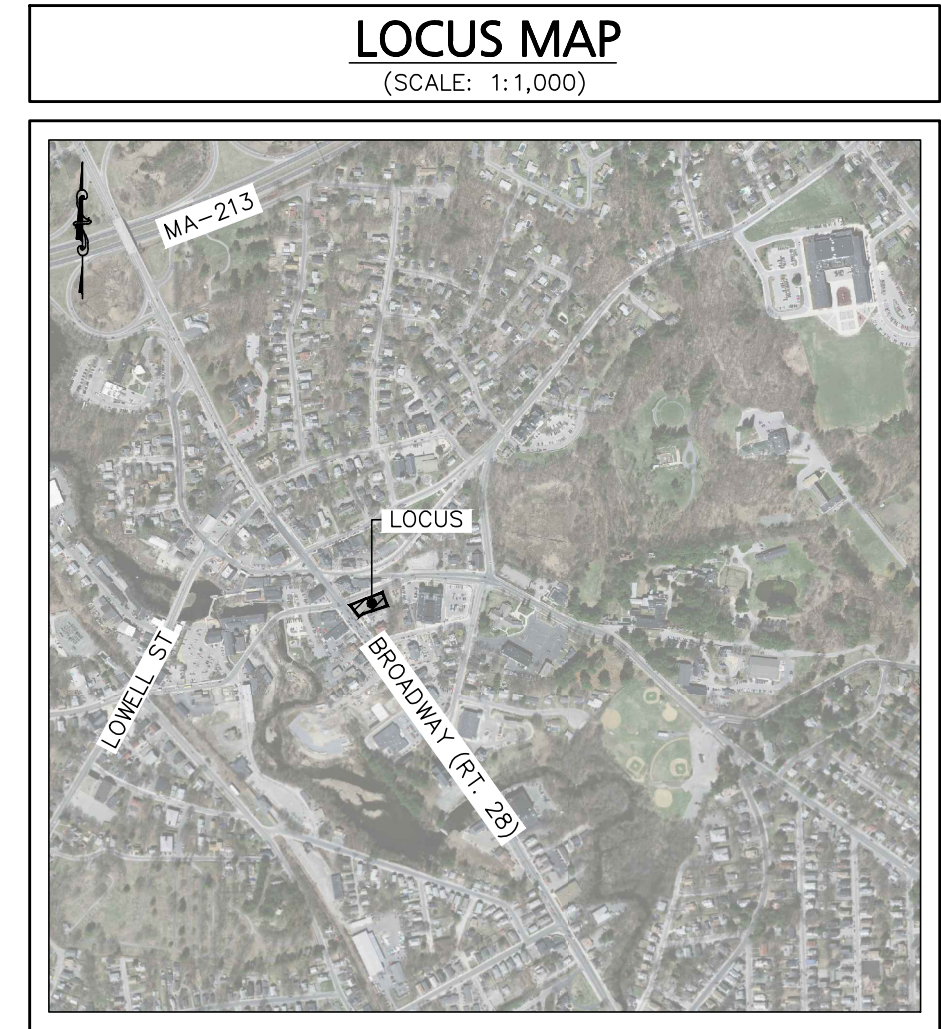


SITE DEVELOPMENT PLANS FOR 269 BROADWAY & 2 OSGOOD STREET (PARCELS 612-52-2 & 612-52-3) METHUEN, MASSACHUSETTS 01844

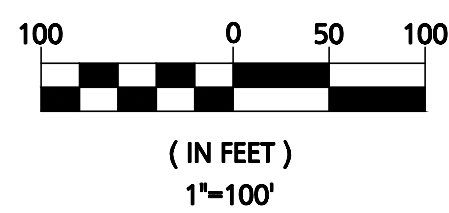
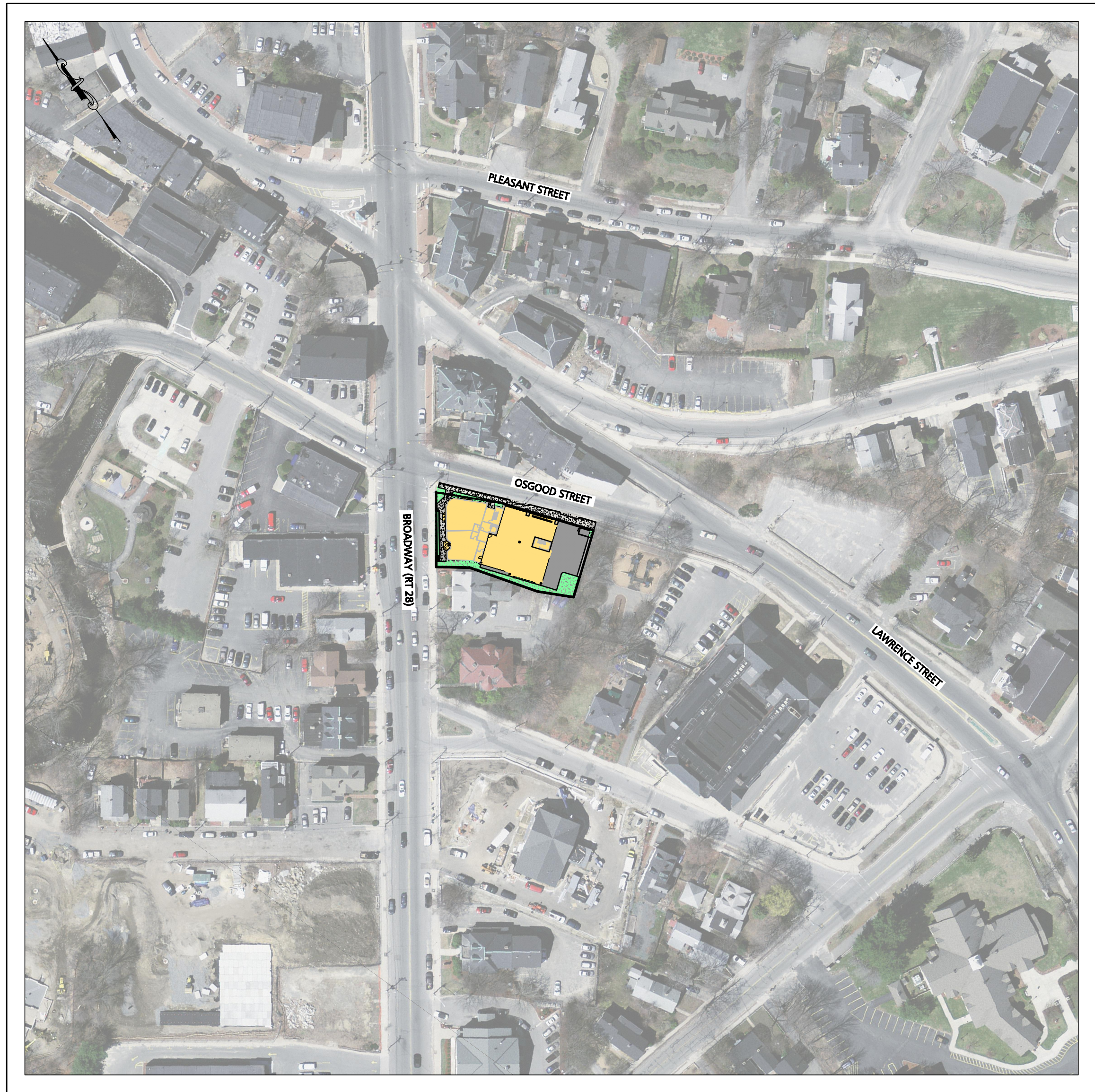


PROJECT NOTES:

1. LOCATION: 269 BROADWAY
2 OSGOOD STREET
PARCEL ID'S: 612-52-3
612-52-2
2. DEED: NORTHERN ESSEX REGISTRY
OF DEEDS
BOOK 17191 PAGE 137
3. ZONE: CENTRAL BUSINESS DISTRICT (CBD)
4. OVERLAY DISTRICT: METHUEN CENTER SMART GROWTH OVERLAY
DISTRICT (MCSGOD)
5. EXISTING USE: VACANT LOTS
6. PROPOSED USE: MIXED-USE DEVELOPMENT
7. OWNER/APPLICANT: JOWAMAR COMPANIES, LLC
300 BROADWAY
METHUEN, MA 01844
8. EXISTING CONDITIONS INFORMATION GENERATED FROM RECORD
DOCUMENTS, READILY AVAILABLE INFORMATION AS WELL AS AN ON
GROUND SURVEY BY ANDOVER CONSULTANTS, INC. IN SEPTEMBER OF
2021.
9. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL
DATUM (NAVD88).
10. PLAN BEARINGS ARE BASED UPON THE MASSACHUSETTS STATE PLANE
COORDINATE SYSTEM (NAD83), MAINLAND ZONE.
11. THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD AREA AS
DEPICTED BY THE FLOOD INSURANCE RATE MAP #25009C0206F
(EFFECTIVE DATE JULY 3, 2012).
12. THE FOLLOWING WAIVERS ARE BEING REQUESTED FROM THE CITY OF
METHUEN COMPREHENSIVE ZONING ORDINANCE REVISED THROUGH
SEPTEMBER 5, 2017:
WAIVER #1: SECTION V-V.6.c - WAIVER FROM THE MAXIMUM
RESIDENTIAL DENSITY.
WAIVER #2: SECTION V-V.7 - WAIVER FROM THE MINIMUM SIDE YARD
SETBACK.
WAIVER #3: SECTION V-V.7 - WAIVER FROM THE MAXIMUM LOT
COVERAGE.
WAIVER #4: SECTION V-V.7 - WAIVER FROM THE MINIMUM OPEN
SPACE.
WAIVER #5: SECTION V-V.8.e - WAIVER FROM THE MINIMUM FRONT
YARD SETBACK FROM BROADWAY.
WAIVER #6: SECTION VIII-B.5.a - WAIVER TO ALLOW OFF-STREET
PARKING WITHIN 7.5- FEET FROM ALL BUILDINGS AND LOT
LINES.
WAIVER #7: SECTION 9-91 - WAIVER FROM THE 25-FT FIRE LANE
REQUIREMENT.
16. ALL WATER AND SEWER CONSTRUCTION ACTIVITIES SHALL BE
PERFORMED BY A LICENSED TOWN DRAIN LAYER. ALL TESTING RESULTS
FOR THE UTILITIES AND SERVICE TIE CARDS ARE REQUIRED TO BE
SUBMITTED TO THE TOWN DPW ENGINEERING DIVISION.
17. CONTRACTOR SHALL SECURE A STREET OPENING PERMIT, A TRENCH
PERMIT AND A SEWER AND WATER MAIN & SERVICE PERMIT FOR
UTILITY CONSTRUCTION.

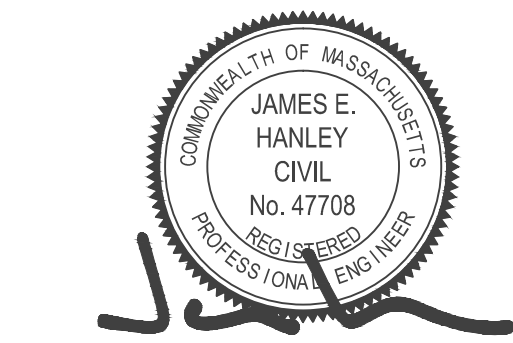
LEGEND	
PROPERTY LINE	=====
ABUTTERS PROPERTY LINE	-----
PROPOSED STRUCTURE	=====
PROPOSED CURB	=====
PROPOSED PAVEMENT	=====
PROPOSED POROUS PAVEMENT	=====
PROPOSED CONCRETE	=====
PROPOSED CONTOUR	=====
PROPOSED SPOT GRADE	=====
PROPOSED SPOT GRADE (TW/BW)	=====
PROPOSED DRAIN	=====
PROPOSED SILT FENCE	=====
PROPOSED RETAINING WALL	=====
PROPOSED CHAINLINK FENCE	=====
PROPOSED LANDSCAPE AREA	=====
PROPOSED WATER	=====
PROPOSED SEWER	=====
PROPOSED ELECTRIC/TELEPHONE/CABLE	=====
PROPOSED PARKING COUNT	=====
PROPOSED HANDICAP SPACE	=====
PROPOSED TRAFFIC ARROW	=====
PROPOSED SIGN	=====
PROPOSED LIMIT OF WORK	=====

CIVIL ABBREVIATIONS	
APPROX	APPROXIMATE
BIT CONC	BITUMINOUS CONCRETE
BC	BOTTOM OF CURB
BULDG	BUILDING
CB	CATCH BASIN
CI	CAST IRON
CONC	CONCRETE
DMH	DRAIN MANHOLE
DYCL	DOUBLE YELLOW CENTERLINE
ELE	ELEVATION
EOP	EDGE OF PAVEMENT
ETC	ELECTRIC TELEPHONE CABLE
EX	EXISTING
FT	FEET
GV	GAS VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
HYD	HYDRANT
I(I)	INVERT IN
I(O)	INVERT OUT
LOW	LIMIT OF WORK
MW	MONITORING WELL
N/F	NOW OR FORMERLY
PCB	PROPOSED CATCH BASIN
PDMH	PROPOSED DRAIN MANHOLE
POS	PROPOSED OUTLET STRUCTURE
PSMH	PROPOSED SEWER MANHOLE
PROP	PROPOSED
PVC	PIPE POLYVINYL CHLORIDE PIPE
ROW	RIGHT OF WAY
SF	SQUARE FEET
SMH	SEWER MANHOLE
SWL	SOLID WHITE LINE
SYL	SOLID YELLOW LINE
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TP	TEST PIT
TYP	TYPICAL
UP	UTILITY POLE
VGC	VERTICAL GRANITE CURB
W/	WITH



PLAN INDEX:

TITLE	DATE ISSUED	DATE REVISED
C-1 COVER SHEET	10/05/22	03/08/23
C-2 EXISTING CONDITIONS PLAN	10/05/22	01/30/23
C-3 LAYOUT & MATERIALS PLAN	10/05/22	03/08/23
C-4 GRADING, DRAINAGE & UTILITIES PLAN	10/05/22	03/08/23
D-1 CONSTRUCTION DETAILS	10/05/22	03/08/23
D-2 CONSTRUCTION DETAILS	10/05/22	03/08/23



PROFESSIONAL ENGINEER FOR CIVIL DESIGN
CONSULTANTS, INC.

CIVIL DESIGN
Consultants, Inc.
SURVEY • DESIGN • PERMITTING • CONSTRUCTION ADMINISTRATION

344 North Main Street
Andover, MA 01810
Tel: (978) 416-0920
Fax: (978) 416-7865

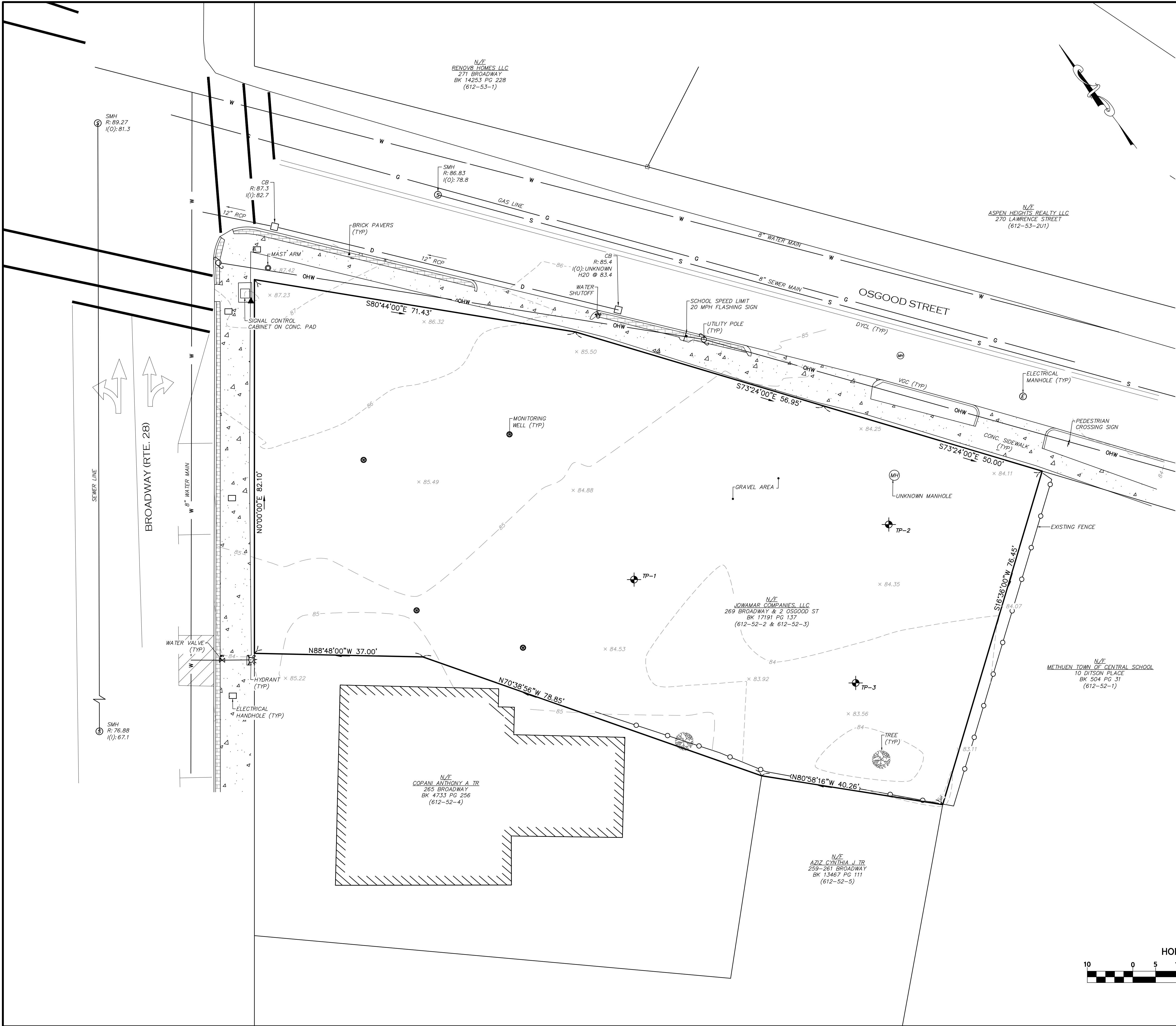
DRAWING TITLE:

COVER SHEET

DRAWING #:

C-1

ISSUED FOR APPROVAL: MARCH 8, 2023



- NOTES:
1. LOCATION: 269 BROADWAY (PARCEL ID: 612-52-3)
2 OSGOOD STREET (PARCEL ID: 612-52-2)
 2. DEED: NORTHERN ESSEX REGISTRY OF DEEDS BK 17191, PG 137
 3. ZONE: CENTRAL BUSINESS DISTRICT (CBD)
 4. OVERLAY DISTRICT: METHUEN CENTER SMART GROWTH OVERLAY DISTRICT (MCSGOD)
 5. EXISTING USE: VACANT LOT
 6. OWNER: JOWAMAR COMPANIES, LLC
300 BROADWAY
METHUEN, MA 01844:
 7. EXISTING CONDITIONS INFORMATION GENERATED FROM RECORD DOCUMENTS, READILY AVAILABLE INFORMATION AS WELL AS AN ON THE GROUND SURVEY PERFORMED BY ANDOVER CONSULTANTS, INC. IN SEPTEMBER, 2021.
 8. PROPERTY IS NOT LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP NUMBER 25009C0206F DATED JULY 3, 2012.
 9. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM (NAVD88), PER GPS OBSERVATIONS.
 10. UTILITY LOCATIONS ARE SHOWN PER READILY AVAILABLE RECORD INFORMATION AND OBSERVABLE FIELD EVIDENCE. OTHER UNDERGROUND UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THIS PLAN. CDCI MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITY INFORMATION. 72 HOURS PRIOR TO ANY EXCAVATION ON SITE, THE CONTRACTOR SHALL CONTACT DIG-SAFE AT 811.

FOR REGISTRY USE ONLY

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS FOR RECORDING ADOPTED BY THE REGISTERS OF DEEDS IN 1978 AND AMENDED JANUARY 12, 1988.

SURVEYOR DATE

DATE	DESCRIPTION
REVISIONS	

APPLICANT:

JOWAMAR COMPANIES, LLC

300 BROADWAY
METHUEN, MA 01876

PROJECT:

269 BROADWAY & 2 OSGOOD STREET

METHUEN, MA 01844

DATE ISSUED:	OCTOBER 5, 2022
PROJECT #:	21-10314
PREPARED BY:	TJS

01/30/23

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344 North Main Street
Andover, MA 01810

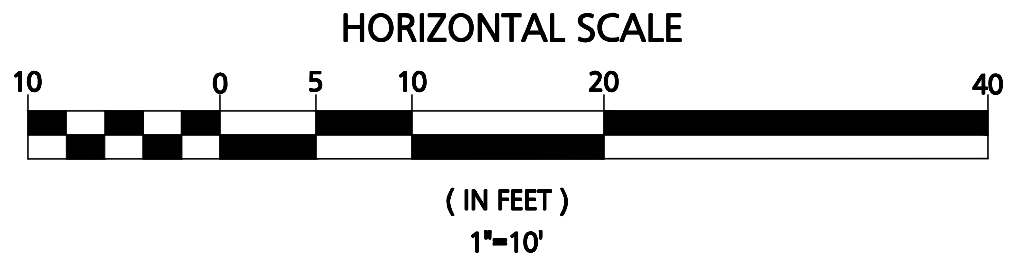
Tel: (978) 416-0920
Fax: (978) 416-7865

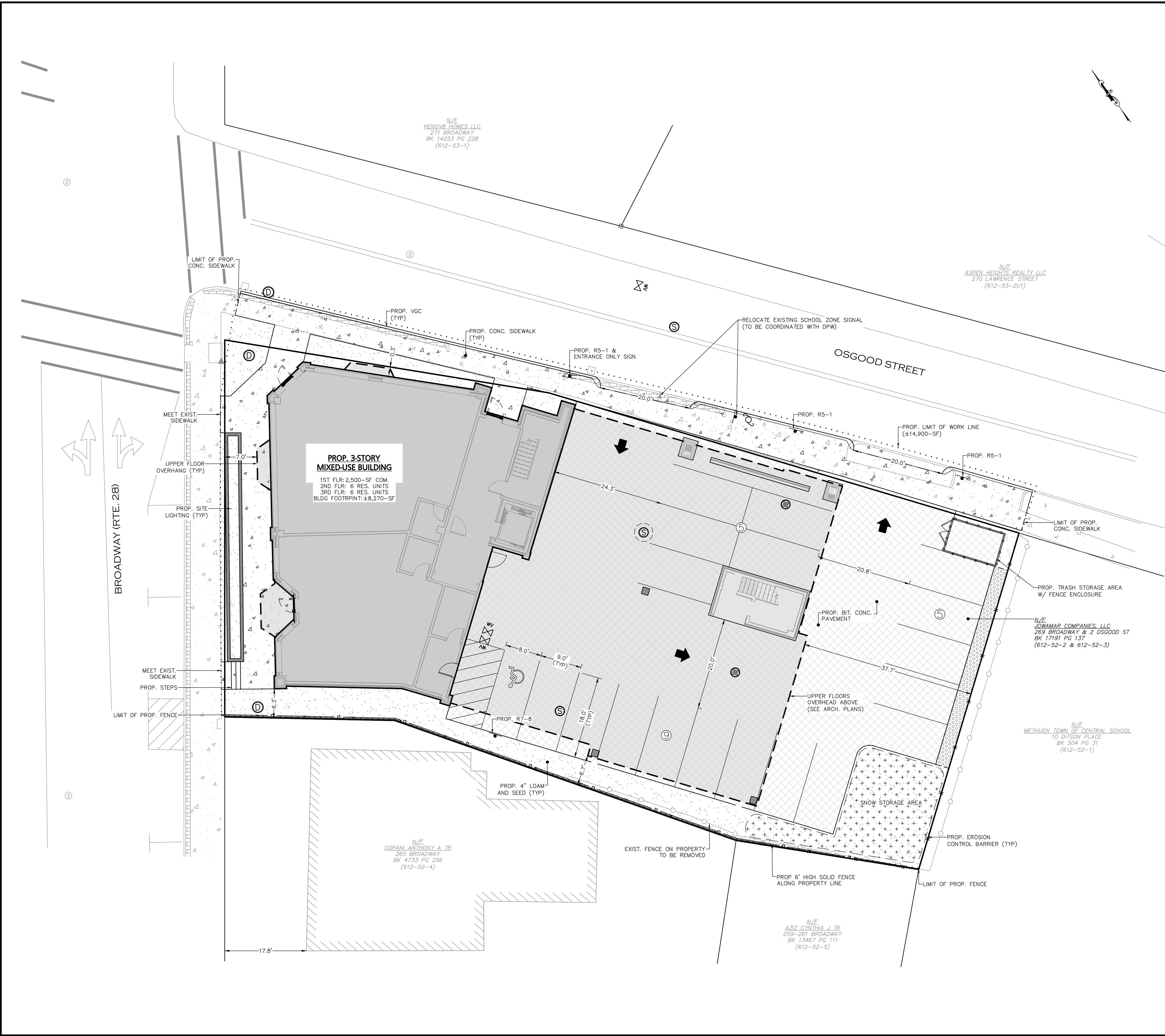
DRAWING TITLE:

EXISTING CONDITIONS PLAN

DRAWING #:

C-2

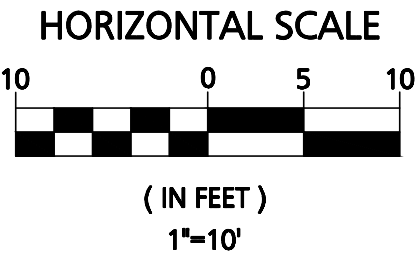




LAND USE TABLE			
LOCATION:	269 BROADWAY (PARCEL ID:612-52-3) 2 OSGOOD STREET (PARCEL ID:612-52-2)		
ZONE:	CENTRAL BUSINESS (CBD)		
OVERLAY DISTRICT:	METHUEN CENTER SMART GROWTH OVERLAY DISTRICT (MCSGOD)		
	HISTORIC DISTRICT		
USE:	MIXED-USE DEVELOPMENT		
ITEM	CBD	MCSGOD	PROPOSED
MINIMUM LOT AREA	20,000-SF	0-SF	13,217-SF
MAXIMUM DENSITY	6 DU/ACRE	30 DU/ACRE	40 DU/ACRE ⁽³⁾
MINIMUM LOT FRONTAGE	80-FT	50-FT	82.1-FT
MINIMUM FRONT SETBACK	10-FT ⁽¹⁾	0-FT	0.3-FT
MINIMUM SIDE SETBACK	10-FT ⁽¹⁾	10-FT	6.3-FT ⁽²⁾
MINIMUM REAR SETBACK	10-FT ⁽¹⁾	10-FT	39.6-FT
MAX. NO. STORIES	4-STORIES	4-STORIES	4-STORIES
MAX. BUILDING HEIGHT	45-FT	45-FT	44-FT
MAX. LOT COVERAGE	40%	70%	83% ⁽²⁾
MIN. OPEN SPACE	60%	30%	17% ⁽²⁾
PARKING CALCULATIONS:			
MULTIFAMILY RESIDENTIAL:	12 D.U. X (1 SP / D.U.) + 1 GUEST SP/5-SP 14-SPACES REQUIRED		
COMMERCIAL:	2500-SF X (1 SP / 500-SF OF GFA) + 1 SP/4 EMPLOYEES MAX. SHIFT 6-SPACES REQUIRED		
TOTAL SPACES REQUIRED:	20-SPACES		
TOTAL SPACES PROVIDED:	19-SPACES		
LAND USE NOTES:			
1. THE FRONT, SIDE AND REAR SETBACK REQUIREMENTS IN CBD MAY BE REDUCED TO ZERO UNDER SITE PLAN REVIEW BY THE CD BOARD.			
2. THE FOLLOWING WAIVERS ARE BEING REQUESTED FROM THE CITY OF METHUEN COMPREHENSIVE ZONING ORDINANCE REVISED THROUGH SEPTEMBER 5, 2017 AND THE MUNICIPAL CODE REVISED THROUGH JANUARY 4, 2023:			
<u>WAIVER #1:</u> SECTION V-V.6.c – WAIVER FROM THE MAXIMUM RESIDENTIAL DENSITY.			
<u>WAIVER #2:</u> SECTION V-V.7 – WAIVER FROM THE MINIMUM SIDE YARD SETBACK.			
<u>WAIVER #3:</u> SECTION V-V.7 – WAIVER FROM THE MAXIMUM LOT COVERAGE.			
<u>WAIVER #4:</u> SECTION V-V.7 – WAIVER FROM THE MINIMUM OPEN SPACE.			
<u>WAIVER #5:</u> SECTION V-V.8.e – WAIVER FROM THE MINIMUM FRONT YARD SETBACK FROM BROADWAY.			
<u>WAIVER #6:</u> SECTION VII-B.5.d – WAIVER TO ALLOW OFF-STREET PARKING WITHIN 7.5- FEET FROM ALL BUILDINGS AND LOT LINES.			
<u>WAIVER #7:</u> SECTION 9-91 – WAIVER FROM THE 25-FT FIRE LANE REQUIREMENT.			
3. DENSITY CALCULATION: 12-UNITS / 0.30-AC = 40-DWELLING UNITS PER ACRE			

- NOTES:
- SEE SHEET C-1 FOR COMPLETE PROJECT NOTES.
 - SNOW WILL BE TRUCKED OFFSITE IF SNOW STORAGE AREA EXCEEDS CAPACITY.

SIGN SCHEDULE				
REGULATORY DESIGNATION	SIGN	SIZE	MOUNTING HEIGHT	QUANTITY
R7-8		12"x18"	5'-0"	1
R5-1		30"x30"	7'-0"	3
N/A		18"x24"	7'-0"	1



FOR REGISTRY USE ONLY
THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS FOR RECORDING ADOPTED BY THE REGISTERS OF DEEDS IN 1978 AND AMENDED JANUARY 12, 1988.

ENGINEER _____ DATE _____

**APPROVED BY THE CITY OF METHUEN
COMMUNITY DEVELOPMENT BOARD**

CERTIFICATE OF ACTION _____

DATE OF ENDORSEMENT _____

03/08/23	REV. PER CITY COMMENTS
01/30/23	REV. PER CITY COMMENTS
DATE	DESCRIPTION
REVISIONS	

OWNER / APPLICANT:
JOWAMAR COMPANIES, LLC
300 BROADWAY
METHUEN, MA 01844

PROJECT:
**269 BROADWAY &
2 OSGOOD ST**
METHUEN, MA 01844

DATE ISSUED:	OCTOBER 5, 2022
PROJECT #:	21-10314
PREPARED BY:	MAC

PROFESSIONAL ENGINEER FOR CIVIL DESIGN
CONSULTANTS, INC.

CIVIL DESIGN
Consultants, Inc.

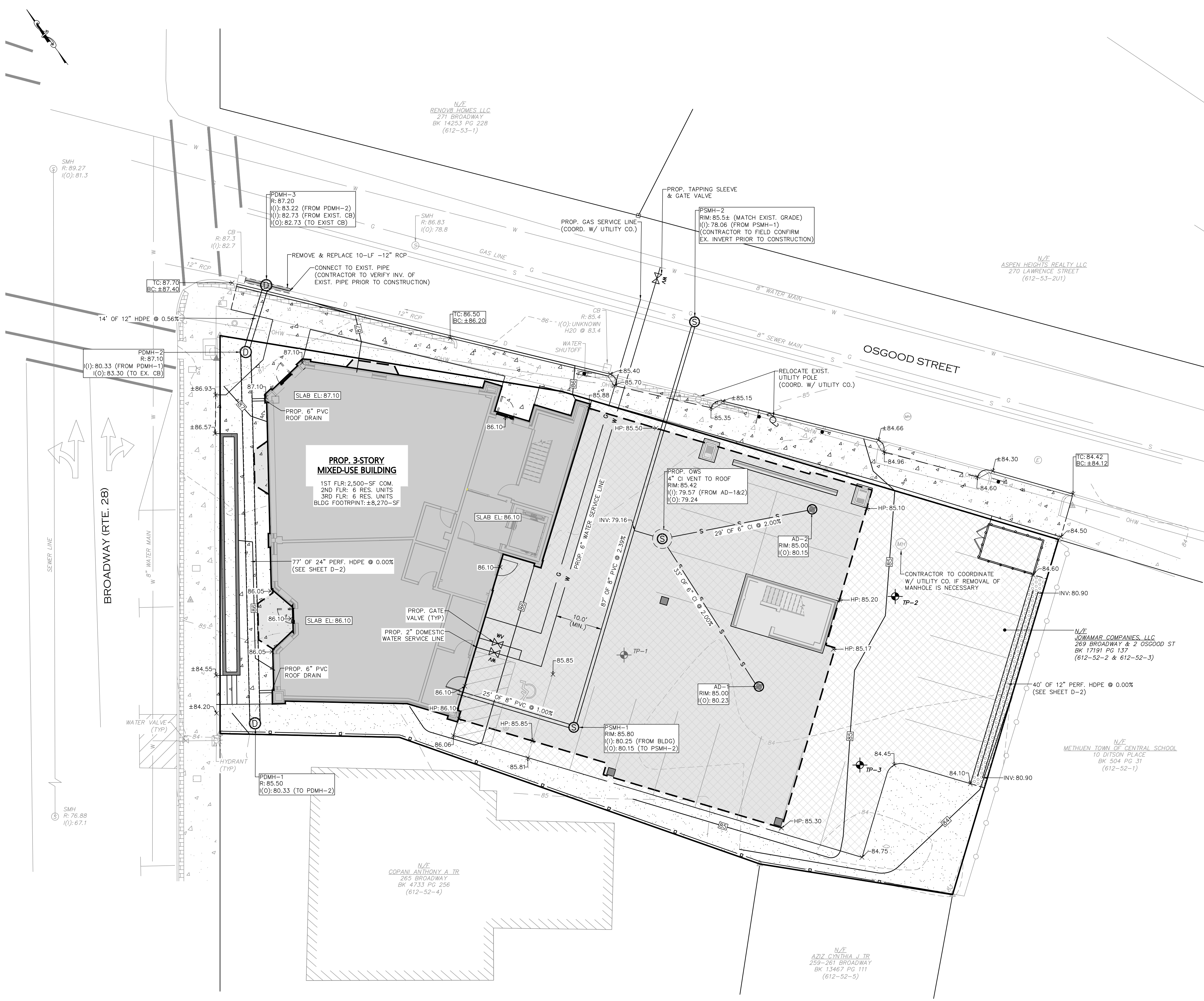
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344 North Main Street
Andover, MA 01810

Tel: (978) 416-0920
Fax: (978) 416-7865

DRAWING TITLE:
**LAYOUT &
MATERIALS PLAN**

DRAWING #:
C-3



- NOTES:
- SEE SHEET C-1 FOR COMPLETE PROJECT NOTES.
 - PLAN BEARINGS ARE BASED UPON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (NAD83) - MAINLAND ZONE, PER GPS OBSERVATIONS.
 - ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM (NAVD88), PER GPS OBSERVATIONS.

FOR REGISTRY USE ONLY
THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS FOR RECORDING ADOPTED BY THE REGISTERS OF DEEDS IN 1978 AND AMENDED JANUARY 12, 1988.

ENGINEER	DATE
APPROVED BY THE CITY OF METHUEN COMMUNITY DEVELOPMENT BOARD	
CERTIFICATE OF ACTION	
DATE OF ENDORSEMENT	

03/08/23	REV. PER CITY COMMENTS
01/30/23	REV. PER CITY COMMENTS
DATE	DESCRIPTION
REVISIONS	

OWNER / APPLICANT:
JOWAMAR COMPANIES, LLC
300 BROADWAY
METHUEN, MA 01844
PROJECT:
**269 BROADWAY &
2 OSGOOD ST**
METHUEN, MA 01844

DATE ISSUED:	OCTOBER 5, 2022
PROJECT #:	21-10314
PREPARED BY:	MAC

PROFESSIONAL ENGINEER FOR CIVIL DESIGN
CONSULTANTS, INC.

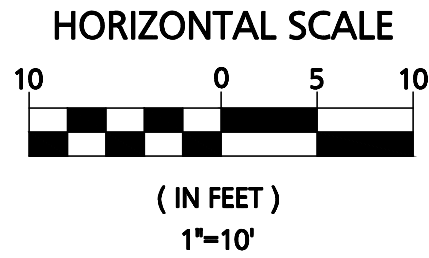
CIVIL DESIGN
Consultants, Inc.

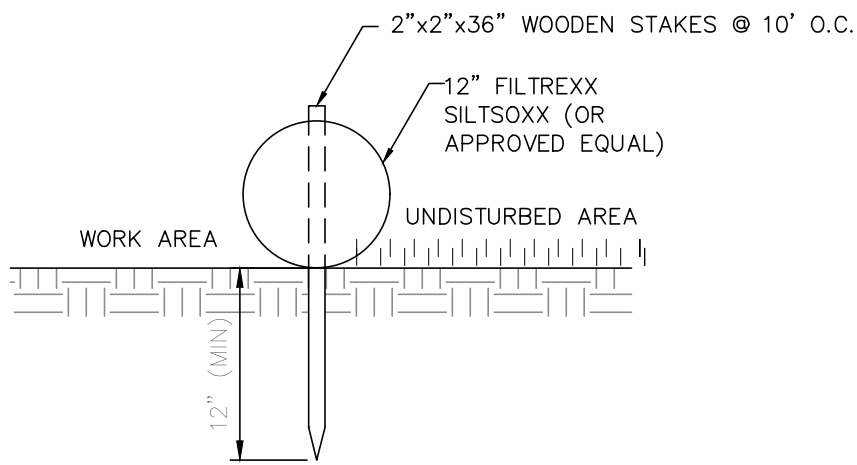
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344 North Main Street
Andover, MA 01810
Tel: (978) 416-0920
Fax: (978) 416-7865

DRAWING TITLE:
**GRADING, DRAINAGE
& UTILITIES PLAN**

DRAWING #:
C-4



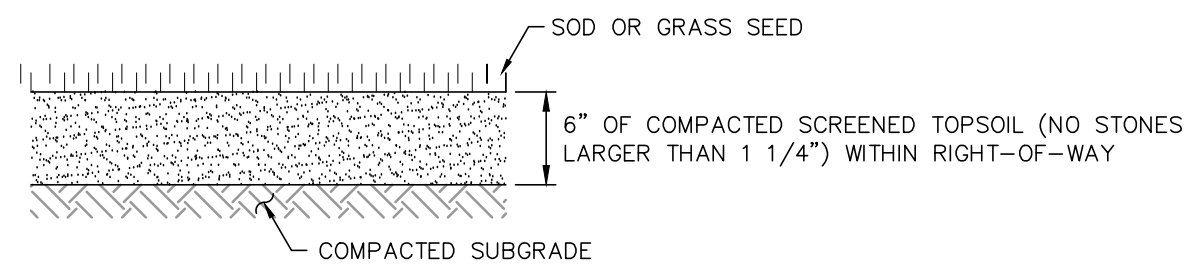


MAINTENANCE:

1. FILTER SOCK SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE FABRIC SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, REPLACE PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. SEDIMENT DEPOSITS SHALL BE REMOVED WITH FILTER SOCK UPON COMPLETION OF CONSTRUCTION ACTIVITIES.

FILTER SOCK INSTALLATION

NOT TO SCALE



NOTES:

1. TOP OF LOAM (TOPSOIL) IS FINISHED GRADE.
2. TOPSOIL SHALL CONTAIN BETWEEN 5% AND 12% ORGANIC MATTER AND SHALL HAVE A MAXIMUM STONE SIZE OF 1 1/4" AND SHALL CONFORM TO THE FOLLOWING GRADATION:

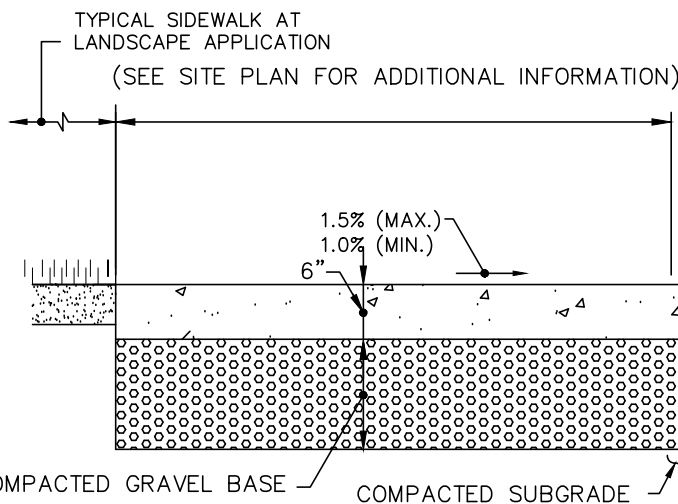
SIEVE	% PASSING
1 1/4 INCH	100
No. 4	85-100
No. 40	60-85
No. 100	38-60
No. 200	28-40

TYPICAL LANDSCAPING CROSS SECTIONS

NOT TO SCALE

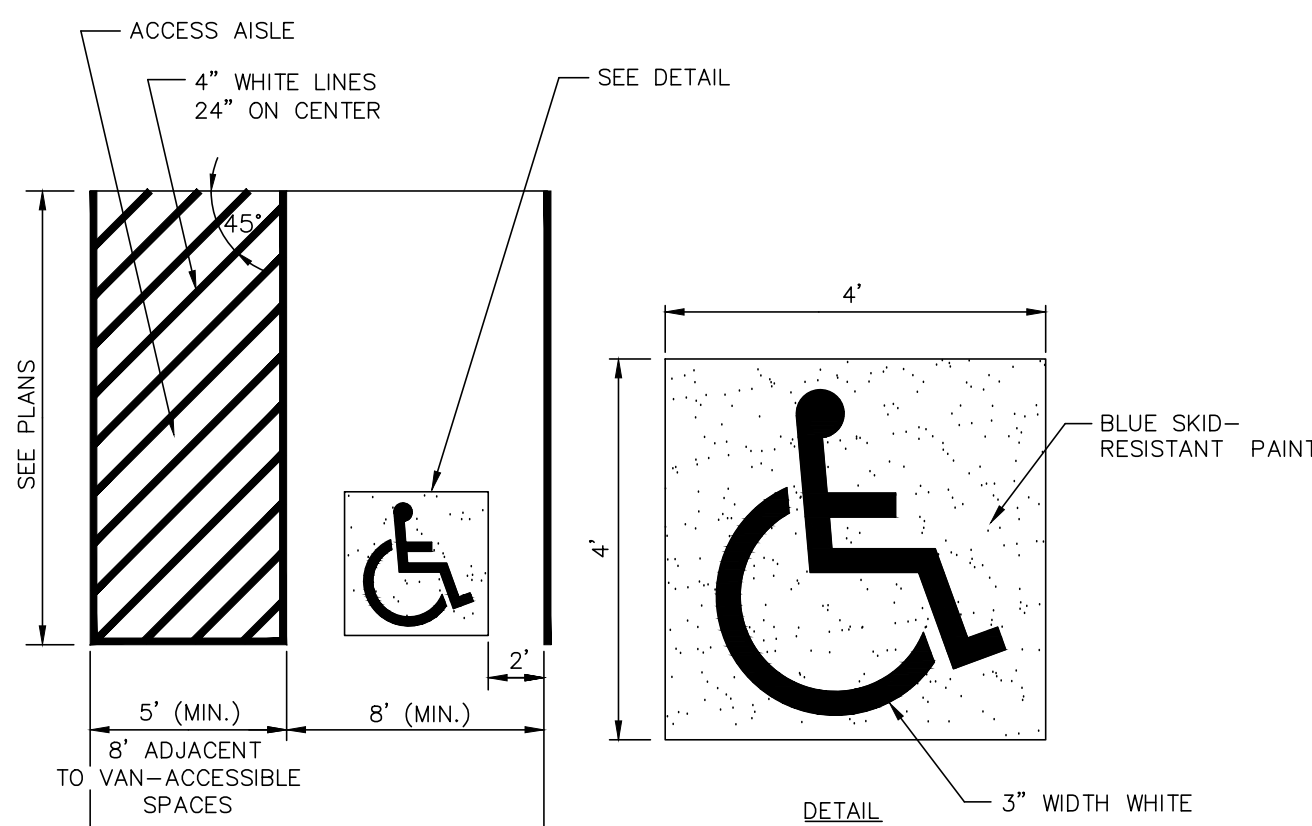
NOTES:

1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE-MOULDED JOINT FILLER.
2. PROVIDE CONTROL JOINTS AT 6' O.C.
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO DRIVEWAY.
4. CEMENT CONCRETE SHALL BE 4000 PSI-TYPE II.



TYPICAL CONCRETE SIDEWALK DETAIL

NOT TO SCALE

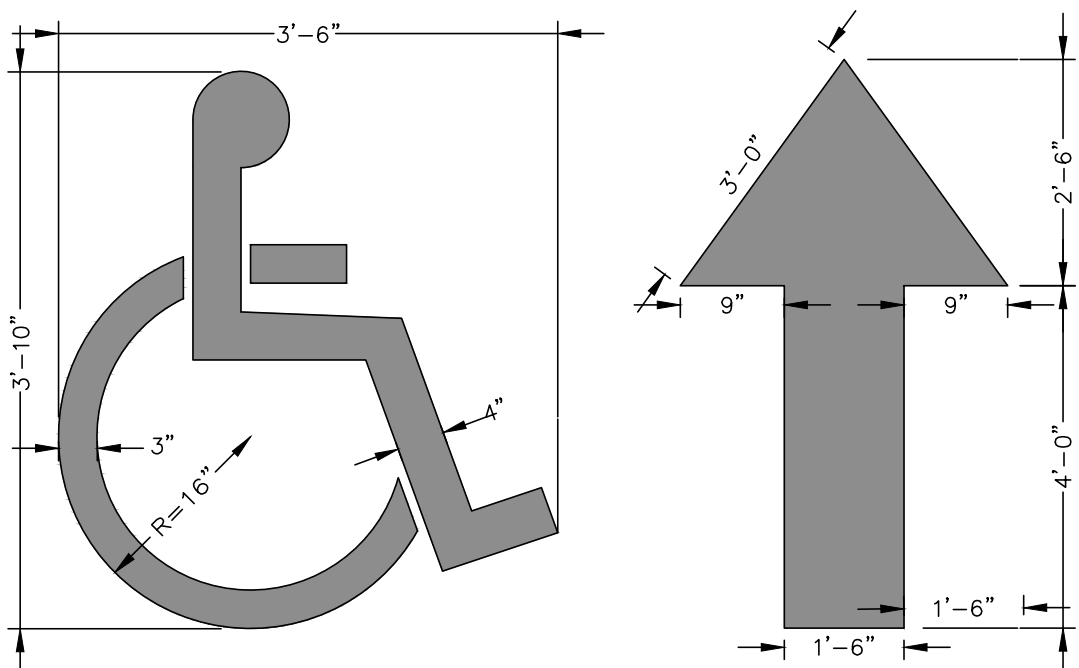


NOTES:

1. ALL DIMENSIONS TO EDGES OF 4" PAVEMENT STRIPING.
2. ALL STRIPING SHALL BE 4" WIDE SOLID WHITE PAVEMENT MARKINGS UNLESS OTHERWISE NOTED.
3. 8' STALL WIDTH REFERS TO 8' CLEAR BETWEEN INSIDE EDGES OF PAVEMENT MARKINGS.

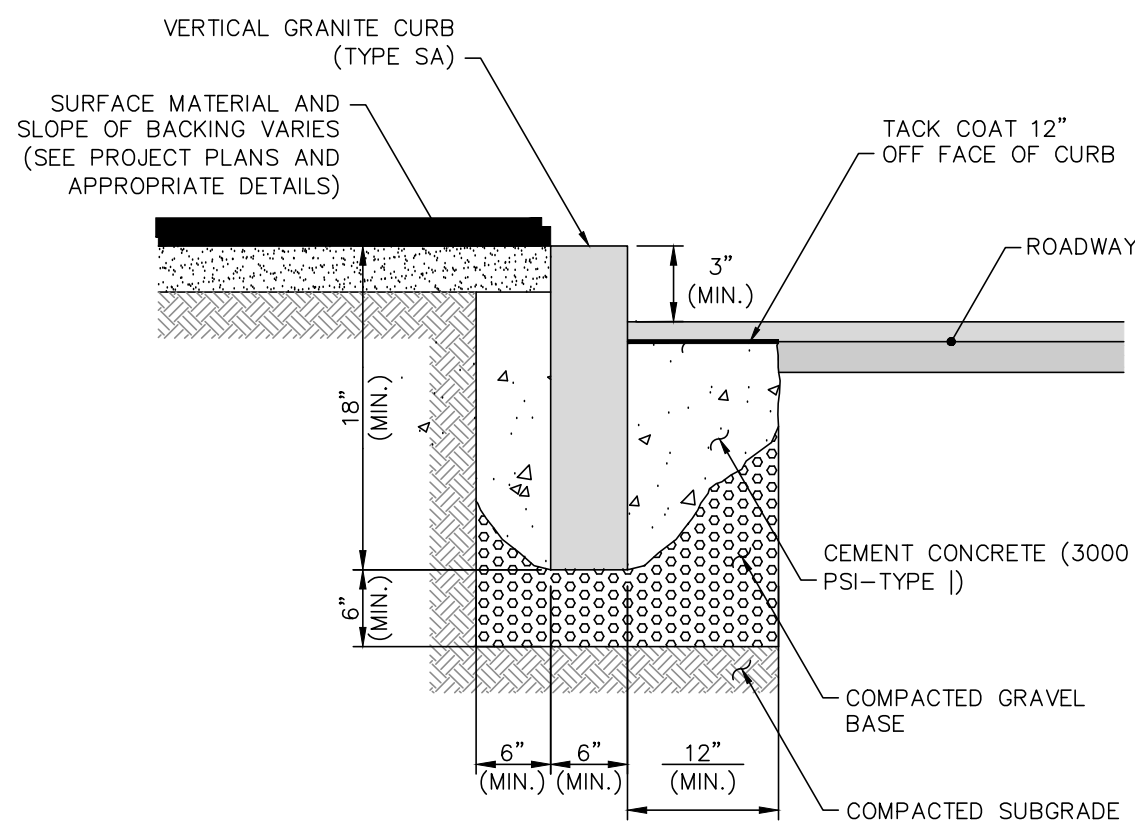
ACCESSIBLE PARKING SPACE

NOT TO SCALE



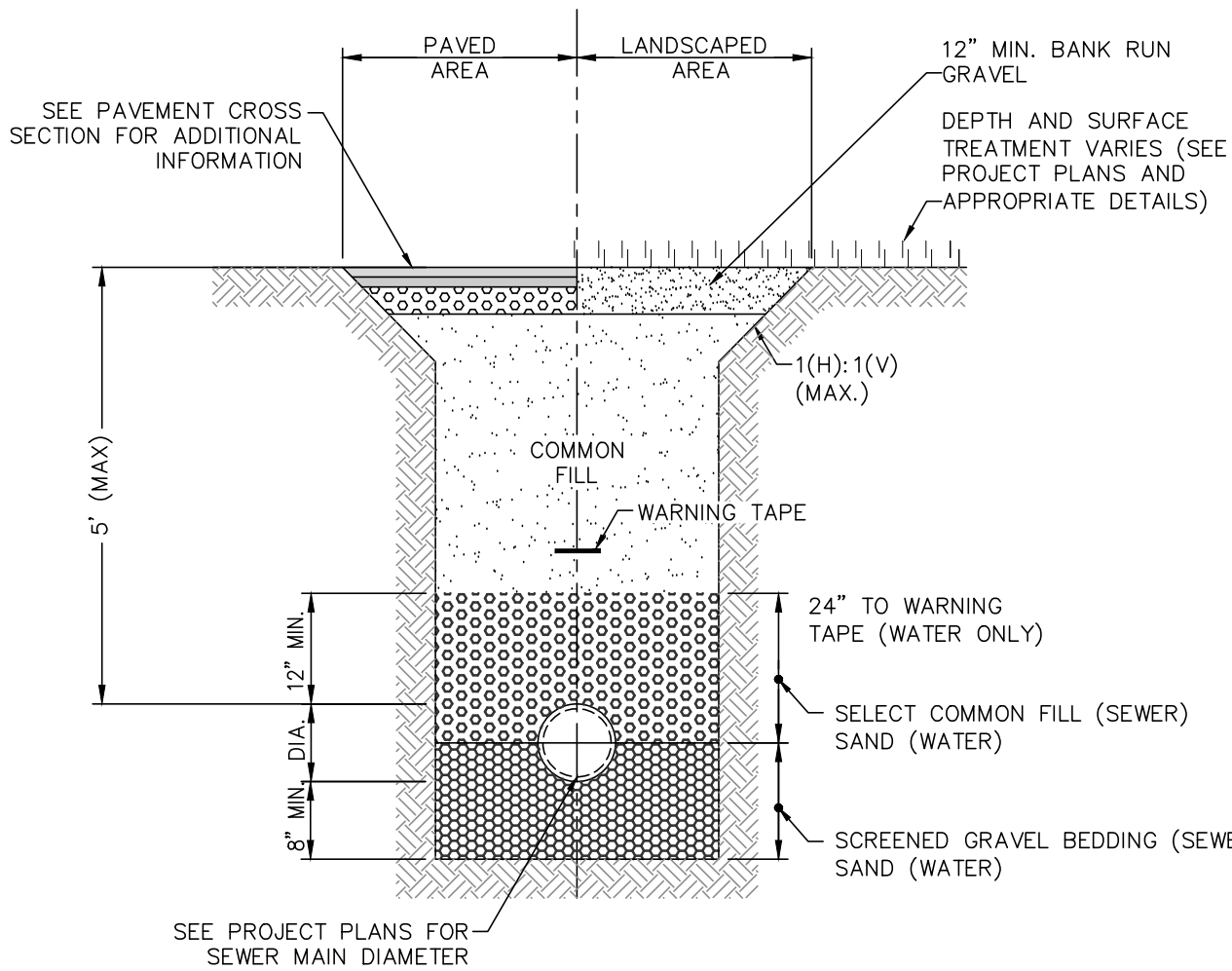
PAVEMENT MARKING DETAIL

NOT TO SCALE

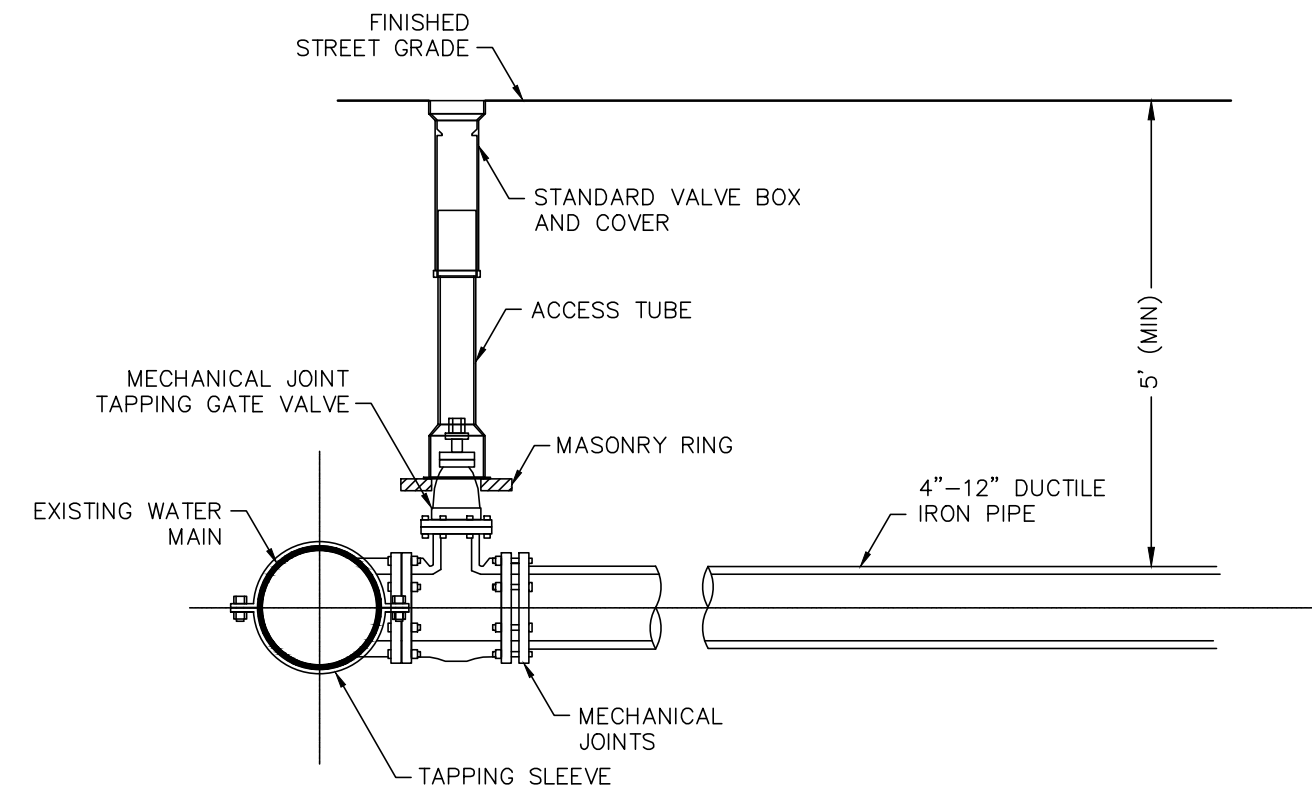


VERTICAL GRANITE CURB

NOT TO SCALE

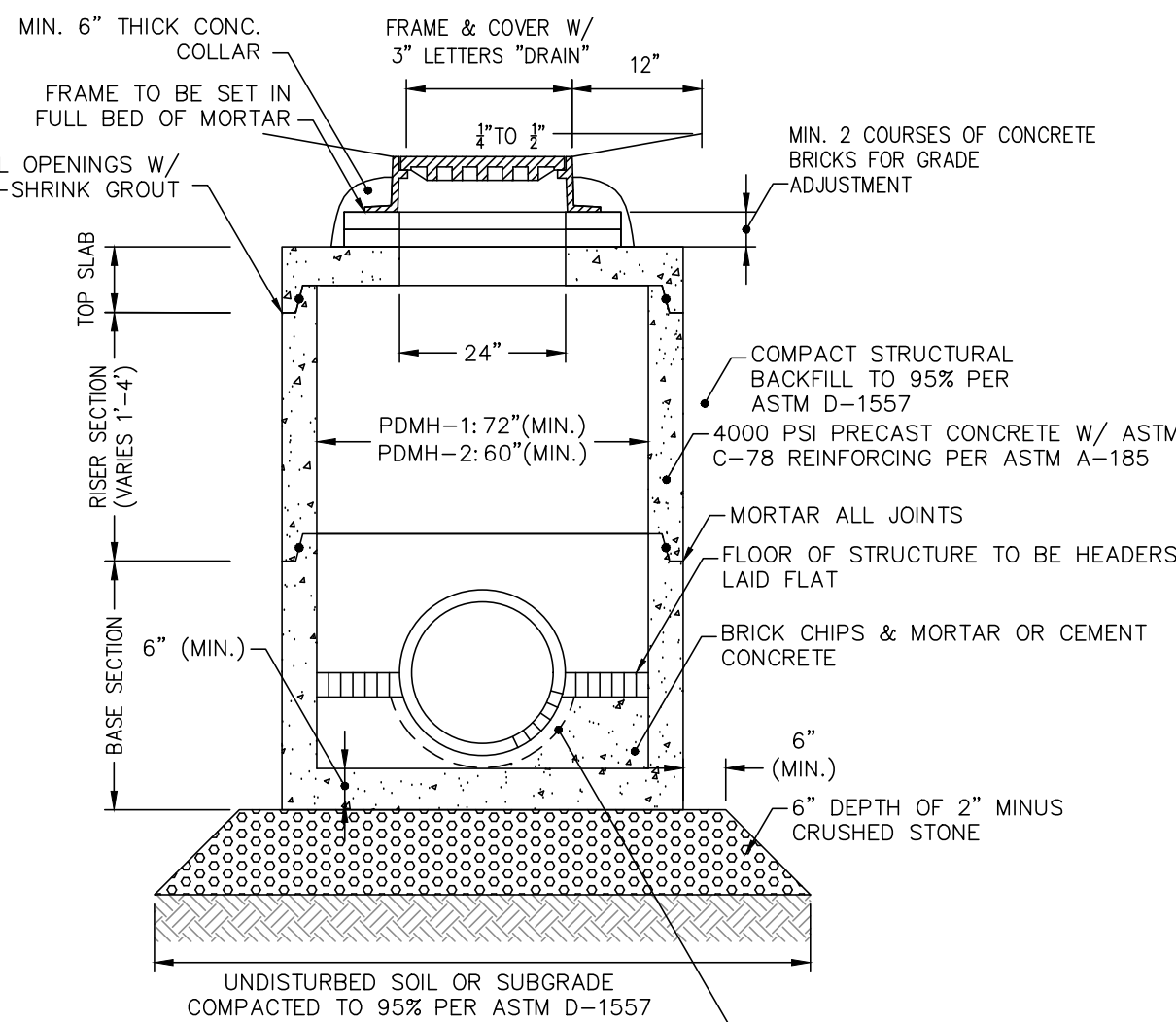


TYPICAL SEWER & WATER TRENCH



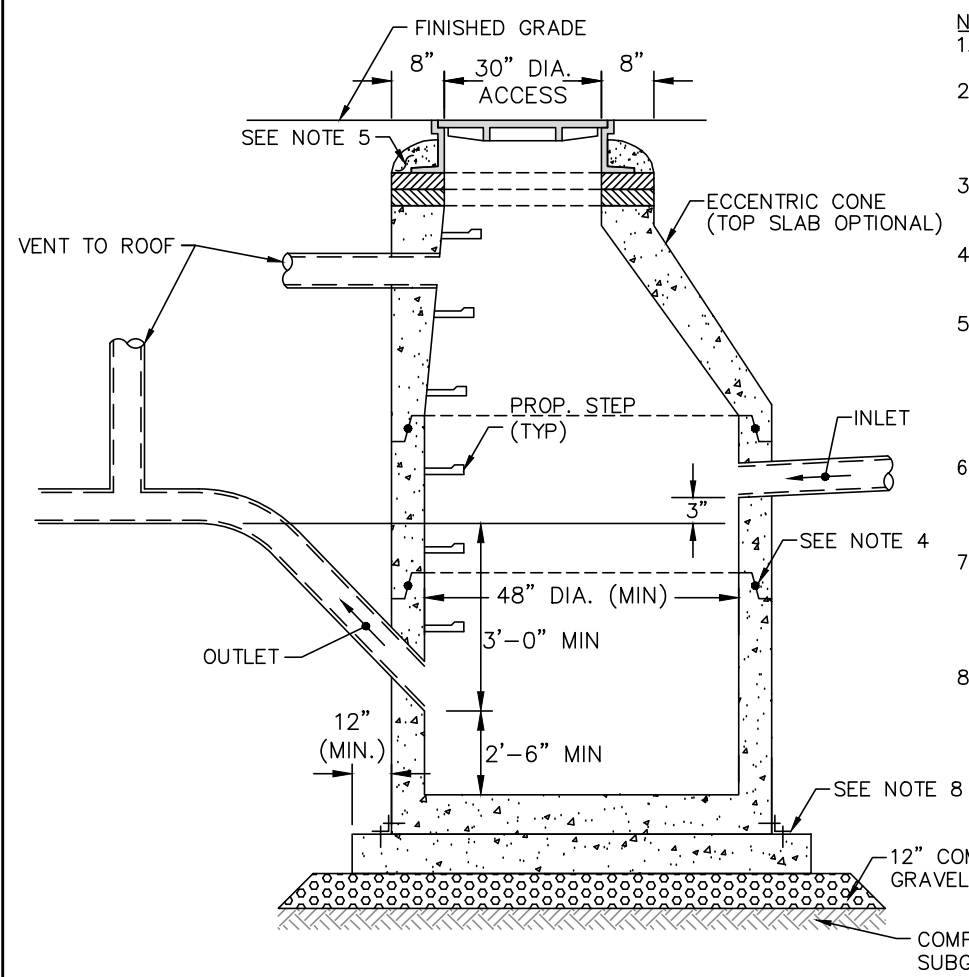
TYPICAL TAPPING SLEEVE AND VALVE DETAIL

NOT TO SCALE



DRAIN MANHOLE

NOT TO SCALE



OIL/WATER SEPARATOR (OWS) DETAIL

NOT TO SCALE

GENERAL UTILITY NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS NECESSARY FOR THE WORK.
2. WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHENEVER IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
3. ALL UTILITY WORK PERFORMED WITHIN RIGHT-OF-WAY SHALL BE PERFORMED BY A CONTRACTOR LICENSED BY THE DPW AND OBTAIN A PERMIT FOR SUCH WORK FROM THE DPW, IF NEEDED.
4. ALL DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
5. A DUST EMISSION CONTROL PLAN SHALL BE DEVELOPED AND IMPLEMENTED BY THE CONTRACTOR IF CONDITIONS WARRANT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL UTILITIES AS SHOWN ON THESE PLANS IN ACCORDANCE WITH THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY CONSTRUCTION SHALL CONFORM TO THE APPROPRIATE UTILITY COMPANY STANDARDS FOR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SPECIFICATIONS OF MATERIALS AND INSTALLATION PROCEDURES AND INSTALL IN ACCORDANCE WITH APPLICABLE REGULATIONS.
7. THE CONTRACTOR IS RESPONSIBLE TO CONTACT AND DETERMINE, COORDINATE AND SCHEDULE ALL NECESSARY INSPECTIONS AND MONITORING WITH ALL APPROPRIATE UTILITY COMPANIES.
8. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO PERFORM THE WORK.
9. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE PROJECT BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE RESTORATION AND CLEAN UP UPON COMPLETION OF THE PROJECT.
11. WATER AND SEWER TESTING TO CONFORM TO LOCAL DPW REGULATIONS.
12. ALL MECHANICAL JOINTS TO BE MEGALUG SERIES 1100 INSTALLED IN ACCORDING WITH MANUFACTURER RECOMMENDATIONS OR APPROVED EQUAL.
13. ALL SEWER SYSTEM MAINS, STRUCTURES AND CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF METHUEN REGULATIONS.
14. CONTRACTOR TO COORDINATE ALL BUILDING PENETRATIONS AND ROOF LEADER LOCATIONS WITH ARCHITECTURAL DOCUMENTS PRIOR TO CONSTRUCTION.

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. THE CONTRACTOR SHALL ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, INSPECTIONS, BONDS, ETC. AND OTHER APPROVAL RELATED ITEMS. NO CONSTRUCTION SHALL COMMENCE UNTIL SUCH PERMITS HAVE BEEN SECURED.
3. CONTRACTOR TO CONFIRM AND VERIFY THE VALIDITY, LOCATION, MATERIAL, AND AVAILABILITY TO USE EXISTING UTILITIES ON OR NEAR THE PROJECT SITE PROPERTY. CONTRACTOR TO LOCATE EXISTING UTILITIES AND CONFIRM SAID UTILITIES WITH ALL APPLICABLE MUNICIPALITIES AND UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION. ONCE UTILITIES HAVE BEEN CONFIRMED IN THE FIELD BY CONTRACTOR AND VERIFIED BY APPLICABLE MUNICIPALITY AND UTILITY COMPANY AND CONNECTION HAS BEEN APPROVED BY ENTITY, ONLY THEN SHALL THE CONTRACTOR CONSTRUCT AND UTILIZE THESE UTILITIES. CONTRACTOR TO IMMEDIATELY INFORM THE ENGINEER OF RECORD OF ANY DEVIATIONS TO PLANS.
4. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE ANY EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT AND THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST THREE WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. ALL WATER, GAS, SEWER AND OTHER UTILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
6. RELOCATION OF ANY UTILITIES SHALL BE AT THE OWNERS EXPENSE AND COMPLETED WITH THE UTILITY WORK. THE OWNER SHALL BE NOTIFIED AS TO THE RELOCATIONS REQUIRED PRIOR TO THE START OF CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, WALKS, CURBS, ETC. THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION.
8. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.
9. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE DOCUMENTS AND SUBSEQUENT ISSUED PLAN REVISIONS. ANY DEVIATIONS FROM THESE DOCUMENTS SHALL REQUIRE NOTIFICATION TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTING ANY CHANGE. THE CONTRACTOR WILL BE WORKING AT HIS OR HER OWN RISK.
10. ALL WATER AND SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF METHUEN RULES AND REGULATIONS

FOR REGISTRY USE ONLY

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS FOR RECORDING ADOPTED BY THE REGISTERS OF DEEDS IN 1978 AND AMENDED JANUARY 12, 1988.

ENGINEER DATE
**APPROVED BY THE CITY OF METHUEN
COMMUNITY DEVELOPMENT BOARD**

CERTIFICATE OF ACTION

DATE OF ENDORSEMENT

03/08/23 REV. PER CITY COMMENTS
01/30/23 REV. PER CITY COMMENTS
DATE DESCRIPTION
REVISIONS

OWNER / APPLICANT:

**JOWAMAR
COMPANIES, LLC**

300 BROADWAY
METHUEN, MA 01844

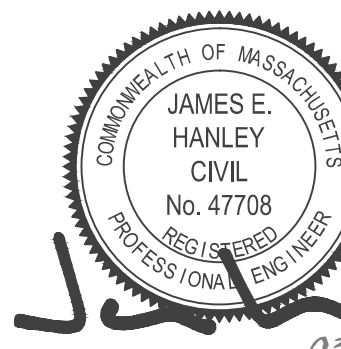
PROJECT:

**269 BROADWAY &
2 OSGOOD ST
METHUEN, MA 01844**

DATE ISSUED: OCTOBER 5, 2022

PROJECT #: 21-10314

PREPARED BY: MAC



PROFESSIONAL ENGINEER FOR CIVIL DESIGN
CONSULTANTS, INC.

**CIVIL DESIGN
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SURVEY • DESIGN • PERMITTING • CONSTRUCTION ADMINISTRATION

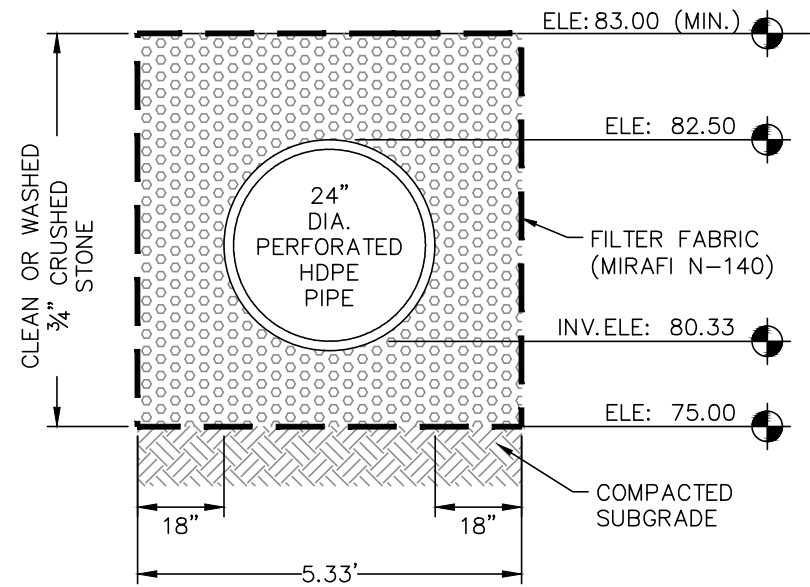
344 North Main Street Andover, MA 01810 Tel: (978) 416-0920 Fax: (978) 416-7865

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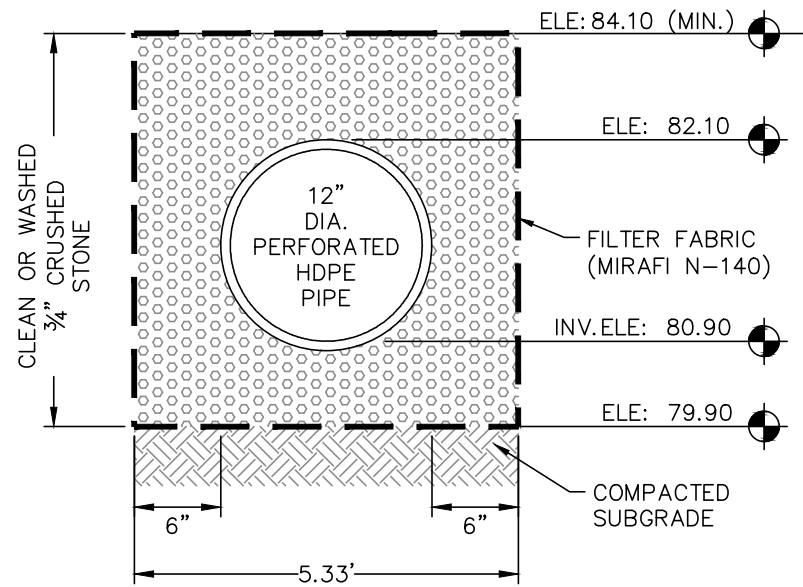
**CONSTRUCTION
DETAILS**

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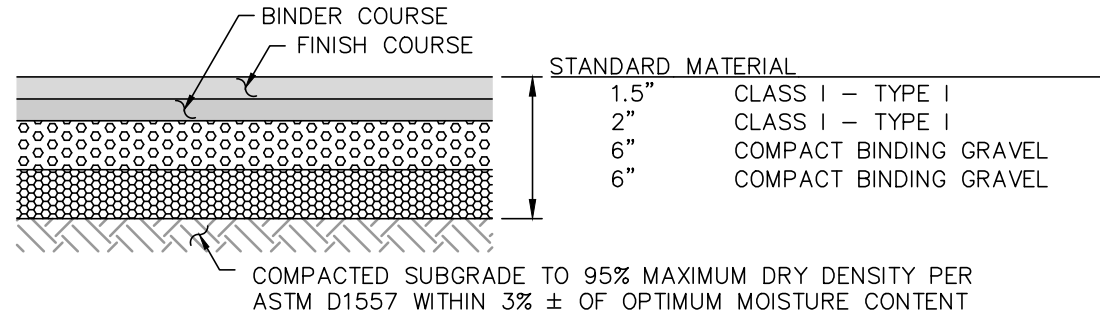
D-1



24" DIA. PIPE INFILTRATION TRENCH DETAIL
NOT TO SCALE



12" DIA. PIPE INFILTRATION TRENCH DETAIL
NOT TO SCALE



- NOTES:
- OWNER'S ENGINEER RESERVES THE RIGHT TO REQUEST COMPACTION TESTS AND/OR CORE SAMPLES. IF TESTS ARE BEYOND THOSE REQUIRED BY THE SPECIFICATIONS AND PROVE CORRECT, PER ABOVE SPECIFICATION, TESTS WILL BE AT THE EXPENSE OF THE OWNER, OTHERWISE THE CONTRACTOR WILL BE RESPONSIBLE FOR TESTING COST.
 - PAVEMENT SECTIONS ARE SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.
 - CONTRACTOR MUST COORDINATE RECLAMATION AND RE-USE OF THE EXISTING PAVEMENT AND BASE MATERIAL WITH THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.

PAVEMENT CROSS SECTION DETAIL
NOT TO SCALE

GENERAL EROSION CONTROL NOTES

- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICE AS SHOWN ON THE PLAN. ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED IN EFFECTIVE CONDITION DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE TERMS AND CONDITIONS OF THE CONSTRUCTION GENERAL PERMIT ISSUED BY THE EPA AND THE STORMWATER POLLUTION PREVENTION PLAN SUBMITTED WITH THE PERMIT DOCUMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE TIMELY INSTALLATION, INSPECTION, MAINTENANCE, AND/OR REPLACEMENT OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES TO ENSURE PROPER OPERATION THROUGHOUT THE LIFE OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF PERMANENT MEASURES UNTIL CONSTRUCTION OF THE PROJECT IS COMPLETED OR UNTIL IT IS ACCEPTED BY THE OWNER. THE OWNER IS RESPONSIBLE THEREAFTER.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN ROADS, CONTROL DUST, AND TAKE ALL NECESSARY MEASURES TO ENSURE THAT THE SITE AND ALL ROADS BE MAINTAINED IN A MUD AND DUST-FREE CONDITION AT ALL TIMES THROUGHOUT THE LIFE OF THE CONTRACT. DUST CONTROL SHALL INCLUDE, BUT IS NOT LIMITED TO, WATER, CALCIUM CHLORIDE, AND/OR CRUSHED STONE OR COARSE GRAVEL.
- ALL PROPOSED CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS AND DETAILS. ALL VEHICLE TRAFFIC ENTERING OR EXITING THE WORK AREA SHALL PASS OVER THE CONSTRUCTION ENTRANCES TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT ONTO THE SURROUNDING ROADWAYS.
- THE CONTRACTOR SHALL INSTALL ALL PERIMETER SEDIMENT CONTROL BARRIERS AS SHOWN ON THE SITE DEVELOPMENT PLANS. SILT FENCE SHALL ALSO BE INSTALLED AROUND ANY SOIL STOCKPILE AREAS.
- THE CONTRACTOR SHALL RESTORE DISTURBED AREAS AS CLOSELY AS POSSIBLE. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODDED, RESEEDED, OR OTHERWISE RESTORED TO THEIR ORIGINAL STATE. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHEREVER FEASIBLE.
- TEMPORARY VEGETATIVE COVER SHALL BE APPLIED TO ANY DISTURBED AREAS (INCLUDING SOIL STOCKPILE AREAS) THAT HAVE NOT YET REACHED FINISHED GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS. THE RECOMMENDED TEMPORARY SEEDING DATES ARE MARCH 1 TO JUNE 15 AND AUGUST 15 TO OCTOBER 1.
- PERMANENT VEGETATIVE COVER SHALL BE APPLIED TO ALL DISTURBED AREAS THAT HAVE REACHED FINISHED GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS PERMANENTLY CEASED. THE RECOMMENDED PERMANENT SEEDING DATES ARE APRIL 1 TO JUNE 15 AND AUGUST 15 TO OCTOBER 1.
- AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING IN ADDITION TO AREAS WHICH CANNOT BE SEEDED WITHIN THE RECOMMENDED SEEDING DATES AND ANY SOIL STOCKPILE AREAS. TEMPORARY MULCHING SHOULD BE PERFORMED AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY CEASED UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS.
- STRAW OR HAY MULCH, WOOD FIBER MULCH, AND HYDROMULCH ARE RECOMMENDED. THE MATERIALS USED IN MULCHING SHALL CONFORM TO THE REQUIREMENTS LISTED IN SECTION M6.04.0 OF THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.
- IF SEEDING CANNOT BE COMPLETED IMMEDIATELY OR WITHIN THE RECOMMENDED SEEDING DATES, USE THE TEMPORARY MULCHING MEASURE TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- ANY EXISTING OR PROPOSED CATCH BASINS THAT MAY BE SUBJECT TO SEDIMENTATION PROCESSES SHALL HAVE SILT SACKS INSTALLED TO PREVENT SEDIMENT FROM ENTERING THE PROPOSED STORM DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED SITE. THE PROPER INLET PROTECTION DEVICES SHALL BE INSTALLED WHERE STORM DRAIN INLETS ARE TO BE MADE OPERATIONAL BEFORE PERMANENT STABILIZATION OF ANY DISTURBED DRAINAGE AREA.
- ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES AND VOLUME TWO OF THE MASSACHUSETTS STORM WATER MANAGEMENT HANDBOOK.
- WASTE DISPOSAL: MATERIALS WHICH COULD BE A POTENTIAL SOURCE OF STORM WATER POLLUTION SUCH AS GASOLINE, DIESEL FUEL, HYDRAULIC OIL, ETC., SHALL BE STORED AT THE END OF EACH DAY IN A STORAGE TRAILER OR COVERED LOCATION AND TAKEN OFF-SITE AND PROPERLY DISPOSED OF. ALL TYPES OF WASTE GENERATED AT THIS SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND/OR REGULATIONS.
- GOOD HOUSEKEEPING: THE PROJECT SITE SHALL PROVIDE FOR THE MINIMIZATION OF EXPOSURE OF CONSTRUCTION DEBRIS (INCLUDING, BUT NOT LIMITED TO, INSULATION, WIRING, PAINTS AND PAINT CANS, SOLVENTS, WALL BOARD, ETC.) TO PRECIPITATION BY MEANS OF DISPOSAL AND/OR PROPER SHELTER OR COVER. IN ADDITION, CONSTRUCTION WASTE MUST BE PROPERLY DISPOSED OF IN ORDER TO AVOID EXPOSURE TO PRECIPITATION AT THE END OF EACH WORKING DAY.
- NO DUST WILL BE ALLOWED ON OR OFF WORK SITE. CONTRACTOR MUST CONDUCT CONTINUOUS EFFORT TO CONTROL DUST. LACK OF DUST CONTROL COULD CAUSE THE PROJECT TO BE STOPPED UNTIL ISSUES ARE RESOLVED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTROL DUST AND TAKE ALL NECESSARY MEASURES TO ENSURE ALL ROADS ARE MAINTAINED IN A DUST FREE CONDITION AT ALL TIMES THROUGHOUT THE LIFE OF THE CONTRACT. REPETITIVE TREATMENTS SHOULD BE APPLIED AS NECESSARY.
- REPAIRS OR REPLACEMENT OF DRAINAGE STRUCTURES, RIP RAP CHANNELS, OR OTHER ELEMENTS OF THE FACILITY SHOULD BE DONE WITHIN 14 DAYS OF DEFICIENCY REPORTS. IF AN EMERGENCY SITUATION IS IMMINENT THEN REPAIR/REPLACEMENT MUST BE DONE IMMEDIATELY TO AVERT FAILURE OR DANGER TO NEARBY RESIDENTS.
- IMMEDIATELY PRIOR TO THE END OF CONSTRUCTION OR ACCEPTANCE BY THE OWNER, THE CONTRACTOR SHALL INSPECT ALL ON-SITE STORMWATER MANAGEMENT FACILITIES AND CLEAN AND FLUSH AS NECESSARY.
- THE GENERAL CONTRACTOR OR NOMINEE WILL BE THE PARTY RESPONSIBLE FOR THE INSPECTION, MAINTENANCE, AND REQUIRED DOCUMENTATION OF ALL STORM WATER STRUCTURES AS OUTLINED WITHIN.

GENERAL CONSTRUCTION SEQUENCING:

DESCRIBED BELOW ARE THE MAJOR CONSTRUCTION ACTIVITIES. THEY ARE PRESENTED IN THE ORDER (OR SEQUENCE) THEY ARE EXPECTED TO BEGIN, BUT EACH ACTIVITY WILL NOT NECESSARILY BE COMPLETED BEFORE THE NEXT BEGINS. ALSO, THESE ACTIVITIES COULD OCCUR IN A DIFFERENT ORDER IF NECESSARY TO MAINTAIN ADEQUATE EROSION AND SEDIMENTATION CONTROL. ALL ACTIVITIES AND THE TIMEFRAME (BEGINNING AND ENDING DATES) SHALL BE RECORDED BY THE GENERAL CONTRACTOR:

- CONTRACTOR TO REVIEW ALL LOCAL, STATE AND FEDERAL PERMITS.
- DELINEATE THE LIMIT OF THE TREE CLEARING OPERATIONS.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE.
- CUT AND CLEAR TREES WITHIN THE AREA OF DISTURBANCE.
- PLACE REMAINING EROSION CONTROL MEASURES PRIOR TO ANY EARTH MOVING OPERATIONS.
- BEGIN ROUGH GRADING AND EARTHWORK OPERATIONS.
- CONSTRUCT REMAINING DRAINAGE IMPROVEMENTS. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER GRADING. ALL DISTURBED AREAS SHALL BE STABILIZED NO LATER THAN 72-HOURS AFTER CONSTRUCTION ACTIVITIES CEASE. IF EARTHWORK TEMPORARILY CEASES ON A PORTION OF OR ON THE ENTIRE SITE, AND WILL NOT RESUME WITHIN 21-DAYS, THE AREA SHALL BE STABILIZED. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED; OR
D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- INSTALL ALL UNDERGROUND UTILITIES.
- CONSTRUCT DRIVEWAY ACCORDING TO THE PLAN. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER GRADING.
- CONSTRUCT BUILDING AND ASSOCIATED INFRASTRUCTURE.
- SURFACE TREATMENT OF ALL DISTURBED AREAS NOT PAVED OR OTHERWISE LANDSCAPED SHALL BE TREATED WITH 4" OF LOAM AND SEED.
- INSPECT AND MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL MEASURES.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- REMOVE TEMPORARY EROSION CONTROL MEASURES ONCE ALL AREAS ARE STABILIZED WITH A SUITABLE STAND OF GRASS, PAVEMENT OR COMPACTED GRAVELS.

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ENGINEER DATE

APPROVED BY THE CITY OF METHUEN
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DRAWING TITLE:

**CONSTRUCTION
DETAILS**

DRAWING #:

D-2