

EXISTING FEATURES LEGEND

WV WATER VALVE

STREET SIGN

----- WATER MAIN

EXISTING DECIDUOUS TREE

TREE TO BE REMOVED

EXISTING WOODS LINE

TBR TO BE REMOVED

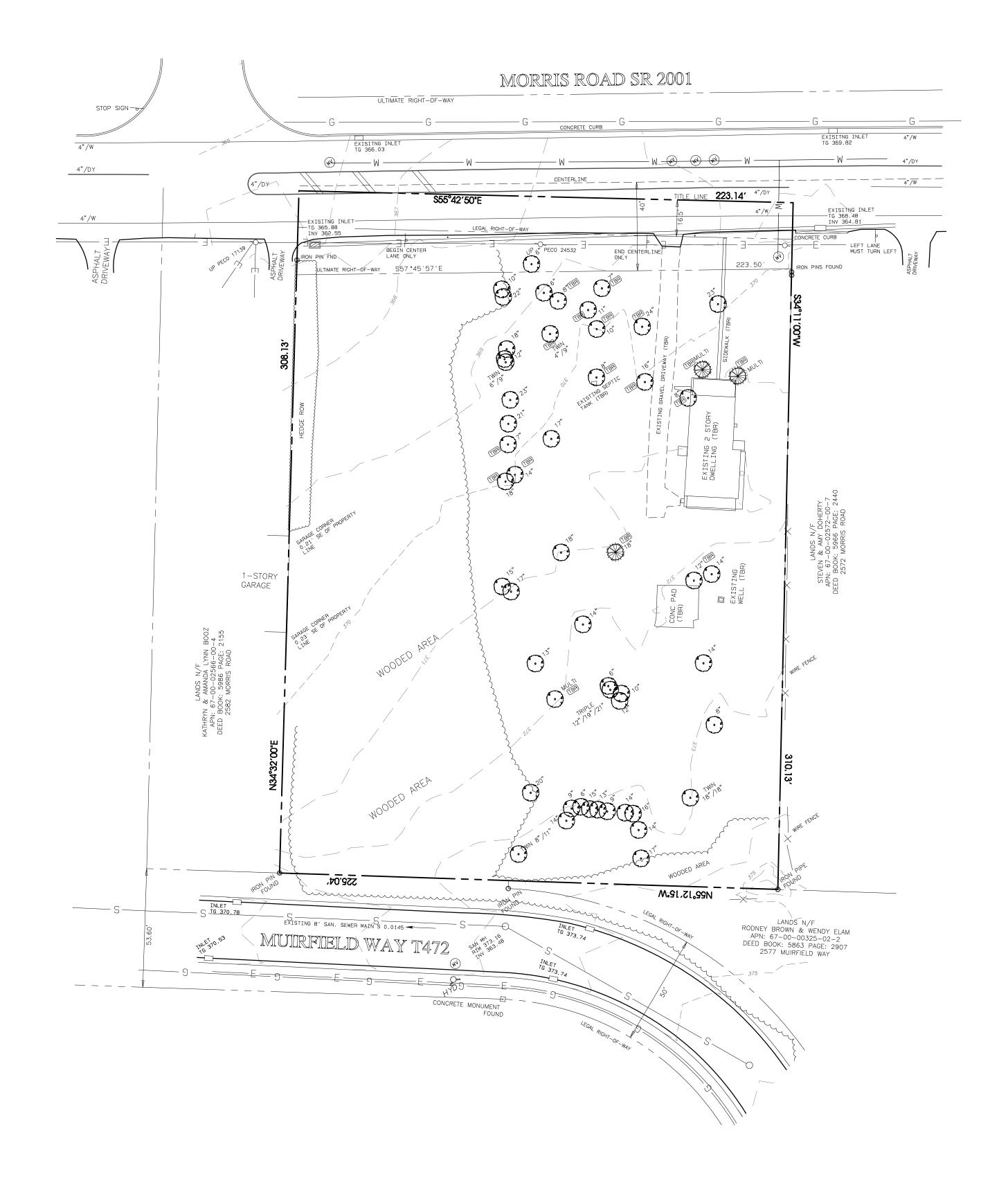
SOIL TEST PIT

18" EXISTING CONIFEROUS TREE

EXISTING GROUND CONTOUR LINE

— GAS LINE O SANITARY SEWER MAIN AND MANHOLES

_____ UTILITY POLE AND OVERHEAD UTILITY LINES



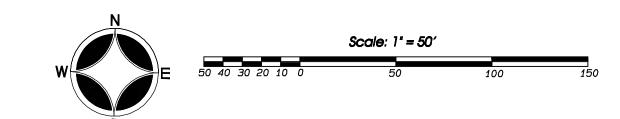
EXISTING SITE PLAN

MINOR PLAN 2 LOT RESIDENTIAL SUBDIVISION PROPERTY OF MAZZ PROPERTIES, LLC 2578 MORRIS ROAD

2578 MORRIS ROAD
Situate In:
The Tournship of Worcester

The Township of Worcester Montgomery County, Pennsylvania

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		•	LAND PLANNI IN SERVICES	NG
	20	00 Spring Ridge Drive, S (484) 336-6454 w	ulte 201, Wyomissing ww.otm-surveying.c	•
	DRAWN BR GRAUEL, PLS 11/25/19	CHECK	SCALE 1"= 30'	PROJECT NO. 19-102 SHEET 2 of 6



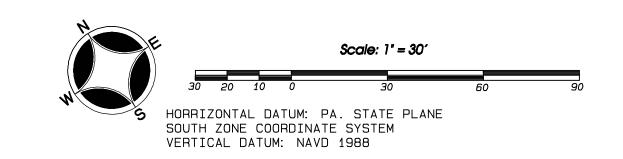


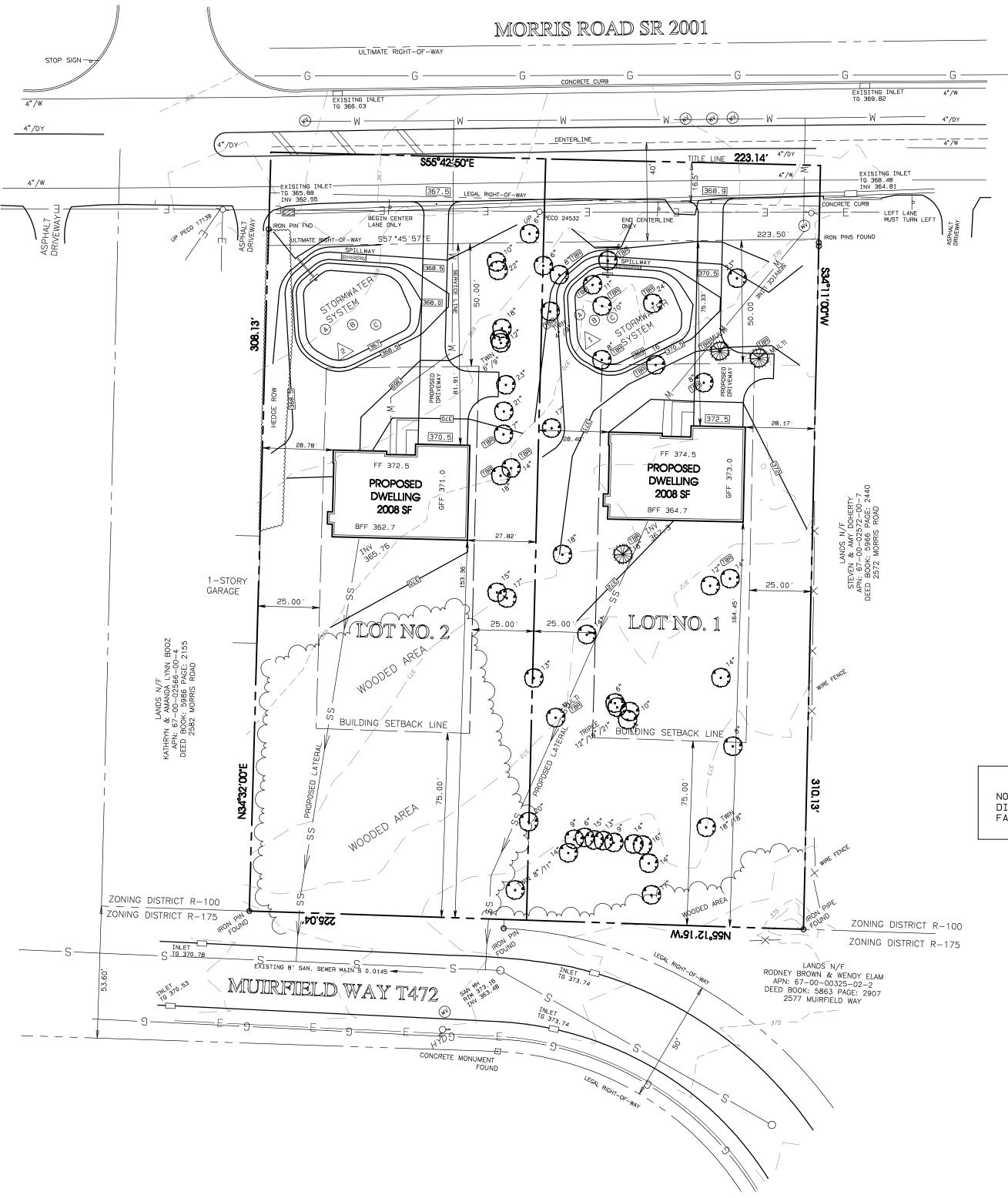
AERIAL VIEW

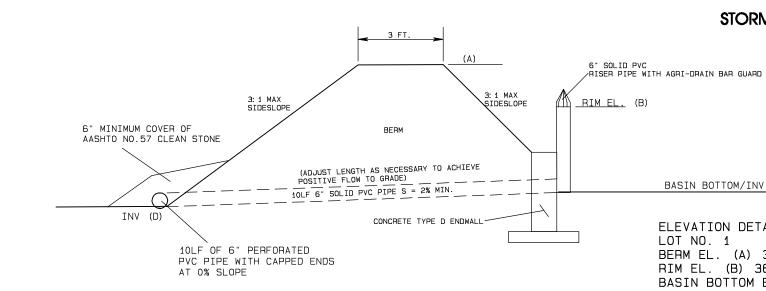
MINOR PLAN 2 LOT RESIDENTIAL SUBDIVISION PROPERTY OF MAZZ PROPERTIES, LLC

2578 MORRIS ROAD
Situate In:
The Township of Worcester
Montgomery County, Pennsylvania

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	200	Spring Ridge Drive, 9 (484) 336-6454	Suite 201, Wyomissing www.otm-surveying.	
	DRAWN BR GRAUEL, PLS 11/25/19	CHECK	SCALE 1"= 50'	PROJECT NO. 19-102 SHEET 3 of 6

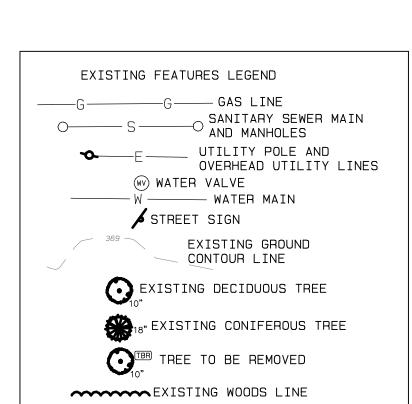








NOTE: ALL ROOF LEADER/DOWNSPOUTS SHALL BE DIRECTED AND DISCHARGED DIRECTLY INTO THE STORMWATER MANAGEMENT



TBR TO BE REMOVED

SOIL TEST PIT

PROPOSED FEATURES LEGEND PROPOSED SANITARY SEWER LATERAL W SERVICE LINE PROPOSED WATER SERVICE PROPOSED FINISHED GRADE CONTOUR LINE PROPOSED FINISHED GRADE SPOT ELEVATION

MAINTENANCE PLAN MINOR PLAN 2 LOT RESIDENTIAL SUBDIVISION PROPERTY OF

RAIN GARDEN STORMWATER MANAGEMENT **FACILITY DETAIL**

BASIN BOTTOM/INV (C)

ELEVATION DETAILS

BERM EL. (A) 370.50 RIM EL. (B) 369.50

BERM EL. (A) 368.50 RIM EL. (B) 367.50

FUNCTION IN THE FOLLOWING MANNER:

CONDITIONS (IE: FROZEN SOIL CONDITIONS)

CHOICES AND MATERIALS.

OR DISEASED PLANT MATERIAL.

CONSTRUCTION BARRIER FENCING.

TILLED TO A MINIMUM DEPTH OF 6 INCHES.

FACILITIES:

BOTTOM AREA.

REMEDIATION.

BASIN BOTTOM EL. (C) 369.0 (1230 SF)

BASIN BOTTOM EL. (C) 367.0 ((1230 SF)

WITH REINFORCEMENT AS REQUIRED BY MANUFACTURER

SPECIFICATIONS

BOTH LOTS 1 AND 2 HAVE BEEN DESIGNED TO UTILIZE WHAT IS COMMONLY

FACILITY. THIS TYPE OF FACILITY IS INTENDED TO CAPTURE, STORE AND

SOILS TESTING OF THE SITE SOILS IS INTENDED TO INFILTRATE OR DISSAPATE

INCLUDING BOTH THE DRIVEWAY AND ROOFTOP(S) AND IS INTENDED TO

WITHIN 72 HOURS OF A TYPICAL 2 YEAR STORM EVENT. LARGER FLOWS FROM BOTH, PROLONGED (BACK TO BACK) OR LARGER STORM EVENTS (10

ACTUAL DRAIN DOWN OR INFILTRATION/EXFILTRATION TIMES OF THE

WITH THE BOTTOM SURFACE AREA BEING MAINTAINED PER ORIGINAL

INUNDATIONS OF WATER. (CONSULT LOCAL NURSERY (S) FOR PLANT

REPLACEMENT IN ORDER TO RESTORE FUNCTIONABILITY.

LEADERS AND THE OUTLET PIPE ARE FREE AND CLEAR OF ANY

DESIGN. THE FACILITIES MAY BE EITHER MAINTAINED IN A LAWN TYPE CONDTION OR LANDSCAPED WITH MOISTURE TOLERANT PLANT SPECIES THAT ARE ABLE TO WITHSTAND BOTH SEASONAL AND INTERMITTENT

NOTE: THE FUNCTIONALITY OF THIS TYPE OF STORMWATER MANAGEMENT

SYSTEM IS SOLELY DEPENDANT ON THE ABILITY OF THE UNDERLYING SOIL LAYERS TO ACCEPT AND INFILTRATE THE IMPOUNDMENT WATERS. OVER TIME, THE BOTTOM LAYERS OF SOIL MAY BECOME COMPACTED AND MAY REQUIRE EITHER TILLING, AMENDMENT WITH COMPOST OR REMOVAL AND

INSPECTIONS AND MAINTANCE OF THE FACILITY (S) SHOULD BE CONDUCTED ON A SEMI-ANNUAL (OR SEASONAL BASIS) TO ENSURE THAT ALL ROOF TOP

ACCUMULATED DEBRIS/TRASH AND REMOVAL/REPLACEMENT OF ANY DEAD

SPECIFICATIONS FOR CONSTRUCTION OF THE STORMWATER MANAGEMENT

COMPACTION EQUIPMENT OR EQUIPMENT LOCATED OUTSIDE OF THE BASIN

3) PRIOR TO FINAL STABILIZATION, PLACEMENT OF SEEDING/EROSION CONTROL MATTING, THE BASIN BOTTOMS SHALL BE FULLY SCARIFED OR

OBSERVANCES OF SITE CONDITIONS OCCUR DURING SITE CONSTRUCTION THAT WOULD INTERFERE WITH OR CAUSE CONCERNS OF THE SITE FACILITY TO FUNCTION PROPERLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE FACILITY DESIGNER FOR CONSULTATIONS AND ADVICE ON

1) THE SYSTEM AREA SHALL BE PROTECTED DURING OVERALL SITE

2) THE SYSTEM SHALL BE CONSTRUCTED UTILIZING EITHER LOW

4) IN THE EVENT THAT UNSUITABLE MATERIALS, OR ANY OTHER

PROPOSED IMPROVEMENTS AND

STORMWATER OPERATIONS AND

DEVELOPMENT FROM COMPACTION OR TRESPASSING INTO BY CONSTRUCTION VEHICLES (COMPACTION) THROUGH THE USE OF

SURFACE IMPOUNDMENT MAY VARY DUE TO SEASONAL WEATHER

YEAR OR GREATER) ARE INTENDED TO DISCHARGE THROUGH THE RISER PIPE

THE FACILITIES ARE TO BE MAINTAINED IN A WELL VEGETATED CONDITION

ROOFTOP AND DRIVEWAY RUNOFF DIRECTED INTO THE FACILITY (S) IS INTENDED TO IMPOUND TO A MAXIMUM DEPTH OF 6 INCHES BEFORE DISCHARGE THROUGH THE RISER PIPE THIS IMPOUNDMENT BASED ON

STORMWATER MANAGEMENT FACILITIES DESCRIPTION AND MAINTENANCE

KNOWN AS A RAIN GARDEN TYPE OF STORMWATER MANAGEMENT

RELEASE STORMWATER RUNOFF FROM ALL IMPERVIOUS SURFACING

TYPE D ENDWALL

DETAIL

INV OUT LEVEL SPREADER 368.80

INV OUT LEVEL SPREADER 366.80

LOT NO. 1

LOT NO. 2

MAZZ PROPERTIES, LLC 2578 MORRIS ROAD

Situate In:

The Township of Worcester Montgomery County, Pennsylvania

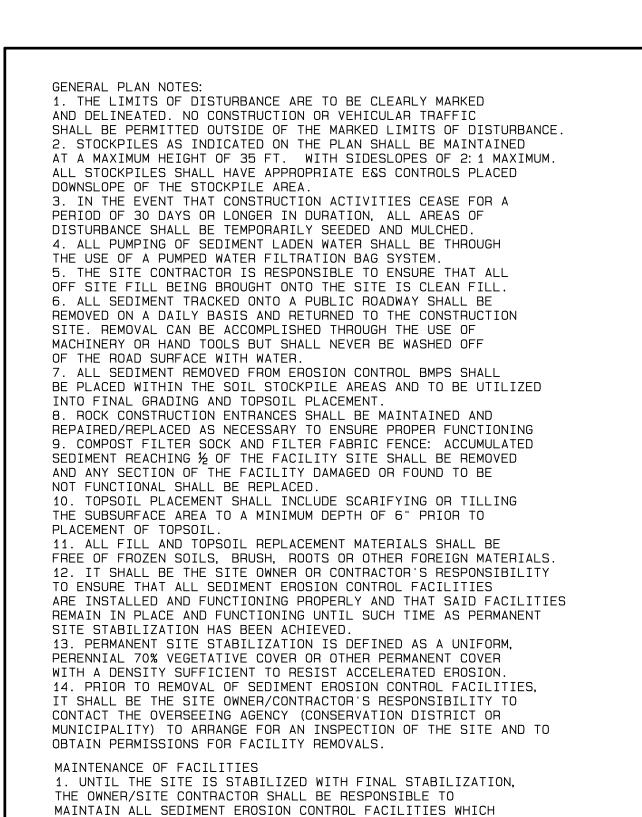
REVISIONS BR GRAUEL, PLS

SURVEYING. LAND PLANNING & DESIGN SERVICES

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PROJECT NO. 19-102 1"= 30' SHEET 4 of 6

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INSPECTIONS, REPAIRS, REPLACEMENT AND SUPPLEMENTS TO FACILTIES. PROTECTION OF INFILTRATION BMPS 1. COMPACTION OF THE BMP AREA SHALL BE AVOIDED AND MINIMIZED DURING CONSTRUCTION. 2. E&S BMPS SHALL BE INSTALLED AND MAINTAINED DURING AND AFTER CONSTRUCTION OF THE INFILTRATION BMPS TO PREVENT SEDIMENT FROM CLOGGING OR FILLING THE PCSM BMP OR STORAGE FACILITY.

CONSTRUCTED AFTER PERMANENT STABILIZATION HAS BEEN ACHIEVED ON

SHALL INCLUDE BUT NOT BE LIMITED TO INSPECTIONS OF SAID

FACILITIES ON A DAILY BASIS AND AFTER EACH STORM EVENT;

REPAIRS/REPLACEMENT OF FACILITIES FOUND NOT TO BE

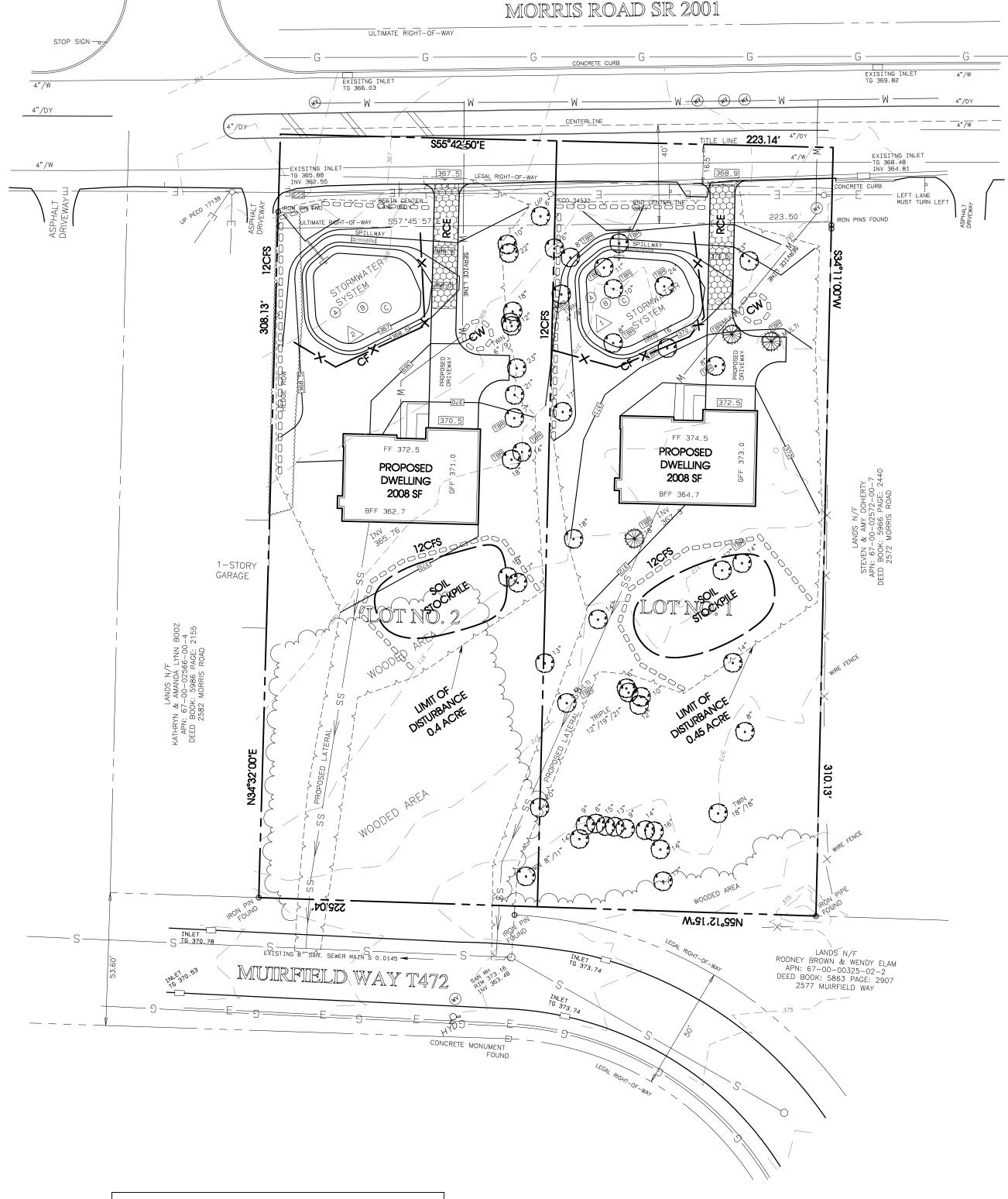
FUNCTIONING; INSTALLATION OF ADDITONAL CONTROLS TO

3. TO THE MAXIMUM EXTENT PRACTICAL, PCSM BMPS SHOULD BE

ALL CONTRIBUTING DRAINAGE AREAS.

SUPPLEMENT FAILURES AND MAINTAINING LOGS OF SAID

Scale: 1" = 30' HORRIZONTAL DATUM: PA. STATE PLANE SOUTH ZONE COORDINATE SYSTEM VERTICAL DATUM: NAVD 1988



STANDARD E&S PLAN NOTES 1) ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING, AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT (E&S) PLAN. A COPY OF THE APPROVED DRAWINGS MUST BE AVAILABLE AT THE SITE AT ALL TIMES 2) AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL 3) CLEARING, GRUBBING AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL E&S BEST MANAGEMENT PRACTICES (BMPS) SPECIFIED BY THE CONSTRUCTION SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THE E&S PLAN. 4) AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN. 5) IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BMPS TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE BERKS COUNTY CONSERVATION DISTRICT AND/OR THE SOUTH-CENTRAL REGIONAL OFFICE OF DEP. 6) ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED ON THIS PLAN. OVER UN-DISTURBED VEGETATED AREAS. DISCHARGE POINTS SHOULD BE ESTABLISHED TO PROVIDE FOR MAXIMUM DISTANCE TO ACTIVE WATERWAYS. 7) UNTIL THE SITE IS STABILIZED, ALL E&S BMPS MUST BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL E&S BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED 8) A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE OFFICIALS AT THE TIME OF INSPECTION.

MAINTAINED ON SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY 9) SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. 10) ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. 11) ALL EXCAVATION FOR UTILITY LINE INSTALLATION SHALL BE LIMITED TO THE AMOUNT THAT CAN BE EXCAVATED, INSTALLED, BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY. ALL EXCAVATED MATERIAL SHALL BE DEPOSITED ON THE UPSLOPE SIDE OF THE TRENCH 12) CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO

ENTER ANY SURFACE WATERS OR GROUND WATER SYSTEMS. 13) SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD. 14) FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINIAL PENALTIES BEING INSTITUTED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000.00 IN SUMMARY CRIMINAL PENALTIES, AND UP TO

\$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

CONSTRUCTION SEQUENCE NOTES: 1. THE OPERATOR OR CONTRACTOR SHALL ENSURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED AND MAINTAIN A COPY OF THE APPROVED PLAN ON SITE AT ALL TIMES DURING EARTH MOVING ACTIVITIES. 2. ALL OFF-SITE BORROW OR SPOIL SITES SHALL HAVE AN APPROVED, CURRENT SEDIMENT EROSION CONTROL PLAN IN PLACE AND FUNCTIONING. 3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE WITH EACH STAGE BEING COMPLETED PRIOR TO THE INITIATION OF THE FOLLOWING STAGE. CLEARING OF BRUSH AND TREE REMOVAL SHALL BE LIMITED TO ONLY THOSE AREAS DESCRIBED IN EACH STAGE. 4. EROSION AND SEDIMENT BMP'S SHALL BE INSTALLED, STABILZED AND FUNCTIONAL PRIOR TO ANY EARTH DISTURBANCE TRIBUTARY TO A BMP. 5. PRIOR TO INITIATING ANY REVISIONS TO THE APPROVED SEDIMENT EROSION CONTROL PLAN OR REVISIONS TO ANY SUPPLEMENTAL PLANS THERETO WHICH WOULD AFFECT THE SEDIMENT EROSION CONTROL FACILITIES, THE OWNER, OPERATOR OR CONTRACTOR SHALL SUBMIT SUCH CHANGES TO THE APPROPRIATE REVIEW AGENCY (EITHER MUNICIPALITY OR CONSERVATION DISTRICT) FOR APPROVALS OF SAID REVISIONS. 6. (PRE-CONSTRUCTION MEETING) IF REQUIRED BY EITHER THE CONSERVATION DISTRICT OR MUNICIPALITY, THE SITE CONTRACTOR, OWNER OR OPERATOR SHALL BE REQUIRED TO NOTIFY THE REVIEWING AGENCY A MINIMUM OF 7 DAYS PRIOR TO CONSTRUCTION TO ARRANGE (IF REQUIRED) A SITE MEETING WITH THE REVIEWING ENTITY, THE SITE CONTRACTOR AND THE PLAN DESIGNER. 7. THE SITE CONTRACTOR, OWNER OR OPERATOR IS RESPONSIBLE TO CONTACT THE PA. ONE CALL SYSTEM A MINIMUM OF 3 WORKING DAYS PRIOR TO START OF CONSTRUCTION TO HAVE ALL UNDERGROUND UTILITY LINES LOCATED AND MARKED. 8. FOLLOWING FINAL SITE STABILIZATION (DEFINED AS UNIFORM 70% PERMANENT VEGETATIVE OR OTHER PERMANENT GROUND COVER OVER ALL DISTURBED AREAS) ANY REMAINING SEDIMENT EROSION CONTROL BMPS SHALL BE REMOVED INCLUDING ANY REMAINING TRAPPED SEDIMENT WHICH SHALL BE UTILIZED INTO FINAL GRADING OR REMOVED FROM THE SITE. ALL AREAS DISTURBED DURING THE REMOVAL PROCESS SHALL BE FINAL GRADED AND PERMANENTLY STABILIZED. 1. CONTACT THE MUNICIPALITY A MINIMUM OF THREE WORKING DAYS PRIOR TO CONSTRUCTION TO ARRANGE FOR A SITE MEETING AND 2. MARK/DELINEATE WITH STAKES AND FLAGGING THE PROPERTY LINES, LIMIT OF DISTURBANCE AND THE AREA OF THE STORMWATER 3. INSTALL THE ROCK CONSTRUCTION ENTRANCE, ALL FILTER FABRIC SOCK AND CONSTRUCTION BARRIER FENCE AROUND THE STORMWATER MANAGEMENT FACILTY AS INDICATED. 4. CLEAR, GRUB AND REMOVE ALL REQUIRED VEGETATION FROM WITHIN THE AREA OF DISTURBANCE. 5. EXCAVATE FOR AND CONSTRUCT THE DWELLING

FOOTERS/FOUNDATIONS. PLACE ALL EXCAVATED MATERIAL WITHIN THE

SURFACE MATERALS.

AND MACADAM SURFACING

DESIGNATED SOIL STOCKPILE AREA, KEEPING TOPSOIL SEPARATE FROM SUB-

6. DURING CONSTRUCTION OF THE DWELLING, EXCAVATE FOR AND INSTALL

ALL REQUIRED UNDERGROUND UTILITY LINE CONNECTIONS. INSTALLATION

SHALL INCLUDE BACKFILLING ON A DAILY BASIS AND STABILIZATION OF

7. FOLLOWING COMPLETION OF DWELLING, FINAL GRADE ALL EXTERIOR

MANAGEMENT SYSTEM. FINAL GRADE THE DRIVEWAY, PLACE STONE BASE

8. FINAL GRADE AND PERMANENTLY STABILIZE ALL DISTURBED AREAS WITH

9. ONCE ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED WITH A MINIMUM OF 70% ACTIVE. PERMANENT VEGETATIVE GROWTH OR OTHER

TRENCHING AREAS EITHER ON A TEMPORARY OR PERMANENT BASIS.

SEEDING/MULCH/EROSION CONTROL MATTING/LANDSCAPING. REMOVE ANY REMAINING SOIL FROM THE SOIL STOCKPILE AREA AND FINAL

DISTURBED AREAS AND EXCAVATE/CONSTRUCT THE STORMWATER

PERMANENT COVER, REMOVE ANY REMAINING SEDIMENT EROSION CONTROL FACILITIES, INCLUDING ANY REMAINING ACCUMULATED SEDIMENT WHICH MAY BE UTILIZED INTO FINAL GRADING OR REMOVED FROM THE SITE. FINAL GRADE AND PERMANENTLY STABILIZE ALL AREAS

GRADE/STABILIZE WITH SEEDING AND MULCHING.

DISTURBED DURING THE REMOVAL PROCESS.

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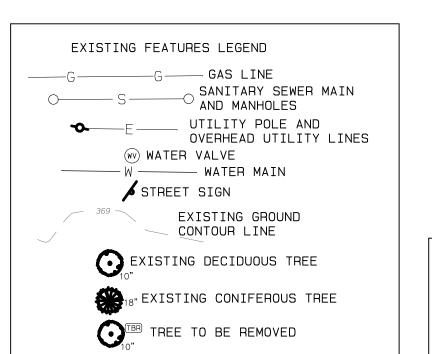
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1"= 30' SHEET 5 of 6

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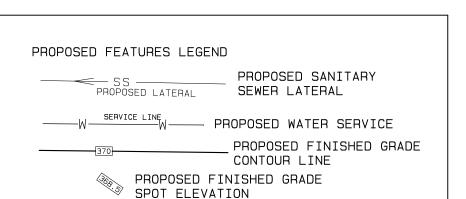
SEDIMENT EROSION CONTROL PLAN



EXISTING WOODS LINE

(TBR) TO BE REMOVED

SOIL TEST PIT



EROSION CONTROL FEATURES LEGEND ROCK CONSTRUCTION ENTRANCE 12" COMPOST FILTER SOCK ^--^- LIMIT OF DISTURBANCE CW CONCRETE WASHOUT

STABILIZATION NOTES:

TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATIONS SHOWN ON THE PLAN MAPS IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FT. WITH SLOPES OF 2H: 1V OR

2. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES, OR 6 TO 12 INCHES ON COMPACTED SOILS, PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM OF 4 OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL . UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE CESSATION OF EARTH DISTURBANCE EXCEEDS 4 DAYS. THE SITE SHALL BE IMMEDIATELY SEEDED. MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES. 4. STRAW MULCH MUST BE APPLIED AT RATES OF AT LEAST 3.0 TONS PER ACRE. STRAW MULCH SHOULD BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN.

5. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED.

6. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H: 1V OR STEEPER WITHIN 50 FT. OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS ACCORDING TO THE STANDARDS OF THIS PLAN. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS. 8. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING,

OR OTHER MOVEMENTS. 9. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE BERKS COUNTY CONSERVATION DISTRICT OR DEP.

ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE CHAPTER 260. SEC 260.1 ET SEQ., 271.1 AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED FROM THE SITE.

ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY A COUNTY CONSERVATION DISTRICT OR DEP FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.

FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

TEMPORARY AND PERMANENT STABILIZATION METHODS

IMMEDIATELY UPON THE CESSATION OF EARTH DISTURBANCE ACTIVITIES WHETHER TEMPORARY (EXCEEDING 30 DAYS) OR FOLLOWING FINAL GRADING, THE OPERATOR SHALL STABILIZE ANY AND ALL DISTURBED AREAS. DURING SEASONS OF NON-GERMINATION OF SEED, STRAW MULCH MUST BE APPLIED AT THE SPECIFIED RATES OF 3.0 TONS PER ACRE. MULCH SHALL BE APPLIED IN LONG STRANDS AND SHALL BE HELD IN PLACE WITH A GLUE TACKIFIER. AREAS THAT HAVE NOT BEEN FINAL GRADED AND WILL BE DISTURBED WITHIN ONE YEAR, MUST BE STABILIZED UTILIZING TEMPORARY STABILIZATION METHODS.

TEMPORARY AND PERMANENT SEEDING METHODS AND SPECIFICATIONS NOTE: THE FOLLOWING SPECIFIC SEEDING SPECIFICATIONS ARE GENERAL GUIDELINES ONLY. CONTRACTORS AND LOT OWNERS ARE ADVISED TO CONDUCT SOILS TESTING FOR INDIVIDUAL SITES TO DETERMINE EXACT NUTRIENT AND TOPSOIL SUPPLEMENTAL NEEDS AND TO CONSULT WITH SEED MANUFACTURERS FOR THE MOST OPTIMUM SEED MIXTURE TO UTILIZE IN SPECIFIC SITUATIONS.

TEMPORARY STABILIZATION AND SEEDING:

DURING NON-GERMINATING PERIODS (OCTOBER 15TH THRU APRIL 15TH) APPLY MULCH AND TACKIFIER ONLY AREAS THAT WILL NOT ACHIEVE FINAL GRADE OR WILL BE REDISTURBED WITHIN ONE YEAR SHALL BE LIMED AND FERTILIZED AT A RATE OF 1 TON OF AGRICULTURAL GRADE OF LIMESTONE PER ACRE AND APPLICATION OF 50-50-50 FERTILIZER AT A RATE OF 100 LBS. PER ACRE FOLLOWED BY SEEDING WITH ANNUAL RYE GRASS AT A RATE OF 40 LBS. PER ACRE AND APPLICATION OF STRAW MULCH.

FINAL GRADING AND PERMANENT SEEDING: FOLLOWING FINAL GRADING OF DISTURBED AREAS, SCARIFY ALL SUBGRADE AREAS TO A MINIMUM DEPTH OF 6 INCHES AND PLACE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES. TOPSOIL SHOULD BE FREE AND CLEAR OF ALL LARGE DEBRIS, ROCK AND FOREIGN MATERIAL AND FROZEN MATERIAL SHALL NOT BE UTILIZED. FERTILIZE AND LIME ALL AREAS WITH A MINIMUM OF 6 TONS PER ACRE OF

AGRICULTURAL GRADE LIMESTONE AND 10-20-20 FERTILIZER AT A RATE OF 1,000 LBS. PER ACRE (SUBJECT TO INDIVIDUAL PROPERTY SOILS TESTING) PLACE SEED AND COVER WITH A MINIMUM OF 1/2 OF FINE SOIL PLACE STRAW MULCH OR EROSION CONTROL BLANKETING (WHERE SPECIFIED)

FINAL GRADE SEEDING SPECIFICATIONS (SUGGESTED AND SUBJECT TO INDIVIDUAL SITE CONDITIONS) NOTE: ALL SEED MIXTURES SHOULD BE LABELED IN ACCORDANCE WITH THE US DEPT. OF AGRICULTURE RULES AND REGULATIONS WITH INERT MATTER NOT EXCEEDING 15%.

MOWED AREAS (2: 1 OR LESS SIDESLOPE) RATE: 100 LBS. PER ACRE KENTUCKY BLUEGRASS (2 OR MORE VARITIES, NONE GREATER THAN 25% OF TOTAL) 50% BY WEIGHT, 90% PURITY, 80% GERMINATION, 0.2% MAX WEED SEED PENNFINE PERENNIAL RYE GRASS 20% BY WEIGHT, 90% PURITY, 90% GERMINATION, 0.15% WEED SEED

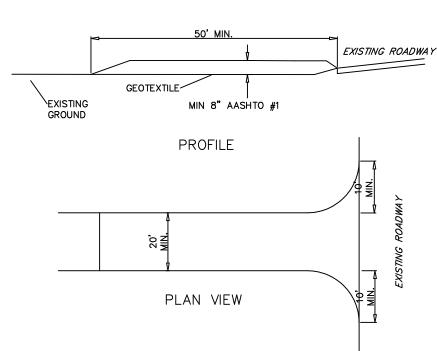
PENNLAWN RED FESCUE 30% BY WEIGHT, 98% PURITY, 85% GERMINATION, 0.25% MAX. WEED SEED

SPECIAL AREAS (SWALES, POND EMBANKMENTS AND AREAS OF OCCASIONAL WATER FLOWS) RATE: 110 LBS PER ACRE RED TOP 80% BY WEIGHT, 92% PURITY, 80% GERMINATION, 0.2% WEED SEED ORCHARD GRASS 20% BY WEIGHT, 95% PURITY, 90% GERMINATION, 0.15% WEED

SWITCH GRASS 60PLS DEER TONGUE 95% PURITY, 75% GERMINATION

NON-MOWED AREAS (SLOPES STEEPER THAN 2: 1) RATE: 75 LBS. PER ACRE PENNGIFT CROWN VETCH 40% BY WEIGHT, 98% PURITY, 65% GERMINATION, 0.10% WEED SEED REDTOP 60% BY WEIGHT, 92% PURITY, 80% GERMINATION, 0.15% MAX. WEED SEED

PERMANENT SEED MIXES LAWN SEED MIX- ERNST CONSERVATION MIX (#114), AT 5LBS PER 1,000 SF, OR APPROVED EQUAL



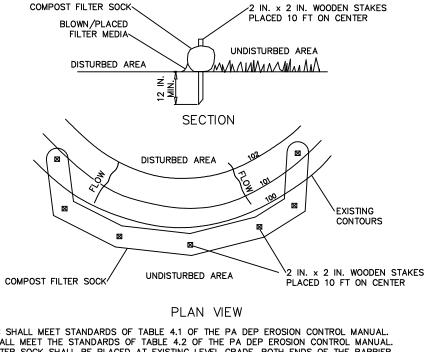
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND

PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED. MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY

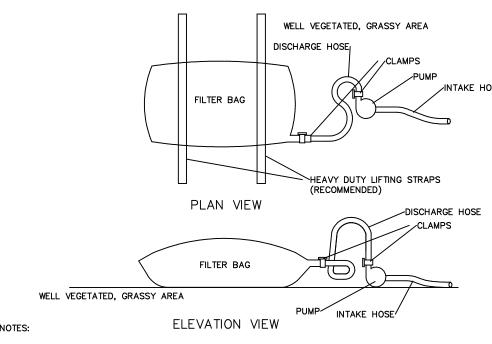
MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE



SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN. COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER.S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

> STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK NOT TO SCALE



LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH DOUBLE STITCHED "" TYPE SEAMS THEY SHALL BE CAPABLE OF TRADPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT

WING STANDARDS:		
PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGT	H ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

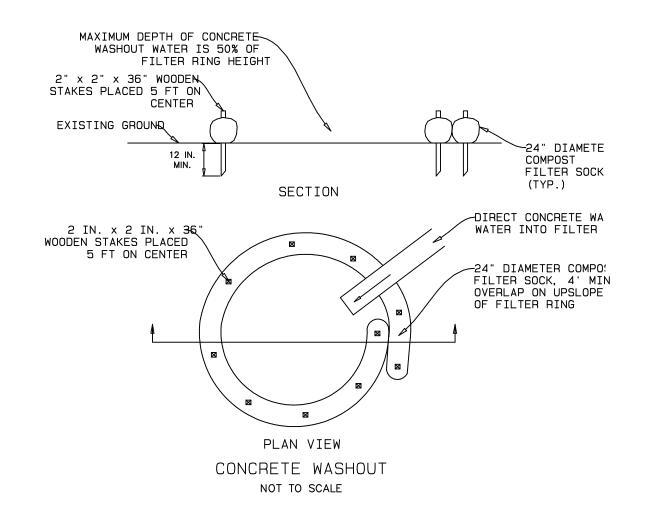
BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME

STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG



CONSTRUCTION DETAILS AND NOTATIONS

MINOR PLAN 2 LOT RESIDENTIAL SUBDIVISION PROPERTY OF MAZZ PROPERTIES, LLC 2578 MORRIS ROAD

Situate In: The Township of Worcester Montgomery County, Pennsylvania

REVISIONS	OTI	A LLC		© 2019 OTM, LLC
			G, LAND PLANN IGN SER VICES	ING
	2	00 Spring Ridge Drive (484) 336-6454	Suite 201, Wyomissing www.otm-surveying.	
	DRAWN BR GRAUEL, PLS	CHECK	SCALE 	PROJECT NO. 19-102 SHEET 6 of 6

RECOMMENDED MULCHING SPECIFICATIONS MULCHING SHALL BE PROVIDED AS REQUIRED IN AREAS DIFFICULT TO VEGETATE AND DURING OFF-SEASON OPERATIONS. MULCHING METHODS

SHALL CONFORM TO THE FOLLOWING: A) MULCH MATERIALS SHALL BE UNROTTED SALT HAY, HAY OR SMALL GRAIN STRAW APPLIED AS THE RATE OF 3 TONS PER ACRE. MULCH BLOWER SHALL NOT GRIND OR CHOP THE MATERIAL. WOODCHIPS, FREE OF INSECTS AND DISEASE ARE PERMITTED AT A RATE OF 4-6 TONS PER ACRE. B) MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% TO 95% OF THE SOIL SURFACE WILL BE

C) MULCH ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING ON THE SIZE OF THE SLOPE. C-1) PEG AND TWINE- DRIVE 8 TO 10 PEGS TO WITHIN 2 TO 3 OF THE

OR AFTER APPLYING MULCH. SECURE THE MULCH TO THE SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS OR SQUARE PATTERN AND SECURE THE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND

C-2) MULCH NETTING- STAPLE PAPER, JUTE, COTTON OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE DEGRADABLE NETTING IN AREAS TO BE MOWED. C-3) MULCH MATERIALS AND BINDERS ROLLED IN PLACE BY TRACKED VEHICLE OR OTHER SUITABLE EQUIPMENT

D) APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH. IN VALLEYS AND AT CREST OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE. E) WOOD FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 LBS. PER ACRE, OR PER MANUFACTURER RECOMMENDATION MAY BE APPLIED BY A

HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. F) OTHER: WHERE EXCESSIVE SOIL EROSION, TRACKING OR FLOWING OF SEDIMENT IS EVIDENT OR ANTICIPATED, A MINIMUM OF 4 OF CRUSHED STONE SHALL BE PLACED WITHIN THE AFFECTED AREA AND MAINTAINED UNTIL PERMANENT STABILIZATION IS ACHIEVED. CRUSHED STONE SHALL CONFORM TO AASHTO DESIGNATION M43. SIZE NO. 2 (2 ½ TO 1 ½)