APPROVED BY THE
TOWN OF LEICESTER
PLANNING BOARD

DATE SITE PLAN ENDORSED: _____

SITE PLAN SET

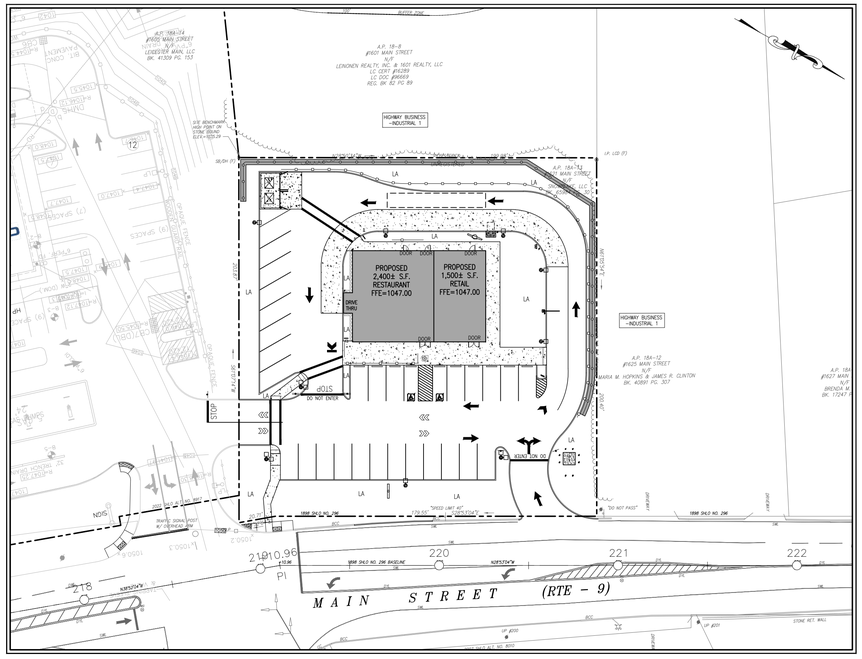
FOR

PROPOSED RESTAURANT & RETAIL DEVELOPMENT

1621 MAIN STREET (RTE-9)
LEICESTER, MA 01524

LOCUS PLAN
SCALE: 1"=1,000'±

DATE	DATE REVISED	SHEET NUMBER	SHEET DESCRIPTION
09/08/2023	10/16/2023	1	COVER SHEET
06/01/2023	-	2	EXISTING CONDITIONS PLAN
09/08/2023	10/16/2023	3	DEMOLITION & EROSION CONTROL PLAN
09/08/2023	10/16/2023	4	SITE PLAN
09/08/2023	10/16/2023	5	GRADING & DRAINAGE PLAN
09/08/2023	10/16/2023	6	UTILITY PLAN
09/08/2023	10/16/2023	7	LANDSCAPE PLAN
09/08/2023	10/16/2023	8	FIRE APPARATUS CIRCULATION PLAN
09/08/2023	10/16/2023	9	CONSTRUCTION DETAILS
09/08/2023	10/16/2023	10	CONSTRUCTION DETAILS
09/08/2023	10/16/2023	11	CONSTRUCTION DETAILS
09/08/2023	10/16/2023	12	CONSTRUCTION DETAILS
09/08/2023	10/16/2023	13	CONSTRUCTION DETAILS
08/18/2023	-	RL-9076-SI	PHOTOMETRIC PLAN
08/18/2023	-	RL-9076-S1	LIGHT DETAILS
09/11/2023	-	1R2-4R2	SIGNAGE PLANS
9/11//2023	-	1	FLOOR PLAN
9/11//2023	-	2	EXTERIOR ELEVATIONS
9/11//2023	-	3	EXTERIOR ELEVATIONS



OVERALL LAYOUT PLAN
SCALE: 1"=40'

PREPARED BY:

CIVIL DESIGN GROUP, LLC

21 HIGH STREET SUITE 207
NORTH ANDOVER, MA 01845
www.cdgengineering.com
p: 978-794-5400
f: 978-965-3971
CONTACT: PHILIP HENRY, P.E.

PREPARED FOR:

HY VENTURES LEICESTER, LLC
313 BOSTON POST ROAD WEST
MARLBOROUGH, MA 01752

PROPERTY:
1621 MAIN STREET (RTE-9)
LEICESTER, MA 01524

ASSESSORS MAP 18A, LOT 13

OWNER OF RECORD:
HY VENTURES LEICESTER, LLC
313 BOSTON POST ROAD WEST
MARLBOROUGH, MA 01752

MUNICIPALITY CONTACTS:

DEPARTMENT	CONTACT	PHONE NUMBER	ADDRESS
TOWN ADMINISTRATOR	DAVID GENEREUX	508-892-7077	3 WASHBURN SQUARE, LEICESTER, MA 01524
CODE ENFORCCEMENT	MICHAEL SILVA	508-892-7003	3 WASHBURN SQUARE, LEICESTER, MA 01524
ASSESSOR	LINDA BERISHA	508-892-7001	3 WASHBURN SQUARE, LEICESTER, MA 01524
FIRE CHIEF	MICHAEL WILSON	508-892-7022	3 PAXTON STREET, LEICESTER, MA 01524
PUBLIC WORKS	ROBERT PROVOST	508-892-7021	3 WASHBURN SQUARE, LEICESTER, MA 01524
PLANNING	JOHN CHARBONNEAU	508-892-7007	3 WASHBURN SQUARE, LEICESTER, MA 01524
POLICE	KENNETH ANTANAVICA	508-892-7009	90 SOUTH MAIN STREET, LEICESTER, MA 01524
CITY CLERK	LISA JOHNSON	508-892-7011	3 WASHBURN SQUARE, LEICESTER, MA 01524
BOARD OF HEALTH	FRANCIS DAGLE	508-892-7008	3 WASHBURN SQUARE, LEICESTER, MA 01524

NOT FOR CONSTRUCTION

ISSUED TO:
TOWN OF LEICESTER

SEAL:
COMMONWEALTH OF MASSACHUSETTS
PHILIP R. HENRY
CIVIL
No. 48547
REGISTERED PROFESSIONAL ENGINEER

PHILIP R. HENRY, P.E.

SHEET:
COVER SHEET

1

CDG PROJECT #: 23028

PROPERTY INFORMATION:

CURRENT OWNER OF RECORD: HY VENTURES LEICESTER, LLC
SITE ADDRESS: 1621 MAIN STREET, LEICESTER, MA (WORCESTER COUNTY)
ASSESSORS PARCEL: MAP 18A LOT 13
DEED REFERENCE: BOOK 68752 PAGE 283

ZONING DISTRICT: HIGHWAY BUSINESS-INDUSTRIAL DISTRICT 1 (HB-1)

TOTAL LAND AREA = 40,123 SQ. FT. 0.921 ACRES

GENERAL NOTES:

1. THIS PLAN IS THE RESULT OF AN ON-THE-GROUND SURVEY PERFORMED BY ODONE SURVEY & MAPPING ON MAY 10, 2023. SURVEY BY TRIMBLE S6 TOTAL STATION.
2. BASIS OF BEARINGS: 1898 SHLO NO. 296
3. THE VERTICAL POSITIONS SHOWN ON THIS PLAN ARE BASED ON KEYNET RTK GPS NETWORK AND IS SUBJECT TO FURTHER ADJUSTMENT TO ANY LOCAL NGS BENCHMARKS. THE VERTICAL DATUM IS RELATIVE TO NAVD 1988.
4. PROPERTY HAS DIRECT ACCESS TO MAIN STREET, A DESIGNATED PUBLIC WAY. THERE ARE NO PROPERTY LINES LOCATED WITHIN THE BOUNDS OF SAID STREETS.
5. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN COMPILED FROM AVAILABLE RECORDS AND THEREFORE, THE RELATIONSHIP BETWEEN ACTUAL FIELD LOCATION AND LOCATION SHOWN HEREON MUST BE CONSIDERED APPROXIMATE. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED, THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES AND FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION AS INDICATED ON THIS PLAN. BEFORE CONSTRUCTION CALL "DIG SAFE" 1-888-344-7233
6. FLOOD NOTE: BASED ON MAPS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) AVAILABLE ONLINE AT WWW.MSC.FEMA.GOV, AND BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE X ON FLOOD INSURANCE RATE MAP NUMBER 25027C0780E, WHICH BEARS AN EFFECTIVE DATE OF 07/04/2011 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

LEGEND

	EXISTING BUILDING
GG	GAS LINE/GAS VALVE
OHW	OVERHEAD WIRES
DMH D	DRAIN LINE/DRAIN MANHOLE
WG W	WATER LINE/WATER GATE
SMH S	SEWER LINE/SEWER MANHOLE
	TREE LINE
1040	MAJOR CONTOUR
1042	MINOR CONTOUR
CB	CATCH BASIN
	FIRE HYDRANT
LP	LIGHT POLE
UP	UTILITY POLE
GW	GUY WIRE
	SIGN
A.P.	ASSESSORS PARCEL
BK. PG.	DEED BOOK/PAGE
BIT. CONC.	BITUMINOUS CONCRETE
BCC	BITUM. CONCRETE CURB
CONC.	CONCRETE SURFACE
CC	CONCRETE CURB
DYL	DOUBLE YELLOW LINE
GC	GRANITE CURB
C.L.F.	CHAIN LINK FENCE
EOP	EDGE OF PAVEMENT
(F)	FOUND
(M.)	MEASURED
N/F	NOW OR FORMERLY
(REC.)	RECORD
SWL	SOLID WHITE LINE
TSLP	TRAFFIC SIGNAL LIGHT POLE

REVISIONS:

REV.	DATE	COMMENT
1	6/1/2023	DRAFT ISSUE
2		
3		
4		
5		

SURVEYOR'S CERTIFICATION

THIS PLAN AND THE SURVEY ON WHICH IT WAS BASED WAS PREPARED IN ACCORDANCE WITH PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS (250 CMR SEC. 6.00).

GLENN D. ODONE JR.
REGISTERED LAND SURVEYOR NO. 45068
COMMONWEALTH OF MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS
GLENN D. ODONE JR.
No. 45068
REGISTERED LAND SURVEYOR

SURVEYED BY:

ODONE SURVEY & MAPPING

SURVEYING ~ MAPPING ~ PLANNING & CONSULTING

291 Main Street, Suite 5
Northborough, MA 01532
Tel.: 508-351-6022 Fax: 508-351-6633

CONTACT: Glenn D. Odone, P.L.S.
email: glenn.odone@osm-pc com
web: www.osm-pc.com

CIVIL ENGINEER:

CIVIL DESIGN GROUP, LLC

21 HIGH STREET, SUITE 207
NORTH ANDOVER, MA 01845
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p: 978-794-5400 f: 978-914-6161

PREPARED FOR:

HY VENTURES LEICESTER, LLC

313 BOSTON POST ROAD WEST
MARLBOROUGH, MA 01752

PROJECT:

PROPOSED RETAIL DEVELOPMENT

1621 MAIN STREET (RT 9)
LEICESTER, MA 01524

SHEET:

EXISTING CONDITIONS PLAN OF LAND

2

DATE: JUNE 1, 2023
REV.:

DWG FILE: 1660-01A
PROJECT NO. 20231660

SITE DEMOLITION & EROSION CONTROL NOTES

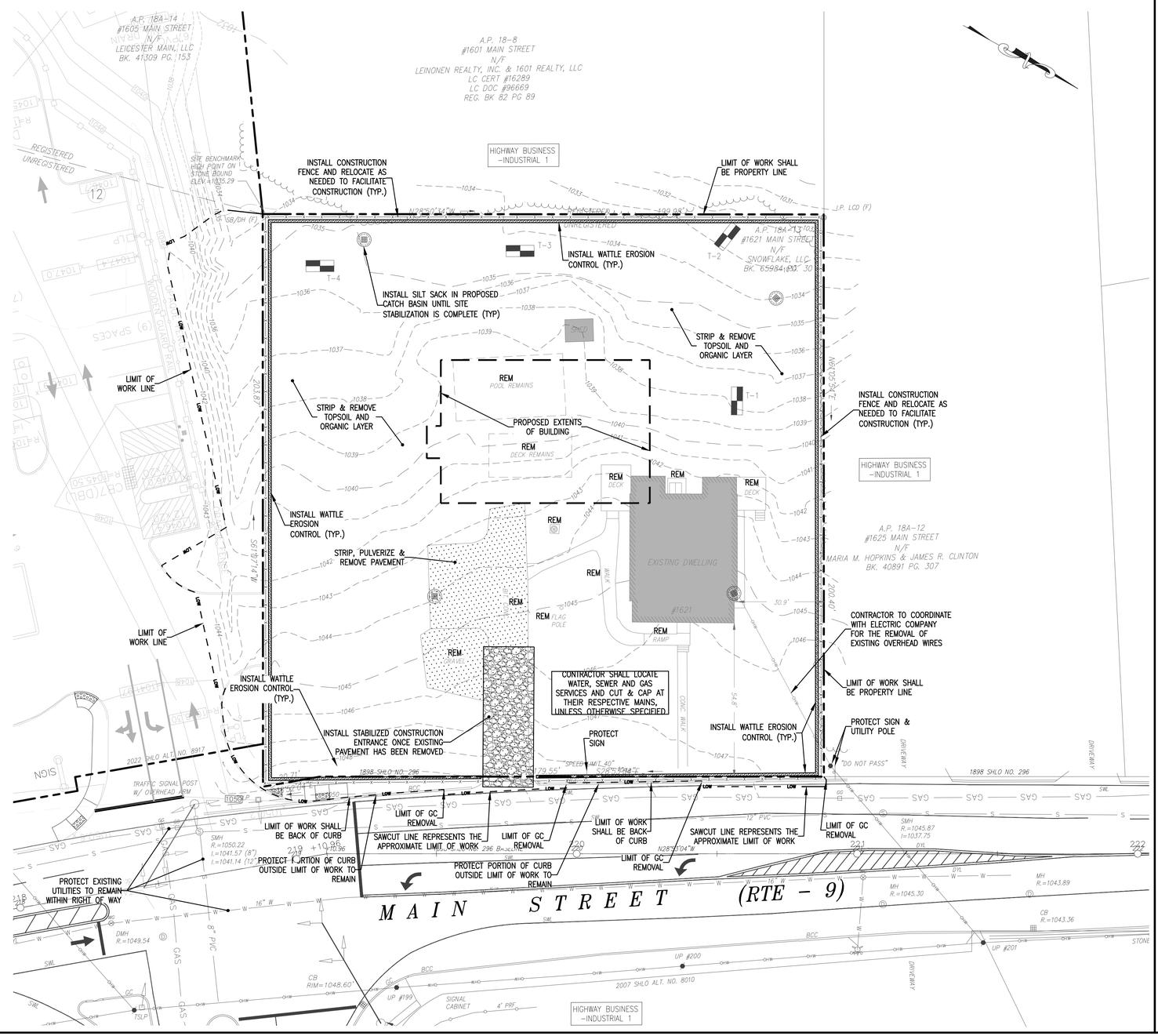
1. THE LOCATION AND ELEVATION OF EXISTING UTILITIES AND STRUCTURES SHOWN ON THESE PLANS ARE BASED ON MEASUREMENTS TAKEN IN THE FIELD AND DISCOVERED RECORDS FROM VARIOUS UTILITY COMPANIES AND/OR FROM THE MUNICIPALITY. THIS INFORMATION SHALL NOT BE CONSIDERED EXACT AND THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL NOTIFY "DIG SAFE" (811) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXISTING UTILITY MARK OUT LOCATIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF EXISTING UTILITY LOCATIONS CONFLICT WITH THE PROPOSED DEVELOPMENT PROGRAM SO THAT A REMEDIAL ACTION CAN TAKE PLACE PRIOR TO ANY WORK. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATING ALL EXISTING UTILITIES AS A RESULT OF THE PROPOSED DEVELOPMENT.
2. THIS PROJECT SITE IS CURRENTLY AN ABANDONED SINGLE FAMILY HOME LOT.
3. EXISTING BASE INFORMATION INCLUDING STRUCTURES, UTILITIES AND TOPOGRAPHY ARE TAKEN FROM PLAN ENTITLED "EXISTING CONDITIONS PLAN OF LAND" PREPARED BY ODONE SURVEY & MAPPING, DATED 06/01/2023.
4. WATER, SEWER AND GAS SERVICES TO BE CUT & CAPPED AT MAIN AND SERVICE LINES SHALL BE ABANDONED IN PLACE, UNLESS OTHERWISE SPECIFIED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ALL CONSTRUCTION RELATED CONDITIONS OUTLINED IN THE APPROVALS IN ADDITION TO THE ITEMS OUTLINED IN THESE CONSTRUCTION DOCUMENTS.
6. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
7. REFUELING AND ANY WORK ASSOCIATED WITH THE MAINTENANCE OF CONSTRUCTION EQUIPMENT TO BE PERFORMED IN COMPLIANCE WITH APPLICABLE REGULATIONS.
8. THE AREAS OF CONSTRUCTION SHALL REMAIN IN A STABLE CONDITION AT THE CLOSE OF EACH CONSTRUCTION DAY. EROSION CONTROLS SHALL BE CHECKED AT THIS TIME AND MAINTAINED OR REINFORCED IF NECESSARY.
9. THE LIMIT OF WORK FOR THIS PROJECT SHALL BE SHOWN ON THE PLANS AS SAWCUT LINES, WATTLE LINES, AND/OR CONSTRUCTION FENCE LINES. EXISTING FEATURES OUTSIDE LIMIT OF WORK LINE ARE TO REMAIN UNLESS OTHERWISE SPECIFIED AND THE EXISTING FEATURES WITHIN LIMIT OF WORK LINE SHALL BE REMOVED UNLESS OTHERWISE SPECIFIED.
10. THE CONTRACTOR SHALL NOTIFY ALL APPLICABLE MUNICIPAL DEPARTMENTS INCLUDING THE BUILDING DEPARTMENT AT LEAST 48 HOURS PRIOR TO START OF WORK.
11. THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION. ALL WORK MUST BE INSPECTED BY THE MUNICIPALITY/STATE.
12. ALL DISTURBED OFF-SITE AREAS SHALL BE RESTORED TO PRE CONSTRUCTION CONDITION.
13. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PER THE DETAIL WHEREVER CONSTRUCTION ACCESS EXISTS. PAVED AREAS SHALL BE KEPT CLEAN AT ALL TIMES. TRACKED MUD OR SEDIMENT SHALL BE REMOVED (VACUUM SWEEPING) PRIOR TO THE NEXT STORM EVENT.
14. PEDESTRIAN AND VEHICULAR ACCESS WITHIN ANDOVER STREET AND THE MALL DRIVEWAY SHALL BE KEPT IN GOOD CONDITION AND SHALL BE PASSABLE THROUGHOUT CONSTRUCTION.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS AND UTILITY CONNECTION/DISCONNECTION FEES RELATED TO THE PROJECT. CONTRACTOR SHALL NOTIFY AND COORDINATE ALL UTILITY WORK WITH THE APPLICABLE UTILITY COMPANIES AND/OR LOCAL DEPARTMENTS. ALL PERMITS SHALL BE KEPT WITHIN THE TRAILER AND CLEARLY VISIBLE.
16. THE OFFSITE DISPOSAL OF ALL DEMOLISHED MATERIALS SHALL COMPLY WITH THE APPLICABLE LOCAL, STATE AND FEDERAL GUIDELINES.
17. EXISTING ONSITE BITUMINOUS PAVEMENT SHALL BE STRIPPED, PULVERIZED AND STOCKPILED ONSITE TO BE USED AS RECLAIMED ASPHALT PAVEMENT BORROW/COMMON FILL MATERIAL IF DEEMED SUITABLE BY THE GEOTECHNICAL RECOMMENDATIONS. IF EXISTING PAVEMENT IS NOT SUITABLE FOR REUSE, IT SHALL BE REMOVED OFFSITE IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
18. CONSTRUCTION DUMPSTERS SHALL BE LOCATED ON A STABLE SURFACE AND SHALL BE PROPERLY MAINTAINED AND EMPTIED ON A REGULAR BASIS.
19. CONTRACTOR SHALL NOT STOCKPILE OR LOCATE DUMPSTERS WITHIN WETLAND RESOURCE AREA BUFFER ZONES IF PRESENT ON SITE.
20. THE CONTRACTOR IS RESPONSIBLE FOR THE GENERAL UPKEEP OF THE SITE DURING THE CONSTRUCTION PROCESS.
21. MEANS OF PROTECTING EXISTING MONITORING WELLS, IF APPLICABLE, SHALL BE COORDINATED WITH THE OWNER'S ENVIRONMENTAL CONSULTANT PRIOR TO CONSTRUCTION.
22. THIS PROJECT IS INTENDED TO BE A SINGLE PHASE PROJECT WITH AN ESTIMATED OPEN AREA OF LESS THAN 1 ACRE.
23. PERMANENT BEST MANAGEMENT PRACTICES ARE NOT INTENDED TO USED AS TEMPORARY SEDIMENT BASINS AND UPSTREAM AREAS SHALL NOT CONNECT TO THE PERMANENT BMP'S UNTIL THE SITE IS STABILIZED. HOWEVER, IF A PERMANENT BMP IS UTILIZED DURING CONSTRUCTION FOR UNFORESEEN SITE CONDITIONS, THE BMP(S) SHALL BE CLEANED AND/OR RESTORED PRIOR TO END OF CONSTRUCITON.
24. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PER THE PLANS AND IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS. THESE MEASURES SHALL BE FUNCTIONING AT THE START OF THE CONSTRUCTION PRIOR TO ANY EARTH DISTURBANCE INCLUDING DEMOLITION AND SHALL REMAIN IN PLACE UNTIL UPSTREAM SITE WORK IS COMPLETE AND THE GROUND COVER IS STABILIZED. PERMANENT STABILIZATION IS DEFINED AS 90% SEEDED COVERAGE.
25. CONSTRUCTION DURING THE WINTER SHALL INCLUDE INSPECTIONS AFTER EACH 1" RAINFALL/SNOWFALL EVENT AND NO LESS THAN ONCE PER WEEK. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUSTE BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS.
26. THE CONTRACTOR SHALL PERFORM ALL WORK, AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE.
27. CONTRACTOR SHALL IMPLEMENT TEMPORARY AND PERMANENT STABILIZATION METHODS IN ACCORDANCE WITH THESE PLANS AND IN ACCORDANCE WITH STABILIZATION REQUIREMENTS IN THE LATEST GENERAL NPDES PERMIT FOR DISCHARGES FROM CONSTRUCTION ACTIVITIES.
28. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT BASIN TO ALLOW FOR SUFFICIENT SETTLING PRIOR TO DISCHARGE.
29. PROVIDE AND STORE AUXILIARY DEWATERING EQUIPMENT ON THE SITE IN THE EVENT OF BREAKDOWN. PROVIDE NON-WOVEN FILTER FABRIC SHALL BE SPECIFICALLY DESIGNED FOR SUBSURFACE DRAINAGE APPLICATIONS.
30. WATER FROM THE TRENCHES AND EXCAVATIONS SHALL BE DISPOSED OF IN SUCH A MANNER AS TO AVOID PUBLIC NUISANCE, INJURY TO PUBLIC HEALTH OR THE ENVIRONMENT, OR DAMAGE TO PUBLIC OR PRIVATE PROPERTY, OR DAMAGE TO THE WORK COMPLETED OR IN PROGRESS. DO NOT DISCHARGE WATER INTO ANY SANITARY SEWER SYSTEM. SILTATION BARRIERS SHALL BE UTILIZED IF NECESSARY.
31. WATER FROM TRENCHES AND EXCAVATIONS SHALL NOT BE DISCHARGED DIRECTLY TO STORM DRAIN SYSTEMS. PROPER TREATMENT TO A SEDIMENTATION AREA IS TO TAKE PLACE PRIOR TO DISCHARGE TO ANY DRAINAGE SYSTEMS.
32. THE CONTRACTOR SHALL REPAIR ANY DAMAGE RESULTING FROM THE FAILURE OF THE DEWATERING OPERATIONS OR FROM FAILURE TO MAINTAIN ALL AREAS OF WORK IN SUITABLE DRY CONDITION.
33. DO NOT EXCAVATE UNTIL THE DEWATERING SYSTEM IS OPERATIONAL AND THE EXCAVATION MAY PROCEED WITHOUT DISTURBANCE TO THE FINAL SUBGRADE.
34. UNLESS OTHERWISE SPECIFIED, CONTINUE DEWATERING UNINTERRUPTED UNTIL THE STRUCTURES, PIPES, AND APPURTENANCES TO BE BUILT HAVE BEEN PROPERLY INSTALLED. WHERE SUBGRADE MATERIALS ARE UNABLE TO MEET SUBGRADE DENSITY REQUIREMENTS DUE TO IMPROPER DEWATERING TECHNIQUES, REMOVE AND REPLACE THE MATERIALS AS DIRECTED BY THE ENGINEER.
35. THE PROPOSED ONSITE DRAINAGE SYSTEM SHALL BE INSTALLED AS SOON AS PRACTICABLE. ALL EXISTING AND PROPOSED CATCH BASIN INLETS SHALL BE PROTECTED WITH A SILT SACK (SEE DETAIL).
36. DUST IS TO BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO LOCAL, STATE AND FEDERAL STANDARDS AND MAY INCLUDE WATERING WITH A SOLUTION OF CALCIUM CHLORIDE AND WATER.
37. ABUTTING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS FROM THIS PROJECT AT ALL TIMES. WORK ON ABUTTING PROPERTY SHALL REQUIRE WRITTEN AUTHORIZATION FROM THE OWNER PRIOR TO ANY LAND DISTURBANCE.
38. THE EROSION CONTROL MEASURES ILLUSTRATED IN THIS PLAN SET SHALL BE THE MINIMUM REQUIRED CONTROLS IMPLEMENTED. THE CONTRACTOR SHALL KEEP ADDITIONAL EROSION CONTROL MEASURES SUCH AS WATTLES ONSITE AT ALL TIMES TO RELOCATE OR ADD SUCH MEASURES AS THE PROJECT EVOLVES OR AN UNFORESEEN CONDITION OCCURS.
39. EROSION CONTROL MIX SHOULD CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX SHOULD BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH SUCH AS FLY ASH OR YARD SCRAPING. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. THE MIX COMPOSITION SHOULD MEET THE FOLLOWING STANDARDS:
   - 39.1. THE ORGANIC MATTER CONTENT SHOULD BE BETWEEN 80% AND 100%, DRY WEIGHT BASIS.
   - 39.2. PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 6" SCREEN AND 70% TO 85% PASSING A 0.75" SCREEN.
   - 39.3. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
   - 39.4. SOLUBLE SALTS CONTENT SHALL BE < 4.0 MMHOS/CM.
   - 39.5. THE PH SHOULD BE BETWEEN 5.0 AND 8.0.
   - 39.6. PROHIBITED AT THE BASE OF AN SLOPE STEEPER THAN 8% OR WHERE RUNOFF IS FLOWING WITHOUT THE SUPPORT OF ADDITIONAL MEASURES, SUCH AS SILT FENCE.
40. STOCKPILES SHALL BE LOCATED ONSITE OUTSIDE OF ALL WETLAND RESOURCE AREA BUFFER ZONES IF PRESENT ON SITE. EROSION CONTROL MEASURES SHALL BE INSTALLED AT THE FOOT OF THE STOCKPILE AND AND SHALL BE COVERED TO PREVENT WASHOUT.
41. ALL PROPOSED SLOPES 3:1 AND STEEPER SHALL BE STABILIZED WITH AN EROSION CONTROL MATTING AND SHALL BE HYDROSEEDED.
42. ALL PIPELINES OR STRUCTURES NOT STABLE AGAINST UPLIFT DURING CONSTRUCTION OR PRIOR TO COMPLETION SHALL BE THOROUGHLY BRACED OR OTHERWISE PROTECTED.
43. ALL SITE DRAINAGE, WATER, AND SEWER WORK OUTSIDE THE BUILDING FOOTPRINT SHALL BE PERFORMED BY A LICENSED DRAIN LAYER.
44. ANY PROPOSED SURFACE OPENINGS AND EXCAVATION WORK WITHIN THE CITY RIGHT-OF-WAY LIMITS WILL REQUIRE A STREET OPENING PERMIT (SOP).
45. A TRENCH OPENING PERMIT (TOP) SHALL BE OBTAINED PRIOR TO THE EXCAVATION OF ANY TRENCH.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
		DRAIN MANHOLE
		CATCH BASIN
		SEWER MANHOLE
D		DRAIN PIPE
G		GAS LINE
OHW		OVERHEAD WIRES
W		WATER LINE
S		SEWER LINE
		HYDRANT
		SIGN
		SITE LIGHT
		UTILITY POLE
170		INDEX CONTOUR
169		MINOR CONTOUR
		TREE LINE
		CONCRETE SIDEWALK
I.P.		IRON PIPE/IRON PIN
		EXISTING BUILDINGS & APPURTENANCES TO BE DEMOLISHED
		CONSTRUCTION FENCE
		WATTLES
		PROPOSED BUILDING PAD
		PAVEMENT TO BE RECLAIMED (IF SUITABLE)
		STABILIZED CONSTRUCTION ENTRANCE
B/SB		BORING LOCATION

GENERAL ABBREVIATIONS

ASSESSOR'S PARCEL	A.P.
BOTTOM OF CURB	BC
BITUMINOUS CONCRETE CURB	BCC
BITUMINOUS CONCRETE	BIT. CONC
BOTTOM OF WALL	BW
CATCH BASIN	CB
CHAIN LINK FENCE	C.L.F.
CLEANOUT	CO
CONCRETE SURFACE	CONC
DRILL HOLE FOUND	DH (F)
DRAIN MANHOLE	DMH
DOUBLE WALL FIBER GLASS	DWFG
DASHED WHITE LINE	DWL
DOUBLE YELLOW CENTERLINE	DYCL
EDGE OF PAVEMENT	EOP
EXTRUDED CONCRETE CURB	ECC
ELECTRIC HANDHOLE	EHH
FINISHED FLOOR ELEVATION	FF=
FRONT YARD	FY
VERTICAL GRANITE CURB	GC
GAS METER	GM
HIGH DENSITY POLYETHYLENE PIPE	HDPE
INVERT ELEVATION	I=
LINEAL FEET	LF
LANDSCAPED AREA	LA
MONOLITHIC CONCRETE CURB	MCC
MATCH EXISTING	ME
INVERT NOT AVAILABLE	N/A
NOW OR FORMERLY	N/F
ON CENTER	OC
RIM ELEVATION	R=
ROOF DRAIN	RD
REMOVE	REM
REAR YARD	RY
SEWER FORCE MAIN	SFM
SOLID WHITE EDGE LINE	SWEL
SOLID WHITE LINE	SWL
SIDE YARD	SY
TOP OF CURB	TC
TOP OF WALL	TW
UTILITY POLE	UP
VITRIFIED CLAY	VC
WATER GATE	WG
WATER SHUT-OFF	WSO



NOT FOR CONSTRUCTION

CDG PROJECT #: 23028

REVISIONS:

REV	DATE	COMMENT
1	10/16/23	REVISED PER PEER REVIEW LETTER
2		
3		
4		
5		
6		
7		
8		
9		

SEAL:

COMMONWEALTH OF MASSACHUSETTS
PHILIP R. HENRY
CIVIL
No. 48547
REGISTERED PROFESSIONAL ENGINEER

PHILIP R. HENRY, P.E.

PLANNING BOARD:

CIVIL ENGINEER:

CIVIL DESIGN GROUP, LLC

21 HIGH STREET, SUITE 207
NORTH ANDOVER, MA 01845
www.cdgengineering.com
p: 978-794-5400 f: 978-965-3971

PREPARED FOR:

HY VENTURES LEICESTER, LLC

313 BOSTON POST ROAD WEST MARLOROUGH, MA 01752

PROJECT:

PROPOSED RETAIL DEVELOPMENT

1621 MAIN STREET (RT-9) LEICESTER, MA 01524

SCALE: 20 0 10 20 40 GRAPHIC SCALE IN FEET

SHEET: **DEMOLITION & EROSION CONTROL PLAN**

3

DATE: 09/08/2023

GENERAL NOTES

1. ZONING INFORMATION OBTAINED FROM THE TOWN OF LEICESTER ZONING ORDINANCE AS AMENDED THROUGH JUNE 2020.
2. THE PROJECT SITE IS LOCATED ON ASSESSOR LOT 13 ON MAP 18A AND TOTALS APPROXIMATELY 0.92 ACRES.
3. THE PROJECT LIES WITHIN THE HIGHWAY BUSINESS 1 (HB-1) DISTRICT AND DOES NOT LIE WITHIN AN OVERLAY DISTRICT.
4. MODIFICATIONS TO THIS PLAN MAY OCCUR AS UNFORESEEN CONDITIONS ARISE. ALL CHANGES SHALL BE APPROVED BY THE ENGINEER & MUNICIPALITY.
5. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, SITE ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION.
6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS, AND PLANT SPECIFICATIONS TO THE OWNER AND SITE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
7. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF THE CONSTRUCTION.
8. THE PROPERTY IS LOCATED WITHIN THE ZONE X FLOOD ZONE, AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 25027c0780e WHICH BEARS AN EFFECTIVE DATE OF JULY 4, 2011.

SITE LAYOUT NOTES

1. THE BUILDING OUTLINE SHOWN ON THIS PLAN DEPICTS THE FINISH TO FINISH EXTENTS OF THE BUILDING. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR FOUNDATION PLANS FOR THE PURPOSE OF STAKING OUT THE BUILDING. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND EXTERIOR FEATURES INCLUDING UTILITY METERS, BOLLARDS, DOORS, PILASTERS, RAMPS, ETC.
2. BUILDING SIDEWALK DIMENSIONS ARE MEASURED FROM EXTERIOR FINISH MATERIAL OF STRUCTURE.
3. ALL LIMITS OF PAVEMENT SHALL BE CURBED, UNLESS OTHERWISE NOTED.
4. ALL ONSITE CURB SHALL BE EXTRUDED CONCRETE AND MONOLITHIC CONCRETE, UNLESS OTHERWISE SPECIFIED. OFFSITE CURB SHALL BE VERTICAL GRANITE.
5. NON-ACCESSIBLE PARKING SPACE DIMENSIONS AS SHOWN ON THE PLAN ARE 10' WIDE x 20' LONG, UNLESS OTHERWISE SPECIFIED.
6. ALL PAVEMENT MARKINGS SHALL BE ACCOMPLISHED WITH USE OF PAINTING MACHINES AND/OR STENCILS. ALL PAINT FOR PAVEMENT MARKING SHALL MEET THE REQUIREMENTS OF SOLVENTBORNE APPLICATION RECOMMENDATIONS (LATEX TRAFFIC PAINT BY BENJAMIN MOORE #TD58 LOW VOC). PARKING STALL AND ISLAND STRIPING SHALL BE 4" WIDE AND SHALL BE STRAIGHT WITH A CLEAN EDGE. ALL DIRECTIONAL ARROWS, STOP BARS, ETC. SHALL CONFORM WITH MUTCD. ALL PAVEMENT MARKINGS SHALL HAVE TWO COATS OF PAINT WITH AT LEAST 14 DAYS IN BETWEEN APPLICATIONS.
7. PAVEMENT LETTERS SHALL BE 2' WIDE X 2' LONG.
8. STOP BARS SHALL BE 12" WIDE AND SOLID LINES SHALL BE 4" IN WIDTH (SEE SITE PLAN FOR LENGTH & COLOR).
9. ACCESSIBLE PARKING SPACES SHALL CONFORM TO THE LATEST EDITION OF THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE ARCHITECTURAL ACCESS BOARD (AAB) AS SHOWN ON THE SITE LAYOUT PLAN.
10. ACCESSIBLE PARKING AISLE STRIPING SHALL CONSIST OF 4" SOLID LINES OF LATEX TRAFFIC PAINT BY BENJAMIN MOORE #TD58 LOW VOC ADA BLUE COLOR ORIENTED AT A 45 DEGREE ANGLE AND SPACED 3' ON CENTER.
11. DIRECTIONAL AND ACCESSIBLE SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR COLOR AND SIZE.
12. ALL FLAT WORK WITHIN THE RIGHT OF WAY SHALL CONFORM TO MUNICIPAL/STATE STANDARDS.
13. REPLACEMENT PAVEMENT AS A RESULT OF UTILITY AND DRAINAGE TRENCHING WITHIN THE RIGHT-OF-WAY SHALL MATCH EXISTING PAVEMENT THICKNESS.
14. SNOW SHALL NOT BE STORED IN ANY LANDSCAPED AREAS, EXCEPT FOR DESIGNATED SNOW STORAGE AREAS, AND SHALL NOT BE STORED IN ANY MANNER WHICH AFFECTS VISIBILITY FOR PEDESTRIANS AND VEHICLES. THE CLEARING OF SNOW MUST COMMENCE WHEN STOCKPILED SNOW EITHER IMPEDES THE SIDEWALK OR PARKING SPACE ACCESS, AT WHICH TIME, THE APPLICANT WOULD BE EXPECTED TO REMOVE THE SNOW WITHIN 24 HOURS.
15. SITE LIGHTS TO BE INSTALLED PER DETAIL. CONTRACTOR SHALL NOTIFY THE ENGINEER IF THIS DISTANCE CANNOT BE ACHIEVED DUE TO DRAINAGE OR UTILITY CONFLICTS. REFER TO DETAILS FOR SITE LIGHT POLE BASE DETAILS AND SPECIFICATIONS.

ZONING INFORMATION

ZONING DISTRICT : HIGHWAY BUSINESS -1 (HB-1)

REGULATION	REQUIRED	EXISTING	PROPOSED LOW
MIN. LOT AREA	60,000 SF	40,123 SF±	NO CHANGE
MIN. LOT FRONTAGE	200 FT	200.2 FT±	NO CHANGE
MIN. FY SETBACK	50 FT	54.8 FT±	97.5 FT±
MIN. SY SETBACK	50 FT	30.9 FT±	58.5 FT±
MIN. RY SETBACK	50 FT	93.7 FT±	51.9 FT±
MAX. BUILDING HEIGHT	55 FT/5.5 STORIES	23 FT±	<55 FT
MAX. BUILDING COVERAGE	40%	5%±	10%±

PARKING & LOADING INFORMATION

USE	REQUIRED	PROVIDED
PARKING: RETAIL: 1 SPACE/200 GROSS FLOOR AREA 1,500 SF/200 = 7.5 SPACES RESTAURANTS: 1 SPACE/EMPLOYEE + 1 SPACE/3 SEATS ASSUME 50 SEATS/6 EMPLOYEES = 22.6 SPACES	30 SPACES	30 SPACES
LOADING: ADEQUATE OFF-STREET LOADING FACILITIES AND SPACE MUST BE PROVIDED TO SERVICE ALL NEEDS CREATED BY NEW CONSTRUCTION. FACILITIES SHALL BE SO SIZED AND ARRANGED THAT NO TRUCKS NEED TO BACK ONTO OR OFF A PUBLIC WAY, OR BE PARKED ON A PUBLIC WAY WHILE LOADING OR UNLOADING.		PROVIDED

LAND COVERAGE CALCULATIONS

TOTAL DISTURBED AREA: 0.92± ACRES

COVER	EXISTING	PROPOSED
BUILDING	0.04± AC	0.09± AC
PAVEMENT/CONCRETE	0.08± AC	0.59± AC
OPEN SPACE	0.80± AC	0.24± AC
TOTAL	0.92± AC	0.92± AC

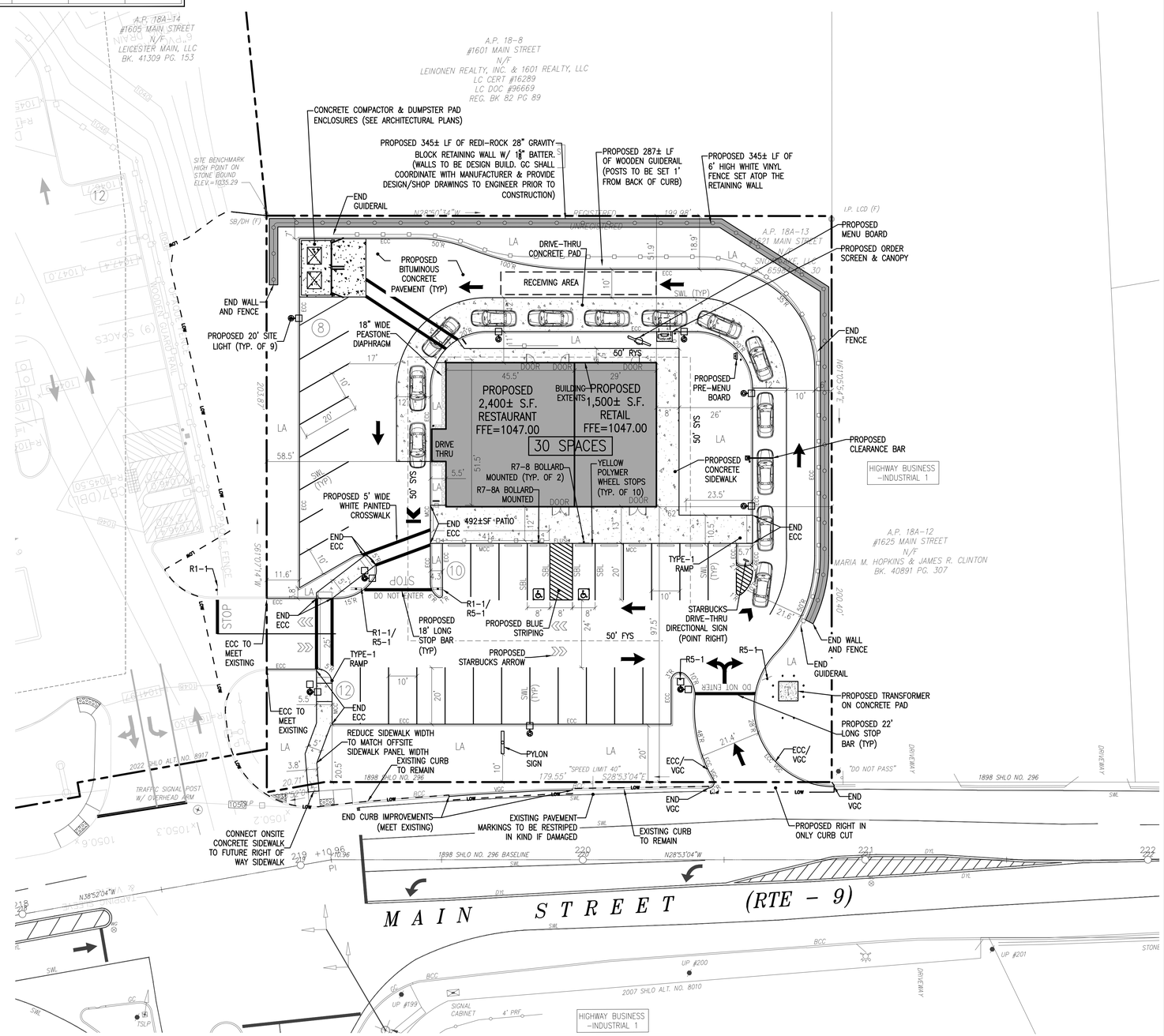
MUTCD REFERENCE	SIGN (METAL)
R1-1 30"x30"	STOP
R7-8 12"X18"	RESERVED PARKING
R7-8a 12"X18"	VAN ACCESSIBLE
R3-5 30"X30"	DO NOT ENTER

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
		BUILDING SETBACK/ BUFFER
	6	PARKING SPACES
	2'R	CURB RADIUS
		ACCESSIBLE PAVEMENT MARKINGS
		RAMP UPSLOPE DIRECTION
		SIGN
		LIGHT
		UTILITY POLE
		WOODEN GUIDE RAIL
		PAINTED ARROW
		DIRECTIONAL ARROW
		CONCRETE PAD/SIDEWALK
		ACCESSIBLE RAMP
I.P.		IRON PIPE/IRON PIN

GENERAL ABBREVIATIONS

ASSESSORS PARCEL	A.P.
BOTTOM OF CURB	BC
BITUMINOUS CONCRETE CURB	BCC
BITUMUNOUS CONCRETE	BIT. CONC
BOTTOM OF WALL	BW
CATCH BASIN	CB
CAPE COD BERM	CCB
CHAIN LINK FENCE	C.L.F.
CLEANOUT	CO
CONCRETE SURFACE	CONC
DRAIN MANHOLE	DMH
DOUBLE WALL FIBER GLASS	DWFG
DASHED WHITE LINE	DWL
DOUBLE YELLOW CENTERLINE	DYCL
EDGE OF CONCRETE	EOC
EDGE OF PAVEMENT	EOP
EXTRUDED CONCRETE CURB	ECC
FINISHED FLOOR ELEVATION	FF=
FRONT YARD	FY
VERTICAL GRANITE CURB	GC
SLOPED GRANITE CURB	SGC
GAS METER	GM
HIGH DENSITY POLYETHYLENE PIPE	HDPE
INVERT ELEVATION	I=
LINEAL FEET	LF
LANDSCAPED AREA	LA
MONOLITHIC CONCRETE CURB	MCC
MATCH EXISTING	ME
INVERT NOT AVAILABLE	N/A
NOW OR FORMERLY	N/F
ON CENTER	OC
PRECAST CONCRETE CURB	PCC
RIM ELEVATION	R=
ROOF DRAIN	RD
REMOVE	REM
REAR YARD	RY
SOLID WHITE EDGE LINE	SWEL
SOLID WHITE LINE	SWL
SIDE YARD	SY
SOLID YELLOW LINE	SYL
TOP OF CURB	TC
TOP OF WALL	TW
UTILITY POLE	UP



NOT FOR CONSTRUCTION

CDG PROJECT #: 23028

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COMMONWEALTH OF MASSACHUSETTS
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REGISTERED PROFESSIONAL ENGINEER

PHILIP R. HENRY, P.E.

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PREPARED FOR:

HY VENTURES LEICESTER, LLC

313 BOSTON POST ROAD WEST
MARLOROUGH, MA 01752

PROJECT:

PROPOSED RETAIL DEVELOPMENT

1621 MAIN STREET (RT-9)
LEICESTER, MA 01524

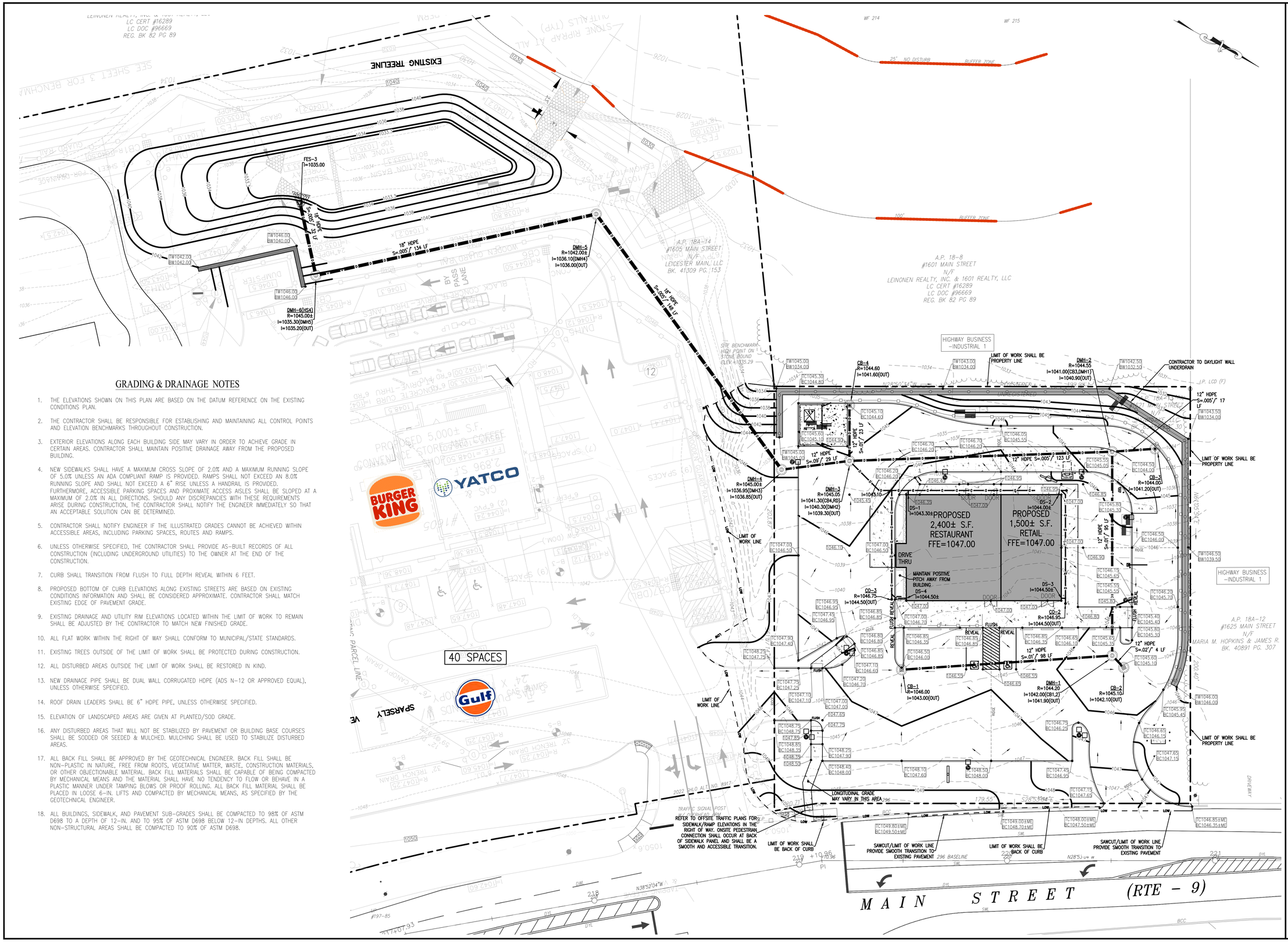
SCALE: 20 0 10 20 40
GRAPHIC SCALE IN FEET

SHEET:

SITE PLAN

4

DATE: 09/08/2023



GRADING & DRAINAGE NOTES

1. THE ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON THE DATUM REFERENCE ON THE EXISTING CONDITIONS PLAN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND ELEVATION BENCHMARKS THROUGHOUT CONSTRUCTION.
3. EXTERIOR ELEVATIONS ALONG EACH BUILDING SIDE MAY VARY IN ORDER TO ACHIEVE GRADE IN CERTAIN AREAS. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM THE PROPOSED BUILDING.
4. NEW SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0% AND A MAXIMUM RUNNING SLOPE OF 5.0% UNLESS AN ADA COMPLIANT RAMP IS PROVIDED. RAMPS SHALL NOT EXCEED AN 8.0% RUNNING SLOPE AND SHALL NOT EXCEED A 6" RISE UNLESS A HANDRAIL IS PROVIDED. FURTHERMORE, ACCESSIBLE PARKING SPACES AND PROXIMATE ACCESS AISLES SHALL BE SLOPED AT A MAXIMUM OF 2.0% IN ALL DIRECTIONS. SHOULD ANY DISCREPANCIES WITH THESE REQUIREMENTS ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED.
5. CONTRACTOR SHALL NOTIFY ENGINEER IF THE ILLUSTRATED GRADES CANNOT BE ACHIEVED WITHIN ACCESSIBLE AREAS, INCLUDING PARKING SPACES, ROUTES AND RAMPS.
6. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF THE CONSTRUCTION.
7. CURB SHALL TRANSITION FROM FLUSH TO FULL DEPTH REVEAL WITHIN 6 FEET.
8. PROPOSED BOTTOM OF CURB ELEVATIONS ALONG EXISTING STREETS ARE BASED ON EXISTING CONDITIONS INFORMATION AND SHALL BE CONSIDERED APPROXIMATE. CONTRACTOR SHALL MATCH EXISTING EDGE OF PAVEMENT GRADE.
9. EXISTING DRAINAGE AND UTILITY RIM ELEVATIONS LOCATED WITHIN THE LIMIT OF WORK TO REMAIN SHALL BE ADJUSTED BY THE CONTRACTOR TO MATCH NEW FINISHED GRADE.
10. ALL FLAT WORK WITHIN THE RIGHT OF WAY SHALL CONFORM TO MUNICIPAL/STATE STANDARDS.
11. EXISTING TREES OUTSIDE OF THE LIMIT OF WORK SHALL BE PROTECTED DURING CONSTRUCTION.
12. ALL DISTURBED AREAS OUTSIDE THE LIMIT OF WORK SHALL BE RESTORED IN KIND.
13. NEW DRAINAGE PIPE SHALL BE DUAL WALL CORRUGATED HDPE (ADS N-12 OR APPROVED EQUAL), UNLESS OTHERWISE SPECIFIED.
14. ROOF DRAIN LEADERS SHALL BE 6" HDPE PIPE, UNLESS OTHERWISE SPECIFIED.
15. ELEVATION OF LANDSCAPED AREAS ARE GIVEN AT PLANTED/SOD GRADE.
16. ANY DISTURBED AREAS THAT WILL NOT BE STABILIZED BY PAVEMENT OR BUILDING BASE COURSES SHALL BE SODDED OR SEEDED & MULCHED. MULCHING SHALL BE USED TO STABILIZE DISTURBED AREAS.
17. ALL BACK FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. BACK FILL SHALL BE NON-PLASTIC IN NATURE, FREE FROM ROOTS, VEGETATIVE MATTER, WASTE, CONSTRUCTION MATERIALS, OR OTHER OBJECTIONABLE MATERIAL. BACK FILL MATERIALS SHALL BE CAPABLE OF BEING COMPACTED BY MECHANICAL MEANS AND THE MATERIAL SHALL HAVE NO TENDENCY TO FLOW OR BEHAVE IN A PLASTIC MANNER UNDER TAMPING BLOWS OR PROOF ROLLING. ALL BACK FILL MATERIAL SHALL BE PLACED IN LOOSE 6-IN. LIFTS AND COMPACTED BY MECHANICAL MEANS, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.
18. ALL BUILDINGS, SIDEWALK, AND PAVEMENT SUB-GRADES SHALL BE COMPACTED TO 98% OF ASTM D698 TO A DEPTH OF 12-IN. AND TO 95% OF ASTM D698 BELOW 12-IN DEPTHS. ALL OTHER NON-STRUCTURAL AREAS SHALL BE COMPACTED TO 90% OF ASTM D698.

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PREPARED FOR:

HY VENTURES LEICESTER, LLC

313 BOSTON POST ROAD WEST
MARLOROUGH, MA 01752

PROJECT:

PROPOSED RETAIL DEVELOPMENT

1621 MAIN STREET (RT-9)
LEICESTER, MA 01524

SCALE:

20 0 10 20 40

GRAPHIC SCALE IN FEET

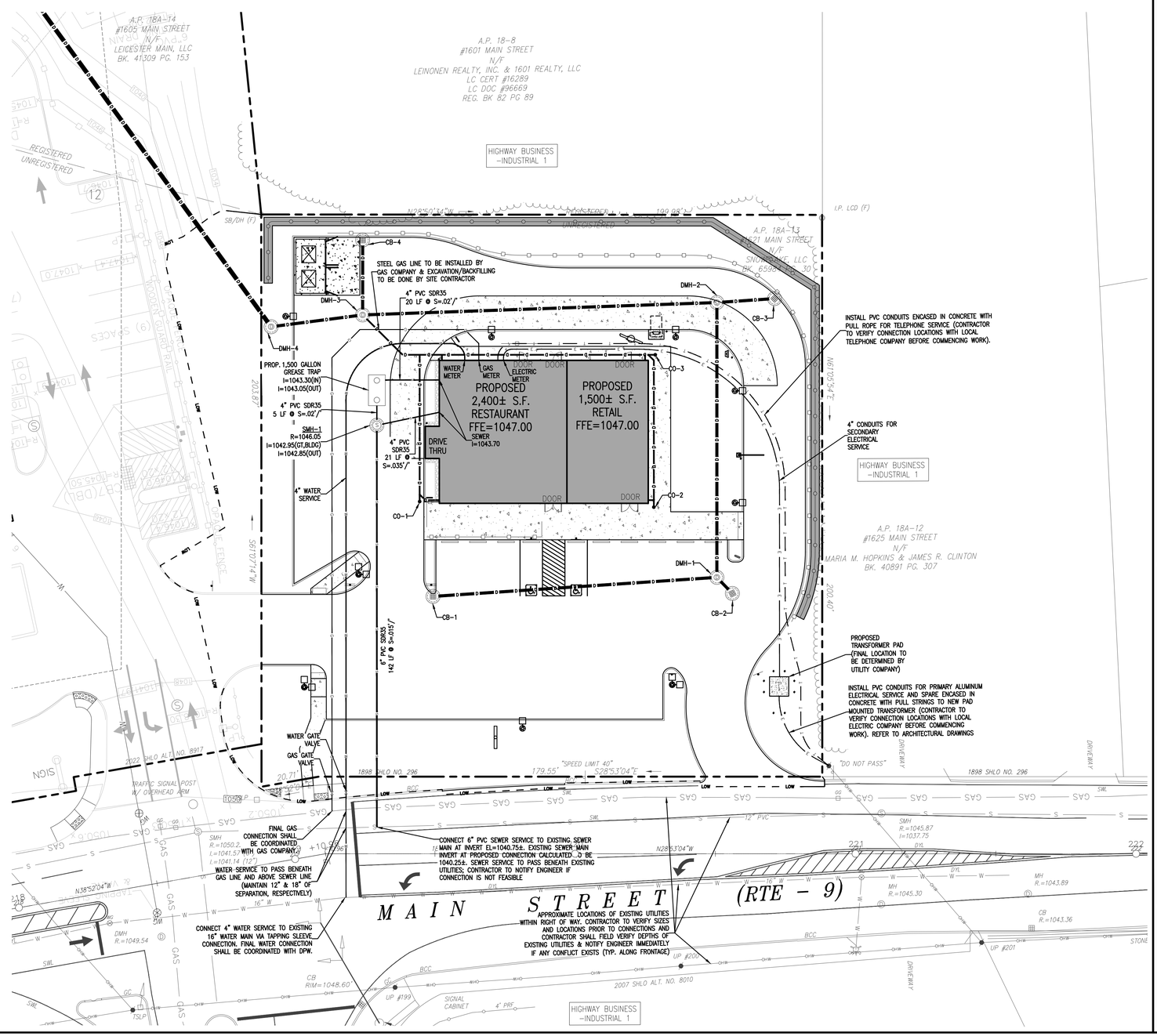
SHEET: **GRADING & DRAINAGE PLAN**

5

DATE: 09/08/2023

UTILITY NOTES

1. ALL WATER SERVICES SHALL BE INSTALLED WITH A MINIMUM 5'-6" AND A MAXIMUM OF 6' OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE. GREATER DEPTHS ARE PERMITTED WHERE REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES.
2. ALL WATER SERVICE INSTALLATION METHODS AND TESTING REQUIREMENTS SHALL MEET OR EXCEED ALL LOCAL MUNICIPAL REQUIREMENTS.
3. EXISTING WATER, SEWER, ELECTRICAL, TELEPHONE AND GAS LINES DEPICTED ON THIS PLAN ARE BASED ON RECORD DRAWINGS. CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF ALL UTILITIES PRIOR TO CONNECTION.
4. PROPOSED GAS SERVICE LOCATION IS APPROXIMATE ONLY. THE CONTRACTOR SHALL CONFIRM WITH THE GAS COMPANY THAT GAS LINE INSTALLATION SHALL BE BY THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL GIVE THE GAS COMPANY ADVANCE NOTICE OF WHEN THE GAS LINE CAN BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND COMPACTION FOR THE GAS LINE.
5. DUE TO THE SCALE OF THE SITEWORK DRAWINGS, THE EXACT LOCATION OF UTILITY SERVICES TO THE BUILDING SHALL BE VERIFIED WITH THE BUILDING DRAWINGS.
6. ALL UTILITIES, PIPE MATERIALS, STRUCTURES, AND INSTALLATION METHODS SHALL CONFORM TO MUNICIPALITY STANDARDS AND REQUIREMENTS.
7. SUITABLE, TEMPORARY PLUGS SHALL BE INSTALLED IN THE OPEN ENDS OF UTILITY SERVICES TO THE BUILDING PRIOR TO BACKFILLING. STUB LOCATIONS SHALL BE MARKED IN THE FIELD SO THAT THEY MAY BE EASILY LOCATED.
8. WATER & SEWER SERVICE CONNECTIONS SHALL BE INSPECTED BY THE MUNICIPAL WATER & SEWER DEPARTMENT.
9. ALL SITE DRAINAGE, WATER, AND SEWER WORK OUTSIDE THE BUILDING FOOTPRINT SHALL BE PERFORMED BY A LICENSED DRAIN LAYER.
10. EXISTING DRAINAGE AND UTILITY RIM ELEVATIONS LOCATED WITHIN THE LIMIT OF WORK TO REMAIN SHALL BE ADJUSTED BY THE CONTRACTOR TO MATCH NEW FINISHED GRADE.
11. CONTRACTOR TO FIELD VERIFY DEPTH OF EXISTING UTILITIES ALONG THE PATH OF THE PROPOSED UTILITY CONNECTIONS AND NOTIFY ENGINEER IMMEDIATELY IF A CONFLICT EXISTS.
12. EXCAVATION, CONDUIT INSTALLATION AND BACKFILLING FOR ELECTRICAL AND TELEPHONE SERVICES TO BE PERFORMED BY SITE CONTRACTOR.
13. EXISTING WATER, SEWER AND GAS SERVICES SHOULD BE EVALUATED TO DETERMINE IF SUITABLE FOR REUSE BY THE CONTRACTOR AND SHALL NOTIFY THE ENGINEER OF THE SAME. IF EXISTING UTILITIES ARE DEEMED TO NOT BE SUITBALE, THEY ARE TO BE CUT & CAPPED AT THE MAIN AND SERVICE LINES SHALL BE REMOVED, UNLESS OTHERWISE SPECIFIED BY THE MUNICIPALITY AND/OR UTILITY COMPANY. AS SUCH, THE SAWCUT LINES SHOWN ON THESE PLANS DO NOT ACCOUNT FOR THE REMOVAL OF THE EXISIING UTILITIES BUT THE CONTRACTOR SHALL ASSUME REMOVAL FOR THE PURPOSES OF BIDDING THE PROJECT.



LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
		DRAIN MANHOLE
		CATCH BASIN
		SEWER MANHOLE
		TELEPHONE MANHOLE
		DRAIN PIPE
		GAS LINE
		OVERHEAD WIRES
		UNDERGROUND WIRES
		TELEPHONE LINE
		WATER LINE
		SEWER LINE
		ACCESSIBLE PAVEMENT MARKINGS
		SIGN
		LIGHT
		UTILITY POLE
		CONCRETE SIDEWALK/PAD
		BIT. CONC. SIDEWALK
		IRON PIPE/IRON PIN

GENERAL ABBREVIATIONS

ASSESSOR'S PARCEL	A.P.
BOTTOM OF CURB	BC
BITUMINOUS CONCRETE CURB	BCC
BITUMINOUS CONCRETE	BIT. CONC
BOTTOM OF WALL	BW
CATCH BASIN	CB
CHAIN LINK FENCE	C.L.F.
DRAIN CLEANOUT	DCO
SEWER CLEANOUT	SCO
CONCRETE SURFACE	CONC
DRILL HOLE FOUND	DH (F)
DRAIN MANHOLE	DMH
DOUBLE WALL FIBER GLASS	DWFG
DASHED WHITE LINE	DWL
DOUBLE YELLOW CENTERLINE	DYCL
EDGE OF PAVEMENT	EOP
EXTRUDED CONCRETE CURB	ECC
ELECTRIC HANDHOLE	EHH
FINISHED FLOOR ELEVATION	FF=
FRONT YARD	FY
VERTICAL GRANITE CURB	GC
GAS METER	GM
HIGH DENSITY POLYETHYLENE PIPE	HDPE
INVERT ELEVATION	I=
LINEAL FEET	LF
LANDSCAPED AREA	LA
MONOLITHIC CONCRETE CURB	MCC
MATCH EXISTING	ME
INVERT NOT AVAILABLE	N/A
NOW OR FORMERLY	N/F
ON CENTER	OC
RIM ELEVATION	R=
ROOF DRAIN	RD
REMOVE	REM
REAR YARD	RY
SEWER FORCE MAIN	SFM
SOLID WHITE EDGE LINE	SWEL
SOLID WHITE LINE	SWL
SIDE YARD	SY
SLOPED GRANITE CURB	SGC
TOP OF CURB	TC
TOP OF WALL	TW
UTILITY POLE	UP
VITRIFIED CLAY	VC
WATER GATE	WG
WATER SHUT-OFF	WSO

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PROPOSED RETAIL DEVELOPMENT

1621 MAIN STREET (RT-9)
LEICESTER, MA 01524

SCALE: 20 0 10 20 40
GRAPHIC SCALE IN FEET

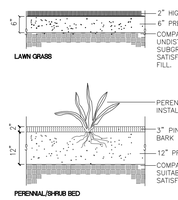
SHEET: **UTILITY PLAN**

6

DATE: 09/08/2023

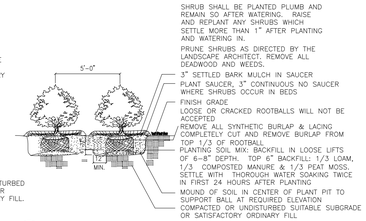
PLANT MATERIAL LIST

SYM.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE
DECIDUOUS AND ORNAMENTAL TREES				
LS	5	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2–2 1/2"
TC	3	TSUGA CANADENSIS	CANADIAN HEMLOCK	2–2 1/2"
TCG	3	TILIA CORDATA GREENSPIRE	GREENSPIRE LITTLE LEAF LINDEN	2–2 1/2"
SHRUBS				
AZ	4	AZALEA DELAWARE VALLEY WHITE	AZALEA DELAWARE VALLEY WHITE	#5
VIB	2	VIBURNUM CARLESI	MAYFLOWER VIBURNUM	#5
PERENNIALS AND GRASSES				
CA	46	CALAMAGROSTIS X ACUTIFLORA	FEATHER REED GRASS	1 GAL
FE	44	FESTUCA c. "ELIJAH BLUE"	ELIJAH BLUE FESCUE	1 GAL
HH	46	HEMEROCALLIS "HAPPY RETURNS"	HAPPY RETURNS DAYLILLIES	1 GAL
IS	46	IRIS SIBERICA "CAESAR'S BROTHER"	CAESAR'S BROTHER'S IRIS	1 GAL

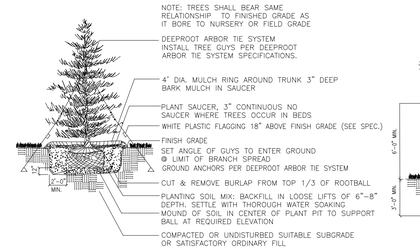


1 PERENNIAL, LAWN + NATURALIZED GRASS
SCALE: N.T.S.

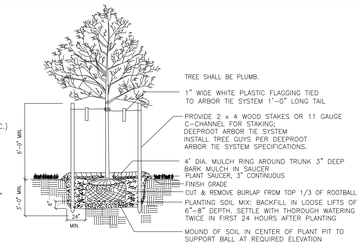
NOTES: SHRUB SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS IT BORE TO NURSERY OR FIELD GRADE



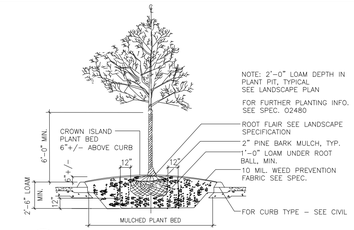
2 TYPICAL SHRUB PLANTING
SCALE: N.T.S.



3 EVERGREEN TREE PLANTING
SCALE: N.T.S.



4 DECIDUOUS TREE PLANTING AND STAKING
SCALE: N.T.S.



5 TYPICAL ISOLATED LOAM DEPTHS
SCALE: N.T.S.

GENERAL NOTES

1. CONTRACTOR SHALL MAKE A SITE VISIT PRIOR TO BIDDING TO EXAMINE EXISTING CONDITIONS FOR THEMSELVES. CONTRACTOR TO FAMILIARIZE THEMSELVES WITH DESIGN DOCUMENTS, NOTES & DETAILS AND THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, CURRENT EDITION.
2. CONTRACTOR SHALL NOTIFY/COORDINATE WITH THE MUNICIPALITY PRIOR TO PLANT MATERIAL INSTALLATION.
3. PRIOR TO THE PRE–CONSTRUCTION MEETING, THE CONTRACTOR SHALL CONTACT DIG SAFE @ 1–888–344–7233 TO HAVE THE EXISTING UTILITIES MARKED.
4. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS. SEE SPECIFICATION.
5. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY "THE AMERICAN STANDARD FOR NURSERY STOCK," PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. ANSI Z60.1–CURRENT EDITION.
6. ALL PLANTS TO BE BALLED IN BURLAP OR CONTAINER GROWN. NO PLASTIC BURLAP.
7. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF ACCEPTANCE.
8. HEAL ALL CONSTRUCTION SCARS WITH NATURALIZED GRASS, LAWN OR MULCH AS INDICATED ON PLAN.
9. "DRY ROOTS" SHALL BE ADDED TO ALL NEW TREE PLANTING PITS. ALL NEW LOAM SHALL BE TESTED AND AMENDED AS STATED IN THE LOAM REPORT PROVIDED BY LOAM SUPPLIER.
10. LANDSCAPE CONTRACTOR SHALL SUBMIT A WATERING SCHEDULE PROGRAM FOR THE 60 DAY MAINTENANCE PERIOD TO OWNER FOR ALL PROPOSED PLANT MATERIAL.
11. PROTECT EXISTING PLANT MATERIAL WITHIN CONSTRUCTION LIMITS. PROVIDE WATERING PROGRAM FOR ALL PROPOSED PLANT MATERIAL DURING CONSTRUCTION.

LANDSCAPE NOTES

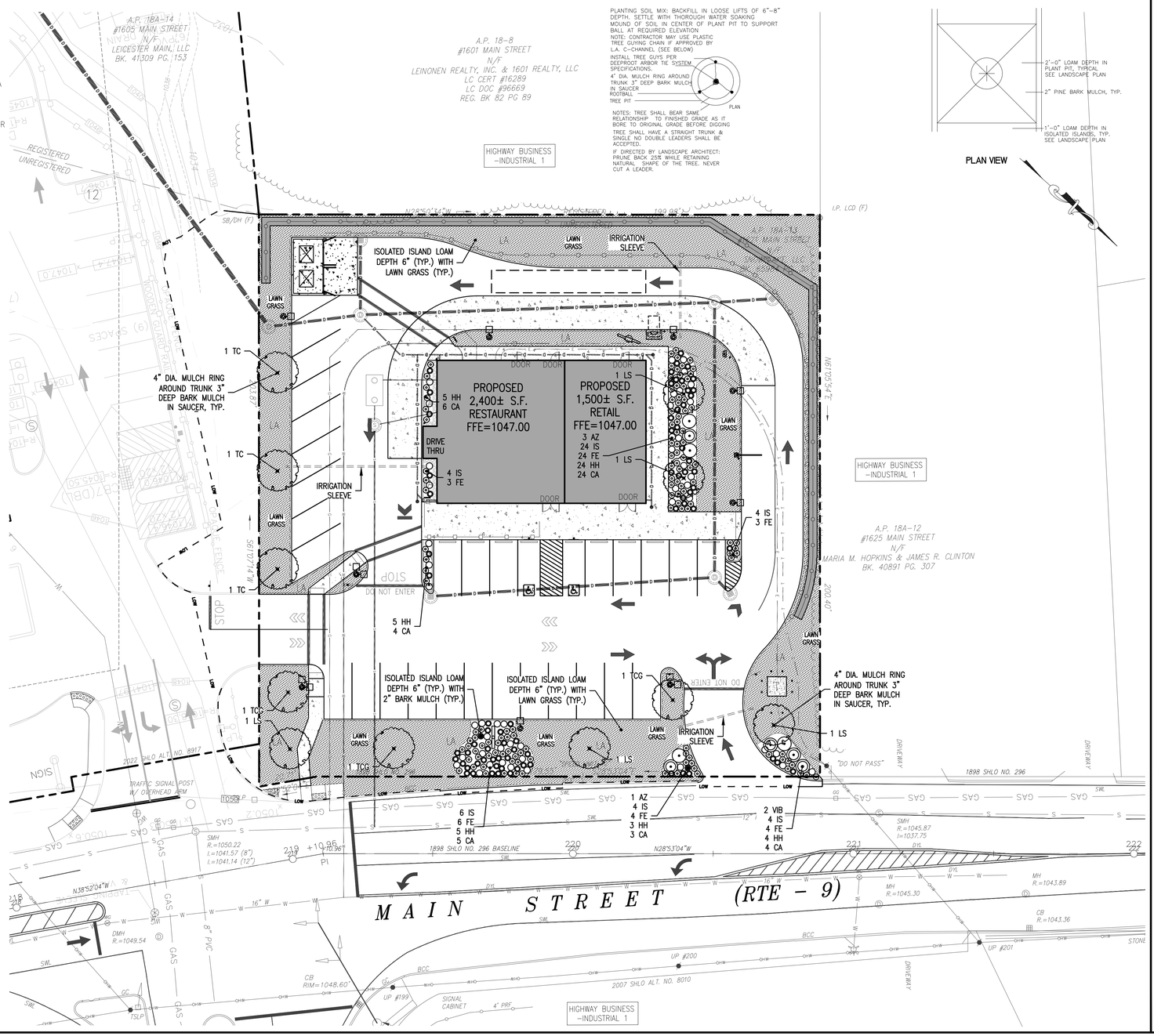
1. LOAM DEPTHS SHALL BE AS FOLLOWS:
   - LAWN AREAS: 6" ROLLED THICKNESS
   - PLANT BEDS: 1'–0" LOAM DEPTH IN THE PLANTED AREA WITH 2" MULCH
   - ISOLATED PLANTED ISLANDS: 1'–0" LOAM DEPTH
2. LAWN GRASS SHALL BE LANDSCAPE/UTILITY MIXTURE FOR SUN/SHADE AND MAY INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING SPECIES:
   - ENCHANTED PERENNIAL RYEGRASS
   - CREEPING RED FESCUE
   - GOLDRUSH KENTUCKY BLUEGRASS

IRRIGATION NOTES

1. THE DESIGN/BUILD IRRIGATION SUB–CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM FOR THE IRRIGATION AREAS SHOWN ON THE PLAN, WHICH INCLUDES NEW AND EXISTING TRANSPLANTED PLANT MATERIALS. SHOP DRAWINGS SHALL BE PROVIDED AT A SUITABLE SCALE TO ILLUSTRATE THAT THE DESIGNATED PLANT MATERIALS WILL BE IRRIGATED BY EITHER SPRAY HEADS, MIST HEADS OR DRIP IRRIGATION TUBING.
2. IRRIGATION TO BE COORDINATED WITH GENERAL CONTRACTOR TO LOCATE THE NECESSARY PVC SLEEVING TO COMPLETE IRRIGATION PROGRAM.
3. ALL LAWN AREAS SHALL BE SPRAY HEAD IRRIGATED. THE HEADS SHALL BE LOCATED FOR HEAD TO HEAD COVERAGE WITH ABSOLUTELY NO OVER–SPRAY ONTO THE PAVEMENT.
4. ALL TREES, SHRUBS AND GROUND COVER SHALL BE DRIP IRRIGATED/IRRIGATED WITH SHRUB MIST HEADS. CONTRACTOR SHALL BE AWARE THAT THE IRRIGATION SYSTEM SHALL BE ROUTED TO THE PYLON SIGN PLANTINGS AND PLANTERS AROUND THE BUILDING.
5. THE IRRIGATION LAYOUT AND ALL OF THE COMPONENTS SHALL CONFORM TO THE SPECIFICATIONS. THE SPECIFICATIONS CALL FOR SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL, AS WELL AS CONFORMANCE TO THE MATERIALS SPECIFIED.
6. THE CONTRACTOR SHALL BE EXTREMELY CAREFUL DURING THE INSTALLATION PROCESS NOT TO DISTURB NEW OR EXISTING PLANT MATERIALS. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH OTHER SUB–CONTRACTORS.
7. SLEEVING UNDER PAVEMENTS MUST BE AVAILABLE AND IN THE PROPER LOCATION PRIOR TO PAVING.
8. THE IRRIGATION CONTRACTOR SHALL CONFORM TO ANY LOCAL CODES OR ORDINANCES THAT MAY BE REQUIRED TO COMPLETE THE WORK.
9. THE IRRIGATION ALTERNATE SHALL INCLUDE THE COST OF CONNECTING TO THE BUILDING WATER SERVICE DOWN STREAM OF THE BACK FLOW PREVENTER OF THE IRRIGATION WELL.
10. THE IRRIGATION CONTRACTOR SHALL TEST WATER SOURCE FOR WATER QUALITY INCLUDING MINERALS THAT MAY CAUSE STAINING OF CONCRETE, GRANITE, PAVEMENT & CURBS.

LEGEND

- PROTECT EXISTING TREES TO REMAIN, TYP.
- ORNAMENTAL & FLOWERING TREES (DRIP OR MIST HEAD IRRIGATION)
- PERENNIALS (DRIP OR MIST HEAD IRRIGATION)
- SEEDED LAWN (SPRAY–HEAD IRRIGATION)
- IRRIGATION SLEEVES



NOTE: TREE SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS IT BORE TO NURSERY OR FIELD GRADE.
IF DIRECTED BY LANDSCAPE ARCHITECT: PRUNE BACK 25% WHILE RETAINING NATURAL SHAPE OF THE TREE. NEVER CUT A LEADER.

PLANTING SOIL MIX: BACKFILL IN LOOSE LIFTS OF 6"–8" DEPTH. SETTLE WITH THOROUGH WATER SOAKING
MOUND OF SOIL IN CENTER OF PLANT PIT TO SUPPORT BALL AT REQUIRED ELEVATION
NOTE: CONTRACTOR MAY USE PLASTIC TREE GUYING CHAIN IF APPROVED BY L.A. C–CHANNEL (SEE BELOW)
INSTALL TREE GUYS PER DEEPROOT ARBOR TIE SYSTEM SPECIFICATIONS.
4" DIA. MULCH RING AROUND TRUNK 3" DEEP BARK MULCH IN SAUCER
ROOTBALL
TREE PIT
PLAN
NOTES: TREE SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS IT BORE TO ORIGINAL GRADE BEFORE DIGGING
TREE SHALL HAVE A STRAIGHT TRUNK & SINGLE NO DOUBLE LEADERS SHALL BE ACCEPTED.
IF DIRECTED BY LANDSCAPE ARCHITECT: PRUNE BACK 25% WHILE RETAINING NATURAL SHAPE OF THE TREE. NEVER CUT A LEADER.

NOT FOR CONSTRUCTION

CDG PROJECT #: 23028

REVISIONS:

REV	DATE	COMMENT
1	10/16/23	REVISED PER PEER REVIEW LETTER
2		
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SEAL: COMMONWEALTH OF MASSACHUSETTS PHILIP R. HENRY CIVIL No. 48547 REGISTERED PROFESSIONAL ENGINEER

PHILIP R. HENRY, P.E.

PLANNING BOARD:

CIVIL:
CIVIL DESIGN GROUP, LLC
21 HIGH STREET, SUITE 207
NORTH ANDOVER, MA 01845
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p: 978-794-5400 f: 978-965-3971

PREPARED FOR:
HY VENTURES LEICESTER, LLC
313 BOSTON POST ROAD WEST
MARLOROUGH, MA 01752

PROJECT:
PROPOSED RETAIL DEVELOPMENT
1621 MAIN STREET (RT-9)
LEICESTER, MA 01524

SCALE: 20 0 10 20 40 GRAPHIC SCALE IN FEET

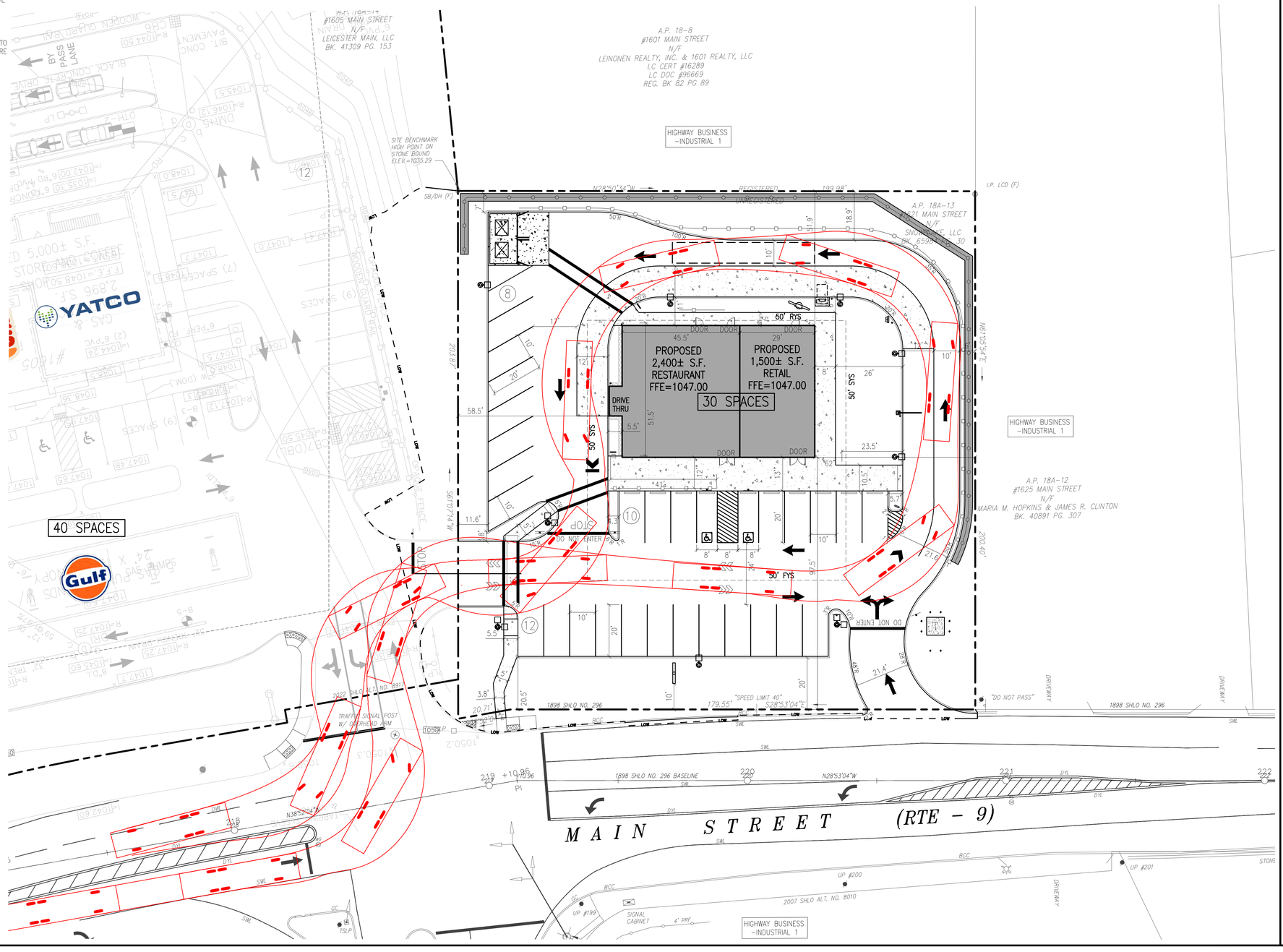
SHEET: LANDSCAPE PLAN
7

DATE: 09/08/2023

BOARD OF FIRE PREVENTION REGULATION COMPLIANCE

1. IN ACCORDANCE WITH 527 CMR 1 SECTION 18.1.1.4, FIRE APPARATUS MANEUVERS / VEHICLE SWEPT PATHS HAVE BEEN PROVIDED.
2. IN ACCORDANCE WITH 527 CMR 1 SECTION 18.1.1.5, THIS PLAN BEARS THE SEAL OF A REGISTERED PROFESSIONAL ENGINEER.
3. IN ACCORDANCE WITH 527 CMR 1 SECTION 18.2.3.2.1.1, ACCESS ROADS EXTEND TO WITHIN 150' OF AT LEAST ONE EXTERIOR DOOR THAT CAN BE OPENED FROM THE OUTSIDE.
4. IN ACCORDANCE WITH 527 CMR 1 SECTION 18.2.3.2.2.1, ANY PORTION OF THE EXTERIOR WALL OF THE FIRST STORY OF EACH BUILDING IS WITHIN 250' OF AN ACCESS ROAD.
5. IN ACCORDANCE WITH 527 CMR 1 SECTION 18.2.3.4.1.1, ACCESS ROADS HAVE BEEN PROVIDED WITH UNOBSTRUCTED WIDTHS OF NOT LESS THAN 20'.
6. IN ACCORDANCE WITH 527 CMR 1 SECTION 18.2.3.4.1.2, ACCESS ROADS HAVE BEEN PROVIDED WITH UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13'-6".
7. IN ACCORDANCE WITH 527 CMR 1 SECTION 18.2.3.4.3.1, INSIDE TURNING RADII HAVE BEEN PROVIDED EQUAL TO OR GREATER THAN THE EQUIVALENT OF 25' RADII FOR A 20' WIDE ACCESS ROAD.
8. IN ACCORDANCE WITH 527 CMR 1 SECTION 18.2.3.4.2, ACCESS ROADS HAVE BEEN DESIGNED TO SUPPORT FIRE APPARATUS AND ARE PROVIDED WITH AN ALL-WEATHER DRIVING SURFACE.
9. IN ACCORDANCE WITH 527 CMR 1 SECTION 18.2.3.4.4, TURNAROUND PROVISIONS HAVE BEEN MADE FOR DEAD-END ACCESS ROADS.
10. IN ACCORDANCE WITH 527 CMR 1 SECTION 18.2.3.4.6.1, ACCESS ROAD GRADES DO NOT EXCEED 10%.
11. CIVIL DESIGN GROUP RECOMMENDS THAT THE FIRE TRUCK MANUEVERING BE FIELD VERIFIED AS SOON AS PRACTICABLE WITH THE AMHERST FIRE DEPARTMENT PRESENT TO WITNESS THE SAME. CDG SHALL NOT BE HELD LIABILE FOR THE INABILITY OF THE FIRE TRUCK TO ACCESS AND EXIT THE SITE.

LEICESTER TOWN LADDER 53
TRUCK DIMENSIONS



NOT FOR CONSTRUCTION

CDG PROJECT #: 23028

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SEAL:

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REGISTERED PROFESSIONAL ENGINEER

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20 0 10 20 40
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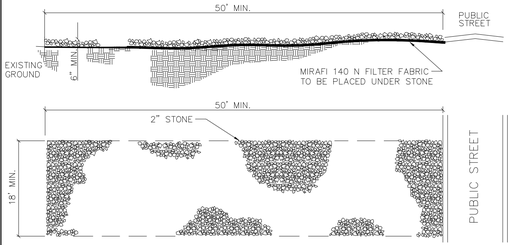
SHEET:

FIRE APPARATUS CIRCULATION PLAN

8

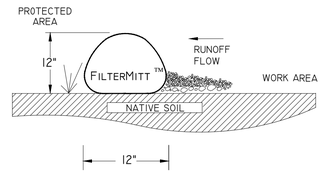
DATE: 09/08/2023



NOTES:
1. A STABILIZED CONSTRUCTION ENTRANCE COMPRISED OF 2" CRUSHED STONE SHALL BE LOCATED WHERE CONSTRUCTION RELATED VEHICLES WILL ACCESS THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR ADJACENT LAND. ADDITIONAL STONE SHALL BE ADDED AS CONDITIONS WARRANT.
3. ANY SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED IMMEDIATELY.
4. WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET, IF APPLICABLE. WHEEL WASHING SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS TO A DESIGNATED SEDIMENT TRAP.

TYPICAL STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

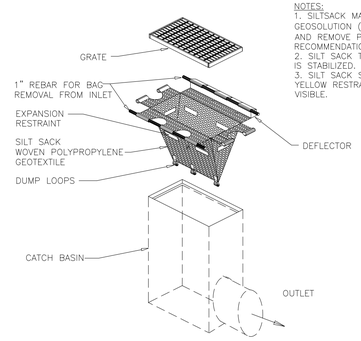


NOTES:
1. WATTLES SHALL BE FILTERMITT, SILTSOXX, OR APPROVED EQUAL.
2. WATTLES SHALL BE A MINIMUM OF 12" AND SHALL BE BIODEGRADABLE.
3. WATTLES SHALL NOT CONSIST OF STRAW.
4. WATTLES SHALL BE INSPECTED REGULARLY.

TYPICAL WATTLE DETAIL

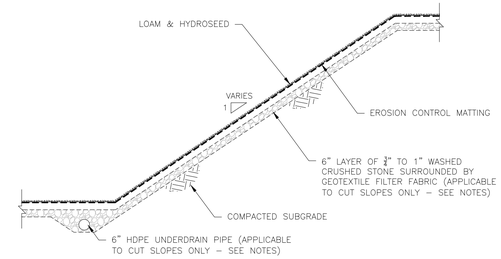
NOT TO SCALE

NOTES:
1. SILTSACK MANUFACTURED BY SI GEOSOLUTION (800-621-0444); INSTALL AND REMOVE PER MANUFACTURER'S RECOMMENDATIONS.
2. SILT SACK TO BE REMOVED WHEN SITE IS STABILIZED.
3. SILT SACK SHALL BE EMPTIED WHEN YELLOW RESTRAINT CORD IS NO LONGER VISIBLE.



TYPICAL SILT SACK DETAIL

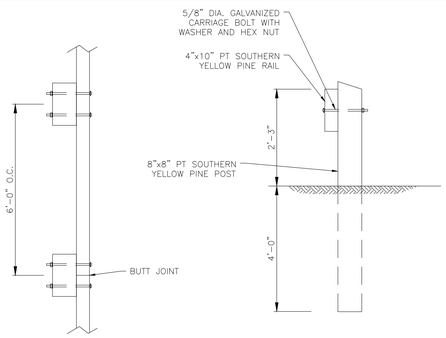
NOT TO SCALE



NOTES:
1. THIS DETAIL APPLIES TO ALL SLOPES 3H:1V AND STEEPER.
2. STONE LAYER AND ASSOCIATED UNDERDRAIN ONLY APPLY WHERE SLOPE IS IN A CUT (NOT APPLICABLE TO FILL SLOPES).

TYPICAL SLOPE STABILIZATION DETAIL

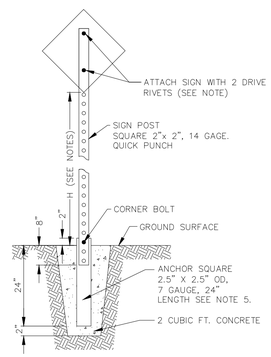
NOT TO SCALE



NOTE:
1. INSTALL RAIL FACE 1.5' FROM FACE OF CURB.

WOODEN GUIDE RAIL DETAIL

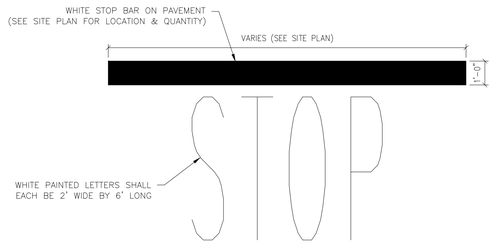
NOT TO SCALE



NOTES:
1. TYPICAL HEIGHT (H) SHALL BE 7'-0", EXCEPT FOR ACCESSIBLE PARKING SIGNAGE, WHICH SHALL HAVE A HEIGHT AS SPECIFIED IN THE APPLICABLE DETAIL.
2. METAL POSTS SHALL BE QUICK PUNCH POST.
3. FOR IN-SIDEWALK INSTALLATIONS, CORE 4" DIA. HOLE. ANCHOR LENGTH MAY BE DECREASED TO 12".
4. POST SHALL BE GALVANIZED ROLLED CARBON SHEET STEEL, ASTM A570 GRADE 50 AND SHALL HAVE 7/16" DIE-PUNCHED KNOCKOUTS ON 1" CENTERS FULL LENGTH, FOUR SIDES.
5. ANCHOR SHALL HAVE 4 7/16" HOLES ONE EACH SIDE 2" FROM TOP END. FINISH SHALL BE ZINC HOT DIPPED GALVANIZED MATERIAL TO MEET ASTM A500 GRADE B.
6. DRIVE RIVETS TO BE TL3806 3/8" DIA.
7. CORNER BOLTS TO BE TLCB516M.
8. SIGNS SHALL BE MOUNTED 7' FROM BOTTOM OF SIGN TO GROUND SURFACE AND 6' FROM THE BOTTOM OF THE LOWER SIGN FOR MULTIPLE SIGNS ON A SINGLE POST, UNLESS OTHERWISE SPECIFIED.
9. GC SHALL BE RESPONSIBLE TO FURNISH AND INSTALL SIGNS AND POSTS.

BREAKAWAY SIGN POST DETAIL

NOT TO SCALE

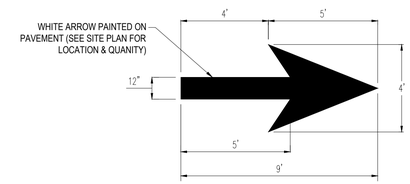


NOTE:

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.

TYPICAL PAINTED STOP BAR

NOT TO SCALE

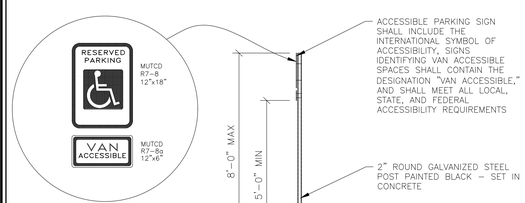


NOTE:

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

TYPICAL PAINTED ARROW DETAIL

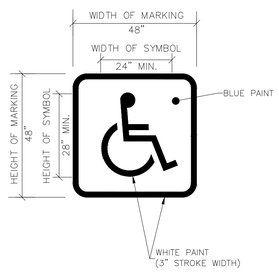
NOT TO SCALE



NOTES:
1. SIGNAGE SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, & LOCAL CODES, REGULATIONS, & POLICIES.
2. ACCESSIBLE SIGNS SHALL BE MOUNTED A MINIMUM OF 5' TO BOTTOM OF SIGN AND A MAXIMUM OF 8' TO TOP OF SIGN IN ORDER TO COMPLY WITH APPLICABLE ADA AND AAB REQUIREMENTS.
3. VAN ACCESSIBLE SIGN SHALL BE USED ON ONE PARKING SPACE PER BUILDING, SUCH THAT THE STRIPED ACCESSIBLE AISLE IS ON THE PASSENGER SIDE OF THE VAN SPACE.

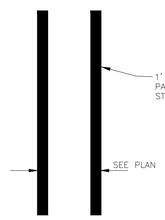
ACCESSIBLE PARKING SIGNAGE DETAIL

NOT TO SCALE



TYPICAL ACCESSIBLE PARKING SPACE MARKING DETAIL

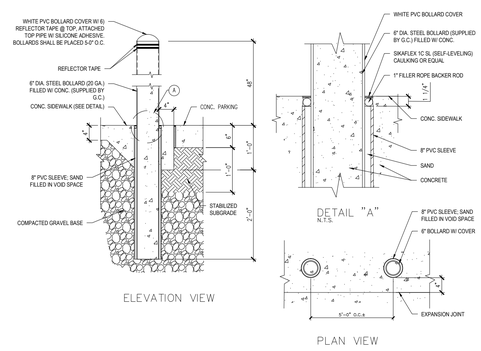
NOT TO SCALE



CROSSWALK NOTES:
1. MATERIAL SHALL BE THERMOPLASTIC, HOT APPLIED OR HEAT FUSED PREFORMED (90 MIL. MIN.), UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. RAMP PORTION OF WHEELCHAIR CURB RAMP TO BE LOCATED WITHIN CROSSWALK, WHERE APPLICABLE.
3. CROSSWALK LENGTH WILL VARY.

TYPICAL CROSSWALK DETAIL

NOT TO SCALE



TYPICAL BOLLARD SET IN FLUSH CONCRETE WALK DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION

CDG PROJECT #: 23028

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SEAL:

COMMONWEALTH OF MASSACHUSETTS
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PROJECT:

PROPOSED RETAIL DEVELOPMENT

1621 MAIN STREET (RT-9)
LEICESTER, MA 01524

SCALE:

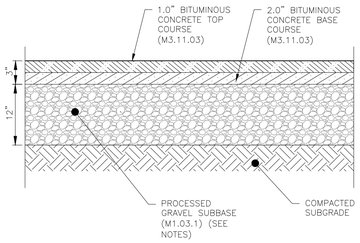
AS NOTED

SHEET:

CONSTRUCTION DETAILS

9

DATE: 09/08/2023

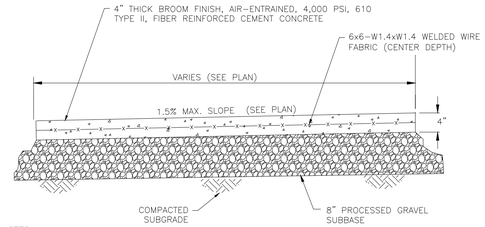


NOTES:

1. THIS DETAIL PROVIDES A MINIMUM STANDARD FOR PAVEMENT CONSTRUCTION BASED ON THE AASHTO GUIDE FOR DESIGN OF PAVEMENT STRUCTURES. THE FINAL PAVEMENT SECTION SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SHALL BE UTILIZED IF MORE STRINGENT THAN THIS DETAIL.
2. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MassDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
3. THE SOIL MUST HAVE A MOISTURE CONTENT DRY OF OPTIMUM AS DETERMINED BY THE MOISTURE–DENSITY RELATIONSHIP TEST METHOD ASTM D1557.
4. THE SOIL CAN BE COMPACTED TO 98% OF THE MAXIMUM STANDARD PROCTOR DENSITY AS DETERMINED BY THE MOISTURE–DENSITY RELATIONSHIP TEST METHOD ASTM D698.
5. THE SOIL SHALL NOT BE USED IF THE MATERIAL CONTAINS ORGANIC MATTER, RUBBLE, DEBRIS OR ANY OTHER DELETERIOUS MATERIAL.

TYPICAL BITUMINOUS PAVEMENT DETAIL

NOT TO SCALE

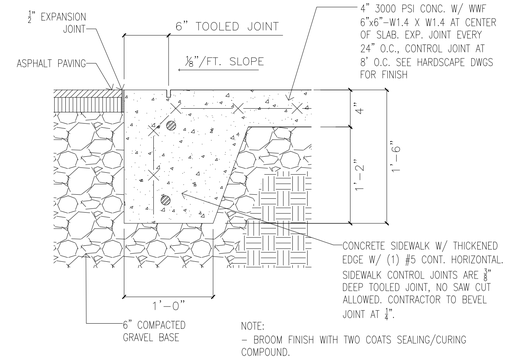


NOTES:

1. THIS DETAIL PROVIDES A MINIMUM STANDARD FOR SIDEWALK CONSTRUCTION. THE FINAL SIDEWALK SECTION SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SHALL BE UTILIZED IF MORE STRINGENT THAN THIS DETAIL.
2. GROOVE JOINTS 1" DEEP WITH 1/3" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ALL GROOVE JOINTS SHALL LEAVE A HORIZONTAL GAP OF LESS THAN $\frac{3}{8}$" TO COMPLY WITH ADA REQUIREMENTS.
3. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 40' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE. EXPANSION JOINT FILLER STRIP SHALL BE INSTALLED FLUSH WITH THE SIDEWALK SURFACE TO PROVIDE A SMOOTH TRANSITION ACROSS JOINTS, IN ACCORDANCE WITH ADA REQUIREMENTS.
4. FLAT WORK WITHIN THE MUNICIPAL RIGHT OF WAY SHALL BE CONSTRUCTED IN CONFORMANCE WITH MUNICIPAL STANDARD SPECIFICATIONS.

TYPICAL ONSITE CONCRETE SIDEWALK DETAIL

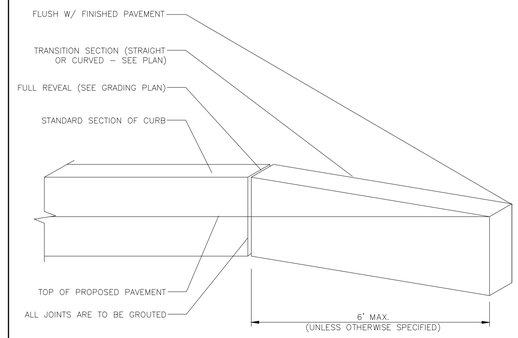
NOT TO SCALE



NOTE:
– BROOM FINISH WITH TWO COATS SEALING/CURING COMPOUND.

FLUSH CONCRETE SIDEWALK/PARKING DETAIL

NOT TO SCALE

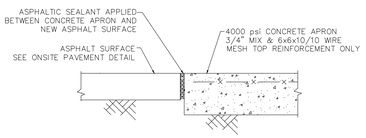


NOTES:

1. SEE TYPICAL CURB DETAIL FOR ADDITIONAL INFORMATION

ONSITE TRANSITION CURB DETAIL

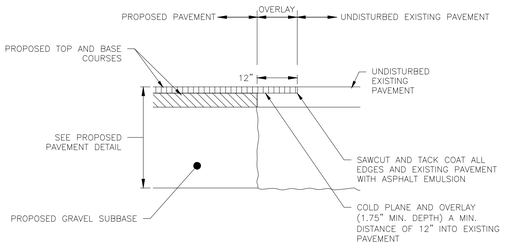
NOT TO SCALE



NOTE:
– 6" CONC. APRON @ CANOPY
– 8" CONC. APRON @ TANK

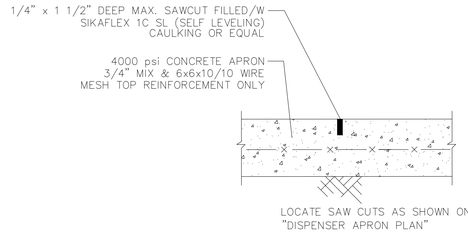
TYPICAL ASPHALT /CONCRETE TRANSITION DETAIL

NOT TO SCALE



PAVEMENT TIE-IN DETAIL

NOT TO SCALE



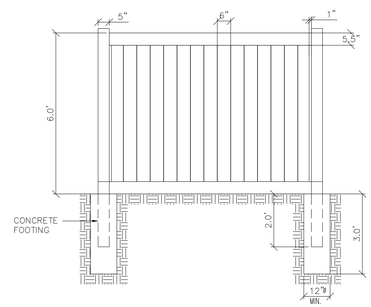
NOTE:
– 6" CONC. APRON @ CANOPY
– 8" CONC. APRON @ TANK

CONCRETE SPECIFICATIONS:

– SOIL BEARING CAPACITY REQ'D: AS PER GEOTECHNICAL REPORT
– CONC. STRENGTH: 4000psi @ 28 DAYS 3% TO 7% AIR,
TROWELLED SMOOTH FINISH WITH TWO COATS SEALING/CURING COMPOUND.

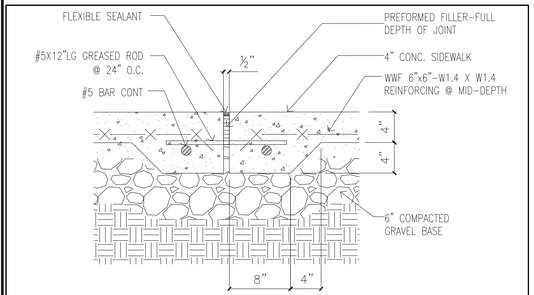
TYPICAL SAWCUT DETAIL

NOT TO SCALE



WHITE VINYL FENCE DETAIL

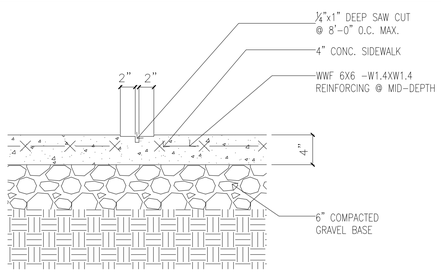
NOT TO SCALE



NOTE:
– CONTROL JOINTS @ 20'–0" O.C. MAX. REFER TO PLAN
– BROOM FINISH WITH TWO COATS SEALING/CURING COMPOUND.

TYPICAL SIDEWALK EXPANSION JOINT DETAIL

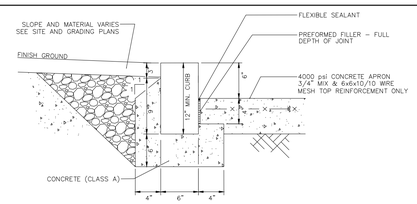
NOT TO SCALE



NOTE:
– TOOL JOINT SPACING REFER TO PLAN
– BROOM FINISH WITH TWO COATS SEALING/CURING COMPOUND.

TYPICAL SIDEWALK CONTROL JOINT DETAIL

NOT TO SCALE

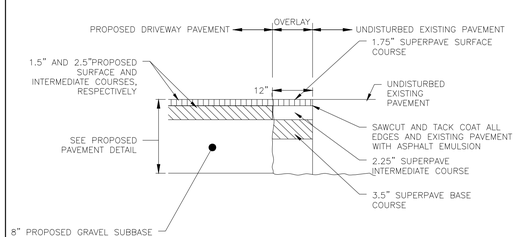


1. MAXIMUM LENGTH OF STRAIGHT CURB STONES – 18"
2. MINIMUM LENGTH OF STRAIGHT CURB STONES – 8'
3. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES SEE CHART
4. ADJOINING STONES OF STRAIGHT CURB LAID ON CURVES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
5. SEE PAVEMENT DETAIL FOR SPECIFICATIONS ON PAVEMENT AND GRAVEL.
6. ALL JOINTS ARE TO BE GROUTED

NOTE: VERTICAL GRANITE CURBING TO BE INSTALLED ONLY WHEN IT ABUTS CONCRETE (I.E. TANK MAT, CANOPY MAT, AIR TOWER, REMOTE FILL PAD) SLOPED GRANITE CURBING TO BE INSTALLED IN ALL OTHER LOCATIONS UNLESS SPECIFICALLY IDENTIFIED ON THE SITE PLAN.

TYPICAL VERTICAL GRANITE CURB DETAIL

NOT TO SCALE



NOTE: IF THE EXISTING ROADWAY IS THICKER THAN THE PAVEMENT SPECIFIED ABOVE, CONTRACTOR SHOULD MATCH EXISTING PAVEMENT SECTION THICKNESSES.

MASSDOT PAVEMENT TIE-IN DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION

CDG PROJECT #: 23028

REVISIONS:

REV	DATE	COMMENT
1	10/16/23	REVISED PER PEER REVIEW LETTER
2		
3		
4		
5		
6		
7		
8		
9		

SEAL:

COMMONWEALTH OF MASSACHUSETTS
PHILIP R. HENRY
CIVIL
No. 48547
REGISTERED PROFESSIONAL ENGINEER

PHILIP R. HENRY, P.E.

PLANNING BOARD:

CIVIL ENGINEER:

CIVIL DESIGN GROUP, LLC

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NORTH ANDOVER, MA 01845
www.cdgengineering.com
p: 978-794-5400 f: 978-965-3971

PREPARED FOR:

HY VENTURES LEICESTER, LLC

313 BOSTON POST ROAD WEST MARLOROUGH, MA 01752

PROJECT:

PROPOSED RETAIL DEVELOPMENT

1621 MAIN STREET (RT-9) LEICESTER, MA 01524

SCALE:

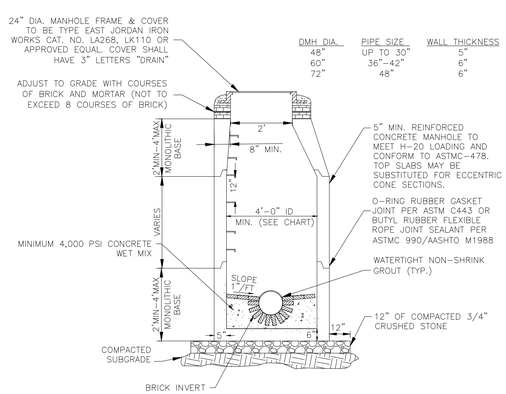
AS NOTED

SHEET:

CONSTRUCTION DETAILS

10

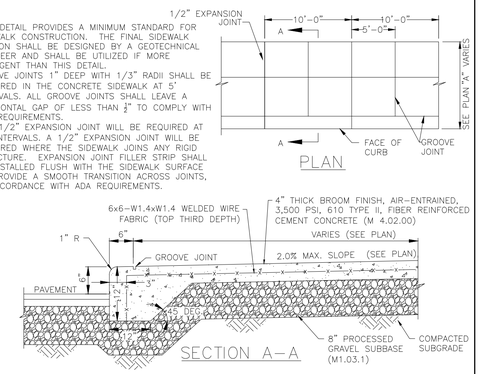
DATE: 09/08/2023



TYPICAL DRAIN MANHOLE DETAIL

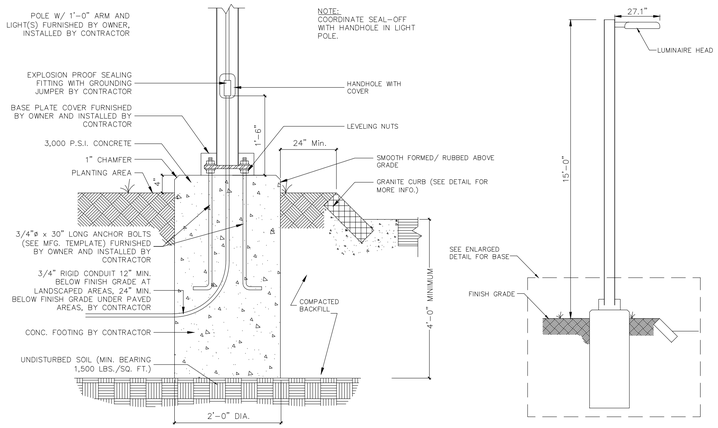
NOT TO SCALE

NOTES:
1. THIS DETAIL PROVIDES A MINIMUM STANDARD FOR SIDEWALK CONSTRUCTION. THE FINAL SIDEWALK SECTION SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SHALL BE UTILIZED IF MORE STRINGENT THAN THIS DETAIL.
2. GROOVE JOINTS 1" DEEP WITH 1/3" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ALL GROOVE JOINTS SHALL LEAVE A HORIZONTAL GAP OF LESS THAN ¼" TO COMPLY WITH ADA REQUIREMENTS.
3. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 40' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE. EXPANSION JOINT FILLER STRIP SHALL BE INSTALLED FLUSH WITH THE SIDEWALK SURFACE TO PROVIDE A SMOOTH TRANSITION ACROSS JOINTS, IN ACCORDANCE WITH ADA REQUIREMENTS.



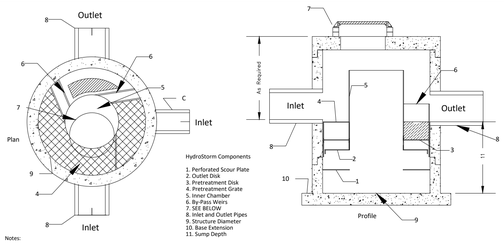
TYPICAL MONOLITHIC CURB AND SIDEWALK DETAIL

NOT TO SCALE



LIGHT POLE IN LANDSCAPE AREA DETAIL

NOT TO SCALE



HydroStorm Components

1. Perforated Scour Plate
2. Outlet Disk
3. Pretreatment Disk
4. Pretreatment Grate
5. Inner Chamber
6. By-Pass Weirs
7. SEE BELOW
8. Inlet and Outlet Pipes
9. Structure Diameter
10. Base Extension
11. Sump Depth

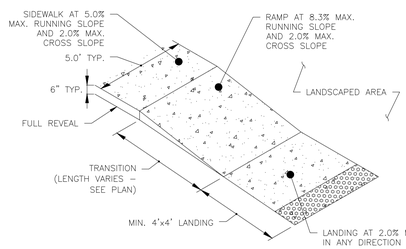
Notes:

A. Use a headloss K factor of 1.04 for hydraulic gradeline calculations
B. Sump depths shown are minimums. Additional depth can be added for site specific capacities
C. Multiple inlet pipes allowed
D. Drops allowed
E. Inlet invert elevations should be the same or higher than the outlet invert elevation. Inlet can be up to 12" lower than outlet if pretreatment area is omitted but 12" must be added to sump depth to compensate for overall treatment volume
F. Solid Cover shown. HydroStorm can be designed with an inlet grate if required
G. Oil capacities given are spill capacities. Oil should be removed from the unit once an oil depth of 2" or more is measured in the inner chamber
H. Sediment depths are maximum holding capacities and not recommended capacities for regular maintenance. Maintenance is recommended annually or once every 2 years.
I. Capacities are rounded down to nearest 5 gal or ft3

HydroStorm by Hydroworks, LLC
Patent Pending
www.hydroworks.com
888-290-7900

TYPICAL HYDROWORKS HS4 DETAIL

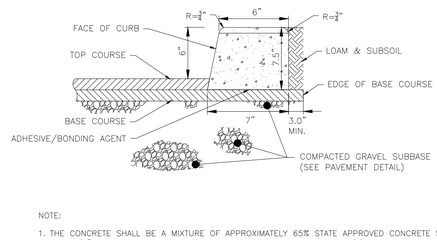
NOT TO SCALE



NOTES:
1. CURBS AND WALKS ALONG ACCESSIBLE ROUTES SHALL MEET OR EXCEED THE APPLICABLE REQUIREMENTS SET FORTH IN THE FEDERAL AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES AND APPLICABLE STATE REGULATIONS.
2. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 2.0% (0.5% MIN.).
3. THE MAXIMUM ALLOWABLE RUNNING SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5.0%.
4. THE MAXIMUM ALLOWABLE SLOPE OF RAMP AND WING SLOPES SHALL BE 8.3%.
5. MAINTAIN A MINIMUM OF 3 FEET CLEAR AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS ETC.)
6. THE SURFACE OF THE RAMP SHALL BE FLUSH WITH THE FLOW LINE OF THE CURB AND GUTTER.
7. RAMP CONSTRUCTION SHALL CONFORM TO THE TYPICAL SIDEWALK SECTION.
8. ALL RAMPS SHALL BE CEMENT CONCRETE WITH BROOM FINISHED NON–SLIP SURFACE.

TYPICAL ACCESSIBLE CURB RAMP (TYPE-1) DETAIL

NOT TO SCALE

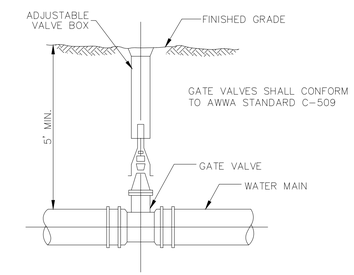


NOTE:

1. THE CONCRETE SHALL BE A MIXTURE OF APPROXIMATELY 65% STATE APPROVED CONCRETE SAND, 20% 3/8" STONE, AND 15% CEMENT. CONCRETE SHALL CONTAIN ONE (1) LB. OF FIBER MESH PER CUBIC YARD AND HAVE COMPRESSIVE STRENGTH OF 4,000 PSI AFTER 28 DAYS. THE CONCRETE SHALL MEET OR EXCEED ASTM C94 STANDARD SPECIFICATION FOR READY MIX CONCRETE.
2. THE ASPHALT PAVEMENT SHALL BE CLEANED BY SCARIFYING OR WASHING TO REMOVE ALL DUST, OIL AND LOOSE MATERIAL PRIOR TO APPLYING A TWO COMPONENT EPOXY OR SUITABLE CONCRETE ADHESIVE DESIGNED TO BOND FRESH CONCRETE TO EXISTING PAVEMENT SHALL BE USED.
3. CONTROL JOINTS SHALL BE INSTALLED AT NINE FOOT INTERVALS (OR AS RECOMMENDED BY THE MANUFACTURER/INSTALLER) AND AT ALL RADIUS POINTS TO MINIMIZE CRACKING.
4. THE FINISHED CURBING SHALL BE COATED WITH A CURING COMPOUND DESIGNED TO SEAL THE SURFACE AND FORM A WATERPROOF MEMBRANE TO RETARD THE LOSS OF WATER FROM THE FRESH CONCRETE. THE MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED.

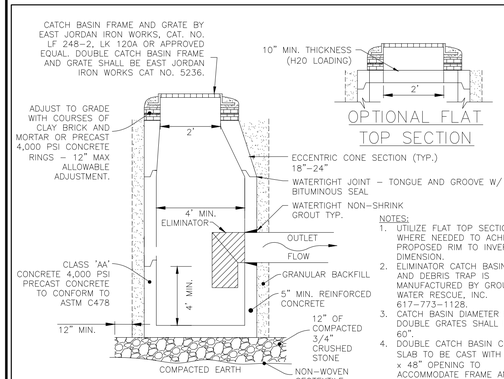
TYPICAL EXTRUDED CURB DETAIL

NOT TO SCALE



TYPICAL GATE VALVE DETAIL

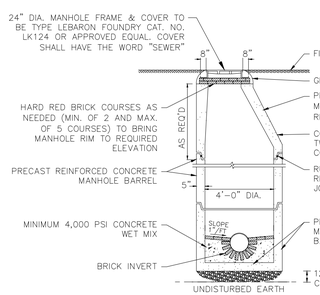
NOT TO SCALE



NOTES:
1. UTILIZE FLAT TOP SECTION WHERE NEEDED TO ACHIEVE PROPOSED RIM TO INVERT DIMENSION.
2. ELIMINATOR CATCH BASIN OIL AND DEBRIS TRAP IS MANUFACTURED BY GROUND WATER RESCUE, INC. 617–773–1128.
3. CATCH BASIN DIAMETER FOR DOUBLE GRATES SHALL BE 60".
4. DOUBLE CATCH BASIN COVER SLAB TO BE CAST WITH 22" x 48" OPENING TO ACCOMMODATE FRAME AND GRATE.
5. COVER SLAB TO MEET OR EXCEED H–20 LOADING.
6. DRAIN MANHOLES SPECIFIED FOR DEEP SUMPS ON THE PLAN SHALL USE THIS DETAIL EXCEPT FOR THE FRAME AND COVER.

TYPICAL CATCH BASIN DETAIL

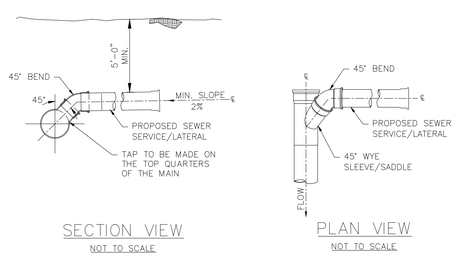
NOT TO SCALE



NOTES:
1. TYPICAL SANITARY MANHOLE TO BE 4 FEET IN DIAMETER.
2. 5'–0" DIAMETER FOR ALL MANHOLE DEPTHS GREATER THAN 12 FEET (6" MIN. WALL THICKNESS AND 7" MIN. BASE THICKNESS FOR 5'–0" DIAMETER MANHOLES).
3. UTILIZE FLAT TOP SECTION IF NEEDED FOR SHALLOW INSTALLATION.
4. INNER EDGE OF BRICK TABLE TO BE AT ELEVATION OF CROWN OF TOP OF PIPE.
5. DESIGN LOAD – HS20.
6. ALL INVERTS SHALL BE 4,000 PSI CEMENT CONCRETE IN VOID AREAS AND RED SEWER BRICK CONSTRUCTION.
7. ALL INVERTS SHALL BE BUILT IN PLACE AFTER ALL PIPES HAVE BEEN INSTALLED.
8. FILL ALL LIFTING HOLES WITH NON–SHRINK GROUT AFTER INSTALLATION.

TYPICAL SEWER MANHOLE DETAIL

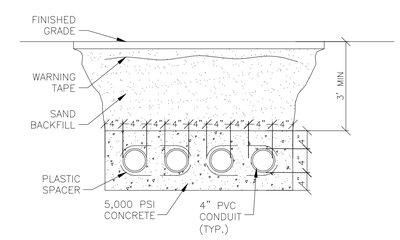
NOT TO SCALE



NOTES:
1. SEWER SERVICES SHALL BE 6" SDR–35 PVC UNLESS OTHERWISE NOTED ON THE PLAN. THE CONTRACTOR SHALL CONFIRM THE PIPE SIZE AND MATERIAL WITH THE MUNICIPALITY PRIOR TO INSTALLATION.
2. SEWER TAP AND LATERAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE MUNICIPAL REQUIREMENTS AND/OR STANDARDS.
3. SEWER LATERAL SHALL BE PITCHED AT 2.0% MINIMUM SLOPE UNLESS OTHERWISE INDICATED OR UNLESS OTHERWISE REQUIRED BY THE MUNICIPALITY.

TYPICAL SEWER SERVICE CONNECTION DETAIL

NOT TO SCALE



NOTES:
1. DUCT BANK TO BE CONSTRUCTED PER UTILITY COMPANY STANDARDS IF DIFFERENT THAN THIS DETAIL.

TYPICAL ELECTRICAL/TELEPHONE/CABLE DUCTBANK DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION

CDG PROJECT #: 23028

REVISIONS:

REV	DATE	COMMENT
1	10/16/23	REVISED PER PEER REVIEW LETTER
2		
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SEAL:

COMMONWEALTH OF MASSACHUSETTS
PHILIP R. HENRY
CIVIL
No. 48547
REGISTERED PROFESSIONAL ENGINEER

PHILIP R. HENRY, P.E.

PLANNING BOARD:

CIVIL ENGINEER:

CIVIL DESIGN GROUP, LLC

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NORTH ANDOVER, MA 01845
www.cdgengineering.com
p: 978-794-5400 f: 978-965-3971

PREPARED FOR:

HY VENTURES LEICESTER, LLC

313 BOSTON POST ROAD WEST
MARLOROUGH, MA 01752

PROJECT:

PROPOSED RETAIL DEVELOPMENT

1621 MAIN STREET (RT-9)
LEICESTER, MA 01524

SCALE:

AS NOTED

SHEET:

CONSTRUCTION DETAILS

11

DATE: 09/08/2023

SPECIFICATIONS

NOTES

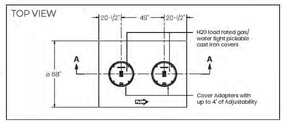
1. 6" plain end SCH. 40 Inlet/outlet.
2. Unit weight - w/composite covers: 1,400 lbs.; w/cast iron covers: 1,518 lbs.
3. Maximum operating temperature: 150° F continuous.
4. Capacities - Liquid: 1,000 gal.; Grease: 8,547 lbs. (854.4 gal.); Solids: 213 gal.
5. Built-in flow control. For series installations, only install flow control on the first unit in the series if necessary.
6. For gravity drainage applications only.
7. Do not use for pressure applications.
8. Cover placement allows full access to tank for proper maintenance.
9. Vent not required unless per local code.
10. Engineered inlet and outlet diffusers with inspection ports are removable to inspect / clean piping. For series installations, the top of the inlet diffuser on the first unit in the series must be sealed.
11. Integral air relief / Anti-siphon / Sampling access.

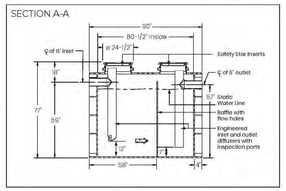
ENGINEER SPECIFICATION GUIDE

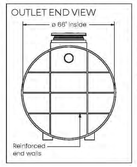
Schier Great Basin™ grease interceptor model # GB-1000 shall be lifetime guaranteed and made in USA of seamless, molded polyethylene with minimum 3/4" uniform wall thickness. Interceptor shall be furnished for below grade installation with field adjustable riser system. Interceptor flow rate shall be 100 GPM. Interceptor grease capacity shall be 8,547 lbs. Cover shall provide water/gas-tight seal and have minimum 15,000 lbs. load capacity.

CERTIFIED PERFORMANCE

Great Basin™ hydromechanical grease interceptors are third party performance tested and listed by IAPMO to ASME #A112.14.3 and CSA B481 | grease interceptor standards and greatly exceed requirements for grease separation and storage. They are compliant to the Uniform Plumbing Code and the International Plumbing Code.







Rated Grease Capacities for Units Piped in Series

No. of Units in Series	Removal Efficiency 100 GPM 98.8%	99%
2	13,094 lbs.	12,474 lbs.
3	19,641 lbs.	18,711 lbs.
4	26,188 lbs.	24,948 lbs.

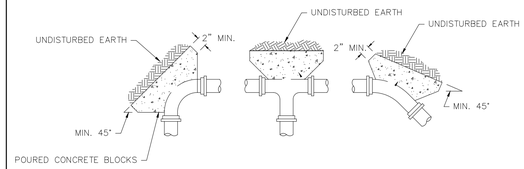
SCHIER LIFETIME GUARANTEED GREASE INTERCEPTORS | MODEL NUMBER: GB-1000 | DESCRIPTION: 100 GPM Polyethylene Grease Interceptor – 1,000 gallon capacity | PART #: 4080-002-01 | DWG BY: B. Karrer | DATE: 1/10/2020 | REV: 1 4/1/2019 | ECO:

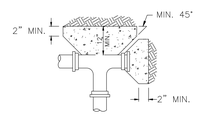
1900 Woodland Road | Edwardsville, KS 66111 | Tel: 913-559-2100 | www.schierproducts.com | © Copyright 2020 Schier, All Rights Reserved

page 4 of 4

GREASE TRAP DETAIL

NOT TO SCALE



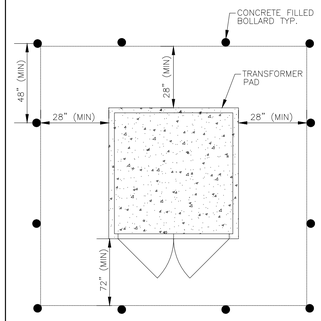


NOTES:

1. SPECIFIC THRUST BLOCK DESIGN SHALL CONFORM TO AWWA GUIDELINES.
2. PLACE 4 mil. POLYETHYLENE BETWEEN CONCRETE AND FITTING (CONCRETE SHALL NOT INTERFERE WITH JOINT).
3. MINIMUM CONCRETE THICKNESS SHALL BE 12 INCHES.
4. THRUST BLOCK ORIENTATION SHALL BE SUCH THAT THE CENTER OF THE FITTING CORRESPONDS WITH THE CENTER OF THE THRUST BLOCK.
5. THE MINIMUM ALLOWABLE ANGLE (EITHER VERTICAL OR HORIZONTAL) SHALL BE 45 DEGREES.

TYPICAL THRUST BLOCK DETAIL

NOT TO SCALE

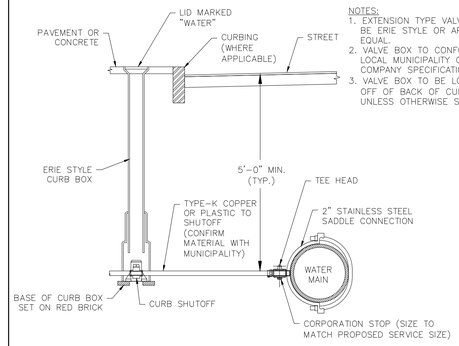


NOTES:

1. FINAL TRANSFORMER PAD SIZE TO BE AS DETERMINED BY THE UTILITY COMPANY.
2. TRANSFORMER PAD SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY.
3. BOLLARDS SHALL BE 6" SCHEDULE 40 GALVANIZED STEEL 5' EXPOSED HEIGHT, UNLESS OTHERWISE REQUIRED BY THE UTILITY COMPANY (REFER TO "PAD BOLLARD" DETAIL FOR ADDITIONAL INFORMATION ON BOLLARD CONSTRUCTION).

TYPICAL TRANSFORMER PAD DETAIL

NOT TO SCALE

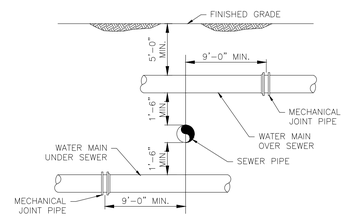


NOTES:

1. EXTENSION TYPE VALVE BOX TO BE ERIE STYLE OR APPROVED EQUAL.
2. VALVE BOX TO CONFORM TO THE LOCAL MUNICIPALITY OR UTILITY COMPANY SPECIFICATIONS.
3. VALVE BOX TO BE LOCATED 18" OFF OF BACK OF CURB (TYP.) UNLESS OTHERWISE SHOWN.

TYPICAL WATER SERVICE CONNECTION DETAIL

NOT TO SCALE

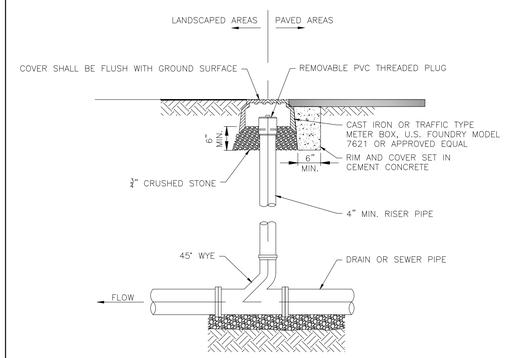


NOTES:

1. SEWERS SHALL BE KEPT REMOTE FROM WATER SUPPLY PIPING AND STRUCTURES. WHEREVER FEASIBLE, SEWERS SHOULD BE LAID AT A MINIMUM HORIZONTAL DISTANCE OF 10 FEET FROM WATER MAINS. IF LOCAL CONDITIONS PREVENT THIS, THE WATER MAIN SHOULD BE LAID IN A SEPARATE TRENCH, AND THE ELEVATIONS OF THE CROWN OF THE SEWER PLACED AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.
2. WHENEVER SEWERS MUST CROSS UNDER WATER MAINS, THE CROWN OF THE SEWER SHOULD BE PLACED A MINIMUM OF 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IN ADDITION, THE WATER MAIN MUST BE CONSTRUCTED WITH ONE FULL LENGTH OF PIPE CENTERED ABOVE THE CROSSING. THE WATER PIPE SHALL HAVE MECHANICAL JOINTS FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING.
3. WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER AND THE SEWER PIPING SHALL BE CONSTRUCTED SUCH THAT THE PIPE JOINTS ARE PLACED AS FAR AWAY FROM THE CROSSING AS POSSIBLE AND THE PIPE CROSSING SHALL BE SLEEVED A DISTANCE OF 10 FEET ON ALL SIDES OF THE CROSSING.

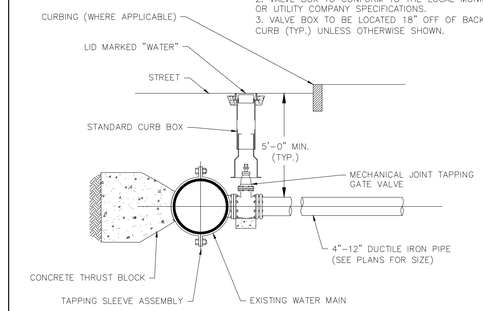
WATER/SEWER CROSSING DETAIL

NOT TO SCALE



TYPICAL CLEANOUT DETAIL

NOT TO SCALE

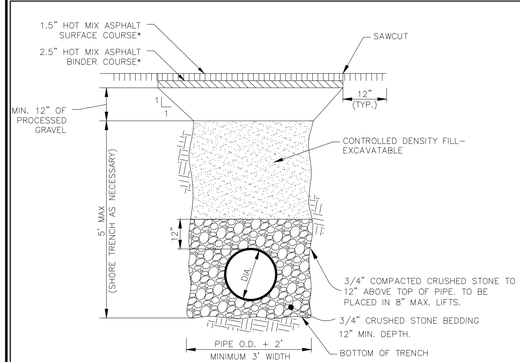


NOTES:

1. EXTENSION TYPE VALVE BOX TO BE MUELLER MODEL NO. H-10336 OR APPROVED EQUAL.
2. VALVE BOX TO CONFORM TO THE LOCAL MUNICIPALITY OR UTILITY COMPANY SPECIFICATIONS.
3. VALVE BOX TO BE LOCATED 18" OFF OF BACK OF CURB (TYP.) UNLESS OTHERWISE SHOWN.

TAPPING SLEEVE CONNECTION DETAIL

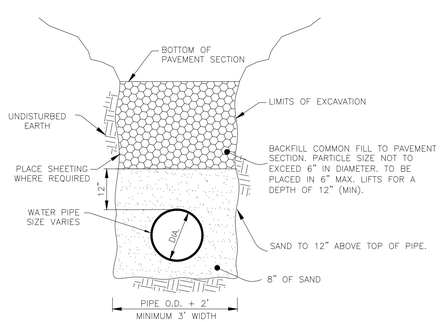
NOT TO SCALE



* PAVEMENT TO BE IN ACCORDANCE WITH MUNICIPAL/STATE STREET STANDARDS

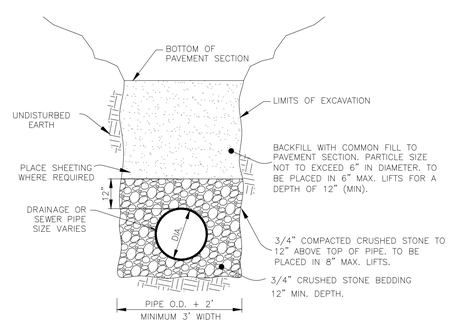
UTILITY TRENCH DETAIL IN EXISTING PAVEMENT TO REMAIN

NOT TO SCALE



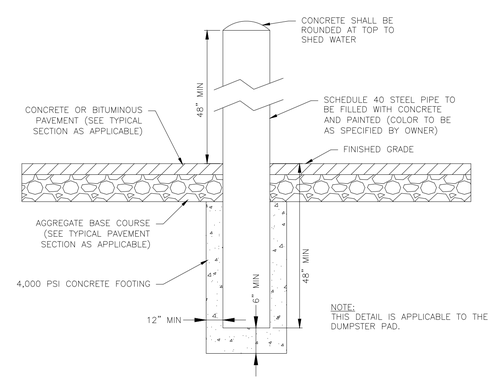
TYPICAL WATER TRENCH DETAIL

NOT TO SCALE



TYPICAL DRAIN & SEWER TRENCH DETAIL

NOT TO SCALE



NOTE:
THIS DETAIL IS APPLICABLE TO THE DUMPSTER PAD.

TYPICAL PAD BOLLARD DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION

CDG PROJECT #: 23028

REVISIONS:

REV	DATE	COMMENT
1	10/16/23	REVISED PER PEER REVIEW LETTER
2		
3		
4		
5		
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7		
8		
9		

SEAL:

COMMONWEALTH OF MASSACHUSETTS
PHILIP R. HENRY
CIVIL
No. 48547
REGISTERED PROFESSIONAL ENGINEER

PHILIP R. HENRY, P.E.

PLANNING BOARD:

CIVIL ENGINEER:

CIVIL DESIGN GROUP, LLC

21 HIGH STREET, SUITE 207
NORTH ANDOVER, MA 01845
www.cdgengineering.com
p: 978-794-5400 f: 978-965-3971

PREPARED FOR:

HY VENTURES LEICESTER, LLC

313 BOSTON POST ROAD WEST MARLOROUGH, MA 01752

PROJECT:

PROPOSED RETAIL DEVELOPMENT

1621 MAIN STREET (RT-9) LEICESTER, MA 01524

SCALE:

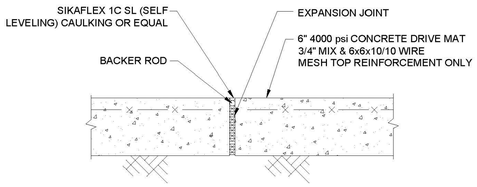
AS NOTED

SHEET:

CONSTRUCTION DETAILS

12

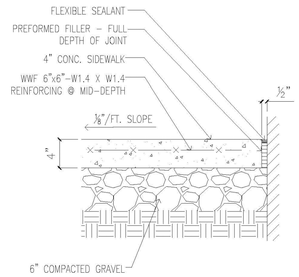
DATE: 09/08/2023



CONCRETE SPECIFICATIONS:
-SOIL BEARING CAPACITY REQ'D: AS PER GEOTECHNICAL REPORT
-CONC. STRENGTH: 4000psi @ 28 DAYS 3% TO 7% AIR, TROWELLED SMOOTH FINISH WITH TWO COATS SEALING/CURING COMPOUND.

TYPICAL EXPANSION JOINT DETAIL

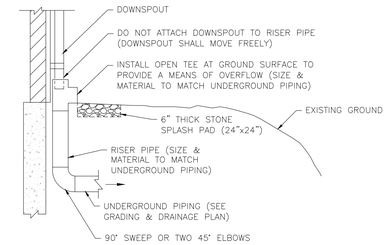
NOT TO SCALE



NOTE:
– BROOM FINISH WITH TWO COATS SEALING/CURING COMPOUND.

TYPICAL SIDEWALK AT BUILDING WALL DETAIL

NOT TO SCALE

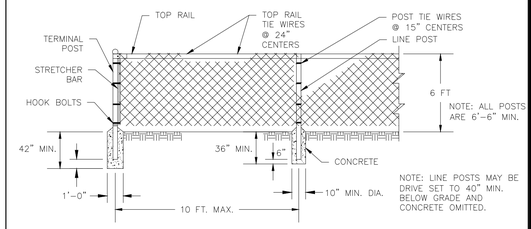


NOTES:

1. EACH BUILDING OR UNIT SHALL HAVE A MINIMUM OF ONE GUTTER DOWNSPOUT OVERFLOW ON EACH INDEPENDENT PIPE NETWORK. THE OVERFLOW SHALL BE INSTALLED ON THE DOWNSPOUT LOCATED AT THE LOWEST GROUND ELEVATION ALONG THE BUILDING WITHIN EACH PIPE NETWORK.
2. FOR GUTTER SYSTEMS THAT TIE INTO DRYWELLS, EACH DOWNSPOUT SHALL INCLUDE AN OVERFLOW.

GUTTER DOWNSPOUT DETAIL

NOT TO SCALE

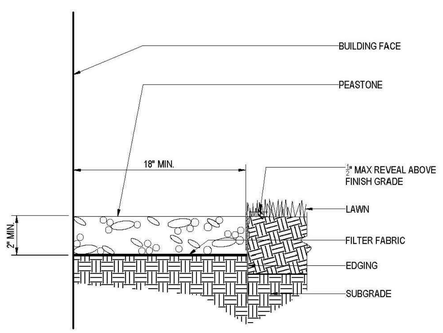


NOTES:

1. MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.
2. FENCE SHALL BE VINYL COATED BLACK.
3. ALL POSTS SHALL BE INSTALLED VERTICALLY. WHERE POSTS ARE INSTALLED ON AN INCLINED SURFACE, THE ANGLE OF THE POST SHALL BE ADJUSTED SO THAT THE POST WILL BE VERTICAL.
4. THE FENCING SHALL BE #9 GAGE FENCE FABRIC, STANDARD 2–INCH CHAIN LINK DIAMOND MESH.

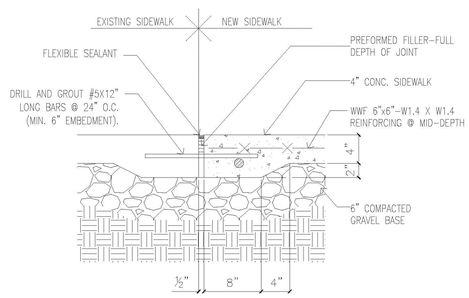
BLACK CHAIN LINK FENCE DETAIL

NOT TO SCALE



PEASTONE FOUNDATION STRIP DETAIL

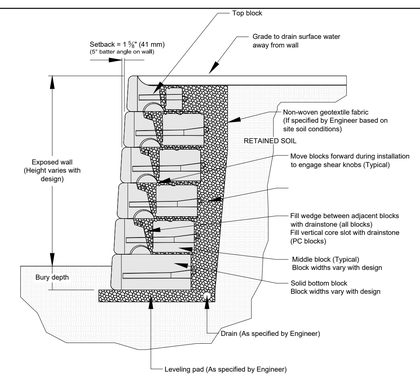
NOT TO SCALE



NOTE:
– BROOM FINISH WITH TWO COATS SEALING/CURING COMPOUND.

TYPICAL SIDEWALK EXPANSION JOINT (NEW TO EXISTING) DETAIL

NOT TO SCALE

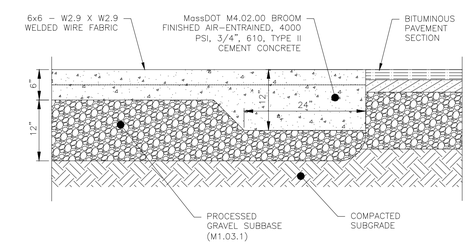


NOTES:

1. TOP AND BOTTOM OF WALL ELEVATIONS SHOWN ON GRADING & DRAINAGE PLANS REPRESENT THE EXPOSED PORTION OF THE WALL.
2. ALL WALLS WITH GREATER THAN 4 FEET EXPOSED HEIGHT SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.

TYPICAL GRAVITY WALL DETAIL

NOT TO SCALE

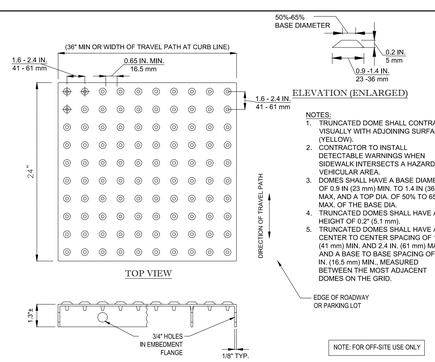


NOTES:

1. THIS DETAIL PROVIDES A MINIMUM STANDARD FOR PAVEMENT CONSTRUCTION. THE FINAL PAVEMENT SECTION SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SHALL BE UTILIZED IF MORE STRINGENT THAN THIS DETAIL.
2. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MassDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
3. RIGID PAVEMENT THAT ABUTS FLEXIBLE PAVEMENT SHALL MAINTAIN A 12" THICKNESS FOR THE OUTERMOST TWO FEET AS SHOWN.

TYPICAL CONCRETE PAD DETAIL

NOT TO SCALE



NOTES:

1. TRUNCATED DOME SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES (YELLOW).
2. CONTRACTOR TO INSTALL DETECTABLE WARNINGS WHEN SIDEWALK INTERSECTS A HAZARDOUS VEHICULAR AREA.
3. DOMES SHALL HAVE A BASE DIAMETER OF 0.9 IN (23 mm) MIN. TO 1.4 IN (36 mm) MAX. AND A TOP DIA. OF 50% TO 65% MAX. OF THE BASE DIA.
4. TRUNCATED DOMES SHALL HAVE A HEIGHT OF 0.2" (5.1 mm).
5. TRUNCATED DOMES SHALL HAVE A CENTER TO CENTER SPACING OF 1.6 IN (41 mm) MIN. AND 2.4 IN. (61 mm) MAX. AND A BASE TO BASE SPACING OF 0.65 IN. (16.5 mm) MIN., MEASURED BETWEEN THE MOST ADJACENT DOMES ON THE GRID.

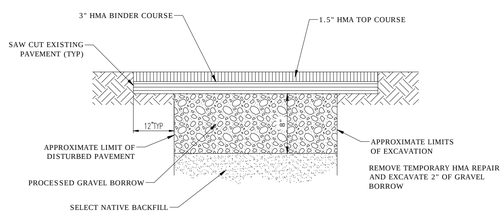
EDGE OF ROADWAY OR PARKING LOT

NOTE: FOR OFF-SITE USE ONLY

NOTE TO DESIGNER:
IF A WALK CROSSES OR ADJOINS A VEHICULAR WAY WHERE THE WALKING SURFACE AND PAVEMENT ARE NOT SEPARATED BY CURBS, RAILING OR OTHER ELEMENTS, THE BOUNDARY BETWEEN THE AREA SHALL BE DEFINED BY A CONTINUOUS DETECTABLE WARNING WHICH IS MIN. 36" WIDE (ADA ACCESSIBLE GUIDELINES) AND MIN. 24" DEPTH.

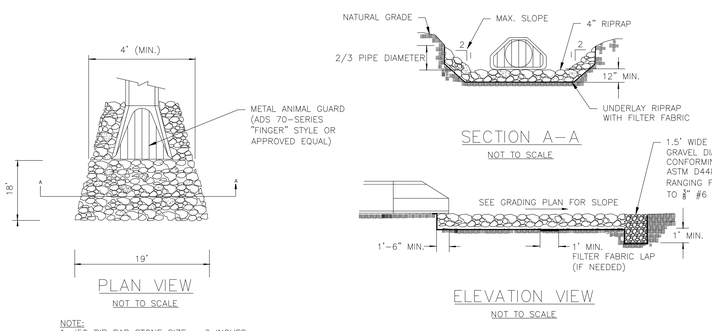
TYPICAL DETECTABLE WARNING AREA DETAIL

NOT TO SCALE



TYPICAL PERMANENT ROADWAY TRENCH REPAIR DETAIL

NOT TO SCALE



NOTE:
1. d50 RIP RAP STONE SIZE = 6 INCHES.

NOTES:

1. RIPRAP SHOULD EXTEND UP BOTH SIDES OF THE APRON AND AROUND THE END OF THE PIPE OR CULVERT AT THE DISCHARGE OUTLET AT A MAXIMUM SLOPE OF 2:1 AND A HEIGHT NOT LESS THAN TWO THIRDS THE PIPE DIAMETER OR CULVERT HEIGHT.
2. THE AREA TO BE RIPRAPPED SHALL BE UNDERCUT SO THAT THE INVERT OF THE APRON SHALL BE AT THE SAME GRADE (FLUSH) WITH THE SURFACE OF THE RECEIVING CHANNEL.
3. ALL SUBGRADE FOR STRUCTURE TO BE COMPACTED TO 95% OR GREATER.
4. THE PLACING OF FILL, EITHER LOOSE OR COMPACTED IN THE RECEIVING CHANNEL SHALL NOT BE ALLOWED.
5. FILTER FABRIC SHALL BE INSTALLED ON COMPACTED SUBGRADE PRIOR TO PLACEMENT OF RIP RAP.
6. ANY DISTURBED AREA FROM END OF APRON TO RECEIVING CHANNEL MUST BE STABILIZED.

RIP RAP APRON DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION

CDG PROJECT #: 23028

REVISIONS:

REV	DATE	COMMENT
1	10/16/23	REVISED PER PEER REVIEW LETTER
2		
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SEAL:

COMMONWEALTH OF MASSACHUSETTS
PHILIP R. HENRY
CIVIL
No. 48547
REGISTERED PROFESSIONAL ENGINEER

PHILIP R. HENRY, P.E.

PLANNING BOARD:

CIVIL ENGINEER:

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NORTH ANDOVER, MA 01845
www.cdgengineering.com
p: 978-794-5400 f: 978-965-3971

PREPARED FOR:

HY VENTURES LEICESTER, LLC

313 BOSTON POST ROAD WEST MARLOROUGH, MA 01752

PROJECT:

PROPOSED RETAIL DEVELOPMENT

1621 MAIN STREET (RT-9) LEICESTER, MA 01524

SCALE:

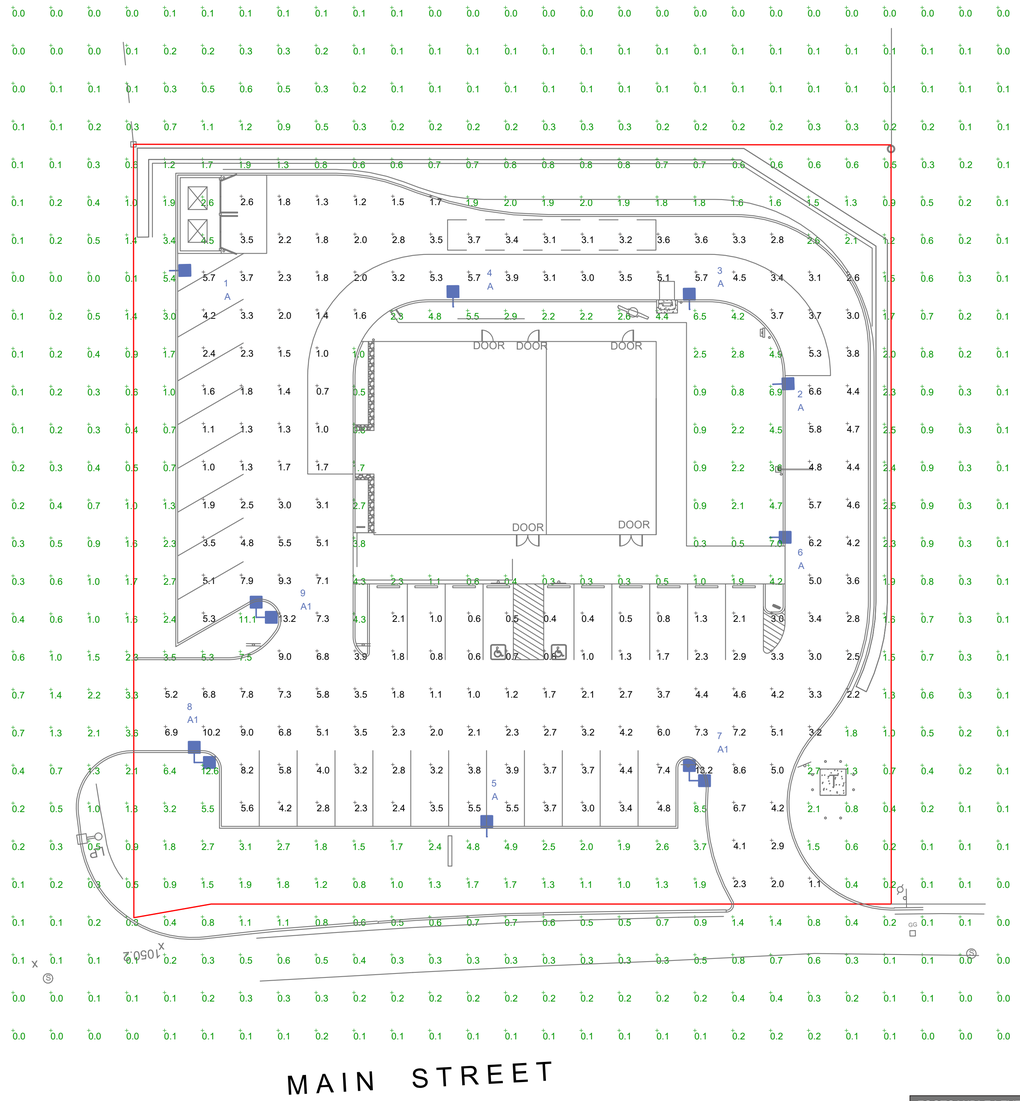
AS NOTED

SHEET:

CONSTRUCTION DETAILS

13

DATE: 09/08/2023



- POLE MOUNTED FIXTURES ARE MOUNTED ON A 17FT POLE ATOP A 36 INCH HIGH CONCRETE BASE.

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	A	20
2	A	20
3	A	20
4	A	20
5	A	20
6	A	20
7	A1	20
8	A1	20
9	A1	20

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PAVEDAREA	3.61	13.2	0.5	7.22	26.40
UNDEFIND AREA	0.93	12.6	0.0	N.A.	N.A.

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURE	DESCRIPTION
	6	A	Single	10450	1.000	B2-U0-G2	68	408	Cree Lighting	OSQ-ML-C-DA-XX + OSQM-C-11L-57K7-3M-UL-NM-XX-Q9
	3	A1	2 @ 90 DEG	10450	1.000	B2-U0-G2	68	408	Cree Lighting	OSQ-ML-C-DA-XX + OSQM-C-11L-57K7-3M-UL-NM-XX-Q9

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

REV.	BY	DATE	DESCRIPTION
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SCALE: 1" = 20'
LAYOUT BY: TAS
DWG SIZE: D
DATE: 8/18/23

PROJECT NAME:
STARBUCKS
LEICESTER, MA
DRAWING NUMBER:
RL-9076-S1

TM

AREA	QTY	LABEL	DESCRIPTION
	6	A	OSQ-ML-C-DA-XX + OSQM-C-11L-57K7-3M-UL-NM-XX-Q9
	3	A1	OSQ-ML-C-DA-XX + OSQM-C-11L-57K7-3M-UL-NM-XX-Q9

ADDITIONAL FIXTURE INFO

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Patented NanoComfort™ Technology – Version C

Rev. Date: V3 04/11/2023

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weatherright LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing excellent quality illumination. Medium is suitable upgrade for HID applications up to 400 Watts. Large is suitable upgrade for HID applications up to 1000 Watts. Extra Large is suitable upgrade for HID applications up to multiple 1000 Watts.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, high-mast and internal roadways

Performance Summary

Utilizes Patented NanoComfort™ Technology

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: 6,000 - 75,000

Efficacy: Up to 171 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years for luminaire; 10 years for Colorfast DeltaGuard® finish; 5 years for BML sensor; up to 5 years for Synapse® accessories; 1 year for luminaire accessories

*See www.creelighting.com/legal/terms for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** OSQ-ML-C-AA-BK + **Luminaire:** OSQM-C-L-30K7-2M-UL-NM-BK

Mount (Luminaire must be ordered separately)*

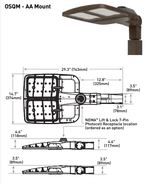
OSQ-

Medium/Large Mounts	Extra Large Mounts	Color Options		
OSQ-ML-C-AA Adjustable Arm	**OSQ-X-C-AA** Adjustable Arm		**SV** Silver	**BZ** Bronze
OSQ-ML-C-DA Direct Arm	**OSQ-X-C-DA** Direct Arm		**BK** Black	**WH** White
OSQ-ML-C-TM Trunnion Mount				

*Refer to Ordering and options tables for details.

Note: For OSQL, OSQX and additional mounts, refer to drawings beginning on page 2a.

OSQM - AA Mount



Luminaire	Weight
OSQM	19.2 lbs. (8.8kg)

Luminaire (Mount must be ordered separately)

OSQ C

Family	Size	Series	Lumen Package*	4070° CRI	Optic	Voltage	Mount	Color Options	Controls*	Options
OSQ	**M** Medium **L** Large **X** Extra Large	**C**	**Medium** **16L** 1,600 Lumens **30L** 3,000 Lumens **40L** 4,000 Lumens **50L** 5,000 Lumens **70L** 7,000 Lumens **11L** 11,200 Lumens **14L** 14,000 Lumens **Large** **22L** 22,000 Lumens **30L** 30,000 Lumens **40L** 40,000 Lumens **57L** 57,000 Lumens **Extra Large** **57L** 57,000 Lumens **75L** 75,000 Lumens	**30K7** 3000K, 70 CRI **40K7** 4000K, 70 CRI **50K7** 5000K, 70 CRI **57K7** 5700K, 70 CRI	**Rectangular Optics:** **2M** Type II Medium **3M** Type III Medium **4M** Type IV Medium **5M** Type V Medium Backlight Shield **2W** Type II Wide **3W** Type III Wide **4W** Type IV Wide **5W** Type V Wide Backlight Shield **AF** Type V Automotive Area **RCO** Type V Rectangular Cut Off **Square Optics:** **5M** Type V Med **5W** Type V Wide **5VW** Type V Very Wide **Symmetric Optics:** **2S** Type II Med **3S** Type III Med **4S** Type IV Med **5S** Type V Med **5WS** Type V Wide **5VWS** Type V Very Wide	**AB** 347-480 V Wide w/ Factory-Installed Photocell Receptacle (Specify Photocell Location in Accessories) **AF** 347-480 V Wide w/ Factory-Installed Backlight Shield	**UL** Universal Voltage (120-277V) **UNV** Universal Voltage (120-277V) - Not available with UL, CSA, or DALI options packages **HVU** Universal Voltage (277-480V) - Not available with HS, and DALI options packages	**NM** No Mount (specify mount on page 3a above) **SM** Small shipping box (ships separately)	**BK** Black **SV** Silver **WH** White **BZ** Bronze	**BML** **Bluetooth® Technology Enabled Multi-Level Sensor** - Integrated motion/ambient sensor - Refer to BML spec sheet for details - 20'x8' sensor lens installed on luminaire. Lens is polycarbonate and acid etched/frosted - Intended for downright applications only - Not available with Q or R options - Not available with 347-480V options **SYNAPSIS/SYNAPSIS+/SIS/SIS+ Field Adjustable Output** - Must select DP, QR, DT, QA, DS, QU, DL options - Offers full range adjustability - Refer to pages 15-25 for power and lumen values - Not available with BML, or R options or Synapse TLT-RD or TLT-MD controls **HV/T15L/R/S/SL/SLT/LT/LTS/ Locked Lumen Output** - Must select DR, DT, DA, DS, DL, KO, DU, or DT - Not available with BML or Q options - HV option not available with the following options: HS, HV, T15L, T15R, T15S, T15SL, T15LT, T15LTS, T15R, T15S, T15SL, T15LT, T15LTS, T15LTSLS, T15LTSLSLT, T15LTSLSLTS, T15LTSLSLTSLTS - Refer to pages 15-25 for power and lumen values - Refer to Lumen Packages section below for lumen package/voltage combinations. Lumen output varies based on the setting selected - Refer to pages 15-25 for power and lumen values	**DMH** **Surge Protection** **DMH** **20kV/10kA Surge Suppression** - Requires standard 10kV/5kA surge protection **F** **Fusing** - Compatible with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V installations - When cold climate fusing, use Brass Slow Blow fuse (specify when ordering luminaire) **P** **Photocell Receptacle** - Receptacle installed per ANSI C136.10-2020 - 7-pin receptacle per ANSI C136.41 - Available only with DSQM & OSQL luminaires - Intended for downlight applications with maximum 40' lift - Factory connected 2-120 volt leads - Requires photocell or shorting cap be others **R** **Photocell Receptacle with Shorting Cap** - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 40' lift - Factory connected shorting cap - Requires photocell or shorting cap be others - Refer to page 2 for compatible Synapse control offerings **RL** **Right Side Port** - LED and optic are rotated to the left - Refer to BRLPL configuration diagram on page 2a for optic orientation - Not for use with symmetric optics **RR** **Rotate Right** - LED and optic are rotated to the right - Refer to BRRPL configuration diagram on page 2a for optic orientation - Not for use with symmetric optics

* Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values
* Luminaire comes standard with 0-10V dimming

UL Listed
CREE LIGHTING
US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

OSQ™ LED Area/Flood Luminaire featuring Patented NanoComfort™ Technology – Version C

Product Specifications

CREE LIGHTING NANOCOMFORT™ TECHNOLOGY
Cree Lighting's NanoComfort™ Technology sends the trade-offs in outdoor lighting by providing superior glare reduction and visual comfort in high-efficiency luminaires. Patented NanoComfort™ Technology is a proprietary optical system. NanoComfort™ Technology is a compact total array of LEDs. Each of the 16 LEDs in a module is in contact with its own acrylic polymer lens to capture and precisely direct light. With NanoComfort™ Technology, light is spread out in a wide, comfortable pattern that reduces the visual harshness while improving visual comfort – all while retaining superb efficacy and control.

CREE TRUEWHITE® TECHNOLOGY
A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics, and long-term consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS
- Slim, low profile design minimizes wind load requirements
- Cast aluminum housing with integral wiring compartment, weatherproof, weatherright LED driver compartment and high-performance heat sink
- Acrylic optic w/clear tempered glass lens
- Convenient interlocking mounting method on direct arm. Mounting adaptor is rugged die cast aluminum and mounts to 2" (76mm) or larger square or round pole, secured by two 5/16"-18 stainless steel hex capscrews (2" (51mm) center). Refer to page 16 for fixture mounting drill pattern
- Adjustable arm mount adapters are rugged die cast aluminum
- OSQ-ML-C-AA mounts to a horizontal or vertical 2" (51mm) IP, 2.375" (60mm) O.D. tenon and can be adjusted 180° in 2.5° increments
- OSQ-X-C-AA mounts to a horizontal or vertical 2" (51mm) IP, 2.375-2.50" (60-64mm) O.D. steel tenon and can be adjusted 180° in 5.0° increments. **NOTE: Tenon length must be a minimum of 3.75" (95mm), and tenon must be steel**
- The adjustable arm mount (AA) allows fixture to be level and is adjustable from 0-180° in 5° degree increments. Trunnion (TM) mount secures to surface with (1) 3/4" bolt or (2) 1/2" or 3/8" bolts
- Luminaires include 15' (381mm) 18/5 cord exiting the luminaire
- Designed for upright and downlight applications. Uplight orientation not suitable for use with HS or R options
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available

Weight			
Mount	Housing Size Medium	Large	Extra Large
Direct Arm	19.7 lbs. (8.9kg)	28.8 lbs. (13.1kg)	45.8 lbs. (20.8kg)
Adjustable Arm	19.3 lbs. (8.8kg)	28.4 lbs. (12.9kg)	48.6 lbs. (22.0kg)
Trunnion	23.2 lbs. (10.5kg)	32.3 lbs. (14.7kg)	N/A

For BML sensor add 0.1 lbs. (45g), and for NEMA receptacle, add 0.3 lbs. (113g).

ELECTRICAL SYSTEM
- **Input Voltage:** 120-277V, 277-480V or 347-480V 50/60hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Optional 10kV/5kA surge suppression protection standard; 20kV/10kA surge suppression protection optional
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Controls by others
- Refer to Dimming spec sheet for details
- **Maximum 10V Source Current:** 1.8mA
- **Operating Temperature Range:** -40 °C – +40 °C (-40 °F – +104 °F)

REGULATORY & VOLUNTARY QUALIFICATIONS
- cULus Listed (UL1598)
- Suitable for wet locations
- Meets NEMA OSC TT standards
- Drivers and LEDs are UL certified in accordance with UL8750
- Meets requirements of IP66 per IEC 60529 when ordered without N or R options
- Certified to ANSI C136.31-2010, 3G bridge and overpass vibration standards
- 10kV/5kA and 20kV/10kA optional surge protection
- Tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Lens meets IK07 requirements per IEC 62262-2
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Q9 finish is RAL 9005 textured black. Available on NM, SM, DDC CCT and direct arm mount only. Please refer to http://www.creelighting.com/legal/terms/lit-industrial/leadtime-pricing for lead time information (Monday)
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Product Specifications

SYNAPSE® SIMPLISNAP INTELLIGENT CONTROL
The Synapse SimpliSNAP platform is a highly intuitive connected lighting solution featuring zone dimming, motion sensing, and daylight harvesting with utility-grade power monitoring and support of up to 100 luminaires per zone. Configuration and commissioning are simple using the SimpliSNAP mobile application – based interface that runs on smartphones, tablets, and PCs. The Twist-Lock Lighting Controller (TLT-B2 or TLT-MD) and Site Controller (SSLED-002) take the OSQ Series to a new performance plateau, providing extreme energy productivity, code compliance and a better light experience.

Synapse Wireless Control Accessories

Twist-Lock Lighting Controller
TLT-B2
- Suitable for 120-277V (UL) voltage only
- Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle
- Not for use with BML or Q options
- Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaire
- Refer to TLT-B2 spec sheet for details

Twist-Lock Lighting Controller
TLT-MD
- Suitable for 120-480V (UL, UE and UW) voltages
- Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle
- Not for use with BML or Q options
- Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaire
- Refer to TLT-MD spec sheet for details

SimpliSNAP Control Base Station
SSLED-002 (Single Port)
- Includes On-Site Controller (SSLED-002) and S-Button switch
- Indoor and Outdoor rated
- Refer to SSLED-002 spec sheet for details

Synapse Wireless Sensor
SSL-MS-001
- Motion and light sensor
- Control multiple zones
- Refer to SSL-MS-001 spec sheet for details

SimpliSNAP On-Site Controller
SSLED-002
- Indoor and Outdoor rated
- Designed for indoor applications
- Refer to SSLED-002 spec sheet for details

Building Management System (BMS) Gateway
BMS-GW-001
- Refer to Tridium BACnet integration
- Refer to BMS-GW-001 spec sheet for details

Outdoor Antennas
Extended Range, Extended range, 8dB gain
KIT-ANTLODOR
- Kit includes antenna, 20' cable and bracket
Standard
- Kit includes antenna, 50' cable and bracket
KIT-ANTLOD
- Kit includes antenna, 50' cable and bracket
- Refer to Outdoor antenna spec sheet for details

Electrical Data*

Lumen Package	System Watts 120-480V	Utility Label Wattage	Total Current (A) 120V	208V	240V	277V	347V	480V
6L**	26	30	0.21	0.12	0.11	0.09	N/A	N/A
8L	37	40	0.31	0.18	0.15	0.13	0.11	0.08
9L	55	60	0.44	0.27	0.23	0.20	0.16	0.12
11L	68	70	0.57	0.33	0.28	0.25	0.20	0.14
16L	97	100	0.81	0.47	0.40	0.35	0.28	0.20
22L	131	130	1.09	0.63	0.55	0.47	0.38	0.27
30L	175	180	1.46	0.86	0.73	0.63	0.50	0.34
40L	236	240	1.96	1.13	0.96	0.83	0.66	0.47
50L	294	300	2.44	1.41	1.20	1.04	0.82	0.58
70L	364	N/A	3.20	1.85	1.60	1.39	1.11	0.80
75L	447	N/A	3.72	2.15	1.86	1.61	1.29	0.93

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V (50/60 Hz) or 347-480V(+ 10%
** Available with HS voltage only.

OSQ-C Series Ambient Adjusted Lumen Maintenance[1]

Ambient	Initial LMF	25K hr Reported LMF	50K hr Reported LMF	75K hr Reported LMF	100K hr Reported LMF
5°C (41°F)	1.02	0.99	0.93	0.88	0.83
10°C (50°F)	1.02	0.98	0.93	0.87	0.82
15°C (59°F)	1.01	0.98	0.92	0.87	0.82
20°C (68°F)	1.01	0.97	0.92	0.86	0.81
25°C (77°F)	1.00	0.97	0.91	0.86	0.81

[1] Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LMF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient temperatures.
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to the tested duration in the IES LM-80 report for the LED.

Accessories

Field-Installed

Backlight Shield	**Shorting Cap**
OSQ-MC-C-BLSF (Medium)	XA-XSLSHRT
OSQ-L-C-BLSF (Large)	
OSQ-X-C-BLSF (Extra Large)	
- Not for use with rotated optics	
Factory Installed
OSQ-MC-C-BRSDPK
OSQ-L-C-BRSDPK
OSQ-X-C-BRSDPK

UL Listed
CREE LIGHTING
US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

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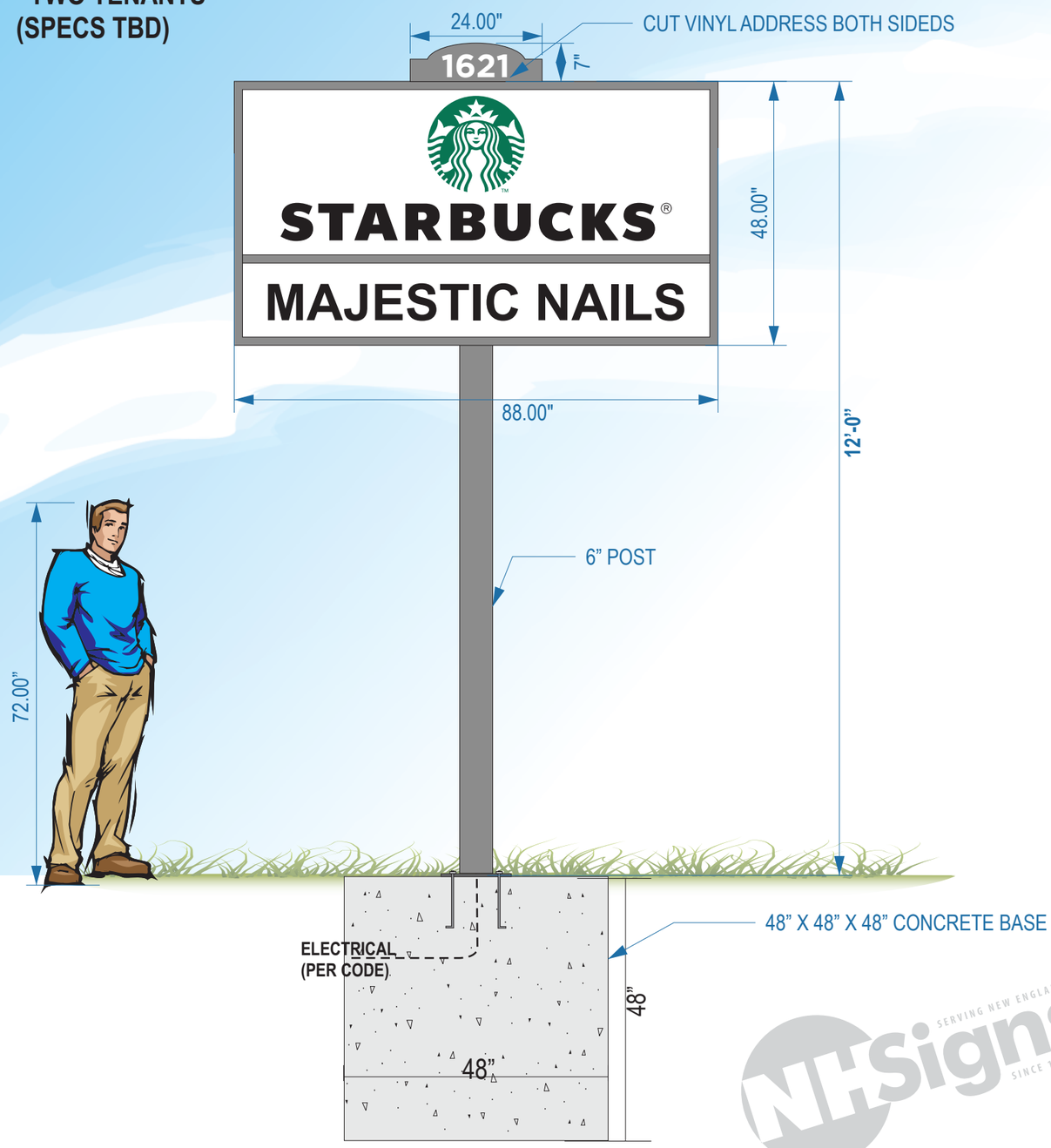
PROJECT NAME:
STARBUCKS
LEICESTER, MA
DRAWING NUMBER:
RL-9076-S1

™

DOUBLE SIDED MID:

SCALE 1/2”=1’-0”: 29.3 SQ. FT.

(1) D/F LED CABINET _WHITE LEXAN FACES AND TRANSLUCENT VINYL GRAPHICS.
TWO TENANTS
(SPECS TBD)



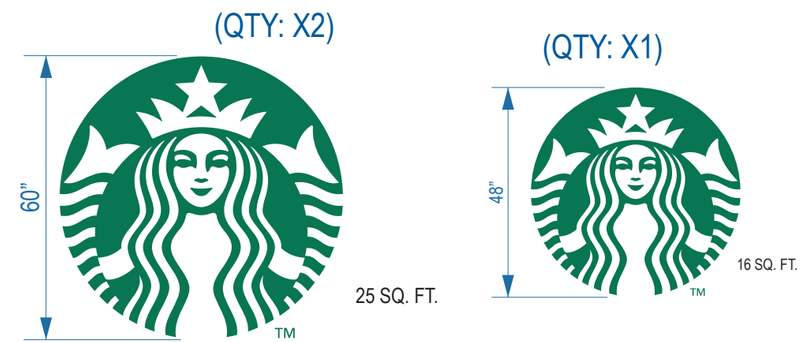
BUILDING SIGNAGE:

(3) STARBUCK LOGO CHANNEL CANS (SPECS. TBD)

(3) SETS “DRIVE THRU” CHANNEL LETTERS (SPECS. TBD)

(3) SETS “MAJESTIC NAILS” CHANNEL LETTERS (SPECS. TBD)

APPROX SCALE” 3/8”=1’-0”



8” HEIGHT LETTERS (QTY: X3)

DRIVE THRU

ARTWORK REQUIRED BY CLIENT ; APPROX AREA: 36” X 96”
(QTY: X3)

36”

MAJESTIC NAILS

23.7 SQ. FT.

SEE PAGE 2 FOR BLDG LOCATION

NHSigns
SERVING NEW ENGLAND SINCE 1992
66 Gold Ledge Avenue,
Auburn, NH 03032
603.437.1200
FAX 603.437.1222
www.nhsigns.com

- DESIGN
- MANUFACTURE
- INSTALL
- SERVICE

CLIENT:
YATCO STARBUCKS
LICESTER, MA MID

LOCATION:
1621 MAIN ST
LICESTER, MA

DATE:
09/7/23

ACCT. REP:
FP

DESIGNER:
KAREN DAVIS

Rev#	Date:
1. new fasica	9/7/23
2. new archit. dwg	9/11/23

FILE NAME LOC:
YATCO STARBUCKS (1621
LICESTER, MA MID & CL

Please Note: it is the customers responsibility to provide primary electrical service (including ground wiring) directly from panel box, to within six ft. of sign(s). Installation to comply with N.E.C.600

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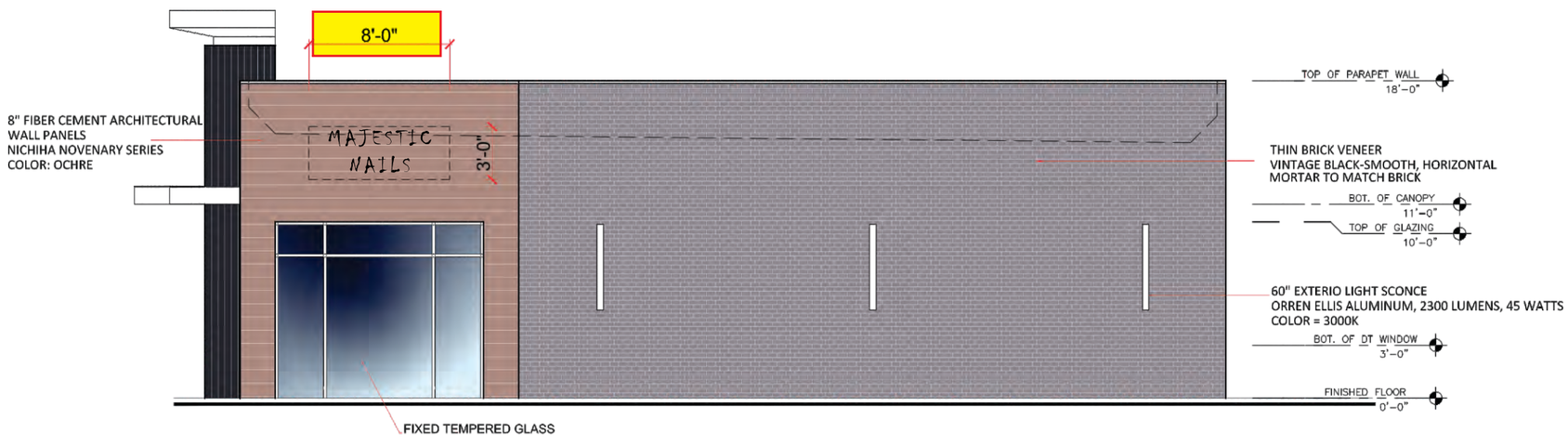
NORTH-EAST FACADE



NORTH-WEST FACADE

SCALE: NTS

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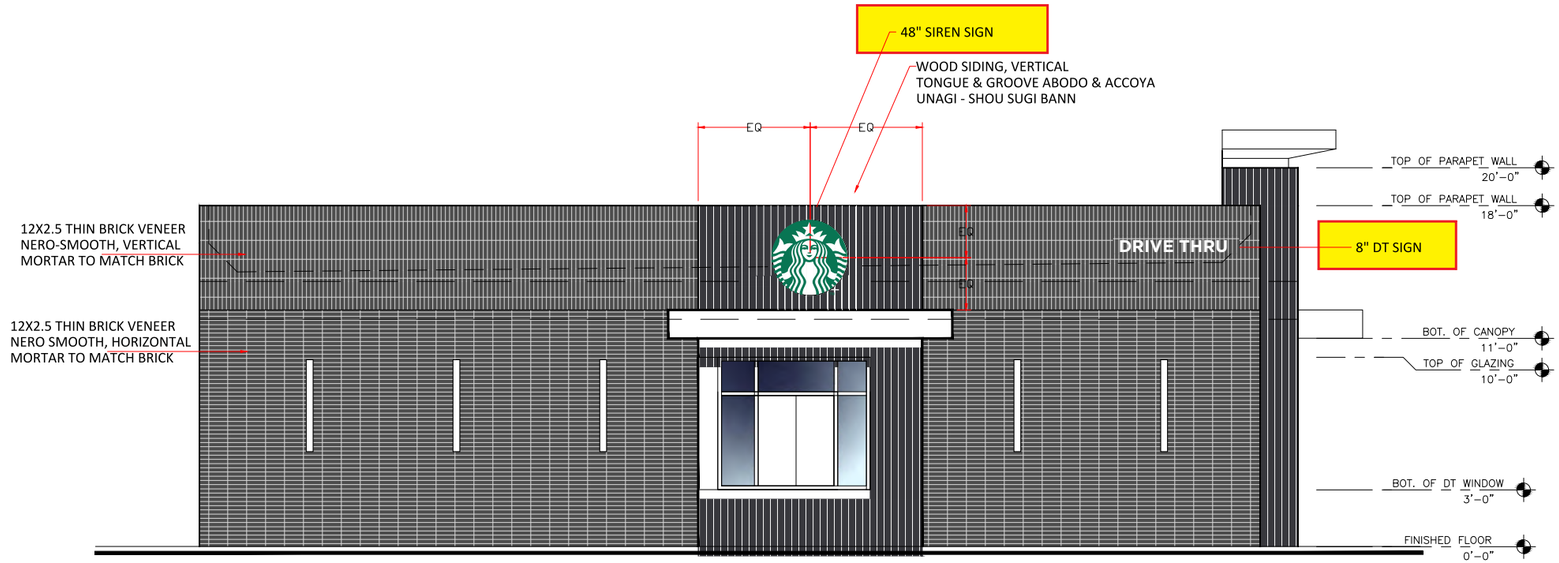
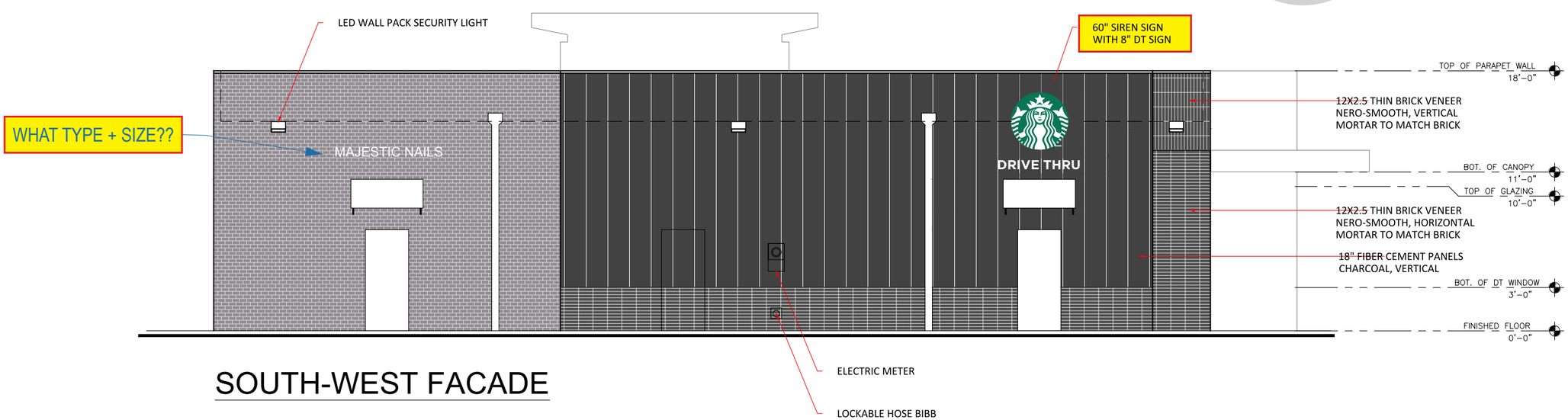


SOUTH EAST FACADE



SOUTH-WEST FACADE

DRIVE THRU

SCALE: NTS

PAGE: 3-r2

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UL Underwriters Laboratories, Inc. ELECTRIC SIGN

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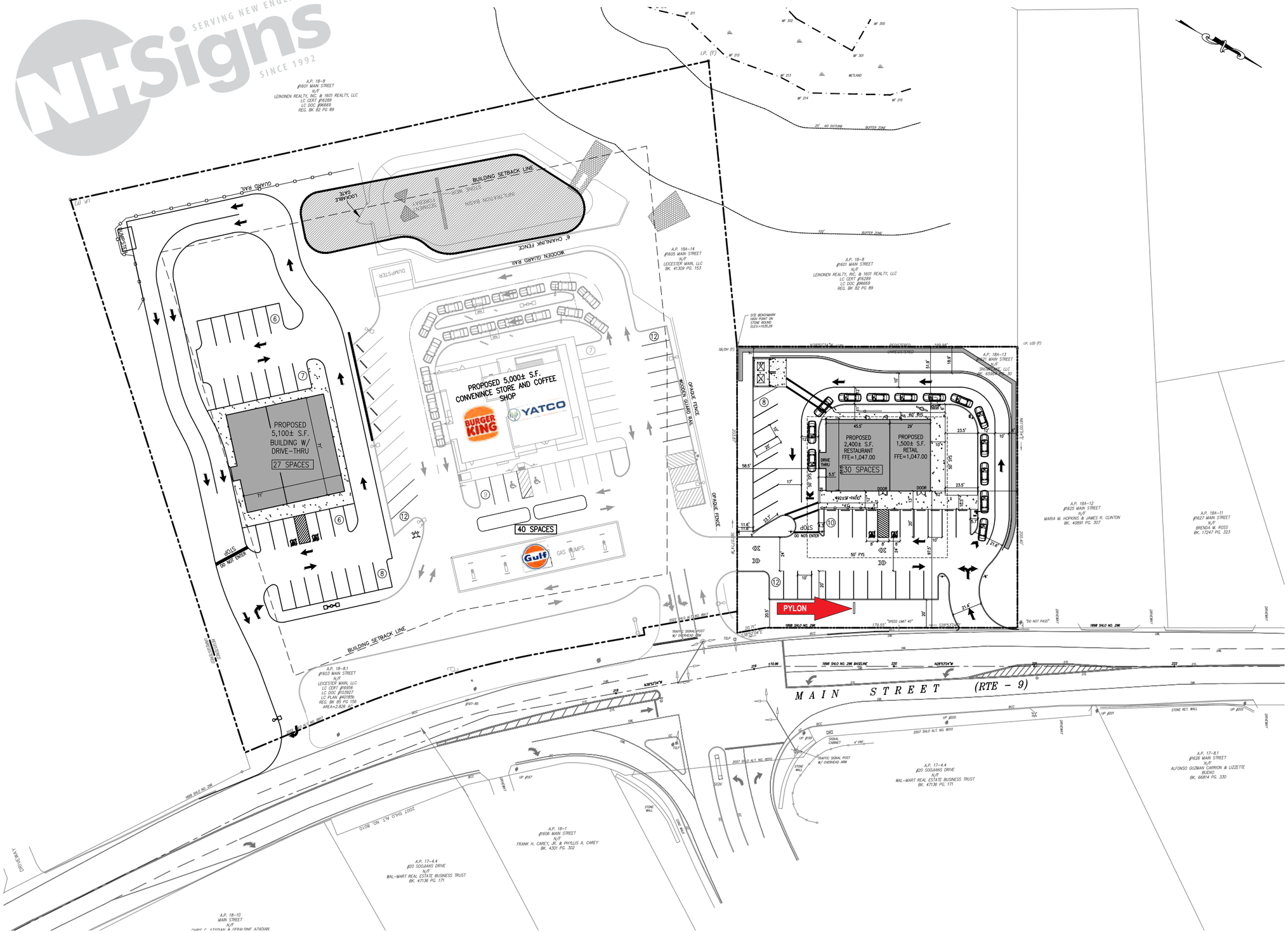

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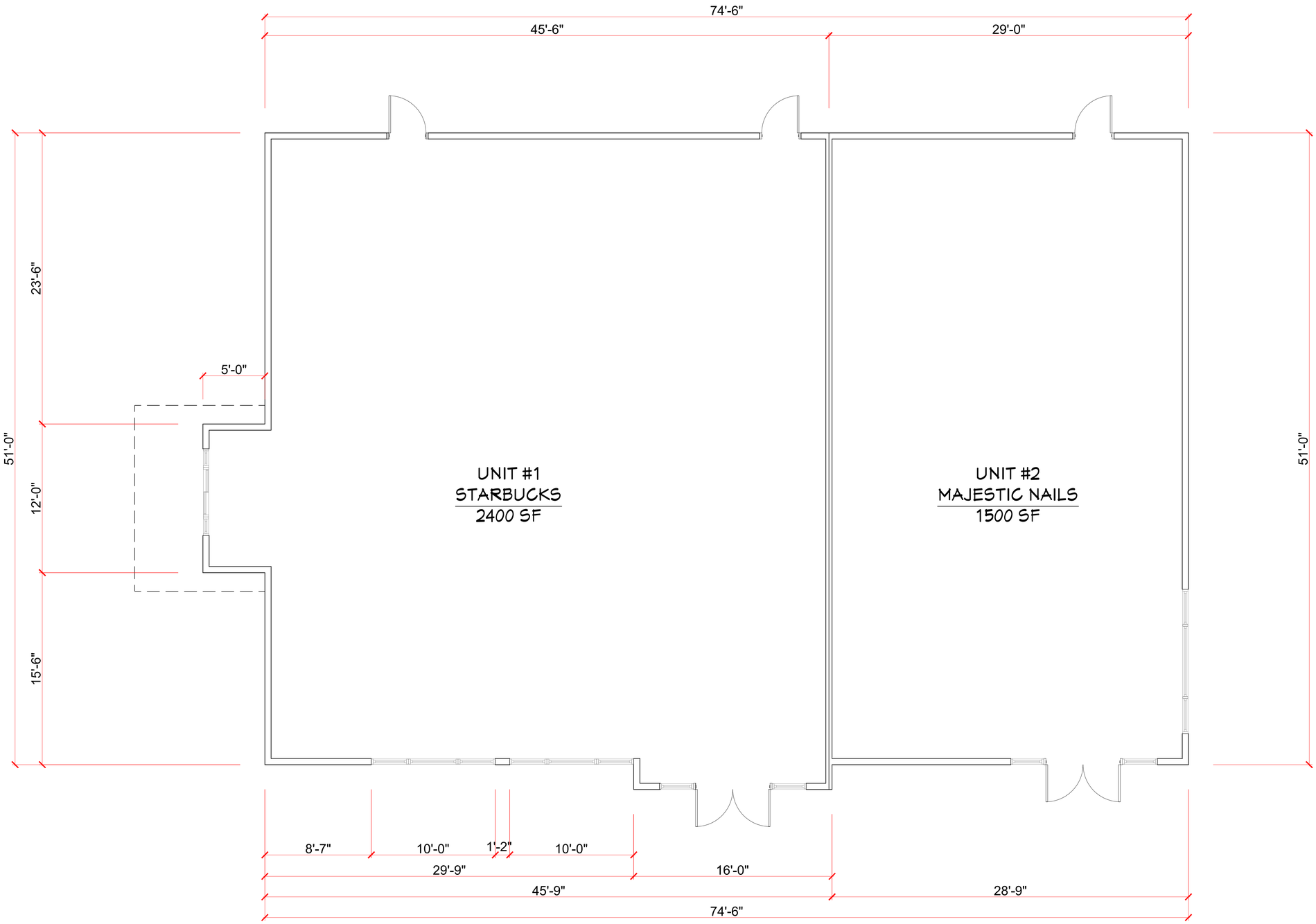


FLOOR PLAN

ARCHITECTURE . PLANNING . DESIGN
AA DESIGN SERVICES L.L.C.
43 MONROE AVE, WORCESTER, MA 01602
TEL: 508-769-0579 . FAX: 508-754-5415

OWNER:

PROJECT NAME:

MIXED USE BUILDING

PROJECT NO: C2348

PROJECT ADDRESS:

1621
MAIN STREET
LEICESTER, MA

SHEET TITLE:

FLOOR PLAN

STAMP:

SCALE: AS SHOWN

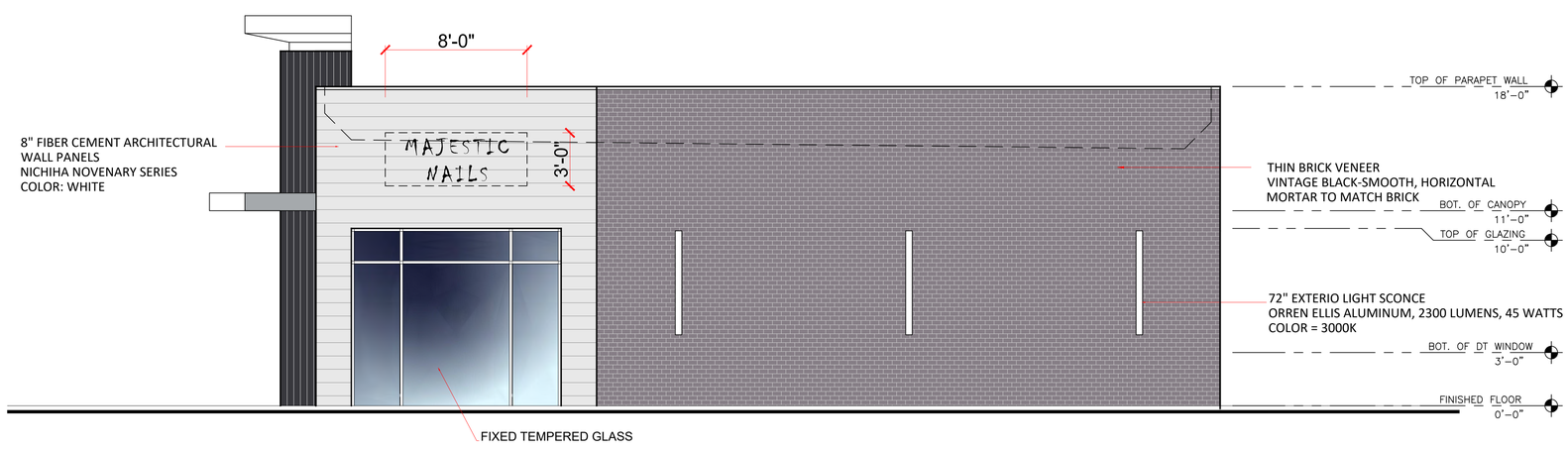
DATE: 9-12-2023

REVISIONS:

SHEET NO:

1

NORTH-EAST FACADE



NORTH-WEST FACADE

ARCHITECTURE . PLANNING . DESIGN
AADESIGN SERVICES L.L.C.
43 MONROE AVE, WORCESTER, MA 01602
TEL: 508-769-0579 . FAX: 508-754-5415

OWNER:

PROJECT NAME:

MIXED USE BUILDING

PROJECT NO: C2348

PROJECT ADDRESS:

1621
MAIN STREET
LEICESTER, MA

SHEET TITLE:

EXTERIOR ELEVATIONS

STAMP:

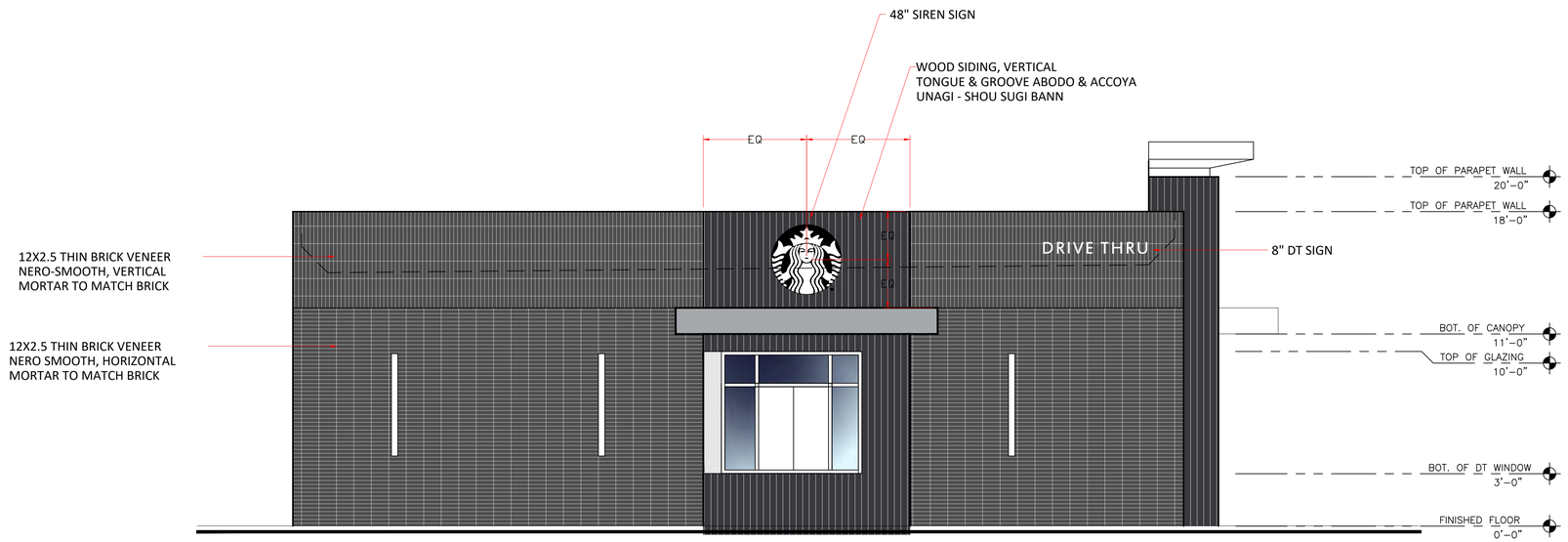
SCALE: AS SHOWN

DATE: 9-12-2023

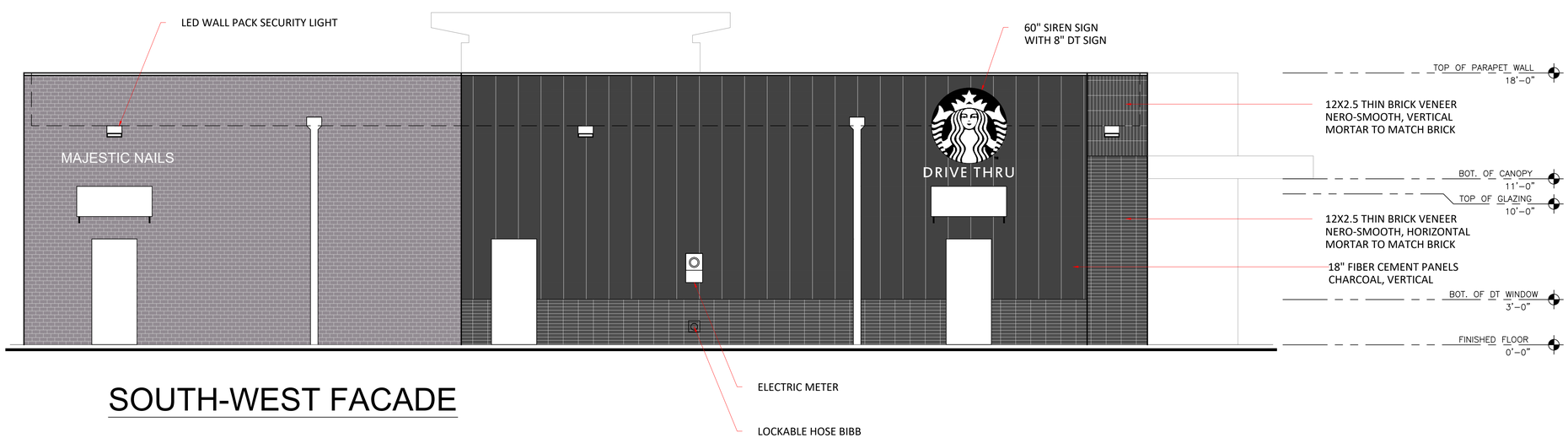
REVISIONS:

SHEET NO:

2



SOUTH EAST FACADE



SOUTH-WEST FACADE

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43 MONROE AVE, WORCESTER, MA 01602
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1621
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LEICESTER, MA

SHEET TITLE:

EXTERIOR ELEVATIONS

STAMP:

SCALE: AS SHOWN

DATE: 9-11-2023

REVISIONS:

SHEET NO:

3