PROPOSED SITE PLAN DOCUMENTS

_____ FOR _____

TMC HOLDINGS & DEVELOPMENT 2, LLC

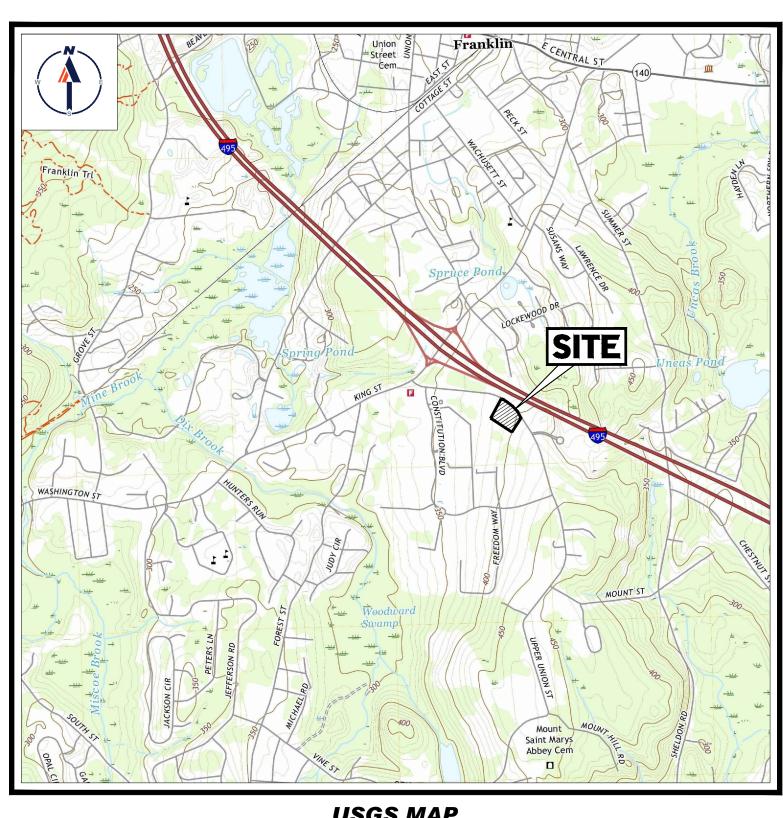
PROPOSED

INDUSTRIAL DEVELOPMENT

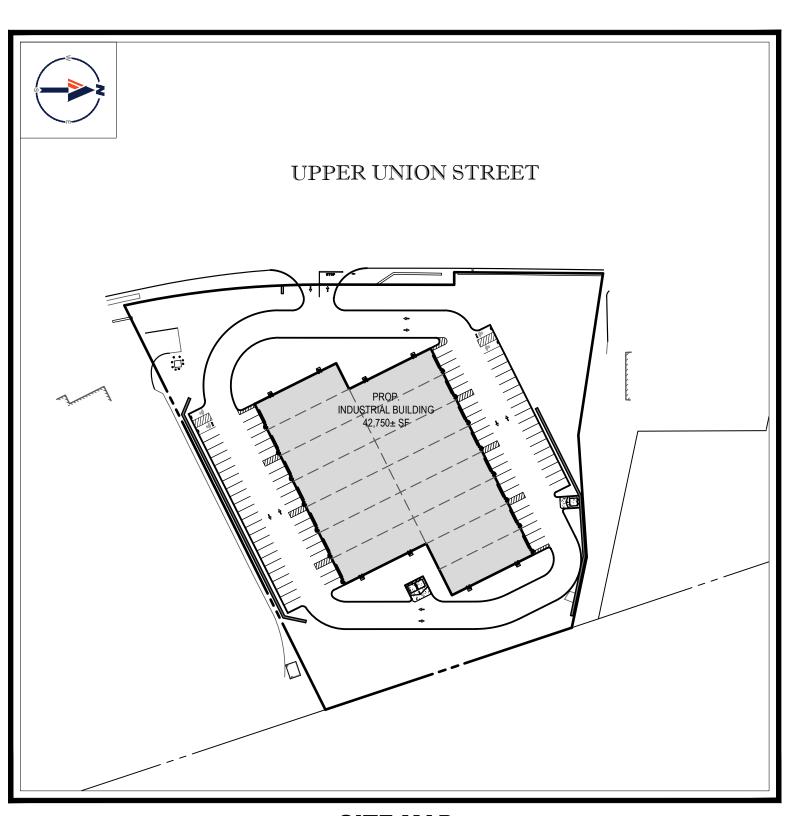
UNION STREET BUSINESS PARK II

LOCATION OF SITE:

839 UPPER UNION STREET, CITY OF FRANKLIN
NORFOLK COUNTY, MASSACHUSETTS
MAP #314, BLOCK #20, LOT #1







SITE MAP

SCALE: 1" = 100'

PREPARED BY



DRAWING SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET	C-101
GENERAL NOTES SHEET	C-102
DEMOLITION PLAN	C-201
SITE LAYOUT PLAN	C-301
GRADING PLAN	C-401
DRAINAGE PLAN	C-501
UTILITY PLAN	C-502
EROSION AND SEDIMENT CONTROL PLAN	C-601
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	C-602
LANDSCAPE PLAN	C-701
LANDSCAPE NOTES AND DETAILS	C-702
LIGHTING PLAN	C-703
DETAIL SHEET	C-901
DETAIL SHEET	C-902
DETAIL SHEET	C-903
ALTA/NSPS LAND TITLE SURVEY (BY OTHERS)	1 SHEET
BOUNDARY & TOPOGRAPHIC SURVEY (BY OTHERS)	1 SHEET

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

REV DATE COMMENT DRAWN BY CHECKED BY CHEC	REVISIONS			
	REV	DATE	COMMENT	DRAWN BY
				ONESIGED BY



PERMIT SET

PROJECT No.: W211057
DRAWN BY: NPE
CHECKED BY: 02/01/2022
CAD I.D.: W211057-CVL-0 - USE

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

____ FOR ____

TMC HOLDINGS & DEVELOPMENT 2, LLC

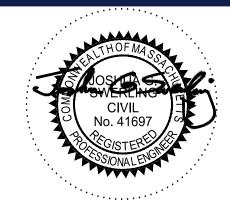
PROPOSED
INDUSTRIAL DEVELOPMENT

UNION STREET BUSINESS PARK MAP #314, BLOCK #20, LOT #1 839 UPPER UNION STREET CITY OF FRANKLIN NORFOLK COUNTY, MA

BOHLER

352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772 Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:

COVER SHEET

SHEET NUMBER:

C-101

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" PREPARED BY CONTROL POINT ASSOCIATED, INC., DATED 03/23/21. • "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY CONTROL POINT ASSOCIATED, INC., DATED 05/14/21.

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

THIS IS CONTRACTOR'S RESPONSIBILITY. . ALL ACCESSIBLE (A/K/A ADA) PARKING SPACES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE

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 4. THE CONTRACTOR MUST LOCATE AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE AND INACTI

PROJECT IS TO BE CONSTRUCTED. AND ANY AND ALL AMENDMENTS TO BOTH WHICH ARE IN EFFECT WHEN THESE PLANS ARE COMPLETED.

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

THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORTS AND PLANS AND SPECIFICATIONS PRIOR 6. THE CONTRACTOR MUST INSTALL ALL STORM SEWER AND SANITARY SEWER COMPONENTS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES. 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 NOTIFY BOHLER ENGINEERING, IN WRITING, IMMEDIATELY IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.

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 8 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.

10. 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 10. APPLICABLE). CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR

11. 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. 2. 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 3. THE CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO

REMAIN FITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE. 11 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. 14. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF

CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME 12. TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE. WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF

5. 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,

16 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/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION

7. 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.

8. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF 17. 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 MPLOYEES AFFILIATES SUBSIDIARIES AND RELATED ENTITIES AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES. INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTOR OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY NNECTED 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 20. CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR INSURANCE HEREUNDER.

SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND/OR METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY 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 23. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, SANITARY SEWER PIPE SHALL BE AS FOLLOWS:

20. 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 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 26. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON PRELIMINARY ARCHITECTURAL PLANS. CONTRACTOR IS RESPONSIBLE TO AND FOR VERIFYING LOCATIONS OF SAME BASED ON 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 27. 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.

21.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, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED TO SAME.

22. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER PURVEYOR. IN THE ABSENCE OF SUCH ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE.

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

24. 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

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

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

27. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES

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

29 CONTRACTOR IS RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLITITION 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.

30. 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

1. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE INDEPENDENTLY CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF 1. THIS PLAN REFERENCES DOCUMENTS AND INFORMATION BY 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 3. 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

"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 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS 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.

TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE

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

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 TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) 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 REFERENCE 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 QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. 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 MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND 8. 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. COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND MUST BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS. FILL AND COMPACTION MUST. 9. AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK BALANCE.

THE CONTRACTOR MUST COMPLY, TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION 10 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 FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.

APPLICABLE CODES, LAWS RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTORY REQUIREMENTS AND STATUTORY REQUIREMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.

> 14. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. 15. DURING THE INSTALLATION OF SANITARY SEWER, STORM SEWER, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF

> CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED IN THE UTILITY PLAN. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER AT THE COMPLETION OF WORK 16. WHEN THE SITE IMPROVEMENT PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING BUT NOT 13.

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, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS OR EXISTING TOPOGRAPHY LIMIT GRADES), TO PREVENT PONDING. CONTRACTOR MUST IMMEDIATELY IDENTIFY, IN WRITING TO THE ENGINEER. ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY. HEALTH OR GENERAL WELFARE, OR PROJECT COST. JE 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.

ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER ENGINEERING AND 18. 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% ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, 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.

16. CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.

17. CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.

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18.

IMMEDIATELY NOTIFY THE DESIGN ENGINEER. IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS

19. BOHLER ENGINEERING WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, 21. 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/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS

OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME HEREINDER. BOHLER ENGINEERING'S SHOP DRAWING REVIEW WILL BE 22. STORM DRAINAGE PIPE (IN) ESS INDICATED OTHERWISE ALL S POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS. IT MUST CONFORM TO AASHTO M294 AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT TIGHT JOINT. PVC PIPE FOR ROOF DRAIN CONNECTION MUST BE SDR 26 OR SCHEDULE 40 UNLESS INDICATED OTHERWISE.

FOR PIPES LESS THAN 12 FT. DEEP: POLYVINYL CHLORIDE (PVC) SDR 35 PER ASTM D3034

MUST SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING ANY WORK

FOR PIPES MORE THAN 12 FT, DEEP, POLYVINYL, CHI ORIDE (PVC), SDR 26 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.

SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL 25. STORM AND SANITARY SEWER PIPE LENGTHS INDICATED ARE NOMINAL AND MEASURED CENTER OF INLET AND/OR MANHOLES STRUCTURE TO CENTER OF STRUCTURE

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 SUITABLE MATERIAL. SEWERS CONVEYING SANITARY FLOW COMBINED SANITARY AND STORMWATER FLOW OR INDUSTRIAL FLOW

MUST BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES MUST BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE GOVERNMENT AGENCY WITH JURISDICTION OVER SAME WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING

MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED ADA INSTRUCTIONS TO CONTRACTOR: 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

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. 29. CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SEWER, WATER AND STORM SYSTEMS, MUST BE REPAIRED IN

ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.

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

25. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES AND DESIGN FEATURES AND DESIGN FEATURES AND RELATED DOCUMENTS, IN STRICT 31. 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

 "BOLINDARY & TOPOGRAPHIC SURVEY" PREPARED BY CONTROL POINT ASSOCIATED, INC., DATED 03/23/21 "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY CONTROL POINT ASSOCIATED. INC. DATED 05/14/21.

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

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

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

CONDITION, OR BETTER. CONTRACTOR SHALL PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.

ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE.

REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.

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

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.

THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, AND/OR UNDER THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.

CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIR MUST INCLUDE THE RESTORATION OF ANY ITEMS REPAIRED TO THE PRE-DEMOLITION

CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKELL MATERIALS AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT NEW IMPROVEMENTS AND PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES, AND MUST BE DONE SO AS TO PREVENT WATER

EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND ALL APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE, AND LOCAL GOVERNMENTS MUST BE IN PLACE PRIOR TO CONTRACTOR STARTING AN EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS

CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FHWA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY

CONTRACTOR MUST CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.

DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT WRITTEN PERMISSION OF THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.

THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL. STATE. AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE. CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST

AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION"

17 CONTRACTOR IS RESPONSIBLE FOR SITE JOB SAFFTY WHICH MUST INCLUDE, BUT NOT BE LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING AND

THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION AS TO THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED TO ACCOMPLISH THAT WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY

OTHER APPROPRIATE SAFETY ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITY

DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH ALL MUNICIPAL. COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. THE CONTRACTOR MUST MAINTAIN RECORDS TO DEMONSTRATE PROPER DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST

20. CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS UPON WHICH IS INDICATED THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER, AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK.

WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.

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

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

CURB RAMPS - SLOPE MUST NOT EXCEED 1:12 (8.3%) FOR A MAXIMUM OF SIX (6) FEET.

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

 PATH OF TRAVEL ALONG ACCESSIBLE ROUTE - MUST PROVIDE A 36-INCH OR GREATER UNORSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS CANNOT REDUCE THIS MINIMUM WIDTH). THE SLOPE MUST BE NO GREATER THAN 1:20 (5.0%) IN THE DIRECTION OF TRAVEL, AND MUST NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN CROSS SLOPE. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20 (5.0%), ADA RAMP MUST BE ADHERED TO. A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM RISE OF 2.5 FEET, MUST BE PROVIDED. THE RAMP MUST HAVE ADA HAND RAILS AND "LEVEL" LANDINGS ON EACH END THAT ARE CROSS SLOPED NO MORE THAN 1:50 IN ANY DIRECTION (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE.

 DOORWAYS - MUST HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO LESS THAN 60 INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE PERMITTED BY ADA STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2003 AND OTHER REFERENCED INCORPORATED BY CODE.)

 WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION. MODIFICATION. REVISION OR EXTENSION OF OR TO ADA COMPONENTS FROM EXISTING DOORWAYS OR SURFACES CONTRACTOR MUST VERIEY EXISTING FLEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPES. IN RARE CIRCUMSTANCES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS, IN WRITING, BEFORE COMMENCEMENT O WORK. CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ADA

• THE CONTRACTOR MUST VERIEY THE SLOPES OF CONTRACTOR'S FORMS PRIOR TO POLIRING CONCRETE. IF ANY NON-CONFORMANCE IS OBSERVED OR EXISTS CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO POURING CONCRETE. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND

IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCEMENT OF

TYPICAL ABBREVIATIONS

KEY	DESCRIPTION	KEY	DESCRIPTION
ВС	BOTTOM CURB	PROP.	PROPOSED
TC	TOP CURB	TBR/R	TO BE REMOVED AND REPLACED
BOC	BACK OF CURB	TBR	TO BE REMOVED
BW	BOTTOM OF WALL GRADE	TPF	TREE PROTECTION FENCE
TW	TOP OF WALL	BLDG.	BUILDING
EXIST.	EXISTING	SF	SQUARE FEET
BM.	BENCHMARK	SMH	SEWER MANHOLE
EOP	EDGE OF PAVEMENT	DMH	DRAIN MANHOLE
ę	CENTERLINE	STM.	STORM
FF	FINISHED FLOOR	SAN.	SANITARY
V.I.F.	VERIFY IN FIELD	CONC.	CONCRETE
GC	GENERAL CONTRACTOR	ARCH.	ARCHITECTURAL
HP	HIGH POINT	DEP.	DEPRESSED
LP	LOW POINT	R	RADIUS
TYP.	TYPICAL	MIN.	MINIMUM
INT.	INTERSECTION	MAX.	MAXIMUM
PC.	POINT OF CURVATURE	No. /#	NUMBER
PT.	POINT OF TANGENCY	W.	WIDE
PI.	POINT OF INTERSECTION	DEC.	DECORATIVE
PVI.	POINT OF VERTICAL INTERSECTION	ELEV.	ELEVATION
STA.	STATION	UNG.	UNDERGROUND
GRT	GRATE	R.O.W.	RIGHT OF WAY
INV.	INVERT	LF	LINEAR FOOT
DIP	DUCTILE IRON PIPE	LOD	LIMIT OF DISTURBANCE
PVC	POLYVINYL CHLORIDE PIPE	LOW	LIMIT OF WORK
HDPE	HIGH DENSITY POLYETHYLENE PIPE	L.S.A.	LANDSCAPED AREA
RCP	REINFORCED CONCRETE PIPE	±	PLUS OR MINUS
S	SLOPE	۰	DEGREE
ME	MEET EXISTING	Ø / DIA.	DIAMETER

TYPICAL LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	SETBACK	
	EASEMENT	
	CURB	
Ø	STORM MANHOLE	©
<u></u>	SEWER MANHOLE	©
	CATCH BASIN	
₩F#5	WETLAND FLAG	
	WETLAND LINE	
× 54.83	SPOT ELEVATION	53.52
× 7C 54.58 G 53.78	TOP & BOTTOM OF CURB	TC=54.32 BC=53.82
	CONTOUR	50
	FLOW ARROW	5%_
\frac{1}{2}	PAINTED ARROW	\(\begin{array}{c} \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	RIDGE LINE	
	GAS LINE	
	TELEPHONE LINE	TT
——————————————————————————————————————	ELECTRIC LINE	EE
	WATER LINE	
OH	OVERHEAD WIRE	OH
= = = = = = = =	STORM PIPE	
=======	SANITARY LINE	sss
10	PARKING COUNT	4
	SIGN	-
<^◊>	LIGHT POLE	□ •
	GUIDE RAIL	
		~

REFER TO SITE PLAN FOR ZONING ANALYSIS TABLE AND LAND USE **ZONING INFORMATION & NOTES**

UTILITY POLF

REFER TO SOIL EROSION CONTROL NOTES & DETAILS SHEET FOR TYPICAL SHEET TITLE: **EROSION NOTES AND DETAILS**

REFER TO LANDSCAPE NOTES & **DETAILS SHEET FOR TYPICAL** LANDSCAPE NOTES AND DETAILS

REFER TO LIGHTING PLAN FOR TYPICAL LIGHTING NOTES AND TABLES

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CHECKED BY:	RMM
DATE:	02/01/2022
CAD I.D.:	W211057-CVL-0 - USE

PROJECT:

PROPOSED SITE **PLAN DOCUMENTS**

TMC HOLDINGS & **DEVELOPMENT 2, LLC**

INDUSTRIAL DEVELOPMENT UNION STREET BUSINESS PARK II MAP #314. BLOCK #20. LOT #1 839 UPPER UNION STREET CITY OF FRANKLIN

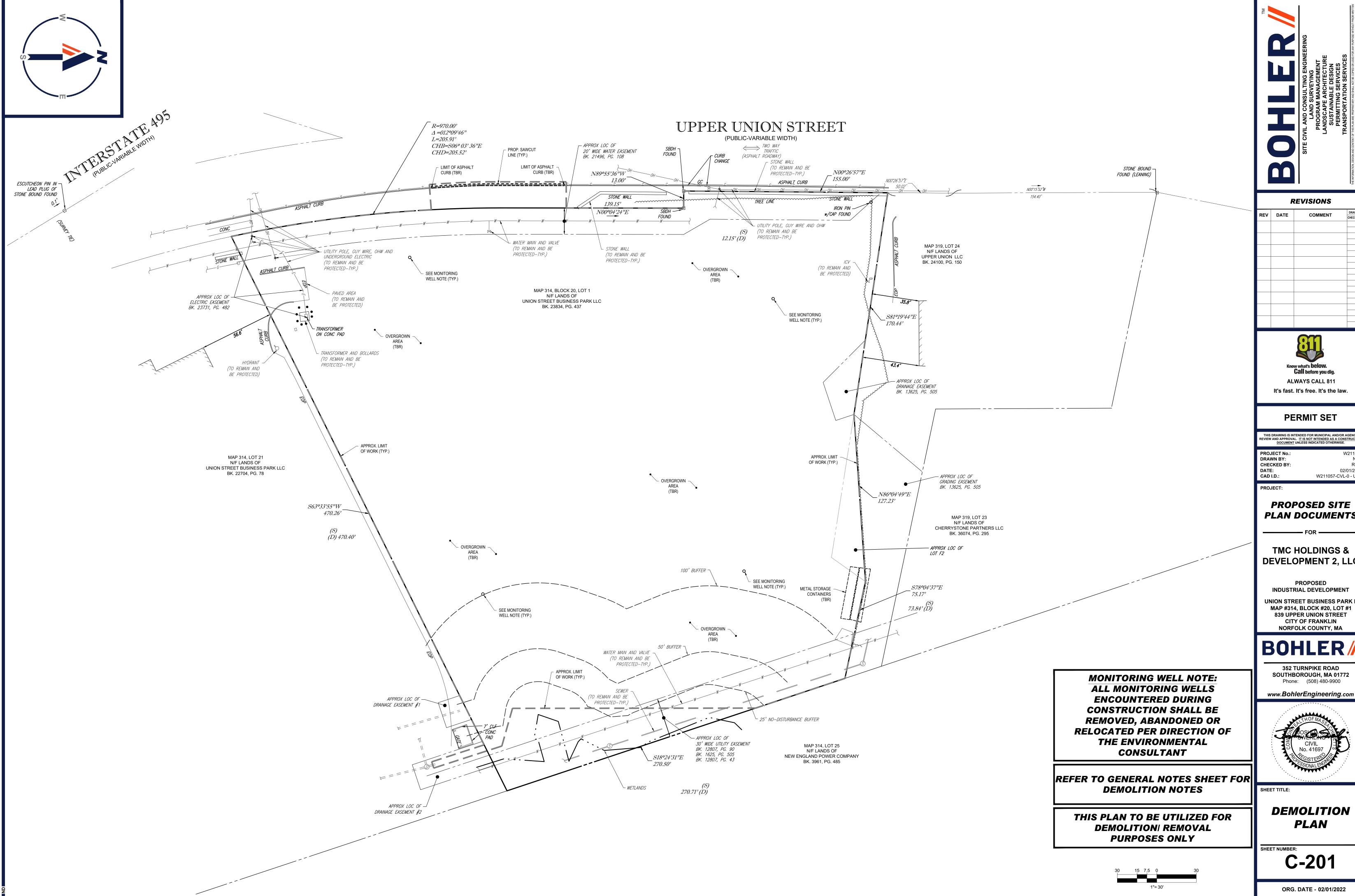
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NORFOLK COUNTY, MA

Phone: (508) 480-9900

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GENERAL **NOTES** SHEET



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DEVELOPMENT 2, LLC

PROPOSED

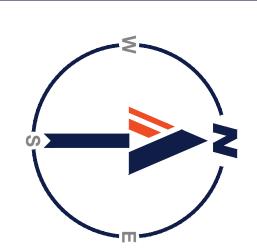
UNION STREET BUSINESS PARK II MAP #314, BLOCK #20, LOT #1 839 UPPER UNION STREET

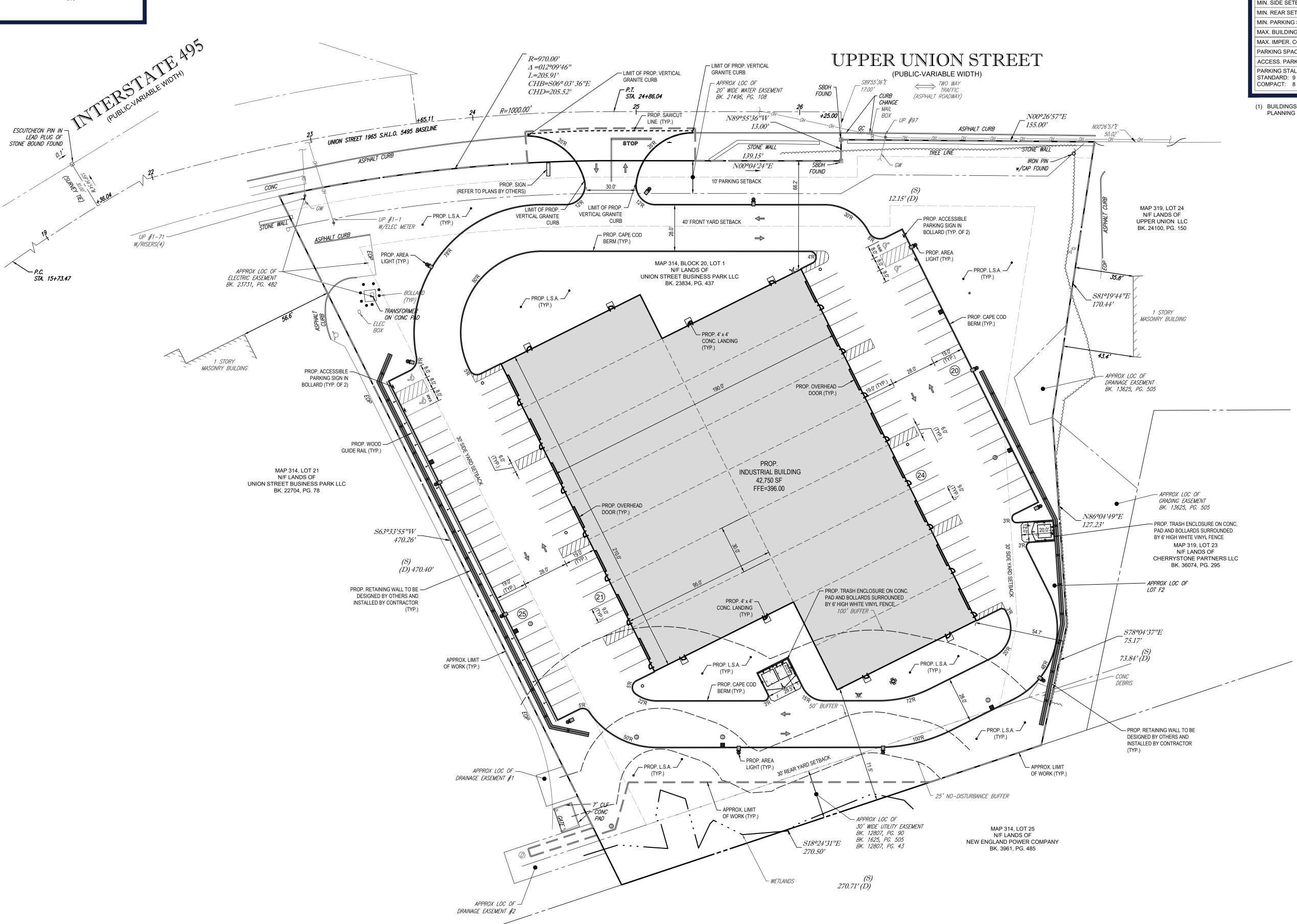
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DEMOLITION

C-201





ZONING A	NALYSIS T	ABLE	N/A - NOT APPLICABLE N/S - NOT SPECIFIED (V) - VARIANCE REQUESTED (W) - WAIVER REQUESTED
ZONING DISTRICT	INDUSTRIAL (I)		(E) - EXIST. NON-CONFORMANCE
OVERLAY DISTRICT	N/A		
REQUIRED PERMIT	SITE PLAN REVIEW		
ZONE CRITERIA	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	40,000 SF	156,645 SF (3.60 AC.)	NO CHANGE
MIN. LOT FRONTAGE	175 FT	500.06 FT	NO CHANGE
MIN. LOT DEPTH	200 FT	470.26 FT	NO CHANGE
MIN. LOT WIDTH	157.5 FT	270.50 FT	NO CHANGE
MAX. BLDG. LOT COVERAGE	70%	0.0%	27.3%
MIN. FRONT SETBACK	40 FT	N/A	66.2 FT
MIN. SIDE SETBACK	30 FT	N/A	54.7 FT
MIN. REAR SETBACK	30 FT	N/A	71.5 FT
MIN. PARKING SETBACK	N/S	N/A	12.5 FT
MAX. BUILDING HEIGHT	3 STORIES (1)	N/A	< 3 STORIES
MAX. IMPER. COVERAGE	80%	0.1%	55.6%
PARKING SPACES	43	N/A	90
ACCESS. PARKING SPACES	4	N/A	4
PARKING STALL CRITERIA STANDARD: 9 FT x 19 FT COMPACT: 8 FT x 16 FT	USE/CATEGORY: WARE REQUIRED PARKING: 1 CALCULATION: 42,750	SPACE PER 1,000 SF 0	GROSS FLOOR AREA OR 43 SPACES REQUIRED

(1) BUILDINGS UP TO 60 FEET IN HEIGHT MAY BE PERMITTED BY A SPECIAL PERMIT FROM THE PLANNING BOARD.

GENERAL CONTRACTOR TO PROVIDE A

SITE SPECIFIC WALL DESIGN AND

CALCULATIONS THROUGH THE

GENERAL CONTRACTOR'S SELECTED

WALL MANUFACTURER'S LICENSED

PROFESSIONAL STRUCTURAL

ENGINEER.

THIS PLAN TO BE UTILIZED FOR SITE

LAYOUT PURPOSES ONLY. REFER TO

GENERAL NOTES

SHEET FOR ADDITIONAL NOTES

REVISIONS

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KEV	DATE	COMINENT	CHECKED BY

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DATE: CAD I.D.: PROJECT:

> PROPOSED SITE **PLAN DOCUMENTS**

TMC HOLDINGS &

DEVELOPMENT 2, LLC

PROPOSED

INDUSTRIAL DEVELOPMENT **UNION STREET BUSINESS PARK II** MAP #314, BLOCK #20, LOT #1 839 UPPER UNION STREET CITY OF FRANKLIN

NORFOLK COUNTY, MA

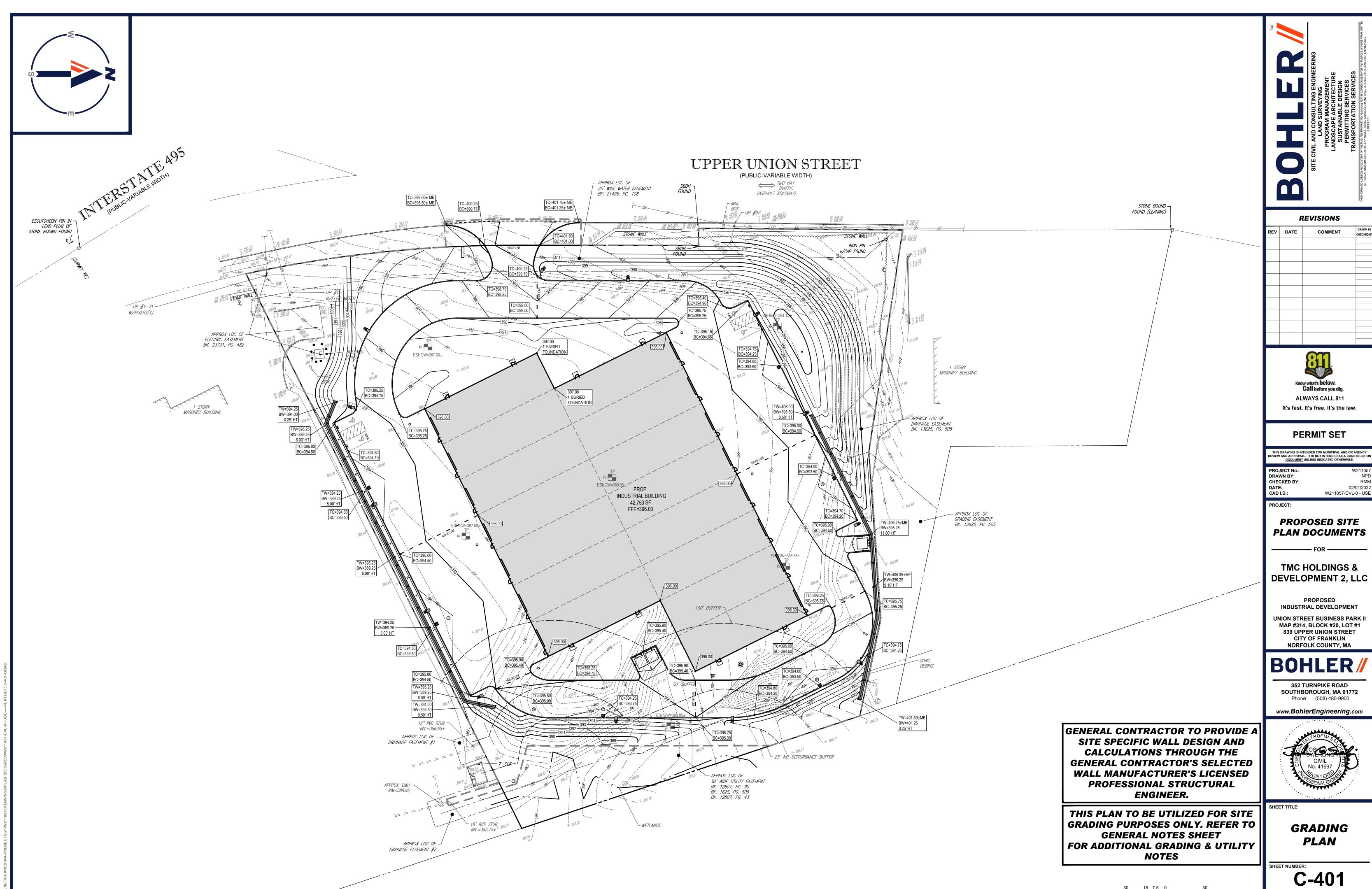
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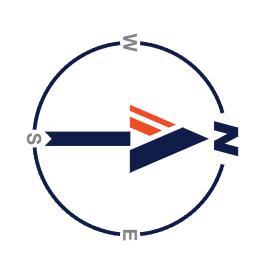
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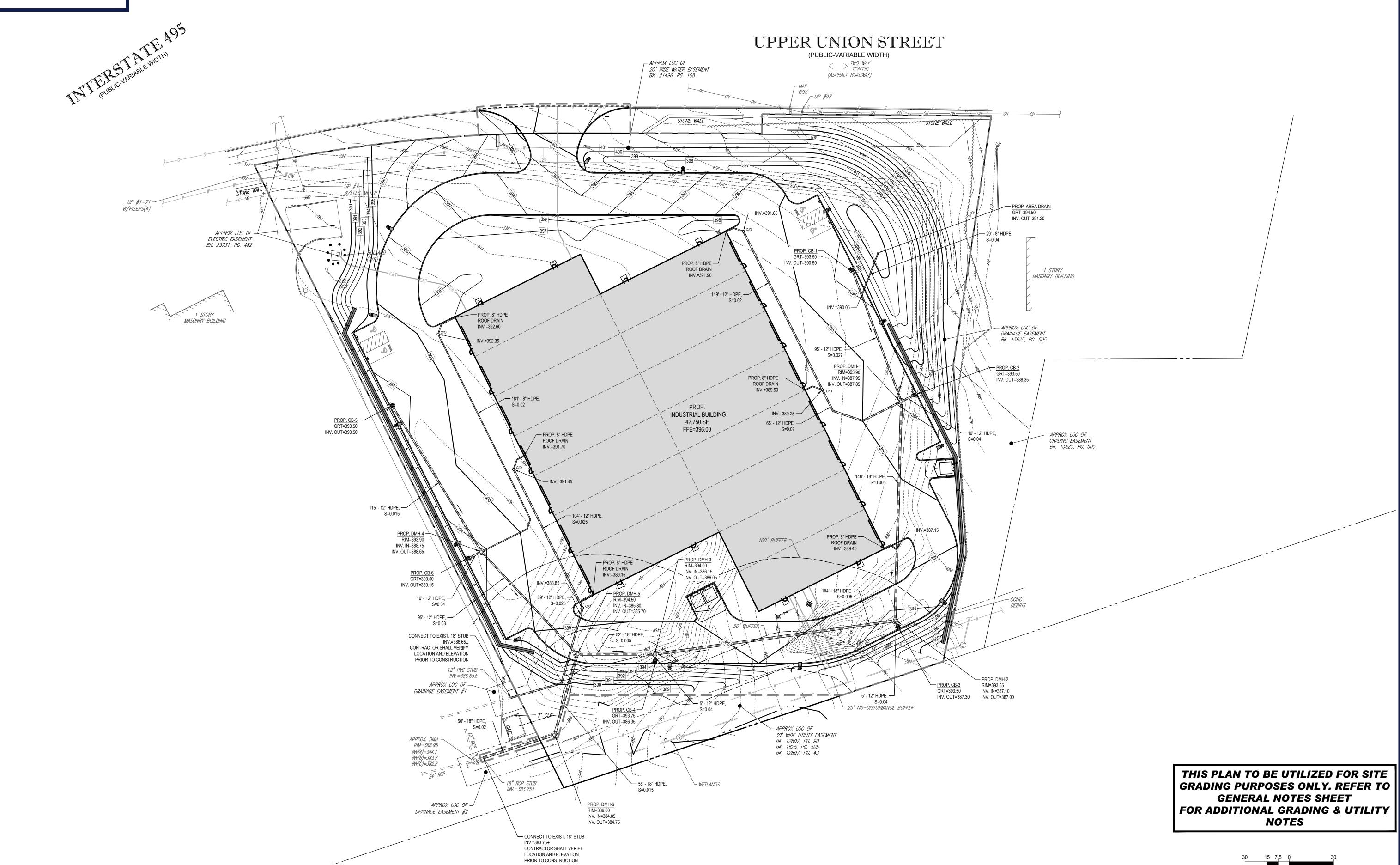
SHEET TITLE:

SITE LAYOUT PLAN

C-301







LAND SURVEYING
PROGRAM MANAGEM
LANDSCAPE ARCHITEC
SUSTAINABLE DESIC

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PROPOSED SITE PLAN DOCUMENTS

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PROPOSED INDUSTRIAL DEVELOPMENT

UNION STREET BUSINESS PARK II MAP #314, BLOCK #20, LOT #1 839 UPPER UNION STREET CITY OF FRANKLIN NORFOLK COUNTY, MA

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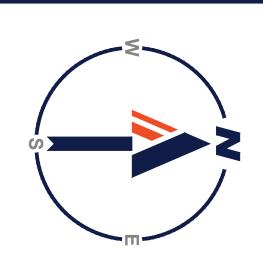
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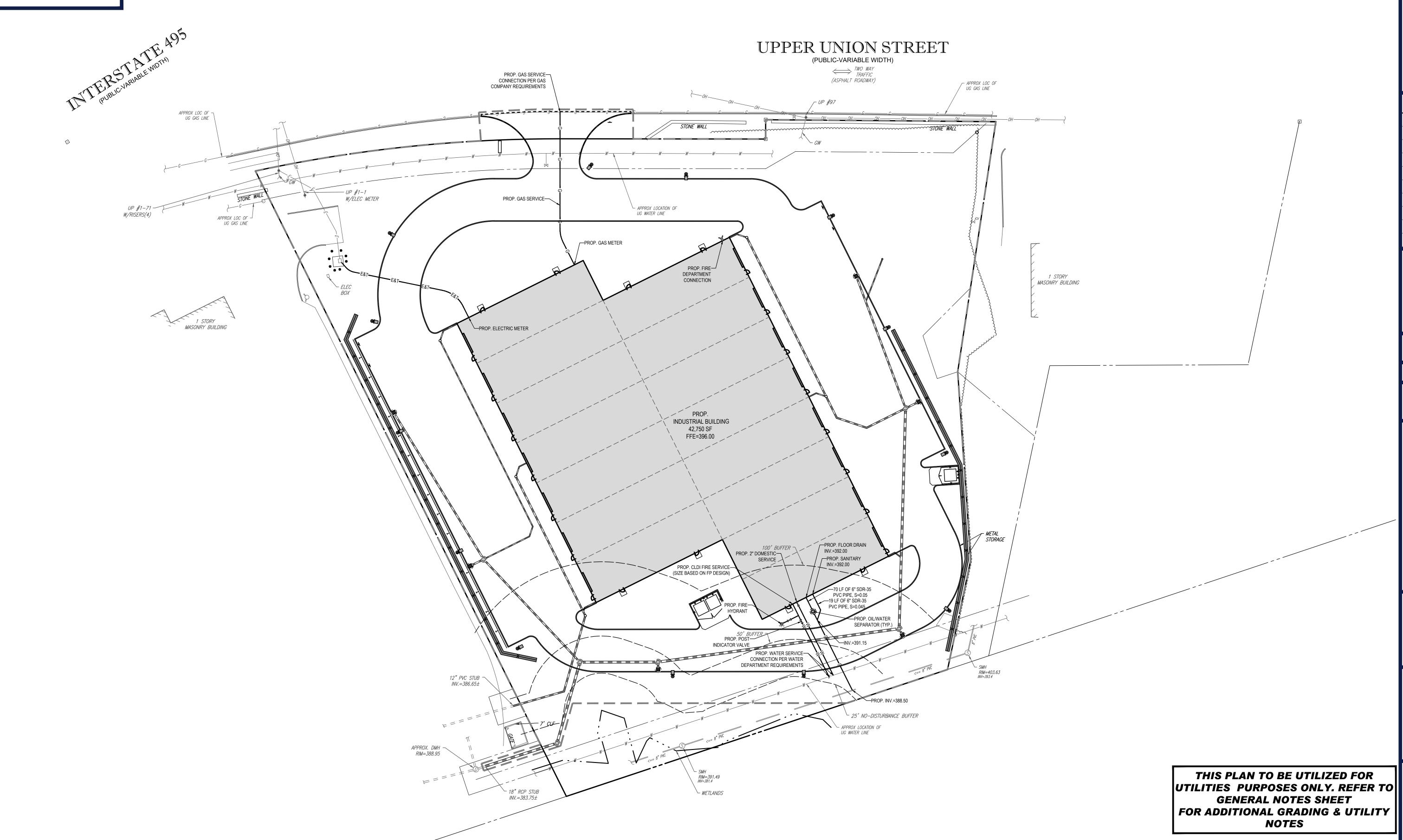


DRAINAGE PLAN

HEET NUMBER:

C-501





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SITE CIVIL AND CONSULTING E
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PROGRAM MANAGEM
LANDSCAPE ARCHITEC
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PROPOSED SITE PLAN DOCUMENTS

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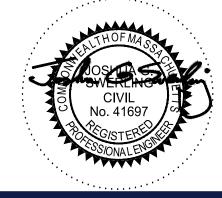
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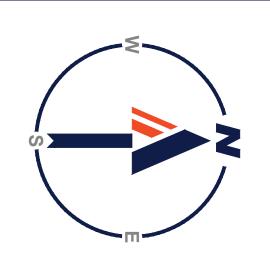


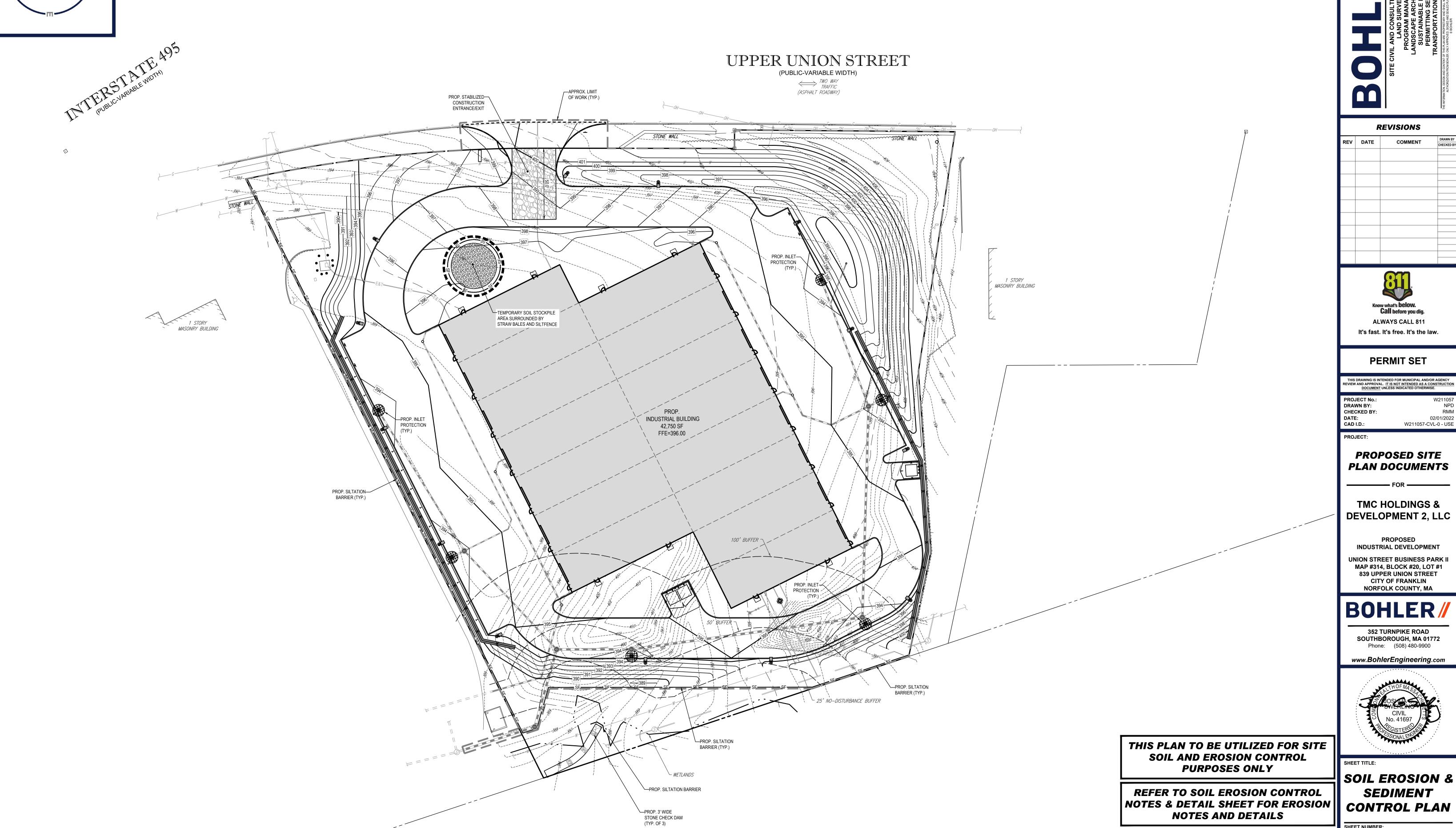
SHEET TITLE.

UTILITY PLAN

ET NUMBER:

C-502







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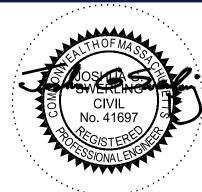
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SHEET TITLE:

SOIL EROSION & SEDIMENT

C-601

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 UPSLOPE ARE STABILIZED BY TURF.
- 6. 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
- TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
- 9. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS.
- 10. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
- 10.1. SIX INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
- APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 LB PER ACRE OR 18.4 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT, APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER
- 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 BLUE-GRASS, 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.
- 11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
- 12. WETLANDS WILL BE PROTECTED W/ STRAW, COMPOST, AND/OR SILT FENCE BARRIERS INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
- 13. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
- 14. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED.
- 15. THE USE OF STRAW HAY BALES IS PROHIBITED.

GREATER THAN 3:

JUTE MESH OR EXCELSIOR MAT JUTE MESH OR EXCELSIOR MAT AS REQUIRE WINDY AREA MODERATE TO HIGH JUTE MESH OR EXCELSIOR MAT AS REQUIRED VELOCITY AREAS OR STEEP SLOPES

(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.

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
- 3. 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
- AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR straw AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ADEQUATELY
- BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST. 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, IE 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 REATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANEN' SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF straw OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
- 7.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
- 7.2. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR 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
- DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO
- 10. STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.
- 11. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED

CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

-INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT (AS SHOWN)

-INSTALLATION OF EROSION CONTROL BARRIER (SILT FENCE) (AS SHOWN)

-DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)

-CLEARING AND GRUBBING

-EARTHWORK AND EXCAVATION/FILLING AS NECESSARY

-CONSTRUCTION OF UTILITIES

-INSTALLATION OF BINDER COURSE PAVEMENT

-INSTALLATION OF INLET PROTECTION OF ON-SITE UTILITIES (AS SHOWN) -STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING

-CONSTRUCTION OF BUILDINGS

-CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS

-SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH

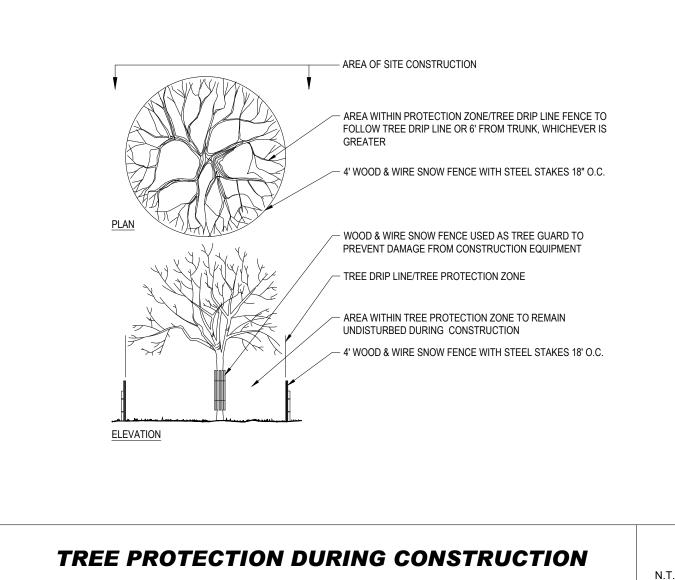
-FINAL GRADING OF ALL SLOPED AREAS

-PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE

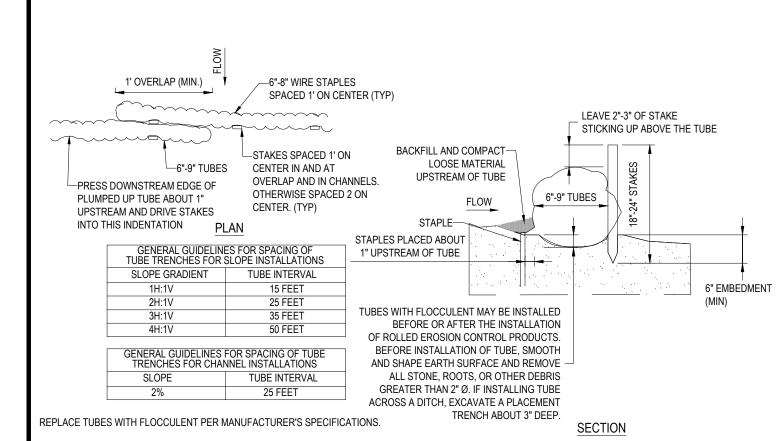
-INSTALLATION OF TOP COURSE PAVEMENT

-LANDSCAPING PER LANDSCAPING PLAN

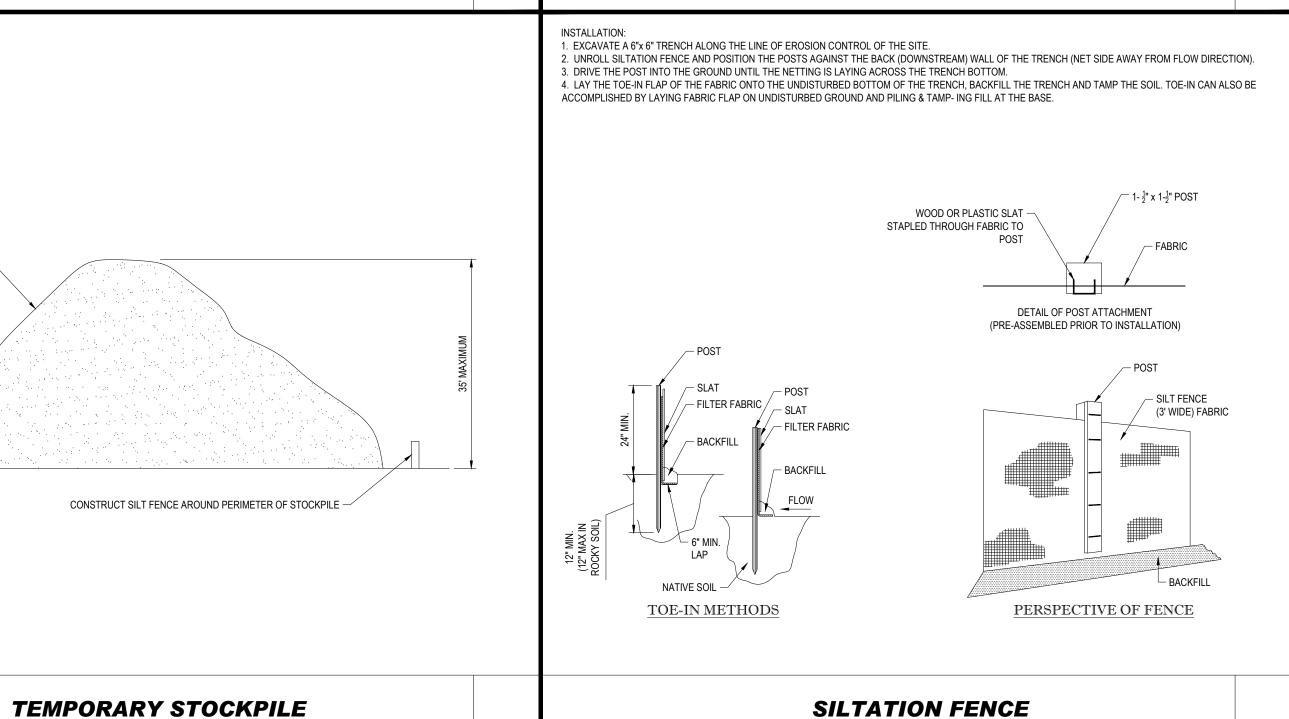
-REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER

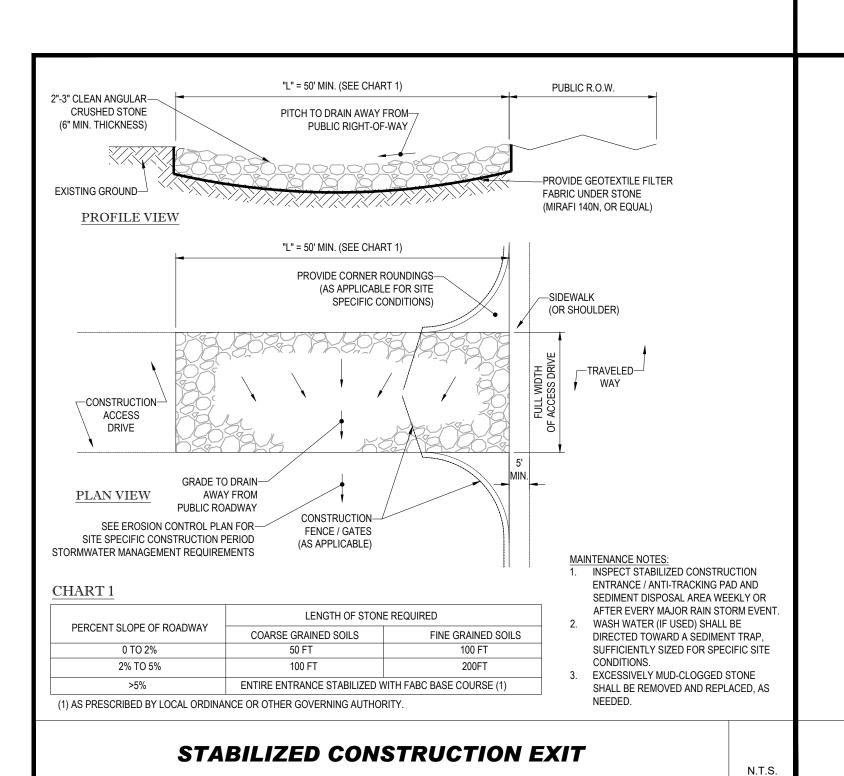


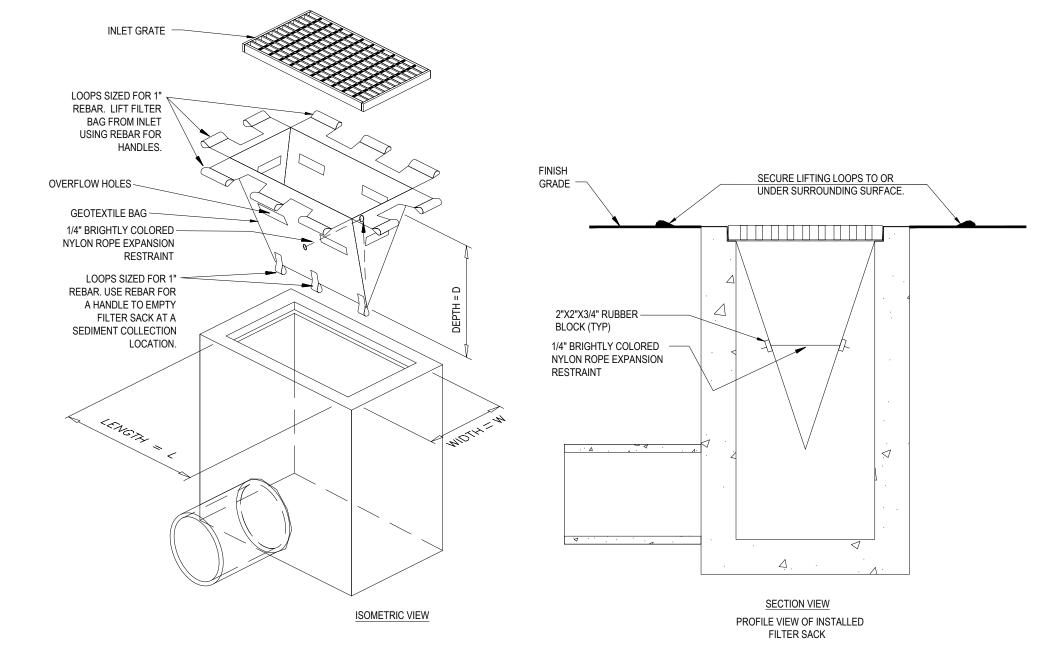
1:3 MAXIMUM SLOPE



FIBER FLOCCULENT TUBE







PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-4033	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4355	40 US SIEVE
FLOW RATE	ASTM D-4731	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1
PERIVITIVIT	ASTWID-4491	0.33 SEC -1
MODERATE TO HIGH FLOW GE	OTEXTILE FABRIC SPEC	CIFICATION TABLE
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE STRENGTH GRAB TENSILE ELONGATION	ASTM D-4632 ASTM D-4632	265 LBS 20 %
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
GRAB TENSILE ELONGATION PUNCTURE	ASTM D-4632 ASTM D-4833	20 % 135 LBS
GRAB TENSILE ELONGATION PUNCTURE MULLEN BURST	ASTM D-4632 ASTM D-4833 ASTM D-3786	20 % 135 LBS 420 PSI
GRAB TENSILE ELONGATION PUNCTURE MULLEN BURST TRAPEZOID TEAR	ASTM D-4632 ASTM D-4833 ASTM D-3786 ASTM D-4533	20 % 135 LBS 420 PSI 45 LBS
GRAB TENSILE ELONGATION PUNCTURE MULLEN BURST TRAPEZOID TEAR UV RESISTANCE	ASTM D-4632 ASTM D-4833 ASTM D-3786 ASTM D-4533 ASTM D-4355	20 % 135 LBS 420 PSI 45 LBS 90 %

LOW TO MODERATE ELOW GEOTEXTILE FABRIC SPECIFICATION TABLE

- RESTRAINT CAN NO LONGER BE SEEN.
- GEOTEXTILE SHALL BE A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE.
- PLACE AN OIL ADSORBENT PAD OR PILLOW OVER INLET GRATE WHEN OIL SPILLS ARE A CONCERN
- INSPECT PER REGULATORY REQUIREMENTS. 5. THE WIDTH, "W", OF THE FILTER SACK SHALL MATCH THE INSIDE WIDTH
- OF THE GRATED INLET BOX. 6. THE DEPTH, "D", OF THE FILTER SACK SHALL BE BETWEEN 18 INCHES
- THE LENGTH, "L", OF THE FILTER SACK SHALL MATCH THE INSIDE LENGTH OF THE GRATED INLET BOX.

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

TO BE USED IN EXISTING RIGHT OF WAY

ORG. DATE - 02/01/2022

EROSION AND

SEDIMENT

CONTROL NOTES

AND DETAILS

C-602

REVISIONS

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PROPOSED SITE

PLAN DOCUMENTS

TMC HOLDINGS & **DEVELOPMENT 2, LLC**

INDUSTRIAL DEVELOPMENT

JNION STREET BUSINESS PARK II

MAP #314, BLOCK #20, LOT #1

839 UPPER UNION STREET

CITY OF FRANKLIN

NORFOLK COUNTY, MA

352 TURNPIKE ROAD

SOUTHBOROUGH, MA 01772

Phone: (508) 480-9900

www.BohlerEngineering.com

W211057-CVL-0 - US

PROJECT No.:

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DRAWN BY:

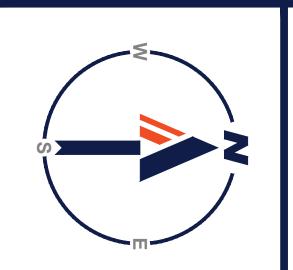
CAD I.D.:

PROJECT:

COMMENT

REV DATE

FILTER SACKS (GRATED INLETS)



4' DIA. MULCH TREE PIT (TYP.)—

PROP. CONSERVATION/-

TOPSOIL (TYP.)

WILDLIFE SEED MIX OVER 6"

SEED MIX KEY

PROPOSED HYDROSEED

(PUBLIC-VARIABLE WIDTH)

→ TWO WAY
TRAFFIC

(ASPHALT ROADWAY)

PROP. BASIN SEED MIX-OVER 6" TOPSOIL (TYP.) <

PROP. 3" LAYER OF DOUBLE-SHREDDED

HARDWOOD BARK MULCH OVER WATER

PERMEABLE WEED BARRIER FABRIC IN

-PROP. HYDROSEED LAWN

OVER 6" TOPSOIL (TYP.)

ALL PLANT BEDS (TYP.)

WILDLIFE SEED MIX PROPOSED BASIN SEED MIX

PROPOSED CONSERVATION/

CITY OF FRANKLIN, MA LANDSCAPE REQUIREMENTS

REQUIREMENTS CALCULATIONS/PROPOSED 4. DIMENSIONAL REQUIREMENTS PROVIDED - LANDSCAPING PROVIDED B) FREESTANDING SIGNS AROUND FREESTANDING SIGN FREESTANDING SIGNS ARE REQUIRED TO BE LANDSCAPED WITH SELECTED FLORA, NO MORE THAN TWO FEET ABOVE THE AVERAGE FINISHED GRADE OF ADJOINING GROUND. ARTICLE V: SPECIAL | THIS REQUIREMENT MAY BE WAIVED IF THE LANDSCAPING IS DETERMINED TO BE A SAFETY HAZARD BASED UPON THE BUILDING COMMISSIONER DETERMINATION IN 185-20: SIGNS CONSULTATION WITH THE POLICE CHIEF. THE CRITERIA TO BE CONSIDERED WITH REGARD TO FREESTANDING SIGN LANDSCAPING SHALL INCLUDE BUT ARE NOT LIMITED TO WHETHER THE LANDSCAPING BLOCKS THE VIEW OF ONCOMING VEHICLES OR PEDESTRIANS. ANY LOT ABUTTING A RIGHT-OF-WAY OF 75 FEET OR MORE REQUIRED: 455 FT / 30 FT = 16 TREES

IN WHICH A BUILDING IS CONSTRUCTED WITHIN 150 FEET PROVIDED: 16 TREES OF THE RIGHT-OF-WAY MUST HAVE TREES PLANTED AT ARTICLE V: SPECIAL LEAST EVERY 30 FEET IN A ROW BETWEEN 30 AND 50 FEET REGULATIONS -BACK FROM THE RIGHT-OF-WAY, UNLESS A SUFFICIENT SECTION 185-30: NUMBER OF TREES ALREADY EXISTS. TREES MUST BE OF TREE PLANTING TWO-INCH CALIPER AND APPROVED BY THE TREE WARDEN. IF ANY OF THE TREES DO NOT LIVE THROUGH THE FIRST WINTER, THEY MUST BE REPLACED.

3. DRAWING REQUIREMENTS PROVIDED - ALL PLANTINGS SELECTED ARTICLE V: SPECIAL (K) A LANDSCAPING PLAN SHOWING EXISTING FROM THE BEST DEVELOPMENT USE REGULATIONS - VEGETATION, PROPOSED VEGETATION AND THE PRACTICES GUIDEBOOK DISTINCTION BETWEEN PROPOSED AND RETAINED VEGETATION. A NOTE SHALL BE PLACED ON THE PLAN DESIGN REVIEW THAT ALL PLANTINGS SHALL COME FROM THE BEST DEVELOPMENT PRACTICES GUIDEBOOK. C. PARKING AREA DESIGN AND LOCATION

(4) LOADING AREAS AND PARKING AREAS FOR 10 OR MORE **REGULATIONS -**(5) PARKING LOTS FOR 20 OR MORE CARS SHALL CONTAIN | REQUIRED: 90 SPACES / 10 = 9 TREES PARKING LOADING OR BE BORDERED WITHIN FIVE FEET BY AT LEAST ONE PROVIDED: 9 TREES TREE PER 10 PARKING SPACES, TREES TO BE TWO-INCH REQUIREMENTS CALIPER OR LARGER, WITH NOT LESS THAN 40 SQUARE FEET OF UNPAVED SOIL AREA PER TREE. SOIL PLOTS

QTY.

3

4

2

KEY

SUBTOTAL:

ORNAMENTAL TREES

SHADE TREES

REVISIONS REV DATE COMMENT

SHALL BE LOCATED SO AS TO ASSURE SAFE INTERNAL

LANDSCAPE SCHEDULE CONT. **BOTANICAL NAME** COMMON NAME SIZE ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE 2 1/2-3" CAL. B+B 2 1/2-3" CAL. ACER SACCHARUM SUGAR MAPLE B+B QUERCUS ALBA WHITE OAK 2 1/2-3" CAL. B+B QUERCUS BICOLOR 2 1/2-3" CAL. B+B

OSTRYA VIRGINIANA AMERICAN HOPHORNBEAM 8-10' B+B OV SUBTOTAL: 10 **EVERGREEN SHRUBS**

IGCB ILEX GLABRA 'GEM BOX' DWARF INKBERRY HOLLY 18-24" CONTAINER SUBTOTAL: GROUND COVERS JUNIPERUS HORIZONTALIS 'BAR HARBOR' BAR HARBOR CREEPING JUNIPER

ORNAMENTAL GRASSES 5 SCHIZACHYRIUM SCOPARIUM 'THE BLUES' CONTAINER SSTB LITTLE BLUE STEM 2 GAL. SUBTOTAL: 5

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CAD I.D.:

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W211057-LND-0

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352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772 Phone: (508) 480-9900

NORFOLK COUNTY, MA

www.BohlerEngineering.com



SHEET TITLE:

LANDSCAPE PLAN

C-701

ORG. DATE - 02/01/2022

OWNER MAINTENANCE RESPONSIBILITIES

UPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, UPKEEP, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION, PLANTS, TREE, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS AND FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

· TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY

BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL. • TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.

 VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED SO THAT NO PORTION OF THE PLANT EXCEEDS 30 INCHES ABOVE GRADE (OF ALL PAVED, TRAVEL SURFACES) ALONG AND WITHIN THE SIGHT LINES OF PARKING LOTS AND INGRESS-EGRESS WAYS.

FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATELY FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY OTHER HAZARDS.

THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.

THIS PLAN TO BE UTILIZED FOR

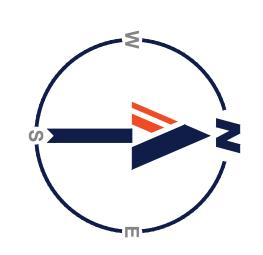
LANDSCAPE PURPOSES ONLY

REFER LANDSCAPE NOTES &

DETAILS SHEET FOR LANDSCAPE

NOTES AND DETAILS

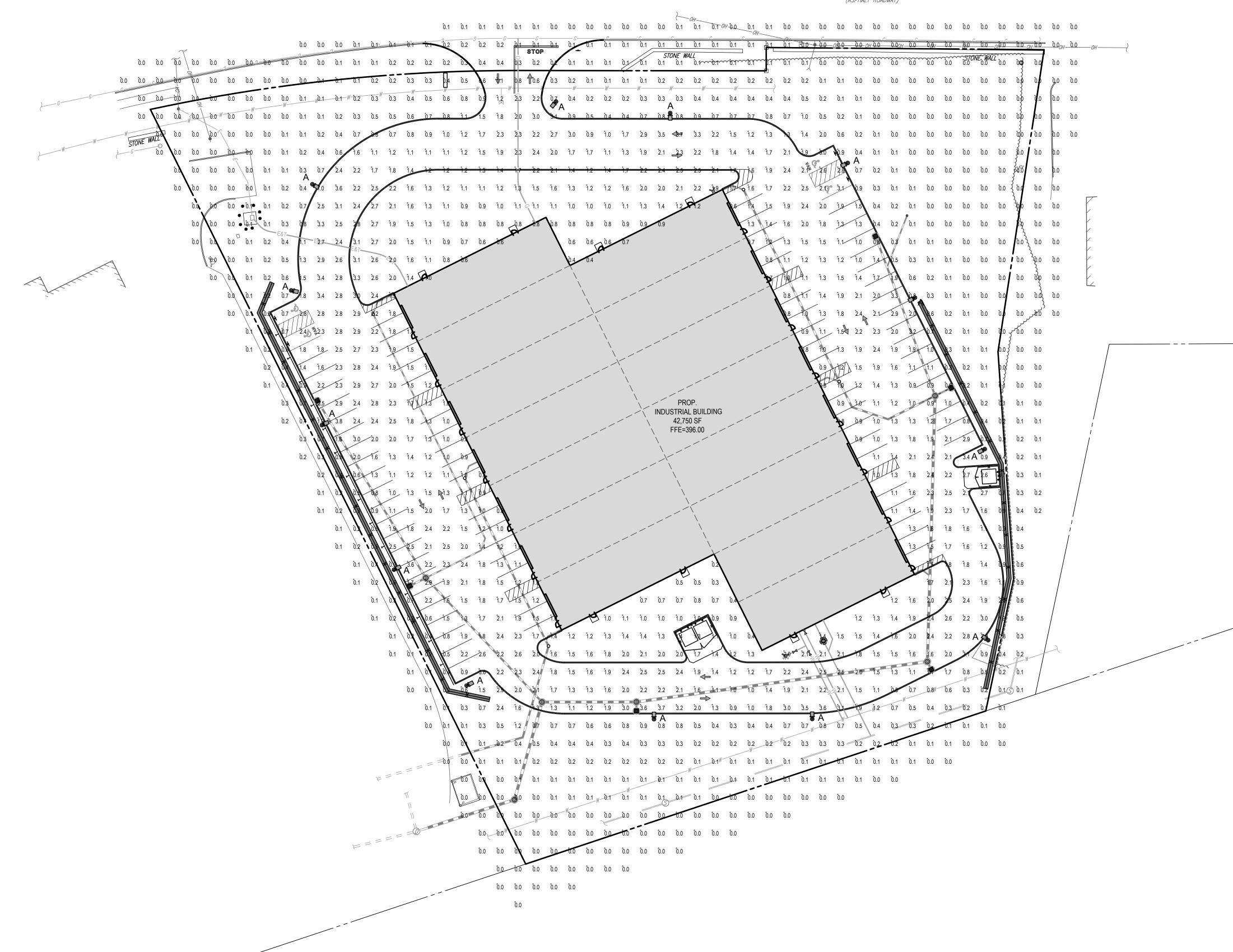
LANDSCAPE SPECIFICATIONS .) NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT 2.) REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM ROOT BAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED 3.) PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY AREA OF SITE CONSTRUCTION SCOPE OF WORK: DURING THE FALL PLANTING SEASON: 4.) THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR FIRST MONTH ACFR RUBRUM PLATANUS X ACERIFOLIA AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS. SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT. BETULA VARIETIES POPULUS VARIETIES 5.) THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR. PRUNUS VARIETIES **CARPINUS VARIETIES** TREE PROTECTION FENCE SHALL BE NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE INSTALLED TO FOLLOW TREE CANOPY CRATAEGUS VARIETIES PYRUS VARIETIES DRIP LINE OR PROPOSED LIMITS OF GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S KOELREUTERIA QUERCUS VARIETIES 6.) REFER TO THE CHART "GENERAL RANGE OF SOIL MODIFICATIONS & VOLUMES FOR VARIOUS SOIL DISTURBANCE. LIQUIDAMBAR STYRACIFLUA TILIA TOMENTOSA CONDITIONS" TO DETERMINE MINIMUM WIDTH OF PREPARED SOIL. AVOID PURCHASING TREES WITH TWO LEADERS LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES 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 7.) SUBSTITUTE ARBORVITAE STAKING SYSTEM WHEN SPECIFIED. -4' HIGH WOOD & WIRE SNOW FENCE W/WOOD OR REMOVE ONE AT PLANTING: OTHERWISE, DO DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS. STAKES AT A MAXIMUM OF 8' ON CENTER. AS AN 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 NOT PRUNE TREE AT PLANTING EXCEPT FOR OPTION ORANGE/FLOURESCENT HIGH-DENSITY UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY: LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 6" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, SPECIFIC STRUCTURAL CORRECTIONS. REINFORCED RUBBER HOSE (1/2" DIA. BLACK) -"VISI-FENCE" OR APPROVED EQUAL CAN BE USED. AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN 1 PART PEAT MOSS LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED. 1 PART COMPOSTED COW MANURE BY VOLUME SET ROOT BALL FLUSH TO GRADE OR SEVERA FOLD BURLAP AWAY FROM TOP OF ROOT 2.3.2. SOD SHALL BE STRONGLY ROOTED. WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 INCHES HIGHER IN POORLY DRAINING SOILS. 3 PARTS TOPSOIL BY VOLUME -WOOD & WIRE SNOW FENCE USED AS TREE GUARD TO PREVENT DAMAGE FROM 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS 12 GAUGE GALVANIZED WIRE GUYS TWISTED CONSTRUCTION EQUIPMENT. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED 2 TABLETS PER 1 GALLON PLANT - 4" BUILT-UP EARTH SAUCER ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES /DETAILS. 3 TABLETS PER 5 GALLON PLANT 2" DIA. HARDWOOD STAKES 2/3 TREE HT, 3 9843 4 TABLETS PER 15 GALLON PLANT TREE DRIP LINE/TREE PROTECTION ZONE 3" DOUBLE SHREDDED HARDWOOD BARK MULCH (UNLESS OTHERWISE SPECIFIED) (DO LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK -AREA WITHIN TREE PROTECTION ZONE TO REMAIN FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NOT PLACE MULCH IN CONTACT WITH TREE UNDISTURBED DURING CONSTRUCTION. NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE. TWICE THE WIDTH OF ROOTBALL FOR 9.9. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY PREPARED SOIL FOR TREES. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A 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 FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY LANDSCAPE FABRIC AS SPECIFIED THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL. —6' WOOD OR STEEL FENCE POSTS AT 8' MAXIMUM PREPARED SOIL FOR TREES CENTER TO CENTER (MINIMUM 2' BELOW GRADE). PI ANT MATERIA 9.11. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' 1 PART PEAT MOSS FROM GRADE. 1 PART COW MANURE ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI 760.1) LATEST 3 PARTS TOPSOIL -EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN). 9.12. GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER (RECOMMENDATION ONLY. SEE SOIL MOD. CHART) **ELEVATION** AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION. REVISIONS IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL. 9.13. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR UNDISTURBED SUBGRADE REV DATE COMMENT VERIFICATION PURPOSES DURING THE FINAL INSPECTION. 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 - ALL PLANTING CONTAINERS. BASKETS AND NON-BIODEGRADABI E MATERIAI S SHALL DIG WIDE SHALLOW HOLE WITH -TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 11/4", WHICH HAVE NOT BEEN COMPLETELY BE REMOVED FROM ROOT BALLS. CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK TAMPED SIDES 9.15. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN. BRANCHES 10. TRANSPLANTING (WHEN REQUIRED) ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES. TAMP SOIL SOLIDLY AROUND BASE 10.1. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT. DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE. OF ROOT BALL SET ROOT BALL ON UNDISTURBED 10.2. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE SOIL IN BOTTOM OF HOLE 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 FROM EXTREME HEAT, SUN AND WIND. (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE. 10.3. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH. TREE PROTECTION DURING SITE 10.4. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE. TREE PLANTING DETAIL TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL. 10.5. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN CONSTRUCTION N.T.S. GENERAL WORK PROCEDURES 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. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN FOR CONTAINER-GROWN SHRUBS, PLANT SHALL BE STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF. PLANT SHALL BE PLANTED SO THAT THE POINT-TRANSPLANTED AT THE SAME GRADE AS IN THE CONTAINER. 1. ANY TREE INSTALLED WITHIN 10 FT. OF NEW CONCRETE SIDEWALKS SHOUL AT WHICH THE ROOT FLARE BEGINS IS SET WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING REMOVE THE CONTAINER, USE FINGER OR SMALL HAND TOOLS BE INSTALLED WITH BIOBARRIER ROOT BARRIER FABRIC AS SHOWN 11.1. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH SEE DECIDUOUS OR EVERGREEN TREE EVEL WITH GRADE, CUT AND REMOVE BURLAP ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE. TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY DETAIL FOR PLANTING PURPOSES FROM TOP ONE-THIRD OF ROOT BALL AS SOIL; THEN CUT OR PULL APART ANY ROOTS THAT CIRCLE SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED. THE PERIMETER OF THE CONTAINER. 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 BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN PLANTING MIX:-NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES. CONC. SIDEWALK ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN. -3" DOUBLE-SHREDDED HARDWOOD BARK MULCH (DO NOT 1 PART PEAT MOSS 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 PUT MULCH AGAINST THE BASE OF THE PLANT). ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT 1 PART COW MANURE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH. OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH 3 PARTS TOPSOIL CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR (SEE SOIL MODIFICATION CHART) -LANDSCAPE FABRIC AS SPECIFIED BIOBARRIER ROOT-BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. -FINISHED GRADE 12.1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF 1 YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE BARRIER FABRIC OR Call before you dig CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE -PLACE SHRUB ON FIRM SOIL IN BOTTOM OF HOLE. APPROVED EQUAL -UNDISTURBED SUBGRADE APPROVING AGENCY CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE **ALWAYS CALL 811** INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND BEFORE PLANTING, ADD 3" TO 4" OF-MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK. SIOBARRIER ROOT BARRIER APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE -PREPARED SOIL FOR TREES WELL-COMPOSTED LEAVES AND RECYCLED It's fast. It's free. It's the law. FABRIC TO BE INSTALLED (SEE PLANTING DETAIL) YARD WASTE TO BED AND TILL INTO TOP 6" OF 12.2. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE TO THE DEPTH OF TH PREPARED SOIL UNDISTURBED SUBGRADE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE. WITHOUT EXCEPTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT **BOTTOM OF STONE BASE** 24" MINIMUM THE DRIP LINE OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT SOIL SURFACE ROUGHENED TO--WHEN APPROPRIATE, PLANT MULTIPLE SHRUBS IN COURSE OR 10" 12.3. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS BIND WITH NEW SOIL. CONTINUOUS PLANTING HOLE. TREE PROTECTION ZONE SHALL BE HONORED WHICHEVER IS GREATER SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT PERMIT SET A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL, MOUNTED ON STEEL MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE. POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON 12.4. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL. SHRUB PLANTING DETAIL **BIOBARRIER ROOT BARRIER DETAIL** REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS. THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENC WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING EVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUC N.T.S. DOCUMENT UNLESS INDICATED OTHERWISE 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. 13.1. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED PROJECT No. MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED. -SET ROOT BALL FLUSH TO GRADE OR AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION DRAWN BY: SEVERAL INCHES HIGHER IN POORLY 13.2. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE. INCORPORATE 2" OF PEAT INTO 6" -4" BUILT-UP EARTH SAUCER SOIL MODIFICATIONS 14. MAINTENANCE (ALTERNATIVE BID): OF PLANTING MIXTURE, AS CAD I.D. W211057-LND-CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A 14.1 A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD -SET ROOT BALL ON FIRM PAD IN CUT BACK SLOPE TO PROVIDE A-CERTIFIED SOIL LABORATORY ENSURES TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PROJECT: PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED. THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE FLAT SURFACE FOR PLANTING 1" DOUBLE SHREDDED-LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS PROPOSED GRADE FOR PLANTING HARDWOOD BARK MULCH -TOP SOIL FILL (COMPACTED) MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS AREA NOT TO EXCEED 2: CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR (SLOPE NOT TO EXCEED 2:1) PROPOSED SITE THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD FDGING BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY UNDISTURBED SUBGRADE **PLAN DOCUMENTS** (AS SPECIFIED) TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE 6.3.1. DIG WIDE, SHALLOW HOLE-4"-6" DEEPER THAN ROOT BALL COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH TAMPED SIDES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) TAMP SOIL SOLIDLY AROUND-AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE BASE OF ROOT BALL EQUAL EQUAL EQUAL EQUAL TMC HOLDINGS & TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL 6.3.3. **DEVELOPMENT 2, LLC** REFER TO TREE PLANTING DETAIL FOR GENERAL PLANTING SPECIFICATIONS FINISHED GRADING UNLESS OTHERWISE CONTRACTED. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE TREE PLANTING DETAIL - ON SLOPE **PROPOSED** GROUNDCOVER PLANTING ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE INDUSTRIAL DEVELOPMENT N.T.S. 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"+) UNION STREET BUSINESS PARK II 18" STAKE INTO UNDISTURBED GROUND-"NEW ENGLAND CONSERVATION/ WILDLIFE SEED MIX" APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED MAP #314, BLOCK #20, LOT #1 EVERY 30" O.C. LAP JOINTS AS PER MINIMUM ORDER: 2 LBS WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT. 839 UPPER UNION STREET MANUFACTURERS RECOMMENDATION 1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" CITY OF FRANKLIN ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING NEW ENGLAND WETLAND PLANTS, INC SPECIES: VIRGINIA WILD RYE (ELYMUS VIRGINICUS), LITTLE BLUESTEM (SCHIZACHYRIUM WATER SHALL NOT BE PERMITTED IN PLANTING BEDS. NORFOLK COUNTY, MA 820 WEST STREET AMHERST MA 01002 SCOPARIUM) BIG BI UESTEM (ANDROPOGON GERARDII) RED FESCUE (FESTUCA RUBRA) SWITCH 2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS PHONE: 413-548-8000 GRASS (PANICUM VIRGATUM), PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), PANICLEDLEAF TICK TREFOIL (DESMODIUM PANICULATUM), INDIAN GRASS (SORGHASTRUM NUTANS), BLUE VERVAIN EMAIL: INFO@NEWP.COM 3/16" x 4" BLACK CONTRACTOR SHALL PROVIDE A 6" THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. 3 SEEDING RATES: WEBSITE: WWW.NEWP.COM (VERBENA HASTATA), BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA), BLACK EYED SUSAN ALUMINUM EDGING PERENNIAL RYEGRASS 1/2 LB/1000 SQ FT TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS. (RUDBECKIA HIRTA), COMMON SNEEZEWEED (HELENIUM AUTUNALE), HEATH ASTER KENTUCKY BLUEGRASS 1 LB/1000 SQ FT (ASTERPILOSUS/SYMPHYOTRICHUM PILOSUM), EARLY GOLDENROD (SOLIDAGO JUNCEA), UPLAND ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN LAWN OR GRAVEL AREA- RED FESCUE 1/2 LB/1000 SQ FT BENTGRASS (AGROSTIS PERENNANS). PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION. SPREADING FESCUE 1/2 LB/1000 SQ FT 352 TURNPIKE ROAD FERTILIZER (16.32.16) 2 LB/1000 SQ FT CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING LIQUID LIME 1 GAL/800 GAL. **SOUTHBOROUGH, MA 01772** AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS TANK TACKIFIER 35 LB/800 GAL Phone: (508) 480-9900 SPECIFIED IN THE MATERIALS SECTION ABOVE TANK FIBER MULCH 30 LB/1000 SQ F ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE www.BohlerEngineering.com DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") 4. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED IN TWO DIRECTIONS (QUANTITIES BASED ON A 1.000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY ISEE SPECIFICATION 6.A.1) AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER. UNDISTURBED SUBGRADE-20 POUNDS 'GRO-POWER' OR APPROVED SOIL CONDITIONER/FERTILIZER 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS. **NEW ENGLAND CONSERVATION/ WILDLIFE HYDROSEED SPECIFICATIONS BLACK ALUMINUM EDGING** 9. PLANTING SEED MIX SPECIFICATIONS 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 "NATIVE DETENTION AREA MIX" AS PREPARED BY: SPECIFIED ARBORTIE GREEN (OR WHITE) STAKING THIS END WRAPPED AND GUYING MATERIAL IS TO BE FLAT WOVEN AROUND TREE AFTER PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE ERNST CONSERVATION SEEDS, INC. POLYPROPYLENE MATERIAL KNOT IS TIGHTENED AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION. APPLICATION RATE: 1/2 LB. / 1000 SQ. FT. (20 LBS. / ACRE) 8884 MERCER PIKE, MEADVILLE, PA 16335 3/4" WIDE, 900 LB. BREAK STRENGTH. ARBORTIE PHONE: 800-873-3321 / 814-336-2404 SHALL BE FASTENED TO STAKES IN A MANNER ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED EMAIL: SALES@ERNSTSEED.COM * WHICH PERMITS TREE MOVEMENT AND SUPPORTS 25.0% PANICUM VIRGATUM, 'SHELTER' (SWITCHGRASS, 'SHELTER' WEBSITE: WWW.ERNSTSEED.COM SHEET TITLE: THE TREE. \le this end to 3 ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER 24.0% PANICUM CLANDESTINUM, 'TIOGA' (DEERTONGUE, 'TIOGA') BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING. 22.0% CAREX VULPINOIDEA, PA ECOTYPE (FOX SEDGE, PA ECOTYPE) > THIS END TO LANDSCAPE 21.0% ELYMUS VIRGINICUS, PA ECOTYPE (VIRGINIA WILDRYE, PA ECOTYPE) MIN OF THREE (3) THIS END TO POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO STAKE TYPICAL GUYING STAKES TO EACH 6.0% AGROSTIS PERENNANS, ALBANY PINE BUSH-NY ECOTYPE (AUTUMN BENTGRASS, ALBANY PINE BUSH EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED. $^{\prime}$ THIS END TO INSTALLATION **NOTES AND** PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY THE PROPOSED LANDSCAPE AS SHOWN ON THE APPROVED LANDSCAPE PLAN MUST BE 1.0% JUNCUS EFFUSUS (SOFT RUSH) 1.0% PANICUM RIGIDULUM, PA ECOTYPE (REDTOP PANICGRASS, PA ECOTYPE) INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS **DETAILS** IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING THIS END TO TIE A SIMPLE KNOT 18-24" FROM FOLLOW MOTION OF ARRORTIE AS SLIDE KNOT JUST COMPLETED UP TO THE ARBORKNOT PROVIDES SECURE, WRAP THIS END AROUND TREE. EITHER END OF THE ARBORTIE. REGIN A NEW KNOT BELOW THE SHOWN, FINISHING THE KNOT BY THE KNOT TIED IN STEP 1. FASTEN FREE GIRDLE FREE ATTACHMENT OF THE PULLING TIGHTLY ON POINTS A AND B AT PLANTS: MARCH 15 TO DECEMBER 15 END TO STAKE OR ANCHOR. ARBORTIE TO TREE. (DEPENDING ON THE DIAMETER KNOT THAT WAS TIED IN STEP THE SAME TIME OF THE TREE) LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1 C-702 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. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL **BASIN SEED MIX SPECIFICATIONS** ARBORTIE STAKING DETAIL ORG. DATE - 02/01/2022



UPPER UNION STREET

(PUBLIC-VARIABLE WIDTH)

TWO WAY
TRAFFIC
(ASPHALT ROADWAY)



LIGHTING NOTES

- 1. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
- 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
- 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 FOOTCANDLES.
- 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 ONCE EVERY SIX (6) 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.
- CONTRACTOR MUST BRING TO DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
- 8. IT IS THE LIGHTING CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROJECT ARCHITECT OR OWNER REGARDING THE POWER SOURCE(S) FROM WITHIN THE BUILDING, AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT.
- 9. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE SITE PLAN, INCLUDING BUT NOT LIMITED TO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE
- 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, SERVICING, 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 FRONT PARKING ILLUMINANCE FC 1.66 3.8 0.2 8.30 19.00

LUMINAIRE SCHEDULE SYMBOL QTY ARRANGEMENT LUMENS LLF DESCRIPTION

→ A 13 SINGLE

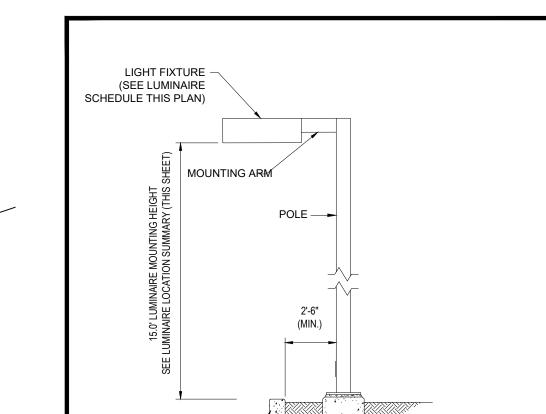
17230 0.90 LSI LIGHTING FORWARD THROW LED AREA LIGHT WITH SHIELD MOUNTED @ 30'; XGBM-FT-LED-SS-NW-HSS

FOUNDATION

N.T.S.

(DESIGN BY OTHERS-SEE NOTE

BELOW)



CONCRETE -

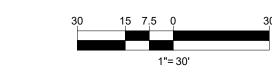
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AREA LIGHT DETAIL

NOTE: THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A FOUNDATION DESIGN PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND LOADS AND SITE SPECIFIC SOIL PARAMETERS.

- SOME SITE CONDITIONS AND/OR LOCATIONS MAY REQUIRE VIBRATION DAMPENING MEASURES AS DETERMINED BY A STRUCTURAL ENGINEER.
- THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF THE INTENT TO MOUNT ANYTHING TO THE POLE, ASIDE FROM THE LIGHT FIXTURES, INCLUDING BUT NOT LIMITED TO CAMERAS, BANNERS, FLAGS, SIGNAGE, ETC. AS IT WILL IMPACT THE POLE AND FOUNDATION DESIGN.

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY



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

	F	REVISIONS
REV	DATE	COMMENT

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ALWAYS CALL 811 It's fast. It's free. It's the law.

PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W211057 DRAWN BY: NPD CHECKED BY: RMM DATE: 02/01/2022 CAD I.D.: W211057-CVL-0 - USE

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

AC HOLDINGS S

TMC HOLDINGS & DEVELOPMENT 2, LLC

PROPOSED INDUSTRIAL DEVELOPMENT

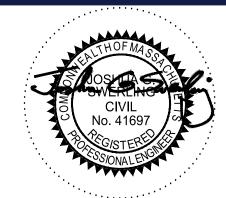
NORFOLK COUNTY, MA

UNION STREET BUSINESS PARK II MAP #314, BLOCK #20, LOT #1 839 UPPER UNION STREET CITY OF FRANKLIN

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SHEET TITLE:

LIGHTING PLAN

SHEET NUMBER

C-703

