CITY OF McDonough
LAND DISTURBANCE PERMIT CHECKLIST

CHECKLIST OVERVIEW

All designs and construction to be in conformance with an approved site plan and applicable City ordinances, codes, and policies. Checklist is not an all-inclusive list of items that will need to be addressed but is a tool for assisting applicants seeking a Land Disturbance Permit (LDP). The checklist should be completed and submitted with the first submittal of the civil plans for LDP review.

Submittal Requirements for Plan Review:

PLANNING:

General Requirements for Construction Drawings

1. General Project Information:

	1. Project name
	2. Developer's name, address, phone number and email address
	3. Owner's name, address, phone number and email address
	4. Engineer's name, address, phone number and email address
	5. Date of plan and any revision date
	6. Contact information for 24-hour local erosion and sediment control contact
	7. Contact information for the emergency 24-hour contact person
	8. Location/vicinity map
	9. Land lot and district
	10. Area of property and area to be disturbed in acres on cover sheet and other sheets as needed
	11. Provide copies of all state and federal permits, notifications, variances and other correspondence necessary for proposed development.
	12. Subdivision Plats must be signed and sealed by a Registered Land Surveyor
	13. Civil Drawings must be signed and sealed by the appropriate Registered Professional(s)
	14. Landscape Plan must be signed and sealed by a Registered Landscape Architect
	15. Total Linear feet of proposed roadways.

2. Site Conditions:

	1. Boundary and Topographical Map to be signed and sealed by a State of Georgia Registered Land Surveyor.
	2. Property boundaries, metes, and bounds.
	3. All streams, rivers, lakes, flood plain, wetlands and other hydrologic features.
	4. Show State and Local Stream buffers (if applicable).
	5. Show Watershed Protection District (if applicable).
	6. Topographic contours of no less than two-foot intervals.
	7. General vegetation characteristics.
	8. General soil types.
	9. Existing roads, structures, and infrastructure.
	10. State acreage of site, and disturbed acreage; and existing ground cover (wooded, grassed, pavement, etc.).
	11. Show adjacent property information including subdivision name, lot numbers, block letters, property owners, current zoning, land uses, parcel identification, etc.
	12. Indicate existing conditions, including but not limited to structures, pavements widths, easements, fences, walls, walks, signs and buildings and approximate locations of all public utilities.
	13. Show adjoining roadways, with names, pavement widths, lengths of streets and right-of-way width.
	14. State or show land lot lines on the plans. If it is not possible to show land lot lines on the plans, please provide a legal tie down for the property, (e.g., intersection of two rights-of-way distance and bearing from property to land lot line intersection or right-of-way intersection).

3. Site Plan

	1. Building footprints and dimension to the property lines.
	2. Proposed locations of water supply, sanitary sewers, utilities, and infrastructure.
	3. Proposed locations of stormwater ditches, easements, pipes, boxes, and stormwater management facilities.
	4. Base flood elevations and future conditions flood elevations.
	5. Boundaries of base flood plain and future –conditions floodplain and location of floodway (if applicable).
	6. Description of the extent to which any watercourse, wetlands, or flood plain will be altered or relocated as a result of proposed development.
	7. Show all setbacks applicable to the zoning on plans.
	8. State the use of the buildings and square footage, height and if sprinkled, or not, on the plans.
	9. For residential or multi-family developments, state the house or unit size on the plans.
	10. Show parking spaces calculations, including number existing (if any), and proposed, number of handicapped spaces, shared parking, etc.
	11. Show curb/driveway cuts and internal circulation.
	12. Show loading area and dumpster locations.
	13. Show dumpster detail of enclosure, solid steel gates, 1' cane bolts, lighting fixtures, exterior finish, etc.
	14. Show dumpster pad elevation, drainage, tie to sewer, grease trap, etc.
	15. Show on the plan's exact boundary of any cemetery, disposal site, or area of potential ground contamination.
	16. Provide sanitary sewer plan
	17. Provide water plan
	18. Provide detail sheets for all construction activities.
	19. Provide a signage and striping plan for parking, traffic control and internal movement of traffic and pedestrians
	20. Provide an Erosion and Sedimentation Control Plan utilizing the corresponding NPDES Erosion, Sedimentation & Pollution Control Plan Checklist for Stand Alone, Infrastructure, and Common Development construction projects. Add completed checklist to the plan for the corresponding project. Checklist should be the most current checklist available.
	21. Add NPDES General Permit Plan requirements for GAR 100001 Standalone Construction Projects, GAR 100002 Infrastructure Construction Projects, and GAR 100003 Common Development Construction Projects. Include requirements for inspections, reporting, sampling, etc. for Primary, Secondary and Tertiary Permittees.

4. Zoning Information:

	1. Maximum Impervious Surface (% of lot area).
	2. Minimum Open Space (% of lot area).
	3. Lot Size, minimum.
	4. Common area.
	5. Lot width, minimum.
	6. Front yard setbacks.
	7. Side yard setbacks.
	8. Rear yard, min setbacks.
	9. Tree protection plan
	10. Landscape plan.
	11. Meets Location, Design and Construction of Parking Areas Requirement.
	12. Show Stacking Spaces for Drive-Through Service Windows.
	13. Meets parking area surfacing and lighting requirements.
	14. Meets Off-street Loading Space Construction Requirements (if applicable).
	15. Meets Dumpster requirements.
	16. Ordinance for rezoning and any stipulations or conditions of the rezoning.
	17. Meets landscaping in parking areas requirements.

5. Grading/Drainage Plan

	1. Provide grading plans and profiles on a scale of no smaller than 1" = 50' horizontally and 1" = 10' vertically.
	2. Provide a Grading & Drainage Plan showing existing and proposed ground contours/elevations. Provide existing and proposed drainage basins. Clearly indicate drainage patterns and surface flow directions.
	3. Provide location of proposed drainage systems, boxes, pipes including size, type, length, etc.
	4. Provide calculations of existing and proposed pervious and impervious areas (CN).
	5. All storm drain boxes to provide for paved inverts in the bottom of the boxes.
	6. All connections of storm drainpipe to storm drain boxes must utilize non-shrink grout.
	7. Provide pipe chart and additional design calculations as needed to fully evaluate or describe storm system or culvert performance (including channel/swales).
	8. Maximum allowable velocity for storm sewer exit pipe is ten feet per second when flowing full or half full based on Manning's Formula. The minimum allowable velocity for storm sewer pipes is three feet per second. All outfall pipes shall be held to a slope not to exceed 1.00%.
	9. Provide calculations for evaluating gutter spread at all street drainage inlets.
	10. Provide 100-year elevation for all weir/drop inlets located in buildable areas. Provide MFE for structures adjacent to weir or drop inlets.
	11. Provide Drainage Easements for open ditches or areas of concentrated flow and for all storm drain systems.
	12. Define limits and elevation of 100-year high water elevation of adjacent watercourse, existing and/or proposed stormwater drainage features including detention ponds, inlet headwalls/culverts and locate on the grading plan and on all plats.
	13. Design cross-drain culverts based upon the 100-year storm frequency. Show on grading plan and on all plats, the 100-year high water elevation. 100-year flood elevation shall not adversely affect adjoining properties.
	14. Design storm water pipe collection systems and channels for the 25-year storm frequency.
	15. Check the performance of all storm water drainage systems including detention facilities using the 100-year storm (developed condition) for evaluation of local flooding, and possible flood hazards to adjacent structures and/or property.
	16. Provide Storm Plan & Profiles on a scale of no less than 1" = 50' horizontally and 1" = 10’ vertically. Show 25-year hydraulic grade line for all pipes and the 100-year HGL for and pipes within road right of way and pipes affected by 100-year elevation of detention ponds.
	17. RCP is required for detention pond outfalls, under roadways, and stream crossings. Provide pipe specifications and installation requirements per the manufacturer’s recommendations for steel pipe and HDPE.
	18. Provide a detailed maintenance schedule for stormwater facilities and permanent BMP’s. Provide a recorded Storm Water Maintenance agreement.
	19. Detention ponds in subdivisions are to be located on HOA common space and not buildable/recorded lots. A 20-foot-wide drainage easement is required around the perimeter of the pond. The pond area must provide direct access to the City R/W with a minimum 20-foot road frontage. Access slopes must be practical for trucks and equipment to safely access the perimeter, interior slopes, exterior slopes, and bottom of pond for maintenance. Pond slopes are not to exceed 3:1. Ponds must be secured with a minimum of 5-foot-high fence and 12-foot-wide gate. Fence and gate details to be provided on the plans.
	20. Identify regulated and/or documented analysis for localized 100-year flood plain. Provide FIRM panel number and date. Provide flood plain elevations. Provide Future Conditions flood plain if applicable.
	21. Locate the limits of the floodway if applicable. No fill material shall be placed within flood plain without following the procedures in the Flood Plain Ordinance.
	22. Delineate wetlands or certify there are no wetlands on the site. Notify the Army Corps of Engineers and provide a copy of the permit if required. Add note to plans: Acceptance of these plans does not constitute approval by the City of McDonough of any land disturbing activities within wetland areas. It is the owner’s responsibility to contact the appropriate regulatory agency for approval of any wetland area disturbance.

Hydrology Study Requirements

The following is the minimum information required in a standard hydrology study submitted to the City of McDonough. Hydrology studies are required if the project involves the creation, addition and/or replacement of 5,000 square feet or more of impervious cover. They may also be required if it is determined by the City Engineer that special drainage conditions exist that may impact the safety or structural integrity of structures on the site, such determination is made on a case-by-case basis.

The following is the minimum information required in a standard hydrology study submitted to the City of McDonough. Additional information may be required for site specific conditions. It shall be (at all times) the responsibility of the engineer of record to accurately model and report the conditions on the site. The City accepts no responsibility for errors or omissions from this report.

6. Hydrology Study Requirements

I.	**Cover**
	Cover sheet signed and sealed by a professional engineer licensed in the state of Georgia
II.	**Introduction**
1.	**Provide a brief description of the project that includes:**
	a. Location
	b. Size of project
	c. Scope of project
	d. Existing land use
	e. Proposed land use
	f. Project methodology, including water quality measures proposed
2.	**Provide a summary table for each discharge point:**
	a. 1, 2, 5, 10, 25, 50 and 100-year storm events
	b. Channel Protection Volume
	c. Runoff Reduction / WQ Volume
	d. Allowable flow rate (cfs)
	e. Developed flow rate (cfs)
	f. Peak elevation in the stormwater facility
	g. Allowable velocity (fps)
	h. Developed velocity (fps)
III.	**Pre-developed Conditions Hydrology**
	a. Provide Drainage Basin Map with topography. Identify all drainage basins both onsite and offsite.
	b. Provide weighted curve number calculations
	c. Provide time of concentration calculations - Time of concentration shall be calculated as provided in Section 2.1.5.6 of the G*eorgia Stormwater Management Manual.*
IV.	**Post-developed Conditions Hydrology**
	a. Provide a developed site map with topography. Identify all drainage basins both on-site and off-site as well as the location of all stormwater management facilities.
	b. All new developments and re-developments (defined as removal and replacement of buildings, parking or other impervious surfaces over more than 40% of the site) must meet a pre-development runoff coefficient of 0.3 (Rational Method) or a Curve Number of 60 (SCS Method), which corresponds to that coefficient normally used for a site in a wooded condition, **in addition** to a 10% reduction in runoff.
	c. Show drainage areas that bypass detention in a developed state. Demonstrate how these flows are managed to a predevelopment state.
	d. Provide weighted curve number calculations.
	e. Provide time of concentration calculations.
	f. Provide for Runoff Reduction/Water Quality and Channel Protection Volume calculations. Provide the results of the GSWMM Site Review Development Tool. The total TSS removal is to be 80% or greater. Provide documentation and calculations.
	g. Provide details of all control structures.
	h. Show trash rack details.

	i. Provide details of all water quality facilities (including planting plans).
	j. Provide design data for each water quality measures as indicated on the Design Procedure Forms provided in the Georgia Stormwater Management Manual.
	k. Provide downstream analysis to the point at which the site area is equal to or less than 10% of the overall drainage basin.
	l. Provide detailed analysis of the capacity of structure downstream.
	m. Clearly indicate the adequacy of the receiving waters for rate and velocity of flows.
	n. Provide the drawdown time of all stormwater facilities.
	o. Provide stage-storage relationship for all stormwater facilities.
V.	**Supplemental Information**
	a. Provide detailed pre-developed hydrographs or routings.
	b. Provide detailed developed conditions hydrographs and routings.
	c. Provide storm pipe/ culvert calculations with an exhibit that clearly identifies all storm structure identification numbers and locations.
	d. Provide all headwater elevations at culvert crossings.
	e. Provide maintenance schedule for all stormwater facilities.

7. Transportation

	1. A Georgia Department of Transportation Access Permit will be required prior to the issuance of a development or grading permit for work proposed within GDOT R/W.
	2. All curb cuts on state highways must be approved by GDOT; the City of McDonough must approve all others
	3. Provide road plan and profiles of all subdivision streets on a scale of no smaller than 1" = 50' horizontally and 1" = 10' vertically.
	4. Show and state all names and rights-of-way (existing & proposed), distance from centerline, and pavement widths of all roads that appear on plans. Show all existing conditions along the property frontage on both sides of the road, i.e., driveways, streets, utilities, and etc.
	5. Provide traffic signage and striping plans. All traffic control devices, signs, signals, and markings (striping) to be used must conform to the requirements of the *Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).*
	6. Provide minimum pavement width in accordance with City Standards. Provide a minimum turnaround diameter for all cul-de-sacs in accordance with City Design Standards.
	7. Provide minimum curb or pavement radii at intersection of 25 feet or at a minimum radius as required by the City of McDonough Fire Marshal for adequate emergency vehicular access.
	8. Provide street grades, not less than 1.5 per cent grade nor more than 12 percent grade of local streets and 5 percent of arterial streets.
	9. Provide curb and gutter on local streets and curb and gutter on state routes in accordance with City/GDOT Design Standards.
	10. Provide street grades such that drainage flows away from intersecting streets
	11. Provide stopping sight distance profiles at all ingress/egress locations including new roadway intersections.
	12. Provide concrete sidewalks with a beauty strip along all property frontage adjacent to roadway right-of- way as required by the City *Zoning Ordinance*, latest edition. Right-of-way dedication may.
	13. Execute and return right-of-way deeds to City
	14. If the site is along GDOT rights-of-way, show location of any billboards or outdoor advertising on or within 500 feet of the subject property.

8. New Street and Driveway Design

	1. Proposed street layouts shall interconnect within a development and with adjoining development as often as possible.
	2. Provide a plan view of proposed roadways. Include radius at intersection connections, R/W, horizontal curves, proposed storm drain systems, water, sewer, etc. Utilities such as water and sewer to be shown on separate plan view sheets.
	3. Public or private streets longer than 150 feet must be connected to a continuous street network or end in a cul-de-sac.
	4. Maximum cul-de-sac length is 250 feet in length from the nearest intersection with a street providing through access (not a cul-de-sac). Minimum radius for cul-de-sac shall be forty (40) feet.
	5. Minimum ROW and pavement widths based on street types and City developments standards.
	6. Private streets are prohibited except where necessary and subject to approval by the City Council or City Manager.
	7. Provide centerline street profiles with street design information .
	8. Provide vertical and horizontal curve design information.
	9. Provide Stopping sight distance profiles for new road connections.
	10. Public streets to be dedicated.
	11. Curb cuts and access management in accordance with spacing requirements.
	12. "Grant of Easement. The general purpose public access and utility easement(s) shown on this plat for private street(s) is hereby granted and said grant of rights shall be liberally construed to provide all necessary authority to the City, County, and to public or private utility companies serving the subdivision, for the installation and maintenance of utilities, including, but not limited to, electric lines, gas lines, telephone lines, water lines, sewer lines, cable television lines, and fiber optic cables, together with the right to trim interfering trees and brush, together with a perpetual right of ingress and egress for installation, maintenance, and replacement of such lines. _____ Signature of Property Owner Date"
	13. "Certificate of Dedication. All water and sewer lines installed within the general-purpose public access and utility easement(s) shown on this plat for private street(s) are hereby dedicated to City of City of McDonough."
	14. Private streets are prohibited except where necessary and subject to approval by the City Manager
	15. Private streets require mandatory property owner's association, with bylaws and/or covenants (required by final plat).
	16. Private street shall install street signs with the street name and designation "private."
	17. Easements for private streets shall be designated on final plat.
	18. Easements for private streets shall not be included in any calculation of minimum lot size or density limitations.
	19. Private street shall be drawn as its own discrete parcel to be dedicated to a mandatory private homeowner's association.
	20. A private maintenance covenant recorded with the Clerk of the Superior Court shall be required for any private street and other improvements. Requirements in code.
	21. Interior driveways shall be in accordance with City Design Standards.
	22. Sidewalk paving materials shall be continued across any intervening driveway at the same prevailing grade and cross slope as on the adjacent sidewalk clear zone. Corresponding interior sign or painted bar on the driveway shall be provided adjacent to the sidewalk paving as it intersects the driveway.
	23. Driveway widths shall be a in accordance with City Design Standards.
	24. Curb cuts shall not be permitted on any street that is classified as a boulevard, primary, secondary or feeder street when access may be provided from a side or rear local street.
	25. Driveways are not permitted between the sidewalk and a building and shall be perpendicular to any adjacent street.