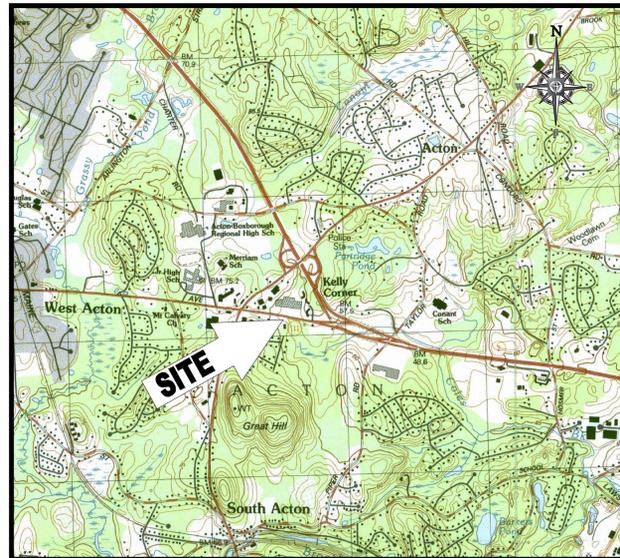


# SITE DEVELOPMENT PLANS

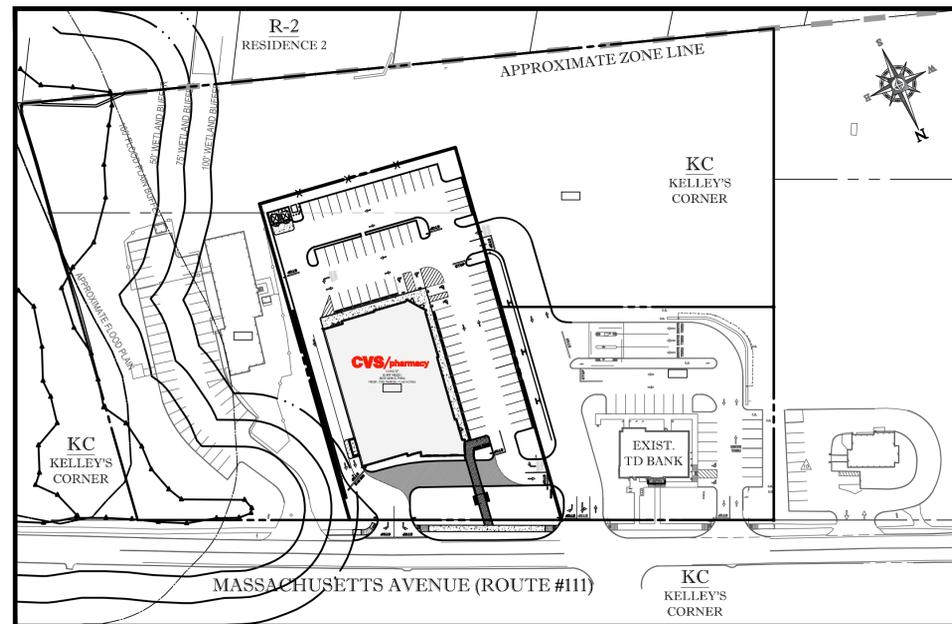
FOR:  
PROPOSED



LOCATION OF SITE:  
400 MASSACHUSETTS AVENUE (ROUTE #111)  
TOWN OF ACTON  
MIDDLESEX COUNTY, MASSACHUSETTS  
MAP 3F- LOTS 118-2, 127 & 128



LOCATION MAP  
SCALE: 1"=2000'  
PLAN REFERENCE: MASSGIS USGS IMAGE



AREA PLAN  
SCALE: 1"=80'

SHEET TITLE	SHEET NUMBER
COVER SHEET	1 OF 15
GENERAL NOTES SHEET	2 OF 15
DEMOLITION PLAN	3 OF 15
SITE PLAN	4 OF 15
GRADING & DRAINAGE PLAN A	5 OF 15
GRADING & DRAINAGE PLAN A	6 OF 15
UTILITY PLAN	7 OF 15
SOIL EROSION & SEDIMENT CONTROL PLAN	8 OF 15
SOIL EROSION CONTROL NOTES & DETAILS SHEET	9 OF 15
LANDSCAPE PLAN	10 OF 15
LANDSCAPE NOTES & DETAILS SHEET	11 OF 15
LIGHTING PLAN	12 OF 15
PAVING DETAIL SHEET	13 OF 15
CONSTRUCTION DETAIL SHEET	14 OF 15
CONSTRUCTION DETAIL SHEET	15 OF 15
BOUNDARY & TOPOGRAPHIC SURVEY (BY OTHERS)	1 OF 1

DRAWING INDEX



RELO  
STORE NUMBER: 706  
400 MASSACHUSETTS AVENUE  
ACTON, MA  
PROJECT TYPE: RELO  
DEAL TYPE: TK  
CS PROJECT NUMBER: 65315

ARCHITECT OF RECORD:



BKA Architects, Inc.  
Architecture + Interiors  
142 Crescent Street  
Brockton, MA 02302  
tel : 508.583.5603  
fax : 508.584.2914  
e-mail : bka@bkaarch.com

CIVIL CONSULTANT:



352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900  
Fax: (508) 480-9080  
www.BohlerEngineering.com

DEVELOPER:

**TRB** We Build Trust.  
TRB DEVELOPMENT  
GROUP, INC.  
36 LONDONDERRY TURNPIKE  
HOOKSETT, NH 03106  
TEL : 603-669-8500

W.D. GOEBEL

PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE No. 42644  
RHODE ISLAND LICENSE No. 7286  
CONNECTICUT LICENSE No. 21864  
NEW HAMPSHIRE LICENSE No. 10290  
MAINE LICENSE No. 9490  
NEW YORK LICENSE No. 07258-1  
FLORIDA LICENSE No. 96202

REVISIONS

REV:	DATE:	COMMENT:	BY:
1	07/08/13	REV. PER TOWN STAFF COMMENTS	CFD

DEVELOPER:

**TRB** We Build Trust.  
TRB DEVELOPMENT GROUP, INC.

PREPARED BY



CHECKED BY: JGS

DRAWN BY: KBS

DATE: 01/25/13

JOB NUMBER: W121033

TITLE:

COVER SHEET

SHEET NUMBER:

1

COMMENTS:  
NOT FOR CONSTRUCTION

P:\12\121033\DWG\W121033S1.dwg, 01/25/13, 10:17:14 AM, Kambler, Xeno\3101.dwg, 1/25/13, 11:11:11 AM

## GENERAL NOTES

CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS.

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:

- SURVEY: "BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED BY CONTROL POINT ASSOCIATES, INC., SOUTHBOROUGH, MA. SCALE: 1"=40', DATED 06/05/12, REVISED THROUGH 10/03/12.
- GEOTECH: "GEOTECHNICAL SUMMARY" PREPARED BY UTS OF MASSACHUSETTS, INC., DATED 3/28/13 OR LATEST EDITION.
- ENVIRONMENTAL: "WETLAND SITE INVESTIGATION" PREPARED BY LUCAS ENVIRONMENTAL, LLC, DATED OCTOBER 13, 2012.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST VERIFY THAT HE/SHE HAS THE LATEST EDITION OF THE DOCUMENTS REFERENCED ABOVE. THIS IS CONTRACTOR'S RESPONSIBILITY.

2. ALL ACCESSIBLE (AKIA ADA) PARKING SPACES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODES 4.1.3 (2)(1) AND 4.1.3 (4) (2) AND THE REQUIREMENTS OF THE JURISDICTION WHERE THE PROJECT IS TO BE CONSTRUCTED, AND ANY AND ALL AMENDMENTS TO BOTH WHICH ARE IN EFFECT WHEN THESE PLANS ARE COMPLETED.

3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND CONFIRMED THAT ALL NECESSARY OR REQUIRED PERMITS HAVE BEEN OBTAINED. CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.

4. THE OWNER/CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

5. ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.

THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORTS AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.

6. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING, IN WRITING, IMMEDIATELY IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.

7. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE OR REPAIRED DUE TO DIMENSIONS OR GRADERS SHOWN INCORRECTLY ON THESE PLANS PRIOR TO CONTRACTOR GIVING ENGINEER WRITTEN NOTIFICATION OF SAME AND ENGINEER, THEREAFTER, PROVIDING CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.

8. CONTRACTOR MUST REFER TO THE ARCHITECTURAL/BUILDING PLANS "OF RECORD" FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.

9. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE ENTIRE SITE PLAN AND THE LATEST ARCHITECTURAL PLANS INCLUDING, BUT NOT LIMITED TO, STRUCTURAL AND FIRE SUPPRESSION PLANS, WHERE APPLICABLE, CONTRACTOR MUST IMMEDIATELY NOTIFY ARCHITECT AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST.

10. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER CONTRACTOR.

11. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES.

12. THE CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT UTILITIES, BUILDINGS, AND STRUCTURES WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.

13. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-CURB, RE-PAVING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL, INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.

14. ALL CONCRETE MUST BE AIR ENTRAINED AND HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.

15. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEAN, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

16. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME.

17. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKERS COMPENSATION INSURANCE, EMPLOYERS LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (G.L.). ALL CONTRACTORS MUST HAVE THEIR OGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS MUST TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER ENGINEERING AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEY'S FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS, ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.

18. BOHLER ENGINEERING WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND/OR METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. HEREUNDER, BOHLER ENGINEERING'S SHOP DRAWING REVIEW WILL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM MUST NOT INDICATE THAT BOHLER ENGINEERING HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION CONTRACT DOCUMENTS AND IMMEDIATELY BROUGHT TO THE CONTRACTOR'S ATTENTION, IN WRITING, BY THE CONTRACTOR. BOHLER ENGINEERING WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

19. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER ENGINEERING, NOR THE PRESENCE OF BOHLER ENGINEERING AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE HEALTH OR SAFETY AND COMPLIANCE WITH ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER ENGINEERING AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. BOHLER ENGINEERING SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND MUST BE NAMED AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE IN NOTE 17 FOR JOB SITE SAFETY.

20. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS. ALL FINES ANDOR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, IN ACCORDANCE WITH PARAGRAPHS 19 HEREIN, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED TO SAME.

21. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE.

22. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED SUPPLEMENT.

23. ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTORS FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS. IF CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS.

24. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, IN STRICT ACCORDANCE WITH THE APPROVED PLANS) AND DESIGN AND, FURTHER ENGINEER IS NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.

25. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.

26. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.

27. CONTRACTOR AND OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.

28. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE.

29. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED APPLICATION DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER, THE USE OF THE WORDS CERTIFY OR CERTIFICATION CONSTITUTES AN EXPRESSION OF "PROFESSIONAL OPINION" REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESSED OR IMPLIED.

## GENERAL GRADING & UTILITY PLAN NOTES

1. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE INDEPENDENTLY CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS MUST BE INDEPENDENTLY CONFIRMED BY THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES MUST IMMEDIATELY BE REPORTED, IN WRITING, TO THE ENGINEER. CONSTRUCTION MUST COMMENCE BEGINNING AT THE LOWEST INVERT POINT OF CONNECTION AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.

2. CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK AREA, WHOEVER THE LIMITS OF DISTURBANCE ARE GREATER THAN THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.

3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS, RECORDS AND THE SPECIFICATIONS AND/OR CODES, REGULATIONS, LAWS, RULES, STATUTES AND/OR ORDINANCES, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD, IN WRITING, OF SAID CONFLICT AND/OR DISCREPANCY PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR'S FAILURE TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE CONTRACTOR'S FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES AND, FURTHER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME.

4. THE CONTRACTOR MUST LOCATE AND CLEARLY AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.

5. THE CONTRACTOR MUST FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REGULATIONS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

6. THE CONTRACTOR MUST INSTALL ALL STORM SEWER AND SANITARY SEWER COMPONENTS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.

7. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITY SERVICES WITH THE APPLICABLE CODES AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS WITH JURISDICTION AND/OR CONTROL OF THE SITE, AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY Tie-INS CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY SERVICES. WHERE A CONFLICT EXISTS BETWEEN THESE SITE PLANS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER, IN WRITING, AND PRIOR TO CONSTRUCTION, RESOLVE SAME.

8. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE MUST INCLUDE ALL COSTS TO COVER MATERIALS AND LABOR FOR INSTALLATION AND TO COMPLETE WORKING SERVICE. CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.

9. ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.

10. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL EXISTING MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS MUST BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. SUBGRADE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBGRADE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBGRADE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL, COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO EXCAVATING, BACKFILL, AND COMPACTING, AND CONFLICTS WITH THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES, EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.

11. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND MUST BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS, WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK BALANCE.

12. THE CONTRACTOR MUST COMPLY, TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER AGENCY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.

13. PAVEMENT MUST BE SAU CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.

14. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

15. DURING THE INSTALLATION OF SANITARY SEWER, STORM SEWER, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO BE USED FOR THE PROTECTION OF RECORDS OF THE PROJECT. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED IN THE UTILITY PLAN. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER AT THE COMPLETION OF WORK.

16. WHEN THE SITE IMPROVEMENT PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING BUT NOT LIMITED TO STORM SEWER, SANITARY SEWER, UTILITIES, AND IRRIGATION LINE, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. CONTRACTOR MUST CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A 2X4, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF THE WORK.

17. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR MUST CONFIRM AND ENSURE A 0.7% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT EXCEPT WHERE SHOWN OTHERWISE. CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER NOTIFICATION, MUST BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS THE DESIGN ENGINEER FOR ANY DAMAGES, COSTS, INJURIES, ATTORNEYS' FEES AND THE LIKE WHICH RESULT FROM SAME.

18. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY V ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF .03% GUTTER GRADE ALONG CURB FACE. IT IS CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING OUT SHEETS PRIOR TO INSTALLATION OF SAME.

19. REFER TO THIS SHEET FOR ADDITIONAL NOTES.

20. IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE AND CONTROL. CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER, IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.

21. CONTRACTOR MUST BE REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING WORK ANY WORK.

22. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTING/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSEE IN THE STATE WHERE THE CONSTRUCTION OCCURS.

23. STORM DRAINAGE PIPE UNLESS INDICATED OTHERWISE. ALL STORM SEWER PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SILT TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO AASHTO M24 AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT TIGHT JOINT. P.V.C PIPE FOR ROOF DRAIN CONNECTION MUST BE SDR 28 OR SCHEDULE 40 UNLESS INDICATED OTHERWISE.

24. SANITARY SEWER PIPE MUST BE POLYVINYL CHLORIDE (PVC) SDR 35 EXCEPT WHERE INDICATED OTHERWISE. SANITARY LATERAL MUST BE PVC SCHEDULE 40 OR PVC SDR 26 UNLESS INDICATED, IN WRITING, OTHERWISE.

25. STORM AND SANITARY SEWER PIPE LENGTHS INDICATED ARE NOMINAL AND MEASURED CENTER OF INLET AND/OR MANHOLES STRUCTURE TO CENTER OF STRUCTURE.

26. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON PRELIMINARY ARCHITECTURAL PLANS. CONTRACTOR IS RESPONSIBLE TO AND FOR VERIFYING LOCATIONS OF SAME BASED ON FINAL ARCHITECTURAL PLANS.

27. SEWERS CROSSING STREAMS AND/OR LOCATION WITHIN 10 FEET OF THE STREAM BANKMENT, OR WHERE SITE CONDITIONS SO INDICATE, MUST BE CONSTRUCTED OF STEEL, REINFORCED CONCRETE, DUCTILE IRON OR OTHER SUITABLE MATERIAL.

SEWERS CONVEYING SANITARY FLOW COMBINED SANITARY AND STORMWATER FLOW OR INDUSTRIAL FLOW MUST BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES MUST BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE GOVERNMENT AGENCY WITH JURISDICTION OVER SAME.

• WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER MUST BE PROVIDED.

28. WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER PURVEYOR. IN THE ABSENCE OF SUCH REQUIREMENTS, WATER MAIN PIPING MUST BE CEMENT-LINED DUCTILE IRON (CPI) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE APPLICABLE ANWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.

29. CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SEWER, WATER AND STORM SYSTEMS, MUST BE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL COUNTY ANDOR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSTALLATION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.

30. WHERE BASEMENTS ARE TO BE PROVIDED FOR PROPOSED DWELLING UNITS, THE ENGINEER SHALL, BY BORING OR BY TEST PIT, DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED DWELLINGS. WHERE GROUNDWATER IS DEVELOPED IN THE BASEMENT AREA, BASEMENTS WILL NOT BE INSTALLED UNLESS SPECK'S CONSTRUCTION METHODS ARE TO BE REVIEWED AND APPROVED BY THE MUNICIPAL CONSTRUCTION CODE OFFICIAL. IF AND WHERE SUMP PUMPS ARE INSTALLED, ALL DISCHARGES MUST BE CONNECTED TO THE STORM SEWER. A CLEANOUT MUST BE PROVIDED PRIOR TO THE CONNECTION TO THE STORM DRAIN IN ORDER THAT BLOCKAGES CAN BE ADDRESSED.

FOR SINGLE AND TWO-FAMILY RESIDENTIAL PROJECTS, WHERE THE PROPOSED DWELLING AND ADJACENT SPOT ELEVATIONS ARE SCHEMATIC FOR GENERIC BUILDING FOOTPRINT, GRADES MUST BE ADJUSTED BASED ON FINAL ARCHITECTURAL PLANS TO PROVIDE A MINIMUM OF SIX (6) INCHES BELOW TOP OF BLOCK AND/OR SIX (6) INCHES BELOW SIDING, WHICHEVER IS LOWEST, AND MUST PROVIDE POSITIVE DRAINAGE (2% MIN) AWAY FROM DWELLING. ALL CONSTRUCTION, INCLUDING GRADING, MUST COMPLY WITH THE LATEST LOCAL AND STATE BUILDING CODE AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

31. LOCATION OF PROPOSED UTILITY POLE LOCATION IS AT THE SOLE DISCRETION OF UTILITY COMPANY.

32. CONSULTANT IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, SHALL HAVE NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE SUBSURFACE.

## GENERAL DEMOLITION NOTES

1. THIS PLAN REFERENCES DOCUMENTS AND INFORMATION BY:

CONTROL POINT ASSOCIATES, INC.  
352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
DATED: 06/05/12 REVISED THROUGH 10/03/12 AND SCALED 1"=40'

2. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 et seq.), AS AMENDED AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.

3. BOHLER ENGINEERING HAS NO CONTRACTUAL, LEGAL, OR OTHER RESPONSIBILITY FOR JOB SITE SAFETY OR JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME.

4. THE DEMOLITION PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION ONLY. REGARDING ITEMS TO BE DEMOLISHED AND/OR REMOVED, THE CONTRACTOR MUST ALSO REVIEW THE OTHER SITE PLAN DRAWINGS AND INCLUDE IN DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.

5. CONTRACTOR MUST RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES PERFORMING THE WORK ON THIS PROJECT, WITH BOHLER ENGINEERING, IN WRITING, AND RESPONDED TO BY BOHLER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.

6. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR IS RESPONSIBLE FOR TO:

A. OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES HAVING JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK AND DEMOLITION WORK.

## ADA INSTRUCTIONS TO CONTRACTOR:

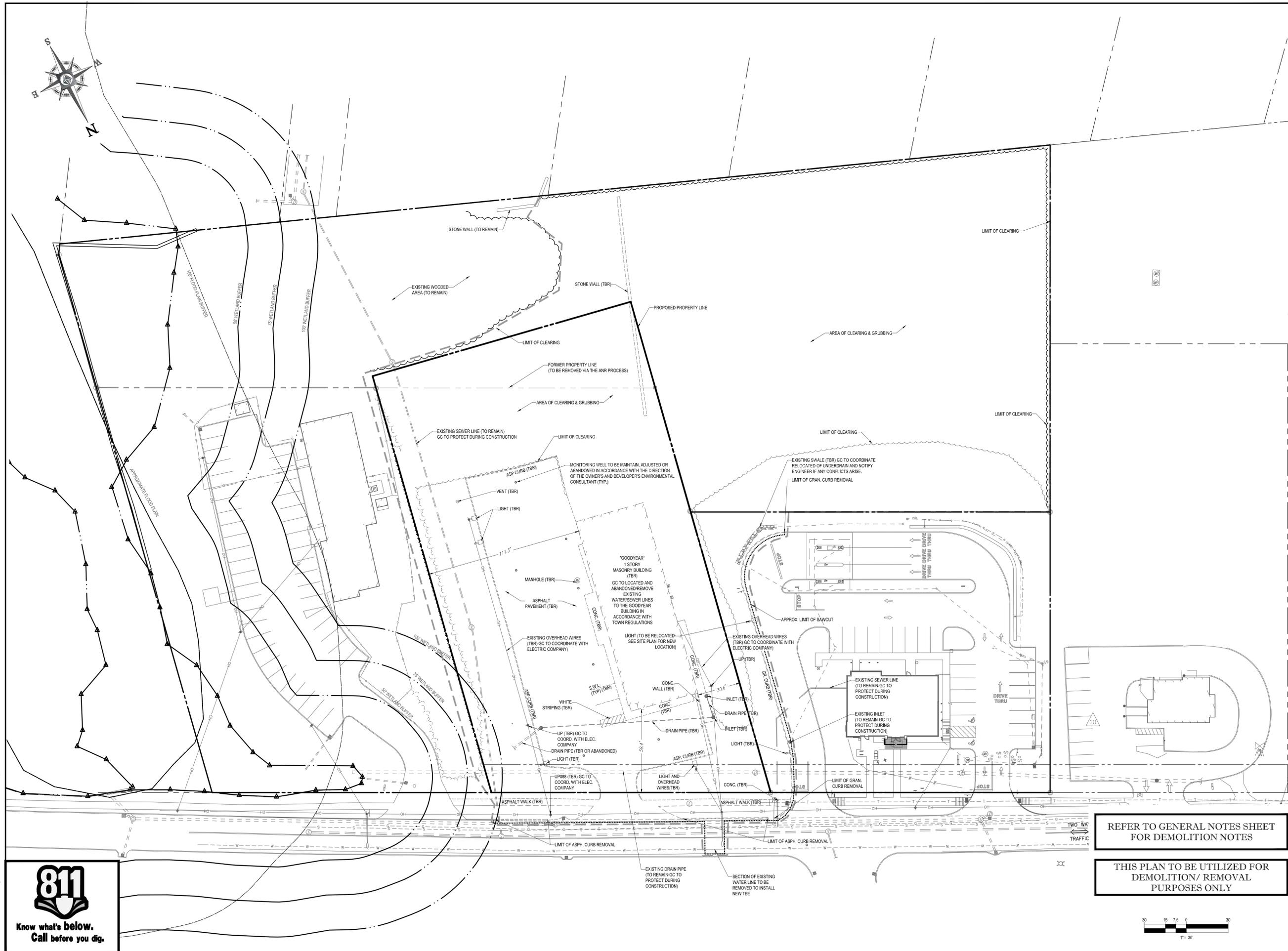
CONTRACTORS MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA (HANDICAP) ACCESSIBLE COMPONENTS AND ACCESS ROUTES FOR THE SITE. THESE COMPONENTS, AS CONSTRUCTED, MUST COMPLY WITH ALL APPLICABLE STATE AND LOCAL ACCESSIBILITY LAWS AND REGULATIONS AND THE CURRENT ADA AND/OR STATE ARCHITECTURAL ACCESS BOARD STANDARDS AND REGULATIONS BARRIER FREE ACCESS AND ANY MODIFICATIONS, REVISIONS OR UPDATES TO SAME. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THESE ADA AND/OR ARCHITECTURAL ACCESS BOARD CODE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

• PARKING SPACES AND PARKING AISLES - SLOPE SHALL NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

• CURB RAMPS - SLOPE MUST NOT EXCEED 1:12 (8.33%) FOR A MAXIMUM OF SIX (6) FEET.

• LANDINGS - MUST BE PROVIDED AT EACH END OF RAMPS, MUST PROVIDE POSITIVE DRAINAGE, AND MUST NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

• PATH OF TRAVEL ALONG ACCESSIBLE ROUTE - MUST PROVIDE A 36-INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS CANNOT



RELO  
 STORE NUMBER: 706  
 400 MASSACHUSETTS AVENUE  
 ACTON, MA  
 PROJECT TYPE: RELO  
 DEAL TYPE: TK  
 CS PROJECT NUMBER: 65315

ARCHITECT OF RECORD:  
**bka**  
 BKA Architects, Inc.  
 Architecture + Interiors  
 142 Crescent Street  
 Brockton, MA 02302  
 tel : 508.583.5603  
 fax : 508.584.2914  
 e-mail : bka@bkaarch.com

CIVIL CONSULTANT:  
  
**BOHLER**  
 ENGINEERING  
 352 TURNPIKE ROAD  
 SOUTHBOROUGH, MA 01772  
 Phone: (508) 480-9900  
 Fax: (508) 480-9080  
 www.BohlerEngineering.com

DEVELOPER:  
**TRB** We Build Trust.  
 TRB DEVELOPMENT  
 GROUP, INC.  
 36 LONDONDERRY TURNPIKE  
 HOOKSETT, NH 03106  
 TEL : 603-669-8500

**W.D. GOEBEL**  
 PROFESSIONAL ENGINEER  
 MASSACHUSETTS LICENSE No. 42644  
 RHODE ISLAND LICENSE No. 7288  
 CONNECTICUT LICENSE No. 21854  
 NEW HAMPSHIRE LICENSE No. 10290  
 MAINE LICENSE No. 9490  
 NEW YORK LICENSE No. Q12584-1  
 FLORIDA LICENSE No. 96202

REVISIONS

REV:	DATE:	COMMENT:	BY:
1	07/08/13	REV. PER TOWN STAFF COMMENTS	CFD

CHECKED BY: JGS  
 DRAWN BY: KBS  
 DATE: 01/25/13  
 JOB NUMBER: W121033  
 TITLE: **DEMOLITION PLAN**  
 SHEET NUMBER: **3**

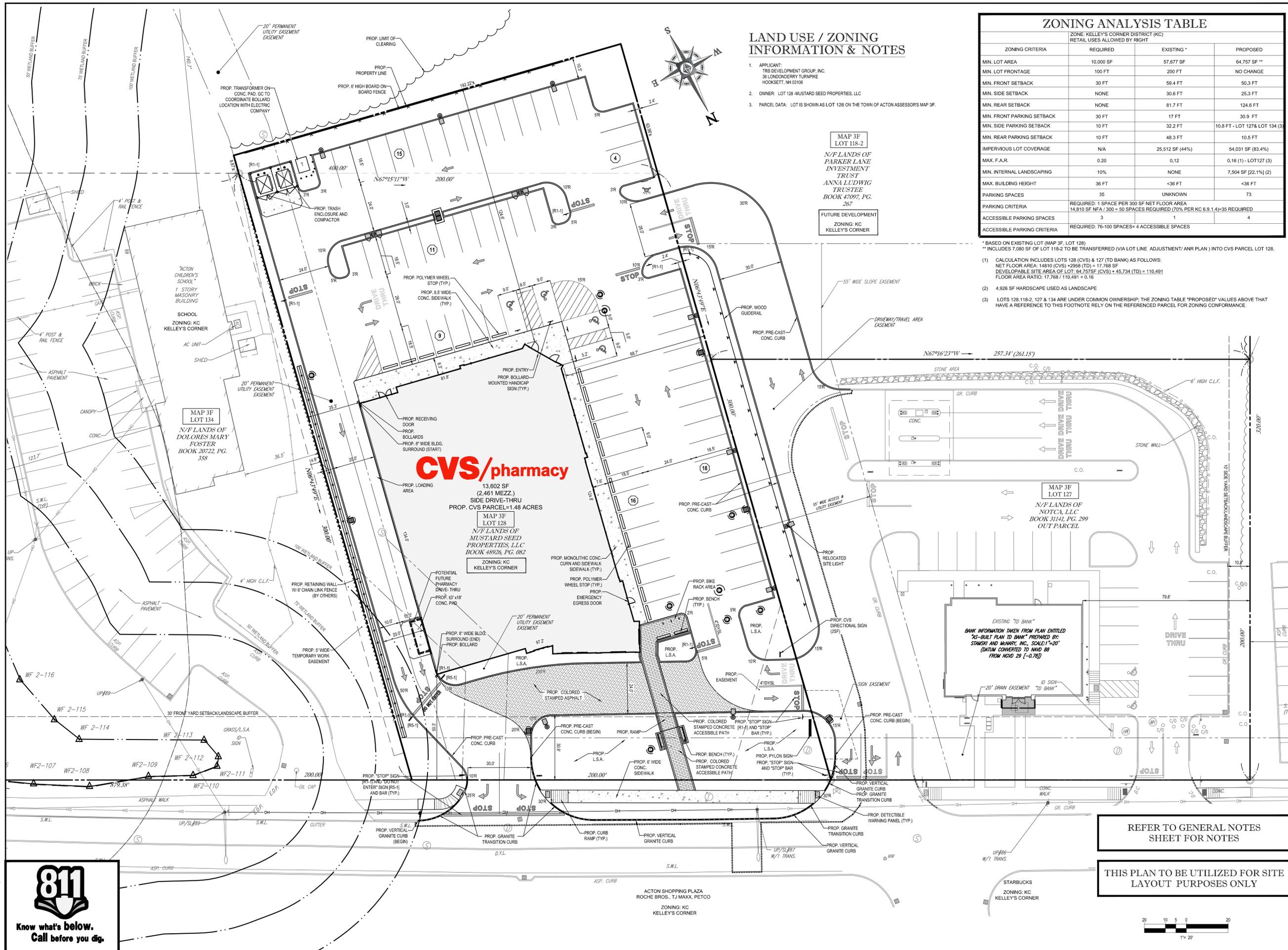
COMMENTS:  
 NOT FOR CONSTRUCTION

REFER TO GENERAL NOTES SHEET FOR DEMOLITION NOTES

THIS PLAN TO BE UTILIZED FOR DEMOLITION/ REMOVAL PURPOSES ONLY



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**LAND USE / ZONING INFORMATION & NOTES**

1. APPLICANT: TRB DEVELOPMENT GROUP, INC. 36 LONDONDERRY TURNPIKE HOOKSETT, NH 0308
2. OWNER: LOT 128 MUSTARD SEED PROPERTIES, LLC
3. PARCEL DATA: LOT IS SHOWN AS LOT 128 ON THE TOWN OF ACTON ASSESSOR'S MAP 3F.

MAP 3F LOT 118-2  
 N/L LANDS OF PARKER LANE INVESTMENT TRUST ANNA LUDWIG TRUSTEE BOOK 47097, PG. 267  
 FUTURE DEVELOPMENT ZONING: KC KELLEY'S CORNER

ZONING ANALYSIS TABLE			
ZONE: KELLEY'S CORNER DISTRICT (KC) RETAIL USES ALLOWED BY RIGHT			
ZONING CRITERIA	REQUIRED	EXISTING *	PROPOSED
MIN. LOT AREA	10,000 SF	57,677 SF	64,757 SF **
MIN. LOT FRONTAGE	100 FT	200 FT	NO CHANGE
MIN. FRONT SETBACK	30 FT	59.4 FT	50.3 FT
MIN. SIDE SETBACK	NONE	30.6 FT	25.3 FT
MIN. REAR SETBACK	NONE	81.7 FT	124.6 FT
MIN. FRONT PARKING SETBACK	30 FT	17 FT	30.9 FT
MIN. SIDE PARKING SETBACK	10 FT	32.2 FT	10.8 FT - LOT 127& LOT 134 (3)
MIN. REAR PARKING SETBACK	10 FT	48.3 FT	10.5 FT
IMPERVIOUS LOT COVERAGE	N/A	25,512 SF (44%)	54,031 SF (83.4%)
MAX. F.A.R.	0.20	0.12	0.16 (1) - LOT127 (3)
MIN. INTERNAL LANDSCAPING	10%	NONE	7,504 SF [22.1%] (2)
MAX. BUILDING HEIGHT	36 FT	<36 FT	<36 FT
PARKING SPACES	35	UNKNOWN	73
PARKING CRITERIA	REQUIRED: 1 SPACE PER 300 SF NET FLOOR AREA 14,810 SF NFA / 300 = 50 SPACES REQUIRED (70% PER KC 6.9.1.4)-35 REQUIRED		
ACCESSIBLE PARKING SPACES	3	1	4
ACCESSIBLE PARKING CRITERIA	REQUIRED: 76-100 SPACES= 4 ACCESSIBLE SPACES		

\* BASED ON EXISTING LOT (MAP 3F, LOT 128)  
 \*\* INCLUDES 7,000 SF OF LOT 118-2 TO BE TRANSFERRED (VIA LOT LINE ADJUSTMENT/ ANR PLAN ) INTO CVS PARCEL LOT 128.  
 (1) CALCULATION INCLUDES LOTS 128 (CVS) & 127 (TD BANK) AS FOLLOWS:  
 NET FLOOR AREA: 14810 (CVS) + 2998 (TD) = 17,808 SF  
 DEVELOPABLE SITE AREA OF LOT: 64,757 SF (CVS) + 45,734 (TD) = 110,491  
 FLOOR AREA RATIO: 17,808 / 110,491 = 0.16  
 (2) 4,926 SF HARDSCAPE USED AS LANDSCAPE  
 (3) LOTS 128, 118-2, 127 & 134 ARE UNDER COMMON OWNERSHIP. THE ZONING TABLE "PROPOSED" VALUES ABOVE THAT HAVE A REFERENCE TO THIS FOOTNOTE RELY ON THE REFERENCED PARCEL FOR ZONING CONFORMANCE.

**CVS/pharmacy**

13,802 SF (2,461 MEZZ.)  
 SIDE DRIVE-THRU  
 PROP. CVS PARCEL: 1.48 ACRES

MAP 3F LOT 128  
 N/L LANDS OF MUSTARD SEED PROPERTIES, LLC  
 BOOK 48926, PG. 082  
 ZONING: KC KELLEY'S CORNER

REFER TO GENERAL NOTES SHEET FOR NOTES

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY



RELO  
 STORE NUMBER: 706  
 400 MASSACHUSETTS AVENUE  
 ACTON, MA  
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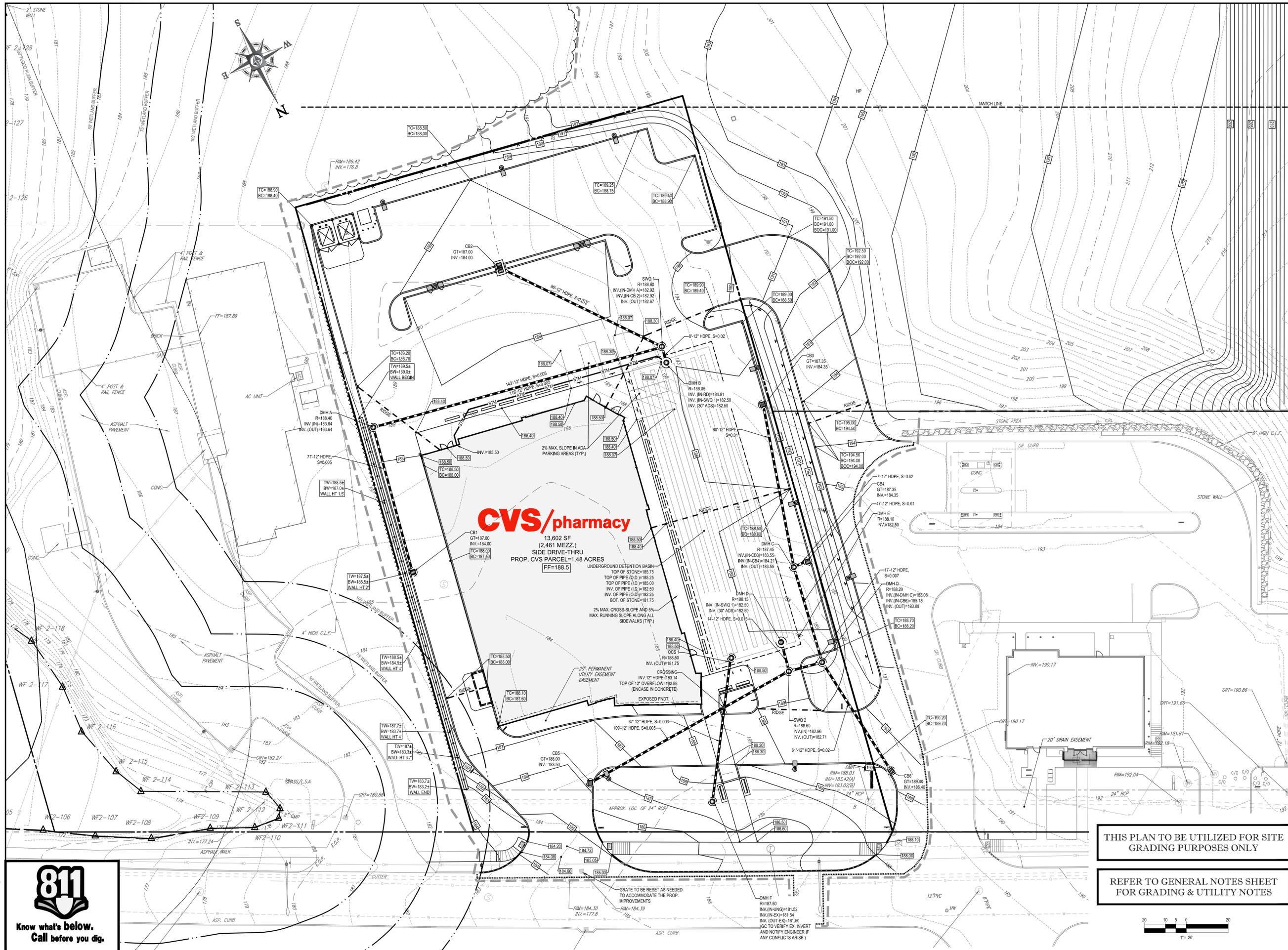
REV:	DATE:	COMMENT:	BY:
1	07/08/13	REV. PER TOWN STAFF COMMENTS	CFD

CHECKED BY: JGS  
 DRAWN BY: KBS  
 DATE: 01/25/13  
 JOB NUMBER: W121033  
 TITLE: SITE PLAN  
 SHEET NUMBER: 4

COMMENTS:  
 NOT FOR CONSTRUCTION



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**CVS/pharmacy**

13,602 SF  
(2,481 MEZZ.)  
SIDE DRIVE-THRU  
PROP. CVS PARCEL=1.48 ACRES  
FF=188.5

UNDERGROUND DETENTION BASIN  
TOP OF STONE=185.75  
TOP OF PIPE (O.D.)=185.25  
TOP OF PIPE (I.D.)=185.00  
INV. OF PIPE (I.D.)=182.50  
INV. OF PIPE (O.D.)=182.25  
BOT. OF STONE=181.75  
2% MAX. CROSS-SLOPE AND 5%  
MAX. RUNNING SLOPE ALONG ALL  
SIDEWALKS (TYP.)

20' PERMANENT  
UTILITY EASEMENT  
CROSSING  
INV. 12" HDPE=183.14  
TOP OF 12" OVERSILL=182.88  
(ENCASE IN CONCRETE)

EXPOSED PNT.  
71'-12" HDPE, S=0.005  
109'-12" HDPE, S=0.005

APPROX. LOC. OF 24" RCP

GRATE TO BE RESET AS NEEDED  
TO ACCOMMODATE THE PROP.  
IMPROVEMENTS

DMH F  
R=187.50  
INV.(IN-UNG)=181.52  
INV.(IN-EX)=181.54  
INV.(OUT-EX)=181.50  
(GC TO VERIFY EX INVERT  
AND NOTIFY ENGINEER IF  
ANY CONFLICTS ARISE.)

THIS PLAN TO BE UTILIZED FOR SITE  
GRADING PURPOSES ONLY

REFER TO GENERAL NOTES SHEET  
FOR GRADING & UTILITY NOTES



RELO  
STORE NUMBER: 706  
400 MASSACHUSETTS AVENUE  
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DEAL TYPE: TK  
CS PROJECT NUMBER: 65315

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**W.D. GOEBEL**  
PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE No. 42844  
RHODE ISLAND LICENSE No. 7288  
CONNECTICUT LICENSE No. 21884  
NEW HAMPSHIRE LICENSE No. 10290  
MAINE LICENSE No. 9490  
NEW YORK LICENSE No. 072584-1  
FLORIDA LICENSE No. 96202

REVISIONS

REV:	DATE:	COMMENT:	BY:
1	07/08/13	REV. PER TOWN STAFF COMMENTS	CFD

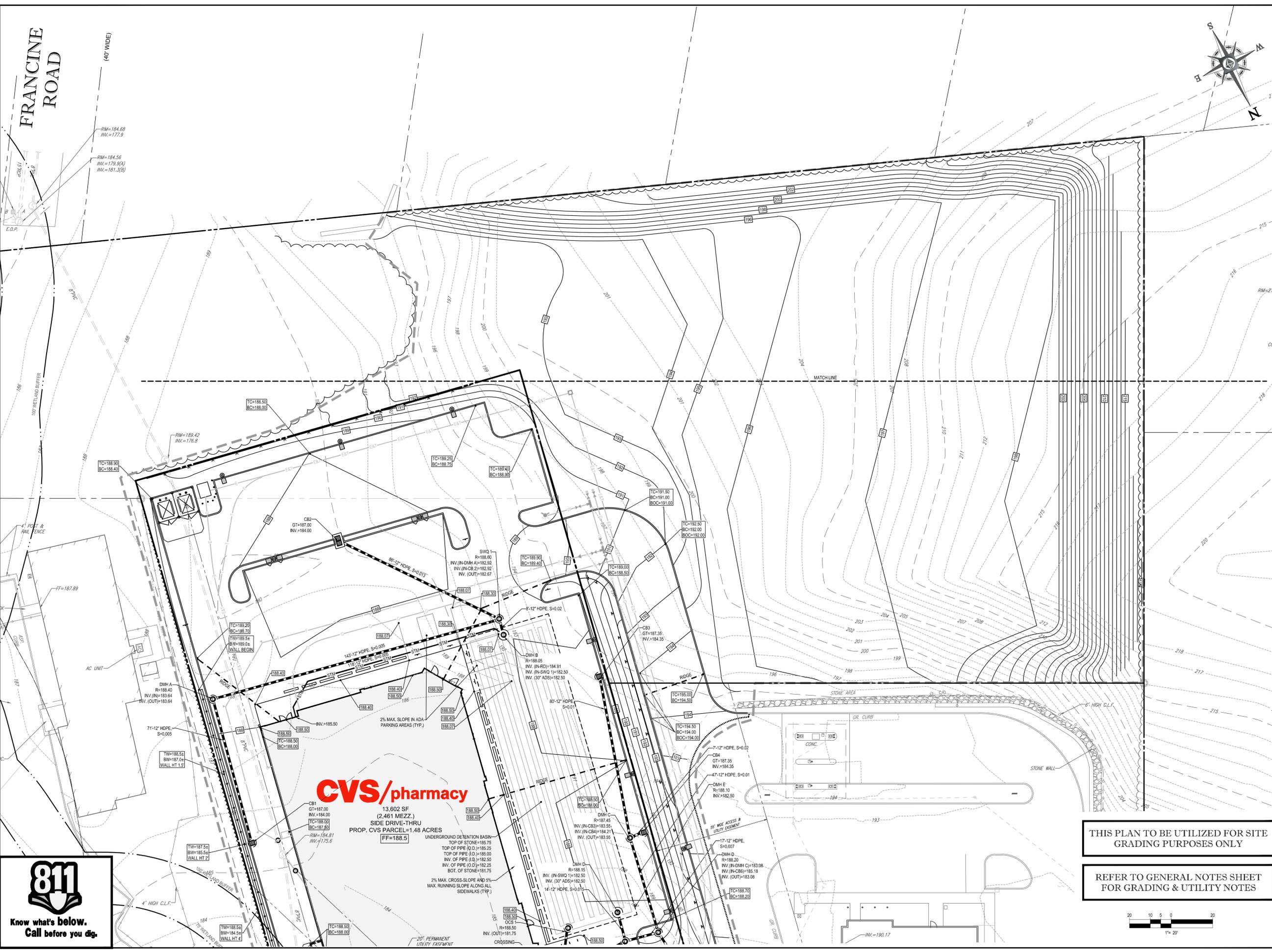
CHECKED BY: JGS  
DRAWN BY: KBS  
DATE: 01/25/13  
JOB NUMBER: W121033  
TITLE: **GRADING & DRAINAGE PLAN A**  
SHEET NUMBER:

5

COMMENTS:  
NOT FOR CONSTRUCTION



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RELO  
 STORE NUMBER: 706  
 400 MASSACHUSETTS AVENUE  
 ACTON, MA  
 PROJECT TYPE: RELO  
 DEAL TYPE: TK  
 CS PROJECT NUMBER: 65315

ARCHITECT OF RECORD:  
**bka**  
 BKA Architects, Inc.  
 Architecture + Interiors  
 142 Crescent Street  
 Brockton, MA 02302  
 tel : 508.583.5603  
 fax : 508.584.2914  
 e-mail : bka@bkaarch.com

CIVIL CONSULTANT:  
  
**BOHLER ENGINEERING**  
 352 TURNPIKE ROAD  
 SOUTHBOROUGH, MA 01772  
 Phone: (508) 480-9900  
 Fax: (508) 480-9080  
 www.BohlerEngineering.com

DEVELOPER:  
**TRB** We Build Trust.  
 TRB DEVELOPMENT GROUP, INC.  
 36 LONDONDERRY TURNPIKE  
 HOOKSETT, NH 03106  
 TEL : 603-669-8500

**W.D. GOEBEL**  
 PROFESSIONAL ENGINEER  
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 RHODE ISLAND LICENSE No. 7288  
 CONNECTICUT LICENSE No. 21864  
 NEW HAMPSHIRE LICENSE No. 10290  
 MAINE LICENSE No. 9490  
 NEW YORK LICENSE No. 072584-1  
 FLORIDA LICENSE No. 90202

REVISIONS

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CHECKED BY: JGS  
 DRAWN BY: KBS  
 DATE: 01/25/13  
 JOB NUMBER: W121033  
 TITLE: GRADING & DRAINAGE PLAN B  
 SHEET NUMBER:

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

REFER TO GENERAL NOTES SHEET FOR GRADING & UTILITY NOTES

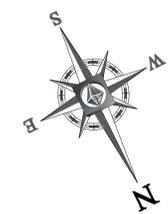
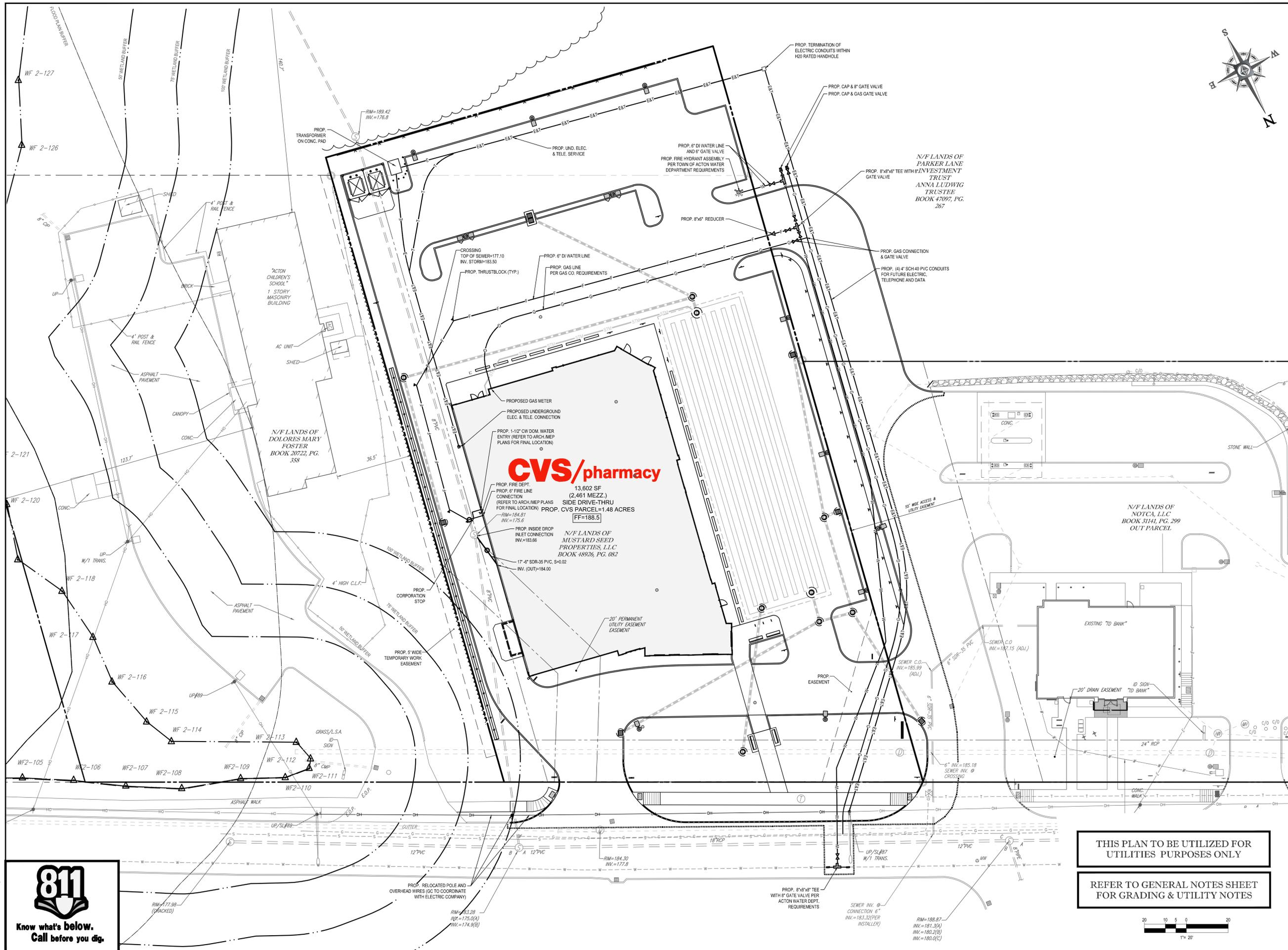


**CVS/pharmacy**  
 13,602 SF  
 (2,461 MEZZ.)  
 SIDE DRIVE-THRU  
 PROP. CVS PARCEL=1.48 ACRES  
 FF=188.5

UNDERGROUND DETENTION BASIN  
 TOP OF STONE=185.75  
 TOP OF PIPE (O.D.)=185.25  
 INV. OF PIPE (I.D.)=185.50  
 INV. OF PIPE (O.D.)=182.25  
 BOT. OF STONE=181.75  
 2% MAX. CROSS-SLOPE AND 5%  
 MAX. RUNNING SLOPE ALONG ALL  
 SIDEWALKS (TYP.)

20' PERMANENT UTILITY EASEMENT  
 CROSSING

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RELO  
 STORE NUMBER: 706  
 400 MASSACHUSETTS AVENUE  
 ACTON, MA  
 PROJECT TYPE: RELO  
 DEAL TYPE: TK  
 CS PROJECT NUMBER: 65315

ARCHITECT OF RECORD:  
**bka**  
 BKA Architects, Inc.  
 Architecture + Interiors  
 142 Crescent Street  
 Brockton, MA 02302  
 tel : 508.583.5603  
 fax : 508.584.2914  
 e-mail : bka@bkaarch.com

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W.D. GOEBEL  
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 CONNECTICUT LICENSE No. 21854  
 NEW HAMPSHIRE LICENSE No. 10290  
 MAINE LICENSE No. 9490  
 NEW YORK LICENSE No. 071294-1  
 FLORIDA LICENSE No. 90202

REVISIONS

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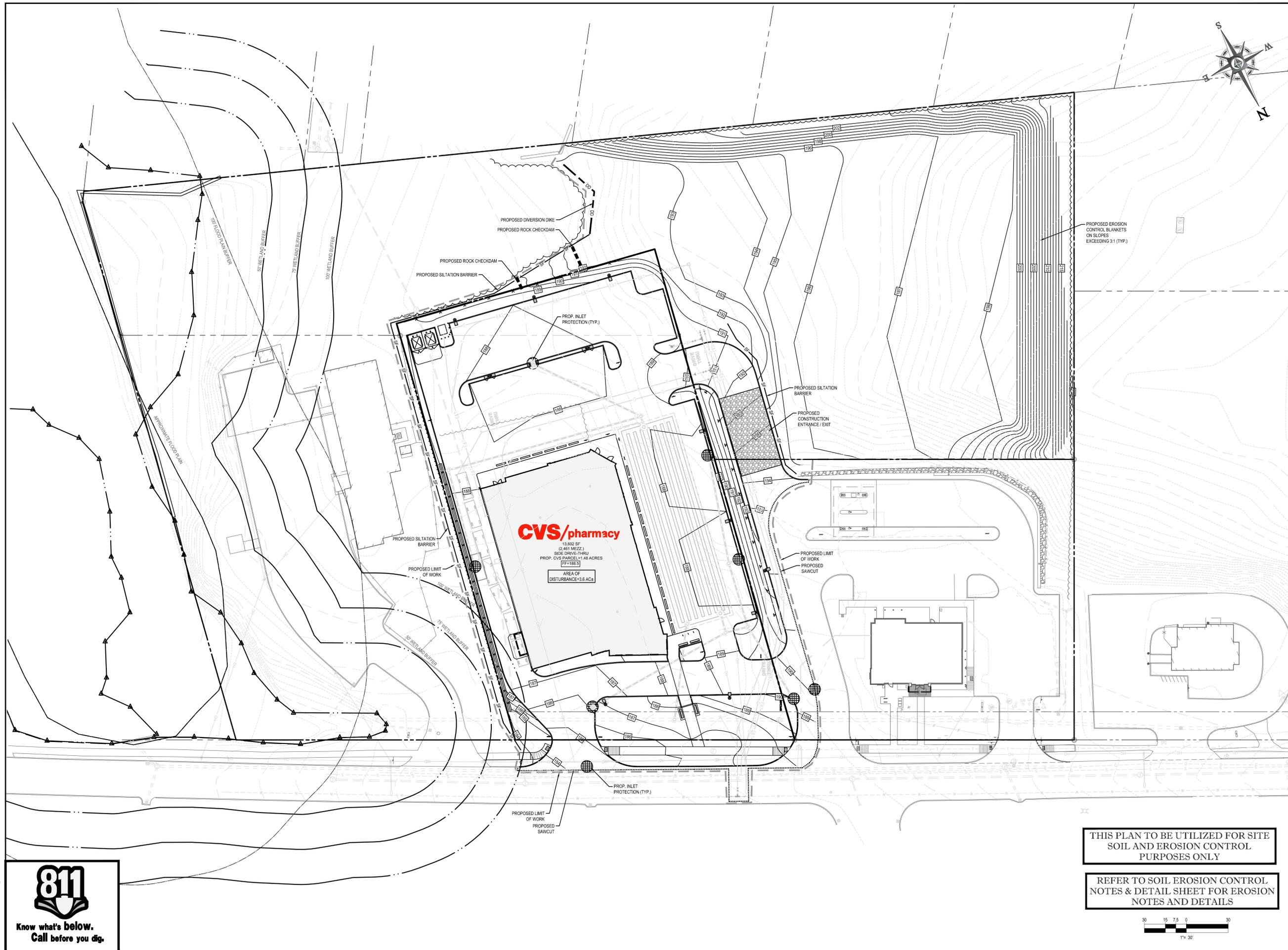
CHECKED BY: JGS  
 DRAWN BY: KBS  
 DATE: 01/25/13  
 JOB NUMBER: W121033  
 TITLE: UTILITY PLAN  
 SHEET NUMBER: 7  
 COMMENTS: NOT FOR CONSTRUCTION



THIS PLAN TO BE UTILIZED FOR UTILITIES PURPOSES ONLY  
 REFER TO GENERAL NOTES SHEET FOR GRADING & UTILITY NOTES



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RELO  
 STORE NUMBER: 706  
 400 MASSACHUSETTS AVENUE  
 ACTON, MA  
 PROJECT TYPE: RELO  
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REVISIONS

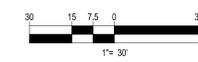
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1	07/08/13	REV. PER TOWN STAFF COMMENTS	CFD

CHECKED BY: JGS  
 DRAWN BY: KBS  
 DATE: 01/25/13  
 JOB NUMBER: W121033  
 TITLE: SOIL EROSION & SEDIMENT CONTROL PLAN  
 SHEET NUMBER:

8  
 COMMENTS:  
 NOT FOR CONSTRUCTION

THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS



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## EROSION & SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
2. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY STORM EVENT. THIS SHOULD INCLUDE WETLANDS.
3. SEDIMENT BARRIERS (SILT FENCE, HAY BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
4. INSTALL SILT FENCE AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILT FENCE DETAIL FOR PROPER INSTALLATION. SILT FENCE WILL REMAIN IN PLACE PER NOTE #6.
5. ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF.
6. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1).
7. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
8. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
9. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS.
10. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
  - 10.1. SIX INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
  - 10.2. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 80 LB PER ACRE OR 18.4 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SF).
  - 10.3. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1,000 SF LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED.
  - 10.4. HAY MULCH AT THE RATE OF 70-90 LBS PER 1,000 SF. A HYDRO-APPLICATION OF WOOD OR PAPER FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL, OR RMB PLUS WILL BE USED ON HAY MULCH FOR WIND CONTROL.

11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
12. WETLANDS WILL BE PROTECTED BY HAYBALES AND/OR SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
13. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
14. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED.

MULCH LOCATION	MULCH PROTECT AREA	RATE (1000 SF)
MULCH PROTECT AREA	STRAW OR HAY	100 POUNDS
WINDY AREA	SHREDDED OR CHOPPED CORNSTALKS STRAW OR HAY (ANCHORED)	185-275 POUNDS
MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER THAN 3:1	JUTE MESH OR EXCELISOR MAT	AS REQUIRED
GREATER THAN 3:1	(REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT)	

\* A HYDRO-APPLICATION OF WOOD, OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL, OR RMB PLUS SHALL BE USED ON HAY MULCH FOR WIND CONTROL.

**MULCH ANCHORING**  
ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD./SLOPE); MULCH NETTING (AS PER MANUFACTURER); WOOD CELLULOSE FIBER (750 LBS/ACRE); CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS); USE OF A SERRATED STRAIGHT DISK, WETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.

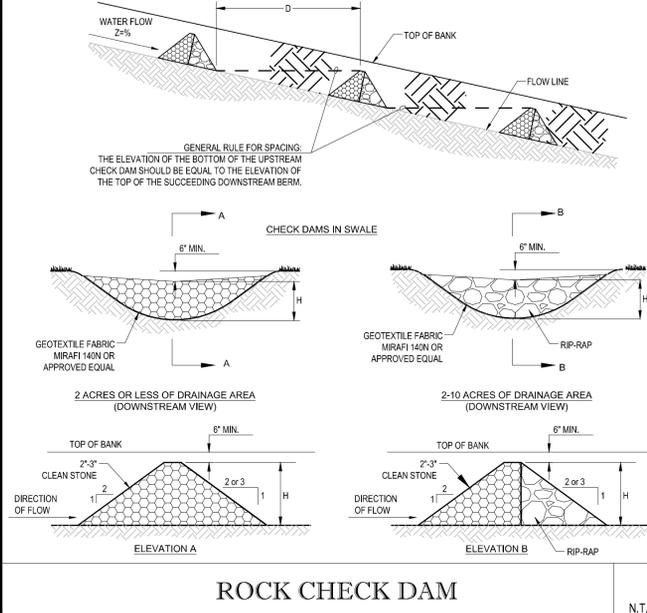
## EROSION CONTROL NOTES DURING WINTER CONSTRUCTION

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
2. WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
3. EXPOSED AREA SHOULD BE LIMITED TO THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
4. CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDING, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
6. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 15, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDING AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH, THEN THE AREA MAY BE DORMANT SEEDING AT A RATE OF 200 - 300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
7. MULCHING REQUIREMENTS:
  - 7.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
  - 7.2. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.
  - 7.3. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
8. AFTER NOVEMBER 1ST THE CONTRACTOR SHALL APPLY DORMANT SEEDING OR MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORKING DAY.
9. DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
10. STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.
11. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.

## CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

- INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT (AS SHOWN)
- INSTALLATION OF EROSION CONTROL BARRIER (HAYBALES AND SILT FENCE) (AS SHOWN)
- INSTALLATION OF INLET PROTECTION IN STREET (AS SHOWN)
- DEMOLITION OF EXISTING SITE STRUCTURES (SEE DEMOLITION PLAN)
- DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)
- CLEARING AND GRUBBING
- INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS (IF NECESSARY)
- INSTALLATION OF TEMPORARY DIVERSION DIKE
- EARTHWORK AND EXCAVATION/FILLING AS NECESSARY
- INSTALLATION OF TEMPORARY ROCK CHECK DAMS
- INSTALLATION OF EROSION CONTROL BLANKET ON SLOPES THAT EXCEED 2:1.
- CONSTRUCTION OF UTILITIES
- STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING
- INSTALLATION OF INLET PROTECTION ON ON-SITE UTILITIES (AS SHOWN)
- CONSTRUCTION OF BUILDINGS
- CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS
- SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH
- FINAL GRADING OF ALL SLOPED AREAS
- PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE INSTALLED REQUIRED.
- REMOVAL OF THE TEMPORARY SEDIMENT BASINS
- PAVE PARKING LOT
- LANDSCAPING PER LANDSCAPING PLAN
- REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER.

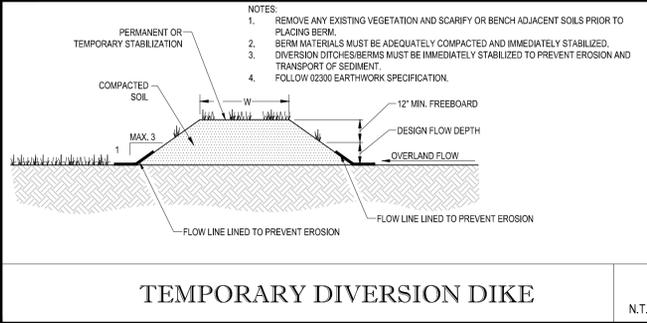
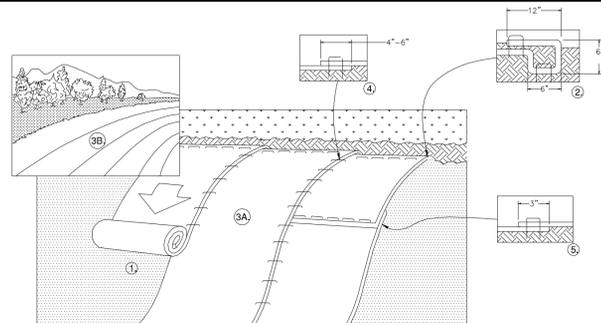


### ROCK CHECK DAM

N.T.S.

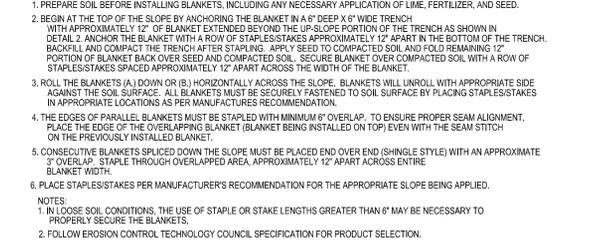
### STRAW BALE DETAIL

N.T.S.



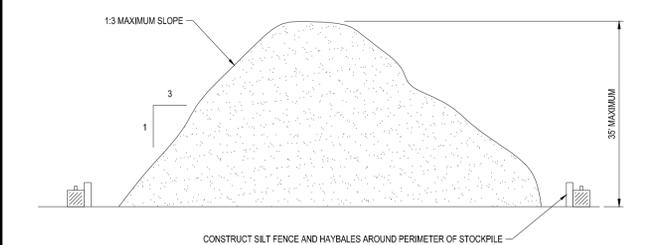
### TEMPORARY DIVERSION DIKE

N.T.S.



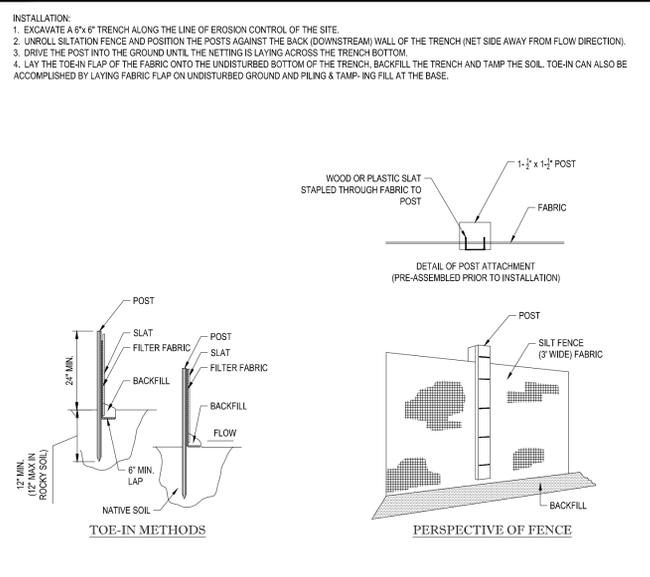
### EROSION CONTROL BLANKET (SLOPE INSTALLATION)

N.T.S.



### TEMPORARY STOCKPILE DETAIL

N.T.S.



### TYP. SILTATION FENCE DETAIL

N.T.S.

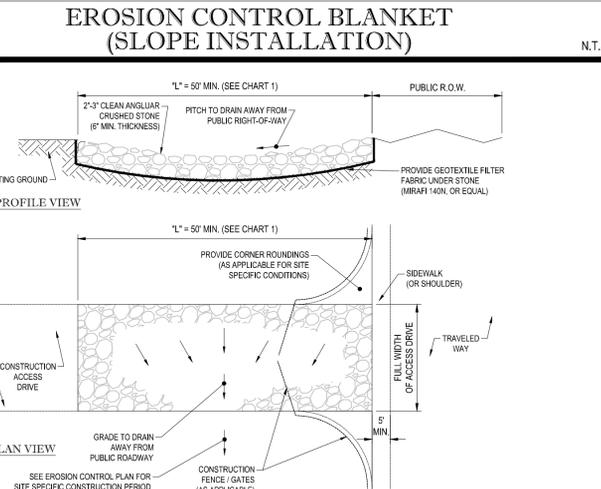


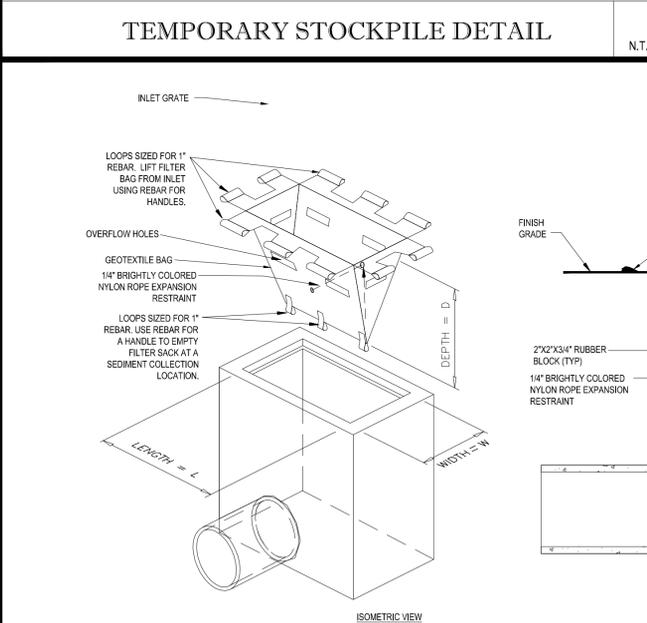
CHART 1

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2% TO 5%	100 FT	200 FT
>5%	ENTIRE ENTRANCE STABILIZED WITH FABR BASE COURSE (1)	

(1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

### STABILIZED CONSTRUCTION EXIT

N.T.S.



### FILTER SACKS (GRATED INLETS)

N.T.S.

LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE			
PROPERTIES	TEST METHOD	UNITS	
GRAB TENSILE STRENGTH	ASTM D-4832	300 LBS	
GRAB TENSILE ELONGATION	ASTM D-4832	20 %	
PUNCTURE	ASTM D-4833	120 LBS	
MULLEN BURST	ASTM D-3786	800 PSI	
TRAPEZOID TEAR	ASTM D-4533	120 LBS	
UV RESISTANCE	ASTM D-4355	80 %	
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE	
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT	
PERMITTIVITY	ASTM D-4491	0.55 SEC.-1	

MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE			
PROPERTIES	TEST METHOD	UNITS	
GRAB TENSILE STRENGTH	ASTM D-4832	265 LBS	
GRAB TENSILE ELONGATION	ASTM D-4832	20 %	
PUNCTURE	ASTM D-4833	150 LBS	
MULLEN BURST	ASTM D-3786	420 PSI	
TRAPEZOID TEAR	ASTM D-4533	45 LBS	
UV RESISTANCE	ASTM D-4355	80 %	
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE	
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT	
PERMITTIVITY	ASTM D-4491	1.5 SEC.-1	

1. REMOVE TRAPPED SEDIMENT WHEN BRIGHTLY COLORED EXPANSION RESTRAINT CAN NO LONGER BE SEEN.
  2. GEOTEXTILE SHALL BE A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE.
  3. PLACE AN OIL ADSORBENT PAD OR FELLOW OVER INLET GRATE WHEN OIL SPILLS ARE A CONCERN.
  4. INSPECT PER REGULATORY REQUIREMENTS.
  5. THE WIDTH, "W", OF THE FILTER SACK SHALL MATCH THE INSIDE WIDTH OF THE GRATED INLET BOX.
  6. THE DEPTH, "D", OF THE FILTER SACK SHALL BE BETWEEN 18 INCHES AND 36 INCHES.
  7. THE LENGTH, "L", OF THE FILTER SACK SHALL MATCH THE INSIDE LENGTH OF THE GRATED INLET BOX.
- DO NOT USE IN PAVED AREAS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.  
TO BE USED IN EXISTING RIGHT OF WAY

**CVS pharmacy**

RELO

STORE NUMBER: 706

400 MASSACHUSETTS AVENUE  
ACTION, MA

PROJECT TYPE: RELO  
DEAL TYPE: TK

CS PROJECT NUMBER: 65315

ARCHITECT OF RECORD:

**bka**

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TRB DEVELOPMENT GROUP, INC.

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HOOKSETT, NH 03106

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**W.D. GOEBEL**

PROFESSIONAL ENGINEER

MASSACHUSETTS LICENSE NO. 42844  
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NEW HAMPSHIRE LICENSE NO. 10290  
MAINE LICENSE NO. 9490  
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REVISIONS

REV:	DATE:	COMMENT:	BY:
1	07/08/13	REV. PER TOWN STAFF COMMENTS	CFD

CHECKED BY: JGS

DRAWN BY: KBS

DATE: 01/25/13

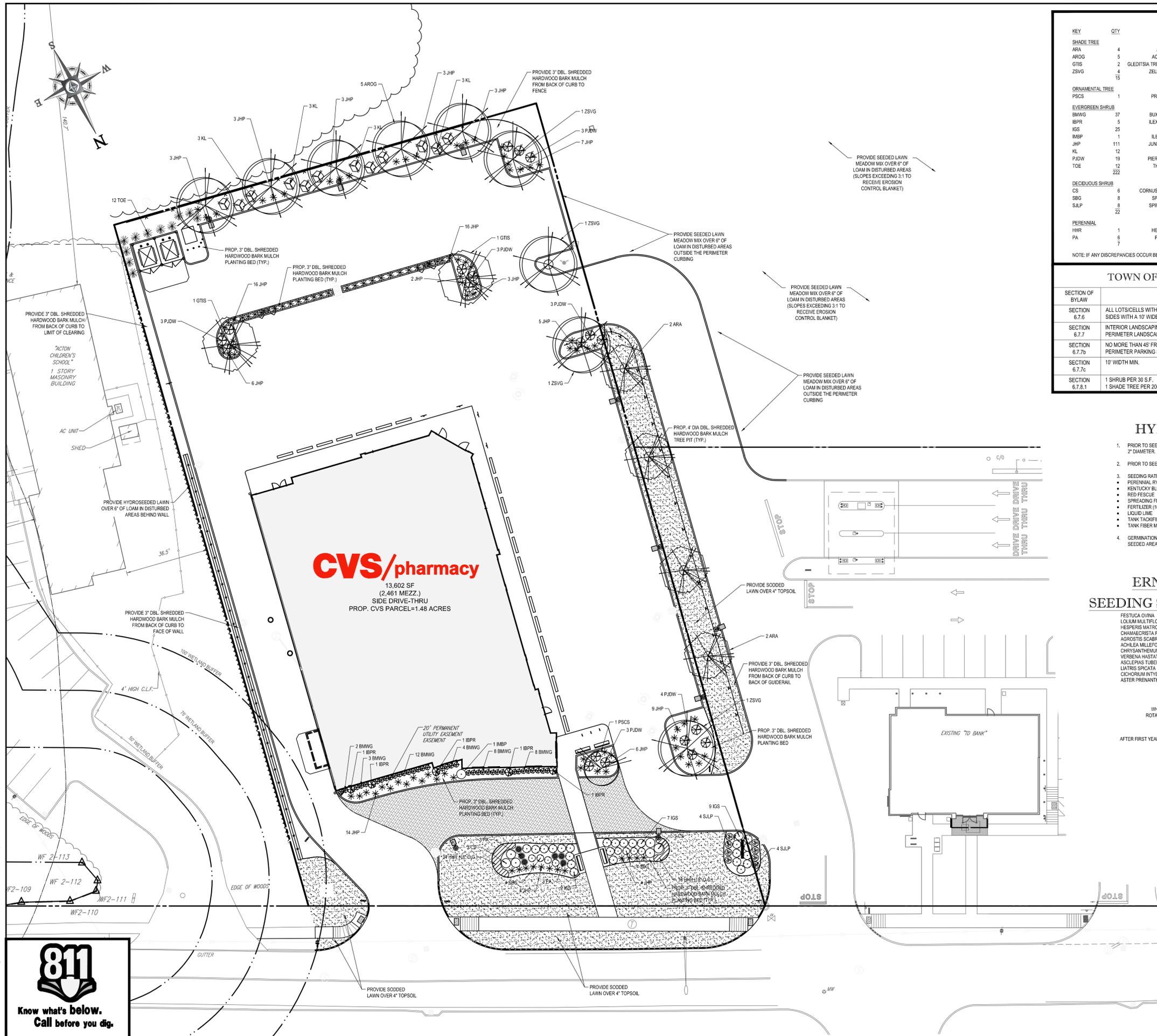
JOB NUMBER: W121033

TITLE: SOIL EROSION CONTROL NOTES & DETAILS SHEET

SHEET NUMBER: 9

COMMENTS: NOT FOR CONSTRUCTION





### LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
<b>SHADE TREE</b>					
ARA	4	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG COLUMNAR RED MAPLE	2 1/2-3' CAL.	#4B
AROG	5	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2-3' CAL.	#4B
GTS	2	GLEDITSIA TRICANTHOS VAR. INTERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2 1/2-3' CAL.	#4B
ZSVG	4	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	2 1/2-3' CAL.	#4B
<b>ORNAMENTAL TREE</b>					
PSCS	1	PRUNUS SARGENTII 'COLUMNARIS'	COLUMNAR SARGENT CHERRY	2-2 1/2' CAL.	#4B
<b>EVERGREEN SHRUB</b>					
BMWG	37	BUXUS MICROPHYLLA 'WINTER GEM'	WINTER GEM BOXWOOD	18-24"	#5 CAN
IBPR	5	ILEX X MESERVEAE 'BLUE PRINCESS'	BLUE PRINCESS HOLLY	24-30"	#5 CAN
IGS	25	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERY HOLLY	24-30"	#5 CAN
MBP	1	ILEX X MESERVEAE 'BLUE PRINCE'	BLUE PRINCE HOLLY	30-36"	#5 CAN
JHP	111	JUNIPERUS HORIZONTALIS PLUMOSA	ANDORRA JUNIPER	15-18' SPRD.	#3 CAN
KL	12	KALIA LATTIFOLIA	MOUNTAIN LAUREL	30-36"	#4B
PJDW	19	PIERIS JAPONICA 'DOROTHY WYCOFF'	DOROTHY WYCOFF JAPANESE ANDROMEDA	30-36"	#4B
TOE	12	THUJA OCCIDENTALIS 'EMERALD'	EMERALD GREEN ARBORVITAE	5-6'	#4B
<b>DECIDUOUS SHRUB</b>					
CS	6	CORNUS SERICEA (FORMERLY STOLONIFERA)	RED OSIER DOGWOOD	2-3'	#4B
SBG	8	SPIREA X BUMALDA 'GOLDFLAME'	GOLD FLAME SPIREA	15-18"	#3 CAN
SJLP	8	SPIREA JAPONICA 'LITTLE PRINCESS'	LITTLE PRINCESS SPIREA	15-18"	#3 CAN
<b>PERENNIAL</b>					
HRR	1	HEMEROCALLIS 'HAPPY RETURNS'	LIGHT YELLOW DAYLILY	1 GAL.	CONTAINER
PA	6	PENNISETUM ALOPECUROIDES	DWARF FOUNTAIN GRASS	2 GAL.	CONTAINER
NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.					

### TOWN OF ACTON LANDSCAPE REQUIREMENTS

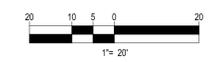
SECTION OF BYLAW	MIN. REQUIREMENTS	REQUIRED	PROVIDED
SECTION 6.7.6	ALL LOTS/CELLS WITH MORE THAN 5 ACRES SHALL BE BORDERED ON ALL SIDES WITH A 10' WIDE BUFFER STRIP... TO SCREEN THE PARKING AREA	YES	NO
SECTION 6.7.7	INTERIOR LANDSCAPING REQ-A MIN OF 10% OF THE INTERIOR EXCLUSIVE OF PERIMETER LANDSCAPING... MUST BE PLANTED AS LANDSCAPED ISLANDS	2,679 S.F. MIN.	1,429 S.F. (5.3%)
SECTION 6.7.7b	NO MORE THAN 45' FROM ANY PARKING SPACE TO A LANDSCAPED ISLAND OR PERIMETER PARKING SPACE	YES	NO
SECTION 6.7.7c	10' WIDTH MIN.	YES	NO
SECTION 6.7.8.1	1 SHRUB PER 200 S.F. 1 SHADE TREE PER 200 S.F. OF LANDSCAPED AREA		

- ### HYDROSEED SPECIFICATIONS
- PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
  - PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
  - SEEDING RATES:
    - PERENNIAL RYEGRASS 1/2 LB/1000 SQ FT
    - KENTUCKY BLUEGRASS 1 LB/1000 SQ FT
    - RED FESCUE 1/2 LB/1000 SQ FT
    - SPREADING FESCUE 1/2 LB/1000 SQ FT
    - FERTILIZER (16-32-16) 2 LB/1000 SQ FT
    - LIQUID LIME 1 GAL/800 GAL
    - TANK TACKIFIER 36 LB/800 GAL
    - TANK FIBER MULCH 30 LB/1000 SQ FT
  - GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

- ### ERNST SEED CO. MEADOW SEEDING SPECIFICATIONS (ERNMX-156):
- |                            |                    |        |
|----------------------------|--------------------|--------|
| FESTUCA OVINA              | SHEEP FESCUE       | 34.69% |
| LOLIUM MULTIFLORUM         | ANNUAL RYEGRASS    | 31.74% |
| HESPERIS MATRONALIS        | DAME'S ROCKET      | 9.52%  |
| CHAMAECRISTA FASCICULATA   | PARTRIDGE PEA      | 6.96%  |
| AGROSTIS SCABRA            | TICKLEGRASS        | 6.35%  |
| ACHILEA MILLEFOLIUM        | WHITE YARROW       | 4.78%  |
| CHRYSANTHEMUM LEUCANTHEMUM | OX-EYE DAISY       | 4.78%  |
| VERBENA HASTATA            | BLUE VERVAIN       | 0.4%   |
| ASCLEPIAS TUBEROSA         | BUTTERFLY MILKWEED | 0.25%  |
| LIATRIS SPICATA            | SPIRED GAYFEATHER  | 0.25%  |
| CICHORIUM INTYBUS          | BLUE CHICORY       | 0.22%  |
| ASTER PRENANTHOIDES        | ZIGZAG ASTER       | 0.1%   |
- SEED AT 15 BULK POUNDS PER ACRE
- FIRST YEAR MAINTENANCE**  
WHEN VEGETATION REACHES 12-18" TALL, MOW TO NO LESS THAN 6" BY ROTARY MOWER OR WEED EATER TO PREVENT THE WEEDS FROM GOING TO SEED. DO NOT MOW WITH A LAWN MOWER.
- ANNUAL MAINTENANCE**  
AFTER FIRST YEAR, MOW ONE TIME AS CLOSE TO THE GROUND AS POSSIBLE IN EARLY SPRING.

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

REFER LANDSCAPE NOTES & DETAILS SHEET FOR LANDSCAPE NOTES AND DETAILS



**RELO**  
STORE NUMBER: 706  
400 MASSACHUSETTS AVENUE  
ACTON, MA  
PROJECT TYPE: RELO  
DEAL TYPE: TK  
CS PROJECT NUMBER: 65315

ARCHITECT OF RECORD:

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SHEET NUMBER: **10**  
COMMENTS: NOT FOR CONSTRUCTION

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# LANDSCAPE SPECIFICATIONS

**1. SCOPE OF WORK:**  
THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

**2. MATERIALS:**  
A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.  
B. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.  
C. LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 1/2" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON LANDSCAPE PLAN.  
I. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.  
II. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/FEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.  
D. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 2" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR DETAILS.  
E. FERTILIZER  
I. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER.  
FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.  
II. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

**F. PLANT MATERIAL**  
I. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN).  
II. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.  
III. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.  
IV. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1/4", WHICH HAVE NOT BEEN COMPLETELY CALLOSED, SHALL BE REJECTED.  
V. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.  
VI. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH, WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.  
VII. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.  
VIII. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.  
IX. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

**3. GENERAL WORK PROCEDURES**  
A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.  
B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.  
C. SITE PREPARATIONS  
A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.  
B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.  
C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL PLANTING AND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

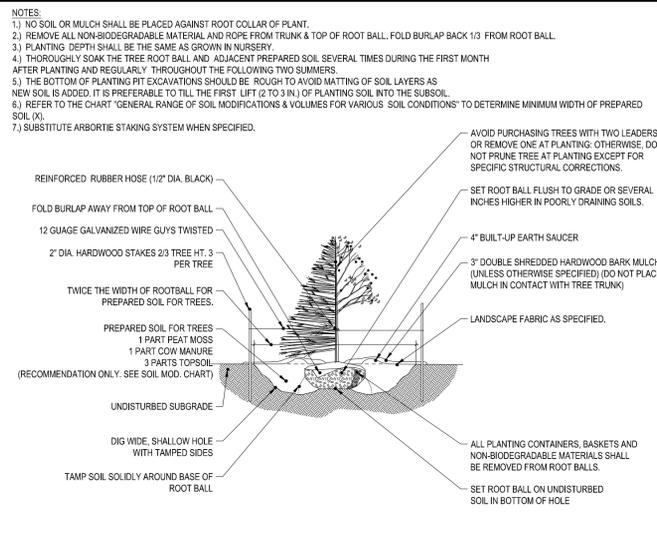
**3. TREE PROTECTION**  
A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.  
B. A FOURTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY "VISIFENCE", OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.  
C. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.  
D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.  
E. SOIL MODIFICATIONS  
A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.  
B. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.  
C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.  
I. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 12" - USE COMPOSTED BARK, COMPOSTED LEAF MULCH, OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.  
II. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM.  
COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 80% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.  
III. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.  
F. FINISHED GRADING  
A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.  
B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1").  
C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITH THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.  
D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

**8. TOPSOILING**  
A. CONTRACTOR SHALL PROVIDE A 2" THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE TO ACHIEVE A UNIFORM LAYER TO THE DESIRED COMPACTED THICKNESS.  
B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.  
C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL. TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AND TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.  
D. ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY - SEE SPECIFICATION 6.A).  
I. 20 POUNDS GRO-POWER OR APPROVED SOIL CONDITIONER/FERTILIZER  
II. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER  
E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.  
F. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.  
G. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.  
H. ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO PLANTING.  
I. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.  
J. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. SPECIAL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS: THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:  
I. PLANTS - MARCH 15 TO DECEMBER 15  
II. LAWN - MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1  
K. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:  
ACER RUBRUM PLATANUS X ACERIFOLIA  
BETULA VARIETIES POPULUS VARIETIES  
CARPINUS VARIETIES PRUNUS VARIETIES  
CRATAEGUS VARIETIES PYRUS VARIETIES  
KOELERUTERIA QUERCUS VARIETIES  
LIQUIDAMBAR STYRACIFLUA TILIA TOMENTOSA  
LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES  
L. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED SUBGRADE.  
M. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.  
N. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.  
O. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.  
P. TRANSPORTING (WHEN REQUIRED)  
A. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.

**11. WATERING**  
A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.  
B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.  
C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.  
12. GUARANTEE  
A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF 1 YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL MAINTAIN A GUARANTEE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.  
B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.  
C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.  
D. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.  
13. CLEANUP  
A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.  
B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.  
14. MAINTENANCE (ALTERNATIVE BID)  
A. 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/CLIENT THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR.  
B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.  
C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.  
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F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS, AND CONTINUE IRRIGATION THROUGHOUT ENTIRE SEASON.  
G. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LEADERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.  
H. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.  
I. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT Voids WHICH WOULD CAUSE DRYING OF THE ROOTS.  
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IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOP DRESSING IS NOT MANDATORY.  
N. SPRING INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-20-10 OR EQUIVALENT AT 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET BETWEEN MARCH 15 AND APRIL 1.  
O. FALL INSTALLATION OF SOD WILL REQUIRE THE ABOVE BETWEEN SEPTEMBER 1 AND OCTOBER 15.

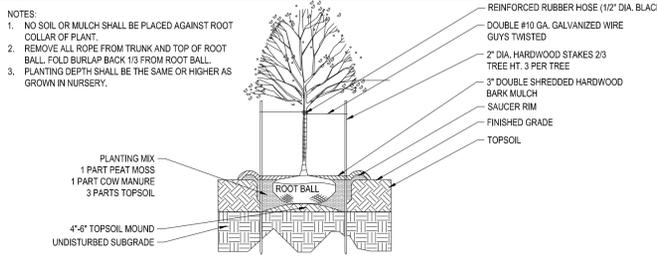
## STANDARD FOR PERMANENT STABILIZATION WITH SOD

**METHODS AND MATERIALS**  
1. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOIL. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.  
2. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.  
3. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 58 INCH PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING, (EXCLUDES TOP GROWTH).  
4. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.  
5. FOR DRAUGHT SITES, A SOD OF KENTUCKY 31 TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD.  
6. ONLY MOIST, FRESH, UNHEATED SOD SHALL BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS.  
**I. SITE PREPARATION**  
A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING AND SOIL PREPARATION. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.  
B. INSTALL NEEDED EROSION CONTROL PRACTICES AND FACILITIES, SUCH AS INTERCEPTOR DITCHES, DIKES AND TERRACES, EROSION STOPS, AND DE-SILTING BASINS.  
**II. SOIL PREPARATION**  
A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE 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 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 IN ADDITION TO 300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOP-DRESSING. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:  
SOIL TEXTURE TONS/ACRE LBS/1000 SQ. FT.  
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL 3 135  
SANDY LOAM, LOAM, SILT LOAM 3 135  
LOAMY SAND, SAND 2 90  
B. WORK LIME AND FERTILIZER 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 DISCOING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED.  
C. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLOUDS, LUMPS, OR OTHER UNSUITABLE MATERIAL.  
D. INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.  
**III. SOD PLACEMENT**  
A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LEADERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.  
B. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.  
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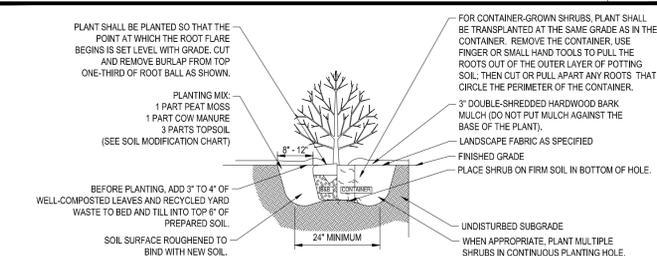
## TREE PLANTING DETAIL

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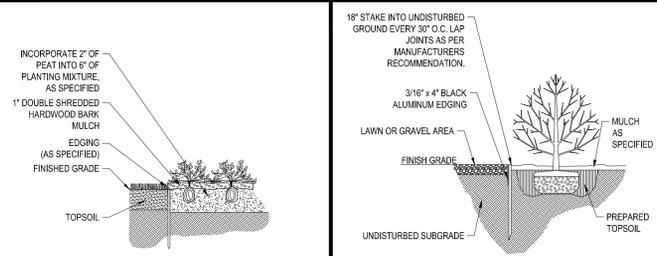
## DECIDUOUS TREE PLANTING DETAIL

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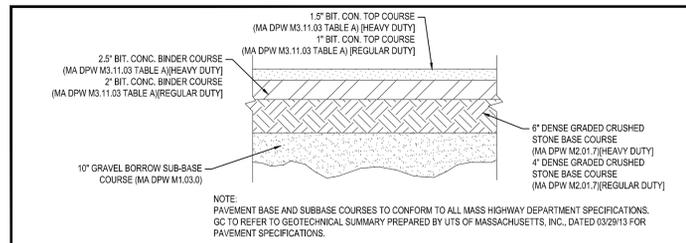
## SHRUB PLANTING DETAIL

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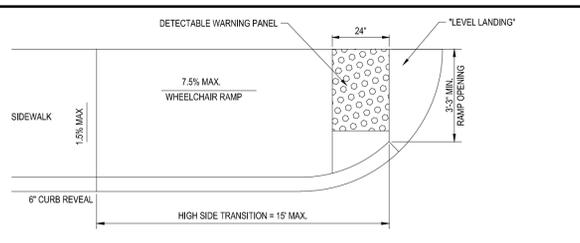
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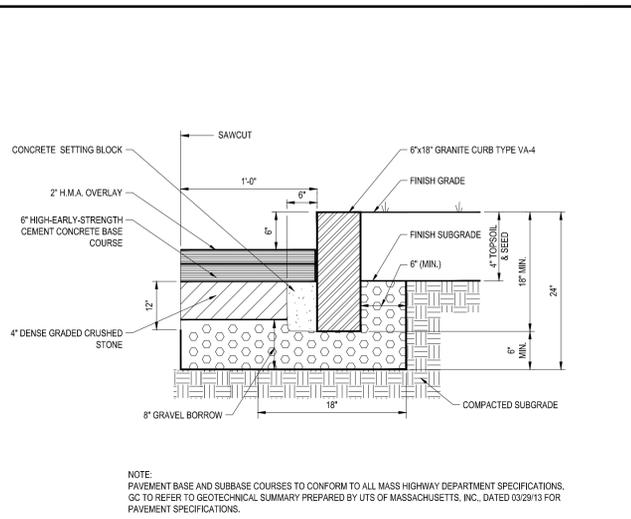
TYPICAL PAVEMENT SECTION

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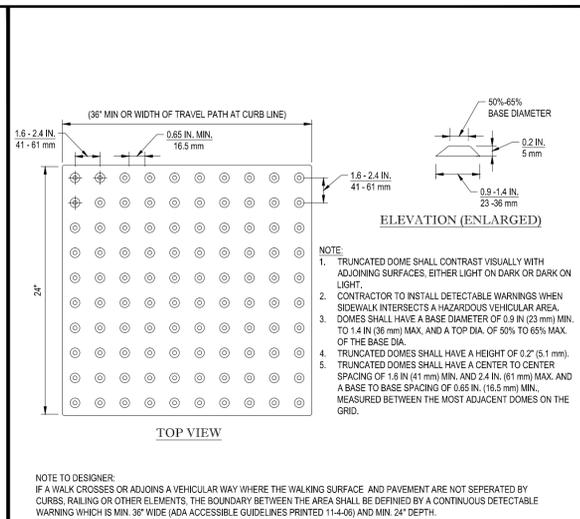
TYPICAL WHEELCHAIR RAMP

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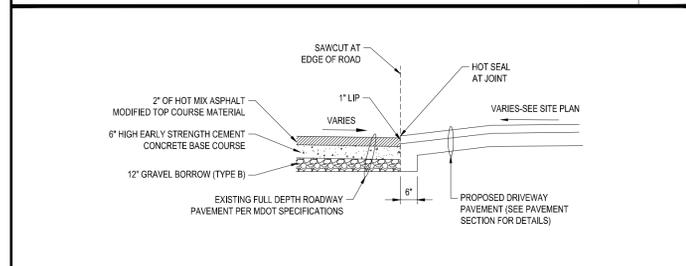
VERTICAL GRANITE CURB DETAIL

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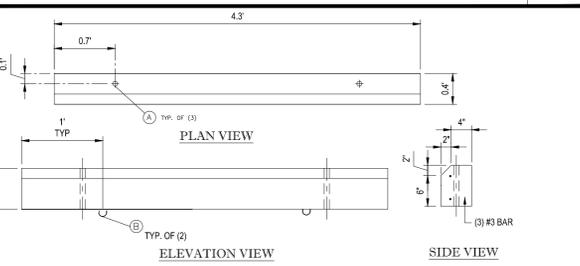
TRUNCATED DOME PATTERN

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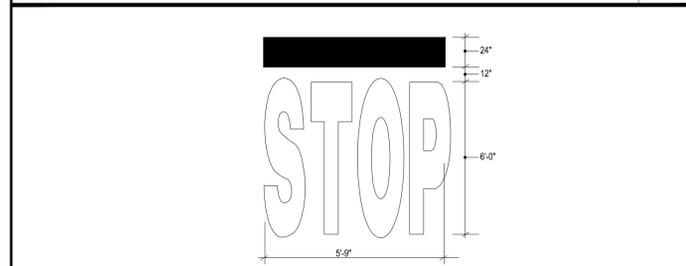
DRIVEWAY CONSTRUCTION DETAIL

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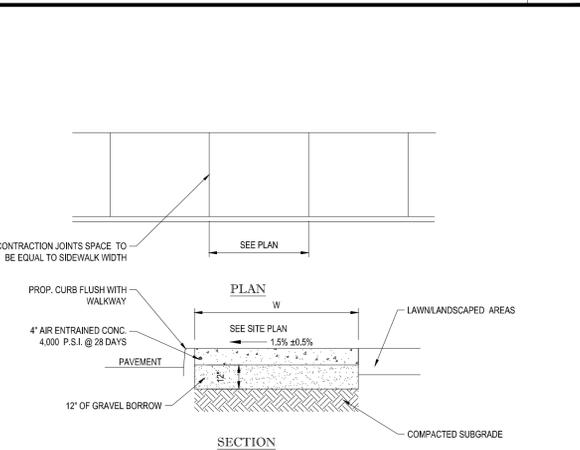
CONCRETE WHEEL STOP DETAIL

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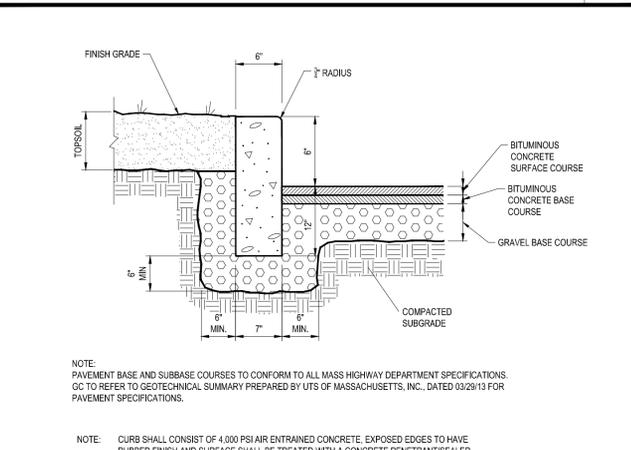
'STOP' BAR DETAIL

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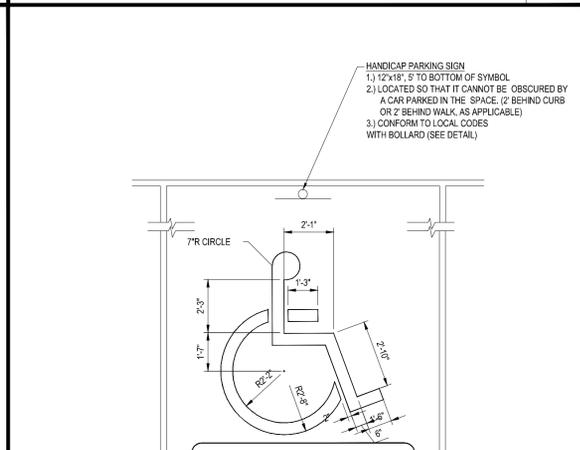
SIDEWALK DETAIL WITHIN ROW

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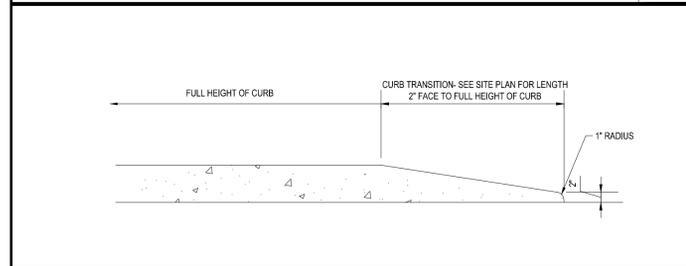
PRECAST CONCRETE CURB DETAIL

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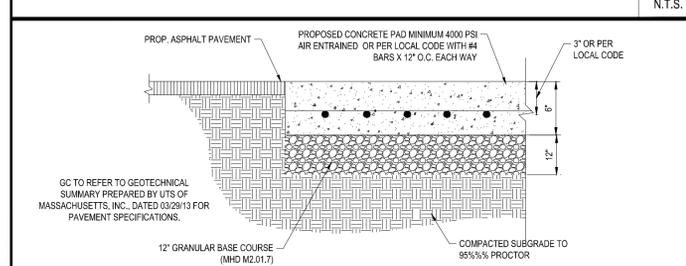
HANDICAP PARKING STALL PAINTING DETAIL

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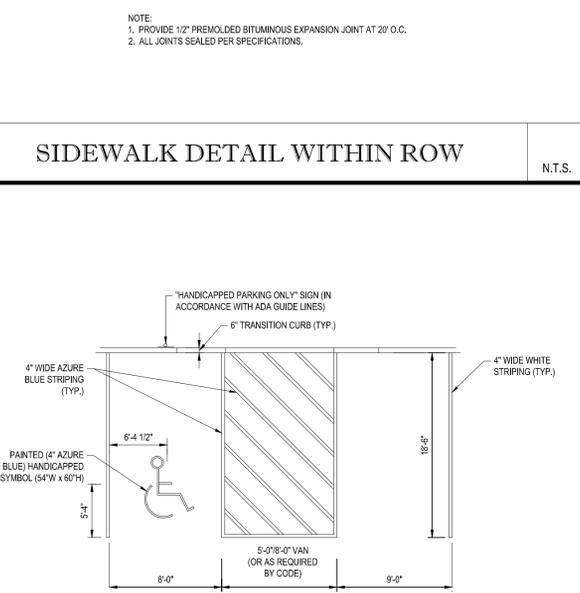
TRANSITION CURB DETAIL

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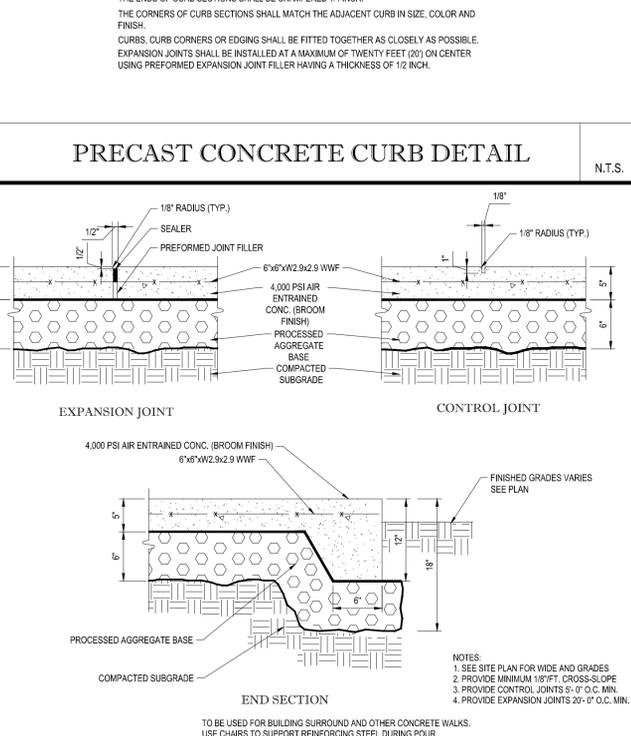
CONCRETE PAD DETAIL

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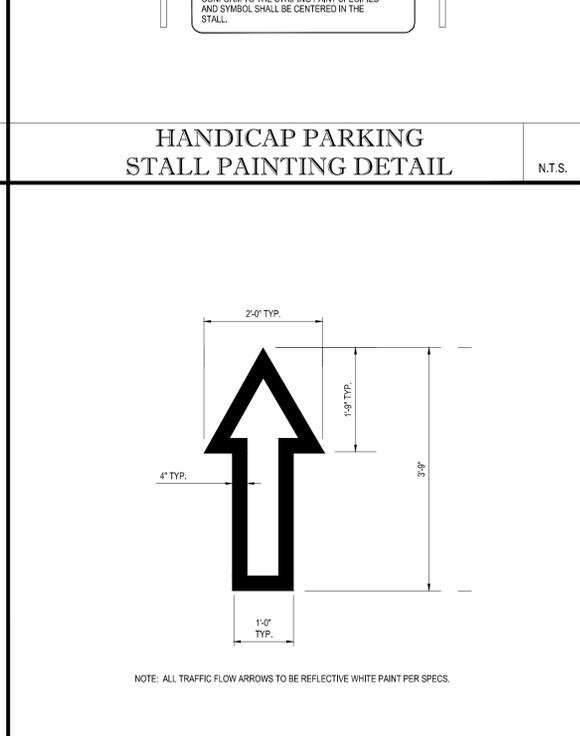
HANDICAPPED STALL MARKINGS & PARKING LOT STRIPING DETAIL

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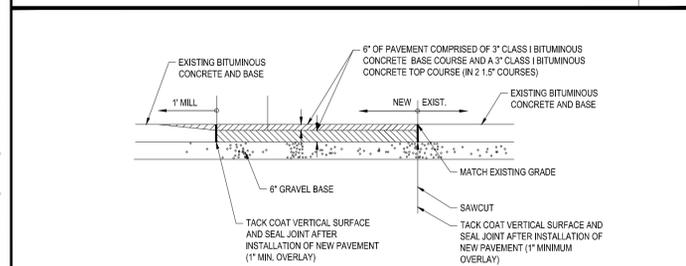
MONOLITHIC CONC. SIDEWALK DETAILS

N.T.S.



TRAFFIC FLOW ARROW

N.T.S.



ROADWAY PATCHING DETAIL

N.T.S.

**CVS pharmacy**

RELO

STORE NUMBER: 706

400 MASSACHUSETTS AVENUE  
ACTON, MA

PROJECT TYPE: RELO  
DEAL TYPE: TK

CS PROJECT NUMBER: 65315

ARCHITECT OF RECORD:

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NEW YORK LICENSE No. 07284-1  
FLORIDA LICENSE No. 96202

REVISIONS

REV:	DATE:	COMMENT:	BY:
1	07/08/13	REV. PER TOWN STAFF COMMENTS	CFD

CHECKED BY: JGS

DRAWN BY: KBS

DATE: 01/25/13

JOB NUMBER: W121033

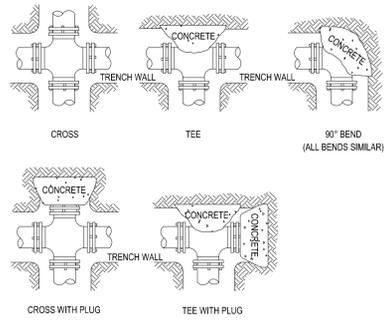
TITLE: PAVING DETAIL SHEET

SHEET NUMBER: 13

COMMENTS: NOT FOR CONSTRUCTION

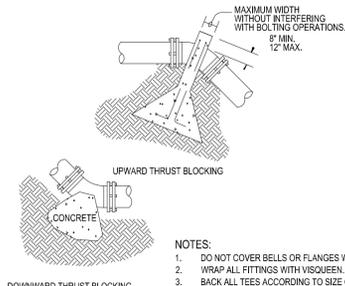
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- NOTES:
- DO NOT COVER BELLS OR FLANGES WITH CONCRETE
  - WRAP ALL FITTINGS WITH VISQUEEN
  - BACK ALL TEES ACCORDING TO SIZE OF BRANCH
  - BACKING FUTURE LINE EXTENSIONS SHALL BE SUCH THAT LATER REMOVAL IS POSSIBLE
  - ALL BENDS WHERE FITTINGS ARE USED, BOTH HORIZONTAL OR VERTICAL SHALL BE BACKED
  - REACTION BACKING TABLE IS BASED ON 100 P.S.I. AND SOIL BEARING PRESSURE OF 2000 LB./SQ.FT. ADDITIONAL BACKING MAY BE REQUIRED IN SOME AREAS AS DIRECTED BY ENGINEERS.
  - ALL CONCRETE SHALL BE 2500 P.S.I.
  - 18" AND LARGER REQUIRES SPECIFIC ANTI-THRUST DESIGN.

HORIZONTAL THRUST BLOCKING (BLOCKING HEIGHT GREATER THAN PIPE O.D.) (BLOCKING WIDTH BETWEEN 1 & 2 TIMES HEIGHT)						
PIPE SIZE	TEE & PLUG	BENDS				
		90°	45°	22 1/2°	11 1/4°	
3"	1.0	1.0	1.0	1.0	1.0	1.0
4"	1.0	1.0	1.0	1.0	1.0	1.0
6"	1.5	2.0	1.0	1.0	1.0	1.0
8"	2.5	3.5	1.8	1.0	1.0	1.0
10"	4.0	5.5	2.8	1.5	1.0	1.0
12"	6.0	8.0	4.0	2.0	1.5	1.5



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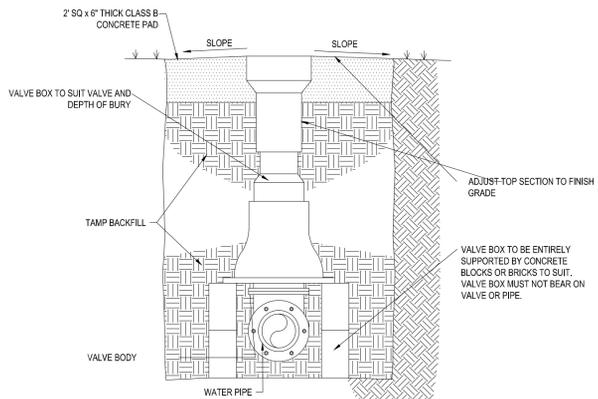
UPWARD THRUST BLOCKING (REQUIRED REINFORCING BARS & CUBIC YARDS OF P.C. CONCRETE)									
PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		REINFC
	CONC. C.Y.	REINF. QTY.	CONC. C.Y.	REINF. QTY.	CONC. C.Y.	REINF. QTY.	CONC. C.Y.	REINF. QTY.	
6"	1.5	3	1.5	3	1.25	2	1.25	2	5
8"	2	3	2	3	1.5	2	1.5	2	5
10"	2.5	3	2.5	3	2	3	2	3	5
12"	3	3	3	3	2.5	3	2.5	3	5

### HORIZONTAL THRUST BLOCKING

N.T.S.

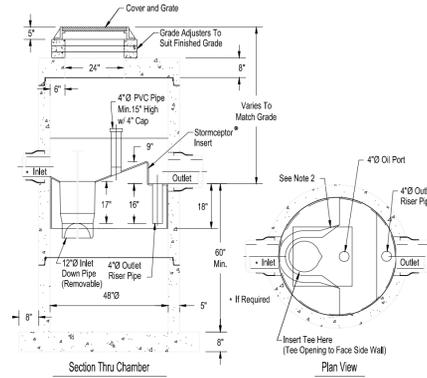
### VERTICAL THRUST BLOCKING

N.T.S.



### GATE VALVE

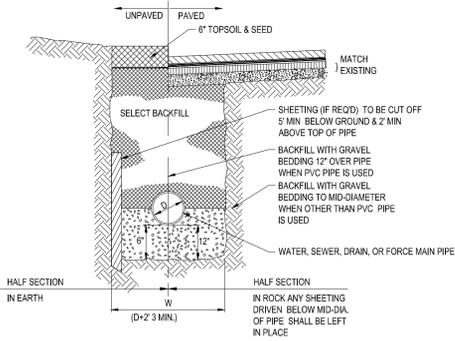
N.T.S.



- Notes:
- The Use of Flexible Connection is Recommended at the Inlet and Outlet Where Applicable.
  - The Cover Should be Positioned Over the Inlet Drop Pipe and the Oil Port.
  - The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725763, #5753115, #5849181, #6068765, #6371690.
  - Contact a Concrete Pipe Division representative for further details not listed on this drawing.

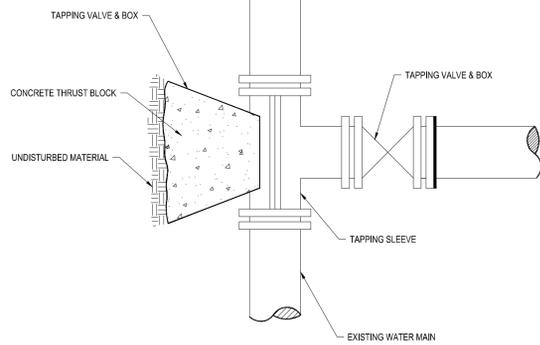
### STORMCEPTOR 450i

N.T.S.



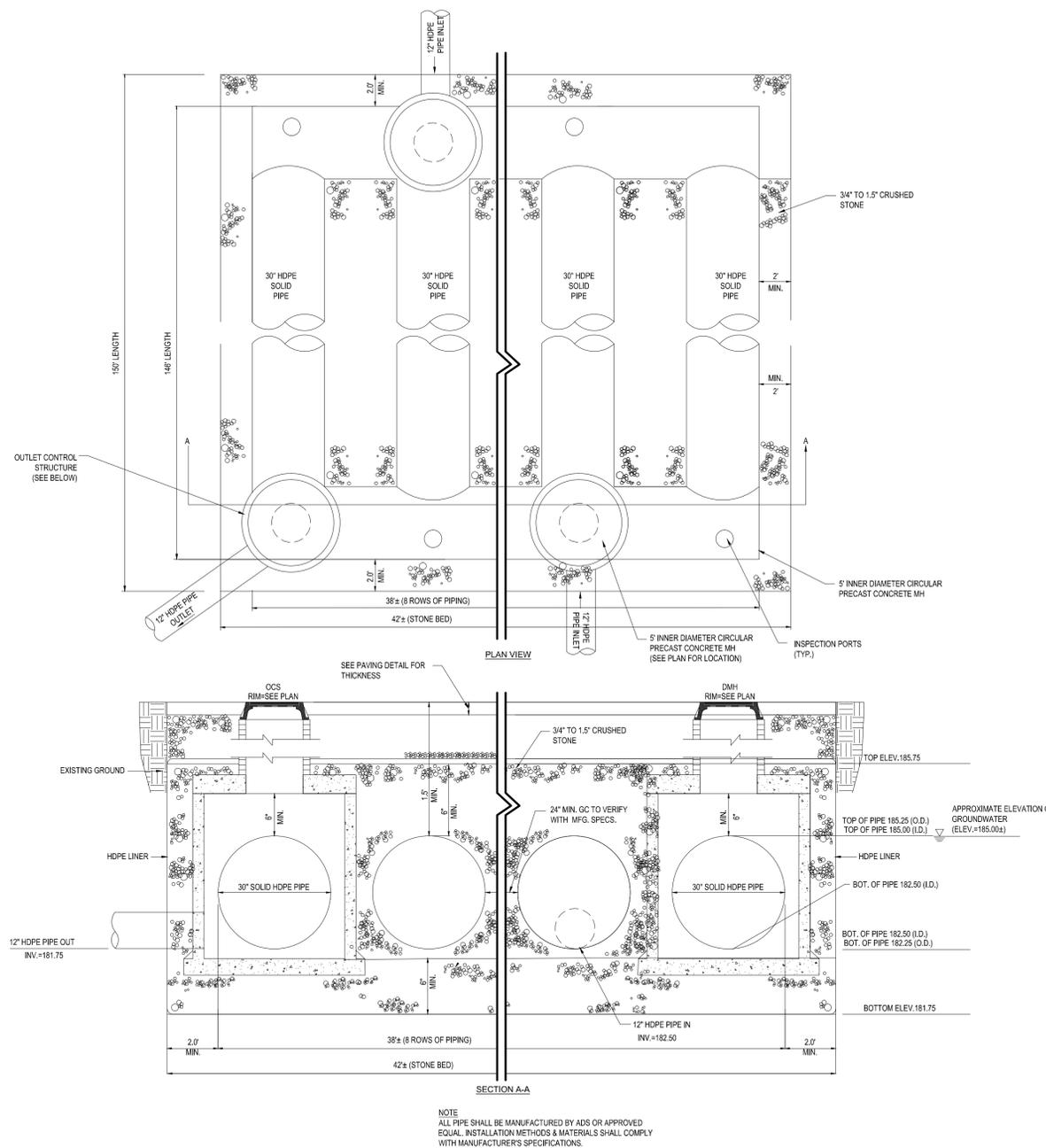
### TYPICAL UTILITY TRENCH

N.T.S.

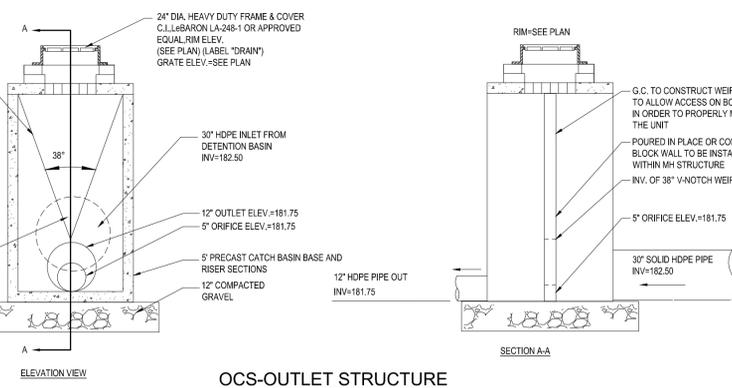


### TAPPING SLEEVE & GATE VALVE DETAIL

N.T.S.



### UNDERGROUND STORAGE SYSTEM



### OCS-OUTLET STRUCTURE

### UNDERGROUND DRAINAGE SYSTEM



RELO  
 STORE NUMBER: 706  
 400 MASSACHUSETTS AVENUE  
 ACTON, MA  
 PROJECT TYPE: RELO  
 DEAL TYPE: TK  
 CS PROJECT NUMBER: 65315

ARCHITECT OF RECORD:  
**bka**  
 BKA Architects, Inc.  
 Architecture + Interiors  
 142 Crescent Street  
 Brockton, MA 02302  
 tel : 508.583.5603  
 fax : 508.584.2914  
 e-mail : bka@bkaarch.com

CIVIL CONSULTANT:  
**BOHLER ENGINEERING**  
 352 TURNPIKE ROAD  
 SOUTHBOROUGH, MA 01772  
 Phone: (508) 480-9900  
 Fax: (508) 480-9080  
 www.BohlerEngineering.com

DEVELOPER:  
**TRB** We Build Trust.  
 TRB DEVELOPMENT GROUP, INC.  
 36 LONDONDERRY TURNPIKE  
 HOOKSETT, NH 03106  
 TEL : 603-669-8500

**W.D. GOEBEL**  
 PROFESSIONAL ENGINEER  
 MASSACHUSETTS LICENSE No. 42844  
 RHODE ISLAND LICENSE No. 7288  
 CONNECTICUT LICENSE No. 21854  
 NEW HAMPSHIRE LICENSE No. 10290  
 MAINE LICENSE No. 9490  
 NEW YORK LICENSE No. 071284-1  
 FLORIDA LICENSE No. 90202

REVISIONS

REV:	DATE:	COMMENT:	BY:
1	07/08/13	REV. PER TOWN STAFF COMMENTS	CFD

CHECKED BY: JGS  
 DRAWN BY: KBS  
 DATE: 01/25/13  
 JOB NUMBER: W121033  
 TITLE: CONSTRUCTION DETAIL SHEET  
 SHEET NUMBER: 15  
 COMMENTS: NOT FOR CONSTRUCTION

P:\12\121033\DWG\W121033.dwg, 15-Detail, 4/23/2010, 10:17:14 AM, Kmsdick, Xerox3/10/12, User34, 11



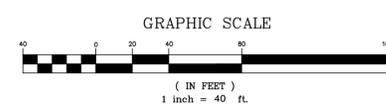
**MASSACHUSETTS AVENUE**  
(A.K.A. ROUTE 111)  
(PUBLIC - 60' WIDE)

- REFERENCES:**
- THE TAX ASSESSOR'S MAP OF THE TOWN OF ACTON, MIDDLESEX COUNTY, COMMONWEALTH OF MASSACHUSETTS.
  - MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, MIDDLESEX COUNTY, MASSACHUSETTS (CALL JURISDICTION) PANEL 362 OF 367", MAP NUMBER 250703032E, EFFECTIVE DATE: JUNE 4, 2010.
  - MAP ENTITLED "COMPLETED PLAN OF LAND IN ACTON, MASS., OWNED BY RICHARD T. & ROSE M. KELLEY", DATED MARCH 21, 1966, PREPARED BY EVERETT M. BROOKS, CO., FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 1160 OF 1967.
  - MAP ENTITLED "COMPLETED PLAN OF LAND (SHOWING ESMT FOR SEWAGE DISPOSAL) IN ACTON, MASS., OWNED BY: RICHARD T. & ROSE M. KELLEY", DATED FEBRUARY 16, 1967, PREPARED BY JOSEPH W. MOORE, INC., FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 318 OF 1967.
  - MAP ENTITLED "PLAN OF LAND IN ACTON, MASS. (SHOWING PROPOSED DRAIN EASEMENT) FOR SILVERSTONE", DATED JUNE 1, 1974, PREPARED BY JOSEPH W. MOORE, CO., INC., FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 608 OF 1974.
  - MAP ENTITLED "PLAN OF LAND IN ACTON, MASS., OWNED BY LENOX FEDERAL SAVINGS AND LOAN ASSOCIATION", DATED MAY 24, 1971, PREPARED BY ACTON SURVEY & ENGINEERING, INC., FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 1381 OF 1972.
  - MAP ENTITLED "PLAN OF LAND, 418 MASSACHUSETTS AVENUE, ACTON, MASSACHUSETTS, PREPARED FOR: ALAN BERRO", DATED APRIL 2001, PREPARED BY ACTON SURVEY & ENGINEERING, INC., FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 12 (1 OF 3) OF 2002.
  - MAP ENTITLED "LAND IN ACTON OWNED BY RICHARD T. KELLEY AND ROSE M. KELLEY", DATED JULY 30, 1963, PREPARED BY HARLAN E. TUTTLE, FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 692 OF 1968.
  - MAP ENTITLED "PLAN OF LAND IN ACTON, MASSACHUSETTS (MIDDLESEX COUNTY) FOR: 418 MASS. AVE. CONDOMINIUM TRUST", DATED MARCH 6, 2006, PREPARED BY STAMSKI AND MONARY, INC., FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 572 OF 2006.
  - MASSACHUSETTS HIGHWAY PLAT PLAN OF ROAD IN THE TOWN OF ACTON LAYOUT 1410, SHEET 1 OF 3, DATED 1890.
  - MAP ENTITLED "PLAN OF A PORTION OF UNION TURNPIKE, ACTON, AS ORDERED BY THE COUNTY COMMISSIONERS, 1890", SHEET 1 OF 6.
  - MAP ENTITLED "LAND IN ACTON OWNED BY RICHARD T. KELLEY AND ROSE M. KELLEY", DATED FEBRUARY 24, 1961, PREPARED BY HARLAN E. TUTTLE, FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 1490 OF 1964.
  - MAP ENTITLED "LAND IN ACTON OWNED BY RICHARD T. KELLEY AND ROSE M. KELLEY", DATED JUNE 2, 1958, PREPARED BY HARLAN E. TUTTLE, FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 692 OF 1968.
  - MAP ENTITLED "ACTON MANOR PLAN OF LAND IN ACTON MASS. (SHOWING REVISED LOT LINES), OWNED BY HERBERT L. & VERNIA M. ESTABROOK", DATED NOVEMBER 2, 1959, PREPARED BY JOSEPH W. MOORE, INC., FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 1852 OF 1959.
  - MAP ENTITLED "AS-BUILT PLAN, T.D. BANKNORTH, ACTON, MA, FOR P.C. CONSTRUCTION COMPANY", DATED MAY 3, 2012, PREPARED BY STAMSKI AND MONARY, INC.
  - MAP ENTITLED "LAND IN ACTON OWNED BY RICHARD T. KELLEY AND ROSE M. KELLEY", DATED JANUARY 4, 1961, PREPARED BY HARLAN E. TUTTLE, FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 236 OF 1961.
  - MAP ENTITLED "PLAN OF LAND IN ACTON, MASS.", PREPARED FOR GULF OIL COMPANY, FILED IN THE MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 1192 (B OF 2) OF 1971.
  - MAP ENTITLED "EASEMENT PLAN OF LAND PREPARED FOR: NOTCA LLC & PARKER LANE INVESTMENT TRUST, 408 MASSACHUSETTS AVENUE, LOT 127, MAP F3, TOWN OF ACTON, MIDDLESEX COUNTY, COMMONWEALTH OF MASSACHUSETTS", DATED MARCH 23, 2011, PREPARED BY CONTROL POINT ASSOCIATES, INC.
  - MAP ENTITLED "ACTON, MAIN STREET, MAP 5067", SHEETS 3 & 4 OF 4.
  - SEWER MAPPING, MAIN STREET AND MASSACHUSETTS AVENUE, PREPARED BY WOODARD AND CURRAN, RECORD DRAWINGS, REVISED MAIN STREET, JUNE 2002, MASSACHUSETTS AVENUE, FEBRUARY 2002.
  - MAP ENTITLED "FRANCINE STREET PLAN AND PROFILE STA. 0+00 TO 5+00S", PREPARED BY WOODARD AND CURRAN, DATED: MARCH 1999, SHEET C-38.
  - MAP ENTITLED "EASEMENT PLAN OF LAND IN ACTON, MASSACHUSETTS", PREPARED BY STAMSKI AND MONARY, INC., DATED: MARCH 29, 2000, FILED IN MIDDLESEX COUNTY SOUTH REGISTRY OF DEEDS AS PLAN NUMBER 424 OF 2000.
  - GAS MAPPING PROVIDED BY NATIONAL GRID.

- UTILITIES:**
- THE FOLLOWING COMPANIES WERE NOTIFIED BY THE MASSACHUSETTS ONE-CALL SYSTEM (1-888-344-7233) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST. SERIAL NUMBER(S): 20121208231
- | UTILITY COMPANY                               | PHONE NUMBER |
|---|--------------|
| A&T TRANSMISSION                              | 877-760-6108 |
| VERIZON                                       | 978-952-2628 |
| NSAR ELECTRIC                                 | 888-633-3797 |
| NATIONAL GRID GAS - BOSTON                    | 800-455-6328 |
| COMCAST                                       | 978-263-6033 |
| TENNESSEE GAS PIPELINE CO. ON TARGET LOCATING | 508-435-6812 |
| INNOVATIVE DATA MANAGEMENT                    | 888-429-1022 |
|   | 888-604-5577 |



THE COMMONWEALTH OF MASSACHUSETTS REQUIRES NOTIFICATION BY ENGINEERS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE APPEARING IN THE STATE.



- NOTES:**
- PROPERTY KNOWN AS LOTS 113, 117, 118, 118-1, 118-2, 121, 121-1, 121-2, 127, 128 AND 134 AS SHOWN ON MAP 3F.
  - AREA = 574,910 S.F. OR 13.198 AC.
  - LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER SERVICE OR ABANDONED.
  - THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
  - THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
  - BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2.
  - THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
  - ELEVATIONS ARE BASED UPON NAVD 1988, REFERENCE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS GEODETIC SURVEY MONUMENT T.B.M. #655, ELEVATION = 241.311' (NOV. 1929), ADJUSTED TO NAVD 88 BY CORRECTION (C.O. 76).
  - THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
  - WETLAND FLAGS PLACED BY LUCAS ENVIRONMENTAL, LLC. FIELD LOCATED BY CONTROL POINT ASSOCIATES ON OCTOBER 2, 2012.

**LEGEND**

--- 124 ---	EXISTING CONTOUR	—	METAL GUIDE RAIL
x 123.45	PAINTED SPOT ELEVATION	→	GUIDED ARROWS
x 123.45	EXISTING TOP OF CURB ELEVATION	C.L.F.	CHAIN LINK FENCE
x 123.45	EXISTING GUTTER ELEVATION	D.C.	DEPRESSED CURB
x 123.45	EXISTING TOP OF WALL ELEVATION	E.O.P.	EDGE OF PAVEMENT
x 123.45	EXISTING BOTTOM OF WALL ELEVATION	L.S.A.	LANDSCAPED AREA
x 123.45	EXISTING FINISHED FLOOR ELEVATION	M.C.	METAL COVER
x 123.45	EXISTING DOOR SILL ELEVATION	(TYP.)	TYPICAL
—	HYDRANT	GR	GRANITE
—	WATER VALVE	ASP.	ASPHALT
—	GAS VALVE	D.W.P.	DETECTABLE WARNING PAD
—	GAS METER	S.W.L.	SOLID WHITE LINE
—	ELECTRIC METER	S.Y.L.	SOLID YELLOW LINE
—	OVERHEAD WIRES	D.L.	DOUBLE YELLOW LINE
—	UTILITY POLE	T.O.H.	TOP OF HOOD
—	UTILITY POLE/LIGHT POLE	—	DRAINAGE/STORM MANHOLE
—	GUY WIRE	—	SANITARY/SEWER MANHOLE
—	TRAFFIC SIGNAL POLE	—	TELEPHONE MANHOLE
—	MONITORING WELL	—	UNKNOWN MANHOLE
—	MONITORING WELL ON CONCRETE	---	APPROX. LOC. UNDERGROUND GAS LINE PER REF. 21 & UTILITY MARKOUT (SEE NOTE 3)
—	AREA LIGHT	---	APPROX. LOC. UNDERGROUND WATER LINE PER UTILITY MARKOUT (SEE NOTE 3)
—	CLEAN OUT	---	APPROX. LOC. UNDERGROUND WATER LINE PER REF. 20 & UTILITY MARKOUT (SEE NOTE 3)
—	SIGN	---	APPROX. LOC. UNDERGROUND ELECTRIC LINE PER UTILITY MARKOUT (SEE NOTE 3)
—	BOLLARD	---	APPROX. LOC. UNDERGROUND SANITARY FORCE MAIN PER REF. 20 (NOT FIELD VERIFIED, SEE NOTE 3)
—	WETLAND FLAG	---	