

# SITE DEVELOPMENT PLANS

FOR:  
PROPOSED

## CULTIVATION FACILITY

### WILLIAM WAY PARTNERS, LLC

&

### GOOD CHEMISTRY OF MASSACHUSETTS, INC.

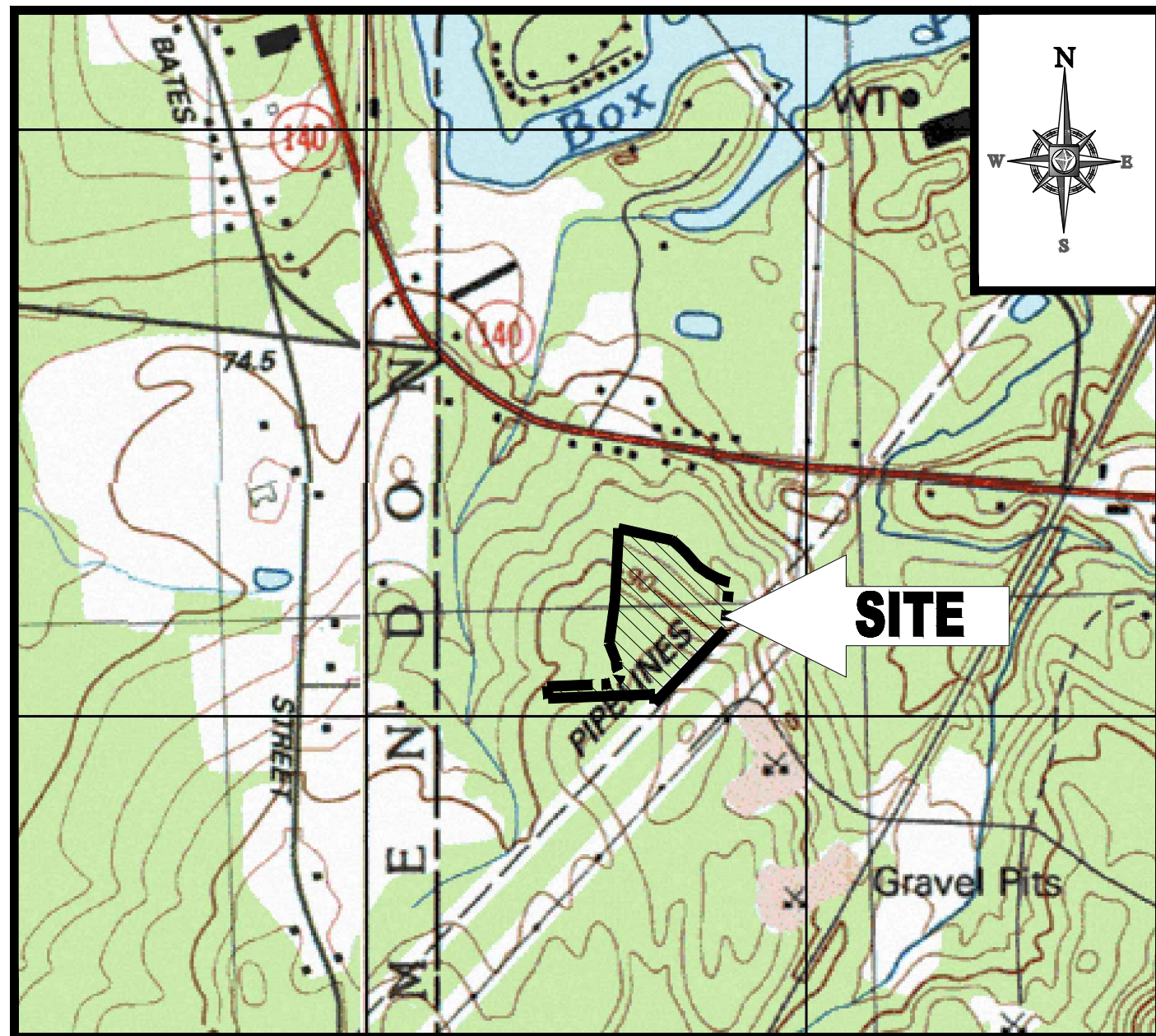
APPROVED

By Bellingham Planning Board at 9:17 am, Nov 15, 2018

LOCATION OF SITE:

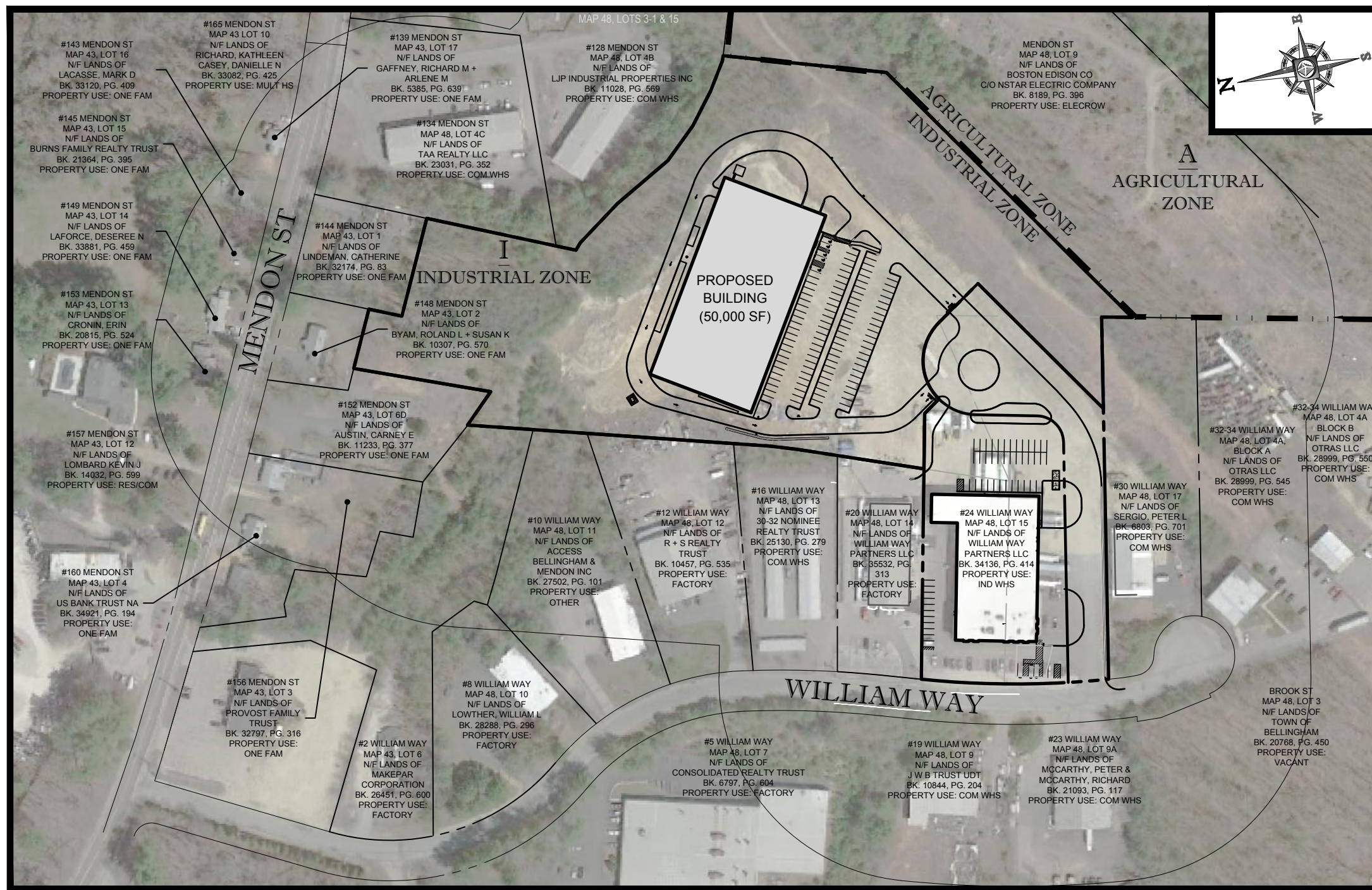
24 WILLIAM WAY, TOWN OF BELLINGHAM  
NORFOLK COUNTY, MASSACHUSETTS

MAP #48, LOT #15



LOCUS MAP

SCALE: 1"=800'  
PLAN REFERENCE: FRANKLIN MASSACHUSETTS USGS QUADRANGLE



AREA PLAN

SCALE: 1"=180'

APPLICANT:

WILLIAM WAY PARTNERS, LLC  
24 WILLIAM WAY  
BELLINGHAM, MA 02019

PREPARED BY



**BOHLER**  
ENGINEERING

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APPROVAL BLOCK

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BOHLER ENGINEERING  
SITE CIVIL AND CONSULTING ENGINEERING  
LAND SURVEYING  
SUSTAINABLE DESIGN  
PERMITTING SERVICES  
TRANSPORTATION SERVICES  
ARCHITECTURE  
UPSTATE NEW YORK  
NEW ENGLAND  
NEW YORK METRO  
SOUTHEASTERN, PA  
SOUTHERN NEW JERSEY  
PHILADELPHIA, PA  
NEW YORK, NY  
CHARLOTTE, NC  
BALTIMORE, MD  
SOUTHERN MARYLAND  
ATLANTA, GA  
CENTRAL VIRGINIA  
HIGH VALLEY, VA  
FALCON, NC  
SOUTH FLORIDA  
DALLAS, TX  
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REVISIONS			
REV	DATE	COMMENT	BY
1	9/4/18	REVIEW COMMENTS	AWP
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PERMIT SET

PROJECT No.: W181153  
DRAWN BY: AWP/IN/POZAP  
CHECKED BY: S.J.M./J.M.J.  
DATE: 07/31/2018  
SCALE: AS NOTED  
CAD I.D.: W181153S51

PROJECT: **SITE DEVELOPMENT PLANS**  
FOR  
**WILLIAM WAY PARTNERS, LLC**  
LOCATION OF SITE  
MAP #48, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY  
MASSACHUSETTS

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**J. M. Johnson**  
JESSE M. JOHNSON  
PROFESSIONAL ENGINEER  
REGISTERED PROFESSIONAL DESIGNER

SHEET TITLE:  
**COVER SHEET**  
SHEET NUMBER:  
**1**  
OF 14

REV 1 - 9/4/2018



## 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.

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

- "BOUNDARY & TOPOGRAPHIC SURVEY, 24-26 WILLIAMS WAY", PREPARED BY CONTROL POINT ASSOCIATES, INC., DATED 01/24/17, REVISED THRU 08/31/18.

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

- 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 CODE (42 U.S.C. § 12101 et seq. AND 42 U.S.C. § 4151 et seq.) OR 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.

- 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.

- 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.

- 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.

- 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 NOTIFIER 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.

- 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 GRADES 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.

- 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.

- 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, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST.

- 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.

- 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.

- 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 INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.

- 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, STRIPS, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME, BUT NOT BE LIMITED TO: REDESIGN, RESURVEY, REPERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL, INTERCONNECTOR 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.

- 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.

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

- 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.

- ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKERS' COMPENSATION INSURANCE, EMPLOYERS' LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL 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 WILL, 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, LOSSES, 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.

- 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 DOCUMENTS. CONSTRUCTION MEANS AND/OR METHODS AND/OR TECHNIQUES OR PROCEDURES OR 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. HOWEVER, 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 DOCUMENTS NOT PROMPTLY AND IMMEDIATELY BROUGHT TO ITS 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.

- 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 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 CONTRACT DOCUMENTS 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 19 FOR JOB SITE SAFETY.

- 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 AND/OR 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 PARAGRAPH 19 HEREIN, FOR AND FROM ALL FEES, ATTORNEY'S FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED TO SAME.

- 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.

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

- ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S 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.

- OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, IN STRICT ACCORDANCE WITH THE PROJECT PLANS AND DESIGN, AND FURTHER ENGINEER AND/OR OWNER SHALL BE RESPONSIBLE TO SO MAINTAIN OR PRESERVE OR REPLACE 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.

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

- 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.

- CONTRACTOR AND OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURERS' 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.

- 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.

- 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'S 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

- 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.

- 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 CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH 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.

- 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 SPACE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICABLE 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.

- 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.

- 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 REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

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

- 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 UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS 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 DISCONNECTS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE (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.

- 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 FEES, COSTS AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE FULL AND COMPLETE WORKING SERVICE. CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.

- 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.

- SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE 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 REGISTERED 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. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL. THE CONTRACTOR IS RESPONSIBLE FOR THE GEOTECHNICAL REPORT, EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN 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.

- ALL FILL, COMPACT 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 COMPACTATION 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 LABOR.

- 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 ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK LABOR.

- PAVEMENT MUST BE SAW 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. STOCKPIILING OF DEBRIS WILL NOT BE PERMITTED.

- 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.

- DURING THE INSTALLATION OF SANITARY SEWER, STORM SEWER, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO THE END OF THE INSTALLATION. LOCATIONS OF ALL UTILITIES AND CAREFUL RECORDS OF ANY NOTATIONS 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.

- 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.

- 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 0.75% MINIMUM SLOPE AGAINST ALL ISLANDS, OUTFALLS, AND CURBS, 1.0% ON ALL CONCRETE SURFACES, AND 1.5% MINIMUM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS OR EXISTING TOPOGRAPHY LIMIT GRADIENTS), TO PREVENT FLOODING. CONTRACTOR MUST IMMEDIATELY IDENTIFY, IN WRITING TO THE ENGINEER, ANY DISCREPANCIES THAT MAY OR COULD EFFECT 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, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM SAME.

- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. IT IS CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.

- REFER TO THIS SHEET FOR ADDITIONAL NOTES.

- 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.

- CONTRACTOR IS 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 APPROVAL TO ENGINEER AND OWNER PRIOR TO INITIATING ANY WORK.

- 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 FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/TERMINATED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS.

- STORM DRAINAGE PIPE UNLESS INDICATED OTHERWISE, ALL STORM SEWER PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SLT TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO ASTM M241 AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SLT TIGHT JOINT. PVC PIPE FOR ROOF DRAIN CONNECTION MUST BE SDR 26 OR SCHEDULE 40 UNLESS INDICATED OTHERWISE.

- UNLESS INDICATED OTHERWISE ON THE DRAWINGS, SANITARY SEWER PIPE SHALL BE AS FOLLOWS:
  - FOR PIPES LESS THAN 12 FT. DEEP: POLYVINYL CHLORIDE (PVC) SDR 35 PER ASTM D3034
  - FOR PIPES MORE THAN 12 FT. DEEP: POLYVINYL CHLORIDE (PVC) SDR 35 PER ASTM D3034
  - FOR PIPE WITHIN 10 FT. OF BUILDING, PIPE MATERIAL SHALL COMPLY WITH APPLICABLE BUILDING AND PLUMBING CODES. CONTRACTOR TO VERIFY WITH LOCAL OFFICIALS.

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

- 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.

- SEWERS CROSSING STREAMS AND/OR LOCATION WITHIN 10 FEET OF THE STREAM EMBANKMENT, OR WHERE SITE CONDITIONS SO INDICATE, MUST BE CONSTRUCTED OF STEEL, REINFORCED CONCRETE, DUCTILE IRON OR OTHER MATERIALS OF EQUAL OR BETTER QUALITY. 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.

- 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 (DIP) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.

- 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 AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.

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

- 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 PROPERTY.

## GENERAL DEMOLITION NOTES

- THIS PLAN REFERENCES DOCUMENTS AND INFORMATION BY:

- "BOUNDARY & TOPOGRAPHIC SURVEY, 24-26 WILLIAMS WAY", PREPARED BY CONTROL POINT ASSOCIATES, INC., DATED 01/24/17, REVISED THRU 08/31/18.

- 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.

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

- 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.

- CONTRACTOR MUST RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNING REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN 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.

- 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 WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK.

- B. NOTIFYING, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION DISTRICT, 72 HOURS PRIOR TO THE START OF WORK.

- C. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE.

- D. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARKOUT, IN ADVANCE OF ANY EXCAVATION.

- E. LOCATING AND PROTECTING ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.

- F. PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.

- G. ARRANGING FOR AND COORDINATING WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS. THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.

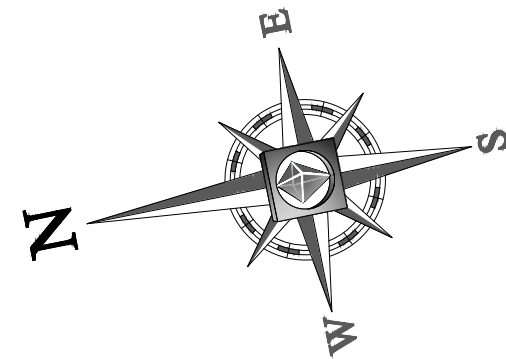
- H. COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES. WORK REQUIRED TO BE DONE "OFF-PEAK" IS TO BE DONE AT NO ADDITIONAL COST TO THE OWNER.

- I. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK AND IMMEDIATELY NOTIFY THE OWNER AND ENGINEER OF THE DISCOVERY OF SUCH MATERIALS.

- THE FIRM OR ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.

- THE CONTRACTOR MUST PROVIDE ALL "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN. CONTRACTOR MUST USE ONLY NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR MUST NOTIFY THE OWNER IMMEDIATELY OF ANY DAMAGE TO THE REST





**APPROVED**  
By Bellingham Planning Board at 9:18 am, Nov 15, 2018

MENDON STREET  
(PUBLIC - VARIABLE WIDTH)

PROPOSED LOT 2

PROPOSED  
SUBDIVISION

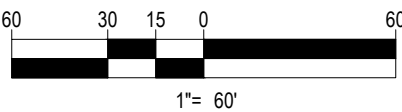
INDUSTRIAL DRIVE


WILLIAM WAY  
(PUBLIC - 50' WIDE ROW)

PROPOSED LOT 1

#20  
WILLIAM  
WAY

#24  
WILLIAM  
WAY





**BOHLER**  
ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING

LAND SURVEYING DESIGN

SUSTAINABLE DESIGN

TRANSPORTATION SERVICES

PERMITTING SERVICES

ARCHITECTURE

NEW ENGLAND

NEW YORK METRO

NEW YORK, NY

SOUTHEASTERN, PA

SOUTHERN NEW JERSEY

UPSTATE NEW YORK

PHILADELPHIA, PA

LEHIGH VALLEY, PA

BALTIMORE, MD

SOUTHERN MARYLAND

CENTRAL VIRGINIA

PALEIGH, NC

CHARLOTTE, NC

ATLANTA, GA

SOUTH FLORIDA

DALLAS, TX

THE INFORMATION CONTAINED ON THIS PLAN IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE A GUARANTEE OF ANY KIND. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. BOHLER ENGINEERING, INC. IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS ON THIS PLAN.

FOR BOHLER ENGINEERING, INC. 11/15/2018

REVISIONS			
REV	DATE	COMMENT	BY
1	9/4/18	REVIEW COMMENTS	AWP
2			
3			
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PERMIT  
SET

PROJECT No.: W181153

DRAWN BY: AWP/INPOIZAP


CHECKED BY: S.J.M./M.J.

DATE: 07/13/2018

SCALE: AS NOTED

CAD I.D.: W181153SS1

PROJECT: **SITE DEVELOPMENT PLANS**  
FOR  
**WILLIAM WAY PARTNERS, LLC**  
LOCATION OF SITE  
MAP #48, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY  
MASSACHUSETTS



**BOHLER**  
ENGINEERING

352 TURNPIKE ROAD

SOUTHBOROUGH, MA 01772

Phone: (508) 480-9900

Fax: (508) 480-9080

[www.BohlerEngineering.com](http://www.BohlerEngineering.com)

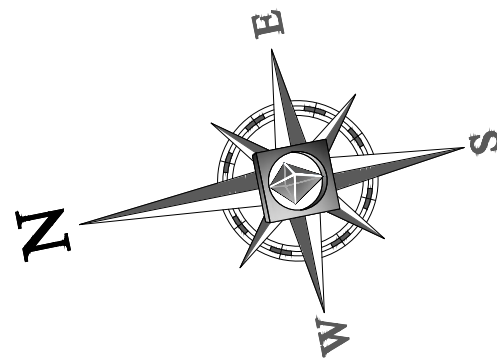
**J. M. Johnson**  
REGISTERED PROFESSIONAL ENGINEER  
MASSACHUSETTS  
LICENSE NO. 10101  
EXPIRATION DATE 12/31/2020

SHEET TITLE:  
**KEY PLAN**

SHEET NUMBER:  
**3**  
OF 14

REV 1 - 9/4/2018





**APPROVED**  
By Bellingham Planning Board at 9:18 am, Nov 15, 2018

MAP 48, LOT 3-1  
N/F LANDS OF  
DMJ CONCRETE  
BK 6709, PG 588

MAP 48, LOT 12  
N/F LANDS OF  
R+S REALTY TRUST  
BK 1047, PG 535  
LOT 3

MAP 48, LOT 13  
N/F LANDS OF  
30-32 NOMINEE REALTY TRUST  
BK 25130, PG 279  
LOT 4

MAP 48, LOT 14  
N/F LANDS OF  
STEPPING STONE REALTY  
TRUST  
BK 25767, PG 94  
LOT 5

MAP 48, LOT 15  
N/F LANDS OF  
OPUS REALTY LTD PARTNERSHIP  
BK 15122, PG 283  
BK 34136, PG 414  
LOT 7

MAP 48, LOT 17  
N/F LANDS OF  
PETER L. SERGIO  
BK 6803, PG 701  
LOT 8

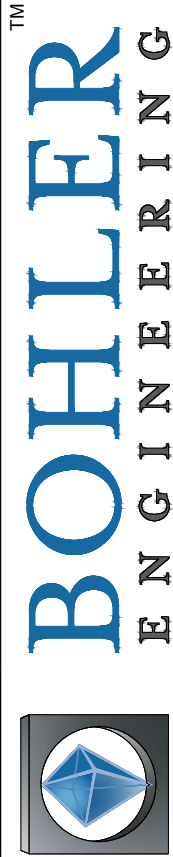
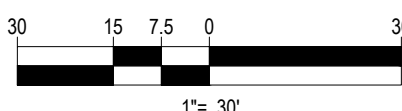
INDUSTRIAL DRIVE  
(60' R.O.W.)

WILLIAM WAY  
(PUBLIC 50' WIDE ROW)  
(ASPHALT ROADWAY)  
TWO WAY  
TRAFFIC



REFER TO GENERAL NOTES SHEET  
FOR DEMOLITION NOTES

THIS PLAN TO BE UTILIZED FOR  
DEMOLITION/ REMOVAL  
PURPOSES ONLY



SITE CIVIL AND CONSULTING ENGINEERING, ARCHITECTURE  
LAND SURVEYING DESIGN, PERMITTING SERVICES, TRANSPORTATION SERVICES  
SUSTAINABLE DESIGN  
• URBAN NEW YORK • BALTIMORE, MD • CHARLOTTE, NC  
• PHILADELPHIA, PA • SOUTHERN NEW JERSEY • ATLANTA, GA  
• NEW ENGLAND • SOUTHERN MARYLAND • CENTRAL VIRGINIA  
• NEW YORK, NY • LEHIGH VALLEY, PA • SOUTH FLORIDA  
• NEW YORK, NY • SOUTHEASTERN, PA • DALLAS, TX  
• NEW YORK, NY • SOUTHEASTERN, PA • DALLAS, TX  
THE INFORMATION, DESIGN AND CONCEPT OF THIS PLAN WAS DEVELOPED BY AND SHALL BE CONSIDERED AS THE PROPERTY OF BOHLER ENGINEERING, INC.  
FOR BOHLER ENGINEERING, INC. 2018 BOHLER ENGINEERING, INC. ALL RIGHTS RESERVED. THIS PLAN SHALL BE USED FOR THE PROJECT AND NOT FOR ANY OTHER PROJECT.

REVISIONS

REV	DATE	COMMENT	BY
1	9/4/18	REVIEW COMMENTS	AWP
2			
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PERMIT  
SET

PROJECT No.: W181153  
DRAWN BY: AWP/INPOIZAP  
CHECKED BY: S.J.M./J.M.  
DATE: 07/31/2018  
SCALE: AS NOTED  
CAD I.D.: W181153S1

PROJECT: **SITE  
DEVELOPMENT  
PLANS  
FOR  
WILLIAM WAY  
PARTNERS,  
LLC**  
LOCATION OF SITE  
MAP #48, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY  
MASSACHUSETTS

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



SHEET TITLE:

**DEMOLITION  
PLAN**

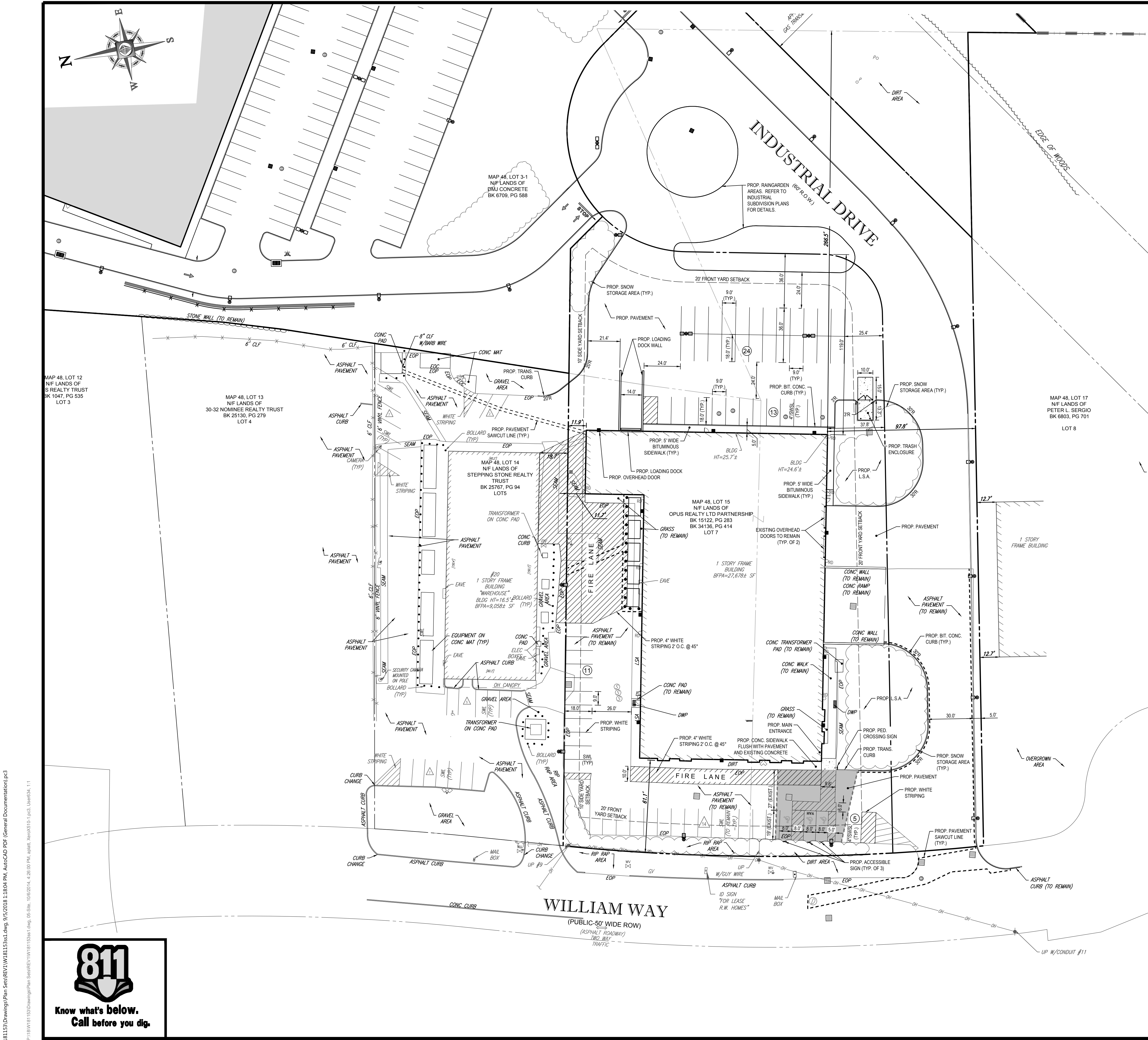
SHEET NUMBER:

**4**

OF 14

REV 1 - 9/4/2018





LAND USE / ZONING INFORMATION & NOTES

- APPLICANT:  
WILLIAM WAY PARTNERS, LLC  
24 WILLIAM WAY  
BELLINGHAM, MA, 02019
- OWNER:  
WILLIAM WAY PARTNERS, LLC  
24 WILLIAM WAY  
BELLINGHAM, MA, 02019
- PARCEL:  
MAP #48 & LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY, MA

ZONING ANALYSIS TABLE

ZONING DISTRICT	INDUSTRIAL (I) ZONE WAREHOUSE USE ALLOWED BY RIGHT		
	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	60,000 SF	129,793 SF	84,292 SF
MINIMUM LOT FRONTAGE	200 FT	278.1 FT	218.0 FT
MAX. BUILDING COVERAGE	N/A	25.8%	39.4%
MIN. FRONT SETBACK	20 / 100 FT (1)	61.1 FT	37.8 FT
MIN. SIDE SETBACK	10 FT / 30 FT (1)	11.7 FT	NO CHANGE
MIN. REAR SETBACK	20 / 100 FT (1)	266.5 FT	N/A
MAX. BUILDING HEIGHT	45 FT	25.7	NO CHANGE
IMPERVIOUS COVERAGE	N/A	50.8%	82.4%
PARKING SPACES	67	47	67
PARKING CRITERIA (9x18')	GENERAL LIGHT INDUSTRIAL/WHOLESALE/WAREHOUSE: 2 SPACES PER 1,000 SF GFA 2 SPACES / 1,000 SF x 33,440 SF = 66.9 = 67 SPACES REQUIRED		
ACCESSIBLE PARKING SPACES	3	4	3
ACCESSIBLE PARKING CRITERIA (STANDARD SPACE: 8x18' W/ 5' ACCESS AISLE) (VAN ACCESSIBLE SPACE: 8x18' W/ 8' ACCESS AISLE)	TOTAL PARKING 51 TO 100 = 3 ACCESSIBLE SPACES VAN ACCESSIBLE SPACES: 1 / 6 SPACES		

N/A - NOT APPLICABLE  
(1) - THE GREATER SETBACK DISTANCE IS REQUIRED WHEN FACING OR ADJOINING A RESIDENTIAL, SUBURBAN, OR AGRICULTURAL DISTRICT

APPROVED

By Bellingham Planning Board at 9:18 am, Nov 15, 2018

REVISIONS

REV	DATE	COMMENT	BY
1	9/4/18	REVIEW COMMENTS	AWP
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PERMIT SET

PROJECT No.: W181153  
DRAWN BY: AWP/NOIZAP  
CHECKED BY: S.J.M/JMJ  
DATE: 07/15/2018  
SCALE: AS NOTED  
CAD I.D.: W181153S1

PROJECT: **SITE DEVELOPMENT PLANS**  
FOR  
**WILLIAM WAY PARTNERS, LLC**  
LOCATION OF SITE  
MAP #48, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY  
MASSACHUSETTS

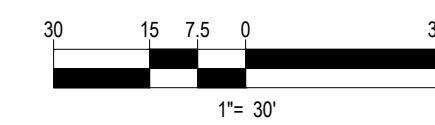
**BOHLER ENGINEERING**  
352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900  
Fax: (508) 480-9080  
[www.BohlerEngineering.com](http://www.BohlerEngineering.com)

**J. M. Johnson**  
PROFESSIONAL ENGINEER  
MASSACHUSETTS  
LICENSED PROFESSIONAL ENGINEER  
REGISTERED PROFESSIONAL ENGINEER

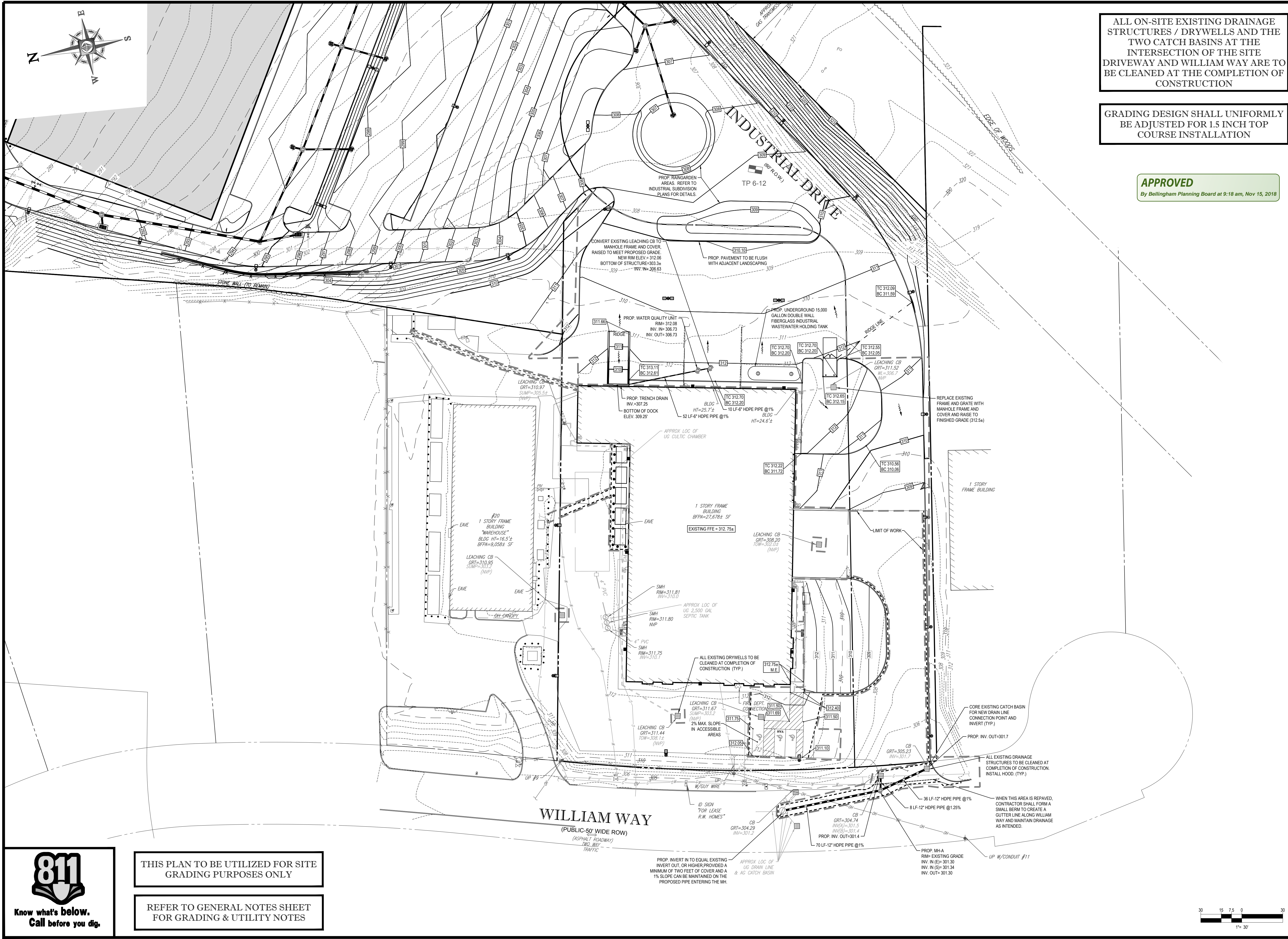
SHEET TITLE:  
**SITE PLAN**  
SHEET NUMBER:  
**5**  
OF 14  
REV 1 - 9/4/2018



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ALL ON-SITE EXISTING DRAINAGE STRUCTURES / DRYWELLS AND THE TWO CATCH BASINS AT THE INTERSECTION OF THE SITE DRIVEWAY AND WILLIAM WAY ARE TO BE CLEANED AT THE COMPLETION OF CONSTRUCTION

GRADING DESIGN SHALL UNIFORMLY BE ADJUSTED FOR 1.5 INCH TOP COURSE INSTALLATION

APPROVED

By Bellingham Planning Board at 9:18 am, Nov 15, 2018

**BOHLER ENGINEERING**

SITE CIVIL AND CONSULTING ENGINEERING ARCHITECTURE  
LAND SURVEYING DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES

CHARLOTTE, NC  
ATLANTA, GA  
DALLAS, TX  
BALTIMORE, MD  
BIRMINGHAM, AL  
CHICAGO, IL  
CINCINNATI, OH  
COLUMBIA, SC  
DENVER, CO  
FORT WORTH, TX  
HOUSTON, TX  
INDIANAPOLIS, IN  
JACKSONVILLE, FL  
KANSAS CITY, MO  
LOS ANGELES, CA  
MEMPHIS, TN  
MIAMI, FL  
MINNEAPOLIS, MN  
NEW YORK, NY  
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RICHMOND, VA  
SAN ANTONIO, TX  
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SEATTLE, WA  
SPRINGFIELD, IL  
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PROJECT No.: W181153  
DRAWN BY: AWP/INPOIZAP  
CHECKED BY: S.J.M./J.M.  
DATE: 07/13/2018  
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**SITE DEVELOPMENT PLANS FOR WILLIAM WAY PARTNERS, LLC**

LOCATION OF SITE  
MAP #48, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY  
MASSACHUSETTS

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**J. M. Johnson**

PROFESSIONAL ENGINEER  
REGISTERED PROFESSIONAL ENGINEER  
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**GRADING & DRAINAGE PLAN**

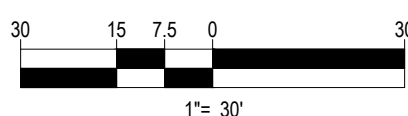
SHEET NUMBER: 6  
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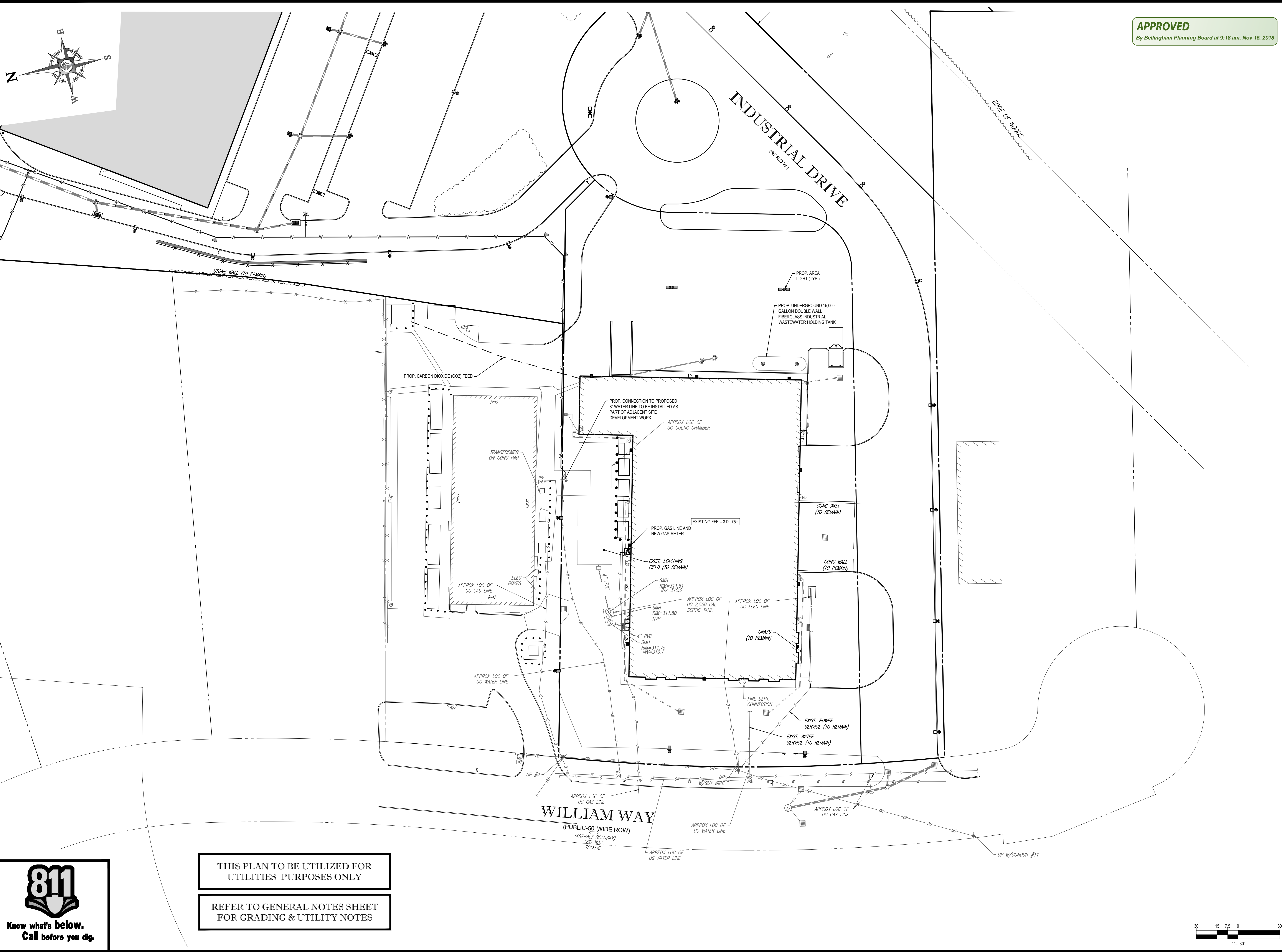
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THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

REFER TO GENERAL NOTES SHEET FOR GRADING & UTILITY NOTES







**APPROVED**  
By Bellingham Planning Board at 9:18 am, Nov 15, 2018

**BOHLER ENGINEERING**

SITE CIVIL AND CONSULTING ENGINEERING ARCHITECTURE  
LAND SURVEYING DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES  
SUSTAINABLE DESIGN

NEW ENGLAND  
NEW YORK METRO  
SOUTHEASTERN, PA  
SOUTHERN NEW JERSEY  
PHILADELPHIA, PA  
BALTIMORE, MD  
SOUTHERN MARYLAND  
LEHIGH VALLEY, PA  
CENTRAL VIRGINIA  
FALLS CHURCH, VA  
ATLANTA, GA  
SOUTH FLORIDA  
DALLAS, TX  
CHARLOTTE, NC

FOR BOHLER ENGINEERING, INC. 2018 BELLINGHAM, MA  
THE INFORMATION, DESIGN AND CONCEPT OF THIS PLAN AND ANY PARTS THEREOF SHALL BE USED FOR ANY PURPOSES WITHOUT WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING, INC.

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**SITE DEVELOPMENT PLANS**  
FOR  
**WILLIAM WAY PARTNERS, LLC**

LOCATION OF SITE  
MAP #48, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
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**J. M. Johnson**

PROFESSIONAL ENGINEER  
REGISTERED PROFESSIONAL DESIGNER

SHEET TITLE:  
**UTILITY PLAN**

SHEET NUMBER:  
**7**  
OF 14

REV 1 - 9/4/2018



## EROSION & SEDIMENT CONTROL NOTES

- ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
- 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 WOULD INCLUDE WETLANDS).
- SEDIMENT BARRIERS (SILT FENCE, STRAW 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%.
- INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE PER NOTE #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 UPOUSLOPE ARE STABILIZED BY TURF.
- NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1).
- IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- 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.
- DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS.
- 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:
  - SIX INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
  - APPLY LESTONE 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 800 LB PER ACRE OR 18.4 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT. APPLY GROUND LESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SF).
  - FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED 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.
  - STRAW 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 STRAW MULCH FOR WIND CONTROL.
- ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
- WETLANDS WILL BE PROTECTED WITH BALES AND/OR SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
- ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
- 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	RATE (1000 SF)
PROTECT AREA	STRAW	100 POUNDS
WINDY AREA	SHREDDED OR CHOPPED CORNSTALKS STRAW (ANCHORED)	185-275 POUNDS 100 POUNDS
MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER THAN 3:1	JUTE MESH OR EXCELSIOR MAT	AS REQUIRED
GREATER THAN 3:1	(REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT)	

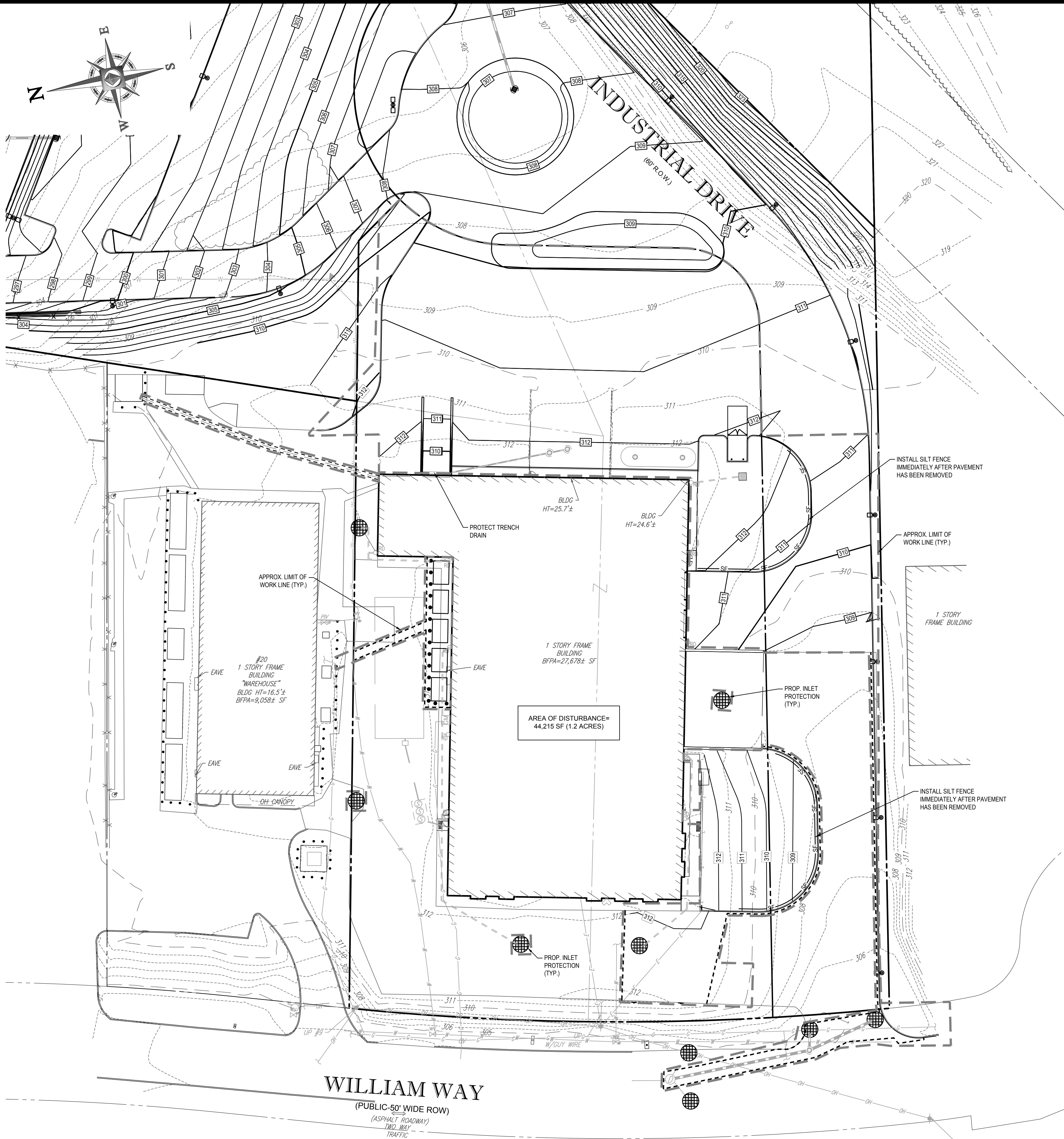
\* A HYDRO-APPLICATION OF WOOD, OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS SHALL BE USED ON STRAW MULCH FOR WIND CONTROL.

### MULCH ANCHORING

ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD. BLOCK); 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

- WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
- WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
- EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
- 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.
- AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR SEED AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
- 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 SEEDED 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 SEEDED 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 OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
- MULCHING REQUIREMENTS:
  - BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
  - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.
  - 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%.
- AFTER NOVEMBER 1ST THE CONTRACTOR SHALL APPLY DORMANT SEEDING OR MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORKING DAY.
- DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
- 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.
- EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.



## CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

- INSTALLATION OF INLET PROTECTION IN STREET (AS SHOWN)
- DEMOLITION OF EXISTING SITE FEATURES (SEE DEMOLITION PLAN)
- EARTHWORK AND EXCAVATION/FILLING AS NECESSARY
- CONSTRUCTION OF UTILITIES
- STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING
- 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 AS REQUIRED.
- PAVE PARKING LOT
- LANDSCAPING PER LANDSCAPING PLAN
- REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER.

**APPROVED**

By Bellingham Planning Board at 9:18 am, Nov 15, 2018

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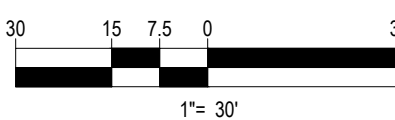
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**J. M. Johnson**  
PROFESSIONAL ENGINEER  
MASSACHUSETTS  
REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE:  
**SOIL EROSION & SEDIMENT CONTROL PLAN**  
SHEET NUMBER:  
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THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE

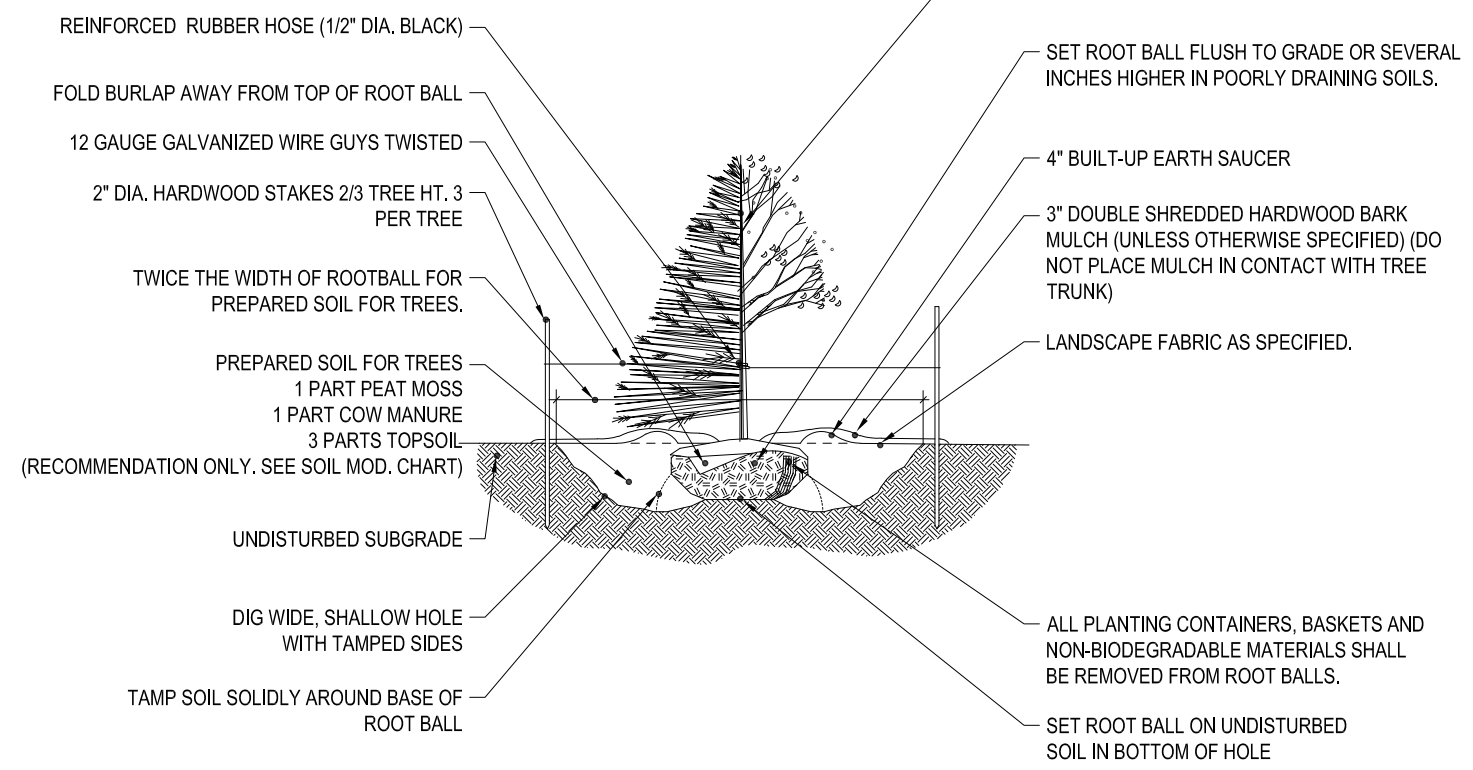
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LANDSCAPE SPECIFICATIONS

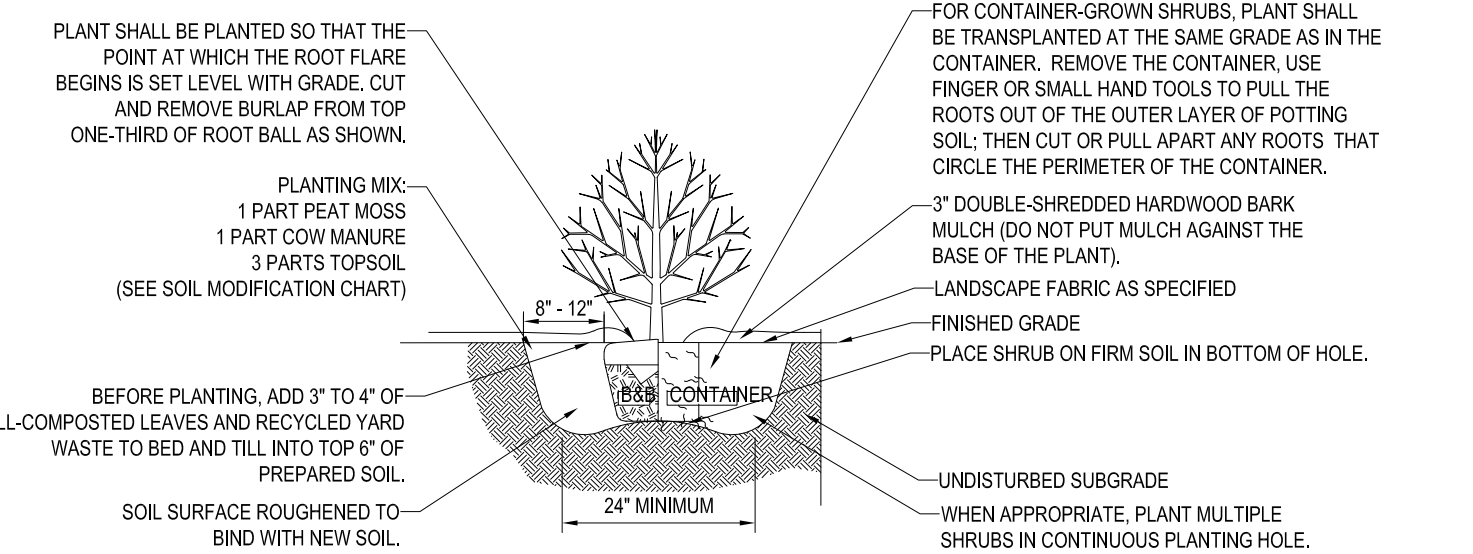
1. SCOPE OF WORK:
- 1.1. THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.
2. MATERIALS
- 2.1. GENERAL - ALL LANDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATIONS SPECIFICATIONS.
- 2.2. 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.
- 2.3. 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 THE LANDSCAPE PLAN
- 2.3.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
- 2.3.2. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE-FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
- 2.4. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES/DETAILS.
- 2.5. FERTILIZER
- 2.5.1. 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.
- 2.5.2. 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.
- 2.6. PLANT MATERIAL
- 2.6.1. 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"). IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
- 2.6.2. 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.
- 2.6.3. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1/4", WHICH HAVE NOT BEEN COMPLETELY CALLEDUS, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
- 2.6.5. 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.
- 2.6.6. 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.
- 2.6.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
- 2.6.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.
3. GENERAL WORK PROCEDURES
- 3.1. 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.
- 3.2. 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.
4. SITE PREPARATIONS
- 4.1. 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.
- 4.2. 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.
- 4.3. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.
5. TREE PROTECTION
- 5.1. 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.
- 5.2. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY "VISH-FENCE" 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.
- 5.3. 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.
- 5.4. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.
6. SOIL MODIFICATIONS
- 6.1. 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.
- 6.2. 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.
- 6.3. 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.
- 6.3.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". 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.
- 6.3.2. 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 GYPSSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
- 6.3.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
7. FINISHED GRADING
- 7.1. 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.
- 7.2. 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 (1/4").
- 7.3. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS. UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
- 7.4. 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
- 8.1. CONTRACTOR SHALL PROVIDE A 1/2" 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 IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
- 8.2. 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.
- 8.3. 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 AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
- 8.4. 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.):
- 8.4.1. 20 POUNDS 'GRO-POWER' OR APPROVED SOIL CONDITIONER/FERTILIZER
- 8.4.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER
- 8.5. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.
9. PLANTING
- 9.1. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
- 9.2. 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.
- 9.3. 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.
- 9.4. 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 BACKFILLING.
- 9.5. 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.
- 9.6. 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. THE APPROVING AGENCY SHALL 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:
- 9.6.1. PLANTS: MARCH 15 TO DECEMBER 15
- 9.6.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
- 9.6.3. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.
- 9.7. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF PLANTING AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:
- |                         |                       |
|-------------------------|-----------------------|
| ACER VARIETIES          | PLATANUS X ACERIFOLIA |
| BETULA VARIETIES        | POPULUS VARIETIES     |
| CARPINUS VARIETIES      | PRUNUS VARIETIES      |
| CRATAEGUS VARIETIES     | PYRUS VARIETIES       |
| KOELREUTERIA            | QUERCUS VARIETIES     |
| LIQUIDAMBAR STYRACIFLUA | TILIA TOMENTOSA       |
| LIRIODENDRON TULIPIFERA | ZELKOVA VARIETIES     |
- 9.8. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
- 9.8.1. 1 PART PEAT MOSS
- 9.8.2. 1 PART COMPOSTED COW MANURE BY VOLUME
- 9.8.3. 3 PARTS TOPSOIL BY VOLUME
- 9.8.4. 21 GRAMS 'AGRICFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
- 9.8.4.1. 2 TABLETS PER 1 GALLON PLANT
- 9.8.4.2. 3 TABLETS PER 5 GALLON PLANT
- 9.8.4.3. 4 TABLETS PER 15 GALLON PLANT
- 9.8.4.4. LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK
- 9.9. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
- 9.10. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
- 9.11. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
- 9.12. GROUND COVER AREAS SHALL RECEIVE A 1/2" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
- 9.13. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
- 9.14. 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.
- 9.15. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.
10. TRANSPLANTING (WHEN REQUIRED)
- 10.1. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
- 10.2. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
- 10.3. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
- 10.4. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
- 10.5. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
- 10.6. F TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.
11. WATERING
- 11.1. 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.
- 11.2. 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.
- 11.3. 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
- 12.1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF 1 YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE 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.
- 12.2. 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.
- 12.3. 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.
- 12.4. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
13. CLEANUP
- 13.1. 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.
- 13.2. 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):
- 14.1. A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/OPERATOR 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 MAINTAINED TO THE APPROVAL OF THE OWNER/OPERATOR.

- NOTES:
- 1.) NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
- 2.) REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3" FROM ROOT BALL.
- 3.) PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
- 4.) THOROUGHLY SOW THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- 5.) THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST 1/2" TO 3 IN. OF PLANTING SOIL INTO THE SUBSOIL.
- 6.) REFER TO THE CHART "GENERAL RANGE OF SOIL MODIFICATIONS & VOLUMES FOR VARIOUS SOIL CONDITIONS" TO DETERMINE MINIMUM WIDTH OF PREPARED SOIL (X).
- 7.) SUBSTITUTE ARBORVITAE STAKING SYSTEM WHEN SPECIFIED.



TREE PLANTING DETAIL

N.T.S.



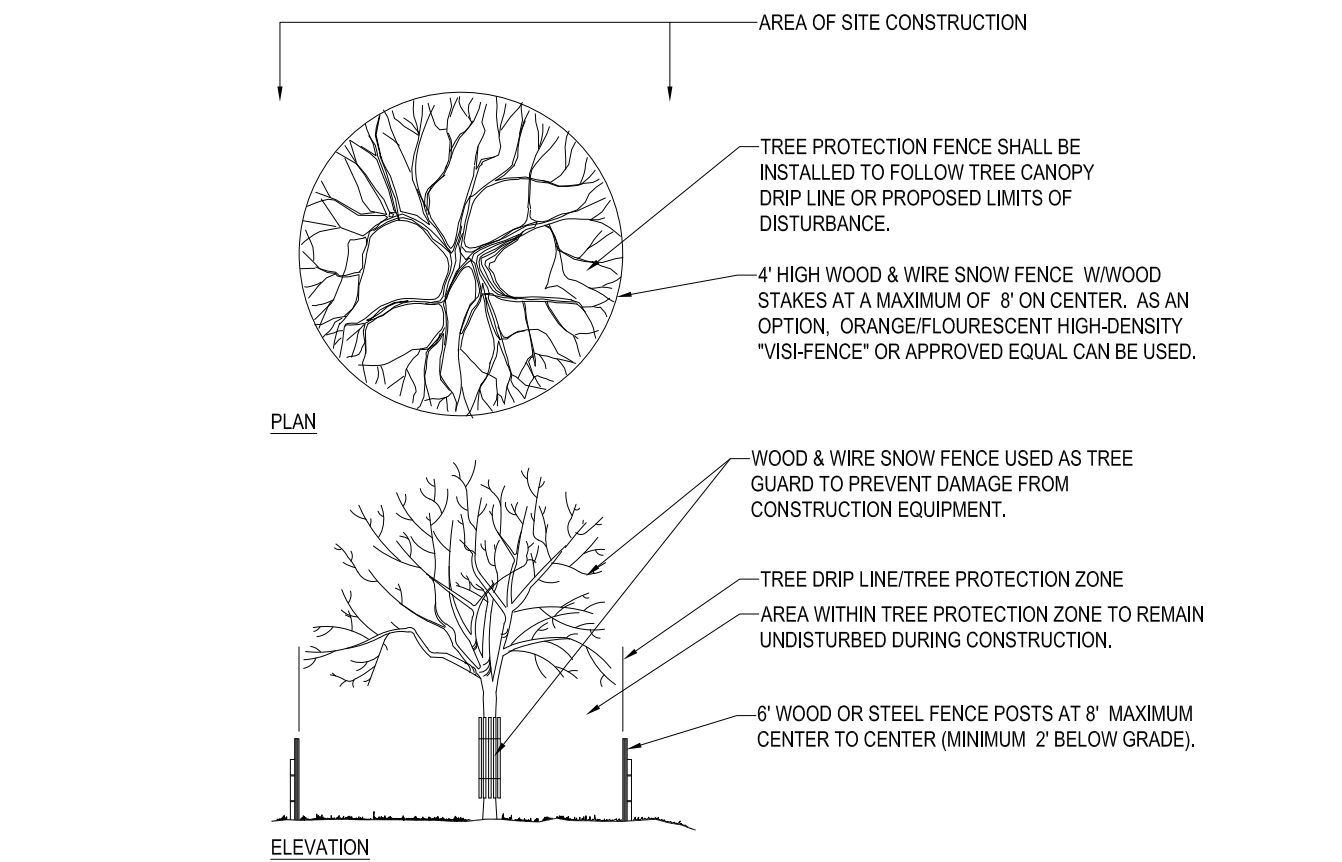
SHRUB PLANTING DETAIL

N.T.S.

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
3. 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      | 2 LB/1000 SQ FT   |
| • FERTILIZER (16-32-16) | 1 GAL/800 GAL     |
| • LIQUID LIME           | 35 LB/800 GAL     |
| • TANK TACKIFIER        | 30 LB/1000 SQ FT  |
| • TANK FIBER MULCH      |                   |
4. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

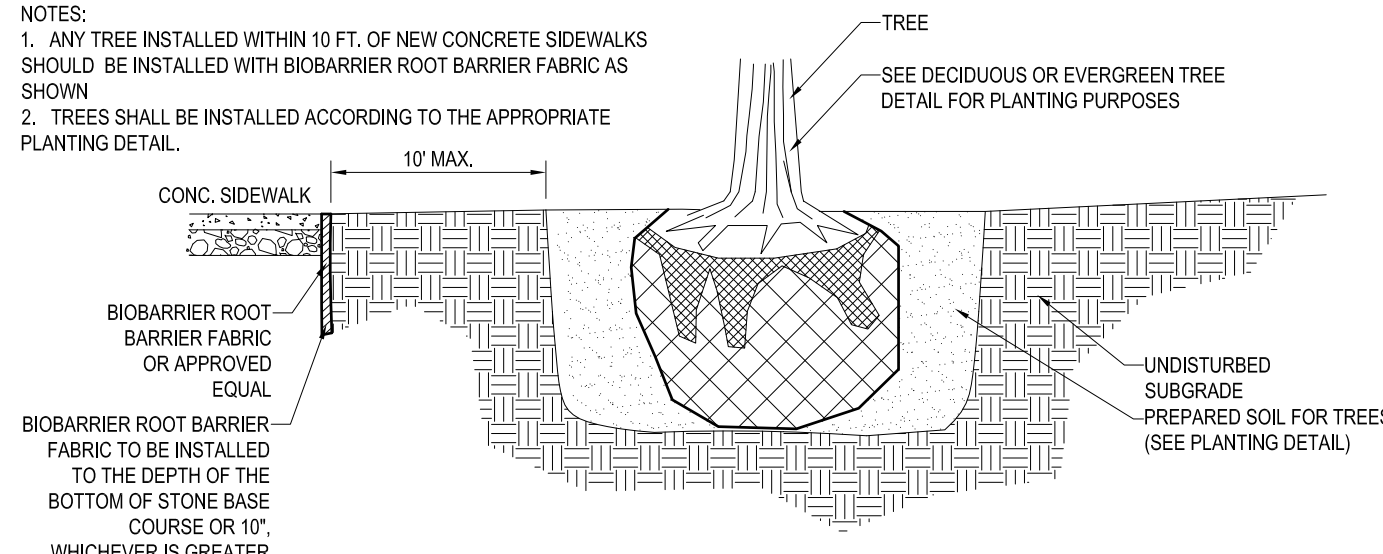
HYDROSEED SPECIFICATIONS

APPROVED  
By Bellingham Planning Board at 9:19 am, Nov 15, 2018



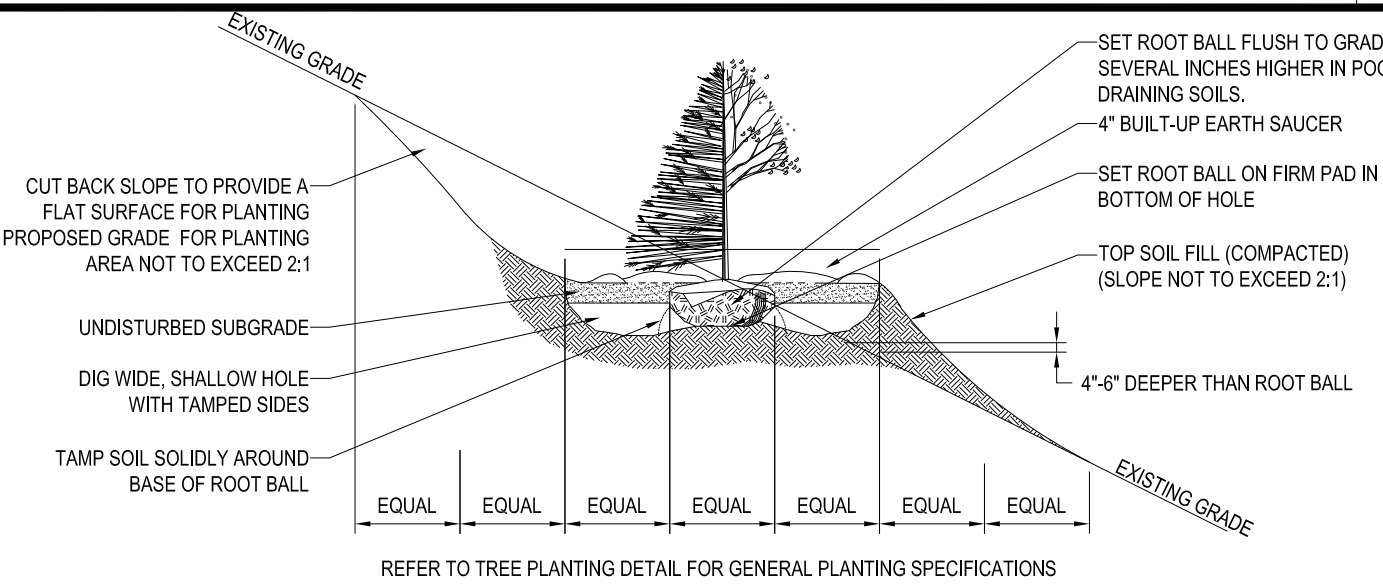
TREE PROTECTION DURING SITE CONSTRUCTION

N.T.S.



BIOBARRIER ROOT BARRIER DETAIL

N.T.S.



TREE PLANTING DETAIL - ON SLOPE

N.T.S.

BOHLER ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING  
LAND SURVEYING, ENGINEERING, ARCHITECTURE  
SUSTAINABLE DESIGN, PERMITTING SERVICES, TRANSPORTATION SERVICES

• URBANE NEW YORK  
• NEW ENGLAND  
• NEW YORK CITY  
• NEW YORK METRO  
• BALTIMORE, MD  
• SOUTHERN NEW JERSEY  
• PHILADELPHIA, PA  
• NEW JERSEY  
• CENTRAL FLORIDA  
• LEHIGH VALLEY, PA  
• SOUTH FLORIDA  
• DALLAS, TX  
• AUSTIN, TX  
• HOUSTON, TX  
• LOS ANGELES, CA  
• SAN ANTONIO, TX  
• SAN JOSE, CA  
• SEATTLE, WA  
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• MIAMI, FL  
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THE FIRM HAS BEEN A MEMBER OF THE NATIONAL ASSOCIATION OF ENGINEERS AND ARCHITECTS SINCE 1988. THE FIRM HAS BEEN A MEMBER OF THE NATIONAL ASSOCIATION OF PROFESSIONAL ENGINEERS SINCE 1988. THE FIRM HAS BEEN A MEMBER OF THE NATIONAL ASSOCIATION OF ARCHITECTS SINCE 1988.

REVISIONS			
REV	DATE	COMMENT	BY
1	9/4/18	REVIEW COMMENTS	AWP
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PERMIT SET

PROJECT No.: W181153  
DRAWN BY: AWP/NPO/ZAP  
CHECKED BY: S.J.M./M.J.  
DATE: 07/31/2018  
SCALE: AS NOTED  
CAD I.D.: XREF-W181153SS1-LAND

SITE DEVELOPMENT PLANS FOR

WILLIAM WAY PARTNERS, LLC

LOCATION OF SITE  
MAP 44B, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY  
MASSACHUSETTS

BOHLER ENGINEERING

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

MASSACHUSETTS REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT

MASSACHUSETTS REGISTRATION NO. 217  
NEW HAMPSHIRE No. 109  
CONNECTICUT No. 1359

SHEET TITLE:

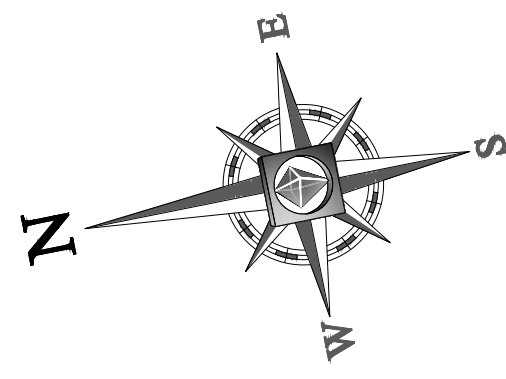
LANDSCAPE NOTES & DETAILS SHEET

SHEET NUMBER:

10  
OF 14

REV 1 - 9/4/2018





**APPROVED**

By Bellingham Planning Board at 9:19 am, Nov 15, 2018






LIGHTING NOTES:

1. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ADJUST SUSTAINED SITE ILLUMINATION LEVELS AND TOLERANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF THE ELEMENT, AND LUMINAIRE AND RELATED VARIABLE FIELD CONDITIONS.
2. THE LIGHT LOSS FACTORS USED IN THESE LIGHTING CALCULATIONS ARE 0.90 FOR ALL LED LUMINAIRES, 0.80 FOR ALL HIGH PRESSURE SODIUM LUMINAIRES OR 0.72 FOR ALL METAL HALIDE LUMINAIRES UNLESS OTHERWISE SPECIFIED. THESE FACTORS ARE INDICATIVE OF TYPICAL LIGHTING INDUSTRY MODELING STANDARDS.
3. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOT-CANDLES.
4. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT NOT BE LIMITED TO, FREQUENT VISUAL INSPECTIONS, CLEANING OF LENSES, AND RELAMPING (IF NECESSARY) AT LEAST EVERY 30-60 MONTHS. FAILURE TO FOLLOW THE ABOVE STEPS COULD CAUSE THE LUMINAIRES, LAMPS AND LENSES TO FAIL PROPERLY TO FUNCTION.
5. WHERE APPLICABLE, THE EXISTING CONDITION LIGHT LEVELS ILLUSTRATED ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES, UNLESS ACTUAL FIELD MEASUREMENTS ARE TAKEN WITH A LIGHT METER AND ARE, CONSEQUENTLY, APPROXIMATIONS ONLY. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC. ACTUAL LIGHT LEVELS MAY DIFFER. EXISTING LIGHT LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
6. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, ONLY. POWER SYSTEM CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. LIGHT POLE BASES ARE THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, LAWS AND STATUTES.
7. CONTRACTOR MUST BRING TO DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHTING CONDITIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
8. IT IS LIGHTING CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROJECT ARCHITECT OR OWNER REGARDING THE POWER SOURCE(S) FROM WITHIN THE BUILDING, AND THINGS BECOMING NECESSARY TO MEET THE DESIGN INTENT.
9. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS NOTED IN THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO: GENERAL NOTES, GRADING AND UTILITY, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE LIKE.
10. THE CONTRACTOR MUST VERIFY THAT INSTALLATION OF LIGHTING FIXTURES COMPLIES WITH THE REQUIREMENTS FOR SEPARATION FROM OVERHEAD ELECTRICAL WIRES PER STATE REGULATIONS.
11. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICE, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS, AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.

## NUMERIC SUMMARY

LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
AREA SUMMARY	ILLUMINANCE	FC	3.44	12.0	0.6	5.73	20.00

## LUMINAIRE SCHEDULE

SYMBOL	QTY	ARRANGEMENT	LUMENS	LLF	DESCRIPTION
 A	4	SINGLE	16390	0.9	TYPE III LED AREA LIGHT WITH SHIELD MOUNTED @ 25' XGBM-3-LED-SS-NW
 B	1	SINGLE	17230	0.9	FORWARD THROW LED AREA LIGHT MOUNTED @ 25' XGBM-FT-LED-SS-NW
 C	2	DOUBLE @ 180	32780	0.9	TYPE V LED AREA LIGHT MOUNTED @ 25' XGBM-5-LED-SS-NW
 D	6	SINGLE	N/A	N/A	EXISTING BUILDING LIGHT
 E	4	SINGLE	5453	0.9	FORWARD THROW LED WALL LIGHT MOUNTED @ 18' XGBWM-3-FT-LED-48-350-NW-UE

PERMIT  
SET

PROJECT No.:	W181153
DRAWN BY:	AWP/NPO/ZAP
CHECKED BY:	SJM/JMJ
DATE:	07/31/2018
SCALE:	AS NOTED
CAD I.D.:	W181153SS1

PROJECT: SITE  
DEVELOPMENT  
PLANS  
—FOR—  
WILLIAM WAY  
PARTNERS,  
LLC  
LOCATION OF SITE  
MAP #48, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY  
MASSACHUSETTS



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

The seal is circular with a double-lined border. The outer ring contains the text "COMMONWEALTH OF MASSACHUSETTS" at the top and "REGISTERED PROFESSIONAL ENGINEER" at the bottom. Inside the ring, the name "J. M. Johnson" is written in a large, stylized font. Below the name, the text "LICENSE NO. 134650" is visible. At the bottom of the seal, the words "MECHANICAL ENGINEERING" are written. The seal is stamped over a background of horizontal lines.

**SHEET TITLE:**

## LIGHTING PLAN

SHEET NUMBER:

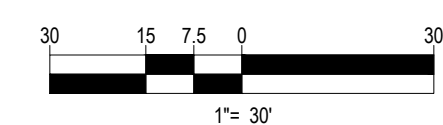
11  
F 14

REV 1 - 9/4/2018



**Know what's below.  
Call before you dig.**

THIS PLAN TO BE UTILIZED FOR  
LIGHTING PURPOSES ONLY







DO NOT USE IN PAVED AREAS WHERE PONDING  
MAY CAUSE TRAFFIC HAZARDS.

TO BE USED IN EXISTING RIGHT OF WAY

PERMIT  
SET

PROJECT: **SITE  
DEVELOPMENT  
PLANS  
—FOR—  
WILLIAM WAY  
PARTNERS,  
LLC**

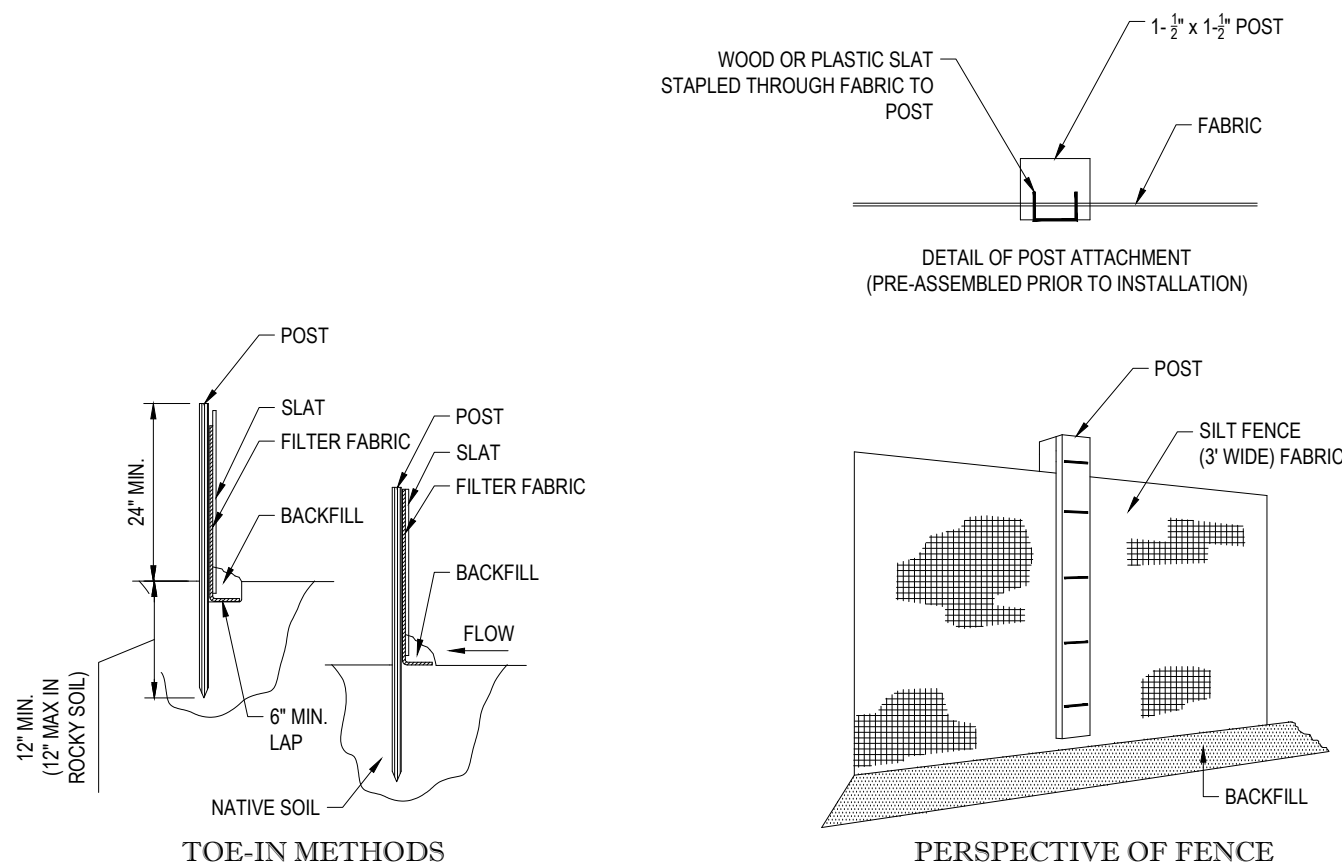
**LOCATION OF SITE**  
MAP #48, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY  
MASSACHUSETTS





**By Bellingham Planning Board at 9:20 am, Nov 15, 2018**

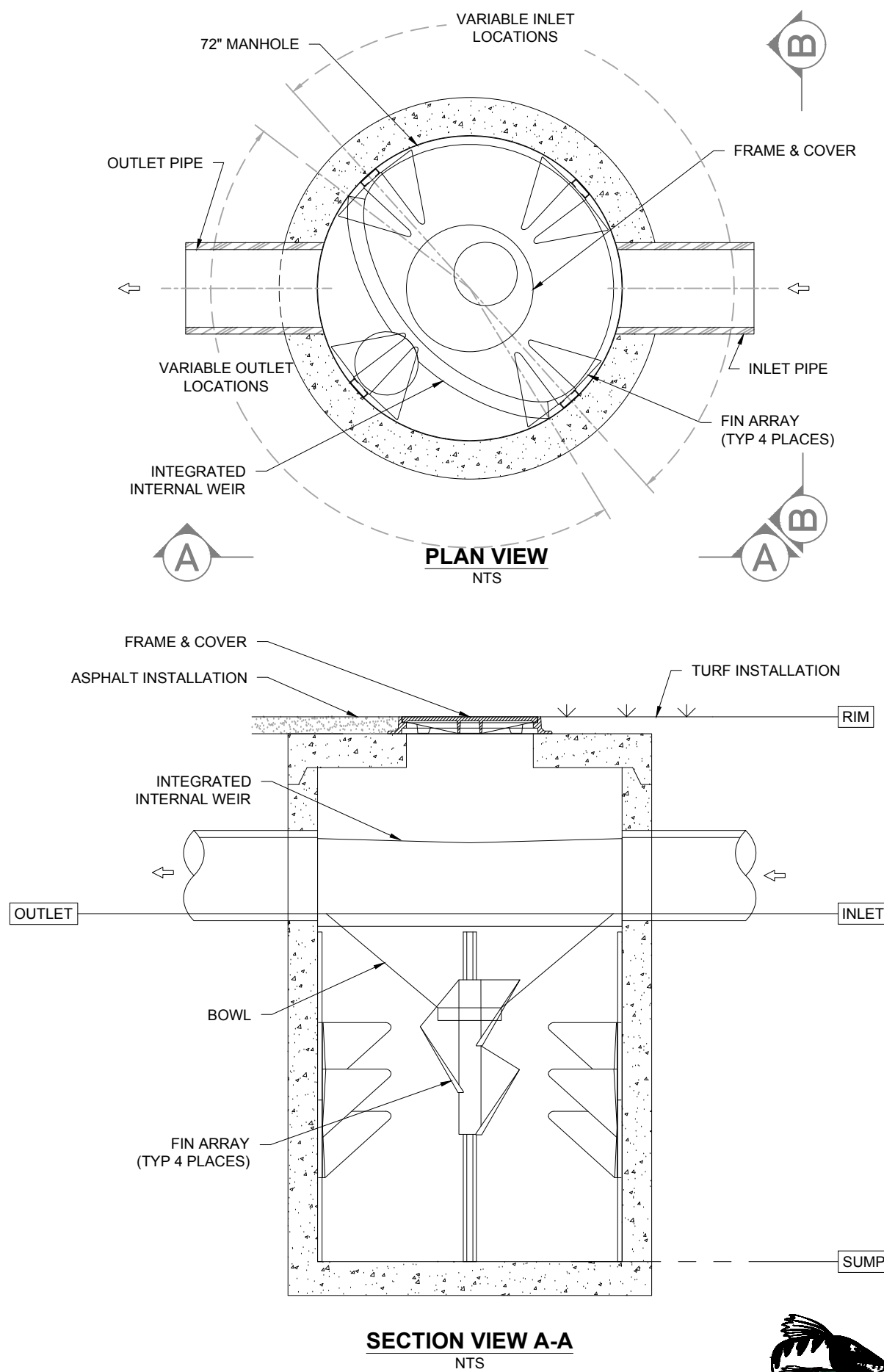
1. EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF EROSION CONTROL OF THE SITE.
2. UNROLL SILTATION FENCE AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM FLOW DIRECTION).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS LAYING ACROSS THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING FABRIC FLAP ON UNDISTURBED GROUND AND PILING & TAMP. ING FILL AT THE BASE.



### TYP. SILTATION FENCE DETAIL

N.T.S.

N.T.S



# BARRACUDA WATER QUALITY TREATMENT UNIT

1030 Deer Hollow Drive  
Mount Airy, MD 21771

**cuda**

1-800-BAYSAVER  
1-800-229-7283

1030 Deer Hollow Drive  
Mount Airy, MD 21771

**cuda**

1-800-BAYSAVER  
1-800-229-7283

1030 Deer Hollow Drive  
Mount Airy, MD 21771

**cuda**

1-800-BAYSAVER  
1-800-229-7283

REVISIONS			
REV	DATE	COMMENT	BY
1	9/4/18	REVIEW COMMENTS	AWP
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

PERMIT  
SET

PROJECT No.:	W181153
DRAWN BY:	AWP/NPO/ZAP
CHECKED BY:	SJM/JMJ
DATE:	07/31/2018
SCALE:	AS NOTED
CAD I.D.:	W181153SS1

PROJECT: SITE  
DEVELOPMENT  
PLANS  
—FOR—  
WILLIAM WAY  
PARTNERS,  
LLC

LOCATION OF SITE  
MAP #48, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY  
MASSACHUSETTS



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



SHEET TITLE:

# CONSTRUCTION DETAIL SHEET

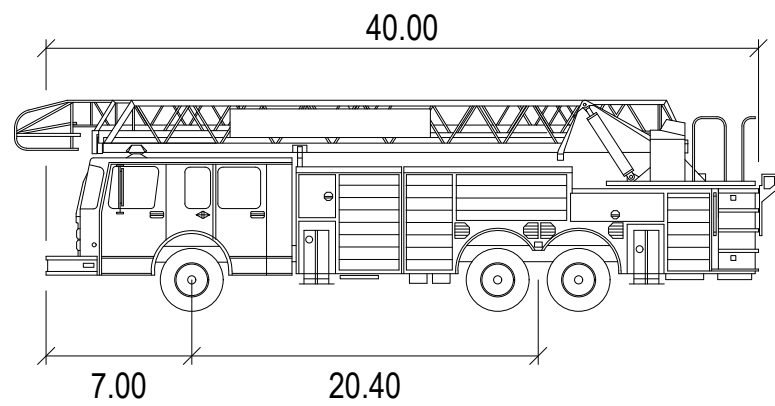
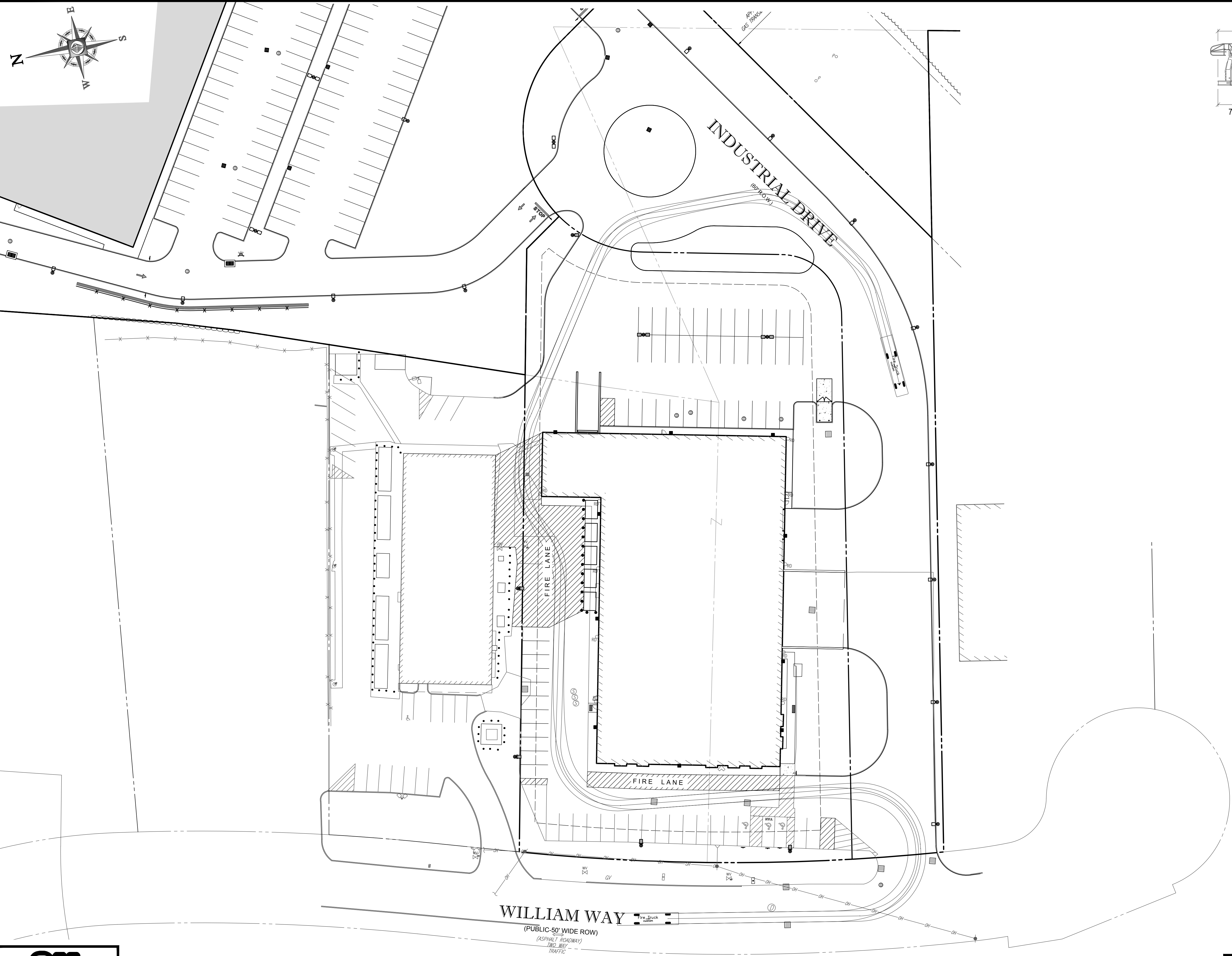
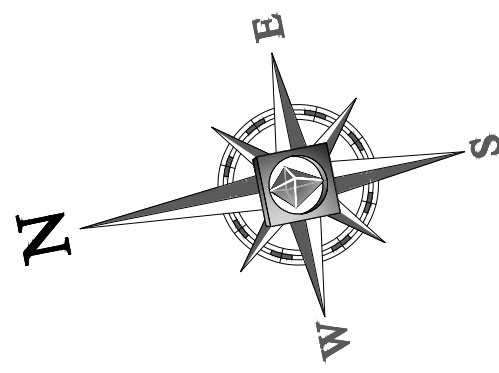
SHEET NUMBER

13  
OF 14

REV 1 - 9/4/2018

N.T.S





Fire Truck		feet
Width	:	8.00
Track	:	6.91
Lock to Lock Time	:	6.0
Steering Angle	:	36.2

**APPROVED**

By Bellingham Planning Board at 9:20 am, Nov 15, 2018

**BOHLER ENGINEERING**

SITE CIVIL AND CONSULTING ENGINEERING  
LAND SURVEYING DESIGN  
SUSTAINABLE DESIGN

PERMITTING SERVICES  
TRANSPORTATION SERVICES

CHARLOTTE, NC  
ATLANTA, GA  
SOUTH FLORIDA  
DALLAS, TX  
BALTIMORE, MD  
SOUTHERN NEW JERSEY  
PHILADELPHIA, PA  
LEHIGH VALLEY, PA  
SOUTHEASTERN, PA  
NEW YORK, NY  
NEW YORK METRO  
NEW JERSEY

REVISIONS			
REV	DATE	COMMENT	BY
1	9/4/18	REVIEW COMMENTS	AWP
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

**PERMIT SET**

PROJECT No.: W181153  
DRAWN BY: AWP/INPOIZAP  
CHECKED BY: S.J.M./M.J.  
DATE: 07/31/2018  
SCALE: AS NOTED  
CAD I.D.: W181153SS1

**SITE DEVELOPMENT PLANS**

FOR

**WILLIAM WAY PARTNERS, LLC**

LOCATION OF SITE  
MAP #48, LOT #15  
24 WILLIAM WAY  
TOWN OF BELLINGHAM  
NORFOLK COUNTY  
MASSACHUSETTS

**BOHLER ENGINEERING**

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

**J. M. Johnson**  
PROFESSIONAL ENGINEER  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF MASSACHUSETTS  
LICENSE NO. 10000  
EXPIRATION DATE 12/31/2018

SHEET TITLE:

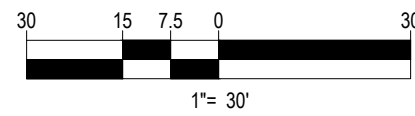
**FIRE TRUCK ACCESS PLAN**

SHEET NUMBER:

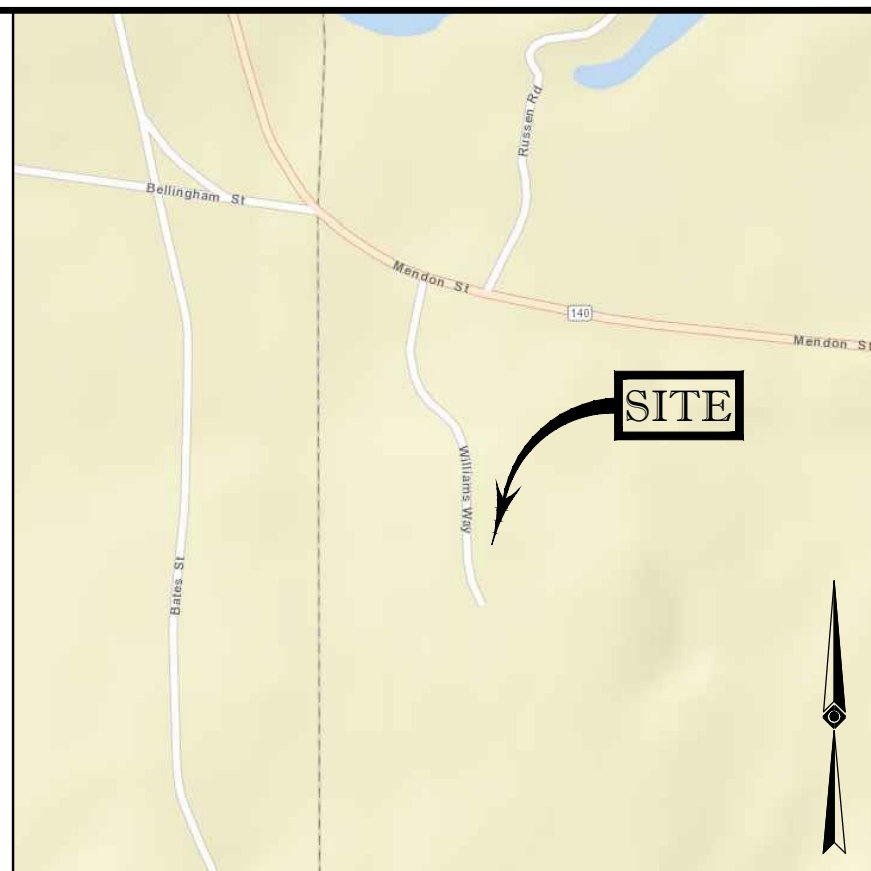
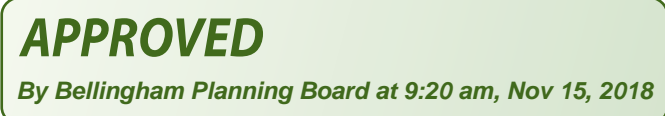
**14**  
OF 14

REV 1 - 9/4/2018

THIS PLAN TO BE UTILIZED FOR  
REFERENCE PURPOSES ONLY







NOTES:

LOCUS MAP  
© 2013 ESRI WORLD STREET MAPS

1. PROPERTY KNOWN AS LOT 15 & 3-1 AS SHOWN ON THE TOWN OF BELLINGHAM, NORFOLK COUNTY, COMMONWEALTH OF MASSACHUSETTS; ASSESSORS MAP NO. 48.
2. AREA  
MAP 48, LOT 15 = 129,793 SQUARE FEET OR 2.980 ACRES  
MAP 48, LOT 3-1 = 390,883 SQUARE FEET OR 8.973 ACRES  
TOTAL = 520,676 SQUARE FEET OR 11.950 ACRES
3. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MAPS ONLY. ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MARKS 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 IN SERVICE OR ABANDONED.
4. 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.
5. 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.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X: UNSHADED (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2
7. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS).

TEMPORARY BENCH MARKS SET:

BTM-A: BOX CUT ON SOUTH EAST CORNER OF CONCRETE PAD APPROXIMATELY 136' EAST OF THE EASTERLY LINE OF WILLIAMS AS SHOWN. ELEVATION = 311.59 (ON SHEET 2 OF 3)

BTM-B: MAG NAIL SET IN PAVEMENT APPROXIMATELY 11' SOUTH OF THE NORTHERLY LINE OF LOT 6 AS SHOWN. ELEVATION = 311.92 (ON SHEET 2 OF 3)

PRIOR TO CONSTRUCTION IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE BENCHMARKS ILLUSTRATED ON THIS SKETCH HAVE NOT BEEN DISTURBED AND THEIR ELEVATIONS HAVE BEEN CONFIRMED. ANY CONFLICTS MUST BE REPORTED PRIOR TO CONSTRUCTION.

8. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.

9. THIS SURVEY DOES NOT SHOW THE EXISTENCE OF WETLANDS, IF ANY.

10. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY

11. NO SANITARY SEWER WAS OBSERVED AT THE TIME OF SURVEY.

REFERENCES:

- THE TAX ASSESSOR'S MAP OF BELLINGHAM, NORFOLK COUNTY, MASSACHUSETTS, SHEET #48.
- MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, TOWN OF BELLINGHAM, NORFOLK COUNTY, PANEL 303 OF 430," COMMUNITY-NAME 25021C0303E, EFFECTIVE DATE JULY 17, 2012.
- MAP ENTITLED "PLAN OF LAND IN BELLINGHAM MASS, PROPERTY OF ESTATE OF L. FRANCIS THAYER, TO BE CONVEYED TO BOSTON EDISON COMPANY," PREPARED BY SCHOFIELD BROTHERS, INC., REGISTERED LAND SURVEYORS, DATED OCTOBER 8, 1968, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, PLAN BOOK 4650, PAGE 351.
- MAP ENTITLED "PLAN OF LAND OWNED BY: WILLIAM H. HOOD, IN BELLINGHAM, MASS," PREPARED BY ANDREWS SURVEY & ENGINEERING, INC., DATED JULY 30, 1985, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, BOOK 6970, PAGE 704.
- MAP ENTITLED "PLAN OF LAND SURVEYED FOR MENDON REALTY TRUST, BELLINGHAM, MASS," PREPARED BY ANDREWS SURVEY & ENGINEERING, INC., DATED JANUARY 22, 1986, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, BOOK 333, PAGE 268.
- MAP ENTITLED "PLAN OF LAND IN BELLINGHAM, MASS., SURVEYED FOR MENDON REALTY TRUST, ET AL," PREPARED BY ANDREWS SURVEY & ENGINEERING, INC., DATED SEPTEMBER 29, 1989, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, BOOK 390, PAGE 203.
- MAP ENTITLED "PLAN OF LAND IN BELLINGHAM, MASS, OWNED BY LESTER E. MICHALIK ET UX.," PREPARED BY EASTMAN & CORPUS, INC., DATED NOVEMBER 1980, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, DEED BOOK 3864, PAGE 148.
- MAP ENTITLED "BELLINGHAM - 1928 ALTERATION," LAYOUT NO. 2497, SHEETS 9, 10, & 11 OF 11.
- MAP ENTITLED "THE COMMONWEALTH OF MASSACHUSETTS, PLAN OF ROAD IN THE TOWN OF BELLINGHAM, NORFOLK COUNTY, ALTERED AND LAID OUT AS A STATE HIGHWAY BY THE DEPARTMENT OF PUBLIC WORKS," DATED MAY 5, 1951, LAYOUT NO 2770, SHEETS 1 & 2.
- MAP ENTITLED "PLAN OF LAND ON WILLIAM WAY, IN BELLINGHAM, MA, OWNED BY JOSEPH KRAUKER, TRUSTEE OF STEPPINGSTONE REALTY TRUST & DML CONCRETE CORP.; ANDREWS SURVEY & ENGINEERING, INC., DATED MARCH 5, 2012 - UNRECORDED PLAN
- MAP ENTITLED "DEFINITIVE PLAN OF LAND, PROPOSED INDUSTRIAL PARK, CALLED PARK - 140, OWNED BY WILLIAM H. HOOD," DATED JULY 1984, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, PLAN 1250, BOOK 316.
- WATER MAPPING PROVIDED BY THE TOWN OF BELLINGHAM.
- GAS MAPPING PROVIDED BY COLUMBIA GAS OF MASSACHUSETTS.
- MAP ENTITLED " SITE DEVELOPMENT PLAN LOCATED AT 24 WILLIAM WAY, BELLINGHAM, MA PREPARED FOR WILLIAM WAY PROPERTIES, LLC" PREPARED BY LAND PLANNING, INC, DATED AUGUST 2016.
- MAP ENTITLED "SITE DEVELOPMENT PLAN FOR A S.D, LOTS 6 & 7 " PREPARED BY ANDREWS SURVEY, PROVIDED BY BOHLER ENGINEERING.

4	REVISED PER ENGINEERS COMMENTS	-	E.J.L.	G.L.H.	8-31-18
3	SITE UPDATE	T.M.	E.J.L.	G.L.H.	07-16-18
2	UPDATED TOPOGRAPHY	T.M.	J.M.B.	G.L.H.	06-26-17
1	CATCHBASIN AND INVERTS ADDED	B.S.B.	E.J.L.	G.L.H.	01-31-17
No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN:	APPROVED:	DATE

BOUNDARY & TOPOGRAPHIC SURVEY  
GREEN SITE SERVICES GROUP  
24-26 WILLIAMS WAY  
LOT 15 & 3-1, MAP 48  
TOWN OF BELLINGHAM, NORFOLK COUNTY  
COMMONWEALTH OF MASSACHUSETTS



REVIEWED:	APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
R.D.N.	G.L.H.	01-24-17	1"=80'	03-160289	1 OF 3

THIS SURVEY HAS BEEN PERFORMED IN THE FIELD UNDER MY SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE, BELIEF, AND INFORMATION, THIS SURVEY HAS BEEN PERFORMED IN ACCORDANCE WITH CURRENTLY ACCEPTED ACCURACY STANDARDS.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED  
WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL

GERRY L. HOLDRIGHT, PLS  
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #4

DATE \_\_\_\_\_

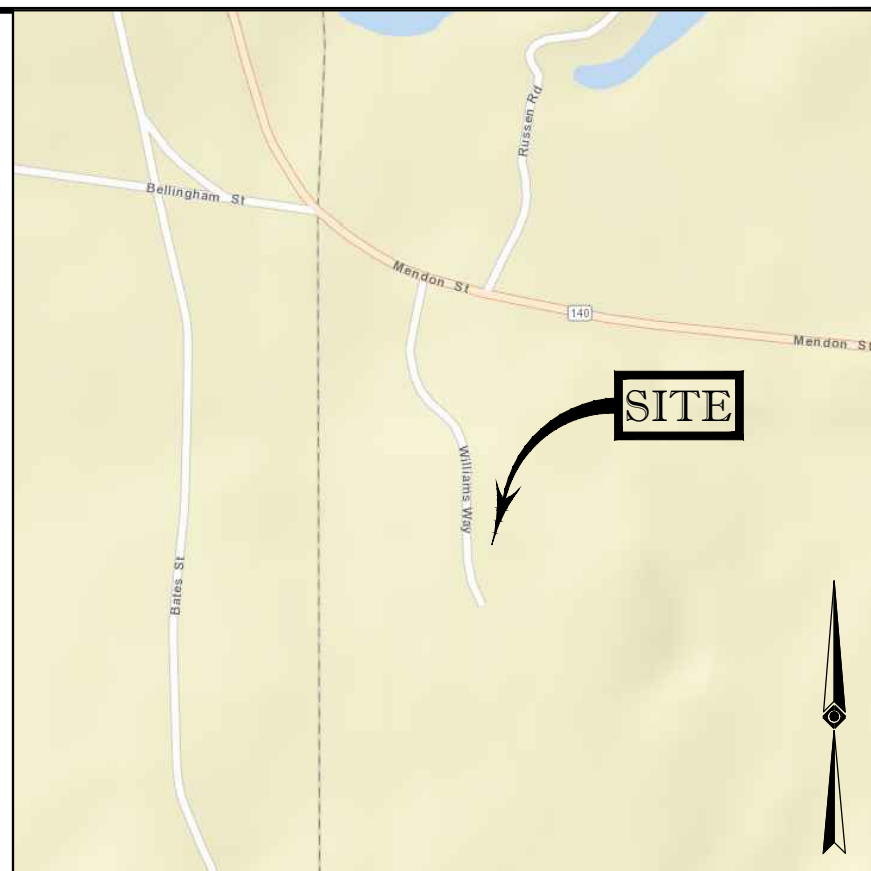


APPROVED

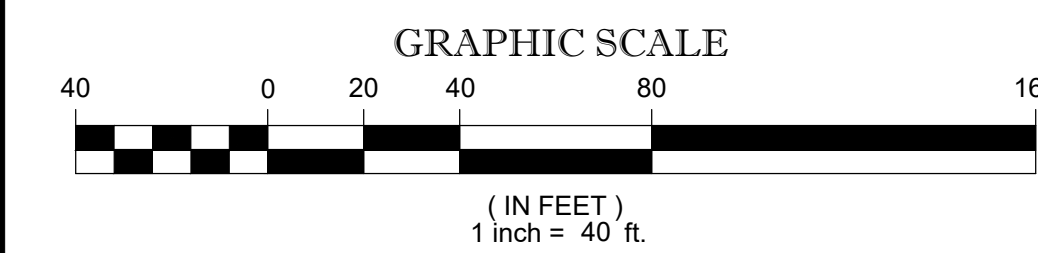
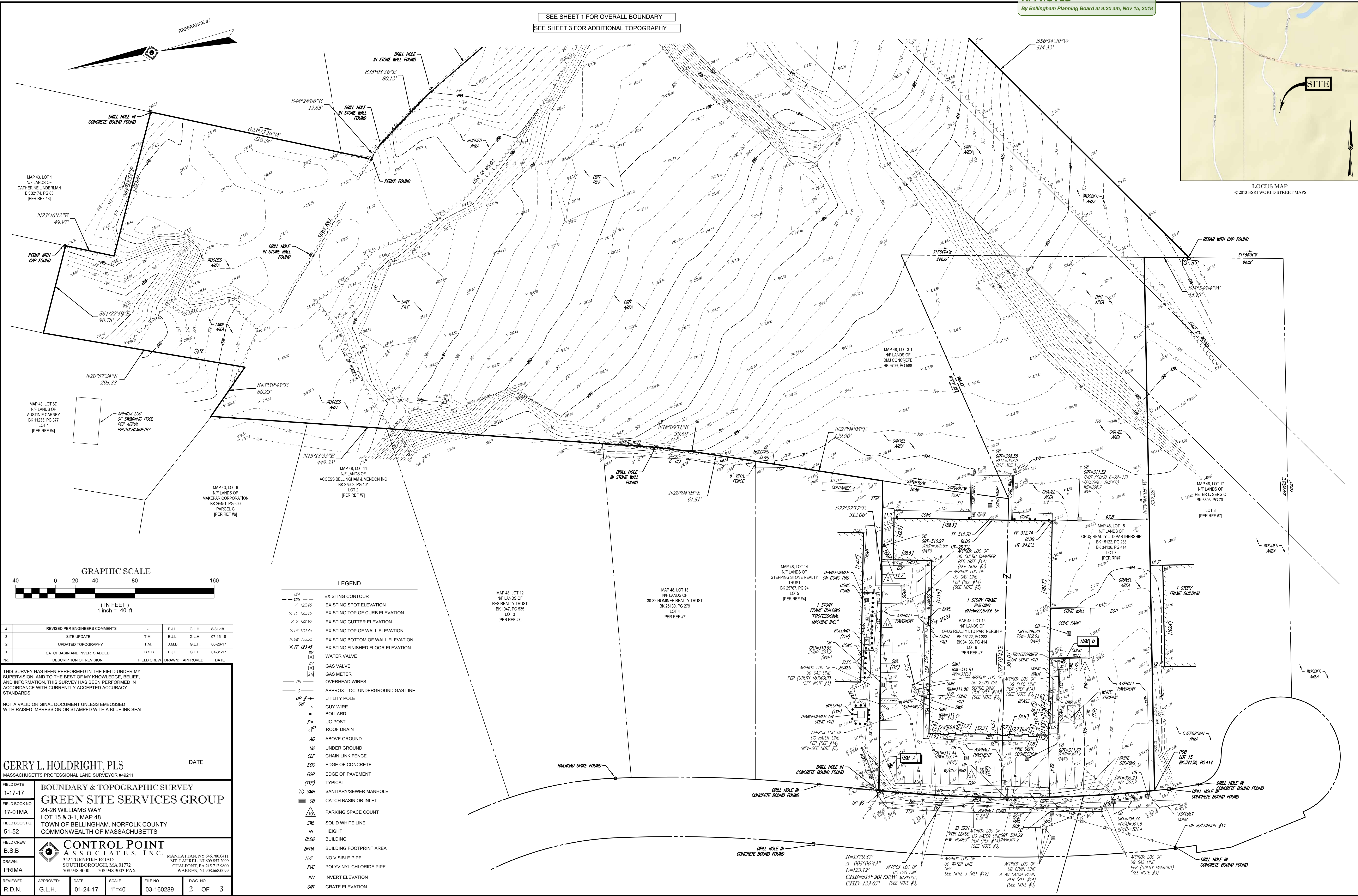
By Bellingham Planning Board at 9:20 am, Nov 15, 2018

SEE SHEET 1 FOR OVERALL BOUNDARY

SEE SHEET 3 FOR ADDITIONAL TOPOGRAPHY



LOCUS MAP  
© 2013 ESRI WORLD STREET MAPS



LEGEND				
---	124	---	125	---
X	123.45	X	123.45	EXISTING SPOT ELEVATION
X	123.45	X	123.45	EXISTING TOP OF CURB ELEVATION
X	123.45	X	123.45	EXISTING GUTTER ELEVATION
X	123.45	X	123.45	EXISTING TOP OF WALL ELEVATION
X	123.45	X	123.45	EXISTING BOTTOM OF WALL ELEVATION
X	123.45	X	123.45	EXISTING FINISHED FLOOR ELEVATION
W	123.45	W	123.45	WATER VALVE
G	123.45	G	123.45	GAS VALVE
M	123.45	M	123.45	GAS METER
W	123.45	W	123.45	OVERHEAD WIRES
G	123.45	G	123.45	APPROX. LOC. UNDERGROUND GAS LINE
U	123.45	U	123.45	UTILITY POLE
W	123.45	W	123.45	GUY WIRE
P	123.45	P	123.45	BOLLARD
U	123.45	U	123.45	UG POST
R	123.45	R	123.45	ROOF DRAIN
A	123.45	A	123.45	ABOVE GROUND
U	123.45	U	123.45	UNDER GROUND
C	123.45	C	123.45	CHAIN LINK FENCE
E	123.45	E	123.45	EDGE OF CONCRETE
P	123.45	P	123.45	EDGE OF PAVEMENT
T	123.45	T	123.45	TYPICAL
S	123.45	S	123.45	SANITARY/SEWER MANHOLE
C	123.45	C	123.45	CATCH BASIN OR INLET
P	123.45	P	123.45	PARKING SPACE COUNT
W	123.45	W	123.45	SOLID WHITE LINE
H	123.45	H	123.45	HEIGHT
B	123.45	B	123.45	BUILDING
F	123.45	F	123.45	BUILDING FOOTPRINT AREA
N	123.45	N	123.45	NO VISIBLE PIPE
P	123.45	P	123.45	POLYVINYL CHLORIDE PIPE
I	123.45	I	123.45	INVERT ELEVATION
G	123.45	G	123.45	GRATE ELEVATION

4	REVISED PER ENGINEERS COMMENTS	-	E.J.L.	G.L.H.	8-31-18
3	SITE UPDATE	T.M.	E.J.L.	G.L.H.	07-16-18
2	UPDATED TOPOGRAPHY	T.M.	J.M.B.	G.L.H.	06-26-17
1	CATCHBASIN AND INVERTS ADDED	B.S.B.	E.J.L.	G.L.H.	01-31-17
No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN:	APPROVED:	DATE

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN	APPROVED	DATE
1	THIS SURVEY HAS BEEN PERFORMED IN THE FIELD UNDER MY SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE, BELIEF, AND INFORMATION, THIS SURVEY HAS BEEN PERFORMED IN ACCORDANCE WITH CURRENTLY ACCEPTED ACCURACY STANDARDS.				
2	NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL.				

**GERRY L. HOLDRIGHT, PLS**  
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

**BOUNDARY & TOPOGRAPHIC SURVEY**  
**GREEN SITE SERVICES GROUP**  
24-26 WILLIAMS WAY  
LOT 15 & 3-1, MAP 48  
TOWN OF BELLINGHAM, NORFOLK COUNTY  
COMMONWEALTH OF MASSACHUSETTS

**CONTROL POINT ASSOCIATES, INC.**  
352 TURNPIKE ROAD  
SOUTH BELLINGHAM, MA 01922  
508.948.3000 - 508.948.3003 FAX

FIELD DATE	1-17-17
FIELD BOOK NO.	17-01MA
FIELD BOOK PG.	51-52
FIELD CREW	B.S.B.
DRAWN	PRIMA
REVIEWED	R.D.N.
APPROVED	G.L.H.
DATE	01-24-17
SCALE	1"=40'
FILE NO.	03-160289
DWG. NO.	2 OF 3

R=1379.87'  
Δ=005°06'43.3"  
L=123.12'  
CHB=S14° 38' 10" W  
CHD=123.07' (SEE NOTE #3)



REFERENCES:

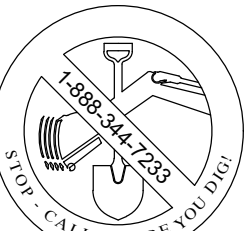
1. THE TAX ASSESSOR'S MAP OF BELLINGHAM, NORFOLK COUNTY, MASSACHUSETTS, SHEET #48.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, TOWN OF BELLINGHAM, NORFOLK COUNTY, PANEL 303 OF 430, COMMUNITY-PANEL NUMBER 25021C0303E, EFFECTIVE DATE, JULY 17, 2012.
3. MAP ENTITLED "PLAN OF LAND IN BELLINGHAM MASS, PROPERTY OF ESTATE OF L. FRANCIS THAYER, TO BE CONVEYED TO BOSTON EDISON COMPANY," PREPARED BY SCHOFIELD BROTHERS, INC., REGISTERED LAND SURVEYORS, DATED OCTOBER 8, 1968, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, PLAN BOOK 4650, PAGE 351.
4. MAP ENTITLED "PLAN OF LAND OWNED BY: WILLIAM H. HOOD, IN BELLINGHAM, MASS," PREPARED BY ANDREWS SURVEY & ENGINEERING, INC., DATED JULY 30, 1985, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, BOOK 6970, PAGE 704.
5. MAP ENTITLED "PLAN OF LAND SURVEYED FOR MENDON REALTY TRUST, BELLINGHAM, MASS.," PREPARED BY ANDREWS SURVEY & ENGINEERING, INC., DATED JANUARY 22, 1986, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, BOOK 333, PAGE 266.
6. MAP ENTITLED "PLAN OF LAND IN BELLINGHAM, MASS., SURVEYED FOR MENDON REALTY TRUST, ET AL," PREPARED BY ANDREWS SURVEY & ENGINEERING, INC., DATED SEPTEMBER 29, 1989, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, BOOK 390, PAGE 203.
7. MAP ENTITLED "PLAN OF LAND IN BELLINGHAM, MASS. OWNED BY LESTER E. MICHAUK ET UX," PREPARED BY EASTMAN & CORBETT INC., DATED NOVEMBER 1980, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, DEED BOOK 3864, PAGE 148.
8. MAP ENTITLED "BELLINGHAM - 1928 ALTERATION," LAYOUT NO. 2497, SHEETS 9, 10, & 11 OF 11.
9. MAP ENTITLED "THE COMMONWEALTH OF MASSACHUSETTS, PLAN OF ROAD IN THE TOWN OF BELLINGHAM, NORFOLK COUNTY, ALTERED AND LAID OUT AS A STATE HIGHWAY BY THE DEPARTMENT OF PUBLIC WORKS," DATED MAY 5, 1951, LAYOUT NO 2770, SHEETS 1 & 2.
10. MAP ENTITLED "PLAN OF LAND ON WILLIAM WAY, IN BELLINGHAM, MA, OWNED BY JOSEPH KRAUKER, TRUSTEE OF STEPPING STONE, REALTY TRUST & DMJ CONCRETE CORP., ANDREWS SURVEY & ENGINEERING, INC., DATED MARCH 5, 2012, - UNRECORDED PLAN
11. MAP ENTITLED "DEFINITIVE PLAN OF LAND, PROPOSED INDUSTRIAL PARK, CALLED PARK - 140, OWNED BY WILLIAM H. HOOD," DATED JULY 1984, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, PLAN 1250, BOOK 316.
12. WATER MAPPING PROVIDED BY THE TOWN OF BELLINGHAM.
13. GAS MAPPING PROVIDED BY COLUMBIA GAS OF MASSACHUSETTS.
14. MAP ENTITLED "SITE DEVELOPMENT PLAN LOCATED AT 24 WILLIAM WAY, BELLINGHAM, MA PREPARED FOR WILIAM WAY PROPERTIES, LLC" PREPARED BY LAND PLANNING, INC, DATED AUGUST 2016.
15. MAP ENTITLED "SITE DEVELOPMENT PLAN FOR A.S.DI, LOTS 6 & 7" PREPARED BY ANDREWS SURVEY, PROVIDED BY BOHLER ENGINEERING.

LEGEND

- 124 --- EXISTING CONTOUR
- 125 --- EXISTING SPOT ELEVATION
- X 123.45 EXISTING TOP OF CURB ELEVATION
- X G 123.95 EXISTING GUTTER ELEVATION
- X TW 123.45 EXISTING TOP OF WALL ELEVATION
- X BW 122.95 EXISTING BOTTOM OF WALL ELEVATION
- X FF 123.45 EXISTING FINISHED FLOOR ELEVATION
- WV WATER VALVE
- GV GAS VALVE
- GM GAS METER
- OH OVERHEAD WIRES
- G APPROX. LOC. UNDERGROUND GAS LINE
- UP UTILITY POLE
- GW GUY WIRE
- BOLLARD
- Po UG POST
- AG ABOVE GROUND
- UC UNDER GROUND
- CLF CHAIN LINK FENCE
- EOC EDGE OF CONCRETE
- EOP EDGE OF PAVEMENT
- (TYP) TYPICAL
- SMH SANITARY/SEWER MANHOLE
- CB CATCH BASIN OR INLET
- PARKING SPACE COUNT
- SWL SOLID WHITE LINE
- HT HEIGHT
- BLDG BUILDING
- BFPA BUILDING FOOTPRINT AREA
- NVP NO VISIBLE PIPE
- PVC POLYVINYL CHLORIDE PIPE
- INV INVERT ELEVATION
- GRT GRATE ELEVATION

MAP 48, LOT 4B  
W.F. LANDS OF  
LJP INDUSTRIAL PROPERTIES INC  
BK 6965, PG 561  
LOT 2  
(PER REF #5)

MAP 48, LOT 6  
W.F. LANDS OF  
BOSTON EDISON CO.  
BK 8189, PG 396  
(PER REF #3)



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

UTILITIES:

THE FOLLOWING COMPANIES WERE NOTIFIED BY MASSACHUSETTS ONE-CALL SYSTEM (1-888-344-7233) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST. SERIAL NUMBER(S): 20170104249

UTILITY COMPANY	PHONE NUMBER
COLUMBIA GAS OF MASSACHUSETTS	800-688-6100
VERIZON	800-922-0204
COMCAST - PEMBROKE	978-848-5183
NATIONAL GRID ELECTRIC - MASS ELEC	800-322-3223
ALGONQUIN GAS / SPECTRA ENERGY	401-568-1698
ON TARGET LOCATING	800-922-0204

APPROVED

By Bellingham Planning Board at 9:20 am, Nov 15, 2018



LOCUS MAP  
© 2013 ESRI WORLD STREET MAPS

NOTES:

1. PROPERTY KNOWN AS LOT 15 & 3-1 AS SHOWN ON THE TOWN OF BELLINGHAM, NORFOLK COUNTY, COMMONWEALTH OF MASSACHUSETTS, ASSESSORS MAP NO. 48.
2. AREA  
MAP 48, LOT 15 = 129,793 SQUARE FEET OR 2.980 ACRES  
MAP 48, LOT 3-1 = 350,883 SQUARE FEET OR 8.973 ACRES  
TOTAL = 520,676 SQUARE FEET OR 11.950 ACRES
3. 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 IN SERVICE OR ABANDONED.
4. 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.
5. 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.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X- UNSHADED (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2
7. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS).

TEMPORARY BENCH MARKS SET:

TBM-A: BOX CUT ON SOUTH EAST CORNER OF CONCRETE PAD APPROXIMATELY 136' EAST OF THE EASTERLY LINE OF WILLIAMS AS SHOWN. ELEVATION = 311.59 (ON SHEET 2 OF 3)

TBM-B: MAG NAIL SET IN PAVEMENT APPROXIMATELY 11' SOUTH OF THE NORTHERLY LINE OF LOT 6 AS SHOWN. ELEVATION = 311.92 (ON SHEET 2 OF 3)

PRIOR TO CONSTRUCTION IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE BENCHMARKS ILLUSTRATED ON THIS SKETCH HAVE NOT BEEN DISTURBED AND THEIR ELEVATIONS HAVE BEEN CONFIRMED. ANY CONFLICTS MUST BE REPORTED PRIOR TO CONSTRUCTION.

8. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
9. THIS SURVEY DOES NOT SHOW THE EXISTENCE OF WETLANDS, IF ANY.
10. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
11. NO SANITARY SEWER WAS OBSERVED AT THE TIME OF SURVEY.

4	REVISED PER ENGINEERS COMMENTS	-	E.J.L.	G.L.H.	8-31-18
3	SITE UPDATE	T.M.	E.J.L.	G.L.H.	07-16-18
2	UPDATED TOPOGRAPHY	T.M.	J.M.B.	G.L.H.	06-26-17
1	CATCHBASIN AND INVERTS ADDED	B.S.B.	E.J.L.	G.L.H.	01-31-17
		FIELD CREW	DRAWN	APPROVED	DATE

THIS SURVEY HAS BEEN PERFORMED IN THE FIELD UNDER MY SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE, BELIEF, AND INFORMATION, THIS SURVEY HAS BEEN PERFORMED IN ACCORDANCE WITH CURRENTLY ACCEPTED ACCURACY STANDARDS.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL.

GERRY L. HOLDRIGHT, PLS  
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

DATE

FIELD DATE 1-17-17	BOUNDARY & TOPOGRAPHIC SURVEY GREEN SITE SERVICES GROUP 24-26 WILLIAMS WAY LOT 15 & 3-1, MAP 48 TOWN OF BELLINGHAM, NORFOLK COUNTY COMMONWEALTH OF MASSACHUSETTS
FIELD BOOK NO. 17-01MA	
FIELD BOOK PGS. 51-52	
FIELD CREW B.S.B.	



CONTROL POINT  
ASSOCIATES, INC.

352 TURNPIKE ROAD  
SOUTH BOKROUGH, MA 01772  
508.948.3000 - 508.948.3003 FAX

MANHATTAN, NY 646.780.0411  
MT. LAUREL, NJ 609.857.2099  
CHALFONT, PA 215.712.8600  
WARREN, NJ 908.650.0902

REVIEWED: R.D.N.	APPROVED: G.L.H.	DATE 01-24-17	SCALE 1"=40'	FILE NO. 03-160289	DWG. NO. 3 OF 3
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GRAPHIC SCALE

