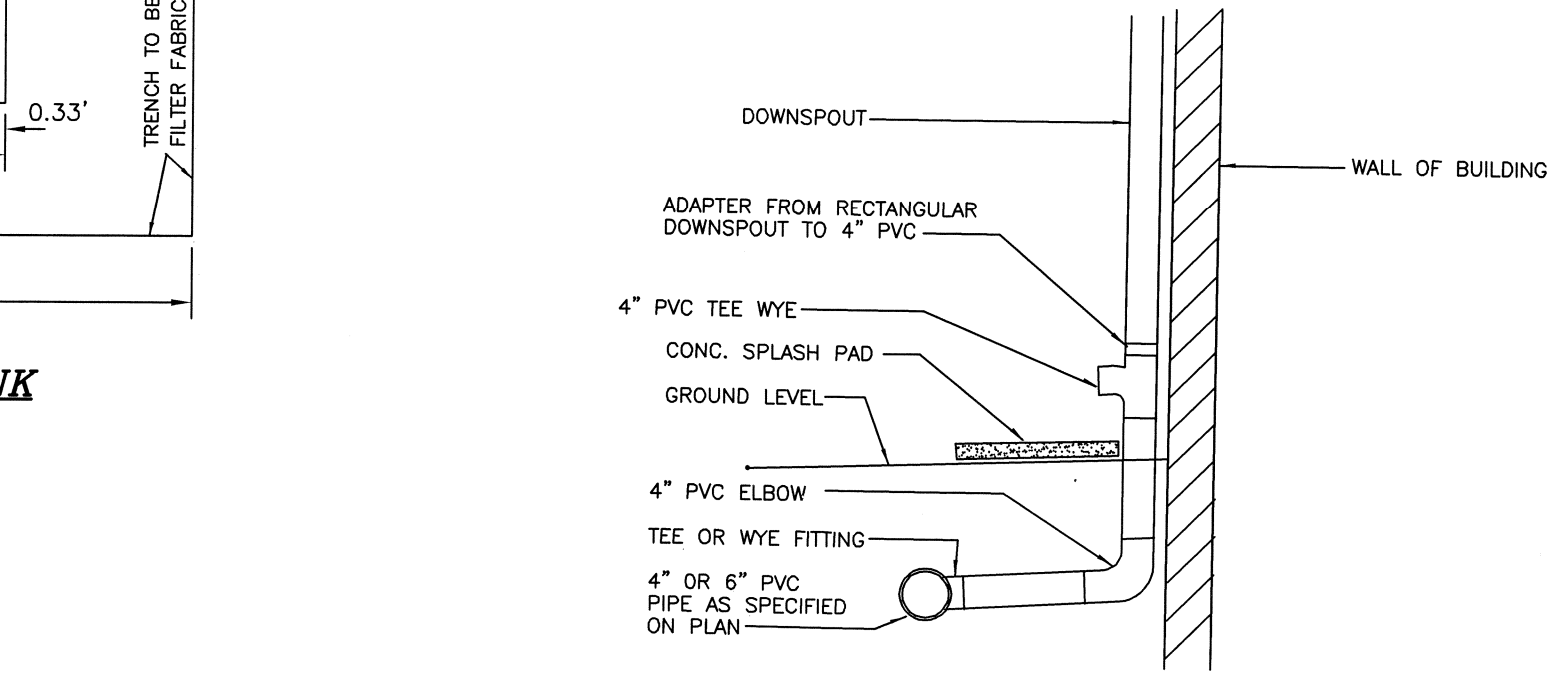


GRANVILLE 80" - 634 GALLON SEEPAGE TANK
NOT TO SCALE

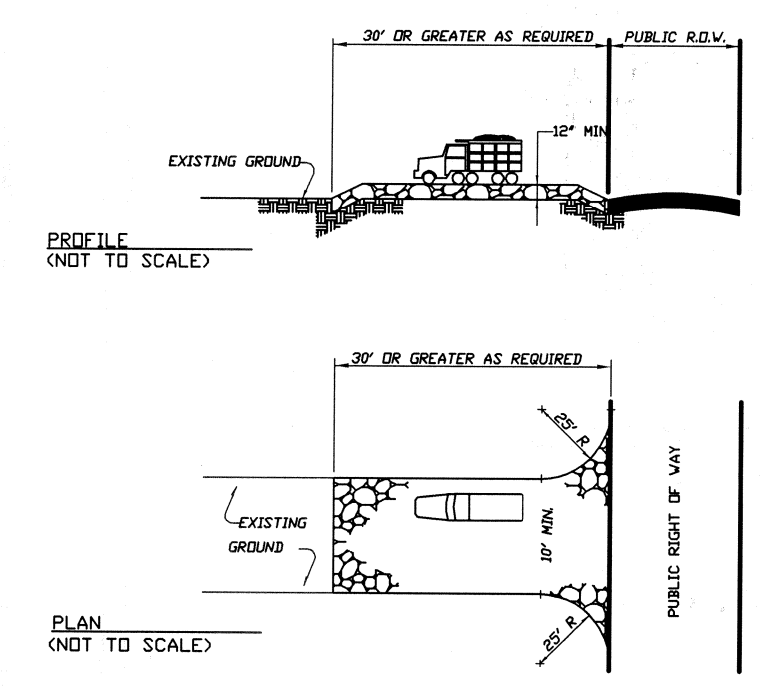
DRYWELL CALCULATIONS - VOLUME
 VOLUME OF DRYWELL: $V = 7 \times 3.0 \times 2.51 = 7 \times 7.53 = 52.71 \text{ CF}$
 VOLUME OF STONE VOID: $V = [(9.5 \times 9.5 \times 4.46) - (7 \times 3.3 \times 3.46)] \times 0.40 = 113 \text{ CF}$
 TOTAL WATER STORAGE PER DRYWELL = $71 + 113 = 184 \text{ CF}$



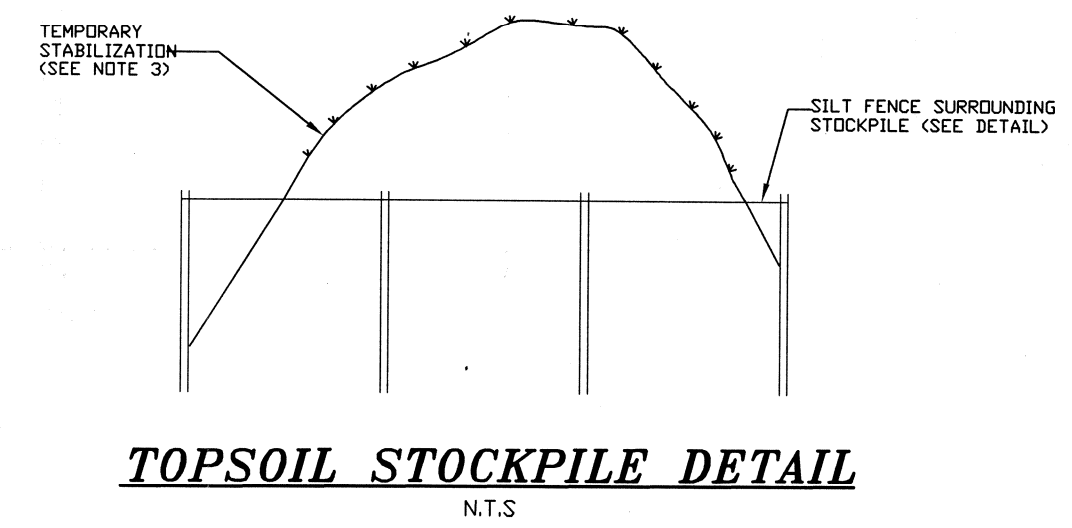
PAVER WALK & PATIO DETAIL
NOT TO SCALE



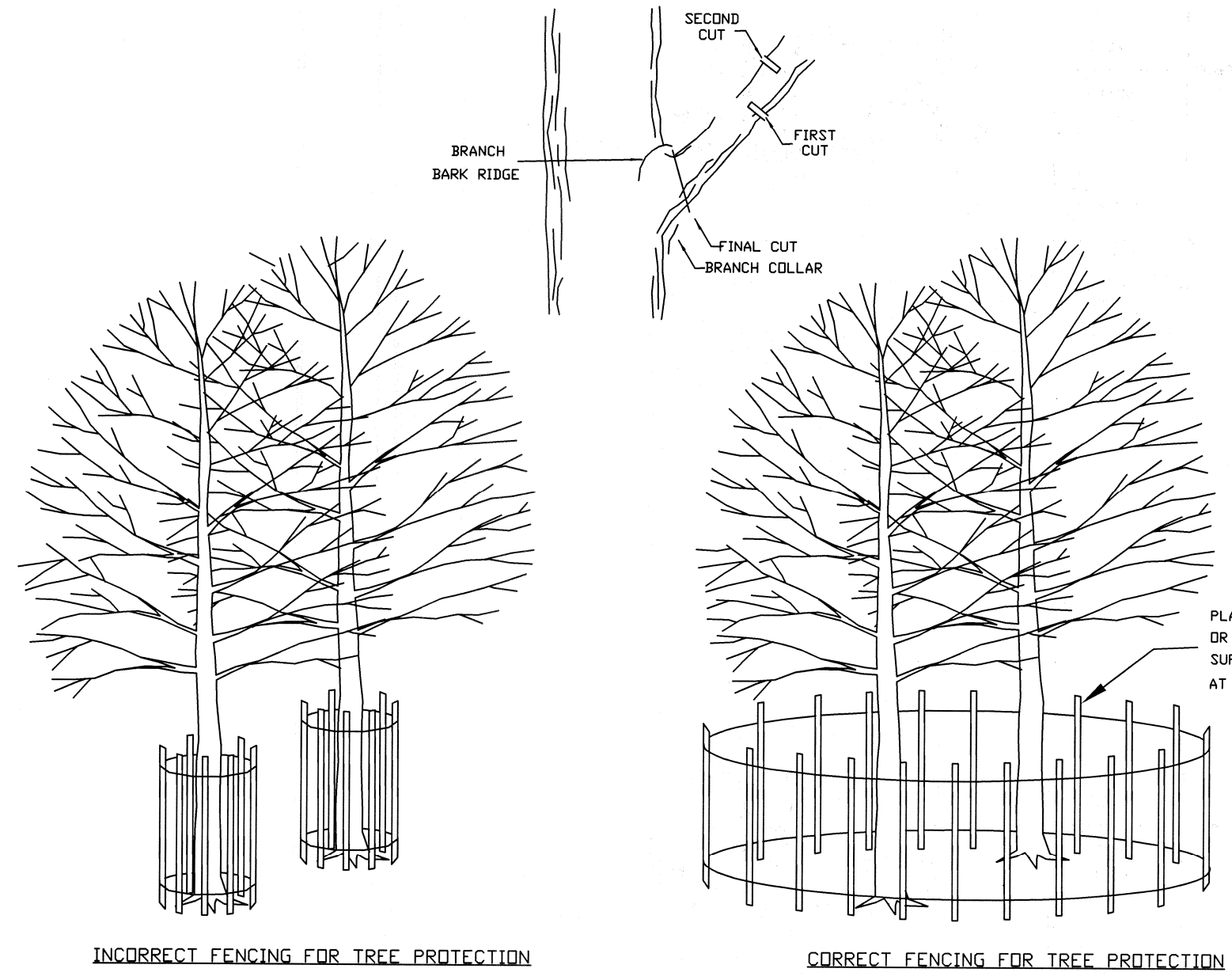
DETAIL OF SURGE OUTLET
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.



TOPSOIL STOCKPILE DETAIL
N.T.S.



TREE PROTECTION DETAIL
N.T.S.

DUST CONTROL MATERIALS

| MATERIAL | WATER DILUTION | TYPE OF NOZZLE | APPLY GALLON/ACRE |
|-----------------------------------|--|----------------|-------------------|
| Anionic asphalt emulsion | 7:1 | Coarse Spray | 1200 |
| 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 equipment booms to flocculate and precipitate suspended solids. | | |
| Polyacrylamide (PAM) (dry spread) | See Sediment Basin Standards, p. 25-1 | | |
| Acidulated Soy Bean Soap Stock | None | Coarse Spray | 1200 |

- 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 placed about 12 inches apart, and spring toothed harrows are examples of equipment which may produce the desired effect.
- Strawing:** Site is sprinkled until the surface is wet.
- Barriers:** Solid board fences, snow fences, burlap fences, crate walls, bales of hay, and similar materials can be used to control air currents 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 moist but not cause pollution of 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.

SEQUENCE OF CONSTRUCTION

- INSTALL SOIL EROSION CONTROL MEASURES 1 DAY
- CLEAR SITE 2 DAYS
- CONSTRUCT ADDITION 10 WEEKS
- FINAL GRADING AND LANDSCAPING 4 DAYS
- RAKING, SEEDING & MULCHING 3 DAYS
- FINAL CLEAN-UP 2 DAYS
- REMOVE REMAINING SOIL EROSION CONTROL DEVICES 1 DAY

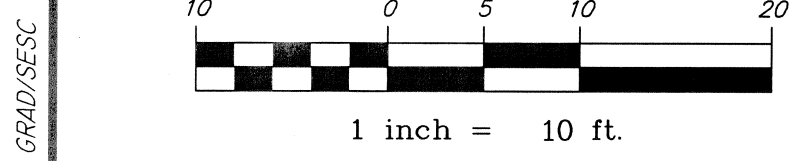
- GENERAL NOTES:**
- SEQUENCE IS SUBJECT TO WEATHER, CONTRACTOR AVAILABILITY, MATERIAL AVAILABILITY AND OTHER EVENTS BEYOND THE CONTROL OF THE CONTRACTOR AND/OR OWNER.
 - SOME ACTIVITIES CAN/WILL TAKE PLACE CONCURRENTLY.
 - SILT FENCING SHALL REMAIN IN PLACE UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED.
 - IT IS ESTIMATED THAT THIS PROJECT WILL TAKE FROM 3 TO 4 MONTHS TO COMPLETE.

OWNER/APPLICANT

JAMES L. ESPOSITO
21 BERKENDENE ROAD
CALDWELL, NJ 07006

| REV. | DATE | DESCRIPTION | BY |
|---|------|----------------------|----|
| GRADING/SOIL EROSION & SEDIMENT CONTROL PLAN | | | |
| 21 BERKENDENE ROAD | | | |
| LOT 19 BLOCK 72 | | | |
| BOROUGH OF CALDWELL, ESSEX COUNTY, N.J. | | | |
| DRAWN BY: G.B.S. | | SCALE: 1"=20' | |
| FILE No. 15-157A | | DWG 15157A.DWG | |
| 148 EAST MAIN STREET | | PHONE: 973-586-3736 | |
| SUITE 1 | | FAX: 973-586-3739 | |
| ROCKAWAY, N.J. 07866 | | SIRVEYOR@VERIZON.NET | |
| CERTIFICATE OF AUTHORIZATION No. 24GA28093800 | | | |

ALFRED A. STEWART, JR.
Alfred A. Stewart, Jr.
 DATE: 04/14/2021
 NJ PROFESSIONAL ENGINEER & LAND SURVEYOR, LIC. No. 24GB03588300



LAYOUT: GRAD/DESC