De	Development:	Site Address:			
En	ingineer's Name:				
	The following checklist is not all-inclusive, but is generally representative of the requirements of the Marlborough Site Plan Review and Approval Ordinance (SPR&A). In all cases, you should use the checklist in conjunction with the SPR&A. General Plan Requirements				
<u>Ge</u>					
	Minimum sheet size shall be 24" x 36" unless otherwise a Set shall be comprised of separate sheets as listed below Committee at the pre-application scoping session All plans shall be stamped by Commonwealth of Massach Land Surveyor, and/or Professional Landscape Architect All plans oriented so that north arrow points generally to t All plans shall have a title block comprised of the following Project Title Sheet Title Sheet Number Registrant Stamp (PE, PLS, LA) Engineers name, address, fax and telephone number Graphical scale at 1" = 40' or less Plan Issue Date Plan Revision Date(s) Traffic Impact and Access Study (TIAS) to be submitted v	unless otherwise approved by the Site Plan Review nusetts-registered Professional Engineer, Professional he top of the sheet g:			
<u>Co</u>	Cover Sheet				
	 Name, address, telephone and fax number of engineer Name, address, telephone and fax number of the develop Revision Date Block Zoning District 				

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	□ Parking Lot Perimeter Planting □ Parking Lot Interior Planting □ Landscaping Requirements Locus Map (Show all roads and available building information within 1000 feet) Site Plan Review Committee signature block (7 lines) Plan Index with latest revision date of each plan
Ex	isting Conditions Plan
	Name of Surveyor Date of survey Property lines with bearings and distances Monuments Easements with bearings and distances Name of all abutters Street names Plan survey datum shall be the North American Vertical Datum of 1988 (NAVD 1988) and this reference shall be shown on the plans. Benchmark locations minimum of two within 200 feet of the site shown on the plans. Existing Buildings and Structures Area of building Number of stories
	 Number of stories Principal use Setbacks from property lines Floor elevations Door locations with sill elevations Existing Topography: Contours at 2' intervals (1' contours or additional spot grades if site is flat) Overhead and underground utilities including but not limited to water, sewer, drainage, electric, telephone, cable TV, gas, septic systems, detention structures, wells Existing parking/paved areas including pavement type (parking, walkways, etc.) Adequate utility information outside the site to verify proposed utility connections All utility pipe types, sizes, lengths, and slopes All utility structure information including rim and invert elevations All existing easements within 50 feet of property line-Identify any utility within the easement All existing utility easements with bearings and distances Existing pavement markings within site and on connecting roads Existing features such as walls, curbing, landscaping, trees, walks, fences, trees over 12" caliper, lighting, signs, loading areas, dumpster locations, etc Wetlands, floodplain, water protection district delineation including offsets and buffer zones Test pit locations including groundwater depths Historic buildings within 250 feet
Co	nstruction/Layout Plan (show appropriate information from Existing Conditions Plan)
	Proposed Buildings and Structures ☐ Area of building or additions ☐ Number of stories ☐ Principal use ☐ Floor elevations ☐ Door locations with sill elevations ☐ Setback dimensions from property lines
	Proposed Topography including but not limited to: Proposed contours at 2' intervals Parking lot setbacks to property line Parking lot grades shall not exceed 5% or be less than 0.5% Parking spaces (delineated and dimensioned)

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	 Handicap parking Handicap access Wheelchair ramps Sidewalks Pavement type(s) Curb type(s) and limits Granite curb at entrance to layout line Lighting Signs (include sign schedule) Pavement markings Loading areas Walls Fences Landscape areas Dumpster(s) Critical dimensions including aisle widths, parking stall dimensions, curb radius etc Grading at entrance-show spot grades if required Emergency Vehicle Access Truck Access (WB-50 unless otherwise approved by City Engineer) Snow Storage Area Show limit of work within City right-of-way-sawcut Construction notes including the following notes: The contractor shall be properly licensed and bonded with the City prior to construction Any minor modifications (as determined by the City Engineer) to the information shown on the approved site plans shall be submitted to the City Engineer as a Minor Plan Revision for approval prior to the work being performed. Any work and material to be placed within the City right-of-way shall conform to the City of Marlborough requirements All handicap parking, ramps, and access shall conform to ADA & MAAB requirements All erosion control measures shall be in place prior to construction. Erosion Control shall conform to the City of Marlborough Conservation Commission requirements as stated in the Order of Conditions. (refer to Erosion Control Plan if part of submission) All pavement markings and signs shall conform to MUTCD requirements The contractor shall obtain a Street Opening Permit prior to any construction within the City right-of-way
<u>Util</u>	lity and Grading Plan (show appropriate info. from Existing Conditions and Construction Plan)
	All proposed utilities including but not limited to Water, Sewer, Drainage, Electric, Telephone, Cable TV, Gas,
	Lighting, Septic Systems, Detention Structures ☐ Adequate utility information outside the site to verify proposed utility connections ☐ All utility pipe types, sizes, lengths, and slopes ☐ All utility structure information including rim and invert elevations ☐ All water services, hydrants, gates, shutoffs, tees ☐ Utilities shall be underground if possible ☐ All transformer locations ☐ Required utility easements with bearings and distances ☐ Minimize utility crossings (show locations of crossings and verify clearance)(provide pipe sleeves or concrete encasement as appropriate) ☐ 5' horizontal separation between all utilities (10' between water and sewer)
	See Recommended Force Main Requirements if force main is proposed
	Sewer Connection/Extension Permitting (if any of the following apply) □ Proposed site generates industrial waste
	□ Proposed flows exceed 15,000 gallons/day □ Pump Station
	☐ Extension of sewer main Sewer system
	•

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	☐ Show and label service connections for each building.
	☐ Services shall be min. 6" diameter.
	☐ Minimum pipe slope shall be 1%. (0.5% absolute minimum if approved by City Engineer for valid reasons)
	☐ Maximum pipe slope shall be 9%.
	Water main loop for large site (as determined by Site Plan Review Committee)
	Water system
	☐ Water extension approval from City Council & Mayor as appropriate
	☐ Show and label service connections for each building.
	☐ Services shall be HDPE or copper and ¾ inch diameter size min.
	☐ All intersections are gated three ways.
	☐ Hydrants with anchor tee and gates included located every 500' min.
	☐ Mainline gates every 1000' min.
	☐ Fire protection sized for use-Provide calculations if required
	Foundation Drain (if used)
	☐ Minimum drain size shall be 6" diameter with a backwater trap
	☐ Show overflow outfall
	☐ Preferred discharge is to an infiltration system.
	☐ Discharge to detention basin or other outfall shall be above the 100 year storm event elevation.
	Provide stationing for all roadways and sewer or drain cross country runs (typ.)
	Provide profile for all roadways and sewer or drain cross country runs (typ.)
	Sections through detention basin(s)
	Include the following notes:
	☐ The contractor shall be properly licensed and bonded with the City prior to construction
	☐ The contractor shall obtain a Street Opening Permit prior to any construction within the City right-of-way
	☐ All water and sewer materials and construction shall conform to the City of Marlborough requirements (see
	Street Opening Permit)
	☐ All water and sewer construction shall be inspected by the City Of Marlborough before being backfilled
	☐ The City shall be notified at least 24 hours prior to the required inspections
	☐ The contractor shall obtain a Trenching Permit prior to any trenching on public or private property
	See Drainage Report Checklist for drainage and detention basin requirements
	ada ana Blan (ahan annangista information from Eviation Conditions and Construction Blan)
Lai	ndscape Plan (show appropriate information from Existing Conditions and Construction Plan)
	Proposed landscaping per Buffer and Parking Lot Planting Zoning Requirements
	Plant and tree legend with proposed species
	Indicate areas to be loamed and seeded
	Proposed irrigation (on-site wells to be used unless otherwise approved)
	Verify sight distances at entrances
Erc	osion Control Plan (show appropriate information from Existing Conditions and Construction Plan)
_	
	Haybales or haybale/silt fence combination
	Anti-tracking area at all construction entrances
	Protect existing and proposed drainage structures with haybales and or silt sacks
	Include the following notes:
	All erosion control measures shall be in place prior to construction and shall conform to the City of
П	Marlborough Conservation Commission requirements as stated in the Order of Conditions.
	Delineate all stockpile areas
ш	Provide safety fencing around stockpiles over 10' in height or otherwise restrict site access
De	tail Sheets (typical details)
	
	Pavement Section Detail
	Sidewalk Detail
	Curb Detail
	Curb Detail Driveway Detail
	Curb Detail

Silt Sack Detail Catch Basin Detail* Drainage Manhole with Stair Detail* Culvert section Detail
Drain Trench Detail (12" ½" minus gravel backfill envelope-5 feet cover min.) Water Trench Details (12" sand envelope – 5 feet cover min.)
Sewer Trench Details (12" ¾ - inch stone envelope)
Sewer Manhole Detail (26" cover)
5' inside Diameter Sewer Manhole with stairs Detail*
 Detention Basin Sections (show section on plan-See also Drainage Report Checklist) □ City Engineer to determine if detention basin is to to be designed and inspected by a Licensed Professional Geotechnical Engineer. If so, a stamped certification of proper design and inspection shall be provided to the City Engineer after installation and prior to as-builts being approved. □ Show Fence with access gate (Outside 10' level area) around detention basin (typ.)(6' high) □ Show 10 foot wide level access around basin to provide for maintenance of the entire basin
Provide groundwater elevations
Show providing for 1 foot of freeboard.
 □ Provide concrete seepage collar in basin berm around discharge pipe □ Impervious core material keyed into existing subgrade within berm
☐ Basin side slopes no steeper than 3:1
☐ Detention basin sections from inlet to outlet showing all storm event elevations
☐ Emergency overflow spillway made of rip rap
☐ Basin inlet and outlet shall have flared end with rip rap apron
Outfall Structure Detail
All outfall elevations
☐ Show a low flow discharge and grated top ☐ Provide a trash rack in front of inlet
☐ Discharge shall have flared end with rip rap apron
Miscellaneous Detention Basin Details
Flared End Detail
Rip Rap Detail
Haybale/Silt Fence Detail
Light Pole Foundation Detail
Retaining Wall Details
Note: walls over 4' in height shall be designed and inspected by licensed structural engineer and stamped certification of proper design and inspection shall be provided to the City Engineer after installation and prior to as-builts being approved.
Tree/Shrub Planting Detail
Sign Detail
Fence Detail
Flowable Fill Trench
 Pavement Marking Details
Handicap Parking/Compact Parking Signs Water service (note: Curb stops open right w/drip).
Utility Crossing detail.
Hydrant Detail anchor tee with gate (Mueller-open right)
Tapping Sleeve and gate (open right)
Thrust Block Detail
Light Pole Foundation Detail

*All structures shall be raised min 2 course max. using red clay brick and sealed mortar (typ.)