

STORMWATER MANAGEMENT OPERATION AND MAINTENANCE MANUAL

Prepared for:

McDonald's USA, LLC

Proposed McDonald's Restaurant

**Block 36, Lot 4.07
741 NJSH Route 73 South
Township of Evesham
Burlington County, NJ**

Prepared By:



**50 Park Place, Suite 901
Newark, NJ 07102
(973) 755-7200**

A handwritten signature in black ink, appearing to read 'Tiago F. Duarte', is written over a horizontal line.

**Tiago F. Duarte, PE
NJ Professional Engineer License #52588**

**May 2025
DEC# 0114 23-01590**

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PROJECT DETAILS

A. Introduction and Description of Facilities:

The purpose of this report is to provide guidelines and information regarding the required maintenance for the proposed stormwater management facilities to be constructed in association with the redevelopment of Block 36, Lot 4.07 as shown on the Township of Evesham Tax Map Sheet No. 6, located in the Township of Evesham, Burlington County, New Jersey. It should be noted that this site is part of a Planned Commercial Development as defined in §160-5 of the Township of Evesham Municipal Code. The Applicant proposes the demolition of the existing bank building and the construction of a new McDonald's fast-food restaurant with drive-through facilities. Additional site improvements will include paved parking areas, landscaping, grading, stormwater management facilities and other associated site amenities as shown on the accompanying Site Plan drawings. The stormwater management system includes the construction of one (1) pervious pavement system and one (1) drywell.

The stormwater management facilities will contribute toward the conveyance, storage, treatment and discharge of runoff generated by the proposed development. Every stormwater management system, whether at grade or below grade, requires that basic periodic maintenance be performed in order to maintain the proper functioning and operation of the system. This report will outline these procedures, further discuss responsibilities and highlight those responsible for performing said maintenance.

The proposed overall stormwater management system has been designed with one (1) pervious pavement system and one (1) drywell. The stormwater management system will capture stormwater runoff from the restaurant roof, paved parking areas, trash enclosure, sidewalks and landscaped areas located within the limits of the proposed development. The stormwater management system has been designed to comply with both the Township of Evesham Ordinance and the NJAC 7:8 Stormwater Management Regulations.

The facilities on site will require periodic inspections and maintenance. The following information can be considered a guideline for the continued maintenance including suggested inspection scheduling as well as performance objectives.

B. Project Contacts:

The applicant is responsible to maintain a detailed log of all preventative and corrective maintenance actions for the constructed stormwater facilities incorporated into the design, including record of all inspections and copies of all maintenance-related work orders.

The applicant is also responsible for maintenance to evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and deed as needed. The applicant shall retain a copy of this report onsite should a public entity request this report or documentation of said maintenance in the future.

Applicant/Owner: McDonald's USA, LLC
110 North Carpenter Street
Chicago, IL 60607-2101
(815) 228-1669

Design Engineer: Tiago F. Duarte, PE
Dynamic Engineering Consultants, PC
50 Park Place, Suite 901
Newark, NJ 07102
(973) 755-7200

Party Responsible for Maintaining Stormwater Management Facility: McDonald's USA, LLC
110 North Carpenter Street
Chicago, IL 60607-2101
(815) 228-1669

As previously mentioned, this manual, including any future revisions, must be recorded upon the deed of record of the property.

C. Proposed Best Management Practices:

Pervious Pavement System – (BMP 1)

The proposed pervious pavement system has been designed to capture stormwater runoff within the designated drainage area. Stormwater runoff over regulated motor vehicle surfaces is captured and treated through the pervious pavement system. The system provides a total of

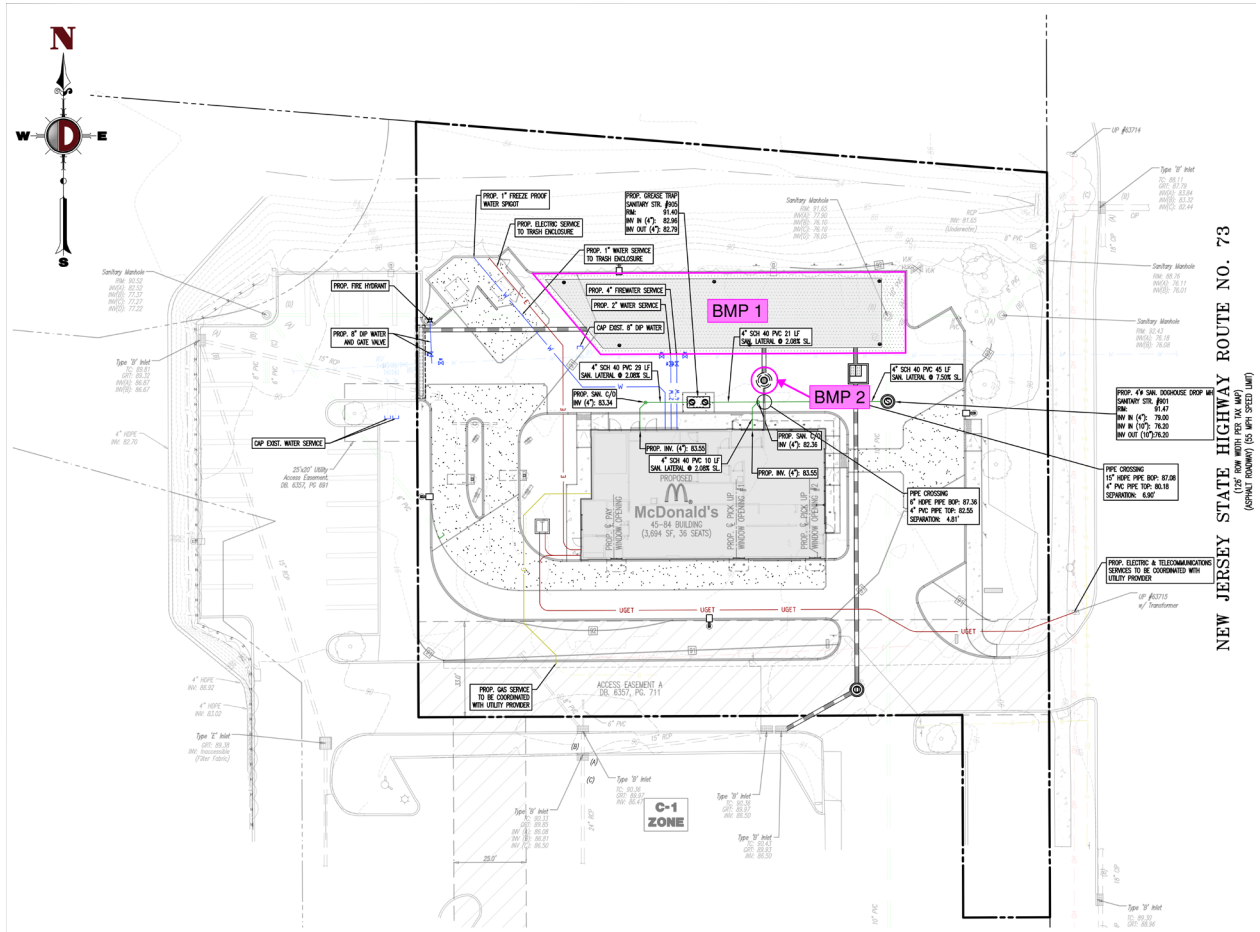
7,064 CF of detained storage and an 80% TSS removal rate. The detained runoff will be discharged at a controlled rate through the outlet control structure with a low flow orifice and a rectangular orifice. The area associated with this Point of Analysis is that depicted as PDA-2A in the Proposed Drainage Area Map. The detained flow exiting the pervious pavement system is routed south to the existing conveyance system within the Planned Commercial Development.

Drywell – (BMP 2)

The proposed drywell system has been designed to capture roof runoff from the proposed building. The system provides 1,896 CF of total annual recharge volume. The runoff from the storm events beyond the water quality storm will bypass the system and discharge directly to the pervious pavement system storage bed. From there, runoff will be discharged south to the existing conveyance system within the Planned Commercial Development.

Detailed information regarding the design of the overall stormwater management system can be found in the Stormwater Management Report, prepared by Dynamic Engineering Consultants, PC. The following information can be considered a guideline for the continued maintenance including suggested inspection scheduling as well as performance objectives.

D. Location Map



Stormwater Management Measure	BMP No.	Location Description	State Plane Coordinates
Pervious Pavement System	BMP 1	Northern parking area	N: 377605 E: 373550
Drywell	BMP 2	Northern parking area	N: 377626 E: 373502

INSPECTION AND MAINTENANCE

A. Routine Inspection and Maintenance of the Stormwater Management Facilities:

All stormwater management basins have been designed to control stormwater and reduce flooding and degradation of water quality. Without proper routine inspection and maintenance, the basins may lose some or all of their capability to function to their full capacity. Lack of adequate maintenance at these facilities could lead to system failures.

A consulting Professional Engineer should perform regularly scheduled maintenance inspections of the stormwater facilities at least four (4) times each year. The primary purpose of these inspections is to ascertain the operational condition and safety of the facilities, particularly the condition of the outlet structures, trash racks and other safety-related aspects. Inspections will also provide information on the effectiveness of regularly scheduled Preventative Maintenance Procedures and will help to identify where changes in the extent and scheduling of the procedures are warranted. Finally, the facility inspections should also be used to determine the need for and timing of Corrective Maintenance procedures.

Routine maintenance is further broken down into two (2) categories: Preventative and Corrective. Listed below are the Preventative and Corrective Maintenance Procedures to be performed on a routine basis:

1. Preventive Maintenance Procedures:

The purpose of Preventative Maintenance is to maximize the effectiveness of the stormwater management aspects of the basins so that they remain operational and safe as often as practicable, and to minimize the need for emergency or corrective maintenance. These procedures are as follows:

a) Removal and Disposal of Trash/Debris and Sediment:

All storm water management components expected to receive and/or trap debris and sediment must be inspected for clogging and excessive debris and sediment accumulation at least four times annually as well as after every storm exceeding one inch of rainfall. Such components may include the basin, stormwater

conveyance network (piping & inlet) flared end sections, trash racks and outlet control structure.

These stormwater management components shall be visually inspected for the accumulation of excessive sediment as well as damage in the form of cracking, erosion and rutting. Sediment build up within the stormwater conveyance network shall be removed with the use of flushing. Sediment laden water is to be captured with the use of a pipe plug, or approved equal, prior to the basin and simultaneously pumped out with the use of pump with sediment bag. Sediment should be disposed of in accordance with all applicable local, state and federal regulations.

Removal of trash and debris will prevent possible damage to trash racks and outlet structure openings and eliminate potential mosquito breeding habitats. Debris and trash must be properly hauled off the site and transferred to an approved disposal site.

The basins should also be evaluated for excessive deposition of sediment. Accumulated sediment should be removed utilizing light weight equipment to avoid soil compaction before it threatens the storage volume of the basins. Before de-sedimentation activities are performed, consideration should be given to evacuating all standing water from the basins. This may be accomplished by clearing any blocked openings of the outlet structure or by mechanical means (pumping). Disposal of discharged water and sediment must comply with all local, county, state and federal regulations. Only suitable disposal sites should be utilized. If stable soil conditions exist on site, sediment deposition should not be an excessive maintenance issue. Should a recurrent stabilization situation develop, the inspector should identify the upstream sources of sediment and recommend required stabilization measures. Access has been provided for inspection and maintenance of the basin and its components.

b) Pervious Pavement System Maintenance:

The primary goal of permeable pavement maintenance is to prevent the paved surface from being clogged with fine sediments. To keep the system clean throughout the year and prolong its lifespan, the paved surface should be

regularly maintained to remove debris, such as grass clippings and sediment, and be vacuum swept (not power swept) at least four times per year. All inlet structures within or draining to the rest of the system should also be inspected on a biannual basis and after major storm events. Should the permeable pavement system not drain within 72 hours, the various system components and groundwater levels must be evaluated and appropriate measures taken to comply with the maximum drain time requirements and maintain the proper functioning of the system.

The surface course must be inspected after every storm exceeding one inch (1") of rainfall. If mud or sediment is tracked onto the surface course, it must be removed as soon as possible. Removal should take place when all runoff has drained from the surface course. The surface course must be inspected, at least once annually, for cracking, subsidence, spalling, erosion, deterioration and unwanted vegetation. Remedial measures must be taken as soon as possible. Herbicides must not be applied.

The surface course of a pervious pavement system must be vacuum swept, not power swept, at least four times per year in accordance with the specifications recommended for the particular type of system. All dislodged material must be promptly removed.

The first annual maintenance must be performed in the spring. Maintenance must additionally be performed in the autumn, after the fallen leaves are collected and removed.

Each spring, after the last snow or ice event, the infiltration rate of the surface course shall be observed. In the event excessive stormwater ponding is witnessed, a consulting professional engineer or other qualified professional should be contacted to further evaluate the surface infiltration capacity.

Planted areas adjacent to pervious pavement should be well maintained to prevent soil washout onto the pavement. If any washout does occur it should be cleaned off the pavement immediately to prevent further clogging of the pores. Furthermore, if any bare spots or eroded areas are observed within the planted areas, they should be replanted and/or stabilized at once. Superficial dirt does

not necessarily clog the pavement voids. However, dirt that is ground in repeatedly by tires can lead to clogging. Therefore, trucks or other heavy vehicles should be prevented from tracking or spilling dirt onto the pavement.

Cold weather maintenance for a permeable paver driveway may be necessary but is usually less intensive than that required for a standard asphalt lot. By its very nature, a permeable paver system with subsurface storage has improved snow melting characteristics than standard pavement. Therefore, ice and light snow accumulation are generally not as problematic. However, snow will accumulate during heavier storms. To prevent snow accumulation, traditional snow removal methods including shoveling and snowblower can be used; however, care must be taken when removing snow from the surface. Pervious paver systems may be damaged by snowplows or loader buckets set too low to the ground or not equipped with a rubber blade guard. Sand, grit or cinders may not be used on surface courses for snow/ice control. Should deicing be required, deicers can be applied in accordance with the manufacturer recommendations. De-icing chemicals should not be used on pervious concrete less than one year old. De-icers containing magnesium chloride, calcium magnesium acetate or potassium acetate may never be used on pervious concrete.

c) Mechanical Components:

Mechanical components such as valves, pumps, and access hatches should remain functional at all times. Regularly scheduled maintenance should be performed in accordance with the manufacturer's recommendations. Additionally, all mechanical components should be operated at least once every three months to ensure their continued performance.

d) Parking Lot Maintenance:

This management measure involves employing pavement cleaning practices, such as parking lot sweeping on a regular basis, to minimize pollutant export to the stormwater conveyance system/detention basins and eventually the receiving waters. These cleaning practices are designed to remove sediment, debris, and other pollutants from access drive and parking lot surfaces that are a potential source of pollution impacting urban waterways. Mechanical machines that use

vacuum assisted dry sweeping to remove particulate matter shall be utilized as these have the ability to remove finer sediment particles. Parking lots and access drives shall be swept/vacuumed at least once a month. The disposal of the swept material must be properly hauled off the site and transferred to an approved disposal site. Other parking lot maintenance features include the use of on-site trash receptacle. These receptacles should be located in strategic areas where the majority of the pedestrian traffic occurs. These receptacles should be emptied daily. The disposal of the solid waste must be properly hauled off the site and transferred to an approved disposal site.

e) Observation after rainfall:

This management measure involves monitoring the amount of time the basins take to drain to ensure the basin is working properly. The basins should drain in less than 72 hours after each rain event. If significant increases or decreases are observed in the drawdown time, a qualified licensed Professional Engineer shall be contacted to evaluate the basin's bottom surface, subsoil and both groundwater and tailwater elevations to determine what corrective measures may need to be implemented.

f) Maintenance of Adjacent Areas:

Grass areas, trees, and shrubs adjacent to the basin require periodic fertilizing, de-thatching and soil conditioning to maintain healthy growth. The application of fertilizers should follow manufacturer's instructions to reduce run-off of these compounds into the basin. Additionally, provisions should be made to re-seed and re-establish grass cover in areas damaged by sediment accumulation, stormwater flow, or other causes. These tasks should be performed, or at least evaluated, on a quarterly basis.

g) Inspection and Reporting:

Regularly scheduled inspections of the facilities should be performed by a consulting Professional Engineer. The primary purpose of the inspections is to ascertain the operational condition and safety of the facility. Inspections will also provide information on the effectiveness of regularly scheduled Preventative and

Aesthetic Maintenance procedures. It should be noted that, in addition to regularly scheduled inspections, an informal inspection should be performed during every visit to stormwater management facilities by maintenance or supervisory personnel.

The recording of all maintenance work and inspections provides valuable data on the condition of the stormwater management facilities. Review of this information will also help to establish more efficient and beneficial maintenance procedures and practices. All recorded information should be directed to the owner of the facilities for review and subsequent follow-up on recommendations. Inspection and maintenance checklists and logs are included in the Appendix of this manual.

2. Corrective Maintenance Procedures:

Corrective Maintenance is required on an emergency or non-routine basis to correct problems or malfunctions and to restore the intended operation and safe condition of the stormwater management facilities.

a) Removal of Debris and Sediment:

Sediment, debris and trash which threaten the discharge capacity of the basins should be removed immediately with the use of light weight equipment to avoid soil compaction and properly disposed. As noted previously, it is recommended that all water be evacuated from the basins with a pump before any significant amount of sediment, settled debris or trash is removed from the basins. The lack of an available disposal site should not delay the removal of trash, debris and sediment. Temporary disposal sites should be utilized if necessary.

b) Structural Repairs:

Structural damage to outlet and inlet structures, trash racks, access hatches, roadways and headwalls as a result of vandalism, flood events, settlement or other causes must be repaired promptly. The urgency of the repairs will depend upon the nature of the damage and its effects on the safety and operation of the facility. The analysis of structural damage and the design and performance of

structural repairs should only be undertaken by the consulting Professional Engineer.

c) Dewatering

It may be necessary to remove ponded water from within a malfunctioning system. This ponding may be the result of a blocked principal outlet. Portable pumps may be necessary to remove the ponded water temporarily until a permanent solution can be implemented.

d) Snow and Ice Removal:

Accumulations of snow and ice can threaten the functioning of the inlets, outlets and emergency spillways. Provision of the equipment, material and personnel to monitor and remove snow and ice from critical areas will ensure the function of the facility during the winter months.

e) Pervious Pavement System Repair:

It may be necessary to remove ponded water from within a malfunctioning system. This ponding may be the result of a blocked principal outlet. Portable pumps may be necessary to remove the ponded water temporarily until a permanent solution can be implemented.

Potholes in the permeable pavement are extremely unlikely, though settling might occur if a soft spot in the subgrade is not removed during construction. Under no circumstance is the pavement surface to ever be seal coated except for those approved by the manufacturer to improve surface course resistance to de-icing chemicals. Any required repair of drainage structures should be done promptly to ensure continued proper functioning of the system.

With minimal maintenance, permeable pavement systems can function effectively for well over 20 years or longer. However, in the event that maintenance of the permeable pavement system is neglected and it becomes clogged over time, the Owner shall vacuum the surface until the original permeability is restored. If the original permeability of the lot cannot be restored,

the pavement system should be removed and replaced with a new pavement system. Once again, it is important to note that high pressure washing may drive contaminants further into the porous surface and even into the underlying aggregate. It is therefore recommended that prior to vacuum sweeping, a low performance pressure washer be used to break the surface tension and reach into the pores.

Disposal of debris, trash, sediment and other waste material must be done at suitable disposal/recycling sites and in compliance with all applicable local, state and federal waste regulations. Under no circumstances may any sealants or coatings be applied to pervious pavement systems, except for those approved by the manufacturer to improve surface course resistance to de-icing chemicals.

3. Aesthetic Maintenance Procedures:

Aesthetic Maintenance, although not required to keep the stormwater management systems operational, will maintain the visual appeal of the facility and will benefit everyone within the local community. Aesthetic Maintenance can also reduce the amount of required Preventative and Corrective Maintenance.

a) Graffiti Removal

The timely removal of graffiti will restore the aesthetic quality of the systems. Removal can be accomplished by paint or other cover, or removal with scrapers, solvents or cleansers. Timely removal is important to discourage further graffiti and other acts of vandalism.

b) Grass Trimming/Landscape Maintenance:

The lawn areas around the site shall be mowed on a regular basis as necessary to maintain the lawn at a height of 2 to 3-inches. These areas shall also be fertilized twice a year, once in the spring and once in the fall. Fertilizer for lawn areas shall be 10-20-10 applied at a rate of 11 lbs. per 1,000 sf. or as determined by a soil test. Any bare, dead or damaged lawn areas shall be re-seeded in accordance with the original procedures as outlined in the Soil Erosion and Sediment Control Plans using the same mix and seeding rates. Stabilization of

bare or damaged areas shall be done in a timely fashion to avoid exposing the soil to erosion.

If season prevents the re-establishment of turf cover, exposed areas should be stabilized with straw or salt hay mulch as described in the Soil Erosion and Sediment Control Plan until permanent seeding can be done. Seeding can be done between March 15th and June 15th and between September 15th and December 1st, only if adequate water is provided.

c) Control of Weeds

Although a regular grass maintenance program will minimize weed intrusion, some weeds will appear. Periodic weeding, either chemically or mechanically, will help to maintain a healthy turf, and keep grass areas looking attractive.

4. Recording and Logging of all Maintenance Activities:

The recording of all maintenance work and inspections provides valuable data on the facility's condition. Reviewing this information will also help to establish more efficient and beneficial maintenance procedures and practices. All recorded information should be directed to the owners of the basins for review and subsequent follow-up on recommendations. Data obtained from informal inspections should be retained; however, this data does not have to be submitted to NJDEP. A copy of all records and logs of maintenance activities shall be submitted to the Township Engineer annually for review.

5. Summary of Maintenance Procedures:

Preventative Maintenance

- a) Removal and Disposal of Trash/Debris and Sediment
- b) Pervious Pavement Maintenance
- c) Mechanical Components
- d) Parking Lot Maintenance
- e) Observation After Rainfall
- f) Maintenance of Adjacent Areas
- g) Inspection and Reporting

Corrective Maintenance

- a) Removal of Debris and Sediment
- b) Structural Repairs
- c) Dewatering
- d) Snow and Ice Removal
- e) Pervious Pavement Repair

Aesthetic Maintenance

- a) Graffiti Removal
- b) Grass Trimming/Landscape Maintenance
- c) Control of Weeds

Recording and Logging

B. Maintenance Equipment and Materials

1. Grass Maintenance Equipment
 - a) Riding Mowers
 - b) Hand Mowers
 - c) Gas Powered Trimmers
 - d) Gas Powered Edgers
 - e) Seed Spreaders
 - f) Fertilizer Spreaders
 - g) De-Thatching Equipment
 - h) Pesticide and Herbicide Application Equipment
 - i) Grass Clipping and Leaf Collection Equipment
2. Transportation Equipment
 - a) Trucks for Transportation of Materials
 - b) Trucks for Transportation of Equipment
 - c) Vehicles for Transportation of Personnel
3. Debris, Trash and Sediment Removal Equipment
 - a) Backhoe
 - b) Grader

- c) Dredging equipment
 - d) Portable Pump for dewatering with sediment bag
4. Miscellaneous Equipment
- a) Shovels
 - b) Rakers
 - c) Picks
 - d) Wheelbarrows
 - e) Painting Equipment
 - f) Gloves
 - g) Brooms
5. Standard Mechanics Tools
6. Tools for Maintenance of Equipment
7. Materials
- a) Topsoil
 - b) Fill
 - c) Seed
 - d) Soil Amenities (Fertilizer, Lime, etc.)
 - e) Chemicals (Pesticides, Herbicides, etc.)
 - f) Mulch
 - g) Paint Removers
 - h) Spare Parts for Equipment
8. Parking Maintenance Equipment
- a) Sweeping/Vacuuming Equipment
 - b) Snow Plowing Equipment
 - c) Snow Shovels

c. Checklists and Logs

The Appendix of this report contains sample checklists and logs regarding various aspects of basin maintenance and inspection. A brief description of the use of each form is listed below:

1. "Maintenance Work Order and Checklist" – a comprehensive form outlining both required and completed maintenance work.
6. "Maintenance Log" – a summary table for recording of all maintenance work at the site.
7. "Inspection Log" – a summary table for recording the results of all inspection of the basin.
8. "Inspection Checklist" – a comprehensive form outlining required inspection work.
9. "Pervious Pavement System Detail" – a cross section detail of the stormwater management system.

D. Estimated Maintenance Costs and Tasks

The following is a summary of the required maintenance tasks and associated costs in written and tabular form:

- Inspections to be performed by a consulting engineer on an annual basis. - **\$6,000.00.**
- Inspections to be performed by the property owner and/or a maintenance designee on a monthly basis and/or after a storm event exceeding 1 inch of rainfall– **Minimal cost associated – Owners responsibility - \$500.00.**
- Stormwater conveyance system and outlet control structure access for debris removal to be performed on an annual basis and/or as inspection routine dictates - **\$2,500.00.**
- Surface debris removal including garbage and organic matter to be performed in conjunction with lawn and grounds maintenance, includes leave removal in the Fall and removal of excessive amounts of snow, if necessary, in the Winter. These tasks are encouraged as necessary to maintain safe operating conditions (twice a month from Spring through Winter recommended or on as needed basis) - **\$1,000.00.**

Maintenance Schedule Summary

Task Identification	Task Frequency	Task Estimated Cost
Inspection by licensed professional consulting engineer	Four (4) times per year	\$1,500.00/Each
Inspection by property owner and/or maintenance designee	Once (1) per month (or after a storm event exceeding 1 inch of rainfall)	\$500 per inspection
Debris removal from stormwater conveyance system (inlets, pipes, manholes, roof leaders, and outlet control structure)	Four (4) times per year (or after storm event exceeding 1 inch of rainfall)	\$2,500 per inspection
Surface debris removal (garbage & organic matter) including leaves in the Fall and snow in the Winter	Twice (2) per month (or on an as needed basis)	\$1,000

E. Annual Evaluation of the Effectiveness of the Plan

As per N.J.A.C. 7:8-5.8(g), the person responsible for maintenance shall evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and the deed as needed.

The responsible party should evaluate the effectiveness of the maintenance plan by comparing the maintenance plan with the actual performance of the maintenance. The items to evaluate may include, but not limited to,

- Whether the inspections have been performed as scheduled;
- Whether the preventive maintenance has been performed as scheduled;
- Whether the frequency of preventative maintenance needs to increase or decrease;
- Whether the planned resources were enough to perform the maintenance;
- Whether the repairs were completed on time;
- Whether the actual cost was consistent with the estimated cost;
- Whether the inspection, maintenance, and repair records have been kept.

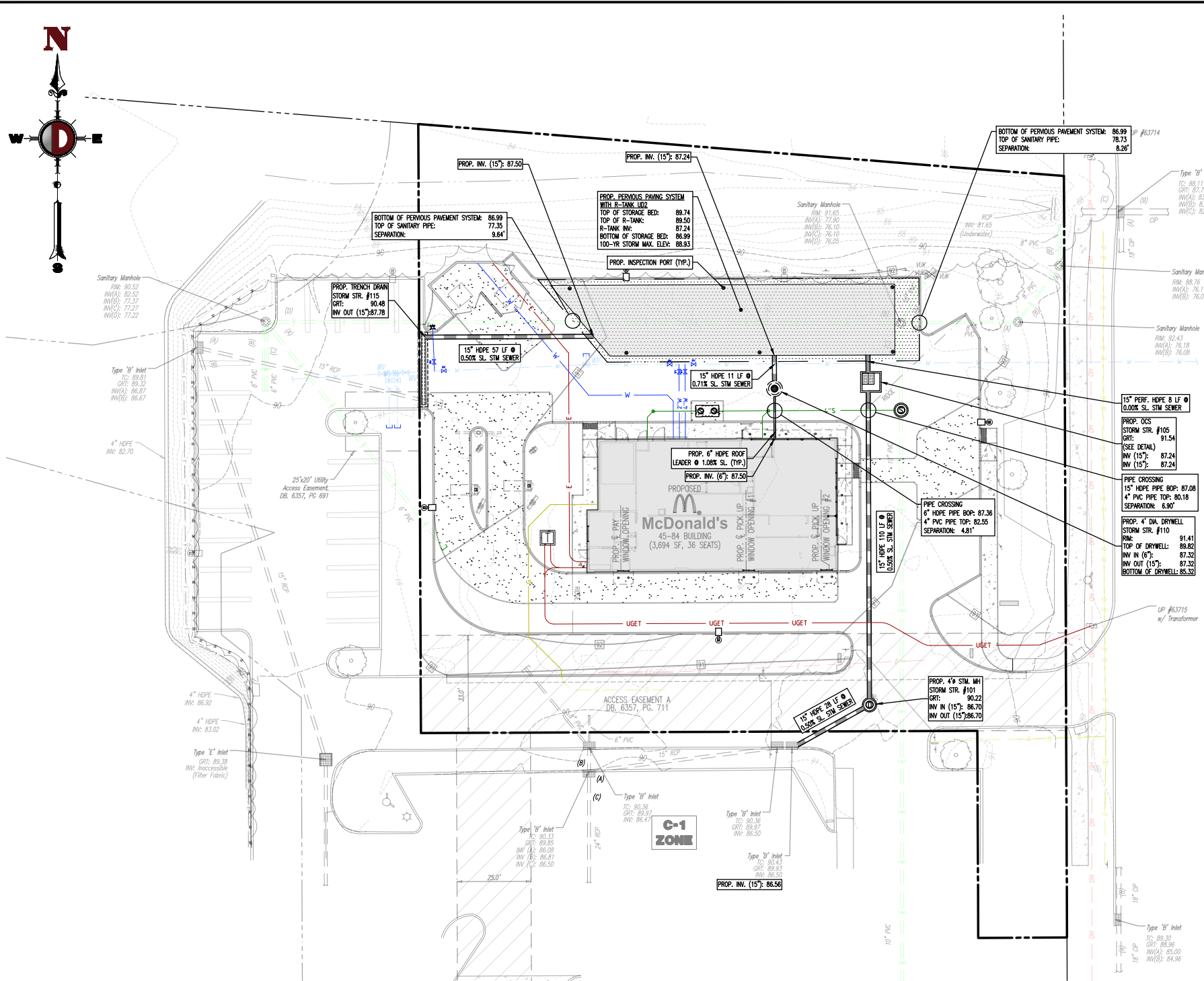
If actual performance of those items has been deviated from the maintenance plan, the responsible party should find the causes and implement solutions in a revised maintenance plan.

Annual Evaluation Records

Evaluator(s)	Date of Evaluation	Decision
		<p><input type="checkbox"/> Maintain current version OR</p> <p><input type="checkbox"/> Revise current version Revision date _____ (also update the last revision date on the cover page)</p> <p><input type="checkbox"/> Requires a new deed recording (also update the last recording information on the cover page)</p>
		<p><input type="checkbox"/> Maintain current version OR</p> <p><input type="checkbox"/> Revise current version Revision date _____ (also update the last revision date on the cover page)</p> <p><input type="checkbox"/> Requires a new deed recording (also update the last recording information on the cover page)</p>
		<p><input type="checkbox"/> Maintain current version OR</p> <p><input type="checkbox"/> Revise current version Revision date _____ (also update the last revision date on the cover page)</p> <p><input type="checkbox"/> Requires a new deed recording (also update the last recording information on the cover page)</p>

APPENDIX

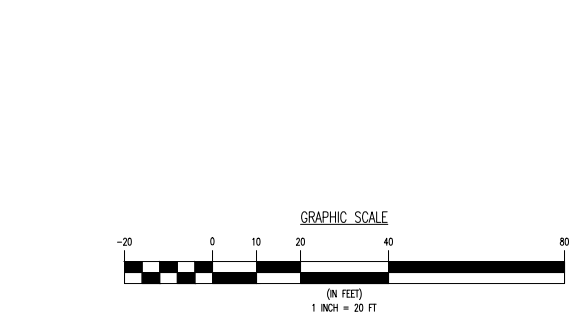
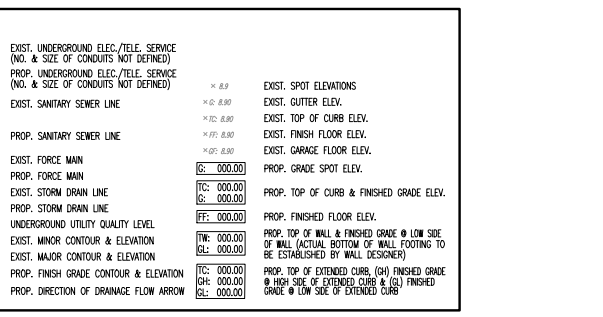
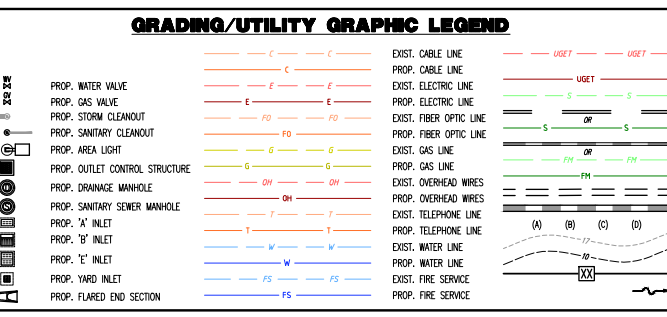
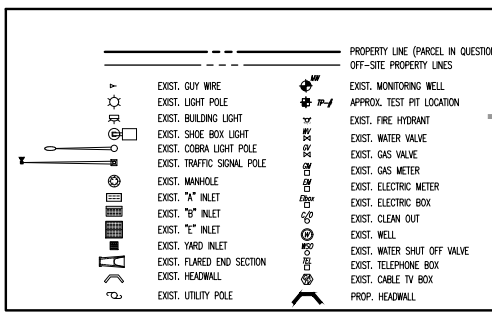
DRAINAGE PLAN



NEW JERSEY STATE HIGHWAY ROUTE NO. 73
 (126' ROW WIDTH PER TAX MAP)
 (ASPHALT ROADWAY (55 MPH SPEED LIMIT))

EXISTING UTILITY NOTES
 EXISTING WATER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING WATER SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING WATER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL WATER COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL WATER COMPANY PRIOR TO COMPLETION. IF THE EXISTING WATER SERVICE CAN NOT BE UTILIZED, THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL WATER COMPANY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.
 EXISTING GAS SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING GAS SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING GAS SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL GAS COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL GAS COMPANY PRIOR TO COMPLETION. ANY NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.
 SANITARY SEWER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING SEWER SERVICE CONNECTION IF OF ADEQUATE SIZE AND INTEGRITY AND ACCEPTABLE TO LOCAL SEWER AUTHORITY. OTHERWISE CONTRACTOR TO REMOVE EXISTING SEWER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL SEWER AUTHORITY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL SEWER AUTHORITY PRIOR TO COMPLETION. IF EXISTING SEWER SERVICE CAN NOT BE UTILIZED THEN THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL SEWER AUTHORITY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

DRAINAGE NOTES
 1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK-OUT THEIR UTILITIES.
 2. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
 3. MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-III, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH ASTM C 990 TO BE UTILIZED TO PROVIDE A SILT-TIGHT JOINT, WHERE SPECIFICALLY INDICATED, REINFORCED CONCRETE STORM PIPE JOINTS SHALL BE WATER-TIGHT AND CONFORM TO ASTM C-443.
 4. HOPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNUAL EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SILT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM F477. HOPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HOPE PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
 5. HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNUAL EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2736 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATER-TIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
 6. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.



JOSEPH C. SPARONE PROFESSIONAL ENGINEER
 NEW JERSEY LICENSE NO. 47204
TIAGO F. DUARTE PROFESSIONAL ENGINEER
 NEW JERSEY LICENSE NO. 52588

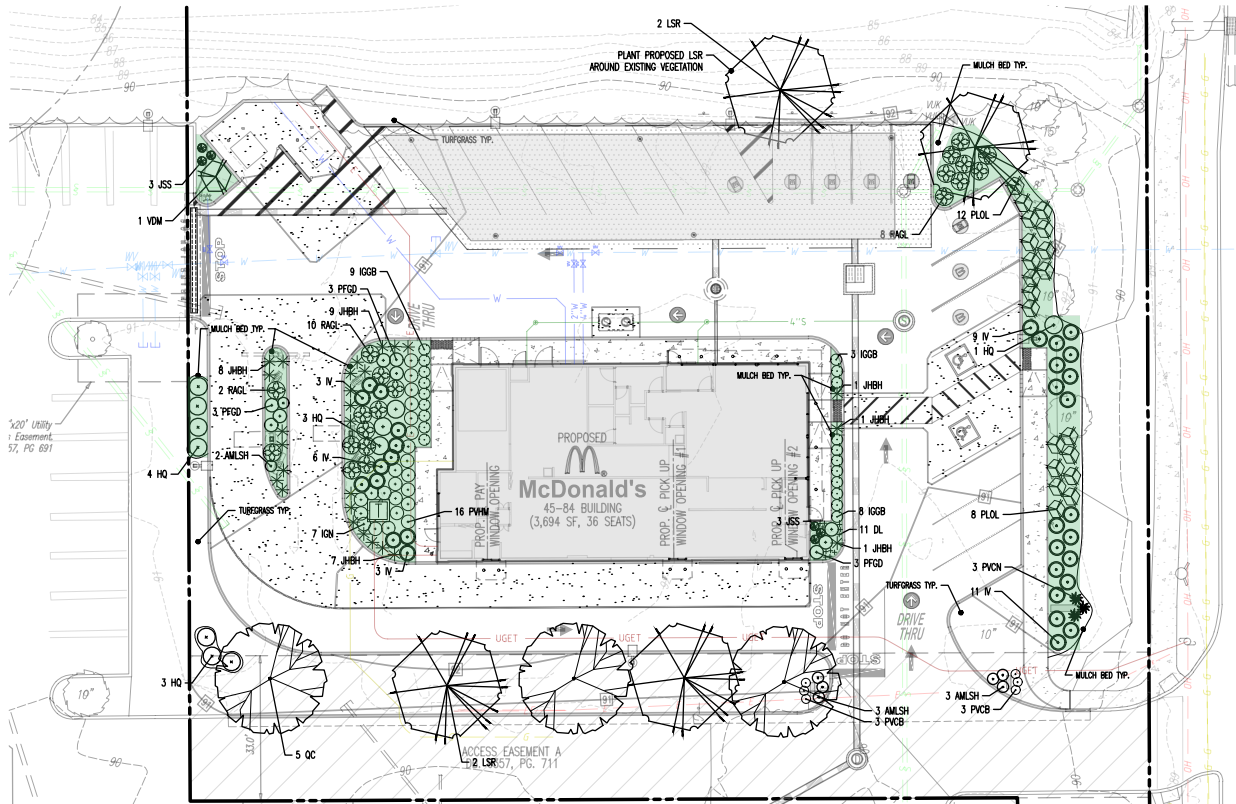
DYNAMIC ENGINEERING
 LAND DEVELOPMENT CONSULTING • PERMITTING • GEOTECHNICAL • ENVIRONMENTAL • SURVEY • PLANNING & ZONING
 60 Park Road, Suite 801, Newark, NJ 07102, www.dynamic-nj.com
 1000 South Main Street, Suite 200, Newark, NJ 07102, www.dynamic-nj.com
 1000 South Main Street, Suite 200, Newark, NJ 07102, www.dynamic-nj.com

PREPARED FOR: **McDonald's USA, LLC**
 THESE DRAWINGS SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION.
 PREPARED BY: **DYNAMIC ENGINEERING**

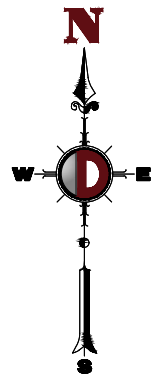
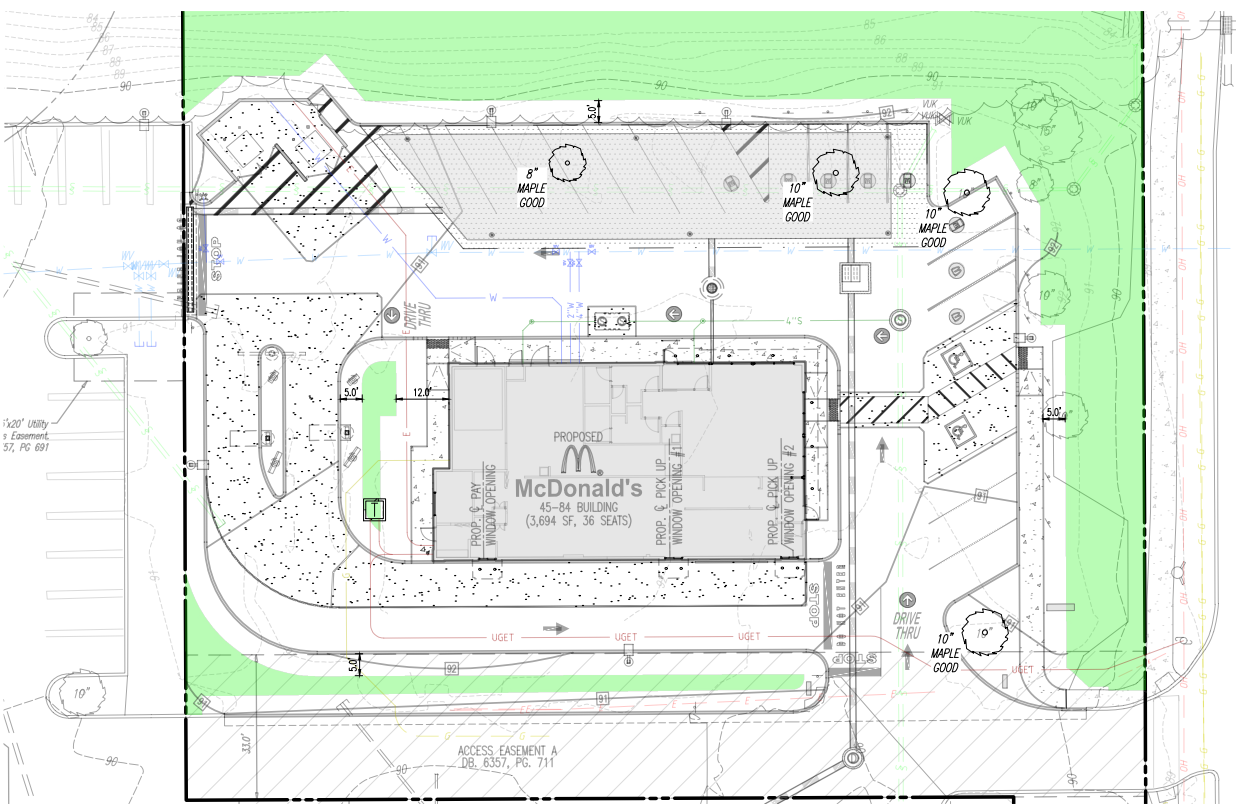
PROJECT: **PROPOSED McDONALD'S RESTAURANT BUILDING 45-84**
 SHEET: **C-6** OF 21
 DATE: **05/14/2025**
 DRAWN BY: **DUS**
 CHECKED BY: **TFD**
 DATE ISSUED: **05/14/2025**
 TOWNSHIP OF EVESHAM, NJ
 L/C#: 29-1564
 L/C#: 29-1564
 SITE ADDRESS: **BLOCK 8, LOT 407, 741 WILSH, ROUTE 73 SOUTH, TOWNSHIP OF EVESHAM, BURLINGTON COUNTY, NEW JERSEY**

LANDSCAPING PLAN

LANDSCAPE PLAN



TREE PROTECTION MANAGEMENT PLAN



LANDSCAPE REQUIREMENTS

ORDINANCE SECTION	REQUIREMENT	CALCULATIONS	PROPOSED	COMPLIANCE
§ 62-56c(1)(a-c)	a. SHADE AND STREET TREES SHALL HAVE A MINIMUM CALIPER OF THREE INCHES TO 3 1/2 INCHES, MEASURED SIX INCHES ABOVE GROUND LEVEL, AND A MINIMUM HEIGHT OF 13 FEET TO 15 FEET AT INSTALLATION, A MINIMUM OF 50% OF THE TREES SHALL BE NATIVE TO THE REGION. b. ORNAMENTAL AND FLOWERING TREES SHALL HAVE A MINIMUM HEIGHT OF EIGHT TO 10 FEET AT INSTALLATION. c. EVERGREEN TREES SHALL HAVE A MINIMUM HEIGHT OF SIX FEET AT INSTALLATION.	-	SEE LANDSCAPE SCHEDULE FOR PROPOSED PLANT SIZES	COMPLIES
§ 62-56H(4)	THE LINEAR FOOTAGE OF RIGHT-OF-WAY OR PAVEMENT FRONTAGE SHALL BE DIVIDED BY THE PLANTING INTERVAL, WITHOUT DEDUCTING THE AREAS OF DRIVEWAY CUTS OR CROSSWALKS. FRACTIONS SHALL BE ROUNDED UP. TREES SHALL BE DISTRIBUTED ALONG THE ENTIRE PLANTING STRIP, ALTHOUGH THEY NEED NOT BE EVENLY SPACED.	TOTAL EXISTING PAVEMENT FRONTAGE: 132 LF TOTAL REQUIRED STREET TREES PER ROAD FRONTAGE: 132 LF / 40 (LARGE TREE SPACING) = 3.3 TOTAL REQUIRED STREET TREES: 4	EXISTING FOUR (4) STREET TREES ARE TO REMAIN	COMPLIES
§ 62-56(2)	AREAS EQUIVALENT TO 10% OF THE TOTAL AREA DEVOTED TO VEHICULAR USE, INCLUDING PARKING, ACCESS LANES AND SERVICE DRIVES, SHALL BE LANDSCAPED AS PLANTING ISLANDS, DIVIDER STRIPS AND/OR BUILDING FOUNDATION PLANTINGS. SUCH LANDSCAPED AREAS SHALL BE DISTRIBUTED THROUGHOUT THE VEHICULAR USE AREA, OR ALONG THEIR PERIMETER, IN ORDER TO BREAK THE VIEW OF PARKED VEHICLES IN A MANNER NOT IMPAIRING VISIBILITY.	TOTAL AREA OF SITE DEVOTED TO VEHICULAR USE: 19,487.3 SF 19,487.3 X 10% = 1,949 SF OF REQUIRED LANDSCAPED AREA	TOTAL AREA OF PROPOSED LANDSCAPE AREA: 2,304 SF	COMPLIES
§ 62-56(4)	THE MINIMUM PLANTING REQUIREMENT SHALL BE ONE SHADE TREE PLUS SIX SMALL SHRUBS PER 20 FEET OF BUILDING FACADE, OUTDOOR RETAIL, CAFE OR OTHER OCCUPIED AREAS. TO ALLOW FOR DESIGN FLEXIBILITY, THE FOLLOWING SUBSTITUTIONS MAY BE MADE: UP TO 50% OF THE REQUIRED QUANTITY OF SHADE TREES MAY BE SUBSTITUTED WITH TWO ORNAMENTAL OR EVERGREEN TREES, OR SIX SHRUBS, PER SHADE TREE.	PROPOSED BUILDING FACADE: 259 LF 259 / 20 = 12.95 REQUIRED PLANTING MATERIAL PER FACADE LENGTH: 12.95 X 1 = 13 SHADE TREES REMAINING REQUIRED SHADE TREES: 6 SHADE TREE SUBSTITUTION: 13 REQUIRED SHADE TREES X 50% = 6 REQUIRED SHRUBS: 6 X (6) SHRUBS = 36 REQUIRED SHRUBS 12.95 X 6 = 78 SHRUBS	PROPOSED SHADE TREES: 7 PROPOSED SUBSTITUTION SHRUBS: 36 PROPOSED SHRUBS PER FACADE LENGTH: 78	COMPLIES
§ 160-17D(6)(a)	LOW SCREENS SHALL BE USED AROUND THE PERIMETERS OF ALL PARKING LOTS OR OTHER SIMILAR VEHICULAR USE AREAS, INCLUDING SERVICE STATIONS AND VEHICULAR STAGING LANE ASSOCIATED WITH A DRIVE-THROUGH, AND AROUND TRASH ENCLOSURES OR STORAGE BUILDINGS WHEN DECORATIVE WALLS, SUCH AS BRICK, LATTICEWORK OR SPIRE-FACE CONCRETE BLOCK, ARE PROPOSED.	-	ALL PARKING LOTS AND OTHER SIMILAR VEHICULAR USE AREAS HAVE BEEN PROPERLY SCREENED WITH A LOW SCREEN.	COMPLIES
§ 160-17D(6)(b)	HIGH SCREENS SHALL BE USED ADJACENT TO LOADING AREAS, AROUND TRASH ENCLOSURES AND STORAGE BUILDINGS, WHEN FENCING OR PLAIN CONCRETE MASONRY UNITS ARE PROPOSED, AROUND TRANSFORMERS, MAINTAINING THE REQUIRED CLEAR DISTANCE; AROUND VEHICULAR STORAGE AREAS THAT ARE NOT USED AS PARKING LOTS OR SALES AREAS, REGARDLESS OF THE VEHICLE'S OPERATING CONDITION; AND AROUND UTILITY TOWER AND EQUIPMENT YARDS.	-	ALL TRASH ENCLOSURES AND OTHER REQUIRED AREAS HAVE BEEN PROPERLY SCREENED WITH A HIGH LEVEL SCREEN.	COMPLIES
§ 160 75a.(6)	FREESTANDING AND GROUND SIGNS SHALL HAVE A LANDSCAPED AREA AROUND THE BASE. THE LANDSCAPED AREA SHALL BE A MINIMUM OF 1.5 TIMES THE AREA OF THE SIGN. FOR EXAMPLE, A TWENTY-FOUR-SQUARE-FOOT SIGN MUST HAVE A MINIMUM THIRTY-SIX-SQUARE-FOOT LANDSCAPED AREA AT THE BASE CONSISTING OF EVERGREEN SHRUBS, GROUND COVER AND SEASONAL FLOWERS	-	ALL PROPOSED SIGNS HAVE BEEN UNDERPLANTED AT A MINIMUM RATE OF 1.5 TIMES THE AREA OF EACH SIGN.	COMPLIES

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
LSR	4	LIQUIDAMBAR STRYACOLLIA 'ROTUNDIFOLIA'	SEEDLESS SWEETGUM	3-3 1/2" CAL: 13-15'	B+B
QC	3	QUERCUS COCCINEA	SCARLET OAK	3-3 1/2" CAL: 13-15'	B+B
EVERGREEN SHRUB(S)					
IGSB	20	ILEX GLABRA 'EM BOY'	GEM BOX INKBERRY HOLLY	24-30"	#3 CAN
IGN	7	ILEX GLABRA X 'CHAMZIN'	NORDIC INKBERRY	36-40"	#5 CAN
JSS	6	JUNIPERUS SCOPULORUM 'SKYROCKET'	SKYROCKET JUNIPER	4-5'	B+B
PLOL	20	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN CHERRYLAUREL	36-40"	#5 CAN
DECIDUOUS SHRUB(S)					
AMLSH	8	ARONIA MELANOCARPA 'GROUND HUG'	GROUND HUG CHOKEBERRY	24-30"	#3 CAN
HQ	11	HYDRANGEA QUERCIFOLIA	OMLEAF HYDRANGEA	36-40"	#5 CAN
N	32	TEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	36-40"	#5 CAN
PFOD	9	POTENTILLA FRUTICOSA 'GOLD DROP'	GOLD DROP CHOKEBERRY	24-30"	#3 CAN
VEM	1	VEIBURNUM DENTATUM 'MORTON'	NORTHERN BURGUNDY ARROWWOOD	36-40"	#5 CAN
GROUND COVER					
JHSH	27	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR CREEPING JUNIPER	15-18" SPRD.	#3 CAN
RAGL	20	RHUS AROMATICA 'GRO-LOW'	GRO-LOW SUMAC	2 GAL	CONTAINER
DL	11	HEMEROCALLIS SPP.	DAYLILY	2 GAL	CONTAINER
ORNAMENTAL GRASS(S)					
PVCN	3	PANICUM VIRGATUM 'CLOUD NINE'	CLOUD NINE SWITCH GRASS	2 GAL	CONTAINER
PVMH	22	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	2 GAL	CONTAINER

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

AREA COUNTED TOWARDS VEHICULAR USE PLANTINGS

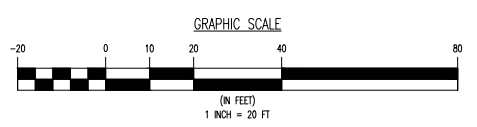
TREE PROTECTION MANAGEMENT PLAN AND COMPENSATORY TREES

ORDINANCE SECTION	REQUIREMENT	CALCULATIONS	PROPOSED	COMPLIANCE
§ 62-56(1)	IN THE EVENT THAT PRESERVATION OF EXISTING TREES WITHIN THE TREE PROTECTION ZONE IS IMPOSSIBLE AND/OR RELOCATION OF IMPROVEMENTS IMPRACTICAL, THEN COMPENSATORY PLANTING SHALL BE REQUIRED FOR EACH LIVE TREE WITHIN THE TREE PROTECTION ZONE, AND EACH SPECIMEN TREE ANYWHERE ON THE SITE.	COMPENSATORY PLANTINGS ARE REQUIRED FOR ONE TREE	-	COMPLIES
§ 62-56(3)a-b	a. FOR TREES FIVE TO 24 INCHES IN DIAMETER, ONE INCH OF NEW TREE CALIPER SHALL BE PROVIDED FOR EVERY ONE INCH OF EXISTING TREE DIAMETER CUT OR REMOVED. b. FOR TREES 24 INCHES IN DIAMETER OR GREATER (SPECIMEN TREES), TWO INCHES OF NEW TREE CALIPER SHALL BE PROVIDED FOR EVERY ONE INCH OF EXISTING TREE DIAMETER CUT OR REMOVED.	TOTAL INCHES REMOVED FROM TREES RANGING 5" - 24" IN SIZE WITHIN THE TREE PROTECTION ZONE: 0 TOTAL INCHES REMOVED FROM TREES RANGING 24.1" AND LARGER IN SIZE WITHIN THE TREE PROTECTION ZONE: 0	-	COMPLIES
§ 62-56(4)	THE NUMBER OF COMPENSATORY TREES SHOULD BE CALCULATED FROM THE TOTAL DIAMETER INCHES TO BE REPLACED, DIVIDED BY THREE, ROUNDED UP TO THE NEXT WHOLE NUMBER.	0 TREE INCHES REMOVED / 3 INCH CALIPER TREE = 0 TOTAL REQUIRED COMPENSATORY TREES: 0	-	COMPLIES

TREE PROTECTION ZONE

TREE REMOVAL TABLE

CALIPER	DECIDUOUS OR EVERGREEN TREE	WITHIN TREE PROTECTION ZONE
8"	D TREE	NO
10"	D TREE	NO
10"	D TREE	NO
10"	D TREE	NO
TOTAL INCHES REMOVED: 36"		TOTAL INCHES TO BE COMPENSATED FOR: 10"

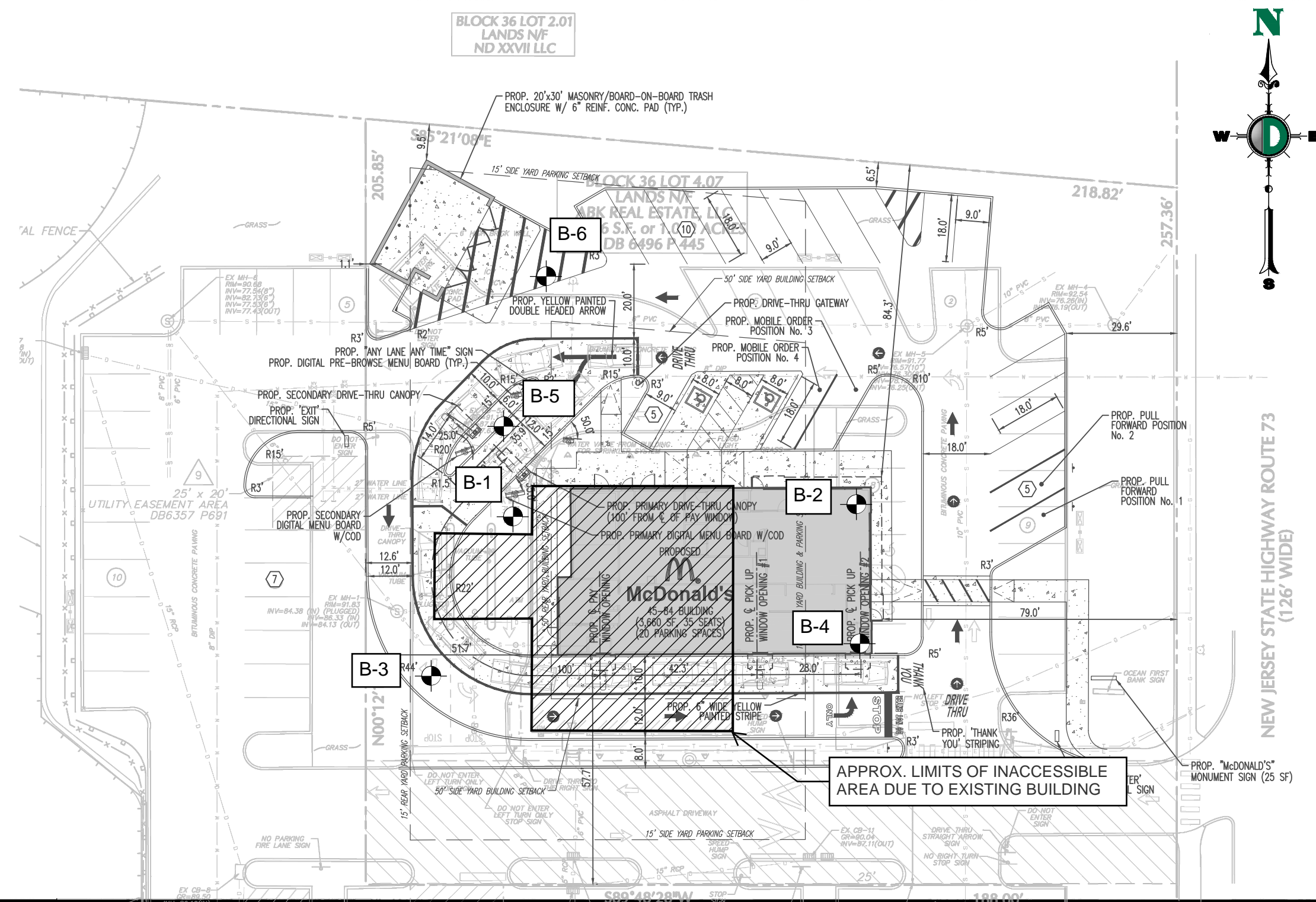
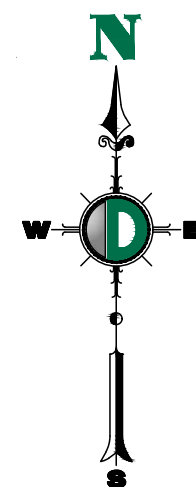


SEE SHEET 18 OF 21 FOR LANDSCAPE NOTES & DETAILS

Plot# 05/15/25 - 8:13 PM - By: demersonm - Product Ver: 25.0
 File: P:\DEPC PROJECTS\0114_McDonald's\23-01590_Evesham (Marlton) NJ LC 29-1564A\Draw\Site Plans\0114201590SLD.dwg -> 08 LANDSCAPE PLAN

PREPARED FOR: TOWNSHIP OF Evesham, NJ
 PROJECT: PROPOSED McDONALD'S RESTAURANT BUILDING 45-84
 LANDSCAPE PLAN
 SITE ADDRESS: BLOCK 18 LOT 407, 741 WALSH ROUTE 73 SOUTH, TOWNSHIP OF EVESHAM, BURLINGTON COUNTY, NEW JERSEY 08040
 DRAWN BY: TNH
 STD ISSUE DATE: -
 REVIEWED BY: TFD
 DATE ISSUED: 05/14/2025
 TITLE: PROPOSED McDONALD'S RESTAURANT BUILDING 45-84 LANDSCAPE PLAN
 PROJECT NO: 0114-23-01590
 SHEET 8 OF 21
 PROFESSIONAL ENGINEER: JOSEPH C. SPARONE, NEW JERSEY LICENSE No. 47204
 LICENSED LANDSCAPE ARCHITECT: MARLA A. ROLLER, NEW JERSEY LICENSE No. 21AS00053700
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 LAND DEVELOPMENT CONSULTING • PERMITTING • GEOTECHNICAL • ENVIRONMENTAL • SURVEY • PLANNING & DESIGN
 1000 South Main Street, Suite 200, Newark, NJ 07102. Tel: 973-261-8888. Fax: 973-261-8889. Email: info@dynamiceng.com

SOIL TEST PIT & BORING LOGS



SCALE: N.T.S.

SHEET No:
1
OF 1

JOB No:
0114-23-02695

DRAWN BY:
KH

DESIGNED BY:
-

CHECKED BY:
KH

DATE:
8/29/2023

TITLE:
BORING LOCATION PLAN

PROJECT: **MCDONALD'S USA, LLC**
Proposed McDonald's Restaurant #29-1564
741 Route 73 South
Block 36, Lot 4.07
Township of Evesham, Burlington County, New Jersey

Rev. # 0 DEC Client Code: 0114

LEGEND:

B-X APPROXIMATE LOCATION OF SOIL BORING

NOTES:

- THIS PLAN IS NOT FOR CONSTRUCTION AND WAS PREPARED TO ILLUSTRATE TEST LOCATIONS ONLY AND MAY NOT REFLECT THE MOST CURRENT REVISION OF THE BASE PLAN.
- BASE PLAN OBTAINED FROM A LATEST REVISED AUGUST 15, 2023 CONCEPT PLAN 'A' PREPARED BY DYNAMIC ENGINEERING CONSULTANTS, P.C.

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BOREHOLE LOG

Boring No : B-1

Page 1 of 2

Project: Proposed McDonald's Restaurant #29-1564				Proj. No.: 0114-23-02695						
Location: 741 Route 73 South Evesham Township, Burlington County, New Jersey				Client: McDonald's USA, LLC						
Surface Elevation: 91.0 feet		Date Started: 08-30-2023		Groundwater Data		Depth	EI.	Additional Groundwater Data	Depth	EI.
Termination Depth: 30.0 feet		Date Completed: 08-30-2023				(ft)	(ft)		(ft)	(ft)
Proposed Location: Proposed Building		Logged by: J. Minnich		While Drilling: ▽		9.0	82.0			
Drill/Test Method: HSA/SPT		Contractor: FM&W		At Completion: ▼		10.0	81.0			
Hammer Type: Auto		Rig Type: CME 55								

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N				
								Surface Cover	6 inches of asphalt with apparent subbase material	
0.5-2.0	S-1	SS	11	--	1 3 5 4	8		FILL	Dark brown and gray clayey sand, with trace gravel, moist (FILL)	
2.0-4.0	S-2	SS	7	--	4 4 6 7	10			As above, moist (FILL)	
4.0-6.0	S-3	SS	5	--	6 6 6 5	12	5		Yellow brown medium to fine sand, trace silt, moist, medium dense (SP)	
6.0-8.0	S-4	SS	20	--	4 3 3 3	6			Yellow brown medium to fine sand, some silt, moist, loose (SM)	
8.0-10.0	S-5	SS	22	--	2 2 1 2	3	▽ ▼10		As above, wet, very loose (SM)	
13.0-15.0	S-6	SS	15	--	4 2 3 3	5	15	Coastal Plain Deposits	As above, light gray, loose (SM)	
18.0-20.0	S-7	SS	24	--	3 2 3 5	5	20		As above (SM)	
23.0-25.0	S-8	SS	16	--	3 4 5 5	9			As above (SM)	



BOREHOLE LOG

Boring No : B-1

Page 2 of 2

Project: Proposed McDonald's Restaurant #29-1564							Proj. No.: 0114-23-02695						
Location: 741 Route 73 South Evesham Township, Burlington County, New Jersey							Client: McDonald's USA, LLC						
Surface Elevation: 91.0 feet		Date Started: 08-30-2023		Groundwater Data		Depth	EI.	Additional Groundwater Data		Depth	EI.		
Termination Depth: 30.0 feet		Date Completed: 08-30-2023				(ft)	(ft)			(ft)	(ft)		
Proposed Location: Proposed Building		Logged by: J. Minnich		While Drilling: ▽		9.0	82.0						
Drill/Test Method: HSA/SPT		Contractor: FM&W		At Completion: ▼		10.0	81.0						
Hammer Type: Auto		Rig Type: CME 55											
Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks			
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N							
							Coastal Plain Deposits			Qp = 2.0 tsf			
28.0-30.0	S-9	SS	24	--	3 7	3 7			Dark gray sandy clay, wet, very stiff (CL)				
								Boring B-1 was terminated at approximately 30 feet below the ground surface.					



BOREHOLE LOG

Boring No : B-2

Page 1 of 1

Project: Proposed McDonald's Restaurant #29-1564						Proj. No.: 0114-23-02695					
Location: 741 Route 73 South Evesham Township, Burlington County, New Jersey						Client: McDonald's USA, LLC					
Surface Elevation: 91.0 feet		Date Started: 08-30-2023		Groundwater Data		Depth	EI.	Additional Groundwater Data		Depth	EI.
Termination Depth: 20.0 feet		Date Completed: 08-30-2023				(ft)	(ft)			(ft)	(ft)
Proposed Location: Proposed Building		Logged by: J. Minnich		While Drilling: ▽		13.0	78.0				
Drill/Test Method: HSA/SPT		Contractor: FM&W		At Completion: ▼		13.0	78.0				
Hammer Type: Auto		Rig Type: CME 55									

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)					
								Surface Cover	6 inches of asphalt with no apparent subbase material	
0.5-2.0	S-1	SS	8	--	1	17	33	FILL	Brown medium to fine sand, with trace debris (brick and glass), moist (FILL)	
					16	13			As above, moist (FILL)	
2.0-4.0	S-2	SS	22	--	12	13	23	Coastal Plain Deposits	Yellowish brown coarse to fine sand, some silt, trace fine gravel, moist, medium dense (SM)	
					10	12			As above, orange and yellowish brown, loose (SM)	
4.0-6.0	S-3	SS	20	--	3	4	8		As above, medium dense (SM)	
					4	6			As above (SM)	
6.0-8.0	S-4	SS	20	--	7	9	22		As above, wet (SM)	
					13	12			As above (SM)	
8.0-10.0	S-5	SS	24	--	10	10	21			
					11	12				
13.0-15.0	S-6	SS	24	--	10	10	20			
					10	11				
18.0-20.0	S-7	SS	22	--	3	3	8		As above, dark gray, loose (SM)	
					5	6				
									Boring B-2 was terminated at approximately 20 feet below the ground surface.	



BOREHOLE LOG

Boring No : B-3

Page 1 of 1

Project: Proposed McDonald's Restaurant #29-1564		Proj. No.: 0114-23-02695					
Location: 741 Route 73 South Evesham Township, Burlington County, New Jersey		Client: McDonald's USA, LLC					
Surface Elevation: 91.0 feet	Date Started: 08-30-2023	Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
Termination Depth: 20.0 feet	Date Completed: 08-30-2023						
Proposed Location: Proposed Drive Lane	Logged by: J. Minnich	At Completion: ▼	13.0	78.0			
Drill/Test Method: HSA/SPT	Contractor: FM&W						
Hammer Type: Auto	Rig Type: CME 55						

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N				
								Surface Cover	6 inches of asphalt with no apparent subbase material	
0.5-2.0	S-1	SS	8	--	1 4 6 8	10		FILL	Gray sandy clay, moist (FILL)	
2.0-4.0	S-2	SS	9	--	9 8 6 6	14			Yellowish brown medium to fine sand, trace quartz, moist (FILL)	
4.0-6.0	S-3	SS	22	--	2 1 2 1	3	5	Coastal Plain Deposits	Dark grayish brown silt, and coarse to fine sand, moist, very loose (ML)	
6.0-8.0	S-4	SS	18	--	2 2 1 2	3			As above (ML)	Qp = 1.5 tsf
8.0-10.0	S-5	SS	18	--	1 1 2 2	3			As above (ML)	Qp = 1.0 tsf
13.0-15.0	S-6	SS	10	--	18 28 33 35	61			Greenish brown coarse sand, trace silt, wet, very dense (SP)	
18.0-20.0	S-7	SS	22	--	14 17 15 4	32			As above, yellowish brown, with gravel, dense (SP)	
							20			Boring B-3 was terminated at approximately 20 feet below the ground surface.



BOREHOLE LOG

Boring No : B-4

Page 1 of 2

Project: Proposed McDonald's Restaurant #29-1564		Proj. No.: 0114-23-02695					
Location: 741 Route 73 South Evesham Township, Burlington County, New Jersey		Client: McDonald's USA, LLC					
Surface Elevation: 91.0 feet	Date Started: 08-30-2023	Groundwater Data	Depth	El.	Additional Groundwater Data	Depth	El.
Termination Depth: 34.3 feet	Date Completed: 08-30-2023		(ft)	(ft)			
Proposed Location: Proposed Building	Logged by: J. Minnich	While Drilling: ▽	8.0	83.0			
Drill/Test Method: HSA/SPT	Contractor: FM&W	At Completion: ▼	10.0	81.0			
Hammer Type: Auto	Rig Type: CME 55						

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N				
								Surface Cover	4.5 inches of asphalt with no apparent subbase material	
0.5-2.0	S-1	SS	8	--	16	31		FILL	Brown medium to fine sand, with trace quartz, moist (FILL)	
2.0-4.0	S-2	SS	20	--	10	21			Yellowish brown medium to fine sand, some silt, moist, medium dense (SM)	
4.0-6.0	S-3	SS	20	--	6	11	5		As above (SM)	
6.0-8.0	S-4	SS	24	--	7	15			As above (SM)	
8.0-10.0	S-5	SS	24	--	11	21			As above, yellowish brown to olive brown, wet (SM)	
13.0-15.0	S-6	SS	20	--	7	28		Coastal Plain Deposits	Orange coarse to fine sand, trace silt, wet, medium dense (SP)	
18.0-20.0	S-7	SS	9	--	9	12			Yellowish brown to orange-brown coarse sand, and gravel, wet, medium dense (SP)	
23.0-25.0	S-8	SS	14	--	3	9			Dark gray medium to fine sand, little clay, wet, loose (SC)	



BOREHOLE LOG

Boring No : B-4

Page 2 of 2

Project: Proposed McDonald's Restaurant #29-1564				Proj. No.: 0114-23-02695						
Location: 741 Route 73 South Evesham Township, Burlington County, New Jersey				Client: McDonald's USA, LLC						
Surface Elevation: 91.0 feet		Date Started: 08-30-2023		Groundwater Data		Depth	EI.	Additional Groundwater Data	Depth	EI.
Termination Depth: 34.3 feet		Date Completed: 08-30-2023				(ft)	(ft)		(ft)	(ft)
Proposed Location: Proposed Building		Logged by: J. Minnich		While Drilling: ▽		8.0	83.0			
Drill/Test Method: HSA/SPT		Contractor: FM&W		At Completion: ▼		10.0	81.0			
Hammer Type: Auto		Rig Type: CME 55								

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)					
28.0-30.0	S-9	SS	8	--	3	4	8	Coastal Plain Deposits	As above, loose (SC)	
					4	4				
33.0-34.3	S-10	SS	16	--	8	23	73/9		As above, gray, with trace shells, very dense (SC)	
					50/3	--				
									Boring B-4 was terminated at approximately 34.3 feet below the ground surface.	



BOREHOLE LOG

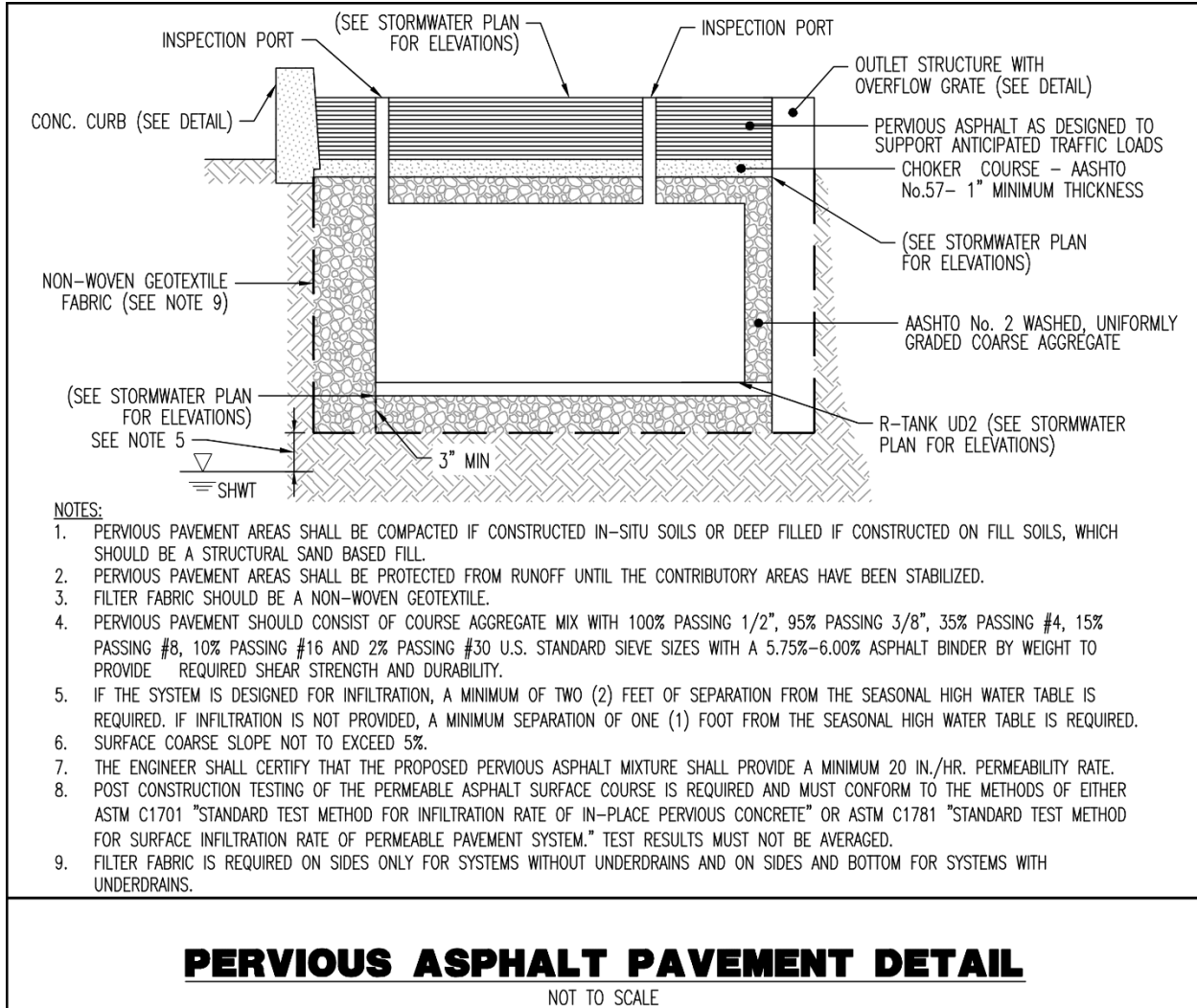
Boring No : B-5

Page 1 of 1

Project: Proposed McDonald's Restaurant #29-1564						Proj. No.: 0114-23-02695					
Location: 741 Route 73 South Evesham Township, Burlington County, New Jersey						Client: McDonald's USA, LLC					
Surface Elevation: 91.0 feet		Date Started: 08-30-2023		Groundwater Data		Depth	El.	Additional Groundwater Data		Depth	El.
Termination Depth: 10.0 feet		Date Completed: 08-30-2023				(ft)	(ft)			(ft)	(ft)
Proposed Location: Proposed Drive-Thru		Logged by: J. Minnich		While Drilling: ▽		8.0	83.0				
Drill/Test Method: HSA/SPT		Contractor: FM&W		At Completion: ▼		8.0	83.0				
Hammer Type: Auto		Rig Type: CME 55									
Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks	
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)						N
					6	6		Surface Cover	6 inches of asphalt with no apparent subbase material		
0.5-2.0	S-1	SS	14	--	10	10			Yellowish brown coarse to fine sand, moist, medium dense (SP)		
2.0-4.0	S-2	SS	20	--	13	18				As above, dense (SP)	
					20	17					
4.0-6.0	S-3	SS	18	--	6	5				Yellowish brown coarse to fine sand, and silt, moist, medium dense (SM)	
					6	5	11				
6.0-8.0	S-4	SS	22	--	3	4			As above, olive brown, wet, loose (SM)		
					5	6					9
8.0-10.0	S-5	SS	20	--	5	7			As above, medium dense (SM)		
					7	6					14
									Boring B-5 was terminated at approximately 10 feet below the ground surface.		

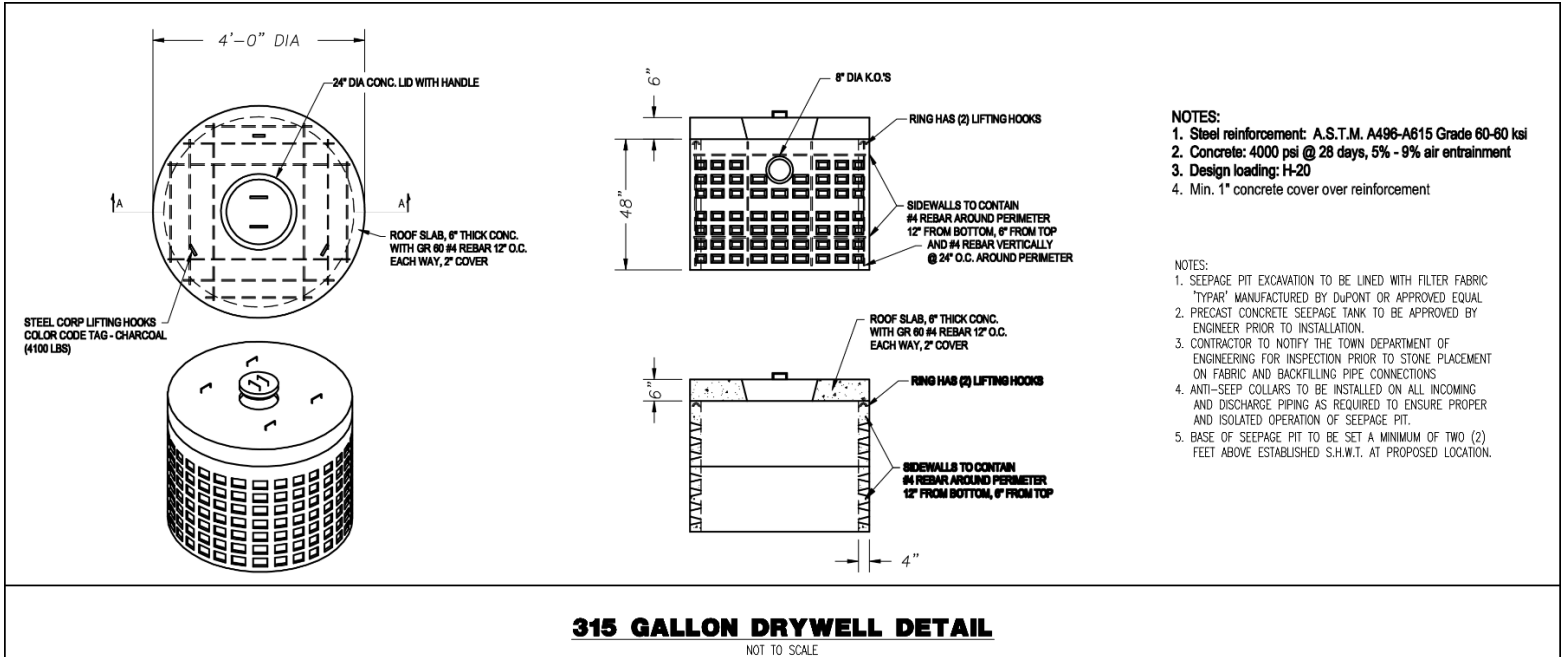
PERVIOUS PAVEMENT DETAILS

Pervious Pavement Detail



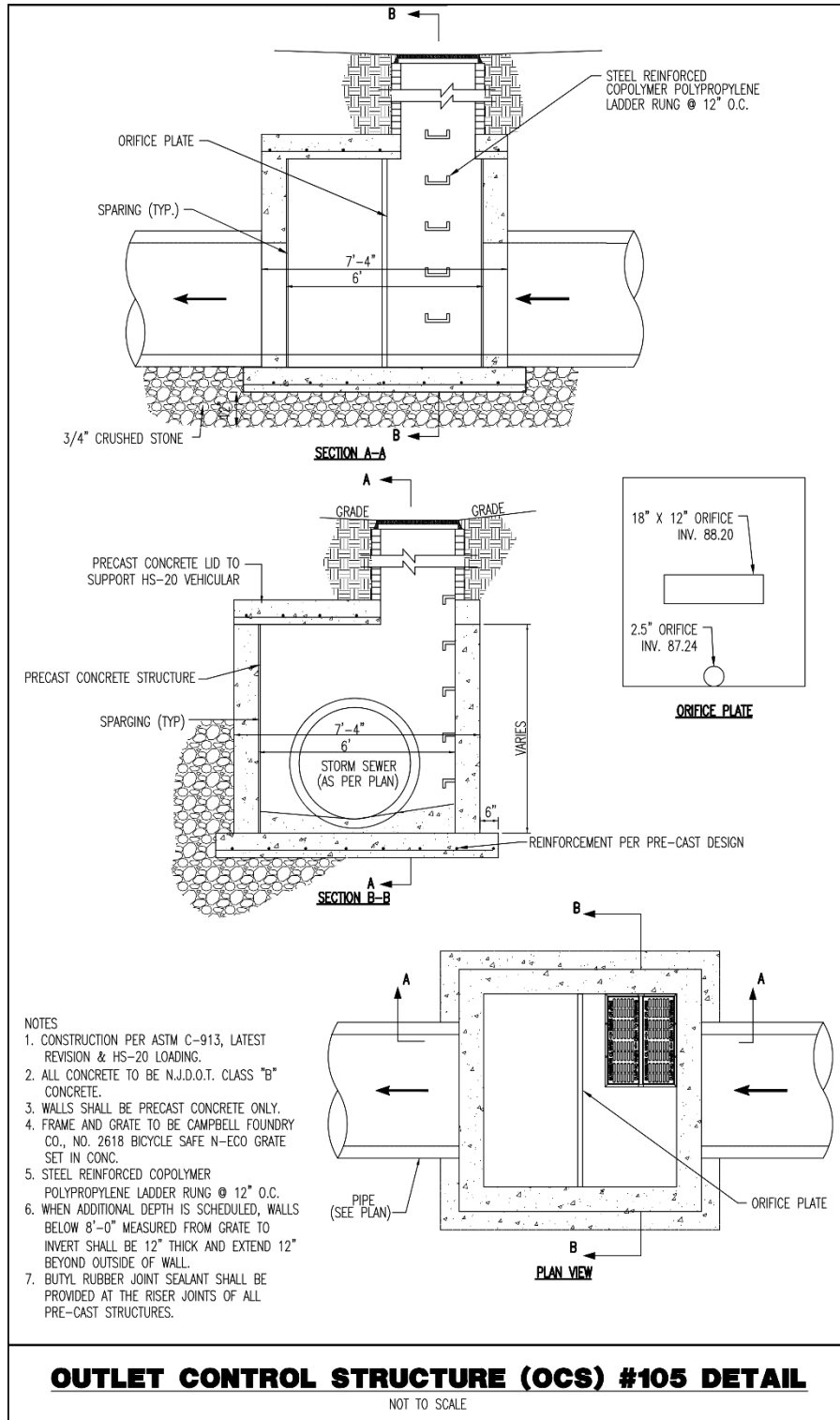
DRYWELL DETAILS

Drywell Detail



OUTLET CONTROL STRUCTURE DETAILS

Outlet Control Structure Detail



MAINTENANCE WORK ORDER & CHECKLIST

**MAINTENANCE WORK ORDER AND CHECKLIST
FOR STORMWATER MANAGEMENT FACILITIES**

NAME OF FACILITY: _____
 LOCATION: _____ DATE: _____
 WEATHER: _____ WORK STARTED: _____
 MAINTENANCE PERFORMED BY: _____ WORK COMPLETED: _____

A. PREVENTATIVE MAINTENANCE			
WORK ITEMS	ITEMS REQUIRED	ITEMS DONE	COMMENTS AND SPECIAL INSTRUCTIONS
1. GRASS CUTTING			
A. BOTTOMS			
B. EMBANKMENTS AND SIDE SLOPES			
C. PERIMETER AREAS			
D. ACCESS AREAS AND ROADS			
E. OTHERS			
2. GRASS MAINTENANCE			
A. FERTILIZING			
B. RE-SEEDING			
C. DE-THATCHING			
D. PEST CONTROL			
E. OTHERS			
3. VEGETATIVE COVER			
A. FERTILIZING			
B. PRUNING			
C. PEST CONTROL			
D. POISONOUS PLANTS			
E. OTHERS			
4. TRASH AND DEBRIS REMOVAL			
A. BOTTOMS			
B. EMBANKMENTS AND SIDE SLOPES			
C. PERIMETER AREAS			
D. ACCESS AREAS AND ROADS			
E. INLETS			
F. OUTLETS AND TRASH RACKS			
G. OTHERS			
5. SEDIMENT REMOVAL			
A. INLETS			
B. OUTLETS AND TRASH RACKS			
C. LOW FLOW CHANNELS			
D. BOTTOMS			
E. OTHERS			
6. PEST CONTROL			
A. GEESE			
B. MOSQUITO BREEDING			
C. RODENTS / RODENT HOLES			
D. OTHERS			
7. STRUCTURAL REPAIRS			
A. VALVES			
B. SLUICE GATES			
C. PUMPS			
D. FENCE GATES			
E. LOCKS			
F. ACCESS HATCHES			
G. OTHER:			
8. POND MAINTENANCE			
A. AERATION EQUIPMENT			
B. DEBRIS AND TRASH REMOVAL			
C. WEED REMOVAL			
D. OTHER:			
9. OTHER PREVENTIVE MAINTENANCE			
A. PARKING LOT SWEEPING			
B. EMPTYING TRASH RECEPTACLES			
C. PUMPS AND VALVES			
D. ELECTRICAL PANEL AND WIRING			
E. DEWATERING			
F. GRAFFITI REMOVAL			
E. OTHER:			

B. CORRECTIVE MAINTENANCE			
WORK ITEMS	ITEMS REQUIRED	ITEMS DONE	COMMENTS AND SPECIAL INSTRUCTIONS
1. REMOVAL OF DEBRIS AND SEDIMENT			
2. STRUCTURAL REPAIRS			
3. EMBANKMENTS AND SIDE SLOPES			
4. DEWATERING			
5. BASIN MAINTENANCE			
6. CONTROL OF MOSQUITOES			
7. EROSION REPAIR			
8. FENCE REPAIR			
9. SNOW AND ICE REMOVAL			
10. SAND LAYER REPLACEMENT			
11. OTHER			

C. AESTHETIC MAINTENANCE			
WORK ITEMS	ITEMS REQUIRED	ITEMS DONE	COMMENTS AND SPECIAL INSTRUCTIONS
1. GRAFFITI REMOVAL			
2. GRASS TRIMMING			
3. WEEDING			
4. OTHERS			

GENERAL NOTES AND REMARKS:

WORK ORDER PREPARED BY: _____

WORK COMPLETED BY: _____

MAINTENANCE LOG

B. CORRECTIVE MAINTENANCE										
WORK ITEM	(√) COMPLETED									
1. REMOVAL OF DEBRIS AND SEDIMENT										
2. STRUCTURAL REPAIRS										
3. EMBANKMENTS AND SIDE SLOPES										
4. DEWATERING										
5. BASIN MAINTENANCE										
6. CONTROL OF MOSQUITOES										
7. EROSION REPAIR										
8. FENCE REPAIR										
9. SNOW AND ICE REMOVAL										
10. SAND LAYER REPLACEMENT										
11. OTHER										

C. AESTHETIC MAINTENANCE										
FACILITY ITEM	(√) COMPLETED									
1. GRAFFITI REMOVAL										
2. GRASS TRIMMING										
3. WEEDING										
4. OTHERS										

GENERAL NOTES AND REMARKS (REFER TO ITEM NUMBER IF APPLICABLE)

INSPECTION LOG

7. EMERGENCY SPILLWAY										
A. VEGETATION										
B. LINING										
C. EROSION										
D. TRASH AND DEBRIS										
E. OTHER:										
8. PERIMETER										
A. VEGETATION										
B. EROSION										
C. TRASH AND DEBRIS										
D. FENCES AND GATES										
E. AESTHETICS										
G. OTHER:										
9. ACCESS ROADS										
A. VEGETATION										
B. ROAD SURFACE										
C. FENCES AND GATES										
D. EROSION										
E. AESTHETICS										
F. OTHER:										
10. MISCELLANEOUS										
A. EFFECTIVENESS OF EXIST. MAINT. PROGRAM										
B. DAM INSPECTIONS										
C. POTENTIAL MOSQUITO HABITATS										
D. MOSQUITOES										

- (1) ITEM CHECKED IS IN GOOD CONDITION, AND THE MAINTENANCE PROGRAM IS
- (2) ITEM CHECKED REQUIRES ATTENTION, BUT DOES NOT PRESENT AN IMMEDIATE THREAT
FUNCTION OR OTHER FACILITY COMPONENTS.
- (3) THE ITEM CHECKED REQUIRES IMMEDIATE ATTENTION TO KEEP THE FACILITY
DAMAGE TO OTHER FACILITY COMPONENTS.
- (4) PROVIDE EXPLANATION AND DETAILS IF COLUMNS 2 OR 3 ARE CHECKED.

GENERAL NOTES AND REMARKS (REFER TO ITEM NUMBER IF APPLICABLE)										

INSPECTION CHECKLIST

**INSPECTION CHECKLIST
FOR
STORMWATER MANAGEMENT FACILITIES**

NAME OF FACILITY: _____
 LOCATION: _____
 WEATHER: _____ DATE: _____

FACILITY ITEM	O.K. ¹	ROUTINE ²	URGENT ³	COMMENTS
1. EMBANKMENTS AND SIDE SLOPES				
A. VEGETATION				
B. LININGS				
C. EROSION				
D. SETTLEMENT				
E. SLOUGHING				
F. TRASH AND DEBRIS				
G. SEEPAGE				
H. AESTHETICS				
I. OTHER:				
2. BOTTOMS (DETENTION AND INFILTRATION)				
A. VEGETATION				
B. EROSION				
C. STANDING WATER				
D. SETTLEMENT				
E. TRASH AND DEBRIS				
F. SEDIMENT				
G. AESTHETICS				
H. OTHER:				
3. LOW FLOW CHANNELS (DETENTION)				
A. VEGETATION				
B. LININGS				
C. EROSION				
D. SETTLEMENT				
E. STANDING WATER				
F. TRASH AND DEBRIS				
G. SEDIMENT				
H. OTHER:				
4. PONDS (RETENTION)				
A. VEGETATION				
B. SHORELINE EROSION				
C. AERATION EQUIPMENT				
D. TRASH AND DEBRIS				
E. SEDIMENT				
F. WATER QUALITY				
G. OTHER:				
5. INLET STRUCTURE				
A. CONDITION OF STRUCTURE				
B. EROSION				
C. TRASH AND DEBRIS				
D. SEDIMENT				
E. AESTHETICS				
F. OTHER:				
6. OUTLET STRUCTURE				
A. CONDITION OF STRUCTURE				
B. EROSION				
C. TRASH AND DEBRIS				
D. SEDIMENT				
E. MECHANICAL COMPONENTS				
F. AESTHETICS				
G. OTHER:				

7. EMERGENCY SPILLWAY				
A. VEGETATION				
B. LINING				
C. EROSION				
D. TRASH AND DEBRIS				
E. OTHER:				
8. PERIMETER				
A. VEGETATION				
B. EROSION				
C. TRASH AND DEBRIS				
D. FENCES AND GATES				
E. AESTHETICS				
G. OTHER:				
9. ACCESS ROADS				
A. VEGETATION				
B. ROAD SURFACE				
C. FENCES AND GATES				
D. EROSION				
E. AESTHETICS				
F. OTHER:				
10. MISCELLANEOUS				
A. EFFECTIVENESS OF EXIST. MAINT. PROGRAM				
B. DAM INSPECTIONS				
C. POTENTIAL MOSQUITO HABITATS				
D. MOSQUITOES				

- (1) ITEM CHECKED IS IN GOOD CONDITION, AND THE MAINTENANCE PROGRAM IS ADEQUATE.
- (2) ITEM CHECKED REQUIRES ATTENTION, BUT DOES NOT PRESENT AN IMMEDIATE THREAT TO THE FUNCTION OR OTHER FACILITY COMPONENTS.
- (3) THE ITEM CHECKED REQUIRES IMMEDIATE ATTENTION TO KEEP THE FACILITY OPERATIONAL OR TO DAMAGE TO OTHER FACILITY COMPONENTS.
- (4) PROVIDE EXPLANATION AND DETAILS IF COLUMNS 2 OR 3 ARE CHECKED.

GENERAL NOTES AND REMARKS (REFER TO ITEM NUMBER IF APPLICABLE)

INSPECTOR: _____