

DRAINAGE SYSTEM OPERATIONS & MAINTENANCE PLAN

STORM WATER COLLECTION SYSTEM:

THE STORMWATER COLLECTION SYSTEM SERVING THIS SITE IS INTENDED TO BOTH COLLECT STORM WATER RUNOFF AND TO PROVIDE PARTIAL TREATMENT OF THE STORMWATER PRIOR TO ITS COLLECTION INTO THE DETENTION BASINS OR RECHARGE INTO THE GROUNDWATER. THIS SYSTEM COLLECTS RUNOFF GENERATED FROM THE SITE THROUGH THE USE OF CATCHBASINS. EACH CATCHBASIN IS EQUIPPED WITH A FOUR (4') FOOT DEEP SUMP (WHICH COLLECTS SEDIMENTS AND DEBRIS) AND A OIL/GAS TRAP (WHICH PREVENTS THE ESCAPE OF HYDROCARBONS AND OTHER FLOATING MATERIALS FROM ENTERING THE DRAINAGE SYSTEM). WHEN THESE TWO BASIC CONTROL MECHANISMS ARE FUNCTIONING PROPERLY THEY PROVIDE FOR A REDUCTION OF CONTAMINANTS AND DEBRIS ENTERING THE STORMWATER COLLECTION AND RECHARGE SYSTEMS, AND THEREFORE DOWNSTREAM RECEIVING WATERS/WETLANDS.

THIS SITE IS ALSO SERVED BY INFILTRATION SYSTEMS WHICH COLLECT THE GENERATED RUNOFF AND RECHARGE IT TO THE GROUND, THIS PROVIDING RECHARGE SIMILAR TO THAT OF THE PRE-DEVELOPMENT CONDITION AND FILTERING THE RUNOFF AS IT TRAVELS THROUGH THE EXISTING SOILS TO THE GROUNDWATER TABLE.

BOTH OF THE ABOVE-DESCRIBED SYSTEMS RELY UPON PROPER MONITORING, OPERATIONS AND MAINTENANCE TO FUNCTION AS DESIGNED AND INTENDED. A PROGRAM OF MONITORING, OPERATIONS AND MAINTENANCE MUST BE ON-GOING THROUGHOUT THE LIFE AND USE OF THE SITE, AND IS THE OWNER'S RESPONSIBILITY SOLELY. THESE ACTIVITIES, AS DESCRIBED BELOW, ARE TO BE INITIATED AFTER COMPLETION OF THE PROJECT AND ARE NOT RELATED TO THE CONSTRUCTION OF THE SITE, EXCEPT AS SPECIFICALLY PROVIDED. THIS PLAN IS SPECIFICALLY FOR SITE-RELATED ACTIVITIES, NOT ACTIVITIES WHICH ARE INTERIOR TO THE BUILDING, THROUGH THERE ARE NECESSARY IMPLICATIONS AND CORRELATIONS BETWEEN THE TWO.

MONITORING:

THE DRAINAGE SYSTEMS ARE REQUIRED TO BE MONITORED BY THE OWNER, WHO SHALL DIRECT AN INDIVIDUAL TO ACT AS THE SYSTEM'S MANAGER. THE NAME, ADDRESS AND DAY AND NIGHT (OR EMERGENCY) TELEPHONE NUMBER OF THIS PERSON OR ENTITY SHALL BE PROVIDED TO THE CONSERVATION COMMISSION PRIOR TO THE ISSUANCE OF A CERTIFICATE OF COMPLIANCE OF CONSTRUCTION. THIS INDIVIDUAL SHALL BE REQUIRED TO KEEP A LOG OF ALL REQUIRED INSPECTIONS, OBSERVATIONS AND MAINTENANCE ACTIVITIES. DRAINAGE SYSTEM COMPONENTS SHALL BE REFERRED TO BY SPECIFIC LOCATION OR THE DESIGN PLAN DESIGNATION, (E.G. CTB # 10) TO AVOID CONFUSION OR MIS-IDENTIFICATION. THE LOG SHALL BE MADE AVAILABLE TO THE CONSERVATION COMMISSION WITHIN TEN (10) DAYS OF A WRITTEN REQUEST BY THAT AGENCY.

MONITORING FOR THIS SITE SHALL CONSIST OF THE FOLLOWING:

- ALL CATCHBASINS SHALL BE INSPECTED TO ENSURE THEY ARE WATER-TIGHT (HOLDING WATER), HAVE ADEQUATE SUMP CAPACITY, ALL OIL/GAS TRAPS ARE IN-PLACE, ALL GRATES AND FRAMES ARE FREE FROM STRUCTURAL DAMAGE, AND ARE DRAINING FREELY. THIS MONITORING SHALL OCCUR AT A MINIMUM OF FOUR (4) MONTH INTERVALS.
- ALL DRAINAGE MANHOLES SHALL BE INSPECTED TO ENSURE THAT THEY ARE WATER-TIGHT, ALL LIDS AND FRAMES ARE FREE FROM STRUCTURAL DAMAGE, ARE DRAINING FREELY AND ARE NOT PONDING WATER. THIS MONITORING SHALL OCCUR A MINIMUM OF ONCE PER YEAR.
- ALL OUTLETS TO BASINS, OR OTHER DRAINAGE SYSTEMS SHALL BE INSPECTED TO ENSURE THAT NO EROSION IS OCCURRING AT OUTLETS, ALL OUTLETS ARE FREE-FLOWING AND NO DAMAGE HAS OCCURRED AS PART OF SITE MAINTENANCE OR ACTIVITIES.

OPERATIONS:

- GOOD HOUSE KEEPING AND MATERIAL MANAGEMENT REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUNOFF. A POLLUTION PREVENTION PLAN SHALL BE DEVELOPED WHICH SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
 - ALL MATERIALS STORED ON-SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
 - PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
 - SUBSTANCES SHOULD NOT BE MIXED WITH ONE ANOTHER, UNLESS RECOMMENDED BY THE MANUFACTURER.
 - WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF A CONTAINER.
 - THE SYSTEM'S MANAGER SHALL INSPECT THE SITE DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON-SITE.
 - ORIGINAL MATERIALS LABELS AND MATERIAL SAFETY DATA SHEETS SHALL BE KEPT; THEY RETAIN IMPORTANT INFORMATION.
 - PETROLEUM PRODUCTS:
 - ALL ON-SITE VEHICLES AND PARKING AREAS SHALL BE REGULARLY MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO PREVENT LEAKAGE.
 - PETROLEUM PRODUCTS SHALL BE STORED UNDER COVER AND SHALL BE IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.
 - FERTILIZERS:
 - FERTILIZERS SHALL ONLY BE USED IN THE MINIMUM AMOUNTS AS RECOMMENDED BY THE MANUFACTURER.
 - THE CONTENTS OF ANY UN-USED FERTILIZER SHALL BE TRANSFERRED TO A CLEARLY LABELED, SEALABLE PLASTIC BIN, TO AVOID SPILLAGE.
 - PAINTS, SOLVENTS:
 - ALL PAINTS AND SOLVENTS SHALL BE STORED IN ORIGINAL MANUFACTURER'S CONTAINERS IN A COVERED LOCATION.
 - THE USE OF PAINTS AND SOLVENTS SHALL, WHENEVER POSSIBLE, BE LIMITED TO SERVICE OR STORAGE BAYS AND NOT IN PARKING OR ACCESS WAYS THAT ARE TRIBUTARY TO THE DRAINAGE SYSTEM.

- SPILL CONTROL PRACTICES:
 - MANUFACTURER'S RECOMMENDED METHODS SHALL BE CLEARLY POSTED FOR SPILL CLEAN-UP AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF CLEAN-UP INFORMATION AND SUPPLIES.
 - MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEAN-UP WILL BE KEPT ON-SITE IN A DESIGNATED MATERIAL STORAGE AREA. EQUIPMENT WILL INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, ABSORBENT MATERIALS, SAND SAMBUST AND PLASTIC & METAL TRASH CONTAINERS SPECIFICALLY KEPT AND LABELED FOR THIS PURPOSE.
 - ALL SPILLS SHALL BE CLEANED-UP IMMEDIATELY AFTER DISCOVERY.
 - SPILLS OF TOXIC OR HAZARDOUS MATERIAL OR NATURE WILL BE REPORTED TO THE APPROPRIATE STATE, LOCAL OR FEDERAL AGENCY, AS REQUIRED BY-LAW.
 - THE SPILL PREVENTION PLAN WILL INCLUDE PROVISIONS TO ADAPT THE PLAN TO ENSURE THAT SPILLS WILL NOT REOCCUR, AND HOW TO CLEAN-UP THE SPILL IF THERE IS ANOTHER ONE.
- SITE OPERATIONS AND DAILY USE SHALL CONSIDER THE ULTIMATE DISPOSITION OF STORMWATER AND OTHER SITE-GENERATED FORMS OF RUNOFF. THE WASHING OF VEHICLES SHALL BE LIMITED AREAS WITHIN THE BUILDING, AS THEY ARE SERVED BY THE FLOOR DRAIN HOLDING TANK. WASH WATER WITH ITS COMBINATION OF SOLVENTS, DETERGENTS AND OIL/GREASES SHOULD NOT BE ALLOWED TO ENTER ANY PART OF THE ON-SITE DRAINAGE SYSTEM.
- SNOW PLOWING - SNOW PLOWING OPERATIONS SHALL STOCKPILE SNOW, ICE AND ACCUMULATED MATERIALS IN AREAS WHERE SNOW MELT WILL FLOW INTO THE ON-SITE DRAINAGE SYSTEMS, INCLUDING DRAINAGE BASINS. PLOWING & STOCKPILING OF SNOW, ETC., ALONG THE SITE'S WESTERLY EDGE (ADJACENT TO THE WETLANDS) SHALL NOT BE PERMITTED. SALT USE SITE-WIDE SHALL BE APPLIED TO THE MINIMUM EXTENT POSSIBLE TO MAINTAIN SAFE CONDITIONS, AND ONLY IF NOT SPECIFICALLY EXCLUDED BY ANY SPECIAL CONDITIONS AS PART OF AN ORDER OF CONDITIONS ISSUED BY THE SEEKONK CONSERVATION COMMISSION.

MAINTENANCE:

- PARKING AREAS, ACCESS WAYS AND GUTTERS SHALL BE SWEEPED CLEAN OF DEBRIS AND ACCUMULATION ON A REGULAR BASIS. AT A MINIMUM, A SPRING AND FALL CLEANING SCHEDULE IS RECOMMENDED.
- ALL CATCHBASINS SHALL HAVE THE SUMPS CLEANED AT ANY TIME OF THE YEAR WHEN 2' OR LESS SPACE EXISTS BELOW THE OUTLET INVERT, OR A MINIMUM OF ONCE PER YEAR, REGARDLESS OF SUMP ACCUMULATION. ALL DEBRIS FROM THE CLEANING SHALL BE DISPOSED OF OFF-SITE AND IN A MANNER AS PROSCRIBED BY LAW.
- ALL HYDROCARBON TRAPS SHALL BE CHECK FOR PHYSICAL INTEGRITY AND SEAL IMMEDIATELY AFTER EACH CATCHBASIN CLEANING.
- OIL ABSORBING "FLOWS" OR OTHER MEANS SHALL BE USED TO REMOVE ACCUMULATIONS OF HYDROCARBONS (OIL/GREASE) IN CATCHBASINS THAT ARE REGULARLY OBSERVED TO CONTAIN HYDROCARBONS, WHICH DO NOT EVAPORATE BETWEEN INSPECTIONS.
- ALL BROKEN, LEAKING OR OTHERWISE DAMAGED STRUCTURES SHALL BE REPAIRED PROMPTLY UPON DISCOVERY. CATCHBASIN GRATES OR MANHOLE LIDS SHALL BE REPLACED WITH SIMILAR WEIGHT AND LOADING CHARACTERISTIC REPLACEMENT PARTS.
- ALL EROSION AT OUTLETS SHALL BE REPAIRED. THE REPLACEMENT OF ANY PIPE OR DRAINAGE STRUCTURE SHALL MATCH THE ORIGINAL DESIGN SPECIFICATIONS.
- THE CONSERVATION COMMISSION SHALL BE CONSULTED PRIOR TO THE INITIATION OF ANY REPAIRS INVOLVING THE USE OF HEAVY EQUIPMENT OR DISTURBANCE WITHIN THE 100' BUFFER ZONE. A REQUEST FOR DETERMINATION OF APPLICABILITY OR NOTICE OF INTENT MAY BE REQUIRED.

DETENTION BASIN MAINTENANCE

THE DETENTION BASINS DEPICTED ON THE SITE PLAN ARE INTENDED TO PRESERVE THE STORAGE CAPACITY OF THE STORMWATER SYSTEM THAT IS ULTIMATELY TRIBUTARY TO THE RUNNIN'S RIVER. SIMULTANEOUSLY, THE BASIN WILL ACT TO ENTRAP SEDIMENTS AND HYDROCARBONS PRIOR TO ENTERING THE BROOK. IN DOING SO THE BASIN WILL ACCUMULATE THESE MATERIALS AS DEPOSITED DEBRIS, SEDIMENT LAYERS AND EXCESSIVE VEGETATIVE GROWTH WITHIN THE BASIN. THESE MATERIALS WILL BE REQUIRED TO BE REMOVED BY HEAVY MACHINERY OR OTHER METHOD THAT WOULD CONTRIBUTE TO THE UNSTABILITY OF THE BASIN BERMS. DURING ANY REMOVAL OR TRIMMING OPERATIONS CARE SHALL BE TAKEN TO LEAVE THE GRASS/GROUND COVER OF THE BERM INTACT TO PREVENT THE POSSIBILITY OF EROSION.

- WEEDS AND WETLANDS PLANTS SHALL BE REMOVED ON A REGULAR BASIS, BUT NOT LESS THAN ONCE PER YEAR IN THE LATE SUMMER. REMOVAL SHALL BE BY HAND, OR BY APPLICATION OF HERBICIDES IF PLANT GROWTH IS TOO PROLIFIC TO MANAGE BY HAND METHODS. PRIOR TO ANY APPLICATION OF HERBICIDES THE SEEKONK CONSERVATION COMMISSION SHALL BE NOTIFIED AND ISSUE APPROVAL OF THE TIMING, MATERIALS TO BE USED AND APPLICATION METHODOLOGY.
- SIMILARLY, THE DETENTION POND EMBANKMENTS SHALL BE INSPECTED AT LEAST ONCE PER YEAR FOR TREE AND BRUSH GROWTH. IF NEEDED, REMOVAL OF THIS GROWTH SHALL BE BY HAND (I.E. CHAINSAW, BRUSHCUTTERS OR MOWERS) BUT SHALL NOT BE REMOVED BY HEAVY MACHINERY OR OTHER METHOD THAT WOULD CONTRIBUTE TO THE UNSTABILITY OF THE BASIN BERMS. DURING ANY REMOVAL OR TRIMMING OPERATIONS CARE SHALL BE TAKEN TO LEAVE THE GRASS/GROUND COVER OF THE BERM INTACT TO PREVENT THE POSSIBILITY OF EROSION.
- THE DETENTION BASIN SHALL BE INSPECTED FOR SEDIMENT ACCUMULATION A MINIMUM OF ONCE PER YEAR. ACCUMULATED SEDIMENTS SHALL BE REMOVED AS REQUIRED BUT AT A MINIMUM OF ONCE EVERY FIVE YEARS. HEAVY MACHINERY MAY BE USED, HOWEVER, ALL AREAS WHICH WERE STABILIZED WITH GRASS/GROUND COVER SHALL BE PROMPTLY RE-ESTABLISHED, IF DISTURBED. REMOVAL OF SEDIMENTS ENTRAPPED IN AREAS OF RIP-RAP AND INLET/OUTLET PIPES SHALL ALSO BE REMOVED, BY HAND IF NECESSARY. ANY RIP-RAP DISTURBED, SHALL BE RE-ESTABLISHED IN ACCORDANCE WITH THE ORIGINAL CONSTRUCTION SPECIFICATIONS.
- ALL EROSION AT OUTLETS SHALL BE REPAIRED AND/OR THE REPLACEMENT OF ANY PIPE OR DRAINAGE STRUCTURE SHALL MATCH THE ORIGINAL DESIGN SPECIFICATIONS.
- THE SEEKONK CONSERVATION COMMISSION SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE REMOVAL OF ANY SEDIMENTS OR DEBRIS WITHIN THE BASIN, IF SUCH REMOVAL REQUIRES HEAVY EQUIPMENT.

THESE REQUIREMENTS SHALL REMAIN IN EFFECT AFTER ANY CERTIFICATE OF COMPLIANCE HAS BEEN ISSUED OR UNTIL RESCINDED BY THE SEEKONK CONSERVATION COMMISSION.

EROSION & SEDIMENTATION CONTROL PLAN

GENERAL:

- THIS PLAN IS ALSO INTENDED TO PROVIDE GUIDANCE AND INSTRUCTION TO THE OWNER AND CONTRACTOR(S) IN THE PREVENTION OF EROSION AND SEDIMENTATION ON AND OFF-SITE. THIS PLAN IS INTENDED TO ALLOW ANY ORDERS OF CONDITIONS TO BE MORE SPECIFIC IN ADDRESSING ITEMS OF CONCERN. IF, UPON ISSUANCE OF AN ORDER OF CONDITIONS BY THE SEEKONK CONSERVATION COMMISSION, ANY ITEMS SPECIFIED HEREIN ARE IN CONFLICT WITH THE ORDERS OF CONDITIONS, SAID ORDERS OF CONDITIONS SHALL SUPERSEDE THE REQUIREMENTS SPECIFIED ON THIS PLAN.
- THIS PLAN IS PART OF A SET OF DOCUMENTS THAT ARE TO BE VIEWED AND REVIEW IN THEIR ENTIRETY. SUCH DOCUMENTS INCLUDE THE CONSTRUCTION SPECIFICATIONS, CONSTRUCTION PLANS AND ANY PERMITS ISSUED BY THE TOWN OF SEEKONK, AGENTS OF THE TOWN OF SEEKONK OR OTHER REGULATORY AGENCIES.

EROSION CONTROL MEASURES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT EROSION AND SEDIMENTATION ARE CONTROLLED. THIS PLAN SHALL BE ADAPTED TO FIT THE CONTRACTOR'S EQUIPMENT, WEATHER CONDITIONS, AND ANY ORDERS OF CONDITIONS ISSUED BY THE SEEKONK CONSERVATION COMMISSION AND ANY SPECIAL CONDITIONS ISSUED BY THE ANY OTHER REGULATORY AGENCY OF THE TOWN OF SEEKONK.
- THE MOST IMPORTANT ASPECTS OF CONTROLLING EROSION AND SEDIMENTATION ARE LIMITING THE EXTENT OF DISTURBANCE AND STABILIZING SURFACES AS SOON AS POSSIBLE OF SECONDARY IMPORTANCE IN EROSION CONTROL IS THE LIMITING THE SIZE AND LENGTH OF THE TRIBUTARY DRAINAGE AREA WITHIN THE WORK SITE AND DRAINAGE STRUCTURES. THESE FUNDAMENTAL PRINCIPLES SHALL BE THE KEY FACTOR IN THE CONTRACTOR'S CONTROL OF EROSION ON THE SITE.
- THE EXISTING SOIL CONDITIONS PROVIDE THE POTENTIAL OF RUNOFF TO OFF-SITE AREAS WITH EROSION POTENTIAL.
- THE CONTRACTOR SHALL CONSTRUCT TEMPORARY DIVERSION SWALES AND SETTLING BASINS IN AREAS OF FUTURE CONSTRUCTION. CONSTRUCTION IS PERMITTED BEYOND THE LIMIT OF DISTURBANCE ONLY WHEN ADDITIONAL DRAINAGE MEASURES OR STABILIZATION MEASURES ARE NEEDED, AND SHALL BE SUBJECT TO APPROVAL BY THE SEEKONK CONSERVATION COMMISSION, PRIOR TO WORK OUTSIDE OF DESIGNATED LIMIT OF DISTURBANCE LINE. THE LIMIT OF DISTURBANCE LINE SHALL BE THE EROSION CONTROL BARRIERS.
- ALL DISTURBED SURFACES SHALL BE STABILIZED A MINIMUM OF 14 DAYS AFTER CONSTRUCTION IN ANY PORTION OF THE SITE HAS CEASED OR IS TEMPORARILY HALTED UNLESS ADDITIONAL CONSTRUCTION IS INTENDED TO BE INITIATED WITHIN 21 DAYS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF ALL EROSION CONTROL DEVICES ON-SITE. ALL EROSION CONTROL DEVICES SHALL BE REGULARLY INSPECTED, ANY SEDIMENTS REMOVED FROM THE CONTROL DEVICES SHALL BE DISPOSED OF OUTSIDE OF THE 100' WETLANDS BUFFER ZONE.
- AT NO TIME SHALL SILT-LADEN WATER BE ALLOWED TO ENTER SENSITIVE AREAS (WETLANDS, OFF-SITE AREAS AND DRAINAGE SYSTEMS). ANY RUNOFF FROM DISTURBED SURFACES SHALL BE DIRECTED THROUGH SETTLING BASINS AND EROSION CONTROL BARRIERS PRIOR TO ENTERING ANY SENSITIVE AREAS.

GENERAL CONSTRUCTION REQUIREMENTS:

- ANY REFUELING OF CONSTRUCTION VEHICLES AND EQUIPMENT SHALL TAKE PLACE OUTSIDE OF THE 100 FOOT BUFFER ZONE TO THE WETLANDS AND SHALL NOT BE CONDUCTED IN PROXIMITY TO SEDIMENTATION BASINS OR DIVERSION SWALES.
- NO ON-SITE DISPOSAL OF SOLID WASTE, INCLUDING BUILDING MATERIALS IS ALLOWED IN THE 100 FOOT BUFFER ZONE. THE BURIAL OF STUMPS, CONSTRUCTION DEBRIS OR OTHER MATERIALS SHALL NOT BE ALLOWED ANYWHERE ON-SITE.
- NO MATERIALS SHALL BE DISPOSED OF INTO THE WETLANDS OR EXISTING OR PROPOSED DRAINAGE SYSTEMS. ALL CONTRACTORS INCLUDING: CONCRETE SUPPLIERS, PAINTERS AND PLASTERERS, SHALL BE INFORMED THAT THE CLEANING OF EQUIPMENT IS PROHIBITED IN AREAS WHERE THE WASH-WATER WILL DRAIN DIRECTLY TO THE WETLANDS OR SITE DRAINAGE SYSTEMS.
- CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL WHICH SHALL INCLUDE STREET SWEEPING OF ALL PAVED SURFACES WITHIN THE SITE AND OFF-SITE AREAS THAT ARE IMPACTED BY SITE CONSTRUCTION ON A REGULAR BASIS, AS NEEDED.

PRE-CONSTRUCTION:

- AN EROSION CONTROL BARRIER (SEE ABOVE) SHALL BE INSTALLED AS DEPICTED ON THE SITE PLAN, BETWEEN THE AREAS TO BE DISTURBED (E.G. THE EXISTING PARKING LOT) AND WETLAND AREAS. THIS BARRIER SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY SURFACES HAVE BEEN FULLY STABILIZED. THE EROSION CONTROL BARRIERS AS SHOWN ON THE SITE PLAN ARE THE MINIMUM REQUIRED TO PROTECT THE WETLANDS.
- PHOTOGRAPHS AND/OR VIDEO IMAGES OF THE PRE-CONSTRUCTION CONDITION OF THE SITE AND SURROUNDING AREAS, ESPECIALLY THE ADJACENT STREETS SHALL BE TAKEN, DEVELOPED AND DATED. A COPY OF THESE MATERIALS SHALL BE SUBMITTED TO THE ARCHITECT, OWNER AND CONSERVATION COMMISSION FOR THEIR FILES. THESE PICTURES AND IMAGES SHALL REFERENCE EXISTING SITE CONDITIONS AND PERMANENT REFERENCE MARKS TO ENABLE RECOGNITION OF THE AREA BEING PHOTOGRAPHED, AND SHALL REPRESENT A COMPREHENSIVE VIEW OF THE SITE PRIOR TO DEVELOPMENT.
- THE CONTRACTOR SHALL ESTABLISH A STAGING AREA ON A PORTION OF THE AREA TO BE DISTURBED, IF POSSIBLE IT SHALL BE OUTSIDE OF THE 100' BUFFER ZONE FOR THE OVERNIGHT STORAGE OF EQUIPMENT AND STOCKPILING OF MATERIALS.
- IN THE STAGING AREA, THE CONTRACTOR SHALL HAVE A STOCKPILE OF MATERIALS REQUIRED TO CONTROL EROSION ON-SITE TO BE USED TO SUPPLEMENT OR REPAIR EROSION CONTROL DEVICES. THESE MATERIALS SHALL INCLUDE, BUT ARE NOT LIMITED TO: HAYBALES, SILT FENCE AND CRUSHED STONE.
- A TEMPORARY STONE CONSTRUCTION ENTRANCE IS REQUIRED TO PREVENT TRACKING OF SILT, MUD, ETC. ONTO EXISTING ROADS. THE STONE SHALL BE REPLACED REGULARLY AS WELL AS WHEN THE STONE IS SILT LADEN OR EQUIPMENT IS OBSERVED TO BE TRACKING SOIL ONTO THE ROADWAYS.
- THE CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL ON SITE AND SHALL UTILIZE EROSION CONTROL MEASURES WHERE NEEDED, REGARDLESS OF WHETHER THE MEASURES ARE SPECIFIED HEREIN, ON THE PLAN OR IN ANY ORDER OF CONDITIONS.

PRELIMINARY SITE WORK:

- FILTERED CATCHBASIN INLET AND SILT FENCES SHALL BE PLACED AT THE OUTLETS OF ADJACENT DRAINAGE SYSTEMS SERVING PLEASANT STREET AND ARCADE AVE. TO PROVIDE ADDITIONAL FILTRATION OF RUNOFF.
- MATERIAL REMOVED SHOULD BE STOCKPILED, SEPARATING THE TOPSOIL FOR FUTURE USE ON THE SITE. EROSION CONTROLS SHALL BE UTILIZED ALONG THE DOWNSLOPE SIDE OF THE PILES IF THE PILES ARE TO REMAIN MORE THAN THREE WEEKS.
- STOCKPILES SHALL BE LOCATED AS SPECIFIED HEREIN AND AS REQUIRED, SHOULD ADDITIONAL AREAS BE NEEDED THEY SHALL BE LOCATED WITHIN THE LIMITS OF DISTURBANCE, IN AREAS OF MINIMAL IMPACT. IF A STOCKPILE IS LOCATED ON A SLOPE, THE RUNOFF SHALL BE DIRECTED AWAY FROM THE PILE.
- IF INTENSE RAINFALL IS ANTICIPATED, THE INSTALLATION OF SUPPLEMENTAL HAYBALE DIKES, SILT FENCES, OR ARMORED DIKES SHALL BE UTILIZED.
- IF THE SITE CONSTRUCTION OCCURS AT ANY TIME OTHER THAN THE MAY - NOVEMBER CONSTRUCTION SEASON, THE SITE DRAINAGE SYSTEM SHALL BE INSTALLED, MAINTAINING HYDRAULIC CAPACITY, PRIOR TO ANY ROUGH GRADING IN THE BUFFER ZONE.

DRAINAGE SYSTEM:

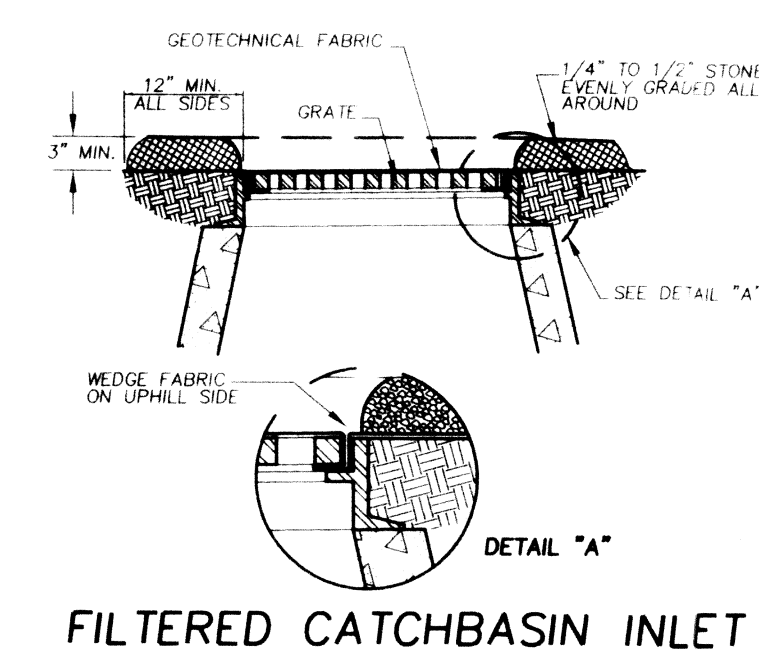
- THE DRAINAGE SYSTEM SHALL BE INSTALLED FROM THE DOWNSLOPE END UP.
- RIP RAP SHALL BE INSTALLED AT THE PIPE INLETS AND OUTLETS IMMEDIATELY UPON THE LAYOUT OF THE PIPE. A SILT FENCE SHALL BE INSTALLED AT THE OUTFALL OF ALL TEMPORARY BASINS AND SWALES. IT SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY AREAS ARE STABILIZED.
- WATER SHALL NOT BE ALLOWED TO ENTER PIPES FROM UN-STABILIZED SURFACES.
- TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY PIPE INSTALLATION. ALL TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE. THE ENDS OF PIPES SHALL BE CLOSED NIGHTLY WITH PLYWOOD.
- IF UNSTABLE AREAS ARE ENCOUNTERED DUE TO NATURAL SPRINGS OR GROUNDWATER BREAKOUT, INTERCEPTOR DRAINS SHALL BE INSTALLED TO DIRECT THE RUNOFF INTO THE DRAINAGE SYSTEM.
- IT IS IMPORTANT THAT THE BINDER COURSE, WITH BERMS, BE INSTALLED ON THE LIMITS OF THE PARKING LOT AND ACCESS ROADS AS SOON AS FEASIBLE AS THESE AREAS WILL FUNCTION AS A CONDUIT FOR RUNOFF.

WATER SUPPLY AND UTILITIES:

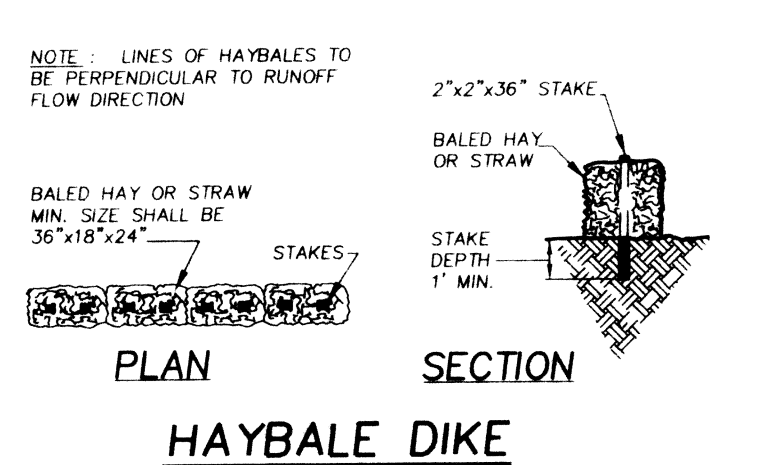
- CARE SHALL BE TAKEN TO ASSURE THAT THE UTILITY TRENCHES DO NOT CHANNELIZE RUNOFF TOWARDS EXISTING STREETS OR OTHER OFF-SITE AREAS.
- THE INSTALLATION OF THE WATER LINES, TEE AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE SEEKONK WATER DISTRICT SPECIFICATIONS.
- TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY UTILITY INSTALLATION. ALL TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE.

LANDSCAPING:

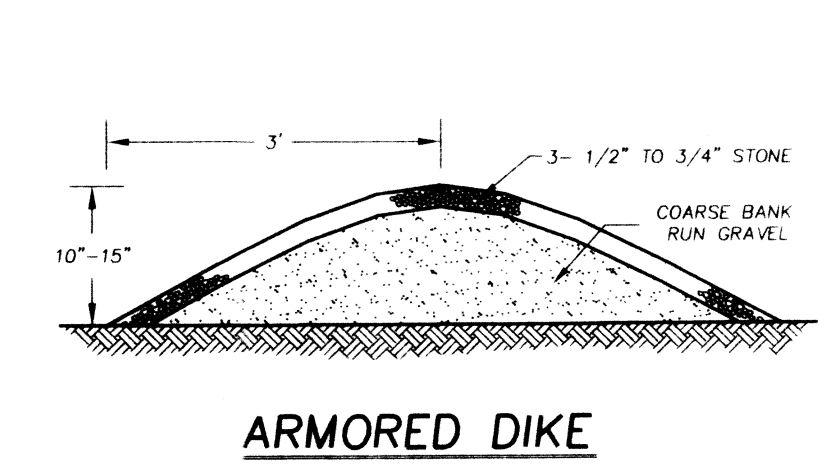
- LANDSCAPING SHALL OCCUR AS SOON AS POSSIBLE TO PROVIDE PERMANENT STABILIZATION OF DISTURBED SURFACES.
- CONTRACTOR SHALL UTILIZE A VARIETY OF SLOPE STABILIZATION METHODS AND MATERIALS WHICH SHALL BE ADJUSTED TO THE SITE CONDITIONS. EROSION CONTROL BLANKETS OR MIRAFI MIRAMAT (OR SIMILAR PRODUCTS) SHALL BE AVAILABLE ON SITE.
- IF THE SEASON OR ADVERSE WEATHER CONDITIONS DO NOT ALLOW THE ESTABLISHMENT OF VEGETATION, TEMPORARY MULCHING WITH HAY, TACKIFIED WOOD CHIPS OR OTHER METHODS SHALL BE PROVIDED.
- A MINIMUM OF 6" TOPSOIL SHALL BE PLACED AND ITS SURFACE SMOOTHED TO THE SPECIFIED GRADES.
- SEED APPLICATIONS SHALL BE IN ACCORDANCE WITH THE GRASS AND SLOPE COVER SPECIFICATIONS.
- TO ENSURE A DENSE, SUCCESSION GROWTH, SEED MIXTURE TYPE "C" IS REQUIRED ON ALL DISTURBED SURFACES, EXCEPT WHERE LAWN AREA IS PROPOSED, WHERE SEED MIXTURE TYPE "A" IS REQUIRED.



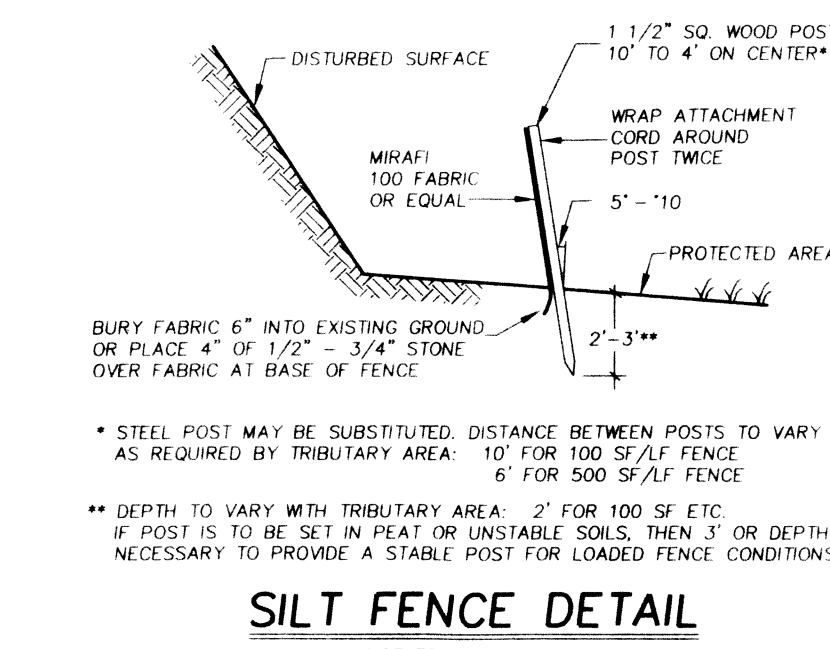
FILTERED CATCHBASIN INLET
NOT TO SCALE



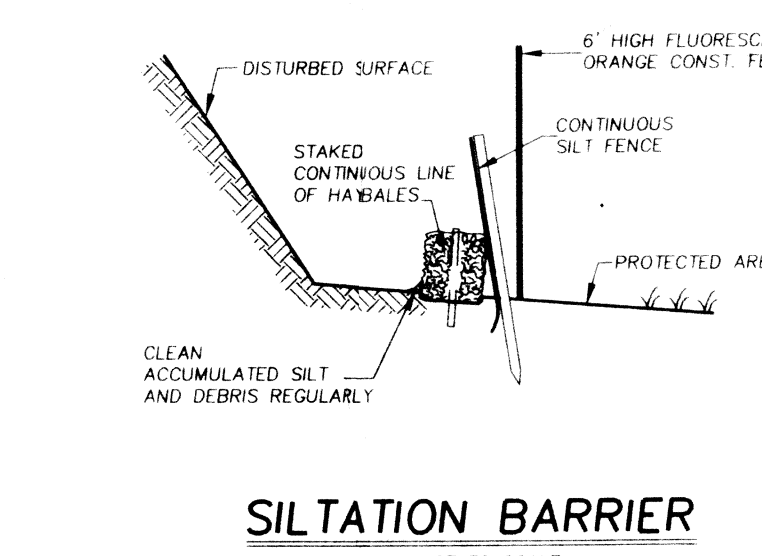
HAYBALE DIKE
NOT TO SCALE



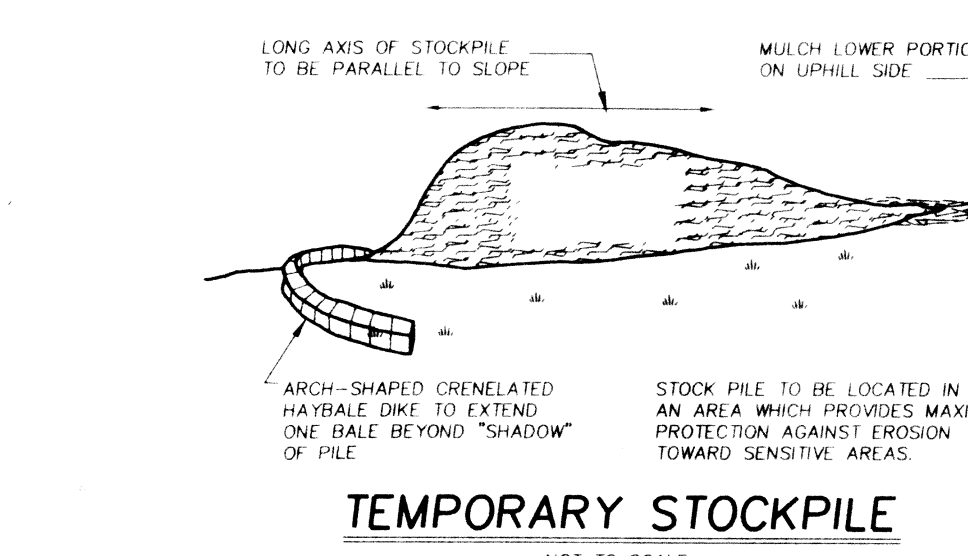
ARMORED DIKE
NOT TO SCALE



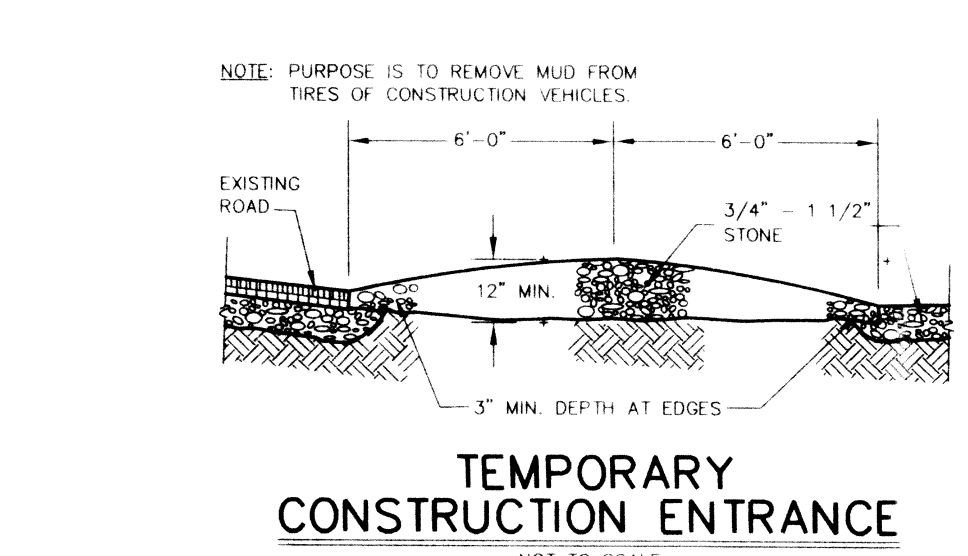
SILT FENCE DETAIL
NOT TO SCALE



SILTATION BARRIER
NOT TO SCALE



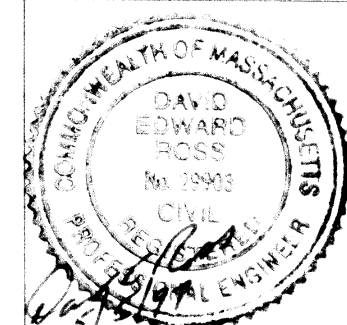
TEMPORARY STOCKPILE
NOT TO SCALE



TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE

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REVISIONS

5/5/97 GENERAL REVISION

SEEKONK PUBLIC SAFETY FACILITY

SEEKONK, MASSACHUSETTS

EROSION SEDIMENTATION CONTROL PLAN

scale AS NOTED
date JANUARY 1997
drawn by MLC
job no DERA 8739 602
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