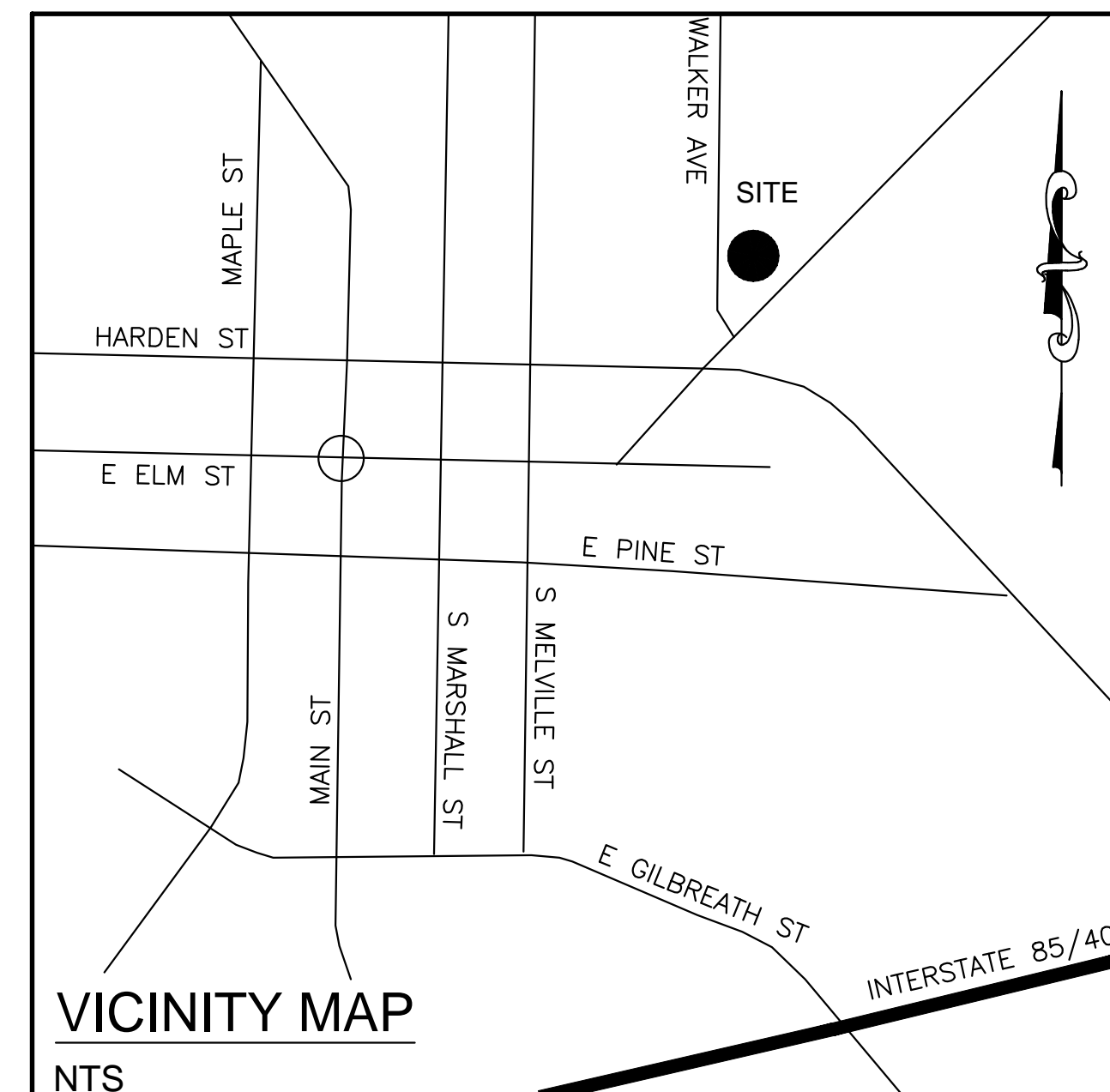


BMART CONVENIENCE STORE

GRAHAM TOWNSHIP, ALAMANCE COUNTY
STATE OF NORTH CAROLINA

DATE: 06-09-2016

REVISED: 09-08-16



DEVELOPER INFORMATION:

BASSI
400 E. ELM STREET
GRAHAM, NC 27253

ENGINEERING CONTACT:

BRENT C. SIEVERS, PE
FLEMING ENGINEERING, INC
8518 TRIAD DRIVE
COLFAX, NC 27235
(336) 544-6432
bsievers@flemingengineering.com

ABBREVIATIONS

ABAN	ABANDONED
ABC	ASPHALT BASE COURSE
AC	ACRES
AGG	AGGREGATE
ARV	AIR RELEASE VALVE
ASPH	ASPHALT
BC	BACK OF CURB
BEG	BEGIN
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
BMP	BEST MANAGEMENT PRACTICES
BOL	BOLLARD
BTM	BOTTOM
CB	CATCH BASIN
C&G	CURB AND GUTTER
CI	CURB INLET
CIP	CAST IRON PIPE
CL	CENTERLINE
CMON	CONCRETE MONUMENT
COMM	COMMUNICATION
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONST	CONSTRUCTION
CRK	CREEK
CY	CUBIC YARDS
DB	DEED BOOK
DCA	DOUBLE CHECK ASSEMBLY
DEMO	DEMOLITION
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DOM	DOMESTIC
DWG	DRAWING
DWY	DRIVEWAY
E	ELECTRICAL
EC	EDGE OF CONCRETE
EG	EDGE OF GRAVEL
EL, ELEV	ELEVATION
EP	EDGE OF PAVEMENT
EMH	ELECTRICAL MANHOLE
ESMT	EASEMENT
EX	EXISTING
FC	FACE OF CURB
FDC	FIRE DEPARTMENT CONNECTION
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
FG	FINISH GRADE
FH	FIRE HYDRANT
FIP	FOUND IRON PIPE
FIR	FOUND IRON ROD
FL	FLOWLINE
FO	FIBER OPTIC
G	GAS
GI	GRATE INLET
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HYD	HYDRANT
IRR	IRRIGATION
INV	INVERT
LF	LINEAR FEET
LP	LIGHT POLE
LT	LEFT OFFSET FROM CENTERLINE
MAX	MAXIMUM
MBL	MAXIMUM/MINIMUM BUILDING LINE
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MON	MONUMENT
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OHP	OVERHEAD UTILITIES
PB	PLAT BOOK
PCC	PORTLAND CEMENT CONCRETE
PED	PEDESTRIAN
PG	PAGE
PL	PROPERTY LINE
PP	POWER POLE
PROP	PROPOSED
PWR	POWER
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
RT	RIGHT OFFSET FROM CENTERLINE
R/W	RIGHT OF WAY
SD	STORM DRAIN
SDE	SIGHT DISTANCE EASEMENT
SDMH	STORM DRAIN MANHOLE
SIP	SET IRON PIPE
SF	SQUARE FEET
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
STMH	STORM MANHOLE
SVC	SERVICE LATERAL
S/W	SIDEWALK
TBM	TRAVERSE BENCHMARK
TEMP	TEMPORARY
TMH	TELEPHONE MANHOLE
TPED	TELEPHONE PEDESTAL
TYP	TYPICAL
T/C	TOP OF CURB
UG	UNDERGROUND
VCP	VITRIFIED CLAY PIPE
VG	VALLEY GUTTER
WL	WATER LINE
WM	WATER MAIN
WTR	WATER
WV	WATER VALVE
YI	YARD INLET

SYMBOLS & LINETYPE LEGEND

	=	CONCRETE
	=	GRAVEL
	=	ASPHALT
	=	ROCK

PROPOSED	EXISTING	
		= DRAINAGE LINE
		= FENCE
		= CENTERLINE
		= CREEK/STREAM
		= FIBER OPTIC
		= FORCEMAIN
		= GAS
		= OVERHEAD ELECTRIC
		= SANITARY SEWER
		= STORM DRAIN
		= UNDERGROUND COMMUNICATIONS
		= UNDERGROUND ELECTRIC
		= UNDERGROUND TELEPHONE
		= WATER LINE
		= ROOF DRAIN
		= LANDSCAPED AREA
		= RAILROAD TRACKS
		= TREE LINE
		= CONTOUR LINES
		= CONTOUR LINES
		= PROPERTY LINE
		= EASEMENT LINE
		= SILT FENCE
		= DITCH
		= DRAINAGE AREA
		= DISTURBED AREA
		= CURB & GUTTER
		= BLOWOFF
		= CLEANOUT
		= COMPUTED POINT
		= CURB INLET
		= DRAINAGE MANHOLE
		= ELECTRIC METER
		= ELECTRIC PEDESTAL
		= FIBER OPTIC PEDESTAL/MARKER
		= FLARED END SECTION
		= GAS METER GAS PEDESTAL/MARKER
		= GAS VALVE
		= GRATE INLET
		= HYDRANT
		= HVAC
		= IRON PIPE
		= LIGHT POLE
		= MISCELLANEOUS METER
		= MISCELLANEOUS UTILITY PEDESTAL/MARKER
		= REDUCER
		= RIGHT OF WAY MONUMENT
		= SANITARY MANHOLE
		= TELEPHONE BOX
		= TV BOX
		= TRANSFORMER
		= TRANSMISSION TOWER
		= UTILITY POLE
		= WATER METER
		= WATER VALVE
		= WELL
		= YARD GRATE
		= YARD INLET
		= BENCHMARK

GENERAL PLAN NOTES

1. THIS IS A STANDARD ABBREVIATION & LEGEND SHEET, THEREFORE, NOT ALL ABBREVIATIONS & SYMBOLS MAY APPEAR ON THE FOLLOWING PLAN SHEETS.
2. AREAS BY COORDINATE COMPUTATION, RATIO OF PRECISION = 1:10,000+.
3. LOCATION WORK SHOWN HEREON WAS DERIVED BY ABOVE GROUND INDICATORS ONLY, UNLESS OTHERWISE NOTED.
4. THIS PROPERTY IS SUBJECT TO ANY EASEMENTS, AGREEMENTS, OR RIGHTS-OF-WAY OF RECORD PRIOR TO THIS DATE AND NOT VISIBLE AT THE TIME OF INSPECTION.
5. ALL CONSTRUCTION IS TO BE TO CITY OF GRAHAM AND NCDENR STANDARDS & SPECIFICATIONS.
6. CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
7. THIS PROPERTY IS LOCATED WITHIN ZONE X AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 3710888400J, EFFECTIVE DATE SEPTEMBER 06, 2006.
8. BOUNDARY TAKEN FROM MAP PREPARED BY LANDMARK SURVEYING, DATED 06-29-2015.
9. LOCATIONS AND TOPOGRAPHIC SURVEY BY FLEMING ENGINEERING, INC. FIELD WORK DATE, 02-22-2016

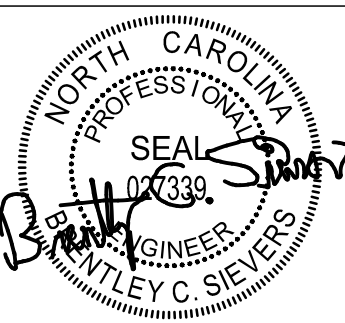
Fleming Engineering, Inc.
 CONSULTING ENGINEERS & LAND SURVEYORS
 8518 Triad Drive Colfax, NC 27235
 Phone (336) 852-9797 License No. C-0950
 www.FlemingEngineering.com

SMART CONVENIENCE STORE
 ABBREVIATION & LEGEND SHEET

PROJECT LOCATION:
 CITY: GREENSBORO
 COUNTY: GUILFORD
 STATE: NORTH CAROLINA

NO.	DATE	REVISION NOTE

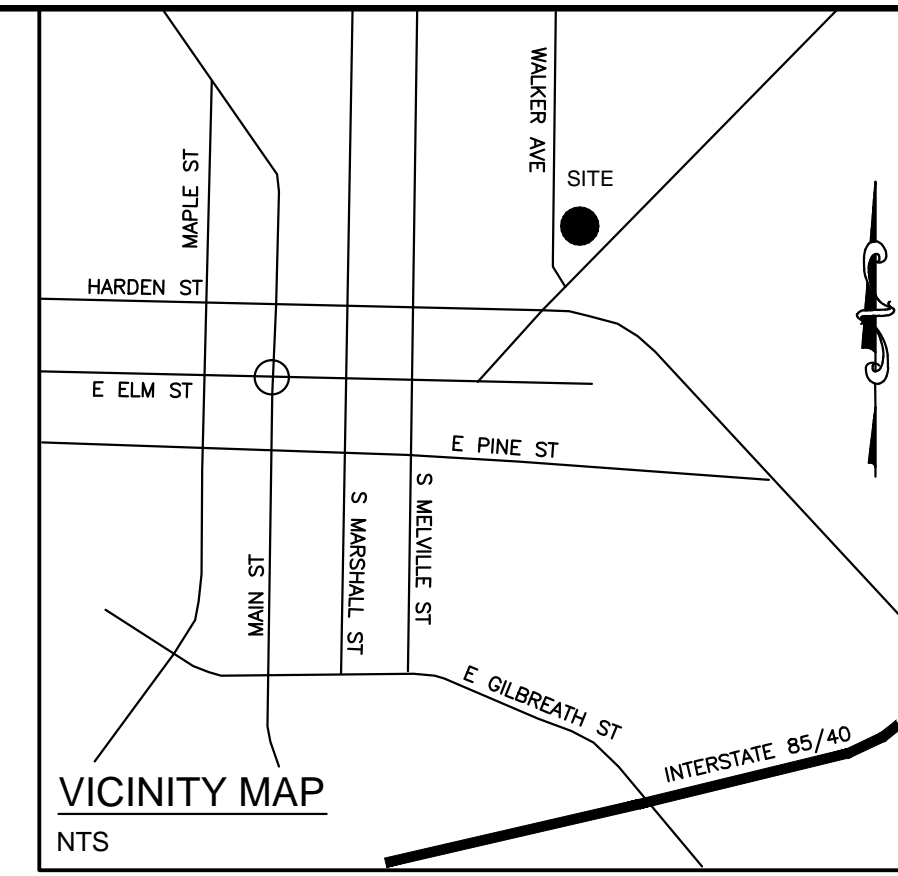
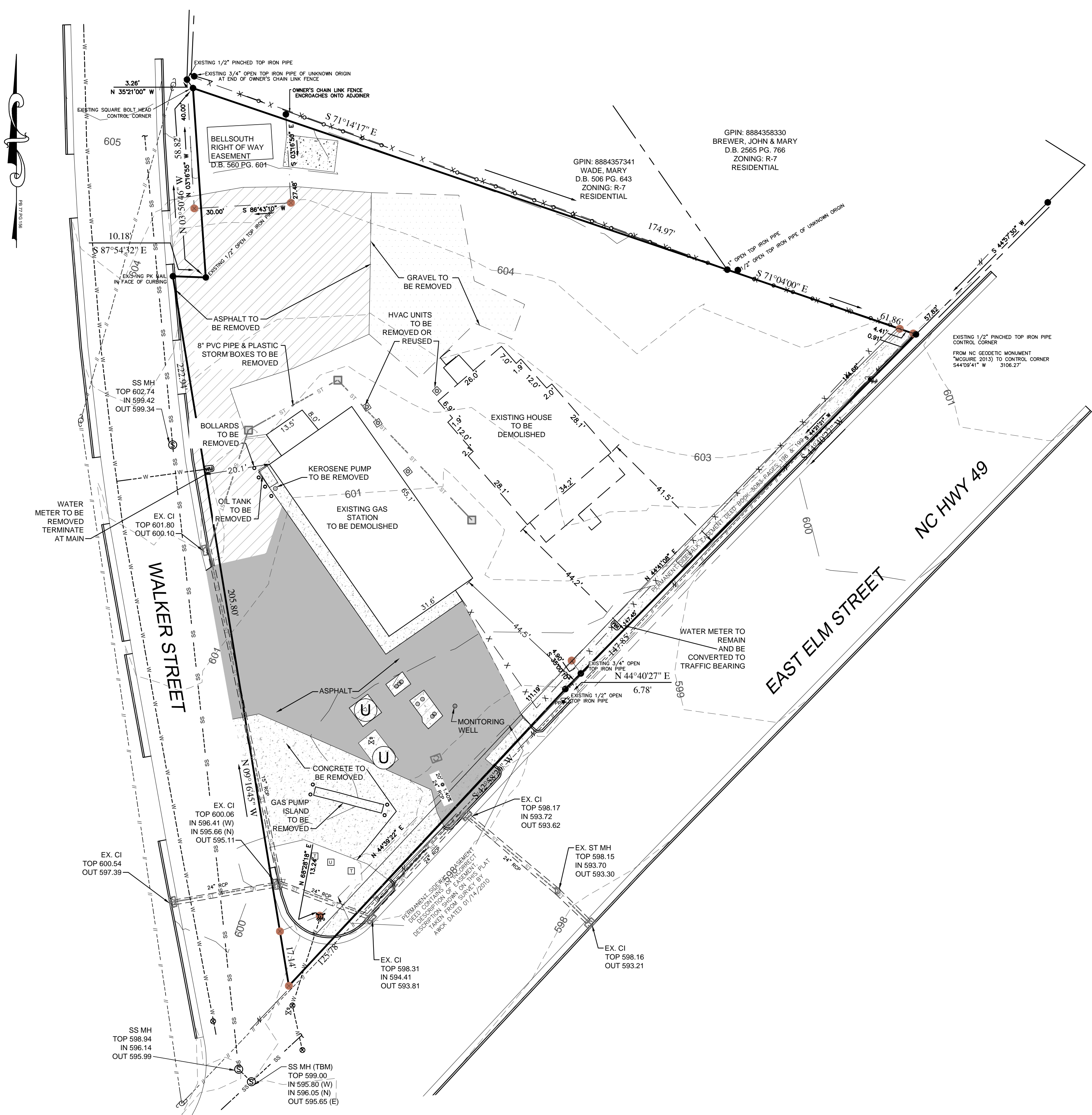
DRAWN BY: TLM
 CHECKED BY:
 DATE: 06-09-2016
 PROJECT NO.: 285.01
 REF. NO.:
 SCALE: 1:1



07/18/2016

SHEET
 2 of 8





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 CONSULTING ENGINEERS & LAND SURVEYORS
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 Phone (336) 852-9797 License No. C-0950
 www.FlemingEngineering.com

SMART CONVENIENCE STORE
EXISTING CONDITIONS

PROJECT LOCATION:
 CITY: GRAHAM
 COUNTY: ALABAMA
 STATE: NORTH CAROLINA

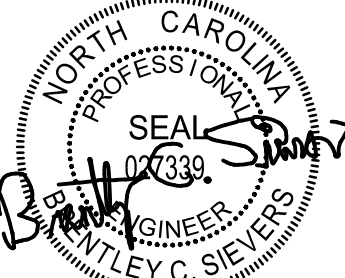
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 GPIN# : 8884357124
 PARCEL ID: 146539
 OWNER NAME: BASSI MEHANGA & GURDEV
 ADDRESS: 400 E ELM STREET GRAHAM, NC 27253
 TOTAL AREA : 0.717 ACRES
 DEED BOOK 1451 PAGE 612
 PLAT BOOK 77 PAGE 156
 ZONING: B-3 (LUC 3)
 ADJ. ZONING: R-7 (LUC 1)

B-3 ZONING REQUIREMENTS:
 MIN. LOT WIDTH: 60'
 FRONT YARD DEPTH: 20'
 SIDE YARD DEPTH: 20' (ADJ TO RES)
 SIDE YARD WIDTH (STREET) : 20'
 REAR YARD DEPTH: 20'

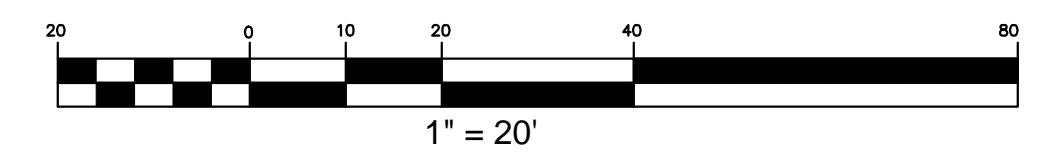
WATERSHED DATA:
 NOT IN A DESIGNATED WATER SUPPLY WATERSHED
 CAPE FEAR RIVER BASIN
 SOIL TYPES: LaB2
 AVG. EX. SLOPE: 3.5%
 DISTANCE TO FLOODWAY: 500'
 EX. BUA: 16,286 SF
 PROP. BUA: 16,261 SF
 DISTURBED AREA: 0.55 ACRES

NO.	DATE	REVISION NOTE

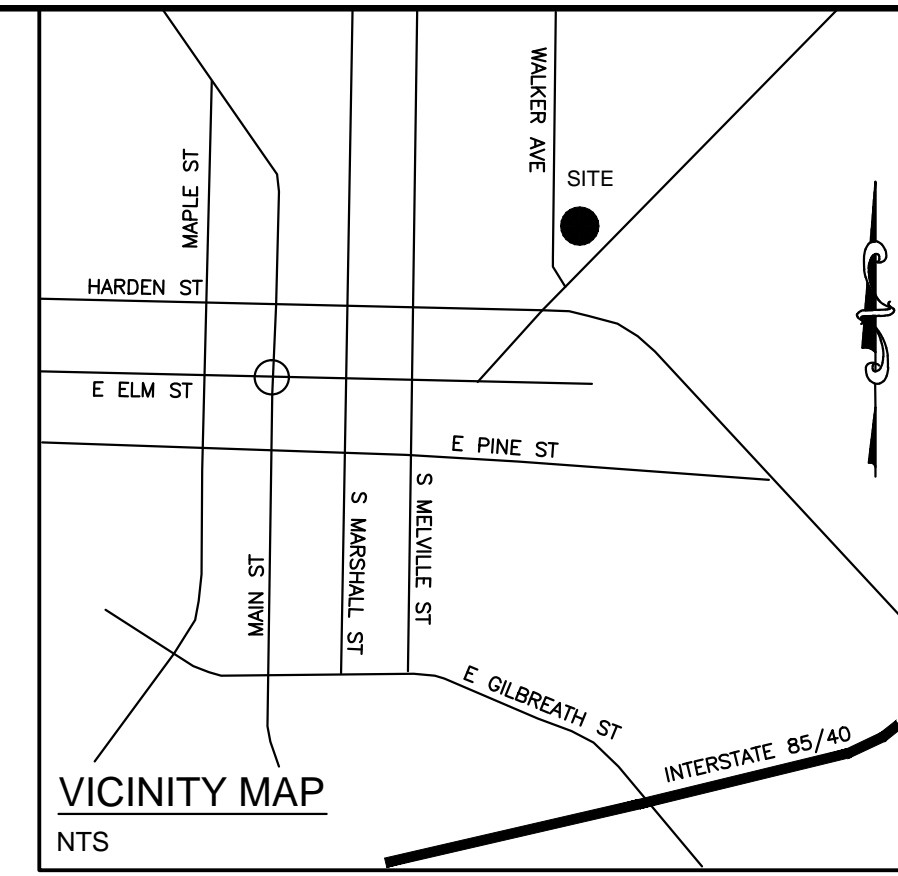
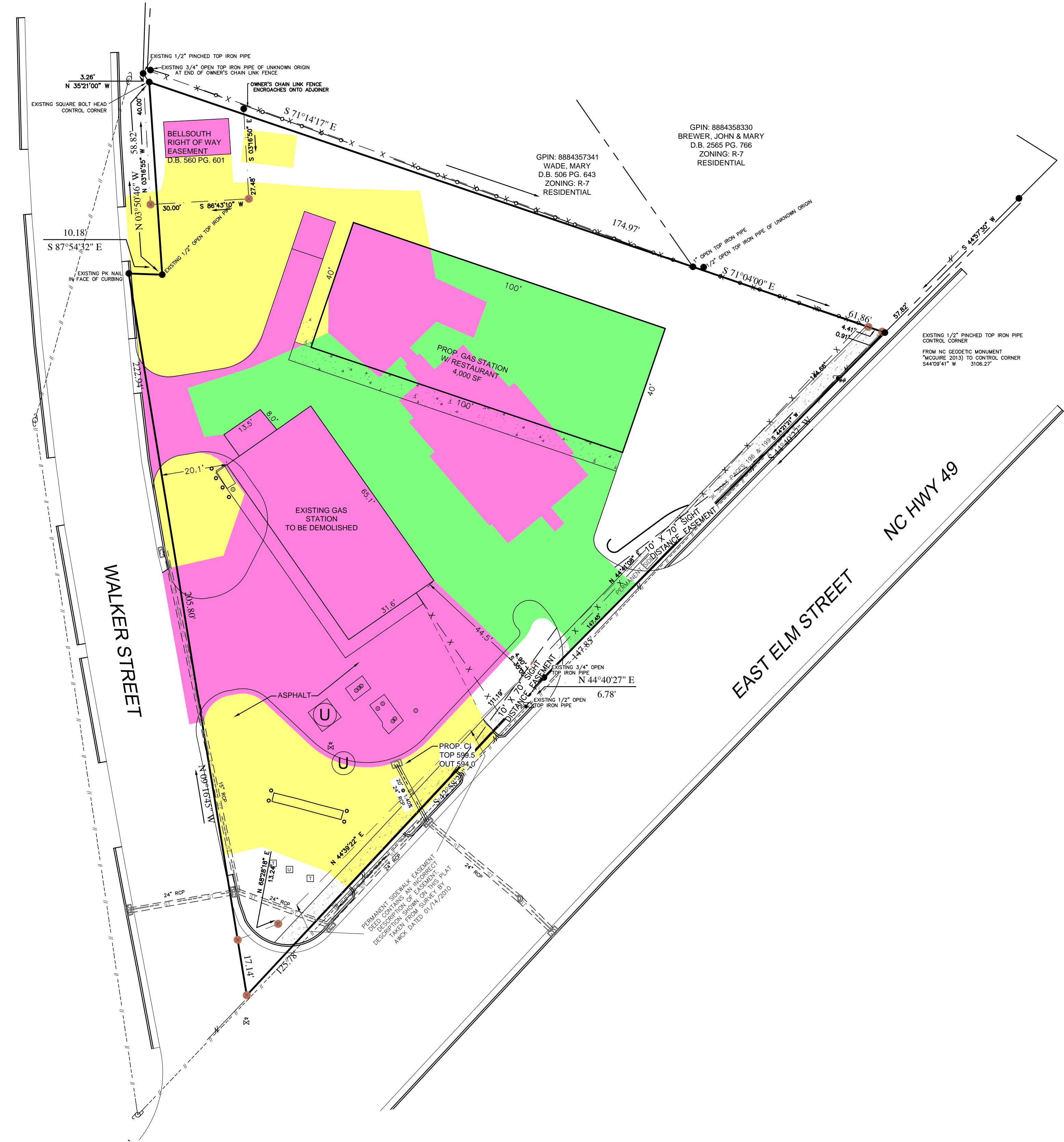
DRAWN BY: TLM
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 DATE: 06-09-2016
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 REF. NO.:
 SCALE: 1:1



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SHEET
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- EXISTING BUA TO BE REMOVED: 6,951 SF
- EXISTING BUA TO REMAIN: 10,837 SF
- NEW BUA: 6,350 SF



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SMART CONVENIENCE STORE
EXISTING CONDITIONS

PROJECT LOCATION:
 CITY: GRAHAM
 COUNTY: ALABAMA
 STATE: NORTH CAROLINA

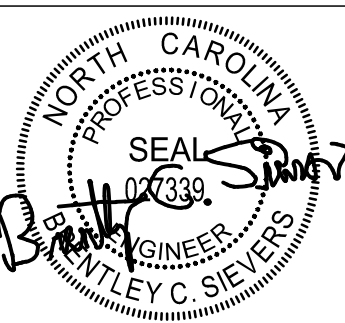
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 GPIN#: 8884357124
 PARCEL ID: 146539
 OWNER NAME: BASSI MEHANGA & GURDEV
 ADDRESS: 400 E ELM STREET GRAHAM, NC 27253
 TOTAL AREA: : 0.717 ACRES
 DEED BOOK 1451 PAGE 612
 PLAT BOOK 77 PAGE 156
 ZONING: B-3 (LUC 3)
 ADJ. ZONING: R-7 (LUC 1)

B-3 ZONING REQUIREMENTS:
 MIN. LOT WIDTH: 60'
 FRONT YARD DEPTH: 20'
 SIDE YARD DEPTH: 20' (ADJ TO RES)
 SIDE YARD WIDTH (STREET) : 20'
 REAR YARD DEPTH: 20'

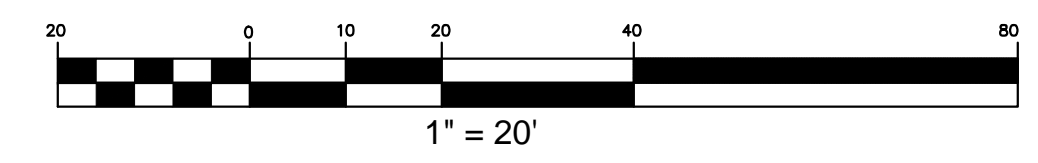
WATERSHED DATA:
 NOT IN A DESIGNATED WATER SUPPLY WATERSHED
 CAPE FEAR RIVER BASIN
 SOIL TYPES: LaB2
 AVG. EX. SLOPE: 3.5%
 DISTANCE TO FLOODWAY: 500'
 EX. BUA: 16,286 SF
 PROP. BUA: 16,261 SF
 DISTURBED AREA: 0.55 ACRES

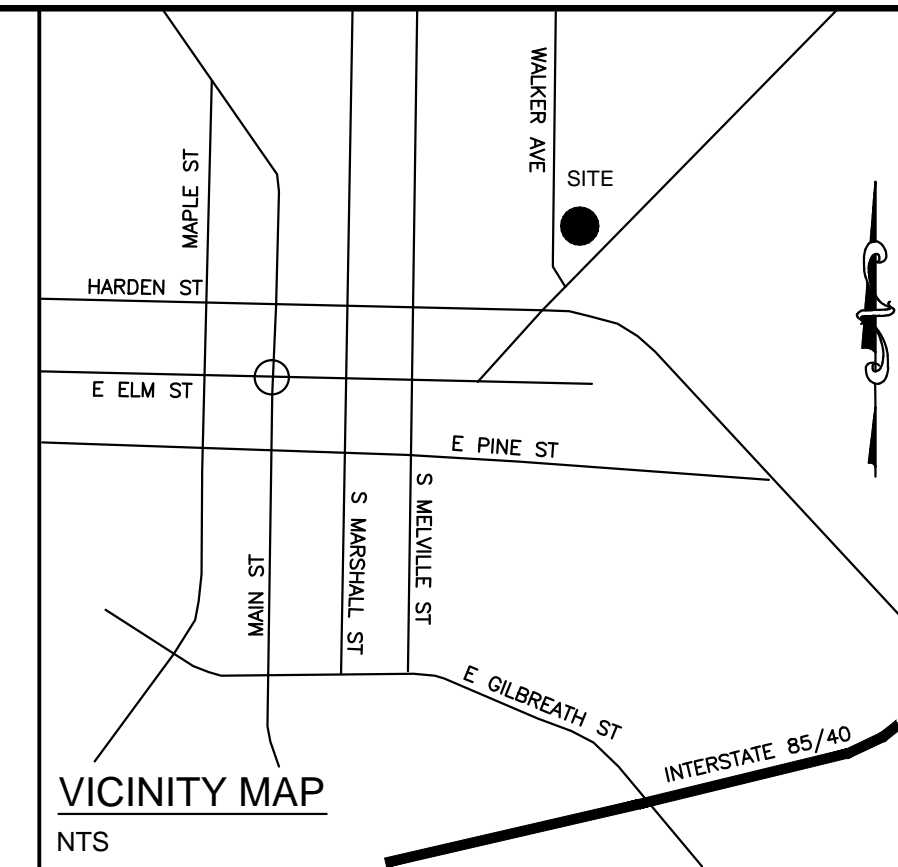
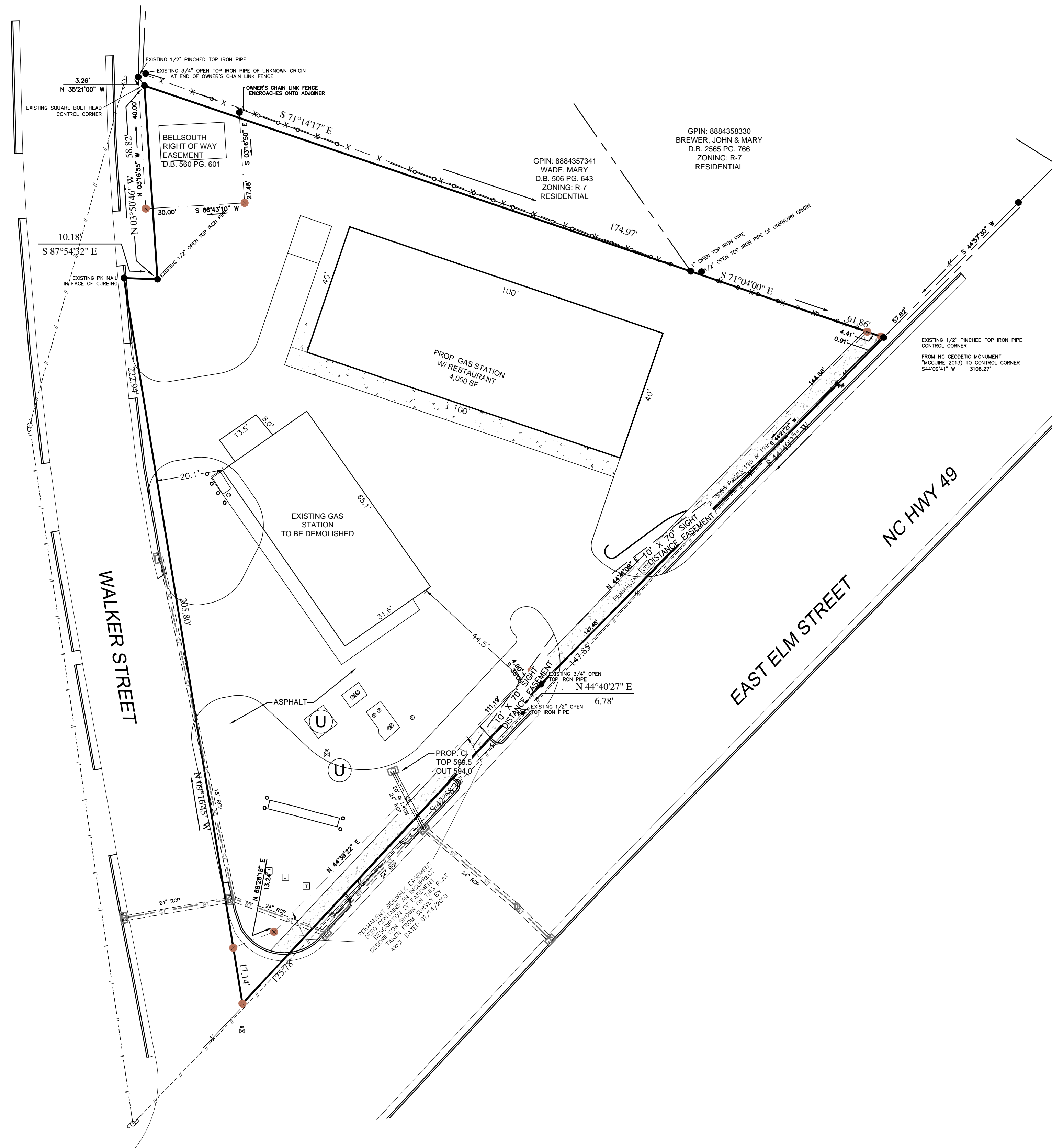
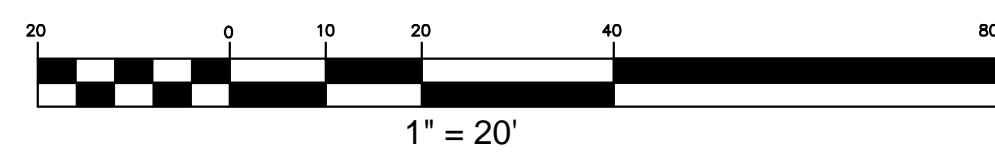
NO.	DATE	REVISION NOTE
1	08/17/2016	BUILT UPON AREA CALCULATIONS

DRAWN BY: TLM
 CHECKED BY:
 DATE: 06-09-2016
 PROJECT NO.: 285.01
 REF. NO.:
 SCALE: 1:1



08/17/2016
SHEET
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SITE DATA:
 GPIN# : 8884357124
 PARCEL ID: 146539
 OWNER NAME: BASSI MEHANGA & GURDEV
 ADDRESS: 400 E ELM STREET GRAHAM, NC 27253
 TOTAL AREA : 0.717 ACRES
 DEED BOOK 1451 PAGE 612
 PLAT BOOK 77 PAGE 156
 ZONING: B-3 (LUC 3)
 ADJ. ZONING: R-7 (LUC 1)

B-3 ZONING REQUIREMENTS:
 MIN. LOT WIDTH: 60'
 FRONT YARD DEPTH: 20'
 SIDE YARD DEPTH: 20' (ADJ TO RES)
 SIDE YARD WIDTH (STREET) : 20'
 REAR YARD DEPTH: 20'

WATERSHED DATA:
 NOT IN A DESIGNATED WATER SUPPLY WATERSHED
 CAPE FEAR RIVER BASIN
 SOIL TYPES: LaB2
 AVG. EX. SLOPE: 3.5%
 DISTANCE TO FLOODWAY: 500'
 EX. BUA: 16,286 SF
 PROP. BUA: 16,261 SF
 DISTURBED AREA: 0.55 ACRES

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SMART CONVENIENCE STORE
TWO BUILDING LOCATIONS MAP

PROJECT LOCATION:
 BASSI MEHANGA & GURDEV
 400 E. ELM STREET
 GRAHAM, NC 27253

NO.	DATE	REVISION NOTE
1	08/17/2016	BUILT UPON AREA CALCULATIONS

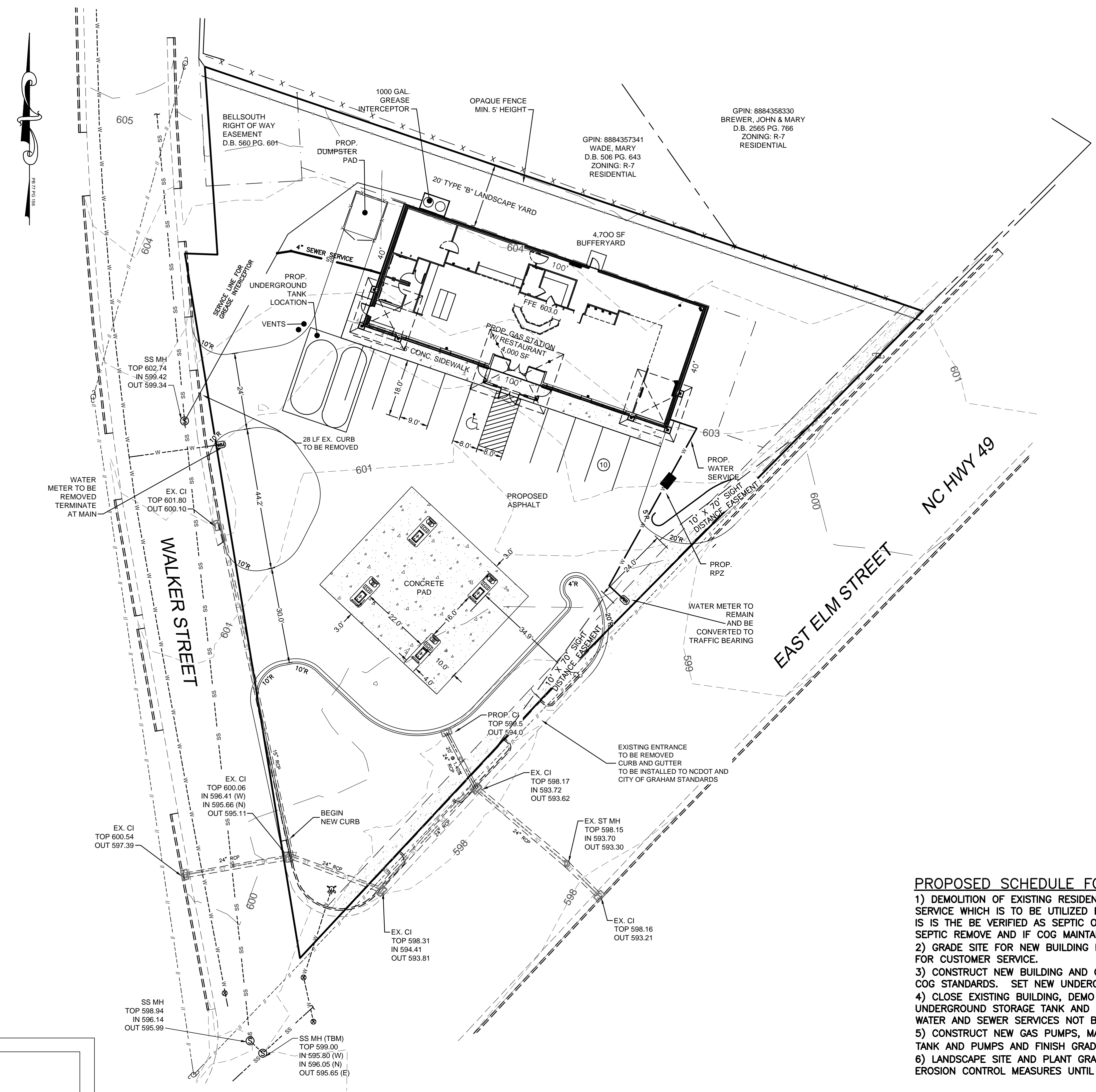
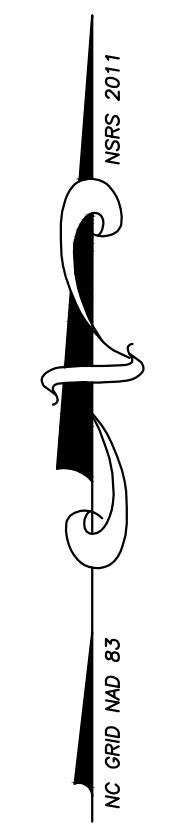
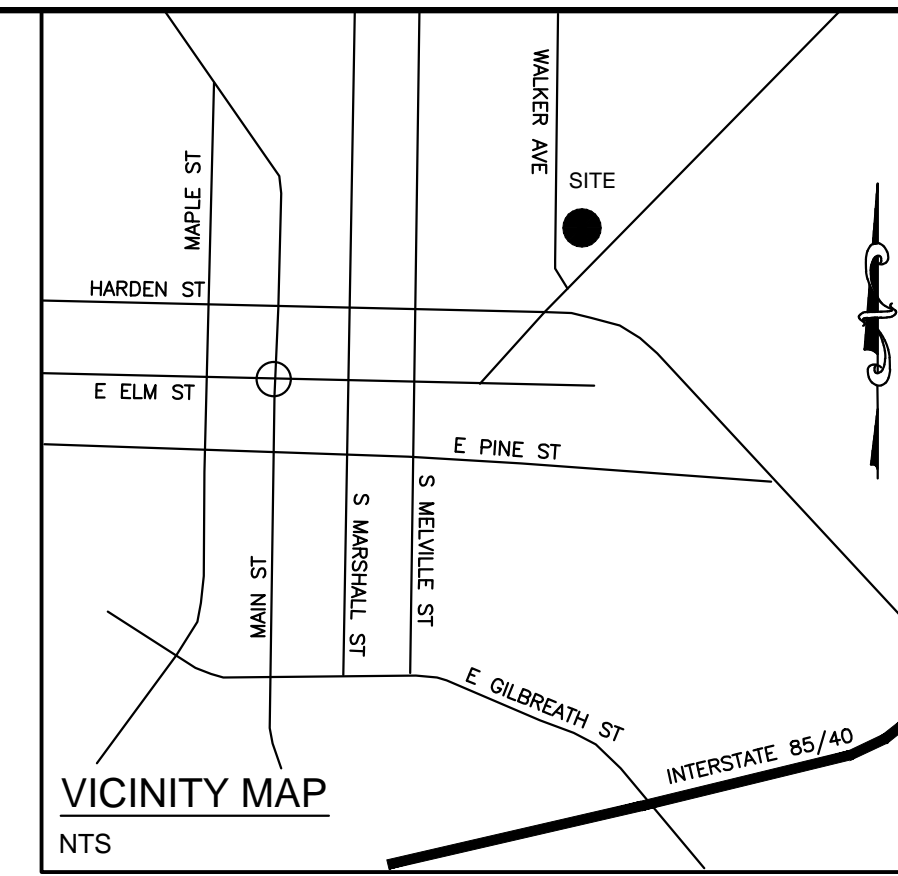
DRAWN BY: TLM
 CHECKED BY:
 DATE: 06-09-2016
 PROJECT NO.: 285.01
 REF. NO.:
 SCALE: 1:1



08/17/2016

SHEET
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UTILITY NOTE:
 THE EXISTING BUILDING UTILITIES ARE LOCATED ON THE WALKER AVENUE SIDE OF THE PROPERTY AND WILL BE MAINTAINED UNTIL SUCH TIME THAT THE EXISTING BUILDING WILL BE DEMOLISHED. AS BUILDING IS TORN DOWN THE UTILITIES CAN BE REMOVED. NEW UTILITY CONNECTIONS ARE ON ELM STREET SIDE OF THE PROPERTY AND WILL NOT BE AFFECTED BY THE EXISTING BUILDING OPERATION OR DEMOLITION.

ALL UTILITY CLEAN OUTS AND METER BOXES THAT ARE LOCATED IN THE PAVEMENT WILL BE TRAFFIC BEARING STRUCTURES.

SITE DATA:
 GPIN: 8884357124
 PARCEL ID: 146539
 OWNER NAME: BASSI MEHANGA & GURDEV
 ADDRESS: 400 E ELM STREET GRAHAM, NC 27253
 TOTAL AREA: 0.717 ACRES
 DEED BOOK 1451 PAGE 612
 PLAT BOOK 77 PAGE 156
 ZONING: B-3 (LUC-3)
 ADJ. ZONING: R-7 (LUC 1)

B-3 ZONING REQUIREMENTS:
 MIN. LOT WIDTH: 60'
 FRONT YARD DEPTH: 20'
 SIDE YARD DEPTH: 20' (ADJ TO RES)
 SIDE YARD WIDTH (STREET): 20'
 REAR YARD DEPTH: 20'

WATERSHED DATA:
 NOT IN A DESIGNATED WATER SUPPLY WATERSHED
 CAPE FEAR RIVER BASIN
 SOIL TYPES: LaB2
 AVG. EX. SLOPE: 3.5%
 DISTANCE TO FLOODWAY: 500'
 EX. BUA: 16,286 SF
 PROP. BUA: 16,261 SF
 DISTURBED AREA: 0.55 ACRES

PARKING REQUIREMENTS:
 ONE SPACE PER EMPLOYEE, PLUS OFF-STREET WAITING SPACE FOR AT LEAST TWO CARS IN EACH LINE
 PROVIDED: 10 SPACES INCLUDING 1 ACCESSIBLE SPACE

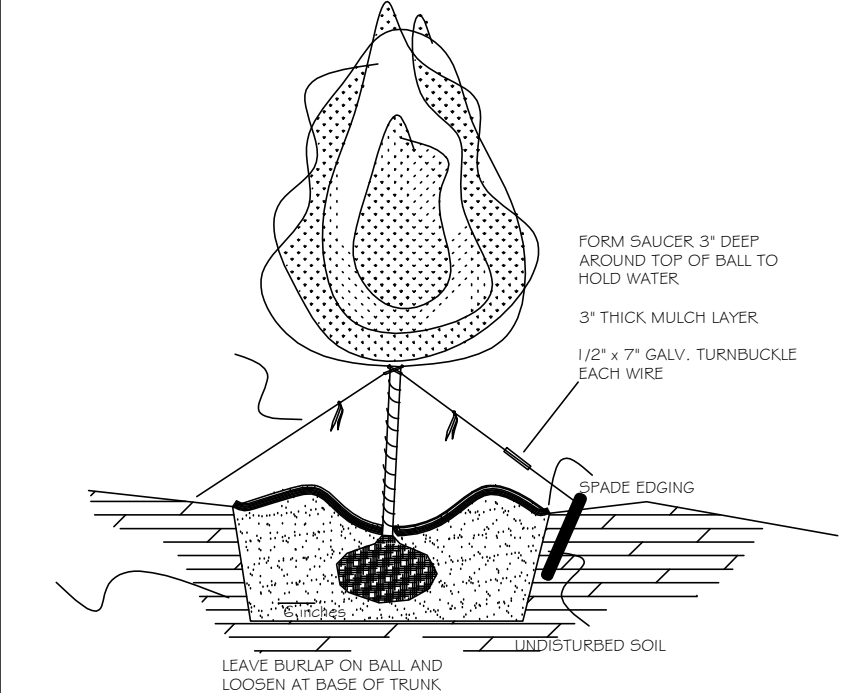
- PROPOSED SCHEDULE FOR SITE CONSTRUCTION**
- 1) DEMOLITION OF EXISTING RESIDENCE. DO NOT REMOVE EXISTING WATER SERVICE WHICH IS TO BE UTILIZED BY NEW BUILDING. SANITARY SEWER SERVICE IS TO BE VERIFIED AS SEPTIC OR CONNECTED TO CITY OF GRAHAM. IF SEPTIC REMOVE AND IF COG MAINTAIN FOR NEW BUILDING CONNECTION.
 - 2) GRADE SITE FOR NEW BUILDING BUT MAINTAIN EXIST BUILDING AND PUMPS FOR CUSTOMER SERVICE.
 - 3) CONSTRUCT NEW BUILDING AND CONNECT EXISTING SERVICES IF USABLE PER COG STANDARDS. SET NEW UNDERGROUND FUEL TANK.
 - 4) CLOSE EXISTING BUILDING, DEMO EXISTING BUILDING, REMOVE OLD UNDERGROUND STORAGE TANK AND REMOVE EXISTING GAS PUMPS. TERMINATE WATER AND SEWER SERVICES NOT BEING USED AT THEIR PROSPECTIVE MAINS.
 - 5) CONSTRUCT NEW GAS PUMPS, MAKE CONNECTIONS BETWEEN UNDERGROUND TANK AND PUMPS AND FINISH GRADING/PAVING SITE.
 - 6) LANDSCAPE SITE AND PLANT GRASS IN DISTURBED AREAS. DO NOT REMOVE EROSION CONTROL MEASURES UNTIL GRASS IS GERMINATING AND SITE IS STABLE.

NOTES:
 LANDSCAPING IS TO BE 15% OF TOTAL SITE AREA.
 TOTAL SITE AREA: 0.717 ACRES (31,233 SF)
 15% SITE AREA: 0.11 ACRES (4685 SF)

TYPE	Minimum Width (ft)	Min. Avg. Width (ft)	Maximum Width (ft)	Canopy Tree Rate	Understory Tree Rate	Shrubs Rate
Street Yard	8	8	25	2/100 LF	N/C	17/100 LF
Type A Yard	40a	50a	75	4/100 LF/OC	10/100 LF/OC	33/100 LF/OC
Type B Yard	25a	30a	50	3/100 LF	5/100 LF	25/100 LF
Type C Yard	15a	20a	40	2/100 LF b	3/100 LF	17/100 LF
Type D Yard	5	5	10	-	2/100 LF	18/100 LF
Parking Lot	N/A	N/A	N/A	1/12 Parking Spaces	N/C	N/A

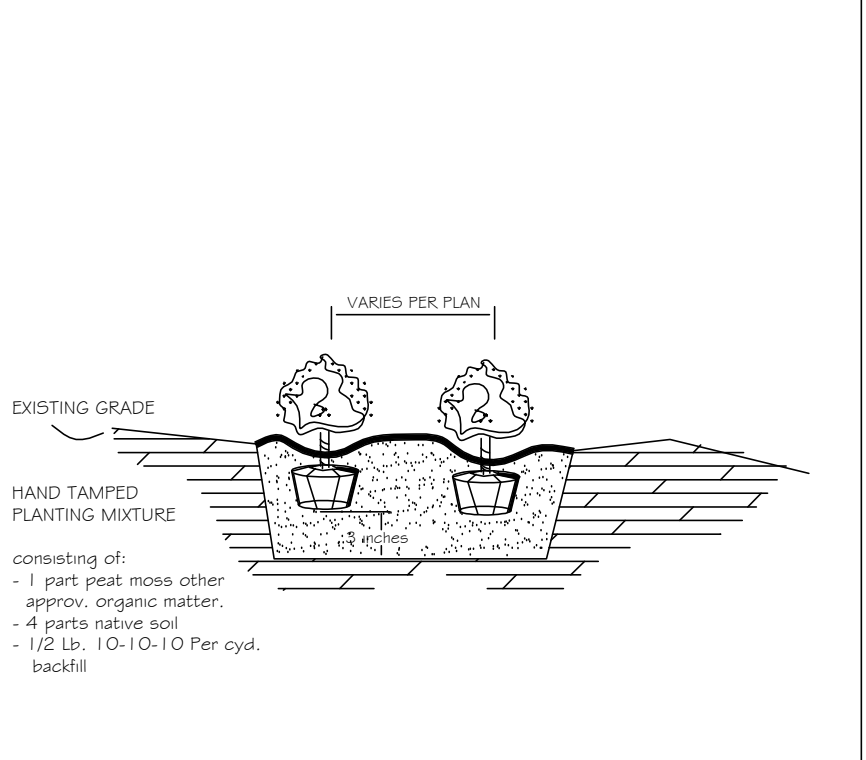
- Walls, a minimum of five feet in height, constructed of masonry, stone or pressure treated lumber or an opaque fence, a minimum of five feet in height, may be used to reduce the widths of the planting yards by ten feet.
- In street yards, Type C and Type D planting yards and parking lots, understory trees may be substituted for canopy trees at the rate of two understory trees for each required Canopy Tree.
- One understory tree may be substituted for each required canopy tree if the Technical Review Committee determines that there would be a major conflict with overhead utility lines.

Notes:
 Planting detail Applies to all deciduous trees and large evergreen trees.
 Shrub mulch ring and planting pit shall be twice root ball diameter.
 Contractor shall prune and cut as needed leaving cambium edge clean.



TREE PLANTING INSTRUCTIONS

Notes:
 Contractor shall prune and cut as needed leaving cambium edge clean.
 Plant spacing as shown on plan.



CONTAINER SHRUB PLANTING INSTRUCTIONS

**SMART CONVENIENCE STORE
 SITE AND UTILITY PLAN**

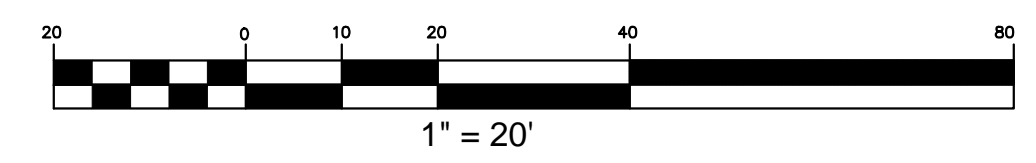
PROJECT LOCATION:
 CITY: GRAHAM
 COUNTY: ALAMANCE
 STATE: NORTH CAROLINA

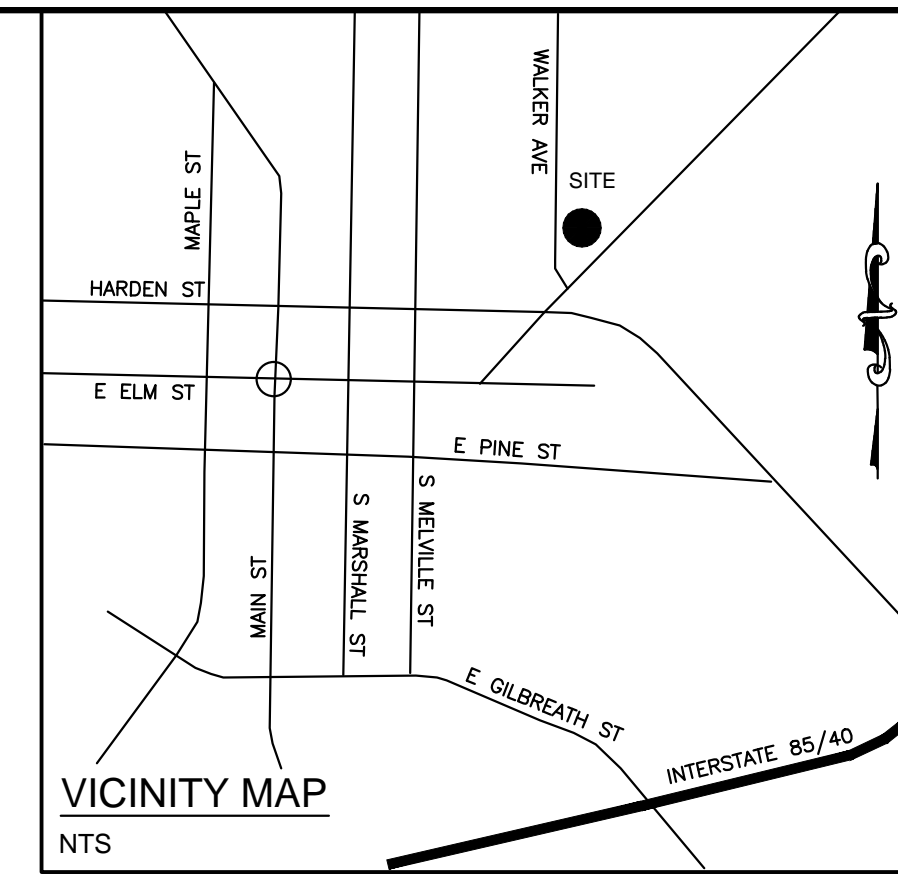
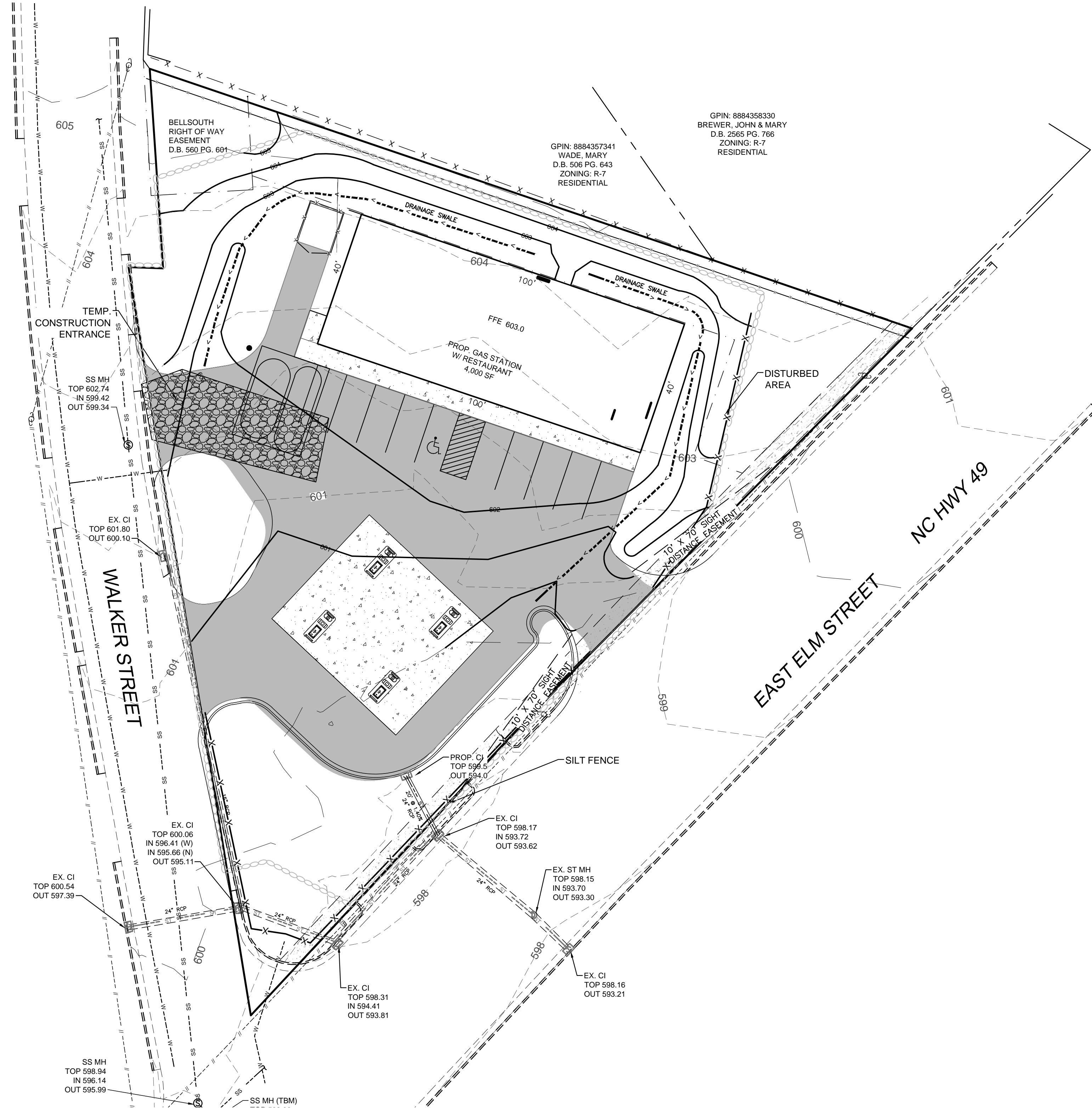
NO.	DATE	REVISION NOTE
1	08-01-16	REVISE GAS PUMP LAYOUT
2	08-09-16	TRC COMMENTS

DRAWN BY: TLM
 CHECKED BY:
 DATE: 06-09-2016
 PROJECT NO.: 285.01
 REF. NO.:
 SCALE: 1:1



ALL CONSTRUCTION MUST CONFORM TO THE UNDERGROUND UTILITY PROTECTION ACT.
BEFORE YOU DIG! CONTACT ONE-CALL CENTER



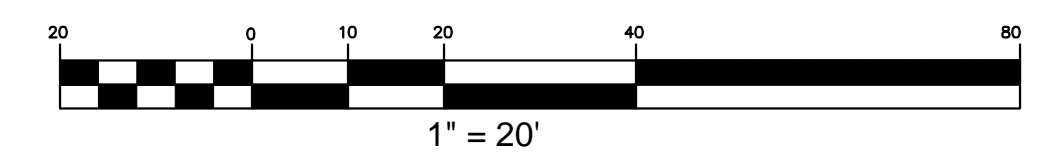


SITE DATA:
 GPIN#: 8884357124
 PARCEL ID: 148598
 OWNER NAME: BASSI MEHANGA & GURDEV
 ADDRESS: 400 E ELM STREET GRAHAM, NC 27253
 TOTAL AREA: 0.717 ACRES
 DEED BOOK 1451 PAGE 612
 PLAT BOOK 77 PAGE 156
 ZONING: B-3 (LUC 3)
 ADJ. ZONING: R-7 (LUC 1)

B-3 ZONING REQUIREMENTS:
 MIN. LOT WIDTH: 50'
 FRONT YARD DEPTH: 20'
 SIDE YARD DEPTH: 20' (ADJ TO RES)
 SIDE YARD WIDTH (STREET) : 20'
 REAR YARD DEPTH: 20'

WATERSHED DATA:
 NOT IN A DESIGNATED WATER SUPPLY WATERSHED
 CARE FEAR RIVER BASIN
 SOIL TYPES: LuB2
 AVG. EX. SLOPE: 3.5%
 DISTANCE TO FLOODWAY: 500'
 EX. BUA: 16,286 SF
 PROP. BUA: 16,261 SF
 DISTURBED AREA: 0.55 ACRES

PARKING REQUIREMENTS:
 ONE SPACE PER EMPLOYEE, PLUS OFF-STREET WAITING SPACE FOR AT LEAST TWO CARS IN EACH LINE
 PROVIDED: 10 SPACES INCLUDING 1 ACCESSIBLE SPACE



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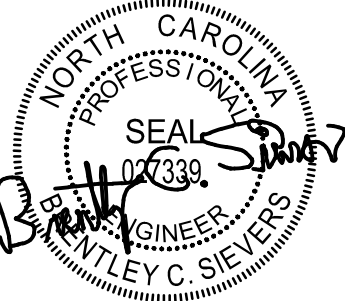
**SMART CONVENIENCE STORE
 GRADING & EROSION CONTROL PLAN**

PROJECT LOCATION:
 CITY: GRAHAM
 COUNTY: ALABAMA
 STATE: NORTH CAROLINA

DEVELOPER INFORMATION:
 400 E. ELM STREET
 GRAHAM, NC 27253

NO.	DATE	REVISION NOTE
1	08-09-16	TRC COMMENTS

DRAWN BY: TLM
 CHECKED BY:
 DATE: 06-09-2016
 PROJECT NO.: 285.01
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07/18/2016

**SHEET
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