TORRINGTON FAIR SHOPPING PLAZA

SITE PLAN-PROPOSED BUILDING PAD

US RT. 202 & CT RT. 183 TORRINGTON, CONNECTICUT

> PROJECT #: 06-0099 DATE: 07/12/2007 REVISION: 06/10/2008

LIST OF DRAWINGS

<u>SHEET</u>

TITLE

A1 PROPERTY SURVEY SP1-SP3, SP5 SITE PLANS

SP4 INTERCONNECT PLAN

1 LANDSCAPE PLAN

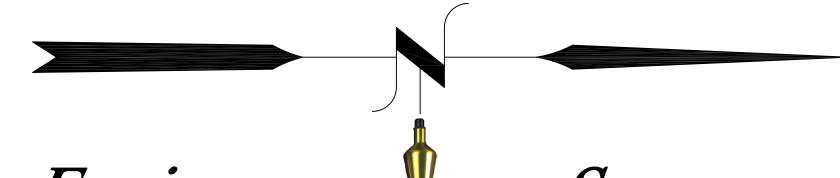
LIGHT 1 PHOTOMETRIC LIGHTING PLAN

D1-D2 NOTES AND DETAILS

E1 SEDIMENTATION & EROSION CONTROL NOTES AND DETAILS

E2 SEDIMENTATION & EROSION CONTROL PLAN

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Engineers

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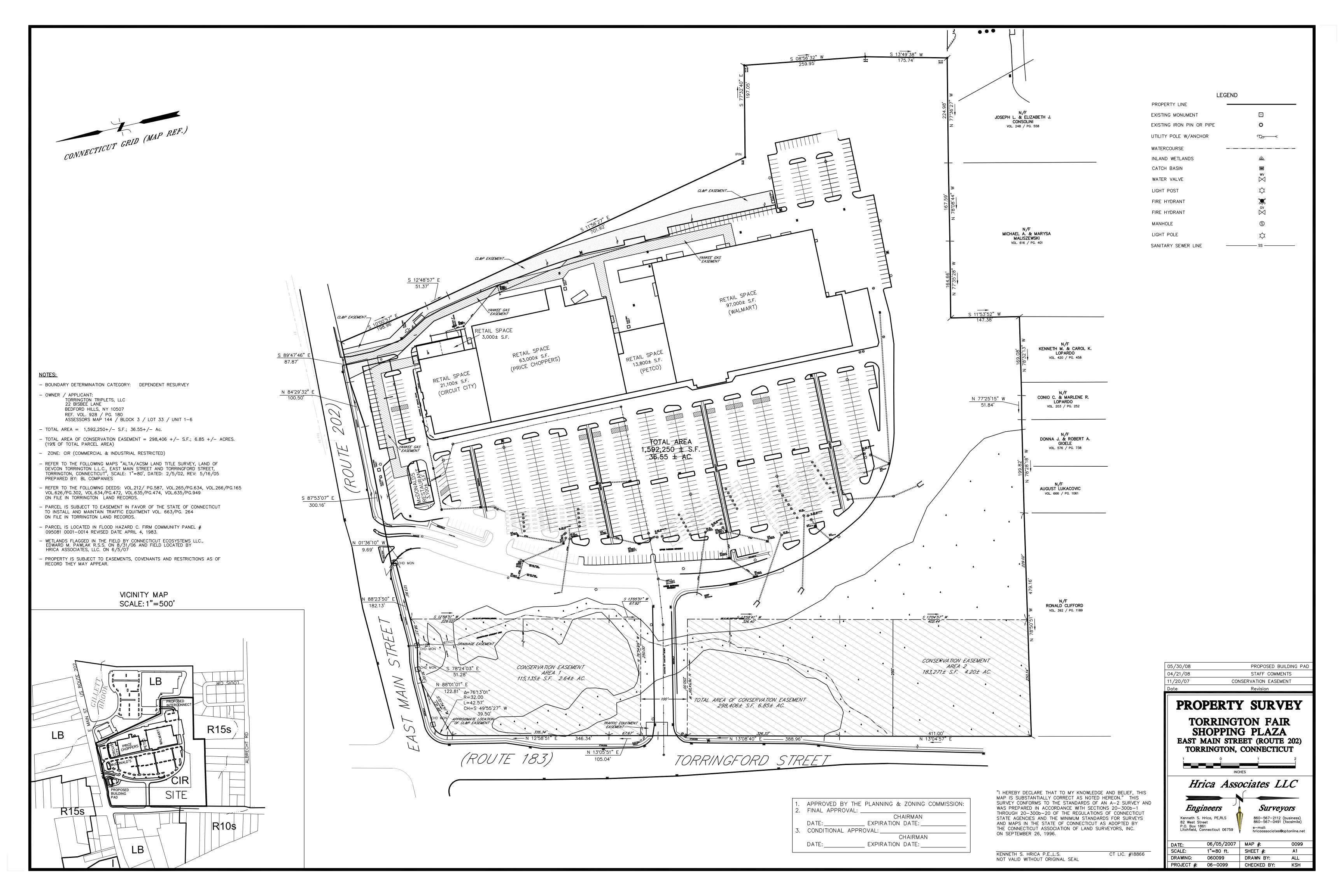
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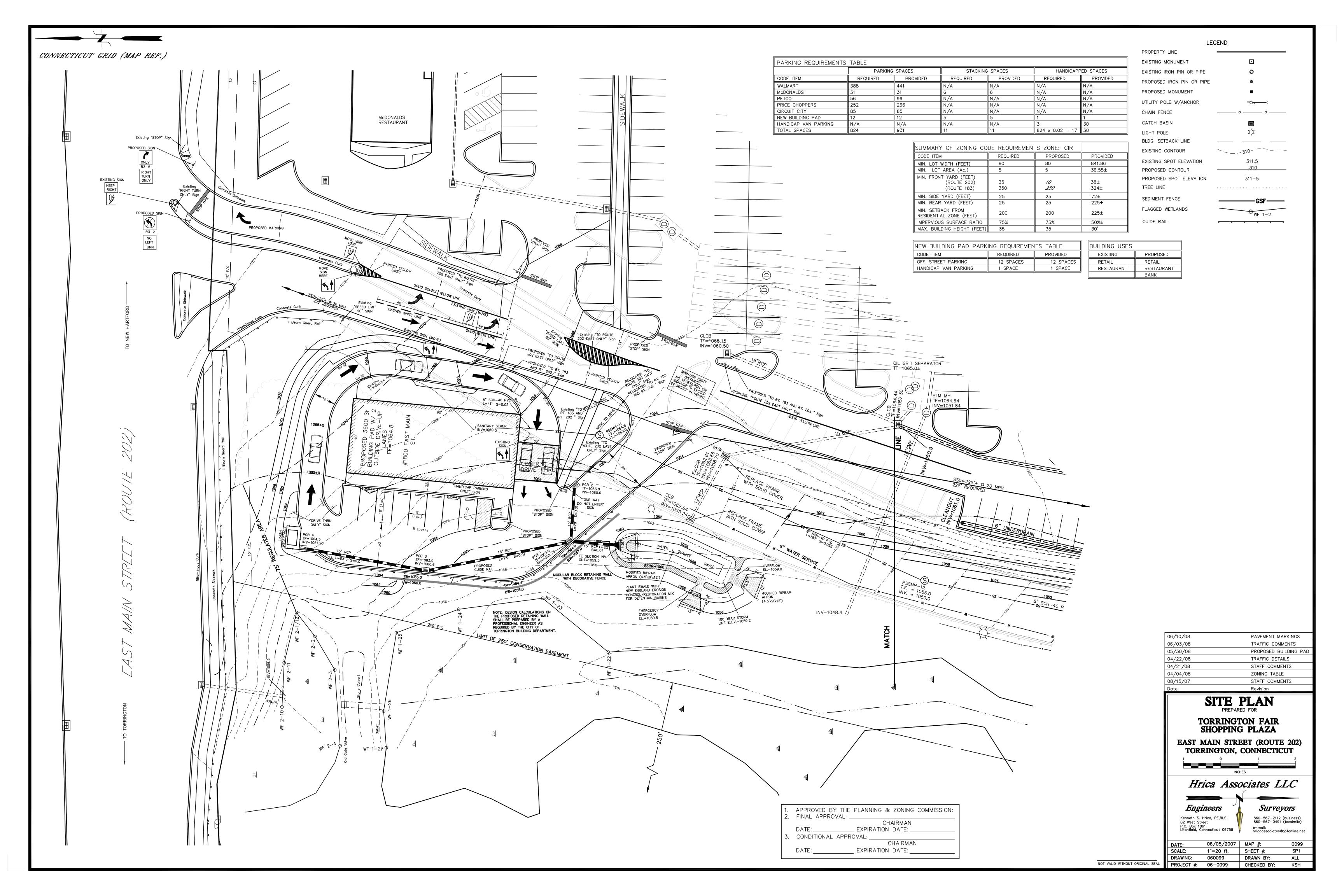
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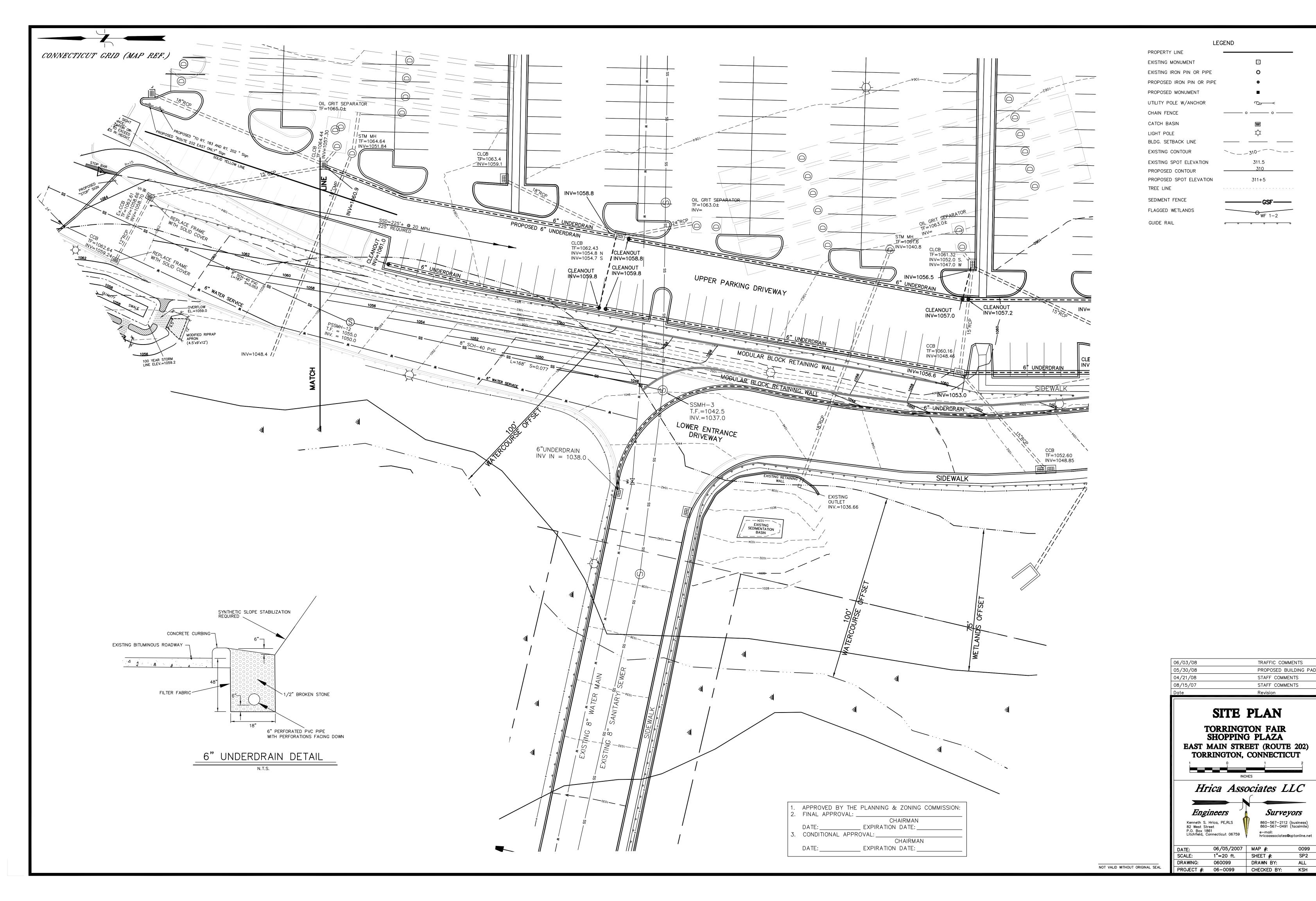
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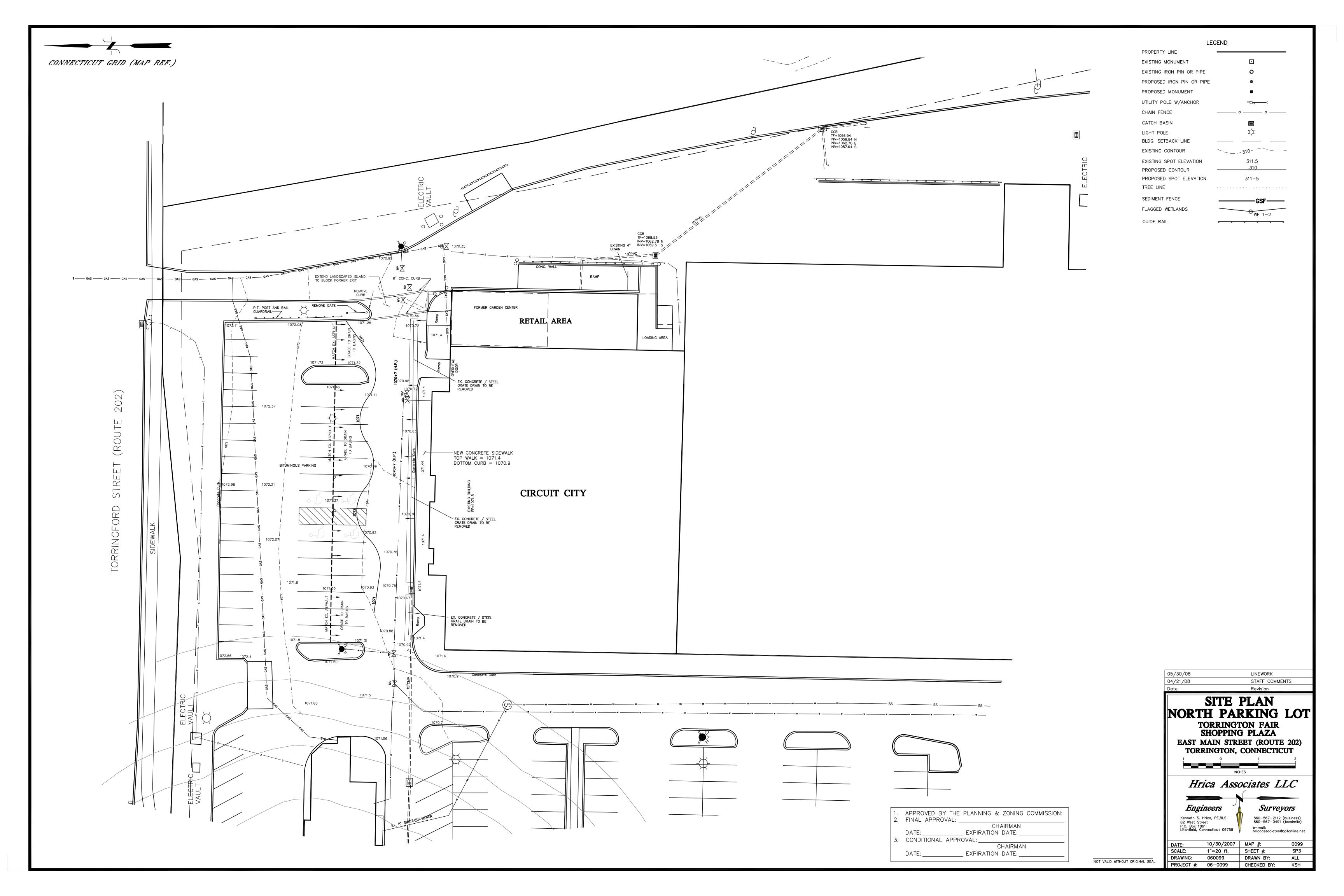
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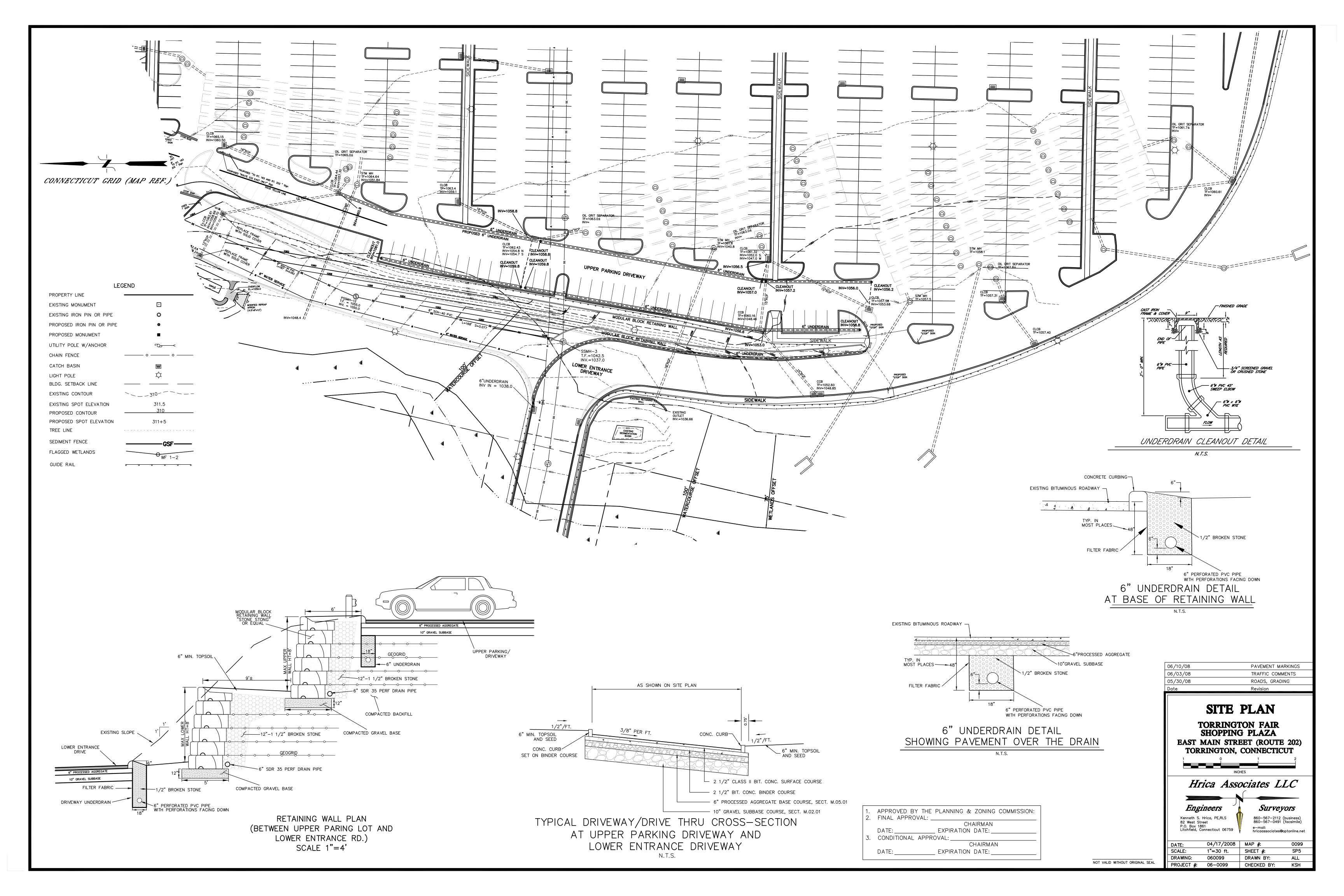
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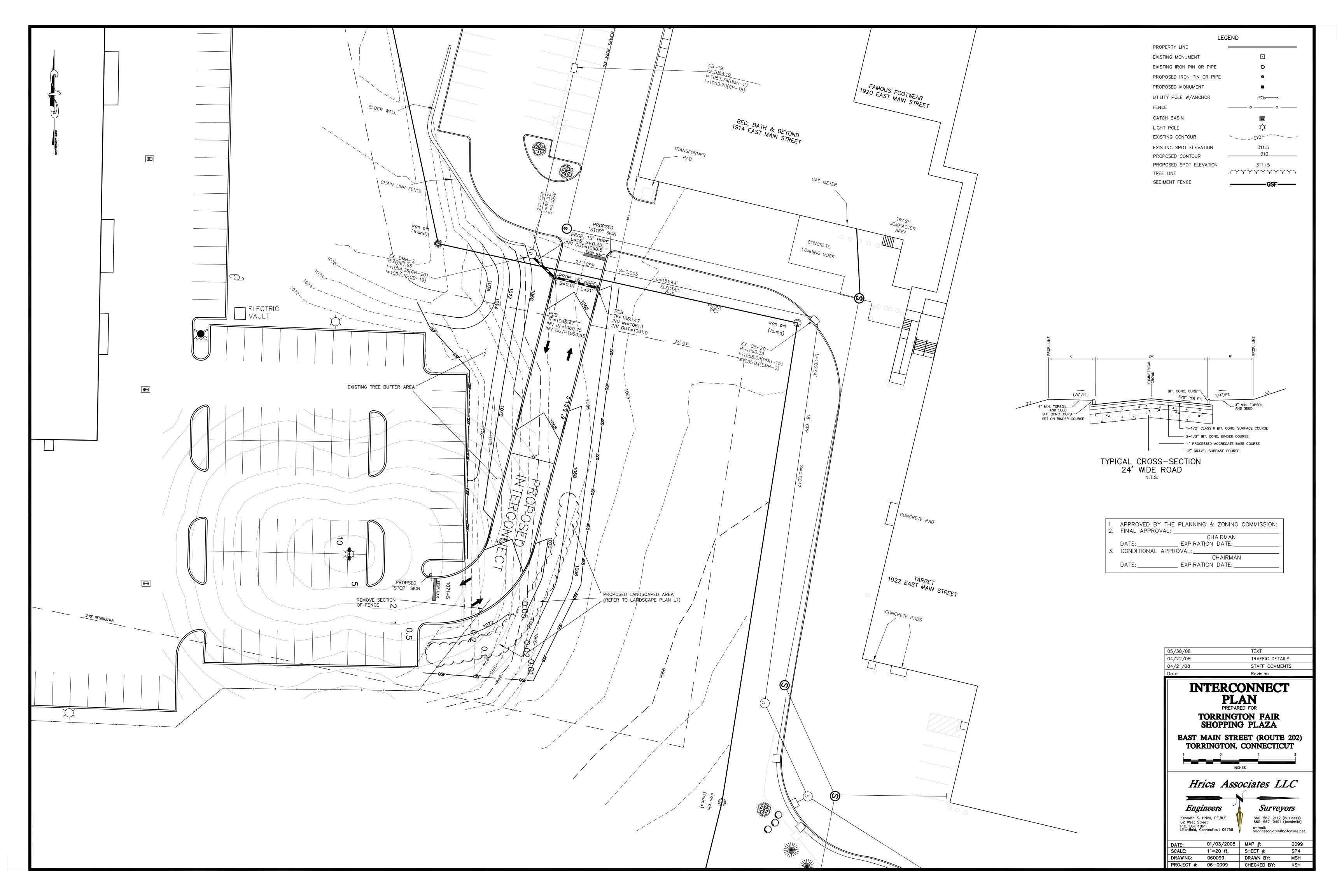


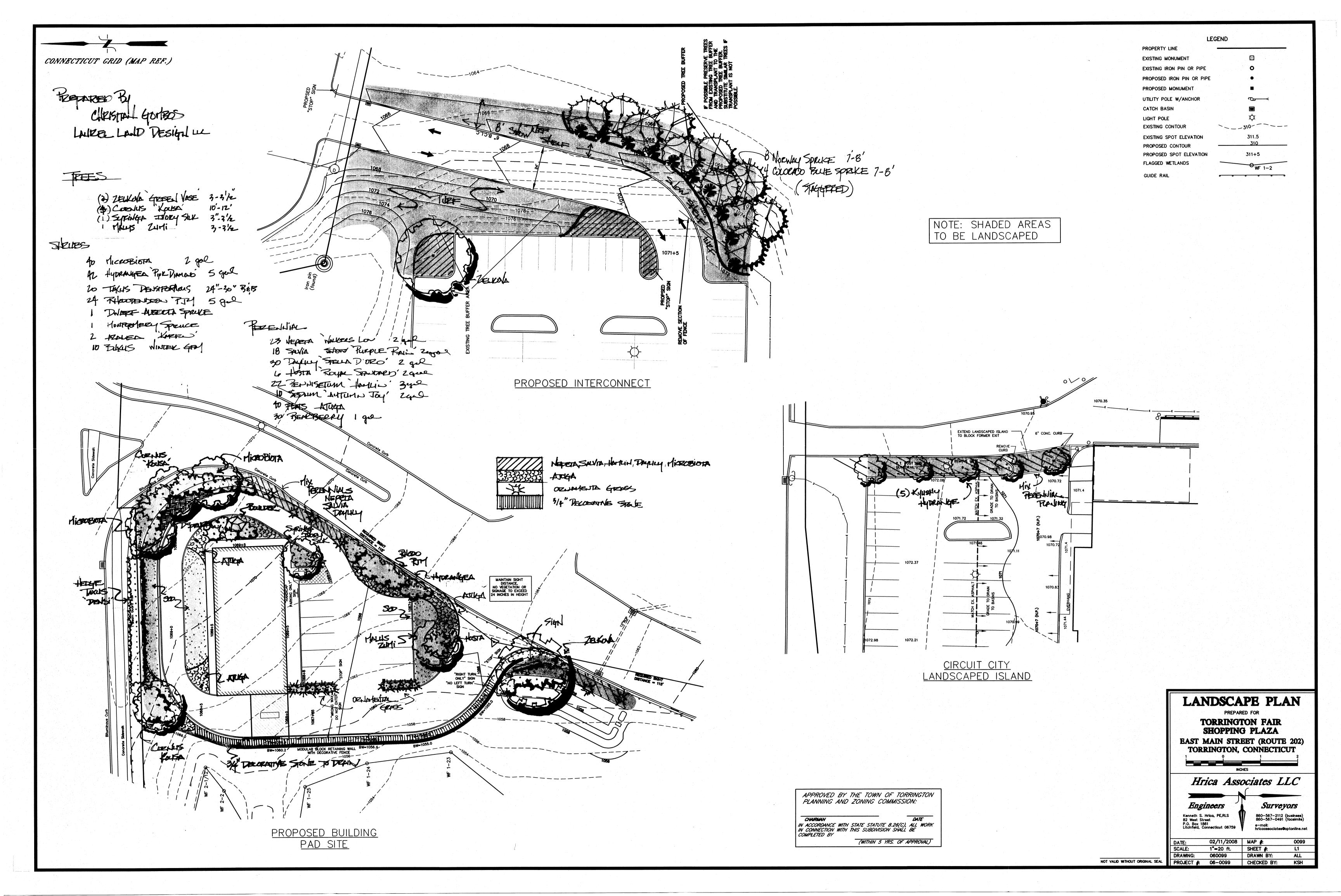


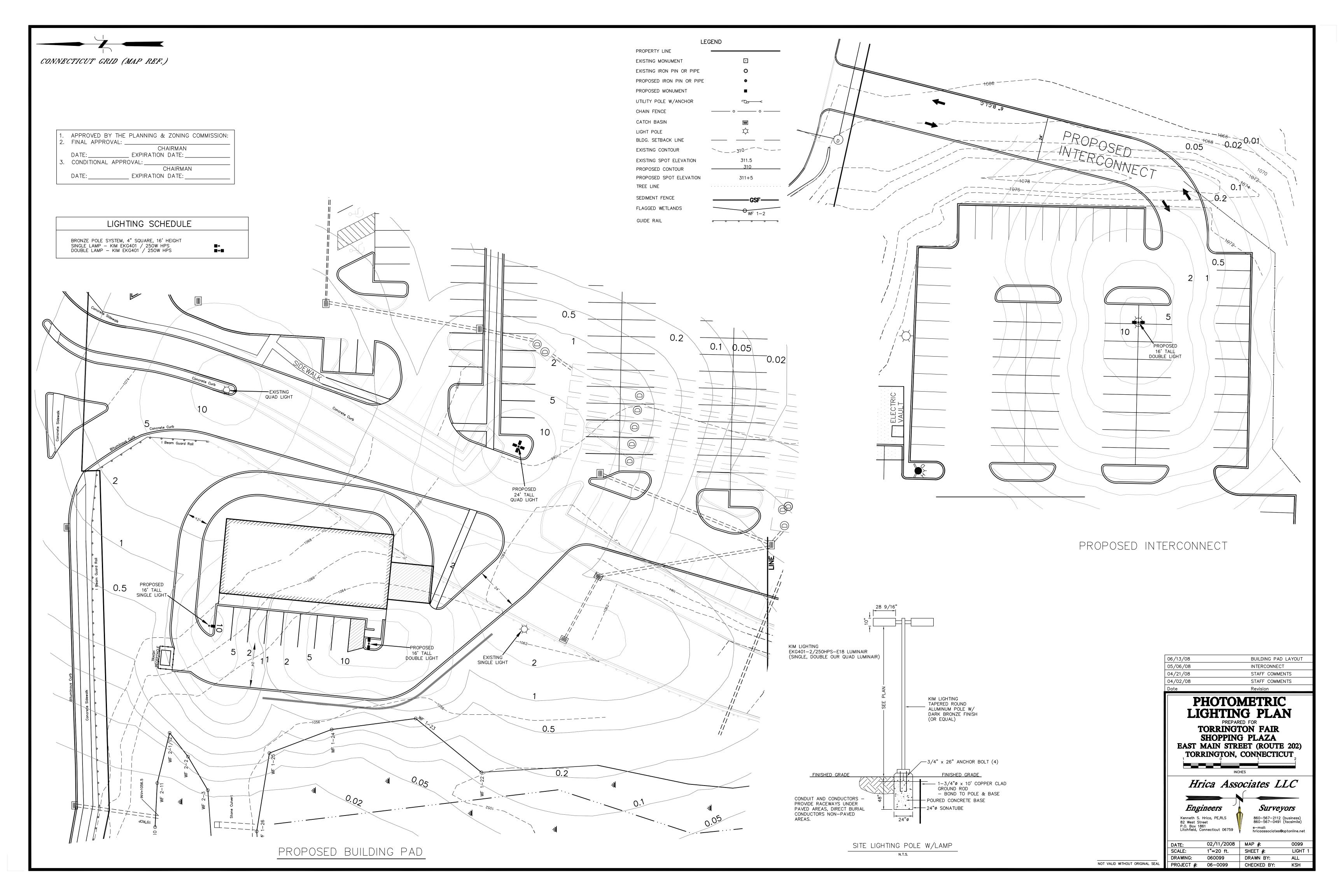


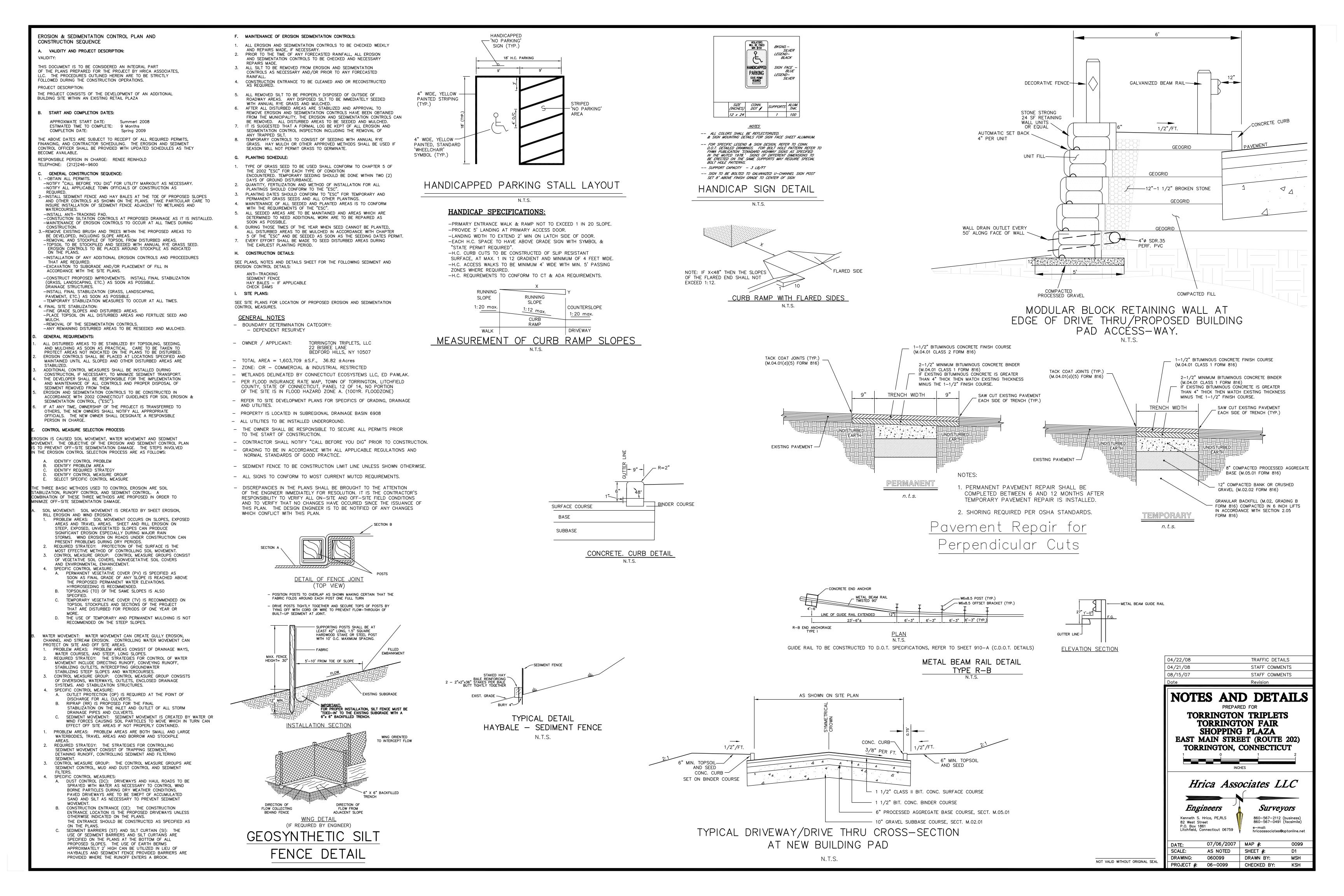


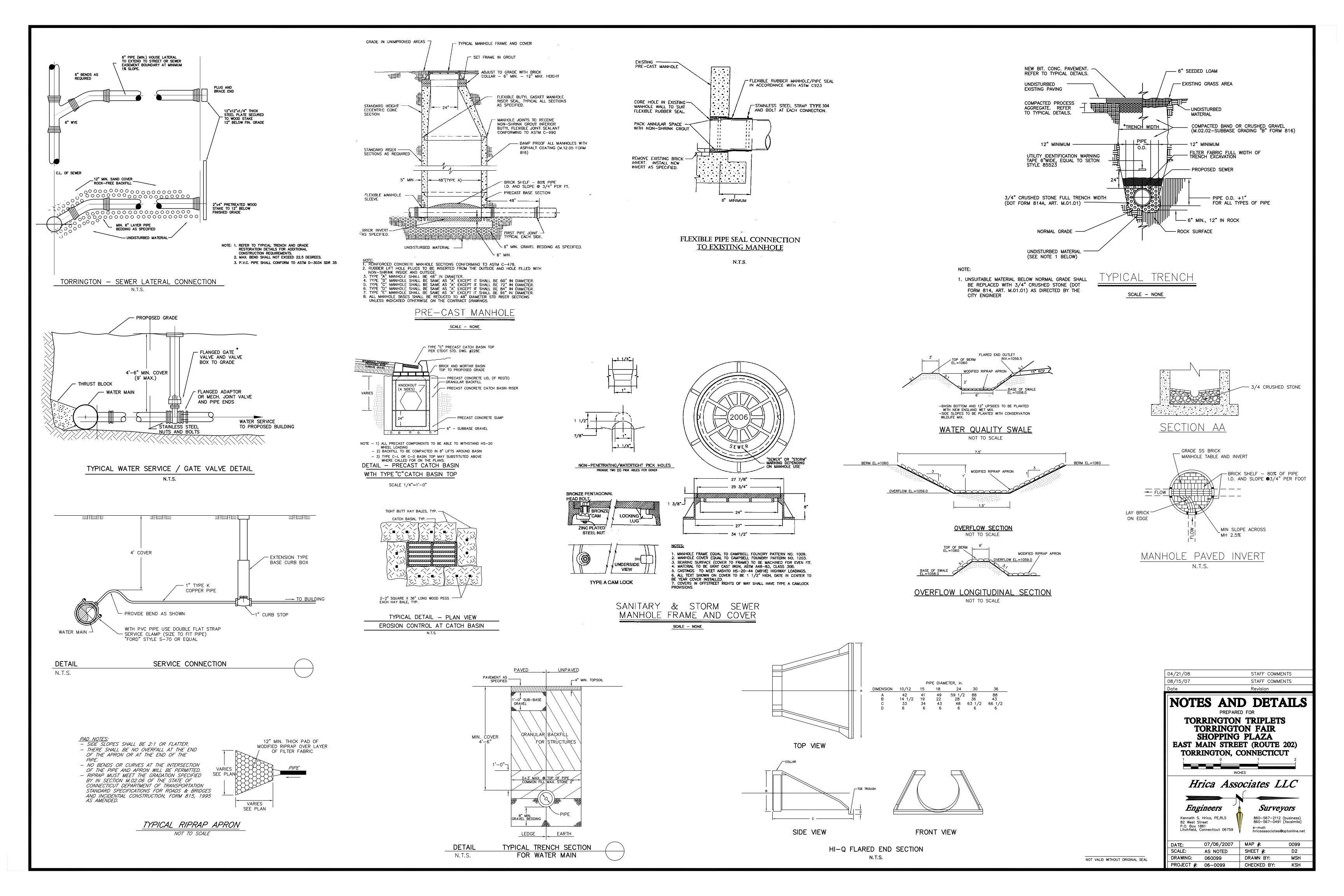












(TO) TOPSOILING

SITE INVESTIGATIONS SHALL BE MADE TO DETERMINE IF THERE IS SUFFICIENT TOPSOIL OF GOOD QUALITY TO JUSTIFY STRIPPING. HIGH QUALITY TOPSOIL SHALL BE FRIABLE AND LOAMY (LOAM, SANDY LOAM SILT LOAM, SANDY CLAY LOAM, CLAY LOAM). OTHER SOIL TYPES WITH HIGH ORGANIC CONTENT MAY BE FOUND SUÍTABLE AFTER TESTING. IT SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, ROOTS, AND NOXIOUS WEEDS. IT SHALL GIVE EVIDENCE OF BEING ABLE TO SUPPORT HEALTHY VEGETATION. IT SHALL CONTAIN NO SUBSTANCE THAT IS POTENTIALLY TOXIC TO PLANT GROWTH.

ALL TOPSOIL SHALL BE TESTED BY A RECOGNIZED LABORATORY FOR THE FOLLOWING AND SHALL MEET THE REQUIREMENTS GIVEN: CONTAINING NOT LESS THAN 6% AND NOT MORE THAN 20% ORGANIC MATTER AS DETERMINED BY LOSS-ON-IGNITION OF OVEN DRIED SAMPLES DRIED AT 105 DEGREES CENTIGRADE. pH RANGE SHALL BE 6.0-7.5. IF pH IS LESS THAN 6.0, LIME SHALL BE ADDED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE VEGETATIVE ESTABLISHMENT

PRACTICE BEING USED. SOLUBLE SALTS SHALL NOT EXCEED 500 PPM. IF ADDITIONAL OFF-SITE TOPSOIL IS NEEDED, IT MUST MEET THE

STANDARDS STATED ABOVE.

STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. A 4 TO 6 INCH STRIPPING DEPTH IS COMMON, BUT DEPTH MAY VARY DEPENDING ON THE PARTICULAR SOIL. ALL PERIMETER DIKES. BASINS, AND OTHER SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO

- STOCKPILING -TOPSOIL SHALL BE STOCKPILED IN SUCH A MANNER THAT NATURAL DRAINAGE IS NOT OBSTRUCTED AND NO OFF-SITE SEDIMENT DAMAGE SHALL RESULT -TOPSOIL STOCKPILES NEED TO BE LOCATED AWAY FROM ALL CONSTRUCTION ACTIVITIES.

- SIDE SLOPES THE SIDE SLOPES OF ALL STOCKPILES SHALL NOT EXCEED 2 TO 1 - SEDIMENT BARRIER A SEDIMENT BARRIER OF GEOSYNTHETIC SILT FENCE SHALL SURROUND ALL TOPSOIL STOCKPILES.

- TEMPORARY SEEDING TEMPORARY SEEDING OF STOCKPILES SHALL BE COMPLETED WITHIN 30 DAYS OF THE FORMATION OF THE STOCKPILE, IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE COVER MEASURE.

BEFORE TOPSOILING, ESTABLISH NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS DIVERSIONS, GRADE STABILIZATION THESE MEASURES MUST BE MAINTAINED DURING TOPSOILING.

— GRADING STRUCTURES, WATERWAYS, SILT FENCE AND SEDIMENT BASINS.

PREVIOUSLY ESTABLISHED GRADES ON THE AREAS TO BE TOPSOILED SHALL BE MAINTAINED ACCORDING TO THE APPROVED PLAN. — LIMING WHERE THE pH OF THE SUBSOIL IS 6.0 OR LESS, GROUND

AGRICULTURAL LIMESTONE SHALL BE SPREAD IN ACCORDANCE WITH THE SOIL TEST OR THE VEGETATIVE ESTABLISHMENT PRACTICE BEING USED. BONDING AFTER THE AREA TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY DISCING SCARIFYING OR TRACKING TO A DEPTH OF AT LEAST 4 INCHES TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.

TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 4 INCHES. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
IT IS NECESSARY TO COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL AND TO OBTAIN A UNIFORM FIRM SEEDBED FOR THE ESTABLISHMENT OF A HIGH MAINTENANCE TURE HOWEVER LINDLE COMPACTION IS TO BE AVOIDED AS IT INCREASES. RUNOFF VELOCITY AND VOLUME, AND PREVENTS SEED GERMINATION.

- TOPSOIL AND HERBICIDES PERMANENT SEEDINGS OR SOD WILL NOT BE ESTABLISHED IN TOPSOIL THAT HAS BEEN TREATED WITH HERBICIDES WHICH WOULD INHIBIT GRASS GROWTH. TOPSOIL SO TREATED WILL BE STOCKPILED FOR ONE YEAR TO ALLOW BREAKDOWN OF HERBICIDE RESIDUES OR TOPSOIL WILL BE COVERED WITH 6 INCHES OF UNTREATED TOPSOIL TO SERVE AS A

Specifications

$\langle M \rangle$ MULCH

Mulch for seed, including tackifiers and nettings used to anchor much, shall be: Biodegradable or photo-degradable within 2 years but without substantial degradation over a period of 6 weeks, free of contaminants that pollute the air or waters of the State when properly applied, free of foreign material, coarse stems and any substance toxic to plant growth or which interferes with seed germination, and capable of being applied evenly such that it provides 80%-95% soil coverage and still adheres to the soil surface, does not slip on slopes when it rains or is watered, does not blow off site, dissipates raindrop splash, holds soil moisture, moderates soil temperatures and does not interfere with seed growth.

Types of mulches within this specification include, but are not limited to. Hay: The dried stems and leafy parts of plants cut and harvested, such as alfalfa, clovers, other forage legumes and the finer stemmed, leafy grasses. Stem length should not average less than 4 inches. Hay that can be windblown must be anchored. Preferred mulch when seeding occurs outside of the recommended seeding dates. Straw: Cut and dried stems of herbaceous plants, such as wheat barley, cereal rve, or broom. The average stem length should not be less than 4 inches. Straw that can be windblown should be anchored to hold it in place. Cellulose Fiber: Fiber origin is either virgin wood, post-industrial/pre-consumer wood or post consumer wood complying with materials specification (collectively referred to as "wood fiber"), newspaper, kraft paper, cardboard (collectively referred to as "paper fiber") or a combination of wood and paper fiber. Paper fiber, in particular, shall not contain boron, which inhibits seed aermination

Tackifiers within this specification include, but are not limited to: Water soluble materials that cause mulch particles to adhere to one another. Emulsified asphalt is specifically prohibited for use as tackifiers due to its potential for causing water pollution following its application.

Nettings with this specification include, but are not limited to: Prefabricated openwork fabrics made of cellulose cords, ropes, threads, or biodegradable synthetic material that is woven, knotted or molded in such a manner that it holds mulch in place until vegetation growth is sufficient to stabilize the soil. Generally used in areas where no mowing is planned. Examples of netting are tobacco netting (used where flows are not concentrated) and jute netting (typically used in drainage ways).

Where mulch anchoring is required a Temporary Erosion Control Blanket may be Timing: Applied immediately following seeding. Some cellulose fiber may be

applied with seed to assist in marking where seed has been sprayed, bu expect to apply a second application of cellulose fiber to meet the requirements of Mulch for Seed. Spreading: Mulch material shall be spread uniformly by hand or machine resulting in 80%-95% coverage of the disturbed soil when seeding within the recommended seeding dates. Applications that are uneven can result in excessive mulch smothering the germinating seeds. For hay or straw anticipate an application rate of 2 tons per acre. For cellulose fiber follow manufacturer's recommended application rates to provide 80%-95% coverage. When seeding outside the recommended seeding dates, increase mulch application rate to provide between 95%-100% coverage of the disturbed soil. For hay or straw anticipate an application rate of 2.5 to 3 tons per acre. When spreading have mulch by hand, divide the area to be mulched into approximately 1,000 square

feet and place 1.5-2 bales of hav in each section to facilitate uniform

distribution. For cellulose fiber mulch, expect several spray passes to attain

adequate coverage, to eliminate shadowing, and to avoid slippage (similar to spraving with paint). Anchoring: When needed, mulch anchoring is applied either with the mulch as with cellulose fiber or applied immediately following mulch application. Except the need for mulch anchoring along the shoulders of actively traveled roads, hill tops and long open slopes not protected by wind breaks. When using netting, the most critical aspect is to ensure that the netting maintains substantial contact with the underlying mulch and the mulch, in turn, maintains continuous contact with the soil surface.

Inspect mulched areas at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater until the grass has germinated to determine maintenance needs where mulch has been moved o where soil erosion has occurred, determine the cause of the failure. If it was the result of wind, then repair erosion damage (if any), re-apply mulch (and seed as needed) and consider applying a netting or tackifiers. If mulch failure was caused by concentrating water, install additional measures to control water and sediment movement, repair erosion damage, re—apply mulch and consider applying a netting or tackifiers or use the Temporary Erosion Control Blanket measure. Once grass has germinated, inspections should continue as required by Temporary Seeding and Permanent Seeding.

PERMANENT SEEDING

SEED WITH A PERMANENT SEED MIXTURE WITHIN 7 DAYS AFTER ESTABLISHING FINAL GRADES OR WHEN GRADING WORK WITHIN A DISTURBED ARE IS TO SUSPENDED FOR A PERIOD OF MORE THAN 1 YEAR, SEEDING IS RECOMMENDED FROM APRIL 1 THROUGH JUNE 15 AND AUGUST 15 THROUGH FOR THE COASTAL TOWNS AND IN THE CONNECTICUT RIVER VALLEY FINAL FALL SEEDING DATES CAN BE EXTENDED AN ADDITIONAL 15 DAYS, AND DORMANT OR FROST CRACK SEEDING IS DONE AFTER THE GROUND IS FROZEN.

A. SITE PREPARATION GRADE IN ACCORDANCE WITH THE SITE GRADING PLAN. INSTALL ALL SURFACE WATER CONTROLS. FOR AREAS TO BE MOWED REMOVE ALL STONES 2 INCHES OR LARGER. REMOVE ALL OTHER DEBRIS SUCH AS WIRE. CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUTIABLE MATERIAL.

ON AREAS WHERE WOOD CHIPS AND/OR BARK MULCH WAS PREVIOUSLY APPLIED, EITHER REMOVE THE MULCH OR INCORPORATE IT INTO THE SOIL WITH A NITROGEN FERTILIZER ADDED. NITROGEN APPLICATION RATE IS DETERMINED BY SOIL TEST AT TIME OF SEEDING; ANTICIPATE 121bs NITROGEN PER TON OF WOOD CHIPS AND/OR BARK MULCH. DO NOT USE PERMANENT SEEDING ON SLOPES STEEPER THAN 2 TO 1.

B. SEEDBED PREPARATION APPLY TOPSOIL IF NECESSARY. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF CONNECTICUT SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIOUS SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 300 POUNDS PER ACRE OR 7. POUNDS PER 1.000 SQUARE FEET USING 10-10-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS OF 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED FOR TOPDRESSING. APPLY GROUND LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AS FOLLOWS: SOIL TEXTURE TONS/AC. LBS./1000 SQ.FT. CLAY, CLAY LOAM AND

HIGH ORGANIC SOIL

SANDY LOAM, LOAM, LOAMY SAND, SAND REFER TO COUNTY SOIL SURVEY REPORT FOR SOIL TEXTURES AT WORK LIME AND FERTILIZE INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COURSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR

OTHER UNSUITABLE MATERIAL.
INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED SELECT A MIXTURE FROM BELOW OR USE MIXTURE RECOMMENDED BY THE SOIL CONSERVATION SERVICE. INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE AND AMOUNT OF INOCULANT. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDRÓSEEDINGS WHICH ARE MULCHED MAY BÉ LEFT WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OF LIGHT DRAG. SEEDING OPERATIONS SHOULD BE ON THE CONTOUR.

HYDRAULIC APPLICATION (HYDROSEEDING), IS A SUITABLE METHOD FOR USE IN CRITICAL ARES. WHEN HYDROSEEDING, A SEEDBED IS PREPARED IN THE CONVENTIONAL WY OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND TO REMOVE SURFACE STONES LARGER THAN SIX INCHES IN DIAMETER SLOPES MUST BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO 1 FOOT VERTICALLY). LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). FIBER MULCH DOES NOT IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH. SEEDING RATES MUST BE INCREASED 10 PERCENT WHEN SEED WARM SEASON GRASSES DURING THE SPRING PERIOD ONLY.

APPLY MULCH ACCORDING TO THE TEMPORARY MULCHING MEASURE OF THE GUIDELINES. IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES. USE THE TEMPORARY MULCHING MEASURE IN THE GUIDELINES TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD

MAINTENANCE INITIAL ESTABLISHMENT

INSPECT SEEDED AREA AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER DURING THE GROWING SEASON. WHERE SEED HAS BEEN REMOVED OR WHERE SOIL EROSION HAS OCCURRED DETERMINE THE CAUSE OF THE FAILURE BIRD DAMAGE MAY BE PROBLEM IF MULCH WAS APPLIED TO THINLY TO PROTECT SEED. RE-SEED AND RE-MULCH. IF MOVEMENT WAS THE RESULT OF WIND, REPAIR EROSION DAMAGE ANY), RE-APPLY SEED AND MULCH, AND APPLY MULCH ANCHORING FAILURE WAS CAUSED BY CONCENTRATED WATER, (1) INSTALL ADDITIONAL MEASURES TO CONTROL WATER AND SEDIMENT MOVEMENT, (2) REPAIR EROSION DAMAGE, (3) RE-SEED AND (4) RE-APPLY MULCH WITH ANCHORING OR USE "TEMPORARY ÈROSION CONTROL BLANKET AND /OR "PERMANENT TURE REINFORCEMENT MAT MEASURE CONTINUE INSPECTION UNTIL AT LEAST 100 PLANTS PER SQUARE FOOT HAVE GROWN AL LEAST 6 INCHES TALL OR UNTIL THE FIRST MOWNG.

ALLOW THE MAJORITY OF PLANTS TO ACHIEVE A HEIGHT OF AT LEAST 6 INCHES BEFORE MOWING THE FIRST TIME. DO NOT MOW WHILE THE SURFACE IS WET. MOWING WHILE THE SURFACE IS WET MAY PULL MANY SEEDLING FROM THE SOIL AND OFTEN LEAVES A SERIES OF UNNECESSARY RUTS. THE FIRST MOWING SHOULD REMOVE APPROXIMATELY ONE THIRD OF THE GROWTH, DEPENDING ON THE TYPE OF GRASS AND WHERE IT IS BEING USED. DO NOT MOW GRASS BELOW 3 INCHES. IF THE SEEDING WAS MULCHED, DO NOT ATTEMPTED TO RAKE OUT THE MULCHING MATERIAL. NORMAL MOWING WILL GRADUALLY REMOVE ALL UNWANTED DEBRIS. ONE THIRD OF THE GROWTH, DEPENDING ON THE TYPE OF GRASS

MOW AND FERTILIZE AT A RATE THAT SUSTAINS AN AREA CONDITION THAT SUPPORTS THE INTENDED USE. IF APPROPRIATE THE HEIGHT OF THE CUT MAY BE ADJUSTED DOWNWARD, BY DEGREES, AS NEW PLANTS BECOME ESTABLISHED. CARRY OUT ANY FERTILIZATION PROGRAM ACCORDANCE WITH APPROVED SOIL TEST THAT DETERMINE THE PROPER AMOUNT OF LIME AND FERTILIZER NEED TO MAINTAIN A VIGOROUS SOD YET PREVENT EXCESSIVE LEACHING OF NUTRIENTS TO THE GROUND-WATER OR RUNOFF TO SURFACE WATER. ALTHOUGH WEEDS MAY APPEAR TO BE A PROBLEM, THEY SHADE THE NEW SEEDLINGS AND HELP CONSERVE SURFACE MOISTURE. DO NOT APPLY WEED CONTROL UNTIL THE NEW SEEDLING HAVE BEEN

AND OTHER SPOIL BANKS

MOWED AT LEAST FOUR TIMES.	ONTIL THE NEW SEE	DLING HAVE BEEN	
ELECTING SEED MIX TO MATCH N AREA TO BE SEEDED		E NUMBER1	
AREA TO BE SEEDED	MIXIONE	NOMBERT	
	MOWING DESIRED	MOWING NOT REQUIRED	
BORROW AREAS, ROADSIDES,			
DIKES, LEVEES, POND BANKS			
AND OTHER SLOPES AND BANKS			
A) WELL OR EXCESSIVELY	1,2,3,4,5, OR 8	5,6,7,8,9,10,11,12,16,22	
DRAINED SOILS2	_		
B) SOMEWHAT POORLY DRAINED	2	5,6	
SOILS2	2	E C 11	
C) VARIABLE DRAINAGE SOILS2 DRAINAGE DITCH AND CHANNEL BANKS	_	5,6,11	
A) WELL OR EXCESSIVELY DRAINED SO			
B) SOMEWHAT POORLY DRAINED SOILS		9.10.11.12	
C) VARIABLE DRAINAGE SOILS2	2 2	3,10,11,12	
IVERSIONS	_		
A) WELL OR EXCESSIVELY DRAINED SC	OILS 2,3, OR 4	9,10,11	
B) SOMEWHAT POORLY DRAINED SOILS		, ,	
C) VARIABLE DRAINAGE SOILS	2		
EFFLUENT DISPOSAL		5 OR 6	
GRAVEL PITS3		26,27,28	
GULLIED AND ERODED AREAS		3,4,5,8,10,11,12	
MINESPOIL & WASTE			

15,16,17,18,26,27,28

(IF TOXIC SUBSTANCES AND PHYSICAL PROPERTIES NOT LIMITING)3 5 OR 6 SHORELINES (FLUCTUATING WATER LEVELS) KL SLOPES SOD WATERWAYS AND SPILLWAYS 1,2,3,4,6,7, OR 8 1,2,3,4,6,7, OR 8 SUNNY RECREATION AREAS (PICNIC AREAS AND PLAYGROUNDS OR DRIVING AND ARCHERY RANGES. NATURE TRAILS) CAMPING AND PARKING, NATURE 19,21, OR 23 TRAILS (SHADED) SAND DUNES (BLOWING SAND) WOODLAND ACCESS ROADS, SKID TRAILS AND LOG YARDING AREAS 9,10,16,22,26 LAWNS AND HIGH MAINTENANCE 1,19,21,0R 29

FOOTNOTES: 1 THE NUMBERS FOLLOWING IN THESE COLUMNS REFER TO SEED MIXTURES IN FOLLOWING TABLE. MIXES FOR SHADY AREAS ARE IN BOLD ITALICS PRINT (INCLUDING MIXES 20 THROUGH 24) 2 SEE COUNTY SOIL SURVEY FOR DRAINAGE CLASS. SOIL SURVEYS ARE AVAILABLE

D	FROM T	COUNTY SOIL SÚRVEY FOR DRAINAGE CLASS. SOIL SURVE' HE COUNTY SOIL AND WATER CONSERVATION DISTRICT OF MIX 26 WHEN SOIL PASSING A 200 MESH SIEVE IS LESS USE MIX 26 & 27 WHEN SOIL PASSING A 200 MESH SIE % OF TOTAL WEIGHT . USE MIX 26,27 & 28 WHEN SOIL	FICE. THAN 15% OF VE IS BETWE	TOTAL EN 15
	MESH S	SEED MIXTURES FOR PERMANENT		200
	<u>No.</u> 15	SEED MIXTURE (VARIETY)4 L KENTUCKY BLUEGRASS CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	<u>BS/ACRE</u> 20 20	LBS/1,000 SF .45 .45
		PERENNIAL RYEGRASS (NORLEA, MANHATTEN)	<u>5</u> OTAL 45	<u>.10</u> 1.00
	25	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN) REDTOP (STREEKER, COMMON) TALL FESCUE (KENTUCKY 31) OR SMOOTH PROMECRASS (SARATOCA LINCOLN)	20 2 <u>20</u> DTAL 42	.45 .05 <u>.45</u>
	35	BROMEGRASS (SARATOGA, LINCOLN) CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	20 20	.95 .45
		BIRDS FOOT TREFOIL (EMPIRE, VIKING) WITH INOCULANT1 TALL FESCUE (KENTUCKY 31) OR SMOOTH BROMEGRASS (SARATOGA, LINCOLN) TO	8 <u>20</u> DTAL 48	.20 <u>.45</u> 1.10
	45	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN) OR TALL FESCUE (KENTUCKY 31)	20 2	.45 .05
		REDTOP (STEEKER, COMMON) BIRDS FOOT TREFOIL (EMPIRE, VIKING) W/INOCULANT1 T	<u>8</u>	.03 . <u>20</u> .70
	55	WHITE CLOVER PERENNIAL RYE GRASS	10 TOTAL <u>2</u>	.25 <u>.05</u> .30
	65	CREEPING RED FESCUE REDTOP (STREEKER, COMMON) PERENNIAL RYE GRASS	20 2 <u>20</u> TOTAL 42	.50 .05 <u>.50</u> 1.05
	75	SMOOTH BROMEGRASS (SARATOGA, LINCOLN) PERENNIAL RYEGRASS (NORLEA, MANHATTEN) BIRDS FOOT TREFOIL (EMPIRE, VIKING) W/INOCULANT1	15 5 10	.35 .10 <u>.25</u>
	0.5		TOTAL 30	.79
	85	SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK) WEEPING LOVEGRASS LITTLE BLUESTEM (BLAZE, ALDOUS, CAMPER)	101 3 <u>10</u> 1 TOTAL 23	.25 .07 <u>.25</u> .57
	95	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN) CROWN VETCH (CHEMUING, PENNGIFT) WITH INNOCULANT1	10 15	.25 .35
		OR (FLATPEA (LATHCO) WITH INOCULANT1) TALL FESCUE (KENTUCKY 31) OR SMOOTH BROMEGRASS	(30) 15	(.75) .35
		(SARATOGA, LINCOLN) REDTOP (STREEKER, COMMON) TOTAL 4	2 (OR 57)	<u>.05</u> I.00 (OR 1.25)
1	05	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN) REDTOP (STREEKER, COMMON)	20 2	.45 .05
		CROWN VETCH (CHEMUING, PENNGIFT) WITH INNOCULANT1 OR (FLATPEA (LATHCO) WITH INOCULANT1) TOTAL 3	(30)	.35 (<u>.75)</u> 85 (OR 1.25)
1	15	BIRDS FOOT TREFOIL (EMPIRE, VIKING) WITH INOCULANT1 CROWN VETCH (CHEMUING, PENNGIFT) WITH INNOCULANT1 CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	8	.20 .35
1	26	SWITCHGRASS (BLACKWELL, SHELTER, CAVE—IN—ROCK) PERENNIAL RYEGRASS (NORLEA, MANHATTEN) CROWN VETCH (CHEMUING, PENNGIFT) WITH INNOCULANT1	101 5 15	.25 .10 <u>.35</u>
1	36	CROWN VETCH (CHEMUING, PENNGIFT) WITH INNOCULANT1 OR (FLATPEA (LATHCO) WITH INOCULANT1)	10 (30)	1.05 .25 (.75)
		SWITCHGRASS (BLACKWELL, SHELTER, CAVE—IN—ROCK) PERENNIAL RYEGRASS (NORLEA, MANHATTEN) TOTAL	51 <u>5</u> 20 (OR40)	.10 <u>.10</u> .45 (OR .95)
1	46	CROWN VETCH (CHEMUING, PENNGIFT) WITH INNOCULANT1 OR (FLATPEA (LATHCO) WITH INOCULANT1)	15 (30)	.35 (.75)
			1 <u>0</u> 25 (OR40)	.60 (OR 1.00)
7	56	SWITCHGRASS (BLACKWELL, SHELTER, CAVE—IN—ROCK) BIG BLUESTEM (NIAGRA, KAW) OR LITTLE BLUESTEM (BLAZE, ALSOUS,CAMPER)	5 5	.10 .10
		PERENNIAL RYEGRASS (NORLEA, MANHATTEN) BIRDS FOOT TREFOIL (EMPIRE, VIKING) WITH INOCULANT1	5 <u>5</u> TOTAL 20	.10 <u>.10</u> .40
1	66	TALL FESCUE (KENTUCKY 31) FLATPEA (LATHCO) WITH INOCULANT1	20 30 TOTAL 50	.45 <u>.75</u> 1.20
1	76	DEER TONGUE (TIOGA) WITH INOCULANT1	10	.25
		BIRDS FOOT TREFOIL (EMPIRE, VIKING) WITH INOCULANT1 PERENNIAL RYEGRASS (NORLEA, MANHATTEN)	8 <u>3</u> TOTAL 21	.20 <u>.07</u> .52
1	86	DEER TONGUE (TIOGA) WITH INOCULANT1 CROWN VETCH (CHEMUING, PENNGIFT) WITH INNOCULANT1 PERENNIAL RYEGRASS (NORLEA, MANHATTAN)	10 15 <u>3</u>	.25 .35 . <u>07</u>
1	95	CHEWINGS FESCUE	TOTAL 28	.67 .80
		HARD FESCUE COLONIAL BENTGRASS BIRDS FOOT TREFOIL (EMPIRE, VIKING) WITH INOCULANT1	30 5 10	.70 .10 .20
		PERENNIAL RYEGRASS	20 TOTAL 100	<u>.50</u>
	205	DELETED DUE TO INVASIVE SPECIES		
	215 225	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN) CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	TOTAL 60	1.35
2		TALL FESCUE (KENTUCKY 31) CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	<u>20</u> TOTAL 60 15	<u>.45</u> 3.60 .35
•		FLATPEA (LATHCO) WITH INOCULANT1	TOTAL 45	
		· ···-··· - · · · · · · · · · · · ·	TOTAL 150 3,500 MS /ACRE	3.60 1,345 CULMS/100 SF
2	66	SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK)	4.0	.10
		BIG BLUESTEM (NIAGRA, KAW) LITTLE BLUESTEM (BLAZE, ALDOUS, CAMPER) SAND LOVEGRASS (NE-27, BEND) BIRD'S-FOOT TREFOIL (EMPIRE VIKING)	4.0 2.0 1.5 2.0	.10 .05 .03 <u>.05</u>
2	75	FLATPEA (LATHCO)	TOTAL 13.5	.33 .20
_		PERENNIAL PEA (LANCER) CROWN VETCH (CHEMUNG, PENNGIFT) TALL FESCUE (KENTUCKY 31)	2 10	.05 .20
_	.0.5	,	TOTAL 24	. <u>20</u> .65
2	:85	ORCHARDGRASS (PENNLATE, KAY,POTOMAC) TALL FESCUE (KENTUCKY 31)	5 10	.10 .20
		REDTOP (STREEKER, COMMON) BIRD'S-FOOT TREFOIL (EMPIRE VIKING)	2 <u>5</u> TOTAL 22	.05 <u>.10</u> .45
2	9	TURF TYPE TALL FESCUE (BONANZA, MUSTANG,	175 – 250	

REBEL II, SPARTAN, JAGUAR) OR PERENNIAL RYE

("FUTURE 200" MIX: FIESTA II, BLAZER II, AND DASHER II)

1 USE PROPER INOCULANT FOR LEGUME SEEDS, USE FOUR TIMES RECOMMENDED RATE WHEN

2 USE PURE LIVE SEED (PLS) = (% GERMINATION × % PURITY)
EXAMPLE: COMMON BERMUDA SEED WITH 70% GERMINATION AND 80% PURITY=

70x80 100 OR 100 OR 56% 10LBS PLS/ACRE/56% = 17.9 LBS/ACRE OF BAGGED SEED 3 D.O.T. ALL PURPOSE MIX 4 WILD FLOWER MIX CONTAINING NEW ENGLAND ASTER, BABYS BREATH, BLACK EYE SUSAN, CATCHFLY, DWARF COLUMBINE, PURPLE CONEFLOWER, LANCED-LEAVED COREOPSIS,

CORNFLOWER, OX-EYE DAISY, SCARLET FLAX, FOXGLOVE, GAYFEATHER, ROCKY LARKSPUR,

SPANISH LARKSPUR, CORN POPPY, SPURRED SNAPDRAGON, WALLFLOWER AND/OR YARROW

BE ADDED TO ANY SEED MIX GIVEN. MOST SEED SUPPLIERS CARRY A WILD FLOWER MIXTURE THAT IS SUITABLE FOR THE NORTHEAST AND CONTAINS A VARIETY OF BOTH ANNUAL AND PERENNIAL FLOWERS. SEEDING RATES FOR THE SPECIFIC MIXTURES SHOULD BE FOLLOWED. CONSIDERED TO BE A COOL SEASON MIX. 6 CONSIDERED TO BE A WARM SEASON MIX.

(GSF) GEOSYNTHETIC SILT FENCE

SEDIMENT BARRIERS SPECIFICATIONS

GEOTEXTILE SILT FENCING MINIMUM REQUIREMENTS PHYSICAL PROPERTY MINIMUM REQUIREMENT FILTERING EFFICIENCY 75% (MIN) GRAB TENSILE STRENGTH (LBS.) ASTM D4632 100 LBS. ASTM D4632 MULLEN BURST STRENGTH **ASTM D3786** 250 PSI PUNCTURE STRENGTH ASTM 4833 NO LESS THAN 0.90MM APPARENT OPENING SIZE ASTM D4751 AND NO GREATER THAN 0.60 MM FLOW RATE ASTM D4491 0.2 GAL/FT2/MIN PERMATIVITY ASTM D4491 0.05 SEC. -1 (MIN) ULTRAVIOLET RADIATION 70% AFTER 500 HOURS ASTM-D4355 STABILITY % OF EXPOSURE (MIN)

GEOTEXTILE SILT FENCE SLOPE/ LENGTH LIMITATIONS SLOPE LENGTH AND WING SPACING SLOPE STEEPNESS 1 5:1 OR FLATTER 50 FEET

MATERIALS GEOTEXTILE FABRIC: SHALL BE A PERVIOUS SHEET OF POLYPROPYLENE, NYLON POLYESTER, ETHYLENE OR SIMILAR FILAMENTS AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS SHOWN. THE GEOTEXTILE SHALL BE NON-ROTTING, ACID AND ALKALI RESISTANT AND HAVE SUFFICIENT STRENGTH AND PERMEABILITY FOR THE PURPOSE INTENDED, INCLUDING HANDLING AND BACKFILLING OPERATIONS. FILAMENTS IN THE GEOTEXTILE SHALL BE RESISTANT TO ABSORPTION. THE FILAMENT NETWORK MUST BE DIMENSIONALLY STABLE AND RESISTANT TO DE-LAMINATION. THE GEOTEXTILE SHALL BE FREE OF ANY CHEMICAL TREATMENT OR COATING THAT WILL REDUCE ITS PERMEABILITY. THI GEOTEXTILE SHALL ALSO BE FREE OF ANY FLAWS OR DEFECTS WHICH WILL ALTER ITS PHYSICAL PROPERTIES. TORN OR PUNCTURED GEOTEXTILES SHALL NOT BE USED.

SUPPORTING POSTS: SHALL BE AT LEAST 42 INCHES LONG MADE OF EITHER 1.5 INCH SQUARE HARDWOOD STAKES OR STEEL POSTS WITH PROJECTIONS FOR FASTENING THE GEOTEXTILE POSSESSING A MINIMUM STRENGTH OF 0.5 POUND PER

PLACEMENT ON THE LANDSCAPE

INSTALLATION

MAINTENANCE

LOCATE 5-10 FEET DOWN GRADIENT FROM THE TOE OF THE SLOPE, GENERALLY ON THE CONTOUR WITH MAINTENANCE AND SEDIMENT REMOVAL REQUIREMENTS IN MIND. WHEN THE CONTOUR CANNOT BE FOLLOWED INSTALL THE FENCE SUCH THAT PERPENDICULAR WINGS ARE CREATED TO BREAK THE VELOCITY OF WATER FLOWING ALONG THE FENCE.

SWALES: LOCATE "U" SHAPE ACROSS SWALE SUCH THAT THE BOTTOM OF BOTH ENDS OF THE FENCE ARE HIGHER THAN THE TOP OF THE LOWEST SECTION OF THE

CATCH BASINS IN SWALE ON SLOPES: LOCATE 2 "U" SHAPES ACROSS SWALE AS ABOVE: ONE IMMEDIATELY UP SLOPE FROM THE CATCH BASIN AND THE OTHER IMMEDIATELY DOWN SLOPE FROM THE CATCH BASIN.

CATCH BASINS IN DEPRESSIONS: ENCIRCLE ENTIRE CATCH BASIN. CULVERT INLETS: LOCATE IN "U" SHAPES APPROXIMATELY 6 FEET FROM THE CULVERT IN THE DIRECTION OF THE INCOMING FLOW. CULVERT OUTLETS: LOCATE ACROSS THE SWALE AT LEAST 6 FEET FROM THE CULVERT OUTLET.

TRENCH EXCAVATION: EXCAVATE A TRENCH A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE ON THE UP SLOPE SIDE OF THE FENCE LOCATION. FOR SLOPE AND SWALE INSTALLATIONS, EXTEND THE ENDS OF THE TRENCH SUFFICIENTLY UP SLOPE SUCH THAT BOTTOM END OF THE FENCE WILL BE HIGHER THAN THE TOP OF THE LOWEST PORTION OF THE FENCE. WHEN THE FENCE IS NOT TO BE INSTALLED ON THE CONTOUR, EXCAVATE WING TRENCHES SPACED AT THE INTERVALS GIVEN IN TABLE ABOVE

SUPPORT POSTS: DRIVE SUPPORT POSTS ON THE DOWN SLOPE OF THE TRENCH TO A DEPTH OF AT LEAST 12 INCHES INTO ORIGINAL GROUND. INSTALL SUPPORT POSTS CLOSER THAN 10 FEET APART WHEN CONCENTRATED FLOWS ARE ANTICIPATED OR WHEN STEEP CONTRIBUTING SLOPES AND SOIL CONDITIONS ARE EXPECTED TO GENERATE LARGER VOLUMES OF SEDIMENT. FOR CATCH BASINS IN HOLLOWS, DRIVE POSTS AT EACH CORNER OF THE CATCH BASIN. GEOTEXTILE FILTER FABRIC: STAPLE OR SECURE THE GEOTEXTILE TO THE SUPPORT POSTS PER MANUFACTURER 'S INSTRUCTION SUCH THAT AT LEAST 6 INCHES OF GEOTEXTILE LIES WITHIN THE TRENCH. THE HEIGHT OF THE FENCE DOES NOT EXCEED 30 INCHES AND THE GEOTEXTILE IS TAUT BETWEEN THE POSTS. WHEN THE TRENCH IS OBSTRUCTED BY STONES, TREE ROOTS, ETC. ALLOW THE GEOTEXTILE TO LAY OVER THE OBSTRUCTION SUCH THAT THE BOTTOM OF THE GEOTEXTILE POINTS IN THE ABSENCE OF MANUFACTURER'S INSTRUCTIONS, SPACE WIRE STAPLES ON WOODEN STAKES AT A MAXIMUM OF 4 INCHES APART AND ALTERNATE THEIR POSITION FROM PARALLEL TO THE AXIS OF THE STAKE TO PERPENDICULAR. DO NOT STAPLE THE GEOTEXTILE TO LIVING TREES. PROVIDE REINFORCEMENT FOR THE FENCE WHEN IT CAN BE EXPOSED TO HIGH WINDS. WHEN JOINTS IN THE GEOTEXTILE FABRIC ARE NECESSARY, SPLICE TOGETHER ONLY AT

BACKFILL & COMPACTION: BACKFILL THE TRENCH WITH TAMPED SOIL OR AGGREGATE OVER THE GEOTEXTILE. WHEN THE TRENCH IS OBSTRUCTED BY A STONE. TREE ROOT, ETC. MAKE SURE THE BOTTOM OF THE GEOTEXTILE LIES HORIZONTAL ON THE GROUND WITH THE RESULTING FLAP ON THE UP SLOPE SIDE OF THE GEOTEXTILE AND BURY THE FLAP 6 INCHES OF TAMPED SOIL, OR AGGREGATE.

A SUPPORT POSTS, AND SECURELY SEAL (SEE MANUFACTURER'S

INSPECT THE SILT FENCE AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER TO DETERMINE MAINTENANCE NEEDS. WHEN USED FOR DEWATERING OPERATIONS, INSPECT FREQUENTLY BEFORE, DURING AND AFTER PUMPING OPERATIONS. REMOVE THE SEDIMENT DEPOSITS OR, IF ROOM ALLOWS, INSTALL A SECONDARY SILT FENCE UP SLOPE OF THE EXISTING FENCE WHEN SEDIMENT DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE EXISTING FENCE. REPLACE OR REPAIR THE FENCE WITHIN 24 HOURS OF OBSERVED FAILURE. FAILURE OF THE FENCE HAS OCCURRED WHEN SEDIMENT FAILS TO BE RETAINED BY THE FENCE BECAUSE: (A) THE BARRIER HAS BEEN OVER TOPPED, UNDERCUT OR BYPASSED BY RUNOFF (B) THE BARRIER HAS BEEN MOVED OUT OF POSITION. OR

WHEN REPETITIVE FAILURES OCCUR AT THE SAME LOCATION, REVIEW CONDITIONS AND LIMITATIONS FOR USE AND DETERMINE IF ADDITIONAL CONTROLS (E.G. TEMPORARY STABILIZATION OF CONTRIBUTING AREA, DIVERSIONS, STONE BARRIERS OR HAY BALE BACKING) ARE NEEDED TO REDUCE FAILURE RATE.MAINTAIN THE SILT FENCE UNTIL THE CONTRIBUTING AREA IS STABILIZED.AFTER THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE SILT FENCE.

RIP RAP

STANDARD RIPRAP: THIS MATERIAL SHALL CONFORM TO THE CONN DOT SPECIFICATIONS FOR RIPRAP AND THE FOLLOWING REQUIREMENTS: NOT MORE THAN 15 PERCENT OF THE RIPRAP SHALL BE SCATTERED SPALLS AND STONES LESS THAN 6 INCHES IN SIZE. NO STONE SHALL BE LARGER THAN 30 INCHES IN SIZE. AND AT LEAST 75 PERCENT OF THE MASS SHALL BE STONES AT LEAST 15 INCHES IN

d50 = 1.25 FEET or 15 INCHES INTERMEDIATE RIPRAP: THIS MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION:

PERCENT OF THE MASS LESS THAN 2" d50 = 0.67 FEET or 8 INCHES MODIFIED RIPRAP: THIS MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION:

STONE SIZE PERCENT OF THE MASS 10" OR OVER 20-50 4″ T□ 6″ 30-60 2" TO 4" 30-40 1" TD 2" 10-20 LESS THAN 1"

d50 = 0.42 FEET or 5 INCHES

DESIGN CRITERIA GRADATION

THE RIPRAP SHALL BE COMPOSED OF A WELL-GRADED MIXTURE DOWN TO THE ONE-INCH SIZE PARTICLE SUCH THAT 50 PERCENT OF THE MIXTURE BY WEIGHT SHALL BE LARGER THAN THE D-50 SIZE AS DETERMINED FROM THE DESIGN PROCEDURE. A WELL-GRADED MIXTURE AS USED HEREIN IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF THE LARGER STONE SIZES BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL THE PROGRESSIVELY SMALLER VOIDS BETWEEN THE STONES. THE DIAMETER OF THE LARGEST STONE SIZE IN SUCH A MIXTURE SHALL BE 1.5 TIMES THE D-50 SIZE.

- THICKNESS THE MINIMUM THICKNESS OF THE RIPRAP LAYER SHALL BE 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 12 INCHES. - QUALITY OF STONE INDIVIDUAL ROCK FRAGMENTS SHALL BE DENSE, SOUND AND FREE FROM CRACKS, SEAMS AND OTHER DEFECTS CONDUCIVE TO ACCELERATED WEATHERING. THE ROCK FRAGMENTS SHALL BE ANGULAR IN SHAPE. THE LEAST DIMENSION OF A INDIVIDUAL ROCK FRAGMENT SHALL BE NOT LESS THAN ONE-THIRD THE GREATEST DIMENSION OF FRAGMENT. THE STONE SHALL BE OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING, BE CHEMICALLY STABLE, AND SHALL BE SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED. THE BULK SPECIFIC GRAVITY (SATURATED SURFACE-DRY BASIS) OF THE INDIVIDUAL STONES SHALL BE AT LEAST 2.65.

D.O.T. STANDARD SPECIFICATIONS DO NOT ACCEPT ROUNDED STONE OR BROKEN CONCRETE FOR RIPRAP.

RIPRAP SHALL EXTEND UP THE BANKS OF THE CHANNEL TO A HEIGHT EQUAL TO THE MAXIMUM DEPTH OF FLOW OR TO A POINT WHERE VEGETATION CAN BE ESTABLISHED TO ADEQUATELY PROTECT THE THE RIPRAP SIZE TO BE USED IN A CHANNEL BEND SHALL EXTEND UPSTREAM FROM THE POINT OF CURVATURE AND DOWNSTREAM FROM THE POINT OF TANGENCY A DISTANCE OF AT LEAST 5 TIMES THE CHANNEL BOTTOM WIDTH. THE RIPRAP SHALL EXTEND ACROSS THE BOTTOM AND UP BOTH SIDES OF THE CHANNEL. WHERE RIPRAP IS USED ONLY FOR BANK PROTECTION AND DOFS NOT EXTEND ACROSS THE BOTTOM OF THE CHANNEL. RIPRAP SHALL BE KEYED

- RIPRAP FOR CHANNEL STABILIZATION

INTO THE BOTTOM OF THE CHANNEL TO A MINIMUM DEPTH EQUAL TO 1.5 TIMES MAXIMUM SIZE STONE AND SHALL EXTEND ACROSS THE BOTTOM OF THE CHANNEL THE SAME DISTANCE. - RIPRAP FOR SLOPE STABILIZATION RIPRAP FOR SLOPE STABILIZATION SHALL BE DESIGNED SO THAT THE NATURAL ANGLE OF REPOSE OF THE STONE MIXTURE IS GREATER THAN

THE GRADIENT OF THE SLOPE BEING STABILIZED.

 FILTER BLANKETS A FILTER BLANKET IS A LAYER OF MATERIAL PLACED BETWEEN THE RIPRAP AND THE UNDERLYING SOIL SURFACE TO PREVENT SOIL MOVEMENT INTO OR THROUGH THE RIPRAP. A FILTER BLANKET CAN BE EITHER A GRANULAR STONE LAYER OR A GEOTEXTILE FILTER FABRIC. FILTER BLANKETS OR BEDDING SHOULD ALWAYS BE PROVIDED WHERE SEEPAGE FROM UNDERGROUND SOURCES THEATENS THE STABILITY OF THE RIPRAP.

INSTALLATION REQUIREMENTS

- FILTER BLANKET

 SUBGRADE PREPARATION THE SUBGRADE FOR THE RIPRAP OR FILTER SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY APPROXIMATING THAT OF THE SURROUNDING UNDISTURBED MATERIAL. BRUSH, TREES, STUMPS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED.

PLACEMENT OF THE FILTER BLANKET SHOULD BE DONE IMMEDIATELY AFTER SLOPE PREPARATION FOR GRANULAR FILTERS THE STONE SHOULD BE SPREAD IN A UNIFORM LAYER TO THE SPECIFIED DEPTH. WHERE MORE THAN ONE LAYER OF FILTER MATERIAL IS USED, THE LAYERS SHOULD BE SPREAD SO THAT THERE IS MINIMAL MIXING OF THE FOR FABRIC FILTERS, THE MATERIAL SHOULD BE PLACED DIRECTLY ON THE PREPARED SLOPE. THE EDGES OF THE SHEETS SHOULD OVERLAP BY AT LEAST 12 INCHES. EITHER ANCHOR PINS OR WIRE STAPLES CAN BE USED. ANCHOR PINS, 15 INCHES LONG, SHOULD BE SPACED EVERY 3 FEET ALONG THE OVERLAP. ELEVEN GAUGE WIRE STAPLES. 6 TO 10 INCHES LONG WITH A 2 TO 6 INCH SPREAD CAN ALSO BE USED AT 3 FOOT SPACING. THE UPPER END OF THE FABRIC SHOULD BE BURIED A

MINIMUM OF 12 INCHES DEEP. THE LOWER END SHOULD BE TOED IN. CARE SHOULD BE TAKEN NOT TO DAMAGE THE FABRIC WHEN PLACING THE RIPRAP. IF DAMAGE OCCURS, THAT SHEET SHOULD BE REMOVED AND REPLACED. FOR LARGE STONE, 12 INCHES OR GREATER, A 4-INCH LAYER OF GRAVEL SHALL BE USED TO PREVENT DAMAGE TO THE MATERIAL, PROTECTION FROM ULTRAVIOLET RAYS AND TO PROVIDE INTERFACIAL CONTACT.

- STONE PLACEMENT PLACEMENT OF RIPRAP SHOULD FOLLOW IMMEDIATELY AFTER PLACEMENT OF THE FILTER. THE RIPRAP SHOULD BE PLACED TO ITS FULL SO THAT IT COURSE THICKNESSPRODUCES A DENSE WELL-GRADED MASS OF STONE WITH A MINIMUM OF VOIDS. THE DESIRED DISTRIBUTION OF STONES THROUGHOUT THE MASS MAY BE OBTAINED BY SELECTIVE LOADING AT THE QUARRY, CONTROLLED DUMPING OF SUCCESSIVE LOADS DURING FINAL PLACING, OR BY A COMBINATION OF THESE METHODS. THE RIPRAP SHOULD NOT BE PLACED BY DUMPING INTO CHUTES OR SIMILAR METHODS WHICH ARE LIKELY TO CAUSE SEGREGATION OF THE VARIOUS STONE SIZES. CARE SHOULD BE TAKEN NOT TO DISLODGE THE UNDERLYING MATERIAL WHEN PLACING THE STONES. THE FINISHED SLOPE SHOULD BE FREE OF POCKETS OF SMALL STONE OR CLUSTERS OF LARGE STONES. HAND PLACING MAY BE NECESSARY TO ACHIEVE THE REQUIRED GRADES AND A GOOD DISTRIBUTION OF STONE SIZES. FINAL THICKNESS OF THE RIPRAP BLANKET SHOULD BE WITHIN PLUS OR MINUS 1/4 OF THE SPECIFIED THICKNESS. TAKE CARE NOT TO DISLODGE THE UNDERLYING MATERIAL WHEN PLACING THE STONES. WHEN PLACING RIPRAP ON A GEOTEXTILE TAKE CARE NOT TO DAMAGE THE FABRIC, IF DAMAGED OCCURS, REMOVE AND REPLACE THE DAMAGED SHEET. FOR LARGE STONE, 12 INCHES OR GREATER, USE A 6 INCH LAYER OF FILTER OR BEDDING MATERIAL MAINTENANCE ONCE A RIPRAP INSTALLATION HAS BEEN COMPLETED. IT SHOULD

REQUIRE VERY LITTLE MAINTENANCE. IT SHOULD, HOWEVER, BE INSPECTED PERIODICALLY TO DETERMINE IF HIGH FLOWS HAVE CAUSED SCOUR BENEATH THE RIPRAP OR DISLODGED ANY OF THE STONE. PERIODIC REMOVAL OF LARGE TREES MAY BE REQUIRED TO INSURE THE INTEGRITY OF THE RIPRAP PROTECTION. REPAIR IMMEDIATELY UPON OBSERVED FAILURE.

(TS) TEMPORARY SEEDING

GRADE AS ACORDING TO PLAN TO ALLOW FOR THE USE OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH THE MEASURE FOR LAND GRADING PER THE GUIDELINES.
INSTALL NEEDED EROSION CONTROL MEASURES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, SEDIMENT BASINS AND GRASSED WATERWAYS.

LOOSEN THE TOPSOIL TO A DEPTH OF 3-4 INCHES WITH A SLIGHTLY

- SEEDBED PREPARATION

ROUGHENED SURFACE. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS (SUCH AS THOSE OFFERED BY THE UNIVERSITY OF CONNECTICUT SOIL TESTING LABORATORY.) SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATVIE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES. OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 300 POUNDS PER ACRE OR 7.5 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AS FOLLOWS: TONS/AC. LBS./1000SQ.FT. SOIL TEXTURE CLAY, CLAY LOAM AND 135 HIGH ORGANIC SOIL SANDY LOAM, LOAM, 90 LOAMY SAND, SAND

REFER TO COUNTY SOIL SURVEY REPORT FOR SOIL TEXTURES AT THE SITE.

-SEEDING SELECT SEED FROM RECOMMENDATIONS BELOW: SPECIES SEEDING RATES (LBS.) OPTIMUM SEEDING OPTIMUM SEED DATE (1) ANNUAL RYEGRASS 1.0 3/1 - 6/15 0. 5″ 8/1 - 10/1 PERFUNIAL RYEGRASS 1.0 0, 5" 3/15 - 6/15 8/1 - 10/1 WINTER RYE 4/15 - 6/15 1.0" 1. 0 8/15 - 10/1

(1) MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR CAN BE IRRIGATED. (2) SEED AT TWICE THE INDICATED DEPTH FOR SANDY SOILS. -APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDROSEEDINGS, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST

BE INCREASED 10 PERCENT WHEN HYDROSEEDING.

SEE GUIDELINES FOR ADDITIONAL SPECIES.

-MULCHING TEMPORARY SEEDING MADE FROM OPTIMUM SEEDING DATES SHALL BE MULCHED ACCORDING TO THE "MULCH FOR SEED" MEARSURE. NOTE WHEN SEEDING OUTSIDE OF THE OPTIMUM SEEDING DATES, INCREASE THE APPLICATION OF MULCH TO PROVIDE 95%-100% COVERAGE

SOIL EROSION AND SEDIMENT CONTROL MEASURES

GEOSYNTHETIC SILT FENCE TOP SOILING TEMPORARY SEEDING PERMANENT SEEDING MULCH FOR SEED HAY BALES

REFER TO: 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL DEP BULLETIN 34 FOR PROPER USAGE, INSTALLATION AND MAINTENANCE

REFER TO 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL INFORMATION ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN



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