



US 401 BUSINESS
(VARIABLE WIDTH PUBLIC R/W)

VIRGINIA WATER DR

**WALLBROOK LANDCO LLC
FUTURE LOT 5A
±1.63 AC
EX. PIN: 1758-56-3963
DB 18103, PG 1563
PB 2023, PG 1602
ZONING: GC-CZ
EX. LAND USE: VACANT**

**WALLBROOK LANDCO LLC
FUTURE LOT 5B (TO BE DESIGNED &
PERMITTED BY OTHERS)
±1.05 AC
EX. PIN: 1758-56-3963
DB 18103, PG 1563
PB 2023, PG 1602
ZONING: GC-CZ
EX. LAND USE: VACANT**

WALLBROOK DR
EX. 60' PUBLIC R/W WIDTH

EXISTING CONDITIONS AND DEMOLITION NOTES:

1. THE CURRENT PLANS ARE BASED ON A COMBINATION OF AVAILABLE GIS INFORMATION AND DESIGN DOCUMENTS FROM THE WALLBOURNE OVERALL DEVELOPMENT AND NCDOT. PRIOR TO CONSTRUCTION, THE SITE WILL NEED TO BE SURVEYED TO DETERMINE EXACT SITE ELEVATIONS AND THE LOCATIONS OF SITE FEATURES AND STRUCTURES. THE CURRENT PLANS WILL BE UPDATED TO REFLECT THE CERTIFIED SURVEY ONCE BOHLER RECEIVES THE SURVEY.
2. CURRENT PAD ELEVATION OF 388' HAS BEEN COORDINATED WITH DEVELOPER.

DEMOLITION ABBREVIATIONS

ABBREVIATION	DESCRIPTION
(TBA)	TO BE ABANDONED
(TBR)	TO BE REMOVED
(TBV)	TO BE VACATED
(RELO)	TO BE RELOCATED

REVISIONS

[illegible]

**Know what's below.
Call before you dig.**

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PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
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PROJECT No.:	NCB230114.00
DRAWN BY:	VL/JE/CC
CHECKED BY:	OAK
DATE:	04/23/24
CAD I.D.:	P-CIVL-EXDM

PROJECT:

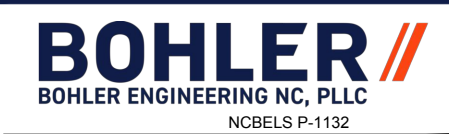
**PROP.
SITE PLAN
DOCUMENTS**

_____ FOR _____



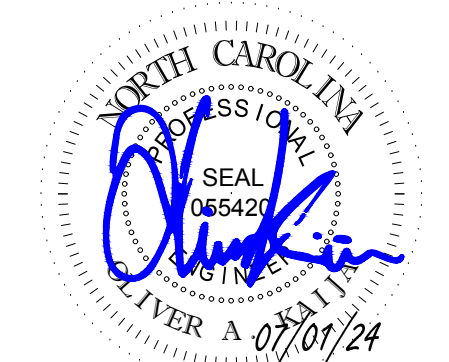
**PROPOSED
DEVELOPMENT**

**S MAIN ST & VIRGINIA WATER DR
ROLESVILLE, NC 27587
WAKE COUNTY**



**4130 PARKLAKE AVENUE, SUITE 200
RALEIGH, NC 27612
Phone: (919) 578-9000**

NC@BohlerEng.com



SHEET TITLE:

***EXISTING
CONDITIONS/
DEMOLITION
PLAN***

SHEET NUMBER:

C-201

REVISION 1 - 7/1/24

**THIS PLAN TO BE UTILIZED FOR
DEMOLITION PURPOSES ONLY**





US 401 BUSINESS
(VARIABLE WIDTH PUBLIC R/W)

VIRGINIA WATER DR
EX. 60' PUBLIC R/W WIDTH

WALLBROOK DR
EX. 60' PUBLIC R/W WIDTH

WALLBROOK LANDCO LLC
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PB 2023, PG 1602
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EX. LAND USE: VACANT

CHASE
PROP. BANK WITH ATM
STD. SIDE ENTRY W/ DU
± 3,333 SF
FFE: ± 388.50'
78.83'

WALLBROOK LANDCO LLC
FUTURE LOT 5B (TO BE DESIGNED & PERMITTED BY OTHERS)
±1.05 AC
EX. PIN: 1758-56-3963
DB 18103, PG 1563
PB 2023, PG 1602
ZONING: GC-CZ
EX. LAND USE: VACANT

ZONING TABLE

PIN: 1758-56-3963
ZONE: GC-CZ GENERAL COMMERCIAL - CONDITIONAL ZONING
CURRENT USE: VACANT
PROPOSED USE: BANKING SERVICES
LOT: 5A
PROPOSED SQUARE FOOTAGE OF BUILDING: 3,333 SF

APPLICANT / OWNER INFORMATION

APPLICANT: JLL
4500 CREEDMOOR RD, STE 300
RALEIGH, NC 27612

PROPERTY OWNER: WALLBROOK LANDCO, LLC
1 KEEL ST, STE 2
WRIGHTSVILLE BEACH, NC 28480

BULK REQUIREMENTS

ITEM	CODE	PERMITTED	EXISTING	PROPOSED
MIN LOT AREA	§ 3.2.1	20,000 SF (0.46 AC)	71,000 SF (1.63 AC)	71,000 (1.63 AC)
MIN LOT WIDTH	§ 3.2.1	100.0'	±260.0'	±260.0'
MIN LOT DEPTH	N/A	N/A	N/A	N/A
MIN YARD SETBACKS				
FRONT YARD	§ 3.2.1	20' FROM FRONT PROPERTY LINE	N/A	70.0'
SIDE YARD	§ 3.2.1	15.0' FROM SIDE LOT LINE	N/A	95.0'
REAR YARD	§ 3.2.1	35.0' FROM REAR LOT LINE	N/A	N/A
MAX PERMITTED HEIGHT	§ 3.2.1	35.0'	N/A	21.5'
MAX LOT COVERAGE	§ 3.2.1	N/A	N/A	TBD
MIN PARKING SETBACKS	§ 6.2.2.2			
FRONT	§ 6.2.2.2	30.0' FROM R/W	N/A	40.0'
SIDE	§ 6.2.2.2	10.0' FROM R/W	N/A	70.0'
MIN ACCESS DRIVEWAY WIDTH	§ 6.4.4	24'	N/A	24'

KEY =

VARIANCE REQUIRED

PARKING REQUIREMENTS

ITEM	CODE	PERMITTED	EXISTING	PROPOSED
MIN VEHICULAR PARKING	§ 6.4.3	2.5 SPACES PER 1,000 SF 2.5x(3,333 SF/1,000 SF) = 8	N/A	20 SPACES
MAX VEHICULAR PARKING	§ 6.4.3	6.0 SPACES PER 1,000 SF 6.0x(3,333 SF/1,000 SF) = 20	N/A	20 SPACES
MIN HANDICAP SPACES	2010 ADA CODE	1-25 SPACES REQUIRES MINIMUM OF 1 ADA SPACE	N/A	2 SPACES
MIN BICYCLE PARKING	§ 6.4.7	1 SPACE PER 5,000 SF 1x(3,333 SF/5,000 SF) = 1	N/A	3 BICYCLE RACKS
MAX BICYCLE PARKING	§ 6.4.7	20 BICYCLE SPACES	N/A	3 BICYCLE RACKS
MIN STACKING REQUIREMENTS	§ 5.1.4.B	2 SPACES @ 10' x 20'	N/A	2 SPACES

ADDITIONAL SITE DATA

WATERSHED	LOWER NEUSE
RIVER BASIN	NEUSE
CURRENT IMPERVIOUS AREA	5,077 SF
PROPOSED IMPERVIOUS AREA	25,046 SF
TOTAL ON-SITE IMPERVIOUS AREA	30,123 SF (42.9% OF SITE AREA)

PROPOSED SITE ABBREVIATIONS

ABBREVIATION	DESCRIPTION
(TYP.)	TYPICAL
SSWL	SINGLE SOLID WHITE LINE
DSWL	DOUBLE SOLID WHITE LINE
L.S.A.	LANDSCAPE AREA

LEGEND

PROPOSED

PROPERTY LINE	---
EASEMENT LINE	---
SETBACK LINE	---
CURB	---
DEPRESSED CURB	---
UTILITY POLE	⊙
TYPICAL SIGN	⊙
PARKING COUNT	⊙
PROP. TRASH CAN	⊙
PROP. BENCH	⊙
HYDRANT	⊙
SANITARY MANHOLE	⊙
STORM MANHOLE	⊙
WATER VALVE	⊙
WATER METER	⊙ WM
DATA	⊙ GV
TYPICAL END SECTION	⊙
DATA	⊙
GRATE INLET	⊙
CURB INLET	⊙
CLEANOUT	⊙ C/O

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BOHLER ENGINEERING NC, PLLC

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY
1	7/1/24	TRC COMMENTS	CJAC OAK



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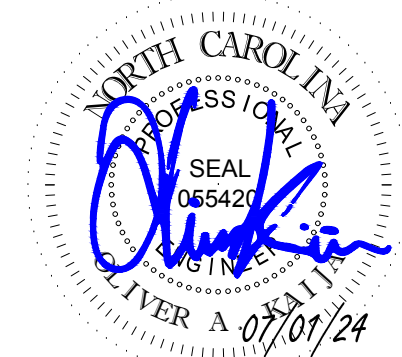


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ROLESVILLE, NC 27587
WAKE COUNTY

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NCBELS P-1132

4130 PARKLAKE AVENUE, SUITE 200
RALEIGH, NC 27612
Phone: (919) 578-9000

NC@BohlerEng.com



SHEET TITLE:

SITE
PLAN

SHEET NUMBER:

C-301

REVISION 1 - 7/1/24

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY





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EX. 60' PUBLIC R/W WIDTH

WALLBROOK DR
EX. 60' PUBLIC R/W WIDTH

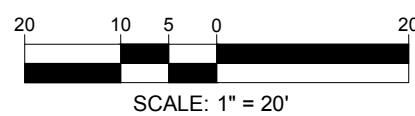
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EX. LAND USE: VACANT

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STD. SIDE ENTRY W/ DU
± 3,333 SF
FFE: ± 388.50'

**PAVING
LEGEND**

- CONCRETE SIDEWALK
- LIGHT DUTY CONCRETE
- HEAVY DUTY CONCRETE
- LIGHT DUTY ASPHALT
- HEAVY DUTY ASPHALT

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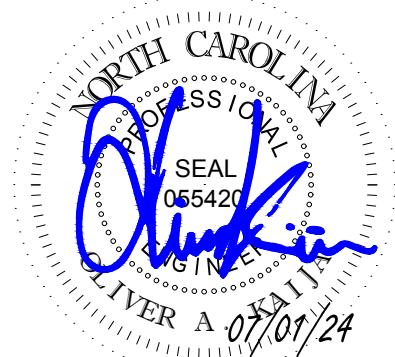


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S MAIN ST & VIRGINIA WATER DR
ROLESVILLE, NC 27587
WAKE COUNTY

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SHEET TITLE:

**PAVING
PLAN**

SHEET NUMBER:

C-302

REVISION 1 - 7/1/24



GENERAL GRADING NOTES:
1. SPILL CURB TO BE INSTALLED ALONG THE INTERIOR CURB. GUTTER TYPE AND SLOPE TO MATCH THAT OF THE SLOPE OF THE ADJACENT PAVEMENT. REFER TO SHEET C-901 FOR ADDITIONAL DETAIL.

GRADING ABBREVIATIONS

ABBREVIATION	DESCRIPTION
TC	TOP OF CURB
BC	BOTTOM OF CURB
G	GRADE
GH	HIGH SIDE OF WALL GRADE
GL	LOW SIDE OF WALL GRADE
FF	FINISH FLOOR
LP	LOW POINT
HP	HIGH POINT

STORM STRUCTURE SCHEDULE

STRUCTURE #	CATEGORY	GRT/RIM	INV IN	INV OUT
A-10	PROP. CURB INLET	385.32		INV OUT = 377.00 (15")
A-20	PROP. CURB INLET	386.78	INV IN = 375.20' (15") INV IN = 382.00' (6")	INV OUT = 375.00 (15")
A-21	PROP. 6" STORM CLEANOUT	387.27	INV IN = 382.89' (6")	INV OUT = 382.89' (6")
A-22	PROP. 6" STORM CLEANOUT	387.36	INV IN = 383.56' (6") INV IN = 383.56' (6")	INV OUT = 383.56' (6")
A-22.5	PROP. ROOF DRAIN CONNECTION			INV OUT = 384.50' (6")
A-23	PROP. 6" STORM CLEANOUT	387.00	INV IN = 383.98' (6")	INV OUT = 383.98' (6")
A-24	PROP. 6" STORM CLEANOUT	388.37	INV IN = 384.55' (6")	INV OUT = 384.55' (6")
A-25	PROP. ROOF DRAIN CONNECTION			INV OUT = 384.67' (6")
A-30	PROP. CURB INLET	386.71	INV IN = 376.50' (15")	INV OUT = 376.30 (15")
A-40	PROP. CURB INLET	386.13	INV IN = 382.00' (6")	INV OUT = 378.00 (15")
A-41	PROP. 6" STORM CLEANOUT	388.43	INV IN = 384.38' (6")	INV OUT = 384.38' (6")
A-42	PROP. ROOF DRAIN CONNECTION			INV OUT = 384.50' (6")
EX-10	EX. DROP INLET	375.44	INV IN = 373.50' (15") INV IN = 373.50' (15")	INV OUT = 373.22 (18")

STORM SEWER PIPE SCHEDULE

FROM	FROM INV	TO	TO INV	PIPE LENGTH	SLOPE (%)	DIAMETER (IN.)	MATERIAL
A-20	382.00'	A-21	382.89'	17'	5.23%	6"	HDPE
A-20	375.20'	A-30	376.30'	87'	1.26%	15"	HDPE
A-21	382.89'	A-22	383.56'	32'	2.08%	6"	HDPE
A-22	383.56'	A-22.5	384.50'	9'	10.75%	6"	HDPE
A-22	383.56'	A-23	383.98'	20'	2.08%	6"	HDPE
A-23	383.98'	A-24	384.55'	28'	2.08%	6"	HDPE
A-24	384.55'	A-25	384.67'	5'	2.28%	6"	HDPE
A-30	376.50'	A-40	378.00'	46'	3.27%	15"	HDPE
A-40	382.00'	A-41	384.38'	93'	2.55%	6"	HDPE
A-41	384.38'	A-42	384.50'	6'	2.08%	6"	HDPE
EX-10	373.50'	A-10	377.00'	112'	3.14%	15"	HDPE
EX-10	373.50'	A-20	375.00'	107'	1.41%	15"	HDPE

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	7/1/24	TRC COMMENTS	CJAC	OAK



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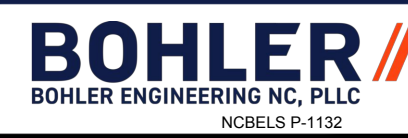
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CAD ID: P-CIVL-GRAD

PROJECT:

**PROP.
SITE PLAN
DOCUMENTS**
FOR



PROPOSED
DEVELOPMENT
S MAIN ST & VIRGINIA WATER DR
ROLESVILLE, NC 27587
WAKE COUNTY



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NCBELS P-1132
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RALEIGH, NC 27612
Phone: (919) 578-9000

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SHEET TITLE:

**GRADING
PLAN**

SHEET NUMBER:

C-401

REVISION 1 - 7/1/24

US 401 BUSINESS

(VARIABLE WIDTH PUBLIC R/W)

VIRGINIA WATER DR

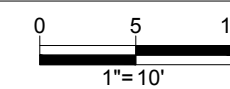
EX. 60' PUBLIC R/W WIDTH

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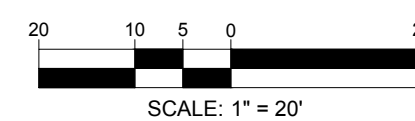
CHASE
PROP. BANK WITH ATM
STD. SIDE ENTRY W/ DU
± 3,333 SF
FFE: ± 388.50'
78.83

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PROP. ADA AREA ENLARGEMENT



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WALLBROOK
FUTURE LOT 5B (PERMITTED
±1.0
EX. PIN: 1
DB 1810:
PB 2023
ZONING:
EX. LAND U

SANITARY STRUCTURE SCHEDULE

STRUCTURE #	RIM	INV IN	INV OUT	DESCRIPTION
A-10	380.00	INV IN = 372.32' (6")		PROP. CONNECTION TO EX. SAN. CLEANOUT
A-20	383.09	INV IN = 375.32' (6")	INV OUT = 375.31' (6")	PROP. 6" SAN. CLEANOUT
A-30	385.52	INV IN = 378.31' (6")	INV OUT = 378.31' (6")	PROP. 6" SAN. CLEANOUT
A-40	386.48	INV IN = 381.45' (6")	INV OUT = 381.45' (6")	PROP. 6" SAN. CLEANOUT
A-50	388.05	INV IN = 383.52' (6")	INV OUT = 383.52' (6")	PROP. 6" SAN. CLEANOUT
A-60			INV OUT = 384.00' (6")	PROP. SANITARY SEWER BUILDING CONNECTION

SANITARY PIPE SCHEDULE

FROM	FROM INV	TO	TO INV	PIPE LENGTH	SLOPE (%)	DIAMETER (IN.)	MATERIAL
A-10	372.32'	A-20	375.31'	43'	6.89%	6"	PVC Pipe
A-20	375.32'	A-30	378.31'	43'	6.89%	6"	PVC Pipe
A-30	378.31'	A-40	381.45'	46'	6.89%	6"	PVC Pipe
A-40	381.45'	A-50	383.52'	30'	6.89%	6"	PVC Pipe
A-50	383.52'	A-60	384.00'	7'	6.86%	6"	PVC Pipe

REVISIONS

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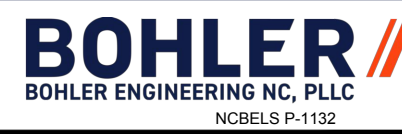
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PROJECT:

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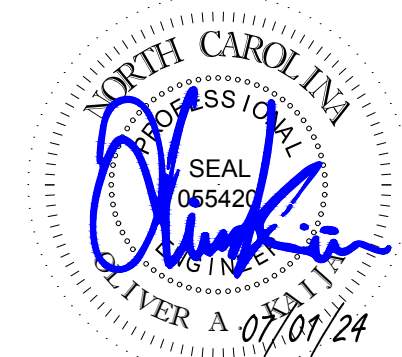


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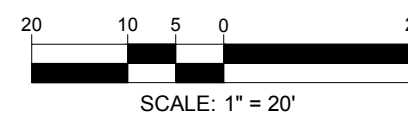
UTILITY
PLAN

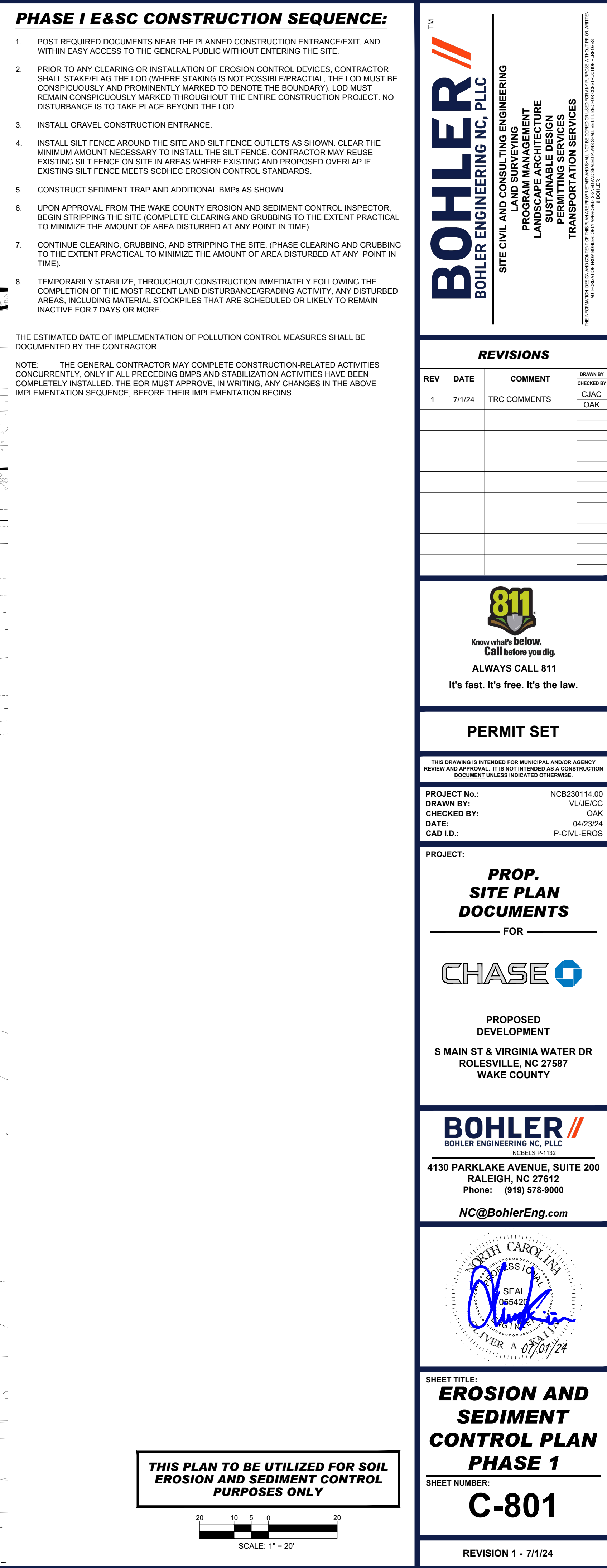
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REVISION 1 - 7/1/24

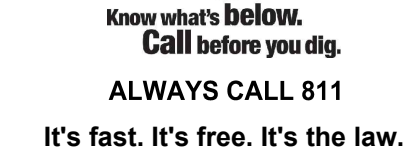
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UTILITIES PURPOSES ONLY





PHASE I E & S CONSTRUCTION SEQUENCE:

1. POST REQUIRED DOCUMENTS NEAR THE PLANNED CONSTRUCTION ENTRANCE/EXIT, AND WITHIN EASY ACCESS TO THE GENERAL PUBLIC WITHOUT ENTERING THE SITE.
2. PRIOR TO ANY CLEARING OR INSTALLATION OF EROSION CONTROL DEVICES, CONTRACTOR SHALL STAKE/LAG THE LOD (WHERE STAKING IS NOT POSSIBLE/PRACTICAL, THE LOD MUST BE CONSPICUOUSLY AND PROMINENTLY MARKED TO DENOTE THE BOUNDARY). LOD MUST REMAIN CONSPICUOUSLY MARKED THROUGHOUT THE ENTIRE CONSTRUCTION PROJECT. NO DISTURBANCE IS TO TAKE PLACE BEYOND THE LOD.
3. INSTALL GRAVEL CONSTRUCTION ENTRANCE.
4. INSTALL SILT FENCE AROUND THE SITE AND SILT FENCE OUTLETS AS SHOWN. CLEAR THE MINIMUM AMOUNT NECESSARY TO INSTALL THE SILT FENCE. CONTRACTOR MAY REUSE EXISTING SILT FENCE ON SITE IN AREAS WHERE EXISTING AND PROPOSED OVERLAP IF EXISTING SILT FENCE MEETS SCDHEC EROSION CONTROL STANDARDS.
5. CONSTRUCT SEDIMENT TRAP AND ADDITIONAL BMPs AS SHOWN.
6. UPON APPROVAL FROM THE WAKE COUNTY EROSION AND SEDIMENT CONTROL INSPECTOR, BEGIN STRIPPING THE SITE (COMPLETE CLEARING AND GRUBBING TO THE EXTENT PRACTICAL TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ANY POINT IN TIME).
7. CONTINUE CLEARING, GRUBBING, AND STRIPPING THE SITE. (PHASE CLEARING AND GRUBBING TO THE EXTENT PRACTICAL TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ANY POINT IN TIME).
8. TEMPORARILY STABILIZE, THROUGHOUT CONSTRUCTION IMMEDIATELY FOLLOWING THE COMPLETION OF THE MOST RECENT LAND DISTURBANCE/GRADING ACTIVITY. ANY DISTURBED AREAS, INCLUDING MATERIAL STOCKPILES THAT ARE SCHEDULED OR LIKELY TO REMAIN INACTIVE FOR 7 DAYS OR MORE.

[illegible]

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DOCUMENTS***

_____ FOR _____



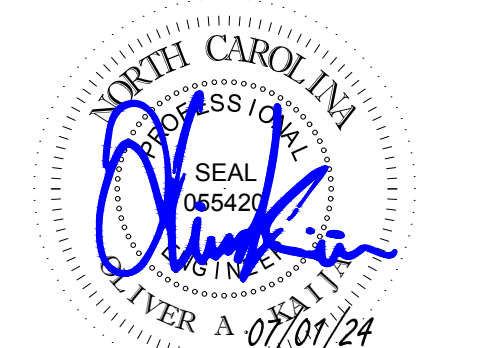
**PROPOSED
DEVELOPMENT**

**S MAIN ST & VIRGINIA WATER DR
ROLESVILLE, NC 27587
WAKE COUNTY**



**130 PARKLAKE AVENUE, SUITE 200
RALEIGH, NC 27612
Phone: (919) 578-9000
*NC@BohlerEng.com***

NC@BohlerEng.com



SHEET TITLE:
**EROSION AND
SEDIMENT
CONTROL PLAN
PHASE 1**

SHEET NUMBER:
C-801

REVISION 1 - 7/1/24



US 401 BUSINESS
(VARIABLE WIDTH PUBLIC R/W)

VIRGINIA WATER DR
EX. 60' PUBLIC R/W WIDTH

WALLBROOK DR
EX. 60' PUBLIC R/W WIDTH

WALLBROOK LANDCO LLC
FUTURE LOT 5A
±1.03 AC
EX. PIN: 1758-56-3963
DB 18103, PG 1563
PB 2023, PG 1602
ZONING: GC-CZ
EX. LAND USE: VACANT

WALLBROOK LANDCO LLC
FUTURE LOT 5B (TO BE DESIGNED & PERMITTED BY OTHERS)
±1.05 AC
EX. PIN: 1758-56-3963
DB 18103, PG 1563
PB 2023, PG 1602
ZONING: GC-CZ
EX. LAND USE: VACANT

PHASE II E&SC CONSTRUCTION SEQUENCE:

1. CONTINUE CLEARING SITE AS NECESSARY.
2. IMMEDIATELY STABILIZE AREAS, INCLUDING STOCKPILE, THAT ARE TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.
3. CONVERT AND STABILIZE SEDIMENT TRAP.
4. INSTALL UTILITIES.
5. INSTALL REMAINING INLET PROTECTION DEVICES.
6. TEMPORARILY STABILIZE, THROUGHOUT CONSTRUCTION IMMEDIATELY FOLLOWING THE COMPLETION OF THE MOST RECENT LAND DISTURBANCE/GRADING ACTIVITY, ANY DISTURBED AREAS, INCLUDING MATERIAL STOCKPILES THAT ARE SCHEDULED OR LIKELY TO REMAIN INACTIVE FOR 7 DAYS OR MORE.

THE ESTIMATED DATE OF IMPLEMENTATION OF POLLUTION CONTROL MEASURES SHALL BE DOCUMENTED BY THE CONTRACTOR

NOTE: THE GENERAL CONTRACTOR MAY COMPLETE CONSTRUCTION-RELATED ACTIVITIES CONCURRENTLY, ONLY IF ALL PRECEDING BMPs AND STABILIZATION ACTIVITIES HAVE BEEN COMPLETELY INSTALLED. THE EOR MUST APPROVE, IN WRITING, ANY CHANGES IN THE ABOVE IMPLEMENTATION SEQUENCE, BEFORE THEIR IMPLEMENTATION BEGINS.

REVISIONS

REV	DATE	COMMENT	DRAWN BY
1	7/1/24	TRC COMMENTS	CJAC OAK



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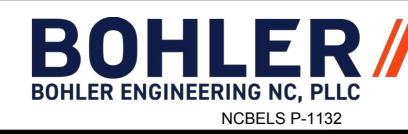
PROJECT No.: NCB230114.00
DRAWN BY: VLJ/EC
CHECKED BY: OAK
DATE: 04/23/24
CAD ID: P-CIVIL-EROS

PROJECT:

**PROP.
SITE PLAN
DOCUMENTS**
FOR



PROPOSED
DEVELOPMENT
S MAIN ST & VIRGINIA WATER DR
ROLESVILLE, NC 27587
WAKE COUNTY



4130 PARKLAKE AVENUE, SUITE 200
RALEIGH, NC 27612
Phone: (919) 578-9000
NC@BohlerEng.com



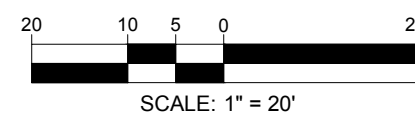
SHEET TITLE:
**EROSION AND
SEDIMENT
CONTROL PLAN
PHASE 2**

SHEET NUMBER:

C-802

REVISION 1 - 7/1/24

**THIS PLAN TO BE UTILIZED FOR SOIL
EROSION AND SEDIMENT CONTROL
PURPOSES ONLY**





US 401 BUSINESS
(VARIABLE WIDTH PUBLIC R/W)

VIRGINIA WATER DR
EX. 60' PUBLIC R/W WIDTH

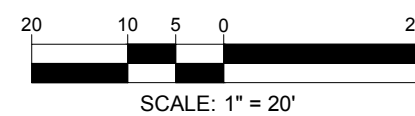
WALLBROOK DR
EX. 60' PUBLIC R/W WIDTH

WALLBROOK LANDCO LLC
FUTURE LOT 5A
±1.03 AC
EX. PIN: 1758-56-3963
DB 18103, PG 1563
PB 2023, PG 1602
ZONING: GC-CZ
EX. LAND USE: VACANT

WALLBROOK LANDCO LLC
FUTURE LOT 5B (TO BE DESIGNED & PERMITTED BY OTHERS)
±1.05 AC
EX. PIN: 1758-56-3963
DB 18103, PG 1563
PB 2023, PG 1602
ZONING: GC-CZ
EX. LAND USE: VACANT

CHASE
PROP. BANK WITH ATM
STD. SIDE ENTRY W/ DU
± 3,333 SF
FFE: ± 388.50'
78.83

**THIS PLAN TO BE UTILIZED FOR SOIL
EROSION AND SEDIMENT CONTROL
PURPOSES ONLY**



PHASE III E&SC CONSTRUCTION SEQUENCE:

1. CONTINUE CLEARING SITE AS NECESSARY.
2. IMMEDIATELY PERMANENTLY STABILIZE AREAS, INCLUDING STOCKPILE, TO BE VEGETATED OR PAVED AS THEY ARE BROUGHT TO FINAL GRADE.
3. INSTALL CURBS AND GUTTERS.
4. ONCE WAKE COUNTY INSPECTS THE SITE FOR STABILIZATION AND APPROVES, CONTINUE CONSTRUCTION. PAVE SITE.
5. COMPLETE GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL AREAS.
6. OBTAIN CONCURRENCE FROM THE OWNER THAT THE SITE HAS BEEN FULLY STABILIZED. SEDIMENT HAS BEEN REMOVED FROM ANY STORM INLETS, AND ALL CONSTRUCTION HAS BEEN COMPLETED, THEN:
 - 6.1. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs).
 - 6.2. STABILIZE ANY AREAS DISTURBED BY THE REMOVAL OF TEMPORARY BMPs.
7. DEMOBILIZE FROM SITE - CONTRACTOR SHALL NOT DEMOBILIZE UNTIL ENTIRE SITE HAS BEEN FULLY STABILIZED.

THE ESTIMATED DATE OF IMPLEMENTATION OF POLLUTION CONTROL MEASURES SHALL BE DOCUMENTED BY THE CONTRACTOR

NOTE: THE GENERAL CONTRACTOR MAY COMPLETE CONSTRUCTION-RELATED ACTIVITIES CONCURRENTLY, ONLY IF ALL PRECEDING BMPs AND STABILIZATION ACTIVITIES HAVE BEEN COMPLETELY INSTALLED. THE EOR MUST APPROVE, IN WRITING, ANY CHANGES IN THE ABOVE IMPLEMENTATION SEQUENCE, BEFORE THEIR IMPLEMENTATION BEGINS.

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DATE: 04/23/24
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PROJECT:

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SITE PLAN
DOCUMENTS**
FOR



PROPOSED
DEVELOPMENT
S MAIN ST & VIRGINIA WATER DR
ROLESVILLE, NC 27587
WAKE COUNTY



4130 PARKLAKE AVENUE, SUITE 200
RALEIGH, NC 27612
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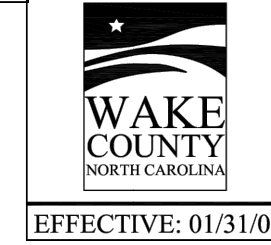
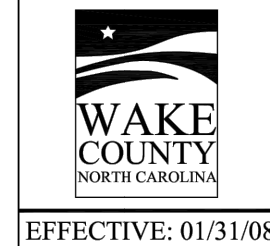
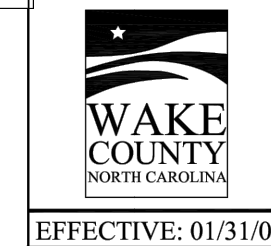


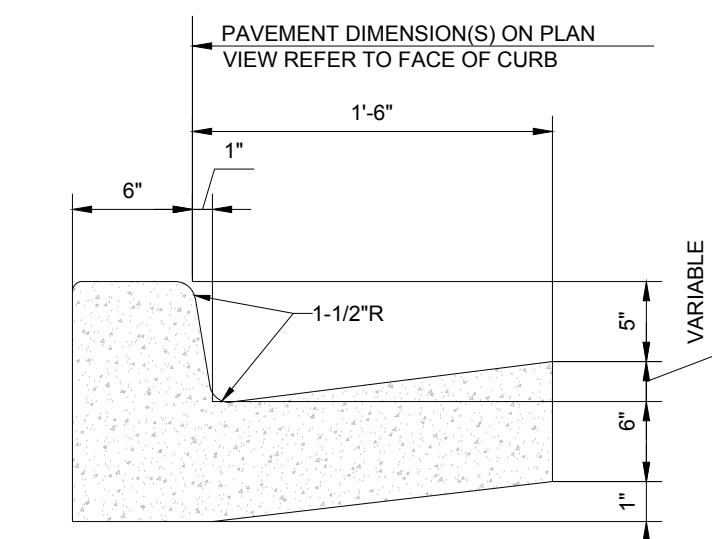
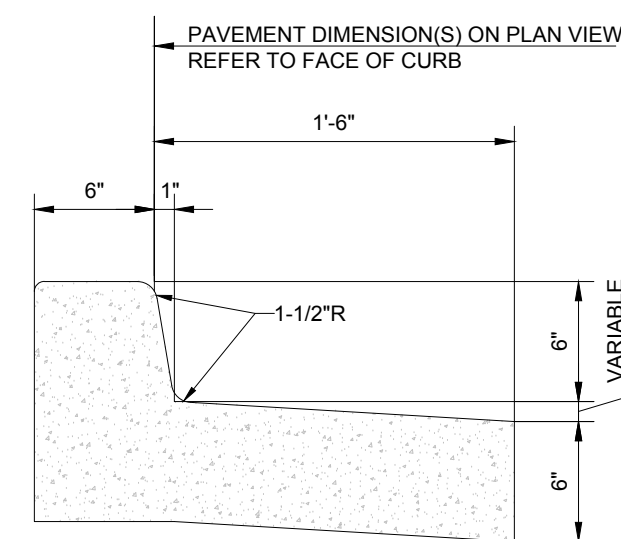
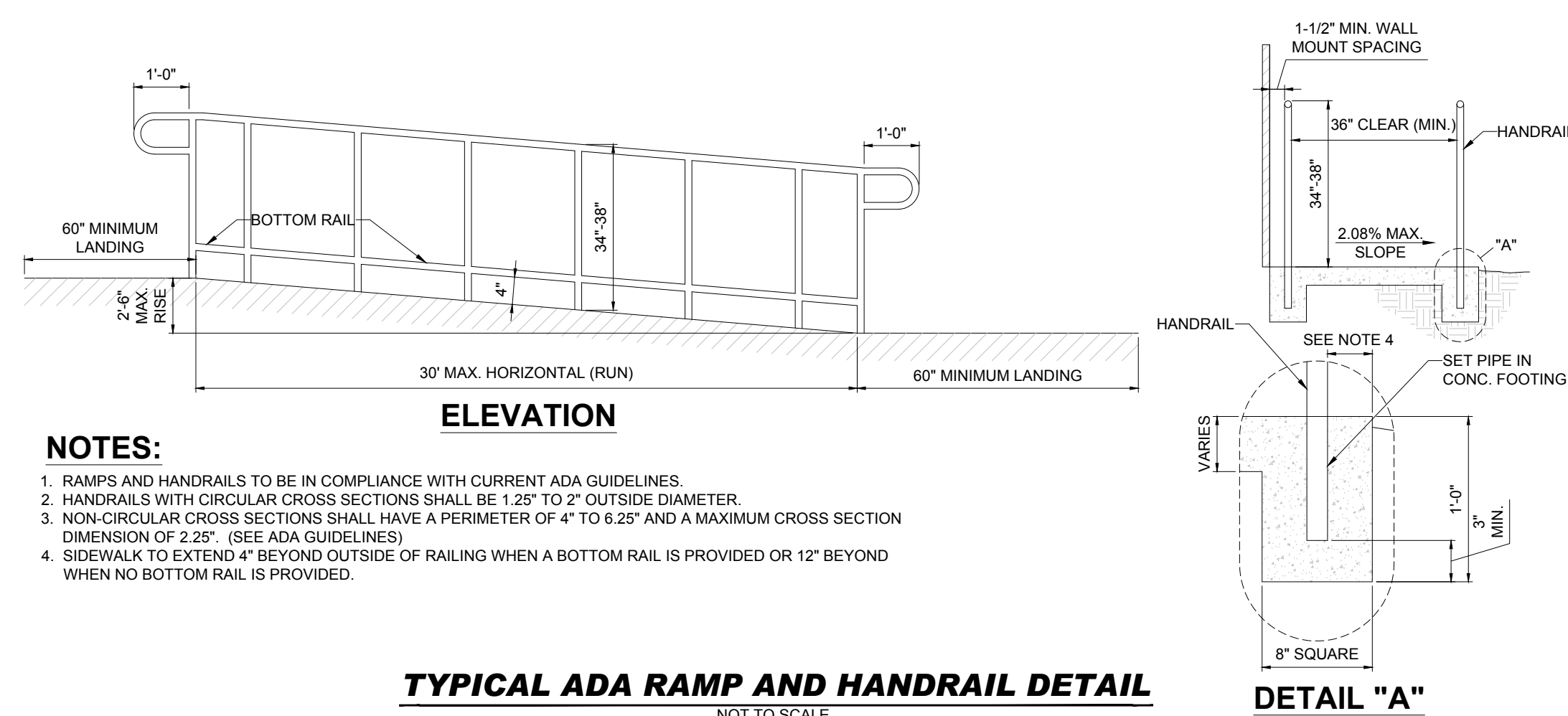
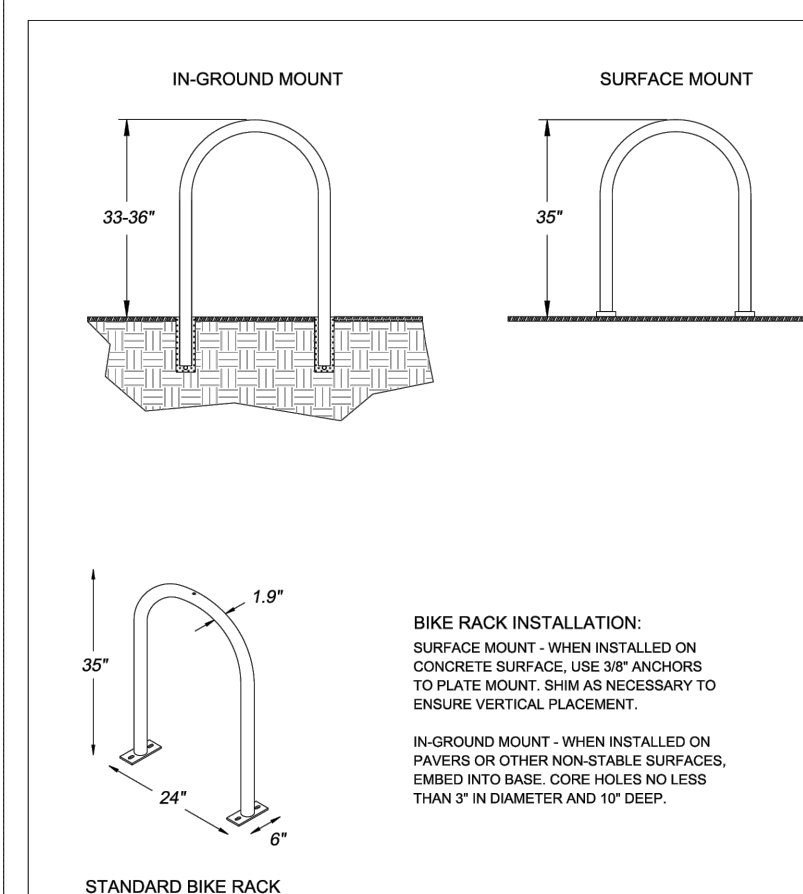
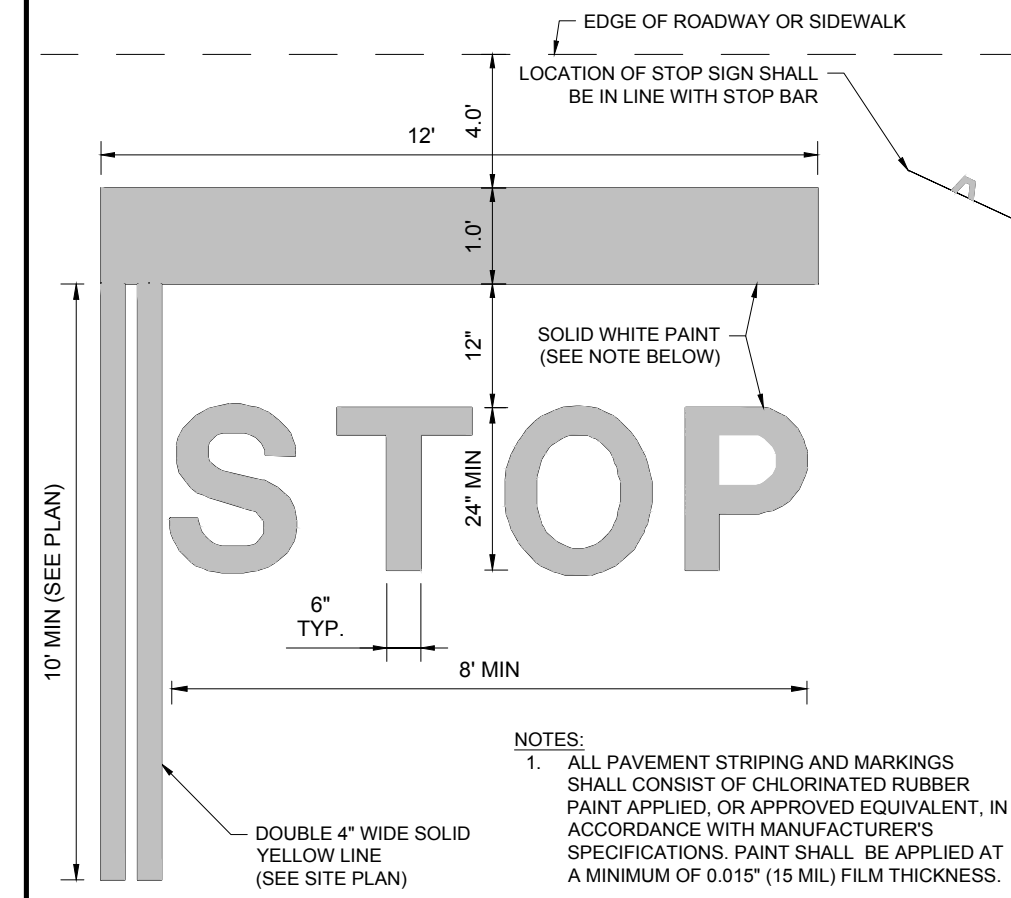
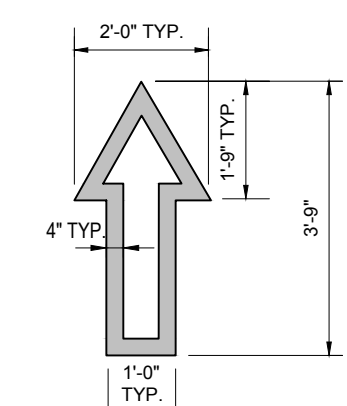
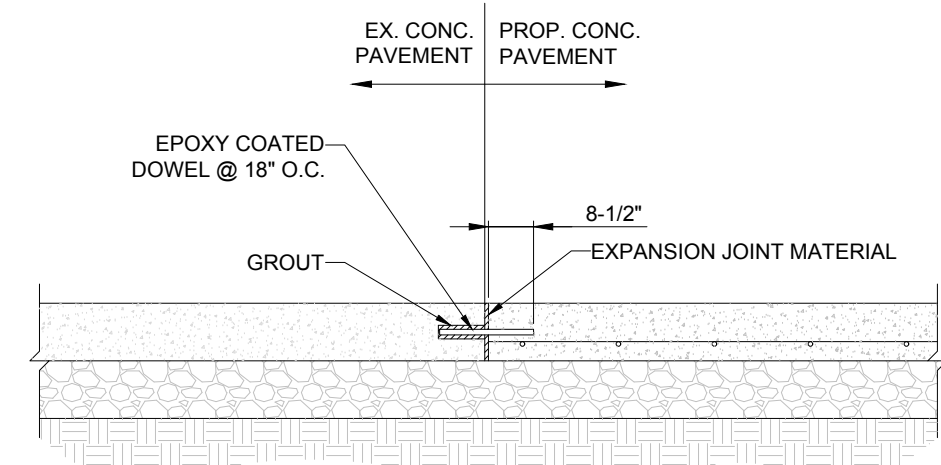
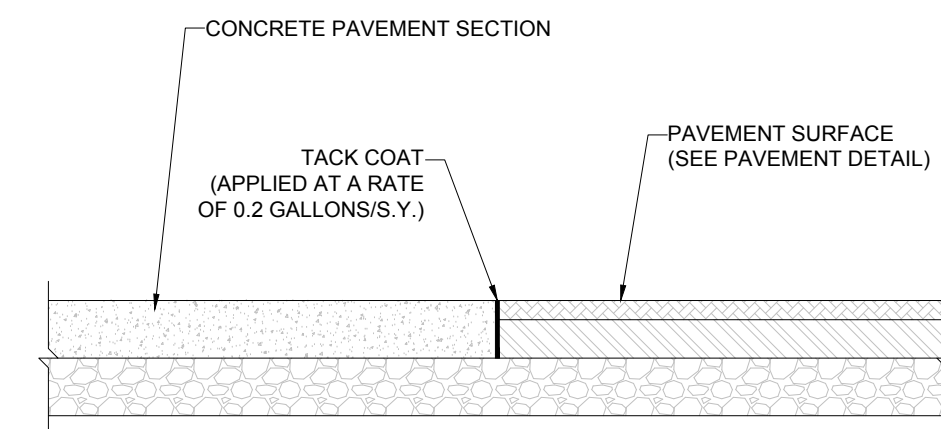
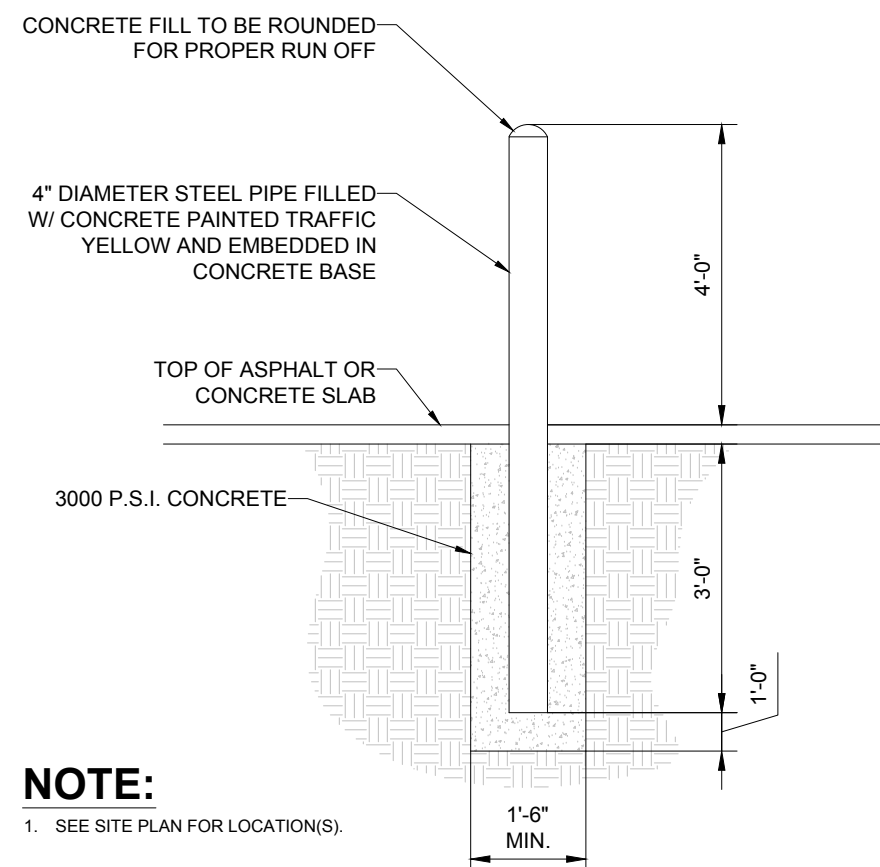
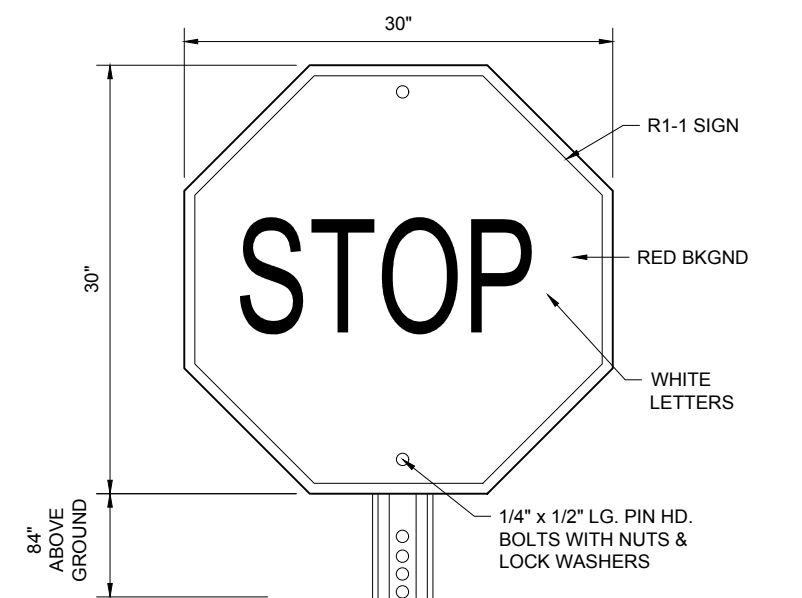
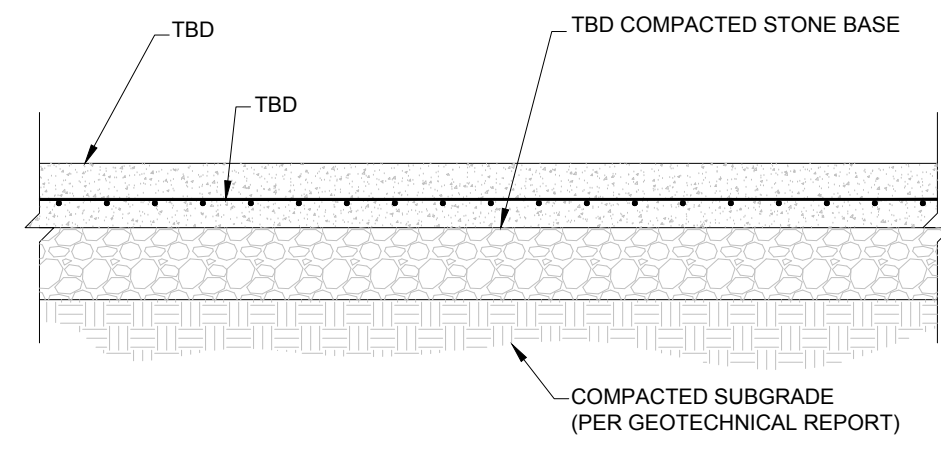
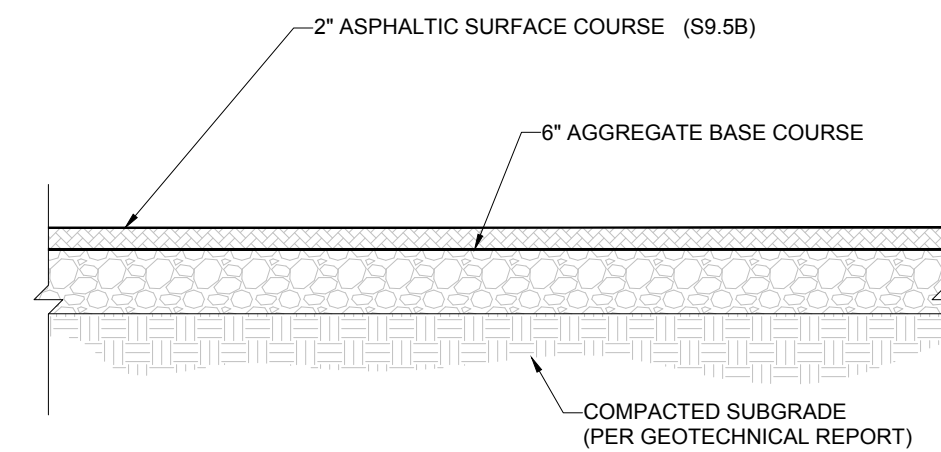
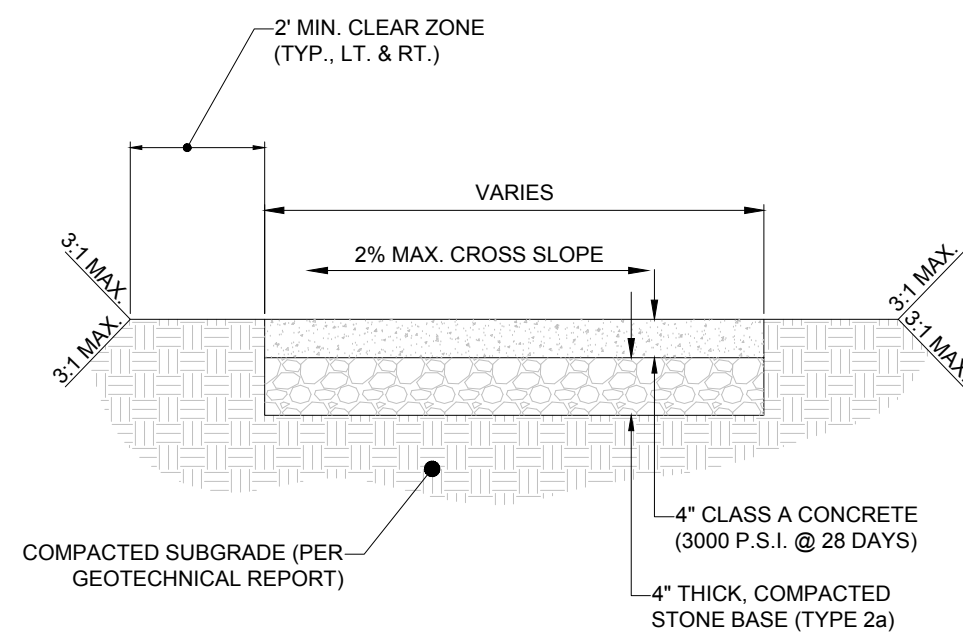
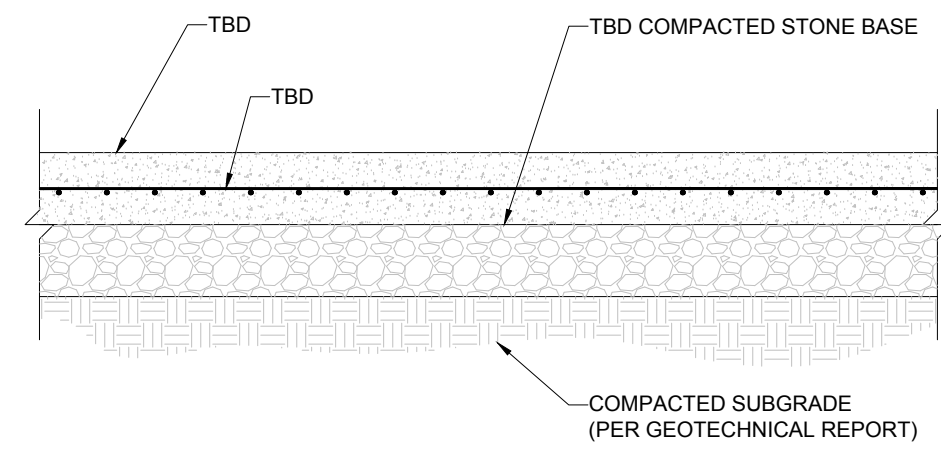
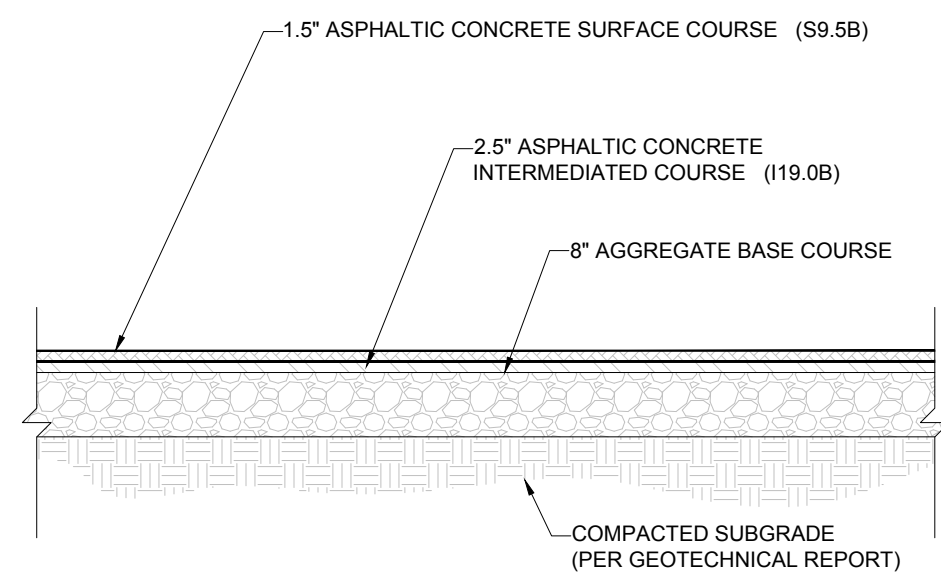
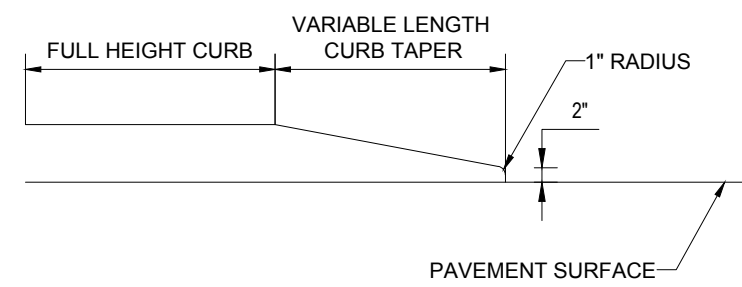
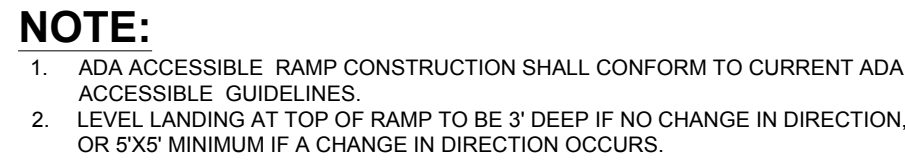
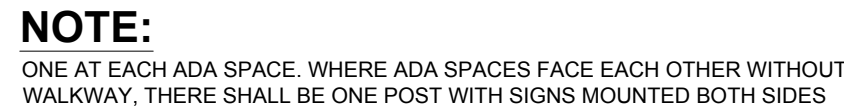
SHEET TITLE:
**EROSION AND
SEDIMENT
CONTROL PLAN
PHASE 3**

SHEET NUMBER:

C-803

REVISION 1 - 7/1/24



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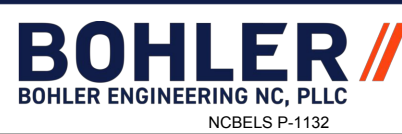
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DRAWN BY:	VL/JE/CC
CHECKED BY:	OAK
DATE:	04/23/24
CAD I.D.:	P-CIVL-CNDS

**PROP.
SITE PLAN
DOCUMENTS**



**PROPOSED
DEVELOPMENT**

**S MAIN ST & VIRGINIA WATER DR
ROLESVILLE, NC 27587
WAKE COUNTY**



**4130 PARKLAKE AVENUE, SUITE 200
RALEIGH, NC 27612
Phone: (919) 578-9000**

NC@BohlerEng.com



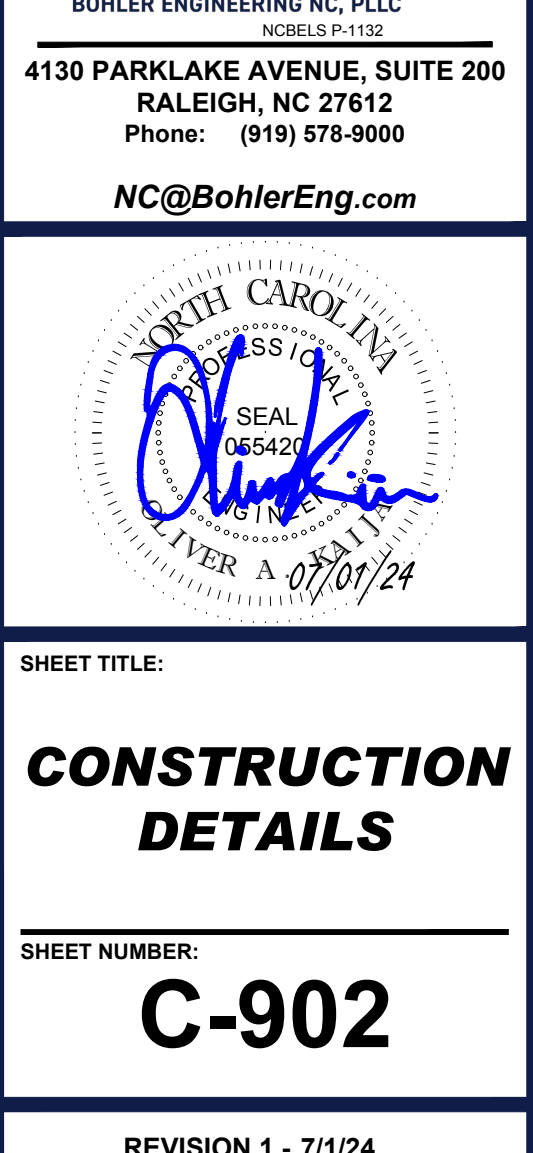
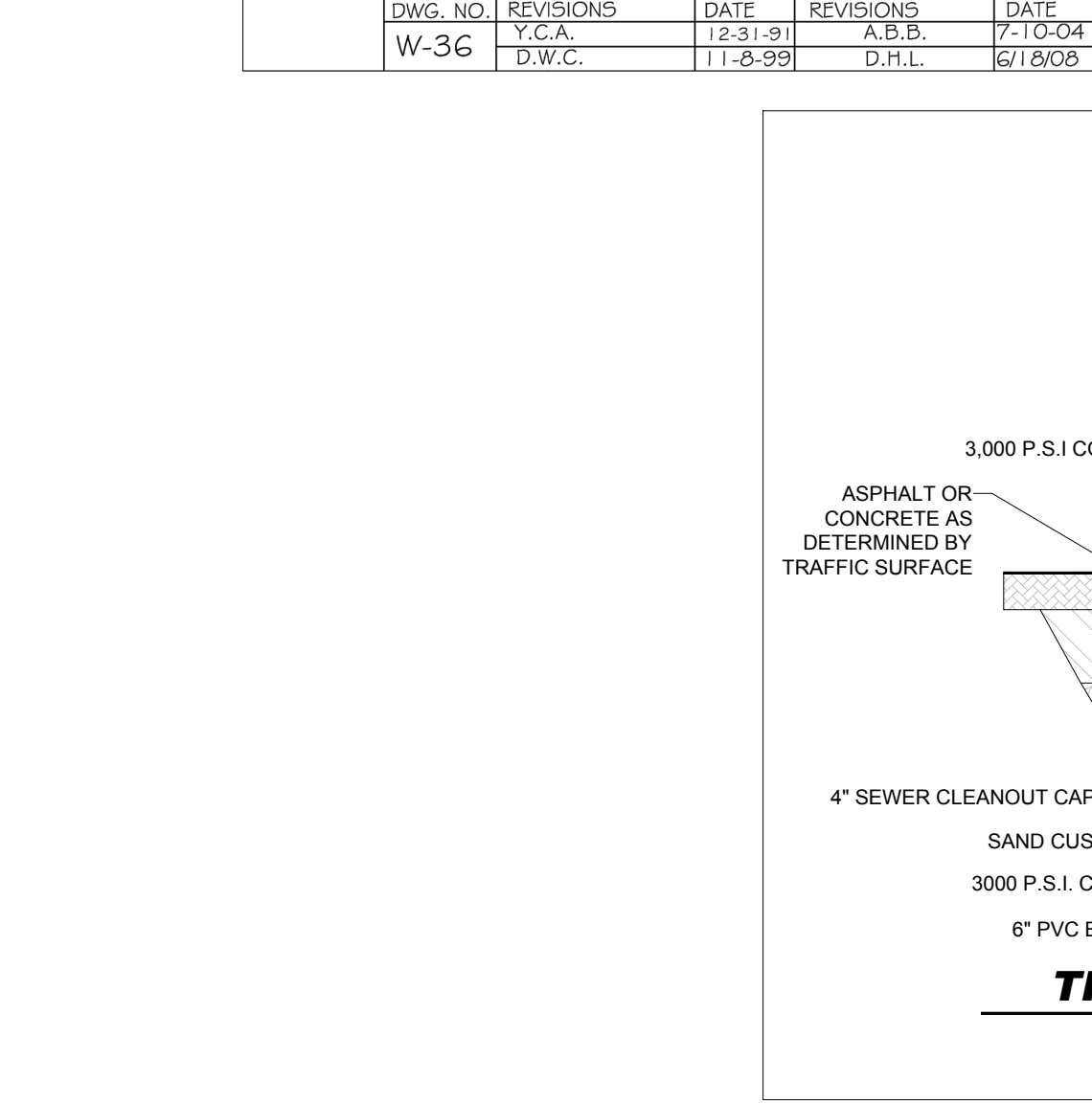
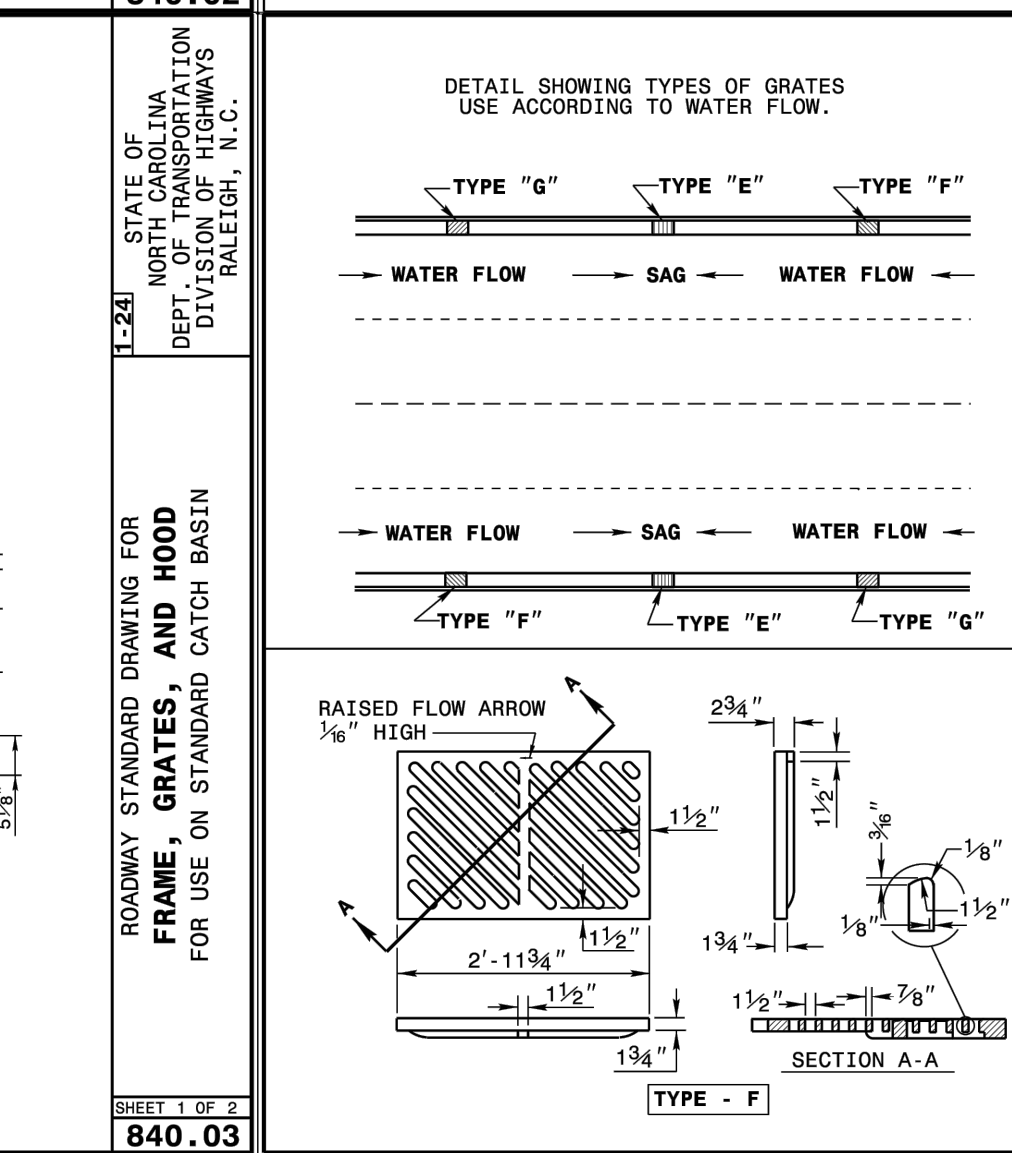
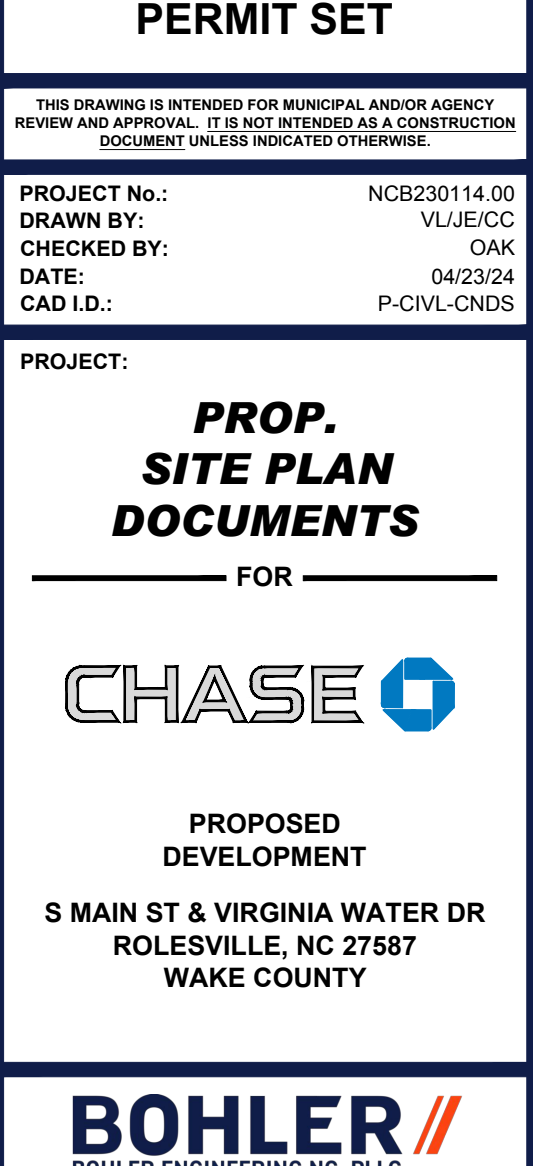
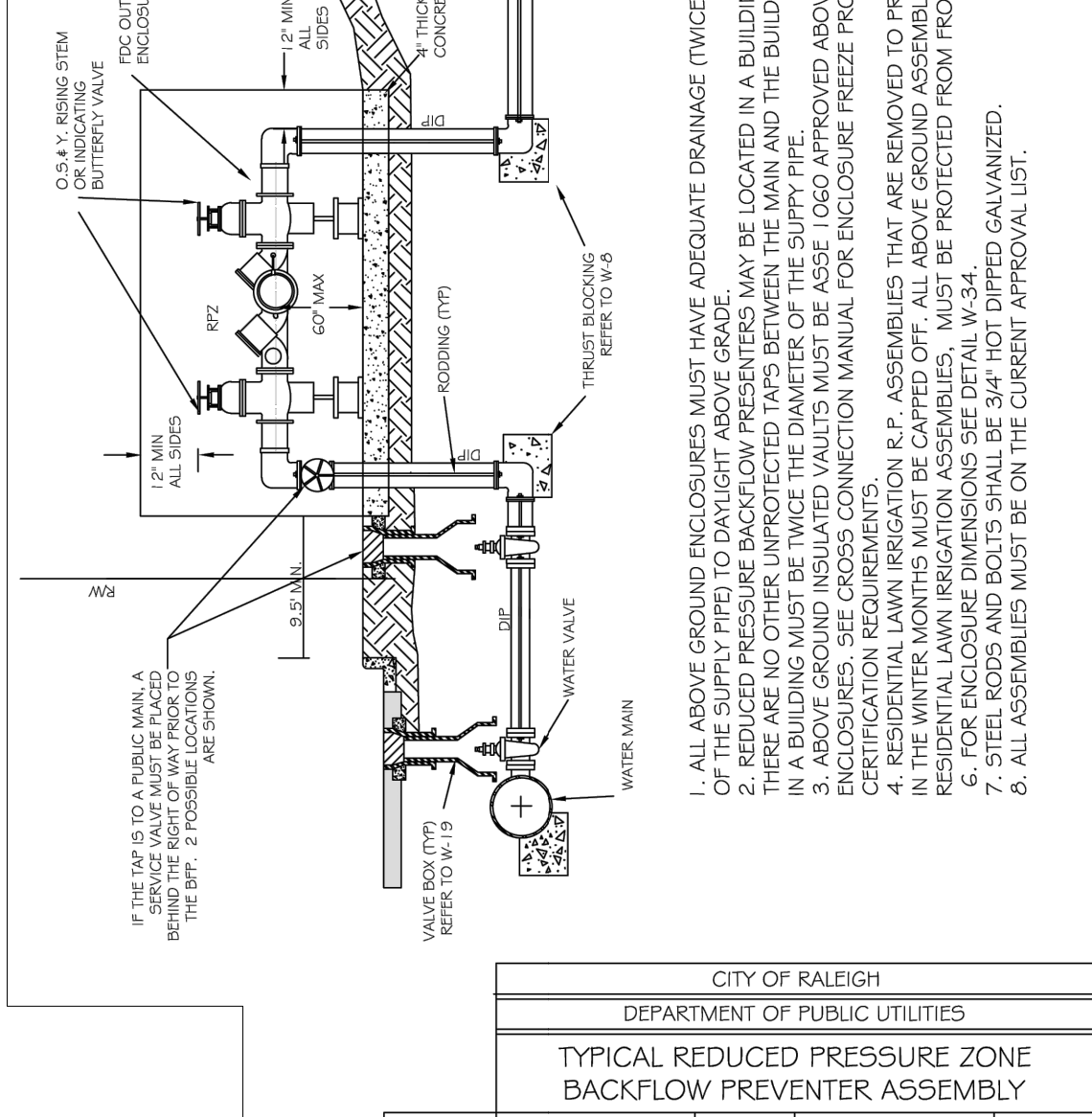
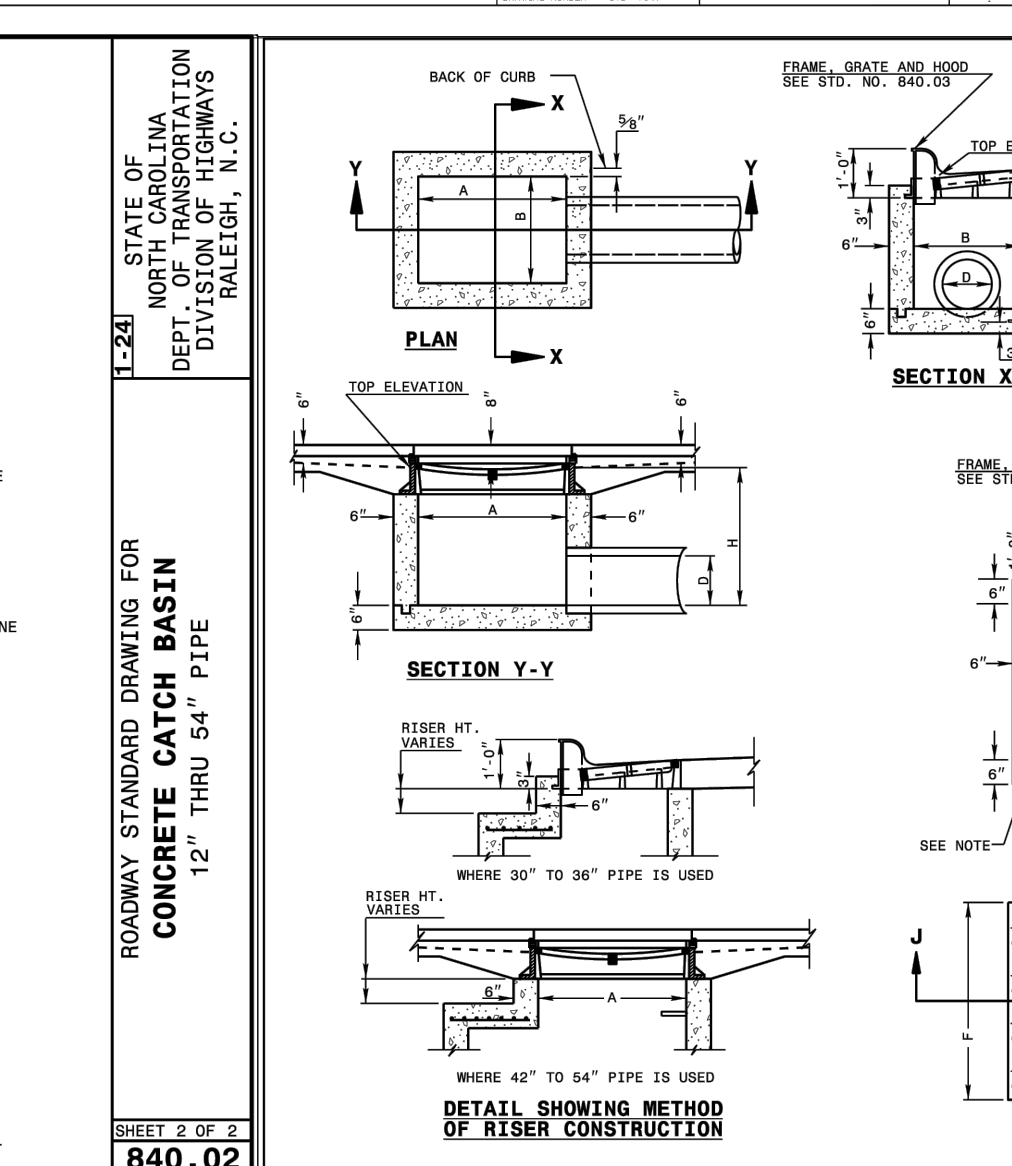
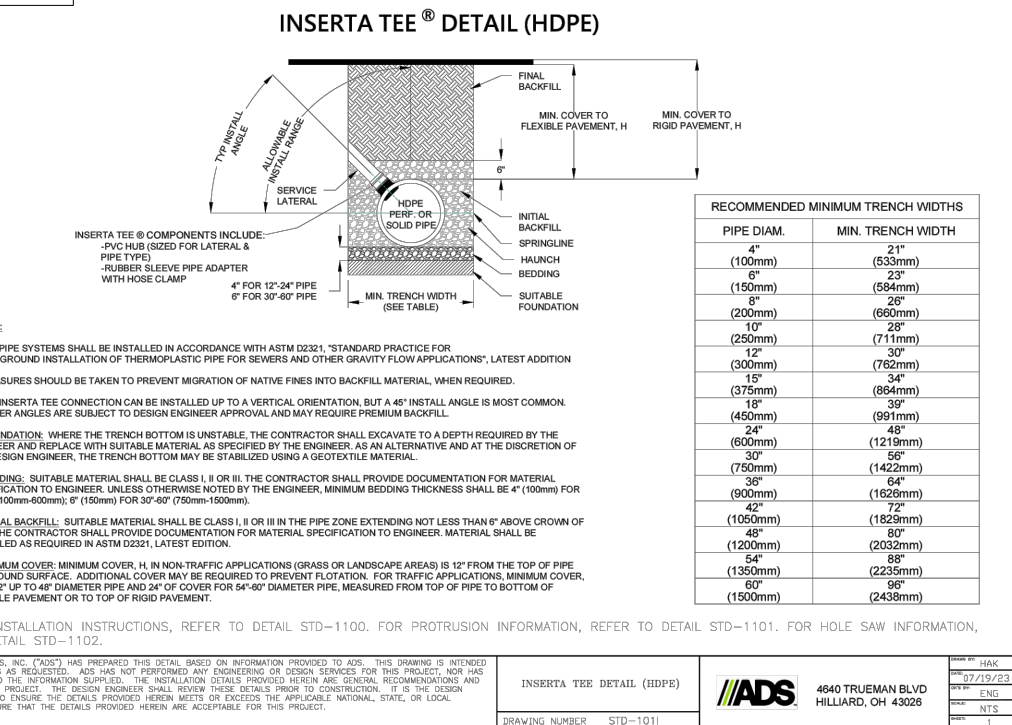
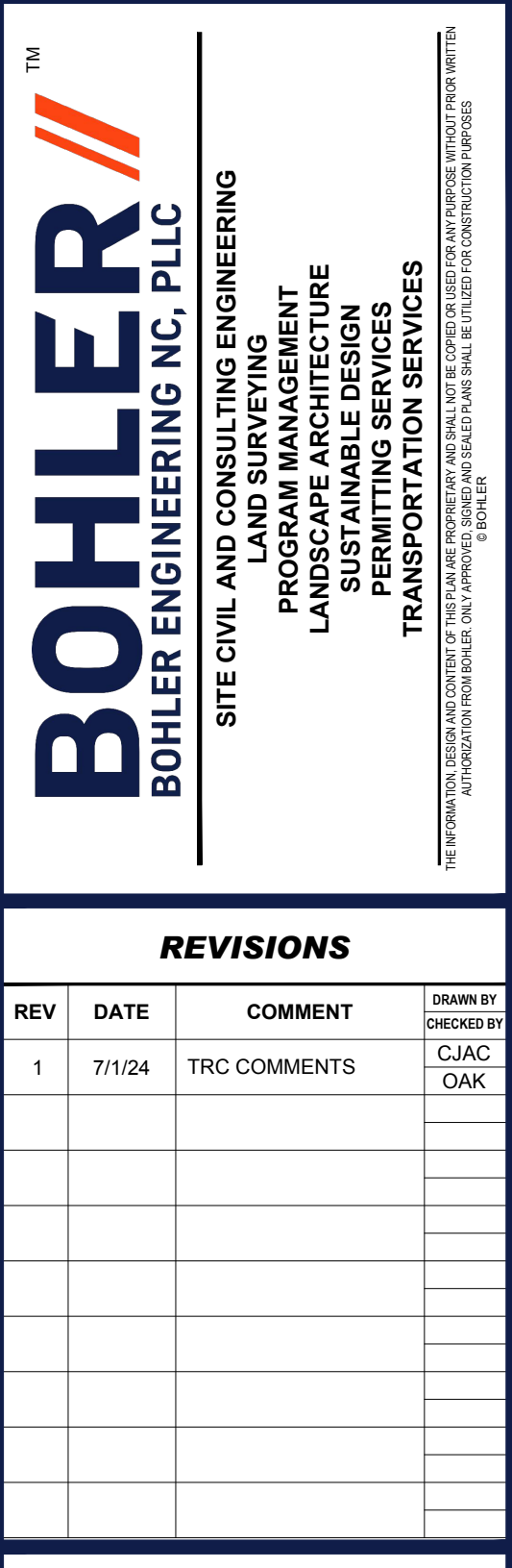
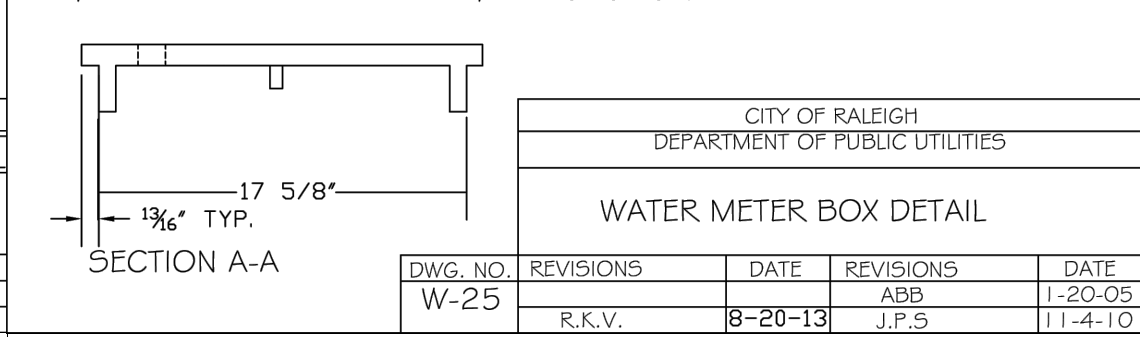
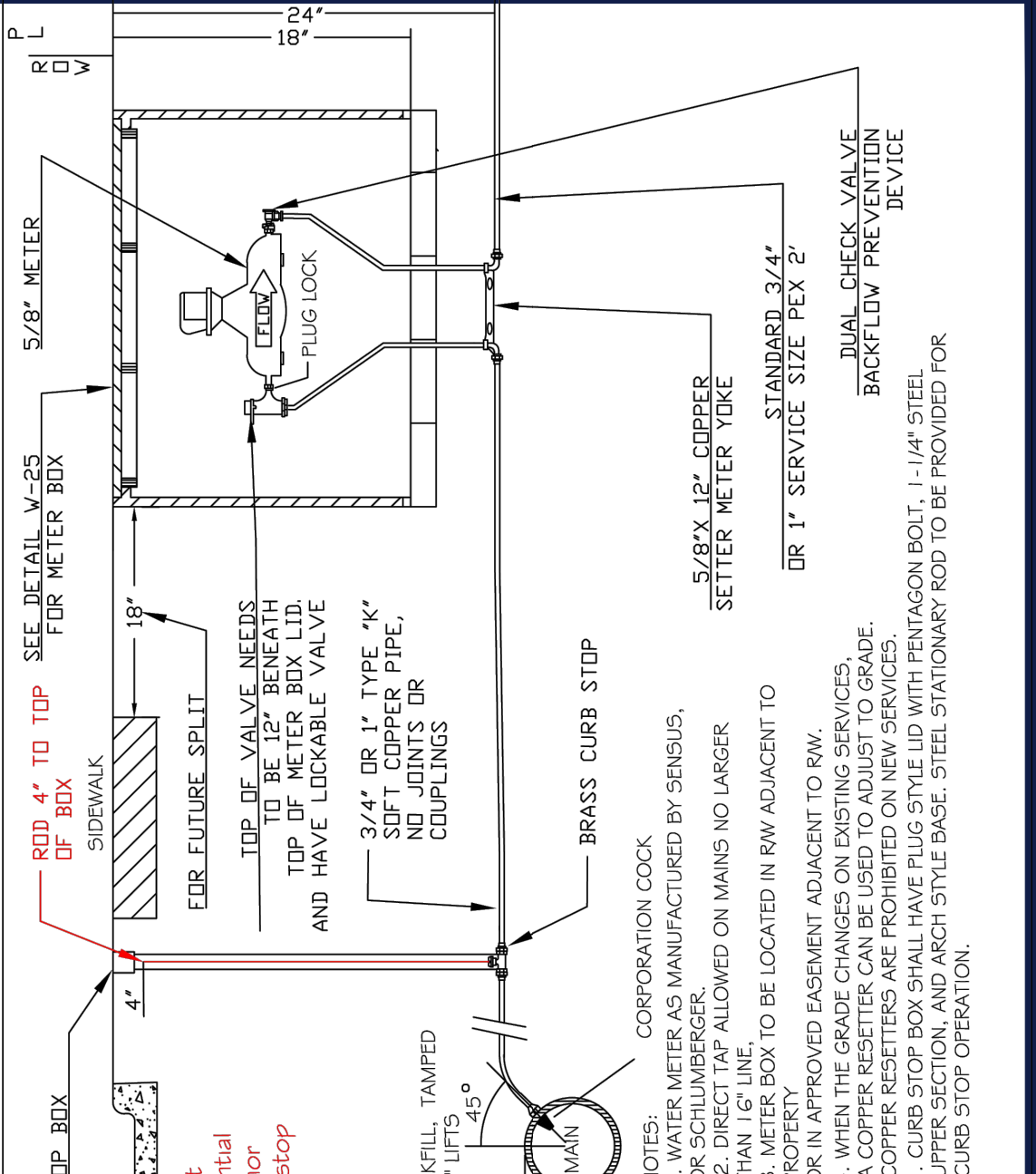
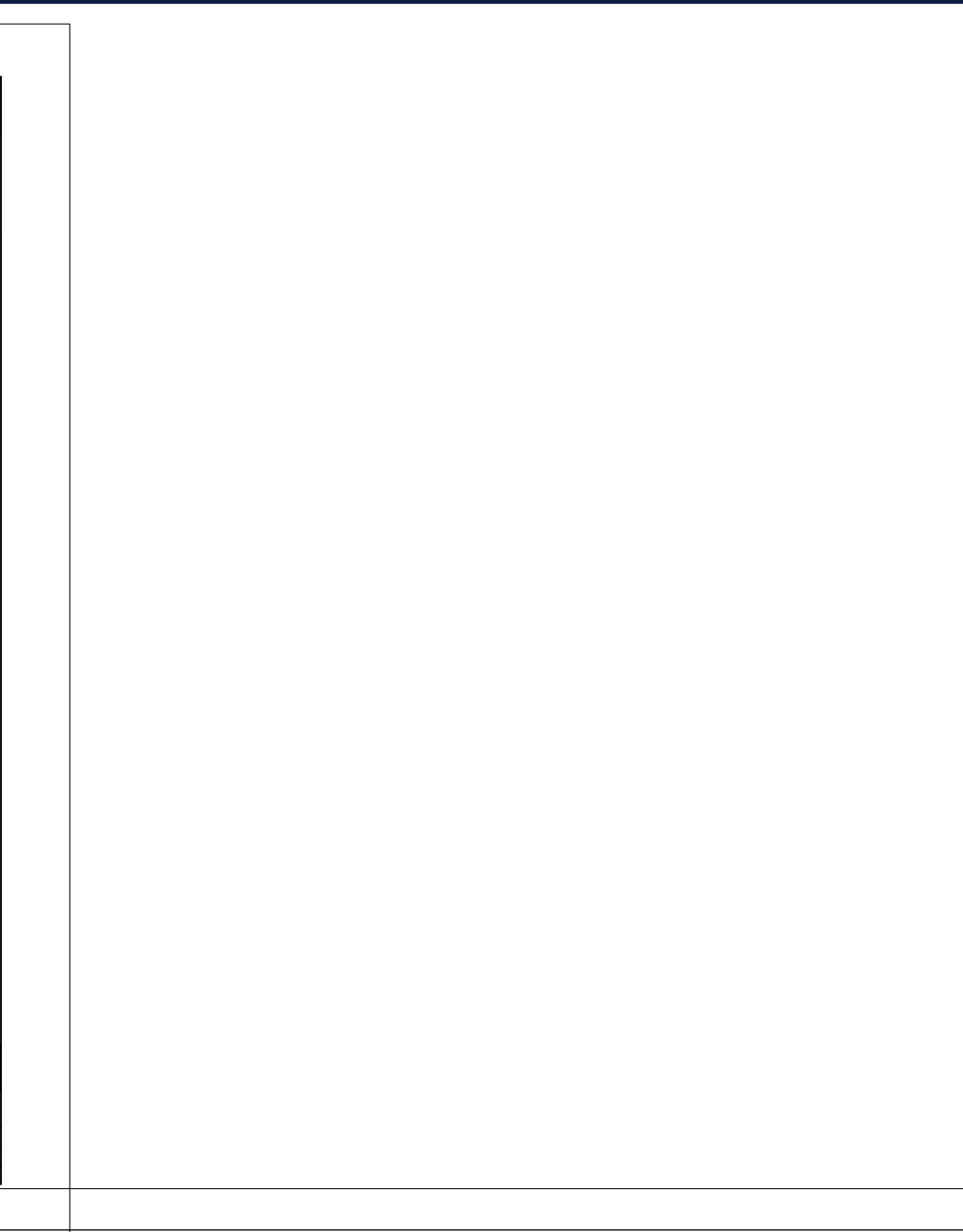
SHEET TITLE:

CONSTRUCTION DETAILS

SHEET NUMBER:

C-901

REVISION 1 - 7/1/24





US 401 BUSINESS

(VARIABLE WIDTH PUBLIC R/W)

VIRGINIA WATER DR

WALLBROOK LANDCO LLC
FUTURE LOT 5A
±1.63 AC
EX. PIN: 1758-56-3963
DB 18103, PG 1563
PB 2023, PG 1602
ZONING: GC-CZ
EX. LAND USE: VACANT

WALLBROOK LANDCO LLC
FUTURE LOT 5B (TO BE DESIGNED
PERMITTED BY OTHERS)
±1.05 AC
EX. PIN: 1758-56-3963
DB 18103, PG 1563
PB 2023, PG 1602
ZONING: GC-CZ
EX. LAND USE: VACANT

TABLE 6.2.4.3 MINIMUM / MAXIMUM PERCENTAGE

TOTAL TREES PLANTED ON SITE	MINIMUM NUMBER OF GENERA REQUIRED	MAXIMUM PERCENTAGE OF ANY GENERA
20 OR LESS	1	N/A
21-50	2	60%
51-100	3	50%
101 OR MORE	4	40%

CODE COMPLIANCE CHART / ROLESVILLE LAND DEVELOPMENT ORDINANCE

SECTION	REQUIREMENT	CALCULATIONS
SECTION 6.2.1 OPEN SPACE	NON-RESIDENTIAL DISTRICTS 1. LESS THAN 25 ACRES REQUIRES ONE (1) SMALL OPEN SPACE TYPE. 500 SF - 1.0 ACRE IN SIZE. TYPES INCLUDE: PLAZA, GREEN, POCKET PARK, OR ACTIVE USE AREA.	OPEN SPACE PROVIDED: 500 SF SEATING AREA WITH THREE (3) BENCHES AND ONE (1) WASTE RECEPTACLE.
SECTION 6.2.2 BUFFERING	REQUIRED LANDSCAPE AREAS PLAN IS PART OF THE WALLBROOK DEVELOPMENT. BUFFERS AND STREETScape PREVIOUSLY APPROVED AND TO BE PLANTED BY OTHERS.	COMPLIES
SECTION 6.2.2.2 BUFFERING	REQUIRED LANDSCAPE AREAS 1. SHALL INSTALL AND MAINTAIN PER EVERY FORTY (40) FEET OF THOROUGHFARE FRONTAGE; PER EVERY FIFTY (50) FEET ALONG COLLECTOR STREET FRONTAGE; AND PER EVERY SIXTY (60) FEET ALONG LOCAL STREETS: ONE (1) STREET TREE 2.5" CAL. OR, TWO (2) ORNAMENTAL TREES 1.5" CAL WHERE POWERLINES ARE PRESENT.	COMPLIES
SECTION 6.2.4 PARKING LOT LANDSCAPING	PARKING LOT TERMINAL/INTERIOR ISLAND LANDSCAPING STANDARDS: 1. TERMINAL AND INTERIOR ISLANDS, SHALL BE AT LEAST EIGHT (8) FEET WIDE BY EIGHTEEN (18) FEET IN LENGTH MEASURED FROM INSIDE OF CURB. 2. ONE (1) LARGE OR MEDIUM CANOPY TREE SHALL BE REQUIRED FOR EVERY ONE-HUNDRED-AND-FIFTY (150) SQUARE FEET (OR FRACTION ABOVE ONE-HALF) WITH A MINIMUM OF ONE LARGE OR MEDIUM CANOPY TREE REQUIRED PER TERMINAL OR INTERIOR ISLAND. 3. ALL PARKING SPACES SHALL BE WITHIN 60 LF OF A CANOPY TREE. 4. TERMINAL ISLANDS SHALL BE LANDSCAPED WITH SHRUBS, ACCENT PLANTS, ORNAMENTAL GRASSES AND GROUND COVER, EXCLUDING SOD, WHICH WILL PROVIDED ONE HUNDRED (100)PERCENT COVERAGE WITHIN TWO (2) YEARS. 5. LANDSCAPING IN ISLANDS ADJACENT TO PARKING SPACES SHALL BE SETBACK A MINIMUM OF TWO (2) FEET FROM THE BACK OF CURB. PARKING PERIMETER PLANTINGS: 1. PARKING PERIMETER PLANTINGS SHALL BE REQUIRED TO ENHANCE THE VIEW OF A PARKING LOT FROM ABUTTING STREETS AND PROPERTIES. PARKING PERIMETER PLANTINGS SHALL BE PROVIDED ON THE PERIMETER OF ALL PARKING LOTS. 2. PARKING PERIMETER PLANTINGS SHALL CONSIST OF A SINGLE CONTINUOUS ROW OF SHRUBS PLANTED NO GREATER THAN THREE (3) FEET ON CENTER AND WITHIN FIVE (5) FEET OF THE PARKING LOT EDGE. 3. PARKING LOT SHRUBS SHALL BE A MINIMUM HEIGHT OF THIRTY (30) INCHES ABOVE GRADE WITHIN THREE YEARS OF PLANTING. SHRUBS MAY NOT EXCEED A HEIGHT OF FOUR (4) FEET AND SHALL BE PRUNED AND MAINTAINED.	COMPLIES
SECTION 6.2.4.6 SERVICE AREA SCREENING	1. SERVICE AREAS AND EQUIPMENT SHALL BE SCREENED FROM ADJACENT PROPERTIES AND RIGHT-OF-WAY.	COMPLIES
SECTION 6.2.4.7 GENERAL STANDARDS	1. PLANTS SHALL BE NATIVE OR LOCALLY ADAPTIVE SPECIES. 2. PLANT LIST SHALL INCLUDE AT LEAST FOUR (4) DIFFERENT TREE SPECIES WITH NO ONE SPECIES BEING GREATER THAN THIRTY-FIVE (35) PERCENT OF THE PALETTE. 3. CANOPY TREES: 3" CAL. 12" MINIMUM HEIGHT AND ATTAIN A MATURE HEIGHT OF 35' AND 30' SPREAD. 4. DECIDUOUS UNDERSTORY TREE: 2" CAL., 8" MINIMUM HEIGHT AND ATTAIN A MATURE HEIGHT OF 15' AND 15' SPREAD. 5. EVERGREEN SHRUBS: 24" MINIMUM HEIGHT 6. DECIDUOUS SHRUBS: 18" MINIMUM HEIGHT 7. ORNAMENTAL GRASSES: 2 GAL. MINIMUM 8. GROUND COVER: 1 GAL. MINIMUM	

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CANOPY TREES					
AO	4	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3" CAL.	B&B
AS	4	ACER SACCHARUM	SUGAR MAPLE	3" CAL.	B&B
MX	1	MAGNOLIA X JANE'	JANE MAGNOLIA	3" CAL.	B&B
OL2	1	QUERCUS LIXATA	OVERCUP OAK	3" CAL.	B&B
QNU	2	QUERCUS NUTTALLII	NUTTALL OAK	3" CAL.	B&B
QP	5	QUERCUS PALUSTRIS	PIN OAK	2.5" CAL.	B&B
QS	3	QUERCUS SHUMARDII	SHUMARD OAK	3" CAL.	B&B
UF	2	ULMUS PARVIFOLIA	LACEBARK ELM	3" CAL.	B&B
ORNAMENTAL TREES					
LT2	3	LAGERSTROEMIA INDICA X FAURIEI 'TONTON'	TONTON CRAPE MYRTLE MULTI-TRUNK	2" CAL.	B&B
SHRUBS					
AK	21	ABELIA X GRANDIFLORA 'KALEIDOSCOPE'	KALEIDOSCOPE GLOSSY ABELIA	24" MIN.	CONTAINER
HQ	5	HYDRANGEA QUEROPOLIA	OAKLEAF HYDRANGEA	18-24" HT.	CONTAINER
IE	7	ILEX 'EMILY BRUNER'	EMILY BRUNER HOLLY	6" MIN.	CONTAINER
IS	129	ILEX GLABRA 'SHAMROCK'	SHAMROCK WINTER HOLLY	24" MIN.	CONTAINER
IT	4	ITEA VIRGINICA 'LITTLE HENRY'	VIRGINIA SWEETSPRE	18-24"	CONTAINER
INW	13	ILEX VOMITORIA 'NANA'	DWARF YALPON HOLLY	24" MIN.	CONTAINER
LN2	15	LODOPETALUM CHINENSE RUBRUM 'PILCH'	CRIMSON FIRE™ FRINGE FLOWER	24" MIN.	CONTAINER
GRASSES					
MP	94	MULLENBERGH CAPILLARIS 'PINK CLOUD'	PINK CLOUD PINK MUHLY GRASS	2 GAL.	CONTAINER
GROUND COVER					
LV	37	LIRIOPE MUSCARI VARIEGATA'	VAREGATED LILY TURF	1 GAL.	CONTAINER

BOHLER

BOHLER ENGINEERING NC, PLLC

SITE CIVIL AND CONSULTING ENGINEERING

PROGRAM MANAGEMENT

LANDSCAPE ARCHITECTURE

SUSTAINABLE DESIGN

PERMITTING SERVICES

TRANSPORTATION SERVICES

REVISIONS

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CHECKED BY: OAK
DATE: 04/23/24
CAD ID: P-CIV-L-LLGT

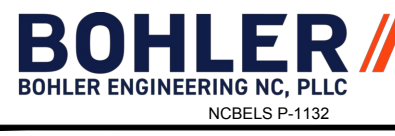
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PROP.
SITE PLAN
DOCUMENTS
FOR

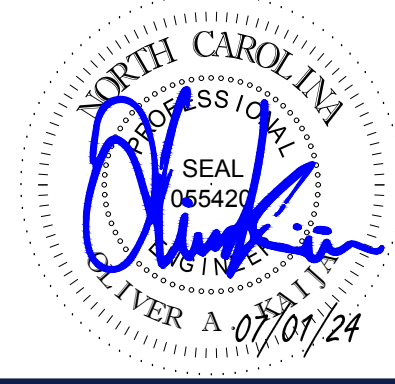


PROPOSED
DEVELOPMENT

S MAIN ST & VIRGINIA WATER DR
ROLESVILLE, NC 27587
WAKE COUNTY



4130 PARKLAKE AVENUE, SUITE 200
RALEIGH, NC 27612
Phone: (919) 578-9000
NC@BohlerEng.com



SHEET TITLE:

LANDSCAPE
PLAN

SHEET NUMBER:

L-101

REVISION 1 - 7/1/24

THIS PLAN TO BE UTILIZED FOR
LANDSCAPE PURPOSES ONLY



LANDSCAPE SPECIFICATIONS

1. SCOPE OF WORK:
THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS
A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
B. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.

C. LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM SIX INCH (6") THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES.
1.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED
1.2. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS.
1.3. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
D. MULCH - THE MULCH AROUND THE PERIMETER OF THE BUILDING SHALL BE A 3" LAYER OF DOUBLE SHREDDED BLACK CEDAR MULCH ONLY. ALL OTHER AREAS SHALL BE MULCHED WITH A 3" LAYER OF DOUBLE SHREDDED DARK BROWN HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.

E. FERTILIZER
1.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
1.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

F. PLANT MATERIAL
1.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE 'AMERICAN STANDARD FOR NURSERY STOCK' (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
1.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
1.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
1.4. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1/4", WHICH HAVE NOT BEEN COMPLETELY CALLED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
1.5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
1.6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
1.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
1.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS
A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.

C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.
D. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.

E. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
F. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS
A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
B. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.

C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
1.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
1.2. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
1.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADING
A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1").
C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOILING
A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
D. ALL PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA):
1.1. 20 POUNDS 'GROW POWER' OR APPROVED EQUAL
1.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP

E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

9. PLANTING
A. INsofar THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
D. ALL PLANTING CONTAINERS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
1.1. PLANTS: MARCH 15 TO DECEMBER 15
1.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
G. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.
H. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPORT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:
ACER RUBRUM PLATANUS X ACERIFOLIA
BETULA VARIETIES POPULUS VARIETIES
CARPINUS VARIETIES PRUNUS VARIETIES
CRATAEGUS VARIETIES PYRUS VARIETIES
KOELREUTERIA QUERCUS VARIETIES
LIQUIDAMBER STYRACIFLUA TILIA TOMENTOSA
LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES

I. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL, MIXED THOROUGHLY:
• 1 PART PEAT MOSS
• 1 PART COMPOSTED COW MANURE BY VOLUME
• 3 PARTS TOPSOIL BY VOLUME
• 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
A) 2 TABLETS PER 1 GALLON PLANT
B) 3 TABLETS PER 5 GALLON PLANT
C) 4 TABLETS PER 15 GALLON PLANT
D) LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK
J. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
K. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
L. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
M. GROUND COVER AREAS SHALL RECEIVE A 1/2" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
N. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
O. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
P. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

10. TRANSPLANTING (WHEN REQUIRED)
A. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
F. IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

11. WATERING
A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

12. GUARANTEE
A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE COMPLETED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.
C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
D. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

13. CLEANUP
A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

