REFERENCES

ALTA/NSPS LAND TITLE SURVEY:
CONTROL POINT ASSOCIATES, INC.
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
DATE: 01/25/2022
REVISED: 06/21/2022

GEOTECHNICAL INVESTIGATION REPORT:
WHITESTONE ASSOCIATES, INC.
352 TURNPIKE ROAD, SUITE 320
SOUTHBOROUGH, MA 01772
DATE: 08/21/2024

ARCHITECTURAL PLAN:
AXIOM ARCHITECTURE
333 WEST TRADE STREET, SUITE 200
CHARLOTTE, NC 28202

TRAFFIC IMPACT AND ACCESS STUDY:
MDM TRANSPORTATION CONSULTANTS, INC.
28 LORD ROAD, SUITE 280
MARLBOROUGH, MASSACHUSETTS 01752
DATE: AUGUST, 2024

* THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED

RESIDENTIAL DEVELOPMENT

LOCATION OF SITE:
582 KELLEY BOULEVARD REAR, TOWN OF NORTH ATTLEBOROUGH
BRISTOL COUNTY, MASSACHUSETTS
MAP #35, LOT #3

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GENERAL NOTES SHEET	C-102
DEMOLITION PLAN	C-201
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DEMOLITION PLAN B	C-203
DEMOLITION PLAN C	C-204
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SITE LAYOUT PLAN A	C-302
SITE LAYOUT PLAN B	C-303
SITE LAYOUT PLAN C	C-304
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GRADING PLAN A	C-402
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SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS	C-605
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DETAIL SHEET	C-902
DETAIL SHEET	C-903
DETAIL SHEET	C-904
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LANDSCAPE PLAN C	L-704
LANDSCAPE PLANTING PLAN	L-705
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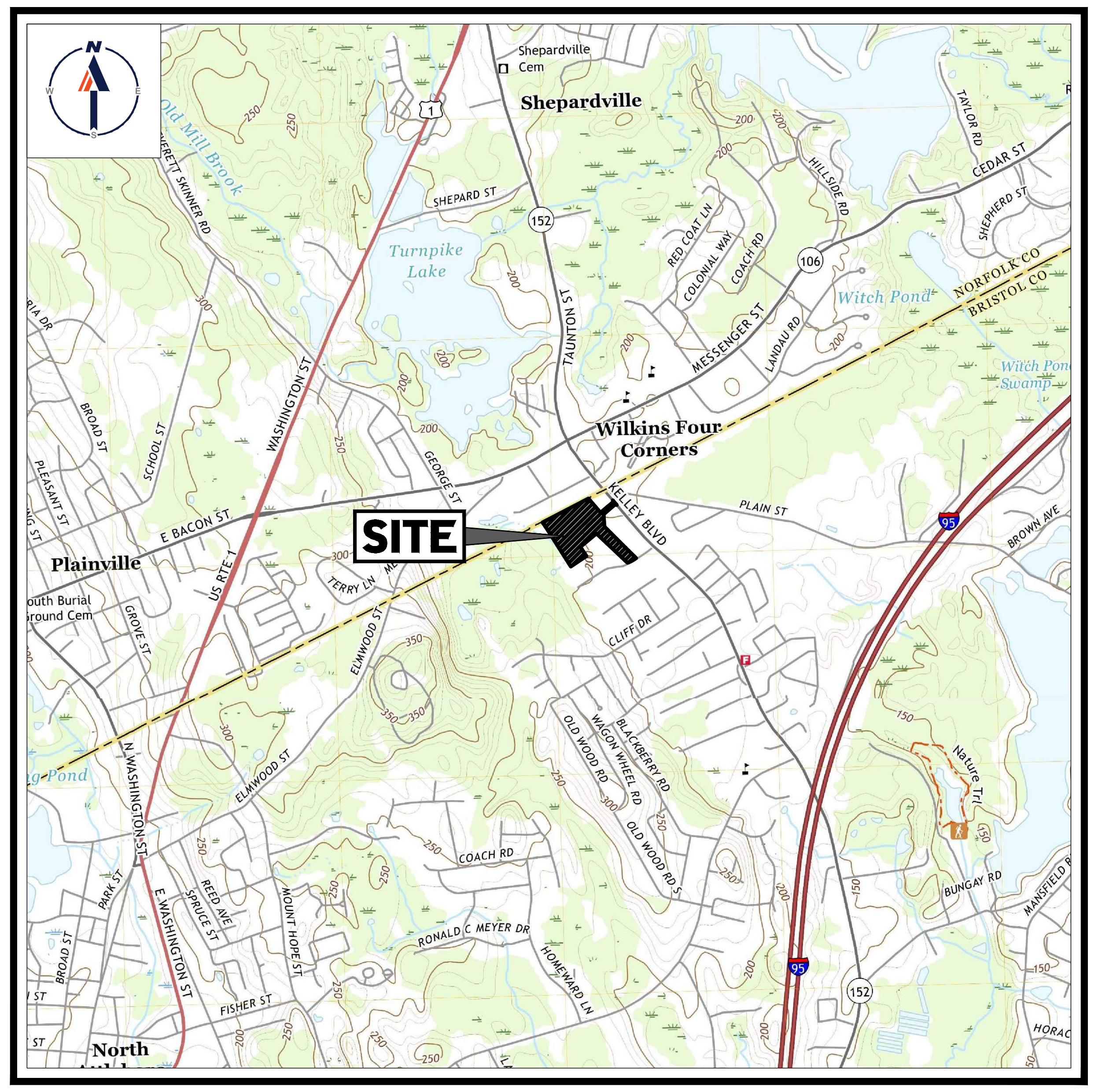
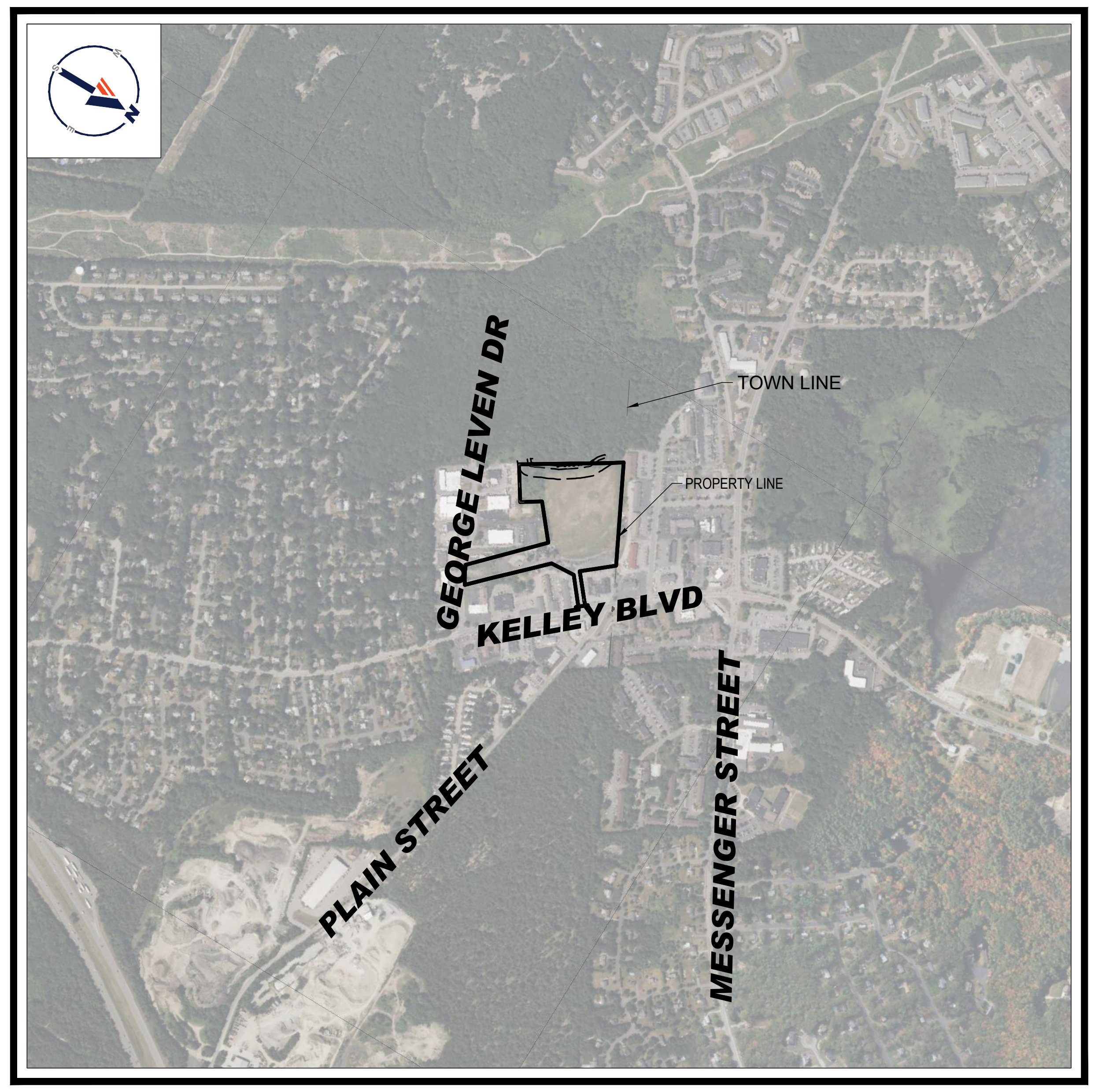
LANDSCAPE DETAILS	L-707
LANDSCAPE DETAILS	L-708
LANDSCAPE DETAILS	L-709
LANDSCAPE DETAILS	L-710
REFERENCE PLANS	
ALTA/NSPS LAND TITLE SURVEY, PREPARED BY CONTROL POINT ASSOCIATES, INC.	5 SHEETS



USGS MAP

SCALE: 1" = 2,000'
SOURCE: USGS ATTLEBOROUGH QUADRANGLE & WRENTHAM QUADRANGLE



SITE MAP

SCALE: 1" = 1,000'
SOURCE: MICROSOFT CORPORATION

PREPARED BY

BOHLER//

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SITE PLAN REVIEW FOR MARCUS PARTERNS

BOHLER//™

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

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES

© BOHLER

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

811
Know what's below. Call before you dig.
ALWAYS CALL 811
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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.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-SPPD-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

J.A. KUCICH
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

JOHN A KUCICH CIVIL No. 41530

John Kucich

SHEET TITLE:

COVER SHEET

SHEET NUMBER:

C-101

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-SPPD-1A----->LAYOUT: C-101 COVR

AO

GENERAL NOTES

(REV. 1/2023)

1. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER ENGINEERING MA, LLC (HEREIN "BOHLER") PRIOR TO THE DATE ON WHICH THE PROFESSIONAL OF RECORD AND BOHLER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY BOHLER , IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
2. THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS, THESE NOTES, AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. 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.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE PROFESSIONAL OF RECORD AND BOHLER THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY.
4. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION IS TO BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE CONDITIONS OF APPROVAL TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
5. THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS/REPORTS 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, AND ALL PROVISIONS IN AND CONDITIONS OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME.
6. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS, WHERE APPLICABLE). THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE OWNER, ARCHITECT AND PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.
7. CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
8. THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, 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 RE-DONE OR REPAIRED DUE TO DIMENSIONS, MEASUREMENTS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING THE PROFESSIONAL OF RECORD AND BOHLER WRITTEN NOTIFICATION OF SAME AND (B) PROFESSIONAL OF RECORD AND BOHLER, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
9. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK. SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS. DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.
10. THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
11. WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN 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: (A) THE PLANS; AND (B) THE GEOTECHNICAL REPORT AND RECOMMENDATIONS, MUST TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK. IF A GEOTECHNICAL REPORT WAS NOT CREATED, THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT.
12. THE PROFESSIONAL OF RECORD AND BOHLER ARE NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.
13. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE 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. ALL OF THIS WORK IS TO BE PERFORMED AT CONTRACTOR'S SOLE COST AND EXPENSE.
14. THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
15. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED MATERIAL, EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR.
16. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
17. THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL 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 MUST BEAR ALL COSTS ASSOCIATED WITH SAME 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 APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE CONTRACTOR MUST, PROMPTLY, DOCUMENT ALL EXISTING DAMAGE AND NOTIFY, IN WRITING, THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
18. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL, LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME. THE PROFESSIONAL OF RECORD AND BOHLER HAVE NOT BEEN RETAINED TO PERFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF THE PROFESSIONAL OF RECORD'S AND BOHLER SERVICES AS RELATED TO THE PROJECT. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIME.
19. THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING, TO THE PROFESSIONAL OF RECORD AND BOHLER, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE, IT WILL BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE PROFESSIONAL OF RECORD AND BOHLER FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS.
20. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE. IF THE CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, RULES, STATUTES, CODES AND THE LIKE, THE CONTRACTOR AND/OR OWNER AGREE TO AND MUST JOINTLY, INDEPENDENTLY, SEPARATELY, AND SEVERALLY INDEMNIFY AND HOLD THE PROFESSIONAL OF RECORD AND BOHLER HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT THE PROFESSIONAL OF RECORD AND BOHLER SUFFER AND ANY AND ALL COSTS THAT THE PROFESSIONAL OF RECORD AND BOHLER INCUR AS RELATED TO SAME.
21. ALL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (CGL) INCLUDING ALSO ALL UMBRELLA COVERAGES. ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER , 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 (DEFEND, IF APPLICABLE) AND HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED AND AGREED TO BY THE CONTRACTOR HEREIN. ALL CONTRACTORS MUST FURNISH BOHLER WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE COVERAGES PRIOR TO COMMENCING ANY WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND AFTER ALL PERMITS ARE ISSUED, WHICHEVER DATE IS LATER. IN ADDITION, ALL CONTRACTORS AGREE THAT THEY WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. THE CONTRACTOR MUST NOTIFY THE PROFESSIONAL OF RECORD, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
22. THE PROFESSIONAL OF RECORD AND BOHLER ARE 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 IN SCOPE AND REVISIONS THAT RESULT FROM SAME. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
23. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER, NOR THE PRESENCE OF BOHLER AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE (HEREIN "BOHLER PARTIES"), RELIEVES OR WILL RELIEVE THE CONTRACTOR OF AND FROM CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE WITH ALL HEALTH AND SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER PARTIES HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER (OR ANY RESPONSIBILITY FOR) ANY CONSTRUCTION, THE CONTRACTOR OR ITS EMPLOYEES RELATING TO THEIR WORK AND ANY AND ALL HEALTH AND SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR MUST INDEMNIFY, DEFEND, PROTECT AND HOLD HARMLESS BOHLER PARTIES FOR AND FROM ANY LIABILITY TO BOHLER PARTIES RESULTING FROM THE CONTRACTOR'S WORK, SERVICES AND/OR VIOLATIONS OF THIS NOTE, THESE NOTES OR ANY NOTES IN THE PLAN SET AND, FURTHER, THE CONTRACTOR MUST NAME BOHLER AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE.
24. WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER, BOHLER WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER WILL PERFORM ITS SHOP DRAWING REVIEW WITH REASONABLE PROMPTNESS, AS CONDITIONS PERMIT. ANY DOCUMENT, DOCUMENTING BOHLER'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE, MUST NOT INDICATE THAT BOHLER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST, IN WRITING, PROMPTLY AND IMMEDIATELY BRING ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS TO BOHLER'S ATTENTION. BOHLER IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
25. IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE PROFESSIONAL OF RECORD AND BOHLER FOR ALL DEVIATIONS WITHIN THE PROFESSIONAL OF RECORD'S AND BOHLER SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, MUST DEFEND, INDEMNIFY, PROTECT, AND HOLD HARMLESS THE PROFESSIONAL OF RECORD AND BOHLER PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME.
26. THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY.
27. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN; AND, FURTHER, THE PROFESSIONAL OF RECORD AND BOHLER ARE 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 THE PROFESSIONAL OF RECORD AND BOHLER PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT THE PROFESSIONAL OF RECORD AND BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE.
28. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE 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.
29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. THE PROFESSIONAL OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.
30. THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD THE PROFESSIONAL OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT PROFESSIONAL OF RECORD SUFFERS AND COSTS THAT THE PROFESSIONAL OF RECORD INCURS AS A RESULT OF SAID FAILURE.
31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF ALL 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 AND FURTHER, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SO.
32. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE PROFESSIONAL OF RECORD AND BOHLER, THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE PROFESSIONAL OF RECORD'S AND BOHLER KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY CIRCUMSTANCES.

GENERAL DEMOLITION NOTES

(REV. 1/2023)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
3. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY, THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS.
4. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN.
    - 4.1. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
    - 4.2. THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION REGARDING THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC.
5. THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
6. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, COMPLYING WITH ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY ON THE SITE OR ADJACENT OR NEAR TO THE SAME.
7. THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY, WHICH MUST INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AND ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA.
8. PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS, ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT. ANY SUCH CONCERNS MUST BE CONVEYED TO THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO, BY THE PROFESSIONAL OF RECORD AND BY BOHLER, IN WRITING. 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.
9. THE CONTRACTOR MUST BECOME FAMILIAR WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AND/OR DISCONNECTION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED, REMOVED AND/OR ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
10. PRIOR TO COMMENCING ANY DEMOLITION, THE CONTRACTOR MUST:
    - 10.1. OBTAIN ALL REQUIRED PERMITS AND MAINTAIN THE SAME ON SITE FOR REVIEW BY THE PROFESSIONAL OF RECORD AND ALL PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK.
    - 10.2. NOTIFY, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION JURISDICTION, AT LEAST 72 BUSINESS HOURS PRIOR TO THE COMMENCEMENT OF WORK.
    - 10.3. INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN SAID CONTROLS UNTIL SITE IS STABILIZED
    - 10.4. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT, IN ADVANCE OF ANY EXCAVATION.
    - 10.5. LOCATE AND PROTECT 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 UNDERGROUND UTILITIES.
    - 10.6. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION ACTIVITIES.
    - 10.7. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING THE METHODS AND MEANS TO CONSTRUCT SAME. THESE ARE NOT THE PROFESSIONAL OF RECORD'S OR BOHLER RESPONSIBILITY. IN THE EVENT OF ABANDONMENT, THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WITH IMMEDIATE WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.
    - 10.8. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS NECESSARY OR AS REQUIRED TO MINIMIZE THE IMPACT ON, OF, AND TO THE AFFECTED PARTIES. WORK REQUIRED TO BE PERFORMED "OFF-PEAK" IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
    - 10.9. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS OR THE CONTRACT WITH THE OWNER/DEVELOPER, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK IN THE AREA OF DISCOVERY, AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER, PROFESSIONAL OF RECORD AND BOHLER, THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER AND COMPLIANT REMOVAL OF SAME.
11. 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, OR PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
12. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT SPECIFIC WRITTEN PERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
13. THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT ALL NEW IMPROVEMENTS AND MUST BE PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE ARTICULATED IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES AND MUST BE PERFORMED SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT SUCH REPORTS AND RESULTS TO THE PROFESSIONAL OF RECORD AND THE OWNER.
14. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FROM BOTH THE OWNER AND ALL APPLICABLE, NECESSARY AND REQUIRED GOVERNMENTAL AUTHORITIES. PRIOR TO COMMENCING ANY EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION ACTIVITIES, THE CONTRACTOR MUST ENSURE AND OVERSEE THE INSTALLATION OF ALL OF THE REQUIRED PERMIT AND EXPLOSIVE CONTROL MEASURES THAT THE FEDERAL, STATE, AND LOCAL GOVERNMENTS REQUIRE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CONDUCT AND PERFORM ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LIKE.
15. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR. AFTER THE DEMOLITION IS COMPLETE, THE CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS WHICH THE DEMOLITION OPERATIONS CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION AT CONTRACTOR'S SOLE COST.
16. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO, THE PUBLIC RIGHT-OF-WAY.
17. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDICATES 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, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
18. THE CONTRACTOR MUST EMPTY, CLEAN AND REMOVE FROM THE SITE ALL UNDERGROUND STORAGE TANKS, IF ENCOUNTERED, IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, PRIOR TO CONTINUING CONSTRUCTION IN THE AREA AROUND THE TANK WHICH EMPTYING, CLEANING AND REMOVAL ARE AT THE CONTRACTOR'S SOLE COST.
19. THE CONTRACTOR MUST LOCATE AND CLEARLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
20. CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION AND IF REQUIRED, DIG EXPLORATORY TEST PITS TO CONFIRM EXACT LOCATION AND DEPTH OF UTILITIES. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER WITH ANY CONFLICTS AS NEEDED TO COORDINATE FINAL LOCATION OF ALL PROPOSED IMPROVEMENTS.
21. CONTRACTOR SHALL INSPECT ALL EXISTING UTILITY STRUCTURES THAT ARE TO REMAIN FOR THE PROJECTS RE-USE TO VERIFY SUITABILITY FOR SAME. IF STRUCTURES CAN NOT BE REUSED THEN THE CONTRACTOR SHALL PROVIDE A NEW STRUCTURE. THE CONTRACTOR SHALL COORDINATE SUCH WORK WITH THE APPLICABLE UTILITY PROVIDER.
22. CONTRACTOR TO REMOVE ANY BUILDING FOUNDATION REMAINS OR ASSOCIATED IMPROVEMENTS, DELETERIOUS MATERIALS, AND/OR DEBRIS THAT IMPEDE THE WORK SHOWN ON THESE PLANS.
23. THE CONTRACTOR SHALL REVIEW THE PLANS VERSUS THE LOCATION OF EXISTING STRUCTURES, UTILITIES AND APPURTENANCES IN THE FIELD TO CONFIRM ACCURACY OF SAME AND VERIFY ITEMS TO BE REMOVED. THE CONTRACTOR SHALL CARRY COSTS FOR REMOVAL OF ANY EXISTING STRUCTURES, APPURTENANCES, AND UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO, DRAIN, WATER, SEWER, STEAM, IRRIGATION, GAS, TELECOM AND ELECTRIC.
24. THE CONTRACTOR SHALL MAINTAIN, ADJUST OR ABANDON EXISTING MONITORING WELLS IN ACCORDANCE WITH THE DIRECTION OF THE ENVIRONMENTAL CONSULTANT (TYP.)
25. WHERE THE LIMIT OF WORK COINCIDES WITH PROPERTY LINE, TREE LINE, PROPOSED SAWCUT OR COMBINATION THEREOF IT IS SHOWN ADJACENT TO THESE FEATURES FOR GRAPHICAL CLARITY.
26. EXISTING TREES TO REMAIN ARE TO BE PROTECTED DURING CONSTRUCTION UNLESS CLEARLY INDICATED OTHERWISE. REASONABLE CARE AND CAUTION SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT DAMAGE AND SELECTIVE PRUNING MAY BE REQUIRED TO ENSURE THAT TREES DO NOT CONFLICT WITH THE DEVELOPMENT.
27. CONTRACTOR SHALL REPAIR/REPLACE ANY TRAFFIC LOOP DETECTORS THAT ARE DAMAGED DURING CONSTRUCTION WITHIN EXISTING OR PROPOSED RIGHTS OF WAYS. ANY SUCH WORK SHALL BE PERFORMED BY A LICENSED / DOT APPROVED SIGNAL CONTRACTOR. ANY DAMAGED LOOPS OR OTHER SIGNAL EQUIPMENT SHALL BE REPAIRED IMMEDIATELY AFTER THE WORK IS COMPLETE. THE SIGNAL CONTRACTOR SHALL BE AVAILABLE TO MAKE ANY TEMPORARY SIGNAL CHANGES IF REQUESTED BY DOT AND/OR THE MUNICIPALITY.
28. THE CONTRACTOR MUST FIELD VERIFY THE LOCATIONS WHERE PROPOSED UTILITIES CROSS EXISTING UNDERGROUND UTILITIES BY USING A TEST PIT TO DETERMINE THE EXACT SIZE, DEPTH AND LOCATION, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
29. CONTRACTOR SHALL LOCATE ANY EXISTING UTILITY SERVICES THAT ARE TO BE TERMINATED AT THE EXISTING MAIN AND/OR PROPERTY LINE. THESE SERVICES ARE TO BE TERMINATED IN ACCORDANCE WITH MUNICIPAL / STATE TRANSPORTATION DEPARTMENT REQUIREMENTS.

GENERAL SITE NOTES

(REV. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND ANY STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE RIGHT OF WAY.
3. ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS AND THE LIKE.
4. THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE RELOCATION OF TRAFFIC SIGNS WITH THE ENTITY WITH JURISDICTION OVER THE PROJECT.
5. ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, EXCEPT WHEN DIMENSION IS TO A PROPERTY LINE, STAKE OUT OF LOCATIONS OF INLETS, LIGHT POLES, ETC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS, UNLESS NOTED CLEARLY OTHERWISE.
6. WHEN APPLICABLE, OWNER/ OPERATOR MUST FILE THE NOI FOR NPDES PERMITS AT APPROPRIATE AND/OR REQUIRED TIMEFRAMES BASED UPON THE DESIRED START OF CONSTRUCTION. LAND DISTURBING ACTIVITIES MUST NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED FROM GOVERNING AUTHORITIES (INCLUDING STORMWATER POLLUTION PREVENTION PLAN). THE CONTRACTOR MUST STRICTLY ADHERE TO THE APPROVED SWPPP PLAN DURING CONSTRUCTION OPERATIONS (IF PROVIDED).
7. ALL CONCRETE MUST BE AIR ENTRAINED AND INCLUDE THE MINIMUM COMPRESSIVE STRENGTH OF JURISDICTIONAL STANDARD PSI AT 28 DAYS (OR 4,000 PSI) UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.
8. THE CONTRACTOR MUST FILE SITE SIGNAGE APPLICATION OR PERMIT UNDER SEPARATE APPLICATION UNLESS DONE SO AS PART OF JURISDICTIONAL PERMITTING PROCEDURES.
9. THE CONTRACTOR MUST REPAIR OR REPLACE, AT THE CONTRACTOR'S SOLE COST AND EXPENSE, ALL SIDEWALKS, CURBS, PAVEMENT MARKINGS, AND PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THIS PLAN OR NOT.
10. WORK WITHIN THE RIGHT-OF-WAY MUST BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS AND STANDARDS OF THE DEPARTMENT OF PUBLIC WORKS, ENGINEERING DEPARTMENT, HIGHWAY DIVISION, AND/OR STATE DOT HIGHWAY DEPARTMENT.
11. WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS, TOP AND BOTTOM OF WALL WIDTHS DO NOT REPRESENT THE ACTUAL WIDTH OF THE PROPOSED WALL, RATHER THEY ARE AN ASSUMPTION BASED ON WALL TYPE AND WALL HEIGHT. WALL FOOTINGS AND /OR FOUNDATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR OR WALL DESIGNER, AND MUST BE SET BASED UPON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS. THE CONTRACTOR MUST ENSURE THAT AN APPROPRIATELY LICENSED PROFESSIONAL DESIGNS ALL WALLS SHOWN HEREON AND PRIOR TO CONSTRUCTION. REFER TO GRADING NOTES REGARDING RETAINING WALL DESIGN.
12. CONTRACTOR IS CAUTIONED OF EXISTING UTILITY SERVICES TO REMAIN IN PROXIMITY TO PROPOSED BOLLARDS AND SIGNS. CONTRACTOR SHALL PROVIDE FIELD MODIFICATION LOCATIONS OF BOLLARDS AND BOLLARDS WITH SIGNAGE AS NEEDED TO AVOID CONFLICTS WITH EXISTING UTILITY SERVICES TO REMAIN.

GENERAL GRADING NOTES

(REV. 1/2023)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AS REFERENCED IN THIS PLAN SET. IF NO GEOTECHNICAL REPORT HAS BEEN REFERENCED, THE CONTRACTOR MUST HAVE A GEOTECHNICAL ENGINEER PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE JURISDICTION OVER THIS PROJECT.
3. THE CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. THE CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO THE PROFESSIONAL OF RECORD, BOHLER AND THE OWNER PRIOR TO THE CONTRACTOR COMMENCING ANY WORK.
4. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. SHOULD DISCREPANCIES BETWEEN THE PLANS AND INFORMATION OBTAINED THROUGH FIELD VERIFICATIONS BE IDENTIFIED OR EXIST, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING.
5. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ALL UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR MUST COMPACT ALL EXCAVATED OR FILLED AREAS IN STRICT ACCORDANCE WITH THE GEOTECHNICAL REPORT'S GUIDANCE. 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. THIS REPORT MUST VERIFY 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 WHICH ARE IN EFFECT AND WHICH ARE APPLICABLE TO THE PROJECT. 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 MUST BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL, COMPACTED AS THE GEOTECHNICAL REPORT DIRECTS. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
6. IN THE EVENT OF A DISCREPANCY(IES) AND/OR A CONFLICT(S) BETWEEN PLANS, OR RELATIVE TO OTHER PLANS, THE GRADING PLAN TAKES PRECEDENCE AND CONTROLS. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY DISCREPANCY(IES) AND/OR CONFLICT(S).
7. THE CONTRACTOR IS RESPONSIBLE TO IMPORT FILL OR EXPORT EXCESS MATERIAL AS NECESSARY TO CONFORM TO THE PROPOSED GRADING, AND TO BACKFILL EXCAVATIONS FOR THE INSTALLATION OF UNDERGROUND IMPROVEMENTS.
8. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR MUST CONFIRM AND ENSURE THAT AS CONSTRUCTED IMPROVEMENTS CREATE THE FOLLOWING MINIMUM SLOPES (EXCEPT WHERE ADA REQUIREMENTS LIMIT THEM): 1.0% ON ALL CONCRETE SURFACES, 1.5% ON ASPHALT SURFACES, 1.5% IN LANDSCAPED AREAS AND 0.75% SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS TO PROVIDE POSITIVE DRAINAGE.
10. WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS, TOP AND BOTTOM OF WALL ELEVATIONS (TW & BW) REPRESENT THE PROPOSED FINISHED GRADE AT THE FACE OF THE TOP AND BOTTOM OF THE WALL AND DO NOT REPRESENT THE ELEVATION OF THE PROPOSED WALL (INCLUDING THE CAP UNIT OR FOOTING). WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR OR WALL DESIGNER, AND MUST BE SET BASED UPON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS. THE CONTRACTOR MUST ENSURE THAT THERE ARE NO UTILITIES ON THE PASSIVE SIDE OF THE RETAINING WALL. NO EXCAVATION MAY BE PERFORMED ON THE PASSIVE SIDE OF THE RETAINING WALL WITHOUT APPROPRIATELY AND SAFELY SUPPORTING THE WALL IN ACCORDANCE WITH THE STANDARD OF CARE AND ALL APPLICABLE RULES, REGULATIONS, CODES, ORDINANCES, LAWS AND STATUTES.
11. MSE OR GRAVITY BLOCK WALLS SHALL BE CONSTRUCTED SUCH THAT UPON COMPLETION OF CONSTRUCTION THERE IS NO UNFINISHED SURFACE OR LIFTING RINGS VISIBLE (E.G. USE OF FINISHED TOP BLOCK OR CAP STONES)
12. STORMWATER RUNOFF WITHIN PROPERTY MUST BE COLLECTED ON-SITE WITH NO OVERLAND RUNOFF ONTO THE RIGHT-OF-WAY OR ADJACENT PROPERTIES TO THE MAXIMUM EXTENT POSSIBLE OR IN THE MANNER SHOWN ON THE CONSTRUCTION DRAWINGS. STORMWATER RUNOFF ONTO ADJACENT PROPERTIES SHALL BE CONTROLLED AS TO NOT ADVERSELY IMPACT SAID PROPERTIES.
13. BEFORE COMMENCING GRADING WORK, CONTRACTOR SHALL SUBMIT SAMPLES OF ALL NATIVE AND IMPORTED MATERIALS WITH THEIR INTENDED FOR STRUCTURAL USES TO THE GEOTECHNICAL ENGINEER OF RECORD.
14. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL ADA GUIDELINES AND REQUIREMENTS.
15. FOR ALL RETAINING WALLS 4 FEET OR GREATER IN HEIGHT:
    - 15.1. THE OWNER OR THE OWNER'S CONTRACTOR IS TO PROVIDE A SITE-SPECIFIC RETAINING WALL DESIGN PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED (E.G. STRUCTURAL ENGINEER) IN THE STATE WHERE THE CONSTRUCTION OCCURS. SOIL TYPES, WATER TABLE ELEVATION, EXISTING & PROPOSED SURROUNDING IMPROVEMENTS/CONDITIONS (INCLUDING BUT NOT LIMITED TO SLOPES, DRIVE AISLES, ROADS, FENCING, GUIDERAILS, UTILITIES, DRAINAGE FACILITIES, STRUCTURES, FOUNDATIONS), LIVE LOADS AND OTHER SITE AMENITIES THAT COULD HAVE AN INFLUENCE OR IMPACT ON THE RETAINING WALL(S) CONSTRUCTABILITY AND/OR LONGEVITY SHALL BE CONSIDERED AND INCORPORATED INTO THE RETAINING WALL DESIGN AS WELL AS THE GLOBAL STABILITY ANALYSIS.
    - 15.2. PEER REVIEW AND GLOBAL STABILITY ANALYSIS OF THE RETAINING WALL DESIGN MUST BE COMPLETED BY THE OWNER'S GEOTECHNICAL ENGINEER TO CERTIFY THE DESIGN MEETS INDUSTRY STANDARDS FOR FACTOR OF SAFETY. SOIL TYPES, WATER TABLE ELEVATION AND DESIGN PROPERTIES AS NOTED ABOVE SHALL BE FIELD CONFIRMED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO WALL CONSTRUCTION.
16. CONTRACTOR SHALL INSTALL CONCRETE CURB ALONG FACE OF BUILDING / WALL AS SHOWN TO PROVIDE CONSISTENT WIDTH ALONG LENGTH OF PROPOSED ACCESSIBLE RAMP AND RAMP LANDING TO MEET ADA/AAB REQUIREMENTS.
17. CONTRACTOR SHALL REVIEW RETAINING WALL LOCATIONS VERSUS APPLICABLE STATE AND LOCAL CODES AND PROVIDE FALL PROTECTION (E.G. FENCING OR RAILING) IN ACCORDANCE WITH SAID CODE.
18. CONTRACTOR SHALL COORDINATE WITH OWNER/OPERATOR TO REVIEW EXISTING DEPRESSIONS WITHIN EXISTING PAVEMENT AREAS TO REMAIN AND SHALL CONFIRM THAT THE SCOPE OF WORK SHALL PROVIDE POSITIVE DRAINAGE BY FIXING ANY EXISTING AREAS OF PONDING.
19. BEFORE COMMENCING GRADING WORK, CONTRACTOR SHALL SUBMIT SAMPLES OF ALL NATIVE AND IMPORTED MATERIALS WITH THEIR INTENDED FOR STRUCTURAL USES TO THE GEOTECHNICAL ENGINEER OF RECORD.

GENERAL DRAINAGE & UTILITY NOTES

(REV. 1/2023)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE, AND THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM THOSE LOCATIONS AND SERVICES WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCING ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM ALL SANITARY CONNECTION POINTS AND ALL OTHER UTILITY SERVICE CONNECTION POINTS IN THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, ERRORS AND OMISSIONS IN WRITING, TO THE PROFESSIONAL OF RECORD AND BOHLER.
3. THE CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM, 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 OF THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION, AT NO COST TO THE OWNER AND AT CONTRACTOR'S SOLE COST AND EXPENSE. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION.
4. THE CONTRACTOR MUST FIELD VERIFY THE PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES BY USING A TEST PIT TO CONFIRM EXACT DEPTH, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF SAME BASED UPON FINAL ARCHITECTURAL PLANS.
6. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS; GREASE TRAP REQUIREMENTS; AND DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITY 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 OF THE APPLICABLE JURISDICTION AND REGULATORY AGENCIES 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 DOCUMENTS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, AND PRIOR TO CONSTRUCTION, MUST RESOLVE SAME.
7. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND THE CONTRACTOR MUST COORDINATE SAME WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR DESIGN OF TRENCH BACKFILL OR FOR COMPACTION REQUIREMENTS
8. DURING THE INSTALLATION OF SANITARY, STORM, 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, IN ANY RESPECT, FROM THE INFORMATION CONTAINED IN THESE PLANS. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE APPROPRIATE PLAN(S), WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER IMMEDIATELY UPON THE COMPLETION OF WORK.
9. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SANITARY, WATER AND STORM SYSTEMS, ARE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND OR STATE DOT DETAILS AS APPLICABLE. THE CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.
10. FINAL LOCATIONS OF PROPOSED UTILITY POLES, AND/ OR POLES TO BE RELOCATED ARE AT THE SOLE DISCRETION OF THE RESPECTIVE UTILITY COMPANY, REGARDLESS OF WHAT THIS PLAN DEPICTS.
11. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. THE CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.
12. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED FINISHED GRADES WITH NO TRIPPING OR SAFETY HAZARD IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
13. THE CONTRACTOR'S PRICE FOR WATER AND SEWER SERVICE INSTALLATIONS MUST INCLUDE ALL FEES, COSTS, AND APPURTENANCES REQUIRED BY THE UTILITY PROVIDER (AND OTHER AGENCIES HAVING JURISDICTION OVER THE WORK) TO PROVIDE FULL AND COMPLETE WORKING SERVICE, INCLUDING (BUT NOT LIMITED TO) NECESSARY FEES, TESTING, DISINFECTING, INSPECTIONS, ROAD OPENING & BACKFILL REQUIREMENTS, TRAFFIC CONTROL AND SURETY BONDS AS DEFINED BY THE PROVIDER (AND OTHER AGENCIES HAVING JURISDICTION OVER THE WORK).
14. ALL WORK ASSOCIATED WITH UTILITY POLES, OVERHEAD WIRES AND ANY/ALL APPURTENANCES SHALL BE COORDINATED BY THE GC WITH THE LOCAL UTILITY COMPANIES PRIOR TO THE ORDERING OF ANY MATERIALS. THIS MAY INCLUDE BUT IS NOT LIMITED TO THE REMOVAL, INSTALLATION, RELOCATION OR PROTECTION OF ANY BRACING, GUY WIRES, OVERHEAD WIRES, ETC. AS MAY BE REQUIRED TO ACCOMMODATE THE PROJECT.
15. SEWERS CONVEYING SANITARY 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, AT A MINIMUM, BE IN SEPARATE TRENCHES WITH THE AT LEAST 18 INCHES OF VERTICAL SEPARATION FROM THE BOTTOM OF THE WATER MAIN TO THE TOP OF THE SEWER LINE. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SANITARY SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SANITARY SEWER MUST BE PROVIDED. ALL CROSSINGS SHALL BE IN ACCORDANCE WITH JURISDICTIONAL PERMITTING/UTILITY AUTHORITIES REGULATIONS.
16. WHEN THESE PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL UTILITY SERVICES, INCLUDING BUT NOT LIMITED TO STORM, SANITARY, UTILITIES, AND IRRIGATION LINES, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. THE CONTRACTOR MUST CAP ENDS OF INSTALLED UTILITIES AS APPROPRIATE, MARK UTILITY ENDS WITH MAGNETIC TRACER TAPE, MARK TERMINUS LOCATIONS WITH A 2X4 STAKE, AND MUST NOTE THE LOCATION OF ALL UTILITY STUBS ON A CLEAN COPY OF THE PLAN. 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, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
17. STORM AND SANITARY PIPE LENGTHS INDICATED ARE NOMINAL AND ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS INDICATED ON THE PLANS OTHERWISE.
18. UNLESS INDICATED OTHERWISE, ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC., MUST BE INSTALLED UNDERGROUND. ALL NEW UTILITY SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
19. SANITARY PIPE MUST BE POLYVINYL CHLORIDE (PVC) SDR 35 EXCEPT WHERE CLEARLY INDICATED OTHERWISE. SANITARY LATERAL(S) MUST BE PVC SDR 26 UNLESS CLEARLY INDICATED OTHERWISE.
20. UNLESS CLEARLY INDICATED OTHERWISE, ALL STORM PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SILT/SOIL TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO AASHTO M252 FOR PIPES 4" TO 10" AND TO AASHTO M294 FOR PIPES 12" TO 60" AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT/SOIL TIGHT JOINT. PIPE FOR ROOF DRAIN CONNECTION MUST BE SDR 26 PVC OR SCHEDULE 40 UNLESS INDICATED OTHERWISE. HDPE PIPE JOINT GASKETS MUST BE PROVIDED AND CONFORM TO ASTM F477. DRAIN PIPE INSTALLED WITH OVER TEN (10) FEET OVER COVER AND/OR IN HIGH GROUNDWATER CONDITIONS SHALL BE SANITITE HP POLYPROPYLENE PIPE (PP), OR APPROVED EQUIVALENT.
21. UNLESS CLEARLY INDICATED OTHERWISE ALL SANITARY PIPE MUST BE:
    - 21.1. FOR PIPES LESS THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 35 PER ASTM D3034.
    - 21.2. FOR PIPES GREATER THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 26 PER ASTM D3034.
    - 21.3. UNLESS LOCAL OR STATE BUILDING / PLUMBING CODE CLEARLY SPECIFIES DIFFERENTLY, SANITARY LATERALS MUST BE PVC SDR 26.
    - 21.4. FOR ALL UTILITY PIPING (INCLUDING DRAIN) WITHIN 10 FT OF A BUILDING, PIPE MATERIAL SHALL COMPLY WITH APPLICABLE LOCAL OR STATE BUILDING AND PLUMBING CODES. CONTRACTOR SHALL REFER TO PLUMBING ENGINEERING PLANS AND VERIFY PIPE MATERIAL WITH LOCAL OFFICIAL PRIOR TO ORDERING OF MATERIALS.
    - 21.5. CONTRACTOR SHALL VERIFY THE CONNECTION OF EXTERIOR PIPING TO ANY FIXTURES (SUCH AS AN EXTERIOR GREASE INTERCEPTOR) OR OTHER DRAINAGE SYSTEMS WITH LOCAL OFFICIALS FOR COMPLIANCE WITH APPLICABLE LOCAL OR STATE BUILDING AND PLUMBING CODES PRIOR TO ORDERING OF MATERIALS.
22. WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER COMPANY. IN THE ABSENCE OF SUCH REQUIREMENTS, WATER MAIN PIPING MUST BE CEMENT-LINED DUCTILE IRON (DIP) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.
23. GAS METERS MUST BE PROTECTED AS REQUIRED BY THE JURISDICTIONAL GAS PROVIDER.

ADA INSTRUCTIONS TO CONTRACTOR

(REV. 1/2023)

1. ALL ACCESSIBLE (A.K.A. ADA) COMPONENTS AND ACCESSIBLE ROUTES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF: (A) THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 ET SEQ. AND 42 U.S.C. § 4151 ET SEQ.); AND (B) ANY APPLICABLE LOCAL AND STATE GUIDELINES, AND ANY AND ALL AMENDMENTS TO BOTH, WHICH ARE IN EFFECT WHEN THESE PLANS WERE COMPLETED.
2. THE CONTRACTOR MUST REVIEW ALL DOCUMENTS REFERENCED IN THESE NOTES FOR ACCURACY, COMPLIANCE AND CONSISTENCY WITH INDUSTRY GUIDELINES.
3. THE CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ACCESSIBLE (ADA) COMPONENTS AND ACCESSIBLE ROUTES FOR THE SITE. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACES, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, AND INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THE ACCESSIBLE GUIDELINES AND REQUIREMENTS WHICH INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
    - 3.1. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SLOPES MUST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION.
    - 3.2. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE MUST PROVIDE A 36-INCHES MINIMUM WIDTH (48-INCHES PREFERRED), OR AS SPECIFIED BY THE GOVERNING AGENCY. UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS) MUST NOT REDUCE THIS MINIMUM WIDTH. THE SLOPE MUST NOT EXCEED 1:20 (5.0%) IN THE DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:50 (2.0%) IN CROSS SLOPE. WHERE ACCESSIBLE PATH OF TRAVEL IS GREATER THAN 1:20 (5.0%), AN ACCESSIBLE RAMP MUST BE PROVIDED. ALONG THE ACCESSIBLE PATH OF TRAVEL, OPENINGS MUST NOT EXCEED 1/2-INCH IN WIDTH. VERTICAL CHANGES OF UP TO 1/2-INCH ARE PERMITTED ONLY IF THEY INCLUDES A 1/4-INCH BEVEL AT A SLOPE NOT STEEPER THAN 1:2. NO VERTICAL CHANGES OVER 1/4-INCH ARE PERMITTED.
    - 3.3. ACCESSIBLE RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%) AND A RISE OF 30-INCHES. LEVEL LANDINGS MUST BE PROVIDED AT EACH END OF ACCESSIBLE RAMPS. LANDING MUST PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES, AND MUST NOT EXCEED 1:50 (2.0%) SLOPE IN ANY DIRECTION. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS MUST HAVE A CLEAR LANDING OF A MINIMUM OF 60-INCHES BY 60-INCHES. HAND RAILS ON BOTH SIDES OF THE RAMP MUST BE PROVIDED ON AN ACCESSIBLE RAMP WITH A RISE GREATER THAN 6-INCHES.
    - 3.4. ACCESSIBLE CURB RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%). WHERE FLARED SIDES ARE PROVIDED, THEY MUST NOT EXCEED 1:10 (10%) SLOPE. LEVEL LANDING MUST BE PROVIDED AT RAMPS TOP AT A MINIMUM OF 36-INCHES LONG (48-INCHES PREFERRED). IN ALTERATIONS, WHEN THERE IS NO LANDING AT THE TOP, FLARE SIDES SLOPES MUST NOT EXCEED A SLOPE OF 1:12 (8.3%).
    - 3.5. DOORWAY LANDINGS AREAS MUST BE PROVIDED ON THE EXTERIOR SIDE OF ANY DOOR LEADING TO AN ACCESSIBLE PATH OF TRAVEL. THIS LANDING MUST BE SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO FEWER THAN 60-INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE CLEARLY PERMITTED BY ACCESSIBLE STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2009 AND OTHER REFERENCES INCORPORATED BY CODE).
    - 3.6. WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ACCESSIBLE COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, THE CONTRACTOR MUST VERIFY ALL EXISTING ELEVATIONS 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 PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR IN ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS BEFORE COMMENCING ANY WORK. CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ACCESSIBLE GUIDELINES.
    - 3.7. THE CONTRACTOR MUST VERIFY ALL OF THE SLOPES OF THE CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE EXISTS OR IS OBSERVED OR DISCOVERED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, PRIOR TO POURING CONCRETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND/OR REPLACE NON-CONFORMING CONCRETE AND/OR PAVEMENT SURFACES.
4. IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION TO ENSURE SAME IS CONSISTENT WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCING CONSTRUCTION.
5. IN ADDITION TO THE ABOVE, THE CONTRACTOR MUST ALSO ENSURE THAT ALL ACCESSIBLE COMPONENTS AND ACCESSIBLE ROUTES ARE CONSTRUCTED IN STRICT ACCORDANCE WITH THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD REGULATIONS 521 CMR. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCIES BETWEEN THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE AND STATE BUILDING CODE AS IT RELATES TO ANY ACCESSIBLE IMPROVEMENTS BEING CONSTRUCTED PRIOR TO COMMENCING THE WORK.

ABBREVIATIONS

KEY	DESCRIPTION
AG / ABVG	ABOVE GROUND
ARCH	ARCHITECT
BC	BACK OF CURB
BCC	BITUMINOUS CONCRETE CURB
BM	BENCHMARK
BOC	BOTTOM OF CURB
BW	BOTTOM OF WALL
BLDG	BUILDING
CC	CONCRETE CURB
CCB	CAPE COD BERM
CONC.	CONCRETE
DEC	DECORATIVE
°	DEGREE
DEP	DEPRESSED
Ø / DIA	DIAMETER
DMH	DRAIN MANHOLE
DIP	DUCTILE IRON PIPE
ECC	EXTRUDED CONCRETE CURB
EOP	EDGE OF PAVEMENT
ELEV	ELEVATION
EXIST.	EXISTING
FF	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
GC	GENERAL CONTRACTOR
GRT	GRATE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
INT	INTERSECTION
INV	INVERT
L.S.A.	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
LOW	LIMIT OF WORK
LF	LINEAR FOOT / FEET
LP	LOW POINT
MAX	MAXIMUM
MEP	MECHANICAL, ELECTRICAL, PLUMBING
ME	MEET OR MATCH EXISTING
MIN	MINIMUM
No. / #	NUMBER
±	PLUS OR MINUS
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVI	POINT OF VERTICAL INTERSECTION
PVC	POLYVINYL CHLORIDE PIPE
PROP.	PROPOSED
R	RADIUS OR RADII
RCP	REINFORCED CONCRETE PIPE
R.O.W.	RIGHT-OF-WAY
SAN	SANITARY
SMH	SEWER MANHOLE
S	SLOPE
SF	SQUARE FOOT
SGC	SLOPED GRANITE CURB
STA	STATION
STM	STORM
TBR	TO BE REMOVED
TBR/R	TO BE REMOVED AND REPLACED
TC	TOP OF CURB
TW	TOP OF WALL
TPF	TREE PROTECTION FENCE
TRANS	TRANSITION
TYP.	TYPICAL
UG / UNDG	UNDERGROUND
V.I.F.	VERIFY IN FIELD
VGC	VERTICAL GRANITE CURB
W	WIDTH

TYPICAL LINE TYPE LEGEND

PROPERTY LINE	EXISTING	
	PROPOSED	
ADJACENT PROPERTY LINE	EXISTING	
	PROPOSED	
RIGHT-OF-WAY LINE	EXISTING	
	PROPOSED	
SETBACK OR BUFFER	EXISTING	
	PROPOSED	
EASEMENT LINE	EXISTING	
	PROPOSED	
WETLAND BOUNDARY	EXISTING	
	PROPOSED	
WETLAND BUFFER	EXISTING	
	PROPOSED	
WATER WAY BOUNDARY	EXISTING	
	PROPOSED	
WATERWAY BUFFER	EXISTING	RPA RPA RPA RPA
	PROPOSED	
WETLAND OR WATERWAY FLAG	EXISTING	
RIGHT-OF-WAY CENTER OR BASE LINE	EXISTING	
	PROPOSED	
APPROX. LIMIT OF WORK OR DISTURBANCE	EXISTING	
	PROPOSED	
APPROX. SAWCUT LINE	EXISTING	
	PROPOSED	
TREE LINE	EXISTING	
	PROPOSED	
SURFACE OR SUBSURFACE BASIN	EXISTING	
	PROPOSED	
OVERHEAD WIRES	EXISTING	OH OH OH OH
	PROPOSED	OH OH OH
CURBING	EXISTING	
	PROPOSED	CC/BCC MONOLITHIC VGC SGC TRANS/FLUSH CCB
FENCE OR RAILING	EXISTING	
	PROPOSED	CHAIN LINK STOCKADE RAILING
RETAINING WALL	EXISTING	
	PROPOSED	
CONTOURS	EXISTING	
	PROPOSED	49 50
SWALE	EXISTING	
	PROPOSED	
BERM	EXISTING	
	PROPOSED	
RIDGE	EXISTING	
	PROPOSED	
DRAIN PIPE	EXISTING	D-Qa
	PROPOSED	
SEWER PIPE	EXISTING	S S S-Qa
	PROPOSED	S SL
SEWER FORCE MAIN	EXISTING	FM FM FM-Qa
	PROPOSED	FM FM FM
ELECTRIC	EXISTING	E E E-Qa
	PROPOSED	E E E
TELECOMMUNICATIONS	EXISTING	T T T-Qa
	PROPOSED	T T T
CABLE TV	EXISTING	C C C-Qa
	PROPOSED	C C C
GAS	EXISTING	G G G-Qa
	PROPOSED	G G G
WATER	EXISTING	W W W-Qa
	PROPOSED	W W W

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

REFER TO EROSION AND SEDIMENT CONTROL NOTES & DETAILS SHEET FOR TYPICAL 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

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR DATE

VICE CHAIR DATE

MEMBER DATE

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PERMIT SET

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PROJECT No.: W211244
DRAWN BY: VEH/AO/DT
CHECKED BY: KWC
DATE: 9/18/2024
CAD I.D.: W211244-SPPD-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

JOHN A. KUCICH
CIVIL
No. 41530

SHEET TITLE:

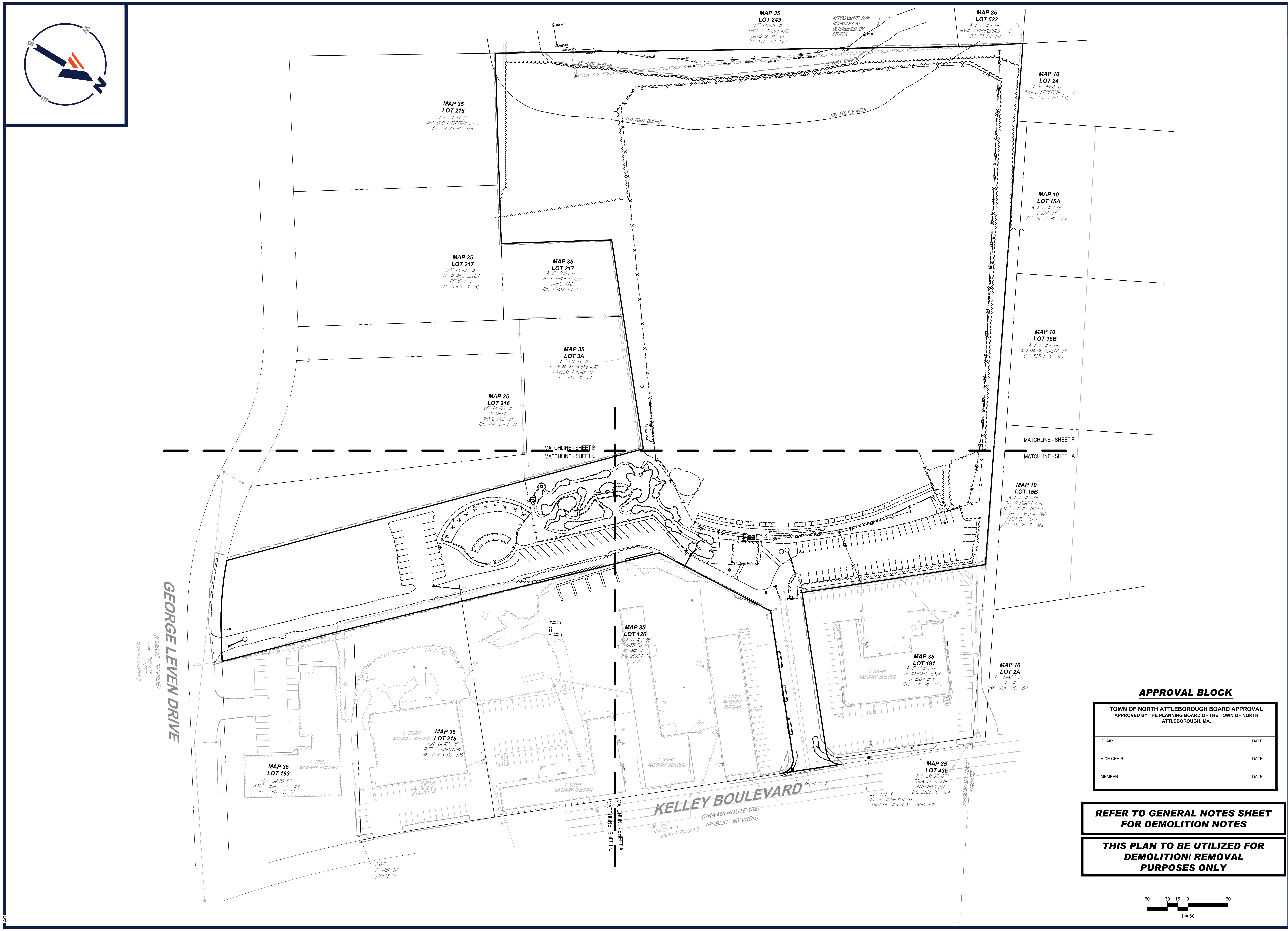
GENERAL NOTES SHEET

SHEET NUMBER:

C-102

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-SPPD-1A----->LAYOUT: C-102 NOTE
AO


N
E
S
W
MAP 35
LOT 243
N/F LANDS OF
JOHN G. WALSH AND
DAVID M. WALSH
BK. 4914 PG. 223
APPROXIMATE BVW
BOUNDARY AS
DETERMINED BY
OTHERS
MAP 35
LOT 522
N/F LANDS OF
IANDOLI PROPERTIES, LLC.
BK. 77 PG. 88
25 FOOT BUFFER
25 FOOT BUFFER
100 FOOT BUFFER
100 FOOT BUFFER
MAP 35
LOT 218
N/F LANDS OF
GRO-BRO PROPERTIES LLC
BK. 22726 PG. 286
MAP 10
LOT 24
N/F LANDS OF
LANDOLI PROPERTIES, LLC
BK. 31254 PG. 242
MAP 10
LOT 15A
N/F LANDS OF
SIGGY LLC
BK. 30734 PG. 357
MAP 35
LOT 217
N/F LANDS OF
91 GEORGE LEVEN
DRIVE, LLC
BK. 12837 PG. 65
MAP 35
LOT 217
N/F LANDS OF
91 GEORGE LEVEN
DRIVE, LLC
BK. 12837 PG. 65
MAP 35
LOT 3A
N/F LANDS OF
GLEN M. KURKJIAN AND
CAROLANN KURKJIAN
BK. 8817 PG. 24
MAP 10
LOT 15B
N/F LANDS OF
MAREMARK REALTY LLC
BK. 33541 PG. 267
MAP 35
LOT 216
N/F LANDS OF
STAHOO
PROPERTIES LLC
BK. 16473 PG. 91
MATCHLINE - SHEET B
MATCHLINE - SHEET C
MATCHLINE - SHEET B
MATCHLINE - SHEET A
MAP 10
LOT 15B
N/F LANDS OF
WO XI KUANG AND
JANE KUANG, TRUSTEE
OF THE TIENFU AI MAN
REALTY TRUST
BK. 21338 PG. 362
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
TWO WAY
TRAFFIC
(ASPHALT ROADWAY)
MAP 35
LOT 126
N/F LANDS OF
MATTHEW P.
GEMINIANI
BK. 20721 PG.
322
MAP 35
LOT 191
N/F LANDS OF
BOULEVARD PLAZA
CONDOMINIUM
BK. 4470 PG. 120
1 STORY
MASONRY BUILDING
MAP 10
LOT 2A
N/F LANDS OF
B R INC
BK. 8257 PG. 152
1 STORY
MASONRY
BUILDING
1 STORY
MASONRY BUILDING
MAP 35
LOT 215
N/F LANDS OF
INEZ T. CAVALLARO
BK. 21818 PG. 199
1 STORY
MASONRY BUILDING
MAP 35
LOT 163
N/F LANDS OF
M.M.R. REALTY CO., INC.
BK. 4397 PG. 16
1 STORY
MASONRY BUILDING
1 STORY
MASONRY BUILDING
MAP 35
LOT 435
N/F LANDS OF
TOWN OF NORTH
ATTLEBOROUGH
BK. 6161 PG. 224
PLAINVILLE
NORTH ATTLEBOROUGH
PARCEL A-1
LOT 191-A
TO BE CONVEYED TO
TOWN OF NORTH ATTLEBOROUGH
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY
TRAFFIC
(ASPHALT ROADWAY)
MATCHLINE - SHEET A
MATCHLINE - SHEET C
P.O.B.
EXHIBIT "A"
[TRACT 2]
60 30 15 0 60
1"= 60'

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

REFER TO GENERAL NOTES SHEET FOR DEMOLITION NOTES

THIS PLAN TO BE UTILIZED FOR DEMOLITION/ REMOVAL PURPOSES ONLY

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REVISIONS

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PERMIT SET

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-SPPD-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED
DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER//
352 TURNPIKE ROAD
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J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

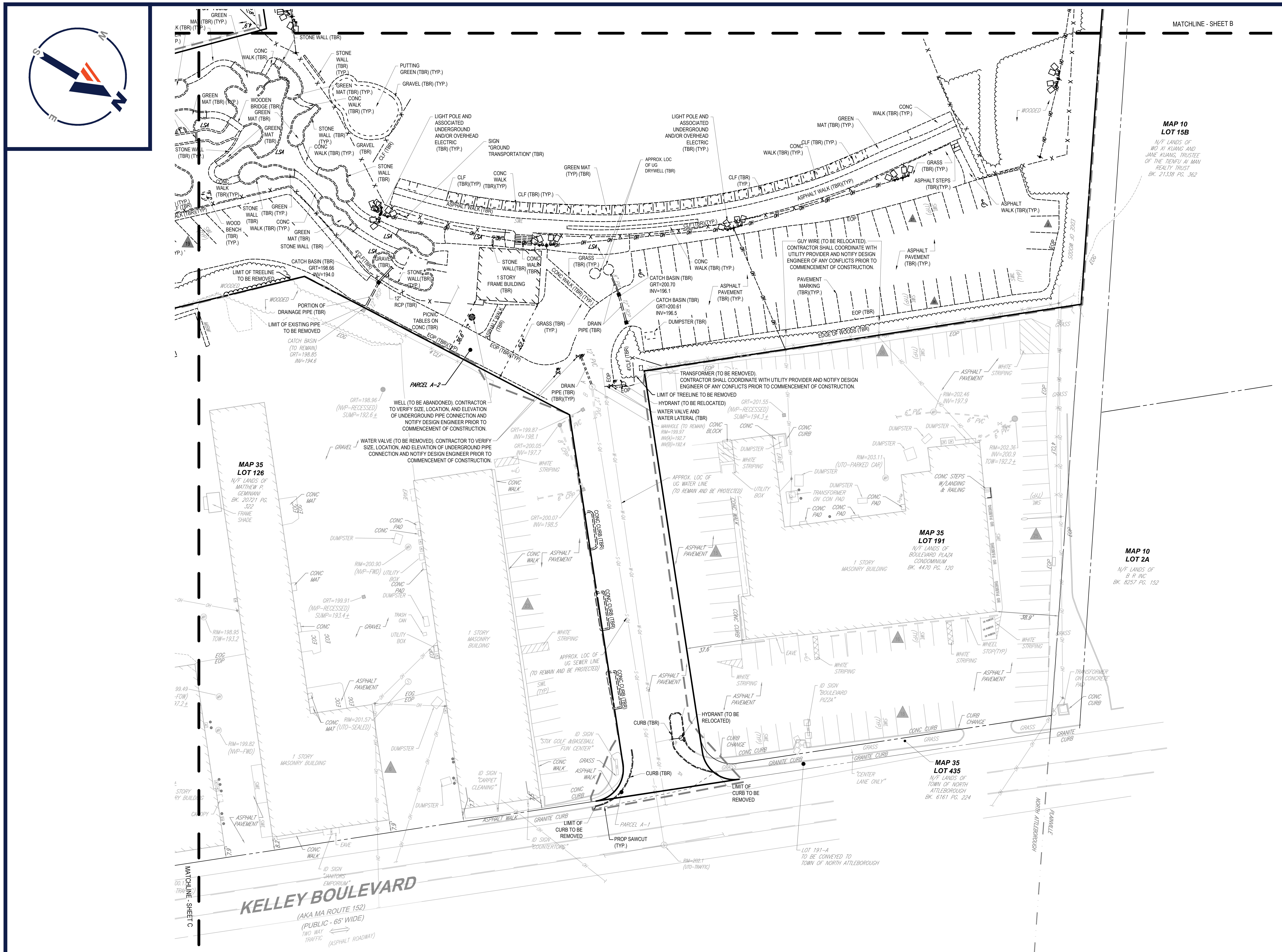
DEMOLITION PLAN

SHEET NUMBER:

C-201

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-SPPD-1A----->LAYOUT: C-201 OVERALL DEMO
AO



N
E
S
W
MATCHLINE - SHEET B
MATCHLINE - SHEET C
STONE WALL (TBR)
CONC WALK (TBR)
STONE WALL (TBR) (TYP.)
PUTTING GREEN (TBR) (TYP.)
GRAVEL (TBR) (TYP.)
GREEN MAT (TBR) (TYP.)
CONC WALK (TBR) (TYP.)
WOODEN BRIDGE (TBR)
GREEN MAT (TBR)
LSA
STONE WALL (TBR) (TYP.)
CONC WALK (TBR) (TYP.)
GRAVEL (TBR)
CLF (TBR)
WOOD BENCH (TBR) (TYP.)
STONE WALL (TBR)
LIGHT POLE AND ASSOCIATED UNDERGROUND AND/OR OVERHEAD ELECTRIC (TBR) (TYP.)
SIGN "GROUND TRANSPORTATION" (TBR)
CLF (TBR)(TYP)
CONC WALK (TBR)(TYP)
CLF (TBR) (TYP.)
GREEN MAT (TYP) (TBR)
APPROX. LOC OF UG DRYWELL (TBR)
ASPHALT WALK (TBR)
CATCH BASIN (TBR) GRT=198.66 INV=194.0
LIMIT OF TREELINE TO BE REMOVED
WOODED
PORTION OF DRAINAGE PIPE (TBR)
LIMIT OF EXISTING PIPE TO BE REMOVED
CATCH BASIN (TO REMAIN) GRT=198.85 INV=194.6
12" RCP (TBR)
PICNIC TABLES ON CONC (TBR)
1 STORY FRAME BUILDING (TBR)
CONC WALK (TBR) (TYP.)
GRASS (TBR) (TYP.)
DRAIN PIPE (TBR)
CATCH BASIN (TBR) GRT=200.70 INV=196.1
CATCH BASIN (TBR) GRT=200.61 INV=196.5
DUMPSTER (TBR)
EOP (TBR)(TYP)
PARCEL A-2
WELL (TO BE ABANDONED). CONTRACTOR TO VERIFY SIZE, LOCATION, AND ELEVATION OF UNDERGROUND PIPE CONNECTION AND NOTIFY DESIGN ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
WATER VALVE (TO BE REMOVED). CONTRACTOR TO VERIFY SIZE, LOCATION, AND ELEVATION OF UNDERGROUND PIPE CONNECTION AND NOTIFY DESIGN ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
DRAIN PIPE (TBR) (TBR)(TYP)
4'CLF (TBR)
TRANSFORMER (TO BE REMOVED). CONTRACTOR SHALL COORDINATE WITH UTILITY PROVIDER AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
LIMIT OF TREELINE TO BE REMOVED
HYDRANT (TO BE RELOCATED)
WATER VALVE AND WATER LATERAL (TBR)
GREEN MAT (TBR) (TYP.)
CONC WALK (TBR) (TYP.)
ASPHALT WALK (TBR)(TYP)
GRASS (TBR) (TYP.)
ASPHALT STEPS (TBR)(TYP.)
ASPHALT WALK (TBR)(TYP.)
WOODED
GUY WIRE (TO BE RELOCATED). CONTRACTOR SHALL COORDINATE WITH UTILITY PROVIDER AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
ASPHALT PAVEMENT (TBR) (TYP.)
PAVEMENT MARKING (TBR)(TYP.)
EOP (TBR)
EDGE OF WOODS (TBR)
EDGE OF WOODS
MAP 10 LOT 15B
N/F LANDS OF WO XI KUANG AND JANE KUANG, TRUSTEE OF THE TIENFU AI MAN REALTY TRUST BK. 21338 PG. 362
MAP 35 LOT 126
N/F LANDS OF MATTHEW P. GEMINIANI BK. 20721 PG. 322
FRAME SHADE
GRT=198.96 (NVP-RECESSED) SUMP=192.6±
GRT=199.87 INV=198.1
GRT=200.05 INV=197.7
GRT=200.07 INV=198.5
RIM=200.90 (NVP-FWD)
GRT=199.91 (NVP-RECESSED) SUMP=193.4±
RIM=198.95 TOW=193.2
RIM=201.57 (UTO-SEALED)
RIM=199.82 (NVP-FWD)
1 STORY MASONRY BUILDING
CONC CURB (TBR)
APPROX. LOC OF UG SEWER LINE (TO REMAIN AND BE PROTECTED)
APPROX. LOC OF UG WATER LINE (TO REMAIN AND BE PROTECTED)
MANHOLE (TO REMAIN) RIM=199.97 INV(A)=192.7 INV(B)=192.4
GRT=201.55 (NVP-RECESSED) SUMP=194.3±
RIM=203.11 (UTO-PARKED CAR)
RIM=202.46 INV=197.9
RIM=202.36 INV=200.9 TOW=192.2±
CONC STEPS W/LANDING & RAILING
TRANSFORMER ON CON PAD
MAP 35 LOT 191
N/F LANDS OF BOULEVARD PLAZA CONDOMINIUM BK. 4470 PG. 120
NO PARKING
WHEEL STOP(TYP)
WHITE STRIPING
ID SIGN "BOULEVARD PIZZA"
ID SIGN "STIX GOLF &BASEBALL FUN CENTER"
ID SIGN "CARPET CLEANING"
ID SIGN "COUNTERTOPS"
ID SIGN "JANITORS EMPORIUM"
TRANSFORMER ON CONCRETE PAD
MAP 10 LOT 2A
N/F LANDS OF B R INC BK. 8257 PG. 152
CURB (TBR)
HYDRANT (TO BE RELOCATED)
LIMIT OF CURB TO BE REMOVED
PROP SAWCUT (TYP.)
PARCEL A-1
GRANITE CURB
CURB CHANGE
CONC CURB
"CENTER LANE ONLY"
MAP 35 LOT 435
N/F LANDS OF TOWN OF NORTH ATTLEBOROUGH BK. 6161 PG. 224
LOT 191-A TO BE CONVEYED TO TOWN OF NORTH ATTLEBOROUGH
RIM=202.1 (UTO-TRAFFIC)
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)
36.6'
52.4'
37.6'
38.9'

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR DATE

VICE CHAIR DATE

MEMBER DATE

SEE NOTES ON C-201

30 15 7.5 0 30
1"= 30'

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REVISIONS

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DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-SPPD-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

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MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

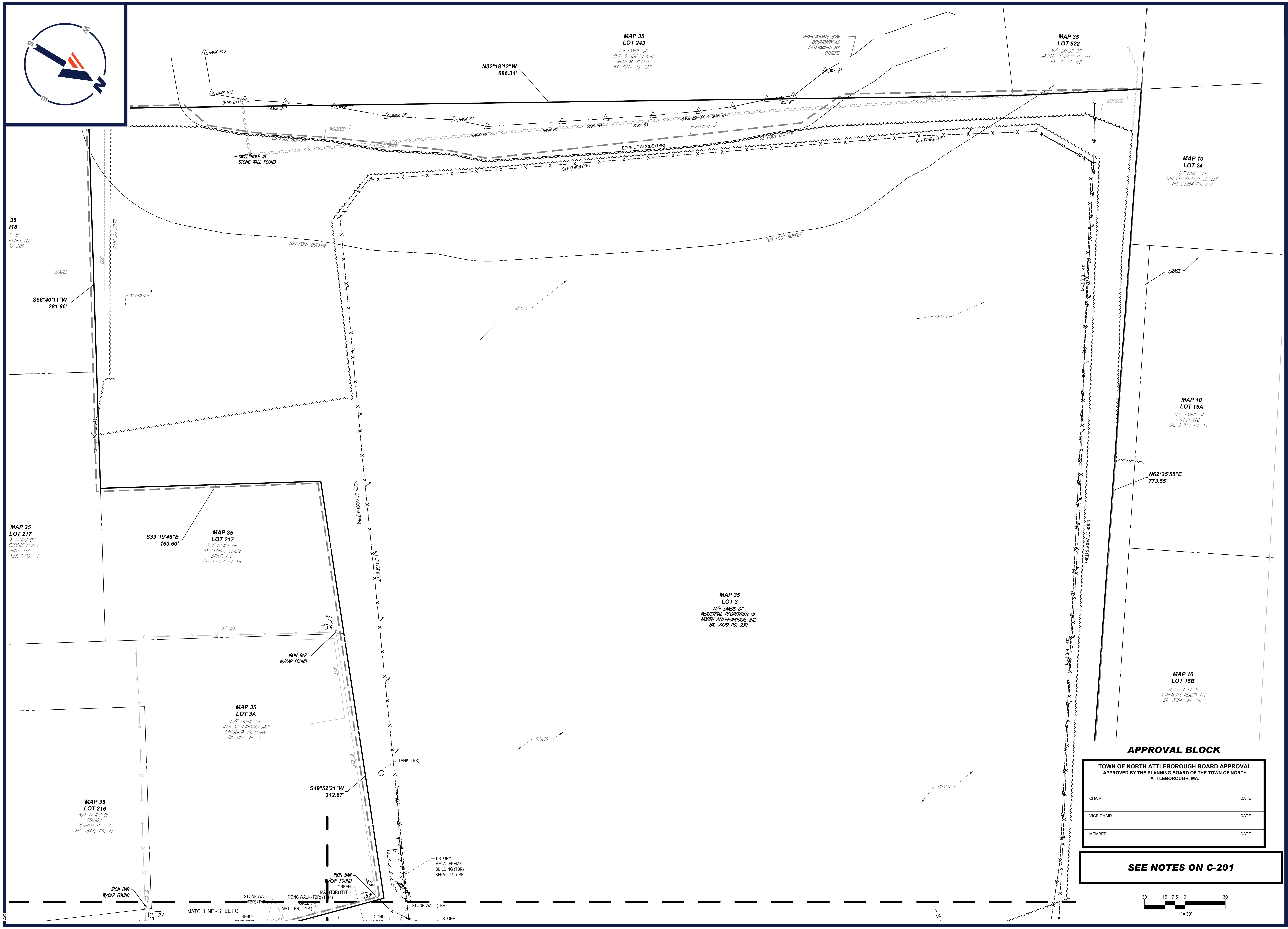
SHEET TITLE:

DEMOLITION PLAN A

SHEET NUMBER:

C-202

REVISION 2 - 11/25/2024



MAP 35
LOT 243
N/F LANDS OF
JOHN G. WALSH AND
DAVID M. WALSH
BK. 4914 PG. 223
APPROXIMATE BVW BOUNDARY AS DETERMINED BY OTHERS
MAP 35
LOT 522
N/F LANDS OF
IANDOLI PROPERTIES, LLC
BK. 77 PG. 88
N32°18'12"W
686.34'
BANK B13
BANK B12
BANK B11
BANK B10
BANK B9
BANK B8
BANK B7
BANK B6
BANK B5
BANK B4
BANK B3
BANK B2
BANK B1
WLF #1
WLF #2
WOODED
25 FOOT BUFFER
STONE WALL
EDGE OF WOODS (TBR)
CLF (TBR)(TYP)
DRILL HOLE IN
STONE WALL FOUND
MAP 10
LOT 24
N/F LANDS OF
IANDOLI PROPERTIES, LLC
BK. 31254 PG. 242
100 FOOT BUFFER
EDGE OF WOODS
GRAVEL
S56°40'11"W
281.86'
GRASS
MAP 10
LOT 15A
N/F LANDS OF
SIGGY LLC
BK. 30734 PG. 357
N62°35'55"E
773.55'
MAP 35
LOT 217
N/F LANDS OF
GEORGE LEVEN
DRIVE, LLC
BK. 12837 PG. 65
S33°19'46"E
163.60'
MAP 35
LOT 217
N/F LANDS OF
91 GEORGE LEVEN
DRIVE, LLC
BK. 12837 PG. 65
EDGE OF WOODS (TBR)
CLF (TBR)(TYP)
MAP 35
LOT 3
N/F LANDS OF
INDUSTRIAL PROPERTIES OF
NORTH ATTLEBOROUGH, INC.
BK. 7479 PG. 230
6" CLF
IRON BAR
W/CAP FOUND
MAP 35
LOT 3A
N/F LANDS OF
GLEN M. KURKJIAN AND
CAROLANN KURKJIAN
BK. 8817 PG. 24
MAP 10
LOT 15B
N/F LANDS OF
MAREMARK REALTY LLC
BK. 33541 PG. 267
TANK (TBR)
S49°52'31"W
312.87'
MAP 35
LOT 216
N/F LANDS OF
STAHOO
PROPERTIES LLC
BK. 16473 PG. 91
1 STORY
METAL FRAME
BUILDING (TBR)
BFPA = 249± SF
IRON BAR
W/CAP FOUND
GREEN
STONE WALL (TBR) (TYP.)
CONC WALK (TBR) (TYP.)
MAT (TBR) (TYP.)
MATCHLINE - SHEET C
BENCH
CONC
STONE WALL (TBR)
STONE

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-201

30 15 7.5 0 30
1"= 30'

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PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED
DEVELOPMENT

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BRISTOL COUNTY,
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Phone: (508) 480-9900
www.BohlerEngineering.com

J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530

SHEET TITLE:

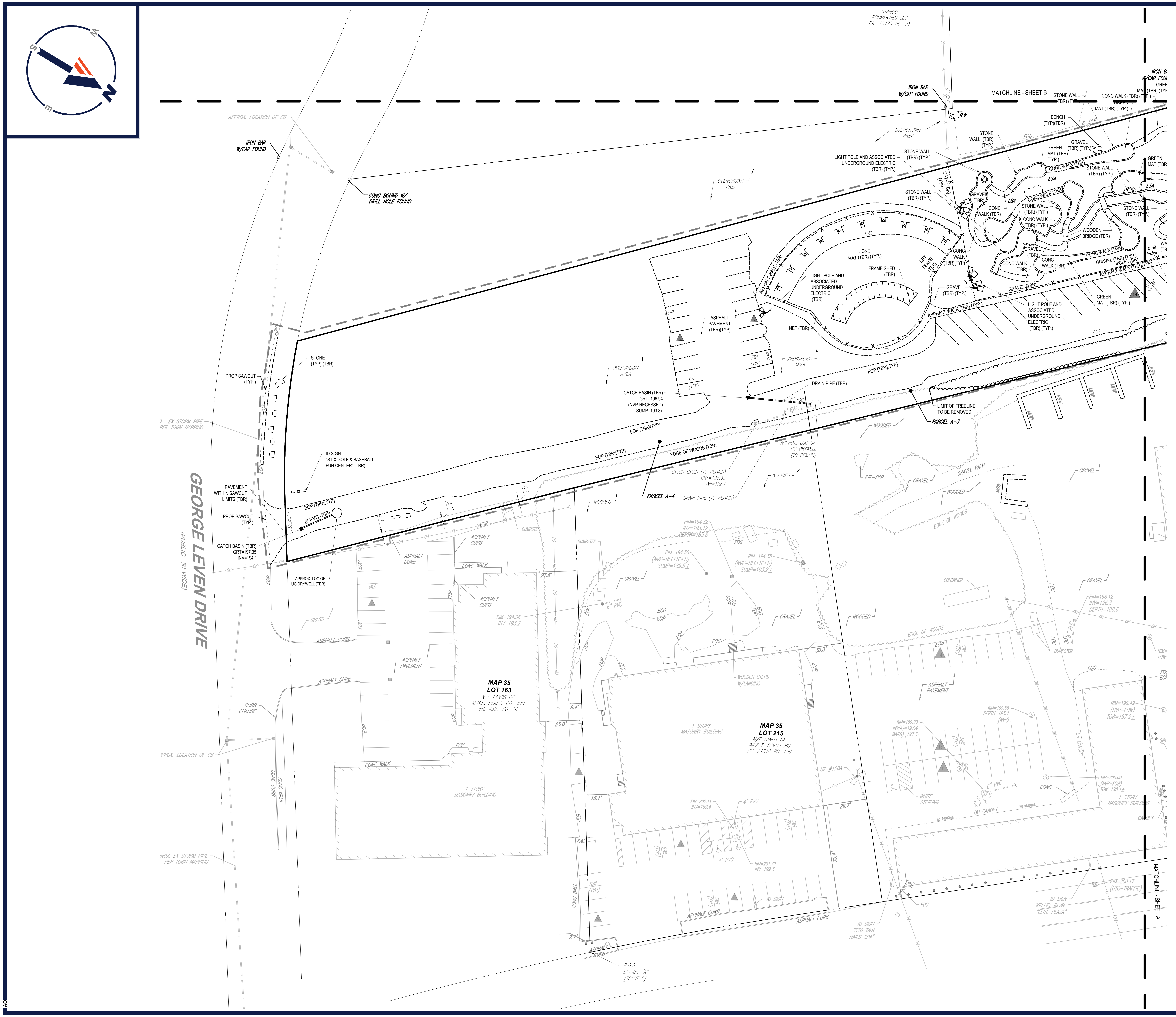
DEMOLITION PLAN B

SHEET NUMBER:

C-203

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-SPPD-1A---->LAYOUT: C-203 DEMO B
AO



N
S
E
W
STAHOO PROPERTIES LLC BK. 16473 PG. 91
IRON BAR W/CAP FOUND
MATCHLINE - SHEET B
6' CLF
OVERGROWN AREA
APPROX. LOCATION OF CB
CONC BOUND W/ DRILL HOLE FOUND
STONE WALL (TBR) (TYP.)
CONC WALK (TBR) (TYP.)
GREEN MAT (TBR) (TYP.)
BENCH (TYP)(TBR)
STONE WALL (TBR) (TYP.)
GRAVEL (TBR) (TYP.)
LIGHT POLE AND ASSOCIATED UNDERGROUND ELECTRIC (TBR) (TYP.)
GATE (TBR) (TYP.)
LSA
GRAVEL (TBR)
CONC WALK (TBR)
WOODEN BRIDGE (TBR)
CONC MAT (TBR) (TYP.)
FRAME SHED (TBR)
NET FENCE (TBR)
ASPHALT WALK (TBR)
NET (TBR)
ASPHALT WALK (TBR) (TYP.)
GRAVEL (TBR)
4'CLF (TBR)
ASPHALT WALK (TBR)(TYP)
EOP (TBR)(TYP)
DRAIN PIPE (TBR)
8" PVC
LIMIT OF TREELINE TO BE REMOVED
PARCEL A-3
MBW
ASPHALT PAVEMENT (TBR)(TYP)
SWL (TYP)
EOP
STONE (TYP) (TBR)
PROP SAWCUT (TYP.)
CATCH BASIN (TBR) GRT=196.94 (NVP-RECESSED) SUMP=193.8±
EOP (TBR)(TYP)
EDGE OF WOODS (TBR)
ID SIGN "STIX GOLF & BASEBALL FUN CENTER" (TBR)
PAVEMENT WITHIN SAWCUT LIMITS (TBR)
EOP (TBR)(TYP)
8" PVC (TBR)
CATCH BASIN (TBR) GRT=197.35 INV=194.1
APPROX. LOC OF UG DRYWELL (TBR)
CATCH BASIN (TO REMAIN) GRT=196.33 INV=192.4
DRAIN PIPE (TO REMAIN)
APPROX. LOC OF UG DRYWELL (TO REMAIN)
PARCEL A-4
WOODED
RIP-RAP
GRAVEL
GRAVEL PATH
EDGE OF WOODS
GEORGE LEVEN DRIVE (PUBLIC - 50' WIDE)
EX STORM PIPE PER TOWN MAPPING
APPROX. LOCATION OF CB
APPROX. EX STORM PIPE PER TOWN MAPPING
ASPHALT CURB
CONC WALK
DUMPSTER
GRASS
CURB CHANGE
ASPHALT PAVEMENT
MAP 35 LOT 163 N/F LANDS OF M.M.R. REALTY CO., INC. BK. 4397 PG. 16
1 STORY MASONRY BUILDING
27.6'
9.4'
25.0'
16.1'
7.4'
7.1'
RIM=194.32 INV=193.12 DEPTH=165.6
RIM=194.50 (NVP-RECESSED) SUMP=189.5±
RIM=194.35 (NVP-RECESSED) SUMP=193.2±
RIM=194.38 INV=193.2
6" PVC
EOG
WOODEN STEPS W/LANDING
30.3'
MAP 35 LOT 215 N/F LANDS OF INEZ T. CAVALLARO BK. 21818 PG. 199
1 STORY MASONRY BUILDING
RIM=202.11 INV=199.4
RIM=201.75 INV=199.3
4" PVC
29.7'
UP #120A
ID SIGN
CONC WALL
P.O.B. EXHIBIT "A" (TRACT 2)
ID SIGN "570 T&H NAILS SPA"
ID SIGN "KELLEY PLAZA" "ELITE PLAZA"
FDC
CONTAINER
RIM=198.12 INV=196.1 DEPTH=188.6
RIM=199.56 DEPTH=195.4 (NVP)
RIM=199.90 INV(A)=197.4 INV(B)=197.3
RIM=199.49 (NVP-FOW) TOW=197.2±
RIM=200.00 (NVP-FOW) TOW=198.1±
RIM=200.17 (UTO-TRAFFIC)
WHITE STRIPING
OH CANOPY
1 STORY MASONRY BUILDING
CANOPY
MATCHLINE - SHEET A

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.	
CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-201

30 15 7.5 0 30

1"= 30'

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PERMIT SET

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-SPPD-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER//

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

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J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

John Kucich

SHEET TITLE:

DEMOLITION PLAN C

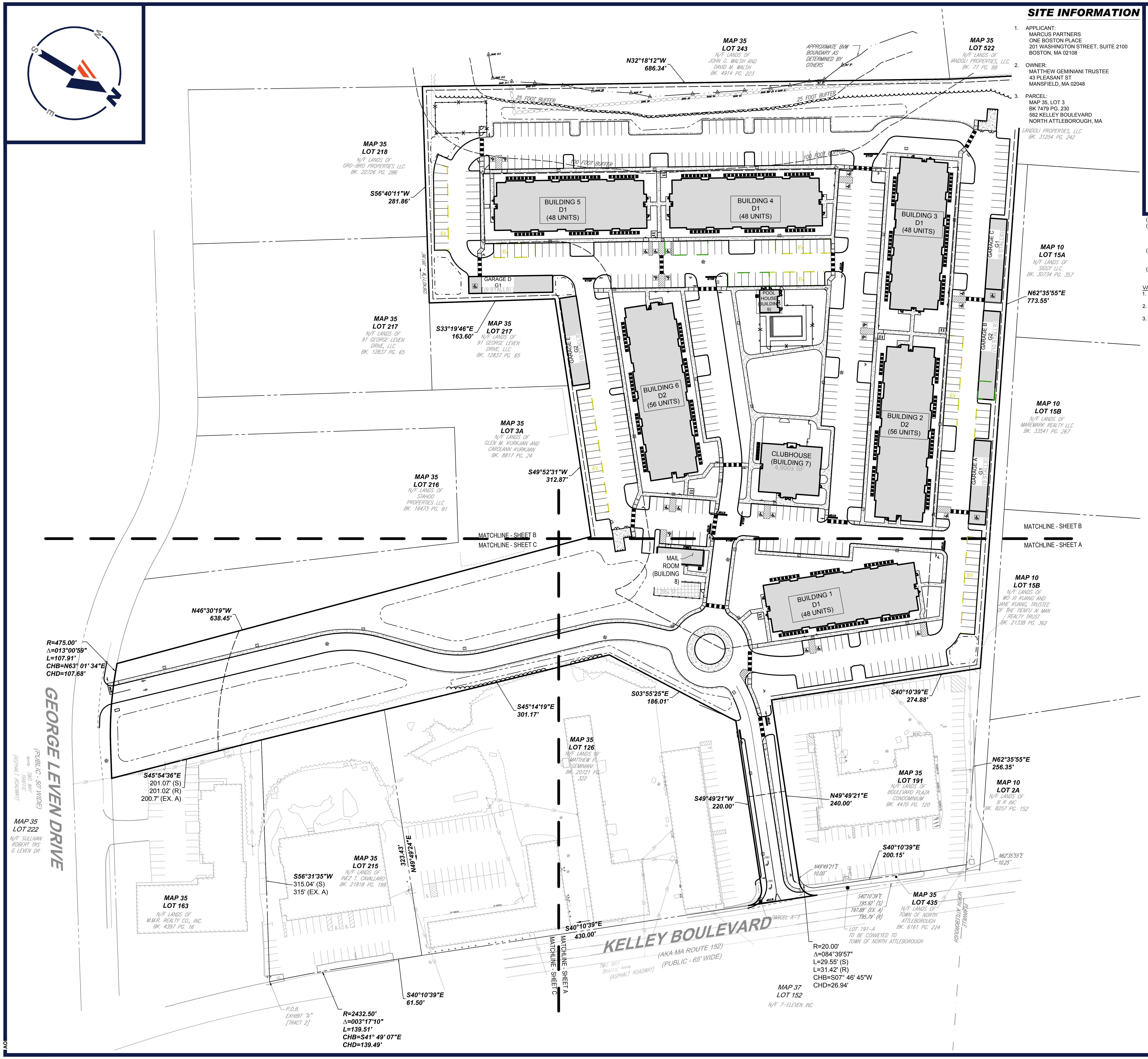
SHEET NUMBER:

C-204

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-SPPD-1A----->LAYOUT: C-204 DEMO C

AO


S
N
E
W
MAP 35
LOT 243
N/F LANDS OF
JOHN G. WALSH AND
DAVID M. WALSH
BK. 4914 PG. 223
N32°18'12"W
686.34'
APPROXIMATE BVW BOUNDARY AS DETERMINED BY OTHERS
MAP 35
LOT 522
N/F LANDS OF
IANDOLI PROPERTIES, LLC.
BK. 77 PG. 88
LANDOLI PROPERTIES, LLC
BK. 31254 PG. 242
25 FOOT BUFFER
100 FOOT BUFFER
MAP 35
LOT 218
N/F LANDS OF
GRO-BRO PROPERTIES LLC
BK. 22726 PG. 286
S56°40'11"W
281.86'
BUILDING 5
D1
(48 UNITS)
BUILDING 4
D1
(48 UNITS)
BUILDING 3
D1
(48 UNITS)
GARAGE D
G1
(8 STALLS)
GARAGE C
G1
(9 STALLS)
MAP 10
LOT 15A
N/F LANDS OF
SIGGY LLC
BK. 30734 PG. 357
N62°35'55"E
773.55'
MAP 35
LOT 217
N/F LANDS OF
91 GEORGE LEVEN DRIVE, LLC
BK. 12837 PG. 65
S33°19'46"E
163.60'
GARAGE E
G2
POOL HOUSE (BUILDING 9)
BUILDING 6
D2
(56 UNITS)
GARAGE B
G2
BUILDING 2
D2
(56 UNITS)
MAP 10
LOT 15B
N/F LANDS OF
MAREMARK REALTY LLC
BK. 33541 PG. 267
MAP 35
LOT 3A
N/F LANDS OF
GLEN M. KURKJIAN AND
CAROLANN KURKJIAN
BK. 8817 PG. 24
CLUBHOUSE
(BUILDING 7)
4,900± SF
GARAGE A
G1
(9 STALLS)
MAP 35
LOT 216
N/F LANDS OF
STAHOO PROPERTIES LLC
BK. 16473 PG. 91
S49°52'31"W
312.87'
EV
MATCHLINE - SHEET B
MATCHLINE - SHEET C
MATCHLINE - SHEET B
MATCHLINE - SHEET A
MAIL ROOM (BUILDING 8)
BUILDING 1
D1
(48 UNITS)
MAP 10
LOT 15B
N/F LANDS OF
WO YI KUANG AND
JANE KUANG, TRUSTEE
OF THE TIENFU AI MAN REALTY TRUST
BK. 21338 PG. 362
N46°30'19"W
638.45'
R=475.00'
Δ=013°00'59"
L=107.91'
CHB=N63° 01' 34"E
CHD=107.68'
S45°14'19"E
301.17'
S03°55'25"E
186.01'
S40°10'39"E
274.88'
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)
S45°54'36"E
201.07' (S)
201.02' (R)
200.7' (EX. A)
MAP 35
LOT 222
N/F SULLIVAN
ROBERT TRS
G LEVEN DR
MAP 35
LOT 126
N/F LANDS OF
MATTHEW GEMINIANI
BK. 20721 PG. 322
S49°49'21"W
220.00'
N49°49'21"E
240.00'
MAP 35
LOT 191
N/F LANDS OF
BOULEVARD PLAZA CONDOMINIUM
BK. 4470 PG. 120
N62°35'55"E
256.35'
MAP 10
LOT 2A
N/F LANDS OF
B R INC
BK. 8257 PG. 152
MAP 35
LOT 215
N/F LANDS OF
INEZ T. CAVALLARO
BK. 21818 PG. 199
S56°31'35"W
315.04' (S)
315' (EX. A)
323.43'
N49°49'24"E
MAP 35
LOT 163
N/F LANDS OF
M.M.R. REALTY CO., INC.
BK. 4397 PG. 16
S40°10'39"E
200.15'
N49°49'21"E
10.00'
S40°10'39"E
195.92' (S)
197.88' (EX. A)
195.79' (R)
LOT 191-A
TO BE CONVEYED TO
TOWN OF NORTH ATTLEBOROUGH
MAP 35
LOT 435
N/F LANDS OF
TOWN OF NORTH ATTLEBOROUGH
BK. 6161 PG. 224
N62°35'55"E
10.25'
PARCEL A-1
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)
S40°10'39"E
430.00'
MATCHLINE - SHEET A
MATCHLINE - SHEET C
R=20.00'
Δ=084°39'57"
L=29.55' (S)
L=31.42' (R)
CHB=S07° 46' 45"W
CHD=26.94'
MAP 37
LOT 152
N/F 7-ELEVEN INC
S40°10'39"E
61.50'
R=2432.50'
Δ=003°17'10"
L=139.51'
CHB=S41° 49' 07"E
CHD=139.49'
P.O.B.
EXHIBIT "A"
[TRACT 2]

SITE INFORMATION

1. APPLICANT:
   MARCUS PARTNERS
   ONE BOSTON PLACE
   201 WASHINGTON STREET, SUITE 2100
   BOSTON, MA 02108
2. OWNER:
   MATTHEW GEMINIANI TRUSTEE
   43 PLEASANT ST
   MANSFIELD, MA 02048
3. PARCEL:
   MAP 35, LOT 3
   BK 7479 PG. 230
   582 KELLEY BOULEVARD
   NORTH ATTLEBOROUGH, MA

ZONING ANALYSIS TABLE

N/A - NOT APPLICABLE
N/S - NOT SPECIFIED
(V) - VARIANCE REQUESTED
(W) - WAIVER REQUESTED
(E) - EXIST. NON-CONFORMANCE

ZONING DISTRICT	40R
OVERLAY DISTRICT	AQUIFER PROTECTION OVERLAY DISTRICT
REQUIRED PERMIT	PERMIT FROM PLANNING BOARD

ZONE CRITERIA	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	30,000 SF	595,843 SF (13.679 AC)	NO CHANGE
MIN. LOT WIDTH	150'	517'	NO CHANGE
MAX. BLDG COVERAGE	20%	0.3%	17.0%
MIN. FRONT SETBACK	140' (2)	> 50'	345.0'
MIN. SIDE SETBACK	75' (2)	> 25'	85.0'
MIN. REAR SETBACK	115' (2)	> 25'	100.4' (V)
MAX. BUILDING HEIGHT	60'	< 30'	59.05'
MAX. IMPER. COVERAGE	15% (1)	10% ±	58.3%
PARKING SPACES	456 (4)	95	480 (3)(4)
ACCESS. PARKING SPACES	9	2	25

PARKING STALL CRITERIA
STANDARD: 9 FT x 18 FT

USE/CATEGORY: RESIDENTIAL
REQUIRED PARKING: 1.5 SPACES PER UNIT
CALCULATION: 48 UNIT * 1.5 = 72 * 4 = 288
56 UNIT * 1.5 = 84 * 2 = 168
288 + 168 = 456
ADA PARKING: 401-500 SPACES= 9 MIN. ACCESSIBLE SPACES
1 ACCESSIBLE VAN SPACE PER 6 STANDARD ACCESSIBLE SPACES (MIN.)
9 SPACES REQUIRED = 7 CAR, 2 VAN

(1) PER AQUIFER OVERLAY DISTRICT
(2) ACCESSORY RESIDENTIAL STRUCTURES:
  (2)1) FRONT YARD REQUIRED SETBACK = 15'
  (2)2) SIDE YARD REQUIRED SETBACK = 3'
  (2)3) REAR YARD REQUIRED SETBACK = 140'
(3) PARKING PROVIDED:
  (3)1) GARAGE PARKING: 47 SPACES
  (3)2) STANDARD PARKING: 433 SPACES
(4) PARKING COUNT INCLUDES EV STALLS

VARIANCE/WAIVER REQUESTS:

1. PAVEMENT WIDTHS FOR TRAVELED WAYS ARE LESS THAN 24' FOR TWO WAY TRAFFIC (PER KELLEY BOULEVARD SMART GROWTH OVERLAY DISTRICT REGULATIONS & DESIGN STANDARDS SECTION 7.1.5.a)
2. REAR YARD SETBACK FOR PRINCIPAL STRUCTURE IS LESS THAN 115' (PER TOWN OF NORTH ATTLEBOROUGH ZONING CHAPTER 290, TABLE 1 SECTION 209-9.G.1)
3. REAR YARD SETBACK FOR ACCESSORY STRUCTURES IS LESS THAN 140' (PER TOWN OF NORTH ATTLEBOROUGH ZONING CHAPTER 290, TABLE 1 SECTION 209-9.G.1)

PROPOSED BUILDING UNITS

- 48 UNIT BUILDING x 4 PROPOSED = 192
- 56 UNIT BUILDING x 2 PROPOSED = 112

TOTAL PROPOSED UNITS = 304

EV PARKING

- 14 AT OCCUPANCY (GREEN DASHED LINE ⬚)
- 84 FUTURE (YELLOW DASHED LINE ⬚)

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

GENERAL CONTRACTOR TO PROVIDE A SITE SPECIFIC WALL DESIGN AND CALCULATIONS THROUGH THE GENERAL CONTRACTOR'S SELECTED WALL MANUFACTURER'S LICENSED PROFESSIONAL STRUCTURAL ENGINEER.

MAINTENANCE OF A CLEAR SIGHT LINE IS THE RESPONSIBILITY OF THE PROPERTY OWNER

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

60 30 15 0 60
1"= 60'

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LAND SURVEYING
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DRAWN BY:	VEH/AO/DT
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DATE:	9/18/2024
CAD I.D.:	W211244-SPPD-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
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MASSACHUSETTS

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CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

OVERALL SITE LAYOUT PLAN

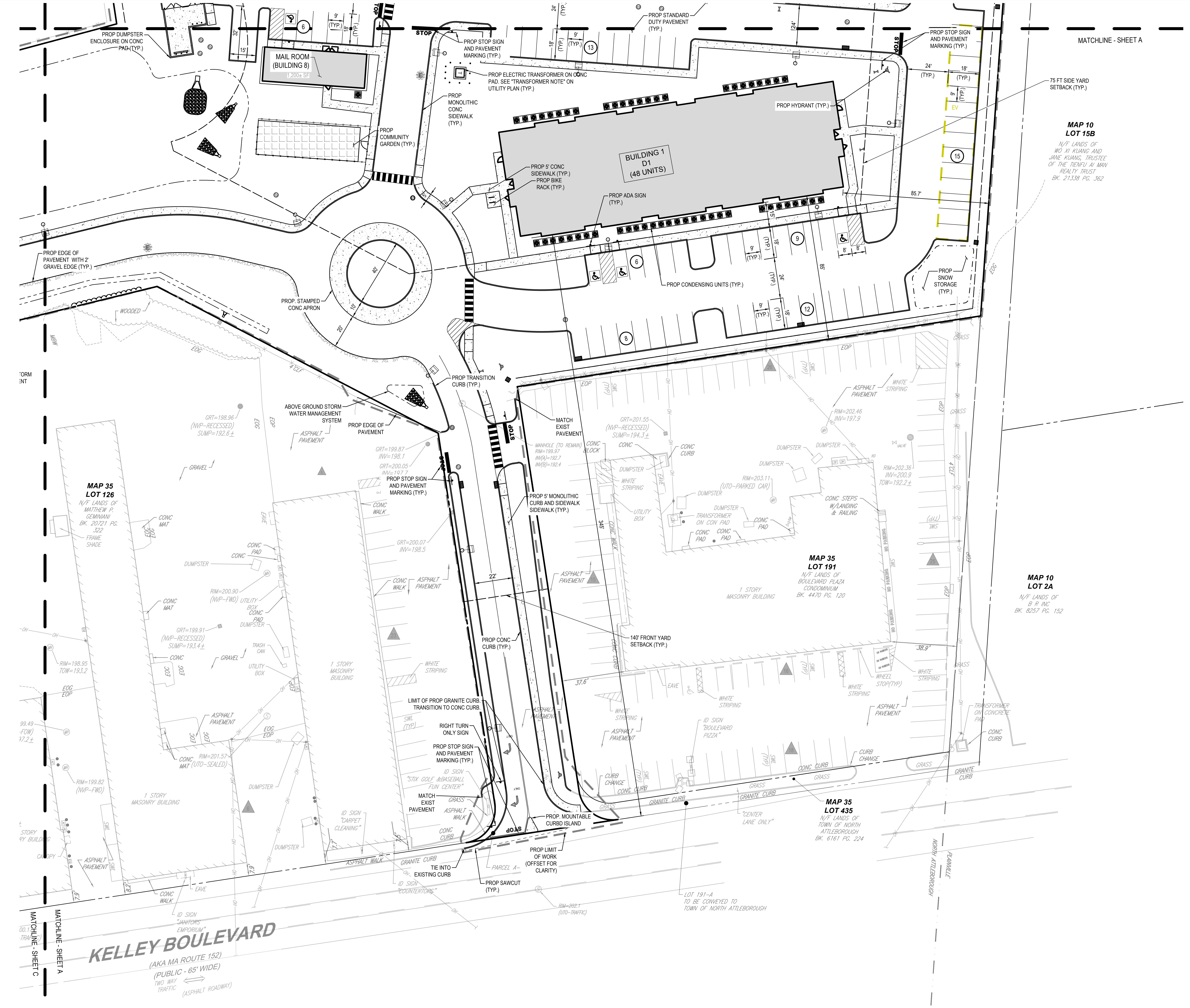
SHEET NUMBER:

C-301

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CADD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-SPPD-1A---->LAYOUT: C-301 OVERALL SITE

AO


PROP DUMPSTER ENCLOSURE ON CONC PAD (TYP.)
MAIL ROOM (BUILDING 8)
1,200± SF
32'
15'
9' (TYP.)
18' (TYP.)
6
STOP
PROP STOP SIGN AND PAVEMENT MARKING (TYP.)
PROP ELECTRIC TRANSFORMER ON CONC PAD. SEE "TRANSFORMER NOTE" ON UTILITY PLAN (TYP.)
PROP MONOLITHIC CONC SIDEWALK (TYP.)
PROP COMMUNITY GARDEN (TYP.)
PROP STANDARD DUTY PAVEMENT (TYP.)
24' (TYP.)
13
BUILDING 1 D1 (48 UNITS)
PROP HYDRANT (TYP.)
PROP 5' CONC SIDEWALK (TYP.)
PROP BIKE RACK (TYP.)
PROP ADA SIGN (TYP.)
PROP CONDENSING UNITS (TYP.)
9
12
8
15
EV
85.7'
85'
8'
MATCHLINE - SHEET A
75 FT SIDE YARD SETBACK (TYP.)
PROP SNOW STORAGE (TYP.)
MAP 10 LOT 15B
N/F LANDS OF WO XI KUANG AND JANE KUANG, TRUSTEE OF THE TIENFU AI MAN REALTY TRUST BK. 21338 PG. 362
PROP EDGE OF PAVEMENT WITH 2' GRAVEL EDGE (TYP.)
PROP. STAMPED CONC APRON
40'
10'
20'
WOODED
MBW
EOG
4'CLF
PROP TRANSITION CURB (TYP.)
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
PROP EDGE OF PAVEMENT
ASPHALT PAVEMENT
GRAVEL
GRT=198.96 (NVP-RECESSED) SUMP=192.6±
GRT=199.87 INV=198.1
GRT=200.05 INV=197.7
GRT=200.07 INV=198.5
PROP STOP SIGN AND PAVEMENT MARKING (TYP.)
MATCH EXIST PAVEMENT
MANHOLE (TO REMAIN) RIM=199.97 INV(A)=192.7 INV(B)=192.4
CONC BLOCK
PROP 5' MONOLITHIC CURB AND SIDEWALK SIDEWALK (TYP.)
22'
345'
140' FRONT YARD SETBACK (TYP.)
PROP CONC CURB (TYP.)
37.6'
MAP 35 LOT 126
N/F LANDS OF MATTHEW P. GEMINIANI BK. 20721 PG. 322
FRAME SHADE
CONC MAT
CONC PAD
DUMPSTER
RIM=200.90 (NVP-FWD)
UTILITY BOX
GRT=199.91 (NVP-RECESSED) SUMP=193.4±
TRASH CAN
RIM=198.95 TOW=193.2
1 STORY MASONRY BUILDING
WHITE STRIPING
CONC WALK
LIMIT OF PROP GRANITE CURB. TRANSITION TO CONC CURB.
RIGHT TURN ONLY SIGN
PROP STOP SIGN AND PAVEMENT MARKING (TYP.)
ID SIGN "STIX GOLF &BASEBALL FUN CENTER"
MATCH EXIST PAVEMENT
ASPHALT WALK
CONC CURB
RIM=201.57 (UTO-SEALED)
RIM=199.82 (NVP-FWD)
ID SIGN "CARPET CLEANING"
ID SIGN "JANITORS EMPORIUM"
ID SIGN "COUNTERTOPS"
GRANITE CURB
TIE INTO EXISTING CURB
PARCEL A
PROP SAWCUT (TYP.)
PROP LIMIT OF WORK (OFFSET FOR CLARITY)
PROP. MOUNTABLE CURBD ISLAND
RIM=202.1 (UTO-TRAFFIC)
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)
MATCHLINE - SHEET C
MATCHLINE - SHEET A
GRT=201.55 (NVP-RECESSED) SUMP=194.3±
CONC CURB
RIM=203.11 (UTO-PARKED CAR)
TRANSFORMER ON CON PAD
CONC STEPS W/LANDING & RAILING
RIM=202.46 INV=197.9
RIM=202.36 INV=200.9 TOW=192.2±
VALVE
MAP 35 LOT 191
N/F LANDS OF BOULEVARD PLAZA CONDOMINIUM BK. 4470 PG. 120
NO PARKING
38.9'
WHEEL STOP(TYP)
EAVE
ID SIGN "BOULEVARD PIZZA"
CURB CHANGE
GRASS
"CENTER LANE ONLY"
MAP 35 LOT 435
N/F LANDS OF TOWN OF NORTH ATTLEBOROUGH BK. 6161 PG. 224
LOT 191-A TO BE CONVEYED TO TOWN OF NORTH ATTLEBOROUGH
TRANSFORMER ON CONCRETE PAD
NORTH ATTLEBOROUGH
PLAINVILLE
MAP 10 LOT 2A
N/F LANDS OF B R INC BK. 8257 PG. 152
EOP
SWL (TYP)

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-301

30 15 7.5 0 30
1"= 30'

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J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530

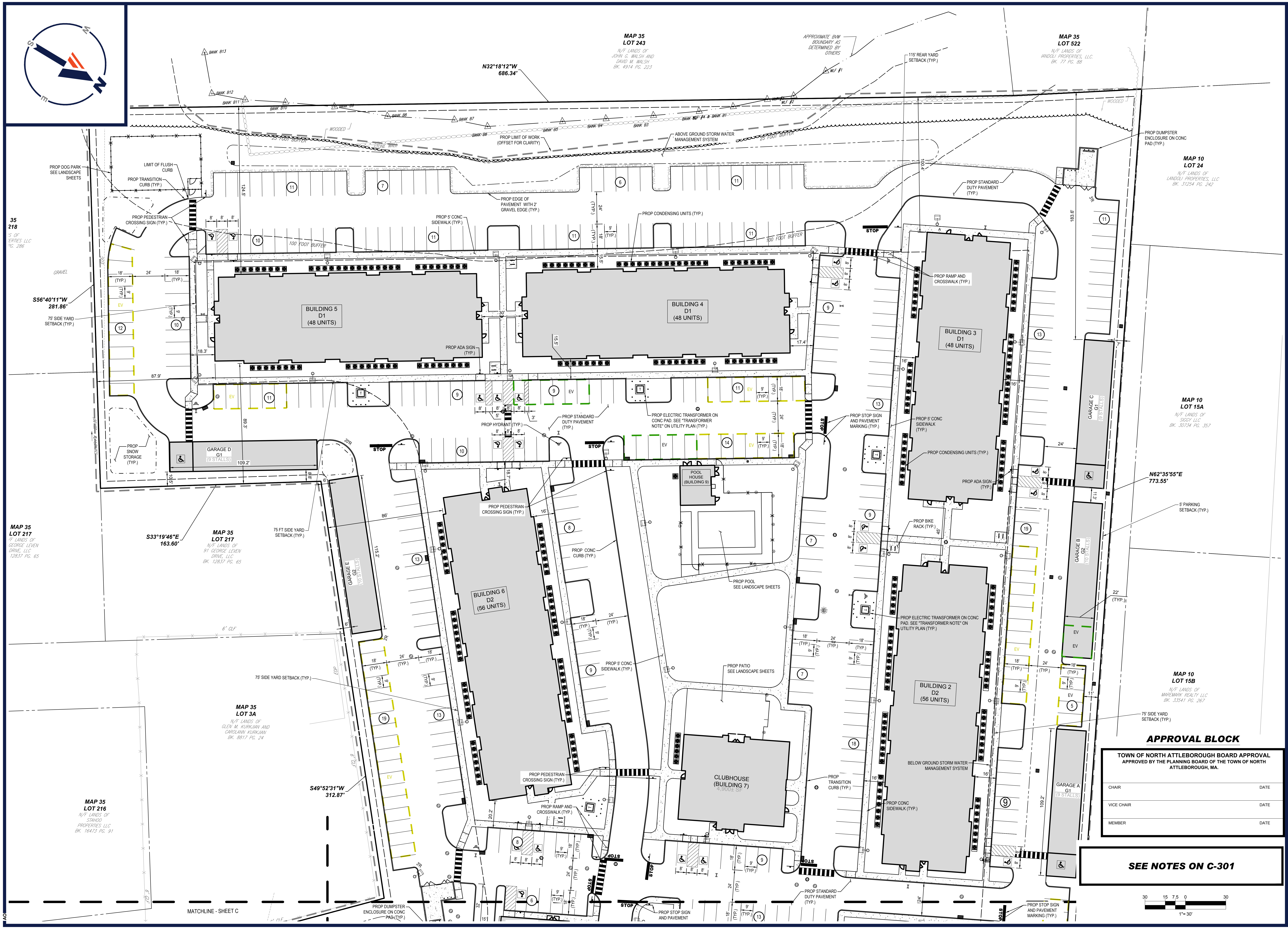
SHEET TITLE:

SITE LAYOUT PLAN A

SHEET NUMBER:

C-302

REVISION 2 - 11/25/2024


N
S
E
W
MAP 35
LOT 243
N/F LANDS OF
JOHN G. WALSH AND
DAVID M. WALSH
BK. 4914 PG. 223
N32°18'12"W
686.34'
APPROXIMATE BVW BOUNDARY AS DETERMINED BY OTHERS
115' REAR YARD SETBACK (TYP.)
MAP 35
LOT 522
N/F LANDS OF
IANDOLI PROPERTIES, LLC.
BK. 77 PG. 88
MAP 10
LOT 24
N/F LANDS OF
LANDOLI PROPERTIES, LLC
BK. 31254 PG. 242
BANK B13
BANK B12
BANK B11
BANK B10
BANK B9
BANK B8
BANK B7
BANK B6
BANK B5
BANK B4
BANK B3
BANK B2 WLF #4 & BANK B1
WLF #1
WLF #2
WLF #3
WOODED
STONE WALL
25 FOOT BUFFER
100 FOOT BUFFER
PROP LIMIT OF WORK (OFFSET FOR CLARITY)
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
PROP DUMPSTER ENCLOSURE ON CONC PAD (TYP.)
PROP DOG PARK SEE LANDSCAPE SHEETS
LIMIT OF FLUSH CURB
PROP TRANSITION CURB (TYP.)
PROP EDGE OF PAVEMENT WITH 2' GRAVEL EDGE (TYP.)
PROP STANDARD DUTY PAVEMENT (TYP.)
PROP PEDESTRIAN CROSSING SIGN (TYP.)
PROP 5' CONC SIDEWALK (TYP.)
PROP CONDENSING UNITS (TYP.)
PROP RAMP AND CROSSWALK (TYP.)
STOP
124.5'
100.4'
183.6'
MAP 35
LOT 218
GRAVEL
S56°40'11"W
281.86'
75' SIDE YARD SETBACK (TYP.)
BUILDING 5
D1
(48 UNITS)
BUILDING 4
D1
(48 UNITS)
BUILDING 3
D1
(48 UNITS)
PROP ADA SIGN (TYP.)
PROP HYDRANT (TYP.)
PROP ELECTRIC TRANSFORMER ON CONC PAD. SEE "TRANSFORMER NOTE" ON UTILITY PLAN (TYP.)
PROP STOP SIGN AND PAVEMENT MARKING (TYP.)
EV
87.9'
89.3'
18.3'
17.4'
15.5'
30'
PROP SNOW STORAGE (TYP.)
GARAGE D
G1
(9 STALLS)
109.2'
10.5'
8.8'
20'R
MAP 35
LOT 217
N/F LANDS OF
GEORGE LEVEN
DRIVE, LLC
12837 PG. 65
S33°19'46"E
163.60'
MAP 35
LOT 217
N/F LANDS OF
91 GEORGE LEVEN
DRIVE, LLC
BK. 12837 PG. 65
75 FT SIDE YARD SETBACK (TYP.)
GARAGE E
G2
(10 STALLS)
86'
115.2'
6' CLF
EOP
MAP 35
LOT 3A
N/F LANDS OF
GLEN M. KURKJIAN AND
CAROLANN KURKJIAN
BK. 8817 PG. 24
75' SIDE YARD SETBACK (TYP.)
S49°52'31"W
312.87'
MAP 35
LOT 216
N/F LANDS OF
STAHOO
PROPERTIES LLC
BK. 16473 PG. 91
MATCHLINE - SHEET C
BUILDING 6
D2
(56 UNITS)
PROP CONC CURB (TYP.)
POOL HOUSE (BUILDING 9)
PROP POOL SEE LANDSCAPE SHEETS
PROP PATIO SEE LANDSCAPE SHEETS
CLUBHOUSE (BUILDING 7)
4,900± SF
PROP TRANSITION CURB (TYP.)
BUILDING 2
D2
(56 UNITS)
BELOW GROUND STORM WATER MANAGEMENT SYSTEM
PROP CONC SIDEWALK (TYP.)
PROP BIKE RACK (TYP.)
PROP DUMPSTER ENCLOSURE ON CONC PAD (TYP.)
MAP 10
LOT 15A
N/F LANDS OF
SIGGY LLC
BK. 30734 PG. 357
GARAGE C
G1
(9 STALLS)
N62°35'55"E
773.55'
5' PARKING SETBACK (TYP.)
GARAGE B
G2
(10 STALLS)
22' (TYP.)
MAP 10
LOT 15B
N/F LANDS OF
MAREMARK REALTY LLC
BK. 33541 PG. 267
75' SIDE YARD SETBACK (TYP.)
GARAGE A
G1
(9 STALLS)
18' (TYP.)
24' (TYP.)
9' (TYP.)
8'
16'
20.2'
18.7'
11.3'
11'
7'
45'
3'R
30 15 7.5 0 30
1"= 30'

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-301

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-SPPD-1A---->LAYOUT: C-303 SITE B

AO

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LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

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1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-SPPD-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER//

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

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JOHN A. KUCICH
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MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

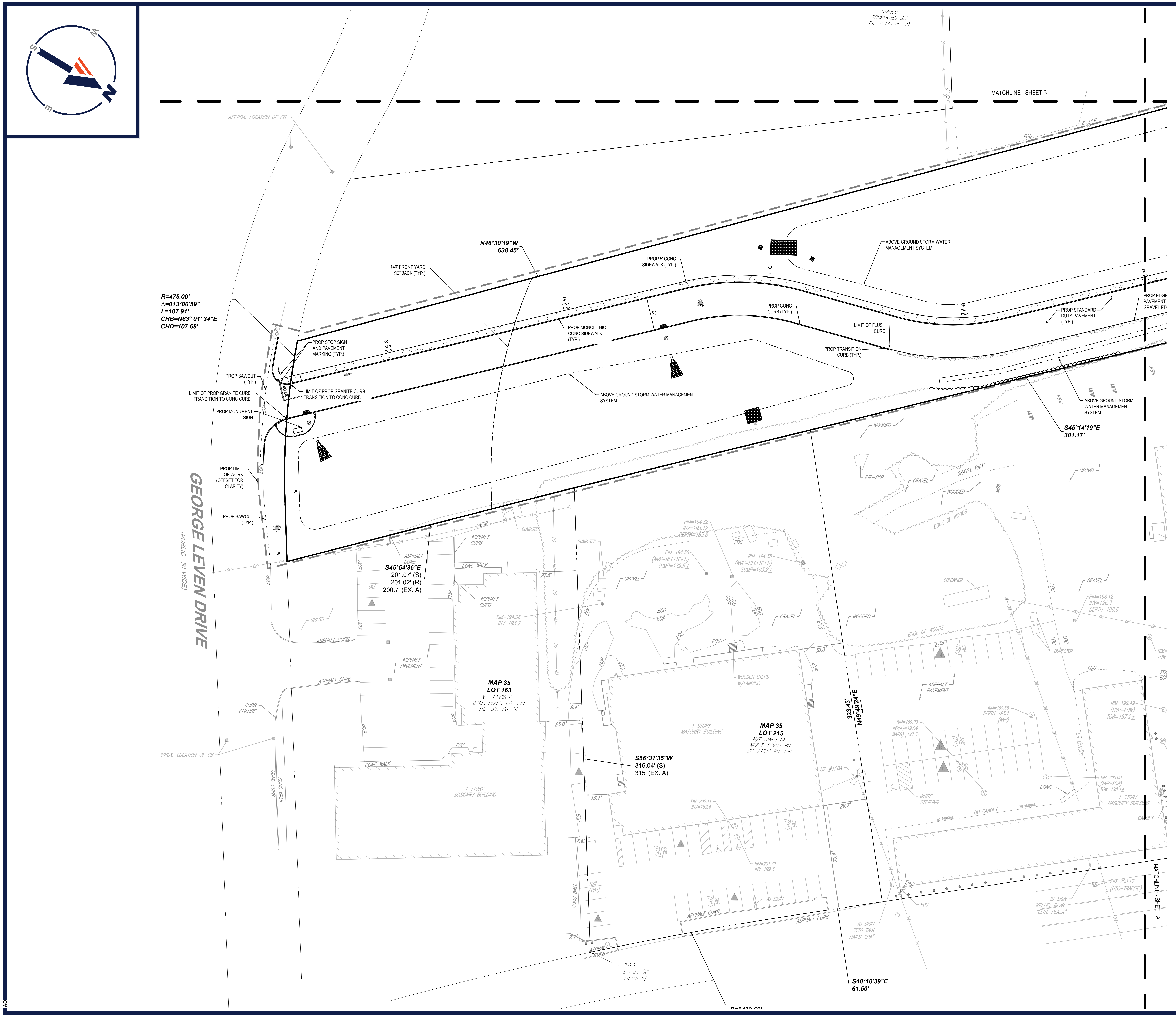
SHEET TITLE:

SITE LAYOUT PLAN B

SHEET NUMBER:

C-303

REVISION 2 - 11/25/2024



MATCHLINE - SHEET B
MATCHLINE - SHEET A
STAHOO PROPERTIES LLC BK. 16473 PG. 91
APPROX. LOCATION OF CB
R=475.00'
Δ=013°00'59"
L=107.91'
CHB=N63° 01' 34"E
CHD=107.68'
N46°30'19"W
638.45'
140' FRONT YARD SETBACK (TYP.)
PROP 5' CONC SIDEWALK (TYP.)
PROP STOP SIGN AND PAVEMENT MARKING (TYP.)
PROP MONOLITHIC CONC SIDEWALK (TYP.)
22'
STOP
PROP SAWCUT (TYP.)
LIMIT OF PROP GRANITE CURB. TRANSITION TO CONC CURB.
LIMIT OF PROP GRANITE CURB. TRANSITION TO CONC CURB.
PROP MONUMENT SIGN
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
PROP LIMIT OF WORK (OFFSET FOR CLARITY)
PROP SAWCUT (TYP.)
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
PROP CONC CURB (TYP.)
LIMIT OF FLUSH CURB
PROP TRANSITION CURB (TYP.)
PROP STANDARD DUTY PAVEMENT (TYP.)
PROP EDGE PAVEMENT GRAVEL ED
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
S45°14'19"E
301.17'
S45°54'36"E
201.07' (S)
201.02' (R)
200.7' (EX. A)
WOODED
RIP-RAP
GRAVEL
GRAVEL PATH
EDGE OF WOODS
ASPHALT CURB
CONC WALK
ASPHALT PAVEMENT
DUMPSTER
RIM=194.32 INV=193.12 DEPTH=185.8
RIM=194.50 (NVP-RECESSED) SUMP=189.5±
RIM=194.35 (NVP-RECESSED) SUMP=193.2±
RIM=194.38 INV=193.2
27.6'
MAP 35
LOT 163
N/F LANDS OF M.M.R. REALTY CO., INC. BK. 4397 PG. 16
1 STORY MASONRY BUILDING
9.4'
25.0'
16.1'
7.4'
7.1'
30.3'
29.7'
70.4'
WOODEN STEPS W/LANDING
MAP 35
LOT 215
N/F LANDS OF INEZ T. CAVALLARO BK. 21818 PG. 199
1 STORY MASONRY BUILDING
S56°31'35"W
315.04' (S)
315' (EX. A)
323.43'
N49°49'24"E
RIM=202.11 INV=199.4
RIM=201.79 INV=199.3
RIM=199.90 INV(A)=197.4 INV(B)=197.3
UP #120A
WHITE STRIPING
SWL (TYP)
ID SIGN
ID SIGN "570 T&H NAILS SPA"
FDC
CONC WALL
P.O.B. EXHIBIT "A" [TRACT 2]
S40°10'39"E
61.50'
CONTAINER
OH CANOPY
1 STORY MASONRY BUILDING
RIM=199.56 DEPTH=195.4 (NVP)
RIM=200.00 (NVP-FOW) TOW=198.1±
RIM=199.49 (NVP-FOW) TOW=197.2±
RIM=198.12 INV=196.1 DEPTH=188.6
RIM=200.17 (UTO-TRAFFIC)
ID SIGN "KELLEY BLVD" "ELITE PLAZA"
CURB CHANGE
APPROX. LOCATION OF CB
GRASS
MBW
EOP
EOG
OH

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
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CHAIR DATE

VICE CHAIR DATE

MEMBER DATE

SEE NOTES ON C-301

30 15 7.5 0 30
1"= 30'

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PROJECT:

PROPOSED SITE PLAN DOCUMENTS

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PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
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CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

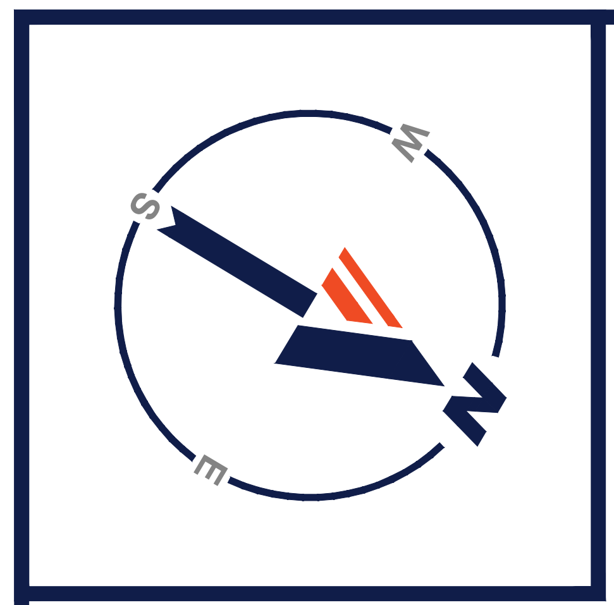
SHEET TITLE:

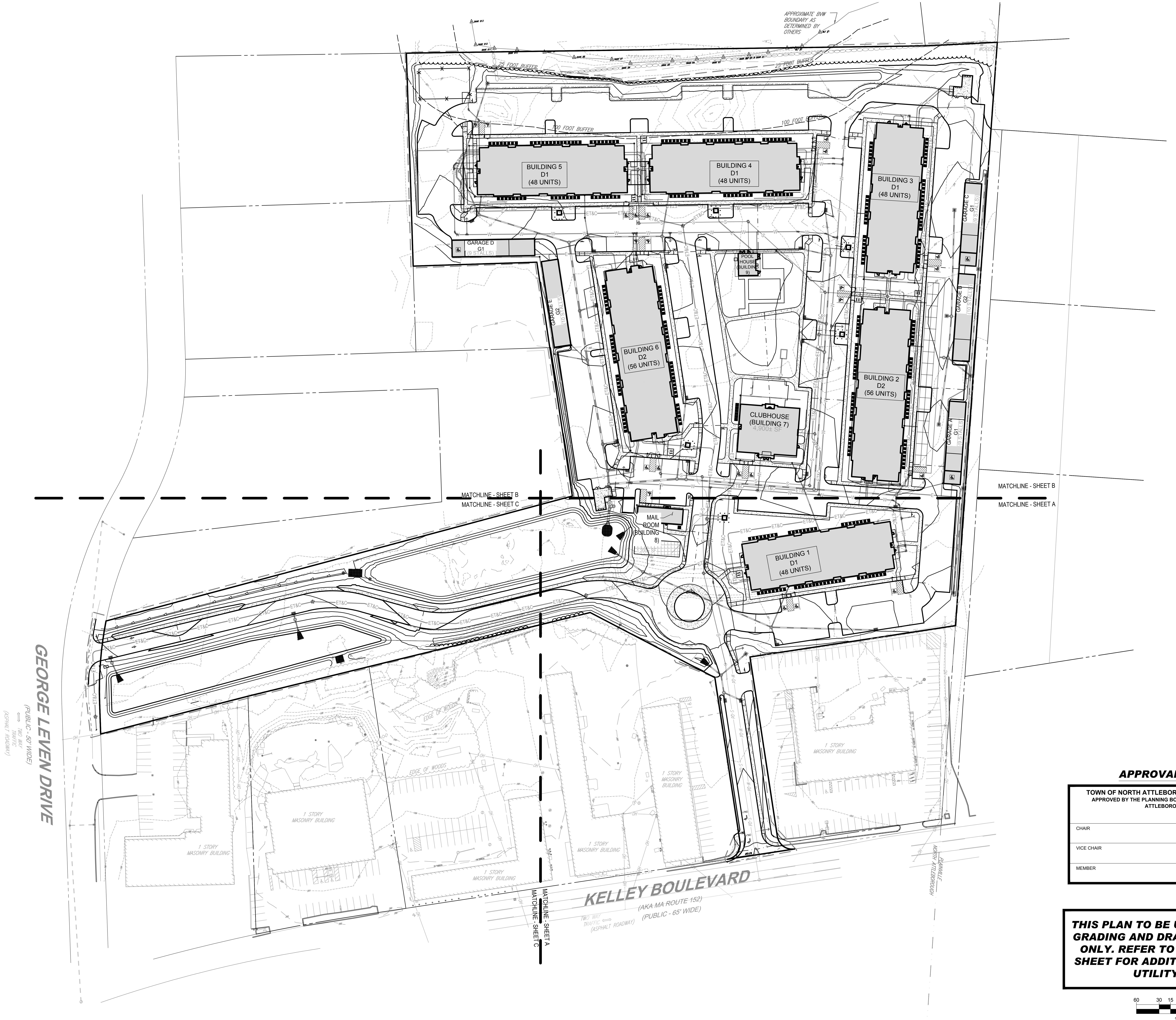
SITE LAYOUT PLAN C

SHEET NUMBER:

C-304

REVISION 2 - 11/25/2024




APPROXIMATE BVW BOUNDARY AS DETERMINED BY OTHERS
25 FOOT BUFFER
100 FOOT BUFFER
BUILDING 5 D1 (48 UNITS)
BUILDING 4 D1 (48 UNITS)
BUILDING 3 D1 (48 UNITS)
BUILDING 6 D2 (56 UNITS)
BUILDING 2 D2 (56 UNITS)
BUILDING 1 D1 (48 UNITS)
POOL HOUSE (BUILDING 9)
CLUBHOUSE (BUILDING 7) 4,900± SF
MAIL ROOM (BUILDING 8)
GARAGE D G1
GARAGE E G2
GARAGE C G1
GARAGE B G2
GARAGE A G1
MATCHLINE - SHEET B
MATCHLINE - SHEET C
MATCHLINE - SHEET A
EDGE OF WOODS
1 STORY MASONRY BUILDING
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-GRAD-1A---->LAYOUT: C-401 GRAD OVERALL

AO

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

THIS PLAN TO BE UTILIZED FOR SITE GRADING AND DRAINAGE PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES

60 30 15 0 60
1"= 60'

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MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
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CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

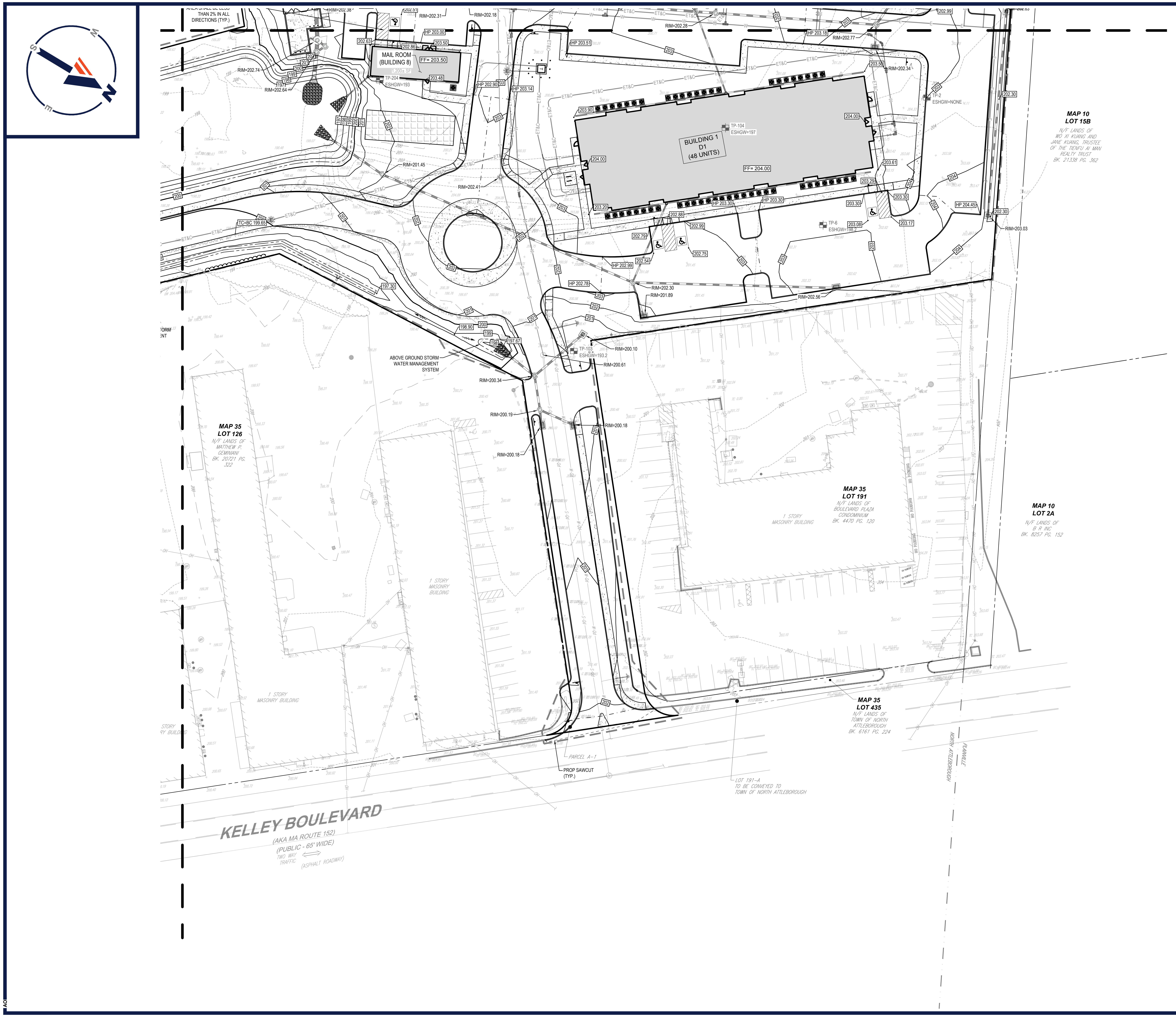
SHEET TITLE:

OVERALL GRADING PLAN

SHEET NUMBER:

C-401

REVISION 2 - 11/25/2024



N
E
S
W
AREA SHALL BE LESS THAN 2% IN ALL DIRECTIONS (TYP.)
MAIL ROOM (BUILDING 8)
FF= 203.50
TP-204 ESHGW=193
BUILDING 1 D1 (48 UNITS)
FF= 204.00
TP-104 ESHGW=197
TP-2 ESHGW=NONE
TP-6 ESHGW=199.2
TP-103 ESHGW=193.2
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
TC=BC 199.65
RIM=202.31
RIM=202.18
RIM=202.28
RIM=202.77
RIM=202.34
RIM=202.74
RIM=202.64
RIM=201.45
RIM=202.41
RIM=203.03
RIM=202.30
RIM=201.89
RIM=202.56
RIM=200.10
RIM=200.61
RIM=200.34
RIM=200.19
RIM=200.18
RIM=200.18
HP 203.00
HP 203.51
HP 203.18
HP 202.90
HP 203.14
HP 203.30
HP 203.30
HP 204.45
HP 202.99
HP 202.76
MAP 10 LOT 15B
N/F LANDS OF WO XI KUANG AND JANE KUANG, TRUSTEE OF THE TIENFU AI MAN REALTY TRUST BK. 21338 PG. 362
MAP 35 LOT 126
N/F LANDS OF MATTHEW P. GEMINIANI BK. 20721 PG. 322
MAP 35 LOT 191
N/F LANDS OF BOULEVARD PLAZA CONDOMINIUM BK. 4470 PG. 120
1 STORY MASONRY BUILDING
MAP 10 LOT 2A
N/F LANDS OF B R INC BK. 8257 PG. 152
MAP 35 LOT 435
N/F LANDS OF TOWN OF NORTH ATTLEBOROUGH BK. 6161 PG. 224
1 STORY MASONRY BUILDING
1 STORY MASONRY BUILDING
PARCEL A-1
PROP SAWCUT (TYP.)
LOT 191-A TO BE CONVEYED TO TOWN OF NORTH ATTLEBOROUGH
NORTH ATTLEBOROUGH
PLAINVILLE
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
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CHAIR DATE

VICE CHAIR DATE

MEMBER DATE

SEE NOTES ON C-401

30 15 7.5 0 30
1"= 30'

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PROPOSED SITE PLAN DOCUMENTS

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CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

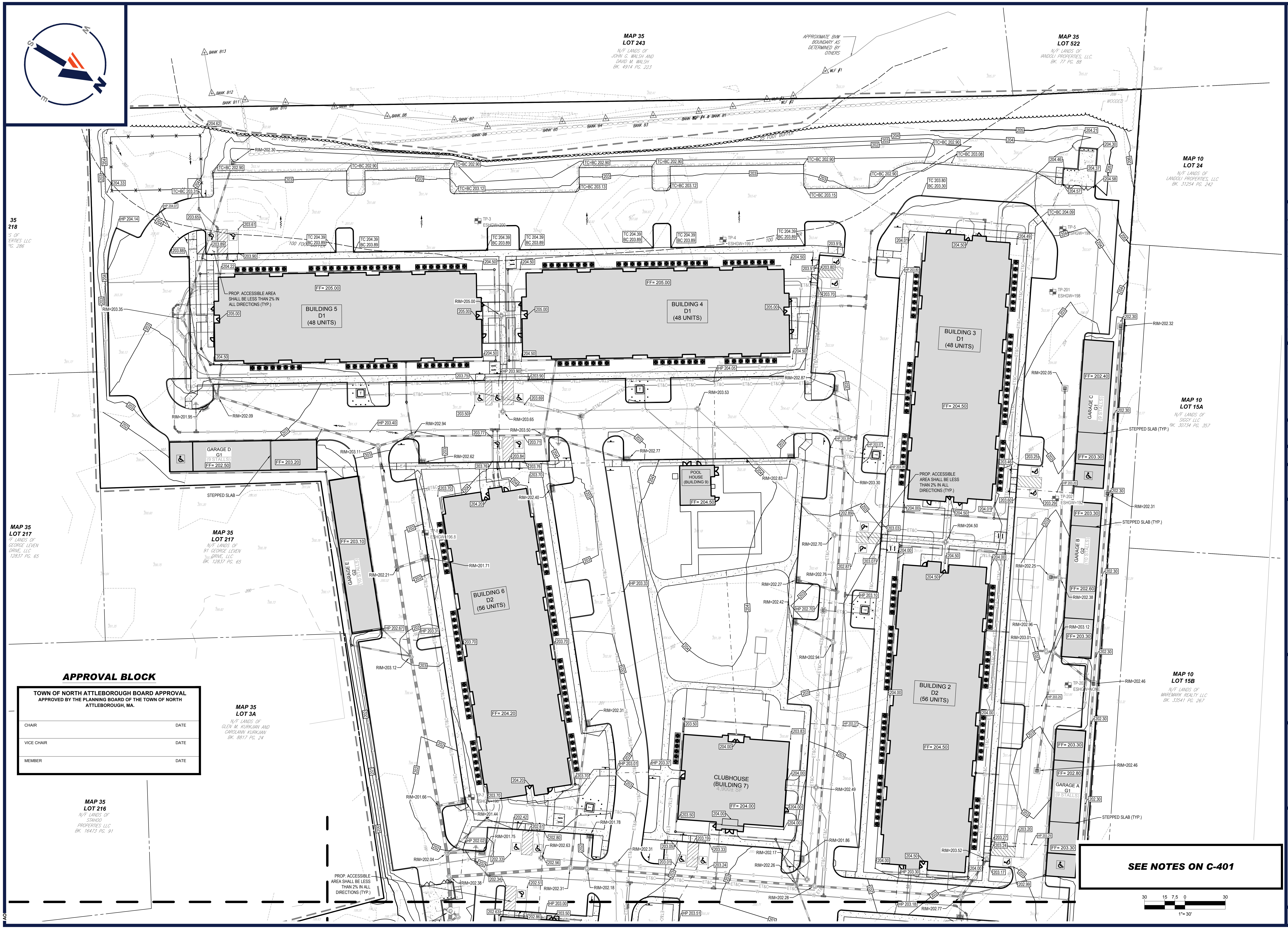
SHEET TITLE:

GRADING PLAN A

SHEET NUMBER:

C-402

REVISION 2 - 11/25/2024


N
S
E
W
MAP 35
LOT 243
N/F LANDS OF
JOHN G. WALSH AND
DAVID M. WALSH
BK. 4914 PG. 223
APPROXIMATE BVW
BOUNDARY AS
DETERMINED BY
OTHERS
MAP 35
LOT 522
N/F LANDS OF
IANDOLI PROPERTIES, LLC
BK. 77 PG. 88
MAP 10
LOT 24
N/F LANDS OF
IANDOLI PROPERTIES, LLC
BK. 31254 PG. 242
MAP 10
LOT 15A
N/F LANDS OF
SIGGY LLC
BK. 30734 PG. 357
MAP 10
LOT 15B
N/F LANDS OF
MAREMARK REALTY LLC
BK. 33541 PG. 267
MAP 35
LOT 217
N/F LANDS OF
GEORGE LEVEN
DRIVE, LLC
12837 PG. 65
MAP 35
LOT 217
N/F LANDS OF
91 GEORGE LEVEN
DRIVE, LLC
BK. 12837 PG. 65
MAP 35
LOT 3A
N/F LANDS OF
GLEN M. KURKJIAN AND
CAROLANN KURKJIAN
BK. 8817 PG. 24
MAP 35
LOT 216
N/F LANDS OF
STAHOO
PROPERTIES LLC
BK. 16473 PG. 91
25 FOOT BUFFER
100 FOOT BUFFER
WOODED
BUILDING 5
D1
(48 UNITS)
FF= 205.00
BUILDING 4
D1
(48 UNITS)
FF= 205.00
BUILDING 3
D1
(48 UNITS)
FF= 204.50
BUILDING 6
D2
(56 UNITS)
FF= 204.20
BUILDING 2
D2
(56 UNITS)
FF= 204.50
CLUBHOUSE
(BUILDING 7)
FF= 204.00
POOL
HOUSE
(BUILDING 9)
FF= 204.50
GARAGE D
G1
(9 STALLS)
FF= 202.50
FF= 203.20
GARAGE E
G2
(10 STALLS)
FF= 203.10
GARAGE C
G1
(9 STALLS)
FF= 202.40
FF= 203.30
GARAGE B
G2
(10 STALLS)
FF= 203.30
FF= 202.60
FF= 203.30
GARAGE A
G1
(9 STALLS)
FF= 203.30
FF= 202.80
FF= 203.30
PROP. ACCESSIBLE AREA SHALL BE LESS THAN 2% IN ALL DIRECTIONS (TYP.)
STEPPED SLAB
STEPPED SLAB (TYP.)
TP-1
TP-3
TP-4
TP-5
TP-201
TP-202
TP-203
ESHGW=199.7
ESHGW=198
ESHGW=196.8
RIM=202.30
RIM=203.35
RIM=201.95
RIM=202.09
RIM=205.00
RIM=203.53
RIM=202.87
RIM=203.65
RIM=203.50
RIM=202.94
RIM=203.11
RIM=202.62
RIM=202.77
RIM=202.40
RIM=202.83
RIM=203.30
RIM=202.05
RIM=202.32
RIM=202.31
RIM=204.50
RIM=202.70
RIM=201.71
RIM=202.21
RIM=202.27
RIM=202.76
RIM=202.42
RIM=202.25
RIM=202.38
RIM=202.96
RIM=203.01
RIM=202.94
RIM=203.12
RIM=202.46
RIM=202.31
RIM=201.66
RIM=201.44
RIM=201.75
RIM=201.78
RIM=202.63
RIM=202.04
RIM=202.38
RIM=202.31
RIM=202.18
RIM=202.31
RIM=202.17
RIM=202.26
RIM=202.49
RIM=201.86
RIM=203.52
RIM=202.28
RIM=202.77
HP 204.14
HP 204.07
HP 203.90
HP 204.05
HP 203.40
HP 203.33
HP 202.67
HP 203.31
HP 203.01
HP 203.37
HP 202.70
HP 203.10
HP 203.30
HP 203.18
HP 203.51
HP 203.00
HP 202.02
TC=BC 202.90
TC=BC 203.12
TC=BC 203.13
TC=BC 203.15
TC=BC 203.08
TC=BC 203.31
TC=BC 204.09
TC 204.39
BC 203.89
TC 203.80
BC 203.30
ET&C
SEE NOTES ON C-401
30 15 7.5 0 30
1"= 30'

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\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-GRAD-1A----->LAYOUT: C-403 GRAD B

AO

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MARCUS PARTNERS

PROPOSED DEVELOPMENT

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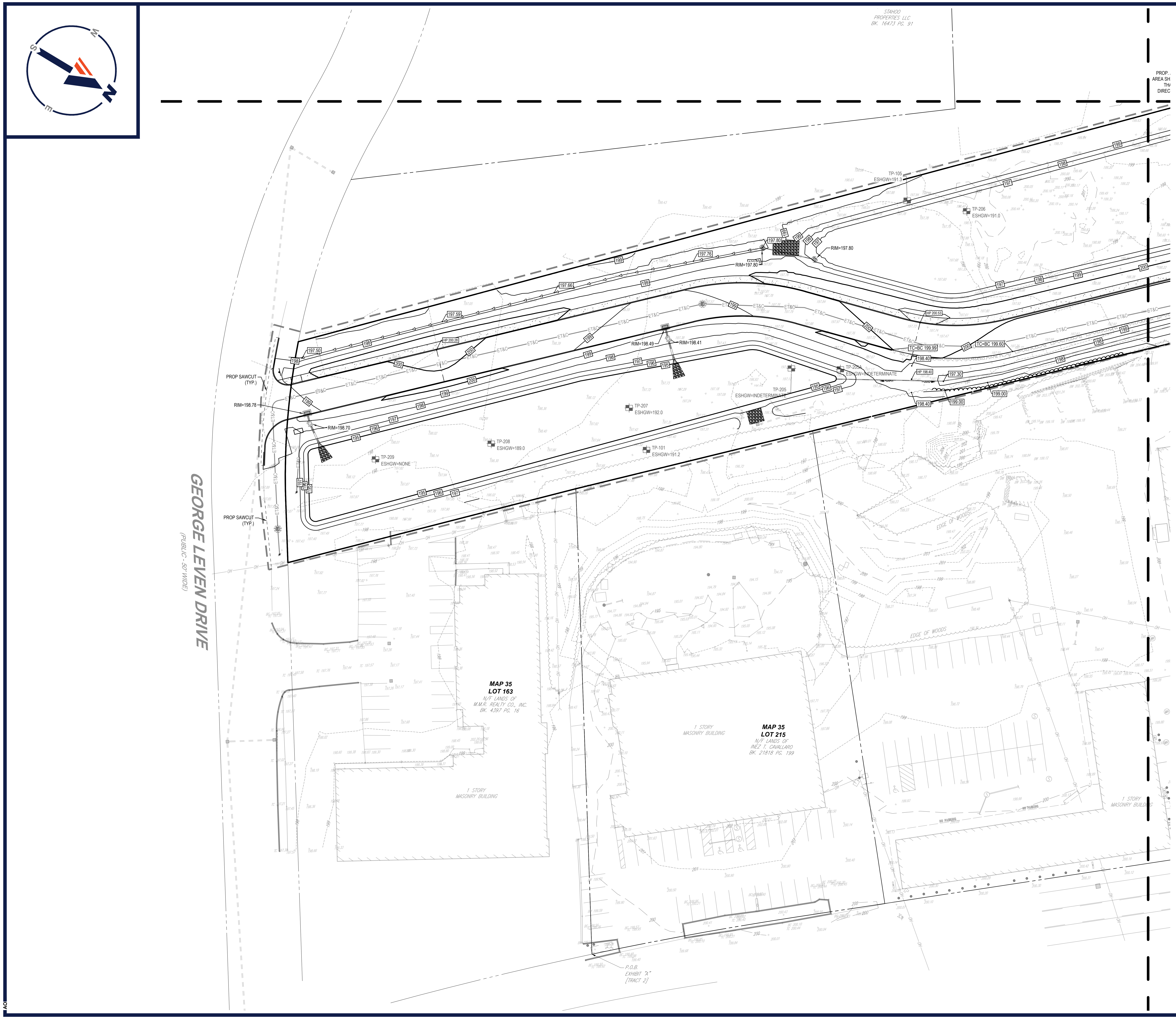
SHEET TITLE:

GRADING PLAN B

SHEET NUMBER:

C-403

REVISION 2 - 11/25/2024



S
W
N
E
STAHOO PROPERTIES LLC BK. 16473 PG. 91
TP-105 ESHGW=191.3
TP-206 ESHGW=191.0
RIM=197.80
RIM=197.80
197.80
197.76
197.66
197.59
197.50
RIM=198.49
RIM=198.41
HP 200.33
TC=BC 199.99
TC=BC 199.60
198.40
HP 198.40
197.30
199.00
199.00
198.40
TP-204 ESHGW=INDETERMINATE
TP-205 ESHGW=INDETERMINATE
TP-207 ESHGW=192.0
TP-208 ESHGW=189.0
TP-209 ESHGW=NONE
TP-101 ESHGW=191.2
PROP SAWCUT (TYP.)
RIM=198.78
RIM=198.70
PROP SAWCUT (TYP.)
ET&C
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
EDGE OF WOODS
EDGE OF WOODS
MAP 35 LOT 163 N/F LANDS OF M.M.R. REALTY CO., INC. BK. 4397 PG. 16
1 STORY MASONRY BUILDING
MAP 35 LOT 215 N/F LANDS OF INEZ T. CAVALLARO BK. 21818 PG. 199
1 STORY MASONRY BUILDING
1 STORY MASONRY BUILDING
P.O.B. EXHIBIT "A" (TRACT 2)

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REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-GRAD-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER//
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
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MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-401

30 15 7.5 0 30
1"= 30'

SHEET TITLE:

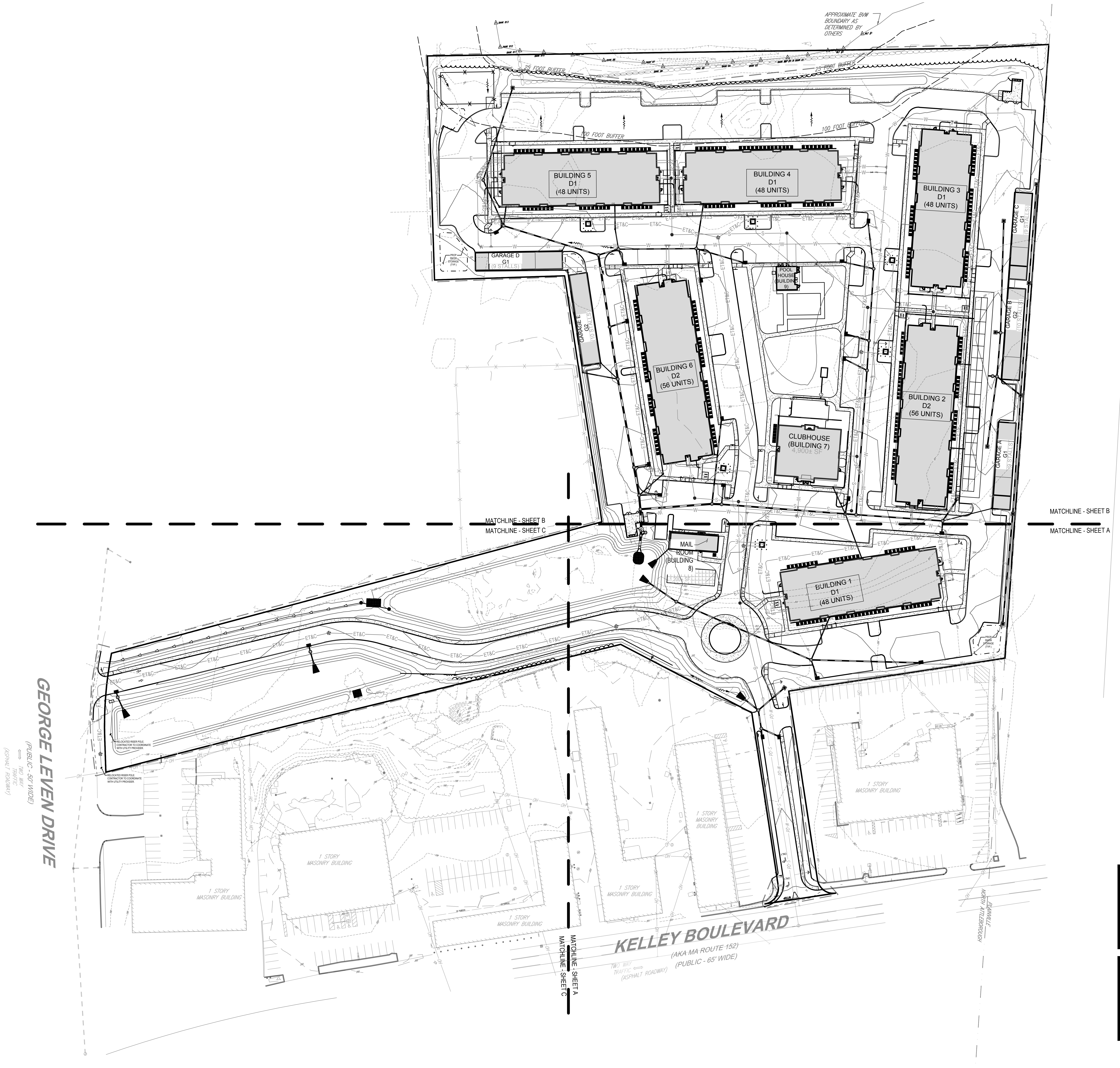
GRADING PLAN C

SHEET NUMBER:

C-404

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-GRAD-1A----->LAYOUT: C-404 GRAD C
AO


APPROXIMATE BVW BOUNDARY AS DETERMINED BY OTHERS
WLF #1
WLF #2
BANK WLF #4 & BANK B1
25 FOOT BUFFER
25 FOOT BUFFER
100 FOOT BUFFER
100 FOOT BUFFER
BUILDING 5
D1
(48 UNITS)
BUILDING 4
D1
(48 UNITS)
BUILDING 3
D1
(48 UNITS)
GARAGE C
G1
(9 STALLS)
GARAGE D
G1
(9 STALLS)
PROP SNOW STORAGE (TYP.)
GARAGE E
G2
(10 STALLS)
POOL HOUSE (BUILDING 9)
BUILDING 6
D2
(56 UNITS)
GARAGE B
G2
(10 STALLS)
BUILDING 2
D2
(56 UNITS)
CLUBHOUSE
(BUILDING 7)
4,900± SF
GARAGE A
G1
(9 STALLS)
MATCHLINE - SHEET B
MATCHLINE - SHEET C
MATCHLINE - SHEET B
MATCHLINE - SHEET A
MAIL ROOM (BUILDING 8)
BUILDING 1
D1
(48 UNITS)
ET&C
E
W
C/O
RELOCATED RISER POLE. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.
RELOCATED RISER POLE. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)
OH
1 STORY MASONRY BUILDING
1 STORY MASONRY BUILDING
1 STORY MASONRY BUILDING
1 STORY MASONRY BUILDING
1 STORY MASONRY BUILDING
1 STORY MASONRY BUILDING
1 STORY MASONRY BUILDING
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)
NORTH ATTLEBOROUGH
PLAINVILLE
MATCHLINE - SHEET A
MATCHLINE - SHEET C

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

INDIVIDUAL DOWNSPOUTS NOT DEPICTED. REFER TO ARCH/MEP PLANS FOR LOCATIONS. DOWNSPOUTS TO CONNECT TO COLLECTOR PIPE WITH SHORTEST CONNECTION

THIS PLAN TO BE UTILIZED FOR DRAINAGE PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES

60 30 15 0 60
1"= 60'

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REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-UTIL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

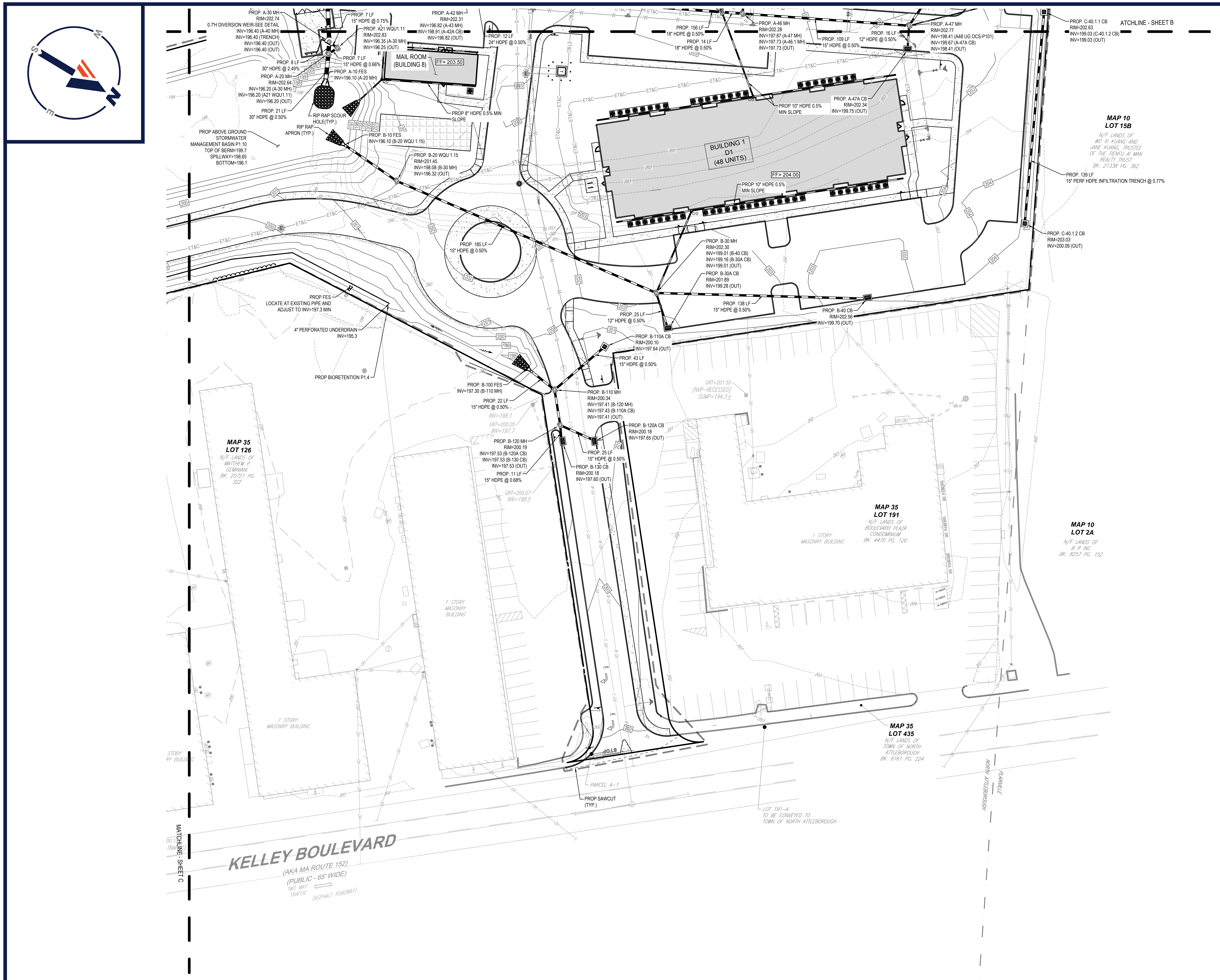
OVERALL DRAINAGE PLAN

SHEET NUMBER:

C-451

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-UTIL-1A---->LAYOUT: C-451 DRAIN OVERALL
AO


PROP. A-30 MH
RIM=202.74
0.7'H DIVERSION WEIR-SEE DETAIL
INV=196.40 (A-40 MH)
INV=196.40 (TRENCH)
INV=196.40 (OUT)
INV=196.40 (OUT)
PROP. 7 LF
15" HDPE @ 0.75%
PROP. A21 WQU1.11
RIM=202.83
INV=196.35 (A-30 MH)
INV=196.25 (OUT)
PROP. A-42 MH
RIM=202.31
INV=196.82 (A-43 MH)
INV=198.91 (A-42A CB)
INV=196.82 (OUT)
PROP. 12 LF
24" HDPE @ 0.50%
PROP. 8 LF
30" HDPE @ 2.49%
PROP. 7 LF
15" HDPE @ 0.66%
MAIL ROOM
(BUILDING 8)
FF= 203.50
PROP. A-20 MH
RIM=202.64
INV=196.20 (A-30 MH)
INV=196.20 (A21 WQU1.11)
INV=196.20 (OUT)
PROP. A-10 FES
INV=196.10 (A-20 MH)
PROP. 21 LF
30" HDPE @ 0.50%
RIP RAP SCOUR
HOLE(TYP.)
PROP 8" HDPE 0.5% MIN
SLOPE
PROP ABOVE GROUND
STORMWATER
MANAGEMENT BASIN P1.10
TOP OF BERM=199.7
SPILLWAY=198.65
BOTTOM=196.1
RIP RAP
APRON (TYP.)
PROP. B-10 FES
INV=196.10 (B-20 WQU 1.15)
PROP. B-20 WQU 1.15
RIM=201.45
INV=198.08 (B-30 MH)
INV=196.32 (OUT)
PROP. 156 LF
18" HDPE @ 0.50%
PROP. 14 LF
18" HDPE @ 0.50%
PROP. A-46 MH
RIM=202.28
INV=197.87 (A-47 MH)
INV=197.73 (A-46.1 MH)
INV=197.73 (OUT)
PROP. 109 LF
15" HDPE @ 0.50%
PROP. 16 LF
12" HDPE @ 0.50%
PROP. A-47 MH
RIM=202.77
INV=198.41 (A48 UG OCS-P101)
INV=199.67 (A-47A CB)
INV=198.41 (OUT)
PROP. C-40.1.1 CB
RIM=202.63
INV=199.03 (C-40.1.2 CB)
INV=199.03 (OUT)
ATCHLINE - SHEET B
PROP 10" HDPE 0.5%
MIN SLOPE
PROP. A-47A CB
RIM=202.34
INV=199.75 (OUT)
BUILDING 1
D1
(48 UNITS)
FF= 204.00
PROP 10" HDPE 0.5%
MIN SLOPE
MAP 10
LOT 15B
N/F LANDS OF
WO XI KUANG AND
JANE KUANG, TRUSTEE
OF THE TIENFU AI MAN
REALTY TRUST
BK. 21338 PG. 362
PROP. 139 LF
15" PERF HDPE INFILTRATION TRENCH @ 0.77%
PROP. C-40.1.2 CB
RIM=203.03
INV=200.09 (OUT)
PROP. 185 LF
15" HDPE @ 0.50%
PROP. B-30 MH
RIM=202.30
INV=199.01 (B-40 CB)
INV=199.16 (B-30A CB)
INV=199.01 (OUT)
PROP. B-30A CB
RIM=201.89
INV=199.28 (OUT)
PROP. 138 LF
15" HDPE @ 0.50%
PROP. B-40 CB
RIM=202.56
INV=199.70 (OUT)
PROP. 25 LF
12" HDPE @ 0.50%
PROP FES
LOCATE AT EXISTING PIPE AND
ADJUST TO INV=197.3 MIN
4" PERFORATED UNDERDRAIN
INV=195.3
PROP BIORETENTION P1.4
PROP. B-110A CB
RIM=200.10
INV=197.64 (OUT)
PROP. 43 LF
15" HDPE @ 0.50%
GRT=201.55
(NVP-RECESSED)
SUMP=194.3±
PROP. B-100 FES
INV=197.30 (B-110 MH)
PROP. 22 LF
15" HDPE @ 0.50%
INV=198.1
GRT=200.05
INV=197.7
PROP. B-110 MH
RIM=200.34
INV=197.41 (B-120 MH)
INV=197.43 (B-110A CB)
INV=197.41 (OUT)
PROP. B-120A CB
RIM=200.18
INV=197.65 (OUT)
PROP. B-120 MH
RIM=200.19
INV=197.53 (B-120A CB)
INV=197.53 (B-130 CB)
INV=197.53 (OUT)
PROP. 25 LF
15" HDPE @ 0.50%
PROP. B-130 CB
RIM=200.18
INV=197.60 (OUT)
PROP. 11 LF
15" HDPE @ 0.68%
GRT=200.07
INV=198.5
MAP 35
LOT 126
N/F LANDS OF
MATTHEW P.
GEMINIANI
BK. 20721 PG.
322
1 STORY
MASONRY BUILDING
1 STORY
MASONRY
BUILDING
MAP 35
LOT 191
N/F LANDS OF
BOULEVARD PLAZA
CONDOMINIUM
BK. 4470 PG. 120
1 STORY
MASONRY BUILDING
NO PARKING
MAP 10
LOT 2A
N/F LANDS OF
B R INC
BK. 8257 PG. 152
MAP 35
LOT 435
N/F LANDS OF
TOWN OF NORTH
ATTLEBOROUGH
BK. 6161 PG. 224
LOT 191-A
TO BE CONVEYED TO
TOWN OF NORTH ATTLEBOROUGH
PLAINVILLE
NORTH ATTLEBOROUGH
STOP
ONLY
PARCEL A-1
PROP SAWCUT
(TYP.)
STORY
RY BUILDING
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY
TRAFFIC
(ASPHALT ROADWAY)
MATCHLINE - SHEET C
N
E
S
W
ET&C
W
S
E
OH
C/O
196
197
198
199
200
201
202
203
204

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REVISIONS

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1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-UTIL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
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MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

DRAINAGE PLAN A

SHEET NUMBER:

C-452

REVISION 2 - 11/25/2024

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR DATE

VICE CHAIR DATE

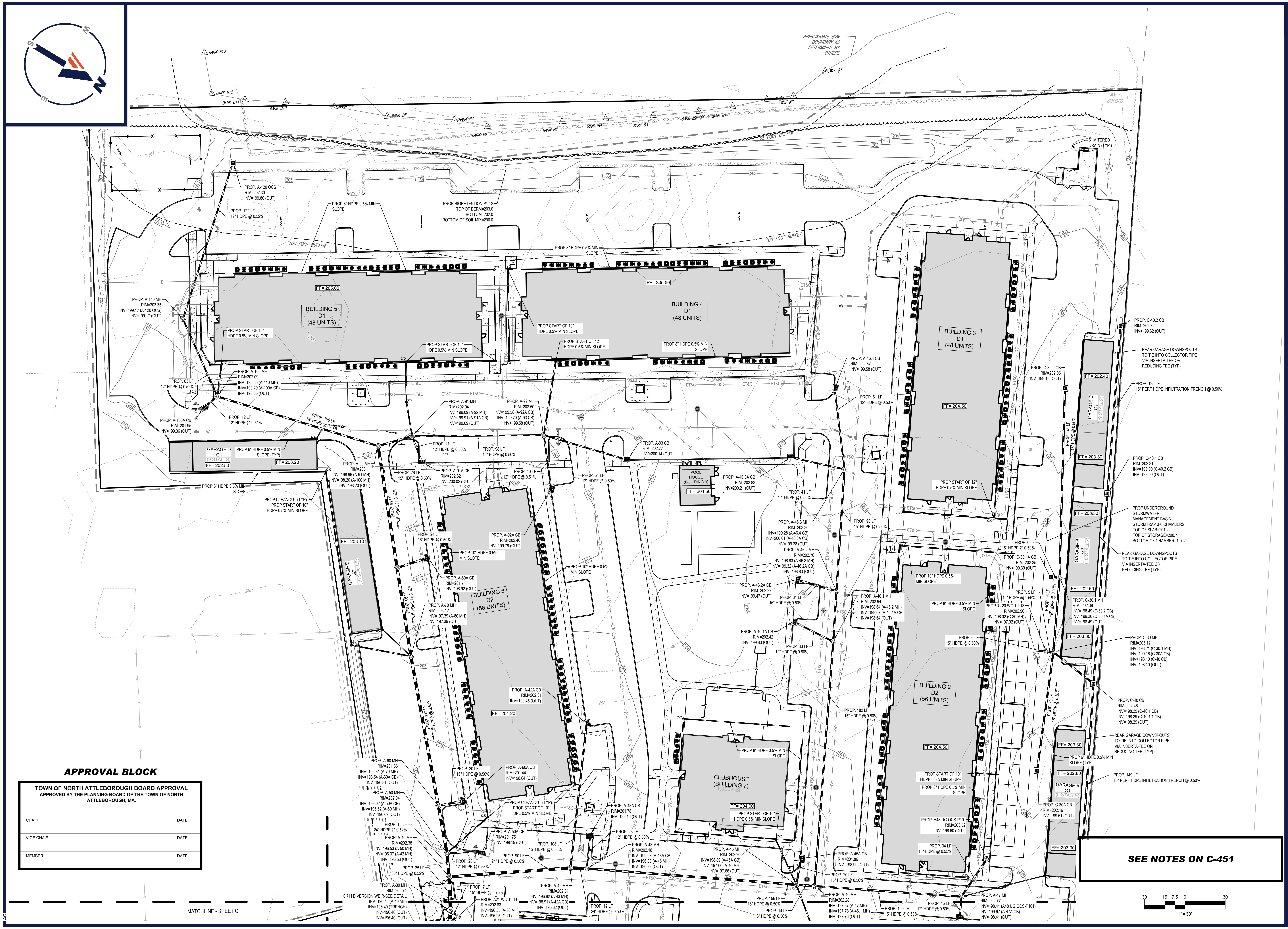
MEMBER DATE

SEE NOTES ON C-451

30 15 7.5 0 30
1"= 30'

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-UTIL-1A---->LAYOUT: C-452 DRAIN A

AO


N
E
S
W
BANK B13
BANK B12
BANK B11
BANK B10
BANK B9
BANK B8
BANK B7
BANK B6
BANK B5
BANK B4
BANK B3
BANK WLF #4 & BANK B1
WLF #1
WLF #2
WLF #3
APPROXIMATE BVW BOUNDARY AS DETERMINED BY OTHERS
25 FOOT BUFFER
100 FOOT BUFFER
WOODED
6" MITERED DRAIN (TYP.)
PROP. A-120 OCS
RIM=202.30
INV=199.80 (OUT)
PROP. 122 LF
12" HDPE @ 0.52%
PROP BIORETENTION P1.12
TOP OF BERM=203.0
BOTTOM=202.0
BOTTOM OF SOIL MIX=200.0
PROP 8" HDPE 0.5% MIN SLOPE
FF= 205.00
BUILDING 5
D1
(48 UNITS)
BUILDING 4
D1
(48 UNITS)
PROP START OF 10" HDPE 0.5% MIN SLOPE
PROP START OF 12" HDPE 0.5% MIN SLOPE
PROP. A-110 MH
RIM=203.35
INV=199.17 (A-120 OCS)
INV=199.17 (OUT)
PROP. A-100 MH
RIM=202.09
INV=198.85 (A-110 MH)
INV=199.29 (A-100A CB)
INV=198.85 (OUT)
PROP. 63 LF
12" HDPE @ 0.52%
PROP. 12 LF
12" HDPE @ 0.51%
PROP. A-100A CB
RIM=201.95
INV=199.36 (OUT)
PROP. 125 LF
15" HDPE @ 0.52%
GARAGE D
G1
(9 STALLS)
FF= 202.50
FF= 203.20
PROP 6" HDPE 0.5% MIN SLOPE (TYP)
PROP 8" HDPE 0.5% MIN SLOPE
PROP CLEANOUT (TYP).
PROP START OF 10" HDPE 0.5% MIN SLOPE
PROP. A-90 MH
RIM=203.11
INV=198.96 (A-91 MH)
INV=198.20 (A-100 MH)
INV=198.20 (OUT)
PROP. A-91 MH
RIM=202.94
INV=199.09 (A-92 MH)
INV=199.91 (A-91A CB)
INV=199.09 (OUT)
PROP. A-92 MH
RIM=203.50
INV=199.58 (A-92A CB)
INV=199.70 (A-93 CB)
INV=199.58 (OUT)
PROP. 21 LF
12" HDPE @ 0.50%
PROP. 98 LF
12" HDPE @ 0.50%
PROP. 26 LF
15" HDPE @ 0.50%
PROP. A-91A CB
RIM=202.62
INV=200.02 (OUT)
PROP. 40 LF
12" HDPE @ 0.51%
PROP. 64 LF
12" HDPE @ 0.69%
PROP. A-93 CB
RIM=202.77
INV=200.14 (OUT)
PROP. 91 LF
24" HDPE @ 0.52%
FF= 203.10
GARAGE E
G2
(10 STALLS)
PROP. 24 LF
16" HDPE @ 0.50%
PROP 10" HDPE 0.5% MIN SLOPE
PROP. A-92A CB
RIM=202.40
INV=199.79 (OUT)
PROP. A-80A CB
RIM=201.71
INV=198.92 (OUT)
BUILDING 6
D2
(56 UNITS)
PROP. 66 LF
24" HDPE @ 0.52%
PROP. A-70 MH
RIM=203.12
INV=197.39 (A-80 MH)
INV=197.39 (OUT)
PROP. 113 LF
24" HDPE @ 0.52%
PROP. A-42A CB
RIM=202.31
INV=199.45 (OUT)
FF= 204.20
PROP. A-60 MH
RIM=201.66
INV=196.81 (A-70 MH)
INV=198.54 (A-60A CB)
INV=196.81 (OUT)
PROP. 20 LF
16" HDPE @ 0.50%
PROP. A-60A CB
RIM=201.44
INV=198.64 (OUT)
PROP. A-50 MH
RIM=202.04
INV=199.02 (A-50A CB)
INV=196.62 (A-60 MH)
INV=196.62 (OUT)
PROP. 18 LF
24" HDPE @ 0.52%
PROP. A-40 MH
RIM=202.38
INV=196.53 (A-50 MH)
INV=196.37 (A-42 MH)
INV=196.53 (OUT)
PROP. A-50A CB
RIM=201.75
INV=199.15 (OUT)
PROP. 26 LF
12" HDPE @ 0.53%
PROP. 108 LF
15" HDPE @ 0.50%
PROP. 90 LF
24" HDPE @ 0.50%
PROP. 25 LF
30" HDPE @ 0.52%
PROP. A-43A CB
RIM=201.78
INV=199.16 (OUT)
PROP. 25 LF
12" HDPE @ 0.50%
PROP. A-43 MH
RIM=202.18
INV=199.03 (A-43A CB)
INV=196.88 (A-45 MH)
INV=196.88 (OUT)
PROP. A-30 MH
RIM=202.74
0.7'H DIVERSION WEIR-SEE DETAIL
INV=196.40 (A-40 MH)
INV=196.40 (TRENCH)
INV=196.40 (OUT)
INV=196.40 (OUT)
PROP. 7 LF
15" HDPE @ 0.75%
PROP. A21 WQU1.11
RIM=202.83
INV=196.35 (A-30 MH)
INV=196.25 (OUT)
PROP. A-42 MH
RIM=202.31
INV=196.82 (A-43 MH)
INV=198.91 (A-42A CB)
INV=196.82 (OUT)
PROP. 12 LF
24" HDPE @ 0.50%
MATCHLINE - SHEET C
POOL HOUSE (BUILDING 9)
FF= 204.50
PROP. A-46.4 CB
RIM=202.87
INV=199.58 (OUT)
PROP. 61 LF
12" HDPE @ 0.50%
PROP. A-46.3A CB
RIM=202.83
INV=200.21 (OUT)
PROP. 41 LF
12" HDPE @ 0.50%
PROP. A-46.3 MH
RIM=203.30
INV=199.28 (A-46.4 CB)
INV=200.01 (A-46.3A CB)
INV=199.28 (OUT)
PROP. 90 LF
15" HDPE @ 0.50%
PROP. A-46.2 MH
RIM=202.76
INV=198.83 (A-46.3 MH)
INV=199.32 (A-46.2A CB)
INV=198.83 (OUT)
PROP. A-46.2A CB
RIM=202.27
INV=199.47 (OUT)
PROP. 31 LF
16" HDPE @ 0.50%
PROP. A-46.1 MH
RIM=202.94
INV=198.64 (A-46.2 MH)
INV=199.67 (A-46.1A CB)
INV=198.64 (OUT)
PROP. A-46.1A CB
RIM=202.42
INV=199.83 (OUT)
PROP. 33 LF
12" HDPE @ 0.50%
PROP. 182 LF
15" HDPE @ 0.50%
CLUBHOUSE
(BUILDING 7)
4,900± SF
FF= 204.00
PROP. A-45 MH
RIM=202.26
INV=198.89 (A-45A CB)
INV=197.66 (A-46 MH)
INV=197.66 (OUT)
PROP. A-45A CB
RIM=201.86
INV=198.99 (OUT)
PROP. 20 LF
15" HDPE @ 0.50%
PROP. 156 LF
18" HDPE @ 0.50%
PROP. 14 LF
18" HDPE @ 0.50%
PROP. A-46 MH
RIM=202.28
INV=197.87 (A-47 MH)
INV=197.73 (A-46.1 MH)
INV=197.73 (OUT)
PROP. 109 LF
15" HDPE @ 0.50%
PROP. 16 LF
12" HDPE @ 0.50%
PROP. A-47 MH
RIM=202.77
INV=198.41 (A48 UG OCS-P101)
INV=199.67 (A-47A CB)
INV=198.41 (OUT)
BUILDING 3
D1
(48 UNITS)
FF= 204.50
PROP. C-30.2 CB
RIM=202.05
INV=199.19 (OUT)
PROP. C-40.2 CB
RIM=202.32
INV=199.62 (OUT)
REAR GARAGE DOWNSPOUTS TO TIE INTO COLLECTOR PIPE VIA INSERTA-TEE OR REDUCING TEE (TYP)
PROP. 125 LF
15" PERF HDPE INFILTRATION TRENCH @ 0.50%
GARAGE C
G1
(9 STALLS)
FF= 202.40
PROP. 141 LF
15" HDPE @ 0.50%
FF= 203.30
PROP. C-40.1 CB
RIM=202.31
INV=199.00 (C-40.2 CB)
INV=199.00 (OUT)
PROP UNDERGROUND STORMWATER MANAGEMENT BASIN
STORMTRAP 3-6 CHAMBERS
TOP OF SLAB=201.2
TOP OF STORAGE=200.7
BOTTOM OF CHAMBER=197.2
GARAGE B
G2
(10 STALLS)
FF= 202.60
PROP. 6 LF
15" HDPE @ 0.50%
PROP. C-30.1A CB
RIM=202.25
INV=199.39 (OUT)
PROP. 5 LF
15" HDPE @ 1.56%
PROP. 55 LF
15" HDPE @ 0.50%
PROP. C-20 WQU 1.13
RIM=202.96
INV=198.02 (C-30 MH)
INV=197.92 (OUT)
PROP. C-30.1 MH
RIM=202.38
INV=198.49 (C-30.2 CB)
INV=199.36 (C-30.1A CB)
INV=198.49 (OUT)
PROP. C-30 MH
RIM=203.12
INV=198.21 (C-30.1 MH)
INV=199.16 (C-30A CB)
INV=198.10 (C-40 CB)
INV=198.10 (OUT)
BUILDING 2
D2
(56 UNITS)
PROP 10" HDPE 0.5% MIN SLOPE
PROP 8" HDPE 0.5% MIN SLOPE
PROP START OF 10" HDPE 0.5% MIN SLOPE
PROP. A48 UG OCS-P101
RIM=203.52
INV=198.60 (OUT)
PROP. 34 LF
15" HDPE @ 0.55%
PROP. 89 LF
15" HDPE @ 0.50%
PROP. C-40 CB
RIM=202.46
INV=198.29 (C-40.1 CB)
INV=198.29 (C-40.1.1 CB)
INV=198.29 (OUT)
GARAGE A
G1
(9 STALLS)
FF= 202.80
PROP 6" HDPE 0.5% MIN SLOPE (TYP)
PROP. 149 LF
15" PERF HDPE INFILTRATION TRENCH @ 0.50%
PROP. C-30A CB
RIM=202.46
INV=199.61 (OUT)
ET&C
W
S
E
G
C/O
T
30
15
7.5
0
30
1"= 30'

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-451

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-UTIL-1A—LAYOUT: C-453 DRAIN B

AO

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LAND SURVEYING
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SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-UTIL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

J.A. KUCICH
COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCICH
CIVIL
No. 41530
REGISTERED PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

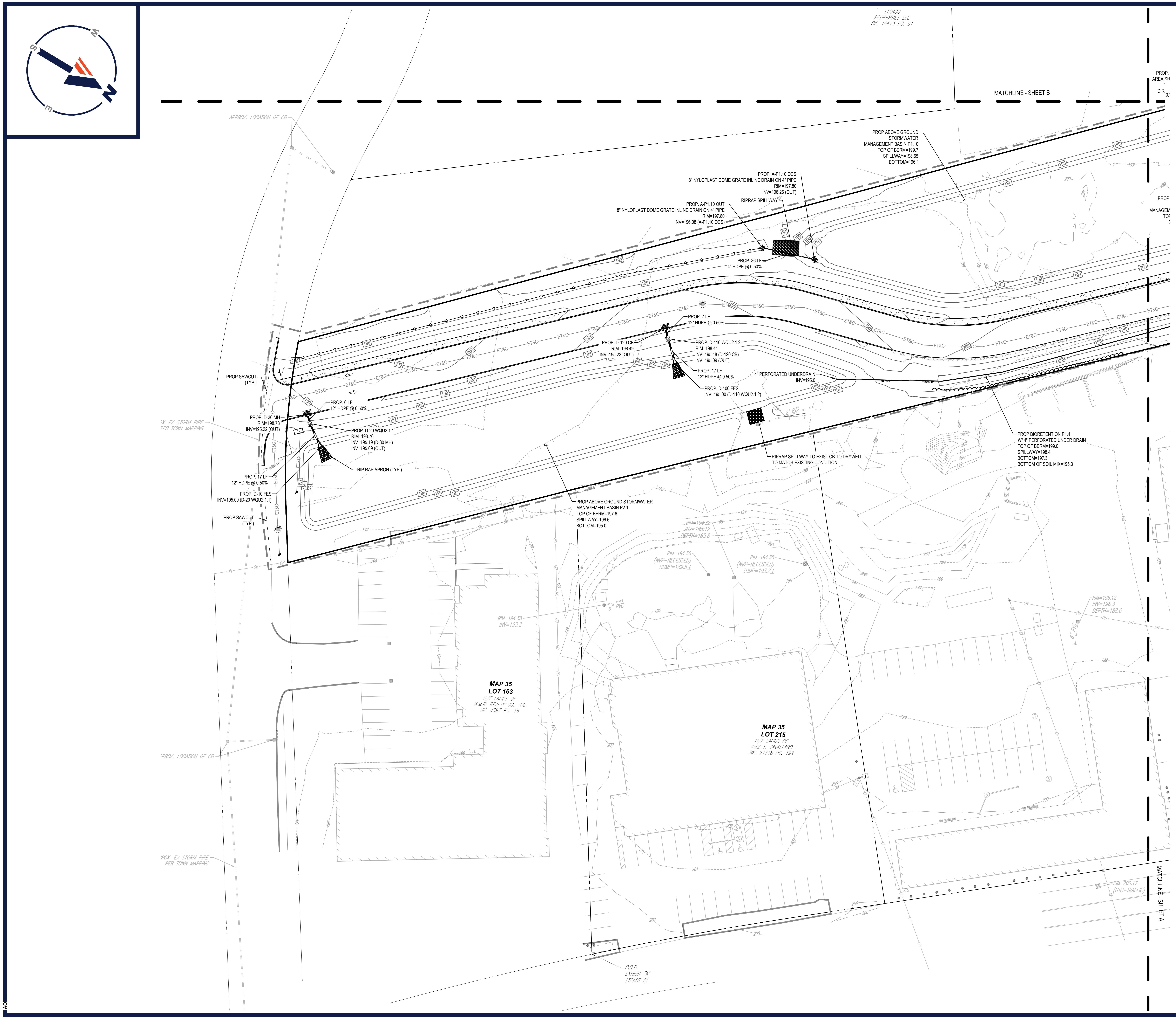
SHEET TITLE:

DRAINAGE PLAN B

SHEET NUMBER:

C-453

REVISION 2 - 11/25/2024



W
S
E
N
STAHOO
PROPERTIES LLC
BK. 16473 PG. 91
MATCHLINE - SHEET B
APPROX. LOCATION OF CB
PROP ABOVE GROUND STORMWATER MANAGEMENT BASIN P1.10 TOP OF BERM=199.7 SPILLWAY=198.65 BOTTOM=196.1
PROP. A-P1.10 OCS 8" NYLOPLAST DOME GRATE INLINE DRAIN ON 4" PIPE RIM=197.80 INV=196.26 (OUT)
RIPRAP SPILLWAY
PROP. A-P1.10 OUT 8" NYLOPLAST DOME GRATE INLINE DRAIN ON 4" PIPE RIM=197.80 INV=196.08 (A-P1.10 OCS)
PROP. 36 LF 4" HDPE @ 0.50%
PROP. 7 LF 12" HDPE @ 0.50%
PROP. D-120 CB RIM=198.49 INV=195.22 (OUT)
PROP. D-110 WQU2.1.2 RIM=198.41 INV=195.18 (D-120 CB) INV=195.09 (OUT)
PROP. 17 LF 12" HDPE @ 0.50%
PROP. D-100 FES INV=195.00 (D-110 WQU2.1.2)
4" PERFORATED UNDERDRAIN INV=195.0
PROP SAWCUT (TYP.)
EX. STORM PIPE PER TOWN MAPPING
PROP. 6 LF 12" HDPE @ 0.50%
PROP. D-30 MH RIM=198.78 INV=195.22 (OUT)
PROP. D-20 WQU2.1.1 RIM=198.70 INV=195.19 (D-30 MH) INV=195.09 (OUT)
RIP RAP APRON (TYP.)
PROP. 17 LF 12" HDPE @ 0.50%
PROP. D-10 FES INV=195.00 (D-20 WQU2.1.1)
PROP SAWCUT (TYP.)
RIPRAP SPILLWAY TO EXIST CB TO DRYWELL TO MATCH EXISTING CONDITION
PROP BIORETENTION P1.4 W/ 4" PERFORATED UNDER DRAIN TOP OF BERM=199.0 SPILLWAY=198.4 BOTTOM=197.3 BOTTOM OF SOIL MIX=195.3
PROP ABOVE GROUND STORMWATER MANAGEMENT BASIN P2.1 TOP OF BERM=197.6 SPILLWAY=196.6 BOTTOM=195.0
RIM=194.32 INV=193.12 DEPTH=185.8
RIM=194.50 (NVP-RECESSED) SUMP=189.5±
RIM=194.35 (NVP-RECESSED) SUMP=193.2±
RIM=194.38 INV=193.2
6" PVC
8" PVC
RIM=198.12 INV=196.3 DEPTH=188.6
MAP 35 LOT 163 N/F LANDS OF M.M.R. REALTY CO., INC. BK. 4397 PG. 16
MAP 35 LOT 215 N/F LANDS OF INEZ T. CAVALLARO BK. 21818 PG. 199
APPROX. LOCATION OF CB
APPROX. EX STORM PIPE PER TOWN MAPPING
RIM=200.17 (UTO-TRAFFIC)
P.O.B. EXHIBIT "A" (TRACT 2)
MATCHLINE - SHEET A
ET&C
OH
195
196
197
198
199
200
201
202

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-451

30 15 7.5 0 30
1"= 30'

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SITE CIVIL AND CONSULTING ENGINEERING
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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-UTIL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
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BRISTOL COUNTY,
MASSACHUSETTS

BOHLER//
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SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530

SHEET TITLE:

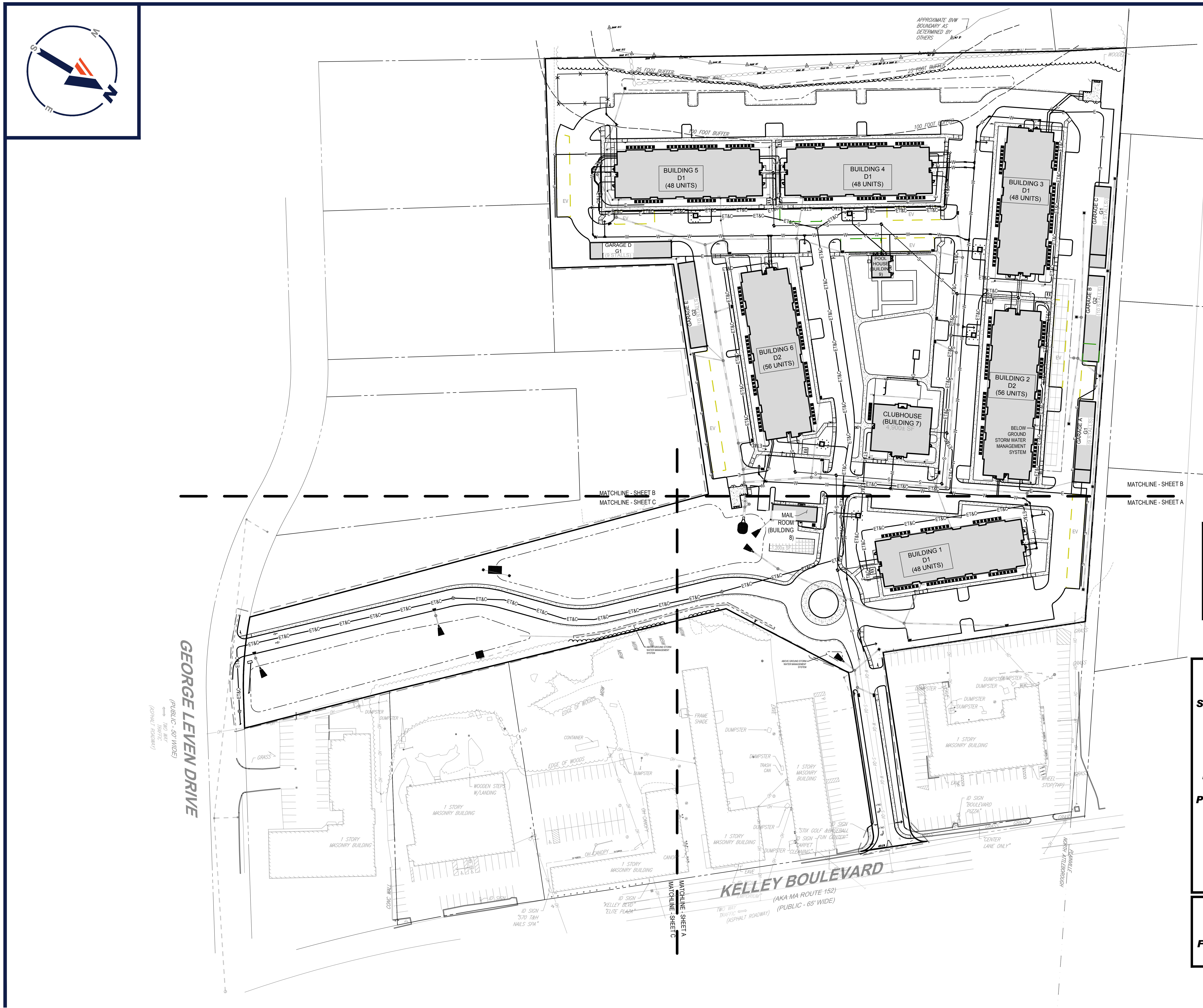
DRAINAGE PLAN C

SHEET NUMBER:

C-454

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-UTIL-1A---->LAYOUT: C-454 DRAIN C
AO


N
E
S
W
APPROXIMATE BVW BOUNDARY AS DETERMINED BY OTHERS
25 FOOT BUFFER
100 FOOT BUFFER
BUILDING 5
D1
(48 UNITS)
BUILDING 4
D1
(48 UNITS)
BUILDING 3
D1
(48 UNITS)
BUILDING 6
D2
(56 UNITS)
BUILDING 2
D2
(56 UNITS)
BELOW GROUND STORM WATER MANAGEMENT SYSTEM
BUILDING 1
D1
(48 UNITS)
POOL HOUSE (BUILDING 9)
CLUBHOUSE (BUILDING 7)
4,900± SF
MAIL ROOM (BUILDING 8)
GARAGE A
G1
GARAGE B
G2
GARAGE C
G1
GARAGE D
G1
(8 STALLS)
GARAGE E
G2
EV
ET&C
MATCHLINE - SHEET B
MATCHLINE - SHEET C
MATCHLINE - SHEET B
MATCHLINE - SHEET A
MATCHLINE - SHEET A
MATCHLINE - SHEET C
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
1 STORY MASONRY BUILDING
DUMPSTER
EDGE OF WOODS
CONTAINER
WOODEN STEPS W/LANDING
GRASS
FRAME SHADE
TRASH CAN
ID SIGN "BOULEVARD PIZZA"
ID SIGN "570 T&H NAILS SPA"
ID SIGN "KELLEY BLVD ELITE PLAZA"
CENTER LANE ONLY
WHEEL STOP(TYP)

EV PARKING

- 14 AT OCCUPANCY (GREEN DASHED LINE 🟩)
- 84 FUTURE (YELLOW DASHED LINE 🟨)

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

TRANSFORMER NOTE:

GC SHALL PROVIDE ALL APPURTENANCES IN ACCORDANCE WITH UTILITY COMPANY SPECIFICATIONS AND CARRY SAME IN BASE BID. APPURTENANCES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE CONCRETE PAD, SECONDARY SPILL CONTAINMENT AREAS (IF REQUIRED), BOLLARD / VEHICULAR PROTECTION, AND OTHER ITEMS AS MAY BE REQUIRED BY THE UTILITY PROVIDER FOR INSTALLATION OF THE TRANSFORMER. GC SHALL COORDINATE ALL ASPECTS OF INSTALLATION WITH UTILITY PROVIDER PRIOR TO ORDERING OF MATERIALS AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS IN WRITING.

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

60 30 15 0 60
1"= 60'

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-UTIL-1A----->LAYOUT: C-501 UTIL OVERALL

AO

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DATE:	9/18/2024
CAD I.D.:	W211244-UTIL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530
PROFESSIONAL ENGINEER
MAINE LICENSE No. 12553

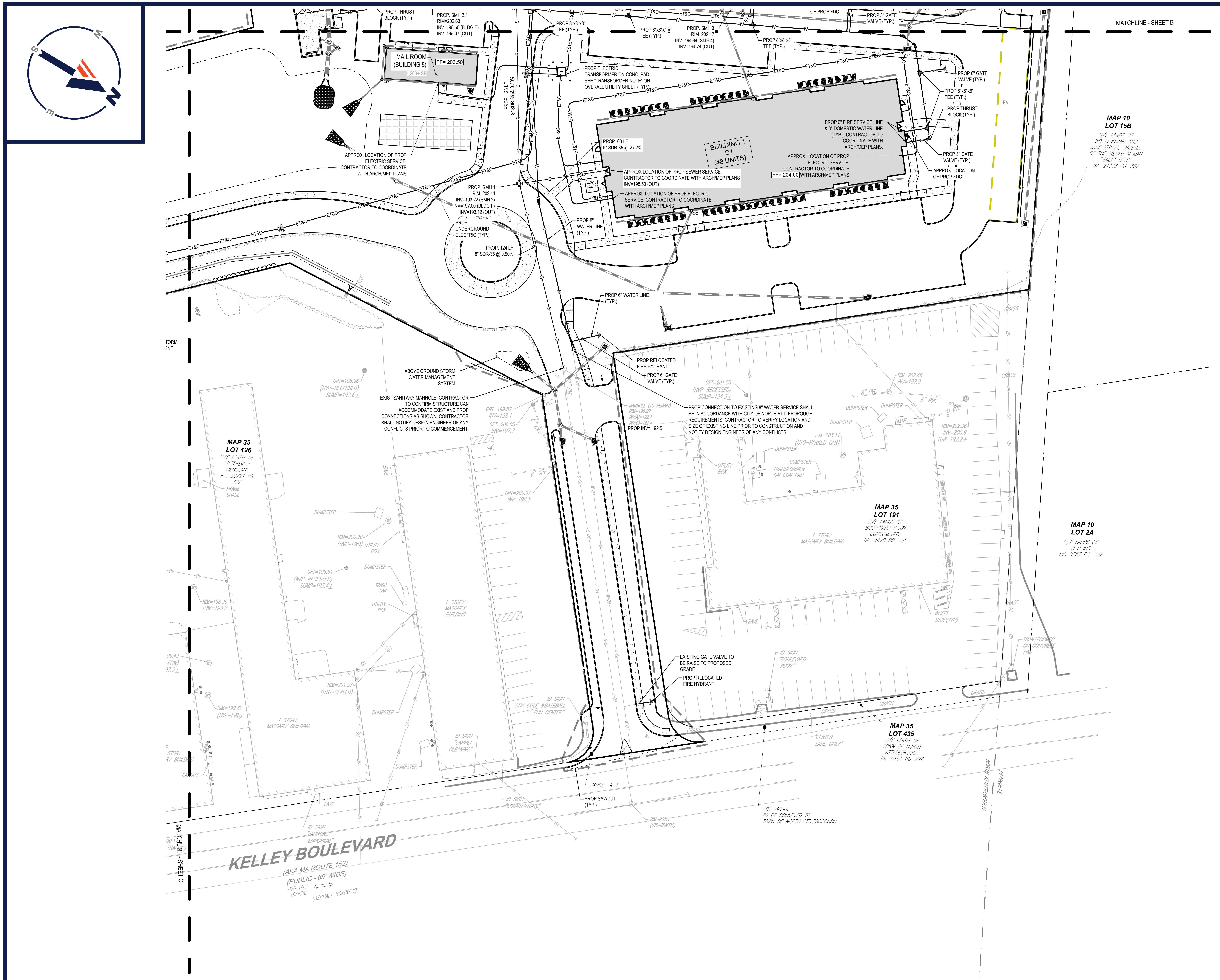
SHEET TITLE:

OVERALL UTILITY PLAN

SHEET NUMBER:

C-501

REVISION 2 - 11/25/2024


N
S
E
W
PROP THRUST BLOCK (TYP.)
PROP. SMH 2.1
RIM=202.63
INV=198.50 (BLDG E)
INV=195.07 (OUT)
PROP 8"x8"x8" TEE (TYP.)
PROP 8"x8"x1½" TEE (TYP.)
PROP. SMH 3
RIM=202.17
INV=194.84 (SMH 4)
INV=194.74 (OUT)
PROP 8"x8"x8" TEE (TYP.)
OF PROP FDC
PROP 3" GATE VALVE (TYP.)
MATCHLINE - SHEET B
MAIL ROOM (BUILDING 8)
1,200± SF
FF= 203.50
PROP ELECTRIC TRANSFORMER ON CONC. PAD. SEE "TRANSFORMER NOTE" ON OVERALL UTILITY SHEET (TYP.)
PROP. 128 LF 8" SDR-35 @ 0.50%
PROP 6" GATE VALVE (TYP.)
PROP 8"x8"x6" TEE (TYP.)
PROP THRUST BLOCK (TYP.)
EV
MAP 10
LOT 15B
N/F LANDS OF WO XI KUANG AND JANE KUANG, TRUSTEE OF THE TIENFU AI MAN REALTY TRUST BK. 21338 PG. 362
PROP 6" FIRE SERVICE LINE & 3" DOMESTIC WATER LINE (TYP.). CONTRACTOR TO COORDINATE WITH ARCH/MEP PLANS.
BUILDING 1
D1
(48 UNITS)
PROP. 60 LF 6" SDR-35 @ 2.52%
APPROX. LOCATION OF PROP ELECTRIC SERVICE. CONTRACTOR TO COORDINATE WITH ARCH/MEP PLANS
FF= 204.00
PROP 3" GATE VALVE (TYP.)
APPROX. LOCATION OF PROP FDC
APPROX. LOCATION OF PROP ELECTRIC SERVICE. CONTRACTOR TO COORDINATE WITH ARCH/MEP PLANS
APPROX LOCATION OF PROP SEWER SERVICE. CONTRACTOR TO COORDINATE WITH ARCH/MEP PLANS INV=198.50 (OUT)
APPROX. LOCATION OF PROP ELECTRIC SERVICE. CONTRACTOR TO COORDINATE WITH ARCH/MEP PLANS
PROP. SMH 1
RIM=202.41
INV=193.22 (SMH 2)
INV=197.00 (BLDG F)
INV=193.12 (OUT)
PROP UNDERGROUND ELECTRIC (TYP.)
PROP 8" WATER LINE (TYP.)
PROP. 124 LF 8" SDR-35 @ 0.50%
12" RCP
PROP 6" WATER LINE (TYP.)
ET&C
W
S
E
C/O
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
EXIST SANITARY MANHOLE. CONTRACTOR TO CONFIRM STRUCTURE CAN ACCOMMODATE EXIST AND PROP CONNECTIONS AS SHOWN. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER OF ANY CONFLICTS PRIOR TO COMMENCEMENT.
PROP RELOCATED FIRE HYDRANT
PROP 6" GATE VALVE (TYP.)
MANHOLE (TO REMAIN)
RIM=199.97
INV(A)=192.7
INV(B)=192.4
PROP INV= 192.5
PROP CONNECTION TO EXISTING 8" WATER SERVICE SHALL BE IN ACCORDANCE WITH CITY OF NORTH ATTLEBOROUGH REQUIREMENTS. CONTRACTOR TO VERIFY LOCATION AND SIZE OF EXISTING LINE PRIOR TO CONSTRUCTION AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS.
GRT=198.96
(NVP-RECESSED)
SUMP=192.6±
GRT=199.87
INV=198.1
GRT=200.05
INV=197.7
GRT=200.07
INV=198.5
6" CPP
8" CPP
PVC
GRT=201.55
(NVP-RECESSED)
SUMP=194.3±
RIM=202.46
INV=197.9
6" PVC
DUMPSTER
RIM=203.11
(UTO-PARKED CAR)
UTILITY BOX
TRANSFORMER ON CON PAD
RIM=202.36
INV=200.9
TOW=192.2±
MAP 35
LOT 191
N/F LANDS OF BOULEVARD PLAZA CONDOMINIUM BK. 4470 PG. 120
1 STORY MASONRY BUILDING
MAP 10
LOT 2A
N/F LANDS OF B R INC BK. 8257 PG. 152
GRASS
TRANSFORMER ON CONCRETE PAD
WHEEL STOP(TYP)
EAVE
MAP 35
LOT 126
N/F LANDS OF MATTHEW P. GEMINIANI BK. 20721 PG. 322
FRAME SHADE
DUMPSTER
RIM=200.90
(NVP-FWD)
UTILITY BOX
GRT=199.91
(NVP-RECESSED)
SUMP=193.4±
TRASH CAN
RIM=198.95
TOW=193.2
RIM=199.82
(NVP-FWD)
RIM=201.57
(UTO-SEALED)
1 STORY MASONRY BUILDING
CANOPY
ID SIGN "CARPET CLEANING"
ID SIGN "STIX GOLF &BASEBALL FUN CENTER"
EXISTING GATE VALVE TO BE RAISE TO PROPOSED GRADE
PROP RELOCATED FIRE HYDRANT
ID SIGN "BOULEVARD PIZZA"
"CENTER LANE ONLY"
MAP 35
LOT 435
N/F LANDS OF TOWN OF NORTH ATTLEBOROUGH BK. 6161 PG. 224
PARCEL A-1
PROP SAWCUT (TYP.)
ID SIGN "COUNTERTOPS"
RIM=202.1
(UTO-TRAFFIC)
LOT 191-A TO BE CONVEYED TO TOWN OF NORTH ATTLEBOROUGH
ID SIGN "JANITORS EMPORIUM"
NORTH ATTLEBOROUGH
PLAINVILLE
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)
MATCHLINE - SHEET C
OH
PO-S
PO-W

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-501

30 15 7.5 0 30
1"= 30'

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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
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DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-UTIL-1A

PROJECT:

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MARCUS PARTNERS

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Phone: (508) 480-9900
www.BohlerEngineering.com

J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530

SHEET TITLE:

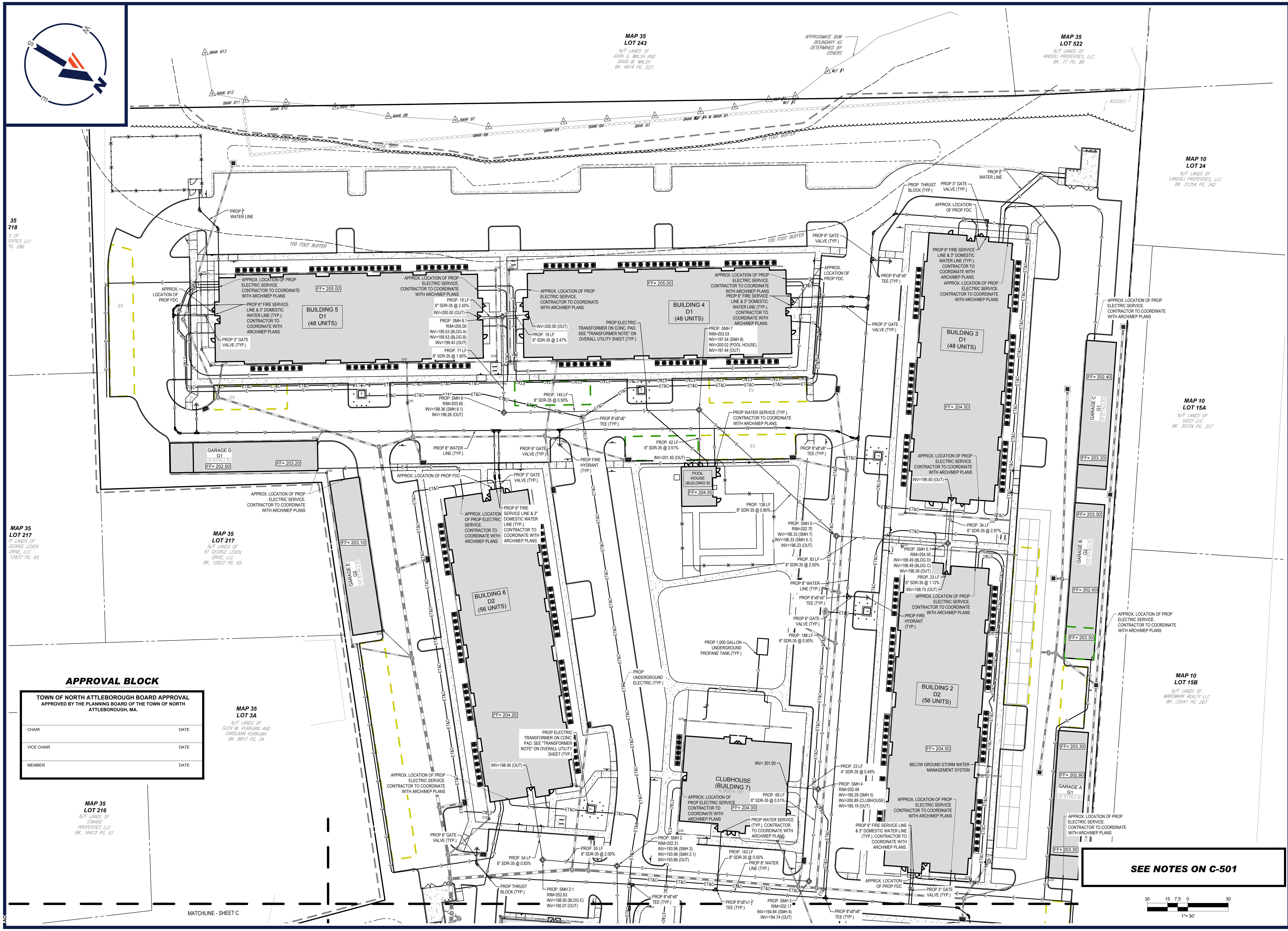
UTILITY PLAN A

SHEET NUMBER:

C-502

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-UTIL-1A----->LAYOUT: C-502 UTIL A
AO


MAP 35
LOT 243
N/F LANDS OF
JOHN G. WALSH AND
DAVID M. WALSH
BK. 4914 PG. 223
APPROXIMATE BVW BOUNDARY AS DETERMINED BY OTHERS
WLF #1
WLF #2
WLF #3
MAP 35
LOT 522
N/F LANDS OF
IANDOLI PROPERTIES, LLC.
BK. 77 PG. 88
WOODED
BANK B13
BANK B12
BANK B11
BANK B10
BANK B9
BANK B8
BANK B7
BANK B6
BANK B5
BANK B4
BANK B3
BANK WLF #4 & BANK B1
25 FOOT BUFFER
STONE WALL
100 FOOT BUFFER
MAP 10
LOT 24
N/F LANDS OF
LANDOLI PROPERTIES, LLC
BK. 31254 PG. 242
35
218
S OF
ERTIES LLC
G. 286
PROP ¾" WATER LINE
APPROX. LOCATION OF PROP FDC
EV
APPROX. LOCATION OF PROP ELECTRIC SERVICE. CONTRACTOR TO COORDINATE WITH ARCH/MEP PLANS
PROP 6" FIRE SERVICE LINE & 3" DOMESTIC WATER LINE (TYP.). CONTRACTOR TO COORDINATE WITH ARCH/MEP PLANS.
PROP 3" GATE VALVE (TYP.)
FF= 205.00
BUILDING 5
D1
(48 UNITS)
PROP. 19 LF
6" SDR-35 @ 2.55%
INV=200.00 (OUT)
PROP. SMH 8.1
RIM=205.00
INV=199.53 (BLDG A)
INV=199.53 (BLDG B)
INV=199.43 (OUT)
PROP. 71 LF
8" SDR-35 @ 1.50%
PROP. SMH 8
RIM=203.65
INV=198.36 (SMH 8.1)
INV=198.26 (OUT)
PROP. 145 LF
8" SDR-35 @ 0.50%
INV=200.00 (OUT)
PROP. 19 LF
6" SDR-35 @ 2.47%
PROP ELECTRIC TRANSFORMER ON CONC. PAD. SEE "TRANSFORMER NOTE" ON OVERALL UTILITY SHEET (TYP.)
FF= 205.00
BUILDING 4
D1
(48 UNITS)
PROP. SMH 7
RIM=203.53
INV=197.54 (SMH 8)
INV=200.02 (POOL HOUSE)
INV=197.44 (OUT)
PROP 6" GATE VALVE (TYP.)
PROP 8"x8"x6" TEE (TYP.)
PROP 3" GATE VALVE (TYP.)
PROP THRUST BLOCK (TYP.)
PROP WATER SERVICE (TYP.). CONTRACTOR TO COORDINATE WITH ARCH/MEP PLANS.
PROP. 42 LF
6" SDR-35 @ 3.51%
INV=201.50 (OUT)
PROP 8"x8"x8" TEE (TYP.)
PROP 8" WATER LINE (TYP.)
PROP FIRE HYDRANT (TYP.)
GARAGE D
G1
(9 STALLS)
FF= 202.50
FF= 203.20
BUILDING 3
D1
(48 UNITS)
FF= 204.50
INV=199.50 (OUT)
PROP. 34 LF
6" SDR-35 @ 2.97%
GARAGE C
G1
(9 STALLS)
FF= 202.40
FF= 203.30
MAP 10
LOT 15A
N/F LANDS OF
SIGGY LLC
BK. 30734 PG. 357
MAP 35
LOT 217
/F LANDS OF
GEORGE LEVEN
DRIVE, LLC
12837 PG. 65
MAP 35
LOT 217
N/F LANDS OF
91 GEORGE LEVEN
DRIVE, LLC
BK. 12837 PG. 65
GARAGE E
G2
(10 STALLS)
FF= 203.10
BUILDING 6
D2
(56 UNITS)
FF= 204.20
INV=198.95 (OUT)
PROP. 54 LF
6" SDR-35 @ 0.83%
PROP. 55 LF
8" SDR-35 @ 2.00%
PROP. SMH 2.1
RIM=202.63
INV=198.50 (BLDG E)
INV=195.07 (OUT)
POOL HOUSE
(BUILDING 9)
FF= 204.50
PROP. 138 LF
8" SDR-35 @ 0.80%
PROP. SMH 5
RIM=202.70
INV=196.33 (SMH 7)
INV=196.33 (SMH 5.1)
INV=196.23 (OUT)
PROP. 83 LF
8" SDR-35 @ 2.50%
PROP. 188 LF
8" SDR-35 @ 0.50%
PROP 1,000 GALLON UNDERGROUND PROPANE TANK (TYP.)
PROP UNDERGROUND ELECTRIC (TYP.)
CLUBHOUSE
(BUILDING 7)
4,900± SF
INV= 201.00
PROP. 69 LF
8" SDR-35 @ 0.51%
FF= 204.00
PROP. 23 LF
4" SDR-35 @ 0.49%
PROP. SMH 4
RIM=202.49
INV=195.29 (SMH 5)
INV=200.89 (CLUBHOUSE)
INV=195.19 (OUT)
PROP. SMH 2
RIM=202.31
INV=193.96 (SMH 3)
INV=193.96 (SMH 2.1)
INV=193.86 (OUT)
PROP. 143 LF
8" SDR-35 @ 0.55%
PROP 8"x8"x1½" TEE (TYP.)
PROP. SMH 3
RIM=202.17
INV=194.84 (SMH 4)
INV=194.74 (OUT)
PROP. SMH 5.1
RIM=204.50
INV=198.49 (BLDG D)
INV=198.49 (BLDG C)
INV=198.39 (OUT)
PROP. 23 LF
6" SDR-35 @ 1.12%
INV=198.75 (OUT)
BUILDING 2
D2
(56 UNITS)
FF= 204.50
BELOW GROUND STORM WATER MANAGEMENT SYSTEM
GARAGE B
G2
(10 STALLS)
FF= 203.30
FF= 202.60
FF= 203.30
GARAGE A
G1
(9 STALLS)
FF= 203.30
FF= 202.80
FF= 203.30
MAP 10
LOT 15B
N/F LANDS OF
MAREMARK REALTY LLC
BK. 33541 PG. 267
MAP 35
LOT 3A
N/F LANDS OF
GLEN M. KURKJIAN AND
CAROLANN KURKJIAN
BK. 8817 PG. 24
MAP 35
LOT 216
N/F LANDS OF
STAHOO
PROPERTIES LLC
BK. 16473 PG. 91
MATCHLINE - SHEET C
ET&C
E
W
S
G
C/O
T
30 15 7.5 0 30
1"= 30'

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-501

BOHLER

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-UTIL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

J.A. KUCICH
JOHN A KUCICH
CIVIL
No. 41530
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

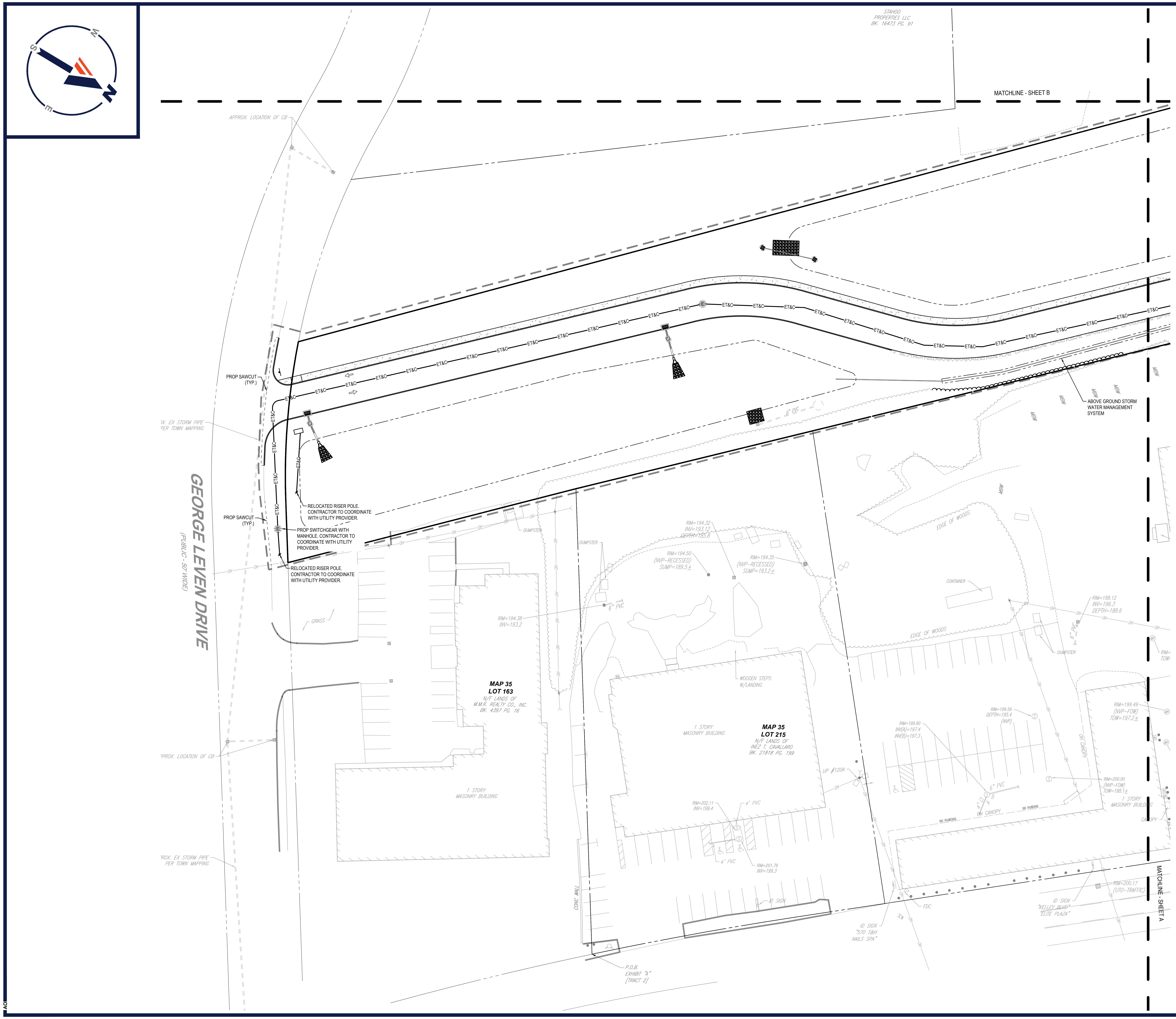
UTILITY PLAN B

SHEET NUMBER:

C-503

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-UTIL-1A----->LAYOUT: C-503 UTIL B
AO


S
W
N
E
MATCHLINE - SHEET B
MATCHLINE - SHEET A
STAHOO PROPERTIES LLC BK. 16473 PG. 91
APPROX. LOCATION OF CB
PROP SAWCUT (TYP.)
APPROX. EX STORM PIPE PER TOWN MAPPING
ET&C
RELOCATED RISER POLE. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.
PROP SWITCHGEAR WITH MANHOLE. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.
RELOCATED RISER POLE. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
MBW
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
GRASS
OH
DUMPSTER
MAP 35
LOT 163
N/F LANDS OF M.M.R. REALTY CO., INC. BK. 4397 PG. 16
1 STORY MASONRY BUILDING
MAP 35
LOT 215
N/F LANDS OF INEZ T. CAVALLARO BK. 21818 PG. 199
WOODEN STEPS W/LANDING
EDGE OF WOODS
CONTAINER
CANOPY
CONC. WALL
P.O.B. EXHIBIT "A" [TRACT 2]
ID SIGN "570 T&H NAILS SPA"
ID SIGN "KELLEY BLVD ELITE PLAZA"
FDC
UP #120A
6" PVC
4" PVC
RIM=194.38 INV=193.2
RIM=194.32 INV=193.12 DEPTH=195.8
RIM=194.50 (NVP-RECESSED) SUMP=189.5±
RIM=194.35 (NVP-RECESSED) SUMP=193.2±
RIM=198.12 INV=196.1 DEPTH=188.6
RIM=199.56 DEPTH=195.4 (NVP)
RIM=199.90 INV(A)=197.4 INV(B)=197.3
RIM=199.49 (NVP-FOW) TOW=197.2±
RIM=200.00 (NVP-FOW) TOW=198.1±
RIM=202.11 INV=199.4
RIM=201.79 INV=199.3
RIM=200.17 (UTO-TRAFFIC)
1 STORY MASONRY BUILDING

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-501

30 15 7.5 0 30
1"= 30'

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DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-UTIL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER//

352 TURNPIKE ROAD
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Phone: (508) 480-9900

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J.A. KUCICH
JOHN A. KUCICH
CIVIL
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PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

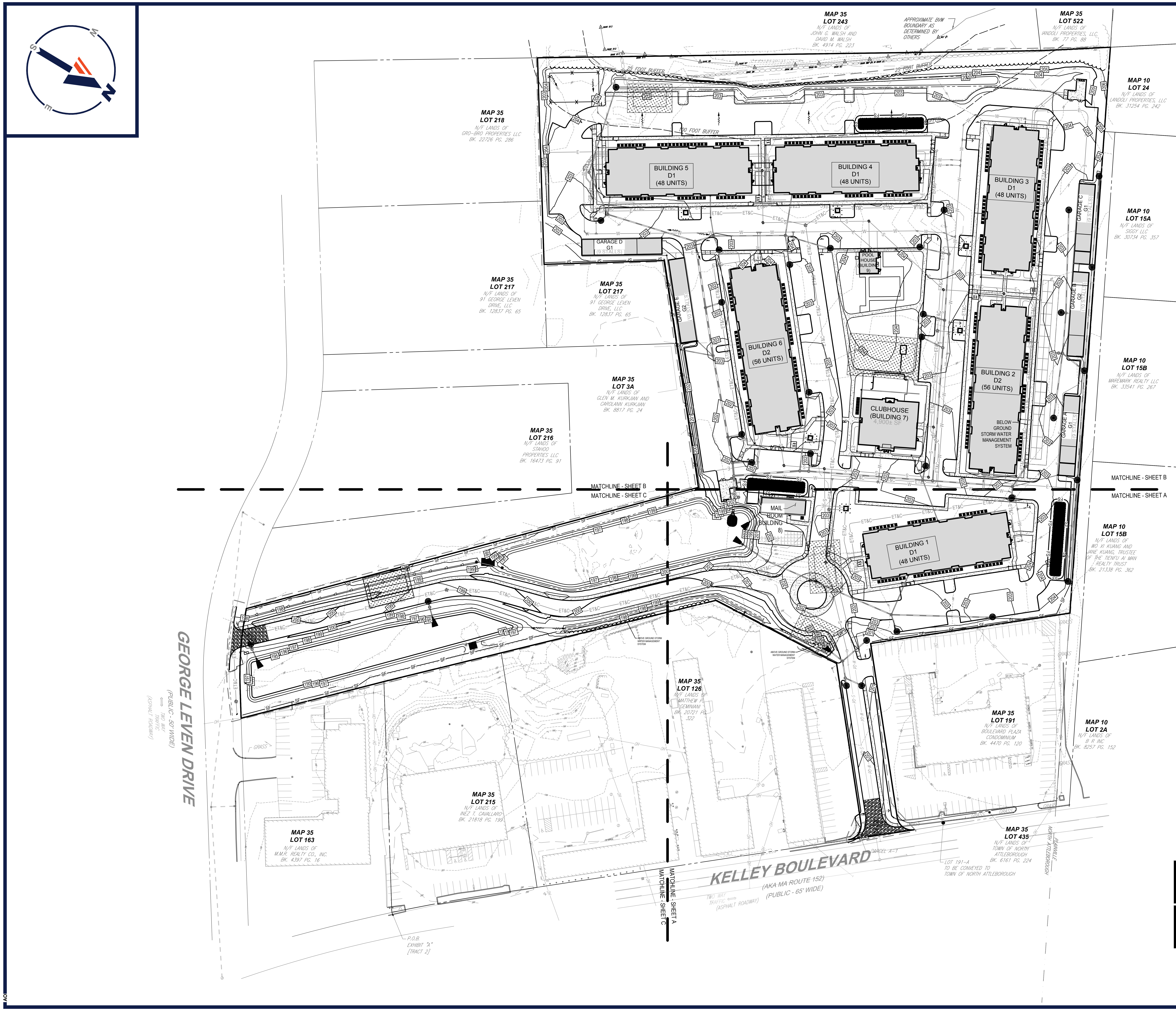
UTILITY PLAN C

SHEET NUMBER:

C-504

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-UTIL-1A ---> LAYOUT: C-504 UTIL C
AO


BUILDING 5 D1 (48 UNITS)
BUILDING 4 D1 (48 UNITS)
BUILDING 3 D1 (48 UNITS)
BUILDING 6 D2 (56 UNITS)
BUILDING 2 D2 (56 UNITS)
BUILDING 1 D1 (48 UNITS)
CLUBHOUSE (BUILDING 7) 4,900± SF
POOL HOUSE (BUILDING 9)
MAIL ROOM (BUILDING 8)
GARAGE D G1 (8 STALLS)
GARAGE C G1
GARAGE B G2
GARAGE A G1
GARAGE E G2
BELOW GROUND STORM WATER MANAGEMENT SYSTEM
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
25 FOOT BUFFER
100 FOOT BUFFER
APPROXIMATE BVW BOUNDARY AS DETERMINED BY OTHERS
MATCHLINE - SHEET B
MATCHLINE - SHEET C
MATCHLINE - SHEET A
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
MAP 35 LOT 243 N/F LANDS OF JOHN G. WALSH AND DAVID M. WALSH BK. 4914 PG. 223
MAP 35 LOT 522 N/F LANDS OF IANDOLI PROPERTIES, LLC BK. 77 PG. 88
MAP 35 LOT 218 N/F LANDS OF GRO-BRO PROPERTIES LLC BK. 22726 PG. 286
MAP 10 LOT 24 N/F LANDS OF IANDOLI PROPERTIES, LLC BK. 31254 PG. 242
MAP 10 LOT 15A N/F LANDS OF SIGGY LLC BK. 30734 PG. 357
MAP 35 LOT 217 N/F LANDS OF 91 GEORGE LEVEN DRIVE, LLC BK. 12837 PG. 65
MAP 35 LOT 3A N/F LANDS OF GLEN M. KURKJIAN AND CAROLANN KURKJIAN BK. 8817 PG. 24
MAP 35 LOT 216 N/F LANDS OF STAHOO PROPERTIES LLC BK. 16473 PG. 91
MAP 10 LOT 15B N/F LANDS OF MAREMARK REALTY LLC BK. 33541 PG. 267
MAP 10 LOT 15B N/F LANDS OF WO KI KUANG AND JANE KUANG, TRUSTEE OF THE TIENFU AI MAN REALTY TRUST BK. 21338 PG. 362
MAP 35 LOT 126 N/F LANDS OF MATTHEW P. SEMINARI BK. 22721 PG. 322
MAP 35 LOT 191 N/F LANDS OF BOULEVARD PLAZA CONDOMINIUM BK. 4470 PG. 120
MAP 10 LOT 2A N/F LANDS OF B R INC. BK. 8257 PG. 152
MAP 35 LOT 215 N/F LANDS OF INEZ T. CAVALLARO BK. 21818 PG. 199
MAP 35 LOT 163 N/F LANDS OF M.M.R. REALTY CO., INC. BK. 4397 PG. 16
MAP 35 LOT 435 N/F LANDS OF TOWN OF NORTH ATTLEBOROUGH BK. 6161 PG. 224
LOT 191-A TO BE CONVEYED TO TOWN OF NORTH ATTLEBOROUGH
P.O.B. EXHIBIT "A" (TRACT 2)
PARCEL A-1
N
S
E
W

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

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

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

60 30 15 0 60
1"= 60'

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SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-SESC-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

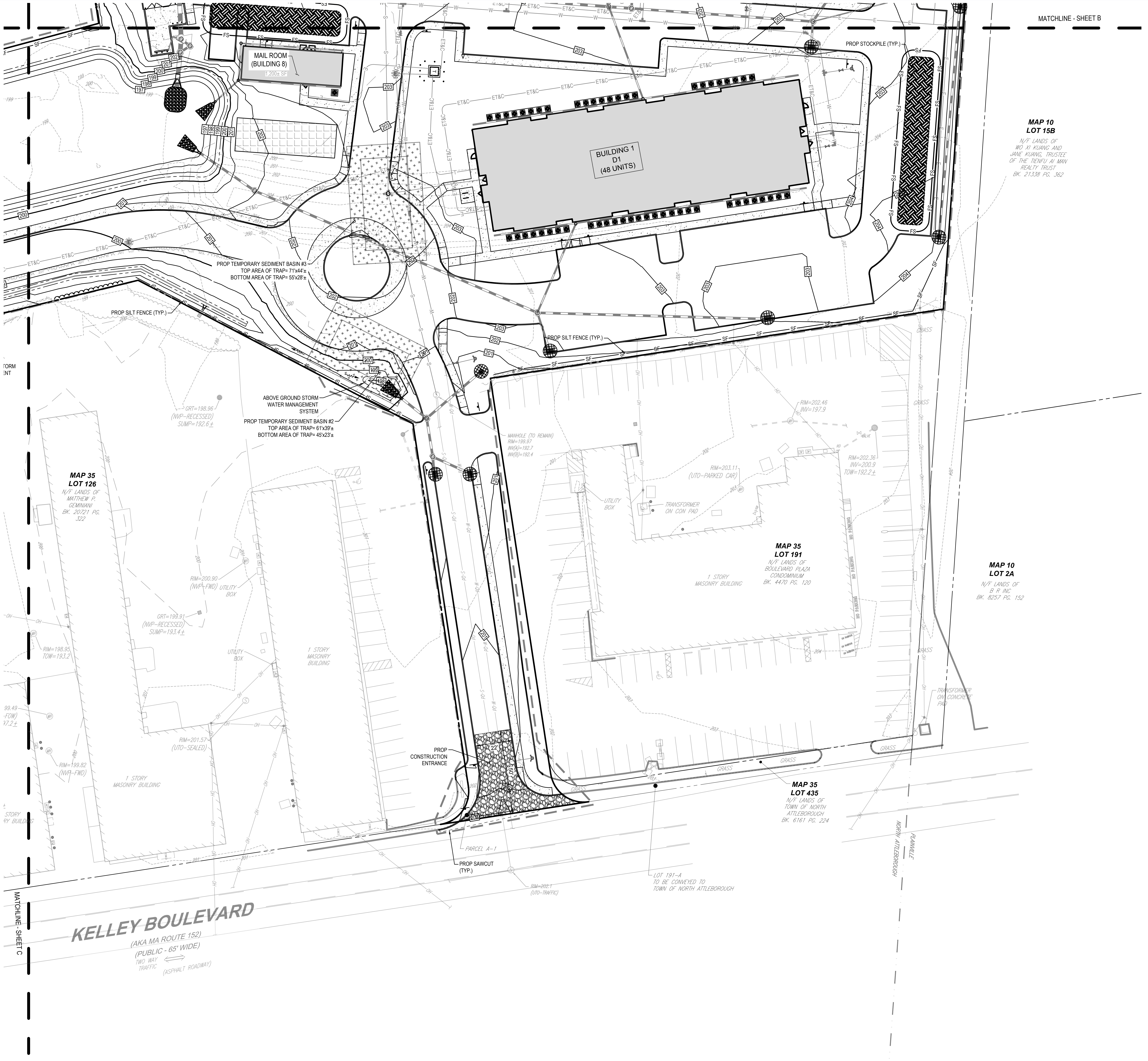
SHEET TITLE:

OVERALL SOIL EROSION & SEDIMENT CONTROL PLAN

SHEET NUMBER:

C-601

REVISION 2 - 11/25/2024


MATCHLINE - SHEET B
MATCHLINE - SHEET C
MAIL ROOM
(BUILDING 8)
BUILDING 1
D1
(48 UNITS)
PROP STOCKPILE (TYP.)
PROP TEMPORARY SEDIMENT BASIN #3
TOP AREA OF TRAP= 71'x44'±
BOTTOM AREA OF TRAP= 55'x28'±
PROP SILT FENCE (TYP.)
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
PROP TEMPORARY SEDIMENT BASIN #2
TOP AREA OF TRAP= 61'x39'±
BOTTOM AREA OF TRAP= 45'x23'±
MANHOLE (TO REMAIN)
RIM=199.97
INV(A)=192.7
INV(B)=192.4
GRT=198.96
(NVP-RECESSED)
SUMP=192.6±
MAP 10
LOT 15B
N/F LANDS OF
WO XI KUANG AND
JANE KUANG, TRUSTEE
OF THE TIENFU AI MAN
REALTY TRUST
BK. 21338 PG. 362
MAP 35
LOT 126
N/F LANDS OF
MATTHEW P.
GEMINIANI
BK. 20721 PG. 322
RIM=202.46
INV=197.9
RIM=203.11
(UTO-PARKED CAR)
RIM=202.36
INV=200.9
TOW=192.2±
UTILITY BOX
TRANSFORMER ON CON PAD
MAP 35
LOT 191
N/F LANDS OF
BOULEVARD PLAZA
CONDOMINIUM
BK. 4470 PG. 120
1 STORY MASONRY BUILDING
NO PARKING
MAP 10
LOT 2A
N/F LANDS OF
B R INC
BK. 8257 PG. 152
RIM=200.90
(NVP-FWD)
GRT=199.91
(NVP-RECESSED)
SUMP=193.4±
RIM=198.95
TOW=193.2
RIM=201.57
(UTO-SEALED)
RIM=199.82
(NVP-FWD)
1 STORY MASONRY BUILDING
PROP CONSTRUCTION ENTRANCE
PARCEL A-1
PROP SAWCUT (TYP.)
GRASS
TRANSFORMER ON CONCRETE PAD
MAP 35
LOT 435
N/F LANDS OF
TOWN OF NORTH
ATTLEBOROUGH
BK. 6161 PG. 224
LOT 191-A
TO BE CONVEYED TO
TOWN OF NORTH ATTLEBOROUGH
NORTH ATTLEBOROUGH
PLAINVILLE
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)
ET&C
SF
FS
198
199
200
201
202
203
204

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-601

20 10 5 0 20
1"= 20'

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-SESC-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530

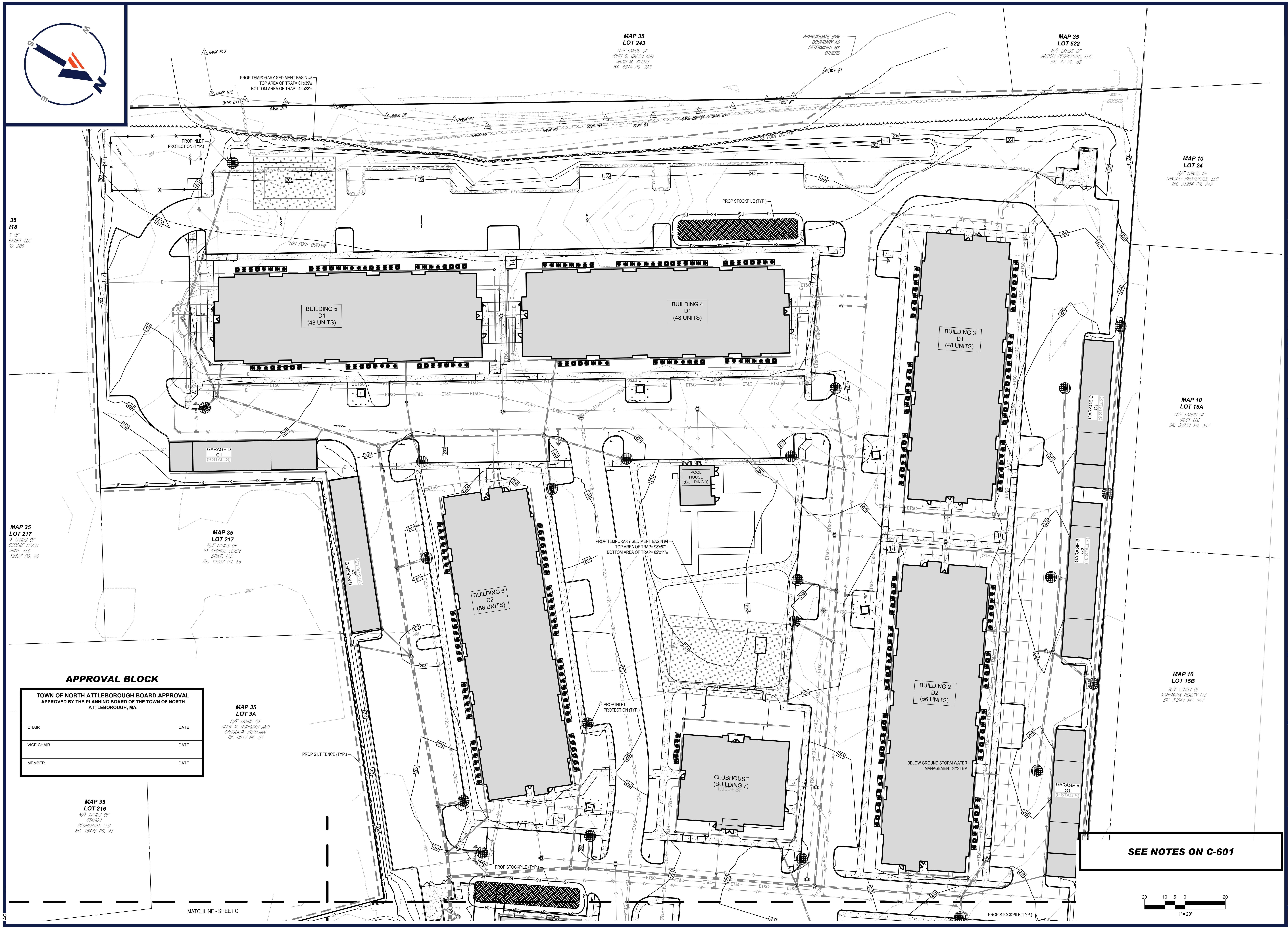
SHEET TITLE:

SOIL EROSION & SEDIMENT CONTROL PLAN A

SHEET NUMBER:

C-602

REVISION 2 - 11/25/2024


N
E
S
W
MAP 35
LOT 243
N/F LANDS OF
JOHN G. WALSH AND
DAVID M. WALSH
BK. 4914 PG. 223
APPROXIMATE BVW
BOUNDARY AS
DETERMINED BY
OTHERS
WLF #1
WLF #2
WLF #3
MAP 35
LOT 522
N/F LANDS OF
IANDOLI PROPERTIES, LLC.
BK. 77 PG. 88
WOODED
MAP 10
LOT 24
N/F LANDS OF
LANDOLI PROPERTIES, LLC
BK. 31254 PG. 242
BANK B13
BANK B12
BANK B11
BANK B10
BANK B9
BANK B8
BANK B7
BANK B6
BANK B5
BANK B4
BANK B3
BANK B2 WLF #4 & BANK B1
PROP TEMPORARY SEDIMENT BASIN #5
TOP AREA OF TRAP= 61'x39'±
BOTTOM AREA OF TRAP= 45'x23'±
25 FOOT BUFFER
100 FOOT BUFFER
PROP INLET
PROTECTION (TYP.)
PROP STOCKPILE (TYP.)
35
218
S OF
ERTIES LLC
PG. 286
BUILDING 5
D1
(48 UNITS)
BUILDING 4
D1
(48 UNITS)
BUILDING 3
D1
(48 UNITS)
GARAGE D
G1
(9 STALLS)
GARAGE C
G1
(9 STALLS)
MAP 10
LOT 15A
N/F LANDS OF
SIGGY LLC
BK. 30734 PG. 357
POOL
HOUSE
(BUILDING 9)
MAP 35
LOT 217
N/F LANDS OF
GEORGE LEVEN
DRIVE, LLC
12837 PG. 65
MAP 35
LOT 217
N/F LANDS OF
91 GEORGE LEVEN
DRIVE, LLC
BK. 12837 PG. 65
GARAGE E
G2
(10 STALLS)
BUILDING 6
D2
(56 UNITS)
PROP TEMPORARY SEDIMENT BASIN #4
TOP AREA OF TRAP= 98'x57'±
BOTTOM AREA OF TRAP= 82'x41'±
GARAGE B
G2
(10 STALLS)
BUILDING 2
D2
(56 UNITS)
BELOW GROUND STORM WATER
MANAGEMENT SYSTEM
MAP 10
LOT 15B
N/F LANDS OF
MAREMARK REALTY LLC
BK. 33541 PG. 267
MAP 35
LOT 3A
N/F LANDS OF
GLEN M. KURKJIAN AND
CAROLANN KURKJIAN
BK. 8817 PG. 24
PROP SILT FENCE (TYP.)
CLUBHOUSE
(BUILDING 7)
4,900± SF
GARAGE A
G1
(9 STALLS)
MAP 35
LOT 216
N/F LANDS OF
STAHOO
PROPERTIES LLC
BK. 16473 PG. 91
MATCHLINE - SHEET C
20 10 5 0 20
1"= 20'

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.	
CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-601

BOHLER//

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
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PERMITTING SERVICES
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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-SESC-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED
DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

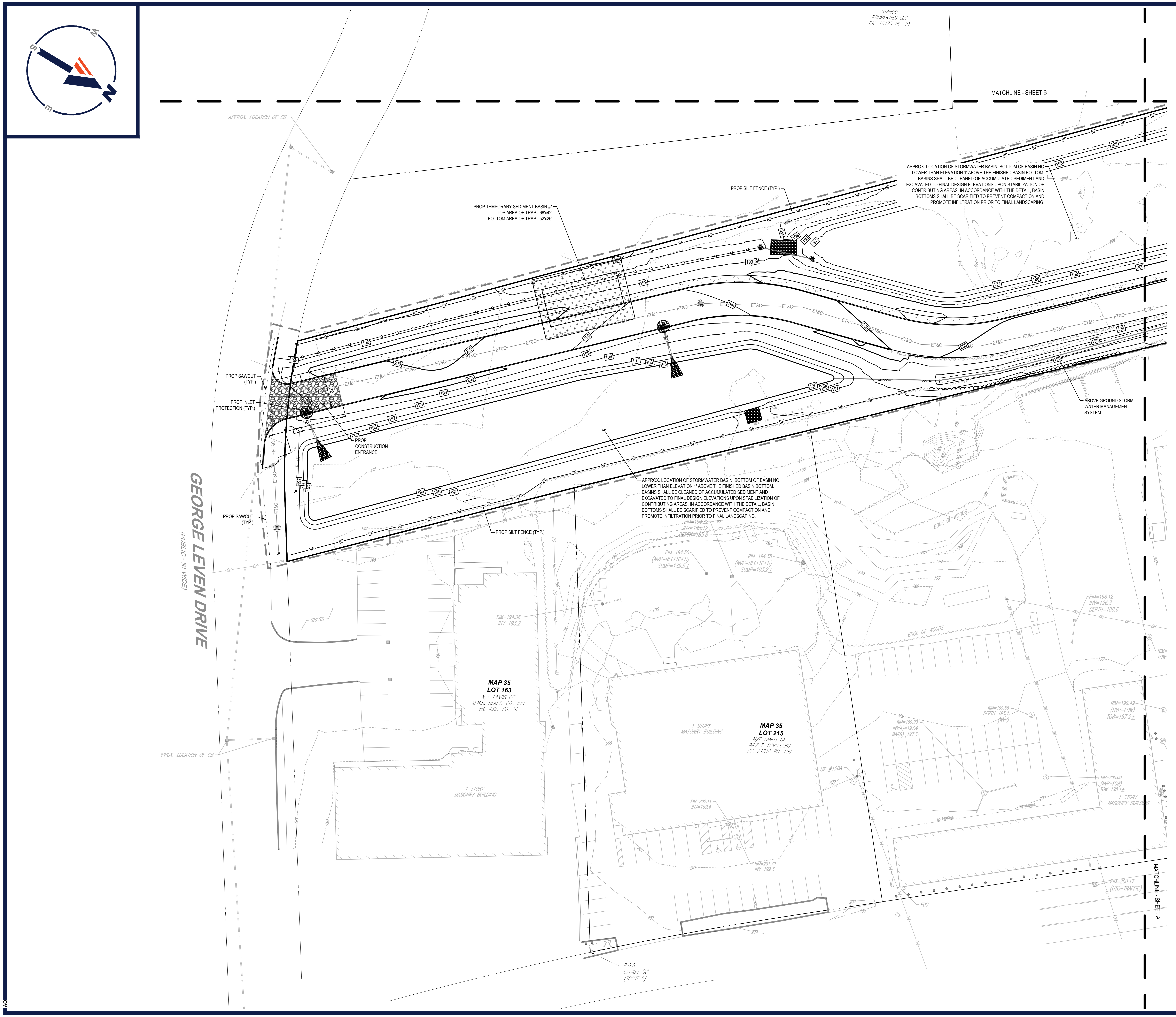
SHEET TITLE:

SOIL EROSION & SEDIMENT CONTROL PLAN B

SHEET NUMBER:

C-603

REVISION 2 - 11/25/2024



N
S
E
W
MATCHLINE - SHEET B
MATCHLINE - SHEET A
STAHOO PROPERTIES LLC BK. 16473 PG. 91
APPROX. LOCATION OF CB
PROP TEMPORARY SEDIMENT BASIN #1
TOP AREA OF TRAP= 68'x42'
BOTTOM AREA OF TRAP= 52'x26'
PROP SILT FENCE (TYP.)
PROP SAWCUT (TYP.)
PROP INLET PROTECTION (TYP.)
PROP CONSTRUCTION ENTRANCE
ABOVE GROUND STORM WATER MANAGEMENT SYSTEM
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
SF
ET&C
196
197
198
199
200
201
RIM=194.32
INV=193.12
DEPTH=185.8
RIM=194.50 (NVP-RECESSED) SUMP=189.5±
RIM=194.35 (NVP-RECESSED) SUMP=193.2±
RIM=194.38 INV=193.2
RIM=198.12 INV=196.1 DEPTH=188.6
RIM=199.56 DEPTH=195.4 (NVP)
RIM=199.90 INV(A)=197.4 INV(B)=197.3
RIM=199.49 (NVP-FOW) TOW=197.2±
RIM=200.00 (NVP-FOW) TOW=198.1±
RIM=202.11 INV=199.4
RIM=201.79 INV=199.3
RIM=200.17 (UTO-TRAFFIC)
EDGE OF WOODS
GRASS
MAP 35 LOT 163
N/F LANDS OF M.M.R. REALTY CO., INC.
BK. 4397 PG. 16
MAP 35 LOT 215
N/F LANDS OF INEZ T. CAVALLARO
BK. 21818 PG. 199
1 STORY MASONRY BUILDING
UP #120A
FDC
P.O.B. EXHIBIT "A" (TRACT 2)
APPROX. LOCATION OF CB

APPROX. LOCATION OF STORMWATER BASIN. BOTTOM OF BASIN NO LOWER THAN ELEVATION 1' ABOVE THE FINISHED BASIN BOTTOM. BASINS SHALL BE CLEANED OF ACCUMULATED SEDIMENT AND EXCAVATED TO FINAL DESIGN ELEVATIONS UPON STABILIZATION OF CONTRIBUTING AREAS. IN ACCORDANCE WITH THE DETAIL, BASIN BOTTOMS SHALL BE SCARIFIED TO PREVENT COMPACTION AND PROMOTE INFILTRATION PRIOR TO FINAL LANDSCAPING.

APPROX. LOCATION OF STORMWATER BASIN. BOTTOM OF BASIN NO LOWER THAN ELEVATION 1' ABOVE THE FINISHED BASIN BOTTOM. BASINS SHALL BE CLEANED OF ACCUMULATED SEDIMENT AND EXCAVATED TO FINAL DESIGN ELEVATIONS UPON STABILIZATION OF CONTRIBUTING AREAS. IN ACCORDANCE WITH THE DETAIL, BASIN BOTTOMS SHALL BE SCARIFIED TO PREVENT COMPACTION AND PROMOTE INFILTRATION PRIOR TO FINAL LANDSCAPING.

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-601

20 10 5 0 20
1"= 20'

BOHLER//™

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

811
Know what's below. Call before you dig.
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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.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-SESC-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER//

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CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

SOIL EROSION & SEDIMENT CONTROL PLAN C

SHEET NUMBER:

C-604

REVISION 2 - 11/25/2024

AO

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
2. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. AT A MINIMUM, AREAS SHALL BE PERMANENTLY STABILIZED ACCORDING TO THE CURRENT EDITION OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), OR IN THE ABSENCE OF A SWPPP, THEY SHALL BE PERMANENTLY STABILIZED WITHIN 14 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).
3. 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 8%.
4. 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.
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 PERMANENTLY STABILIZED. FOR SEDIMENT CONTROL DEVICES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE DEVICES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.
6. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1) UNLESS OTHERWISE INDICATED ON THE PLANS. SLOPE PROTECTION FOR SLOPES GREATER THAN 2:1 SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER.
7. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
8. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
9. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL STANDARDS.
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, OR DEPTH SPECIFIED ON THE LANDSCAPE PLAN, OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
    - 10.2. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 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 ACRE (138 LB PER1,000 SF).
    - 10.3. 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 WHERE SLOPES DO NOT EXCEED 2:1, SOD ON SLOPES STEEPER THAN 3:1 SHOULD BE PEGGED.
    - 10.4. 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 NON-TOXIC BINDER WILL BE USED ON STRAW MULCH FOR WIND CONTROL.
11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS 70% STABILIZED. FOR EROSION CONTROL MEASURES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE MEASURES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.
12. WETLANDS WILL BE PROTECTED WITH BARRIERS CONSISTING OF STRAW BALES, COMPOST TUBES, SILT FENCE OR A COMBINATION THEREOF.
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:

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

* A HYDRO-APPLICATION OF WOOD OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE NON-TOXIC BINDER SHALL BE USED TO ADDITIONAL WIND CONTROL.

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

15. PROPOSED LOCATIONS OF SURFACE STORMWATER MANAGEMENT BASINS CAN BE UTILIZED AS A TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION.SEDIMENT TRAPS SHALL BE SIZED AND CONSTRUCTED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
    - 15.1. TEMPORARY SEDIMENT TRAPS SHALL BE SIZED PER THE CURRENT EDITION OF THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" AND PROVIDE A MINIMUM OF 1,800 CF PER ACRE OF TRIBUTARY AREA WITH A MAXIMUM TRIBUTARY AREA OF 5 ACRES, MAINTAIN A 2:1 LENGTH TO WIDTH RATIO, AND NOT EXCEED 5 FT IN HEIGHT. UPON SITE STABILIZATION, ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE TEMPORARY SEDIMENT TRAP EXCAVATED TO 1 FOOT BELOW THE TRAP. THE AREA SHALL THEN BE SCARIFIED TO PREVENT COMPACTION AND PROMOTE INFILTRATION, AND GRADED AND STABILIZED IN ACCORDANCE WITH THE GRADING AND LANDSCAPE PLANS.
16. 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.
17. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.
18. THE CONTRACTOR MUST PERFORM DEWATERING (IF REQUIRED), IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND PAY FOR THE COSTS ASSOCIATED WITH ANY AND ALL NECESSARY DISCHARGE PERMITS ASSOCIATED WITH SAME.
19. THE CONTRACTOR MUST LOCATE CONSTRUCTION WASTE MATERIAL STORAGE AREAS TO MINIMIZE EXPOSURE TO STORMWATER. THE CONTRACTOR MUST IMMEDIATELY PLACE CONSTRUCTION WASTE IN ON-SITE STORAGE CONTAINERS UNTIL THAT CONSTRUCTION WASTE IS READY FOR OFF-SITE DISPOSAL. THE CONTRACTOR MUST MAINTAIN SPILL PREVENTION AND RESPONSE EQUIPMENT AND MAKE SAME CONTINUOUSLY AVAILABLE ON-SITE FOR USE BY THE CONTRACTOR'S EMPLOYEES WHO MUST BE PROPERLY TRAINED IN THE APPLICATION OF SPILL PREVENTION AND RESPONSE PROCEDURES.
20. EROSION CONTROL NOTES DURING WINTER CONSTRUCTION
21. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
22. WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT THE AMOUNT OF AREA OPEN AT ONE TIME IS MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE AND IN CONFORMANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN SUCH THAT ADEQUATE PROVISIONS ARE EMPLOYED TO CONTROL STORMWATER RUNOFF.
23. CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
24. AN AREA SHALL BE CONSIDERED TO HAVE BEEN TEMPORARILY 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 ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
25. FOR AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR A PERIOD EXCEEDING 14 DAYS BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED. 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 AS APPLICABLE. SLOPES SHALL NOT BE LEFT UNSTABILIZED OVER THE WINTER OR IN AREAS WHERE WORK HAS CEASED FOR MORE THAN 14 DAYS UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF SEDIMENT BARRIERS OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
26. MULCHING REQUIREMENTS:
    - 26.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
    - 26.2. 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%.
    - 26.3. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
27. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE STORMWATER PREVENTION PLAN.
28. DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-SESC-1A----->LAYOUT: C-605 ENOTE

AO

GENERAL EROSION AND SEDIMENT CONTROL NOTES

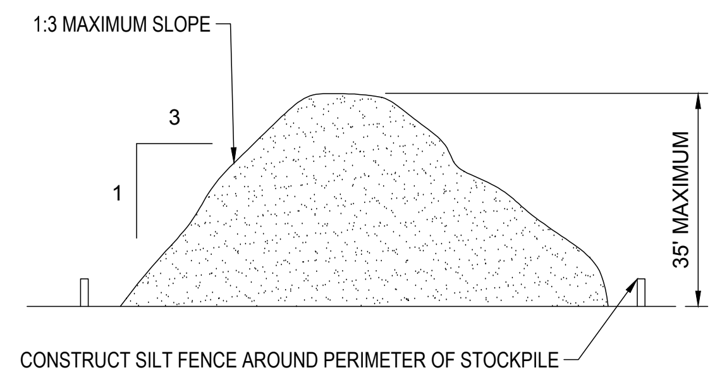
1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. EROSION CONTROL MEASURES MUST CONFORM TO THE MASSACHUSETTS, NORTH ATTLEBOROUGH, AND FEDERAL GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL UNLESS OTHERWISE NOTED, OR UNLESS THE PROFESSIONAL OF RECORD CLEARLY AND SPECIFICALLY, IN WRITING, DIRECTS OTHERWISE. INSTALLATION OF EROSION CONTROL, CLEARING, AND SITE WORK MUST BE PERFORMED EXACTLY AS INDICATED IN THE EROSION CONTROL CONSTRUCTION NOTES.
3. THE DISTURBED LAND AREA OF THIS SITE IS APPROXIMATELY XXX.XX ACRES.
4. THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED FOR THIS SITE:

A. STABILIZED CONSTRUCTION ENTRANCE/ EXIT - A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT IS TO BE INSTALLED AT THE DESIGNATED LOCATION SHOWN ON THE PLAN. THIS AREA MUST BE GRADED SO THAT RUNOFF WATER WILL BE RETAINED ON-SITE.

B. SEDIMENT FENCE - INSTALL SILT FENCE(S) AND/OR SILT SOCK AROUND ALL OF THE DOWNSLOPE PERIMETERS OF THE SITE, TEMPORARY FILL AND SOIL STOCKPILES.

C. INSTALL FILTER FABRIC DROP INLET PROTECTION AROUND EACH DRAINAGE INLET AS DRAINAGE STRUCTURES ARE INSTALLED TO REDUCE THE QUANTITY OF SEDIMENT. INSTALL TEMPORARY INLET PROTECTION ON INLETS DOWNSLOPE FROM DISTURBANCE, WHICH MAY BE BEYOND THE LIMITS OF DISTURBED AREA.

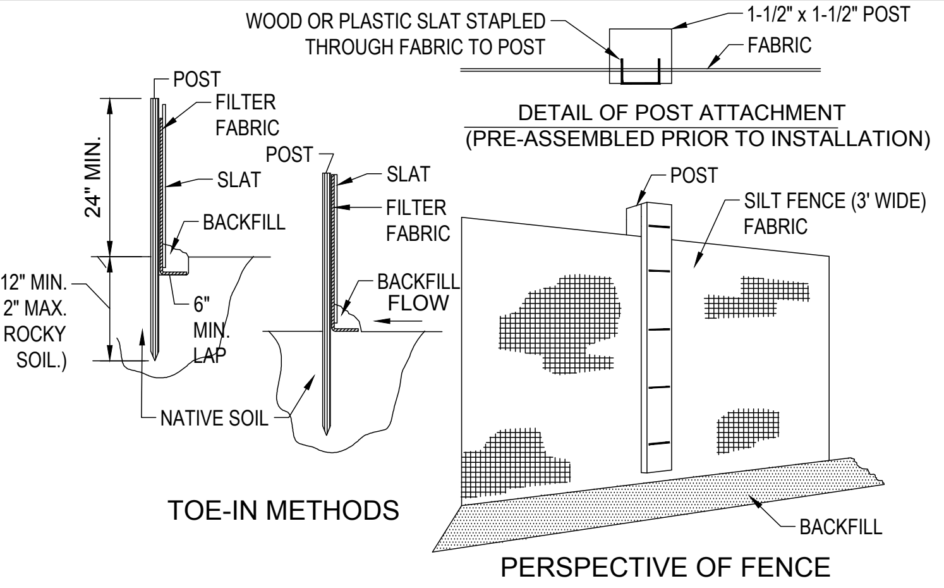
5. INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS.
6. THE CONTRACTOR MUST INSPECT EROSION CONTROL MEASURES WEEKLY. THE CONTRACTOR MUST REMOVE ANY SILT DEPOSITS GREATER THAN 6 INCHES OR HALF THE EROSION CONTROL BARRIER'S HEIGHT COLLECTED ON THE FILTER FABRIC AND/OR SILT SOCK BARRIERS AND EXCAVATE AND REMOVE ANY SILT FROM DROP INLET PROTECTION.
7. THE CONTRACTOR MUST APPLY TEMPORARY SEED AND MULCH TO ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINISHED GRADE AND VEGETATED WITHIN 7 DAYS. WHEN AREAS ARE DISTURBED AFTER THE GROWING SEASON, THE CONTRACTOR MUST STABILIZE SAME WITH GEOTEXTILE FABRIC AND MAINTAIN SAME IN STRICT ACCORDANCE WITH BEST MANAGEMENT PRACTICES.
8. THE CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF THE PROFESSIONAL OF RECORD SO REQUIRES, TO PREVENT ANY, INCLUDING THE INCIDENTAL, DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
9. THE CONTRACTOR MUST BE RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES ON THE SITE UNTIL PERMANENT PAVING AND TURF/LANDSCAPING IS ESTABLISHED. THE COSTS OF INSTALLING AND MAINTAINING THE EROSION CONTROL MEASURES MUST BE INCLUDED IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS RESPONSIBLE FOR ALL SUCH COSTS.
10. THE CONTRACTOR MUST CONTINUE TO MAINTAIN ALL EROSION CONTROL MEASURES UNTIL THE COMPLETION OF CONSTRUCTION AND THE ESTABLISHMENT OF VEGETATION.
11. THE CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES, SILT AND DEBRIS AFTER ESTABLISHING PERMANENT VEGETATION COVER OR OTHER INSTALLING A DIFFERENT, SPECIFIED METHOD OF STABILIZATION.
12. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES, MEASURES AND STRUCTURES. ADDITIONAL FACILITIES, MEASURES AND STRUCTURES MUST BE INSTALLED WHERE NECESSARY TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS AND/OR TO PREVENT ANY, INCLUDING THE INCIDENTAL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
13. THE CONTRACTOR MUST PROTECT ALL EXISTING TREES AND SHRUBS. THE CONTRACTOR MUST REFER TO THE LANDSCAPE AND/OR DEMOLITION PLAN(S) FOR TREE PROTECTION, FENCE LOCATIONS AND DETAILS.
14. THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL INFORMATION.
15. THE CONTRACTOR MUST CLEAN EXISTING AND PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPES ON OR OFF-SITE AS THE JURISDICTIONAL AGENCY REQUIRES, BOTH AT THE TIME OF SITE STABILIZATION AND AT END OF PROJECT.
16. SOIL EROSION CONTROL MEASURES MUST BE ADJUSTED OR RELOCATED BY THE CONTRACTOR AS IDENTIFIED DURING SITE OBSERVATION IN ORDER TO MAINTAIN THE COMPLETE EFFECTIVENESS OF ALL CONTROL MEASURES.
17. THE CONTRACTOR MUST IDENTIFY, ON THE PLAN, THE LOCATION OF WASTE CONTAINERS, FUEL STORAGE TANKS, CONCRETE WASHOUT AREAS AND ANY OTHER LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED.



TEMPORARY STOCKPILE

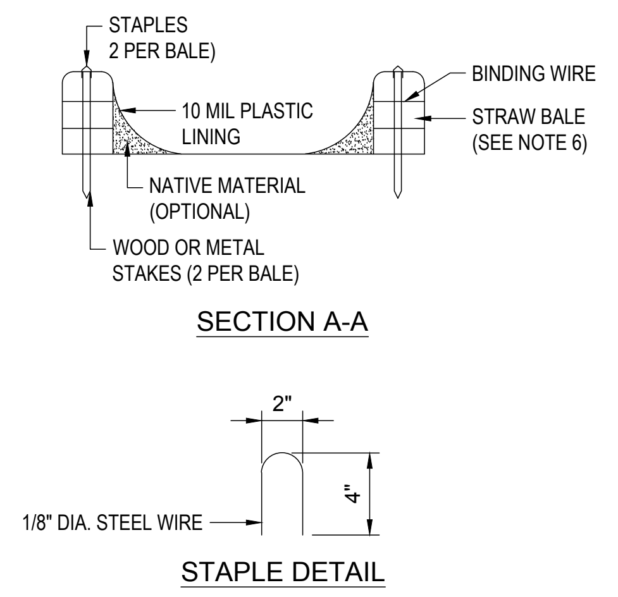
N.T.S.

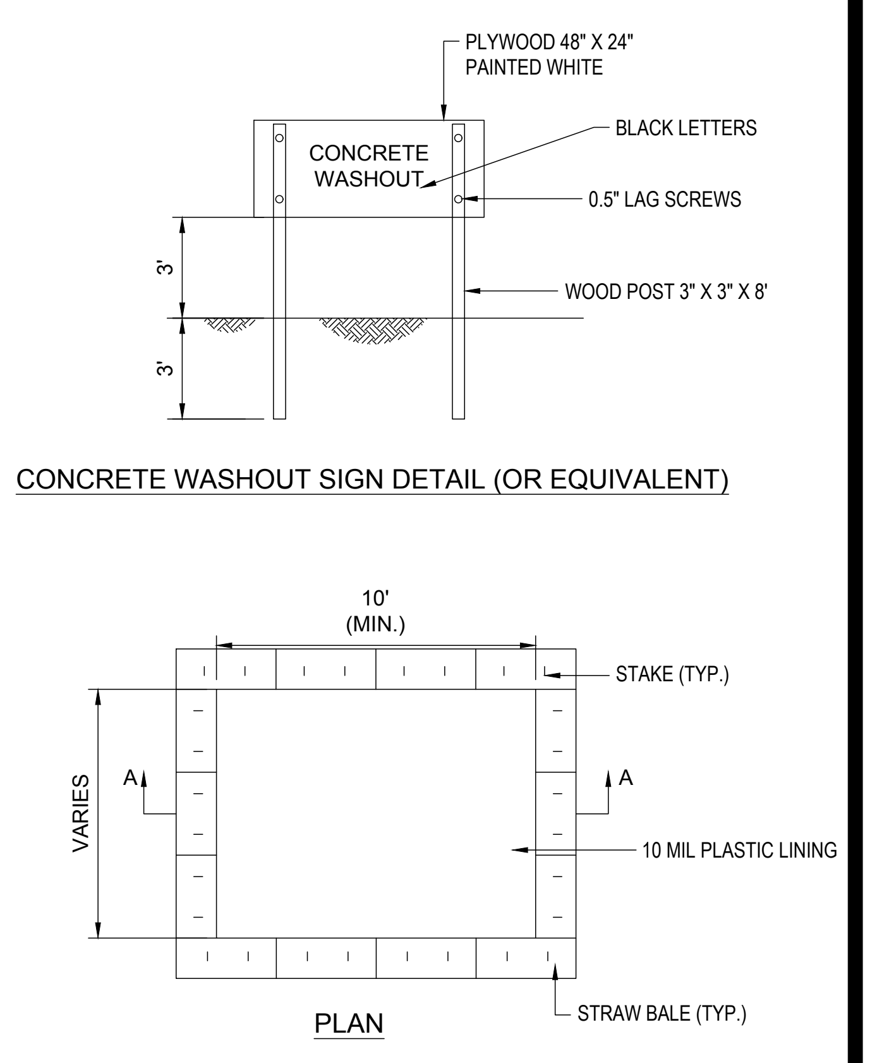
NOTES:
1. EXCAVATE A 6"x6" TRENCH ALONG THE LINE OF EROSION CONTROL OF THE SITE.
2. UNROLL SILTATION FENCE AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM FLOW DIRECTION).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS LAYING ACROSS THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL ALSO BE ACCOMPLISHED BY LAYING FABRIC FLAP ON UNDISTURBED GROUND AND PILING & TAMPING FILL AT THE BASE.


WOOD OR PLASTIC SLAT STAPLED THROUGH FABRIC TO POST
1-1/2" x 1-1/2" POST
FABRIC
DETAIL OF POST ATTACHMENT (PRE-ASSEMBLED PRIOR TO INSTALLATION)
POST
FILTER FABRIC
SLAT
BACKFILL
24" MIN.
12" MIN. (12" MAX. IN ROCKY SOIL.)
6" MIN. LAP
NATIVE SOIL
POST
SLAT
FILTER FABRIC
BACKFILL
FLOW
TOE-IN METHODS
POST
SILT FENCE (3' WIDE) FABRIC
BACKFILL
PERSPECTIVE OF FENCE

TYP. SILTATION FENCE

N.T.S.





NOTES:
1. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FT. FROM STORM DRAIN INLETS.
2. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF OFF-SITE. CONTRACTOR TO DISPOSE OF HARDENED CONCRETE ON A REGULAR BASIS.
3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
4. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
5. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.
6. STRAW BALE AND STAPLES MAY BE SUBSTITUTED WITH ALTERNATE SECURING MEASURES SUCH AS CONCRETE BLOCK.

CONCRETE WASTE MANAGEMENT AREA

N.T.S.

THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

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

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

-INSTALLATION OF INLET PROTECTION IN STREET (AS SHOWN)

-DEMOLITION OF EXISTING SITE STRUCTURES (SEE DEMOLITION PLAN)

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

-CLEARING AND GRUBBING

-INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS

-EARTHWORK AND EXCAVATION/FILLING AS NECESSARY

-CONSTRUCTION OF UTILITIES

-STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING

-INSTALLATION OF INLET PROTECTION OF ON-SITE UTILITIES (AS SHOWN)

-CONSTRUCTION OF BUILDINGS

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

-SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH

-FINAL GRADING OF ALL SLOPED AREAS

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

-REMOVAL OF THE TEMPORARY SEDIMENT BASINS

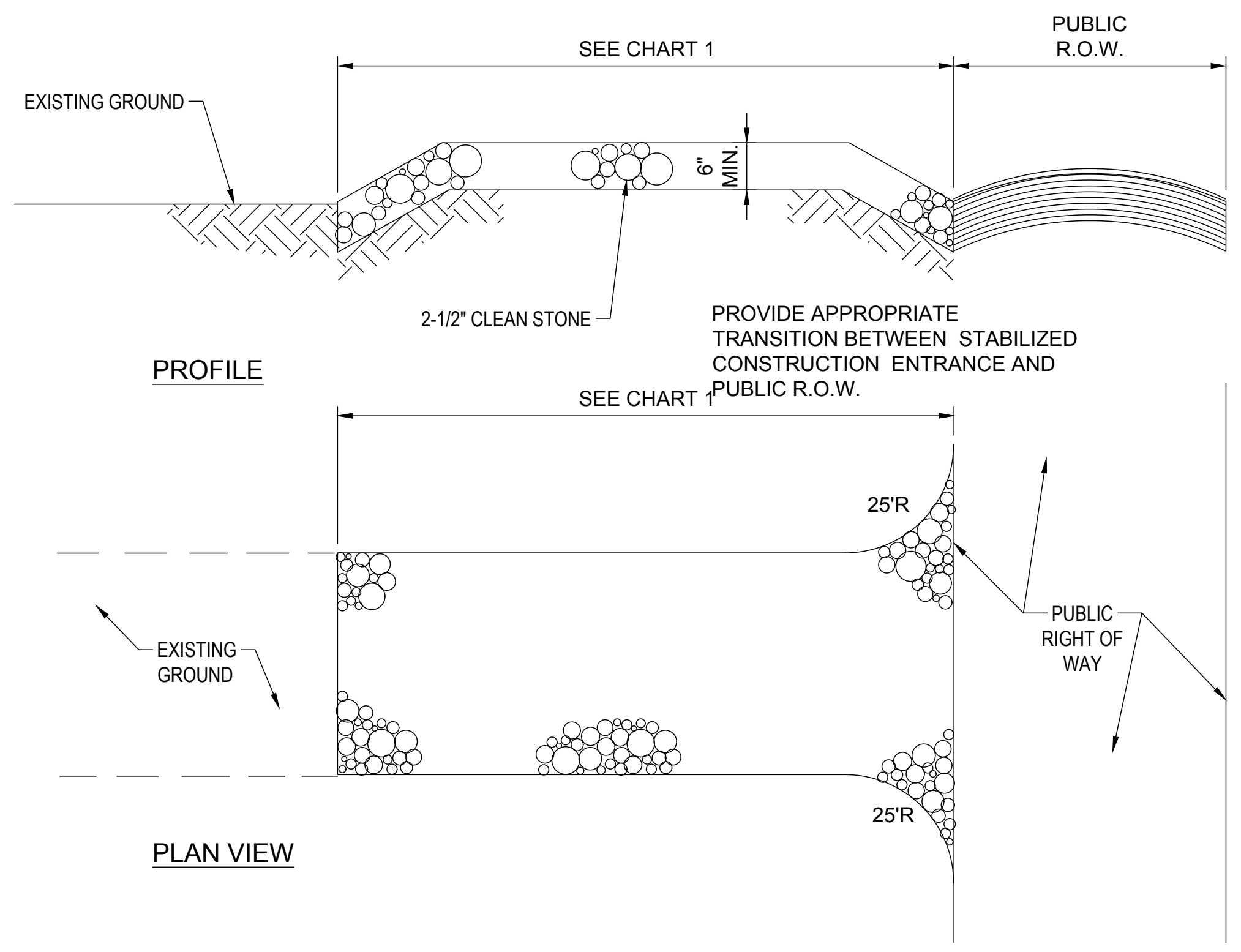
-PAVE PARKING LOT

-LANDSCAPING PER LANDSCAPING PLAN

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

RECOMMENDED CONSTRUCTION SEQUENCE

N.T.S.



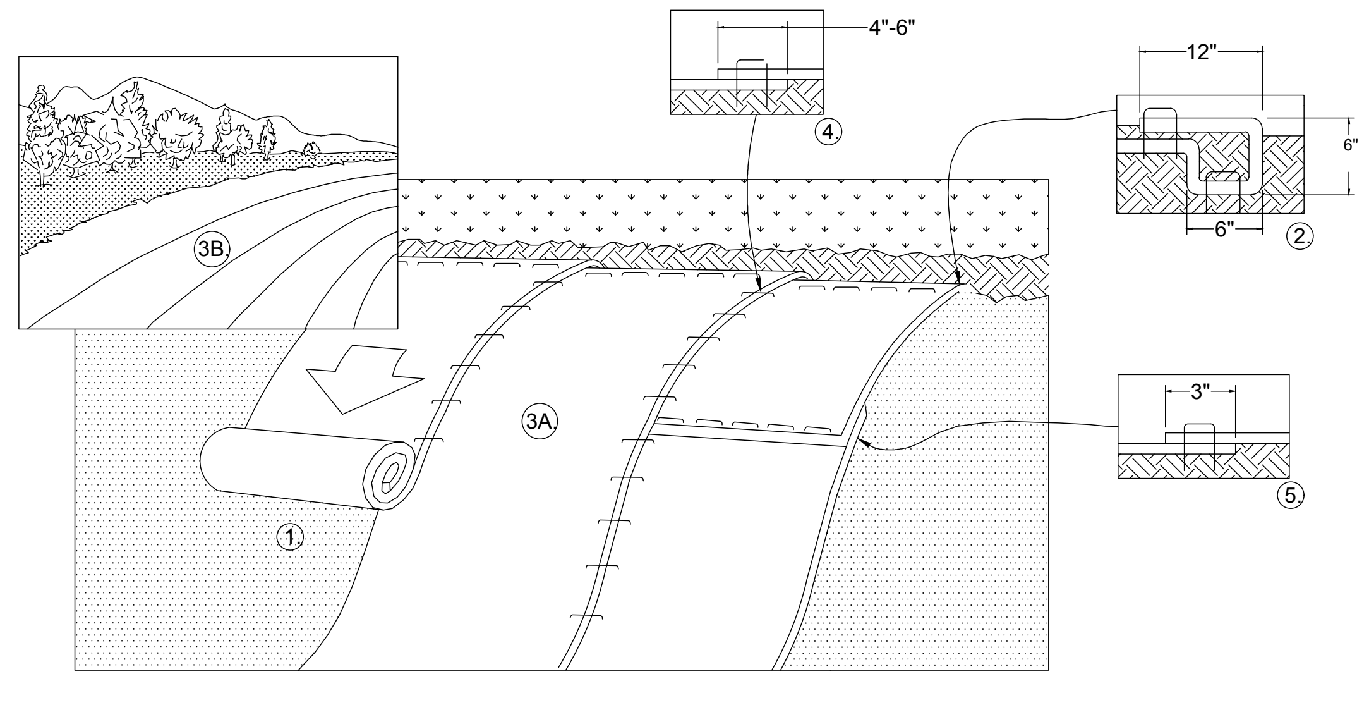
PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2% TO 5%	100 FT	200FT
>5%	ENTIRE ENTRANCE STABILIZED WITH FABC BASE COURSE (1)	

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

CHART 1

STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

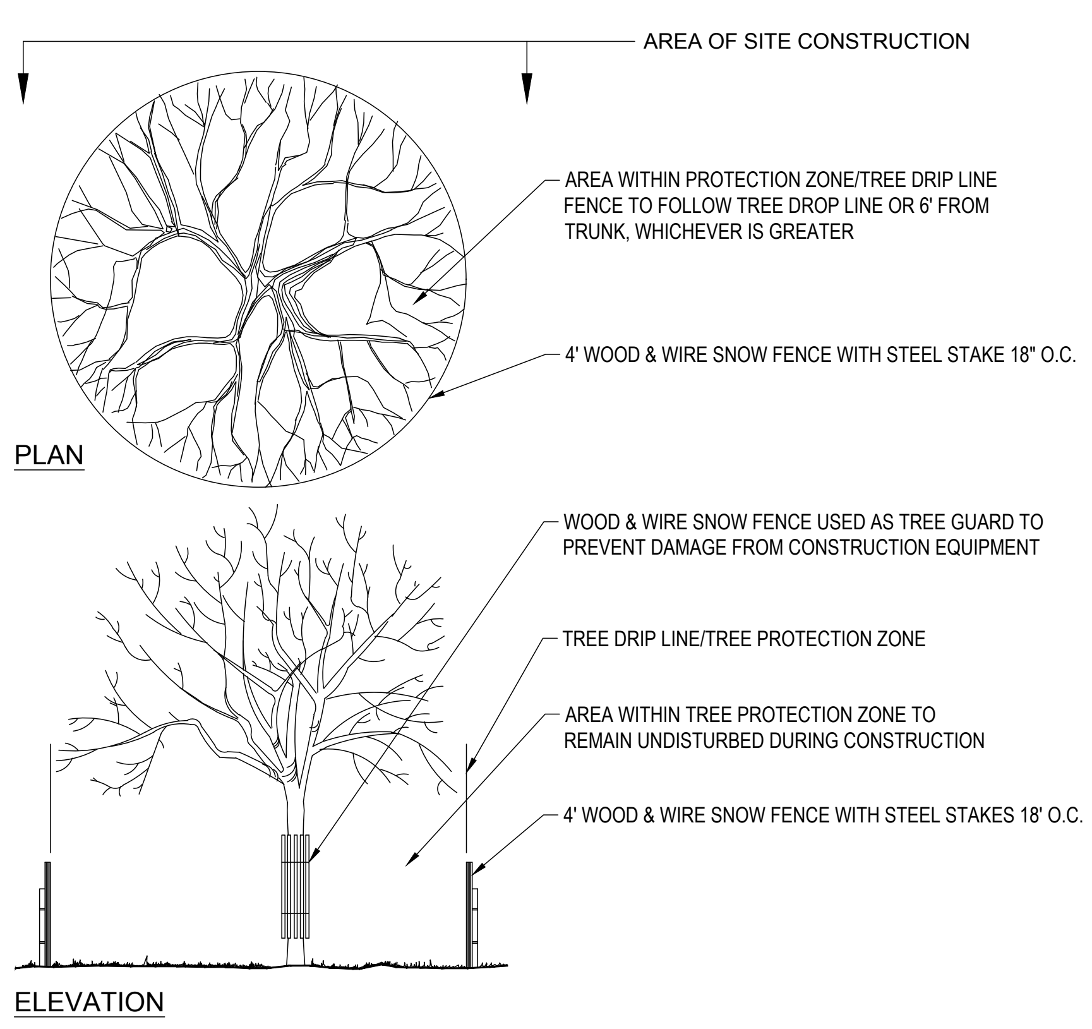


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH AS SHOWN IN DETAIL 2. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 6" OVERLAP. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
6. PLACE STAPLES/STAKES PER MANUFACTURER'S RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.

NOTES:
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
2. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION.

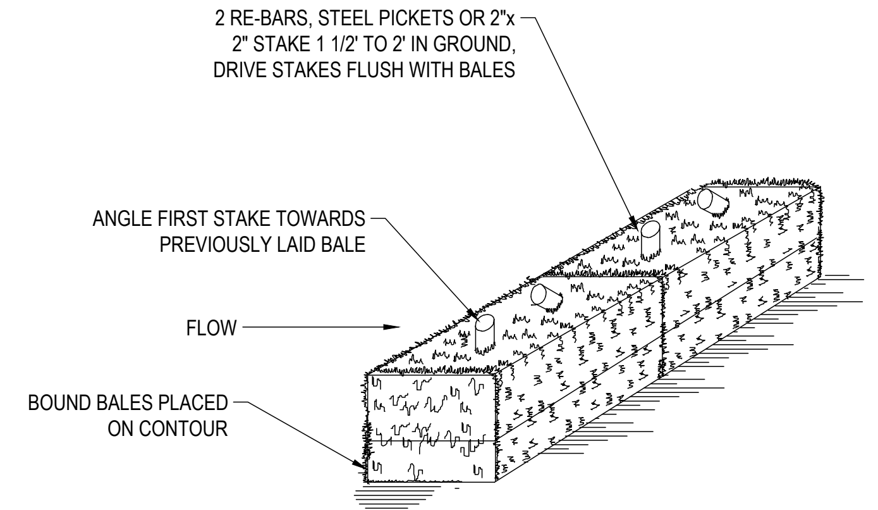
EROSION CONTROL BLANKET 2:1 SLOPES (SLOPE INSTALLATION)

N.T.S.


AREA OF SITE CONSTRUCTION
AREA WITHIN PROTECTION ZONE/TREE DRIP LINE FENCE TO FOLLOW TREE DROP LINE OR 6' FROM TRUNK, WHICHEVER IS GREATER
4' WOOD & WIRE SNOW FENCE WITH STEEL STAKE 18" O.C.
PLAN
WOOD & WIRE SNOW FENCE USED AS TREE GUARD TO PREVENT DAMAGE FROM CONSTRUCTION EQUIPMENT
TREE DRIP LINE/TREE PROTECTION ZONE
AREA WITHIN TREE PROTECTION ZONE TO REMAIN UNDISTURBED DURING CONSTRUCTION
4' WOOD & WIRE SNOW FENCE WITH STEEL STAKES 18' O.C.
ELEVATION

TREE PROTECTION DURING SITE CONSTRUCTION

N.T.S.


2 RE-BARS, STEEL PICKETS OR 2"x 2" STAKE 1 1/2' TO 2' IN GROUND, DRIVE STAKES FLUSH WITH BALES
ANGLE FIRST STAKE TOWARDS PREVIOUSLY LAID BALE
FLOW
BOUND BALES PLACED ON CONTOUR

DRAINAGE AREA NO MORE THAN $\frac{1}{4}$ AC. PER 100 FEEL OF STRAW BALE DIKE FOR SLOPES LESS THAN 25%.

NOTES:

1. BALES SHALL BE PLACED AT THE TOP OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.

2. EACH BALE SHALL BE PLACED SO THE BINDINGS ARE HORIZONTAL.

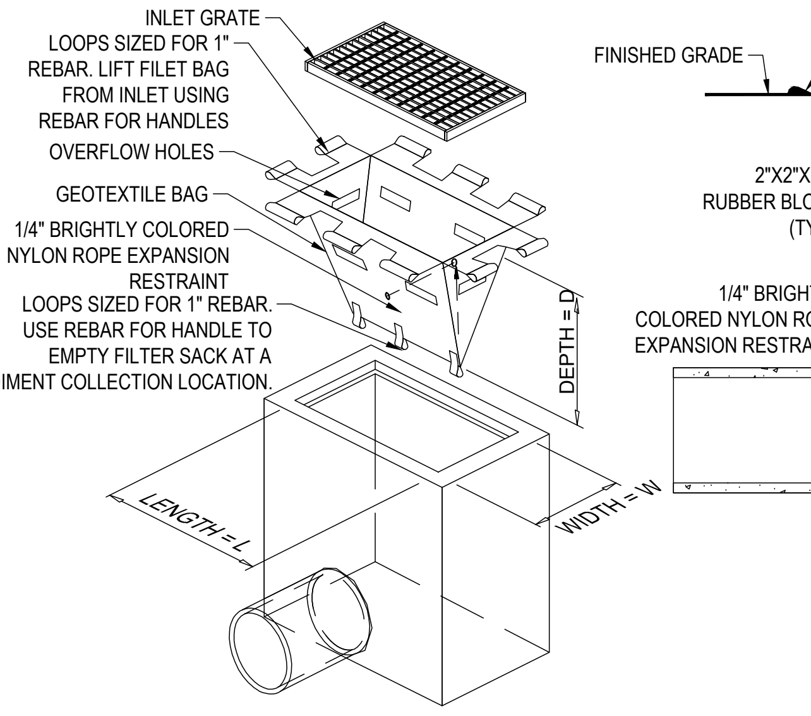
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.

4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.

5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAW BALE

N.T.S.


INLET GRATE
LOOPS SIZED FOR 1" REBAR. LIFT FILET BAG FROM INLET USING REBAR FOR HANDLES
OVERFLOW HOLES
GEOTEXTILE BAG
1/4" BRIGHTLY COLORED NYLON ROPE EXPANSION RESTRAINT
LOOPS SIZED FOR 1" REBAR. USE REBAR FOR HANDLE TO EMPTY FILTER SACK AT A SEDIMENT COLLECTION LOCATION.
DEPTH = D
LENGTH = L
WIDTH = W
FINISHED GRADE
SECURE LIFTING LOOPS TO OR UNDER SURFACE
2"X2"X3/4" RUBBER BLOCK (TYP)"
1/4" BRIGHTLY COLORED NYLON ROPE EXPANSION RESTRAINT
SECTION VIEW

ISOMETRIC VIEW

PROPERTIES	TEST METHOD	UNITS
LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
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-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC $^{-1}$
MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC $^{-1}$

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

1. REMOVE TRAPPED SEDIMENT WHEN BRIGHTLY COLORED EXPANSION RESTRAINT CAN NO LONGER BE SEEN.
2. GEOTEXTILE SHALL BE A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE.
3. PLACE AN OIL ADSORBENT PAD OR PILLOW OVER INLET GRATE WHEN OIL SPILLS ARE A CONCERN.
4. INSPECT PER REGULATORY REQUIREMENTS.
5. THE WIDTH, "W", OF THE FILTER SACK SHALL MATCH THE INSIDE WIDTH OF THE GRATED INLET BOX.
6. THE DEPTH, "D", OF THE FILTER SACK SHALL BE BETWEEN 18 INCHES AND 36 INCHES.
7. THE LENGTH, "L", OF THE FILTER SACK SHALL MATCH THE INSIDE LENGTH OF THE GRATED INLET BOX.

FILTER SACKS (GRATED INLETS)

N.T.S.

BOHLER TM

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

811
Know what's **below.**
Call before you dig.
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.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-SESC-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER

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

JOHN A. KUCICH
CIVIL
No. 41530

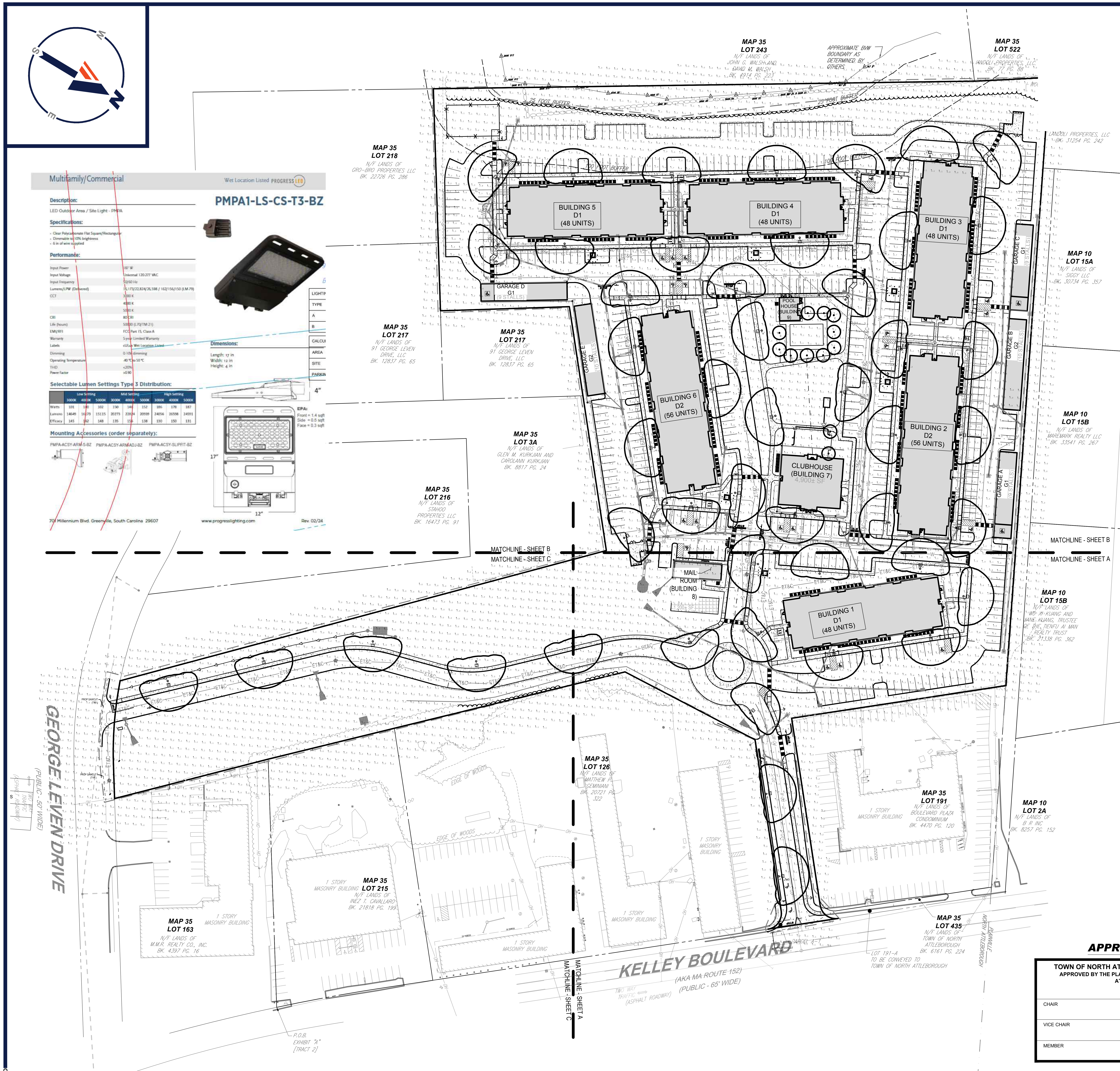
SHEET TITLE:

SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS

SHEET NUMBER:

C-605

REVISION 2 - 11/25/2024


N
E
S
W
MAP 35
LOT 243
N/F LANDS OF
JOHN G. WALSH AND
DAVID M. WALSH
BK. 4914 PG. 223
APPROXIMATE BVW
BOUNDARY AS
DETERMINED BY
OTHERS
MAP 35
LOT 522
N/F LANDS OF
IANDOLI PROPERTIES, LLC
BK. 77 PG. 88
25 FOOT BUFFER
100 FOOT BUFFER
IANDOLI PROPERTIES, LLC
BK. 31254 PG. 242
MAP 35
LOT 218
N/F LANDS OF
GRO-BRO PROPERTIES LLC
BK. 22726 PG. 286
BUILDING 5
D1
(48 UNITS)
BUILDING 4
D1
(48 UNITS)
BUILDING 3
D1
(48 UNITS)
GARAGE C
G1
(9 STALLS)
MAP 10
LOT 15A
N/F LANDS OF
SIGGY LLC
BK. 30734 PG. 357
GARAGE D
G1
(9 STALLS)
POOL
HOUSE
(BUILDING
9)
MAP 35
LOT 217
N/F LANDS OF
91 GEORGE LEVEN
DRIVE, LLC
BK. 12837 PG. 65
GARAGE E
G2
(10 STALLS)
GARAGE B
G2
(10 STALLS)
BUILDING 6
D2
(56 UNITS)
BUILDING 2
D2
(56 UNITS)
MAP 10
LOT 15B
N/F LANDS OF
MAREMARK REALTY LLC
BK. 33541 PG. 267
MAP 35
LOT 3A
N/F LANDS OF
GLEN M. KURKJIAN AND
CAROLANN KURKJIAN
BK. 8817 PG. 24
CLUBHOUSE
(BUILDING 7)
4,900± SF
GARAGE A
G1
(9 STALLS)
MAP 35
LOT 216
N/F LANDS OF
STAHOO
PROPERTIES LLC
BK. 16473 PG. 91
MATCHLINE - SHEET B
MATCHLINE - SHEET C
MATCHLINE - SHEET B
MATCHLINE - SHEET A
MAIL
ROOM
(BUILDING
8)
1,200± SF
BUILDING 1
D1
(48 UNITS)
MAP 10
LOT 15B
N/F LANDS OF
WO XI KUANG AND
JANE KUANG, TRUSTEE
OF THE TIENFU AI MAN
REALTY TRUST
BK. 21338 PG. 362
ET&C
PROP SAWCUT (TYP.)
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
TWO WAY TRAFFIC (ASPHALT ROADWAY)
MAP 35
LOT 126
N/F LANDS OF
MATTHEW P.
GEMINIANI
BK. 20721 PG. 322
EDGE OF WOODS
1 STORY
MASONRY BUILDING
MAP 35
LOT 191
N/F LANDS OF
BOULEVARD PLAZA
CONDOMINIUM
BK. 4470 PG. 120
MAP 10
LOT 2A
N/F LANDS OF
B R INC
BK. 8257 PG. 152
MAP 35
LOT 215
N/F LANDS OF
INEZ T. CAVALLARO
BK. 21818 PG. 199
MAP 35
LOT 163
N/F LANDS OF
M.M.R. REALTY CO., INC.
BK. 4397 PG. 16
MAP 35
LOT 435
N/F LANDS OF
TOWN OF NORTH
ATTLEBOROUGH
BK. 6161 PG. 224
LOT 191-A
TO BE CONVEYED TO
TOWN OF NORTH ATTLEBOROUGH
PARCEL A-1
PLAINVILLE
NORTH ATTLEBOROUGH
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)
MATCHLINE - SHEET A
MATCHLINE - SHEET C
P.O.B.
EXHIBIT "A"
[TRACT 2]

Multifamily/Commercial

Wet Location Listed PROGRESS LED

PMPA1-LS-CS-T3-BZ

Description:

LED Outdoor Area / Site Light - PMPA

Specifications:

- Clear Polycarbonate Flat Square/Rectangular
- Dimmable to 10% brightness
- 6 in of wire supplied

Performance:

Input Power	187 W
Input Voltage	Universal 120-277 VAC
Input Frequency	50/60 Hz
Lumens/LPW (Delivered)	16,173/22,824/26,598 / 162/156/150 (LM-79)
CCT	3000 K
	4000 K
	5000 K
CRI	80 CRI
Life (hours)	50000 (L70/TM-21)
EMI/RFI	FCC Part 15, Class A
Warranty	5-year Limited Warranty
Labels	cULus Wet Location Listed
Dimming	0-10V dimming
Operating Temperature	-40 ℃ to 50 ℃
THD	<20%
Power Factor	>0.90

Dimensions:

Length: 17 in
Width: 12 in
Height: 4 in

Selectable Lumen Settings Type 3 Distribution:

	Low Setting			Mid Setting			High Setting		
	3000K	4000K	5000K	3000K	4000K	5000K	3000K	4000K	5000K
Watts	101	100	102	150	146	152	186	178	187
Lumens	14649	16173	15115	20273	22824	20939	24056	26598	24591
Efficacy	145	162	148	135	156	138	130	150	131

EPA:

Front = 1.4 sqft
Side = 0.5 sqft
Face = 0.3 sqft

4"
17"
12"

Mounting Accessories (order separately):

PMPA-ACSY-ARM-S-BZ
PMPA-ACSY-ARM-ADJ-BZ
PMPA-ACSY-SLIPFIT-BZ

701 Millennium Blvd. Greenville, South Carolina 29607
www.progresslighting.com
Rev. 02/24

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LGHT-1A----LAYOUT: C-705 OVERALL LIGHT

AO

GENERAL LIGHTING NOTES

(REV. 6/2023)

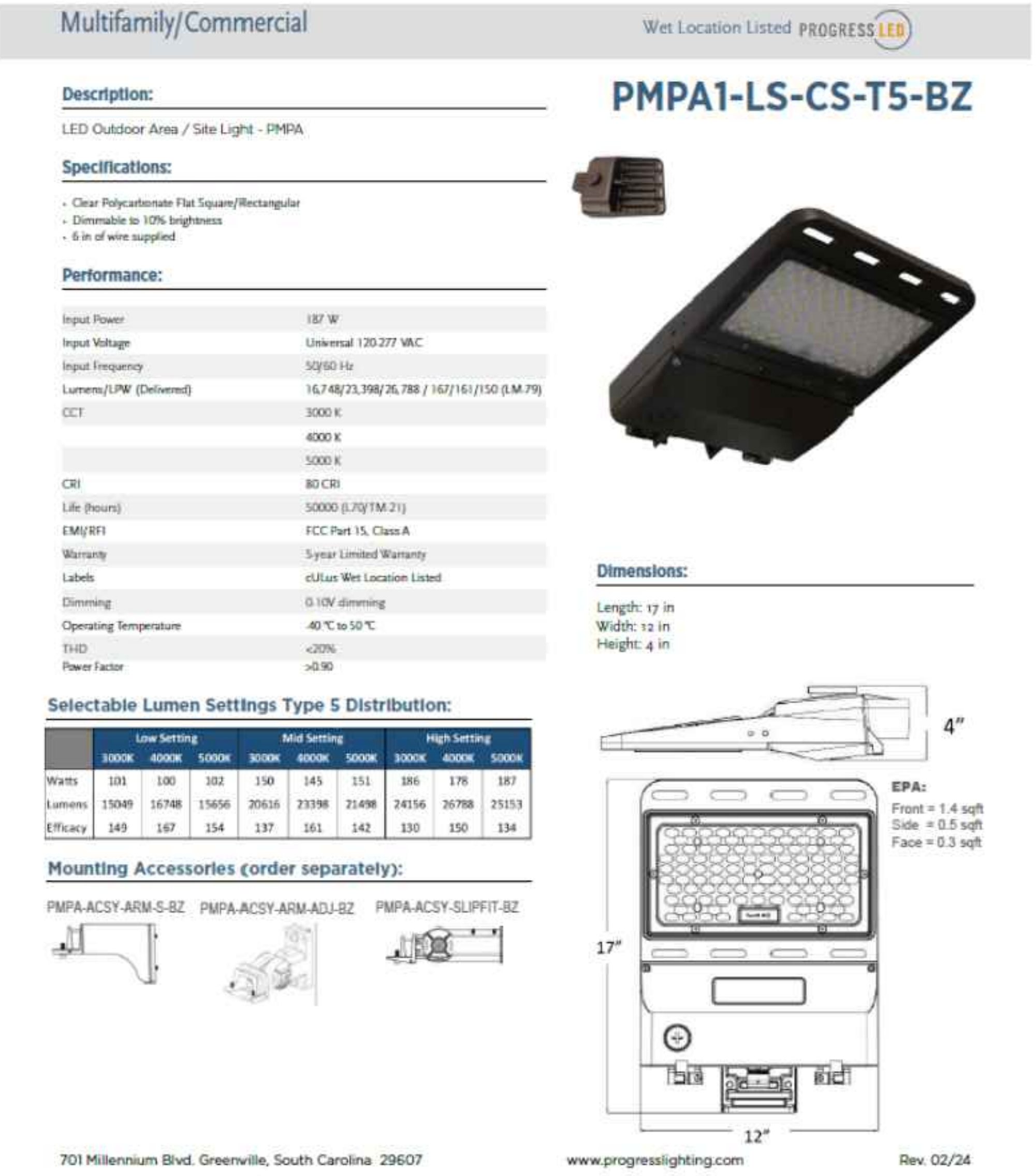
1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. 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.
3. THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING IES LM-80-08 TESTING. THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
4. 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 (FC).
5. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RE-LAMPING (IF NECESSARY) ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNER'S.
6. 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.
7. 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.
8. CONTRACTOR MUST BRING TO DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
9. IT IS THE LIGHTING CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROJECT ARCHITECT OR OWNER REGARDING ANY AND ALL POWER SOURCE(S) , AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS.
10. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.
11. 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 LIKE.
12. THE CONTRACTOR MUST VERIFY THAT INSTALLATION OF LIGHTING FIXTURES COMPLIES WITH THE REQUIREMENTS FOR SEPARATION FROM OVERHEAD ELECTRICAL WIRES PER STATE REGULATIONS.
13. WHEN A BANK ATM IS INCLUDED IN THE PLAN, THE LIGHTING DESIGN REPRESENTS BOHLER'S UNDERSTANDING AND INTERPRETATION OF THE REGULATORY LIGHTING LEVELS INTENDED BY PUBLISHED STANDARDS.
14. 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.

LIGHTING SCHEDULE

TYPE	PART NUMBER	QTY	MH	LLF	LUMENS	WATTS
A	PMPA1 TYPE 3 100W 3000K	45	16'	0.95	14649	101.1
B	PMPA1 TYPE 5 100W 3000K - Dual Head	1	16'	0.95	15049	101.2

CALCULATION SUMMARY

AREA	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
SITE	Fc	0.85	21.3	0.0	N.A.	N.A.
PARKING & ROADWAYS	Fc	1.59	21.3	0.0	N.A.	N.A.



Multifamily/Commercial

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PMPA1-LS-CS-T5-BZ

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LED Outdoor Area / Site Light - PMPA

Specifications:

- Clear Polycarbonate Flat Square/Rectangular
- Dimmable to 10% brightness
- 6 in of wire supplied

Performance:

Input Power	187 W
Input Voltage	Universal 120-277 VAC
Input Frequency	50/60 Hz
Lumens/LPW (Delivered)	16,748/23,398/26,788 / 167/161/150 (LM-79)
CCT	3000 K
	4000 K
	5000 K
CRI	80 CRI
Life (hours)	50000 (L70/TM-21)
EMI/RFI	FCC Part 15, Class A
Warranty	5-year Limited Warranty
Labels	cULus Wet Location Listed
Dimming	0-10V dimming
Operating Temperature	-40 ℃ to 50 ℃
THD	<20%
Power Factor	>0.90

Dimensions:

Length: 17 in
Width: 12 in
Height: 4 in

Selectable Lumen Settings Type 5 Distribution:

	Low Setting			Mid Setting			High Setting		
	3000K	4000K	5000K	3000K	4000K	5000K	3000K	4000K	5000K
Watts	101	100	102	150	145	151	186	178	187
Lumens	15049	16748	15656	20616	23398	21498	24156	26788	25153
Efficacy	149	167	154	137	161	142	130	150	134

EPA:

Front = 1.4 sqft
Side = 0.5 sqft
Face = 0.3 sqft

Mounting Accessories (order separately):

PMPA-ACSY-ARM-S-BZ
PMPA-ACSY-ARM-ADJ-BZ
PMPA-ACSY-SLIPFIT-BZ

701 Millennium Blvd. Greenville, South Carolina 29607
www.progresslighting.com
Rev. 02/24

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

PROPOSED LIGHTING DESIGN AND PHOTOMETRICS ARE PREPARED BY PROGRESS LIGHTING AND ARE SHOWN FOR REFERENCE ONLY.

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

60 30 15 0 60
1"= 60'

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REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-LGHT-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED
DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER//

352 TURNPIKE ROAD
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NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

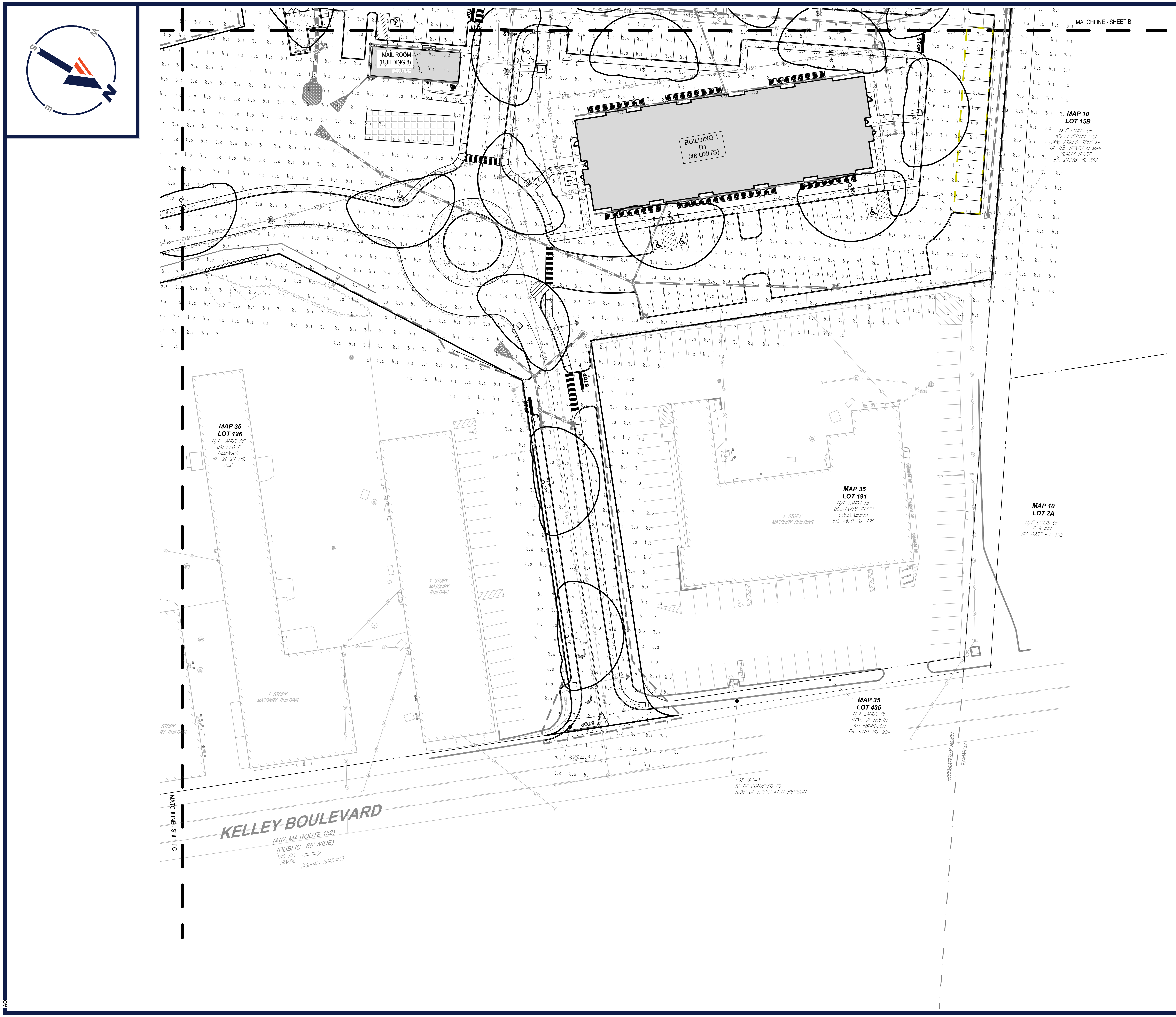
SHEET TITLE:

OVERALL LIGHTING PLAN

SHEET NUMBER:

C-705

REVISION 2 - 11/25/2024


N
S
E
W
MATCHLINE - SHEET B
MAIL ROOM
(BUILDING 8)
1,200± SF
BUILDING 1
D1
(48 UNITS)
STOP
MAP 10
LOT 15B
N/F LANDS OF
WO XI KUANG AND
JANE KUANG, TRUSTEE
OF THE TIENFU AI MAN
REALTY TRUST
BK. 21338 PG. 362
MAP 35
LOT 126
N/F LANDS OF
MATTHEW P.
GEMINIANI
BK. 20721 PG.
322
1 STORY
MASONRY
BUILDING
MAP 35
LOT 191
N/F LANDS OF
BOULEVARD PLAZA
CONDOMINIUM
BK. 4470 PG. 120
1 STORY
MASONRY BUILDING
NO PARKING
MAP 10
LOT 2A
N/F LANDS OF
B R INC
BK. 8257 PG. 152
1 STORY
MASONRY BUILDING
MAP 35
LOT 435
N/F LANDS OF
TOWN OF NORTH
ATTLEBOROUGH
BK. 6161 PG. 224
PARCEL A-1
LOT 191-A
TO BE CONVEYED TO
TOWN OF NORTH ATTLEBOROUGH
NORTH ATTLEBOROUGH
PLAINVILLE
MATCHLINE - SHEET C
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)
TWO WAY
TRAFFIC
(ASPHALT ROADWAY)

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PROPOSED
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CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

SEE NOTES ON C-701

30 15 7.5 0 30
1"= 30'

SHEET TITLE:

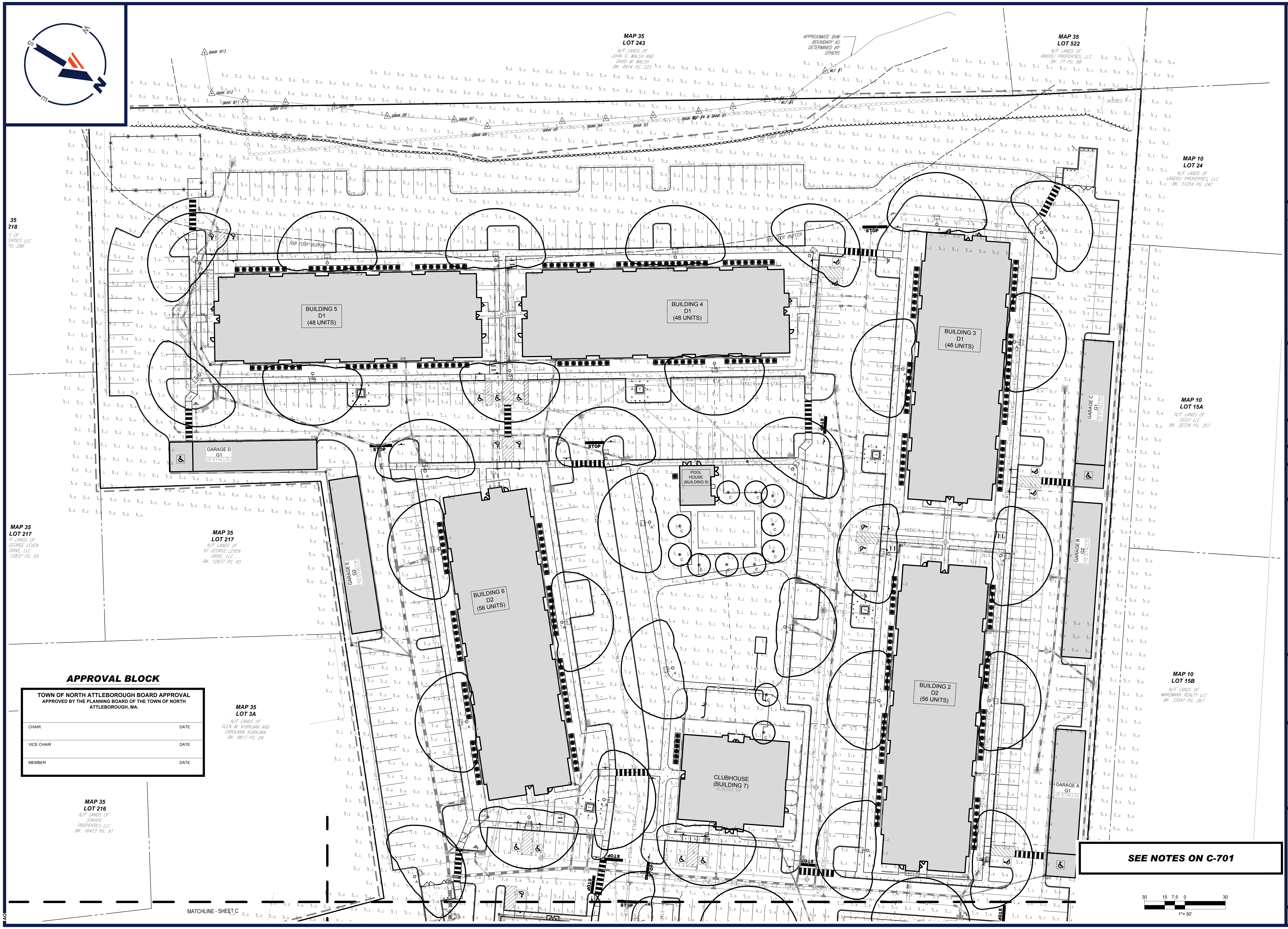
LIGHTING PLAN A

SHEET NUMBER:

C-706

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LGHT-1A----->LAYOUT: C-706 LGHT A
AO



MAP 35
LOT 243
N/F LANDS OF
JOHN G. WALSH AND
DAVID M. WALSH
BK. 4914 PG. 223
APPROXIMATE BVW
BOUNDARY AS
DETERMINED BY
OTHERS
WLF #1
WLF #2
WLF #3
WLF #4 & BANK B1
BANK B3
BANK B4
BANK B5
BANK B6
BANK B7
BANK B8
BANK B9
BANK B10
BANK B11
BANK B12
BANK B13
25 FOOT BUFFER
100 FOOT BUFFER
WOODED
MAP 35
LOT 522
N/F LANDS OF
IANDOLI PROPERTIES, LLC.
BK. 77 PG. 88
MAP 10
LOT 24
N/F LANDS OF
LANDOLI PROPERTIES, LLC
BK. 31254 PG. 242
35
218
S OF
ERTIES LLC
PG. 286
BUILDING 5
D1
(48 UNITS)
BUILDING 4
D1
(48 UNITS)
BUILDING 3
D1
(48 UNITS)
GARAGE C
G1
(9 STALLS)
MAP 10
LOT 15A
N/F LANDS OF
SIGGY LLC
BK. 30734 PG. 357
GARAGE D
G1
(9 STALLS)
POOL
HOUSE
(BUILDING 9)
STOP
MAP 35
LOT 217
/F LANDS OF
GEORGE LEVEN
DRIVE, LLC
12837 PG. 65
MAP 35
LOT 217
N/F LANDS OF
91 GEORGE LEVEN
DRIVE, LLC
BK. 12837 PG. 65
GARAGE E
G2
(10 STALLS)
BUILDING 6
D2
(56 UNITS)
GARAGE B
G2
(10 STALLS)
MAP 35
LOT 3A
N/F LANDS OF
GLEN M. KURKJIAN AND
CAROLANN KURKJIAN
BK. 8817 PG. 24
BUILDING 2
D2
(56 UNITS)
MAP 10
LOT 15B
N/F LANDS OF
MAREMARK REALTY LLC
BK. 33541 PG. 267
CLUBHOUSE
(BUILDING 7)
GARAGE A
G1
(9 STALLS)
MAP 35
LOT 216
N/F LANDS OF
STAHOO
PROPERTIES LLC
BK. 16473 PG. 91
MATCHLINE - SHEET C
30 15 7.5 0 30
1"= 30'

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SEE NOTES ON C-701

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LGHT-1A---->LAYOUT: C-707 LGHT B

AO

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CHECKED BY: KWC
DATE: 9/18/2024
CAD I.D.: W211244-LGHT-1A

PROJECT:

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FOR

MARCUS PARTNERS

PROPOSED
DEVELOPMENT

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CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

JOHN A. KUCICH
CIVIL
No. 41530

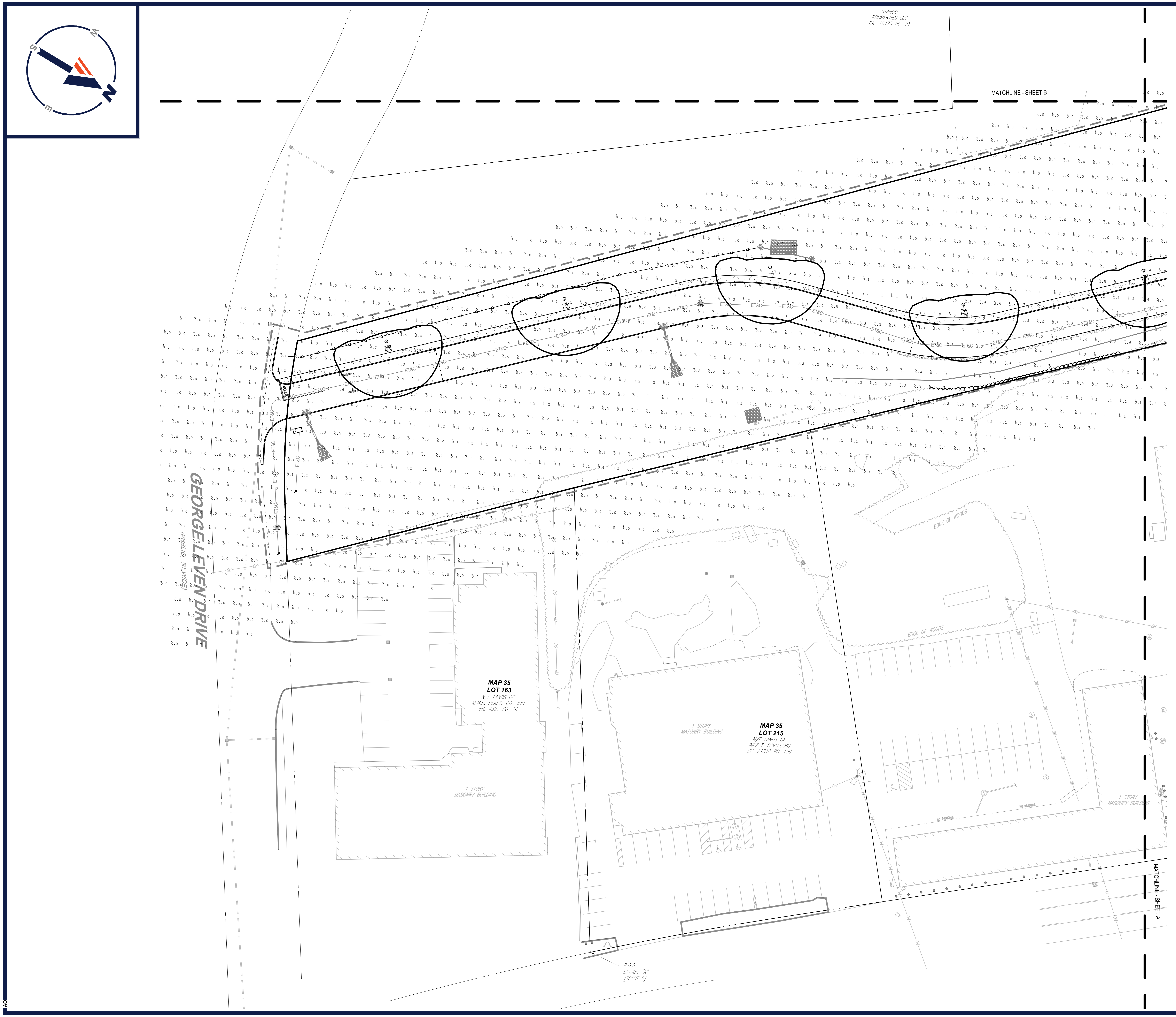
SHEET TITLE:

LIGHTING PLAN B

SHEET NUMBER:

C-707

REVISION 2 - 11/25/2024


N
E
S
W
STAHOO
PROPERTIES LLC
BK. 16473 PG. 91
MATCHLINE - SHEET B
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
ET&C
EDGE OF WOODS
EDGE OF WOODS
MAP 35
LOT 163
N/F LANDS OF
M.M.R. REALTY CO., INC.
BK. 4397 PG. 16
1 STORY
MASONRY BUILDING
1 STORY
MASONRY BUILDING
MAP 35
LOT 215
N/F LANDS OF
INEZ T. CAVALLARO
BK. 21818 PG. 199
1 STORY
MASONRY BUILDING
NO PARKING
NO PARKING
P.O.B.
EXHIBIT "A"
[TRACT 2]
MATCHLINE - SHEET A

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VICE CHAIR DATE

MEMBER DATE

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1"= 30'

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CAD I.D.:	W211244-LGHT-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED
DEVELOPMENT

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CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

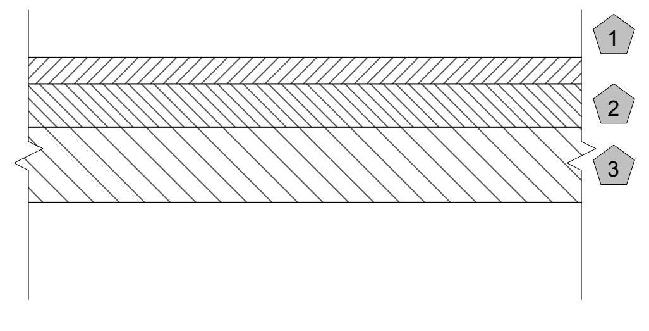
LIGHTING PLAN C

SHEET NUMBER:

C-708

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LGHT-1A----->LAYOUT: C-708 LGHT C
AO



① BIT. CON. WEAR COURSE
(STANDARD DUTY=1.5")

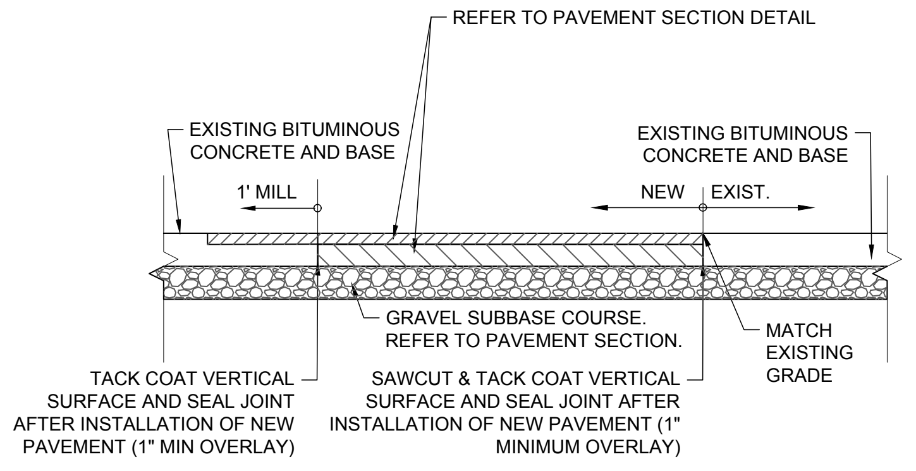
② BIT. CONC. BINDER COURSE
(STANDARD DUTY=2.0")

③ BASE COURSE
(10" COMPACTED THICKNESS MHD M1.03.0 GRAVEL BORROW TYPE b OR 8" COMPACTED THICKNESS MHD M.2.01.07 DENSE-GRADED CRUSHED STONES.)

NOTES:
1. PAVEMENT BASE AND SUBBASE COURSES TO CONFORM TO STATE DEPARTMENT OF TRANSPORTATION
2. GC TO REFER TO GEOTECHNICAL REPORT FOR PAVEMENT SPECIFICATIONS.

PAVEMENT SECTION

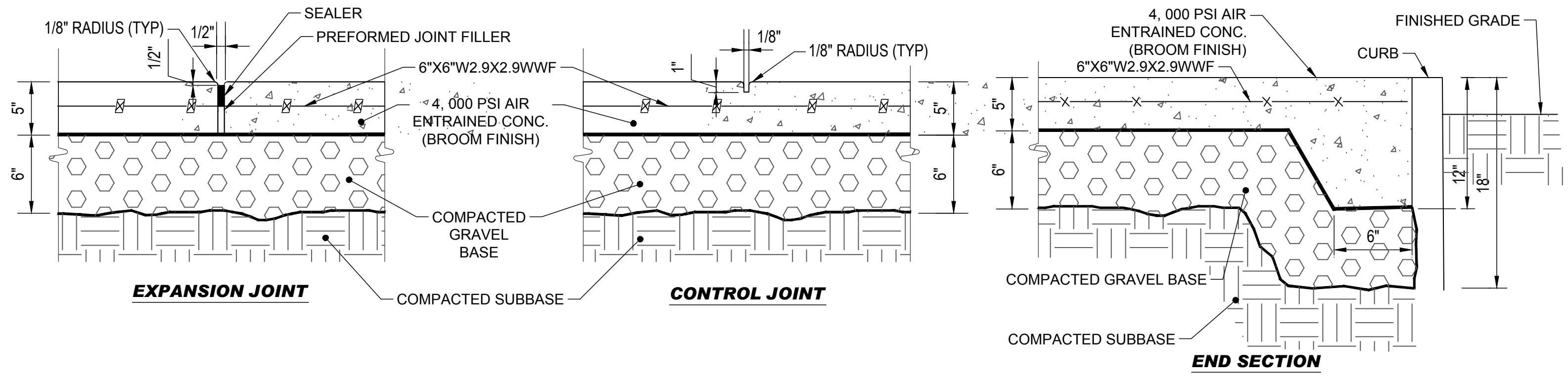
(NE-S010101 - 07/2023) NOT TO SCALE

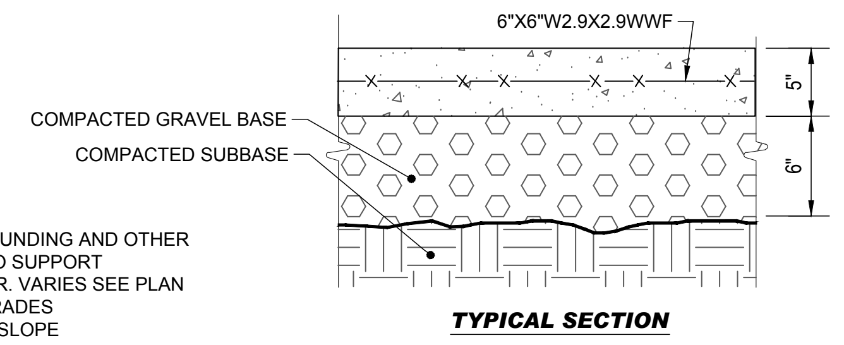

REFER TO PAVEMENT SECTION DETAIL
EXISTING BITUMINOUS CONCRETE AND BASE
EXISTING BITUMINOUS CONCRETE AND BASE
1' MILL
NEW
EXIST.
GRAVEL SUBBASE COURSE. REFER TO PAVEMENT SECTION.
MATCH EXISTING GRADE
TACK COAT VERTICAL SURFACE AND SEAL JOINT AFTER INSTALLATION OF NEW PAVEMENT (1" MIN OVERLAY)
SAWCUT & TACK COAT VERTICAL SURFACE AND SEAL JOINT AFTER INSTALLATION OF NEW PAVEMENT (1" MINIMUM OVERLAY)

NOTES:
1. FOR WORK WITHIN THE RIGHT-OF-WAY, PAVEMENT BASE AND SUBBASE COURSE SHALL CONFORM TO ALL STATE DOT HIGHWAY DIVISION SPECIFICATIONS

ROADWAY PATCHING

(NE-S040104 - 09/2023) NOT TO SCALE

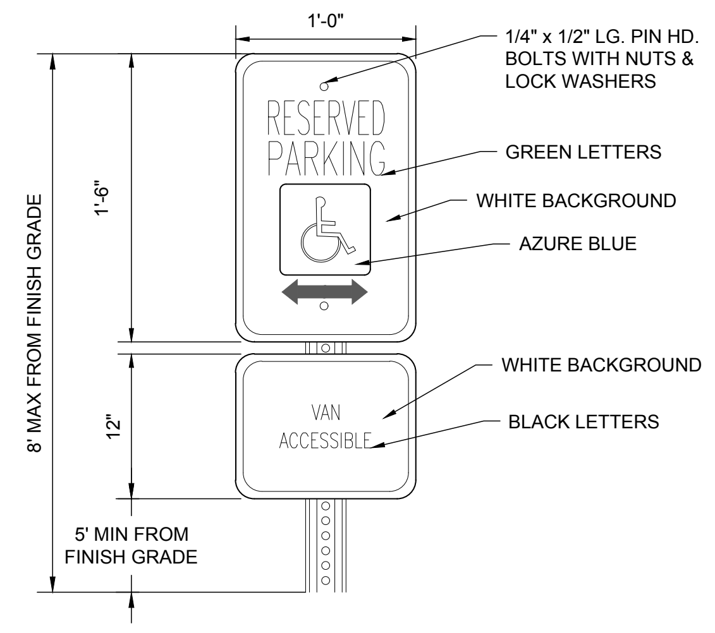

1/8" RADIUS (TYP)
1/2"
1/2"
SEALER
PREFORMED JOINT FILLER
6"X6"W2.9X2.9WWF
4, 000 PSI AIR ENTRAINED CONC. (BROOM FINISH)
5"
6"
COMPACTED GRAVEL BASE
COMPACTED SUBBASE
EXPANSION JOINT
1/8"
1"
1/8" RADIUS (TYP)
CONTROL JOINT
4, 000 PSI AIR ENTRAINED CONC. (BROOM FINISH)
6"X6"W2.9X2.9WWF
FINISHED GRADE
CURB
12"
18"
6"
COMPACTED GRAVEL BASE
COMPACTED SUBBASE
END SECTION


6"X6"W2.9X2.9WWF
COMPACTED GRAVEL BASE
COMPACTED SUBBASE
5"
6"
TYPICAL SECTION

NOTES:
1. TO BE USED FOR BUILDING SURROUNDING AND OTHER CONCRETE WALKS. USE CHAIRS TO SUPPORT REINFORCING STEEL DURING POUR. VARIES SEE PLAN
2. SEE SITE PLAN FOR WIDTH AND GRADES
3. PROVIDE MINIMUM 1/8"/FT. CROSS-SLOPE
4. PROVIDE CONTROL JOINTS 5'-0" O.C. MIN 5. PROVIDE EXPANSION JOINTS 20'-0" O.C. MIN AT EXPANSION JOINTS, PROVIDE DOWELS @ 24" O.C.

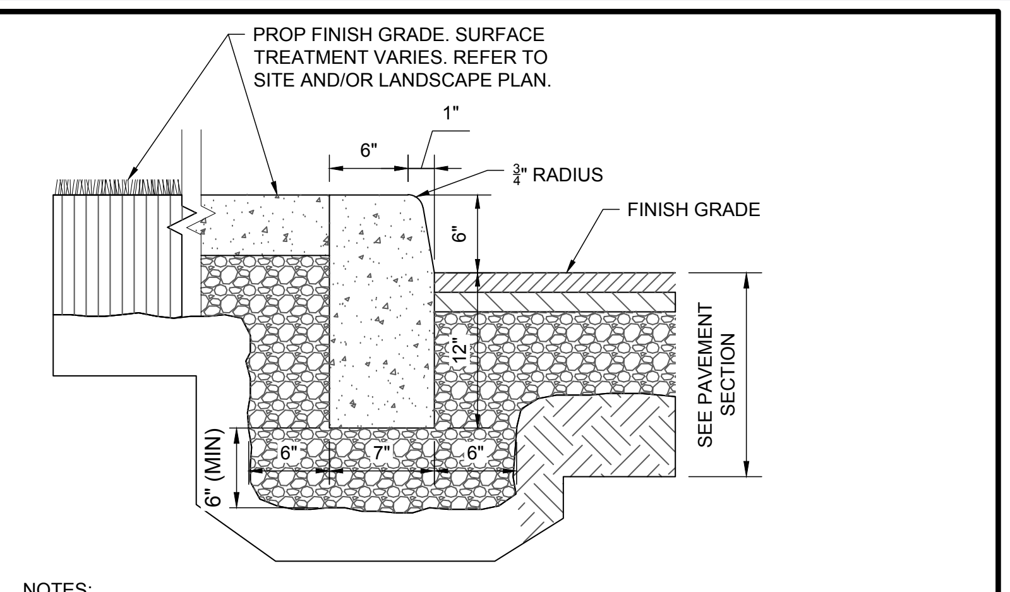
CONCRETE SIDEWALK

(NE-S030201 - 09/2023) NOT TO SCALE


1'-0"
1/4" x 1/2" LG. PIN HD. BOLTS WITH NUTS & LOCK WASHERS
RESERVED PARKING
GREEN LETTERS
WHITE BACKGROUND
AZURE BLUE
WHITE BACKGROUND
VAN ACCESSIBLE
BLACK LETTERS
1'-6"
12"
8' MAX FROM FINISH GRADE
5' MIN FROM FINISH GRADE

ACCESSIBLE PARKING SIGNS

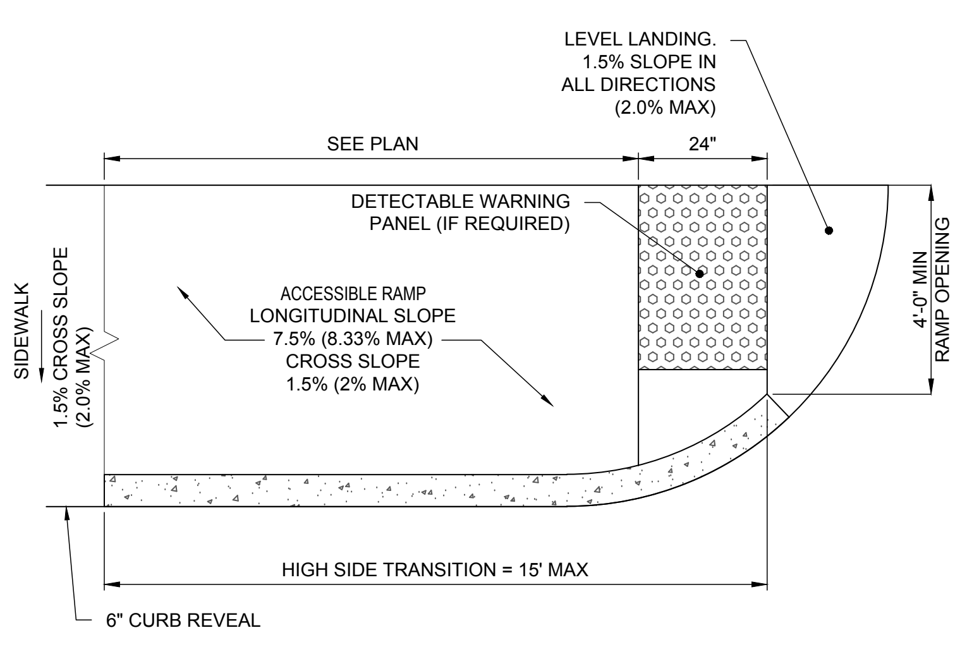
(NE-S060101 - 09/2023) NOT TO SCALE


PROP FINISH GRADE. SURFACE TREATMENT VARIES. REFER TO SITE AND/OR LANDSCAPE PLAN.
1"
6"
¾" RADIUS
FINISH GRADE
6"
12"
SEE PAVEMENT SECTION
6" (MIN)
6"
7"
6"

NOTES:
1. CURB SHALL CONSIST OF 4,000 PSI AIR ENTRAINED CONCRETE, EXPOSED EDGES TO HAVE RUBBED FINISH, AND SURFACE SHALL BE TREATED WITH A CONCRETE PENETRANT/SEALER.
2. THE ENDS OF CURB SECTIONS SHALL BE CHAMFERED 1/4 INCH.
3. THE CORNERS OF CURB SECTIONS SHALL MATCH THE ADJACENT CURB IN SIZE, COLOR AND FINISH.
4. CURBS, CURB CORNERS OR EDGING SHALL BE FITTED TOGETHER AS CLOSELY AS POSSIBLE.
5. EXPANSION JOINTS SHALL BE INSTALLED AT A MAXIMUM OF TWENTY FEET (20') ON CENTER USING PREFORMED EXPANSION JOINT FILLER HAVING A THICKNESS OF ½ INCH.
6. PAVEMENT SECTION DEPTHS, MATERIAL, AND SPECIFICATIONS PER PAVEMENT SECTION DETAIL.
7. STRAIGHT CURB SECTIONS CAN BE USED FOR RADII 25' OR LESS. OTHERWISE, CURVED CURB LENGTHS SHALL BE INSTALLED AT THE SPECIFIED RADIUS PER THE SITE PLAN.

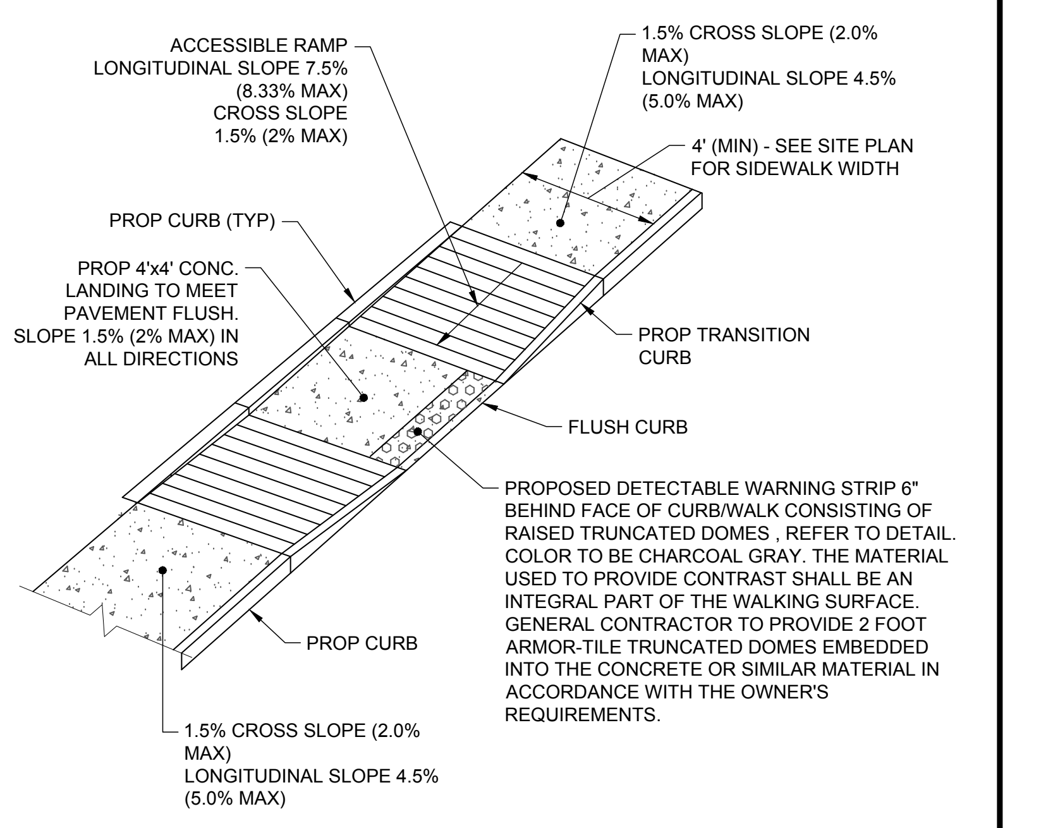
PRECAST CONCRETE CURB

(NE-S020201 - 06/2024) NOT TO SCALE


LEVEL LANDING. 1.5% SLOPE IN ALL DIRECTIONS (2.0% MAX)
SEE PLAN
24"
DETECTABLE WARNING PANEL (IF REQUIRED)
ACCESSIBLE RAMP LONGITUDINAL SLOPE 7.5% (8.33% MAX) CROSS SLOPE 1.5% (2% MAX)
SIDEWALK
1.5% CROSS SLOPE (2.0% MAX)
4'-0" MIN RAMP OPENING
HIGH SIDE TRANSITION = 15' MAX
6" CURB REVEAL

ACCESSIBLE RAMP TYPE A

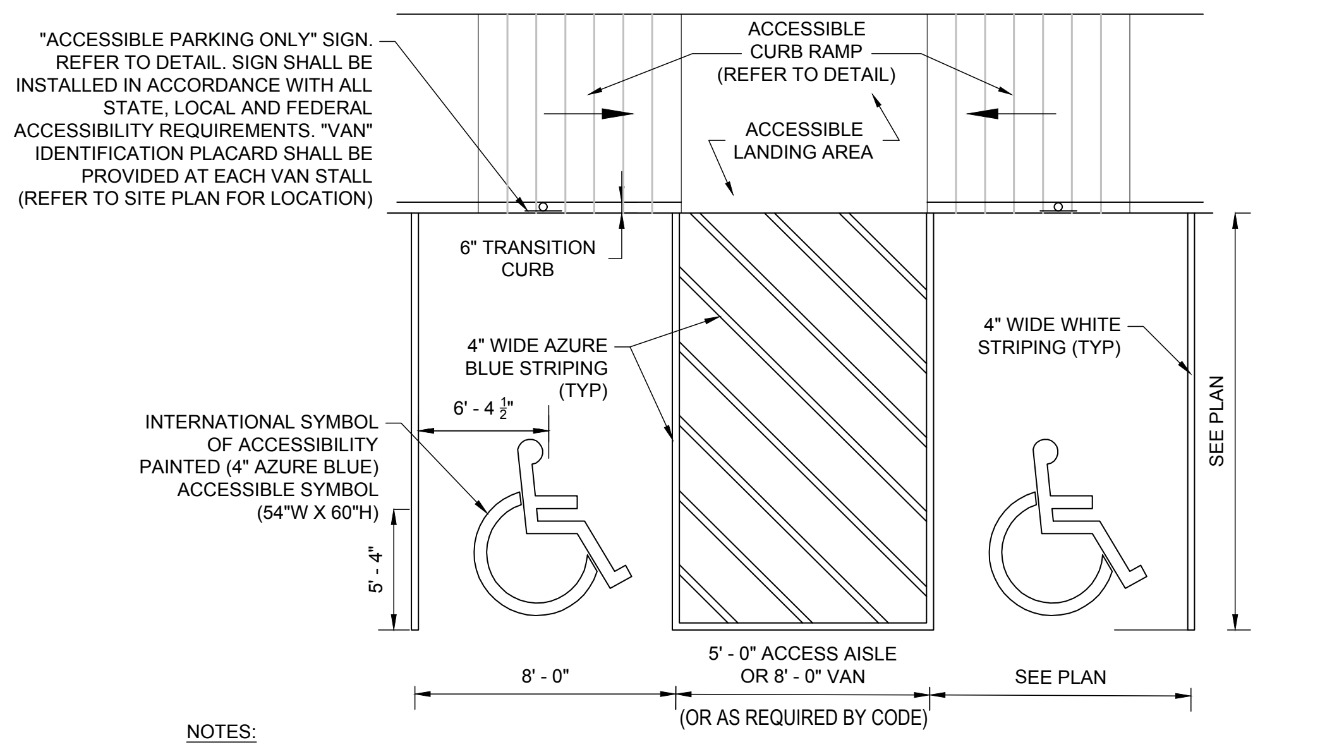
(NE-S030204 - 09/2023) NOT TO SCALE


ACCESSIBLE RAMP LONGITUDINAL SLOPE 7.5% (8.33% MAX) CROSS SLOPE 1.5% (2% MAX)
1.5% CROSS SLOPE (2.0% MAX) LONGITUDINAL SLOPE 4.5% (5.0% MAX)
4' (MIN) - SEE SITE PLAN FOR SIDEWALK WIDTH
PROP CURB (TYP)
PROP 4'x4' CONC. LANDING TO MEET PAVEMENT FLUSH. SLOPE 1.5% (2% MAX) IN ALL DIRECTIONS
PROP TRANSITION CURB
FLUSH CURB
PROP CURB
1.5% CROSS SLOPE (2.0% MAX) LONGITUDINAL SLOPE 4.5% (5.0% MAX)

PROPOSED DETECTABLE WARNING STRIP 6" BEHIND FACE OF CURB/WALK CONSISTING OF RAISED TRUNCATED DOMES , REFER TO DETAIL. COLOR TO BE CHARCOAL GRAY. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. GENERAL CONTRACTOR TO PROVIDE 2 FOOT ARMOR-TILE TRUNCATED DOMES EMBEDDED INTO THE CONCRETE OR SIMILAR MATERIAL IN ACCORDANCE WITH THE OWNER'S REQUIREMENTS.

ACCESSIBLE RAMP TYPE B

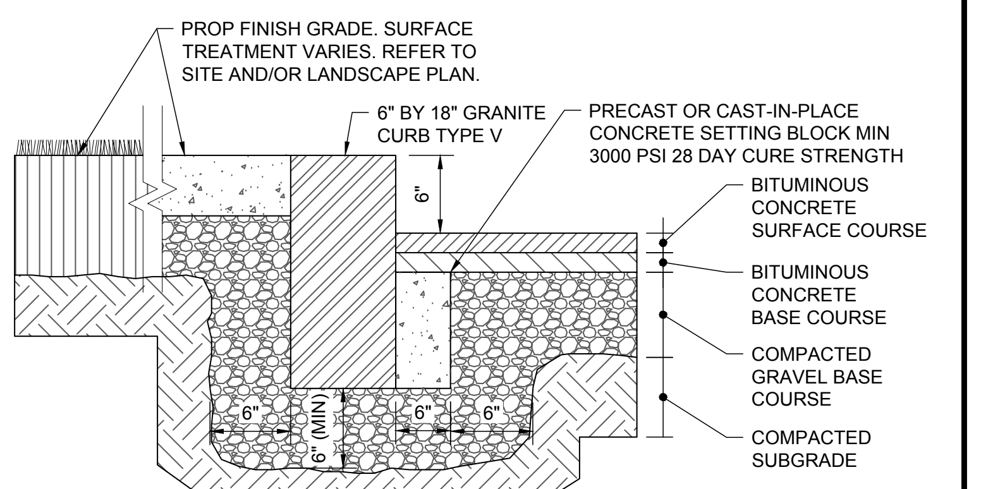
(NE-S030205 - 09/2023) NOT TO SCALE


"ACCESSIBLE PARKING ONLY" SIGN. REFER TO DETAIL. SIGN SHALL BE INSTALLED IN ACCORDANCE WITH ALL STATE, LOCAL AND FEDERAL ACCESSIBILITY REQUIREMENTS. "VAN" IDENTIFICATION PLACARD SHALL BE PROVIDED AT EACH VAN STALL (REFER TO SITE PLAN FOR LOCATION)
ACCESSIBLE CURB RAMP (REFER TO DETAIL)
ACCESSIBLE LANDING AREA
6" TRANSITION CURB
4" WIDE AZURE BLUE STRIPING (TYP)
4" WIDE WHITE STRIPING (TYP)
INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED (4" AZURE BLUE) ACCESSIBLE SYMBOL (54"W X 60"H)
6' - 4 ½"
5' - 4"
SEE PLAN
8' - 0"
5' - 0" ACCESS AISLE OR 8' - 0" VAN
SEE PLAN
(OR AS REQUIRED BY CODE)

NOTES:
1. REFER TO ACCESSIBILITY DESIGN GUIDELINES ON SHEET C-102 FOR ADDITIONAL INFORMATION.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL CONSIST OF CHLORINATED RUBBER PAINT APPLIED TO A DRY SURFACE WHEN THE TEMPERATURE IS GREATER THAN 40°F. PAINT SHALL BE APPLIED AT A MINIMUM OF 0.015" (15 MIL) FILM THICKNESS.
3. ALL MINIMUM DIMENSIONS ARE FROM CENTERLINE OF STRIPE TO CENTERLINE OF STRIPE OR INSIDE FACE OF CURB.
4. THE LAYOUT AND NUMBER OF PARKING SPACES VARIES. REFER TO PLAN FOR LOCATION AND CONFIGURATION.
5. ACCESS AISLES CANNOT OVERLAP VEHICULAR WAYS.
6. AN ACCESS AISLE AT LEAST 5' WIDE (8' WIDE FOR VAN) AND AT LEAST AS LONG AS THE PARKING STALL IS REQUIRED AND MUST BE MARKED TO DISCOURAGE PARKING IN IT. TWO SPACES CAN SHARE ONE AISLE.

MASSACHUSETTS STATE ACCESSIBLE PARKING STALL

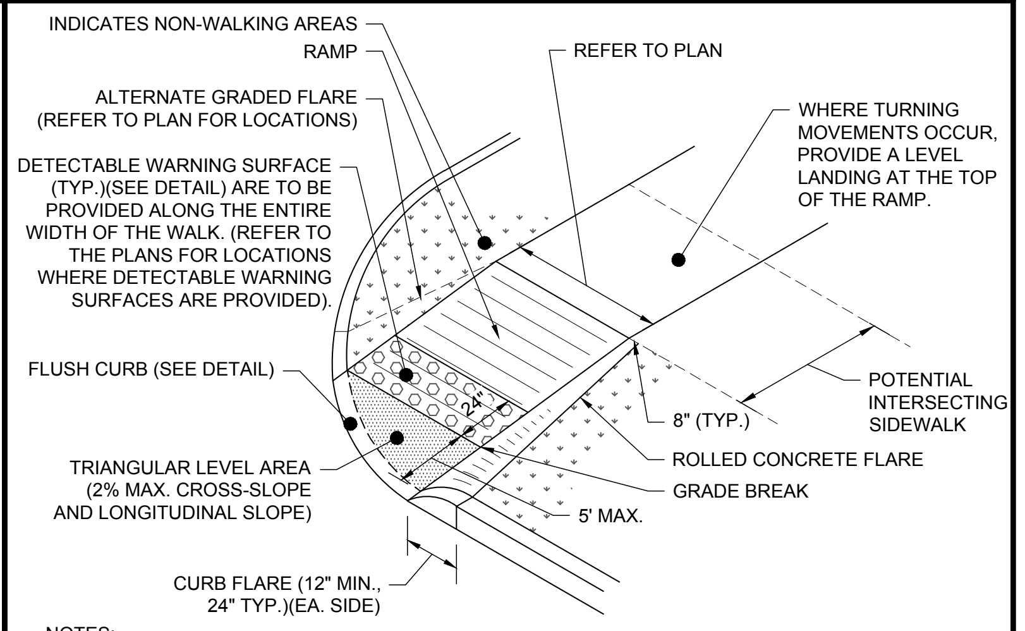
(NE-S050105 - 05/2024) NOT TO SCALE


PROP FINISH GRADE. SURFACE TREATMENT VARIES. REFER TO SITE AND/OR LANDSCAPE PLAN.
6" BY 18" GRANITE CURB TYPE V
PRECAST OR CAST-IN-PLACE CONCRETE SETTING BLOCK MIN 3000 PSI 28 DAY CURE STRENGTH
6"
BITUMINOUS CONCRETE SURFACE COURSE
BITUMINOUS CONCRETE BASE COURSE
COMPACTED GRAVEL BASE COURSE
COMPACTED SUBGRADE
6"
6" (MIN)
6"
6"

NOTES:
1. INSTALL WITHIN ALL PUBLIC WAYS, CORNERS, AND RADIUS SECTIONS

VERTICAL GRANITE CURB

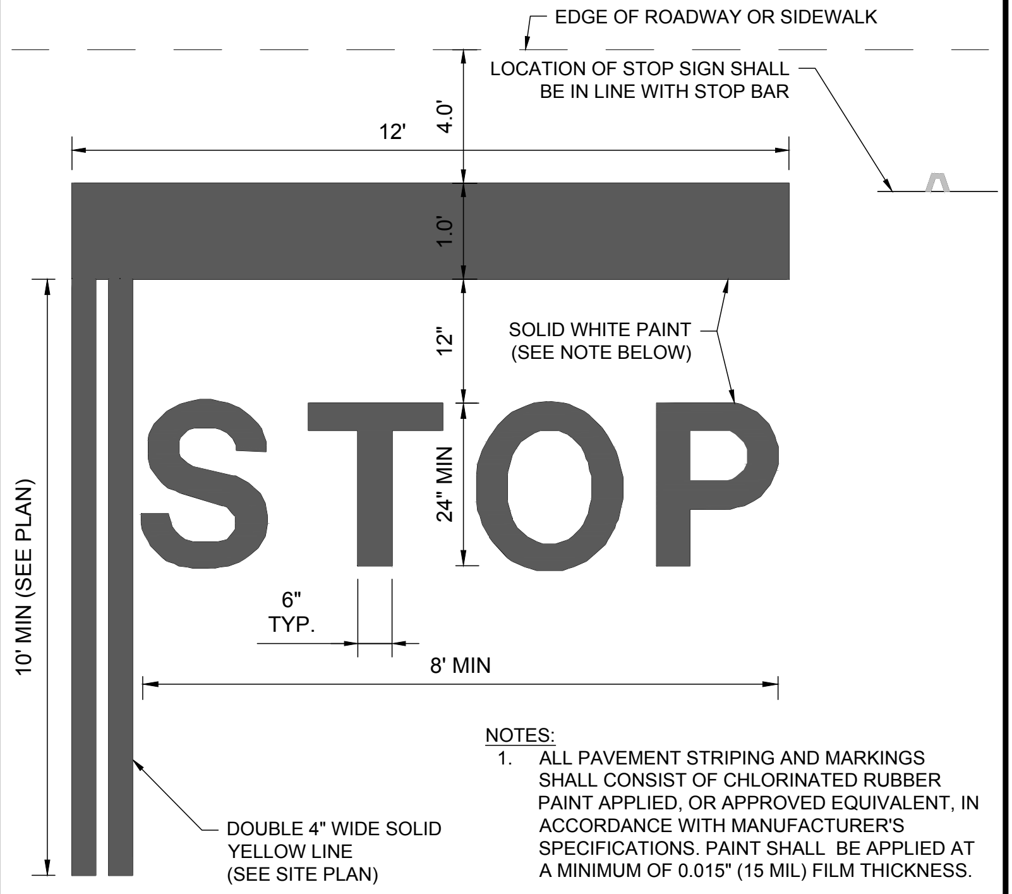
(NE-S020301 - 09/2023) NOT TO SCALE


INDICATES NON-WALKING AREAS
RAMP
REFER TO PLAN
ALTERNATE GRADED FLARE (REFER TO PLAN FOR LOCATIONS)
WHERE TURNING MOVEMENTS OCCUR, PROVIDE A LEVEL LANDING AT THE TOP OF THE RAMP.
DETECTABLE WARNING SURFACE (TYP.)(SEE DETAIL) ARE TO BE PROVIDED ALONG THE ENTIRE WIDTH OF THE WALK. (REFER TO THE PLANS FOR LOCATIONS WHERE DETECTABLE WARNING SURFACES ARE PROVIDED).
FLUSH CURB (SEE DETAIL)
24"
8" (TYP.)
POTENTIAL INTERSECTING SIDEWALK
ROLLED CONCRETE FLARE
GRADE BREAK
TRIANGULAR LEVEL AREA (2% MAX. CROSS-SLOPE AND LONGITUDINAL SLOPE)
5' MAX.
CURB FLARE (12" MIN., 24" TYP.)(EA. SIDE)

NOTES:
1. REFER TO "ACCESSIBILITY NOTES" PROVIDED HEREIN FOR ADDITIONAL REQUIREMENTS AND SPECIFICATIONS.
2. THE CONFIGURATION OF THE RAMP, LANDINGS, AND DWS SHOWN IN THE DETAIL ARE MEANT TO DEPICT THE VARIOUS REQUIREMENTS ASSOCIATED WITH CURB RAMPS AND RELATED ELEMENTS. REFER TO THE PLANS HEREIN FOR SPECIFIC CONFIGURATIONS.
3. THE RAMP IS TO BE COMPLETELY CONTAINED WITHIN THE LIMITS OF ANY CROSSWALK LINES.
4. CURB RAMPS REQUIRE LANDINGS WHERE PEDESTRIANS PERFORM TURNING MANEUVERS.
5. AS DEPICTED IN THE DETAIL, IN ORDER TO TRANSITION THE GRADE BREAK, PROVIDE A LEVEL TRIANGULAR AREA WHEN DIRECTIONAL RAMPS ARE INSTALLED ON A CURBED RETURN.

ADA CURB RAMP - SINGLE PARALLEL AT CURB RETURN

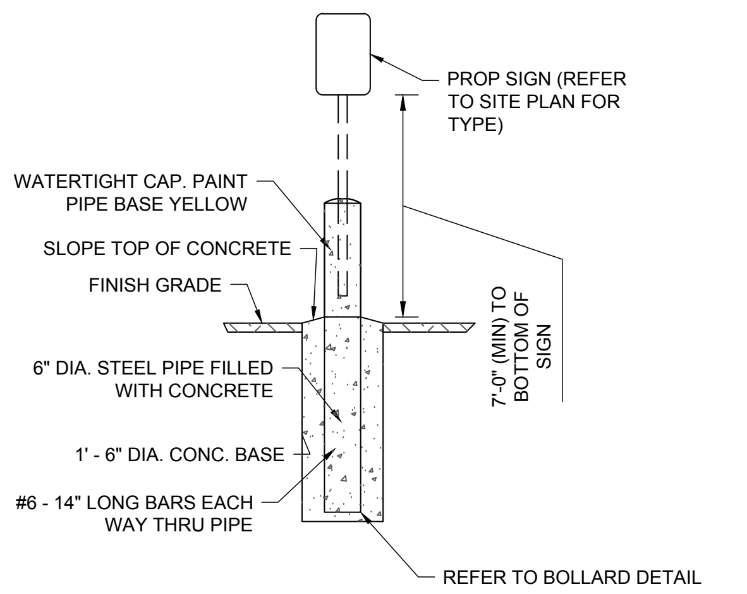
NOT TO SCALE (BE-S030506 - 08/2023)


EDGE OF ROADWAY OR SIDEWALK
LOCATION OF STOP SIGN SHALL BE IN LINE WITH STOP BAR
12'
4.0'
1.0'
12"
SOLID WHITE PAINT (SEE NOTE BELOW)
STOP
24" MIN
6" TYP.
8' MIN
10' MIN (SEE PLAN)
DOUBLE 4" WIDE SOLID YELLOW LINE (SEE SITE PLAN)

NOTES:
1. ALL PAVEMENT STRIPING AND MARKINGS SHALL CONSIST OF CHLORINATED RUBBER PAINT APPLIED, OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. PAINT SHALL BE APPLIED AT A MINIMUM OF 0.015" (15 MIL) FILM THICKNESS.

STOP BAR

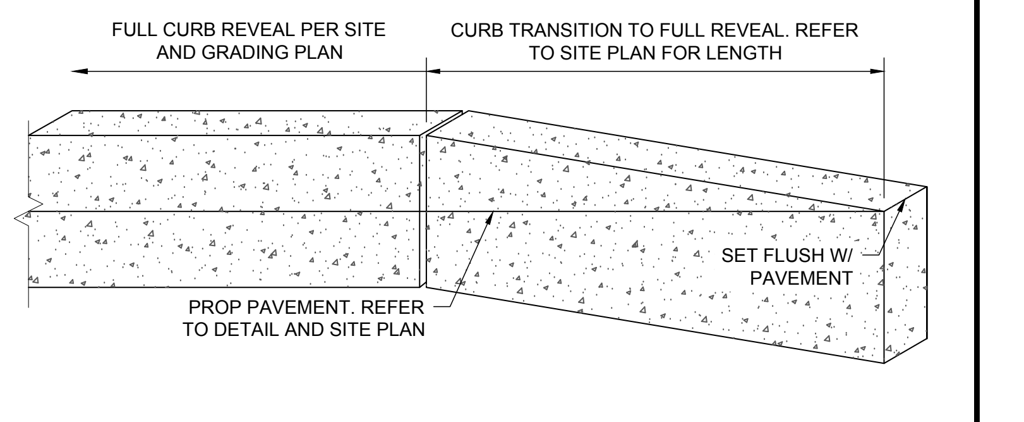
(NE-S050301 - 09/2023) NOT TO SCALE


PROP SIGN (REFER TO SITE PLAN FOR TYPE)
WATERTIGHT CAP. PAINT PIPE BASE YELLOW
SLOPE TOP OF CONCRETE
FINISH GRADE
6" DIA. STEEL PIPE FILLED WITH CONCRETE
1' - 6" DIA. CONC. BASE
#6 - 14" LONG BARS EACH WAY THRU PIPE
7'-0" (MIN) TO BOTTOM OF SIGN
REFER TO BOLLARD DETAIL

NOTES:
1. ACCESSIBLE AND VAN PARKING SIGNS SHALL CONFORM WITH CURRENT FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS.

SIGN ON BOLLARD

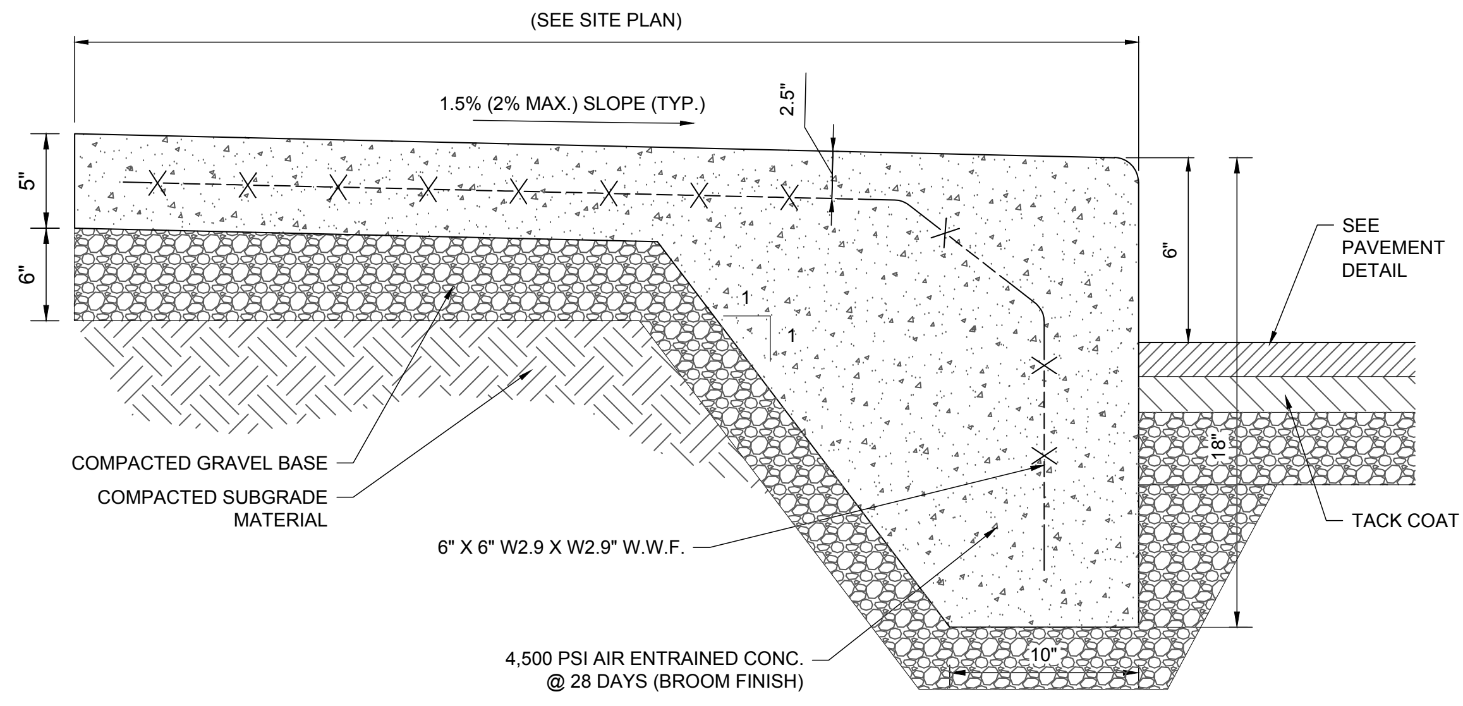
(NE-S060201 - 09/2023) NOT TO SCALE


FULL CURB REVEAL PER SITE AND GRADING PLAN
CURB TRANSITION TO FULL REVEAL. REFER TO SITE PLAN FOR LENGTH
SET FLUSH W/ PAVEMENT
PROP PAVEMENT. REFER TO DETAIL AND SITE PLAN

NOTES:
1. SEE TYPICAL CURB DETAIL AND SITE PLAN FOR CURB TYPE AND TRANSITION CURB LOCATIONS

PRECAST CONCRETE TRANSITION CURB

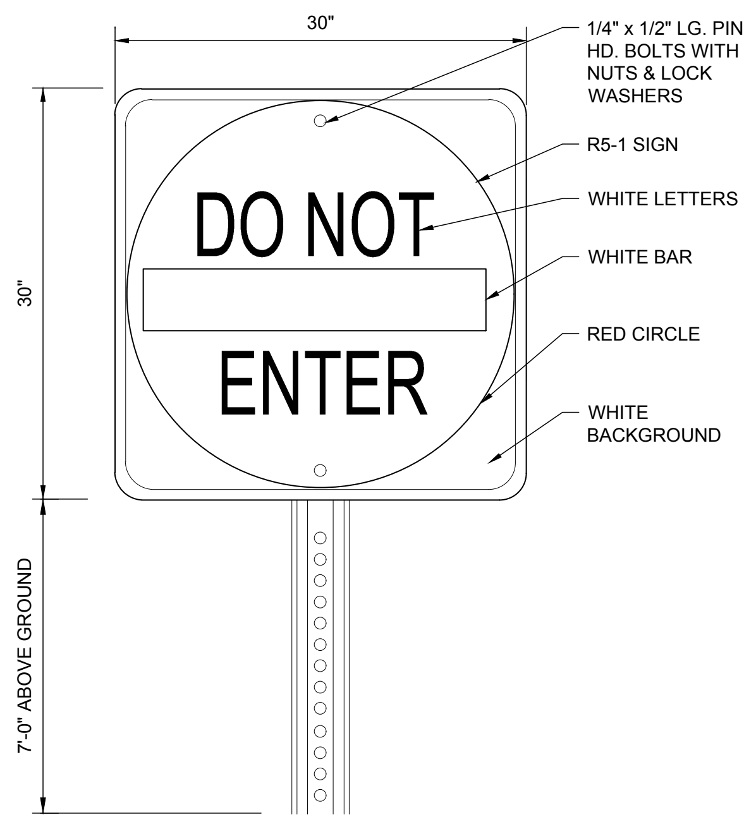
NOT TO SCALE (NE-S020206 - 09/2023)


(SEE SITE PLAN)
1.5% (2% MAX.) SLOPE (TYP.)
2.5"
5"
6"
6"
1
1
18"
SEE PAVEMENT DETAIL
COMPACTED GRAVEL BASE
COMPACTED SUBGRADE MATERIAL
6" X 6" W2.9 X W2.9" W.W.F.
TACK COAT
4,500 PSI AIR ENTRAINED CONC. @ 28 DAYS (BROOM FINISH)
10"

NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH ADDITIONAL GRAVEL BASE.
2. DUMMY JOINTS (FORMED) SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.
3. THE 6" CURB REVEAL IS TYPICAL. CONTRACTOR TO REVIEW GRADING PLAN FOR AREAS WHERE REVEAL IS TO BE MODIFIED.
4. PROVIDE CONTROL JOINTS 5'-0" O.C. MIN. & EXPANSION JOINTS SHALL BE RECESSED ¼" FROM THE FRONT FACE AND TOP OF THE CURB. REFER TO SIDEWALK CONSTRUCTION JOINT DETAILS.
5. PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED ADJACENT TO AND AROUND EXISTING STRUCTURES.
6. MIN CROSS SLOPE 1/4" PER FOOT PITCHED AWAY FROM BUILDING.
7. PROVIDE 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT AT INTERFACE WITH BUILDING. REFER TO ARCH PLANS AT DOOR LOCATIONS.

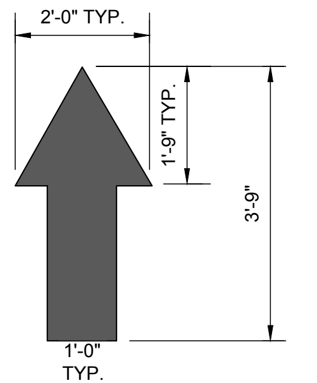
MONOLITHIC CURB AND SIDEWALK

NOT TO SCALE (BE-S030201 - 06/2024)


30"
1/4" x 1/2" LG. PIN HD. BOLTS WITH NUTS & LOCK WASHERS
R5-1 SIGN
DO NOT
ENTER
WHITE LETTERS
WHITE BAR
RED CIRCLE
WHITE BACKGROUND
30"
7'-0" ABOVE GROUND

DO NOT ENTER SIGN

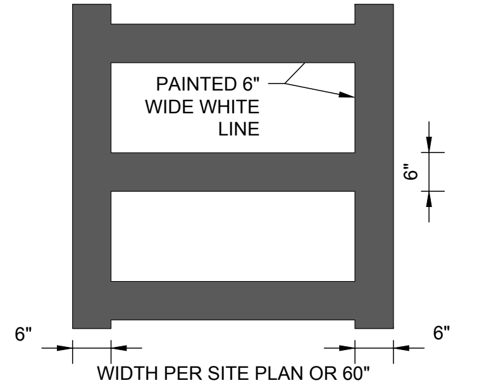
(NE-S060203 - 09/2023) NOT TO SCALE


2'-0" TYP.
1'-9" TYP.
3'-9"
1'-0" TYP.

NOTES:
1. ALL TRAFFIC FLOW ARROWS TO BE REFLECTIVE WHITE PAINT PER SPECS.

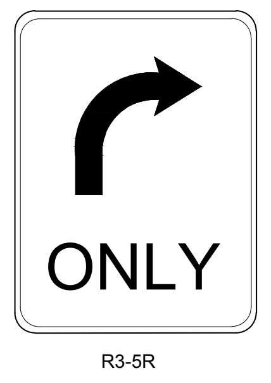
TRAFFIC FLOW ARROW

(NE-S050302 - 09/2023) NOT TO SCALE


PAINTED 6" WIDE WHITE LINE
6"
6"
6"
WIDTH PER SITE PLAN OR 60"

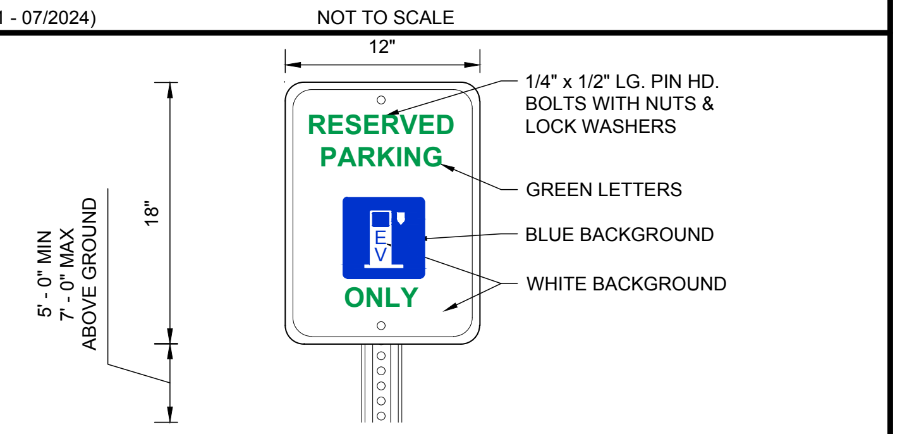
CROSSWALK LADDER

(NE-S050401 - 07/2024) NOT TO SCALE



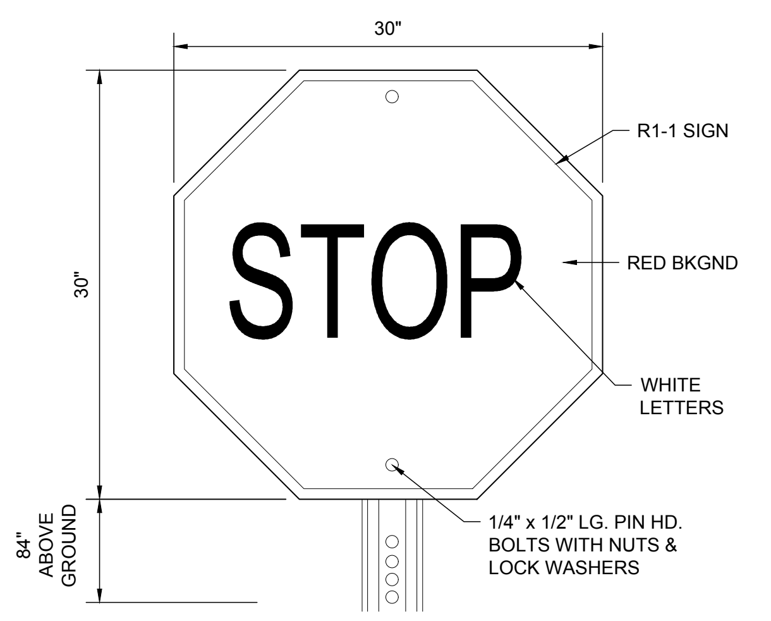
RIGHT ONLY SIGN

(NE-S060208 - 09/2023) NOT TO SCALE


12"
1/4" x 1/2" LG. PIN HD. BOLTS WITH NUTS & LOCK WASHERS
RESERVED PARKING
GREEN LETTERS
EV
BLUE BACKGROUND
ONLY
WHITE BACKGROUND
18"
5' - 0" MIN 7' - 0" MAX ABOVE GROUND

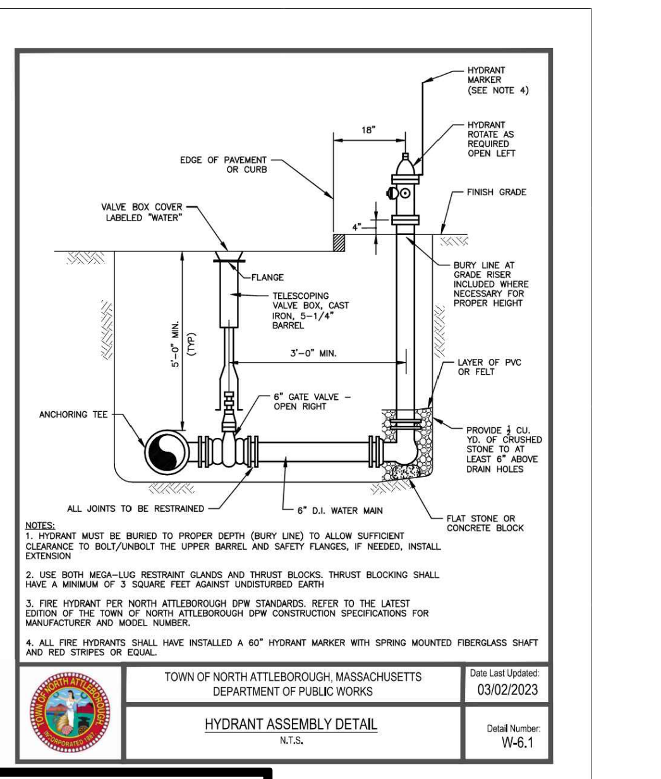
EV PARKING SIGN

(NE-S060217 - 09/2023) NOT TO SCALE


30"
R1-1 SIGN
STOP
RED BKGND
WHITE LETTERS
30"
84" ABOVE GROUND
1/4" x 1/2" LG. PIN HD. BOLTS WITH NUTS & LOCK WASHERS

STOP SIGN

(NE-S060202 - 09/2023) NOT TO SCALE


HYDRANT MARKER (SEE NOTE 4)
HYDRANT ROTATE AS REQUIRED OPEN LEFT
18"
EDGE OF PAVEMENT OR CURB
FINISH GRADE
VALVE BOX COVER LABELED "WATER"
4"
FLANGE
TELESCOPING VALVE BOX, CAST IRON, 5-1/4" BARREL
BURY LINE AT GRADE RISER INCLUDED WHERE NECESSARY FOR PROPER HEIGHT
5'-0" MIN. (TYP)
3'-0" MIN.
LAYER OF PVC OR FELT
6" GATE VALVE - OPEN RIGHT
ANCHORING TEE
PROVIDE ½ CU. YD. OF CRUSHED STONE TO AT LEAST 6" ABOVE DRAIN HOLES
ALL JOINTS TO BE RESTRAINED
6" D.I. WATER MAIN
FLAT STONE OR CONCRETE BLOCK

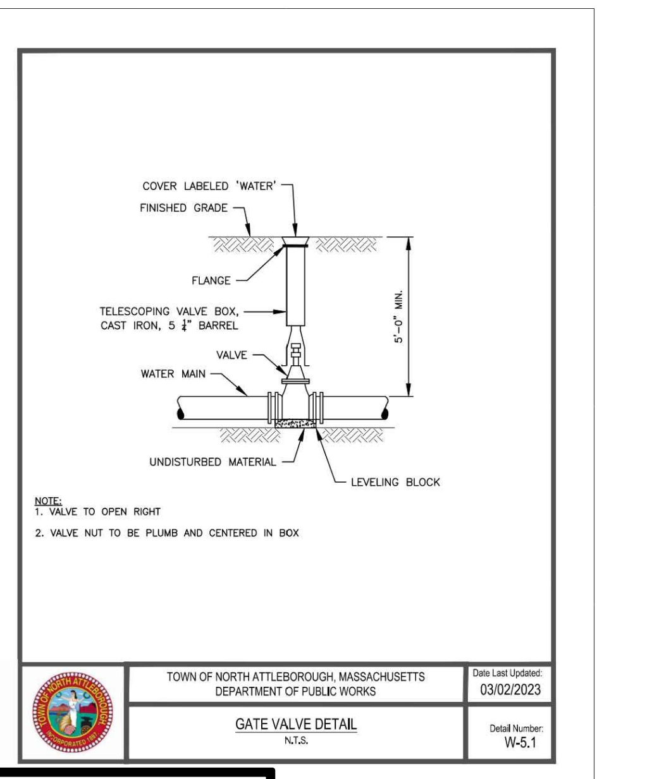
NOTES:
1. HYDRANT MUST BE BURIED TO PROPER DEPTH (BURY LINE) TO ALLOW SUFFICIENT CLEARANCE TO BOLT/UNBOLT THE UPPER BARREL AND SAFETY FLANGES, IF NEEDED, INSTALL EXTENSION
2. USE BOTH MEGA-LUG RESTRAINT GLANDS AND THRUST BLOCKS. THRUST BLOCKING SHALL HAVE A MINIMUM OF 3 SQUARE FEET AGAINST UNDISTURBED EARTH
3. FIRE HYDRANT PER NORTH ATTLEBOROUGH DPW STANDARDS. REFER TO THE LATEST EDITION OF THE TOWN OF NORTH ATTLEBOROUGH DPW CONSTRUCTION SPECIFICATIONS FOR MANUFACTURER AND MODEL NUMBER.
4. ALL FIRE HYDRANTS SHALL HAVE INSTALLED A 60" HYDRANT MARKER WITH SPRING MOUNTED FIBERGLASS SHAFT AND RED STRIPES OR EQUAL.

TOWN OF NORTH ATTLEBOROUGH, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
Date Last Updated: 03/02/2023
HYDRANT ASSEMBLY DETAIL
N.T.S.
Detail Number: W-6.1

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM TOWN OF NORTH ATTLEBOROUGH HERE, DATED 3/2/2023. REFER TO NOTES THIS SHEET.

TOWN OF NORTH ATTLEBOROUGH HYDRANT ASSEMBLY DETAIL

NOT TO SCALE


COVER LABELED "WATER"
FINISHED GRADE
FLANGE
TELESCOPING VALVE BOX, CAST IRON, 5 ¼" BARREL
5'-0" MIN.
VALVE
WATER MAIN
UNDISTURBED MATERIAL
LEVELING BLOCK

NOTE:
1. VALVE TO OPEN RIGHT
2. VALVE NUT TO BE PLUMB AND CENTERED IN BOX

TOWN OF NORTH ATTLEBOROUGH, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
Date Last Updated: 03/02/2023
GATE VALVE DETAIL
N.T.S.
Detail Number: W-5.1

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM TOWN OF NORTH ATTLEBOROUGH HERE, DATED 3/2/2023. REFER TO NOTES THIS SHEET.

TOWN OF NORTH ATTLEBOROUGH GATE VALVE DETAIL

NOT TO SCALE

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR DATE

VICE CHAIR DATE

MEMBER DATE

NOTES REGARDING DETAILS BY OTHERS:
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2. WHERE AN ORIGINAL DETAIL BY OTHERS HAS BEEN MODIFIED, THE MODIFICATIONS ARE IDENTIFIED BY REVISION CLOUDS.
3. REFER TO OUTSIDE SOURCE NOTES ON SHEET C-102.
4. WHEN THE SOURCE OF THE DETAIL IS A REVIEWING/REGULATORY AGENCY, FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS.
5. WHEN APPROPRIATE, SHOP DRAWINGS SHALL BE FORWARDED TO THE REVIEWING/REGULATORY AGENCY PRIOR TO FABRICATION.

DETAILS BY OTHERS DISCLAIMER

BOHLER // ™

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

811 Know what's below. Call before you dig.
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.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-DETL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER //
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
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NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

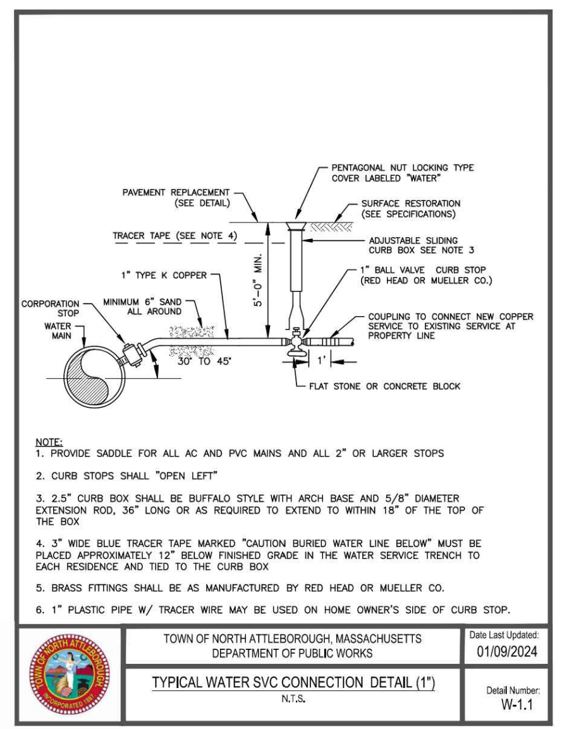
DETAIL SHEET

SHEET NUMBER:

C-901

REVISION 2 - 11/25/2024

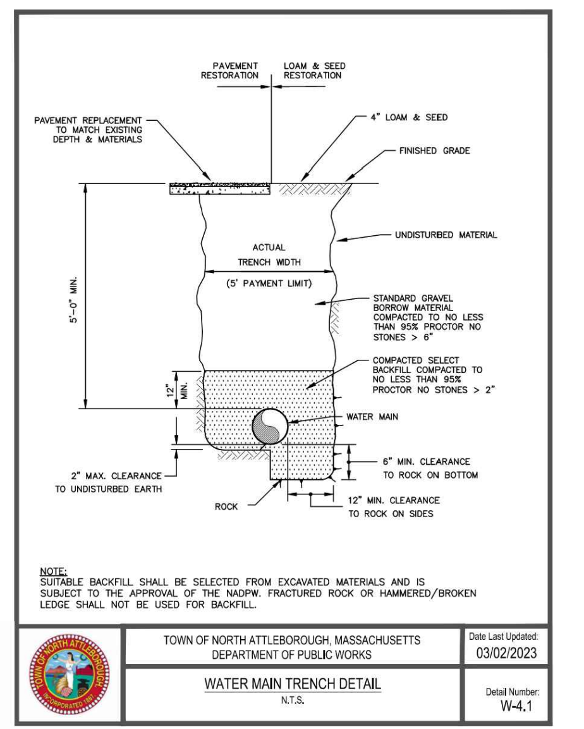
\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-DETL-1A----->LAYOUT: C-901 DETL
AO



DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM TOWN OF NORTH ATTLEBOROUGH HERE, DATED 1/9/2024. REFER TO NOTES THIS SHEET.

TOWN OF NORTH ATTLEBOROUGH WATER SVC CONNECTION DETAIL

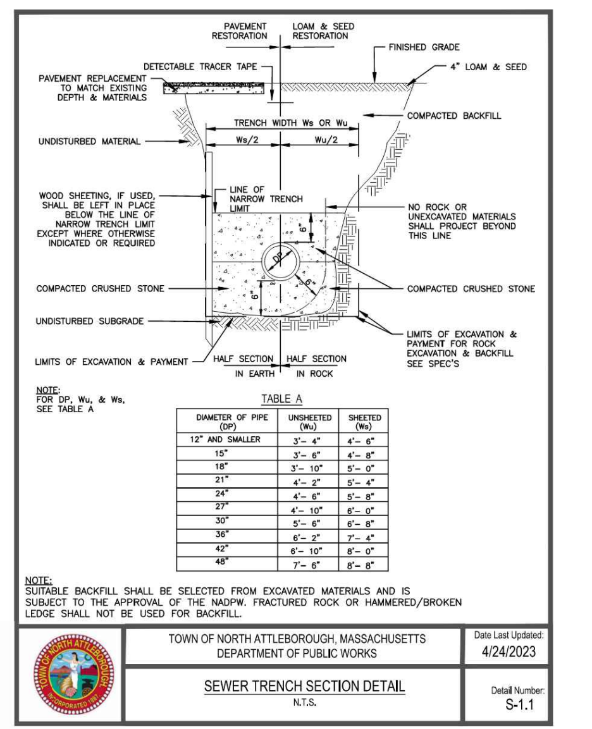
NOT TO SCALE



DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM TOWN OF NORTH ATTLEBOROUGH HERE, DATED 3/2/2023. REFER TO NOTES THIS SHEET.

TOWN OF NORTH ATTLEBOROUGH WATER MAIN TRENCH DETAIL

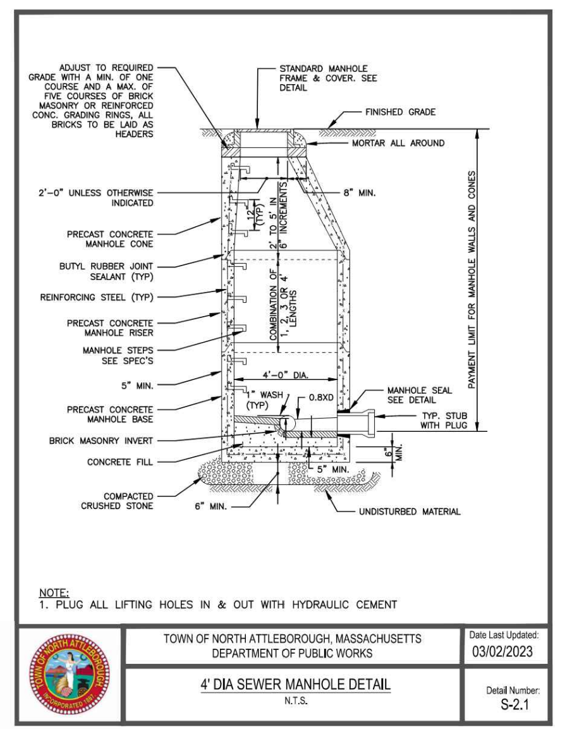
NOT TO SCALE



DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM TOWN OF NORTH ATTLEBOROUGH HERE, DATED 4/24/2023. REFER TO NOTES THIS SHEET.

TOWN OF NORTH ATTLEBOROUGH SEWER TRENCH DETAIL

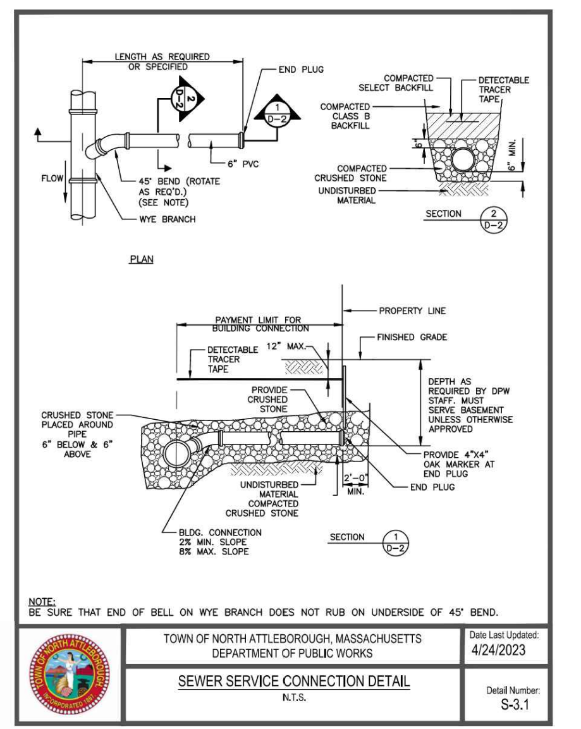
NOT TO SCALE



DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM TOWN OF NORTH ATTLEBOROUGH HERE, DATED 3/2/2023. REFER TO NOTES THIS SHEET.

TOWN OF NORTH ATTLEBOROUGH SEWER MANHOLE DETAIL

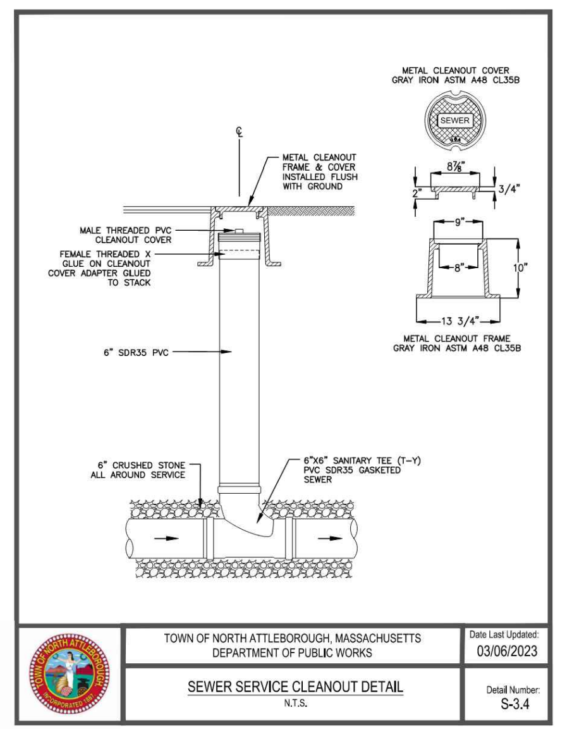
NOT TO SCALE



DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM TOWN OF NORTH ATTLEBOROUGH HERE, DATED 4/24/2023. REFER TO NOTES THIS SHEET.

TOWN OF NORTH ATTLEBOROUGH SEWER SERVICE CONNECTION DETAIL

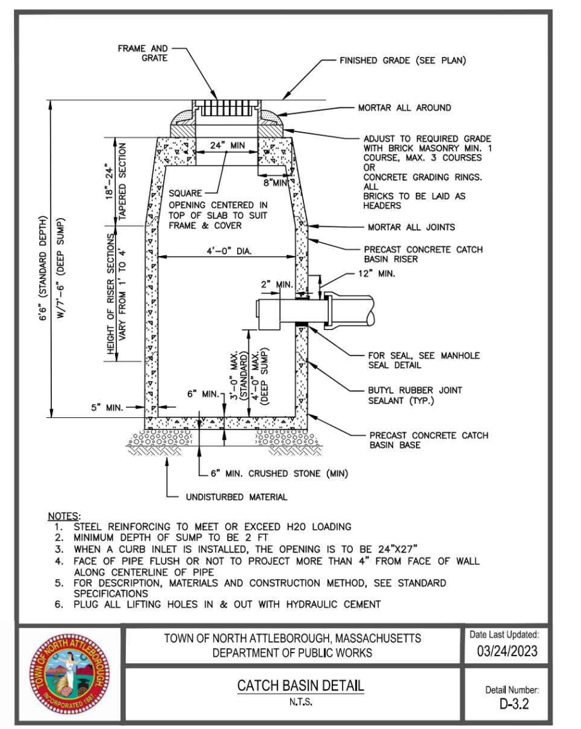
NOT TO SCALE



DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM TOWN OF NORTH ATTLEBOROUGH HERE, DATED 3/6/2023. REFER TO NOTES THIS SHEET.

TOWN OF NORTH ATTLEBOROUGH SEWER CLEANOUT DETAIL

NOT TO SCALE

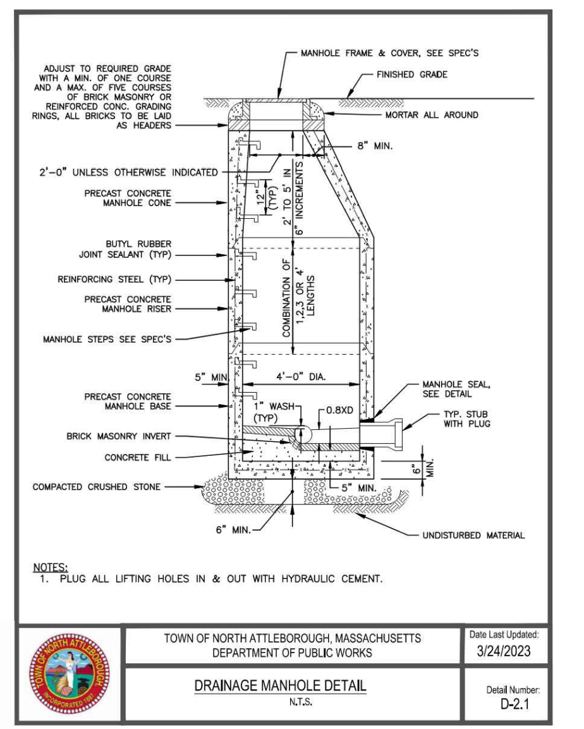


USE 4' DEEP SUMPS

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM TOWN OF NORTH ATTLEBOROUGH HERE, DATED 3/6/2023. REFER TO NOTES THIS SHEET.

TOWN OF NORTH ATTLEBOROUGH CATCH BASIN DETAIL

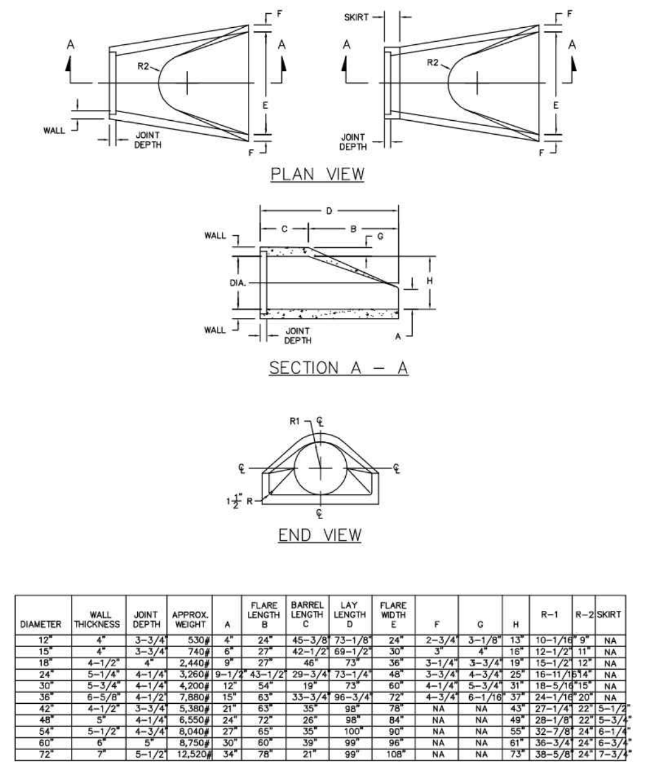
NOT TO SCALE



DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM TOWN OF NORTH ATTLEBOROUGH HERE, DATED 3/6/2023. REFER TO NOTES THIS SHEET.

TOWN OF NORTH ATTLEBOROUGH DRAINAGE MANHOLE DETAIL

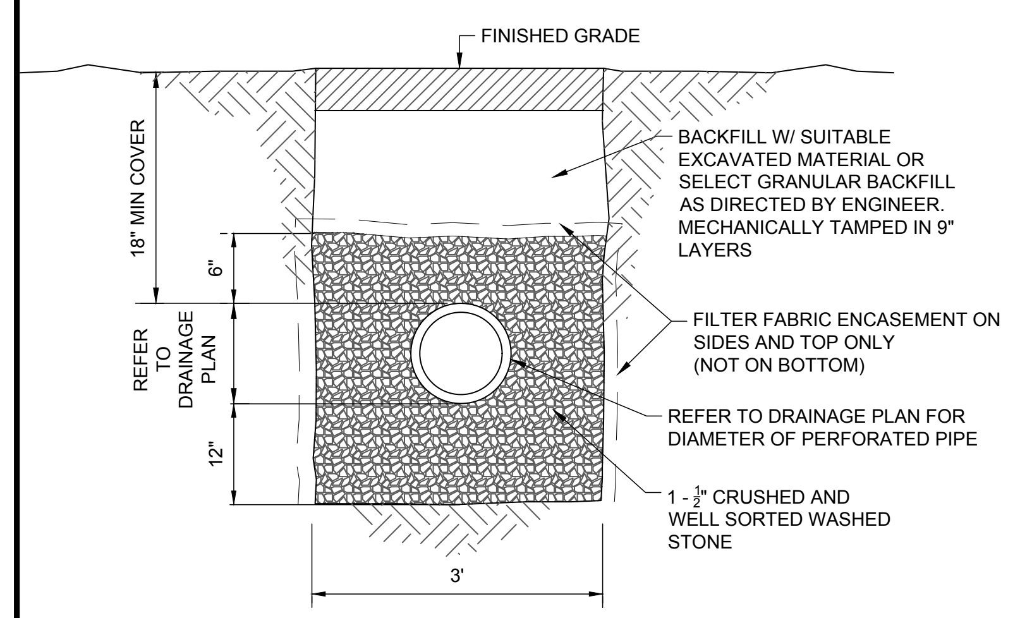
NOT TO SCALE


PLAN VIEW
SECTION A – A
END VIEW

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM OLDCASTLE PRECAST. REFER TO NOTES THIS SHEET.

FLARED END SECTION

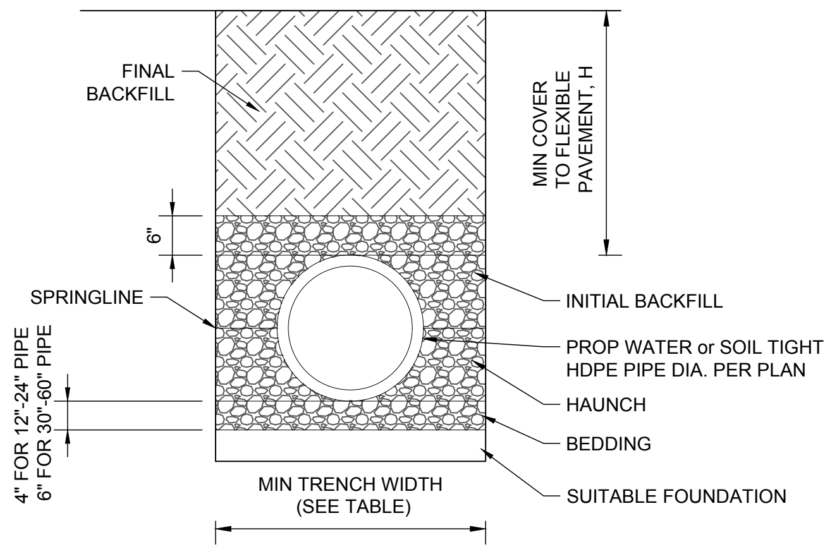
NOT TO SCALE


FINISHED GRADE
BACKFILL W/ SUITABLE EXCAVATED MATERIAL OR SELECT GRANULAR BACKFILL AS DIRECTED BY ENGINEER. MECHANICALLY TAMPED IN 9" LAYERS
FILTER FABRIC ENCASEMENT ON SIDES AND TOP ONLY (NOT ON BOTTOM)
REFER TO DRAINAGE PLAN FOR DIAMETER OF PERFORATED PIPE
1 - ½" CRUSHED AND WELL SORTED WASHED STONE
18" MIN COVER
6"
REFER TO DRAINAGE PLAN
12"
3'

INFILTRATION TRENCH

NOT TO SCALE

(NE-U019810 - 09/2023)


FINAL BACKFILL
MIN COVER TO FLEXIBLE PAVEMENT, H
6"
SPRINGLINE
INITIAL BACKFILL
PROP WATER or SOIL TIGHT HDPE PIPE DIA. PER PLAN
HAUNCH
BEDDING
SUITABLE FOUNDATION
4" FOR 12"-24" PIPE
6" FOR 30"-60" PIPE
MIN TRENCH WIDTH (SEE TABLE)

RECOMMENDED MINIMUM TRENCH WIDTH	
PIPE DIA.	MIN TRENCH WIDTH
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
48"	80"
60"	96"

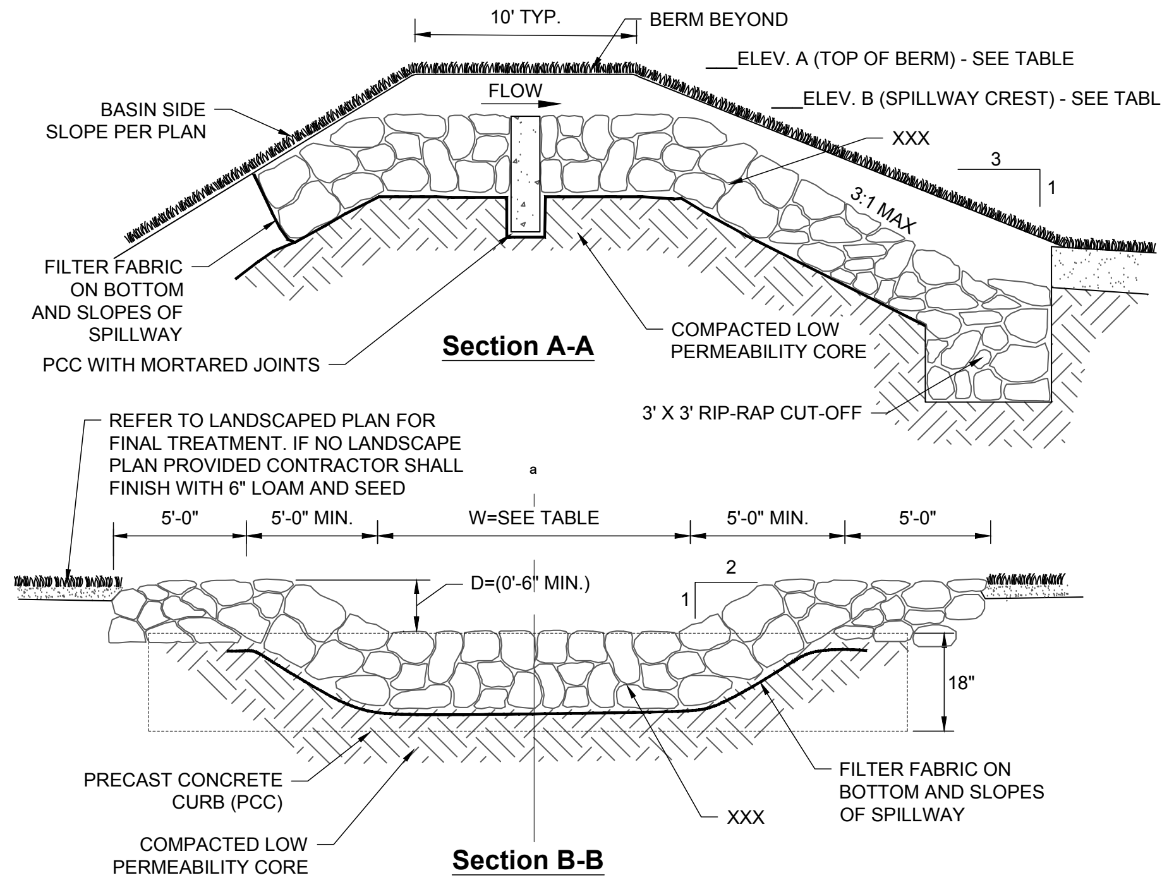
NOTES:

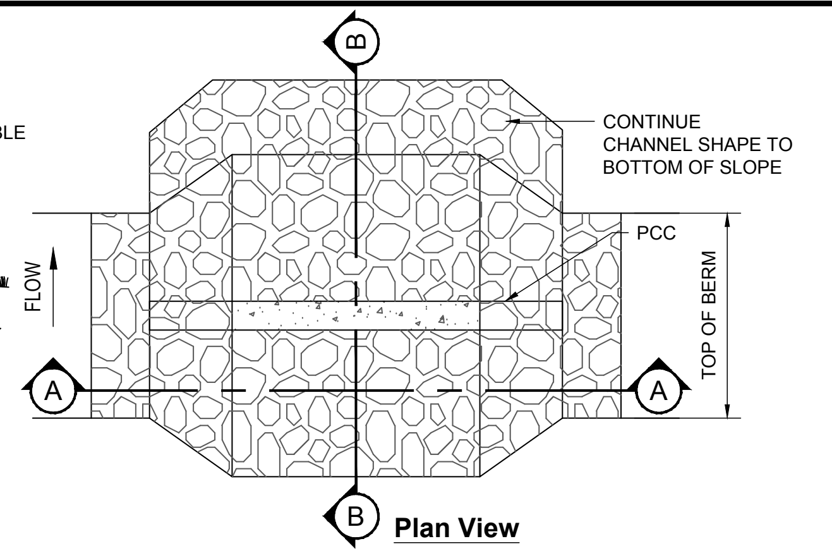
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321 , "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (7S0mm-900mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

HDPE STORM PIPE TRENCH

NOT TO SCALE

(NE-U019812 - 09/2023)


10' TYP.
BERM BEYOND
ELEV. A (TOP OF BERM) - SEE TABLE
ELEV. B (SPILLWAY CREST) - SEE TABLE
FLOW
BASIN SIDE SLOPE PER PLAN
XXX
3
1
3:1 MAX
FILTER FABRIC ON BOTTOM AND SLOPES OF SPILLWAY
PCC WITH MORTARED JOINTS
Section A-A
COMPACTED LOW PERMEABILITY CORE
3' X 3' RIP-RAP CUT-OFF
REFER TO LANDSCAPED PLAN FOR FINAL TREATMENT. IF NO LANDSCAPE PLAN PROVIDED CONTRACTOR SHALL FINISH WITH 6" LOAM AND SEED
5'-0"
5'-0" MIN.
W=SEE TABLE
5'-0" MIN.
5'-0"
D=(0'-6" MIN.)
2
1
18"
PRECAST CONCRETE CURB (PCC)
COMPACTED LOW PERMEABILITY CORE
XXX
FILTER FABRIC ON BOTTOM AND SLOPES OF SPILLWAY
Section B-B


B
CONTINUE CHANNEL SHAPE TO BOTTOM OF SLOPE
PCC
FLOW
TOP OF BERM
A
A
B
Plan View

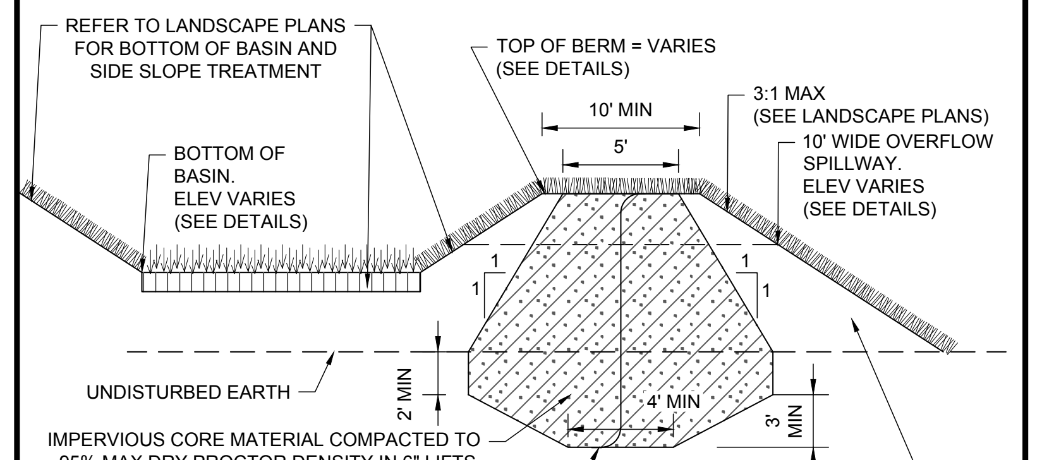
BASIN #	TOP OF BERM ELEV. A	SPILLWAY CREST ELEV. B	LENGTH OF SPILLWAY (W) (FT)
P2.1	197.6	196.6	10'
P1.10	199.7	198.65	10'

NOTES:
1. REFER TO GRADING AND DRAINAGE PLANS FOR LOCATION.

STORMWATER BASIN EMERGENCY SPILLWAY

NOT TO SCALE

(BE-G010101 08/2023)


REFER TO LANDSCAPE PLANS FOR BOTTOM OF BASIN AND SIDE SLOPE TREATMENT
TOP OF BERM = VARIES (SEE DETAILS)
3:1 MAX (SEE LANDSCAPE PLANS)
10' WIDE OVERFLOW SPILLWAY. ELEV VARIES (SEE DETAILS)
10' MIN
5'
BOTTOM OF BASIN. ELEV VARIES (SEE DETAILS)
1
1
1
1
UNDISTURBED EARTH
2' MIN
4' MIN
3' MIN

IMPERVIOUS CORE MATERIAL COMPACTED TO 95% MAX DRY PROCTOR DENSITY IN 6" LIFTS. MATERIAL TO CONSIST OF CLAYEY SILTS WITH THE FOLLOWING GRADATION:
50%-80% PASSING #200
20%-50% HAVING MIN PARTICLE SIZE OF 0.005 MILLIMETERS.
(SEE ALTERNATE NOTE)

ALTERNATE NOTE
AS AN ALTERNATE TO THE IMPERVIOUS CORE MATERIAL, GC MAY PROVIDE 40-MIL HDPE BARRIER (EXCAVATE 2' BELOW EXISTING GRADE) SEAMS SHALL BE SEALED (BONDS OR TAPE) AS SPECIFIED BY MANUFACTURER. CONTRACTOR TO ENSURE THAT ALL PIPE PENETRATIONS THROUGH THE BARRIER ARE WATER TIGHT AND INCLUDE THE USE OF AN ANTI-SEEP COLLAR AS NECESSARY

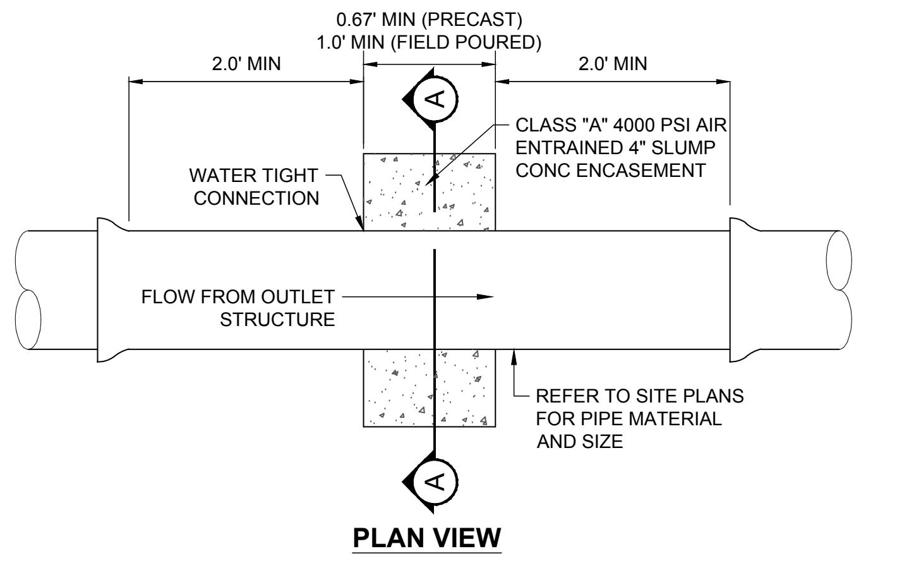
BASIN BERM MATERIAL COMPACTED TO 95% MAX. DRY MODIFIED PROCTOR DENSITY IN 6" LEFTS. MATERIAL TO CONSIST OF 20-40% SANDY LOAM WITH THE FOLLOWING GRADATION:
0%-20% PASSING #200 SIEVE
HAVING A MIN PARTICLE SIZE OF 0.005 MM.

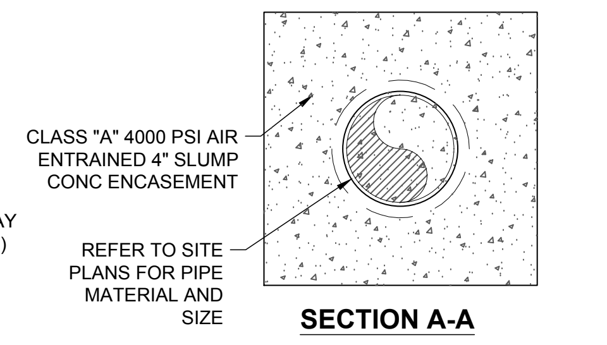
NOTES:
1. FOUNDATION FOR BERM AND IMPERVIOUS CORE SHALL BE CLEARED OF ALL TOP SOIL, ROCKS, STUMPS, OR OTHER DELETERIOUS MATERIAL TO A FIRM SURFACE.

BASIN BERM AND IMPERVIOUS CORE

NOT TO SCALE

(NE-G019901 07/2024)


0.67' MIN (PRECAST)
1.0' MIN (FIELD POURED)
2.0' MIN
2.0' MIN
A
CLASS "A" 4000 PSI AIR ENTRAINED 4" SLUMP CONC ENCASEMENT
WATER TIGHT CONNECTION
FLOW FROM OUTLET STRUCTURE
REFER TO SITE PLANS FOR PIPE MATERIAL AND SIZE
A
PLAN VIEW


CLASS "A" 4000 PSI AIR ENTRAINED 4" SLUMP CONC ENCASEMENT
REFER TO SITE PLANS FOR PIPE MATERIAL AND SIZE
SECTION A-A

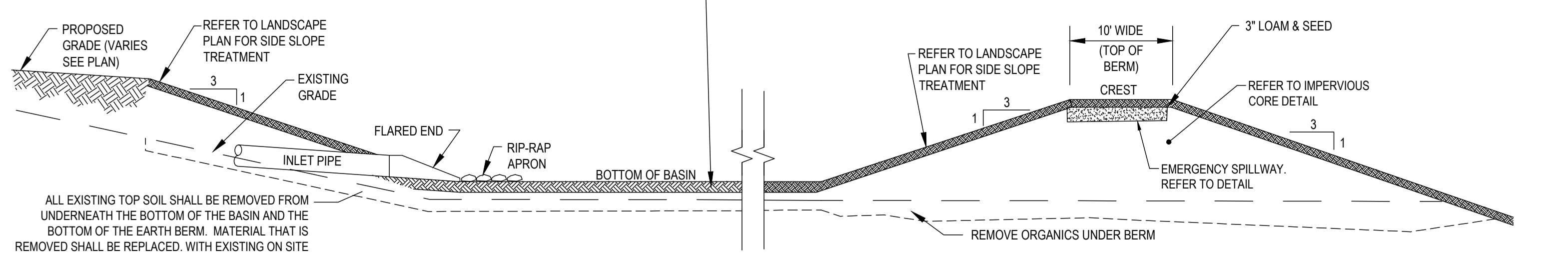
NOTES:
1. FIELD POURED COLLARS SHALL HAVE A MINIMUM THICKNESS OF TWELVE (12) INCHES. COLLARS MAY NOT BE INSTALLED WITHIN TWO (2) FEET OF PIPE JOINTS.
2. LOCATED AT ANY PIPE PENETRATION THROUGH THE IMPERMEABLE CORE.

ANTI-SEEP COLLAR

NOT TO SCALE

(NE-U019813 - 09/2023)

AFTER THE BASIN FLOOR IS SHAPED, AMEND THE SOIL BY PLACING PROPERLY AGED COMPOST WITH NO BIOSOLIDS. MIX NATIVE SOILS EXCAVATED FROM THE A AND B HORIZONS WITH THE ADDED COMPOST, AND THEN SCARIFY THE NATIVE MATERIALS AND COMPOST INTO THE PARENT MATERIAL USING A CHISEL PLOW OR ROTARY DEVICE TO A DEPTH OF 12 INCHES BELOW THE BASIN BOTTOM. IMMEDIATELY AFTER CONSTRUCTING THE BASIN, STABILIZE ITS BOTTOM AND SIDE SLOPES WITH THE SEED MIXES AS IDENTIFIED ON THE LANDSCAPING PLANS.

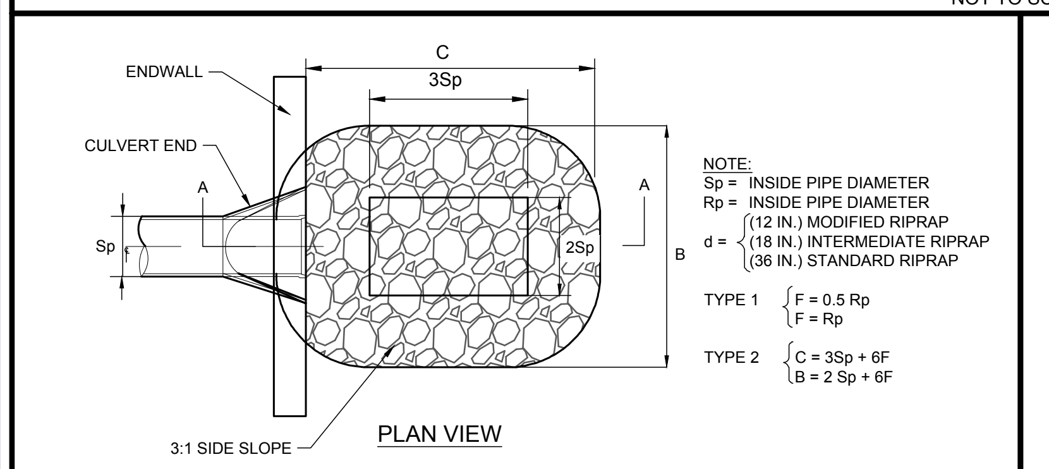

PROPOSED GRADE (VARIES SEE PLAN)
REFER TO LANDSCAPE PLAN FOR SIDE SLOPE TREATMENT
3
1
EXISTING GRADE
FLARED END
INLET PIPE
RIP-RAP APRON
BOTTOM OF BASIN
REFER TO LANDSCAPE PLAN FOR SIDE SLOPE TREATMENT
3
1
10' WIDE (TOP OF BERM)
CREST
3" LOAM & SEED
REFER TO IMPERVIOUS CORE DETAIL
3
1
EMERGENCY SPILLWAY. REFER TO DETAIL
REMOVE ORGANICS UNDER BERM

ALL EXISTING TOP SOIL SHALL BE REMOVED FROM UNDERNEATH THE BOTTOM OF THE BASIN AND THE BOTTOM OF THE EARTH BERM. MATERIAL THAT IS REMOVED SHALL BE REPLACED. WITH EXISTING ON SITE SANDY LOAM. FILL MATERIAL SHALL BE FREE OF DEBRIS AND OTHER DELETERIOUS MATERIALS. MATERIAL SHALL BE PLACED TO AVOID COMPACTION OF SOILS TO ALLOW FOR INFILTRATION OF STORM WATER.

NOTES:
1. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATION) TO THE INFILTRATION SYSTEM.
2. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.
3. AFTER THE AREA IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
4. DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
5. REFER TO LANDSCAPING PLAN FOR TREATMENT. VEGETATION SHOULD BE ESTABLISHED IMMEDIATELY.

TYPICAL INFILTRATION BASIN

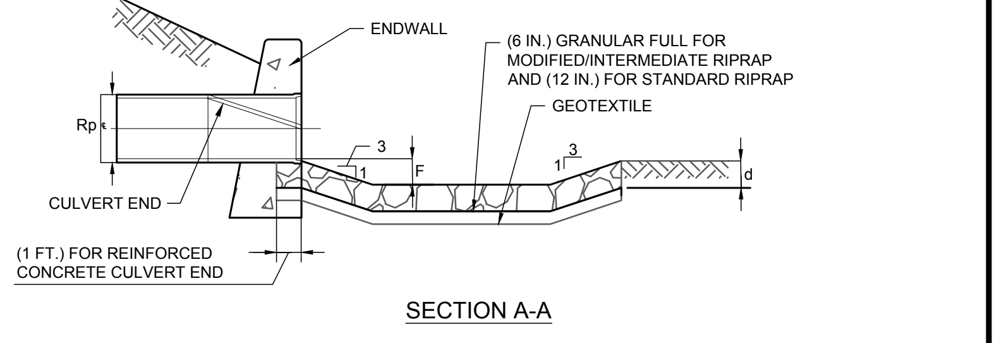
NOT TO SCALE


ENDWALL
C
3Sp
CULVERT END
A
A
Sp
2Sp
B
3:1 SIDE SLOPE
PLAN VIEW

NOTE:
Sp = INSIDE PIPE DIAMETER
Rp = INSIDE PIPE DIAMETER
d = (12 IN.) MODIFIED RIPRAP / (18 IN.) INTERMEDIATE RIPRAP / (36 IN.) STANDARD RIPRAP

TYPE 1 F = 0.5 Rp / F = Rp

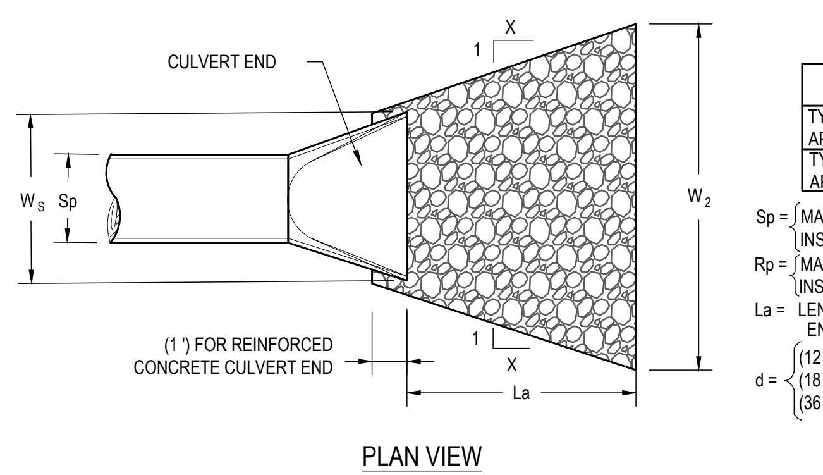
TYPE 2 C = 3Sp + 6F / B = 2 Sp + 6F


ENDWALL
(6 IN.) GRANULAR FULL FOR MODIFIED/INTERMEDIATE RIPRAP AND (12 IN.) FOR STANDARD RIPRAP
GEOTEXTILE
Rp
3
1
F
3
1
d
CULVERT END
(1 FT.) FOR REINFORCED CONCRETE CULVERT END
SECTION A-A

Location	Pipe Size/Span (in)	Pipe Size/Span (ft)	Scour Hole Type	D50 (ft)	F	C	B	Rip Rap Type
From WQU1.11	30.00	2.50	Type 1	0.17	1.25	15.00	13.00	Modified

RIP RAP SCOUR HOLE

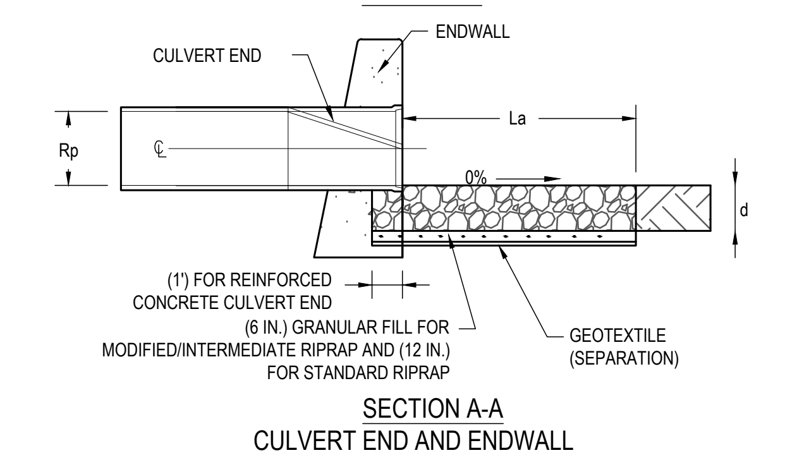
NOT TO SCALE


X
1
CULVERT END
Ws
Sp
W2
(1 ') FOR REINFORCED CONCRETE CULVERT END
1
X
La
PLAN VIEW

LEGEND

	X	W_1	W_2
TYPE A RIPRAP APRON	3	3Sp	3Sp + 0.7 La
TYPE B RIPRAP APRON	5	3Sp	3Sp + 0.4 La

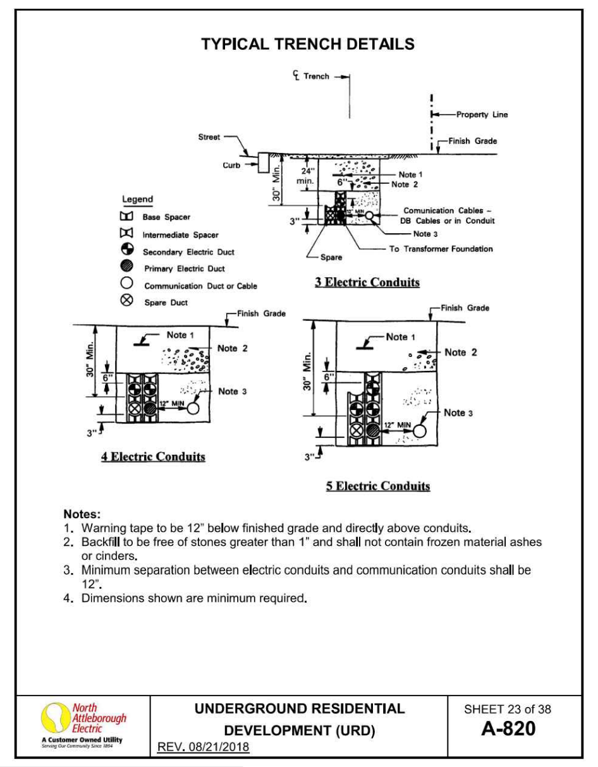
Sp = MAX. INSIDE PIPE SPAN (NON-CIRCULAR SECTIONS) / INSIDE PIPE DIAMETER (CIRCULAR SECTIONS)
Rp = MAX. INSIDE PIPE RISE (NON-CIRCULAR SECTIONS) / INSIDE PIPE DIAMETER (CIRCULAR SECTIONS)
La = LENGTH OF RIPRAP APRON MEASURED FROM THE END CULVERT END SECTION OR FACE OF ENDWALL
d = (12 IN.) MODIFIED RIPRAP / (18 IN.) INTERMEDIATE RIPRAP / (36 IN.) STANDARD RIPRAP


CULVERT END
ENDWALL
Rp
La
0%
d
(1') FOR REINFORCED CONCRETE CULVERT END
(6 IN.) GRANULAR FILL FOR MODIFIED/INTERMEDIATE RIPRAP AND (12 IN.) FOR STANDARD RIPRAP
GEOTEXTILE (SEPARATION)
SECTION A-A
CULVERT END AND ENDWALL

Location	Pipe Size(in.)	Pipe Size(ft.)	W1 (ft.)	La(ft.)	W2(ft.)	Apron Type	Rip Rap Type
From WQU1.15	15.00	1.25	3.75	10.00	8.00	B	Modified
From WQU2.1.1	12.00	1.25	3.75	10.00	7.00	B	Modified
From WQU2.1.2	12.00	1.25	3.75	10.00	7.00	B	Modified

RIP RAP APRON

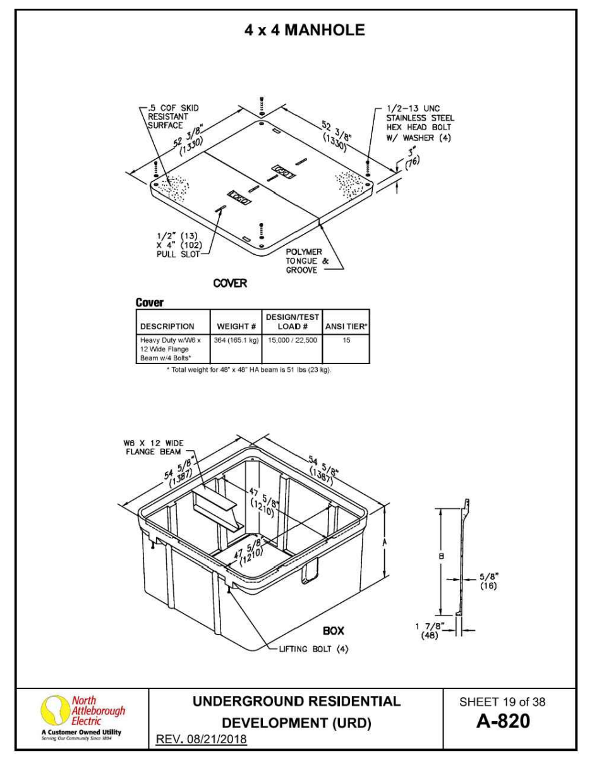
NOT TO SCALE


TYPICAL TRENCH DETAILS
4 Electric Conduits
5 Electric Conduits
UNDERGROUND RESIDENTIAL DEVELOPMENT (URD)
SHEET 23 of 38
A-820
REV. 08/21/2018

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM NORTH ATTLEBOROUGH ELECTRIC, DATED 8/21/2018. REFER TO NOTES THIS SHEET.

NORTH ATTLEBOROUGH ELECTRIC TRENCH DETAIL

NOT TO SCALE


4 x 4 MANHOLE
COVER
BOX
UNDERGROUND RESIDENTIAL DEVELOPMENT (URD)
SHEET 19 of 38
A-820
REV. 08/21/2018

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM NORTH ATTLEBOROUGH ELECTRIC, DATED 8/21/2018. REFER TO NOTES THIS SHEET.

NORTH ATTLEBOROUGH ELECTRIC MANHOLE DETAIL

NOT TO SCALE

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

NOTES REGARDING DETAILS BY OTHERS:
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2. WHERE AN ORIGINAL DETAIL BY OTHERS HAS BEEN MODIFIED, THE MODIFICATIONS ARE IDENTIFIED BY REVISION CLOUDS.
3. REFER TO OUTSIDE SOURCE NOTES ON SHEET C-102.
4. WHEN THE SOURCE OF THE DETAIL IS A REVIEWING/REGULATORY AGENCY, FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS.
5. WHEN APPROPRIATE, SHOP DRAWINGS SHALL BE FORWARDED TO THE REVIEWING/REGULATORY AGENCY PRIOR TO FABRICATION.

DETAILS BY OTHERS DISCLAIMER

BOHLER//

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

Know what's below. Call before you dig.
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.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-DETL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS
FOR
MARCUS PARTNERS

PROPOSED DEVELOPMENT
MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

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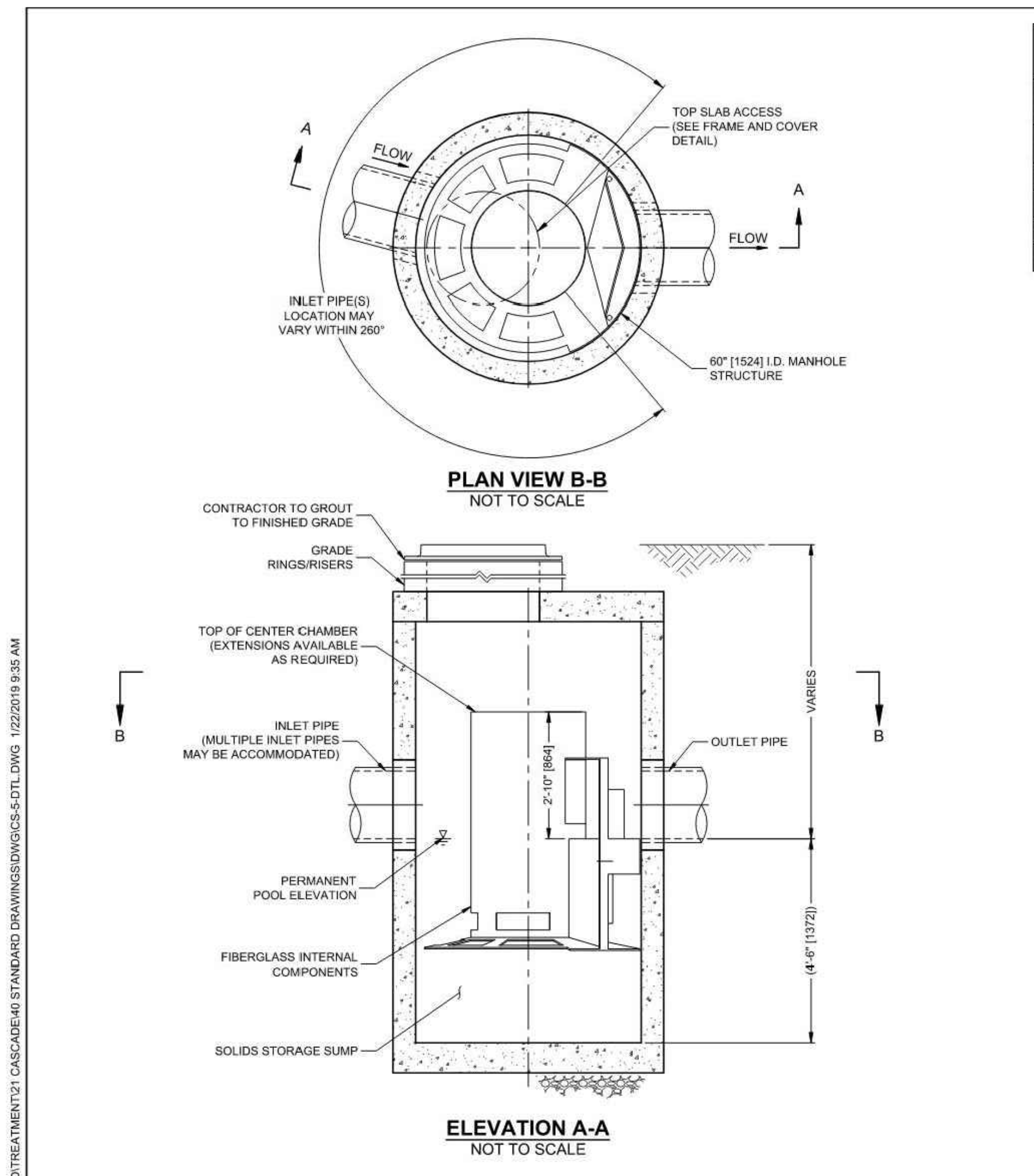
JOHN A. KUCICH CIVIL No. 41530
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:
DETAIL SHEET

SHEET NUMBER:
C-902

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-DETL-1A----->LAYOUT: C-902 DETL
VH


A
FLOW
TOP SLAB ACCESS (SEE FRAME AND COVER DETAIL)
FLOW
INLET PIPE(S) LOCATION MAY VARY WITHIN 260°
60" [1524] I.D. MANHOLE STRUCTURE
PLAN VIEW B-B
NOT TO SCALE
CONTRACTOR TO GROUT TO FINISHED GRADE
GRADE RINGS/RISERS
TOP OF CENTER CHAMBER (EXTENSIONS AVAILABLE AS REQUIRED)
INLET PIPE (MULTIPLE INLET PIPES MAY BE ACCOMMODATED)
OUTLET PIPE
VARIES
PERMANENT POOL ELEVATION
FIBERGLASS INTERNAL COMPONENTS
SOLIDS STORAGE SUMP
B
B

ELEVATION A-A
NOT TO SCALE

CASCADE separator™

CASCADE SEPARATOR DESIGN NOTES

THE STANDARD CS-5 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
NOTES / SPECIAL REQUIREMENTS:			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

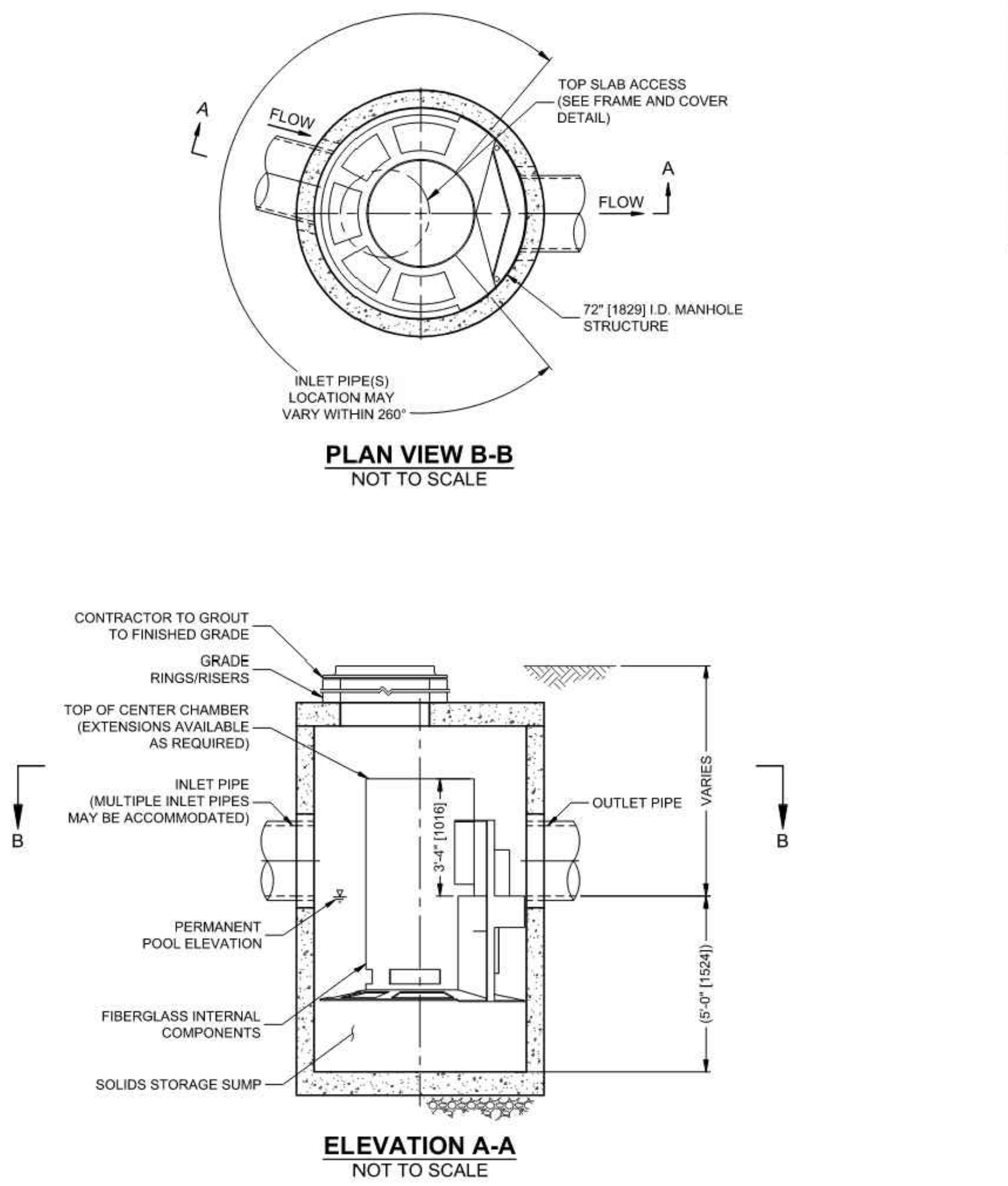
CS-5
CASCADE SEPARATOR
STANDARD DETAIL

DETAIL REFERENCE:
DETAIL PROVIDED BY CONTECH

NOTE -
1. FOR USE AT WQU1.11
2. OR ENGINEER APPROVED EQUIVALENT. GC SHALL PROVIDE WQU SIZING CALCULATIONS AND SHOP DRAWINGS TO DESIGN ENGINEER PRIOR TO CONSTRUCTION

WATER QUALITY UNIT - CASCADE SEPARATOR - CS-5

NOT TO SCALE


A
FLOW
TOP SLAB ACCESS (SEE FRAME AND COVER DETAIL)
FLOW
72" [1829] I.D. MANHOLE STRUCTURE
INLET PIPE(S) LOCATION MAY VARY WITHIN 260°
PLAN VIEW B-B
NOT TO SCALE
CONTRACTOR TO GROUT TO FINISHED GRADE
GRADE RINGS/RISERS
TOP OF CENTER CHAMBER (EXTENSIONS AVAILABLE AS REQUIRED)
INLET PIPE (MULTIPLE INLET PIPES MAY BE ACCOMMODATED)
OUTLET PIPE
VARIES
PERMANENT POOL ELEVATION
FIBERGLASS INTERNAL COMPONENTS
SOLIDS STORAGE SUMP
B
B

ELEVATION A-A
NOT TO SCALE

CASCADE separator™

CASCADE SEPARATOR DESIGN NOTES

CS-6 RATED TREATMENT CAPACITY IS 5.6 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CS-6 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
NOTES / SPECIAL REQUIREMENTS:			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

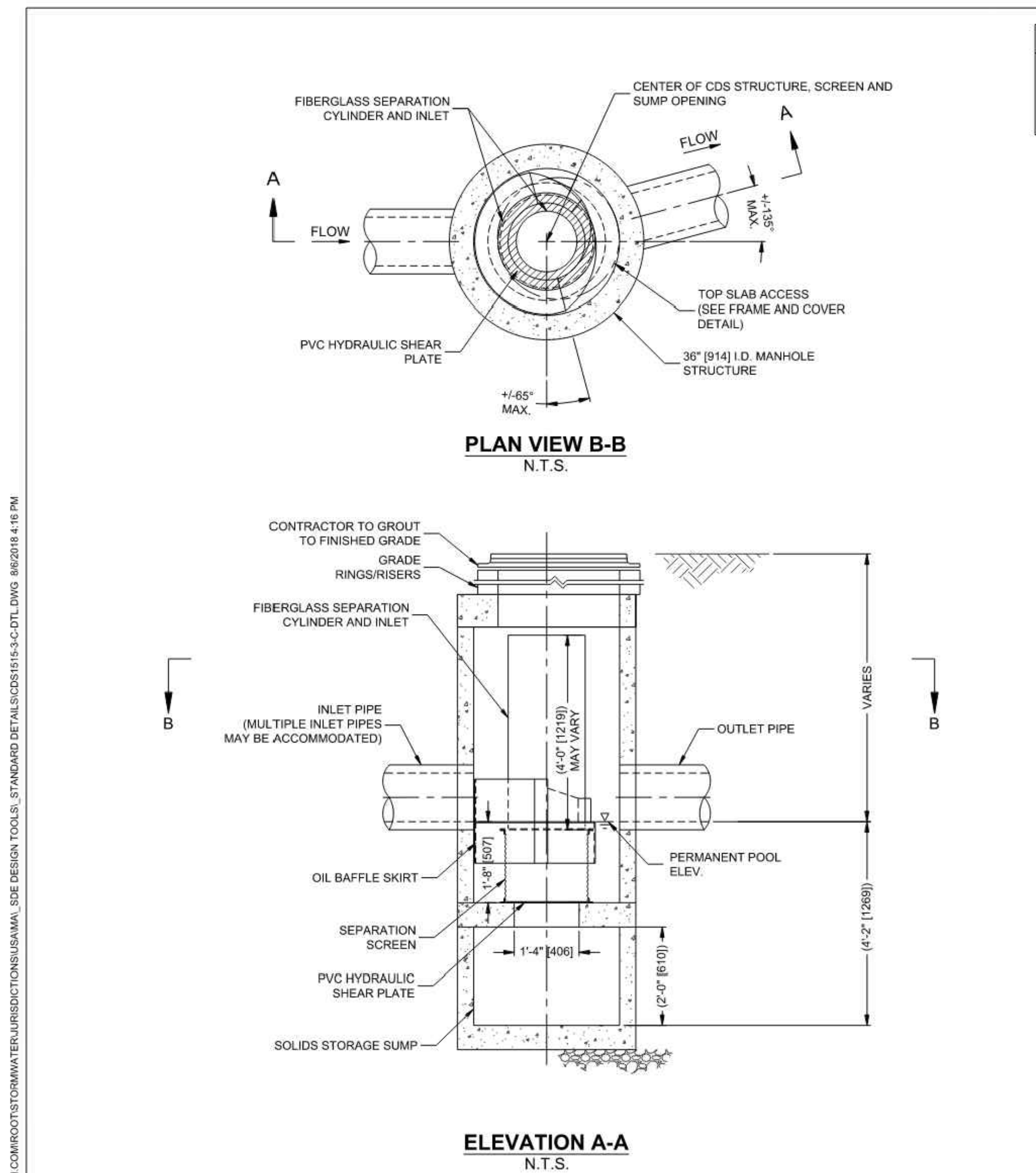
CS-6
CASCADE SEPARATOR
STANDARD DETAIL

DETAIL REFERENCE:
DETAIL PROVIDED BY CONTECH

NOTE -
1. FOR USE AT WQU1.13
2. OR ENGINEER APPROVED EQUIVALENT. GC SHALL PROVIDE WQU SIZING CALCULATIONS AND SHOP DRAWINGS TO DESIGN ENGINEER PRIOR TO CONSTRUCTION

WATER QUALITY UNIT - CASCADE SEPARATOR - CS-6

NOT TO SCALE

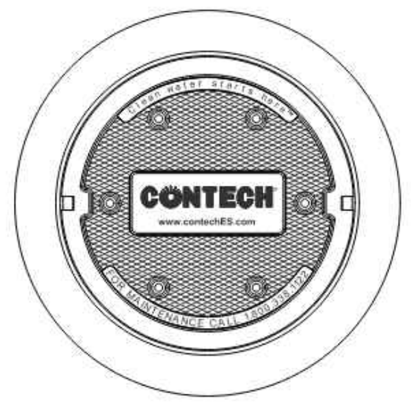

FIBERGLASS SEPARATION CYLINDER AND INLET
CENTER OF CDS STRUCTURE, SCREEN AND SUMP OPENING
A
FLOW
FLOW
TOP SLAB ACCESS (SEE FRAME AND COVER DETAIL)
PVC HYDRAULIC SHEAR PLATE
36" [914] I.D. MANHOLE STRUCTURE
PLAN VIEW B-B
N.T.S.
CONTRACTOR TO GROUT TO FINISHED GRADE
GRADE RINGS/RISERS
FIBERGLASS SEPARATION CYLINDER AND INLET
INLET PIPE (MULTIPLE INLET PIPES MAY BE ACCOMMODATED)
OUTLET PIPE
VARIES
OIL BAFFLE SKIRT
PERMANENT POOL ELEV.
SEPARATION SCREEN
PVC HYDRAULIC SHEAR PLATE
SOLIDS STORAGE SUMP
B
B

ELEVATION A-A
N.T.S.

CDS1515-3-C DESIGN NOTES

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.

THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)	*		
PEAK FLOW RATE (CFS OR L/s)	*		
RETURN PERIOD OF PEAK FLOW (YRS)	*		
SCREEN APERTURE (2400 OR 4700)	*		
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION	*		
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
	*	*	
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES
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2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO..
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

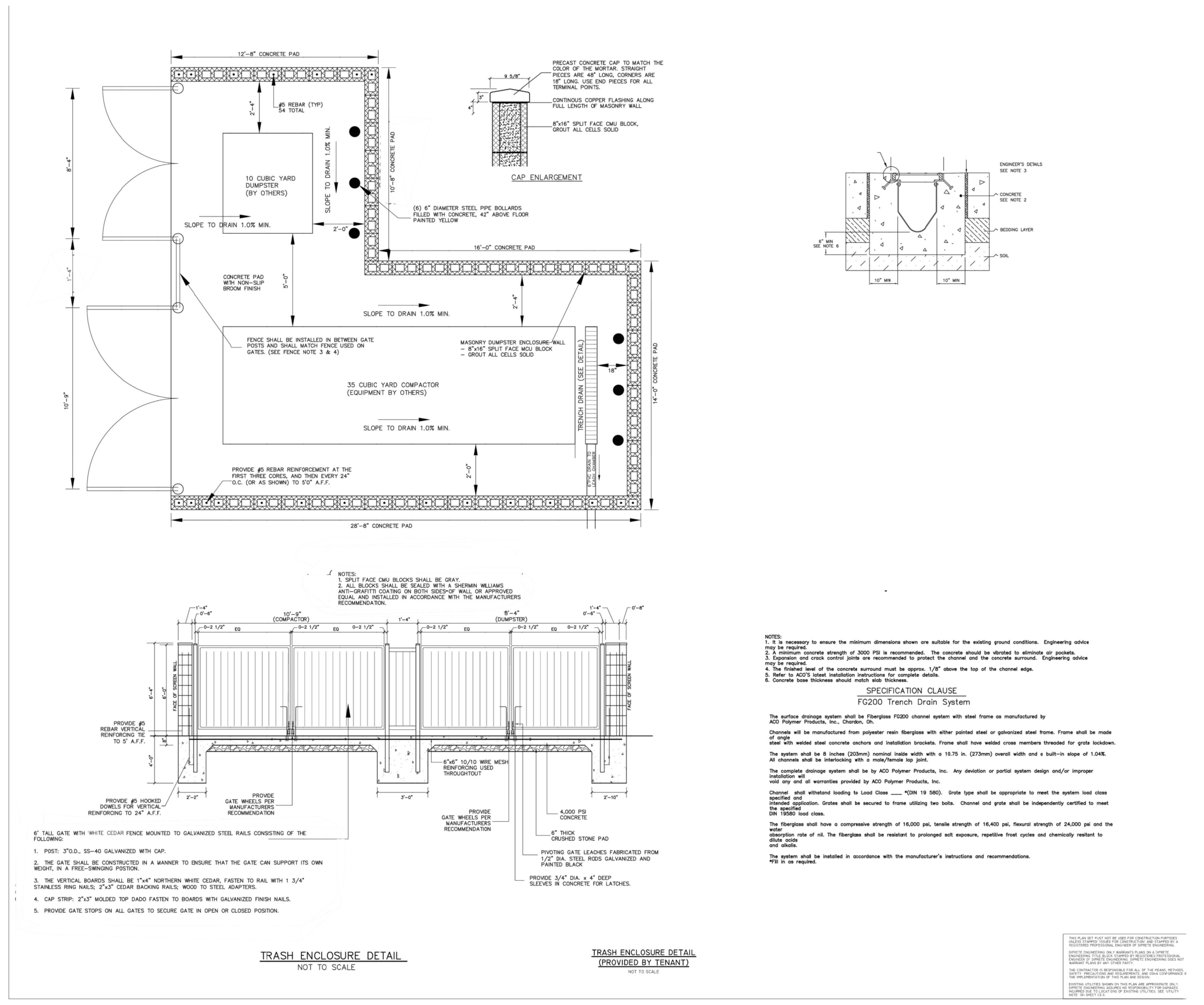
CDS1515-3-C
ONLINE CDS
STANDARD DETAIL

DETAIL REFERENCE:
DETAIL PROVIDED BY CONTECH

NOTE -
1. FOR USE AT WQU1.15, WQU2.1.1, WQU2.1.2
2. OR ENGINEER APPROVED EQUIVALENT. GC SHALL PROVIDE WQU SIZING CALCULATIONS AND SHOP DRAWINGS TO DESIGN ENGINEER PRIOR TO CONSTRUCTION

WATER QUALITY UNIT - CDS

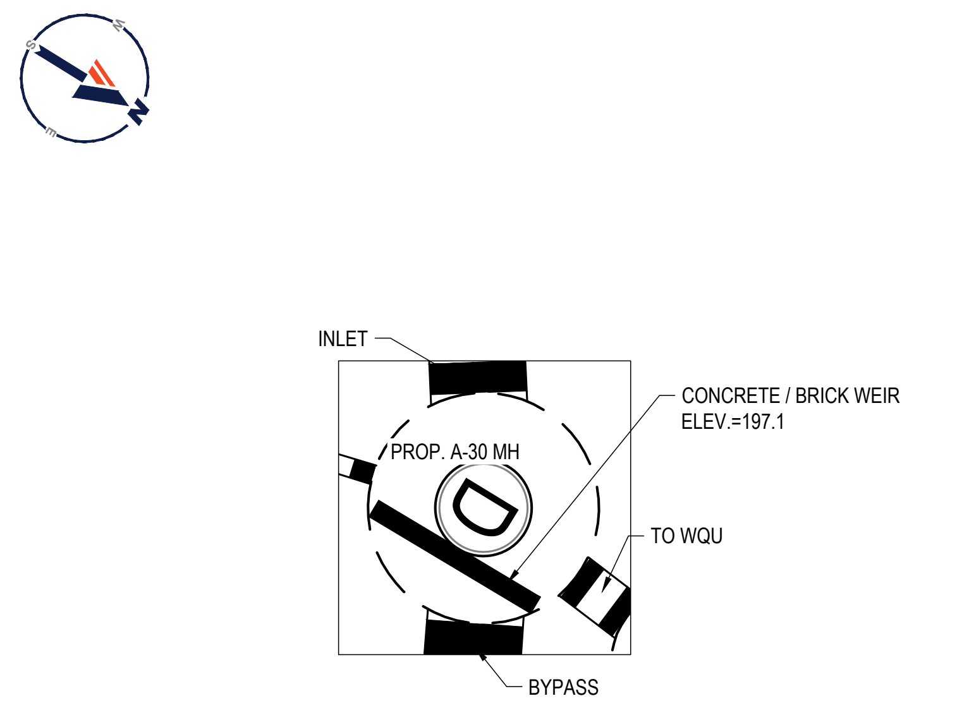
NOT TO SCALE


CAP ENLARGEMENT
SPECIFICATION CLAUSE
TRASH ENCLOSURE DETAIL
NOT TO SCALE
TRASH ENCLOSURE DETAIL
(PROVIDED BY TENANT)

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS

TRASH ENCLOSURE

NOT TO SCALE


INLET
PROP. A-30 MH
CONCRETE / BRICK WEIR ELEV.=197.1
TO WQU
BYPASS

NOTE:
1. SEE DRAINAGE PLAN FOR RIM AND INVERT ELEVATIONS.

DIVERSION STRUCTURE

NOT TO SCALE

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

NOTES REGARDING DETAILS BY OTHERS:
1. DETAILS PREPARED BY OTHERS ARE IDENTIFIED AS SUCH BY WAY OF A TITLE BLOCK, REFERENCE, LOGO, OR OTHER NOTATION.
2. WHERE AN ORIGINAL DETAIL BY OTHERS HAS BEEN MODIFIED, THE MODIFICATIONS ARE IDENTIFIED BY REVISION CLOUDS.
3. REFER TO OUTSIDE SOURCE NOTES ON SHEET C-102.
4. WHEN THE SOURCE OF THE DETAIL IS A REVIEWING/REGULATORY AGENCY, FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS.
5. WHEN APPROPRIATE, SHOP DRAWINGS SHALL BE FORWARDED TO THE REVIEWING/REGULATORY AGENCY PRIOR TO FABRICATION.

DETAILS BY OTHERS DISCLAIMER

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

811
Know what's below. Call before you dig.
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.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-DETL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

J.A. KUCICH
JOHN A. KUCICH
CIVIL
No. 41530
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

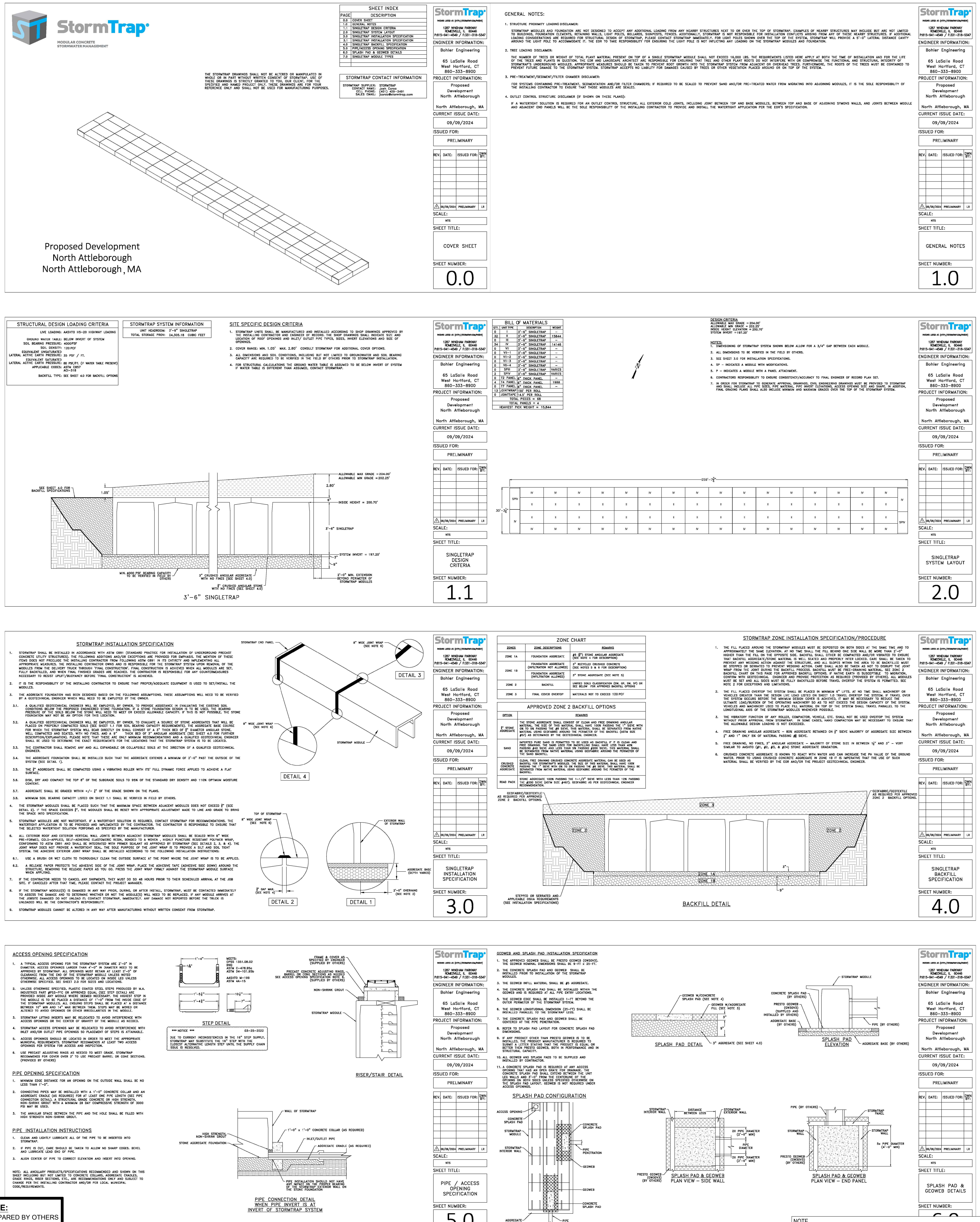
SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-903

REVISION 2 - 11/25/2024


StormTrap
MODULAR CONCRETE STORMWATER MANAGEMENT
Proposed Development
North Attleborough
North Attleborough, MA
COVER SHEET
0.0
GENERAL NOTES
1.0
SINGLETRAP DESIGN CRITERIA
1.1
SINGLETRAP SYSTEM LAYOUT
2.0
SINGLETRAP INSTALLATION SPECIFICATION
3.0
SINGLETRAP BACKFILL SPECIFICATION
4.0
PIPE / ACCESS OPENING SPECIFICATION
5.0
SPLASH PAD & GEOWEB DETAILS
6.0
3'-6" SINGLETRAP
BACKFILL DETAIL
DETAIL 1
DETAIL 2
DETAIL 3
DETAIL 4
STEP DETAIL
RISER/STAIR DETAIL
PIPE CONNECTION DETAIL WHEN PIPE INVERT IS AT INVERT OF STORMTRAP SYSTEM
SPLASH PAD DETAIL
SPLASH PAD ELEVATION
SPLASH PAD CONFIGURATION
SPLASH PAD & GEOWEB PLAN VIEW – SIDE WALL
SPLASH PAD & GEOWEB PLAN VIEW – END PANEL

SHEET INDEX

PAGE	DESCRIPTION
0.0	COVER SHEET
1.0	GENERAL NOTES
1.1	SINGLETRAP DESIGN CRITERIA
2.0	SINGLETRAP SYSTEM LAYOUT
3.0	SINGLETRAP INSTALLATION SPECIFICATION
3.1	SINGLETRAP INSTALLATION SPECIFICATION
4.0	SINGLETRAP BACKFILL SPECIFICATION
5.0	PIPE/ACCESS OPENING SPECIFICATION
6.0	SPLASH PAD & GEOWEB DETAILS
7.0	SINGLETRAP MODULE TYPES

THE STORMTRAP DRAWINGS SHALL NOT BE ALTERED OR MANIPULATED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF STORMTRAP. USE OF THESE DRAWINGS IS STRICTLY GRANTED TO YOU, OUR CLIENT, FOR THE SPECIFIED AND NAMED PROJECT ONLY. THESE DRAWINGS ARE FOR YOUR REFERENCE ONLY AND SHALL NOT BE USED FOR MANUFACTURING PURPOSES.

STORMTRAP CONTACT INFORMATION

STORMTRAP SUPPLIER: STORMTRAP
CONTACT NAME: Josh Coroa
CELL PHONE: (401) 429-3491
SALES EMAIL: jcoroa@stormtrap.com

StormTrap
PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4549 / F:331-318-5347

ENGINEER INFORMATION:
Bohler Engineering
65 LaSalle Road
West Hartford, CT
860-333-8900

PROJECT INFORMATION:
Proposed
Development
North Attleborough
North Attleborough, MA

CURRENT ISSUE DATE: 09/09/2024
ISSUED FOR: PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
1	09/09/2024	PRELIMINARY	LR

SCALE: NTS

STRUCTURAL DESIGN LOADING CRITERIA

LIVE LOADING: AASHTO HS-20 HIGHWAY LOADING
GROUND WATER TABLE: BELOW INVERT OF SYSTEM
SOIL BEARING PRESSURE: 4000 PSF
SOIL DENSITY: 120 PCF
EQUIVALENT UNSATURATED LATERAL ACTIVE EARTH PRESSURE: 35 PSF / FT.

STORMTRAP SYSTEM INFORMATION

UNIT HEADROOM: 3'-6" SINGLETRAP
TOTAL STORAGE PROV: 24,305.18 CUBIC FEET

SITE SPECIFIC DESIGN CRITERIA

1. STORMTRAP UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/ OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 1.05' MAX. 2.80' CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.

PIPE INSTALLATION INSTRUCTIONS

1. CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.
2. IF PIPE IS CUT, CARE SHOULD BE TAKEN TO ALLOW NO SHARP EDGES. BEVEL AND LUBRICATE LEAD END OF PIPE.
3. ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

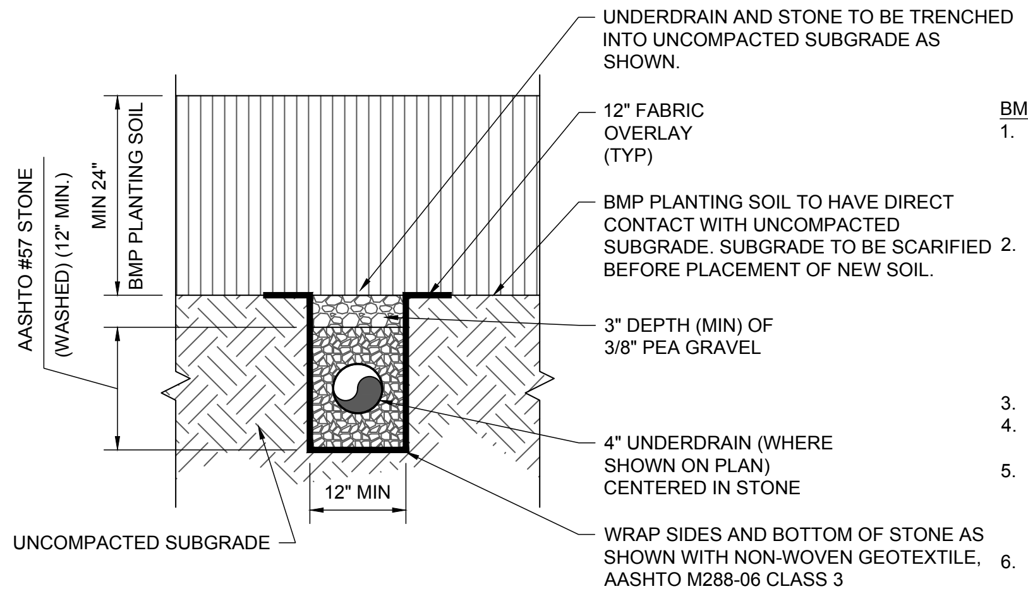
NOTE: ALL ANCILLARY PRODUCTS/SPECIFICATIONS RECOMMENDED AND SHOWN ON THIS SHEET INCLUDING BUT NOT LIMITED TO CONCRETE COLLARS, AGGREGATE CRADLES, GRADE RINGS, RISER SECTIONS, ETC., ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR AND/OR PER LOCAL MUNICIPAL CODE/REQUIREMENTS.

DETAIL REFERENCE:
DETAIL PROVIDED/PREPARED BY OTHERS AND IS FROM STORMTRAP, DATED 9/17/2024. REFER TO NOTES THIS SHEET.

NOTE
1. DETAILS ARE SAMPLE DRAWINGS OF THE PRODUCT UTILIZED IN THE DESIGN. GC SHALL PROVIDE STORMTRAP (OR ENGINEER APPROVED EQUIVALENT) SHOP DRAWINGS TO DESIGN ENGINEER PRIOR TO CONSTRUCTION.

STORMTRAP

NOT TO SCALE

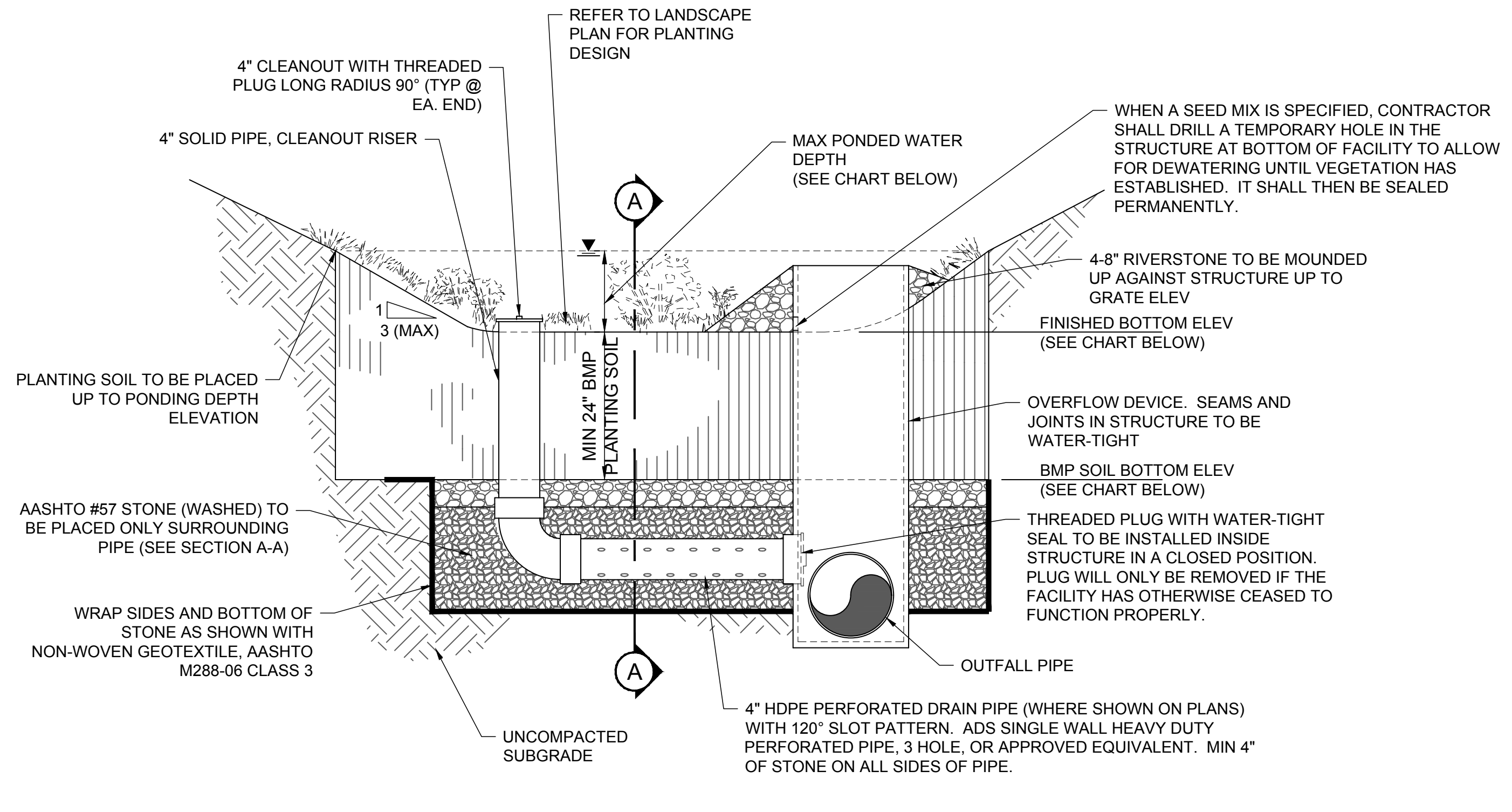

UNDERDRAIN AND STONE TO BE TRENCHED INTO UNCOMPACTED SUBGRADE AS SHOWN.
12" FABRIC OVERLAY (TYP)
BMP PLANTING SOIL TO HAVE DIRECT CONTACT WITH UNCOMPACTED SUBGRADE. SUBGRADE TO BE SCARIFIED BEFORE PLACEMENT OF NEW SOIL.
3" DEPTH (MIN) OF 3/8" PEA GRAVEL
4" UNDERDRAIN (WHERE SHOWN ON PLAN) CENTERED IN STONE
WRAP SIDES AND BOTTOM OF STONE AS SHOWN WITH NON-WOVEN GEOTEXTILE, AASHTO M288-06 CLASS 3
UNCOMPACTED SUBGRADE
AASHTO #57 STONE (WASHED) (12" MIN.)
MIN 24" BMP PLANTING SOIL
12" MIN

SECTION A-A

BMP PLANTING SOIL
1. SOIL MIX FOR BIORETENTION AREAS SHALL BE A MIXTURE OF SAND, TOPSOIL, AND COMPOST IN THE FOLLOWING PERCENTAGES
   40% SAND
   20-30% TOPSOIL
   30-40% COMPOST
2. THE SAND COMPONENT SHOULD BE GRAVELLY SAND THAT MEETS ASTM D 422.

SIEVE SIZE	PERCENT PASSING
2-INCH	100
¾-INCH	70-100
¼-INCH	50-80
U.S. NO. 40	15-40
U.S. NO. 200	0-3

3. THE TOPSOIL COMPONENT SHALL BE A SANDY LOAM, LOAMY SAND OR LOAM TEXTURE.
4. THE COMPOST COMPONENT MUST BE PROCESSED FROM YARD WASTE IN ACCORDANCE WITH MASSDEP GUIDELINES AND SHALL NOT CONTAIN BIOSOLIDS.
5. THE SOIL MIX MUST BE UNIFORM, FREE OF STONES, STUMPS, ROOTS OR SIMILAR OBJECTS LARGER THAN 2 INCHES. CLAY CONTENT SHALL NOT EXCEED 5%. SOIL PH SHOULD GENERALLY BE BETWEEN 5.5-6.5, A RANGE THAT IS OPTIMAL FOR MICROBIAL ACTIVITY AND ADSORPTION OF NITROGEN, PHOSPHORUS, AND OTHER POLLUTANTS.
6. USE SOILS WITH 1.5% TO 3% ORGANIC CONTENT AND MAXIMUM 500-PPM SOLUBLE SALTS.

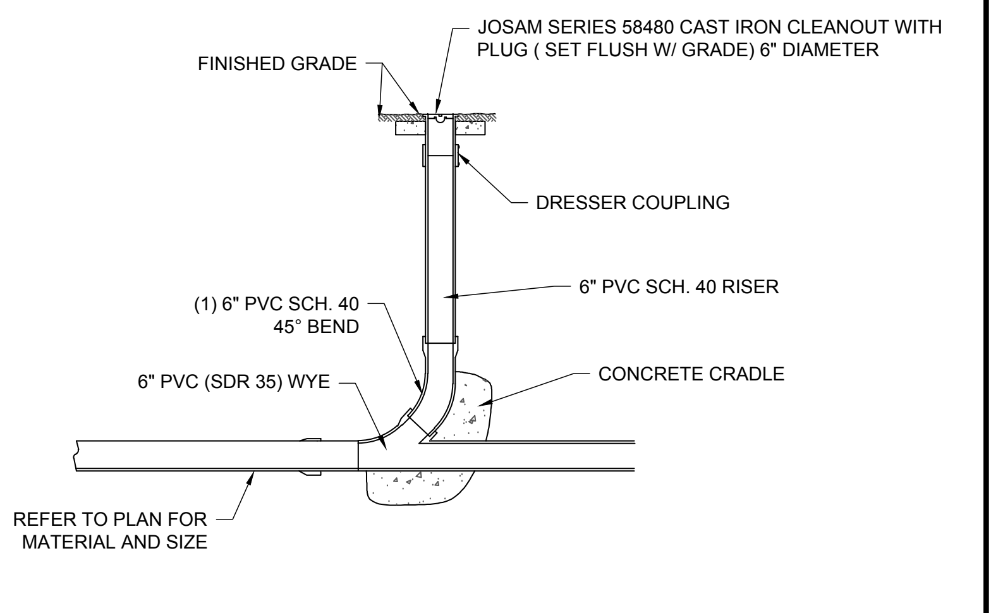

REFER TO LANDSCAPE PLAN FOR PLANTING DESIGN
4" CLEANOUT WITH THREADED PLUG LONG RADIUS 90° (TYP @ EA. END)
4" SOLID PIPE, CLEANOUT RISER
MAX PONDED WATER DEPTH (SEE CHART BELOW)
WHEN A SEED MIX IS SPECIFIED, CONTRACTOR SHALL DRILL A TEMPORARY HOLE IN THE STRUCTURE AT BOTTOM OF FACILITY TO ALLOW FOR DEWATERING UNTIL VEGETATION HAS ESTABLISHED. IT SHALL THEN BE SEALED PERMANENTLY.
4-8" RIVERSTONE TO BE MOUNDED UP AGAINST STRUCTURE UP TO GRATE ELEV
FINISHED BOTTOM ELEV (SEE CHART BELOW)
A
1
3 (MAX)
PLANTING SOIL TO BE PLACED UP TO PONDING DEPTH ELEVATION
MIN 24" BMP PLANTING SOIL
OVERFLOW DEVICE. SEAMS AND JOINTS IN STRUCTURE TO BE WATER-TIGHT
BMP SOIL BOTTOM ELEV (SEE CHART BELOW)
AASHTO #57 STONE (WASHED) TO BE PLACED ONLY SURROUNDING PIPE (SEE SECTION A-A)
THREADED PLUG WITH WATER-TIGHT SEAL TO BE INSTALLED INSIDE STRUCTURE IN A CLOSED POSITION. PLUG WILL ONLY BE REMOVED IF THE FACILITY HAS OTHERWISE CEASED TO FUNCTION PROPERLY.
WRAP SIDES AND BOTTOM OF STONE AS SHOWN WITH NON-WOVEN GEOTEXTILE, AASHTO M288-06 CLASS 3
OUTFALL PIPE
A
UNCOMPACTED SUBGRADE
4" HDPE PERFORATED DRAIN PIPE (WHERE SHOWN ON PLANS) WITH 120° SLOT PATTERN. ADS SINGLE WALL HEAVY DUTY PERFORATED PIPE, 3 HOLE, OR APPROVED EQUIVALENT. MIN 4" OF STONE ON ALL SIDES OF PIPE.

BMP PLAN ID	FINISHED BOTTOM ELEVATION	BMP SOIL BOTTOM ELEVATION	OVERFLOW DEVICE	OVERFLOW INVERT	MAXIMUM PONDING DEPTH (FT)
P1.4	197.3	195.3	SPILLWAY	198.4	1.7
P1.12	202.0	200.0	24"X24" YARD DRAIN	202.3	0.5

TYPICAL BIO-RETENTION

NOT TO SCALE

(PA-U019808 - 02/2024)


JOSAM SERIES 58480 CAST IRON CLEANOUT WITH PLUG (SET FLUSH W/ GRADE) 6" DIAMETER
FINISHED GRADE
DRESSER COUPLING
6" PVC SCH. 40 RISER
(1) 6" PVC SCH. 40 45° BEND
CONCRETE CRADLE
6" PVC (SDR 35) WYE
REFER TO PLAN FOR MATERIAL AND SIZE

CLEANOUT (IN-LINE)

NOT TO SCALE

(NE-U010302 - 11/2024)

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR DATE

VICE CHAIR DATE

MEMBER DATE

NOTES REGARDING DETAILS BY OTHERS:
1. DETAILS PREPARED BY OTHERS ARE IDENTIFIED AS SUCH BY WAY OF A TITLE BLOCK, REFERENCE, LOGO, OR OTHER NOTATION.
2. WHERE AN ORIGINAL DETAIL BY OTHERS HAS BEEN MODIFIED, THE MODIFICATIONS ARE IDENTIFIED BY REVISION CLOUDS.
3. REFER TO OUTSIDE SOURCE NOTES ON SHEET C-102.
4. WHEN THE SOURCE OF THE DETAIL IS A REVIEWING/REGULATORY AGENCY, FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS.
5. WHEN APPROPRIATE, SHOP DRAWINGS SHALL BE FORWARDED TO THE REVIEWING/REGULATORY AGENCY PRIOR TO FABRICATION.

DETAILS BY OTHERS DISCLAIMER

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

PERMIT SET

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-DETL-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

JOHN A. KUCICH
CIVIL
No. 41530
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

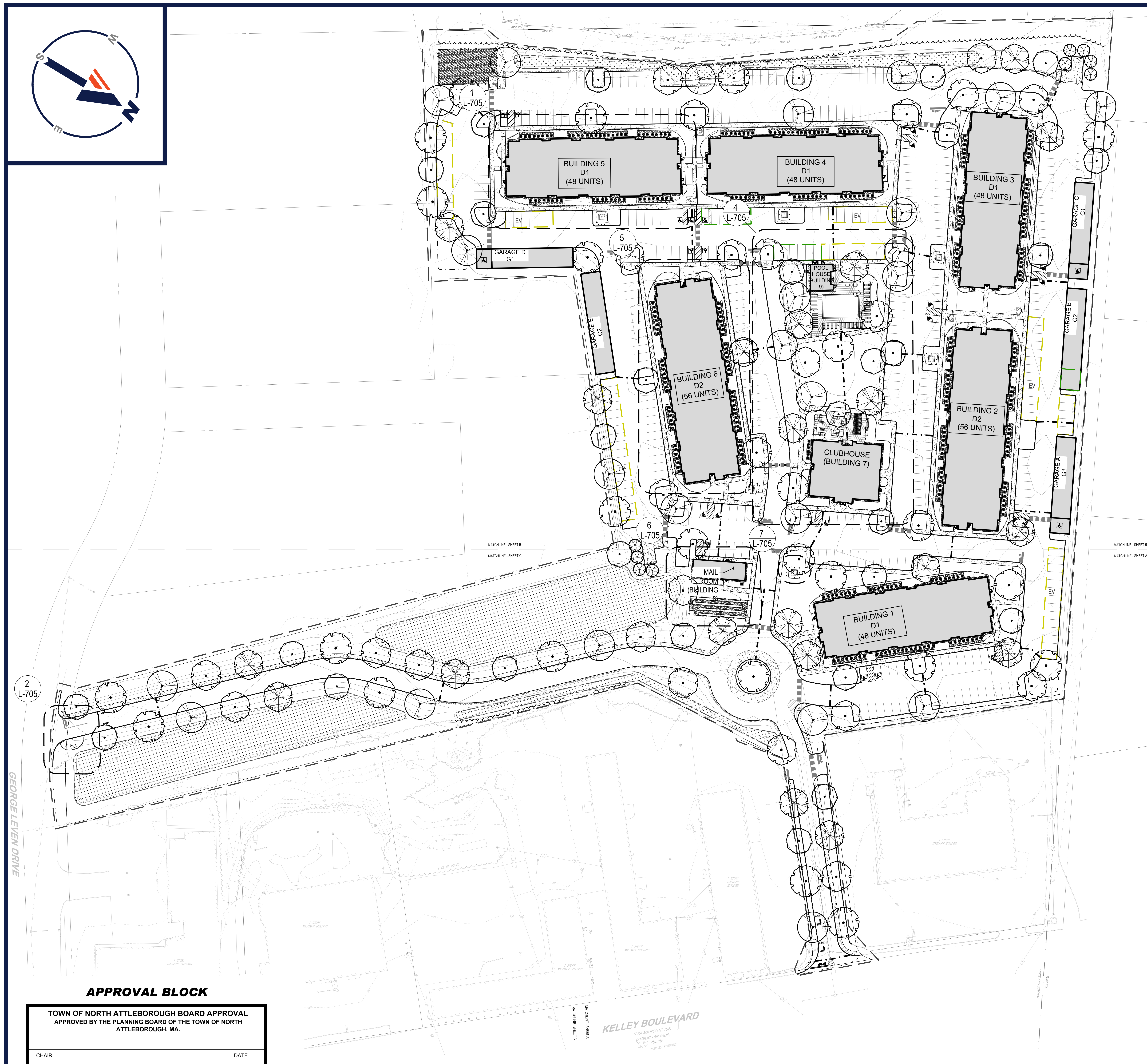
DETAIL SHEET

SHEET NUMBER:

C-904

REVISION 2 - 11/25/2024

\\BOHLERENG.NET\SHARES\MA-PROJECTS\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-DETL-1A — LAYOUT: C-904 DETL
AO



NORTH ATTLEBOROUGH
KBSGOD REGULATIONS & DESIGN STANDARDS

SECTION	REQUIREMENTS	CALCULATIONS/PROPOSED
§ 7.2.6.A	PARKING LOT ENTRANCES AND EXITS SHALL BE LANDSCAPED WITH A COMBINATION OF TREES AND SHRUBS. NO TREES OR SHRUBS SHALL BE PLANTED IN A WAY TO OBSTRUCT SIGHT LINES OF MOTORISTS. THESE AREAS MAY ALSO BE USED FOR SIGNAGE.	PARKING LOT ENTRANCES AND EXITS HAVE BEEN LANDSCAPED WITH A COMBINATION OF TREES AND SHRUBS.
§ 7.2.6.B	DEVELOPMENTS WITH PROPOSED PARKING AREAS OF 10 SPACES OR MORE SHALL PROVIDE A MINIMUM OF 10% OF THE TOTAL PARKING AREA AS LANDSCAPED OPEN SPACE; SUCH LANDSCAPED OPEN SPACE SHALL INCLUDE LANDSCAPED ISLANDS AND LANDSCAPED AREAS WITHIN TEN FEET OF ANY PARKING SPACE OR DRIVE AISLE ADJACENT TO A PARKING SPACE.	10% OF PARKING AREAS HAVE BEEN DEDICATED TO LANDSCAPED OPEN SPACE.
§ 7.2.6.C	PARKING AREAS SHALL BE BROKEN INTO SECTIONS NOT TO EXCEED 140 CARS PER SECTION. SECTIONS SHALL BE SEPARATED BY LANDSCAPED BUFFERS TO PROVIDE VISUAL RELIEF. AT A MINIMUM, THE BUFFERS SHALL CONSIST OF ISLANDS WHICH SHALL BE A COMBINATION OF "DIVIDER ISLANDS" AND "TERMINAL ISLANDS."	PARKING AREAS DO NOT EXCEED 140 CARS PER SECTION.
§ 7.2.6.D	STANDARDS FOR LANDSCAPED ISLANDS ARE AS FOLLOWS: 1. EACH LANDSCAPED ISLAND SHALL HAVE A MINIMUM AREA OF 100 SQUARE FEET AND SHALL CONSIST OF PERVIOUS LANDSCAPING. CURBING, AT LEAST SIX INCHES IN HEIGHT, SHALL SURROUND EACH LANDSCAPED ISLAND AS PROTECTION FROM VEHICLES UNLESS NOT REQUIRED BY THE PLANNING BOARD DUE TO LOW-IMPACT DEVELOPMENT PRINCIPLES. NO TREE SHALL BE PLANTED LESS THAN FOUR FEET FROM THE CURBING. 2. THE FOLLOWING ADDITIONAL DESIGN STANDARDS SHALL APPLY TO DIVIDER ISLANDS: ▪ AT LEAST ONE LANDSCAPED DIVIDER ISLAND SHALL BE PROVIDED FOR EVERY FOUR PARALLEL ROWS OF PARKING. ▪ TREES SHALL BE SPACED NOT MORE THAN 30 FEET ON CENTER. ▪ AT LEAST ONE SHRUB SHALL BE PROVIDED FOR EVERY FIVE LINEAR FEET, OR ONE SHRUB PER 35 SQUARE FEET OF GROUND AREA, WHICHEVER RESULTS IN A GREATER NUMBER OF SHRUBS. 3. THE FOLLOWING ADDITIONAL DESIGN STANDARDS APPLY TO TERMINAL ISLANDS: ▪ TERMINAL ISLANDS SHALL BE USED EITHER TO SEPARATE PARKING SPACES FROM DRIVEWAYS AND OTHER VEHICULAR TRAVEL LANES; OR TO BREAK UP LARGE NUMBERS OF PARKING SPACES IN A SINGLE ROW OF SPACES. ▪ LANDSCAPED TERMINAL ISLANDS SHALL BE PROVIDED AT THE ENDS OF ROWS OF PARKING WHERE SUCH ROWS ARE ADJACENT TO DRIVEWAYS OR VEHICULAR TRAVEL LANES. IN ADDITION, TERMINAL ISLANDS SHALL SEPARATE GROUPS OF PARKING SPACES IN A ROW, SUCH THAT NO CONTINUOUS LINE OF ADJOINING SPACES CONTAINS MORE THAN 35 PARKING SPACES. ▪ TERMINAL ISLANDS SHALL CONTAIN AT LEAST TWO TREES WHEN ABUTTING A DOUBLE ROW OF PARKING SPACES. ▪ LANDSCAPED TERMINAL ISLANDS SHALL CONTAIN EVERGREEN SHRUBS PLANTED THREE FEET OR LESS ON CENTER, IN ORDER TO PREVENT DAMAGE DUE TO PEDESTRIAN TRAFFIC.	NOT APPLICABLE.
§ 7.2.6.E	STRUCTURAL SOIL, A SPECIALIZED SOIL MIX THAT SUPPORTS PAVEMENT AND EXTENSIVE TREE ROOT GROWTH, SHALL BE USED UNDER ALL PAVED PARKING AREAS. FOR LANDSCAPE AREAS THAT DO NOT REQUIRE COMPACTION, WELL-DRAINING SOIL SHALL BE USED. GRASS OR GROUND COVER MAY BE SUBSTITUTED FOR SHRUBS IN DIVIDER ISLANDS AND TERMINAL ISLANDS, WITH THE APPROVAL OF THE PLANNING BOARD.	AS ADVISED BY GEOTECHNICAL ENGINEER, NO STRUCTURAL SOIL PROPOSED DUE TO AVAILABILITY OF NEARBY SOFTSCAPE AREAS AND QUALITY OF SITE SOILS.
§ 7.2.6.F	A LANDSCAPED ISLAND MAY BE UP TO 33% IMPERVIOUS SURFACE, PROVIDED THAT ALL SUCH AREA IS USED FOR PEDESTRIAN WALKWAYS AND THAT SUCH WALKWAYS ARE ADEQUATELY BUFFERED FROM THE PARKING AREAS.	NOT APPLICABLE.
§ 7.2.6.G	PARKING BARRIERS OF A SUBSTANTIAL BUMPER OF GRANITE, CONCRETE, STEEL OR HEAVY TIMBER, OR A CONCRETE CURB OR BERM WHICH IS BACKED, OR A NATURAL BERM, SHALL BE SO LOCATED AT THE EDGE OF SURFACED AREAS, EXCEPT DRIVEWAYS, SO AS TO PROTECT ABUTTING STRUCTURES, PROPERTIES, SIDEWALKS AND LANDSCAPING.	CONCRETE CURBS ARE PROPOSED SITE WIDE.
§ 7.2.6.H	ALL NEW PARKING LOTS CONTAINING 10 OR MORE PARKING SPACES SHALL INCLUDE PARKING LOT SHADING CONSISTING OF TREE PLANTINGS DESIGNED TO RESULT IN 30 PERCENT SHADING OF PARKING LOT SURFACE AREAS WITHIN 15 YEARS. THE SHADING REQUIREMENT CALCULATIONS APPLY TO ALL NEW IMPERVIOUS SURFACING ON WHICH A VEHICLE CAN DRIVE, INCLUDING PARKING STALLS; ALL DRIVES WITHIN THE PROPERTY LINE (REGARDLESS OF LENGTH); AND ALL MANEUVERING AREAS (REGARDLESS OF DEPTH). (1) EXCEPTIONS TO THE SHADING CALCULATION INCLUDE: ▪ TRUCK LOADING AREAS IN FRONT OF OVERHEAD DOORS. ▪ TRUCK MANEUVERING AND PARKING AREAS UNCONNECTED TO AND EXCLUSIVE OF ANY VEHICLE PARKING. ▪ SURFACED AREAS NOT TO BE USED FOR VEHICLE PARKING, DRIVING OR MANEUVERING, PROVIDED THEY ARE MADE INACCESSIBLE TO VEHICLES BY A BARRIER SUCH AS BOLLARDS, CURB, OR FENCING. ▪ PARKING AREAS UNDER COVERED STALLS AND IN GARAGES. (2) SHADING CALCULATIONS ARE AS FOLLOWS: ▪ IF A SITE HAS TWO OR MORE UNCONNECTED PARKING AREAS, SHADE IS CALCULATED SEPARATELY FOR EACH AREA. ▪ OVERLAPPING SHADE DOES NOT COUNT TWICE. ▪ IF THEY ARE CONNECTED BY A JOINING DRIVE, THEY ARE CALCULATED AS ONE LOT. THE AMOUNT OF SHADE PROVIDED BY A GIVEN TREE IS DETERMINED BY USING THE APPROPRIATE PERCENTAGE AND SQUARE FOOTAGE OF THE TREE CROWN AS INDICATED ON THE APPROVED SHADE TREE LIST BELOW (APPENDIX 1). SHADING CREDIT IS GIVEN IN 25% INCREMENTS BASED ON THE AMOUNT OF THE TREE CROWN THAT SHADES THE PARKING AREA (SEE FIGURE 1).	30% SHADING COVERAGE HAS BEEN PROVIDED.
§ 7.2.6.I	TREE PLANTINGS MUST FOLLOW APPENDIX 1: APPROVED SHADE TREE LIST. NO TREE, SHRUB OR PLANT SHALL BE PROPOSED FOR USE WITHIN A PARKING AREA THAT HAS BEEN IDENTIFIED AS AN INVASIVE SPECIES BY THE MASSACHUSETTS INVASIVE PLANT ADVISORY GROUP IN THE LATEST VERSION OF THE EVALUATION OF NON-NATIVE PLANT SPECIES FOR INVASIVENESS IN MASSACHUSETTS (WITH ANNOTATED LIST), HAS BEEN IDENTIFIED AS INVASIVE OR BANNED ON THE MASSACHUSETTS PROHIBITED PLANT LIST AS PERIODICALLY UPDATED BY THE MASSACHUSETTS DEPARTMENT OF AGRICULTURAL RESOURCES, OR IN ANY OTHER REPUTABLE SCIENTIFIC PUBLICATION THAT MAY BE ACCEPTABLE TO THE BOARD. ADDITIONALLY, ALL TREES, SHRUBS AND HEDGES MUST BE SPECIES THAT ARE HARDY IN PLANT HARDINESS ZONE 5, AS DEFINED BY THE AMERICAN STANDARDS FOR NURSERY STOCK, AND SHALL BE RESISTANT TO SALT SPRAY AND SUITABLE FOR URBAN CONDITIONS WHERE APPROPRIATE. PLANTS SHALL ALSO BE SELECTED AND DESIGNED SO AS NOT TO REQUIRE HIGH WATER USAGE OR MAINTENANCE. ALL SIZE AND LOCATION DESIGN ELEMENTS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS: (1) SHADE OR CANOPY SHALL BE 2.5” DIAMETER BREAST HEIGHT (DBH), AT TIME OF PLANTING AND MUST BE EXPECTED TO REACH TREES A HEIGHT OF AT LEAST 20 FEET WITHIN 10 YEARS, WHEN CONSIDERING THE EXPECTED NORMAL GROWTH PATTERNS OF THE SPECIES. (2) SMALL OR MINOR SHADE TREES SHALL BE 2.5” DBH, AT TIME OF PLANTING, GRADE. (3) ORNAMENTAL OR FLOWERING FRUIT TREES SHALL BE 2.0” DBH, AT TIME OF PLANTING. (4) EVERGREEN TREES USED FOR SCREENING SHALL BE NOT LESS THAN SIX FEET IN HEIGHT (ABOVE GRADE) AT THE TIME OF PLANTING. FENCING MAY BE USED IN CONJUNCTION WITH VEGETATED SCREENING. (5) SHRUBS AND HEDGES MUST BE AT LEAST 3 1/2 FEET IN HEIGHT OR HAVE SPREAD OF AT LEAST 24 INCHES AT TIME OF PLANTING. (6) TURF MAY BE USED.	NO TREES, SHRUB OR PLANT ARE ON THE MA INVASIVE PLANT LIST. (1) SHADE OR CANOPY ARE 2.5” DIAMETER BREAST HEIGHT (DBH). (2) NOT APPLICABLE. (3) NOT APPLICABLE. (4) EVERGREEN TREES ARE AT LEAST SIX FEET IN HEIGHT (ABOVE GRADE). (5) SHRUBS AND HEDGES HAVE A MIN. SPREAD OF 24". (6) NOTED.
§ 7.4.1	LANDSCAPED BUFFER STRIP AT LEAST TWENTY (20) FEET WIDE, CONTINUOUS EXCEPT FOR APPROVED DRIVEWAYS, SHALL BE ESTABLISHED ADJACENT TO ANY PUBLIC ROAD TO VISUALLY SEPARATE PARKING AND OTHER USES FROM THE ROAD. THE BUFFER STRIP SHALL BE PLANTED WITH GRASS, MEDIUM HEIGHT SHRUBS, AND SHADE TREES HAVING A MINIMUM 3" CALIPER, PLANTED AT LEAST EVERY 50 FEET ALONG THE ROAD FRONTAGE. AT ALL STREET OR DRIVEWAY INTERSECTIONS, TREES OR SHRUBS SHALL BE SET BACK A SUFFICIENT DISTANCE FROM SUCH INTERSECTIONS SO THAT THEY DO NOT PRESENT AN OBSTRUCTION TO SIGHT LINES.	NOT APPLICABLE.
§ 7.4.2	RETAINING WALLS SHALL BE CONSTRUCTED TO A MAXIMUM HEIGHT OF SIX (6) FEET. IF SITE CONDITIONS REQUIRE ELEVATION CHANGES OF GREATER THAN SIX (6) FEET, RETAINING WALLS SHALL BE TERRACED AND LANDSCAPED. RETAINING WALLS FACING RESIDENTIAL DISTRICTS SHALL BE A NATURAL STONE FINISH AND VERTICAL CAST IN PLACE CONCRETE SHALL NOT BE PERMITTED. THE HEIGHT OF A RETAINING WALL IS THE VERTICAL DISTANCE MEASURED FROM THE AVERAGE ELEVATION OF THE FINISHED GRADE ALONG THE BASE OF THE WALL TO THE HIGHEST POINT OF THE RETAINING ELEMENTS. NON-RETAINING STRUCTURE(S) MAY BE BUILT ATOP THE RETAINING WALL AND SHALL NOT BE INCLUDED IN THE HEIGHT CALCULATION.	NOT APPLICABLE.
§ 7.4.3	FENCES, LOW DECORATIVE WALLS AND HEDGES DEFINE WALKWAYS, GIVE PEDESTRIAN SCALE TO THE STREET AND MAINTAIN THE HISTORIC CHARACTER OF THE TOWN. THE MATERIALS AND DESIGN SHALL REFLECT THE PERIOD AND THE ORNATENESS OF THE BUILDING THEY DELINEATE. THE USE OF LOW DECORATIVE FENCES TO DELINEATE SPACES IS STRONGLY ENCOURAGED AND THE USE OF ANY TYPE OF CHAIN LINK OR STOCKADE FENCE IS PROHIBITED EXCEPT FOR THE ENCLOSURES OF OUTDOOR AMENITIES INCLUDING, BUT NOT LIMITED TO, DOG/PET RUNS AND TOT LOTS.	NOTED.
§ 7.4.4	TO THE GREATEST EXTENT PRACTICAL, EXISTING NATURAL VEGETATION SHALL BE PRESERVED. UNLESS DESIGNATED AS PROTECTED OPEN SPACE BY THE BOARD, ALL OPEN AND DISTURBED AREAS WITHIN A PROJECT SHOULD BE LANDSCAPED IN AN APPROPRIATE MANNER, UTILIZING BOTH NATURAL AND MAN- MADE MATERIALS SUCH AS GRASS, TREES, SHRUBS, ATTRACTIVE PAVING MATERIALS AND OUTDOOR FURNITURE.	NOTED.
§ 7.4.5	PEDESTRIAN/ORIENTED FEATURES SUCH AS COVERED WALKWAYS, PERGOLAS, OUTDOOR SITTING PLAZAS, LANDSCAPED OPEN SPACE, DROP-OFF AREAS AND RECREATIONAL FACILITIES SHALL BE INCLUDED WITHIN THE LANDSCAPE PLAN.	NOTED.
§ 7.4.6	EXPOSED STORAGE AREAS, MACHINERY, SERVICE AREAS, TRUCK LOADING AREAS, UTILITY BUILDINGS AND STRUCTURES AND OTHER UNSIGHTLY USES SHALL BE SCREENED FROM VIEW FROM NEIGHBORING PROPERTIES AND STREETS USING DENSE, HARDY EVERGREEN PLANTINGS, OR EARTHEN BERMS, OR WALL OR TIGHT FENCE.	TRASH AREAS HAVE BEEN ENCLOSED AND PLANTED WITH EVERGREEN TREES. EXPOSED UTILITIES HAVE BEEN HIDDEN WITH EVERGREEN SHRUBS.
§ 7.4.7	HIGH-QUALITY, DROUGHT-RESISTANT, NATIVE LANDSCAPING SHALL BE PROVIDED WITHIN THE PROJECT, AND.	ALL PLANTING IS NATIVE.
§ 7.4.8	ALL LANDSCAPED AREAS SHALL BE PROPERLY MAINTAINED. SHRUBS OR TREES WHICH DIE SHALL BE REPLACED WITHIN ONE GROWING SEASON.	NOTED.

NORTH ATTLEBOROUGH
KBSGOD ZONING BYLAWS

SECTION	REQUIREMENTS	CALCULATIONS/PROPOSED
§ II.F.13.5.7	LANDSCAPING AND TREE PLANTING IS REQUIRED AT SURFACE PARKING LOCATIONS AND ALONG AT LEAST ONE RIGHT-OF-WAY TO PROVIDE SOME SCREENING AND RELIEF FROM THE CONTINUITY OF PARKING SPACES. A MIX OF TREES AND BUSHES THAT ARE OF NATIVE ORIGIN AND THAT REQUIRE MINIMAL MAINTENANCE SHALL BE SELECTED. TREES AND BUSHES SHOULD BE PRUNED TO PROVIDE PROPER HEADWAY AND VISIBILITY FOR VEHICLE OPERATORS AND PEDESTRIANS.	TREES LOCATED IN PARKING ISLANDS WHERE NO CONFLICT WITH UNDERGROUND UTILITIES. WHERE CONFLICTS EXIST, SHRUB PLANTING HAS BEEN PROPOSED.
§ II.F.13.5.8	ALL TRASH AND RECYCLING CONTAINERS AND ANY OTHER OUTSIDE STORAGE SHALL BE SCREENED AND ENCLOSED.	EVERGREEN TREE PLANTING LOCATED AT TRASH ENCLOSURES.

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CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

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60 30 15 0 60
1"= 60'

P:\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LSCP-1A----->LAYOUT: L-701 LAND OVERALL
DT

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CAD I.D.:	W211244-LSCP-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER//
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
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M. J. MRVA
MATTHEW J. MRVA
NO. 1217
REGISTERED LANDSCAPE ARCHITECT
MASSACHUSETTS No. 1217
CONNECTICUT No. 1359
MAINE No. 4248
VERMONT No. 01337
OHIO No. 250433

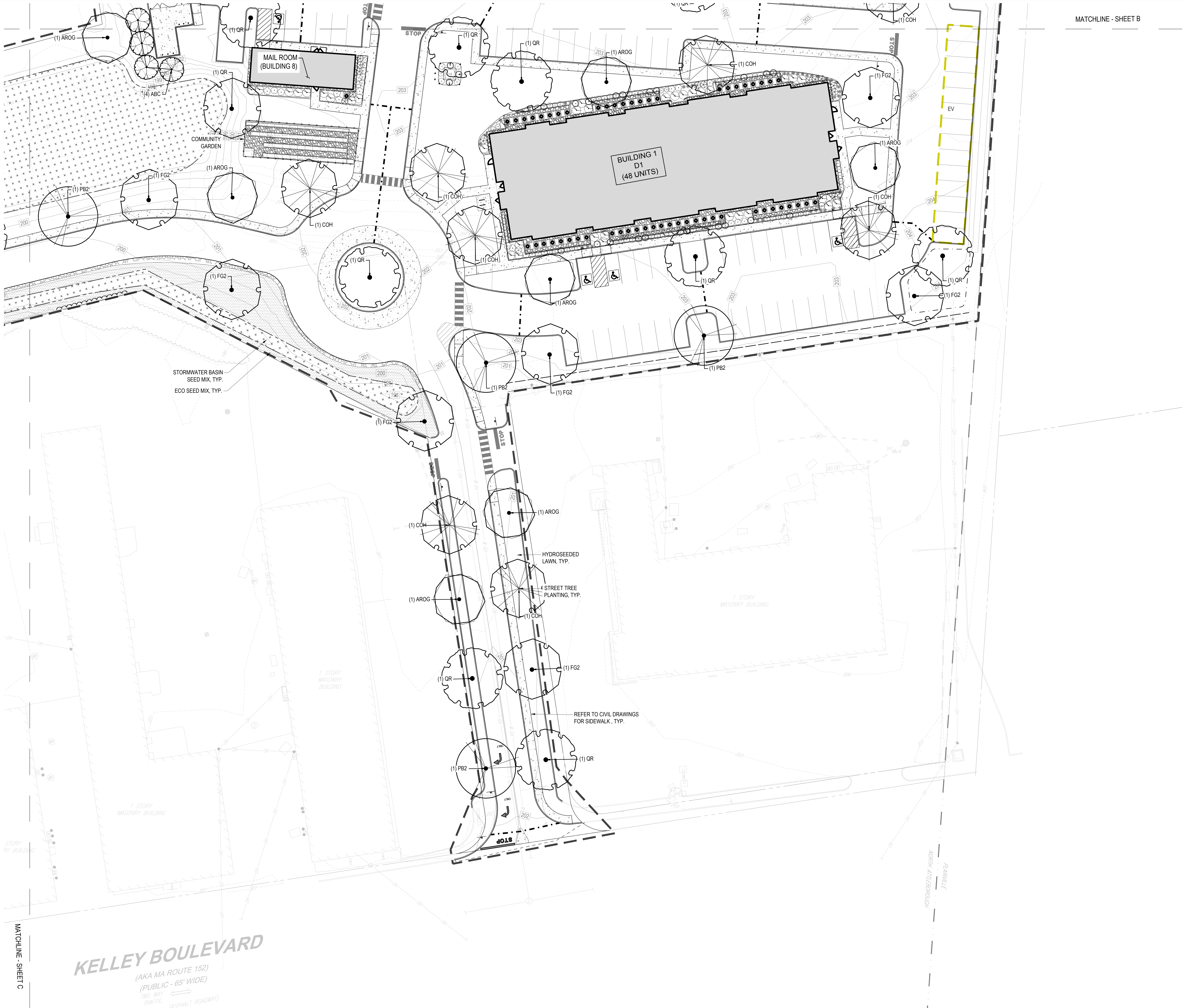
SHEET TITLE:

OVERALL LANDSCAPE PLAN

SHEET NUMBER:

L-701

REVISION 2 - 11/25/2024



MATCHLINE - SHEET B
MATCHLINE - SHEET C
MAIL ROOM (BUILDING 8)
COMMUNITY GARDEN
BUILDING 1 D1 (48 UNITS)
EV
STOP
(1) AROG
(1) QR
(4) ABC
(1) QR
(1) FG2
(1) PB2
(1) AROG
(1) COH
(1) COH
(1) QR
(1) COH
(1) AROG
(1) QR
(1) AROG
(1) COH
(1) FG2
(1) AROG
(1) COH
(1) QR
(1) FG2
(1) QR
(1) FG2
(1) AROG
(1) PB2
(1) FG2
(1) FG2
(1) PB2
STORMWATER BASIN SEED MIX, TYP.
ECO SEED MIX, TYP.
(1) AROG
(1) COH
HYDROSEEDED LAWN, TYP.
STREET TREE PLANTING, TYP.
(1) AROG
(1) COH
(1) QR
(1) FG2
REFER TO CIVIL DRAWINGS FOR SIDEWALK , TYP.
(1) PB2
(1) QR
KELLEY BOULEVARD
(AKA MA ROUTE 152)
(PUBLIC - 65' WIDE)

LANDSCAPE LEGEND

KEY	SYMBOL	DESCRIPTION
SITE PAVING		
SEE CIVIL DWGS		CONCRETE PAVING
2 L-707		STAMPED CONCRETE
4 L-707		SYNTHETIC TURF
X L-XXX		PEA STONE GRAVEL
9 L-710		CRUSHED STONE MAINTENANCE STRIP
SITE ELEMENTS		
6 L-709		BLACK CHAINLINK FENCE WITH GATE
7 L-707		BLACK ALUM. PICKET FENCE WITH GATE
3 L-708	▬	PROPANE FIREPIT
5 L-707		BIKE RACK
SEE CIVIL DWGS		TRASH ENCLOSURE
2 L-708		GRILL STATION
1 L-708	▥	SHADE STRUCTURE
4 L-708	⊠	LIGHT BOLLARD
7 L-709	●	STRING LIGHT POLE
6 L-707		PROPANE SHUT OFF BOLLARD
2 L-709		DOG DRINKING FOUNTAIN
X L-XXX		POOL ADA LIFT
FF&E		SECTIONAL SEATING
FF&E		SUN LOUNGERS
FF&E		DINING TABLE
PLANTING		
2 L-710		TREE PLANTING
4 L-710		SHRUB PLANTING
6 L-710		GROUNDCOVER PLANTING
11 L-710	NO HATCH	HYDROSEEDED LAWN
8 L-710		SODDED LAWN
5 L-707		SYNTHETIC TURF
13 L-710		ECOMIX SEED MIX
10 L-710		BASIN SEED MIX

APPROVAL BLOCK

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APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

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VICE CHAIR	DATE
MEMBER	DATE

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1"= 30'

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OHIO No. 250433

Matthew J. Mrva

SHEET TITLE:

LANDSCAPE PLAN A

SHEET NUMBER:

L-702

REVISION 2 - 11/25/2024

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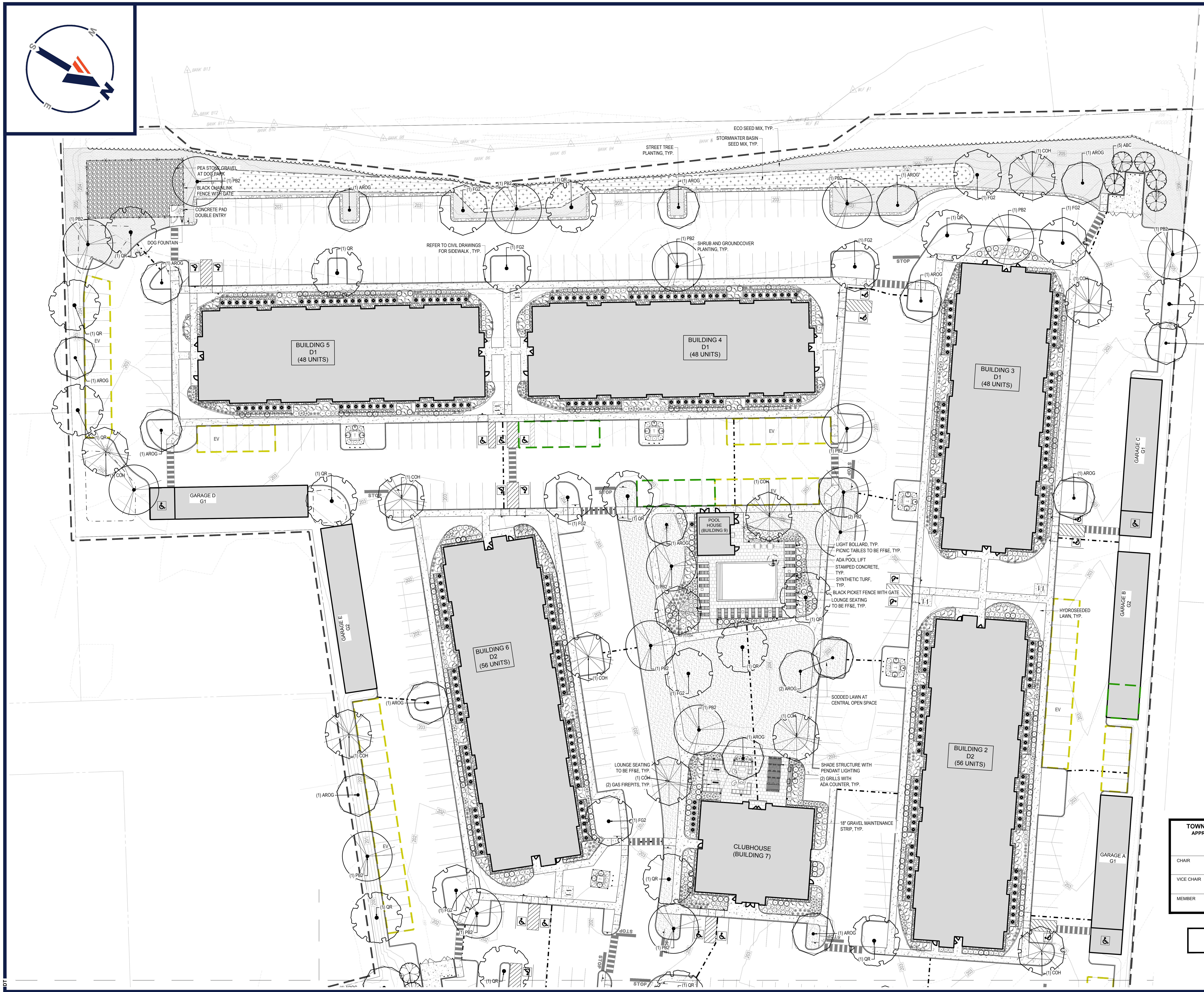
DT


N
E
S
W
PEA STONE GRAVEL AT DOG PARK
BLACK CHAINLINK FENCE WITH GATE
CONCRETE PAD DOUBLE ENTRY
DOG FOUNTAIN
REFER TO CIVIL DRAWINGS FOR SIDEWALK , TYP.
STREET TREE PLANTING, TYP.
ECO SEED MIX, TYP.
STORMWATER BASIN SEED MIX, TYP.
SHRUB AND GROUNDCOVER PLANTING, TYP.
BUILDING 5 D1 (48 UNITS)
BUILDING 4 D1 (48 UNITS)
BUILDING 3 D1 (48 UNITS)
BUILDING 6 D2 (56 UNITS)
BUILDING 2 D2 (56 UNITS)
GARAGE A G1
GARAGE B G2
GARAGE C G1
GARAGE D G1
GARAGE E G2
POOL HOUSE (BUILDING 9)
CLUBHOUSE (BUILDING 7)
LIGHT BOLLARD, TYP.
PICNIC TABLES TO BE FF&E, TYP.
ADA POOL LIFT
STAMPED CONCRETE, TYP.
SYNTHETIC TURF, TYP.
BLACK PICKET FENCE WITH GATE
LOUNGE SEATING TO BE FF&E, TYP.
SODDED LAWN AT CENTRAL OPEN SPACE
SHADE STRUCTURE WITH PENDANT LIGHTING
(2) GRILLS WITH ADA COUNTER, TYP.
(1) COH
(2) GAS FIREPITS, TYP.
18" GRAVEL MAINTENANCE STRIP, TYP.
HYDROSEEDED LAWN, TYP.
EV
STOP
(1) QR
(1) PB2
(1) AROG
(1) FG2
(1) COH
(2) PB2
(2) AROG
(5) ABC
BANK B13
BANK B12
BANK B11
BANK B10
BANK B9
BANK B8
BANK B7
BANK B6
BANK B5
BANK B4
203
204
205

LANDSCAPE LEGEND

SITE PAVING		
KEY	SYMBOL	DESCRIPTION
SEE CIVIL DWGS		CONCRETE PAVING
2 / L-707		STAMPED CONCRETE
4 / L-707		SYNTHETIC TURF
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5 / L-707		BIKE RACK
SEE CIVIL DWGS		TRASH ENCLOSURE
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1 / L-708		SHADE STRUCTURE
4 / L-708		LIGHT BOLLARD
7 / L-709		STRING LIGHT POLE
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2 / L-709		DOG DRINKING FOUNTAIN
X / L-XXX		POOL ADA LIFT
FF&E		SECTIONAL SEATING
FF&E		SUN LOUNGERS
FF&E		DINING TABLE
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CAD I.D.:	W211244-LSCP-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

M. J. MRVA
REGISTERED LANDSCAPE ARCHITECT
MATTHEW J. MRVA
NO. 1217
MAINE No. 4248
VERMONT No. 01337
OHIO No. 250433
Matthew J. Mrva

SHEET TITLE:

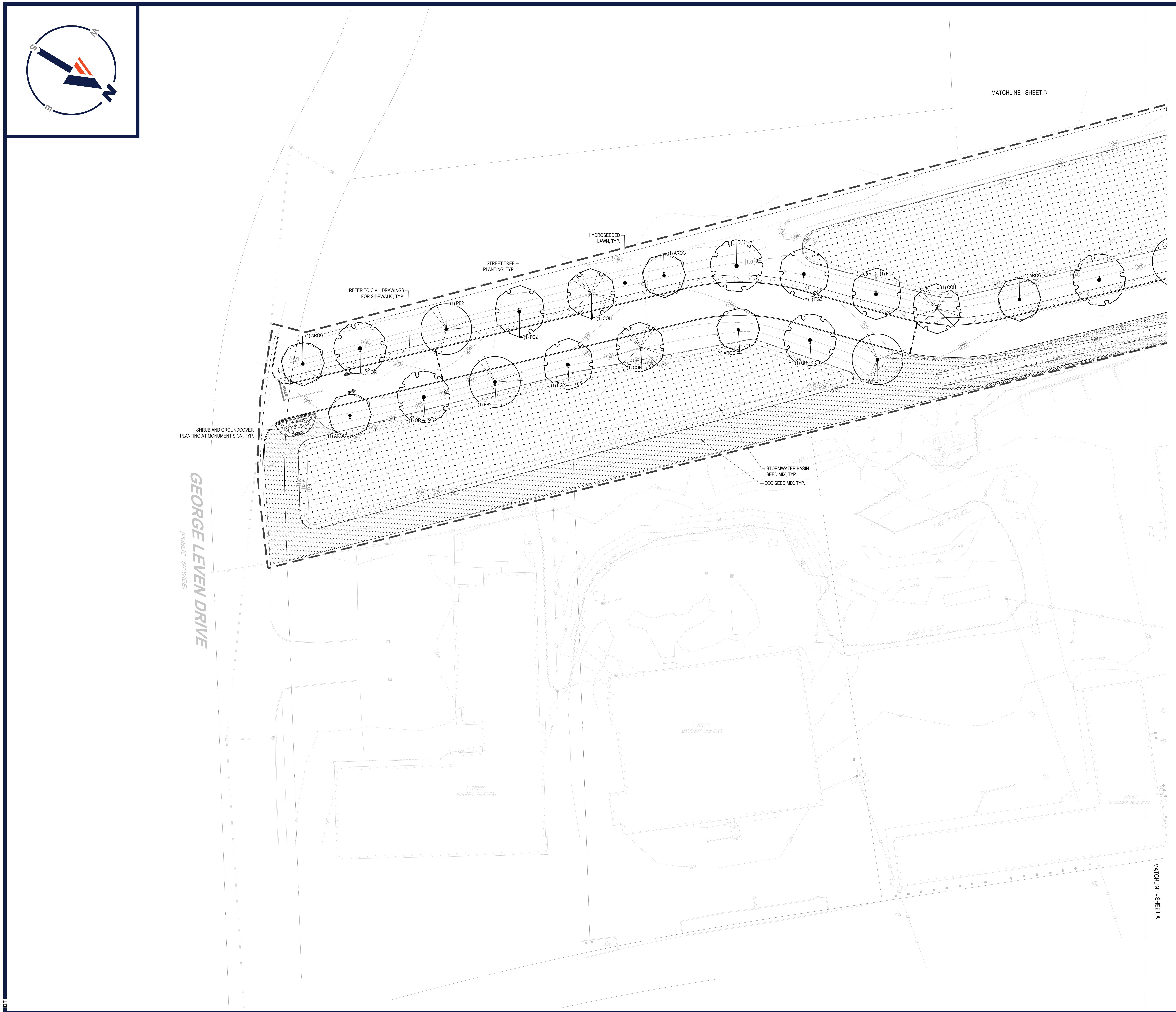
LANDSCAPE PLAN B

SHEET NUMBER:

L-703

REVISION 2 - 11/25/2024

P:\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LSCP-1A---->LAYOUT: L-703 LAND B
DT


W
S
N
E
MATCHLINE - SHEET B
HYDROSEEDED LAWN, TYP.
STREET TREE PLANTING, TYP.
REFER TO CIVIL DRAWINGS FOR SIDEWALK , TYP.
(1) AROG
(1) QR
(1) PB2
(1) FG2
(1) COH
(1) AROG
(1) QR
(1) FG2
(1) FG2
(1) COH
(1) AROG
(1) QR
(1) AROG
(1) QR
(1) PB2
(1) FG2
(1) COH
(1) AROG
(1) QR
(1) PB2
STOP
SHRUB AND GROUNDCOVER PLANTING AT MONUMENT SIGN, TYP.
STORMWATER BASIN SEED MIX, TYP.
ECO SEED MIX, TYP.
GEORGE LEVEN DRIVE
(PUBLIC - 50' WIDE)
EDGE OF WOODS
1 STORY MASONRY BUILDING
MATCHLINE - SHEET A

LANDSCAPE LEGEND

KEY	SYMBOL	DESCRIPTION
SITE PAVING		
SEE CIVIL DWGS	⁘	CONCRETE PAVING
2 / L-707	▦	STAMPED CONCRETE
4 / L-707	⁘	SYNTHETIC TURF
X / L-XXX	○	PEA STONE GRAVEL
9 / L-710	⁓	CRUSHED STONE MAINTENANCE STRIP
SITE ELEMENTS		
6 / L-709		BLACK CHAINLINK FENCE WITH GATE
7 / L-707		BLACK ALUM. PICKET FENCE WITH GATE
3 / L-708	▬	PROPANE FIREPIT
5 / L-707		BIKE RACK
SEE CIVIL DWGS		TRASH ENCLOSURE
2 / L-708		GRILL STATION
1 / L-708	▥	SHADE STRUCTURE
4 / L-708	⊠	LIGHT BOLLARD
7 / L-709	●	STRING LIGHT POLE
6 / L-707	⊗	PROPANE SHUT OFF BOLLARD
2 / L-709		DOG DRINKING FOUNTAIN
X / L-XXX		POOL ADA LIFT
FF&E		SECTIONAL SEATING
FF&E		SUN LOUNGERS
FF&E		DINING TABLE
PLANTING		
2 / L-710		TREE PLANTING
4 / L-710		SHRUB PLANTING
6 / L-710		GROUNDCOVER PLANTING
11 / L-710	NO HATCH	HYDROSEEDED LAWN
8 / L-710	⁘	SODDED LAWN
5 / L-707	⁘	SYNTHETIC TURF
13 / L-710	⁘	ECOMIX SEED MIX
10 / L-710	+	BASIN SEED MIX

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

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REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR DATE

VICE CHAIR DATE

MEMBER DATE

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

30 15 7.5 0 30
1"= 30'

SHEET TITLE:

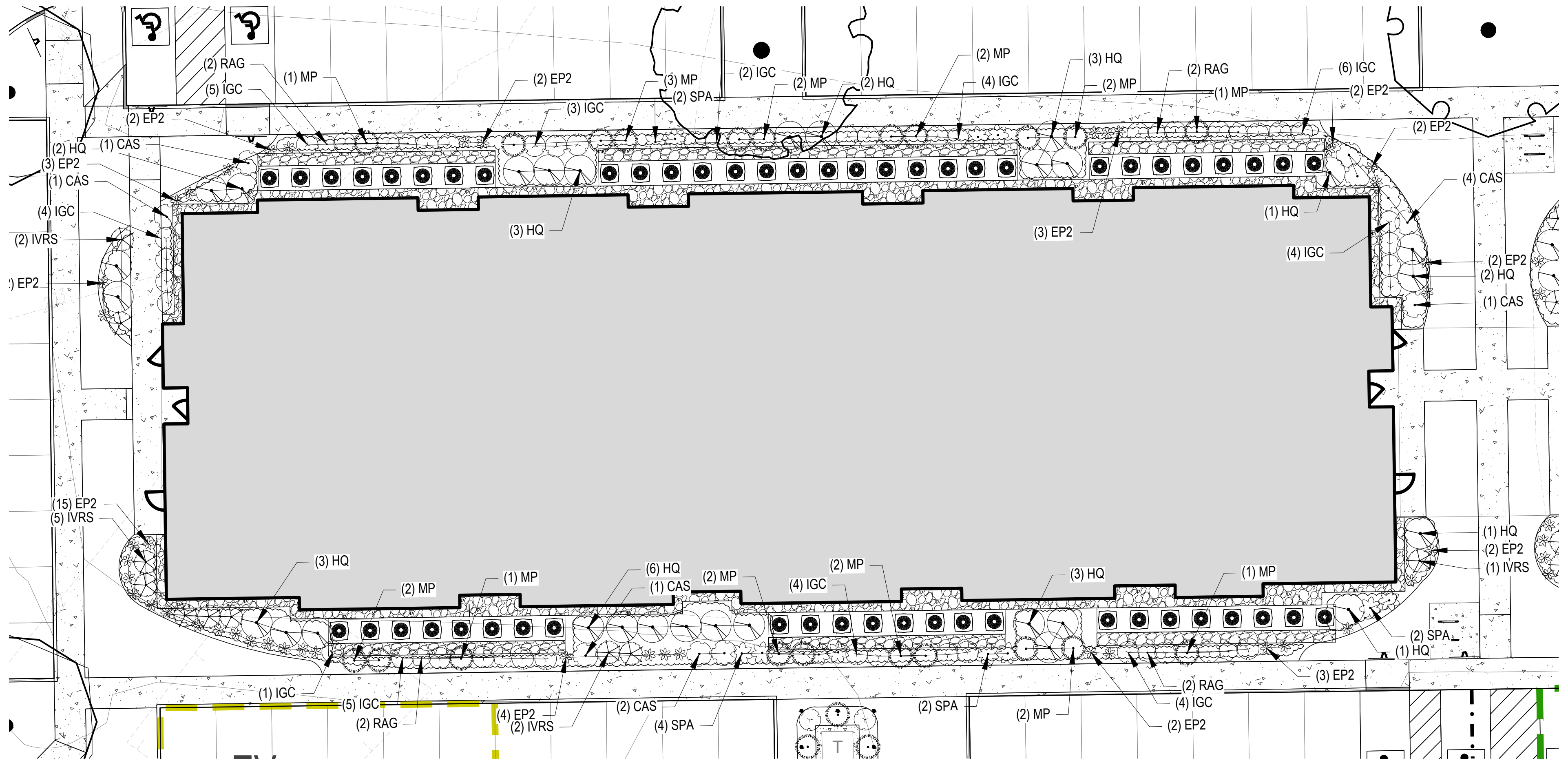
LANDSCAPE PLAN C

SHEET NUMBER:

L-704

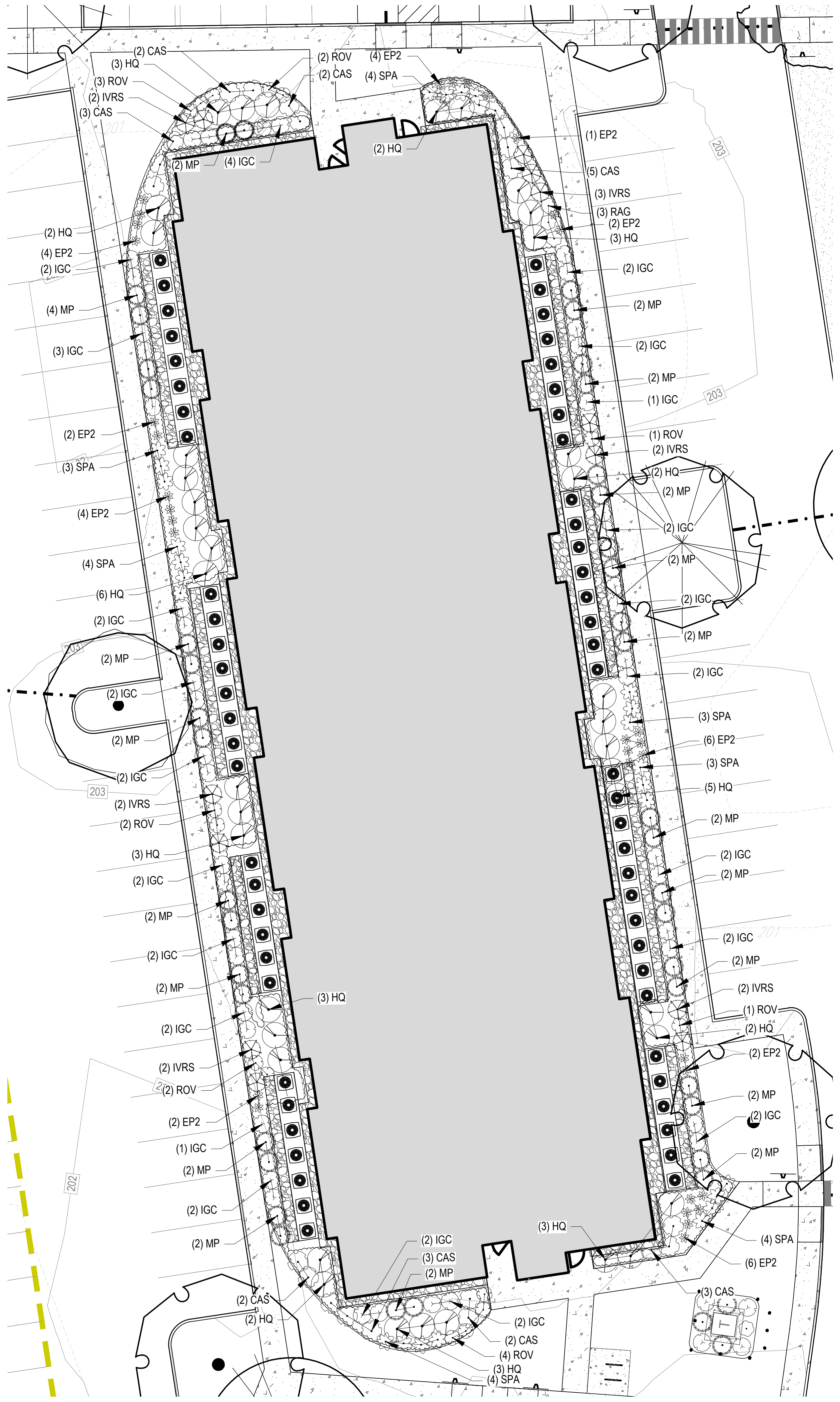
REVISION 2 - 11/25/2024

P:\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LSCP-1A——LAYOUT: L-704 LAND C
DT



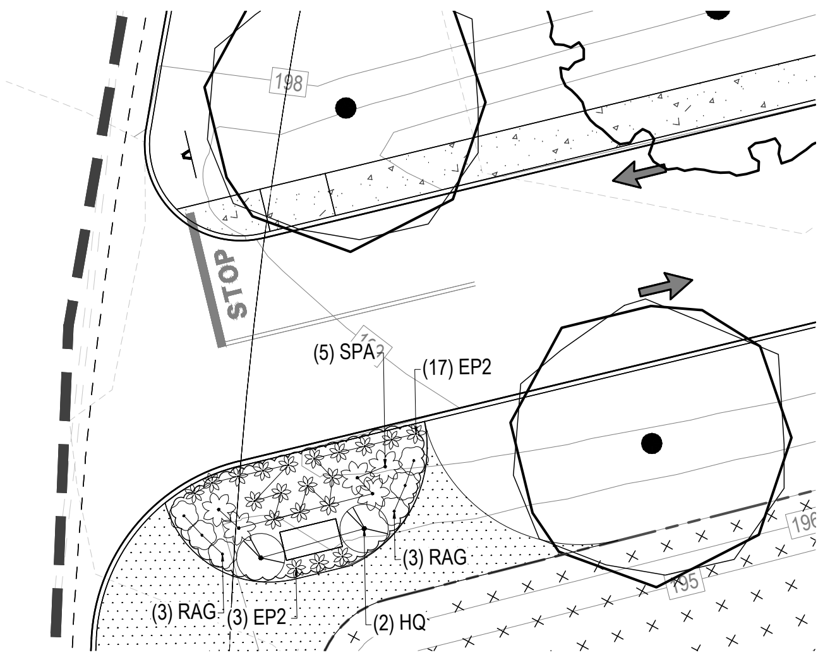
1 48 UNIT BUILDING PLANTING - TYPICAL

SCALE: 1"=20'



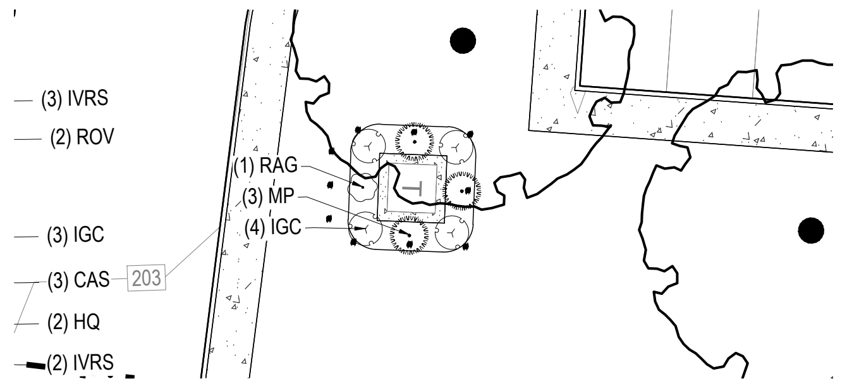
5 56 UNIT BUILDING PLANTING - TYPICAL

SCALE: 1"=20'



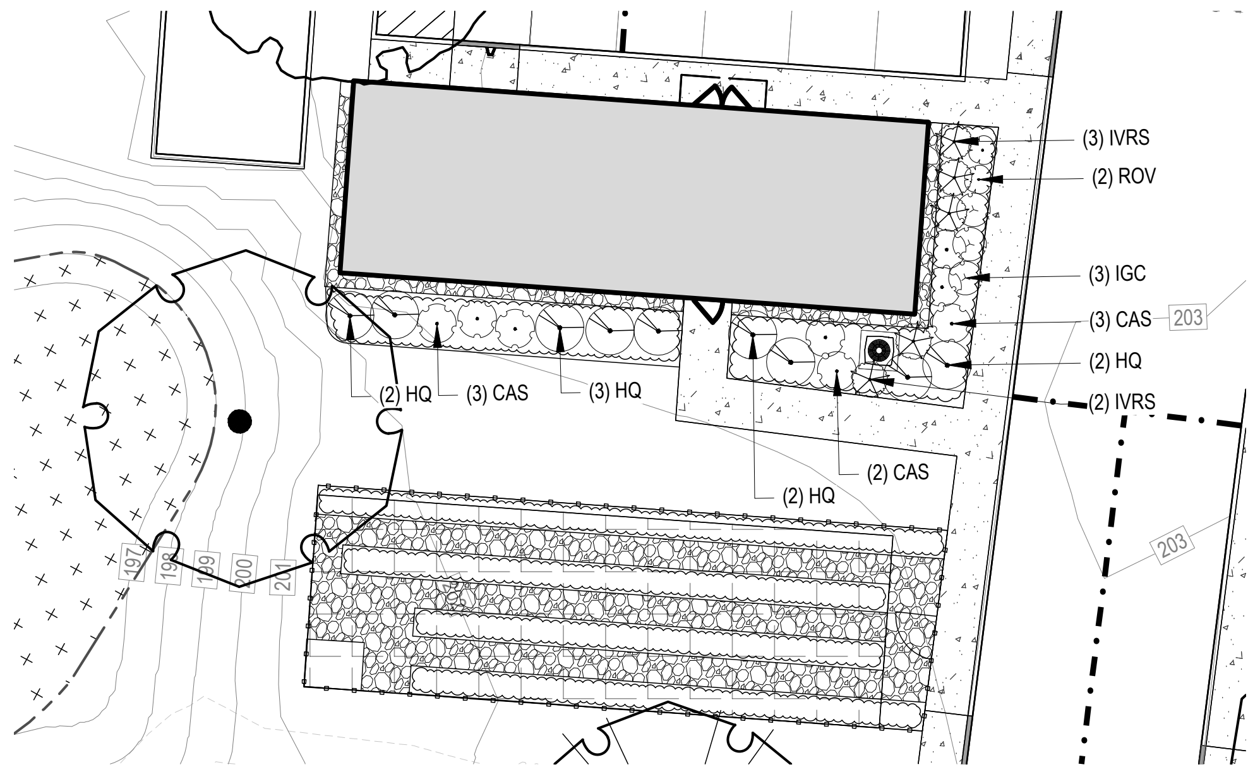
2 GEORGE LEVEN DRIVE SIGN PLANTING

SCALE: 1"=20'



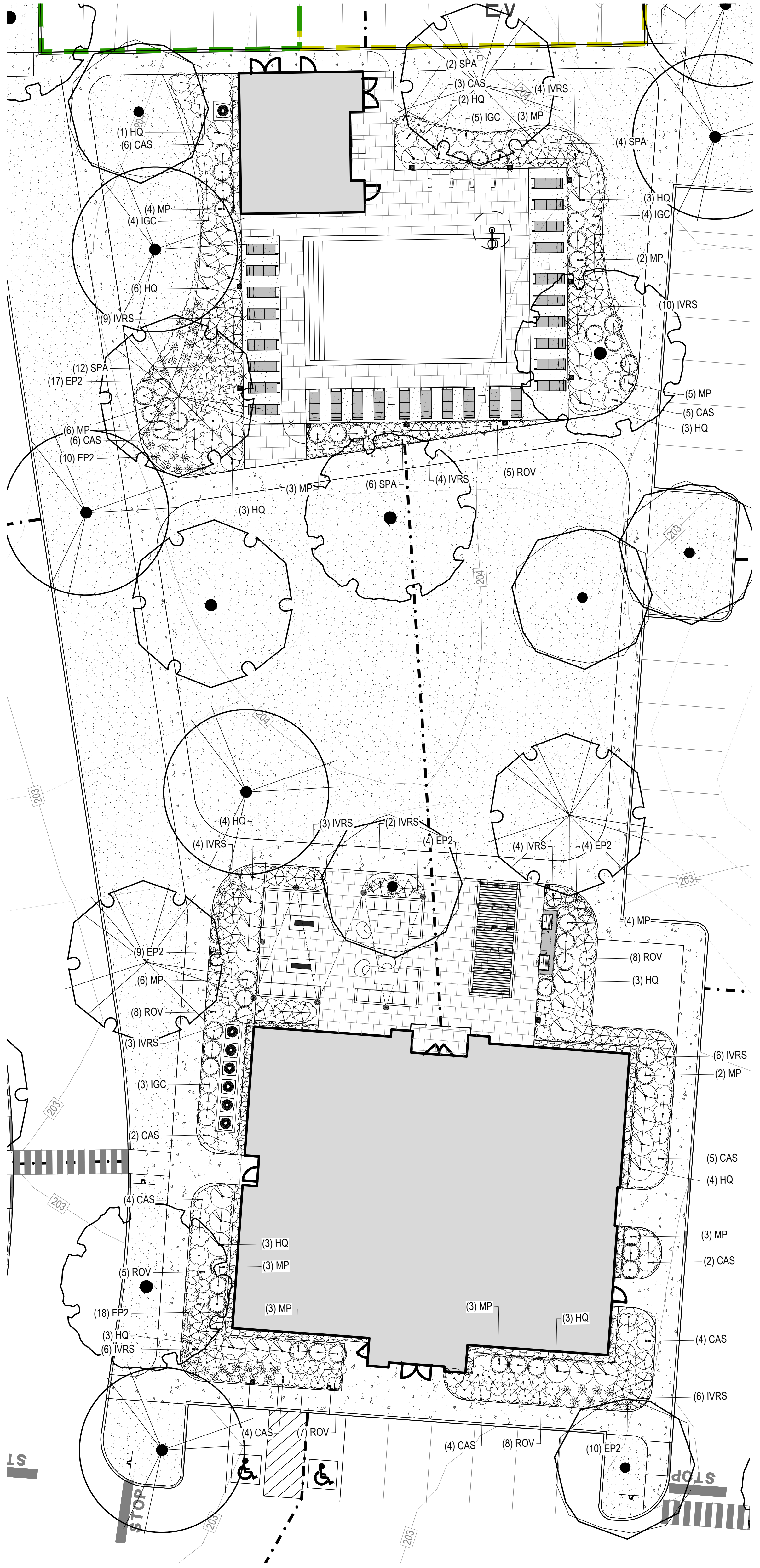
7 TRANSFORMER PLANTING - TYPICAL

SCALE: 1"=20'



6 MAILROOM PLANTING

SCALE: 1"=20'



4 CLUB HOUSE PLANTING

SCALE: 1"=20'

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CANOPY TREES					
AROG	29	ACER RUBRUM `OCTOBER GLORY`	OCTOBER GLORY RED MAPLE	2.5"-3" CAL.	B&B
COH	21	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2.5"-3" CAL.	B&B
FG2	21	FRAXINUS PENNSYLVANICA	GREEN ASH	2.5"-3" CAL.	B&B
PB2	24	PLATANUS X ACERIFOLIA `BLOODGOOD`	BLOODGOOD LONDON PLANE TREE	2.5"-3" CAL.	B&B
QR	27	QUERCUS RUBRA	RED OAK	2.5"-3" CAL.	B&B
EVERGREEN TREES					
ABC	9	ABIES CONCOLOR	WHITE FIR	6-8`	B&B
SHRUBS					
CAS	134	CLETHRA ALNIFOLIA 'SIXTEEN CANDLES'	SIXTEEN CANDLES SUMMERSWEET	24-30"	CONTAINER
HQ	244	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	36-42"	CONTAINER
IGC	301	ILEX GLABRA `COMPACTA`	COMPACT INKBERRY	24-30"	CONTAINER
IVRS	125	ILEX VERTICILLATA `RED SPRITE`	RED SPRITE WINTERBERRY	24-30"	CONTAINER
MP	238	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	36-42"	CONTAINER
RAG	56	RHUS AROMATICA `GRO-LOW`	GRO-LOW FRAGRANT SUMAC	24-30"	CONTAINER
ROV	69	ROSA VIRGINIANA	VIRGINIA ROSE	24-30"	CONTAINER
SPA	126	SPIRAEA ALBA	MEADOWSWEET	24-30"	CONTAINER
GROUNDCOVER					
EP2	317	ECHINACEA PURPUREA	CONEFLOWER	1 GAL.	CONTAINER

LANDSCAPE LEGEND

SITE PAVING

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SEE CIVIL DWGS	░	CONCRETE PAVING
2 L-707	▦	STAMPED CONCRETE
4 L-707	░	SYNTHETIC TURF
X L-XXX	▩	PEA STONE GRAVEL
9 L-710	▨	CRUSHED STONE MAINTENANCE STRIP

SITE ELEMENTS

KEY	SYMBOL	DESCRIPTION
6 L-709		BLACK CHAINLINK FENCE WITH GATE
7 L-707		BLACK ALUM. PICKET FENCE WITH GATE
3 L-708	▬	PROPANE FIREPIT
5 L-707		BIKE RACK
SEE CIVIL DWGS		TRASH ENCLOSURE
2 L-708		GRILL STATION
1 L-708	▥	SHADE STRUCTURE
4 L-708	⊠	LIGHT BOLLARD
7 L-709	●	STRING LIGHT POLE
6 L-707	◎	PROPANE SHUT OFF BOLLARD
2 L-709		DOG DRINKING FOUNTAIN
X L-XXX		POOL ADA LIFT
FF&E		SECTIONAL SEATING
FF&E		SUN LOUNGERS
FF&E		DINING TABLE

PLANTING

KEY	SYMBOL	DESCRIPTION
2 L-710		TREE PLANTING
4 L-710		SHRUB PLANTING
6 L-710		GROUNDCOVER PLANTING
11 L-710	NO HATCH	HYDROSEEDED LAWN
8 L-710	░	SODDED LAWN
5 L-707	░	SYNTHETIC TURF
13 L-710	░	ECOMIX SEED MIX
10 L-710	✚	BASIN SEED MIX

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APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

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20 10 5 0 20
1"= 20'

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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
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MATTHEW J. MRVA
NO. 1217

SHEET TITLE:

LANDSCAPE PLANTING PLAN

SHEET NUMBER:

L-705

REVISION 2 - 11/25/2024

P:\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LSCP-1A----->LAYOUT: L-705 PLANTING
DT

MASSACHUSETTS LANDSCAPE SPECIFICATION

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

2. MATERIALS
   - a) GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
   - b) TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
   - c) LAWN:
     - c)a) ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 6" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN.
     - c)b) LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
     - c)c) SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
     - c)d) MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES / DETAILS.
   - d) FERTILIZER:
     - d)a) FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
     - d)b) FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.
   - e) PLANT MATERIAL:
     - e)a) ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN).
     - e)b) IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
     - e)c) PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
     - e)d) TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1¼", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
     - e)e) ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
     - e)f) CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
     - e)g) SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
     - e)h) TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
   - a) CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
   - b) WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS
   - a) BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
   - b) ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
   - c) CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

5. TREE PROTECTION
   - a) CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
   - b) A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
   - c) WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
   - d) AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS
   - a) CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
   - b) LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
   - c) THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
   - d) TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
     - d)a) TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
     - d)b) MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADING
   - a) UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
   - b) LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).
   - c) ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
   - d) ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOILING
   - a) CONTRACTOR SHALL PROVIDE A 6" THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
   - b) ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
   - c) CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
   - d) ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY [SEE SPECIFICATION 6.A.]):
     - d)a) 20 POUNDS 'GRO-POWER' OR APPROVED SOIL CONDITIONER/FERTILIZER
     - d)b) 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER
   - e) THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

9. PLANTING
   - a) INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
   - b) PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
   - c) ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
   - d) ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
   - e) POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
   - f) PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
     - f)a) PLANTS: MARCH 15 TO DECEMBER 15
     - f)b) LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
     - f)c) 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.
   - g) FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:
     - ACER RUBRUM
     - BETULA VARIETIES
     - CARPINUS VARIETIES
     - CRATAEGUS VARIETIES
     - KOELREUTERIA
     - LIQUIDAMBAR STYRACIFLUA
     - LIRIODENDRON TULIPIFERA
     - PLATANUS X ACERIFOLIA
     - POPULUS VARIETIES
     - PRUNUS VARIETIES
     - PYRUS VARIETIES
     - QUERCUS VARIETIES
     - TILIA TOMENTOSA
     - ZELKOVA VARIETIES
   - h) PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
     - h)a) 1 PART PEAT MOSS
     - h)b) 1 PART COMPOSTED COW MANURE BY VOLUME
     - h)c) 3 PARTS TOPSOIL BY VOLUME
     - h)d) 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
       - h)d)a) 2 TABLETS PER 1 GALLON PLANT
       - h)d)b) 3 TABLETS PER 5 GALLON PLANT
       - h)d)c) 4 TABLETS PER 15 GALLON PLANT
       - h)d)d) LARGER PLANTS: 2 TABLETS PER ½" CALIPER OF TRUNK
   - i) FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
   - j) ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
   - k) ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
   - l) GROUND COVER AREAS SHALL RECEIVE A ¼" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
   - m) NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
   - n) ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
   - o) ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

10. TRANSPLANTING (WHEN REQUIRED)
    - a) ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
    - b) IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
    - c) PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
    - d) UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
    - e) TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
    - f) F TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

11. WATERING
    - a) NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
    - b) SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
    - c) IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

12. GUARANTEE
    - a) THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF 1 YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
    - b) ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.
    - c) TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
    - d) LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

13. CLEANUP
    - a) UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
    - b) THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

14. MAINTENANCE (ALTERNATIVE BID):
    - a) A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR.

MATERIALS SCHEDULE

QUANTITY	DESCRIPTION	MANUFACTURER	PRODUCT	FINISH	SIZE
3,200 SF	STAMPED CONCRETE	BOMANITE CORPORATION	STAMPED CONCRETE	CAPE COD GRAY	12X12" RUNNING BOND
1,000 SF	SYNTHETIC TURF	DUPONT FOREVER LAWN	SELECT HD: FRESH CUT BRIGHT	NA	NA
3,200 SF	PEA STONE GRAVEL	WAGON WHEEL, INC OR APPROVED SIMILAR	PEA STONE	MIXED BEIGES	3/8"
220 LF	BLACK CHAINLINK FENCE WITH GATE	AMERIFENCE OR APPROVED SIMILAR	VINYL COATED CHAINLINK FENCE	VINYL COATED BLACK	4' HIGH
220 LF	BLACK ALUM. PICKET FENCE WITH GATE	AMERIFENCE OR APPROVED SIMILAR	ALUMINUM PICKET FENCE	POWDERCOATED BLACK	6' HIGH
2 EA	PROPANE FIREPIT	PALOFORM	KOMODO 84	WHITE POWDER COAT	
12 EA	BIKE RACK	DERO	HOOP RACK BIKE RACK	POWDERCOATED BLACK	
2 EA	GRILL STATION	AEI CORPORATION	PGS LEGACY GRILL MODEL S36-T WITH PGS LEGACY MDS L39 DOOR KIT		
1 EA	SHADE STRUCTURE	STUR DESIGN	TOSA BOLD	2X6" CEDAR PURLINS POWDERCOATED BLACK	105"W X 290"L X 118H
12 EA	LIGHT BOLLARD	STERNBERG	RW3xx RIALTA BOLLARD	POWDERCOATED BLACK	36" HIGH
120 LF	STRING LIGHT POLE	TARGETTI	DURALED CABLE WITH STARGAZER BULBS	POWDERCOATED BLACK	
1 EA	DOG DRINKING FOUNTAIN	STERN WILLIAMS	MODEL 5400-90	POWDERCOATED BLACK	

NOTES:
1. MATERIALS SCHEDULE SHOULD BE READ IN CONJUNCTION WITH PROJECT SPECIFICATIONS.
2. LANDSCAPE ARCHITECT TO BE NOTIFIED OF ANY DISCREPANCIES BETWEEN MATERIALS SCHEDULE AND PROJECT SPECIFICATIONS PRIOR TO CONSTRUCTION.

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR	DATE
VICE CHAIR	DATE
MEMBER	DATE

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REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-LSCP-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER

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

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M. J. MRVA
REGISTERED LANDSCAPE ARCHITECT
MATTHEW J. MRVA
NO. 1217
MAINE No. 4248
VERMONT No. 01337
OHIO No. 250433

SHEET TITLE:

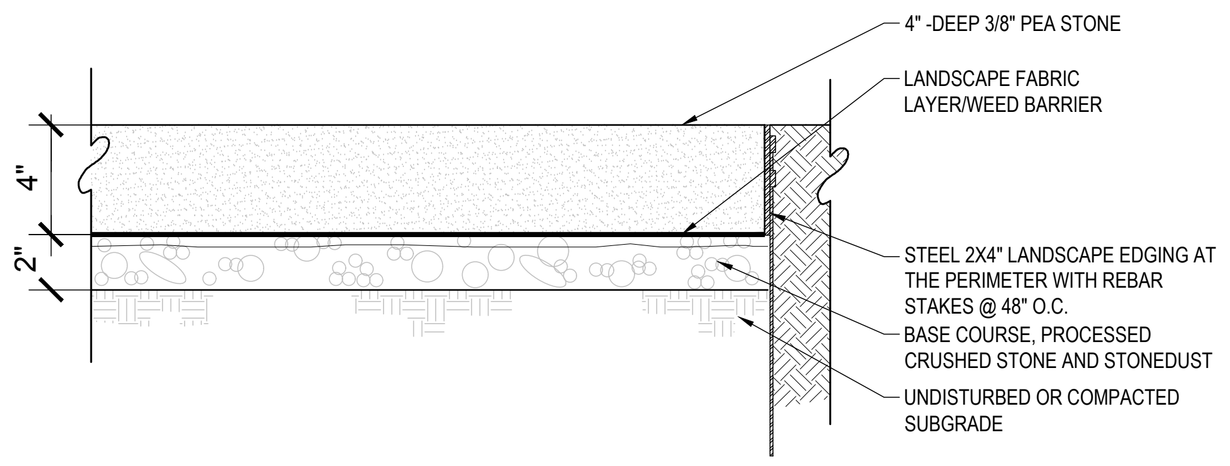
LANDSCAPE NOTES

SHEET NUMBER:

L-706

REVISION 2 - 11/25/2024

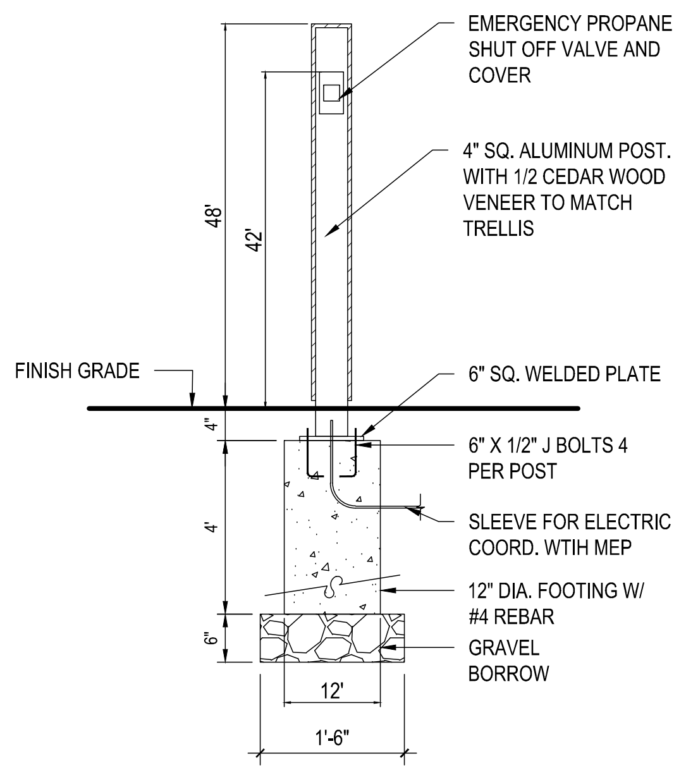
P:\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LSCP-1A----->LAYOUT: L-706 NOTES
DT


4" -DEEP 3/8" PEA STONE
LANDSCAPE FABRIC LAYER/WEED BARRIER
STEEL 2X4" LANDSCAPE EDGING AT THE PERIMETER WITH REBAR STAKES @ 48" O.C.
BASE COURSE, PROCESSED CRUSHED STONE AND STONEDUST
UNDISTURBED OR COMPACTED SUBGRADE
4"
2"

4 DOG PARK PEA STONE SURFACING

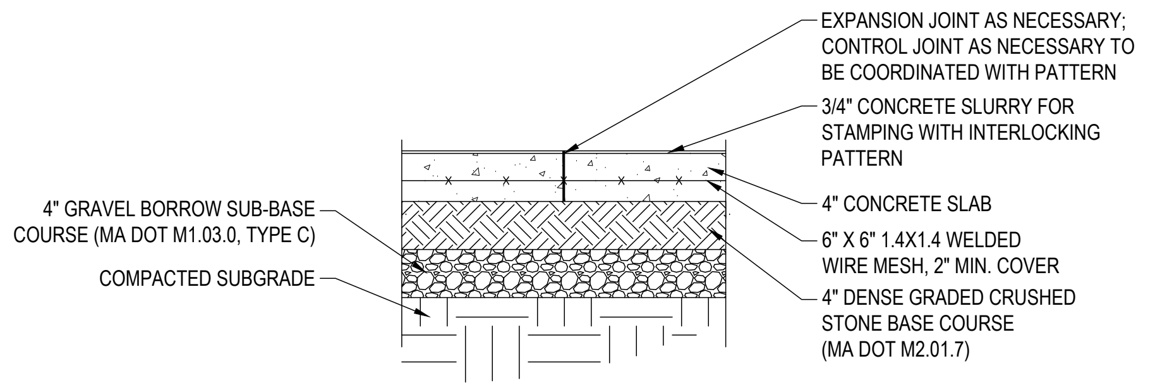
NOT TO SCALE

NOTE:
1. CONCRETE FOOTINGS SHALL NOT BE EXPOSED AT FINISH GRADE
2. SHOP DRAWINGS REQUIRED


EMERGENCY PROPANE SHUT OFF VALVE AND COVER
4" SQ. ALUMINUM POST. WITH 1/2 CEDAR WOOD VENEER TO MATCH TRELLIS
FINISH GRADE
6" SQ. WELDED PLATE
6" X 1/2" J BOLTS 4 PER POST
SLEEVE FOR ELECTRIC COORD. WTIH MEP
12" DIA. FOOTING W/ #4 REBAR
GRAVEL BORROW
48'
42'
4"
4'
6"
12'
1'-6"

3 PROPANE SHUT OFF BOLLARD

NOT TO SCALE

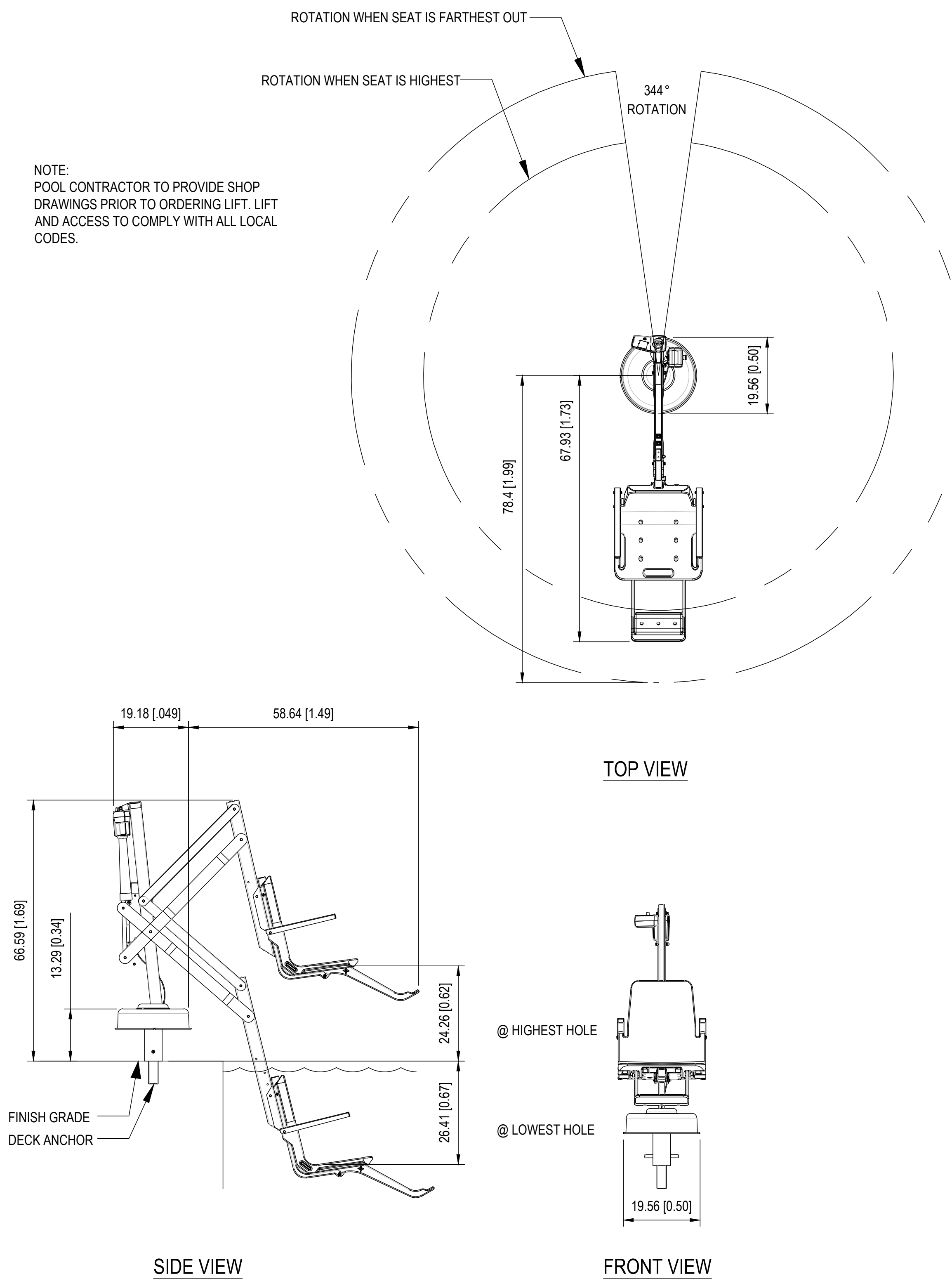

EXPANSION JOINT AS NECESSARY; CONTROL JOINT AS NECESSARY TO BE COORDINATED WITH PATTERN
3/4" CONCRETE SLURRY FOR STAMPING WITH INTERLOCKING PATTERN
4" CONCRETE SLAB
6" X 6" 1.4X1.4 WELDED WIRE MESH, 2" MIN. COVER
4" DENSE GRADED CRUSHED STONE BASE COURSE (MA DOT M2.01.7)
4" GRAVEL BORROW SUB-BASE COURSE (MA DOT M1.03.0, TYPE C)
COMPACTED SUBGRADE

NOTE:
STAMP PATTERN TO BE 3'X3' SLATE,
BASE COLOR P24 FRENCH CREAM,
RELEASE COLOR R14 WALNUT

2 STAMPED CONCRETE

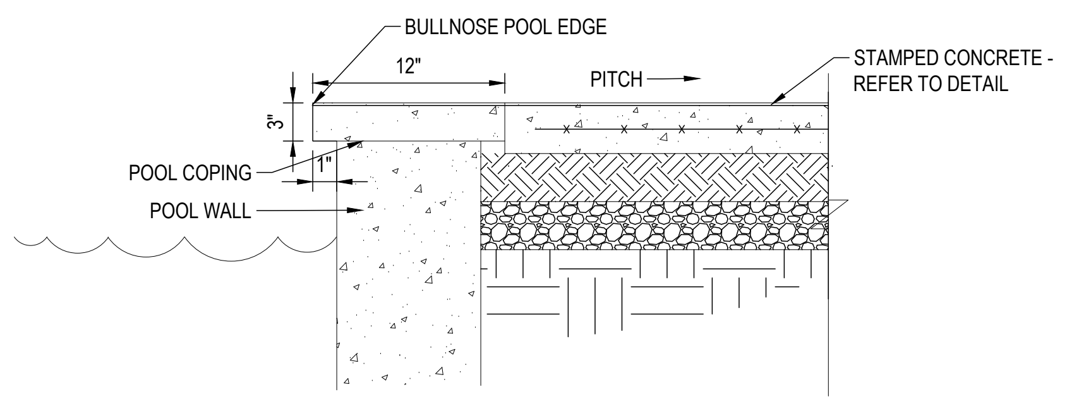
NOT TO SCALE

NOTE:
POOL CONTRACTOR TO PROVIDE SHOP DRAWINGS PRIOR TO ORDERING LIFT. LIFT AND ACCESS TO COMPLY WITH ALL LOCAL CODES.


ROTATION WHEN SEAT IS FARTHEST OUT
ROTATION WHEN SEAT IS HIGHEST
344° ROTATION
19.56 [0.50]
67.93 [1.73]
78.4 [1.99]
TOP VIEW
19.18 [.049]
58.64 [1.49]
66.59 [1.69]
13.29 [0.34]
24.26 [0.62]
26.41 [0.67]
FINISH GRADE
DECK ANCHOR
@ HIGHEST HOLE
@ LOWEST HOLE
19.56 [0.50]
SIDE VIEW
FRONT VIEW

1 POOL ACCESSIBILITY LIFT

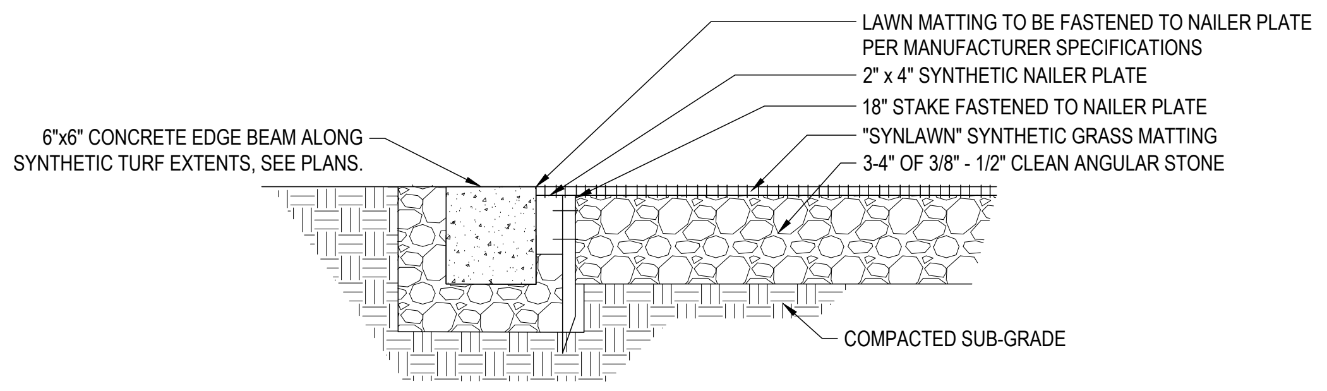
NOT TO SCALE


BULLNOSE POOL EDGE
12"
PITCH
STAMPED CONCRETE - REFER TO DETAIL
3"
1"
POOL COPING
POOL WALL

NOTE:
1. COPING AND POOL DECK TO BE MONOLITHIC, POURED, COLORED AND STAMPED SEPARATELY

8 POOL COPING

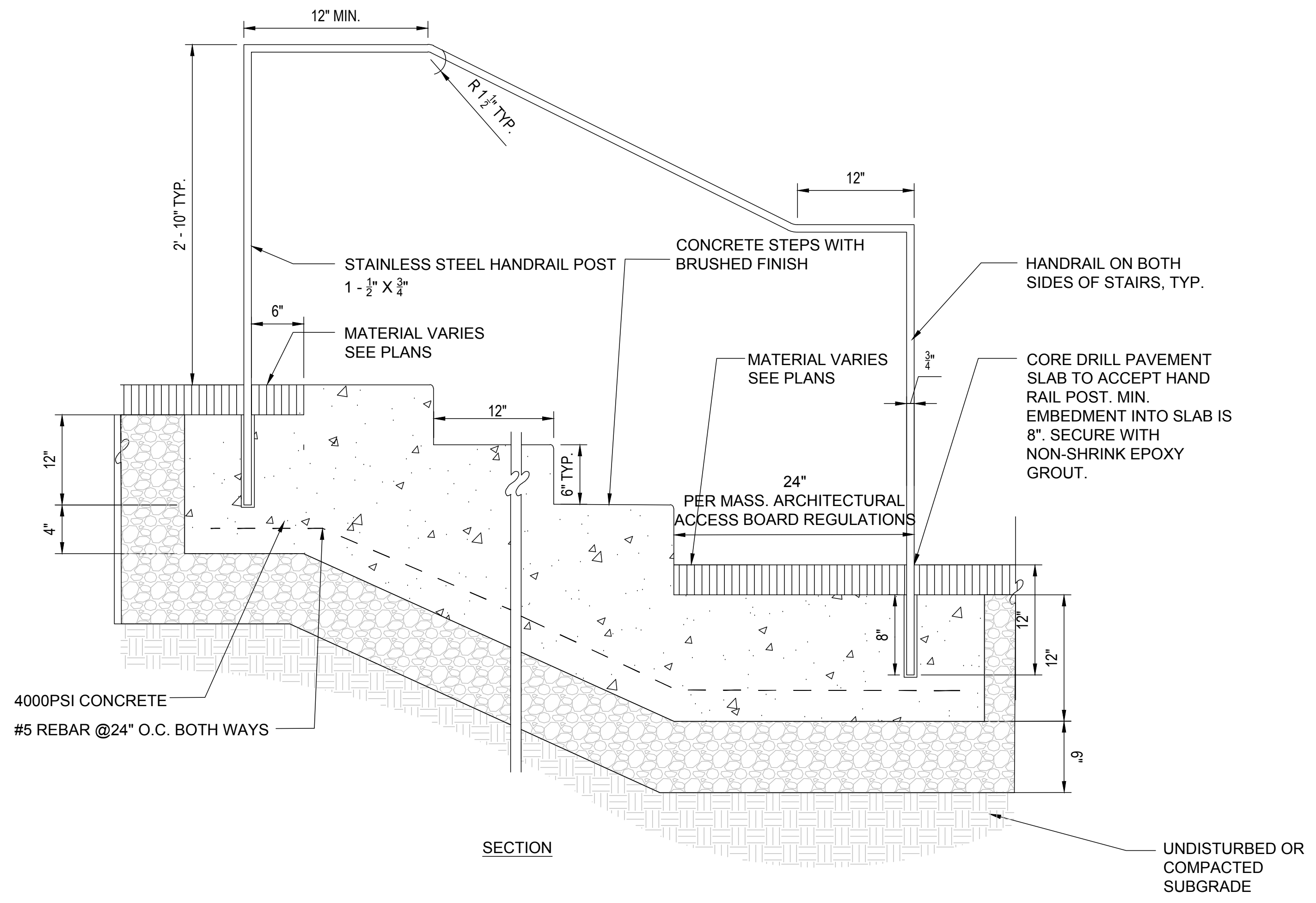
NOT TO SCALE


LAWN MATTING TO BE FASTENED TO NAILER PLATE PER MANUFACTURER SPECIFICATIONS
2" x 4" SYNTHETIC NAILER PLATE
18" STAKE FASTENED TO NAILER PLATE
"SYNLAWN" SYNTHETIC GRASS MATTING
3-4" OF 3/8" - 1/2" CLEAN ANGULAR STONE
6"x6" CONCRETE EDGE BEAM ALONG SYNTHETIC TURF EXTENTS, SEE PLANS.
COMPACTED SUB-GRADE

NOTES:
1. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND SAMPLES ON TURF AREA FOR APPROVAL BY OWNERS REPRESENTATIVE.
2. CONTRACTOR TO BUILD A 5'X5' MOCK PANEL ON SITE PRIOR TO CONSTRUCTION.
3. CONTRACTOR TO HAVE THE BASE APPROVED BY SYNLAWN PRIOR TO LAYING TURF
4. IN DOG PARK, INSTALL SYNFESCUE 243 OVER ENVIROFILL, AS MANUFACTURED BY SYNLAWN

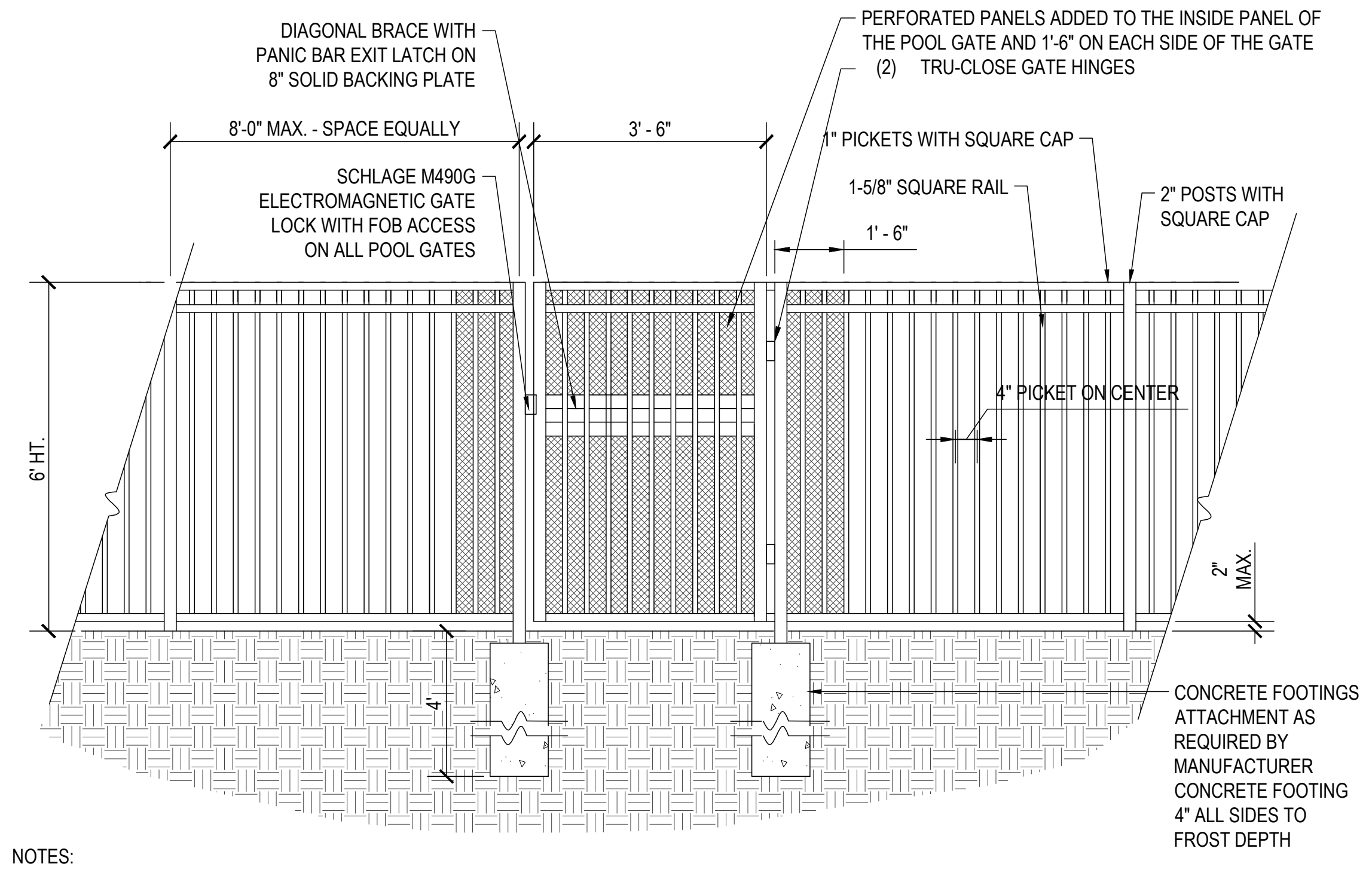
5 SYNTHETIC TURF

NOT TO SCALE


12" MIN.
R 1½" TYP.
2' - 10" TYP.
12"
STAINLESS STEEL HANDRAIL POST 1 - ½" X ¾"
CONCRETE STEPS WITH BRUSHED FINISH
HANDRAIL ON BOTH SIDES OF STAIRS, TYP.
6"
MATERIAL VARIES SEE PLANS
MATERIAL VARIES SEE PLANS
¾"
CORE DRILL PAVEMENT SLAB TO ACCEPT HAND RAIL POST. MIN. EMBEDMENT INTO SLAB IS 8". SECURE WITH NON-SHRINK EPOXY GROUT.
12"
6" TYP.
24" PER MASS. ARCHITECTURAL ACCESS BOARD REGULATIONS
12"
4"
8"
12"
12"
6"
4000PSI CONCRETE
#5 REBAR @24" O.C. BOTH WAYS
SECTION
UNDISTURBED OR COMPACTED SUBGRADE

9 CONCRETE STAIRS AND HANDRAIL

NOT TO SCALE

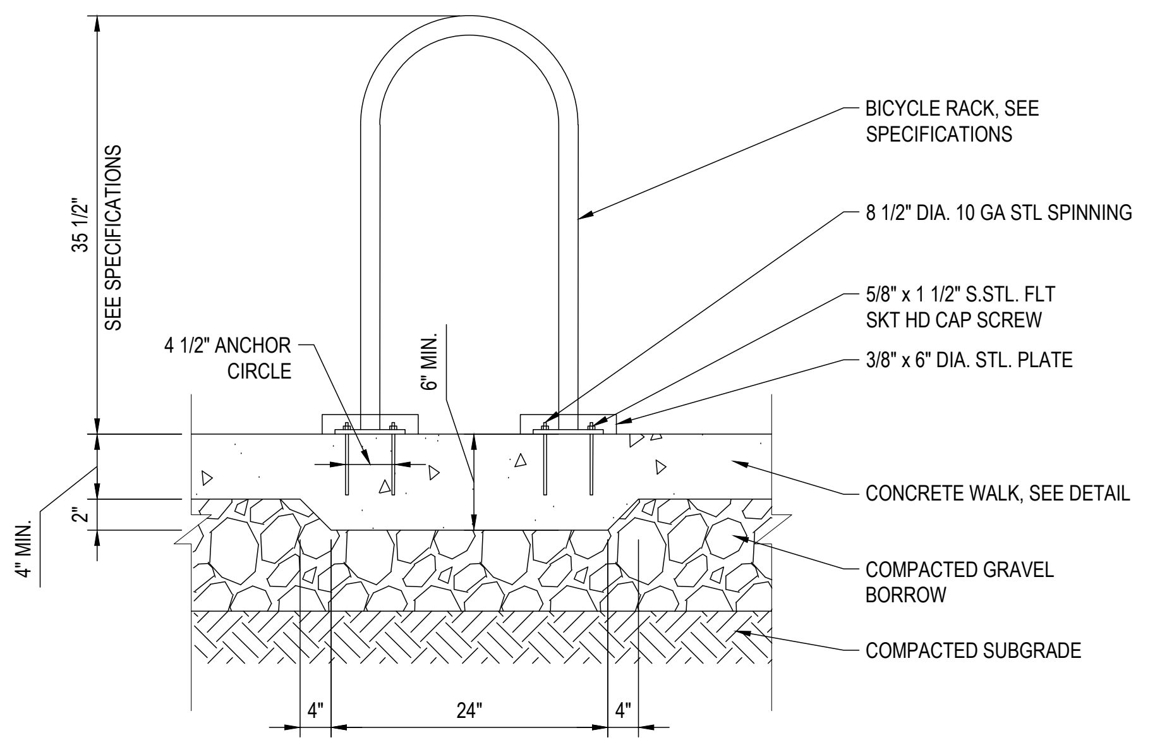

DIAGONAL BRACE WITH PANIC BAR EXIT LATCH ON 8" SOLID BACKING PLATE
PERFORATED PANELS ADDED TO THE INSIDE PANEL OF THE POOL GATE AND 1'-6" ON EACH SIDE OF THE GATE
(2) TRU-CLOSE GATE HINGES
8'-0" MAX. - SPACE EQUALLY
3' - 6"
1" PICKETS WITH SQUARE CAP
SCHLAGE M490G ELECTROMAGNETIC GATE LOCK WITH FOB ACCESS ON ALL POOL GATES
1-5/8" SQUARE RAIL
2" POSTS WITH SQUARE CAP
1' - 6"
4" PICKET ON CENTER
6' HT.
2" MAX.
4'
CONCRETE FOOTINGS ATTACHMENT AS REQUIRED BY MANUFACTURER CONCRETE FOOTING 4" ALL SIDES TO FROST DEPTH

NOTES:
1. ALUMINUM FENCE, GATE, AND ALL HARDWARE SHALL BE BLACK IN COLOR
2. CONTRACTOR SHALL VERIFY THAT ALL POOL FENCING MEETS APPLICABLE STATE, LOCAL, AND FEDERAL CODES

6' HT. DECORATIVE ALUMINUM FENCE AND GATE WITH 2-1/2" SQ. FIXED ALUMINUM POSTS. LATCH SYSTEM WITH LOCK AND SELF CLOSING MECHANISM FOR EACH GATE

7 ALUMINIUM PICKET POOL FENCE & GATE

NOT TO SCALE


35 1/2" SEE SPECIFICATIONS
BICYCLE RACK, SEE SPECIFICATIONS
8 1/2" DIA. 10 GA STL SPINNING
5/8" x 1 1/2" S.STL. FLT SKT HD CAP SCREW
3/8" x 6" DIA. STL. PLATE
4 1/2" ANCHOR CIRCLE
6" MIN.
CONCRETE WALK, SEE DETAIL
4" MIN.
2"
COMPACTED GRAVEL BORROW
COMPACTED SUBGRADE
4"
24"
4"

NOTE:
PROVIDE "HOOP" BICYCLE RACKS MANUFACTURED BY DERO BIKE RACK CO., 5522 LAKELAND AVENUE N., MINNEAPOLIS, MN 55429, 1-888-337-6729. FAX: 612-331-2731
WEBSITE: WWW.DERO.COMA.
1.5” SCHEDULE 40 POWDERCOATED BLACK PIPE (1.90” OD); IN-GROUND MOUNT IS EMBEDDED INTO CONCRETE BASE.

6 BIKE RACK

NOT TO SCALE

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR DATE

VICE CHAIR DATE

MEMBER DATE

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DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
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CAD I.D.:	W211244-LSCP-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER

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

www.BohlerEngineering.com

M. MRVA
MATTHEW J. MRVA
NO. 1217
REGISTERED LANDSCAPE ARCHITECT
MASSACHUSETTS No.
NEW HAMPSHIRE No. 109
CONNECTICUT No. 1359
MAINE No. 4248
VERMONT No. 01337
OHIO No. 250433

Matthew J. Mrva

SHEET TITLE:

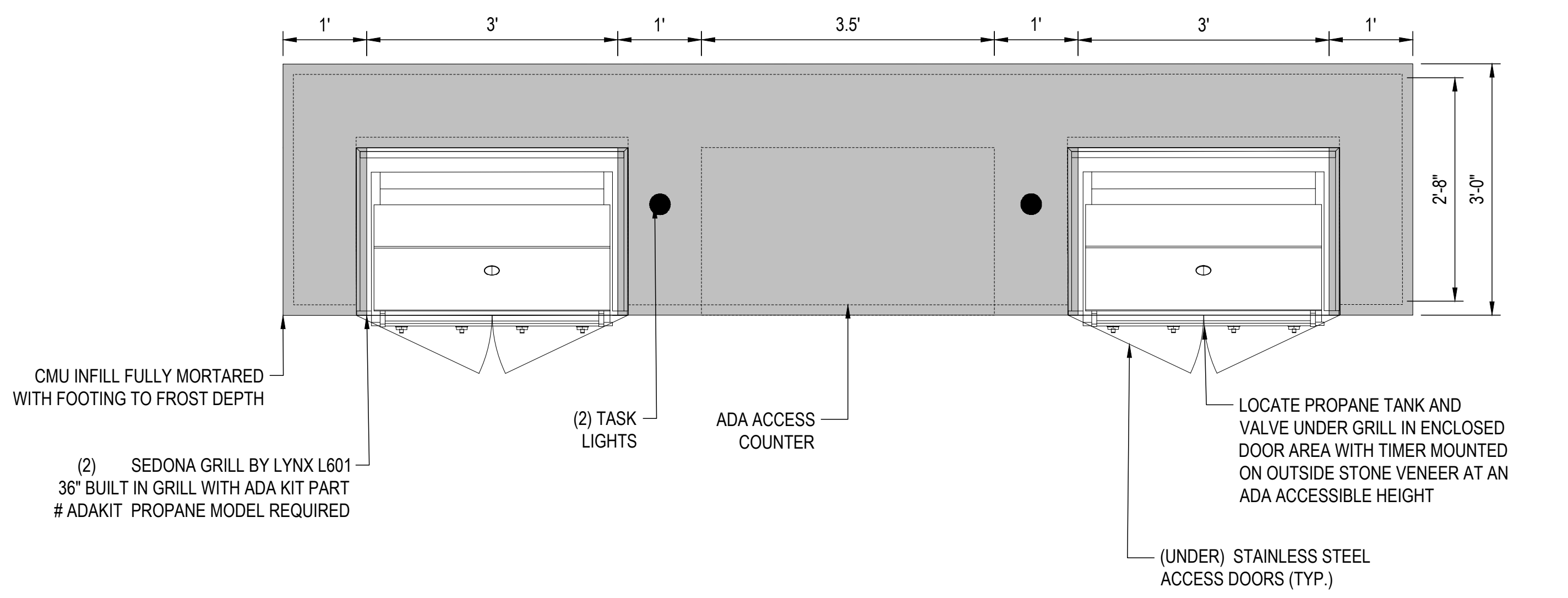
LANDSCAPE DETAILS

SHEET NUMBER:

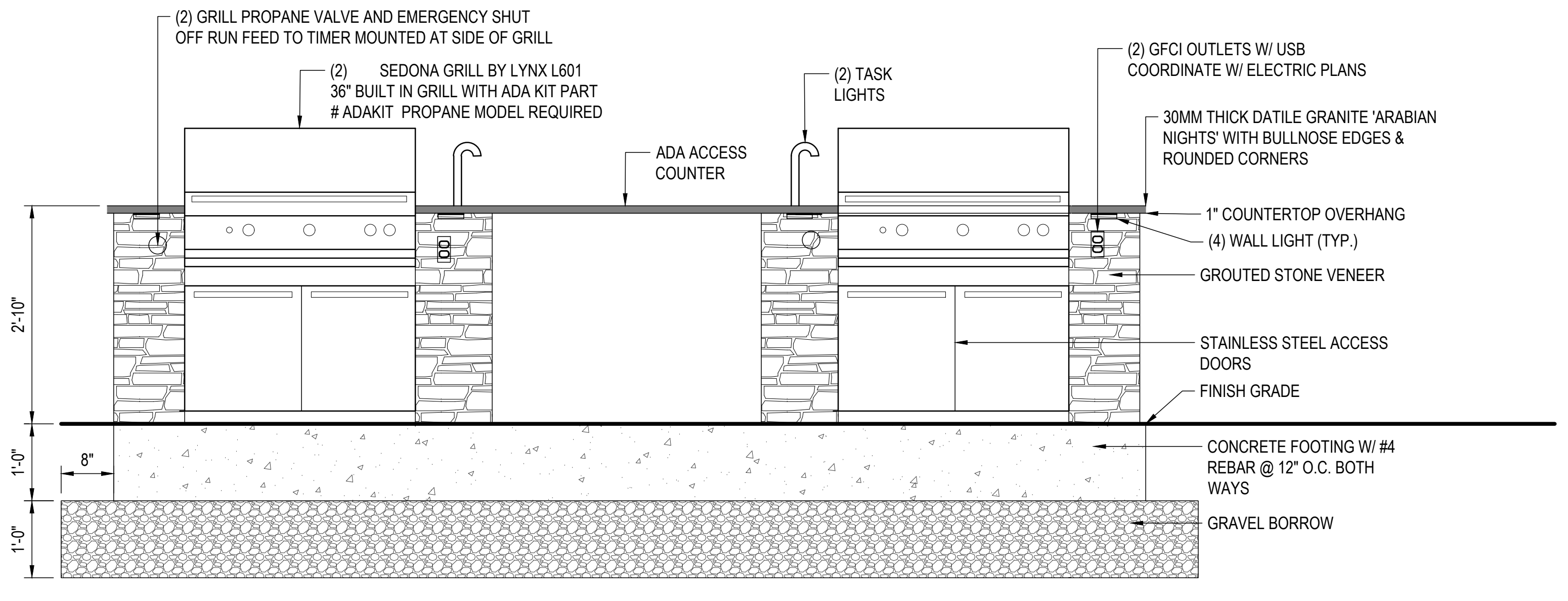
L-707

REVISION 2 - 11/25/2024

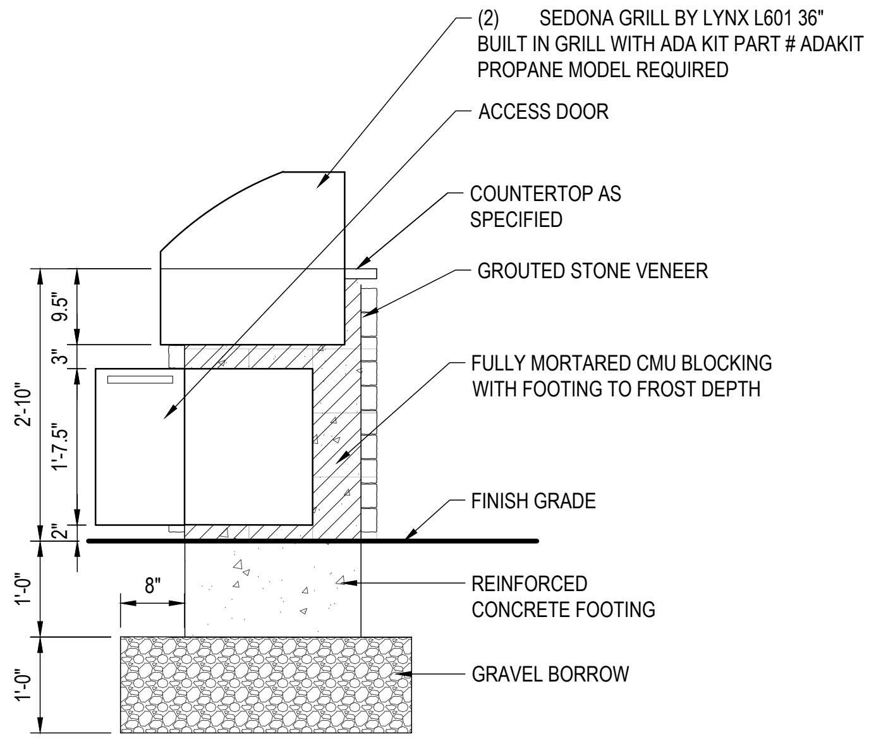
P:\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LSCP-1A---->LAYOUT: L-707 DETAILS
DT


1'
3'
1'
3.5'
1'
3'
1'
2'-8"
3'-0"
CMU INFILL FULLY MORTARED WITH FOOTING TO FROST DEPTH
(2) SEDONA GRILL BY LYNX L601 36" BUILT IN GRILL WITH ADA KIT PART # ADAKIT PROPANE MODEL REQUIRED
(2) TASK LIGHTS
ADA ACCESS COUNTER
LOCATE PROPANE TANK AND VALVE UNDER GRILL IN ENCLOSED DOOR AREA WITH TIMER MOUNTED ON OUTSIDE STONE VENEER AT AN ADA ACCESSIBLE HEIGHT
(UNDER) STAINLESS STEEL ACCESS DOORS (TYP.)

LAYOUT PLAN


(2) GRILL PROPANE VALVE AND EMERGENCY SHUT OFF RUN FEED TO TIMER MOUNTED AT SIDE OF GRILL
(2) SEDONA GRILL BY LYNX L601 36" BUILT IN GRILL WITH ADA KIT PART # ADAKIT PROPANE MODEL REQUIRED
ADA ACCESS COUNTER
(2) TASK LIGHTS
(2) GFCI OUTLETS W/ USB COORDINATE W/ ELECTRIC PLANS
30MM THICK DATILE GRANITE 'ARABIAN NIGHTS' WITH BULLNOSE EDGES & ROUNDED CORNERS
1" COUNTERTOP OVERHANG
(4) WALL LIGHT (TYP.)
GROUTED STONE VENEER
STAINLESS STEEL ACCESS DOORS
FINISH GRADE
CONCRETE FOOTING W/ #4 REBAR @ 12" O.C. BOTH WAYS
GRAVEL BORROW
2'-10"
1'-0"
1'-0"
8"

ELEVATION


(2) SEDONA GRILL BY LYNX L601 36" BUILT IN GRILL WITH ADA KIT PART # ADAKIT PROPANE MODEL REQUIRED
ACCESS DOOR
COUNTERTOP AS SPECIFIED
GROUTED STONE VENEER
FULLY MORTARED CMU BLOCKING WITH FOOTING TO FROST DEPTH
FINISH GRADE
REINFORCED CONCRETE FOOTING
GRAVEL BORROW
9.5"
3"
2'-10"
1'-7.5"
2"
1'-0"
1'-0"
8"

SECTION

NOTES:

1. REFER TO MANUFACTURER'S INFORMATION FOR ADDITIONAL REQUIREMENTS AND MEASUREMENTS.
2. CONTRACTOR TO SUBMIT SAMPLES OF ALL MATERIALS TO LANDSCAPE ARCHITECT & OWNER FOR APPROVAL PRIOR TO ORDERING.
3. CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT OF DISCREPANCIES IN DIMENSIONS & LAYOUT.
4. CONTRACTOR RESPONSIBLE FOR PROPANE FEED LINE INSTALLATION BY LICENSED MASSACHUSETTS PLUMBER.
5. CONTRACTOR RESPONSIBLE FOR ANY ELECTRICAL FEED LINES & ASSOCIATED WORK REQUIRED.
6. COORDINATE WITH PLUMBING & ELECTRIC DRAWINGS FOR SERVICE LINES.
7. CONTACT LORI HEMIGHAUS WITH AEI CORPORATION FOR ADDITIONAL INFORMATION

ADDRESS: 2641 DU BRIDGE AVE
IRVINE, CA 92606
OFFICE: 949-474-3070
CELL: 949-491-1763
EMAIL: LHEMIGHAUS@AEICORPORATION.COM
WEBSITE: WWW.AEICORPORATION.COM

2

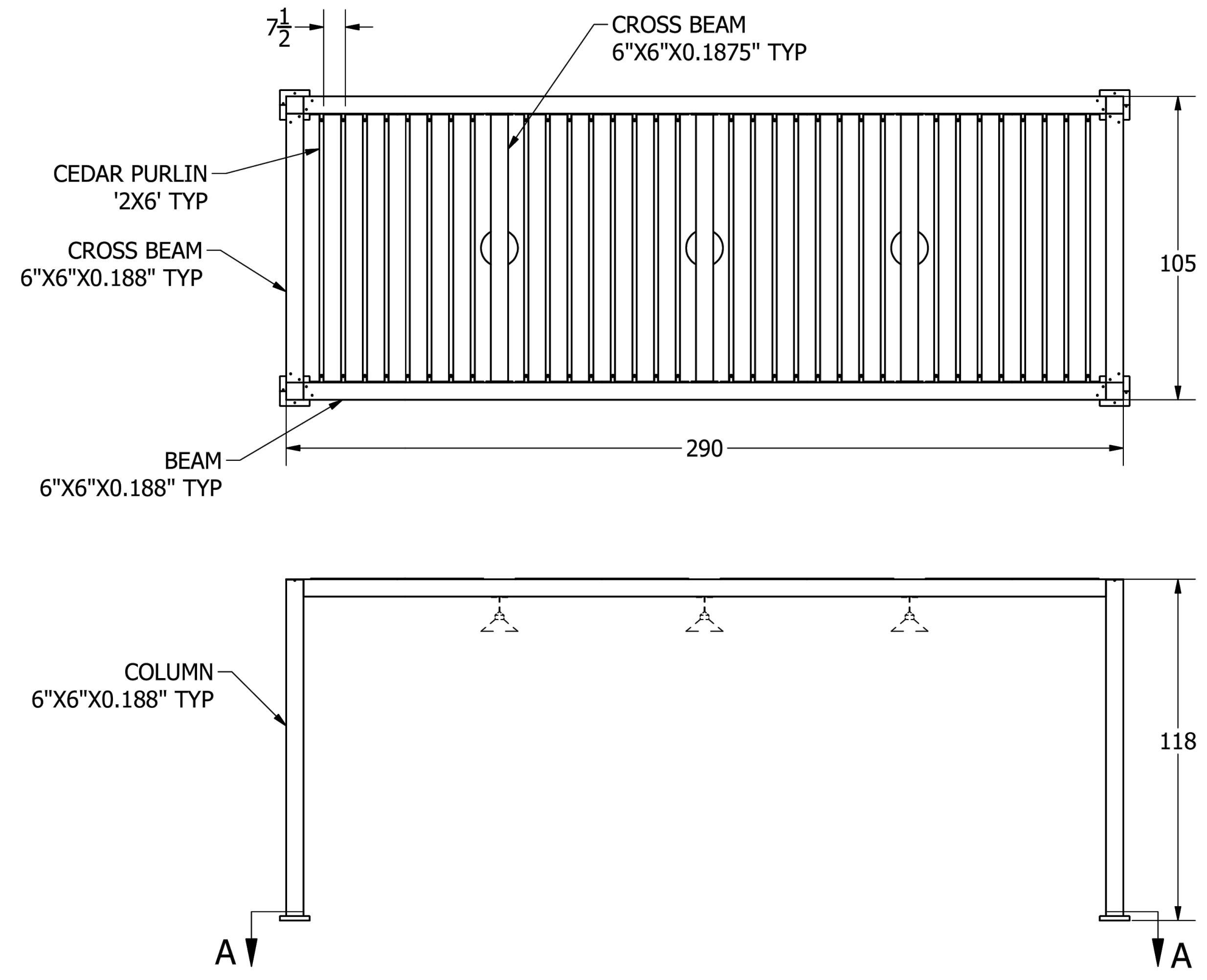
OUTDOOR KITCHEN AND GRILL

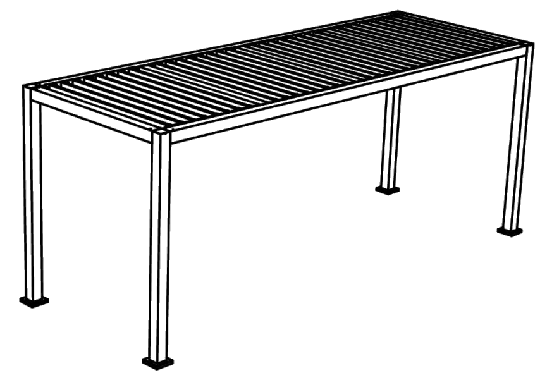
NOT TO SCALE

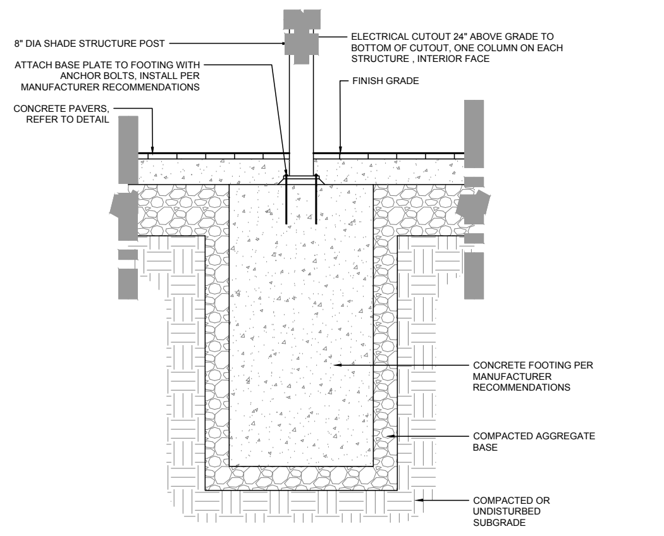
APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR DATE
VICE CHAIR DATE
MEMBER DATE


7½
CROSS BEAM 6"X6"X0.1875" TYP
CEDAR PURLIN '2X6' TYP
CROSS BEAM 6"X6"X0.188" TYP
105
BEAM 6"X6"X0.188" TYP
290
COLUMN 6"X6"X0.188" TYP
118
A
A




8" DIA SHADE STRUCTURE POST
ATTACH BASE PLATE TO FOOTING WITH ANCHOR BOLTS, INSTALL PER MANUFACTURER RECOMMENDATIONS
CONCRETE PAVERS, REFER TO DETAIL
ELECTRICAL CUTOUT 24" ABOVE GRADE TO BOTTOM OF CUTOUT, ONE COLUMN ON EACH STRUCTURE , INTERIOR FACE
FINISH GRADE
CONCRETE FOOTING PER MANUFACTURER RECOMMENDATIONS
COMPACTED AGGREGATE BASE
COMPACTED OR UNDISTURBED SUBGRADE

NOTES:
1. ALL STEEL STRUCTURE - COLOR TBD
2. DETAIL SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR SHALL FINALIZE FOOTING DESIGN WITH OWNER AND OBTAIN ENGINEERED FOOTING DESIGN BY STRUCTURAL ENGINEER LICENSED IN MASSACHUSETTS.
3. INSTALLATION AND MOUNTING DETAILS AS PER MANUFACTURER'S RECOMMENDATIONS.

NOTES:

1. SITE SPECIFIC ENGINEERING BEYOND THE ANCHOR FASTENERS IS BY OTHERS.
2. UNLESS OTHERWISE SPECIFIED, MATERIAL OF STRUCTURAL COMPONENTS IS ALUMINUM ALLOY 6061-T6.

DESIGNED:	D. BUDNITSKY, P. ENG	TOLERANCE: FRACTIONS ± 1/8" ANGLES ± 0.5°	sturdesign www.sturdesign.com
APPROVED:	MIKE SANKEY	UNITS: INCHES	
DATE:	2024-09-16	(UNLESS OTHERWISE SPECIFIED)	
Layout		MATERIAL: Aluminum 6061 WEIGHT ESTIMATE: 1273.0 lbmass	
SIZE: B	SHEET: 1 OF 2	SCALE: 1 / 48	PROJECT: (1706) 582 Kelley
REV: 1	PRODUCT CODE: VB-105X290-3IR66-IVW26-CV		PRODUCT: Custom Viso Bold Pergola

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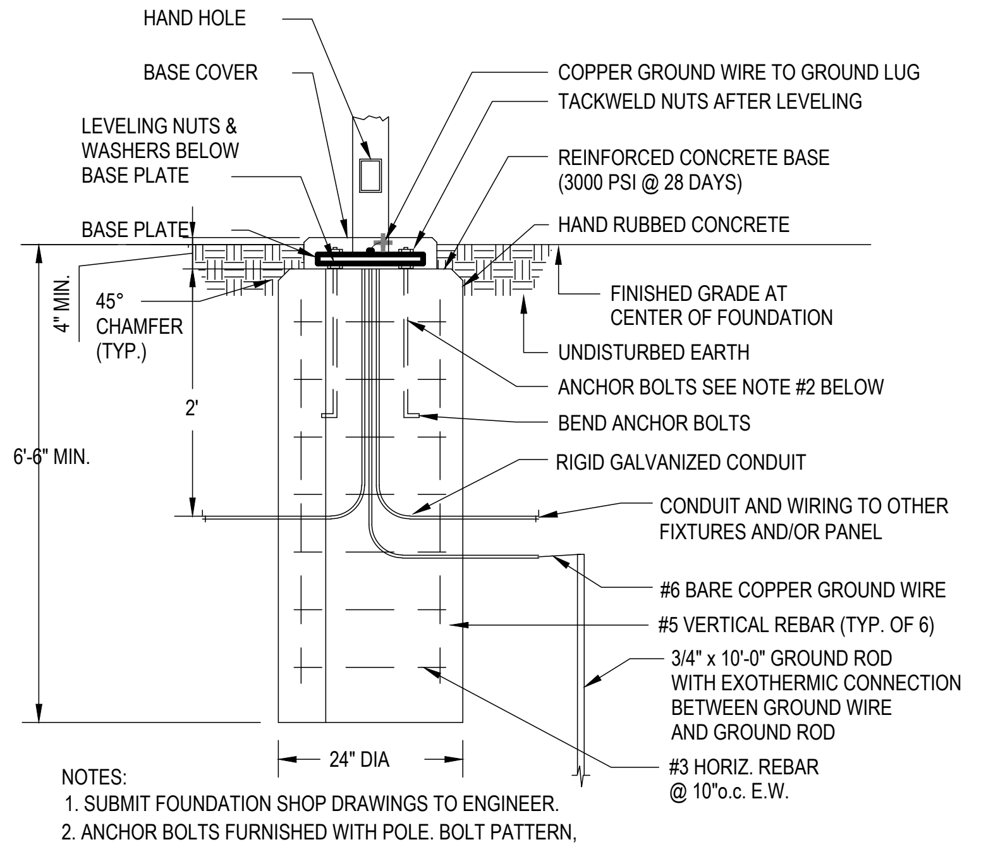
1

SHADE STRUCTURE

NOT TO SCALE


HAND HOLE
BASE COVER
LEVELING NUTS & WASHERS BELOW BASE PLATE
BASE PLATE
45° CHAMFER (TYP.)
4" MIN.
2'
6'-6" MIN.
24" DIA
COPPER GROUND WIRE TO GROUND LUG
TACKWELD NUTS AFTER LEVELING
REINFORCED CONCRETE BASE (3000 PSI @ 28 DAYS)
HAND RUBBED CONCRETE
FINISHED GRADE AT CENTER OF FOUNDATION
UNDISTURBED EARTH
ANCHOR BOLTS SEE NOTE #2 BELOW
BEND ANCHOR BOLTS
RIGID GALVANIZED CONDUIT
CONDUIT AND WIRING TO OTHER FIXTURES AND/OR PANEL
#6 BARE COPPER GROUND WIRE
#5 VERTICAL REBAR (TYP. OF 6)
3/4" x 10'-0" GROUND ROD WITH EXOTHERMIC CONNECTION BETWEEN GROUND WIRE AND GROUND ROD
#3 HORIZ. REBAR @ 10"o.c. E.W.

NOTES:
1. SUBMIT FOUNDATION SHOP DRAWINGS TO ENGINEER.
2. ANCHOR BOLTS FURNISHED WITH POLE. BOLT PATTERN,

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.

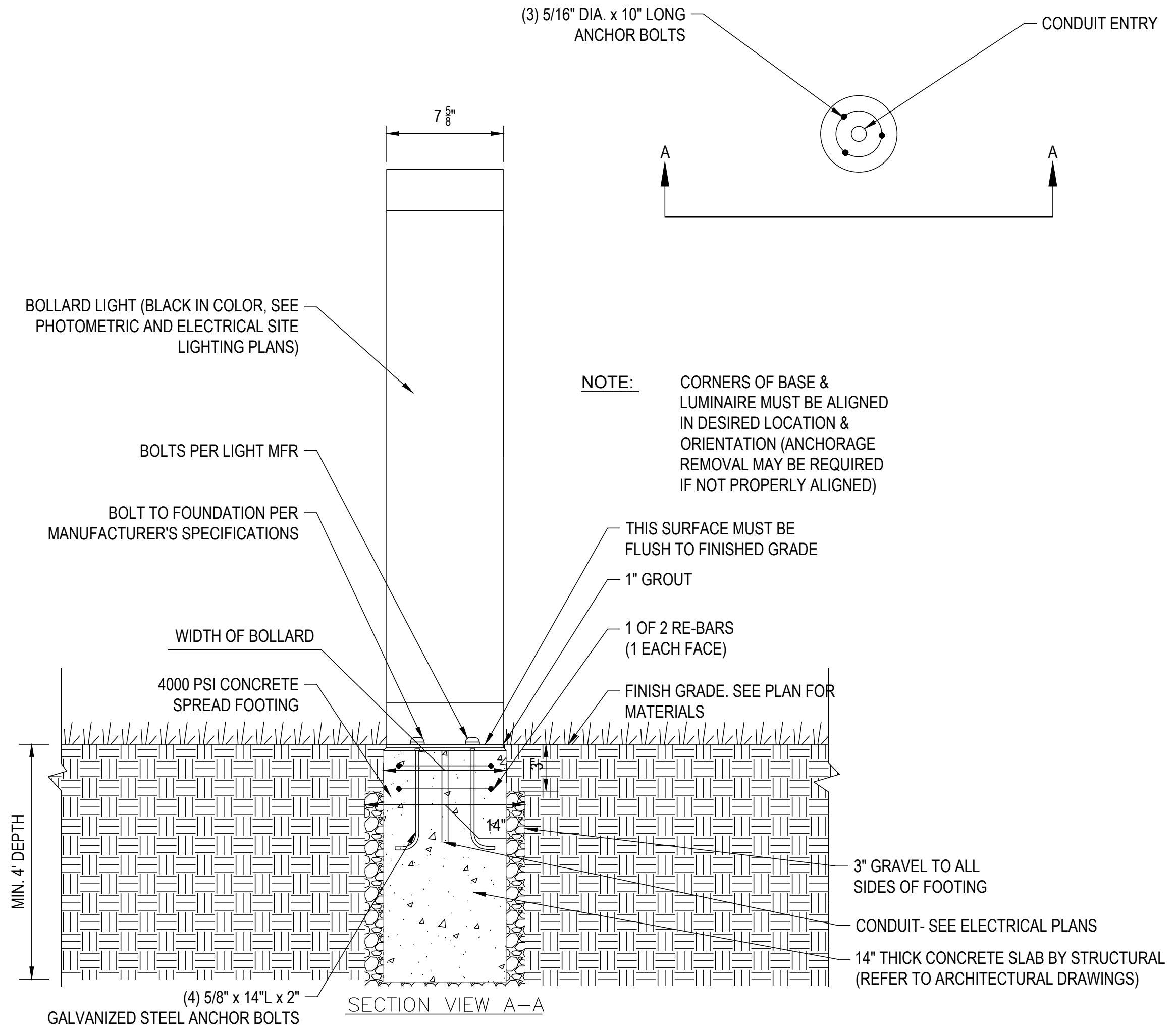
- SOME SITE CONDITIONS AND/OR LOCATIONS MAY REQUIRE VIBRATION DAMPENING MEASURES AS DETERMINED BY A STRUCTURAL ENGINEER.
- THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF THE INTENT TO MOUNT ANYTHING TO THE POLE, ASIDE FROM THE LIGHT FIXTURES, INCLUDING BUT NOT LIMITED TO CAMERAS, BANNERS, FLAGS, SIGNAGE,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

NOTE:
CONCRETE FOOTING SHALL BE BURIED A MINIMUM OF 4" BELOW GRADE. FOOTING SHALL NOT BE VISIBLE ABOVE GRADE.

5

LIGHTPOLE FOOTING

NOT TO SCALE

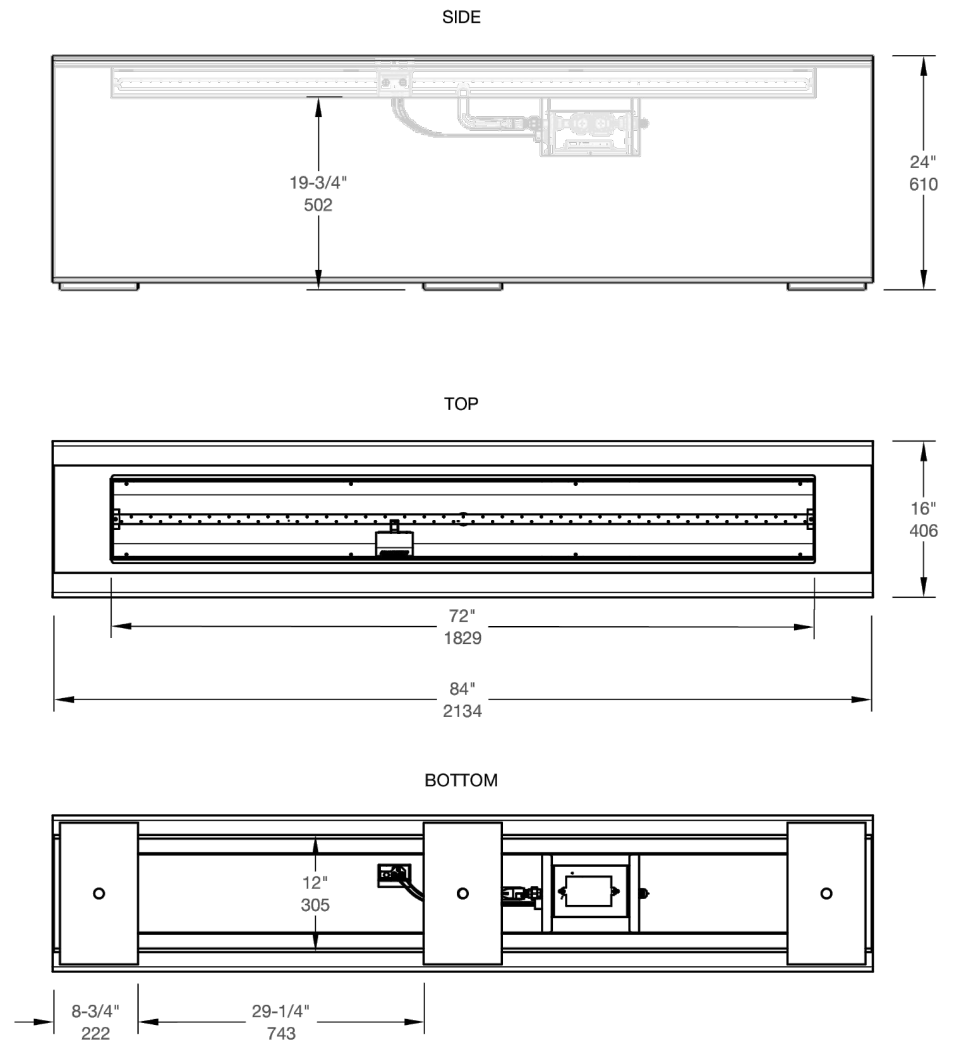

(3) 5/16" DIA. x 10" LONG ANCHOR BOLTS
CONDUIT ENTRY
A
A
7 5/8"
BOLLARD LIGHT (BLACK IN COLOR, SEE PHOTOMETRIC AND ELECTRICAL SITE LIGHTING PLANS)
BOLTS PER LIGHT MFR
BOLT TO FOUNDATION PER MANUFACTURER'S SPECIFICATIONS
WIDTH OF BOLLARD
4000 PSI CONCRETE SPREAD FOOTING
THIS SURFACE MUST BE FLUSH TO FINISHED GRADE
1" GROUT
1 OF 2 RE-BARS (1 EACH FACE)
FINISH GRADE. SEE PLAN FOR MATERIALS
3"
14"
MIN. 4' DEPTH
3" GRAVEL TO ALL SIDES OF FOOTING
CONDUIT- SEE ELECTRICAL PLANS
14" THICK CONCRETE SLAB BY STRUCTURAL (REFER TO ARCHITECTURAL DRAWINGS)
(4) 5/8" x 14"L x 2" GALVANIZED STEEL ANCHOR BOLTS
SECTION VIEW A-A

NOTE: CORNERS OF BASE & LUMINAIRE MUST BE ALIGNED IN DESIRED LOCATION & ORIENTATION (ANCHORAGE REMOVAL MAY BE REQUIRED IF NOT PROPERLY ALIGNED)

4

LIGHT BOLLARD

NOT TO SCALE


SIDE
19-3/4"
502
24"
610
END
TOP
16"
406
72"
1829
84"
2134
BOTTOM
12"
305
8-3/4"
222
29-1/4"
743

Technical Data

	Natural Gas	Propane
Burner Model:	LIN-E-72	LIN-E-72P
Heat Output:	110,000 BTU/h 40 kW	107,000 BTU/h 31 kW
Clearances to Combustibles:	Above: 72” Below: 0” Sides: 12” Ends: 10”	
Available Finishes:	Powder-coated Steel: Black, White, Graphite or Corten Steel	
Available Accessories:	Tempered Glass Screen	
Burner Certifications & Standards:	US & Canada - ETL ANSI Z21.97 CSA 2.4.1 UK & EU - CE GAR (EU) 2016/426; Switzerland - SVGW	
Installed Weight (Steel; Corten):	up to 350 lbs | 160 kg; up to 475 lbs | 215 kg	
Crated Weight (Steel; Corten):	up to 500 lbs / 225 kg; up to 625 lbs / 285 kg	
Crate Size:	90”x22”x33”h / 230x56x84 cm	
Vessel Material & Weight:	3/16” Corten Steel 340 lbs/155 kg 11 ga Powder-coated Steel 210 lbs/95 kg	

For more information, visit **paloform.com/fire-pits/komodo**

sales@paloform.com | paloform.com

Komodo 84 - Electronic

PALOFORM

SCALE 3/4” = 1’ 2019-01-17

NOTES:
1. REFER TO MANUFACTURER'S INFORMATION FOR ADDITIONAL REQUIREMENTS AND MEASUREMENTS.
2. CONTRACTOR TO SUBMIT SAMPLES OF ALL MATERIALS TO LANDSCAPE ARCHITECT & OWNER FOR APPROVAL PRIOR TO ORDERING.
3. CONTRACTOR RESPONSIBLE FOR GAS FEED LINE INSTALLATION BY LICENSED New York PLUMBER
4. CONTRACTOR RESPONSIBLE FOR ANY ELECTRICAL FEED LINES & ASSOCIATED WORK REQUIRED.
5. COORDINATE WITH PLUMBING & ELECTRIC DRAWINGS FOR SERVICE LINES.
6. CONTRACTOR TO SUPPLY SHOP DRAWINGS AND DETAILED LAYOUT OF ALL FIRE ELEMENT COMPONENTS FOR LANDSCAPE ARCHITECT/OWNERS APPROVAL.
7. THE TIMER SHALL BE OPERATED WITH ONE HAND
8. THE TIMER SHALL NOT REQUIRE PINCHING, TWISTING, OR GRASPING TO OPERATE
9. THE TIMER SHALL NOT REQUIRE MORE THAN 5 POUNDS OF FORCE TO OPERATE
10. CONTROLS TO BE MOUNTED BETWEEN 9"-54" AFF

3

FIREPIT

NOT TO SCALE

BOHLER// TM

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

Know what's **below.**
Call before you dig.
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.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-LSCP-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

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

M. MRVA
MATTHEW J. MRVA
Matthew J. Mrva

SHEET TITLE:

LANDSCAPE DETAILS

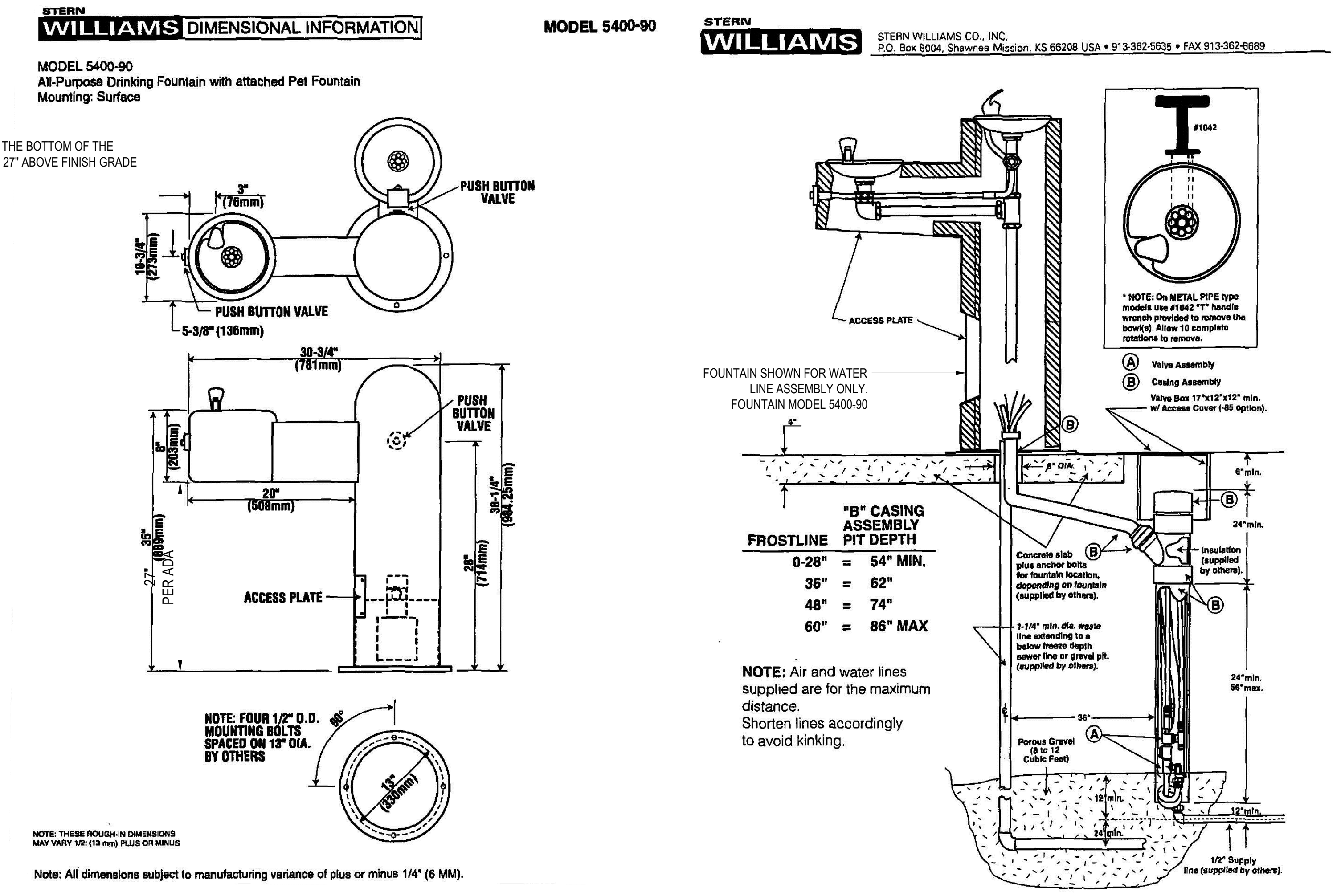
SHEET NUMBER:

L-708

REVISION 2 - 11/25/2024

P:\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LSCP-1A——LAYOUT: L-708 DETAILS

NOTE:
INSTALL AT A HEIGHT SO THAT THE BOTTOM OF THE HIGHER FOUNTAIN IS EXACTLY 27" ABOVE FINISH GRADE FOR ADA ACCESSIBILITY

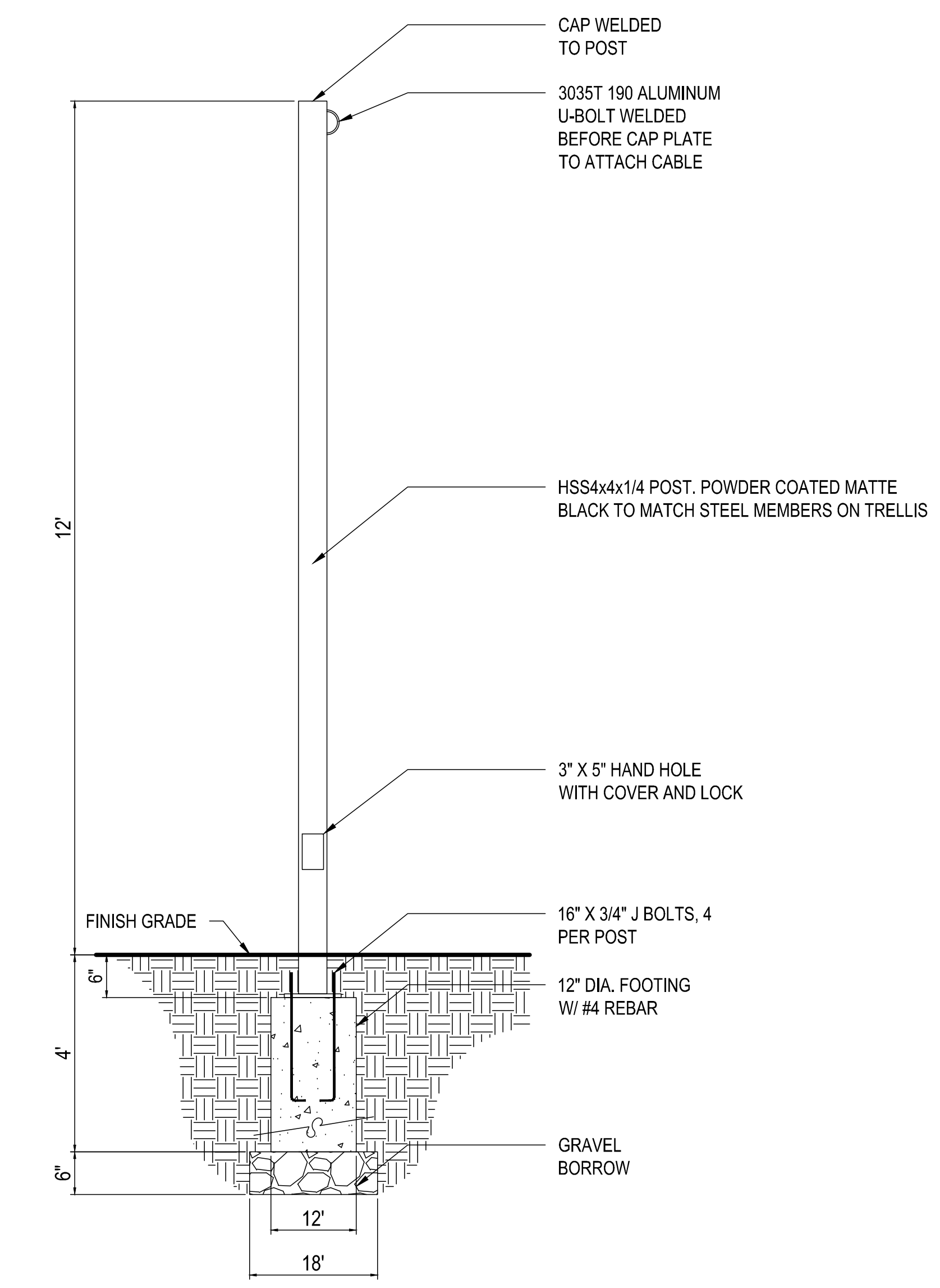

STERN WILLIAMS DIMENSIONAL INFORMATION
MODEL 5400-90
MODEL 5400-90
All-Purpose Drinking Fountain with attached Pet Fountain
Mounting: Surface
3" (76mm)
PUSH BUTTON VALVE
10-3/4" (273mm)
PUSH BUTTON VALVE
5-3/8" (136mm)
30-3/4" (781mm)
PUSH BUTTON VALVE
8" (203mm)
20" (508mm)
35" (889mm)
27" PER ADA
38-1/4" (984.25mm)
28" (714mm)
ACCESS PLATE
NOTE: FOUR 1/2" O.D. MOUNTING BOLTS SPACED ON 13" DIA. BY OTHERS
90°
13" (330mm)
NOTE: THESE ROUGH-IN DIMENSIONS MAY VARY 1/2: (13 mm) PLUS OR MINUS
Note: All dimensions subject to manufacturing variance of plus or minus 1/4" (6 MM).
STERN WILLIAMS
STERN WILLIAMS CO., INC.
P.O. Box 8004, Shawnee Mission, KS 66208 USA • 913-362-5635 • FAX 913-362-6689
ACCESS PLATE
FOUNTAIN SHOWN FOR WATER LINE ASSEMBLY ONLY. FOUNTAIN MODEL 5400-90
#1042
* NOTE: On METAL PIPE type models use #1042 "T" handle wrench provided to remove the bowl(s). Allow 10 complete rotations to remove.
Ⓐ Valve Assembly
Ⓑ Casing Assembly
Valve Box 17"x12"x12" min. w/ Access Cover (-85 option).
4"
Ⓑ
8" DIA.
6" min.
Ⓑ
24" min.
Concrete slab plus anchor bolts for fountain location, depending on fountain (supplied by others).
Ⓑ
Insulation (supplied by others).
Ⓑ
1-1/4" min. dia. waste line extending to a below freeze depth sewer line or gravel pit. (supplied by others).
24" min. 56" max.
36"
Ⓐ
Porous Gravel (8 to 12 Cubic Feet)
12" min.
24" min.
12" min.
1/2" Supply line (supplied by others).

FROSTLINE		"B" CASING ASSEMBLY PIT DEPTH
0-28"	=	54" MIN.
36"	=	62"
48"	=	74"
60"	=	86" MAX

NOTE: Air and water lines supplied are for the maximum distance.
Shorten lines accordingly to avoid kinking.

2 DOG PARK WATER FOUNTAIN

NOT TO SCALE

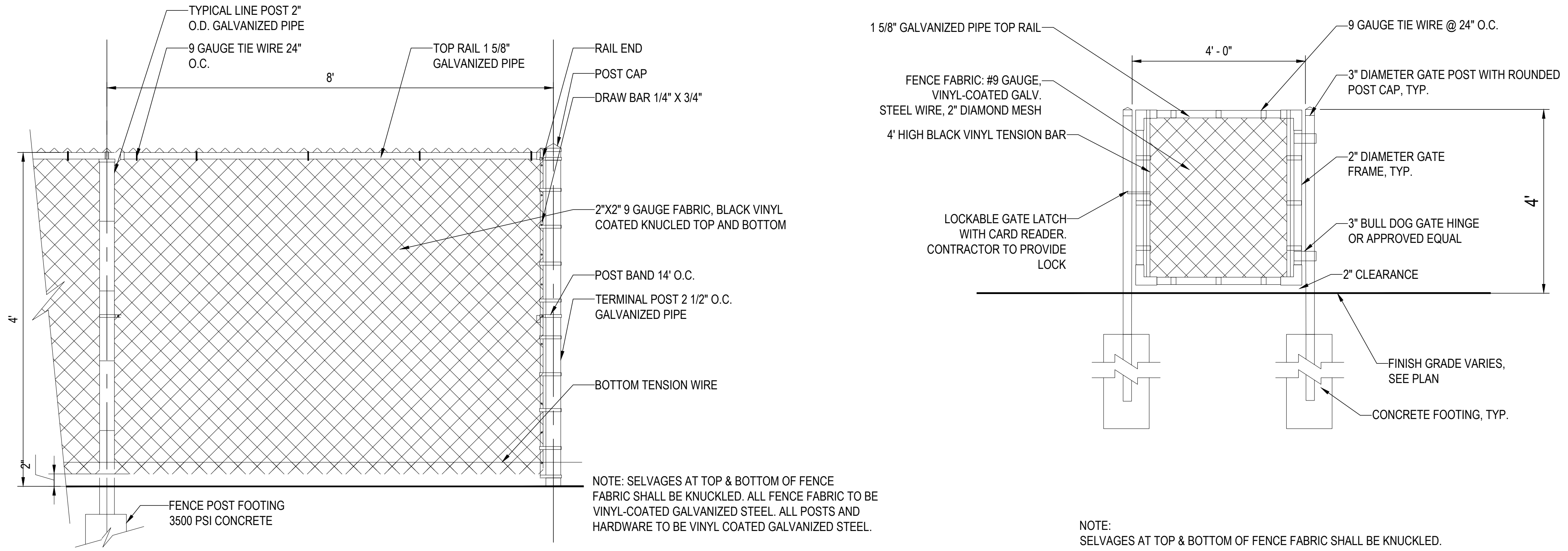

CAP WELDED TO POST
3035T 190 ALUMINUM U-BOLT WELDED BEFORE CAP PLATE TO ATTACH CABLE
12'
HSS4x4x1/4 POST. POWDER COATED MATTE BLACK TO MATCH STEEL MEMBERS ON TRELLIS
3" X 5" HAND HOLE WITH COVER AND LOCK
FINISH GRADE
16" X 3/4" J BOLTS, 4 PER POST
6"
12" DIA. FOOTING W/ #4 REBAR
4'
6"
GRAVEL BORROW
12'
18'

NOTES:
GC TO CONFIRM STRAND LIGHT LENGTHS IN FIELD PRIOR TO ORDERING. LIGHT STRANDS ARE TO BE CONTIGUOUS BETWEEN LIGHT POSTS.

COORDINATE WITH ELECTRIC PLANS TO PROVIDE POWER TO STRAND LIGHTS.

1 STRING LIGHTS ON POLE

NOT TO SCALE


TYPICAL LINE POST 2" O.D. GALVANIZED PIPE
9 GAUGE TIE WIRE 24" O.C.
8'
TOP RAIL 1 5/8" GALVANIZED PIPE
RAIL END
POST CAP
DRAW BAR 1/4" X 3/4"
2"X2" 9 GAUGE FABRIC, BLACK VINYL COATED KNUCLED TOP AND BOTTOM
4'
POST BAND 14' O.C.
TERMINAL POST 2 1/2" O.C. GALVANIZED PIPE
BOTTOM TENSION WIRE
2"
FENCE POST FOOTING 3500 PSI CONCRETE
1 5/8" GALVANIZED PIPE TOP RAIL
4' - 0"
9 GAUGE TIE WIRE @ 24" O.C.
FENCE FABRIC: #9 GAUGE, VINYL-COATED GALV. STEEL WIRE, 2" DIAMOND MESH
3" DIAMETER GATE POST WITH ROUNDED POST CAP, TYP.
4' HIGH BLACK VINYL TENSION BAR
2" DIAMETER GATE FRAME, TYP.
4'
LOCKABLE GATE LATCH WITH CARD READER. CONTRACTOR TO PROVIDE LOCK
3" BULL DOG GATE HINGE OR APPROVED EQUAL
2" CLEARANCE
FINISH GRADE VARIES, SEE PLAN
CONCRETE FOOTING, TYP.

NOTE: SELVAGES AT TOP & BOTTOM OF FENCE FABRIC SHALL BE KNUCKLED. ALL FENCE FABRIC TO BE VINYL-COATED GALVANIZED STEEL. ALL POSTS AND HARDWARE TO BE VINYL COATED GALVANIZED STEEL.

NOTE:
SELVAGES AT TOP & BOTTOM OF FENCE FABRIC SHALL BE KNUCKLED.
ALL WIRE FABRIC AND FENCE HARDWARE SHALL BE VINYL-COATED GALVANIZED STEEL AS PER SPEC.
ALL POSTS AND HARDWARE TO BE VINYL-COATED GALVANIZED STEEL AS PER SPEC.
FABRIC SHALL BE INSTALLED ON THE OUTSIDE OF POST.
WIRE FABRIC TO BE BALCK VINYL-COATED FUSION BONDED.
CONTRACTOR TO SUPPLY SHOP DRAWINGS AND SAMPLES OF ALL FENCE COMPONENTS TO BE APPROVED BY OWNER

3 VINYL COATED CHAIN LINK FENCE AT DOGPARK

NOT TO SCALE

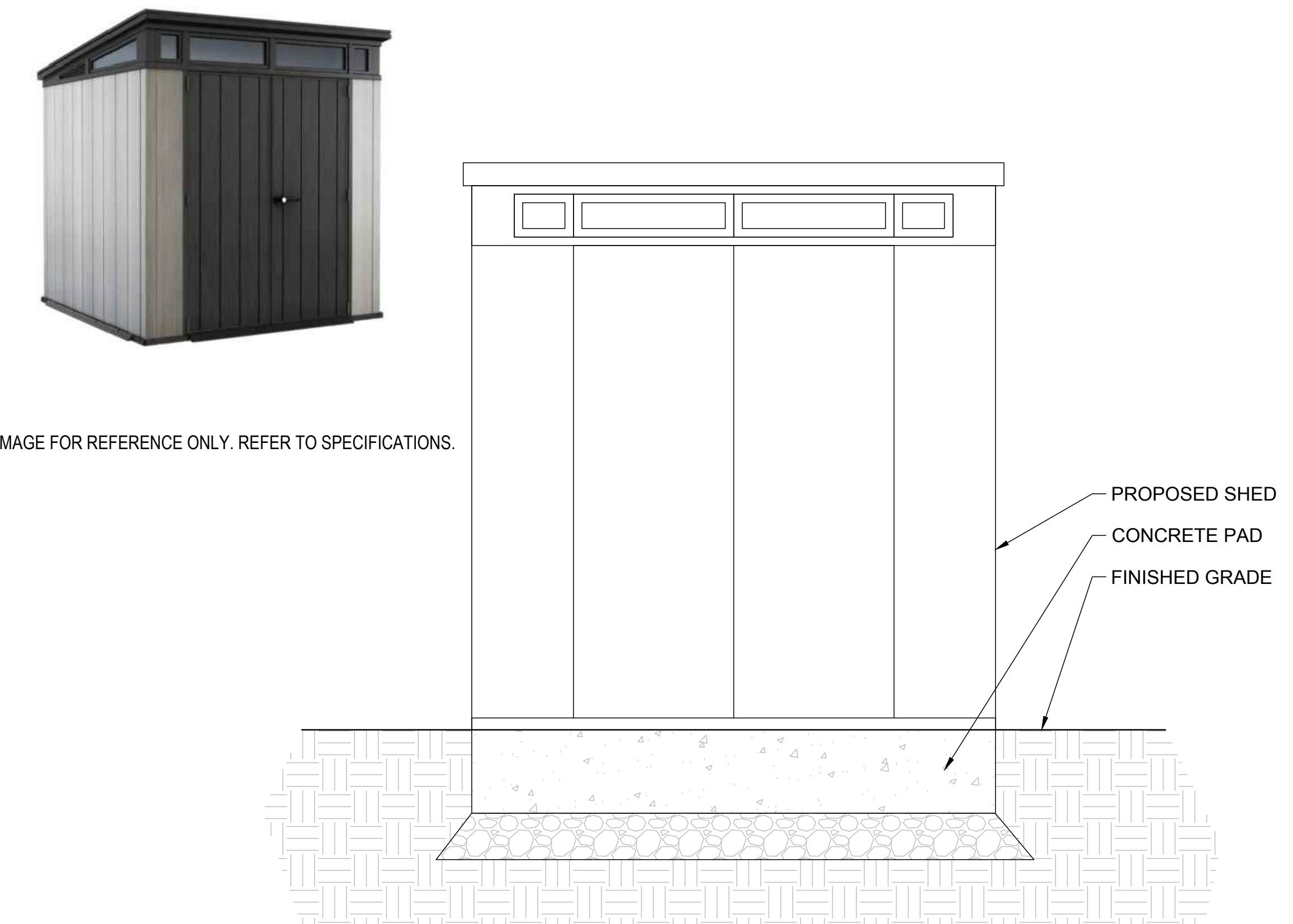

PROPOSED SHED
CONCRETE PAD
FINISHED GRADE

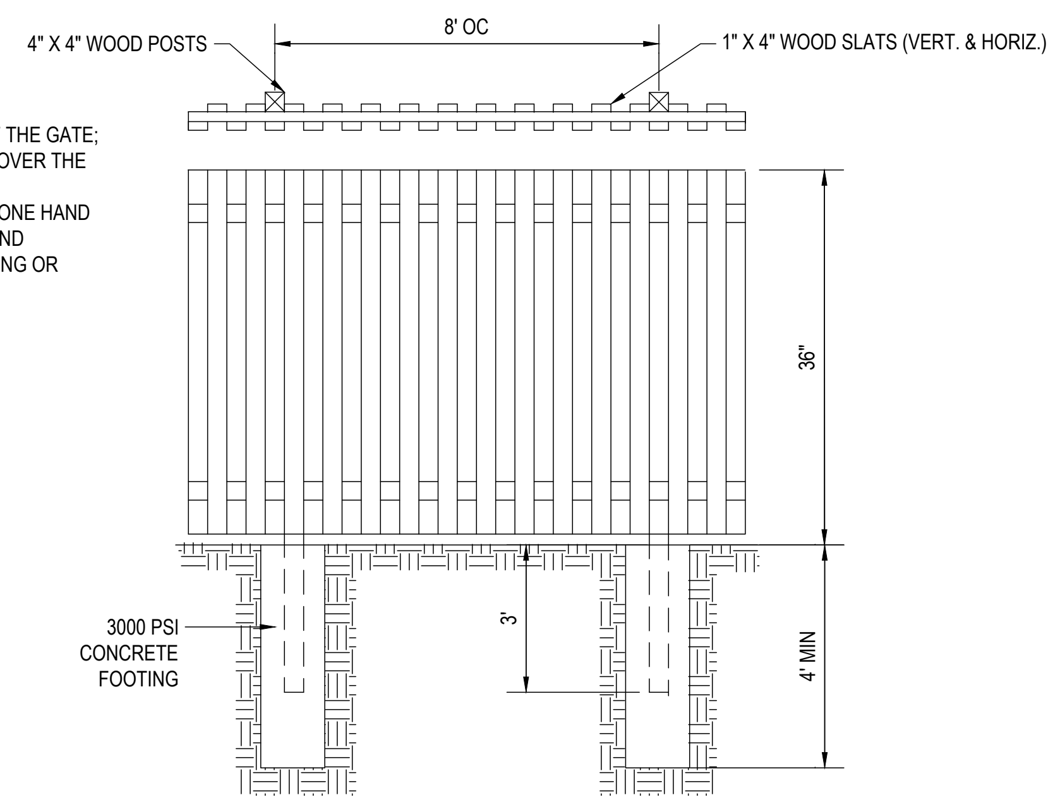
IMAGE FOR REFERENCE ONLY. REFER TO SPECIFICATIONS.

5 COMMUNITY GARDEN SHED

NOT TO SCALE

NOTES:
1. POSTS AND SLATS TO BE PRESSURE TREATED LUMBER
2. CONTRACTOR TO PROVIDE MATCHING GATE
3. CONTRACTOR TO PROVIDE HARDWARE PER MANUFACTURER RECOMMENDATIONS FOR FENCE AND GATE

GATE HARDWARE NOTES:
1. HARDWARE IS PROVIDED ON BOTH SIDES OF THE GATE;
2. HARDWARE DOES NOT REQUIRE REACHING OVER THE GATE TO OPERATE.
3. HARDWARE IS ABLE TO BE OPERATED WITH ONE HAND USING NO MORE THAN 5 POUNDS OF FORCE; AND
4. HARDWARE REQUIRES NO PINCHING, TWISTING OR GRASPING TO OPERATE.


4" X 4" WOOD POSTS
8' OC
1" X 4" WOOD SLATS (VERT. & HORIZ.)
36"
3000 PSI CONCRETE FOOTING
3'
4' MIN

4 FENCE AT COMMUNITY GARDEN

NOT TO SCALE

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR DATE

VICE CHAIR DATE

MEMBER DATE

BOHLER

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT No.:	W211244
DRAWN BY:	VEH/AO/DT
CHECKED BY:	KWC
DATE:	9/18/2024
CAD I.D.:	W211244-LSCP-1A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH ,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER

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

www.BohlerEngineering.com

M. J. MRVA
MATTHEW J. MRVA
NO. 1217
REGISTERED LANDSCAPE ARCHITECT
MAINE No. 4248
VERMONT No. 01337
OHIO No. 250433

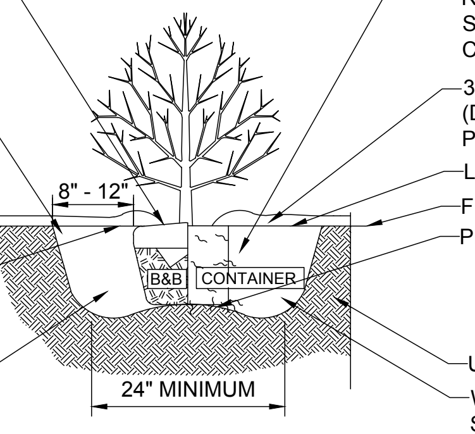
SHEET TITLE:

LANDSCAPE DETAILS

SHEET NUMBER:

L-709

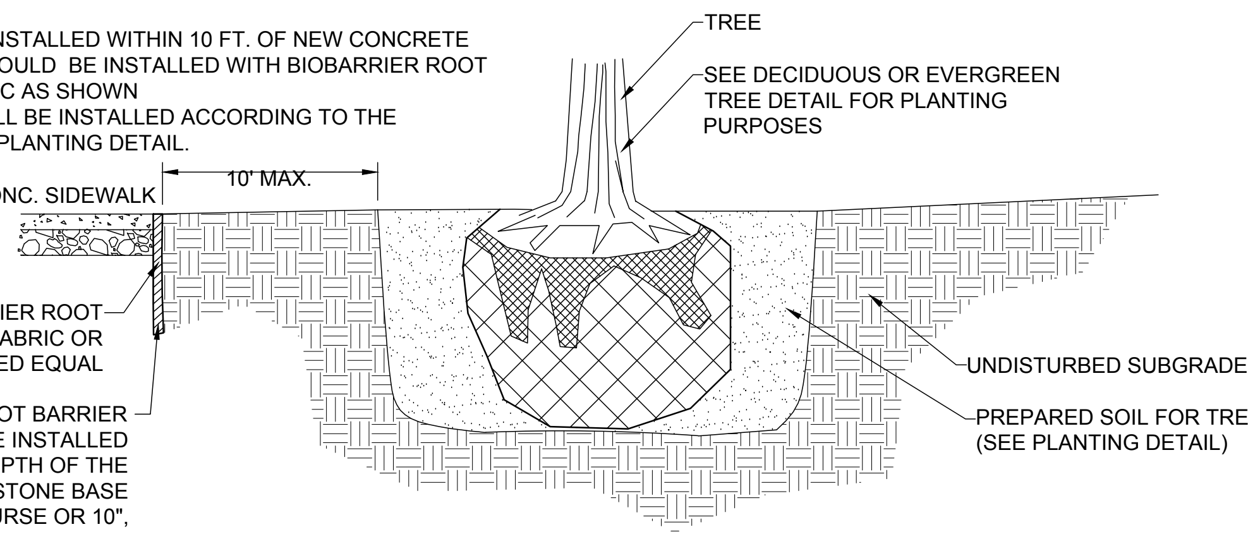
REVISION 2 - 11/25/2024


PLANT SHALL BE PLANTED SO THAT THE POINT AT WHICH THE ROOT FLARE BEGINS IS SET LEVEL WITH GRADE. CUT AND REMOVE BURLAP FROM TOP ONE-THIRD OF ROOT BALL AS SHOWN.
PLANTING MIX:
1 PART PEAT MOSS
1 PART COW MANURE
3 PARTS TOPSOIL
(SEE SOIL MODIFICATION CHART)
8" - 12"
B&B
CONTAINER
BEFORE PLANTING, ADD 3" TO 4" OF WELL-COMPOSTED LEAVES AND RECYCLED YARD WASTE TO BED AND TILL INTO TOP 6" OF PREPARED SOIL.
SOIL SURFACE ROUGHENED TO BIND WITH NEW SOIL.
24" MINIMUM
FOR CONTAINER-GROWN SHRUBS, PLANT SHALL BE TRANSPLANTED AT THE SAME GRADE AS IN THE CONTAINER. REMOVE THE CONTAINER, USE FINGER OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS THAT CIRCLE THE PERIMETER OF THE CONTAINER.
3" DOUBLE-SHREDDED HARDWOOD BARK MULCH (DO NOT PUT MULCH AGAINST THE BASE OF THE PLANT).
LANDSCAPE FABRIC AS SPECIFIED
FINISHED GRADE
PLACE SHRUB ON FIRM SOIL IN BOTTOM OF HOLE.
UNDISTURBED SUBGRADE
WHEN APPROPRIATE, PLANT MULTIPLE SHRUBS IN CONTINUOUS PLANTING HOLE.

4 SHRUB PLANTING

NOT TO SCALE

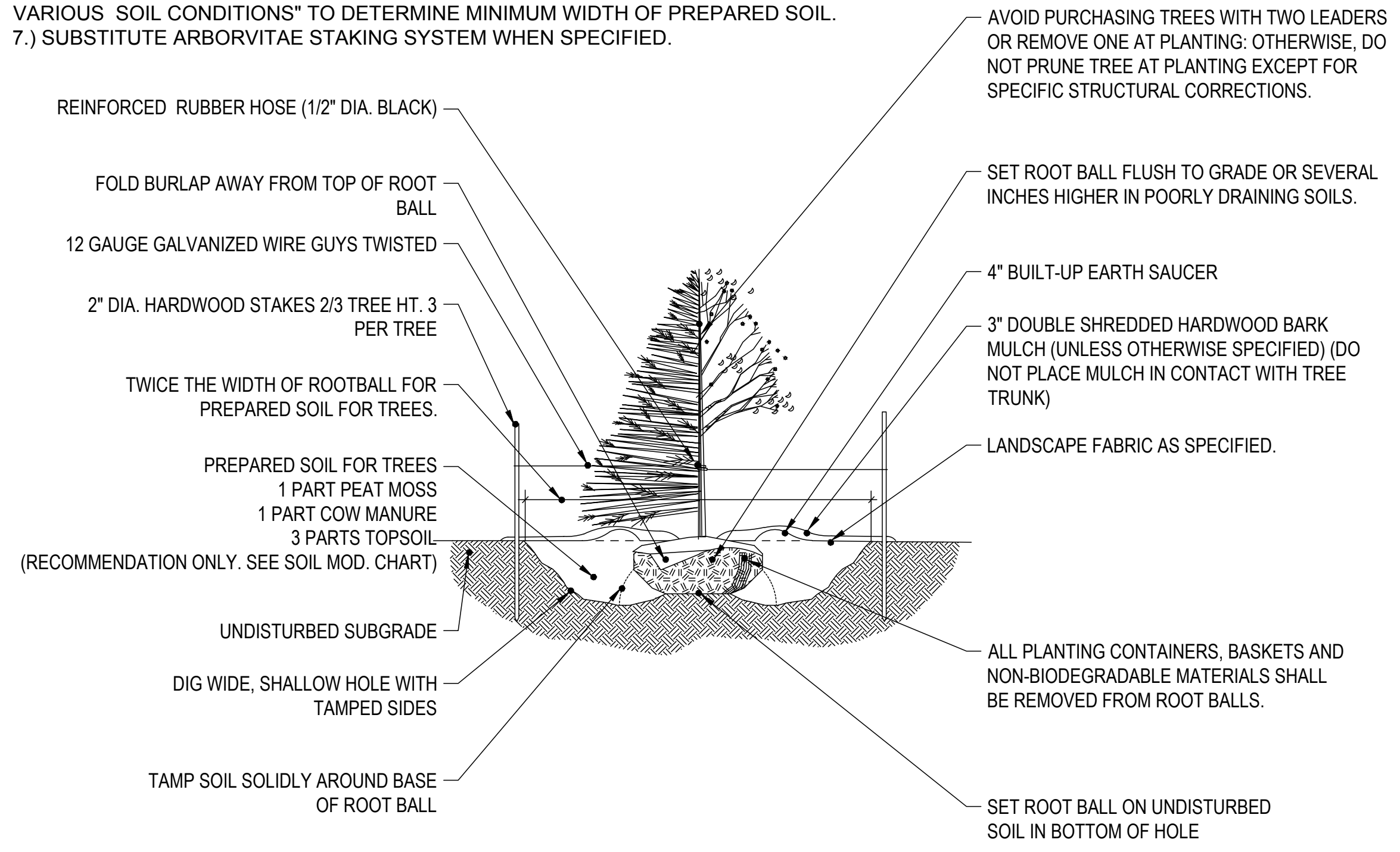
NOTES:
1. ANY TREE INSTALLED WITHIN 10 FT. OF NEW CONCRETE SIDEWALKS SHOULD BE INSTALLED WITH BIOBARRIER ROOT BARRIER FABRIC AS SHOWN
2. TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING DETAIL.


TREE
SEE DECIDUOUS OR EVERGREEN TREE DETAIL FOR PLANTING PURPOSES
10' MAX.
CONC. SIDEWALK
BIOBARRIER ROOT BARRIER FABRIC OR APPROVED EQUAL
BIOBARRIER ROOT BARRIER FABRIC TO BE INSTALLED TO THE DEPTH OF THE BOTTOM OF STONE BASE COURSE OR 10", WHICHEVER IS GREATER
UNDISTURBED SUBGRADE
PREPARED SOIL FOR TREES (SEE PLANTING DETAIL)

3 BIOBARRIER ROOT BARRIER DETAIL

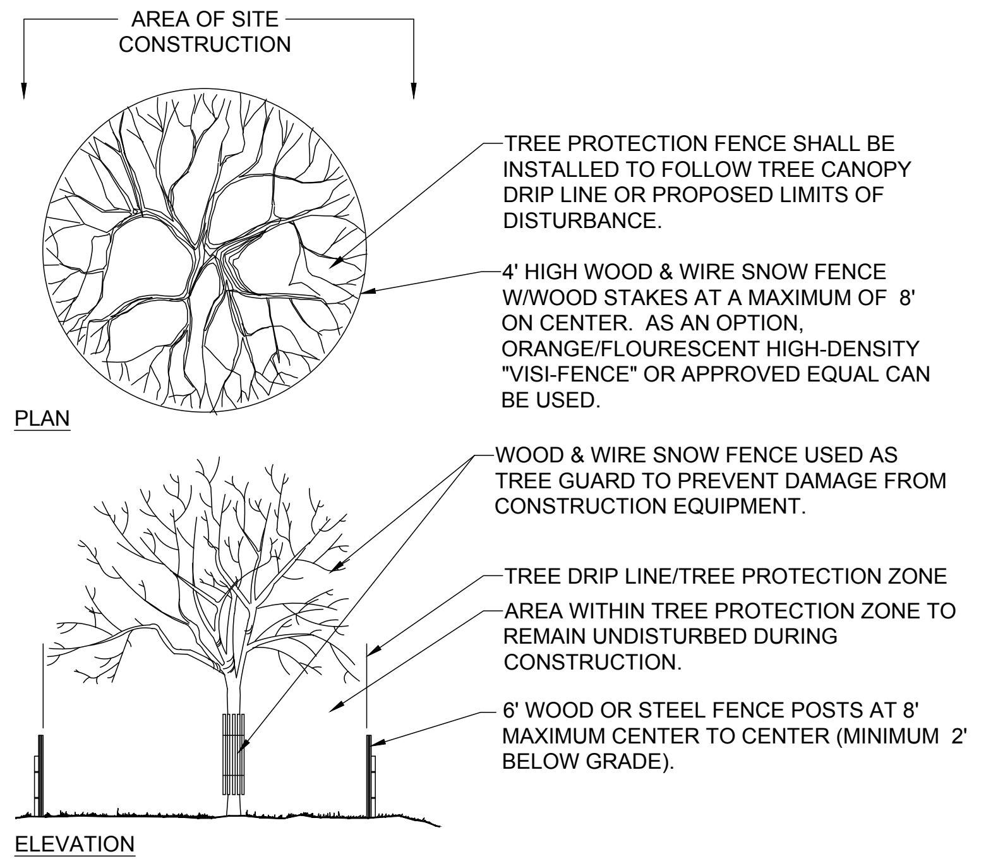
NOT TO SCALE

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


REINFORCED RUBBER HOSE (1/2" DIA. BLACK)
FOLD BURLAP AWAY FROM TOP OF ROOT BALL
12 GAUGE GALVANIZED WIRE GUYS TWISTED
2" DIA. HARDWOOD STAKES 2/3 TREE HT. 3 PER TREE
TWICE THE WIDTH OF ROOTBALL FOR PREPARED SOIL FOR TREES.
PREPARED SOIL FOR TREES
1 PART PEAT MOSS
1 PART COW MANURE
3 PARTS TOPSOIL
(RECOMMENDATION ONLY. SEE SOIL MOD. CHART)
UNDISTURBED SUBGRADE
DIG WIDE, SHALLOW HOLE WITH TAMPED SIDES
TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL
AVOID PURCHASING TREES WITH TWO LEADERS OR REMOVE ONE AT PLANTING: OTHERWISE, DO NOT PRUNE TREE AT PLANTING EXCEPT FOR SPECIFIC STRUCTURAL CORRECTIONS.
SET ROOT BALL FLUSH TO GRADE OR SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS.
4" BUILT-UP EARTH SAUCER
3" DOUBLE SHREDDED HARDWOOD BARK MULCH (UNLESS OTHERWISE SPECIFIED) (DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK)
LANDSCAPE FABRIC AS SPECIFIED.
ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS.
SET ROOT BALL ON UNDISTURBED SOIL IN BOTTOM OF HOLE

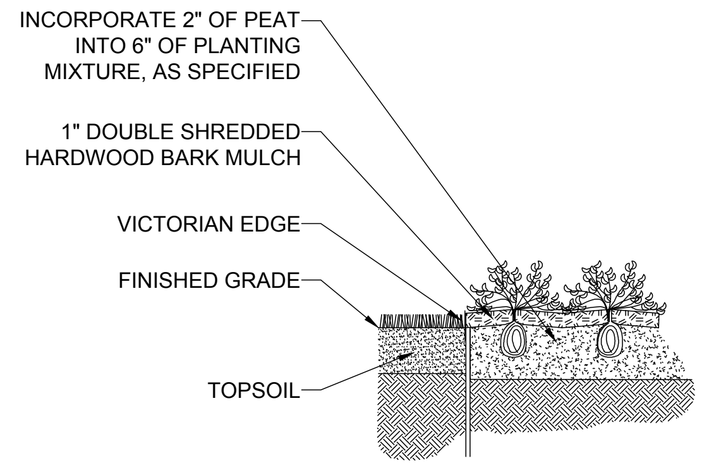
2 TREE PLANTING

NOT TO SCALE


AREA OF SITE CONSTRUCTION
TREE PROTECTION FENCE SHALL BE INSTALLED TO FOLLOW TREE CANOPY DRIP LINE OR PROPOSED LIMITS OF DISTURBANCE.
4' HIGH WOOD & WIRE SNOW FENCE W/WOOD STAKES AT A MAXIMUM OF 8' ON CENTER. AS AN OPTION, ORANGE/FLOURESCENT HIGH-DENSITY "VISI-FENCE" OR APPROVED EQUAL CAN BE USED.
PLAN
WOOD & WIRE SNOW FENCE USED AS TREE GUARD TO PREVENT DAMAGE FROM CONSTRUCTION EQUIPMENT.
TREE DRIP LINE/TREE PROTECTION ZONE
AREA WITHIN TREE PROTECTION ZONE TO REMAIN UNDISTURBED DURING CONSTRUCTION.
6' WOOD OR STEEL FENCE POSTS AT 8' MAXIMUM CENTER TO CENTER (MINIMUM 2' BELOW GRADE).
ELEVATION

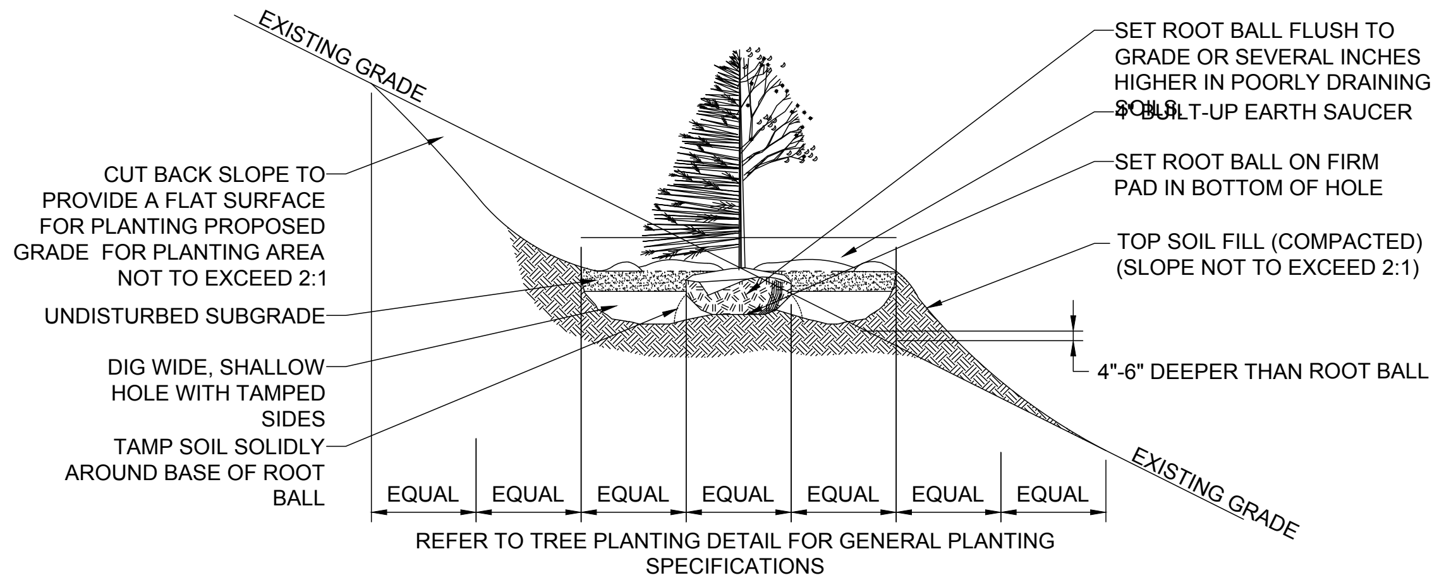
1 TREE PROTECTION DURING SITE CONSTRUCTION

NOT TO SCALE


INCORPORATE 2" OF PEAT INTO 6" OF PLANTING MIXTURE, AS SPECIFIED
1" DOUBLE SHREDDED HARDWOOD BARK MULCH
VICTORIAN EDGE
FINISHED GRADE
TOPSOIL

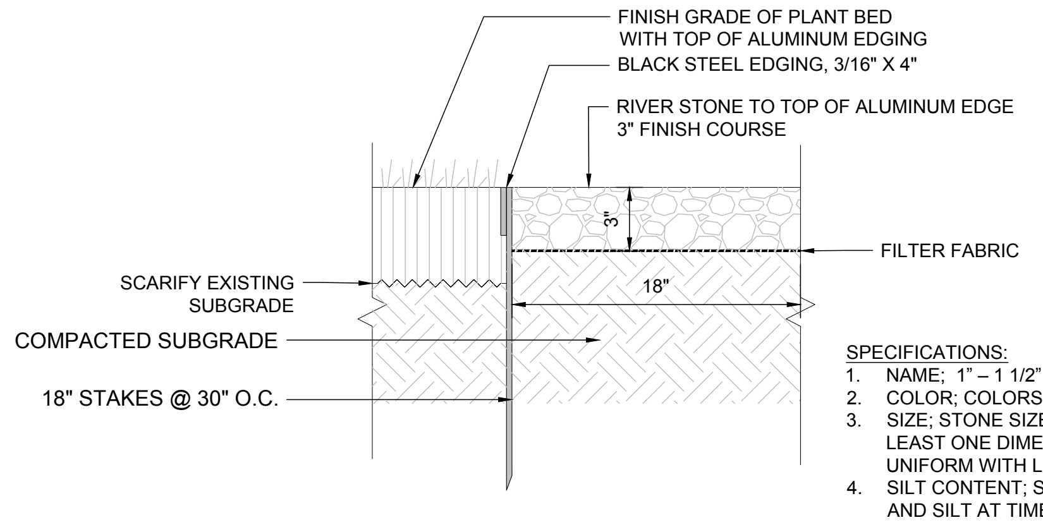
6 GROUNDCOVER PLANTING

NOT TO SCALE


EXISTING GRADE
CUT BACK SLOPE TO PROVIDE A FLAT SURFACE FOR PLANTING PROPOSED GRADE FOR PLANTING AREA NOT TO EXCEED 2:1
UNDISTURBED SUBGRADE
DIG WIDE, SHALLOW HOLE WITH TAMPED SIDES
TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL
SET ROOT BALL FLUSH TO GRADE OR SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS
4" BUILT-UP EARTH SAUCER
SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE
TOP SOIL FILL (COMPACTED) (SLOPE NOT TO EXCEED 2:1)
4"-6" DEEPER THAN ROOT BALL
EQUAL
EQUAL
EQUAL
EQUAL
EQUAL
EQUAL
EQUAL
EXISTING GRADE
REFER TO TREE PLANTING DETAIL FOR GENERAL PLANTING SPECIFICATIONS

5 TREE PLANTING ON SLOPE

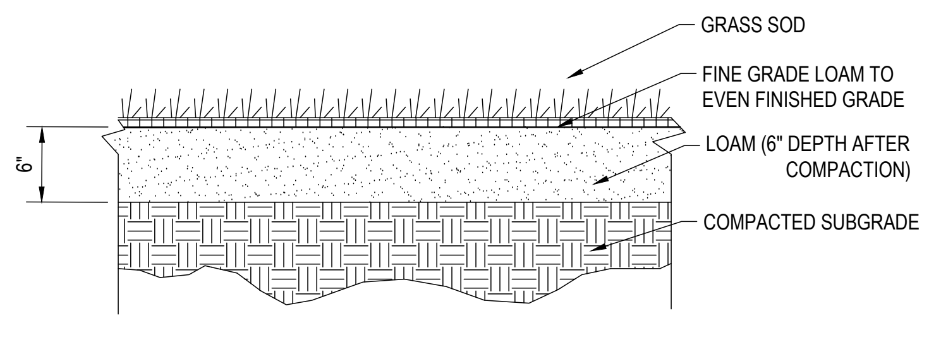
NOT TO SCALE


FINISH GRADE OF PLANT BED WITH TOP OF ALUMINUM EDGING
BLACK STEEL EDGING, 3/16" X 4"
RIVER STONE TO TOP OF ALUMINUM EDGE
3" FINISH COURSE
3"
FILTER FABRIC
18"
SCARIFY EXISTING SUBGRADE
COMPACTED SUBGRADE
18" STAKES @ 30" O.C.

SPECIFICATIONS:
1. NAME; 1" – 1 1/2" CRUSHED BLUESTONE GRAVEL
2. COLOR; COLORS WILL BE GREYS WITH BLUISH TONES
3. SIZE; STONE SIZES WILL RANGE FROM 1" – 1 1/2" IN AT LEAST ONE DIMENSION. STONE SIZING SHOULD BE UNIFORM WITH LITTLE VARIATION FROM THIS RANGE.
4. SILT CONTENT; STONE NEEDS TO BE CLEAN OF DEBRIS AND SILT AT TIME OF DELIVERY.

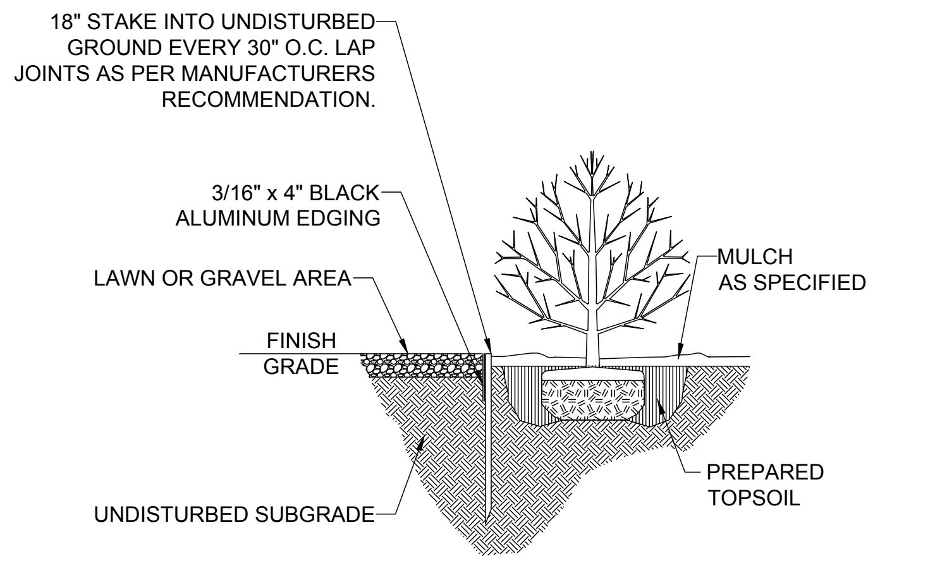
9 RIVER STONE STRIP WITH METAL EDGING

NOT TO SCALE


GRASS SOD
FINE GRADE LOAM TO EVEN FINISHED GRADE
LOAM (6" DEPTH AFTER COMPACTION)
COMPACTED SUBGRADE
6"

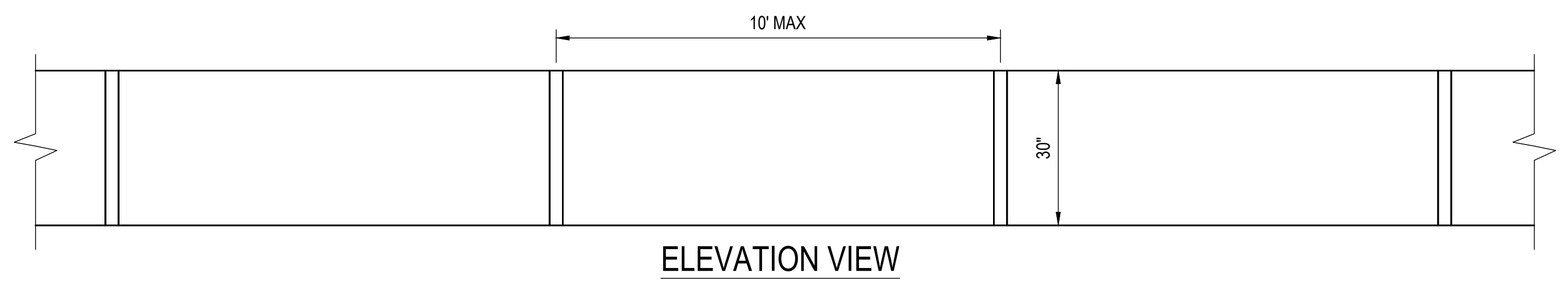
8 SODDED LAWN

NOT TO SCALE


18" STAKE INTO UNDISTURBED GROUND EVERY 30" O.C. LAP JOINTS AS PER MANUFACTURERS RECOMMENDATION.
3/16" x 4" BLACK ALUMINUM EDGING
LAWN OR GRAVEL AREA
FINISH GRADE
MULCH AS SPECIFIED
PREPARED TOPSOIL
UNDISTURBED SUBGRADE

7 BLACK ALUMINUM EDGING

NOT TO SCALE


10' MAX
30"
ELEVATION VIEW

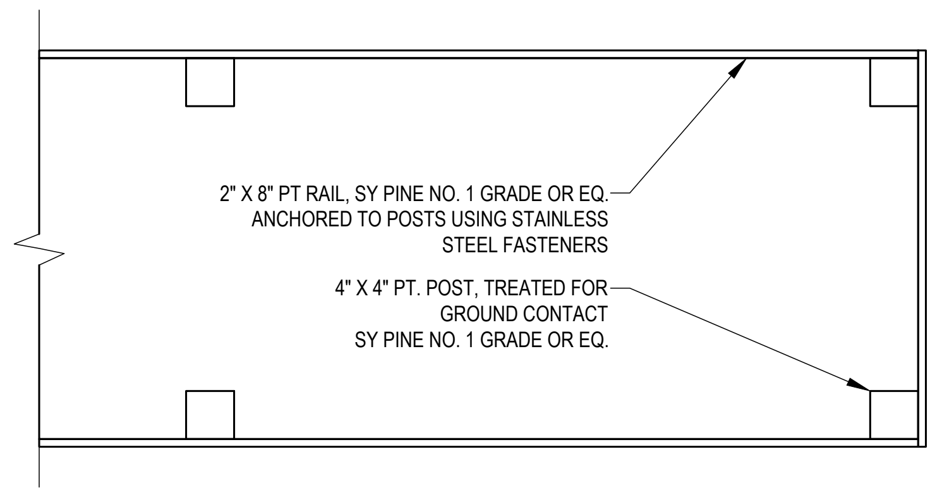
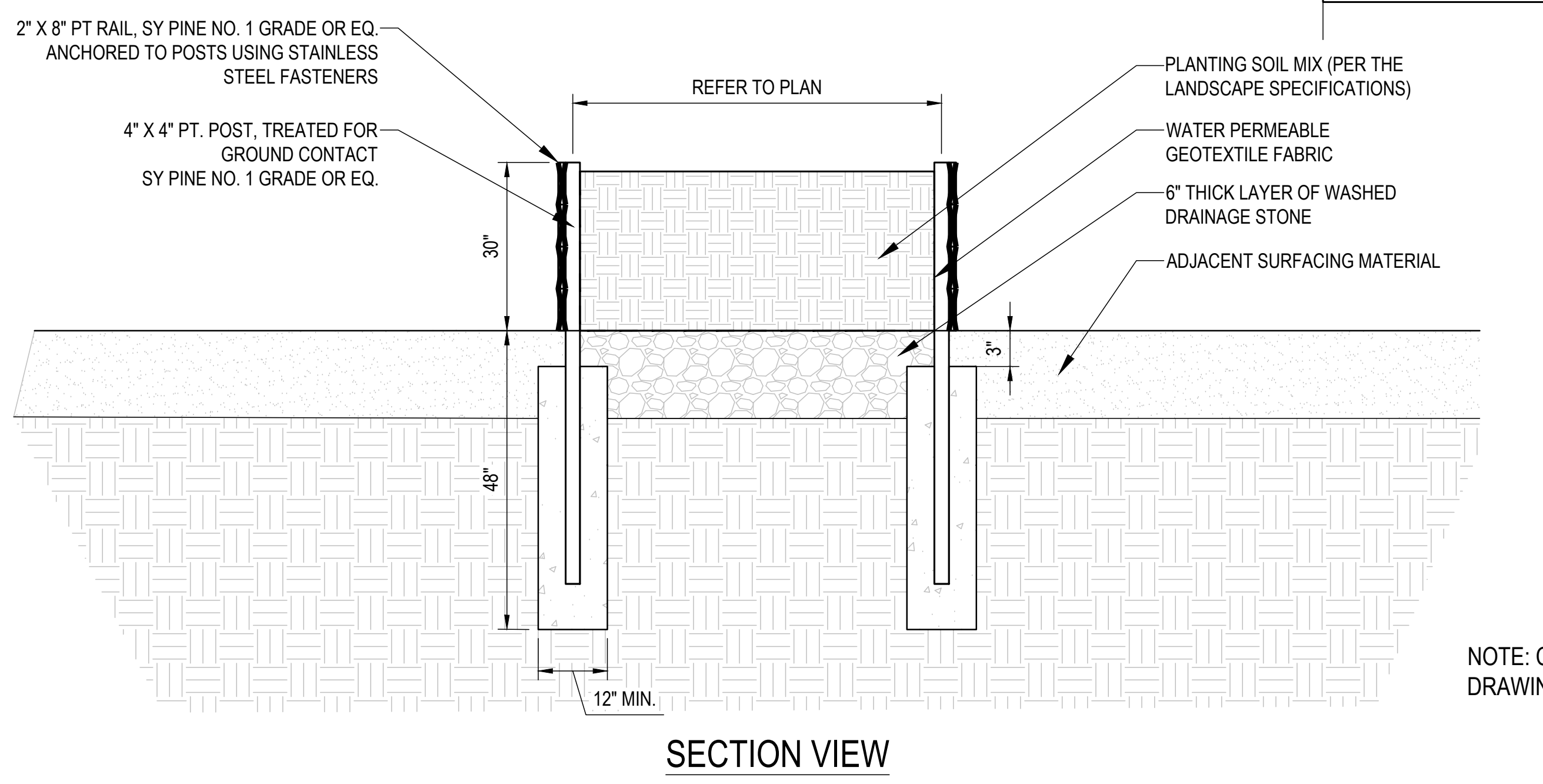

2" X 8" PT RAIL, SY PINE NO. 1 GRADE OR EQ. ANCHORED TO POSTS USING STAINLESS STEEL FASTENERS
4" X 4" PT. POST, TREATED FOR GROUND CONTACT SY PINE NO. 1 GRADE OR EQ.
PLAN VIEW

IMAGE FOR REFERENCE ONLY. REFER TO SPECIFICATIONS.


2" X 8" PT RAIL, SY PINE NO. 1 GRADE OR EQ. ANCHORED TO POSTS USING STAINLESS STEEL FASTENERS
4" X 4" PT. POST, TREATED FOR GROUND CONTACT SY PINE NO. 1 GRADE OR EQ.
REFER TO PLAN
30"
48"
3"
12" MIN.
PLANTING SOIL MIX (PER THE LANDSCAPE SPECIFICATIONS)
WATER PERMEABLE GEOTEXTILE FABRIC
6" THICK LAYER OF WASHED DRAINAGE STONE
ADJACENT SURFACING MATERIAL
SECTION VIEW

NOTE: CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR OWNER'S APPROVAL.

12 LINEAR WOOD PLANTER AT COMMUNITY GARDEN

NOT TO SCALE

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.

2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

3. SEEDING RATES:

• PERENNIAL RYEGRASS	1/2 LB/1000 SQ FT
• KENTUCKY BLUEGRASS	1 LB/1000 SQ FT
• RED FESCUE	1/2 LB/1000 SQ FT
• SPREADING FESCUE	1/2 LB/1000 SQ FT
• FERTILIZER (16.32.16)	2 LB/1000 SQ FT
• LIQUID LIME	1 GAL/800 GAL.
• TANK TACKIFIER	35 LB/800 GAL.
• TANK FIBER MULCH	30 LB/1000 SQ FT

4. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS APPROVED BY OWNER.

11 HYDROSEED SPECIFICATIONS

"NATIVE DETENTION AREA MIX" AS PREPARED BY:

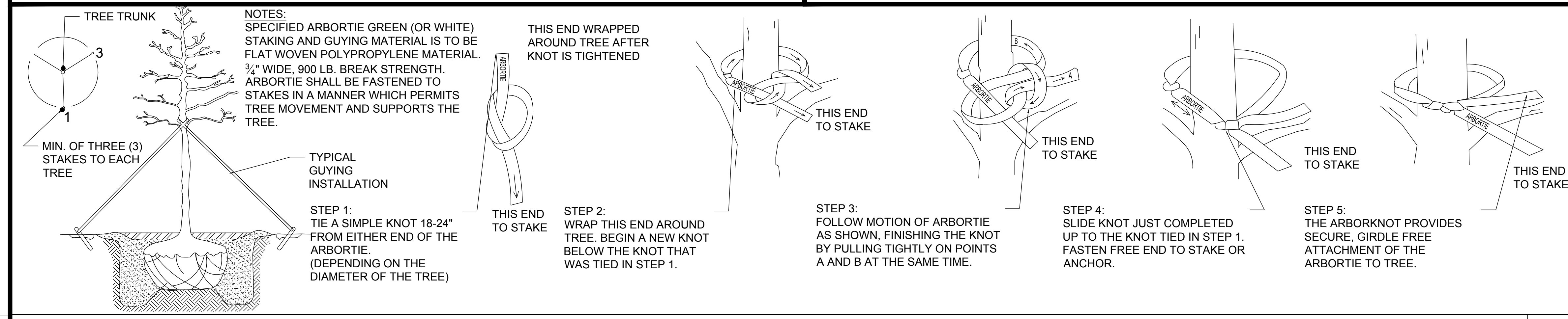
ERNST CONSERVATION SEEDS, INC.
8884 MERCER PIKE, MEADVILLE, PA 16335
PHONE: 800-873-3321 / 814-336-2404
EMAIL: SALES@ERNSTSEED.COM
WEBSITE: WWW.ERNSTSEED.COM

APPLICATION RATE: 1/2 LB. / 1000 SQ. FT. (20 LBS. / ACRE)

MIX COMPOSITION:
25.0% PANICUM VIRGATUM, 'SHELTER' (SWITCHGRASS, 'SHELTER')
24.0% PANICUM CLANDESTINUM, 'TIOGA' (DEERTONGUE, 'TIOGA')
22.0% CAREX VULPINOIDEA, PA ECOTYPE (FOX SEDGE, PA ECOTYPE)
21.0% ELYMUS VIRGINICUS, PA ECOTYPE (VIRGINIA WILDRYE, PA ECOTYPE)
6.0% AGROSTIS PERENNANS, ALBANY PINE BUSH-NY ECOTYPE (AUTUMN BENTGRASS, ALBANY PINE BUSH-NY ECOTYPE)
1.0% JUNCUS EFFUSUS (SOFT RUSH)
1.0% PANICUM RIGIDULUM, PA ECOTYPE (REDTOP PANICGRASS, PA ECOTYPE)

10 BASIN SEED MIX SPECIFICATIONS

NOTES:
SPECIFIED ARBORTIE GREEN (OR WHITE) STAKING AND GUYING MATERIAL IS TO BE FLAT WOVEN POLYPROPYLENE MATERIAL. ¾" WIDE, 900 LB. BREAK STRENGTH. ARBORTIE SHALL BE FASTENED TO STAKES IN A MANNER WHICH PERMITS TREE MOVEMENT AND SUPPORTS THE TREE.


TREE TRUNK
3
1
MIN. OF THREE (3) STAKES TO EACH TREE
TYPICAL GUYING INSTALLATION
ARBORTIE
THIS END WRAPPED AROUND TREE AFTER KNOT IS TIGHTENED
THIS END TO STAKE
THIS END TO STAKE
B
A
THIS END TO STAKE
THIS END TO STAKE
THIS END TO STAKE

STEP 1:
TIE A SIMPLE KNOT 18-24" FROM EITHER END OF THE ARBORTIE.
(DEPENDING ON THE DIAMETER OF THE TREE)

STEP 2:
WRAP THIS END AROUND TREE. BEGIN A NEW KNOT BELOW THE KNOT THAT WAS TIED IN STEP 1.

STEP 3:
FOLLOW MOTION OF ARBORTIE AS SHOWN, FINISHING THE KNOT BY PULLING TIGHTLY ON POINTS A AND B AT THE SAME TIME.

STEP 4:
SLIDE KNOT JUST COMPLETED UP TO THE KNOT TIED IN STEP 1. FASTEN FREE END TO STAKE OR ANCHOR.

STEP 5:
THE ARBORKNOT PROVIDES SECURE, GIRDLE FREE ATTACHMENT OF THE ARBORTIE TO TREE.

ARBORTIE STAKING DETAIL

N.T.S.

"NEW ENGLAND CONSERVATION/ WILDLIFE SEED MIX" AS PREPARED BY:

NEW ENGLAND WETLAND PLANTS, INC
820 WEST STREET, AMHERST, MA 01002
PHONE: 413-548-8000
EMAIL: INFO@NEWP.COM
WEBSITE: WWW.NEWP.COM

APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB
MINIMUM ORDER: 2 LBS

SPECIES: VIRGINIA WILD RYE (ELYMUS VIRGINICUS), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), BIG BLUESTEM (ANDROPOGON GERARDII), RED FESCUE (FESTUCA RUBRA), SWITCH GRASS (PANICUM VIRGATUM), PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), PANICLEDLEAF TICK TREFOIL (DESMODIUM PANICULATUM), INDIAN GRASS (SORGHASTRUM NUTANS), BLUE VERVAIN (VERBENA HASTATA), BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA), BLACK EYED SUSAN (RUDBECKIA HIRTA), COMMON SNEEZEWEED (HELENIUM AUTUNALE), HEATH ASTER (ASTERPILOSUS/SYMPHYOTRICHUM PILOSUM), EARLY GOLDENROD (SOLIDAGO JUNCEA), UPLAND BENTGRASS (AGROSTIS PERENNANS).

13 NEW ENGLAND CONSERVATION/ WILDLIFE SEED MIX SPECIFICATIONS

APPROVAL BLOCK

TOWN OF NORTH ATTLEBOROUGH BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE TOWN OF NORTH ATTLEBOROUGH, MA.

CHAIR DATE

VICE CHAIR DATE

MEMBER DATE

BOHLER

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY CHECKED BY
1	10/29/2024	DD SET	AO KWC
2	11/25/2024	PER TOWN COMMENTS	AO KWC

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PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MARCUS PARTNERS

PROPOSED DEVELOPMENT

MAP: 35 LOT: 3
582 KELLEY BOULEVARD REAR,
TOWN OF NORTH ATTLEBOROUGH,
BRISTOL COUNTY,
MASSACHUSETTS

BOHLER

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

REGISTERED LANDSCAPE ARCHITECT

SHEET TITLE:

LANDSCAPE DETAILS

SHEET NUMBER:

L-710

REVISION 2 - 11/25/2024

P:\21\W211244\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\W211244-LSCP-1A----->LAYOUT: L-710 DETAILS

DT