

PROPERTY SURFACE SUMMARY			
EXISTING SUMMARY		SUMMARY AFTER PROJECT COMPLETION	
TOTAL BUILDINGS	32,089 ft ²	TOTAL BUILDINGS	43,433 ft ²
TOTAL PAVEMENT	78,511 ft ²	TOTAL PAVEMENT	61,120 ft ²
TOTAL IMPERVIOUS	110,600 ft ²	TOTAL IMPERVIOUS	104,553 ft ²
TOTAL PERVIOUS	1,895 ft ²	PERVIOUS INSIDE PROPERTY	9,657 ft ²
TOTAL PROPERTY AREA	112,495 ft ²	TOTAL PROPERTY AREA	112,495 ft ²

PERVIOUS ADDED OUTSIDE PROPERTY	8,368 ft ²
TOTAL PERVIOUS	18,025 ft ²

NORTH

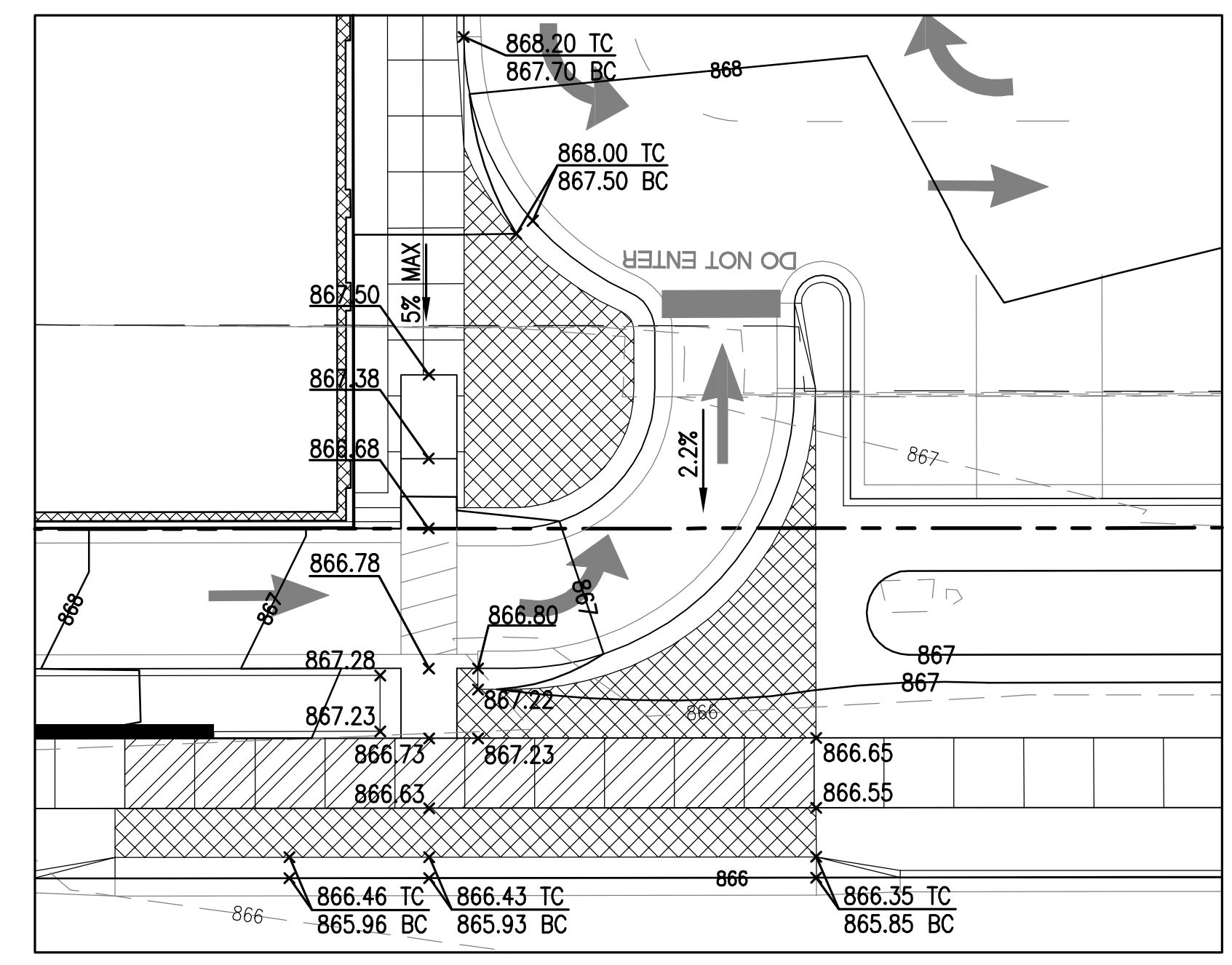
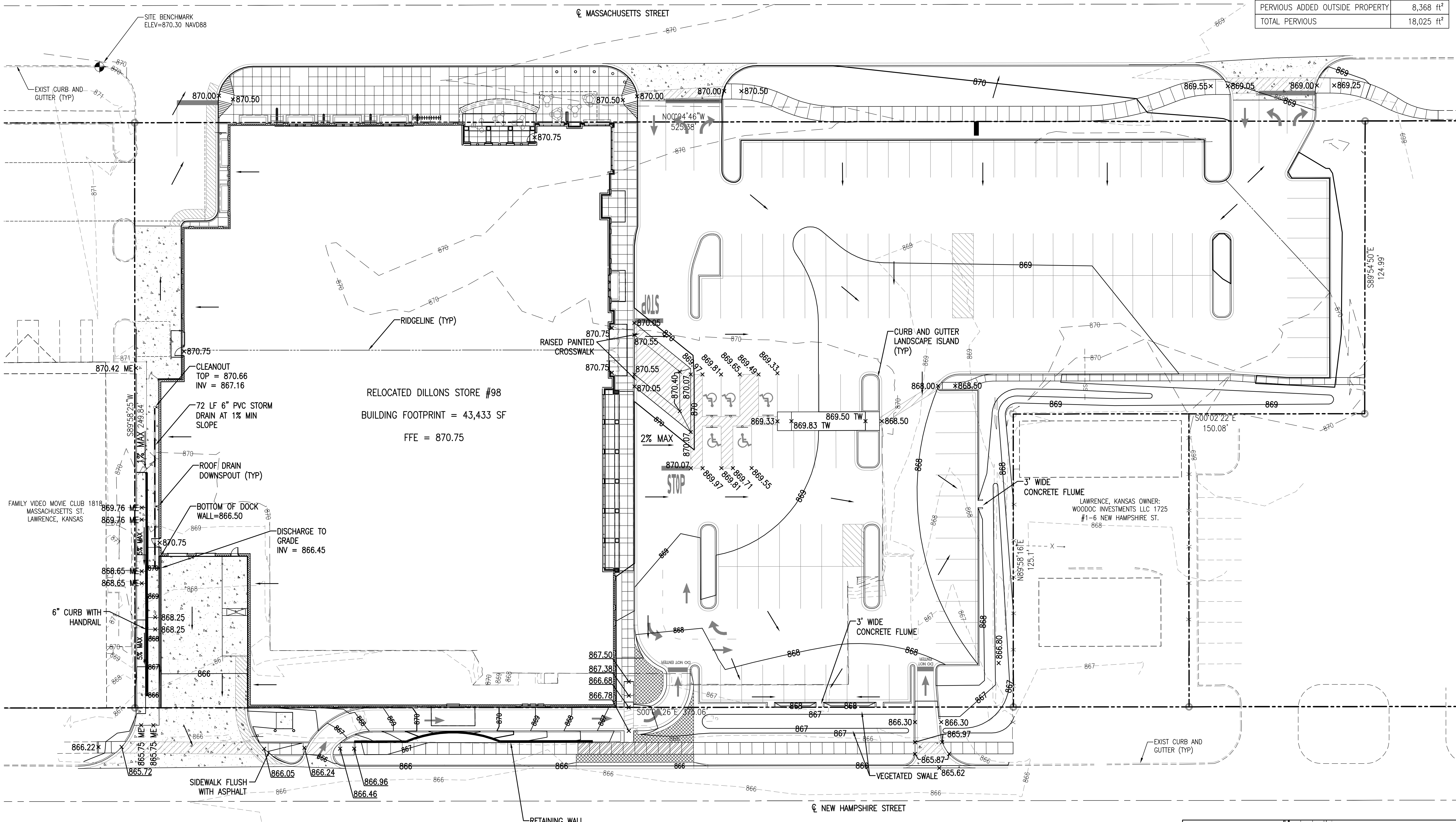
0 10 20 40

1 INCH = 20 FT

NOTE:
REPAIR ALL EXISTING PAVEMENT, CONCRETE CURB AND GUTTER, AND REPLACE SOD AND LANDSCAPING AS REQUIRED FOR UTILITY CONSTRUCTION.

SPECIAL FLOOD HAZARD STATEMENT:
ACCORDING TO THE FEMA/FIRM COMMUNITY PANEL NO. 20045C0038 C, EFFECTIVE NOVEMBER 7, 2001, THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN.

- GRADING AND DRAINAGE NOTES**
- CONTRACTOR TO VERIFY UTILITY COMPANY LOCATIONS AND VERTICAL DATA SHOWN ON PLANS. CONTACT UTILITY PROVIDERS BEFORE SITE EXCAVATION BEGINS.
 - PROPER DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE PROJECT SITE TO PREVENT THE INCREASE OF THE IN-SITU SOILS MOISTURE CONTENT. FLUCTUATIONS MAY NECESSITATE SOIL IMPROVEMENTS PER THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
 - ESTABLISH PERMANENT VEGETATION WITH SEEDING OR SOLID SOD ON DISTURBED AREAS.
 - DESIGN CONTOURS SHOWN ARE FINISHED GRADE.
 - SPOT ELEVATIONS SHOWN ARE FINISHED ASPHALT, GROUND OR CONCRETE ELEVATIONS. SPOT ELEVATIONS ON CURB LINES ARE ON THE BOTTOM OF CURB (GUTTER) UNLESS OTHERWISE NOTED.
 - CLEAR AND GRUB AREAS OF THE SITE WHERE CUT OR FILL IS TO OCCUR. REMOVE ORGANIC MATTER, FOREIGN MATERIAL, PAVEMENT, TOPSOIL, FENCES, TRASH, BRUSH, BURIED OBSTRUCTIONS SUCH AS TREE STUMPS, ROOTS AND INACTIVE DRAINAGE STRUCTURES. DISPOSE OF MATERIAL REMOVED WHICH IS NOT TO BE REPLACED. BURNING OF MATERIAL ON THE SITE WILL NOT BE PERMITTED.
 - MAXIMUM SLOPE IN ANY DIRECTION AT HANDICAP PARKING AREAS IS 2%. IF SLOPES IN THESE AREAS EXCEED 2%, NOTIFY THE DESIGNER IMMEDIATELY. THE MAXIMUM LONGITUDINAL SLOPE AT SIDEWALK IS 3% WITH A 2% MAXIMUM CROSS SLOPE.
 - STORM DRAINAGE PIPE SHALL BE SDR 35 PVC WITH ELASTOMERIC GASKET JOINTS PER THE DRAWING AND PROJECT SPECIFICATIONS.
 - EARTHWORK OPERATIONS SHALL BE PERFORMED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION.
 - FILL SHALL BE COMPACTED TO AT LEAST 95% OF THE MATERIAL'S MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D-698).
 - THE MOISTURE CONTENT OF FILL SOILS SHALL BE WITHIN THE RANGE OF ±2% THE OPTIMUM MOISTURE CONTENT.
 - SUBGRADES SHALL BE PROOF-ROLLED WITH A LOADED DUMP TRUCK TO DETECT ZONES OF UNSATURATED AND/OR EXCESSIVELY WET SOILS. IF PUMPING BEGINS, COMPACTOR SHALL BE STOPPED IMMEDIATELY AND RESUMED ONLY WHEN THE MATERIAL IS SUFFICIENTLY DRY THAT PUMPING DOES NOT OCCUR.
 - PROVIDE SUBGRADE FOR BUILDING PAD PER THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. THE EXPOSED SURFACE IN PAVEMENT OR BUILDING FLOOR AREAS SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER AND MAY REQUIRE SOME IMPROVEMENTS IF THE MOISTURE CONTENTS ARE BEYOND ACCEPTABLE LIMITS.
 - THE ENGINEERED FILL SUBGRADE SHALL PROVIDE A MAXIMUM ALLOWABLE BEARING PRESSURE OF 2,500 PSF. FOOTING AND FOUNDATION EXCAVATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER BEFORE PLACING FOUNDATIONS.
 - FILL MATERIAL SHOULD CONSIST OF MATERIALS APPROVED BY THE GEOTECHNICAL ENGINEER THAT ARE FREE OF ORGANIC MATTER AND DEBRIS. THE FILL SHOULD BE PLACED AND COMPACTED IN LIFTS OF 9 INCHES OR LESS IN LOOSE THICKNESS.
 - THE CONTRACTOR SHALL REMOVE SOILS WHICH DO NOT MEET OR EXCEED THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS TO WITHIN 5' HORIZONTALLY OF THE BUILDING PAD PER THE DIRECTION OF THE GEOTECHNICAL REPORT AND SHALL INSPECTED BY THE GEOTECHNICAL ENGINEER BEFORE DISPOSAL OF OFF SITE.
 - THE CONTRACTOR SHALL ENSURE STOCKPILED SOILS ARE WELL DRAINED AND ARE NOT ALLOWED TO INCREASE MOISTURE CONTENT.
 - THE TOP 4" (DIRECTLY BENEATH THE SLAB) SHALL BE FREE DRAINING COMPACTED GRANULAR LEVELING COURSE MEETING THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.
 - UPON COMPLETION OF THE FILLING OPERATION, CARE SHOULD BE TAKEN TO MAINTAIN THE SUBGRADE MOISTURE CONTENT PRIOR TO CONSTRUCTION OF THE FLOOR SLAB. IF THE SUBGRADE SHOULD BECOME DESICATED, THE AFFECTED MATERIAL SHOULD BE REMOVED OR THESE MATERIALS SHOULD BE SCARIFIED, MOISTENED AND RECOMPACTED PRIOR TO FLOOR SLAB PLACEMENT.
 - IN AREAS OF CONSTRUCTION, TOPSOIL SHALL BE STRIPPED AS REQUIRED BY THE GEOTECHNICAL REPORT. THIS TOPSOIL WILL BE USED FOR THE FINISH GRADING WORK. PROVIDE EROSION CONTROL AS NECESSARY TO PREVENT TOPSOIL FROM ERODING AND DAMAGING ADJACENT PROPERTIES.
 - SOFT SOILS SHALL BE USED ON SITE FOR FILL PURPOSES OUTSIDE THE AREAS OF BUILDING AND PAVEMENT CONSTRUCTION. EXCESS SOILS WILL BE DISPOSED OF OFFSITE.
 - FILL MATERIAL SHALL CONSIST OF NATURALLY OCCURRING EARTH MATERIALS WITH A PLASTICITY INDEX OF NOT MORE THAN 20%. IT SHALL BE FREE FROM ORGANIC MATTER AND CLAY BALLS WITH AN UPPER PARTICLE SIZE DIAMETER OF 2.5 INCHES.
 - PROVIDE NECESSARY AND REQUIRED SHEATHING BRACING, PUMPING & BAULING OPERATIONS TO PROTECT WORKMEN & ADJACENT FACILITIES. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW APPLICABLE SAFETY CODES & REGULATIONS DURING PHASES OF CONSTRUCTION.
 - DISTURBED AREAS SHALL BE GRADED TO DRAIN AS INDICATED ON THE PLANS DURING AND UPON COMPLETION OF CONSTRUCTION. NO DRAINAGE SHALL BE DAMMED OR TRAPPED UNLESS SPECIFICALLY DIRECTED BY THE PLANS.



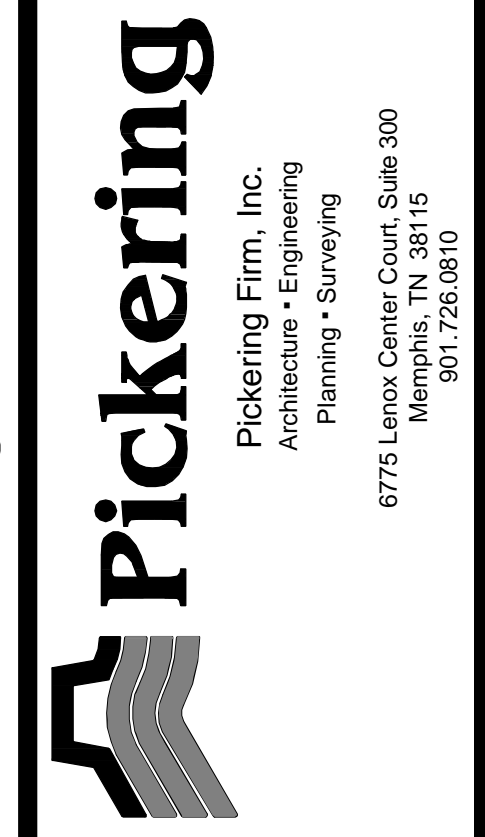
1A GRADING AND DRAINAGE PLAN
1" = 20'

4A ENLARGED NEW HAMPSHIRE DRIVE GRADING
1" = 10'

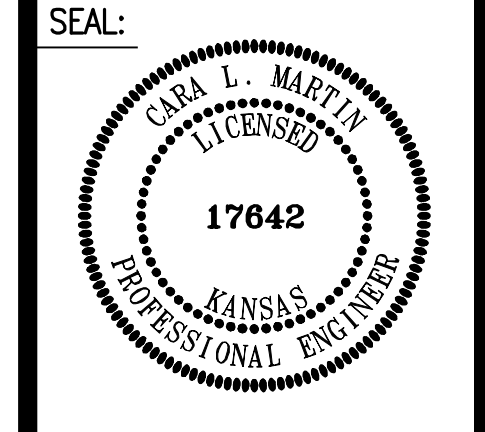
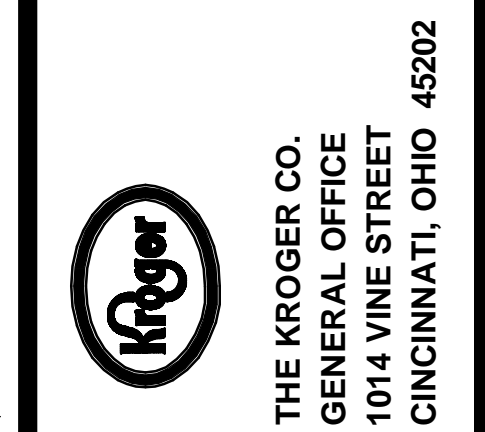
REVISIONS:

NO.	DATE	DESCRIPTION

PROJECT #: 21047-11
DATE: APRIL 2011
DRAWN BY: JML
DESIGNER: JML
CHECKED BY: CLM



DILLONS STORE #98 ON-SITE RELOCATION
1740 MASSACHUSETTS STREET
LAWRENCE, KS 66044



SHEET NUMBER:
C1.2

DESCRIPTION:
GRADING AND DRAINAGE PLAN