Supervisor/Administrative Professional Checklist

New Septic ☒ New Well ☐ Use Existing ☐ Alteration ☐ Modified Plot Plan ☐

New Septic Fees Paid:

IP ($250.00) 9/19/16 LE Initials/Date

CA ($200.00) _____ Initials/Date

OP ($200.00) _____ Initials/Date

(CA and OP fees need to be paid before a building permit can be issued)

New Well Fee Paid: $550.00 _____ Initials/Date

Use Existing Fee Paid: $100.00 _____ Initials/Date

Alteration Fee Paid: $300.00 (Total) $200 (If use existing was paid) _____ Initials/Date

Modified Plot Plan Fee Paid: $100.00 _____ Initials/Date

Floor plans need to be submitted and reviewed before CA can be issued. ☐ Reviewed ☑ JAM

This site is served by septic and well. Verify each is complete before final hold is released. ☑

Septic file completed. ☐ _____ Well file completed. ☐ _____

Send permit for signature. ☑ Signature received. ☑ RBL

This septic system requires a certified operator contract before final hold is released. ☑

Certified operator contract is on file. ☐ _____

19 SEP '16 AM10:05

9579B #8607

MECKLENBURG COUNTY
HEALTH DEPARTMENT

APPLICATION FOR A COMMERCIAL SITE IMPROVEMENT PERMIT/ CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER SYSTEM, NEW WELL INSTALLATION, OR REPAIR OF EXISTING WELL

1. **SEPTIC / TYPE APPLICATION:** ○ N/A ◉ NEW SYSTEM ○ ALTERATION ○ REPAIR ○ MODIFIED PLOT PLAN

2. **WELL / TYPE APPLICATION:** ◉ N/A ○ NEW WELL ○ MAJOR REPAIR ○ ABANDONMENT

3. **JOB LOCATION INFORMATION:**
TAX PARCEL NUMBER: 13930215
STREET ADDRESS: 9801 Brief Road
CITY: Mint Hill
STATE: NC ZIP: 28227
TOWNSHIP:
○ MECKLENBURG ○ CORNELIUS ○ HUNTERSVILLE
○ DAVIDSON ○ CHARLOTTE ○ PINEVILLE
○ MATTHEWS ◉ MINT HILL

4. **BUILDING INFORMATION:**
DESCRIBE TYPE OF BUSINESS: Town of Mint Hill Athletic Park
◉ COMMERCIAL ○ INDUSTRIAL
SQUARE FOOTAGE OF FACILITY: 5,150
NUMBER OF EMPLOYEES PER SHIFT: 2
NUMBER OF SHIFTS: 2 NUMBER OF SEATS: 12
TYPE OF WASTEWATER GENERATED:
◉ DOMESTIC SEWAGE ○ INDUSTRIAL WASTEWATER
○ OTHER

5. ***IF PLANNING TO EXPAND OR ALTER THE EXISTING SEPTIC SYSTEM, INFORMATION DOCUMENTING THE INCREASED WASTEWATER FLOW AND/OR A JUSTIFICATION FOR SYSTEM ALTERATION IS REQUIRED.*** ☐ N/A

6. **WATER SUPPLY:** ○ MUNICIPAL ◉ PRIVATE WELL ○ PUBLIC WELL ○ SHARED WELL ○ OTHER

7. **PROPOSED USE OF WELL:** ○ N/A ◉ IRRIGATION ○ POTABLE (DRINKING WATER) ○ OTHER Domestic Water as well

8. **PLEASE INDICATE AND RANK DESIRED SEPTIC SYSTEM TYPE(S) IN ORDER OF PREFERENCE** *(1-MOST DESIRED 5-LEAST DESIRED)*:
☐ N/A ☑ ANY TYPE ☑ CONVENTIONAL ☑ ACCEPTED ☑ INNOVATIVE ☑ ALTERNATIVE ☑ OTHER

8A. **RANK:** 1 2 4 3 5

9. **DO ANY OF THE FOLLOWING APPLY TO THE PROPERTY IN QUESTION? IF "YES" PLEASE ATTACH SUPPORTING DOCUMENTATION.**

BURIED CABLES, LANDFILLS, STUMPHOLES	○ YES ◉ NO	GRADING/SOIL REMOVAL PERFORMED	◉ YES ○ NO
EXISTING WASTEWATER (SEPTIC) SYSTEMS	○ YES ◉ NO	JURISDICTIONAL WETLANDS	◉ YES ○ NO
WELLS, SPRINGS, OR WATER LINES	○ YES ◉ NO	APPROVAL REQUIRED BY ANY OTHER PUBLIC AGENCY	◉ YES ○ NO
EASEMENTS OR RIGHT-OF-WAYS	◉ YES ○ NO	WASTEWATER OTHER THAN DOMESTIC SEWAGE	○ YES ◉ NO
CHEMICAL/PETROLEUM STORAGE TANKS	○ YES ◉ NO	KNOWN UNDERGROUND CONTAMINATION	○ YES ◉ NO
WASTE STORAGE	○ YES ◉ NO	GROUNDWATER USE RESTRICTIONS/VARIANCES	○ YES ◉ NO

10. **WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?** 11/4/14 ☐ UNKNOWN

11. **WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?** _____ ☑ N/A

12. **PROPERTY OWNER:**
NAME: Town of Mint Hill - Brian Welch
ADDRESS: 4430 MINT HILL VILLAGE LN
CITY: Mint Hill
STATE: NC ZIP: 28227
WORK PHONE: (704) 545-9726
MOBILE PHONE:
FAX:
E-MAIL: bwelch@admin.minthill.com

13. **OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:**
NAME: Michael Carlisto
ADDRESS: ~~4909 Linden Forest Lane~~ 1401 W Morehead St
CITY: Charlotte
STATE: NC ZIP: ~~28270~~ 28208
WORK PHONE: (704) 332-0900
MOBILE PHONE: (704) 309-5613
FAX: (704) 332-0901
E-MAIL: mcarlisto@edificeinc.com

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 704-336-5103, FAX: 704-336-6894

Revised on: 12/15/10

14. SEPTIC SYSTEM PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Improvement Permit and Authorization to Construct shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for either sixty (60) months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring. BW (Initial here for septic system applications)

15. WELL PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Well Permit shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for a period of twelve (12) months from the date of issuance.

_____ (Initial here for well applications)

16. APPLICATION SIGNATURE SECTION:

ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. A proper signature is required in order to process your application. Please review the application carefully and sign in the space provided below. A PROPOSED PLOT PLAN is required to be submitted with each application.

_____ 9/6/16

Property Owner's or Owner's Legal Representative Signature — Date

---

OFFICE USE ONLY

○ SURVEY PLAT TO SCALE SUBMITTED ○ SCALED SITE PLAN SUBMITTED ○ UN-SCALED SITE PLAN SUBMITTED

SEPTIC APPLICATION FEE RECEIVED: $_____ DATE FEE RECEIVED: _____

WELL APPLICATION FEE RECEIVED: $_____ DATE FEE RECEIVED: _____

APPLICATION PROCESSED BY: _____

GWS FILE NUMBER ASSIGNED: _____

APPLICATION ID NUMBER ASSIGNED: _____

COMMENTS:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202. OFFICE: 704-336-5103, FAX: 704-336-6894

File #: _____

PROPOSED PLOT PLAN

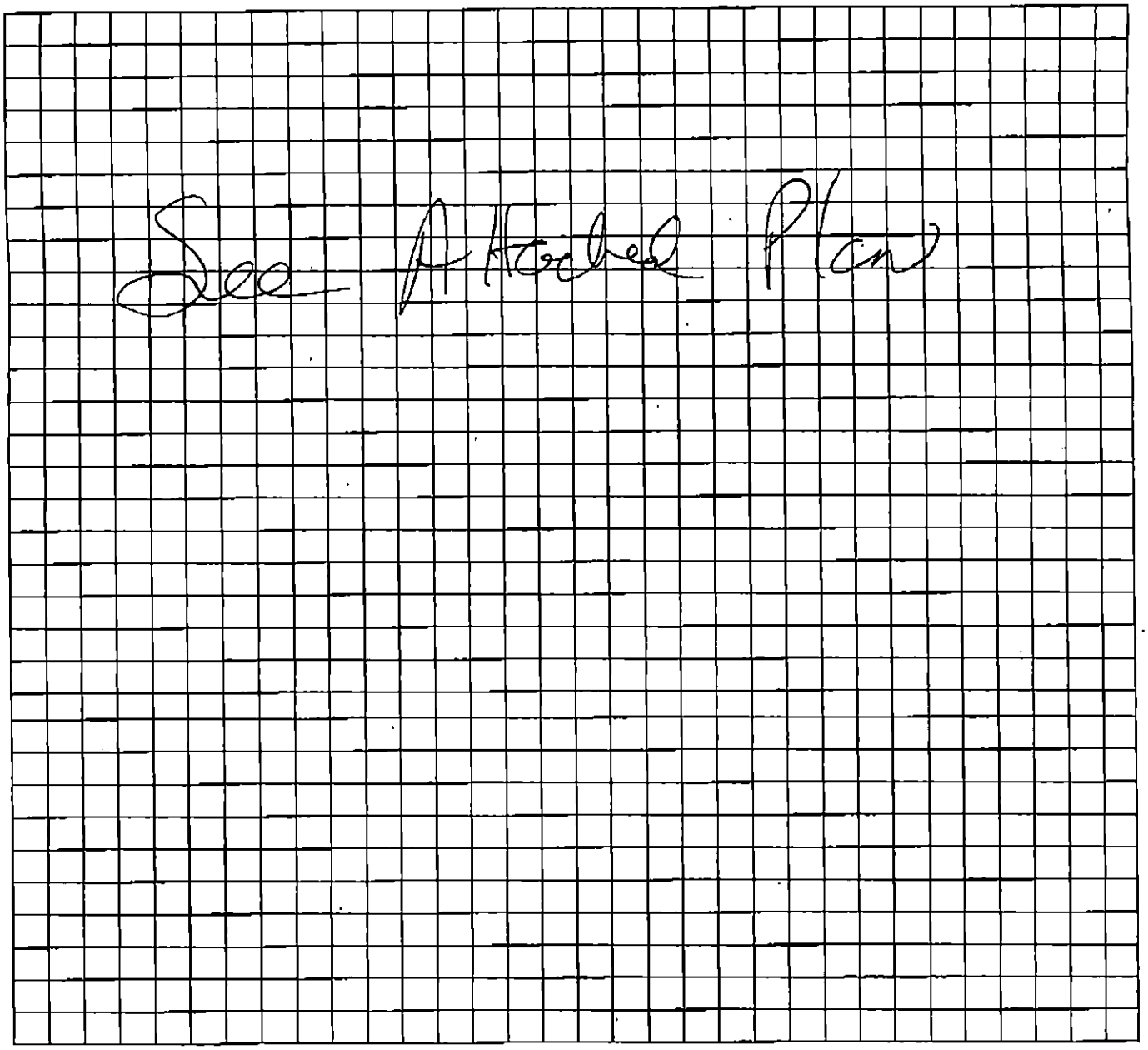
A drawing showing the locations of the following items is required: existing and proposed property lines with dimensions, easements or right-of-ways, proposed building pad(s) or existing building footprint(s), all appurtenances (garage, driveway, deck, pool, etc.), location of existing or proposed well(s), location of existing or proposed sewer lines and sewage disposal systems, surface water bodies, and any aboveground or underground storage tanks. Provide names for all roads that adjoin the property.

Street Address: 9801 Brief Road

Tax Parcel #: 13930215

Subdivision Name: Not Applicable

Lot #: NA



Property Owner's or Owner's Legal Representative Signature

9-19-2016
Date

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 704-336-5103, FAX: 704-336-6694

Revised on: 12/15/10

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 09/19/16
Receipt #: 101856
Check / Auth #: MC 601392
Received By: ELLISLW

Amount: 450.00
Tendered: 450.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: CARLISTO,MICHAEL
Attn:
Address: 1401 W MOREHEAD STREET
Address:
City/State/Zip: CHARLOTTE, NC 28208

Item	Description	Permit#	Quantity	Unit Price	Total Price
0735	Improv Permit Appl-Comm 9801 BRIEF ROAD		1	450.00	450.00

----------Outstanding Balances----------

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance

Payment Receipt

Mecklenburg County POS

Environmental Health
700 N. Tryon Street
Charlotte, NC 28202
Phone: 704-336-5100

Enter Account # or Customer Name Here:
MICHAEL CARLISTO

Bill To:

MICHEAL CARLISTO
1401 W MOREHEAD ST

Charlotte, NC 28208

Single Payment

Transaction Date: 09/19/2016 11:20 AM Pacific Time
Pay Method: **********8843
Approval #: 601392
Trace Number: fb8302d6-b295-422d-b86c-5f70687f9429
Amount: $450.00

Payment Amount: $450.00

Total: $450.00

Thank you for your payment.

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1 of 4
Property ID: 139-302-15
Lot #: NA
File #: 9579B
AppID: 8507

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Town of Mint Hill - Brian Welch is contact
Applicant: Michael Carlisto
Address: 4430 Mint Hill Village Ln., Mint Hill, NC 28227
Date Evaluated: 12/22/2016
Proposed Facility: Athletic Park
Design Flow (.1949): 2990 GPD
Property Size: 27.277 ac
Location of Site: 9801 Brief Rd., Mint Hill, NC 28227
Property Recorded: 11/4/14
Water Supply: [ ] Public [X] Individual [X] Well [ ] Spring [ ] Municipal
Evaluation Method: [ ] Auger Boring [X] Pit [ ] Cut
Type of Wastewater: [X] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	General Comments	Profile Class & LTAR	Maximum Trench Bottom Depth for 3' Wide Conventional Trench
Pit #1	SS 5%	0 - 6	sbk SCL	SS SP FR SEXP	>48	15	US	NA		PS IV TS 1 Drip	NA
		6 - 15	abk C	S P FR SEXP							
		15 - 42	mass CL Sap	S P FI EXP							
		42 - 48	mass L Sap	SS SP VFI							
Pit #2	SS 5%	0 - 6	sbk SCL	SS SP FR SEXP	>36	17	US	NA		PS IV TS 1 Drip	NA
		6 - 17	sbk C	S P FR SEXP							
		17 - 36	mass Rock and CL Sap								
Pit #3	SS 5%	0 - 6	sbk SCL	SS SP FR SEXP	>48	30	US	NA	saprolite inclusions 16 - 30"	PS IV Drip	NA
		6 - 16	sbk C	S P FR SEXP							
		16 - 30	sbk CL	S P FI EXP							
		30 - 48	mass SCL Sap	SS SP VFI							
Pit #4	SS 6%	0 - 3	gr L	SS SP FR SEXP	>48	48	NA	NA	saprolite inclusions 28 - 48"	PS IV Drip	NA
		3 - 28	sbk C	S P FR SEXP							
		28 - 48	sbk SCL	S SP FI EXP							
Pit #5	SS 6%	0 - 4	sbk SCL	SS SP FR SEXP	>52	43	PS	NA	saprolite inclusions 22 - 43"	PS IV Drip	NA
		4 - 22	sbk C	S P FR SEXP							
		22 - 43	sbk CL	S P FI EXP							
		43 - 52	mass L Sap	SS SP FI SEXP							
Pit #6	SS 8%	0 - 6	sbk SCL	SS SP FR SEXP	>48	43	US	NA	saprolite inclusions 29 - 43"	PS IV Drip	NA
		6 - 29	sbk C	S P FR SEXP							
		29 - 43	abk SCL	S P FR EXP							
		43 - 48	mass SCL Sap	SS SP VFI							

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	Va	Va
Site LTAR (gpd/sq ft)	**0.15***	**0.15***

***LTAR determined by consultant Ksat study.**

Other Factors (.1946): NA
Soil Evaluation By: Jacob Presley, LSS, REHS
Others Present: Steve Melin, LSS
Site Classification (.1948): Provisionally Suitable
Site Evaluation By: Jacob Presley, LSS, REHS
Others Present: Steve Melin, LSS, & Mike Lash, P.E.

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM
CONTINUED

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY 1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	1944 Restr Horiz	General Comments	Profile Class & LTAR	Maximum Trench Bottom Depth for 3' Wide Conventional Trench
Pit #7	SS 8%	0 - 6	sbk SCL	SS SP FR SEXP	>48	33	US	NA	saprolite inclusions 20 - 33"	PS IV Drip	NA
		6 - 20	sbk C	S P FR SEXP							
		20 - 33	abk CL	S P FR EXP							
		33 - 48	mass CL Sap and Rock VFI								
Pit #8	SS 8%	0 - 17	abk C	S P FI SEXP	2 chroma at 12"	17	US	NA	EXP Clay inclusions	US	NA
		17 - 36	mass Rock and CL Sap VFI								
Pit #9	SS 8%	0 - 4	sbk SCL	SS SP FR SEXP	>44	24	PS 24 - 36 US 36 - 44	NA		PS IV Drip	NA
		4 - 24	sbk C	S P FR SEXP							
		24 - 36	mass L Sap	SS SP FI SEXP							
		36 - 44	mass L Sap	SS SP VFI							
Pit #10	SS 8%	0 - 6	sbk SCL	SS SP FR SEXP	>48	29	PS	NA	saprolite inclusions 20 - 29" rock inclusions in saprolite	PS IV Drip	NA
		6 - 20	sbk C	S P FR SEXP							
		20 - 29	sbk CL	S P FR EXP							
		29 - 48	mass L Sap	S P FI SEXP							
Pit #11	SS 8%	0 - 4	sbk SCL	SS SP FR SEXP	>48	24	US	NA		PS IV Drip	NA
		4 - 18	abk C	S P FR SEXP							
		18 - 24	abk SCL	S P FR EXP							
		24 - 48	mass SCL Sap	S SP VFI SEXP							
Pit #12	SS 8%	0 - 6	sbk SCL	SS SP FR SEXP	>44	28	US	NA		PS IV Drip	NA
		6 - 28	abk C	S P FR SEXP							
		28 - 44	mass CL Sap	SS SP VFI							
Pit #13	SS 8%	0 - 7	sbk SCL	SS SP FR SEXP	>48	31	US	NA	saprolite inclusions 16 - 31"	PS IV Drip	NA
		7 - 16	sbk C	S P FR SEXP							
		16 - 31	abk CL	S P FR EXP							
		31 - 48	mass CL Sap	SS SP FI SEXP							
Boring #A	SS 8%	0 - 3	sbk SCL	SS SP FR SEXP	>30	30	US	NA	saprolite inclusions 20 - 30"	PS IV Drip	NA
		3 - 15	sbk C	S P FR SEXP							
		15 - 30	abk CL	S P FR EXP							
		30	mass CL Sap and Rock								
Boring #B	SS 8%	0 - 3	sbk SCL	SS SP FR SEXP	>25	25	US	NA	saprolite inclusions 11 - 25"	PS IV Drip	NA
		3 - 111	sbk C	S P FR SEXP							
		11 - 25	abk CL	S P FR EXP							
		25	mass CL Sap and Rock								

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM
CONTINUED

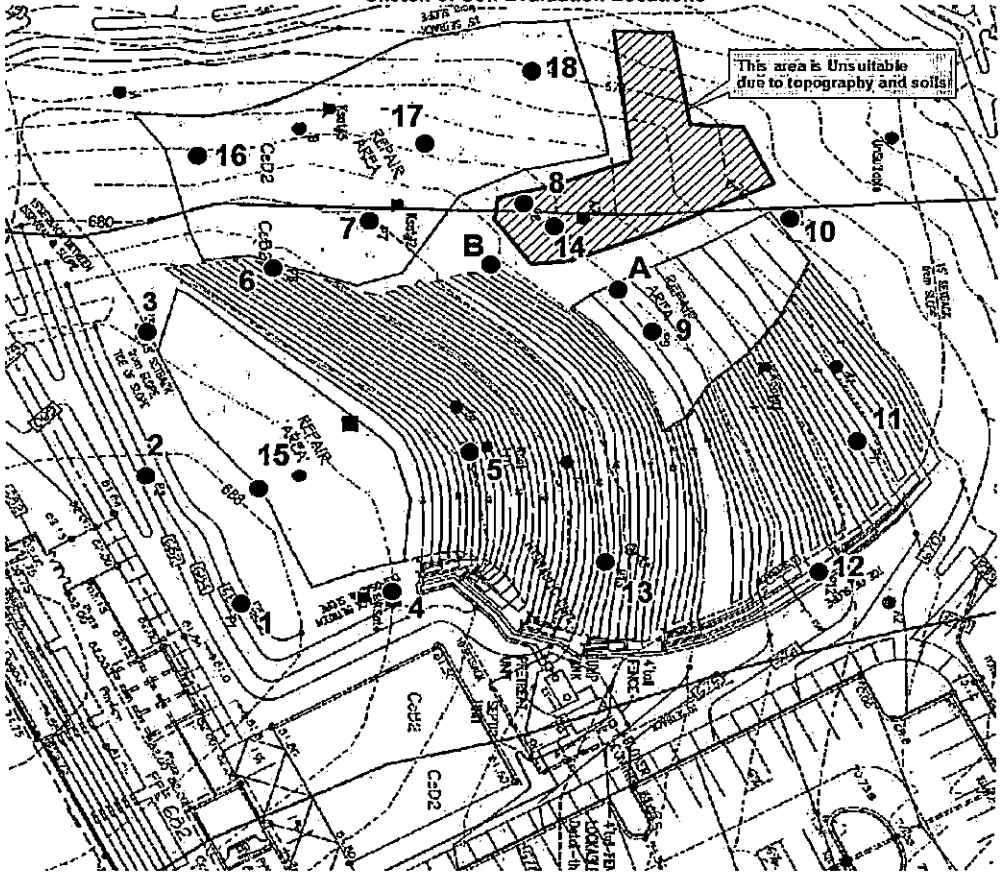
PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	General Comments	Profile Class & LTAR	Maximum Trench Bottom Depth for 3' Wide Conventional Trench
Pit #14	SS 8%	0 - 12	sbk C	C VP VFI EXP	2 chroma at 12"	12	US	NA		**US**	**NA**
		12	Rock								
Pit #15	SS 4%	0 - 6	sbk SCL	SS SP FR SEXP	2 chroma at 28"	33	US	NA	saprolite inclusions 16 - 25"	**PS IV Drip**	**NA**
		6 - 16	sbk C	S P FR SEXP							
		16 - 25	abk CL	S P FR EXP							
		25 - 36	mass CL Sap	SS SP F SEXP							
Pit #16	LS 12%	0 - 5	sbk SCL	SS SP FR SEXP	>26"	18	PS	NA		**PS IV Drip**	**NA**
		5 - 18	sbk C	S P FI SEXP							
		18 - 26	mass L Sap	SS SP FI SEXP							
Pit #17	LS 12%	0 - 3	gr CL	SS SP FR SEXP	2 chroma at 16"	20	US	NA		**PS III TS-II Drip**	**NA**
		3 - 20	abk SCL	S P FI SEXP							
		20 - 28	mass C	VS VP VFI EXP							
Pit #18	LS 11%	0 - 6	gr CL	SS SP FR SEXP	>33	33	PS	NA	saprolite inclusions 20 - 33"	**PS IV Drip**	**NA**
		6 - 33	abk C	S P FR SEXP							

COMMENTS:

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	sg-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		mass-Massive
LS-Linear Slope				cr-Crumb
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	gr-Granular
NS-Nose Slope		L-Loam		sbk-Subangular Blocky
HS-Head Slope				abk-Angular Blocky
CC-Concave Slope	III	Si-Silt	0.6 - 0.3	pl-Platy
CV-Convex Slope		SiCL-Silty Clay Loam		pr-Prismatic
T-Terrace				Sap-Saprolite
FP-Flood Plain		CL-Clay Loam		**Structure Prefixes**
D-Drainage Way		SCL-Sandy Clay Loam		w-weak
		SiL-Silt Loam		m-moderate
				s-strong
				f-fine
	IV	SC-Sandy Clay	0.4 - 0.1	m-medium
		SiC-Silty Clay		c-coarse
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	SS-Slightly Sticky	SEXP-Slightly Expansive
FR-Friable	S-Sticky	EXP-Expansive
FI-Firm	VS-Very Sticky	
VFI-Very Firm	NP-Non-Plastic	**Classification**
EFI-Extremely Firm	SP-Slightly Plastic	US-Unsuitable
	P-Plastic	PS-Provisionally Suitable
	VP-Very Plastic	S-Suitable
		NA-Not Applicable

Sketch of Soil Evaluation Locations



Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a COMMERCIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30008507** GWS File #: **9579B** Tax Parcel #: **139-302-15**

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be **NO** grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is **NOT** transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 6/27/2022

Intallation Type: Commercail/Industrial - New System Business Type: Commercial - Mint Hill Athletic Pa

Facility Size (ft^2): 5150 Athletic complex of soccer and baseball fields with a common restrooms,

Wastewater Type: Sewage Water Supply: Private Well no showers, or kitche

II. Initial System Type: Pretreatment with Drip Irrigation **System Classification:** Va

Initial System Specifications: w/ Flow Equalization

Design Flow (gpd):	2141	LTAR (gpd/ft^2):	0.15	Septic Tank Size (gal):	4000	Pump Tank Size (gal):	7500
Trench Width (ft):	2	Trench Spacing (ft):	2	Absorption Area (ft^2):	28546	Total Trench Length (ft):	7137
Maximum Trench Depth (in):	12	Depth of Media (in):	12	Distribution Device:	Headworks (Drip Irr.		

III. Repair System Type: Pretreatment with Drip Irrigation (GS-II) **System Classification:** Vd

Repair System Specifications: w/ Flow Equalization

Design Flow (gpd):	2141	LTAR (gpd/ft^2):	0.15	Septic Tank Size (gal):	4000	Pump Tank Size (gal):	7500
Trench Width (ft):	2	Trench Spacing (ft):	2	Absorption Area (ft^2):	14273	Total Trench Length (ft):	7137
Maximum Trench Depth (in):	6	Depth of Media (in):	6	Distribution Device:	Headworks (Drip Irr.		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the STATE OF NORTH CAROLINA, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until a Pre-Construction meeting has been completed by the Department.
- The septic system installer shall be a licensed septic contractor with the North Carolina Wastewater Contractor Inspector Certification Board.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

Authorized Agent: Jacob Presley Owner/Legal Agent: _____
Print Name

Signature: _____ Signature: _____

Date Issued: 6/27/2017

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a COMMERCIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30008507** GWS File #: **9579B**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every year by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- This septic system design requires pretreatment equipment to be installed. This equipment shall be installed as specified by the wastewater system design consultant.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. from all private wells (saprolite system).
- All waterlines must be located a minimum of 10 ft. from any part of the septic system.
- Upon completion of the project the system designer shall provide Groundwater & Wastewater Services with a letter certifying that the system was installed in accordance with the approved design.
- The system must be water tested during the final inspection to verify proper operation and set system pressure.
- Permitted LTAR value based on KSAT study provided by soil consultant.
- All tanks (septic and/or dosing) must be water tested for 24 hours during the final inspection.
- "Traffic Rated" tank(s) is required due to tank installation depth(s) and/or location.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
- Foundation drains shall be constructed not to discharge water onto or across any part of the septic system.
- The septic system shall be located at least 10 feet from any foundation drain.
- Refer to Lash Engineering's design for all specifications and questions. A preconstruction meeting must be attended by the Health Dept., the owner or their representative, the installer, and the engineer (Michael Lash).

The undersigned, an authorized agent of the STATE OF NORTH CAROLINA, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until a Pre-Construction meeting has been completed by the Department.
- The septic system installer shall be a licensed septic contractor with the North Carolina Wastewater Contractor Inspector Certification Board.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

Authorized Agent: Jacob Presley

Signature:

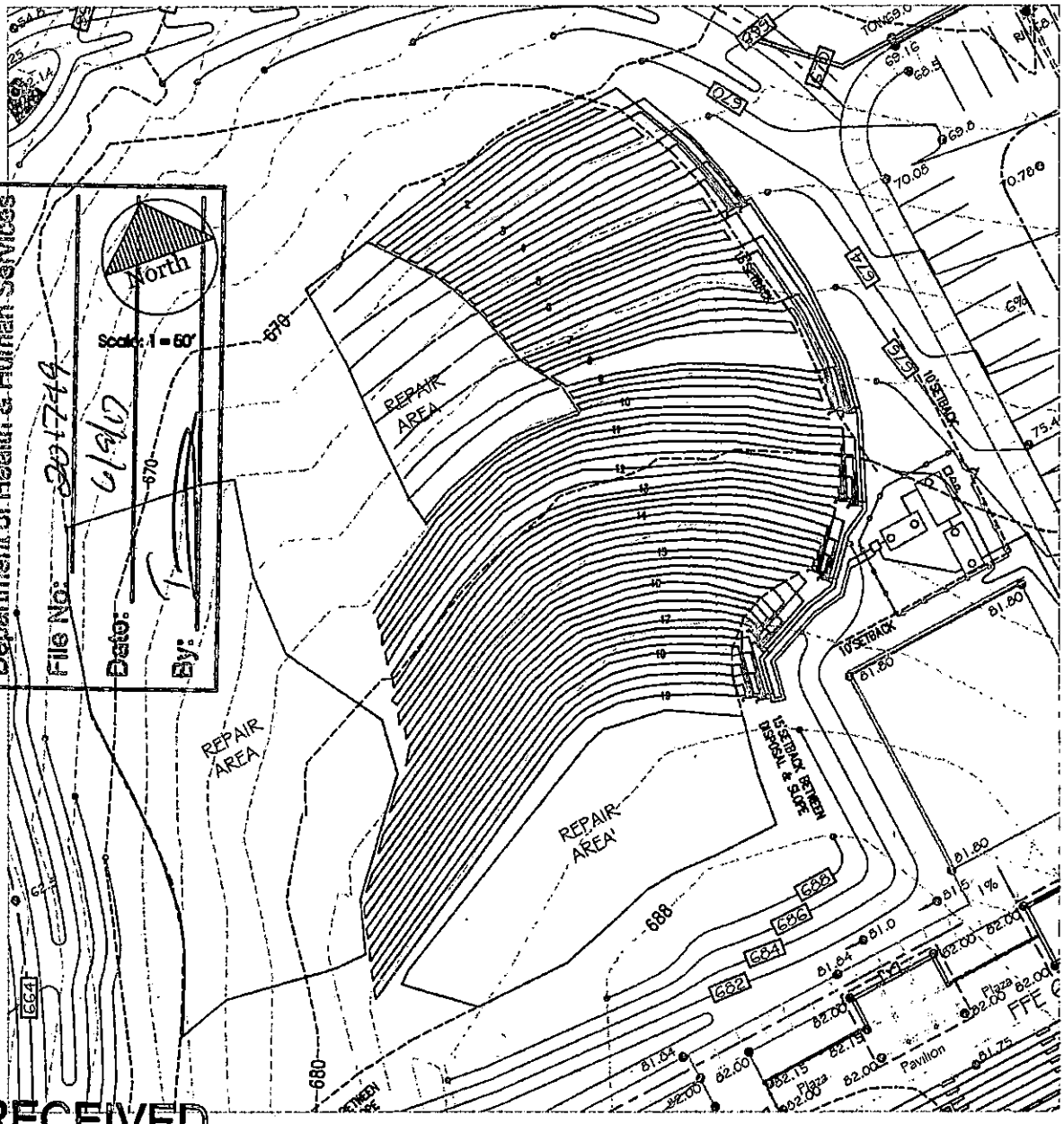
Date Issued: 6/27/2017

Owner/Legal Agent:

Print Name

Signature:

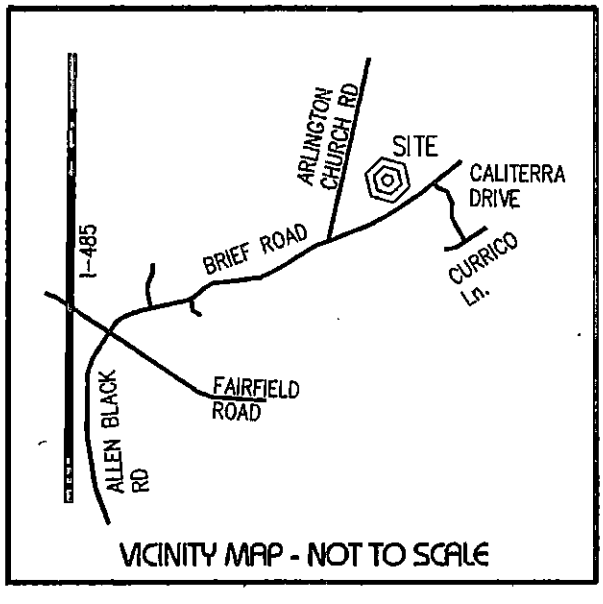
Page 2 of 2



Approved By
ON-SITE WASTEWATER
Department of Health & Human Services
File No: 20174
Date: 6/6/17
By:

X Signature

RECEIVED
MAY 12 2017
DHHS
ON-SITE WASTEWATER



VICINITY MAP - NOT TO SCALE

PROJECT:
WASTEWATER FACILITY for:
MINT HILL ATHLETIC PARK

Location:
9801 Brief Road
Charlotte, NC 28227
Mecklenburg County

Submittal for Permit
Date: 5-11-17

LASH ENGINEERING
Consulting Civil Engineer/Planner
1104 Cindy Carr Drive
Matthews, N.C. 28105
Phone: 704/847-3031
email: mikel@lashengineering.com

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a COMMERCIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: 30008507 GWS File #: 9579B Tax Parcel #: 139-302-15

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be NO grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is NOT transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 6/27/2022

Intallation Type: Commercail/Industrial - New System Business Type: Commercial - Mint Hill Athletic Park

Facility Size (ft^2): 5150 Athlete complex of soccer and baseball fields with a common restroom, no showers or kitchen.

Wastewater Type: Sewage Water Supply: Private Well

II. Initial System Type: Pretreatment with Drip Irrigation **System Classification:** Va

Initial System Specifications: w/ Flow Equalization

Design Flow (gpd): 2141	LTAR (gpd/ft^2): 0.15	Septic Tank Size (gal): 4000	Pump Tank Size (gal): 7500		
Trench Width (ft): 2	Trench Spacing (ft): 2	Absorption Area (ft^2): 28546	Total Trench Length (ft): 7137		
Maximum Trench Depth (in): 12	Depth of Media (in): 12	Distribution Device: Headworks (Drip Irr.			

III. Repair System Type: Pretreatment with Drip Irrigation (GS-11) **System Classification:** Vd

Repair System Specifications: w/ Flow Equalization

Design Flow (gpd): 2141	LTAR (gpd/ft^2): 0.15	Septic Tank Size (gal): 4000	Pump Tank Size (gal): 7500		
Trench Width (ft): 2	Trench Spacing (ft): 2	Absorption Area (ft^2): 14273	Total Trench Length (ft): 7137		
Maximum Trench Depth (in): 6	Depth of Media (in): 6	Distribution Device: Headworks (Drip Irr.			

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the STATE OF NORTH CAROLINA, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until a Pre-Construction meeting has been completed by the Department.
- The septic system installer shall be a licensed septic contractor with the North Carolina Wastewater Contractor Inspector Certification Board.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

Authorized Agent: Jacob Presley Owner/Legal Agent: Steve Frey, PE, Town Engineer

Signature: Signature: (Print Name)

Date Issued: 6/27/2017

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a COMMERCIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30008507** GWS File #: **9579B**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every year by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- This septic system design requires pretreatment equipment to be installed. This equipment shall be installed as specified by the wastewater system design consultant.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. from all private wells (saprolite system).
- All waterlines must be located a minimum of 10 ft. from any part of the septic system.
- Upon completion of the project the system designer shall provide Groundwater & Wastewater Services with a letter certifying that the system was installed in accordance with the approved design.
- The system must be water tested during the final inspection to verify proper operation and set system pressure.
- Permitted LTAR value based on KSAT study provided by soil consultant.
- All tanks (septic and/or dosing) must be water tested for 24 hours during the final inspection.
- "Traffic Rated" tank(s) is required due to tank installation depth(s) and/or location.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
- Foundation drains shall be constructed not to discharge water onto or across any part of the septic system.
- The septic system shall be located at least 10 feet from any foundation drain.
- Refer to Lash Engineering's design for all specifications and questions. A preconstruction meeting must be attended by the Health Dept., the owner or their representative, the installer, and the engineer (Michael Lash).

The undersigned, an authorized agent of the STATE OF NORTH CAROLINA, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until a Pre-Construction meeting has been completed by the Department.
- The septic system installer shall be a licensed septic contractor with the North Carolina Wastewater Contractor Inspector Certification Board.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

Authorized Agent: Jacob Presley

Signature:

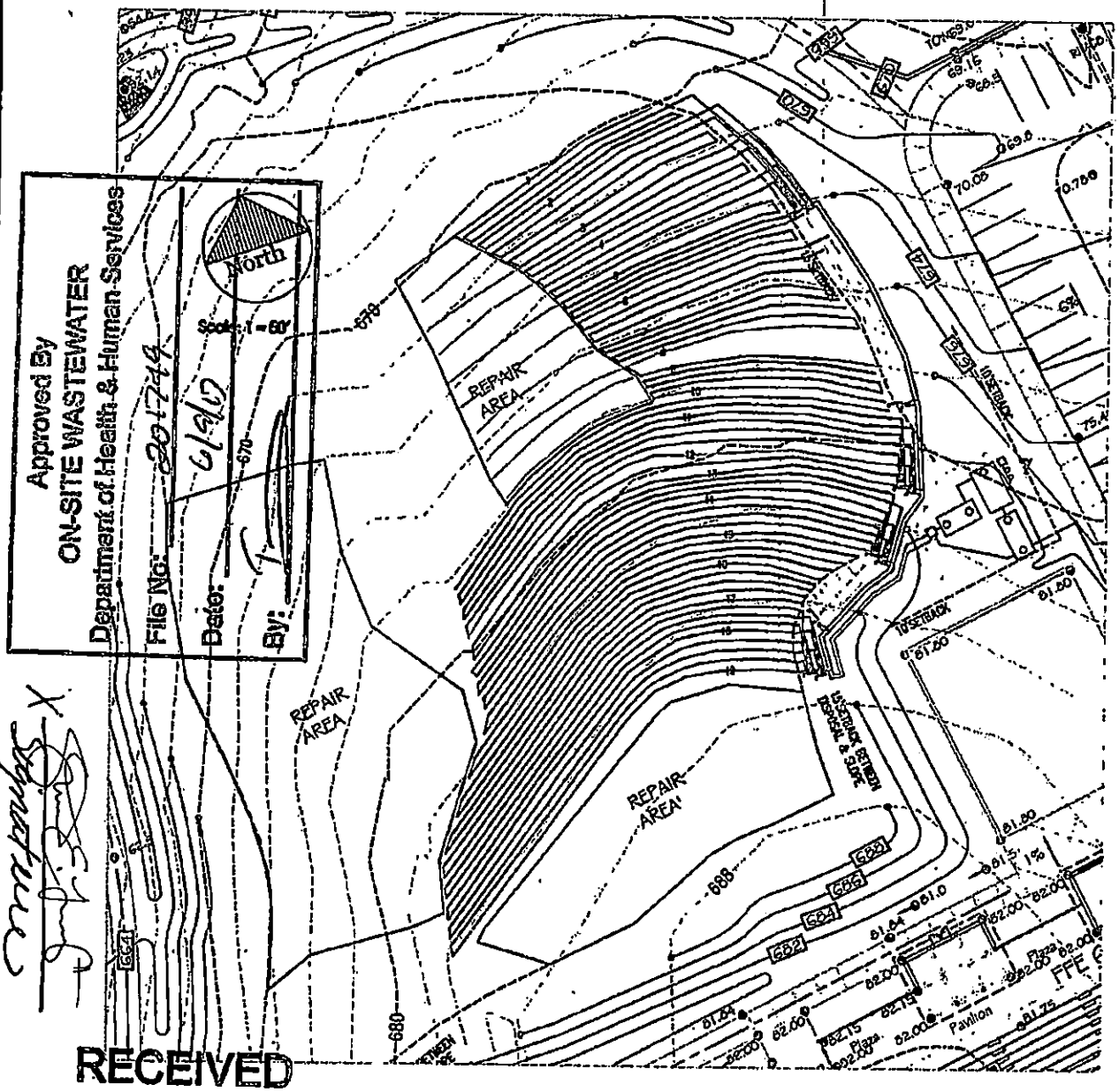
Date Issued: 6/27/2017

Owner/Legal Agent: Steve Frey, PE, Town Engineer

Print Name

Signature:

Page 2 of 2



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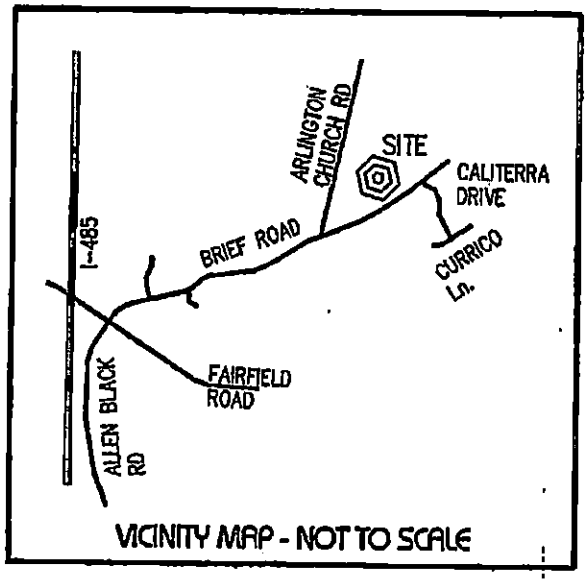
MAY 12 2017

DHHS
ON-SITE WASTEWATER

PROJECT:
WASTEWATER FACILITY for:
MINT HILL ATHLETIC PARK

Location:
9801 Brief Road
Charlotte, NC 28227
Mecklenburg County

Submittal for Permit
Date: 5-11-17



VICINITY MAP - NOT TO SCALE

LASH ENGINEERING
Consulting Civil Engineer/Planner
1104 Cindy Carr Drive
Matthews, N.C. 28105
Phone: 704/847-3031
email: mike@lashengineering.com

Groundwater & Wastewater Services: Septic Project File & D

GWS File #:	9579B
WASPS App #:	8507
Primary ES assigned to project:	Jacob Presley
Secondary ES assigned to project:	
Project Type:	New System
Site Evaluation Information: .1939(a)(1) - Topography and Landscape Position Recorded?	Yes
Site Evaluation Information: .1940(a-g) - Slope % Recorded?	Yes
Site Evaluation Information: .1939(a)(2) - Texture Class Recorded?	Yes
Site Evaluation Information: .1939(a)(2) - Structure Type Recorded?	Yes
Site Evaluation Information: .1939 (a)(2) - Consistence Recorded?	Yes
Site Evaluation Information: .1939(a)(2) - Mineralogy Recorded?	Yes
Site Evaluation Information: .1939(a)(3) - Soil Wetness Condition Recorded?	Yes
Site Evaluation Information: .1939(a)(4) - Soil Depth to Rock or Parent Material Recorded when Encountered?	Yes
Site Evaluation Information: .1939(a)(5) - Depth to Restrictive Horizons Recorded when Encountered?	Yes
Site Evaluation Information: .1939(a)(6) - Sufficient Available Space Recorded?	Yes
Site Evaluation Information: .1937(m) - Are the Profile Locations Shown?	Yes
Site Evaluation Information: .1939(a) - Are the S/PS Profiles in system & in repair area?	Yes
Site Evaluation Information: .1939(d), .1955, .1956, .1957 - LTAR	Yes
Improvement Permit/Construction Authorization: .1937(g), 130A-336(a) - Proposed System Type stated - Initial	Yes
Improvement Permit/Construction Authorization: .1945(b) - Proposed System Type stated - Repair	Yes
Improvement Permit/Construction Authorization: 130A-336(a)(3) - System location identifiable by setbacks - Initial	Yes
Improvement Permit/Construction Authorization: .1937(g), .1945(b) - System components shown - Initial	Yes
Information Permit/Construction Authorization: .1945(b) - Repair area shown	Yes
Improvement Permit/Construction Authorization: .1937(f)(g) - Does System design match facility, flow & WW characteristics?	Yes
Improvement Permit/Construction Authorization: .1937(f)(g) - Is System design consistent with soil/site conditions?	Yes
Improvement Permit/Construction Authorization: .1937(f)(g) - Is the System located in the approved area?	Yes
Improvement Permit/Construction Authorization: 130A-336(a) - Number of Bedrooms, employees, seats, etc. indicated?	Yes
Improvement Permit/Construction Authorization: .1937 (g) - Trench depth correct?	Yes
Improvement Permit/Construction Authorization: .1937(g) - Trench width correct?	Yes
Improvement Permit/Construction Authorization: .19379(g) - Trench length correct?	Yes
Improvement Permit/Construction Authorization: 130A-336(a)(1) - Proposed/existing well shown?	Yes

Improvement Permit/Construction Authorization: 130A-336(a)(1) - Property line lengths shown?	Yes
Improvement Permit/Construction Authorization: 130A-336(a) - Facility/appurtenance setbacks shown from fixed points?	Yes
Corrections/modifications needed?	No
Comments:	
IA issued date:	
OP Issued date:	
Review performed by:	Jeremy Michael
Date performed:	6/28/2017

Created at 6/28/2017 8:27 AM by Michael, Jeremy
Last modified at 6/28/2017 8:27 AM by Michael, Jeremy

Close

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH

ROY COOPER
GOVERNOR

MANDY COHEN, MD, MPH
SECRETARY

DANIEL STALEY
DIRECTOR

June 9, 2017

Mr. Jacob Presley
Mecklenburg County Groundwater and Wastewater Services
700 North Tryon St, Suite 208
Charlotte, NC 28202-2222

Subject: Approval of Mint Hill Athletic Complex Wastewater System Plans and Specifications
9801 Brief Rd, Charlotte, Mecklenburg County, NC
Project Number 2017-19

Dear Mr. Presley:

We have reviewed plans and specifications for the wastewater system proposed to serve the Mint Hill Athletic Complex, Charlotte, Mecklenburg County, received from Michael Lash, PE, Lash Engineering.

The approved plans and specifications are for the following facilities and system components:

Facilities: Athletic complex of soccer and baseball fields with a common restroom, no showers, or kitchen

System: 1-4,000 gallon septic tank; 1-4,220 gallon tank with Bio-Microbics FAST 4.5 wastewater treatment system; 1-7,500 gallon pump tank with duplex control panel pumping system, on/off timer controls, and audible/visible high water alarm; two 1 ½ inch force mains; drip irrigation headworks and hydraulic control unit; 1-subsurface drip irrigation field (7,200 linear feet total into six zones)
2,880 gallons per day

Drainfield Loading Rate: 0.15 gpd/sq ft

Treatment Standard: TS-I (CBOD < 15 mg/L, TSS < 15 mg/L, Total Ammonia Nitrogen < 10 mg/L or at least 80% removal of NH_3 if influent TKN exceeds 50 mg/L, and fecal coliforms < 10,000 colonies/100 mL)

System classification: Va, requiring quarterly ORC inspections with twice a year inspection reports submitted to the local health department and at least yearly inspection by your department

It is critical that the Health Department require a preconstruction meeting to be held prior to the system installation. The preconstruction meeting must be attended by the Health Department, the owner or their representative, the installer, and the engineer. At this meeting, the project construction sequence, installation inspections, and testing activities must be discussed. We recommend listing the preconstruction meeting as a condition in the Construction Authorization.

There are several times during the installation of this system when direct supervision by the health department must be provided to ensure proper installation.

1. Existing water use fixtures remain as proposed. No garbage grinders and no condensate water are to be permitted to enter the wastewater system.
2. The new tanks to be provided are installed in accordance with the approved plans and specifications. The tanks are required to be leak tested and shown to be watertight. Surface water must be diverted away from tanks and tank access openings. Tanks must be accessible from the ground surface.
3. The pump tanks must include all specified pumps and components. All appurtenances (e.g., floats and float support mechanisms, valves, etc.) must be provided as shown. Pump delivery rates for each pump must all be measured, recorded, and determined to be comparable to design specifications.
4. The pretreatment system must be installed with the approved plans and specifications. All appurtenances must be provided as shown.
5. Dosing system appurtenances must be manually checked and controls tested for proper automatic operation. The field dosing system must be demonstrated to effectively allow for specified design dose frequency and time of dose delivery to the drainfields.
6. Force mains/supply lines are to be provided in accordance with approved plans and specifications. The force mains/supply lines should be leak tested and shown to be watertight.
7. Subsurface drainfields must be installed in accordance with the approved plans and specifications. Site preparation steps (including clearing procedures) shall be completed under the direct supervision of the applicant's soils consultant and concurred with by the health department prior to the installation of any trenches.
8. The operation permit conditions must include the O&M procedures attached to the approved specifications. It shall also include the necessary information regarding the proposed management entity and certified operator as well as any additional concerns deemed appropriate by the health department for O&M of this system.

A Grade II Biological Water Pollution Control System Operator and certified subsurface system operator shall be contracted to operate the subsurface system.

Note that a registered professional engineer must certify that the system has been installed in accordance with the approved plans and specifications. This certification is based upon periodic observations of construction and a final inspection for design compliance by the certifying engineer or his representative. Record drawings must be provided by the engineer unless the installation is completed without alteration to the approved plans. The installation must be approved by the health department prior to the issuance of an operation permit.

Please contact staff for assistance with the final inspection. Also feel free to contact me if you have any questions pertaining to this letter or if I may be of further assistance with this project. I can be contacted at 919-707-5878 or by email at trish.angoli@dhhs.nc.gov.

Sincerely,

Tricia Angoli, PE
On-Site Wastewater Engineering

cc: Michael Lash, PE, Lash Engineering

Presley, Jacob

From: Angoli, Trish <trish.angoli@dhhs.nc.gov>
Sent: Thursday, May 25, 2017 12:41 PM
To: Michael Lash
Cc: Presley, Jacob
Subject: RE: Mint Hill Athletic Park

Mike,

If you could please send three sets of the revised plans to me. I will write an approval letter, stamp the plans approved, and send everyone a copy.

Thanks
Trish

Patricia M. Angoli, PE
Environmental Engineer
Division of Public Health, On-Site Water Protection Branch
North Carolina Department of Health and Human Services

919-707-5878 office
919-845-3973 fax
trish.angoli@dhhs.nc.gov
http://publichealth.nc.gov

5605 Six Forks Rd
1642 Mail Service Center
Raleigh, NC 27699-1642



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From: Michael Lash [mailto:mikel@lashengineering.com]
Sent: Tuesday, May 23, 2017 5:05 PM
To: Angoli, Trish <trish.angoli@dhhs.nc.gov>; Presley, Jacob <Jacob.Presley@mecklenburgcountync.gov>
Subject: Mint Hill Athletic Park

Trish, I have contacted Philip Shoaf and we will go to a traffic rated 8,000 gallon Pump Tank. The Bio-Microbics tank was going to be custom built anyway so I'll just add that it needs to be traffic rated to the note that is already on the plans. That note also dictates that Bio-Microbics has to sign off on the dimensions prior to Philip building the tank.

Thanks for the quick review. Do I need to send you the revised 3 sets of plans or email the pdf.

I'll do the same for Jacob.

Thanks,

Mike

Lash Engineering, Inc.

Michael Lash, PE.

704-847-3031

mikel@lashengineering.com

From: Angoli, Trish <trish.angoli@dhhs.nc.gov>
Sent: Tuesday, May 23, 2017 4:16:36 PM
To: Presley, Jacob; Michael Lash
Subject: Mint Hill Athletic Park

Jacob and Mike,

I have reviewed the plans for the Mint Hill Athletic Park and have the following comments:

1. Please confirm that the tank used with the Bio-Microbics unit will be traffic rated. If not, please show that the tank will have additional reinforcement to support the weight of the unit in addition to the weight of the soil, etc.
2. The flow equalization pump tank will need to be greater than 4,000 gallons. The volume of the equalization tank is based on the peak daily flow rate (2,880 gpd) + pump submergence (at least 21 inches) + dose volume (100 gallons) + greatest volume remaining in the pump tank over the week (1,804 gallons).

I have calculated the flow equalization over the week as follows:

Day	Inflow	Outflow	Remainder
Friday	2,304 gallons	2,141 gallons	163 gallons
Saturday	2,880 gallons	2,141 gallons	902 gallons

Sunday	2,880 gallons	2,141 gallons	1,641 gallons
Monday	2,304 gallons	2,141 gallons	1,804 gallons
Tuesday	1,298 gallons	2,141 gallons	961 gallons
Wednesday	1,475 gallons	2,141 gallons	295 gallons
Thursday	1,843 gallons	2,141 gallons	0 gallons

If I figure that this tank will probably be traffic rated (and have inside dimensions of 10 ft x 20 ft), the gallons per inch is 125 gallons/inch. That means that pump submergence will be at least 2,625 gallons.

2,880 gallons + 2,625 gallons + 100 gallons + 1,804 gallons = 7,409 gallons

So, the pump tank will probably need to be at least 7,500 gallons in size.

Please let me know if you have any questions.

Thanks

Trish

Patricia M. Angoli, PE

Environmental Engineer

Division of Public Health, On-Site Water Protection Branch

North Carolina Department of Health and Human Services

919-707-5878 office

919-845-3973 fax

trish.angoli@dhhs.nc.gov

http://publichealth.nc.gov

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Nothing Compares

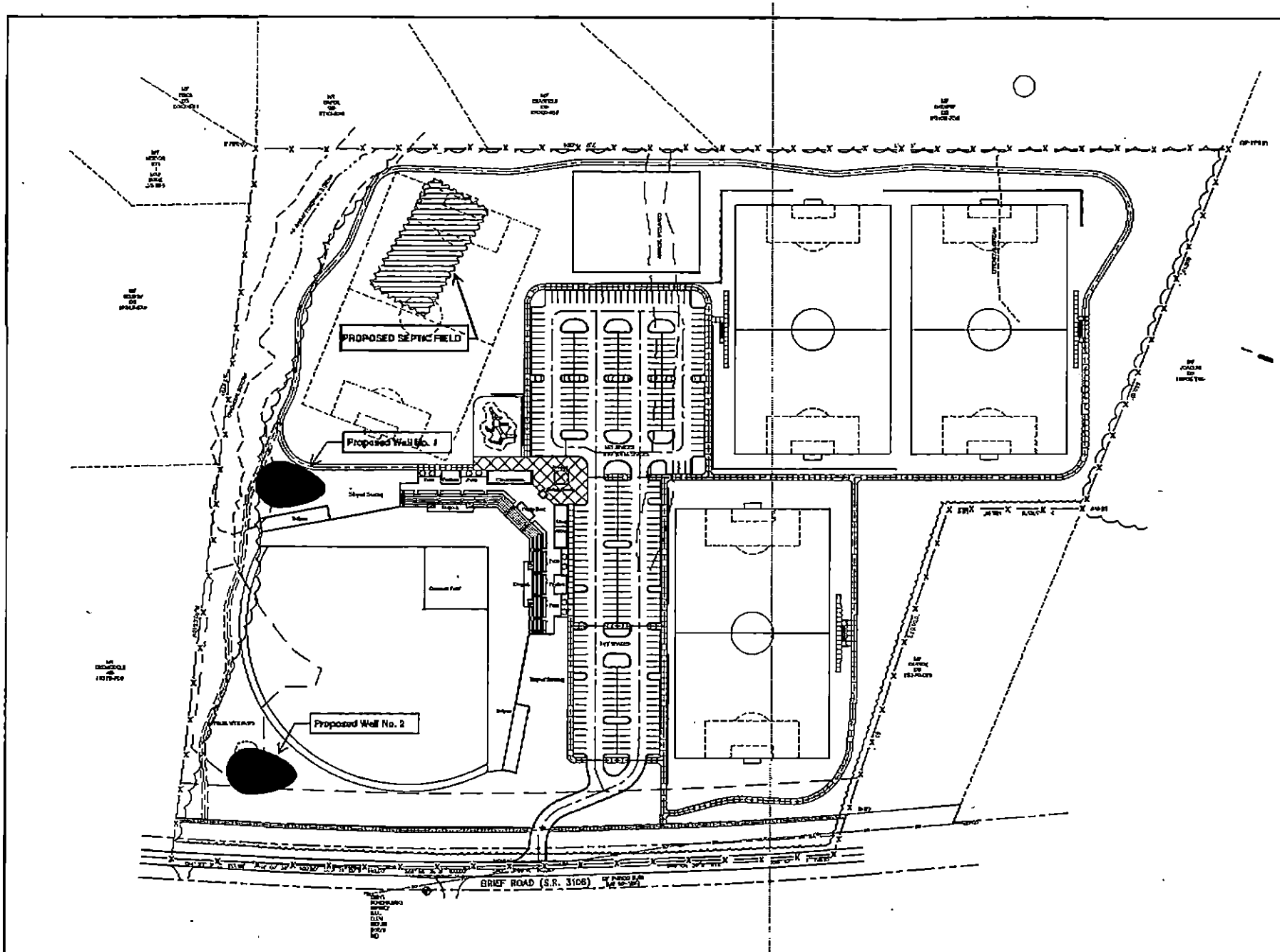
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PREPARED FOR:
THE TOWN OF MINT HILL

4430 Mint Hill Village Lane
Mint Hill, NC 28227

PROJECT:
MINT HILL ATHLETIC PARK
9801 Brief Road
Charlotte, NC 28227

PREPARED BY:
Rich & Associates

1 inch = 60 ft.

DRAWN BY: TCM
CHECKED BY: TCM
SCALE: 1"=60'
DATE: 05.24.2016
REVISIONS:

NO.	DATE	DESCRIPTION:	BY:

SHEET TITLE:
PRELIMINARY SITE PLAN

SHEET NO.:
L1.0

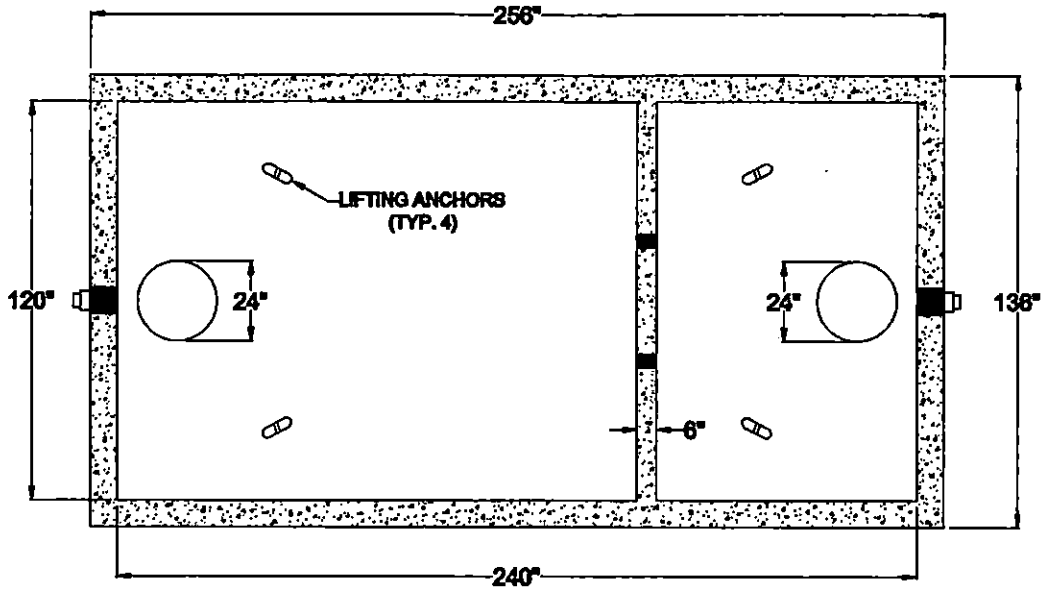
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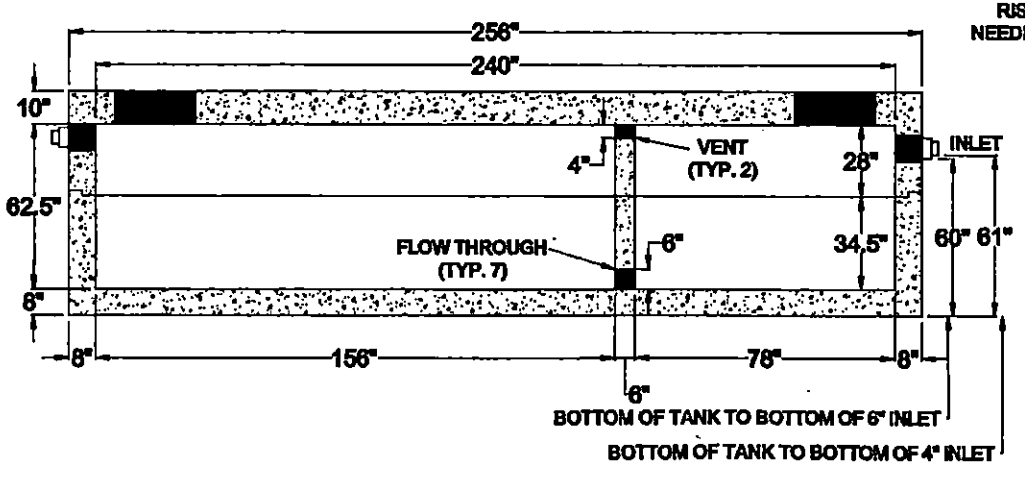
SHOAF - 7,500 GAL. PUMP TANK
HS/20 TRAFFIC RATED
NC APPROVAL # PT-2091

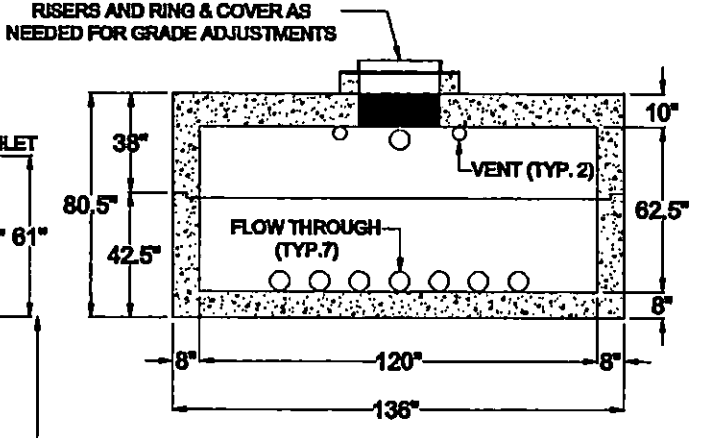
SHOAF PRECAST INC.
4130 W US HWY 64
LEXINGTON, NC 27295
PHONE (336) 787-5828
FAX (336) 787-2826
info@shoafprecast.com
www.shoafprecast.com

NOTES:

- FULL CAPACITY - 7,598 GAL
- GAL. PER INCH - 121.56
- 2:1 LENGTH TO WIDTH RATIO
- PIPE PENETRATION SEALS MEET ASTM C-923
- 1 ¼" BUTYL RUBBER SEALANT CONTINUOUS IN JOINTS
- REINFORCED PER ENGINEER SPECS
- CONCRETE - 5,000 PSI MIN.
- TANK WEIGHT - 89,000 #
- BOTTOM - 44,500 #
- TOP - 45,500 #







EMAIL from:
Angoli, Trish <trish.angoli@dhhs.nc.gov>
Tue 5/23/2017 4:16 PM

To:
Presley, Jacob <Jacob.Presley@mecklenburgcountync.gov>;
Michael Lash

Jacob and Mike,

I have reviewed the plans for the **Mint Hill Athletic Park** and have the following comments:
(Our Responses are in RED)

1. Please confirm that the tank used with the Bio-Microbics unit will be traffic rated. If not, please show that the tank will have additional reinforcement to support the weight of the unit in addition to the weight of the soil, etc. A note is on the plans for the precast tank used for the Bio-Microbics unit will need to be pre-approved by BioMicrobics prior to Philip Shoaf constructing the tank. Philip Shoaf is also aware of this requirement. All of the units will H20 load rated.
2. The flow equalization pump tank will need to be greater than 4,000 gallons. The volume of the equalization tank is based on the peak daily flow rate (2,880 gpd) + pump submergence (at least 21 inches) + dose volume (100 gallons) + greatest volume remaining in the pump tank over the week (1,804 gallons). These calculations were added to Sheet WW-3 and adjusted to match the Pump Tank dimensions. The larger Pump Tank required a different layout of tanks and the profile to be revised. In detail, these are shown on Sheet WW-3.

I have calculated the flow equalization over the week as follows:

Day	Inflow	Outflow	Remainder
Friday	2,304 gallons	2,141 gallons	163 gallons
Saturday	2,880 gallons	2,141 gallons	902 gallons
Sunday	2,880 gallons	2,141 gallons	1,641 gallons
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If I figure that this tank will probably be traffic rated (and have inside dimensions of 10 ft x 20 ft) (excellent guess), the gallons per inch is 125 gallons/inch (you were very close). That means that pump submergence will be at least 2,625 gallons.

2,880 gallons + 2,625 gallons + 100 gallons + 1,804 gallons = 7,409 (actually came to 7,337) gallons
So, the pump tank will probably need to be at least 7,500 gallons in size – it is and the Cut Sheet is included for the 7,500 gallon Pump Tank.

Please let me know if you have any questions.
Thanks
Trish

Patricia M. Angoli, PE
Environmental Engineer
Division of Public Health, On-Site Water Protection Branch
North Carolina Department of Health and Human Services

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919-845-3973 fax
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