

**STANDARD FOR DUST CONTROL**

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

- MULCHES - SEE STANDARD FOR STABILIZATION WITH MULCHES ONLY.
- VEGETATIVE COVER - SEE STANDARD FOR TEMPORARY VEGETATIVE COVER, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION AND PERMANENT STABILIZATION WITH SOD.
- SPRAY ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS), KEEP TRAFFIC OFF THESE AREAS.

**DUST CONTROL MEASURES**

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1,200
LATEX EMULSION	12:5:1	FINE SPRAY	235
POLYACRYLAMIDE (PAM) - SPRAY ON POLYACRYLAMIDE (PAM) - DRY SPREAD	APPLY AS PER MANUFACTURER INSTRUCTIONS		
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 HARRAWS 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 OR 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.
- STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

**STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS**

HIGH ACID-PRODUCING SOILS MAY BE PRESENT IN UNDISTURBED SOILS AT VARYING DEPTHS, INCLUDING NEAR THE SOIL SURFACE TO EXCAVATIONS OR DEEP DISTURBANCES. ITS PRESENCE ON A SITE MAY BE SIGNIFICANT OR LIMITED IN THE SOIL PROFILE. HIGH ACID-PRODUCING SOILS ARE COMMONLY BLACK, DARK BROWN, GRAY OR GREENISH WITH SILVERY PYRITE OR MARCASITE NUGGETS OR FLAKES. ALTERNATIVELY, SANDY SOILS OR REDDISH, YELLOWISH OR LIGHT TO MEDIUM BROWN SOIL MATERIALS ARE USUALLY FREE OF HIGH ACID-PRODUCING DEPOSITS.

**METHODS AND MATERIALS:**

- LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID-PRODUCING SOILS ARE ENCOUNTERED.
- TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOILS.
- STOCKPILES OF HIGH ACID-PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.
- TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF THE SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID-PRODUCING SOIL.
- HIGH ACID-PRODUCING SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS OR DREDGED SEDIMENT) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PH OF 5.0 OR MORE EXCEPT AS FOLLOWS:
  - AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A PH OR 5 OR MORE.
  - DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES, AND OTHERS, TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
- EQUIPMENT USED FOR MOVEMENT OF HIGH ACID-PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID-PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.
- NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID PRODUCING SOILS FROM AROUND OR OFF THE SITE.
- FOLLOWING BURIAL OR REMOVAL OF HIGH ACID PRODUCING SOIL, TOPSOIL AND SEEDING OF THE SITE (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION AND TOPSOILING) MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE EFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

**SOIL EROSION AND SEDIMENT CONTROL NOTES**

- THE FREEHOLD SOIL CONSERVATION DISTRICT MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE; FREEHOLD SCD, 4000 KOZLOSKI ROAD, FREEHOLD, NJ 07728. TEL: 732-683-8500; FAX 732-683-9140.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE OR IN PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT STABILIZATION IS ESTABLISHED.
- ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
- N.J.S.A. 4:24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED FOR MORE THAN SIXTY (60) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL AT A RATE OF 2 TO 2 1/2 TONS PER ACRE ACCORDING TO THE STANDARD FOR STABILIZATION WITH MULCH ONLY.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR IN ACCORDANCE WITH STATE STANDARDS.
- A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING.
- THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS CONSISTING OF ONE INCH TO TWO INCH (1" - 2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
- ALL SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS, WILL BE REMOVED IMMEDIATELY.
- PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
- AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- IN ACCORDANCE WITH THE STANDARDS FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT A RATE OF 10 TONS/ACRE, (OR 450 LBS/1,000 SQ. FT. OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A PH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.
- CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.
- SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.
- STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.
- ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE # 6.
- THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORM WATER OUTFALLS OR OFF-SITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
- THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
- SOIL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS, INCLUDING AFTER EVERY STORM EVENT.
- STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHALL BE CONTAINED BY A HAY BALE SEDIMENT BARRIER OR SILT FENCE.
- TREES TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH A SUITABLE FENCE INSTALLED AT THE DRIP LINE OR BEYOND IN ACCORDANCE WITH SECTION 9-1 OF THE NJ STANDARDS.
- A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE THROUGHOUT CONSTRUCTION.
- THE FREEHOLD SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON OR OFF-SITE EROSION PROBLEMS DURING CONSTRUCTION.
- IN THE CASE OF DISCREPANCIES BETWEEN THIS PLAN AND THE N.J.T.A. STANDARD SPECIFICATIONS, THE N.J.T.A. STANDARD SPECIFICATIONS SHALL GOVERN.

**CONSTRUCTION SEQUENCE**

**STAGE 1 - 5 MONTHS**

IN THE CASE OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION SEQUENCE ON THIS PLAN AND THE CONSTRUCTION SEQUENCE LOCATED ON THE CONSTRUCTION STAGING PLAN, THE CONSTRUCTION STAGING PLAN SHALL GOVERN.

- INSTALL PERIMETER SILTATION FENCE, AS PER SOIL EROSION PLAN.
- INSTALL STABILIZED CONSTRUCTION DRIVEWAY, AS PER SOIL EROSION PLAN. DEVELOPER AGREES TO UPKEEP THE ENTRANCE THROUGHOUT THE ENTIRE DURATION OF THE PROJECT. STONE WILL BE AGITATED AND ADDED PERIODICALLY, IN ORDER TO ACCOMMODATE FOR THE SINKING AND SILTATION OF THE STONE BED.
- EXPAND NORTHEAST ENTRANCE USED FOR PRINT SHOP CURRENTLY TO ACCOMMODATE TWO WAY TURNS FOR EXISTING TRAFFIC.
- DEMOLISH EXISTING BUILDINGS AND TRAILERS.
- CREATE TEMPORARY PARKING LOT OFFSET FROM NEW MULTIUSE BUILDING FOOTPRINT WITH SECURITY FENCE.
- INSTALL ANY TEMPORARY/FINAL UTILITIES TO BE LOCATED ON SOUTHERN ENTRANCE INTO THE YARD.
- CREATE NEW EXPANDED ENTRANCE ON SOUTH SIDE OF THE YARD. GRADE, PAVE AND CURB DRIVEWAY UNTIL PAST FINAL PROPOSED CURB AND THEN CREATE TEMPORARY RAMP DOWN TO EXISTING YARD. DEVELOP HALF ENTRANCE AT TIME SO ACCESS TO TEMPORARY LOT ALWAYS AVAILABLE.

**STAGE 2 - 18 MONTHS**

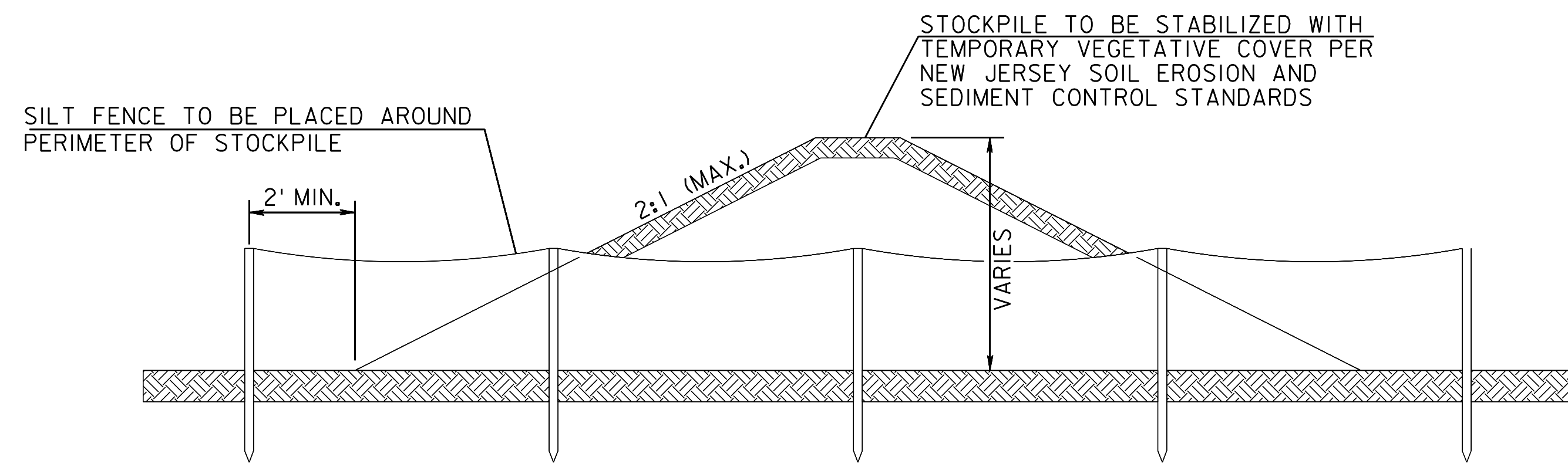
- CONVERT CONTRACTOR LAYDOWN AREA FROM STAGE 1 INTO TEMPORARY PRINT SHOP PARKING LOT.
- RELOCATE / ESTABLISH TEMPORARY / FINAL UTILITIES FOR NEW MULTI-USE BUILDING AND CONTRACTOR TRAILERS.
- CONSTRUCT NEW MULTI-USE BUILDING.
- REMOVE UTILITIES SERVICING EXISTING MULTI-USE BUILDING AND GRADE, PAVE AND CURB NEW PARKING AREA SURROUNDING MULTI-USE BUILDING AS WELL AS SURROUNDING AREAS OF THE MULTI-USE BUILDING.

**STAGE 3 - 4 MONTHS**

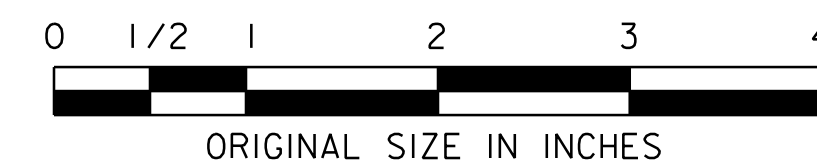
- DEMOLISH EXISTING MULTI-USE BUILDING. FENCE AREA SO TEMPORARY PARKING CAN CONTINUALLY BE UTILIZED.
- GRADE, PAVE AND ADD CURBING IN AREA AND SURROUNDING AREA OF DEMOLISHED BUILDING AND CHANGE TEMPORARY PARKING INTO FINAL CONFIGURATION.
- GRADE AND PAVE FINAL NORTHEAST ENTRANCE TO YARD. RELOCATED PAINT SHOP PARKING TO NEW AREA AND REPLACE PREVIOUS DRIVEWAYS WITH GRASS AFTER ENTRANCE AND PARKING LOT IS COMPLETED.

**STAGE 4 - 4 MONTHS**

- GRADE, PAVE AND CURB AREA SURROUNDING EXISTING SIGN SHOP. DEVELOP THE DEDICATED ENTRANCE/EXIT FOR THE SIGN SHOP.
- INSTALL ISLAND AND FINAL GATE AT THE SOUTHERN ENTRANCE. REMOVE TEMPORARY SECURITY MEASURE AT THIS ENTRANCE POINT.
- REMOVE TEMPORARY FENCING/SIGNAGE FROM YARD AND COMPLETE FINAL SITE IMPROVEMENTS (PAVING, GRADING, CURBING, FENCING, ETC.) TO SITE AS PER CONSTRUCTION PLAN.
- REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SUCH AS STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE AND INLET FILTERS AFTER THE CONSTRUCTION BUT NOT BEFORE PERMANENT SOIL STABILIZATION HAS BEEN ESTABLISHED.



**STOCKPILE DETAIL**  
N.T.S.



	BY	DATE
DESIGNED BY:	TJB	10/2014
DRAWN BY:	TJB	10/2014
CHECKED BY:	JJM	10/2014
SUPERVISOR:	J KEIL	

REV.	DESCRIPTION	DATE	BY	CHK.

CHURCHILL CONSULTING ENGINEERS  
344 NORTH ROUTE 73, SUITE A, BERLIN, NJ 08009  
*Joseph E. Keil*  
JOSEPH E. KEIL, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE03605600

NEW JERSEY TURNPIKE AUTHORITY  
**GARDEN STATE PARKWAY**  
CONTRACT NO. P500.360 - FACILITIES IMPROVEMENT PROGRAM  
PMD5 (TELEGRAPH HILL) MP 116, PMD6 (CLARK) MP 136.7,  
PMD7 (CLIFTON) MP 156.1 AND PMD8 (PARAMUS) MP 164.2  
PMD5 (TELEGRAPH HILL)  
SOIL EROSION AND SEDIMENT CONTROL NOTES -2

T.Y. LIN INTERNATIONAL  
3379 QUAKERBRIDGE ROAD, SUITE 200  
HAMILTON, NJ 08619  
CERTIFICATE OF AUTHORIZATION NO. 24GA27976000  
SCALE: NOT TO SCALE  
DATE: MAY 2015  
JAMES S. LESTER  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03346000

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