Scanned By	Date	DOC ID	Permit
Backus	07/03/2014	21355	5305-TRANSFER-2013

BARNARD ENGINEERING, P.C.

1534 Saratoga Blvd. Indian Trail, NC 28079
(704) 421-3067; (704) 628-0344
www.barnardengineeringpc.com
jbarnard@barnardengineeringpc.com

RECEIVED
JUN 3 2014
SOLID WASTE SECTION

Letter of Transmittal

Attention: Ms. Pat Backus, P.E.
NCDENR - Solid Waste Section
217 W. Jones St
Raleigh, NC 27603

Date: 6-3-13

Re: Sanford Transfer Station – Waste Industries – As Built Application
3290 McDonald Drive
Sanford, NC

Delivered by: ☒ Hand ☐ UPS ☐ Mail ☐ Fedex ☐ Courier ☐ Other

We are transmitting the following items:

☒ Prints ☐ Copy of Letter ☐ Specifications ☒ Application ☐ Mylars ☐ Report
☐ Plans ☐ Shop Drawings ☐ Calculations ☐ As Builts ☐ Check ☐ Other

No.	Date	Copies	Items to be Transmitted
1	6-3-14	1	As-Built Plan Sets
2	6-3-14	1	Figure 3 Operations Plan
3			
4			
5			
6			

These are transmitted as checked below:

☐ For Approval ☒ For Review ☐ Approved as Submitted
☐ For Your Use ☐ Corrected Prints ☐ Approved as Noted
☐ As Requested ☐ Copies for Distribution ☐ Copies for Approval

Remarks: As Built Drawings - Sanford Transfer Station for Waste Industries.

Note: Unless revision block states "*Released for Construction*", all plans enclosed are to be considered "*Preliminary*" and "*Not for Construction*", and are provided for permitting, information and bidding use only.

Cc: File

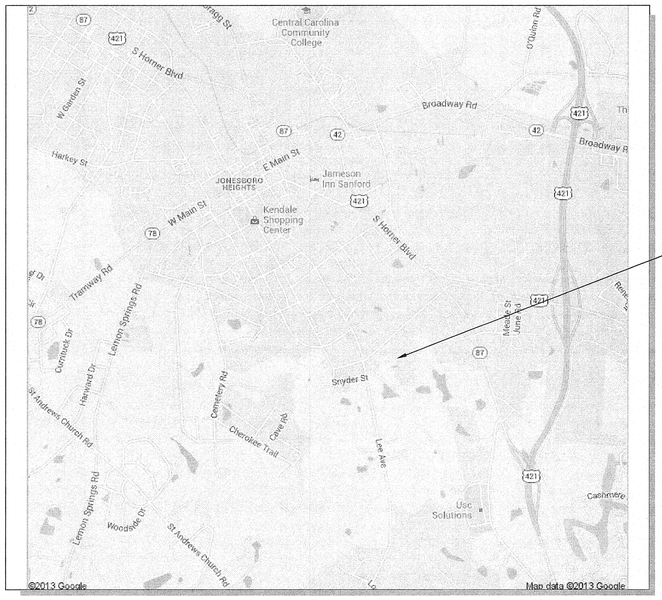
Signed: Jud Barnard

Scanned By	Date	DOC ID	Permit
Backus	07/03/2014	21355	5305-TRANSFER-2013

SANFORD TRANSFER STATION AS BUILTS

SANFORD NC

Project Number: 2013-5



PROJECT LOCATION MAP

NOT TO SCALE

Sheet List Table		
Sheet Number	Sheet Title	Sheet Number
--	COVER	--
C-1 AB	AS BUILT SITE PLAN	C-1 AB
C-2 AB	GRADING	C-2 AB
C-3 AB	PAVING SCHEDULE AS BUILT	C-3 AB
U-1 AB	OVERALL UTILITIES AS BUILT	U-1 AB
U-2 AB	TRANSFER STATION SEWER PLAN AND PROFILE AS BUILT	U-2 AB

OWNER: WASTE INDUSTRIES
STREET ADDRESS: 3301 BENSON DRIVE
CITY, STATE , ZIP: RALEIGH, NC 27609
PHONE: (919) 325-3000
FAX: (919) 872-1471
CONTACT: DAVID PEPPER

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(704) 421-3067
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BEFORE YOU DIG!
CALL 1-800-632-4949
N.C. ONE-CALL CENTER
IT'S THE LAW!

NO.	DATE	BY	REVISION
1	5-16-14	JDB	AS-BUILTS

FH
WM
WV
CO

N

Wilson Road
60' Public R/W

McDonald Drive
60' Public R/W

MCDONALD DRIVE

SITE ENTRANCE DRIVE HEAVY DUTY PAVEMENT

ACESSIBLE ROUTE

TRUCK SCALE

ADA LIFT

SCALEHOUSE / OFFICE/BREAKROOM

IRRIGATION LINE

15 FT BUFFER YARD

STORM PIPING (TYP.)

1" WATERLINE TO SCALE HOUSE/OFFICE

WATERLINE TO SITE

2" WATERLINE FOR IRRIGATION

YARD LIGHT (TYP.)

EXISTING WATER LINE

SITE ENTRANCE WITH DOUBLE SWING GATE

FACILITY INFORMATION SIGN 2W

8-FT STREET YARD

PROPOSED 6" WATERLINE TO SITE HYDRANT

EXISTING SEWER MANHOLE

INV. OUT: 405.58

9' TYP.

19' TYP.

EMPLOYEE PARKING

ACCESSIBLE PARKING

SEWER LATERAL FOR OFFICE

2" WATERLINE TO TRANSFER STATION

PRIVATE FIRE HYDRANT

30-FT FRONT SETBACK

SANITARY SEWER LINE

TRAILER PARKING

ASPHALT APPROACH RAMP (HEAVY DUTY PAVING)

CONCRETE APRON

BACK IN LOADING PIT

75-FT X 80-FT TRANSFER STATION (6,000 SF)

IRRIGATION LINE

VEHICLE MANEUVERING AREA, GRAVEL PAVING IN THIS AREA. A SPRINKLER SYSTEM WAS INSTALLED TO CONTROL DUST.

50 FT BUFFER YARD

50' BUFFER YARD

50' BUFFER YARD

15-FT BUFFER YARD

6-FT TALL CHAIN LINK FENCE

Former Abandoned Plat 2006

Concrete Monument Found

Iron Found

Benchmark: Top of Fire Hydrant 413.26

SSMH Rim 414.38 Out 405.58

SSMH Rim 413.23 TOP" CO 70 Out 403.59

water meter

WMP

PPP 1W

PPP 2W

RPZ

RPDA

RM

PIN: 9651-96-6501-00
Wilson Road Properties, LLC
Db. 1258, Pg. 785
ZONED LI

PIN: 9651-96-4542-00
Wilson Road Properties, LLC
Db. 1258, Pg. 785
ZONED LI

PIN: 9651-96-3454-00
Larry D. Glover &
Dianne B. Glover
Db. 597, Pg. 113
PC 7, SL. 4-C
ZONED LI

PIN: 9651-96-2356-00
Grayson Neil Rosser
Db. 1303, Pg. 590
PC 7, SL. 4-C
ZONED LI

PIN: 9651-96-2106-00
J & R Vintage, Inc.
Db. 683, Pg. 168
PC 9, SL. 16-A
ZONED LI

PIN: 9651-85-9975-00
Atlas NC I SPE, LLC
Db. 1294, Pg. 482
PC 9, SL. 16-A
ZONED LI

PIN: 9651-95-3465-00
Atlas NC I SPE, LLC
Db. 1294, Pg. 482
PC 9, SL. 16-A
ZONED LI

PIN: 9651-95-5771-00
Atlas NC I SPE, LLC
Db. 1294, Pg. 482
PC 9, SL. 16-A
ZONED LI

PIN: 9651-94-6640-00
Madge S. Lane &
Billy Lane
Db. 742, Pg. 434
Plat 2010/109
ZONING R-20

PIN: 9661-15-1024-00
William Thomas Adams &
Patricia Wright Adams
Db. 929, Pg. 130
Plat 2006/69-70
ZONING R-20

L1 S42°19'02"E 141.90'
L2 S39°07'04"E 149.98'
L3 S37°50'57"E 149.97'
L4 S35°31'41"E 150.05'
L5 S33°28'30"E 101.76'
C1 R=70.0

S43°58'30"E 250.93'
N48°12'15"E 125.24'
S41°48'36"E 348.16'
N48°17'06"E 468.08'
N59°59'43"W 390.86'
N88°48'30"W 104.67'
N88°44'46"W 446.12'

SITE DATA:

BUILDING 1: 6,000 SF SOLID WASTE TRANSFER STATION, SINGLE STORY, 38' NOMINAL EAVE HEIGHT - SEE ARCHITECTURAL DRAWINGS.
BUILDING 2: 672 SF OFFICE / BREAKROOM - SINGLE STORY SEE ARCHITECTURAL DRAWINGS

TRUCK PARKING: 4 ROUTE TRUCKS
5 TRANSFER TRAILERS
TOTAL NUMBER OF EMPLOYEES: 4 DRIVERS
2 TRANSFER STATION
REQUIRED PARKING: TRANSFER STATION - 2 SPACES /THREE EMPLOYEES AT MAXIMUM SHIFT (2 SPACES)
OFFICE: - 1 PER 300 SF (2 SPACES)
TOTAL REQUIRED 4 SPACES
PROVIDED SPACES - 11 INCLUDING 1 ACCESSIBLE SPACE

FRONT SETBACK - 30 FEET
SIDE SETBACKS - 0 FEET
REAR SETBACK - 0 FEET

MAXIMUM ALLOWABLE IMPERVIOUS: 80%
ACTUAL PERCENT IMPERVIOUS: 39% (TRACT 2 ONLY)

GRAPHIC SCALE
0 40' 80'
(IN FEET)
1 inch = 40 ft.

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NO.	DATE	BY	REVISION
1	5-16-14	JDB	AS-BUILT

SANFORD TRANSFER STATION
AS BUILTS
SANFORD NC

WASTE INDUSTRIES
3301 BENSON DRIVE
RALEIGH NC

AS BUILT SITE PLAN

DESIGNED	JDB	CHECKED	JDB
DRAWN	JDB	PROJECT NO.	2013-5
SCALE	AS SHOWN	DATE	5/16/14

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 19665 JOHN D. BARNARD

SHEET:
C-1 AB

GRADING NOTES:
1. GRADING DEPICTED IS THE DESIGN GRADES. AN FINAL SITE AS-BUILT WAS NOT CONDUCTED

PIN: 9651-96-3454-00
Larry D. Glover &
Dianne B. Glover
Db. 597, Pg. 113
PC 7, SL. 4-C
ZONED LI

PIN: 9651-96-2356-00
Grayson Neil Rosser
Db. 1303, Pg. 590
PC 7, SL. 4-C
ZONED LI

PIN: 9651-96-2106-00
J & R Vintage, Inc.
Db. 683, Pg. 168
PC 9, SL. 16-A
ZONED LI

PIN: 9661-
William Thom
Patricia Wr
Db. 929,
Plat 200
ZONING

PIN: 9651-85-9975-00
NC I SPE, LLC
1294, Pg. 482
9, SL. 16-A
ZONED LI

N48°12'15"E 125.24'
S43°58'30"E 250.93'
S42°19'02"E 141.90'
S39°07'03"E 149.98'
N48°17'46"E 468.08'
N59°59'43"W 390.86'

Former Abandoned Railroad
Plat 2006 SI 217

Iron Found
Concrete Monument Found
Concrete Monument Found

SCALEHOUSE / OFFICE/BREAKROOM
NCDOT CLASS V RCP
PPP 1W
PPP 2W
139' OF 15" RCP @ 0.40%
HW 2
RIM: 412.84
INV IN: 410.90
SCALE DECK: FFE 417.50
DI-1
RIM: 413.77
INV OUT: 411.41
DI-3
RIM: 411.80
INV OUT: 409.55
70' OF 18" RCP @ 0.45%
HW 5
RIM: 411.22
INV OUT: 409.01
HW 7
RIM: 409.91
INV IN: 407.70
JB-6
413.01
INV IN: 408.70
INV OUT: UNKNOWN
SSMH
Rim 413.23
TOP* CO
Out 403.69
SSMH
Rim 414.28
Out 405.58
INV. OUT: 405.58
Benchmark:
Top of Fire Hydrant
413.26
SITE ENTRANCE WITH DOUBLE SWING GATE
RPZ
WM
WV
C.O.
PC: 4+64.00
PT: 5+00
PC: 6+64.00
PT: 7+00
PT: 7+09.14
EP: 8+73.09
FFE: 421.00
FFE: 413.00
TRANSFER STATION BUILDING

UPON FINAL STABILIZATION OF THE SITE AND APPROVAL FROM NCDENR, PUMP REMAINING WATER FROM BASIN THROUGH A SILT BAG AND DECOMMISSION BASIN. IMMEDIATELY STABILIZE THE AREA WITH SOD.

GRAPHIC SCALE
0 30' 60'
(IN FEET)
1 inch = 30 ft.

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NO.	DATE	BY	REVISION
1	5-16-14	JDB	AS-BUILT

SANFORD TRANSFER STATION
AS BUILTS
SANFORD NC

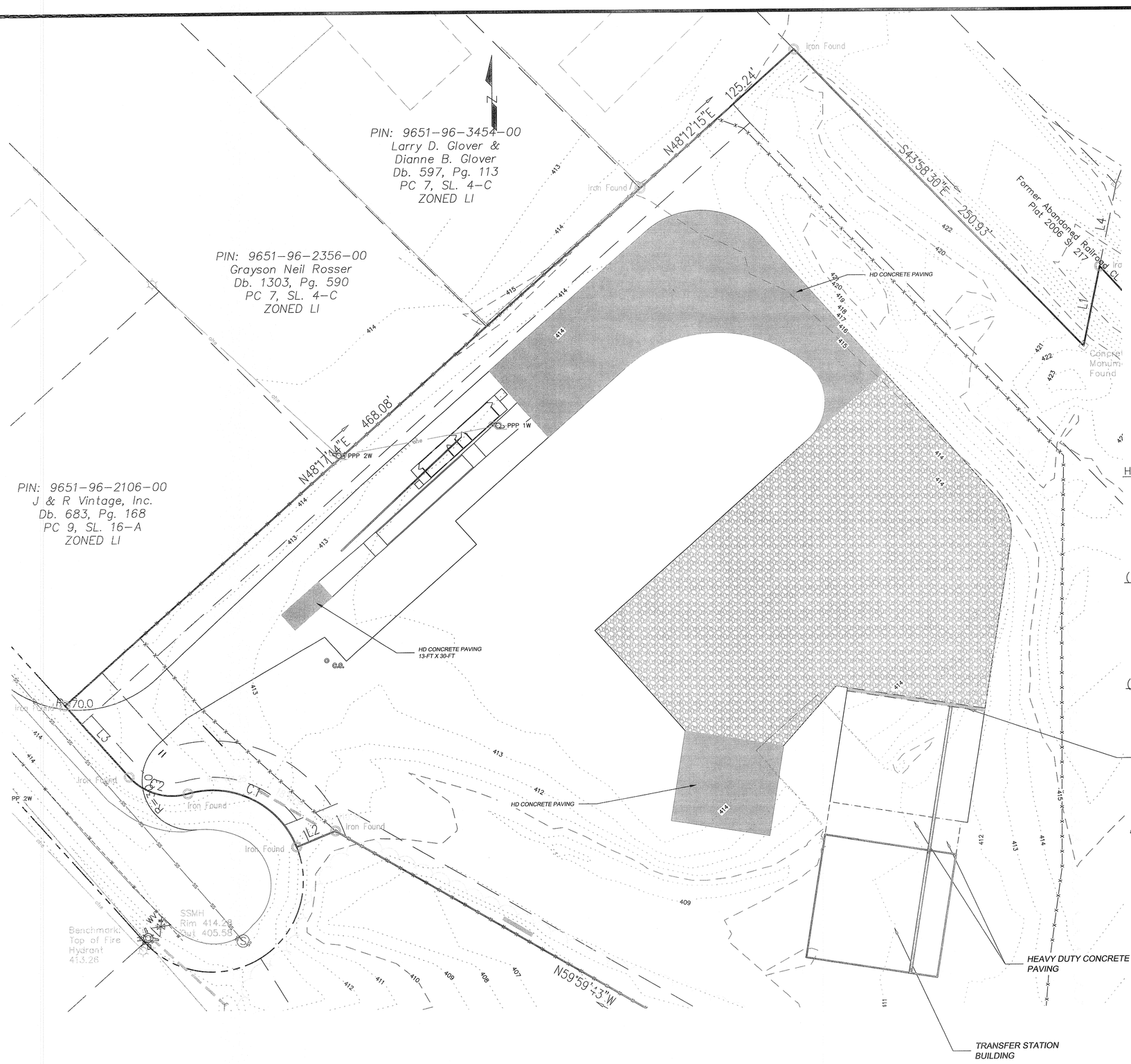
WASTE INDUSTRIES
3301 BENSON DRIVE
RALEIGH NC

GRADING

DESIGNED	DRAWN	CHECKED
JDB	JDB	JDB
SCALE	DATE	PROJECT NO.:
AS SHOWN	5/16/14	2013-5

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 19865 JOHN D BARNARD

SHEET:
C-2 AB



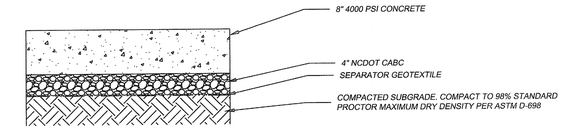
PAVING SCHEDULE

LIGHT DUTY ASPHALT PAVEMENT

HEAVY DUTY ASPHALT PAVEMENT

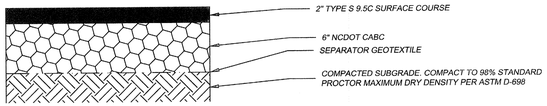
GRAVEL PAVEMENT IF APPROVED

HEAVY DUTY CONCRETE PAVEMENT



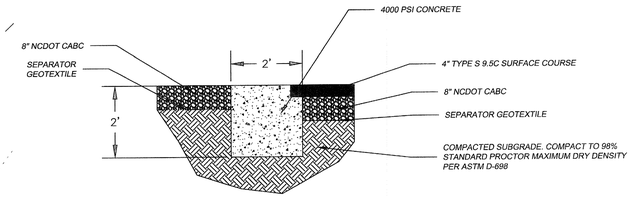
HEAVY DUTY CONCRETE PAVING

(TYPE I) HEAVY DUTY ASPHALT PAVING



(TYPE II) ASPHALT PAVING (LIGHT DUTY)

NOTE: ABC SHALL BE PROOF-ROLLED BEFORE THE FINAL LIFT IS PLACED, AND AS REQUIRED BY THE SPECIFICATIONS.



CONCRETE EDGE STRIP

GRAPHIC SCALE

0 30' 60'

(IN FEET)

1 inch = 30 ft.

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NO.	DATE	BY	REVISION
1	7-26-13	JDB	TRC REVIEW - ACCESSIBLE SPACE CHANGED TO VAN ACCESSIBLE

SANFORD TRANSFER STATION
AS BUILTS
SANFORD NC

WASTE INDUSTRIES
3301 BENSON DRIVE
RALEIGH NC

PAVING SCHEDULE AS BUILT

DESIGNED	DRAWN	CHECKED
JDB	JDB	JDB
SCALE	DATE	PROJECT NO.
AS SHOWN	5/16/14	2013-5

SHEET:

C-3 AB

PIN: 9651-96-3454-00
Larry D. Glover &
Dianne B. Glover
Db. 597, Pg. 113
PC 7, SL. 4-C
ZONED LI

PIN: 9651-96-2356-00
Grayson Neil Rosser
Db. 1303, Pg. 590
PC 7, SL. 4-C
ZONED LI

PIN: 9651-96-2106-00
J & R Vintage, Inc.
Db. 683, Pg. 168
PC 9, SL. 16-A
ZONED LI

PIN: 9661-1
William Thomc
Patricia Wrig
Db. 929,
Plat 2006
ZONING

PIN: 9651-85-9975-00
NC I SPE, LLC
294, Pg. 482
9, SL. 16-A
ZONED LI

N48°12'15"E 125.24'
N48°11'44"E 468.08'
S43°58'30"E 250.93'
S42°19'02"E 141.90'
S39°07'03"E 149.98'
N59°59'43"W 390.86'

Iron Found
Concrete Monument Found
Former ABC Plot
6-FT TALL CHAIN LINK FENCE
Railroad Spike
L1
L4

97.18' of 4" PVC @ 1.89%
FFE: 420 +/-
PPP 1W
PPP 2W
FFE SCALE DECK: 417.50
1" PVC WATERLINE TO SCALE HOUSE CONNECTION
2" PVC WATERLINE TO TRANSFER STATION
2" PVC WATERLINE TO SPRINKLER SYSTEM
2" PVC WATERLINE TO SPRINKLER SYSTEM
SPRINKLER HEAD (TYP.)
PRIVATE FIRE HYDRANT
SPRINKLER HEAD (TYP.)
2" PVC WATERLINE TO SPRINKLER SYSTEM
SEWER LINE TO TRANSFER STATION
2" PVC WATERLINE
2" RPZ BACKFLOW PREVENTER FOR POTABLE WATER
2" METER
2" RPZ BACKFLOW PREVENTER FOR IRRIGATION SYSTEM
2" IRRIGATION METER
6" RPZDA BACKFLOW PREVENTER
6" BACKSIDE TAP USE 6" TAPPING SLEEVE AND VALVE
6" PVC WATER LINE
TAP 2" LINE INTO 6" LINE
147.96' of 4" PVC @ 2.09% PRIVATE
118.19' of 8" PVC @ 0.58% PRIVATE
98.24' of 6" PVC @ 0.47% PRIVATE
305.87' of 8" PVC @ 0.76% PRIVATE
PMH-2
STA: 2+16.44
RIM: 412.00
INV IN 406.77
INV OUT: 406.75
PMH-1
STA: 0+98.24
RIM: 412.69
INV IN: 406.07
INV IN: 406.07
INV OUT: 406.07
PMH-3
STA: 5+22.31
RIM: 413.15
INV IN: 409.20
INV OUT: 409.10
15.63' of 8" PVC @ 3.90%
OIL WATER SEPARATOR
RIM N: 413.06
RIM S: 412.97
INV. IN: 409.92
INV OUT: 409.81
2000 GALLON OIL WATER SEPARATOR
FFE: 421.00
LATERALS FROM FLOOR DRAINS
FFE: 413.00
44.31' of 8" PVC @ 0.69%
14.50' of 8" PVC @ 6.90%
39.00' of 8" PVC @ 1.05%
14.50' of 8" PVC @ 4.07%
C.O.
EX MH
STA: 0+00.00
RIM: 414.18
INV IN: 405.61
INV. OUT: 405.58
SSMH
Rim 413.23
TOP" CO
IN 403.70
Out 403.69
SSMH
Rim 414.28
Out 405.58
Benchmark:
Top of Fire
Hydrant
413.26
R=70.0

GRAPHIC SCALE
0 30' 60'
(IN FEET)
1 inch = 30 ft.

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NO.	DATE	BY	REVISION
1	5-16-14	JDB	AS BUILTS

SANFORD TRANSFER STATION
AS BUILTS
SANFORD NC
WASTE INDUSTRIES
3301 BENSON DRIVE
RALEIGH NC

OVERALL UTILITIES AS BUILT

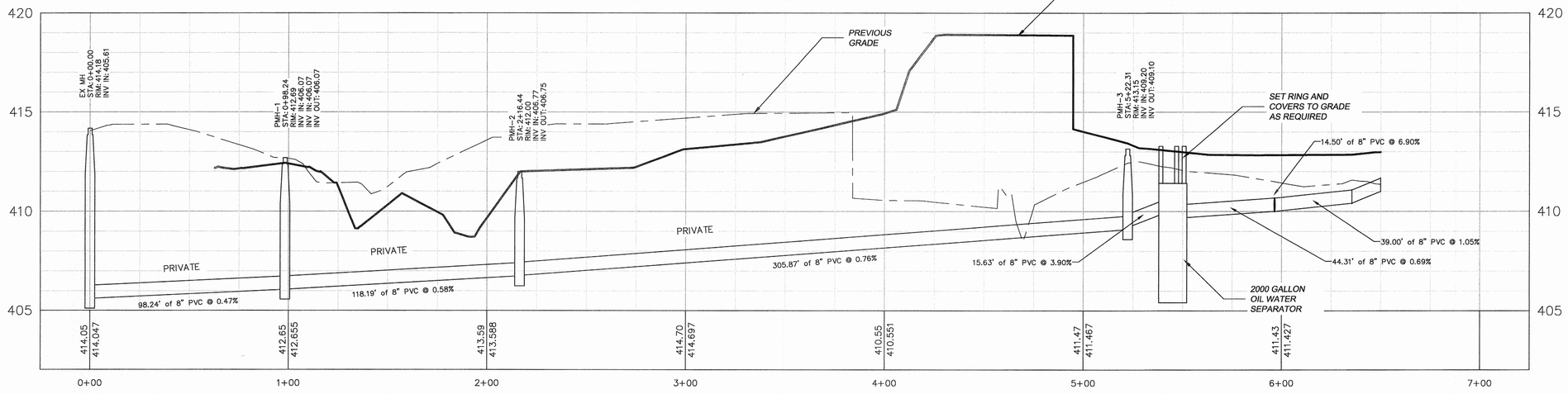
DESIGNED	DRAWN	CHECKED
JDB	JDB	JDB
SCALE	DATE	PROJECT NO.
AS SHOWN	5/16/14	2013-5

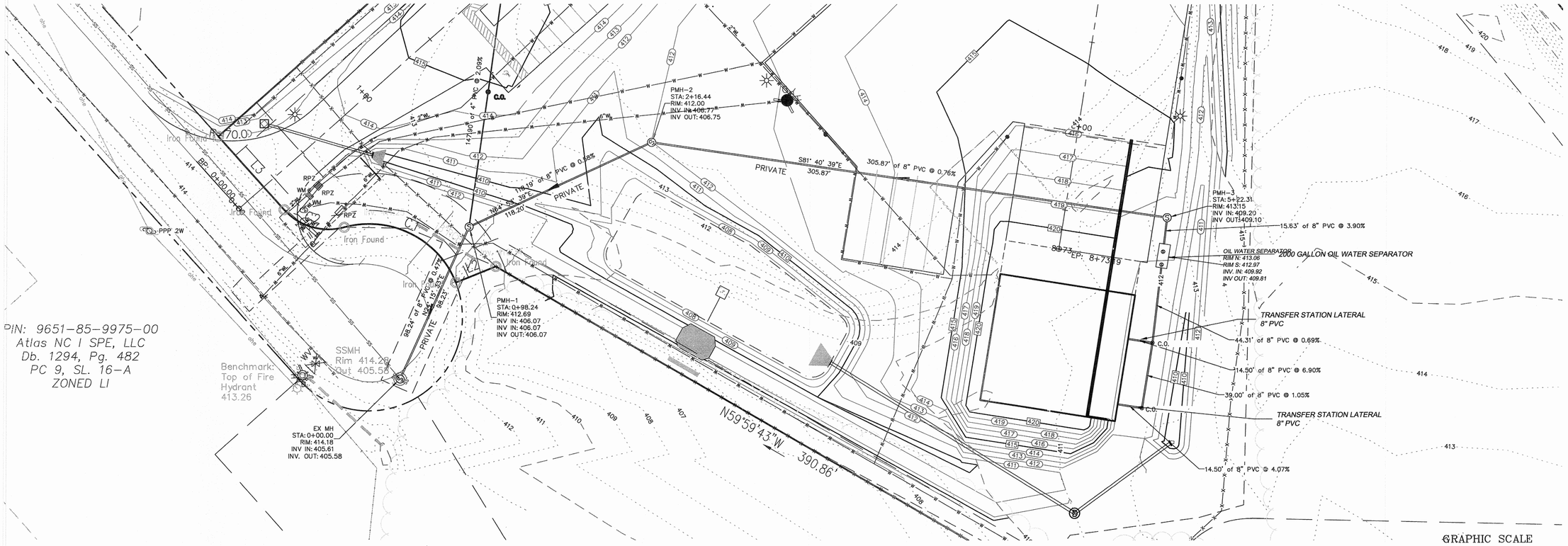
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 19665 JOHN D. BARNARD

SHEET:
U-1
AB

SERVICE TO TRANSFER STATION PROFILE

VERTICAL SCALE
(IN FEET)
1 inch = 3' ft.





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NO.	DATE	BY	REVISION
1	5-16-14	JDB	AS BUILT

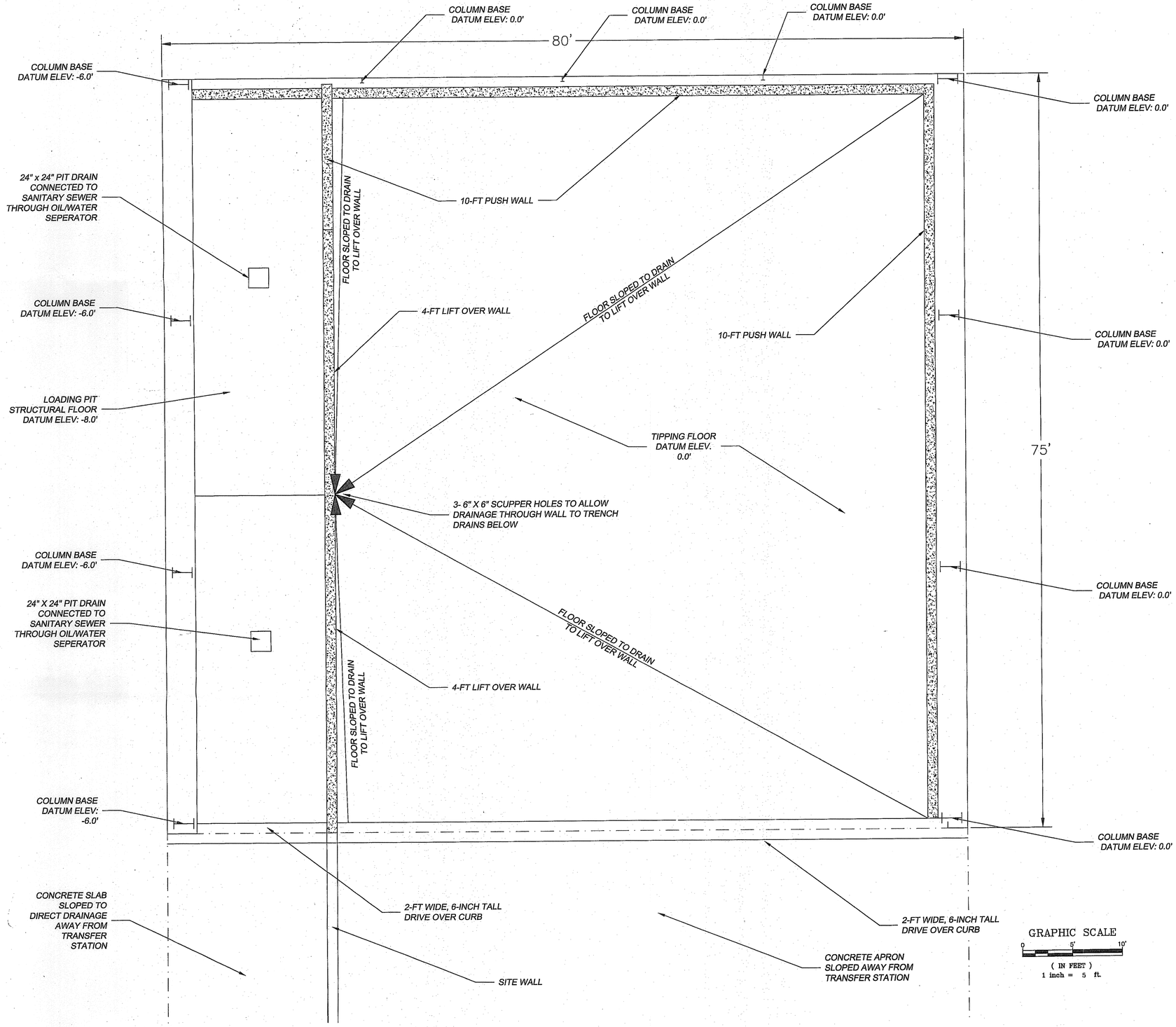
SANFORD TRANSFER STATION
AS BUILTS
SANFORD NC
WASTE INDUSTRIES
3301 BENSON DRIVE
RALEIGH NC

TRANSFER STATION SEWER
PLAN AND PROFILE AS BUILT

DESIGNED	DRAWN	CHECKED
JDB	JDB	JDB
SCALE	DATE	PROJECT NO.
AS SHOWN	5/16/14	2013-5

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 18665 JOHN D. BARNARD

SHEET:
U-2
AB



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NO.	DATE	BY	REVISION
1	5-7-14	JDB	AS-BUILT

SANFORD TRANSFER STATION

WASTE INDUSTRIES

TRANSFER STATION SCHEMATIC FLOOR PLAN

DESIGNED	DRAWN	CHECKED
JDB	JDB	JDB
SCALE	DATE	PROJECT NO.
AS SHOWN	8/2013	2013-5

SHEET:

FIGURE 3