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STATE OF NEW JERSEY  
MOHAMMED Q. HUSAIN, P.E.  
No. GE26575  
LICENSED PROFESSIONAL ENGINEER  
DATE: 11/4/20

**PROPOSED HOUSE OF WORSHIP PARKING LOT**  
330 & 336 LAWRENCE STATION ROAD  
LOTS 13.01 & 15 BLOCK 4201  
TOWNSHIP OF LAWRENCE  
MERCER COUNTY, NEW JERSEY

**OWNER/APPLICANT**  
ISLAMIC CIRCLE OF MERCER COUNTY  
336 Lawrence Station Rd.  
LAWRENCEVILLE, NJ 08648

RECEIVED  
MAR - 8 2023  
ENGINEERING DEPT.

**SOIL EROSION CONTROL LEGEND**

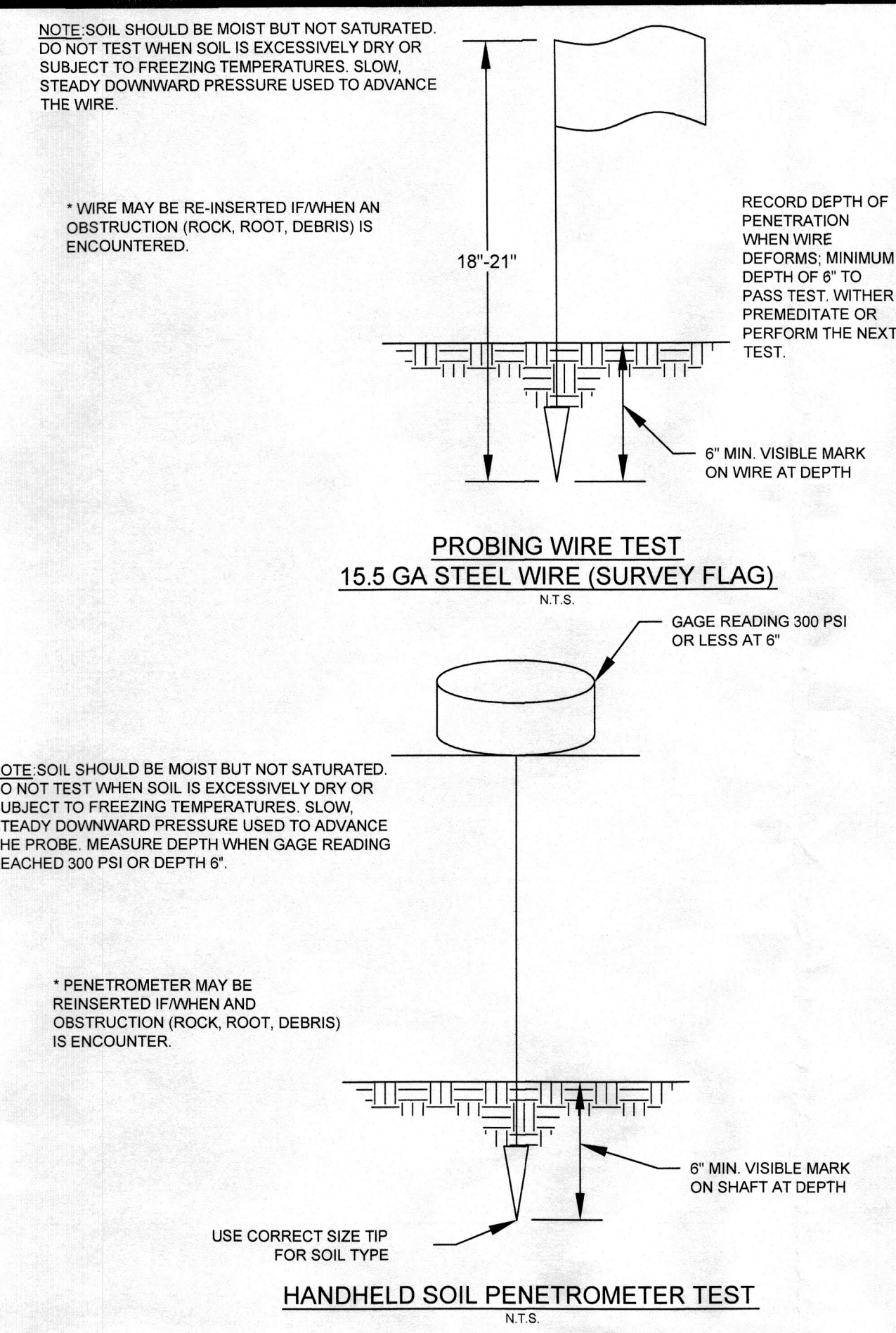
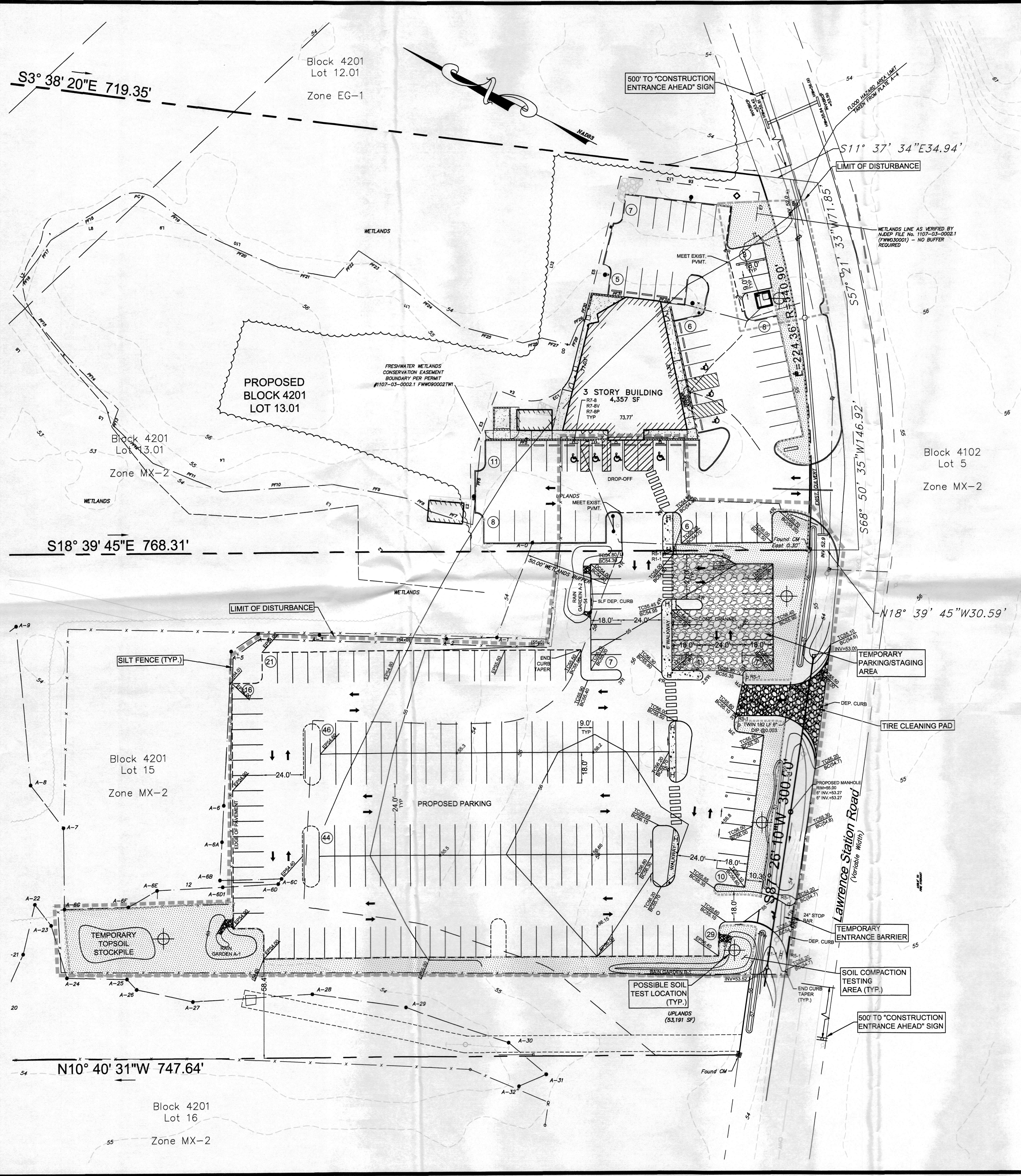
---	LIMIT OF DISTURBANCE
-x-x-x-	SILT FENCE

**LEGEND**

EXISTING	PROPOSED
○	MANHOLE
□	INLET
▤	CONCRETE HEADWALL
▴	FLARED END SECTION
⋈	UTILITY POLE
⋈	FIRE HYDRANT
⋈	SIGN
~	EDGE OF WOODS
-S-	SANITARY SEWER
-ST-	STORM DRAIN
-W-	WATER MAIN
-WV-	GATE VALVE
-T-	TEE
-P-	PLUG(CAP)
-00-	CONTOUR LINE
00X00	GRADE
N/A	MEET EXISTING GRADE (00X00)
TC38.50	TOP OF CURB ELEVATION
	APPL. NO. ZB-5/20 AND SP-8/20

REV. NO.	DESCRIPTION
1	ISSUED PER LAWRENCE TOWNSHIP REVIEW LETTER DATED 02/07/2023
2	REVISED PER LAWRENCE TOWNSHIP REVIEW LETTER DATED 02/07/2023
3	REVISED PER LAWRENCE TOWNSHIP REVIEW LETTER DATED 02/07/2023
4	REVISED PER LAWRENCE TOWNSHIP REVIEW LETTER DATED 02/07/2023
5	REVISED PER LAWRENCE TOWNSHIP REVIEW LETTER DATED 02/07/2023

DATE: 02/07/23  
PROJECT NO: IE2018000  
DATE: 6-24-2020  
DRAWN BY:  
CHECKED BY:  
REFERENCE:  
DWG SET NUMBER 100100  
SHEET TITLE:  
**SOIL EROSION & SEDIMENT CONTROL PLAN**  
**SE**  
SHEET 1 OF 3



**SOIL DE-COMPACTION AND TESTING REQUIREMENTS**

**A. 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 AREA GRAPHICALLY DENOTED ON THE CERTIFIED SOIL EROSION CONTROL PLAN.
- COMPACTION TESTING LOCATIONS ARE DENOTED ON THE PLAN. LOCATION ID'S SHALL BE USED TO COMPLETE 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 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.

**B.**

- PROBING WIRE TEST (SEE DETAIL)
- HAND-HELD PENETROMETER TEST (SEE DETAIL)
- TUBE DENSITY TEST (LICENSED PROFESSIONAL REQUIRED)
- NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL REQUIRED)

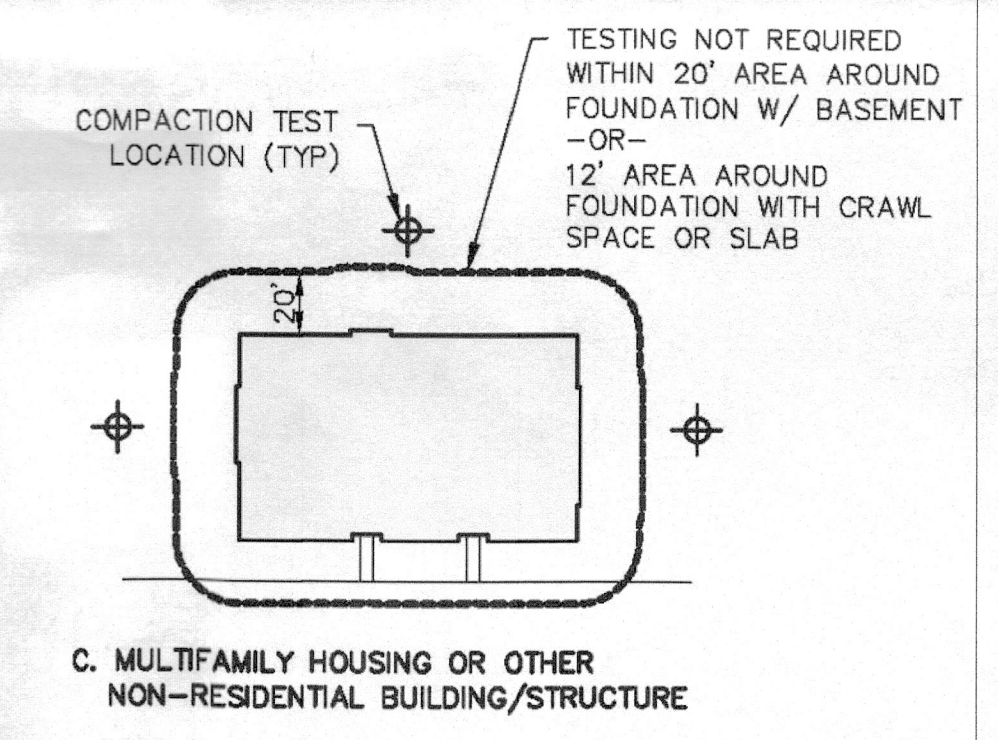
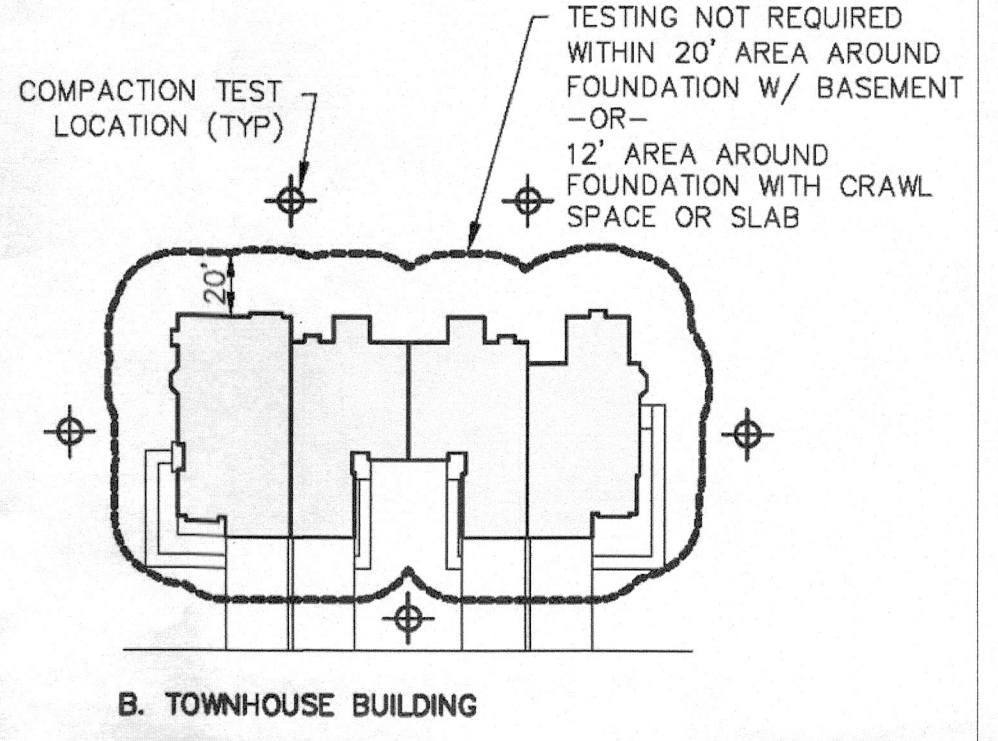
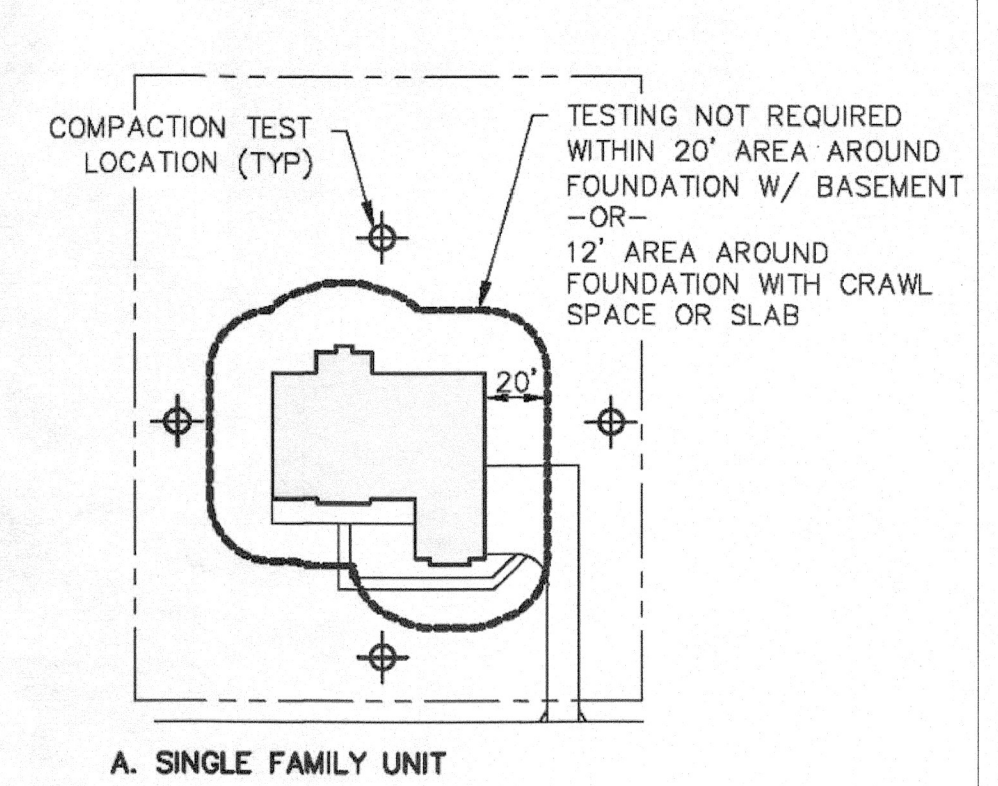
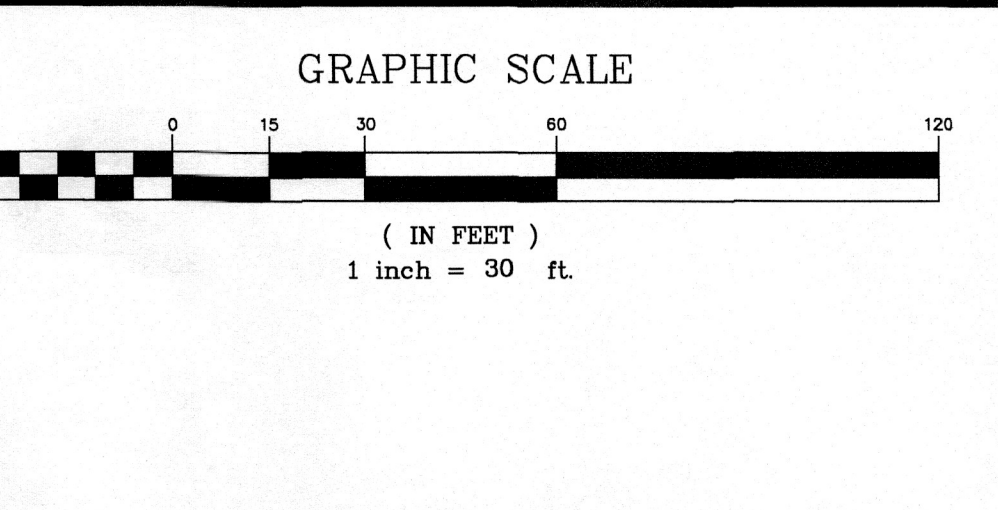
**NOTE:** ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOLID BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.

**6. DETAILED REQUIREMENTS FOR EACH COMPACTION TESTING METHOD CAN BE FOUND IN SECTION 19 "STANDARD FORM LAND GRADING" OF THE NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION.**

**7. 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.**

**C.**

- 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.



**TYPICAL SOIL COMPACTION TESTING LOCATIONS**  
N.T.S.

**NOTE:** SOIL COMPACTION TESTING LOCATIONS IDENTIFIED ARE RECOMMENDED LOCATIONS FOR GRADED/DISTURBED AREAS WITHIN THE VICINITY OF BUILDINGS AND STRUCTURES OR ON INDIVIDUAL LOTS. FOR GRADED/DISTURBED AREAS WITHIN OPEN OR COMMON SPACES, SOIL COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE FREQUENCY LISTED IN THE LEGEND (THIS SHEET).

**LEGEND**

EXISTING	LEGEND	PROPOSED
○	MANHOLE	●
□	INLET	▲
△	CONCRETE HEADWALL	▲
△	FLARED END SECTION	▲
○	UTILITY POLE	▲
○	FIRE HYDRANT	▲
○	SIGN	▲
○	EDGE OF WOODS	▲
○	SANITARY SEWER	▲
○	STORM DRAIN	▲
○	WATER MAIN	▲
○	GATE VALVE	▲
○	TEE	▲
○	PLUG(CAP)	▲
○	CONTOUR LINE	▲
○	GRADE	▲
○	MEET EXISTING GRADE	▲
○	TOP OF CURB ELEVATION	▲

**SOIL EROSION CONTROL LEGEND**

---	LIMIT OF DISTURBANCE
---	SILT FENCE

**NOTES:**

- THIS PLAN TO BE USED FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY.
- REFER ALSO TO TREE PROTECTION PLAN FOR INDIVIDUAL TREES TO BE PRESERVED OUTSIDE OF WOODED AREAS TO REMAIN.
- ALL MATERIAL MUST BE REMOVED FROM THE SITE.

**APPL. NO. ZB-5/20 AND SP-8/20**

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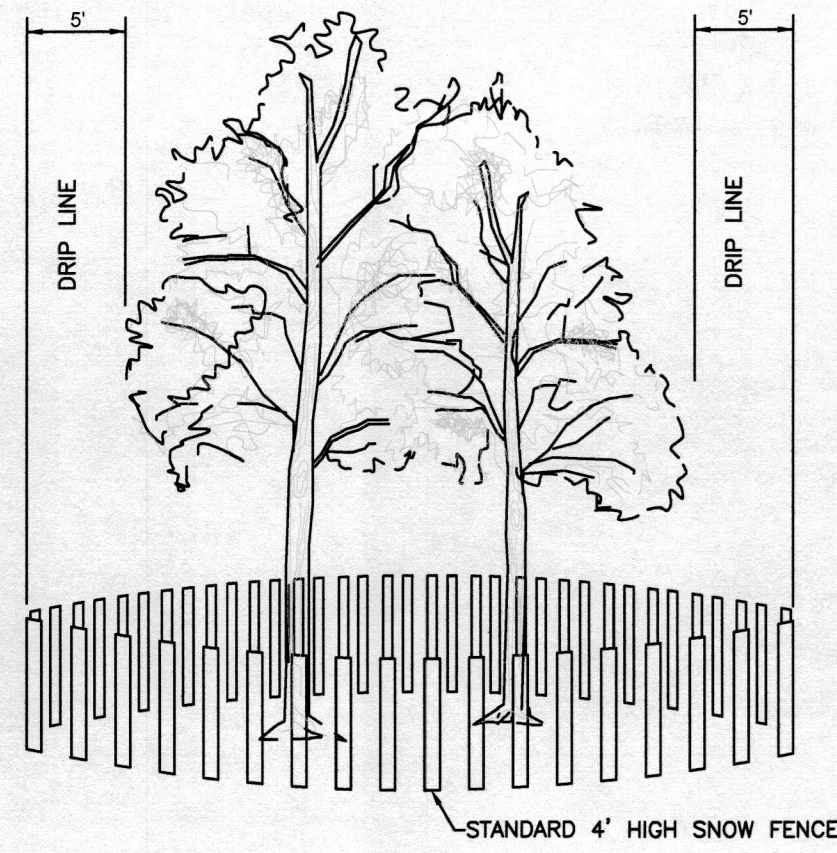
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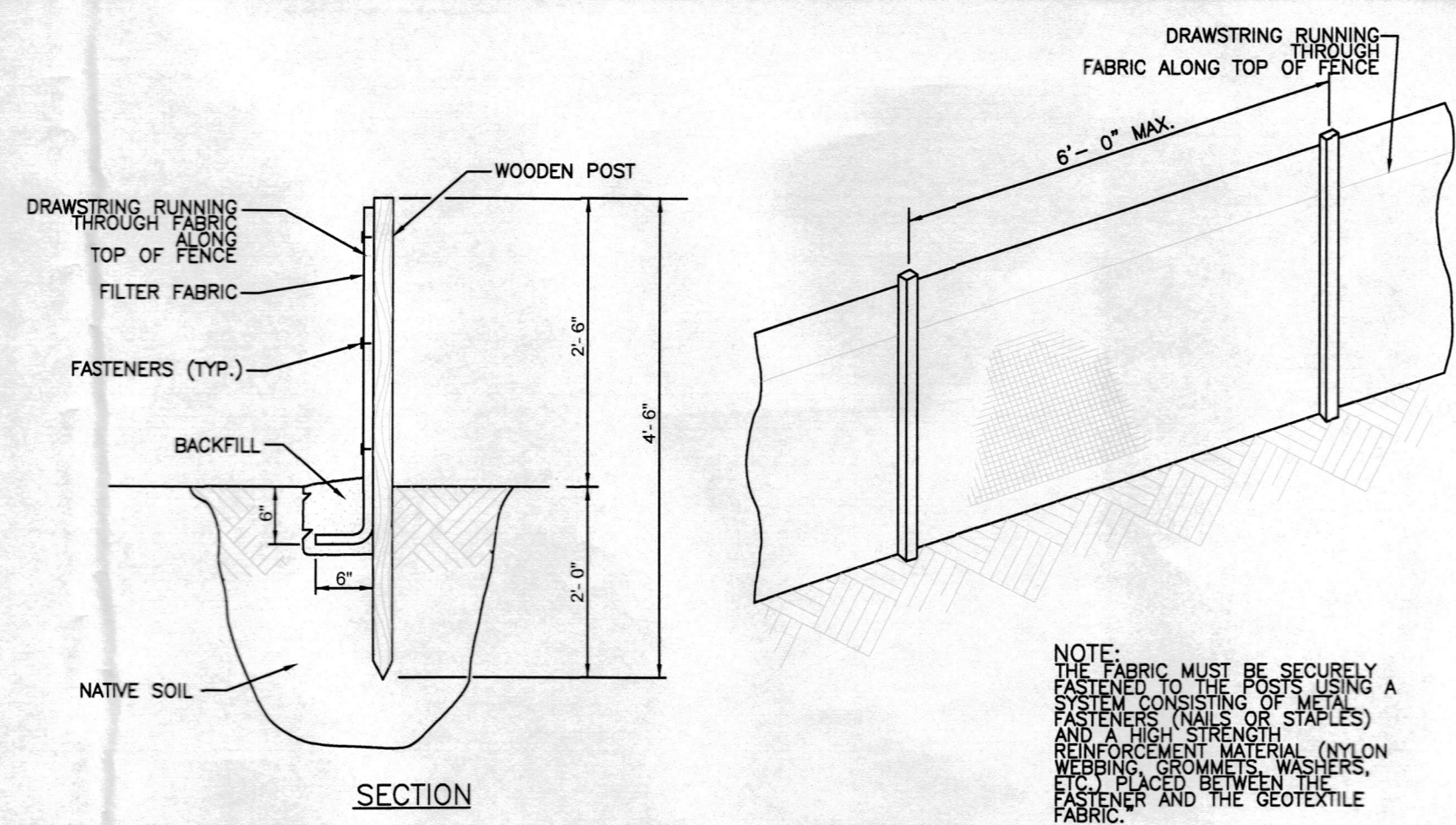
REV. NO.	DESCRIPTION	DATE
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5	REVISED PER LAWRENCE TOWNSHIP REVIEW LETTER DATED 2/20/21	2/20/21

PROJECT NO: IE2018000  
DATE: 6-24-2020  
DRAWN BY:  
CHECKED BY:  
REFERENCE:  
DWG SET NUMBER 100100  
SHEET TITLE: SOIL MANAGEMENT & PREPARATION PLAN  
SMP  
SHEET 2 OF 3

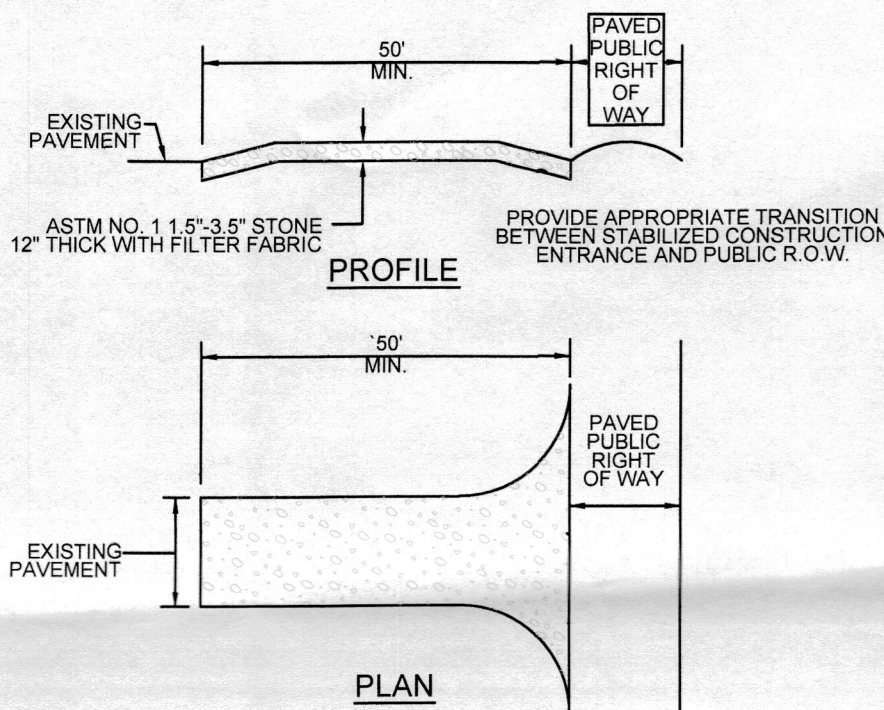
SNOW FENCE SHALL BE LOCATED FIVE (5) FEET BEYOND THE DRIP LINE OF EXISTING VEGETATION TO REMAIN. SNOW FENCING SHALL BE INSTALLED AT THE COMMENCEMENT OF CONSTRUCTION AND IS TO BE MAINTAINED THROUGHOUT THE DURATION.



### 1 EXISTING TREE PROTECTION



### 2 SILT FENCE



### 3 STABILIZED CONSTRUCTION ENTRANCE

### ACID SOIL CONDITIONS AND MITIGATION PROCEDURES:

- GENERAL MITIGATION STANDARDS:**
- IN VEGETATED AREAS, THE TOPSOIL SHALL BE STRIPPED AND STOCKPILED SEPARATELY FROM THE MATERIAL TO BE EXCAVATED. IF THE EXPOSED SUBSOIL IS CHARACTERISTIC OF ACID PRODUCING SOILS, THE SAMPLES SHALL BE OBTAINED AND TESTED AT A SOIL TESTING LABORATORY. IF ANY SULFIDIC OR SULFURIC MATERIALS (INDICATING THE PRESENCE OF ACID SOILS) ARE FOUND, CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED.
  - THE AREA OF ACID-PRODUCING DEPOSITS EXPOSED SHALL BE NO LARGER THAN THAT WHICH IS ABSOLUTELY NECESSARY FOR THE CONDUCT OF THE PROJECT.
  - CONSTRUCTION SCHEDULES SHALL BE FORMULATED TO PROVIDE MINIMUM PRACTICABLE EXPOSURE OF ACID-PRODUCING DEPOSITS.
- EXCAVATION:**
- WHERE THE TOP LAYER OF SOIL (REMAINING AFTER CLEARANCE OF VEGETATION) IS FREE FROM ACID-PRODUCING DEPOSITS, SUCH SOIL SHALL BE STRIPPED AND STOCKPILED SEPARATELY FROM THE DEEPER, ACID-PRODUCING DEPOSITS TO BE EXPOSED. NO ACID-PRODUCING DEPOSITS SHALL BE INCLUDED IN THIS STOCKPILE.
  - ACID-PRODUCING DEPOSITS (INCLUDING SOIL CONTAMINATED WITH SUCH DEPOSITS AND CONTAMINATED SOIL DISHED FROM CONSTRUCTION EQUIPMENT SHALL NOT BE EXPOSED FOR MORE THAN ONE (1) DAY EXCEPT WHERE ABSOLUTELY NECESSARY FOR THE CONDUCT OF THE PROJECT. IF SUCH DEPOSITS MUST BE EXPOSED FOR MORE THAN THIRTY (30) TONS PER ACRE (1,375 LBS. PER 1,000 SQ. FT.) AND THEN COVERED WITH A MINIMUM OF ONE FOOT OF COMPACTED TOPSOIL, FREE OF ACID-PRODUCING DEPOSITS WITHIN ONE (1) WEEK AFTER EXPOSURE. OR BEFORE THE PH OF A WELL-MIXED SAMPLE FROM THE UPPERMOST TWO (2) INCHES OF THE EXPOSED DEPOSIT DROPS TO 4.0, WHICHEVER OCCURS FIRST.
  - EXCAVATED MATERIAL SHALL BE RETURNED TO TRENCHES OR PITS IN THE ORDER OF ITS REMOVAL. I.E. LOWER MATERIAL FIRST, FOLLOWED BY UPPER MATERIAL. HOWEVER, IF ACID-PRODUCING DEPOSITS ARE FOUND ONLY IN THE UPPER MATERIAL, THEN THE UPPER MATERIAL SHOULD BE RETURNED FIRST. THIS EXCEPTION ALSO APPLIES TO THE FOLLOWING SITUATION: WHERE ACID-PRODUCING DEPOSITS ARE FOUND ONLY IN A MINOR AREA WITH SUCH DEPOSITS, THE TOP TWO (2) INCHES OF SUCH SOIL SHALL BE SCRAPED OFF AND BURIED ALONG WITH OTHER MATERIALS. THE REMAINING MATERIAL, RESULTING DUE TO PERMANENT GRADE REDUCTION, PLACEMENT OF PIPES OR OTHER STRUCTURES, AND SOIL SCRAPED FROM AREAS UNDER TEMPORARY STOCKPILES OF ACID-PRODUCING DEPOSITS SHALL BE SUBSTITUTED FOR AN EQUAL QUANTITY OF TOPSOIL. MATERIAL WHICH IN TURN WILL BE REMOVED TO A SUITABLE DISPOSAL SITE. AFTER BACKFILLING THE DEEPER MATERIAL, PULVERIZED LIMESTONE SHOULD BE APPLIED AT THE RATE OF 2 LBS. PER TON (10 TONS PER ACRE) 480 LBS. PER 1,000 SQ. FT.) BEFORE THE APPLICATION OF THE SURFACE LAYER OF SOIL. THIS LIME PROCEDURE IS APPLICABLE ONLY IN WELL-DRAINAGE AREAS. THE TOP LAYER OF SOIL, FREE OF ACID-PRODUCING DEPOSITS, STRIPPED AND STOCKPILED IN ITEM #1 ABOVE, SHALL THERE BE REPLACED IF NECESSARY. ADDITIONAL QUANTITIES OF TOPSOIL SHALL BE IMPORTED SO AS TO ENSURE AT LEAST ONE (1) FOOT DEEP COVER OF SOIL, FREE OF ACID-PRODUCING DEPOSITS.
  - EQUIPMENT USED FOR EXCAVATING OR BACKFILLING ACID-PRODUCING DEPOSITS SHALL BE CLEANED AT THE END OF EACH DAY'S OPERATION, TO THE EXTENT PRACTICABLE, IN SUCH A MANNER THAT WILL NOT CAUSE THE SPREADING OF ACID-PRODUCING DEPOSITS ONTO UNCONTAMINATED SOIL. THE SOIL REMOVED MUST BE PLACED IN THE TRENCH BELOW A DEPTH OF TWO (2) FEET.
  - EVERY EFFORT SHALL BE MADE TO MINIMIZE THE SPREADING OR MIXING OF ACID-PRODUCING DEPOSITS INCLUDING SOIL CONTAMINATED WITH SUCH DEPOSITS ONTO OR INTO SOIL FREE OF SUCH DEPOSITS (ON OR OFF THE CONSTRUCTION SITE). NO CONSTRUCTION SHALL TAKE PLACE ON UNCONTAMINATED SOIL UNLESS THE GROUND IS SATURATED. IF SUCH CONSTRUCTION IS LIKELY TO SMEAR OR SPREAD ACID-PRODUCING DEPOSITS OVER UNCONTAMINATED SOIL OR INTO WELLS WHICH IF ACID-PRODUCING DEPOSITS MUST BE STOCKPILED ON TOP OF SOIL, FREE OF SUCH DEPOSITS, THE AREA USED FOR STOCKPILING SHALL BE MINIMIZED. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE APPLIED WHERE ACID-PRODUCING DEPOSITS ARE EXPOSED OR STOCKPILED, TO PREVENT OR REDUCE THE MOVEMENT OF ACID-PRODUCING MATERIAL INTO STREAMS OR ONTO CONTAMINATED SOIL.
  - TEMPORARY VEGETATIVE COVER SHALL NOT BE USED FOR STABILIZATION OF ACID-PRODUCING DEPOSITS UNLESS THE LIMING AND TOPSOIL APPLICATION REQUIREMENTS OF ITEM #4 AND THE SURFACE SOIL PH REQUIREMENTS OF ITEM #1 ARE FIRST MET. OTHERWISE TEMPORARY STABILIZATION OF ACID-PRODUCING DEPOSITS SHALL CONSIST OF MULCHING AND SHALL BE IMPLEMENTED BY THE END OF THE CONSTRUCTION DAY.
  - MULCHING FOR TEMPORARY STABILIZATION IS NOT A SUBSTITUTE FOR THE LIMESTONE AND TOPSOIL APPLICATION REQUIREMENTS OF ITEMS #1 AND #4. MULCH SHALL NOT BE DIRECTLY APPLIED TO THE EXPOSED SURFACE OF ACID-PRODUCING DEPOSITS, BUT RATHER TO THE TOPSOIL APPLIED TO COVER SUCH DEPOSITS.
  - PERMANENT VEGETATION SHALL BEGIN AS SOON AS CONSTRUCTION IS COMPLETE AND AFTER THE RESULTS OF THE INCUBATION TESTS, WHERE AVAILABLE, ARE AVAILABLE.
  - PRIOR TO RESTORING VEGETATED AREA, THE SOIL SPECIALIST SHALL PERFORM PH TESTS ON THE SOIL. IF THE PH IS BELOW 4.0, THIS IS AN INDICATION THAT ACID SOILS HAVE BEEN MIXED INTO THE SOIL. NECESSARY AN INTENSIVE LIMING EFFORT IN ORDER TO MAKE THE SOIL SUITABLE FOR PLANT SURVIVAL. THE PH OF THE SURFACE LAYER OF SOIL (ONE (1) FOOT MINIMUM THICKNESS) MUST BE RAISED TO 5.0 BEFORE SEEDBED PREPARATION.
  - THE INCUBATION TEST REQUIRES THAT A SOIL SAMPLE BE OXIDIZED FOR SIX (6) WEEKS IF THE PH IS BELOW 4.0. LIME REQUIREMENT TESTS SHALL BE PERFORMED BY THE SOILS SPECIALIST TO DETERMINE THE LIME APPLICATION RATES.

### MITIGATION

- MITIGATION PROCEDURES MUST BE FOLLOWED IF CONSTRUCTION WILL EXPOSE ACID-PRODUCING DEPOSITS DURING CONSTRUCTION. THE PERIOD OF EXPOSURE SHOULD BE HELD TO A MINIMUM AND MEASURES TAKEN TO COVER SUCH DEPOSITS TO PREVENT ACCELERATION OF THE OXIDATION PROCESS.
- ONE (1) FOOT OF SOIL FREE OF ACID-PRODUCING DEPOSITS SHALL BE SPREAD OVER THE EXPOSED SURFACE. THE PH OF SUCH SOIL SHALL BE 5.0 OR GREATER THAN THE TEXTURE OF THE SOIL SHALL FALL WITHIN THE FOLLOWING TEXTURAL CLASSES (U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE CLASSIFICATION):  
CLAY, SILTY CLAY, SANDY CLAY, LOAM SILTY CLAY, LOAM, SANDY CLAY, LOAM LOAM, SILTY LOAM, SILT
- THE SOIL THAT IS TO BE SPREAD PURSUANT TO ITEM #2 SHALL BE COMPACTED. THE SOIL SHALL NOT BE COMPACTED TO A BULK DENSITY EXCEEDING 1.7 GRAMS PER CUBIC CENTIMETER, AND THE LIMING AND PH REQUIREMENTS OUTLINED ABOVE.
- SINCE THE OXIDATION OF SULFIDE MINERALS AND RESULTING GENERATION OF ACID COMMENCES AS THE ACID-PRODUCING DEPOSITS ARE EXPOSED, THE SOIL LAYER SHALL BE APPLIED PROMPTLY TO THE NEWLY EXPOSED DEPOSITS WITHIN ONE (1) WEEK OF EXPOSURE. TO ACCOMPLISH THIS, BASIN OR CHANNEL EXCAVATION SHALL PROCEED (WHERE NECESSARY) IN STAGES, SCHEDULED IN SUCH A MANNER THAT NO NEWLY EXPOSED ACID-PRODUCING DEPOSIT IS EXPOSED LONGER THAN ONE (1) WEEK, OR THE TIME REQUIRED FOR THE PH OF A WELL-MIXED SAMPLE FROM THE UPPERMOST TWO (2) INCHES OF THE DEPOSIT TO DROP TO 4.0, WHICHEVER IS LESS.
- IN SOME PLACES IT MAY NOT BE PRACTICAL TO COVER THE ACID-PRODUCING DEPOSITS WITH A SOIL-LIMESTONE MIXTURE IN THE MANNER DESCRIBED ABOVE BECAUSE OF STEEP SLOPES OR BECAUSE OF RUNNING WATER THAT CANNOT BE DIVERTED DURING CONSTRUCTION. IN SUCH CASES, PLASTIC LINERS SHALL BE UTILIZED, PLACING THEM OVER THE NEWLY EXPOSED ACID-PRODUCING DEPOSIT WITH SUITABLE PROTECTION. ANY FILL MATERIAL PLACED OVER THE PLASTIC LINER SHALL BE FREE OF ACID-PRODUCING DEPOSITS.

### MATERIAL STORAGE & DISPOSAL

- STOCKPILE SATISFACTORY MATERIALS WHERE DIRECTED UNTIL REQUIRED FOR USE AS BACKFILL OR FILL. STOCKPILES SHALL BE GRADED FOR PROPER DRAINAGE.
- SUITABLE SITES SHALL BE LEVEL, DEVOID OF MATURE STANDS OF NATURAL VEGETATION AND BE REMOVED FROM DRAINAGE FACILITIES AND FEATURES, WETLANDS AND STREAM CORRIDORS.
- THE STOCKPILE AREA SHALL BE SURROUNDED BY SILT FENCING OR ANOTHER ACCEPTABLE EROSION CONTROL MEASURE. WHERE FILL IS TO BE STORED IN EXCESS OF FOURTEEN (14) DAYS, A SUITABLE MEANS OF PROTECTING EXCAVATED MATERIAL FROM EROSION SHALL BE EMPLOYED.
- DISPOSE OF EXCESS SOIL MATERIAL AND WASTE MATERIALS AS HEREIN SPECIFIED. EXCAVATED MATERIAL UNSUITABLE FOR BACKFILLING SHALL BE KEPT SEPARATE FROM OTHER MATERIALS EXCAVATED AND DISPOSED OF MATERIAL SUITABLE FOR BACKFILLING SHALL NOT BE DISPOSED OF UNTIL COMPLETION OF FILLING OR BACKFILLING OPERATIONS.
- ACID-PRODUCING DEPOSITS (INCLUDING EARTH CONTAMINATED WITH SUCH DEPOSITS) THAT ARE NOT BACKFILLED AND COVERED SHALL BE DISPOSED OF ON OR OFF THE PROJECT SITE IN A SUITABLE MANNER AND LOCATION. DISPOSAL OF EXCESS EXCAVATED MATERIAL IN WETLANDS, STREAM CORRIDORS AND FLOODPLAINS IS STRICTLY PROHIBITED.
- ACID-PRODUCING DEPOSITS SHALL NOT BE DISCHARGED INTO STREAMS, INDISTINGUISHABLY SPREAD OVER UNCONTAMINATED SOIL, OR SOIL OR DISTRIBUTED AS TOPSOIL OR TOPSOIL AMENDMENTS SUITABLE FOR PLANT GROWTH. INSTEAD, SUCH DEPOSITS SHALL BE BURIED AT LEAST TWO (2) FEET BENEATH THE LAND SURFACE IN SUCH A MANNER THAT THE COVER MATERIAL IS NOT SUBJECT TO ACCELERATED EROSION OR UNDER PROPOSED BUILDING SLABS. STOCKPILES OF ACID-PRODUCING DEPOSITS AWAITING BURIAL SHALL BE COVERED WITH PULVERIZED LIMESTONE AT THE RATE OF TWENTY (20) TONS PER ACRE (1,375 LBS. PER 1,000 SQ. FT.) AND THEN COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF COMPACTED SOIL, FREE OF ACID-PRODUCING DEPOSITS WITHIN ONE (1) WEEK AFTER EXPOSURE, OR BEFORE THE PH OF A WELL-MIXED SAMPLE FROM THE UPPERMOST TWO (2) INCHES OF THE DEPOSIT DROPS TO 4.0, WHICHEVER OCCURS FIRST. WHENEVER PRACTICABLE, THE DEPOSIT SHALL BE BURIED THE SAME DAY IT IS EXCAVATED.

### SEEDING, LIMING, FERTILIZING AND MULCHING RATES

- SEEDBED PREPARATION AND SEED APPLICATION RATES:**
- WORK APPROVED RATES OF LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF APPROXIMATELY 4 INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING PRIOR TO THE START OF ANY LAND DISTURBANCE. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED.
  - APPLY 4 LBS. PER 1,000 SQ. FT. (160 LBS. PER ACRE) OF SEED UNIFORMLY BY GRASS DRILL OR GRASS SEEDER TO A DEPTH OF APPROXIMATELY 1/2-1 INCH WITH THE FOLLOWING RECOMMENDED SEED MIXTURE:
- | SEED               | APPLICATION MIXTURE | RECOMMENDED PLANTING DATES |
|--------------------|---------------------|----------------------------|
| CHEWINGS FESCUE    | 40%                 | 4/1 - 5/31                 |
| KENTUCKY BLUEGRASS | 20%                 | OR                         |
| PERENNIAL RYEGRASS | 20%                 | 8/15 - 10/15               |
- FOR SANDY SOILS APPLY PERENNIAL RYEGRASS AT THE RATE OF 3-4 LBS. PER 1,000 SQ. FT. IN ADDITION TO THE ABOVE MIXTURE.
  - DETENTION BASIN SIDE SLOPES TO BE SEED AT A RATE OF 4 LBS. PER 1,000 SQ. FT. (160 LBS. PER ACRE) WITH THE FOLLOWING RECOMMENDED SEED MIXTURE:
- | SEED                  | APPLICATION MIXTURE | RECOMMENDED PLANTING DATES |
|-----------------------|---------------------|----------------------------|
| SWITCH GRASS          | 35%                 | 4/1 - 5/31                 |
| REED CANARY GRASS     | 25%                 | OR                         |
| CREEPING RED FESCUE   | 15%                 | 8/15 - 10/15               |
| RELAXED HARD FESCUE   | 15%                 | OR                         |
| CREEPING BENTON GRASS | 10%                 | OR                         |
- AREAS WITHIN A FIFTY (50) FOOT RADIUS OF THE BASIN OUTLET STRUCTURE SHALL BE OVERSEED WITH SWITCH GRASS AT AN ADDITIONAL RATE OF 2 LBS. PER 1,000 SQ. FT. (8 LBS. PER ACRE).
- AREAS THAT ARE TEMPORARILY SEEDBED SHALL BE PROTECTED BY PERENNIAL RYEGRASS AND/OR MULCH. SEED SHALL BE APPLIED AT THE RATE OF 2 LBS. PER 1,000 SQ. FT. (80 LBS. PER ACRE) IF THE INITIAL SEEDING DOES NOT TAKE.
  - ALL CRITICAL AREAS SUBJECT TO EROSION SHALL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH IMMEDIATELY FOLLOWING ROUGH GRADING.
  - VEGETATIVE FILTER STRIP (IF APPLICABLE) TO BE SEED AT A RATE OF 2 LBS. PER 1,000 SQ. FT. (80 LBS. PER ACRE) WITH THE FOLLOWING MIXTURE:
- | SEED                     | APPLICATION MIXTURE | RECOMMENDED PLANTING DATES |
|--------------------------|---------------------|----------------------------|
| KENTUCKY #31 TALL FESCUE | 40%                 | 4/1 - 5/31                 |
| CHEWINGS FESCUE          | 20%                 | OR                         |
| CREEPING RED FESCUE      | 20%                 | 8/15 - 10/15               |
| PERENNIAL RYEGRASS       | 20%                 | OR                         |

IT IS THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF SEED APPLICATION AND RATE OF APPLICATION AT THE REQUEST OF THE COUNTY SOIL CONSERVATION DISTRICT.

### 2. LIME APPLICATION RATES

- ALL SEEDBED AREAS SHALL BE LIMED AT THE RATE DETERMINED BY SOIL ANALYSIS AND APPROVED BY THE ENGINEER OR THE COUNTY SOIL CONSERVATION DISTRICT. THE FOLLOWING RATES SHALL APPLY:
- | SOIL TEXTURES                         | TONS/AC. | LBS./1,000 SQ. FT. |
|---------------------------------------|----------|--------------------|
| CLAY, CLAY LOAM AND HIGH ORGANIC SOIL | 4        | 180                |
| SANDY LOAM, LOAM, SILTY LOAM          | 3        | 135                |
| LOAMY SAND, SAND                      | 2        | 90                 |
- PULVERIZED DOLOMITE LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK-TRENTON LINE.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME APPLICATION AND RATE OF APPLICATION AT THE REQUEST OF THE COUNTY SOIL CONSERVATION DISTRICT.

### 3. FERTILIZER APPLICATION RATES

- ALL SEEDBED AREAS SHALL BE FERTILIZED AT THE RATE DETERMINED BY SOIL ANALYSIS AND APPROVED BY THE ENGINEER OR THE COUNTY SOIL CONSERVATION DISTRICT. OR AT A RATE OF 11 LBS. PER 1,000 SQ. FT. (500 LBS. PER ACRE) USING 10-20-10 OR EQUIV.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF FERTILIZER APPLICATION AND RATE OF APPLICATION AT THE REQUEST OF THE COUNTY SOIL CONSERVATION DISTRICT.

### 4. MULCH APPLICATION RATES

- AREAS RECEIVING PERMANENT SEEDING SHALL BE MULCHED WITH SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70-80 LBS/1000 SQ. FT. MULCH SHALL BE SECURED.
- AREAS RECEIVING TEMPORARY SEEDING SHALL BE MULCHED WITH SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70-80 LBS/1000 SQ. FT. MULCH SHALL BE SECURED.
- APPROVED METHODS (LIQUID MULCH BINDER, CRIMPING, PEG AND TWINE).

### 5. ALL AREAS EXPOSED MORE THAN 30 DAYS DURING THE NON-GROWING SEASON SHALL BE PROTECTED BY MULCH AND SECURED WITH AN ORGANIC TACK MULCH. MULCH SHALL BE APPLIED AT A RATE OF 2-1/2 TONS PER ACRE.

- MULCH 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 BY THE ENGINEER. THIS MULCHING REQUIREMENT METHOD AND APPLICATION FOR MULCHING SHALL BE IN ACCORDANCE WITH SECTION 14 OF THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.

### DUST CONTROL

- DUST CONTROL SHALL BE IN ACCORDANCE WITH SECTION 14 OF THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL. THE FOLLOWING METHODS SHALL BE USED FOR CONTROLLING DUST:
- APPLICATION OF MULCH AND/OR VEGETATIVE COVER AS SPECIFIED IN 'SEEDING, LIMING, FERTILIZING AND MULCHING RATES' ON THIS SHEET.
  - TILLAGE TO ROUGHEN THE SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. PROCEED FROM THE WINDWARD SIDE OF THE SITE WITH CHISEL TOOTH FLOWS, 12 INCHES APART, OR SPRING TOOTH HARROWS.
  - SPRINKLING OF SITE UNTIL SURFACE IS WET. SPRINKLING SHOULD BE DONE PERIODICALLY THROUGHOUT THE CONSTRUCTION PERIOD AS REQUIRED TO CONTROL DUST.

### TOPSOILING

- TOPSOILING SHALL BE IN ACCORDANCE WITH SECTION 8 OF THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
- TOPSOIL SHOULD BE FRABLE, LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSIVE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH.
  - APPLY TOPSOIL IN A UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5 INCHES. MINIMUM 4 INCHES, FIRMED IN PLACE IS REQUIRED.
  - SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 6.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (SECTION 1 OF THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL).
  - IMPORTED TOPSOIL SHALL HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.

### DEWATERING

- DEWATERING SHALL BE IN ACCORDANCE WITH SECTION 14 OF THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL. DURING CONSTRUCTION, EXCAVATED FACILITIES NEED TO BE DEWATERED TO FACILITATE OR COMPLETE THE CONSTRUCTION PROCESS. THE WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAIN SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER.
- FIELD PLACEMENT OF DEWATERING DEVICE AND DISCHARGE LOCATION MUST BE APPROVED BY THE DISTRICT SOIL EROSION CONTROL INSPECTOR, PRIOR TO THE COMMENCEMENT OF DEWATERING ACTIVITIES.

### DEVELOPMENT SCHEDULE

- CONSTRUCTION IS SCHEDULED FOR 2021

### GENERAL SOIL EROSION AND SEDIMENT CONTROL NOTES

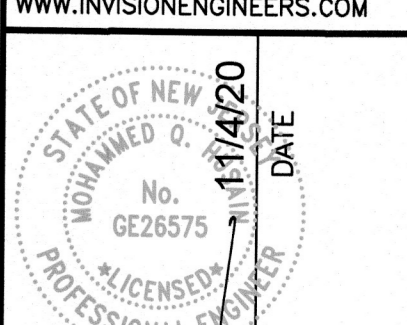
- IT IS THE INTENTION OF THE SOIL EROSION CONTROL DEVICES TO MINIMIZE THE TRANSPORTATION OF SEDIMENT OFF-SITE.
- THE TOWNSHIP OF LAWRENCE MUST BE NOTIFIED IN WRITING 48 HOURS PRIOR TO THE START OF ANY LAND DISTURBANCE.
- CONTRACTOR IS RESPONSIBLE TO MAINTAIN EROSION CONTROL STRUCTURES AND KEEP ROADS CLEAR FOR THE LIFE OF THE PROJECT AT THE CONSTRUCTION SITE.
- THE CONTRACTOR IS REQUIRED TO HAVE A COPY OF THE CERTIFIED PLAN AT THE CONSTRUCTION SITE.
- ALL SOIL EROSION CONTROL PRACTICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE. OR IN THEIR PROPER SEQUENCE AND MAINTAINED FOR ONE YEAR AFTER COMPLETION OF THE APPROVED PLAN OR UNTIL SUCH MEASURES ARE PERMANENTLY STABILIZED AS DETERMINED BY THE TOWNSHIP ENGINEER.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY COVER. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW ACCORDING TO THE STANDARDS FOR NON-GROWING SEASON SOIL STABILIZATION.
- PERMANENT VEGETATION TO BE SEED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH TO BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
- ALL WORK TO BE DONE IN ACCORDANCE WITH TOWNSHIP SOIL REMOVAL AND SOIL EROSION ORDINANCES AND THE 'NEW JERSEY' STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES) WILL RECEIVE APPROPRIATE VEGETATIVE COVER AS STATED IN THE CONSTRUCTION SEQUENCE.
- ALL ROAD BANKS SLOPING TOWARDS ROAD ARE TO BE STABILIZED IMMEDIATELY AFTER CURBING IS COMPLETED.
- DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION OR CONTROL SEDIMENT BEYOND THOSE MEASURES SHOWN ON THE APPROVED PLANS SHALL BE INSTALLED OR EMPLOYED AT THE DISCRETION OF THE ENGINEER.
- ALL REVISIONS AFTER TOWNSHIP CERTIFICATION HAS BEEN GRANTED MUST BE FORWARDED TO THE LAWRENCE TOWNSHIP ENGINEER'S OFFICE FOR REVIEW.

### CONSTRUCTION SEQUENCE

- INSTALLATION OF ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES PRIOR TO ANY MAJOR SOIL DISTURBANCES OR IN THEIR PROPER SEQUENCE AND MAINTENANCE UNTIL PERMANENT PROTECTION IS ESTABLISHED. (1 WEEK)
- CLEAR AND REMOVE ALL EXISTING VEGETATION, BUILDINGS, FOUNDATIONS, TANKS, CURBING, BITUMINOUS AND CONCRETE PAVEMENTS, ETC. IN THOSE AREAS WHERE REMAIN IN ITS NATURAL STATE. (1 WEEK)
- ROUGH GRADING OF THOSE AREAS TO BE DEVELOPED. (1+DAY)
- TEMPORARY STABILIZATION OF THOSE AREAS LEFT EXPOSED MORE THAN 30 DAYS. (1+DAY)
- LAYOUT AND LOCATION OF THE PROPOSED UTILITIES. (1+DAY)
- SUBGRADE TO BE APPLIED FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE PAVEMENT AREAS. (1+WEEK)
- INSTALLATION OF BASE MATERIAL FOR PAVEMENT AREAS WHERE NEEDED. (1+DAY)
- PAVING OF PAVEMENT AREAS. (1+DAY)
- STABILIZATION OF THE SITE WITH PERMANENT VEGETATIVE COVER AND LANDSCAPING. (1+WEEK)
- REMOVAL OF TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES, WHERE CONTRIBUTING DRAINAGE AREAS HAVE BEEN PERMANENTLY STABILIZED. (1+WEEK)

### CONSULTANTS

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**MOHAMMED Q. HUSAIN, PE**  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSED NO. 26575

### PROPOSED HOUSE OF WORSHIP PARKING LOT

330 & 336 LAWRENCE STATION ROAD  
LOTS 13.01 & 15 BLOCK 4201  
TOWNSHIP OF LAWRENCE  
MERCER COUNTY, NEW JERSEY

### OWNER/APPLICANT

ISLAMIC CIRCLE OF MERCER COUNTY

336 Lawrence Station Rd.  
LAWRENCEVILLE, NJ 08648

REV. NO.	DATE	DESCRIPTION
1	08/22/20	ISSUED PER LAWRENCE TOWNSHIP ENGINEER LETTER DATED 08/22/20
2	08/22/20	ISSUED PER LAWRENCE TOWNSHIP ENGINEER LETTER DATED 08/22/20
3	08/22/20	ISSUED PER LAWRENCE TOWNSHIP ENGINEER LETTER DATED 08/22/20

DATE: 8/24/2020  
PROJECT NO.: E2018000  
DRAWN BY:  
CHECKED BY:  
REFERENCE:

DWG SET NUMBER 100100

SHEET TITLE:

SOIL EROSION  
DETAILS/NOTES

SCD

SHEET 3 OF 3

