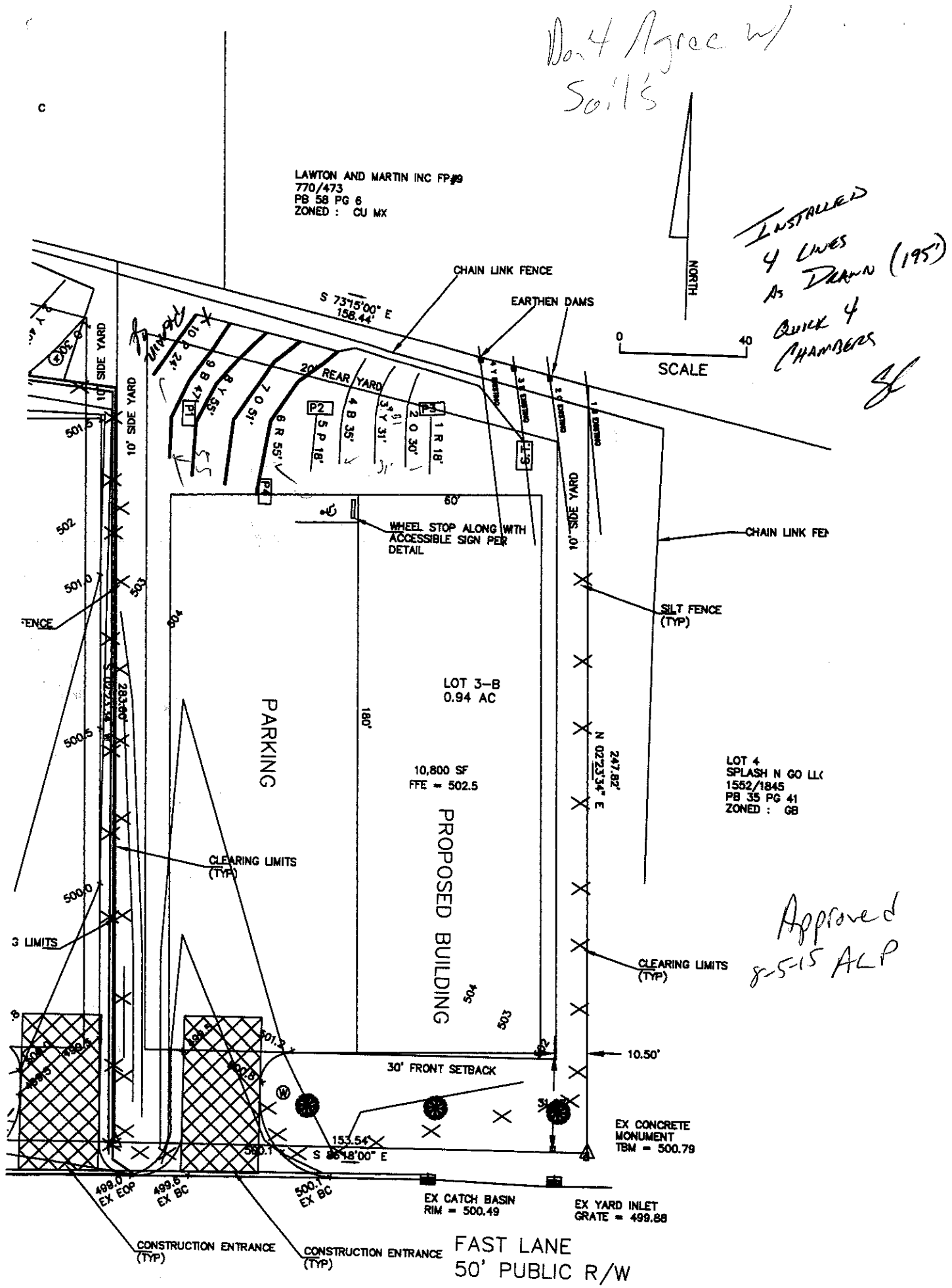

Do. 4 Agree w/ Soils
LAWTON AND MARTIN INC FP#9
770/473
PB 58 PG 6
ZONED : CU MX
CHAIN LINK FENCE
EARTHEN DAMS
S 73°15'00" E
156.44'
NORTH
0
40
SCALE
INSTALLED
4 LINES
AS DRAWN (195')
QUICK 4
CHAMBERS
10' SIDE YARD
20' REAR YARD
10' SIDE YARD
P1
P2
P3
P4
P5
60'
WHEEL STOP ALONG WITH ACCESSIBLE SIGN PER DETAIL
CHAIN LINK FEN
SILT FENCE (TYP)
LOT 3-B
0.94 AC
PARKING
180'
10,800 SF
FFE = 502.5
PROPOSED BUILDING
N 02°23'34" E
247.82'
LOT 4
SPLASH N GO LLC
1552/1845
PB 35 PG 41
ZONED : GB
CLEARING LIMITS (TYP)
Approved
8-5-15 ALP
30' FRONT SETBACK
10.50'
EX CONCRETE MONUMENT
TBM = 500.79
153.54'
S 86°18'00" E
499.0
EX EOP
499.6
EX BC
500.1
EX BC
EX CATCH BASIN
RIM = 500.49
EX YARD INLET
GRATE = 499.88
CONSTRUCTION ENTRANCE (TYP)
CONSTRUCTION ENTRANCE (TYP)
FAST LANE
50' PUBLIC R/W

INFORMATION FOR THE INSTALLER:

The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.

- Tanks shall be approved by NC DENR, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to . the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System is specified as a gravity 25% reduction (Accepted) installation.
- Repair is specified as a PPBPS installation.
- **Existing trenches from adjoining gas station must be properly cut & abandoned at properly line. Installer should properly excavate existing trenches & backfill with Clay to create a Earthen Dam to prevent sewage from the gas station drainfield from entering into the area where the existing trenches were. The drainfield must be at least 20 feet from any existing septic drainfield.**

AZP

GRAVITY ACCEPTED SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant: RGH INDOOR VEHICLE STORAGE, LLC

Address: 800 McKendree Road
Mooresville, NC 28117
Phone: 704.651.8613
County: Iredell
Location: 112 Fast Lane

Source of Wastewater Flow: Indoor Vehicle Storage Facility
Estimated Gallons Per Day Flow: 225
System Flow: N/A

Design Specifications

Drainfield Size: 195
Loading Rate (gpd/ft.^{2}): 0.3
Depth of Gravel in Trench: N/A
Gravel Size: N/A
Trench Depth: 36"
Trench Width: 36 in.
Septic Tank Size: 1000

Estimated Supply Line Length: 72
Supply Line Diameter: 4 in. SCH 40 PVC
Supply Line Volume: 47.02
Dosing Volume: N/A
Supply Manifold: N/A
Supply Manifold Length: N/A
Supply Manifold Volume: N/A

Recommended Float Controls: N/A

Recommended Control Panel: N/A

Pressure Head: N/A
Friction Head: N/A
Elevation Head: N/A
Total Dynamic Head: N/A

Threaded Union: N/A
Gate Valves: N/A

Check Valves: N/A
Anti-Siphon Hole: N/A
Additional Comments: Soil suitability was performed by Rollans Soil & Environmental Services

AzP

112 Fast Lane

Project #: 01-2008

AUTO STORAGE FACILITY - 225gpd (25 gallon per private restroom- 9 restrooms max)

June 1, 2015

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM							
INSTR. 1							
1	RED					18	18
2	ORANGE					30	30
3	YELLOW					31	31
4	BLUE					35	35
5	PINK					18	18
6	***RED***					***55***	***50***
7	***ORANGE***					***51***	***50***
8	***YELLOW***					***55***	***50***
9	***BLUE***					***47***	***45***
10	PINK					24	24
					Total	**364**	**351**

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
**** System***	***195***	***0.300***	***ACCEPT.***	***0.300***	***25% RED.***	***GRAVITY***
Repair	156	0.300	***MOD CONV.***	0.300	***PPBPS***	***LOW PRESSURE***

Notes: **All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

**BS, HI, and FS indicate rod readings

A2P

CALCULATIONS

Location 112 FAST LANE

Project Number 01-2008

Lot No: 3-B

No. of Bedrooms N/A

Design Flow 225 $^{gal}/_{day}$

LTAR 0.300 $^{gal}/_{ft^2 day}$

PPBPS? (YES OR NO) NO

Supply Line Length 72 ft.

Supply Line Volume 47.016 gal.

Required Feet of Line 187.5 ft.
Amount of Line from Layout 195 ft.

Gallons per Minute N/A $^{gal}/_{min}$

Required Septic Tank Capacity 1000 gal.
Septic Tank Size 1000 gal.

Panel Volume N/A gal.
# of Panels N/A
Dosing Volume N/A gal.

Tank Draw Down N/A

Pump Run Time

Elevation Head N/A ft.
Pressure Head N/A ft.
Friction Factor N/A ft./100 ft. *(From the interpolater.)*
Friction Head N/A ft.

Total Dynamic Head (+15%) N/A ft.

FRICTION FACTOR
INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet 1 of 1
PROPERTY ID #: 4636379088
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Richard Guilt
ADDRESS: 800 McKendree Rd, Mooresville, NC 28117
APPLICATION DATE 6/1/15
PROPOSED FACILITY: Indoor Vehicle Storage PROPOSED DESIGN FLOW (.1949): 225 gpd
DATE EVALUATED: 6/2015
LOCATION OF SITE: From Brawley School Rd, Turn onto Stutts Rd, Right onto Fast Lane, on Right
PROPERTY SIZE: .94 AC
WATER SUPPLY: ☐ Private ☐ Public ☐ Well ☐ Spring ☐ Other
PROPERTY RECORDED:
EVALUATION METHOD: ☐ Auger Boring ☑ Pit ☐ Cut
TYPE OF WASTEWATER: ☑ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	4/3%	0-8	BRCL wmsbk	Fr SS SP	Depl.	57	–	–	PS .3
		8-22	RBC wmAbk/sbk	Fr SS P-Few Fe					
		22-38	RC wmsbk	FSS SP EXP					
		38-57	RCL wmsbk	Fr SS SP-few SAP Inclu.					
2	4/3%	0-6	BSL Gr	Fr SS SP	Few SAP Inclusion.	65	–	–	PS .3
		6-18	BCL wmsbk	Fr SS SP					
		18-29	RBC wmsbk	Fr SS SP					
		29-53	RC wmsbk	Fr SS SP					
		53-65	RCL wmsbk	Fr SS SP					
3	4/4%	0-16	BSL Gr	Fr SS SP		64	–	–	PS .3
		16-36	RC mfsbk/Abk	Fr SS SP					
		36-58	RC mmsbk	Fr SS SP					
		58-64	RBCL wfsbk	Fr SS SP					
4	4/2%	0-21	RBC wfsbk/Abk	F SS SP	Few SAP Inclusions.	60	–	–	PS .3
		21-43	RBC wfsbk	Fr SS SP					
		43-60	RBCL wmsbk	Fr SS SP-					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	Accepted	PPBPS
Site LTAR	0.3	0.3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): A
EVALUATED BY: S. Ashley Rollans
OTHER(S) PRESENT: Chad Wagner

COMMENTS: 0-6 FS scl or Fr cl SS P EXP .3
B1 6-28 R cl wfsbk " " " "
28-48 R cl wfsbk " " " " Fr SP
3%

P1 0-8 B Scl Gr Fr SS SP SE vP .7 > 19"
LSS 8-19 BR C MMABk/Platty Fi S P SE vP few/con YB
3-4% 19-35 R C MFSBk Fi SP SE vP
35-52 R Cl w FSBk Fr SS SP SE vP

P4 0-6 Compacted RC .3 > 15"
6-15 BR C MABk Fi S P SE vP few platy, few YB
LSS 15-26 R C MFSBk Fi SP SE vP
<2% 26-50 YR Cl w FSBk Fr SS vP SE vP con sap, few clay vems around trans. hor.

DENR/DEH

ON-SITE WASTEWATER SECTION

Sheet 1 *of* 1
PROPERTY ID #: 4636379088
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Richard Gwilt APPLICATION DATE 6-2-15
ADDRESS: 800 Mckendree Rd, Moorsville, NC DATE EVALUATED:
PROPOSED FACILITY: Car Storage Facility PROPOSED DESIGN FLOW (.1949): 225 gpd PROPERTY SIZE: 0.94 ac
LOCATION OF SITE: 112 Fast Ln PROPERTY RECORDED: Yes
WATER SUPPLY: X Private ☐ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: X 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	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B 1	LSS 3%	0-6	B SCL GR	FR, SS, SP, SEXP	-FEW SAP	48"	-	-	PS 0.3
		6-28	R C WFSBK	FR, SS, SP, SEXP					
		28-48	R CL WFSBK	FR, SS, SP, SEXP					
P 1	LSS 3-4%	0-8	B SCL GR	FR, SS, SP, SEXP	-FEW/COM YB	48"	-	-	PS 0.3>19"
		8-19	BR C MMABK/PLATTY	FI, S, P, SEXP					
		19-35	R C MFSBK	FI, SS, SP, SEXP					
		35-52	R CL WFSBK	FR, SS, SP, SEXP					
P 4	LSS <2%	0-6	COMPACTED R C		FEW PLATTY, FEW YB	48"	-	-	PS 0.3>15"
		6-15	BR C MMABK	FI, S, P, SEXP					
		15-26	R C MFSBK	FI, S, P, SEXP	-COM. SAP, FEW CLAY VEINS AROUND TRANSITION				
		26-50	YR CL WFSBK	FR, SS, SP, SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	GRAVITY 25% RED.	LP/GRAVITY PPBPS
Site LTAR	0.3	0.3

OTHER FACTORS (.1946): NONE
SITE CLASSIFICATION (.1948): PS

EVALUATED BY: ALP
OTHER(S) PRESENT: NONE

COMMENTS:

Adrian Pruett

From: richard gwilt <rgwilt@me.com>
Sent: Monday, August 3, 2015 2:41 PM
To: Adrian Pruett
Cc: Ashley Rollans
Subject: Re: MAG Vehicle Storage Bldg MEP plans

There are no public restrooms. Unlike the first building where I thought I may have used the one room as a common room for all owners " where since I am only using the restroom for myself" for this building I decided to go ahead and put a sanitary line under the slab so each owner wanted to install a single restroom for themselves they could. So far I have just one buyer who wants to do a restroom while the other 2 buyers may or may not. We have designed leachfield to use maximum total of nine restrooms at 25 GPD= 225 but I believe Ashley designed for 250
Occupant loads are required by building dept to calculate travel distance to exits and to see if a space needs to have a rear exit door and to make sure if it does that the door width meets building code.

On Aug 3, 2015, at 2:03 PM, Adrian Pruett <adrian.pruett@co.iredell.nc.us> wrote:

Just to clarify things I have a few questions.

1. Are there going to be any public restrooms, public gathering room like in the other storage building?
2. What is meant by the "Occupant Load and Exit Width" section on page C-1 of the plans, directly the "Calculated Occupant Load"? Does this refer to the total number of occupants? Page C-1 was the first page of the first email you sent me.

Sincerely,

Adrian L. Pruett, REHS, LSS
Environmental Health Supervisor I
On-site Water Protection Program
610 E. Center Ave
Mooresville, NC 28115
704-660-3633

From: richard gwilt [mailto:rgwilt@me.com]
Sent: Friday, July 31, 2015 10:29 AM
To: Adrian Pruett
Cc: Ashley Rollans
Subject: Fwd: MAG Vehicle Storage Bldg MEP plans

Here are plumbing drawings for your records. Please let me know if you would like me to bring you a small sheet of A-1and P-1 to you or if this is good
Please confirm that you received this email and if you need anything else for the leach field permit. Thanks

Sent from my iPad

Begin forwarded message:

From: Todd Carey <twc3617@gmail.com>
Date: July 25, 2015 at 4:11:43 PM EDT
To: Richard Gwilt <rgwilt@me.com>
Subject: MAG Vehicle Storage Bldg MEP plans
Reply-To: Todd@toddcarey.com

Dick

Here is a set of our MEP plans. Please review and let Tony or I know if you have any questions or comments.

Todd W. Carey, P.E.
Todd W. Carey & Associates of the Carolinas, PA
429 Canvasback Road
Mooresville, NC 28117

Phone: (704) 664-9824
Fax: (704) 236-6529
Email: Todd@ToddCarey.com

Adrian Pruett

From: Angoli, Trish <trish.angoli@dhhs.nc.gov>
Sent: Friday, July 11, 2014 1:39 PM
To: Adrian Pruett
Cc: rollans.ashley@yahoo.com
Subject: FW: Car Storage Facility

Adrian,

This is a follow-up to my previous e-mail. Based on what is being proposed for the car storage facility, I am willing to consider a design flow of 250 gpd to 260 gpd based on two bathrooms in the facility (the maximum amount of line length for a gravity system that can be installed on the lot). One for the owner's private use and the second for the lounge. The fixtures must be low-flow fixtures that meet the following criteria: toilets with a flow of 1.2 gal/flush or less, spring-loaded or automatic shut off faucets with a flow of 1.0 gpm or less, and urinals with a flow of 1.0 gal/flush or less.

The design flow for the owner's second adjacent lot will be evaluated on the merits of the proposed building. Prior to a design flow determination, a floor plan for the building showing all plumbing fixtures and the proposed building use must be provided.

Let me know if you have any questions or need more information.

Thanks
Trish

Patricia M. Angoli, PE
NC Department of Health and Human Services
Environmental Engineer, On-Site Water Protection Branch, Division of Public Health
5605 Six Forks Rd
1642 Mail Service Center
Raleigh, NC 27699-1642
919-707-5878 (Office)
919-845-3973 (Fax)
trish.angoli@dhhs.nc.gov
http://publichealth.nc.gov/

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From: Angoli, Trish
Sent: Friday, May 09, 2014 10:23 AM
To: adrian.pruett@co.iredell.nc.us
Subject: Car Storage Facility

Adrian,

Based on our conversation this morning, you have an applicant looking at a car storage facility that will have a total of 9 bays and a lounge for the facility. The owner plans to sell six of the nine bays to others, and keep three for himself. The lounge will have a TV, refrigerator, couch and chairs, with a bathroom and a sink (outside of the bathroom). The owners of the bays will have access to use the lounge. The applicant would like for the owners of the individual bays to be able

to install a bathroom if desired. The applicant will also have a private bathroom for himself associated with the bays he will keep for himself.

I would recommend basing the design flow on the following: 25 gpd/bay for the six bays that will be sold, 25 gpd for the owner's bathroom, and 250 gpd for the bathroom in the lounge. The 25 gpd is based on the design flow for employees. The 250 gpd is based on the flow for a public restroom. The owners of the bays will be able to access the lounge and hang out, watch TV, and drink a beer. If we figure that the owners would bring a friend, this allows for a group of 15 to 20 to hang out and drink a few beers in the lounge.

If there are floor drains anywhere in the facility, than the wastewater has the potential to be IPWW and that is a completely different conversation.

Let me know if you have any questions.

Thanks and have a great weekend!!
Trish

Patricia M. Angoli, PE
NC Department of Health and Human Services
Environmental Engineer, On-Site Water Protection Branch, Division of Public Health
5605 Six Forks Rd
1642 Mail Service Center
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919-707-5878 (Office)
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Shane Cashion

From: Ashley Rollans <ashleyrollans@gmail.com>
Sent: Thursday, September 3, 2015 2:21 PM
To: Shane Cashion
Subject: Fast Lane Revision

Shane,
I am ok with the installation of a 3" vs 4" gravity supply line for the system on Lot 3B.
Thanks
Ashley