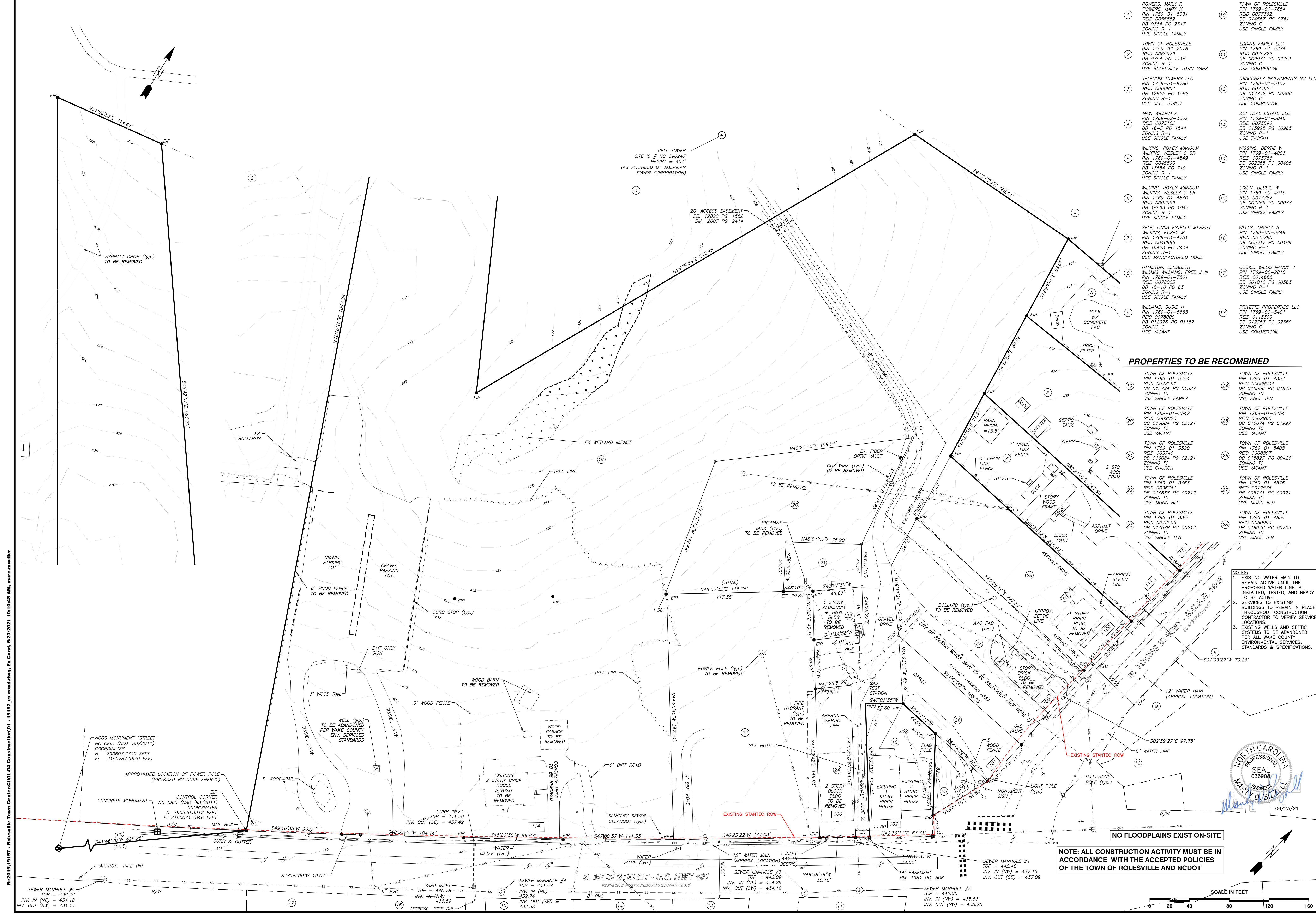


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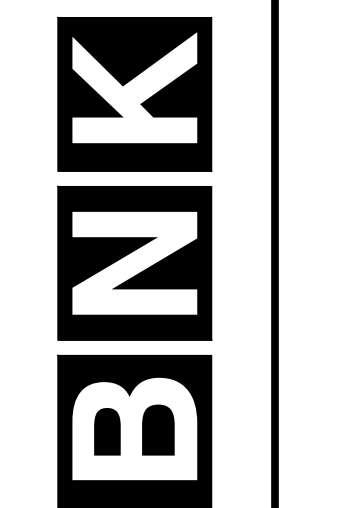
PROPERTIES TO BE RECOMBINED

- | | | | |
|----|----------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------|
| 19 | TOWN OF ROLESVILLE
PIN 1769-01-0454
REID 0025614
DB 012794 PG 01827
ZONING TC
USE SINGLE FAMILY | 24 | TOWN OF ROLESVILLE
PIN 1769-01-4357
REID 0026954
DB 016566 PG 01875
ZONING TC
USE SINGL TEN |
| 20 | TOWN OF ROLESVILLE
PIN 1769-01-2542
REID 0009020
DB 016084 PG 02121
ZONING TC
USE VACANT | 25 | TOWN OF ROLESVILLE
PIN 1769-01-5454
REID 0009060
DB 016074 PG 01997
ZONING TC
USE VACANT |
| 21 | TOWN OF ROLESVILLE
PIN 1769-01-3520
REID 003740
DB 016084 PG 02121
ZONING TC
USE CHURCH | 26 | TOWN OF ROLESVILLE
PIN 1769-01-5408
REID 0008897
DB 016527 PG 00426
ZONING TC
USE VACANT |
| 22 | TOWN OF ROLESVILLE
PIN 1769-01-3468
REID 0036741
DB 014688 PG 00212
ZONING TC
USE MUNIC BLD | 27 | TOWN OF ROLESVILLE
PIN 1769-01-4576
REID 0012576
DB 005741 PG 00921
ZONING TC
USE MUNIC BLD |
| 23 | TOWN OF ROLESVILLE
PIN 1769-01-3468
REID 0036741
DB 014688 PG 00212
ZONING TC
USE SINGLE TEN | 28 | TOWN OF ROLESVILLE
PIN 1769-01-4654
REID 0060993
DB 016026 PG 00705
ZONING TC
USE SINGL TEN |

- NOTES:**
- EXISTING WATER MAIN TO REMAIN ACTIVE UNTIL THE PROPOSED WATER LINE IS INSTALLED, TESTED, AND READY TO BE ACTIVE.
 - SERVICES TO EXISTING BUILDINGS TO REMAIN IN PLACE THROUGHOUT CONSTRUCTION. CONTRACTOR TO VERIFY SERVICE LOCATIONS.
 - EXISTING WELLS AND SEPTIC SYSTEMS TO BE ABANDONED PER ALL WAKE COUNTY ENVIRONMENTAL SERVICES, STANDARDS & SPECIFICATIONS.

NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF ROLESVILLE AND NCDOT





BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)881-4422 FAX: (919)881-6868
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY

PROGRESS DRAWN BY: **MM**

DATE: 06/23/21

EXISTING CONDITIONS & DEMOLITION PLAN

SCALE: 1" = 40'

CHK BY: **MDB**

COBBLESTONE VILLAGE MIXED USE DEVELOPMENT

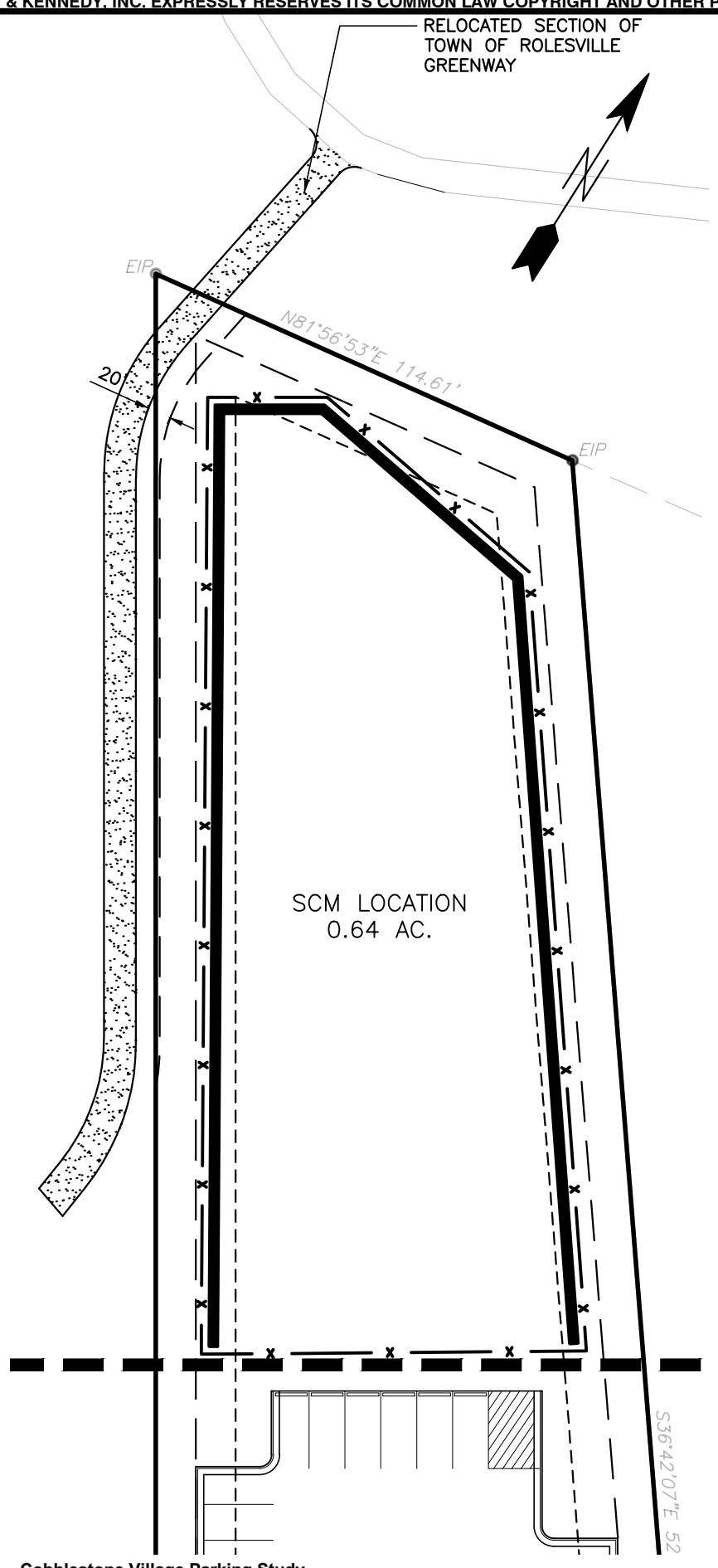
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

SHEET C0.1

TOWN OF ROLESVILLE PROJECT NO. _____

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

NO.	DATE	DESCRIPTION	BY



Cobblestone Village Parking Study
 June 21, 2021

Total Square Footage and Unit Tabulation

Building	Residential SF	Commercial SF	Community Center SF	Retail/Flex SF	Residential Units
Building 1	16,461	0	0	0	30
Building 2	16,641	0	0	0	30
Building 3	11,405	0	0	0	20
Building 4	18,200	0	0	0	40
Building 5	3,816	0	0	0	40
Building 6	18,148	0	0	0	40
Building 7	51,882	0	0	0	40
Building 8	17,453	0	0	0	40
Total	182,000	0	0	0	180

NON-OPTIMIZED Single-Use Parking Requirements

Parking Coefficient	1000	1000	1000	50,000 SF	31,000 SF	21	per unit	Total
Parking Count	0	0	0	60.00	150.00	360	360	360
Single-Use Required	0	0	0	0	0	0	0	0

OPTIMIZED Peak Hour Percentage Factors

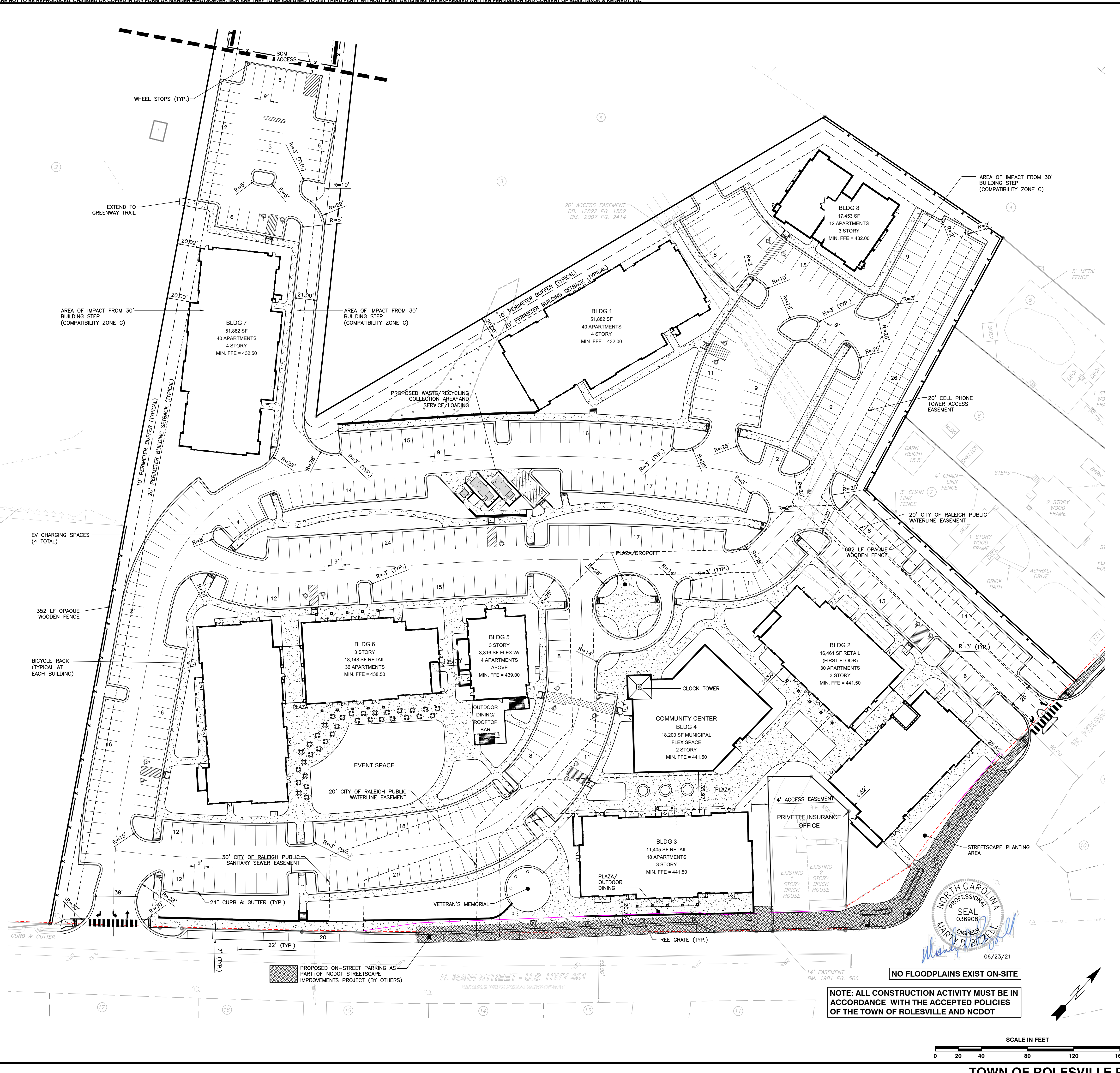
TIME	% of peak demand	pm only	% of peak demand	% of peak demand	% of peak demand	Total Hourly
6:00 AM	0%	0	0	100%	100%	200.0
7:00 AM	6%	0	20%	11	8%	37.2
8:00 AM	18%	0	63%	35	18%	284.4
9:00 AM	42%	0	59%	62	42%	262.8
10:00 AM	60%	0	100%	55	60%	244.8
11:00 AM	60%	0	100%	55	60%	212.4
12:00 PM	90%	0	30%	50	90%	216.0
1:00 PM	90%	0	30%	50	90%	216.0
2:00 PM	80%	0	30%	54	80%	216.0
3:00 PM	60%	0	30%	60	60%	216.0
4:00 PM	50%	0	77%	43	50%	237.6
5:00 PM	40%	0	73%	26	40%	212.4
6:00 PM	50%	0	73%	13	50%	300.0
7:00 PM	60%	0	73%	4	60%	300.0
8:00 PM	67%	0	73%	4	67%	345.6
9:00 PM	67%	0	73%	2	67%	350.4
10:00 PM	50%	0	73%	2	50%	300.0
11:00 PM	13%	0	73%	0	13%	120.0
12:00 AM	0%	0	73%	0	0%	300.0

Peak Demand Required

Parking Provided - On-Site	481
Parking Provided - On-Street	24
Total Parking Provided	481

OVERALL SITE DATA

SITE AREA 10.96 AC (477,418 SF±)
P.I.N. 1769-01-0454, 1769-01-4357, 1769-01-3355
 1769-01-3468, 1769-01-2542, 1769-01-3520
 1769-01-4654, 1769-01-5454, 1769-01-5408, 1769-01-4576
ZONING DISTRICT: TOWN CENTER (TC)
 RESIDENTIAL, MIXED USE
OPEN SPACE AREA: 3.48 AC
IMPERVIOUS AREA: 7.48 AC
IMPERVIOUS AREA (%): 68%
APARTMENT MIX
 1 BEDROOM 112 UNITS
 1 BEDROOM/ LOFT 4 UNITS
 2 BEDROOM 64 UNITS
TOTAL APARTMENTS 180 UNITS
RESIDENTIAL DENSITY: 16.4 UNITS/ACRE
RETAIL/COMMERCIAL: 49,830 SQUARE FEET
MUNICIPAL FLEX SPACE: 18,200 SQUARE FEET
TOTAL: 68,030 SQUARE FEET
EVENT SPACE: 0.44 ACRES/ 18,976 SQUARE FEET
PARKING REQUIREMENTS PER TC DISTRICT DEVELOPMENT STANDARDS
 MIXED USE RESIDENTIAL: 2.0 SPACES PER UNIT 180 x 2 = 360 SPACES REQUIRED
 MIXED USE NON-RESIDENTIAL: 3 SPACES PER 1000 GSF 68,030/1000 x 3 = 205 SPACES REQUIRED
TOTAL PARKING REQUIRED/PROVIDED: 565 SPACES REQUIRED/ 483 PROVIDED
 5% OF ON STREET PARKING MAY BE COUNTED AS REQUIRED PARKING (28 ALLOWED/ 26 PROVIDED)
 15% PARKING REDUCTION ALLOWED FOR SHARED PARKING: 565 x .85 = 481 REQUIRED
BUILDING 1: 51,882 SF APARTMENTS
BUILDING 2: 16,641 SF RETAIL
BUILDING 3: 11,405 SF RETAIL
BUILDING 4: 18,200 SF MUNICIPAL
BUILDING 5: 3,816 FLEX W/ APARTMENTS
BUILDING 6: 18,148 SF RETAIL
BUILDING 7: 51,882 SF APARTMENTS
BUILDING 8: 17,453 SF APARTMENTS

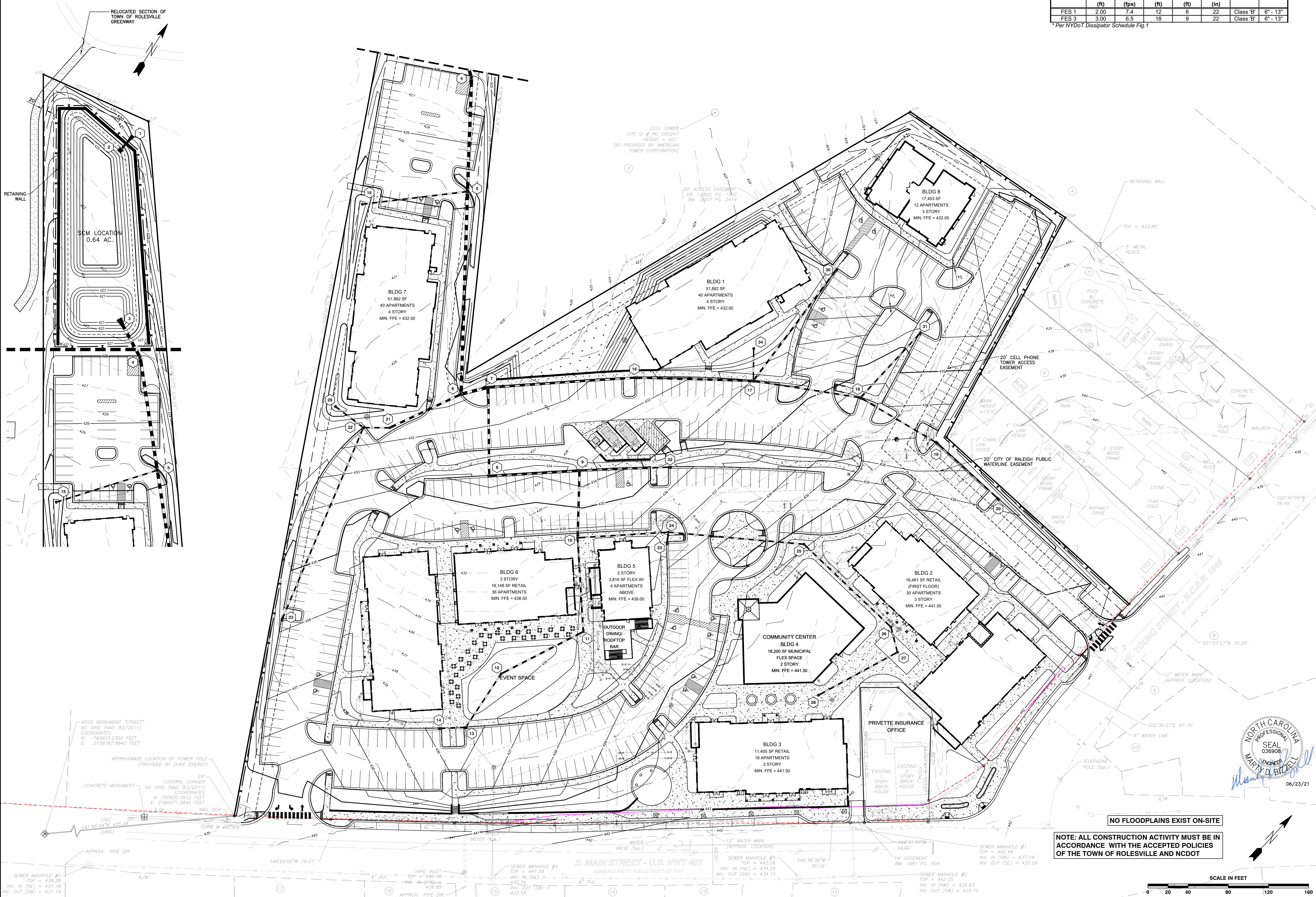


NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF ROLESVILLE AND NCDOT



Structure	d ₁ (ft)	Velocity (fps)	Length (ft)	Width (ft)	Depth (in)	Type	d ₅₀
FES 1	2.00	7.4	12	6	22	Class 'B'	6" - 13"
FES 3	3.00	6.5	18	9	22	Class 'B'	6" - 13"

* Per NYDOT Dissipator Schedule Fig.1



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BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 950, RALEIGH, NC 27607
TELEPHONE: (919) 851-1122 FAX: (919) 851-8686
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY

PROGRESS MRN
DATE DRAWN BY
GRADING PLAN
SCALE: 1" = 40'
CHK BY: MDB

COBBLESTONE VILLAGE
MIXED USE DEVELOPMENT
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

SHEET **C3.1**



NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

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STORMDRAINAGE PIPE TABLE							
U.S. STRUCTURE	D.S. STRUCTURE	U.S. INVERT	D.S. INVERT	LENGTH	DIAMETER	MATERIAL	SLOPE
2	1	420.00	419.80	18.80	24	HDPE	1.06%
4	3	421.26	421.00	43.91	36	HDPE	0.60%
5	4	422.04	421.36	113.45	36	HDPE	0.60%
6	5	423.35	422.14	201.82	36	HDPE	0.60%
7	6	423.62	423.45	28.04	36	HDPE	0.60%
8	7	425.82	424.94	88.24	24	HDPE	1.00%
9	8	426.82	425.92	90.21	24	HDPE	1.00%
10	9	427.59	426.92	67.14	24	HDPE	1.00%
11	10	428.63	427.69	93.66	18	HDPE	1.00%
12	11	429.65	428.73	91.93	18	HDPE	1.00%
13	12	430.39	429.75	63.96	15	HDPE	1.00%

STORMDRAINAGE PIPE TABLE							
U.S. STRUCTURE	D.S. STRUCTURE	U.S. INVERT	D.S. INVERT	LENGTH	DIAMETER	MATERIAL	SLOPE
14	13	430.75	430.49	25.95	15	HDPE	1.00%
15	5	424.10	423.05	105.41	15	HDPE	1.00%
16	7	424.61	423.72	147.77	24	HDPE	0.60%
17	16	425.41	424.71	116.44	24	HDPE	0.60%
18	17	428.85	427.77	107.92	15	HDPE	1.00%
19	18	431.57	430.69	88.39	15	HDPE	1.00%
20	19	432.50	431.67	83.01	15	HDPE	1.00%
21	6	424.24	423.45	78.65	24	HDPE	1.00%
22	21	424.60	424.34	26.08	15	HDPE	1.00%
23	22	426.78	424.70	207.76	15	HDPE	1.00%
24	10	432.22	430.86	90.55	15	HDPE	1.50%

STORMDRAINAGE PIPE TABLE							
U.S. STRUCTURE	D.S. STRUCTURE	U.S. INVERT	D.S. INVERT	LENGTH	DIAMETER	MATERIAL	SLOPE
25	24	434.35	432.32	135.44	15	HDPE	1.50%
26	25	438.26	437.54	119.60	15	HDPE	0.60%
27	26	438.42	438.26	25.90	15	HDPE	0.60%
28	27	438.96	438.42	89.48	15	HDPE	0.60%
29	22	425.05	424.70	34.83	15	HDPE	1.00%
30	17	426.34	425.51	137.91	18	HDPE	0.60%
31	18	429.82	428.95	87.08	15	HDPE	1.00%
32	9	429.50	428.60	90.23	15	HDPE	1.00%
33	24	432.43	432.32	11.23	15	HDPE	1.00%
34	17	428.09	427.77	32.09	12	HDPE	1.00%

STORMDRAINAGE STRUCTURE TABLE		
STRUCTURE NAME	INSERTION RIM ELEVATION (FLOWLINE)	STRUCTURE TYPE
1	422.45 INV. IN= 419.80 (2)	24" FES
2	425.18 INV. OUT= 420.00 (1)	RISER
3	424.83 INV. IN= 421.00 (4)	36" FES
4	428.06 INV. IN= 421.36 (5) INV. OUT= 421.26 (3)	NCDOT CURB INLET
5	429.99 INV. IN= 422.14 (6) INV. IN= 423.05 (15) INV. OUT= 422.04 (4)	NCDOT CURB INLET
6	430.99 INV. IN= 423.45 (7) INV. IN= 423.45 (21) INV. OUT= 423.35 (5)	NCDOT CURB INLET
7	431.10 INV. IN= 424.94 (8) INV. IN= 423.72 (16) INV. OUT= 423.62 (6)	NCDOT CURB INLET
8	433.95 INV. IN= 425.92 (9) INV. OUT= 425.82 (7)	NCDOT CURB INLET
9	433.95 INV. IN= 426.92 (10) INV. IN= 428.60 (32) INV. OUT= 426.82 (8)	NCDOT CURB INLET

STORMDRAINAGE STRUCTURE TABLE		
STRUCTURE NAME	INSERTION RIM ELEVATION (FLOWLINE)	STRUCTURE TYPE
10	436.44 INV. IN= 427.69 (11) INV. IN= 430.86 (24) INV. OUT= 427.59 (9)	HDPE YARD INLET
11	437.44 INV. IN= 428.73 (12) INV. OUT= 428.63 (10)	HDPE YARD INLET
12	435.50 INV. IN= 429.75 (13) INV. OUT= 429.65 (11)	HDPE YARD INLET
13	436.00 INV. IN= 430.49 (14) INV. OUT= 430.39 (12)	NCDOT CURB INLET
14	436.00 INV. OUT= 430.75 (13)	NCDOT CURB INLET
15	428.50 INV. OUT= 424.10 (5)	HDPE YARD INLET
16	432.34 INV. IN= 424.71 (17) INV. OUT= 424.61 (7)	NCDOT CURB INLET
17	434.06 INV. IN= 427.77 (18) INV. IN= 425.51 (30) INV. IN= 427.77 (34) INV. OUT= 425.41 (16)	NCDOT CURB INLET
18	436.03 INV. IN= 430.69 (19) INV. IN= 428.95 (31) INV. OUT= 428.85 (17)	NCDOT CURB INLET

STORMDRAINAGE STRUCTURE TABLE		
STRUCTURE NAME	INSERTION RIM ELEVATION (FLOWLINE)	STRUCTURE TYPE
19	437.51 INV. IN= 431.67 (20) INV. OUT= 431.57 (18)	NCDOT CURB INLET
20	438.65 INV. OUT= 432.50 (19)	NCDOT CURB INLET
21	431.60 INV. IN= 424.34 (22) INV. OUT= 424.24 (6)	HDPE YARD INLET
22	432.00 INV. IN= 424.70 (23) INV. IN= 424.70 (29) INV. OUT= 424.60 (21)	NCDOT CURB INLET
23	435.97 INV. OUT= 426.78 (22)	NCDOT CURB INLET
24	437.18 INV. IN= 432.32 (33) INV. IN= 432.32 (25) INV. OUT= 432.22 (10)	HDPE YARD INLET
25	440.83 INV. IN= 437.54 (26) INV. OUT= 434.35 (24)	HDPE YARD INLET
26	441.63 INV. IN= 438.26 (27) INV. OUT= 438.26 (25)	HDPE YARD INLET
27	441.50 INV. IN= 438.42 (28) INV. OUT= 438.42 (26)	HDPE YARD INLET

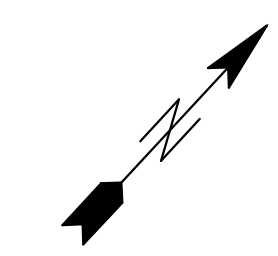
STORMDRAINAGE STRUCTURE TABLE		
STRUCTURE NAME	INSERTION RIM ELEVATION (FLOWLINE)	STRUCTURE TYPE
28	441.72 INV. OUT= 438.96 (27)	HDPE YARD INLET
29	428.50 INV. OUT= 425.05 (22)	HDPE YARD INLET
30	430.24 INV. OUT= 426.34 (17)	NCDOT CURB INLET
31	434.19 INV. OUT= 429.82 (18)	NCDOT CURB INLET
32	435.81 INV. OUT= 429.50 (9)	NCDOT CURB INLET
33	437.54 INV. OUT= 432.43 (24)	NCDOT CURB INLET
34	431.00 INV. OUT= 428.09 (17)	HDPE YARD INLET



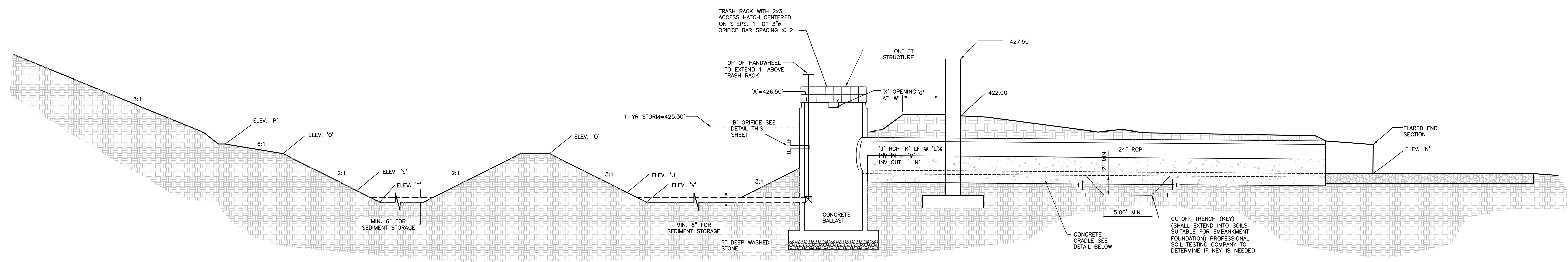
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 6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
 TELEPHONE: (919) 881-4422 FAX: (919) 881-8686
 CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY

03-19157 - PROGRESS MRM
 DATE DRAWN BY
STORM DRAINAGE PIPE & STRUCTURE TABLE
 SCALE: CHK BY: MDB



SHEET
C3.8



CROSS-SECTION OF WET POND A-A

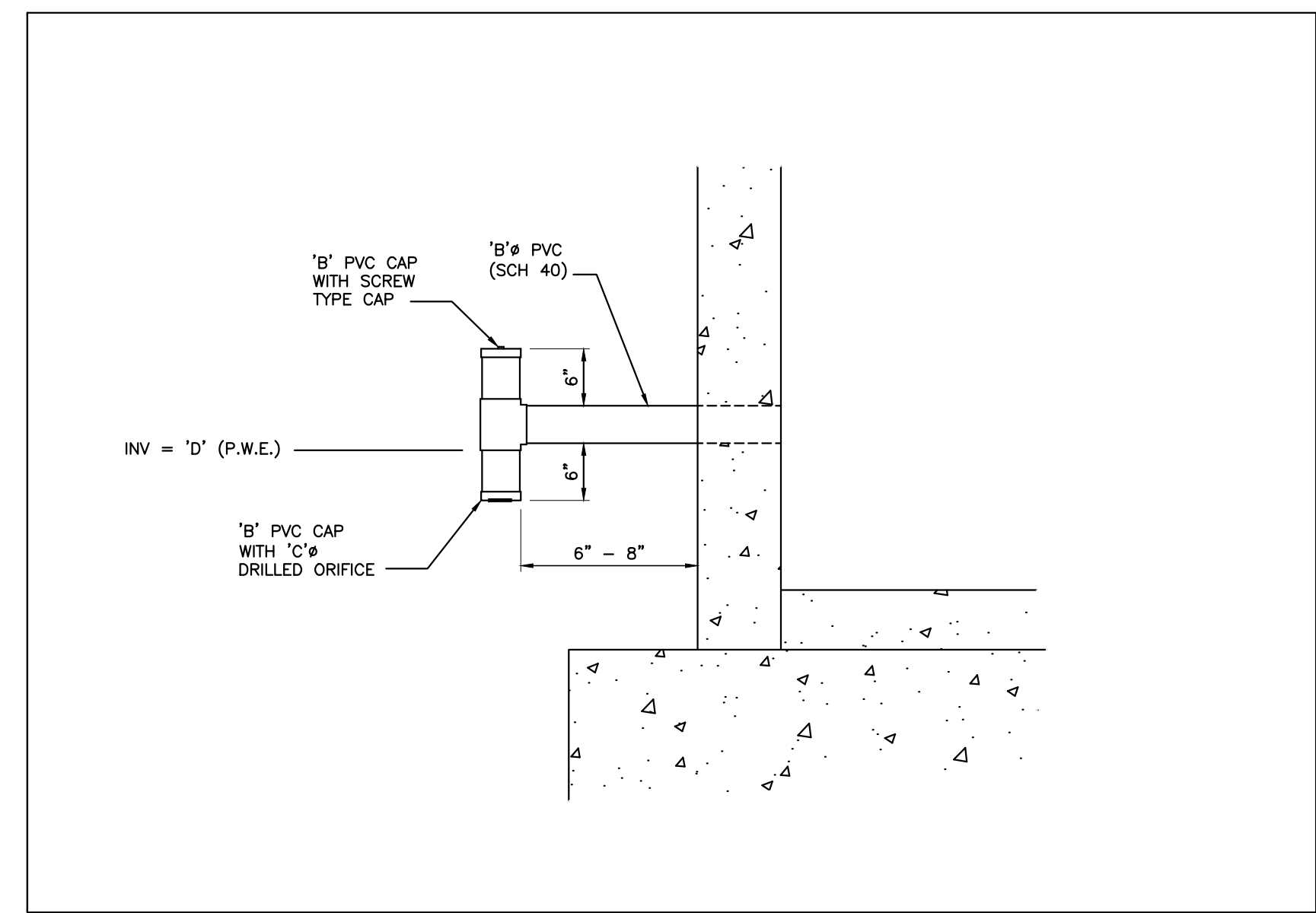
NTS

BOUANCY CALCULATIONS FOR RISER/BARREL
COBBLESTONE VILLAGE
WET POND - SCM

Square Riser Inside Length (ft):	4.0
Riser Wall Thickness (in):	6
Pond Bottom Elevation (ft):	420.00
Riser Crest Elevation (ft):	426.50
Density of Riser Mat (lb/cf):	150.00
Pipe Inside Diameter (in):	24
Pipe Wall Thickness (in):	3
Length of Pipe Exposed (ft):	1.00
Density H2O (lb/cf):	62.40
Volume H2O Displaced by Riser (cf):	131.63
Weight H2O Displaced by Riser (lb):	8213.40
Volume H2O Displaced by Pipe (cf):	4.91
Weight H2O Displaced by Pipe (lb):	306.31
Total Uplift Force (lb):	8519.71
Weight of Riser (lb):	4,144
Weight of Pipe (lb):	285.07
Pipe/Riser Downward Force (lb):	4408.82

Ballast Concrete:

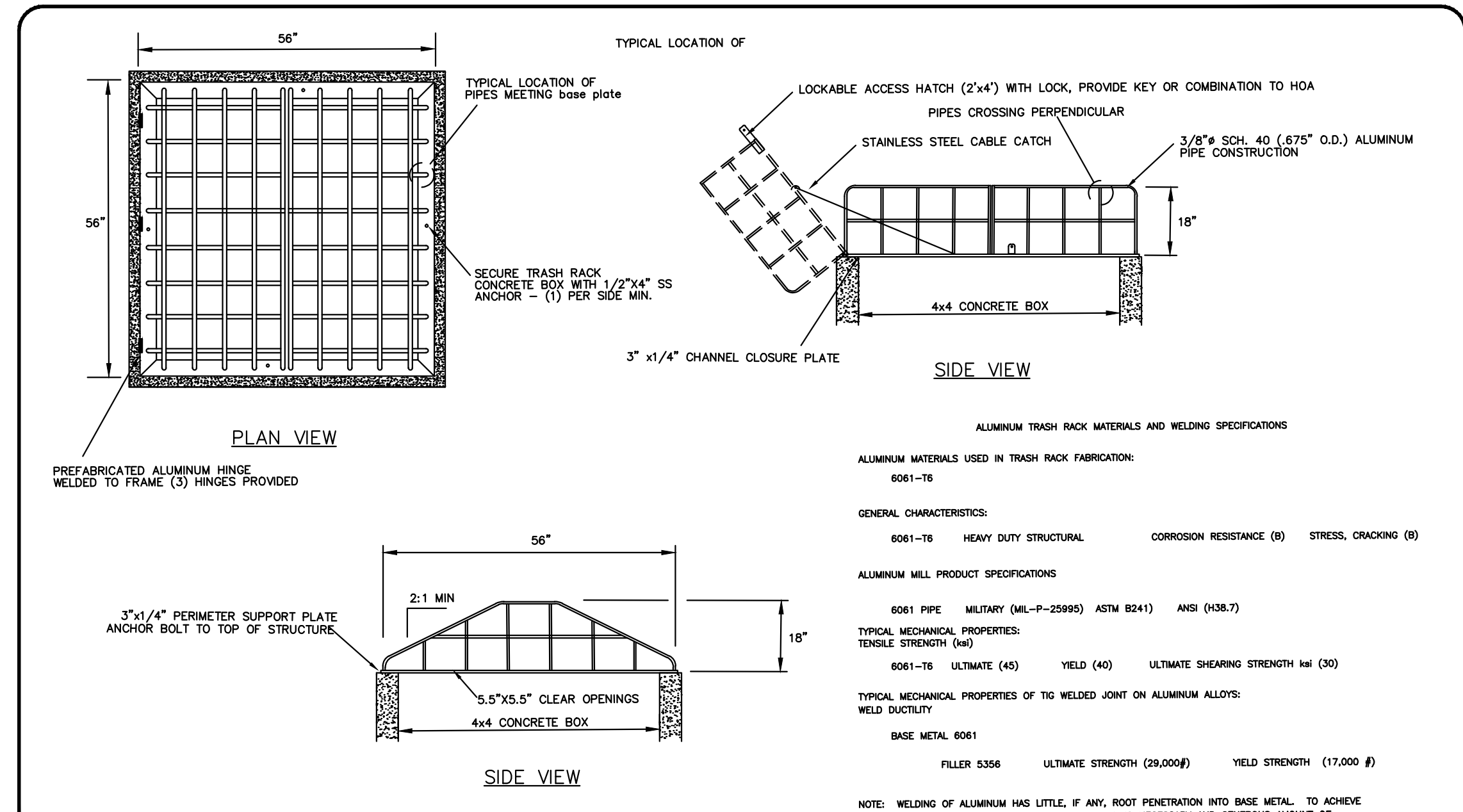
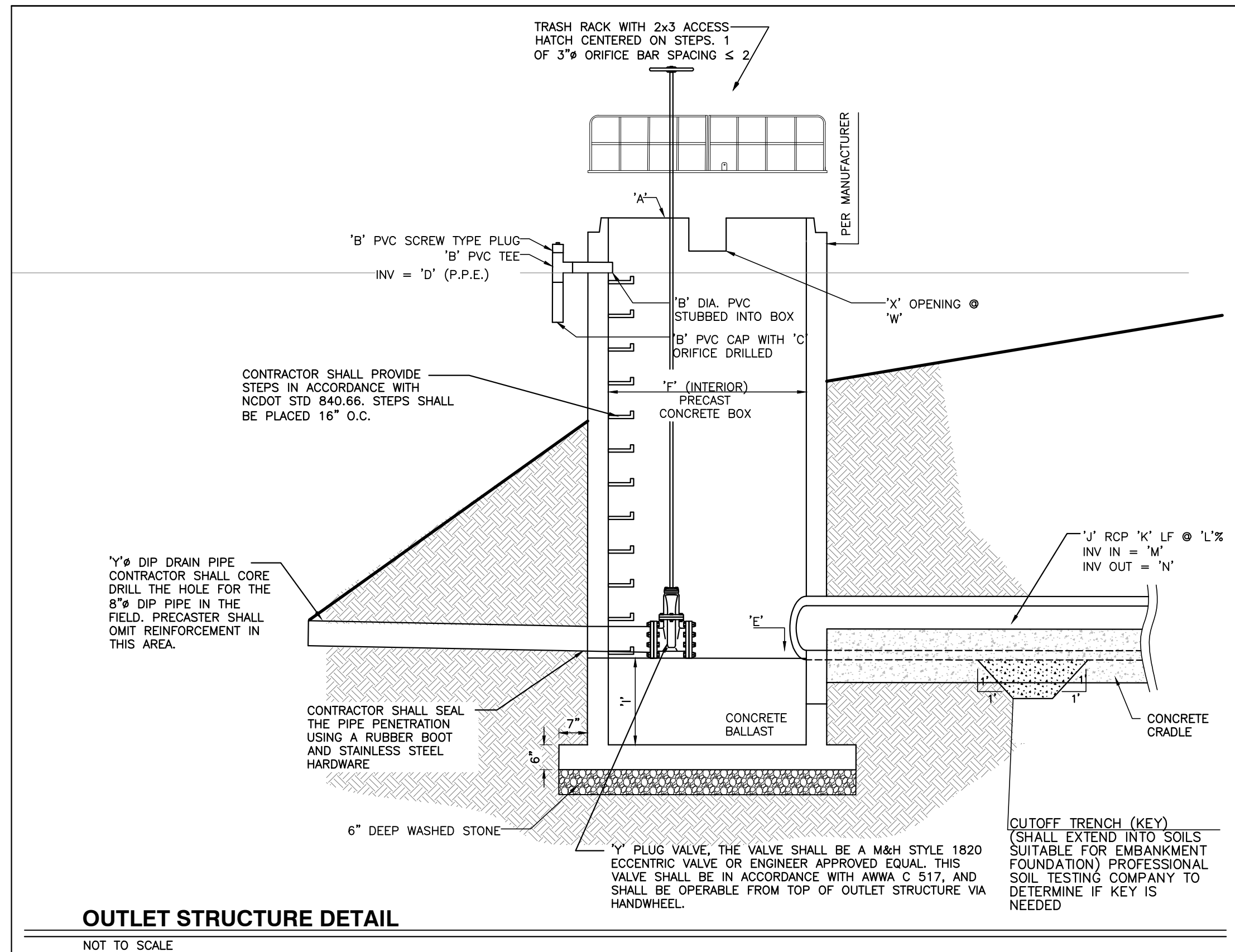
Minimum Factor of Safety:	1.2
Required ballast thickness (in):	37.02
Provided Ballast Thickness (in):	40
Total Downward Force (lb):	10,692
Provided Factor of Safety:	1.25



POND LEGEND - SCM

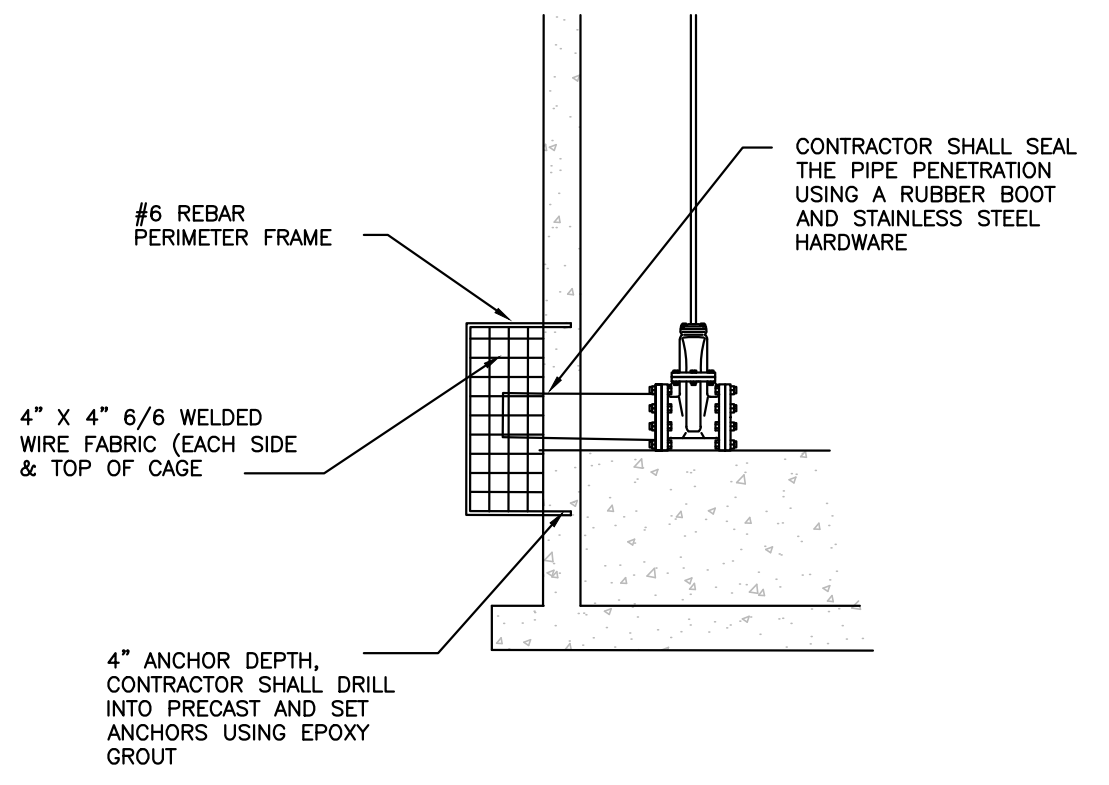
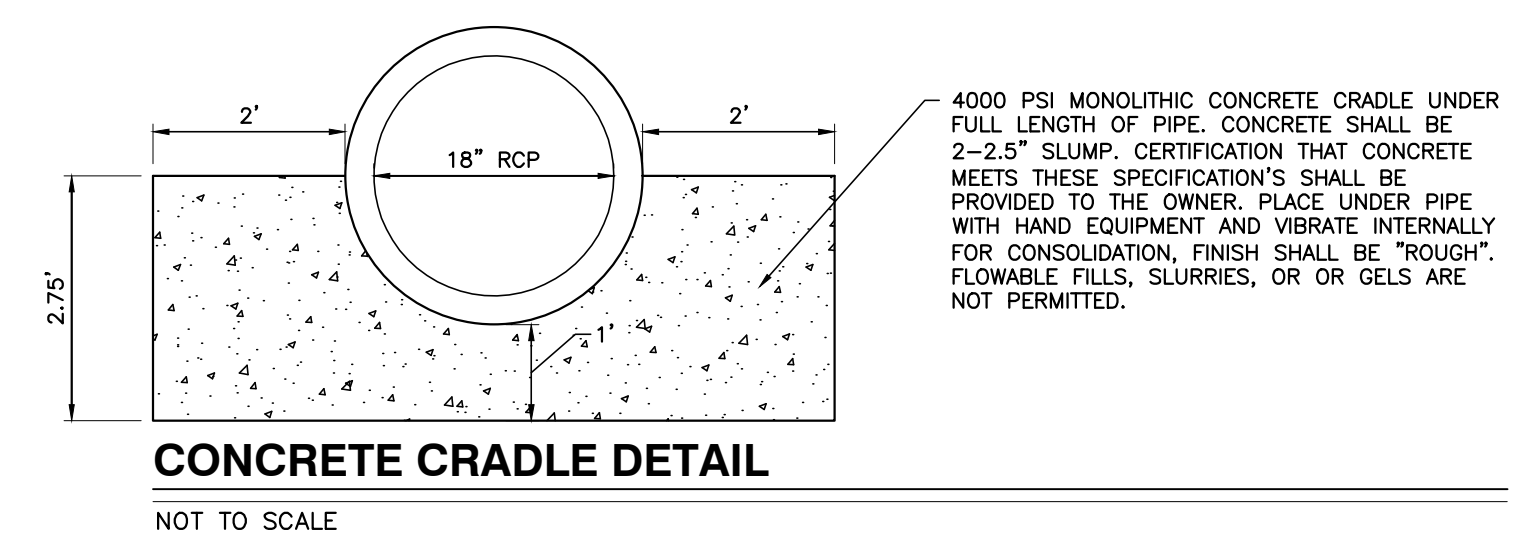
Description	Design	As-Built
A Top of Riser	426.50 ft	
B Diameter of PVC Drawdown Pipe	4 in	
C Drawdown Orifice Opening	2.5 in	
D Drawdown Pipe Elevation / Permanent Pool	424.50 ft	
E Inside Bottom Riser Elevation	420.00 ft	
F Outlet Structure Size	4ft x 4ft	
G Top of Berm Width	10 ft	
H Top of Dam	428.00 ft	
I Ballast Thickness	40 in	
J Size of Outlet Pipe	24 in	
K Length of Outlet Pipe	18 ft	
L Slope of Outlet Pipe	2.78 %	
M Invert in Outlet Pipe	420.00 ft	
N Invert Out Outlet Pipe	419.80 ft	
O Top Elevation Forebay Berm	424.00 ft	
P Elevation Top of Litoral Shelf	425.00 ft	
Q Elevation Bottom of Litoral Shelf	424.00 ft	
R Slope of Litoral Shelf	6:1	
S Sediment Cleanout Elevation Forbay	422.00 ft	
T Bottom Elevation Forebay	421.00 ft	
U Sediment Cleanout Elevation Permanent Pool	421.00 ft	
V Bottom Elevation Permanent Pool	420.00 ft	
W Elevation Secondary Weir	426.20 ft	
X Width Secondary Weir	12 in	

Special Instructions
 Place Drawdown pipe opposite of outlet pipe and ensure a minimum of 12" clearance between drawdown pipe opening and ground elevation to allow for proper drainage. Place secondary weir above drawdown pipe on same side of outlet structure.



TRASH RACK SUBMITTAL - Aluminum Trashrack for 4x4 Box

TRASH RACK DETAIL



NO FLOODPLAINS EXIST ON-SITE

NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF ROLESVILLE AND NCDOT

NO.	DATE	DESCRIPTION	BY

PROGRESS DRAWN BY: MRM
 DATE: 06-23-2021
 JOB NO.: 03-19157

BMP DETAILS

SCALE: N.T.S.
 CHK BY: MDB

COBBLESTONE VILLAGE
MIXED USE DEVELOPMENT
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

SHEET **C3.2**

CONSTRUCTION SEQUENCE - STAGE 2

1. BEGIN CONSTRUCTION OF ALL BUILDINGS.
 2. STABILIZE SITE AS NEW DISTURBED AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDATED AREAS PER GROUND STABILIZATION TIME FRAMES.
 3. WHEN CONSTRUCTION OF PARKING LOTS ARE COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL ENVIRONMENTAL CONSULTANT FOR AN INSPECTION.
 4. IF THE SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
 5. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT, OBTAIN A CERTIFICATE OF COMPLETION.
- NOTE: WAKE COUNTY MUST GRANT PERMISSION TO CONVERT THE SEDIMENT BASIN OVER TO THE STORMWATER USE PRIOR TO COMPLETING ANY RELATED WORK.
- TOTAL DISTURBED AREA = 10.96 AC
- ENVIRONMENTAL CONSULTANT: JEEVAN NEUPANE (919-819-8907)

REQUIRED WAKE COUNTY BASIN REMOVAL AND/OR CONVERSION SEQUENCE

1. SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE IF A BASIN CAN BE REMOVED OR CONVERTED TO A PERMANENT STORMWATER POND. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
2. UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SEDIMENT BASIN SURFACE FOR DRAW DOWN OF WATER FOR MAINTENANCE OR CLOSE OUT UNLESS INFEASIBLE. SEE REQUIREMENTS OF NC001 PERMIT PART II, SECTION C, ITEM (4) ENTITLED "DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT" AND REFER TO WAKE COUNTY "FILTER BAG FOR DEWATERING ACTIVITIES" CONSTRUCTION DETAIL.
3. REMOVE BASIN(S) AND ASSOCIATED TEMPORARY DIVERSION DITCHES. IF CULVERT PIPES NEED TO BE EXTENDED, PERFORM THIS OPERATION AT THIS TIME. FINE GRADE AREA IN PREPARATION FOR SEEDING.
4. PERFORM SEEDBED PREPARATION, SEED, MULCH AND ASPHALT TACK ANY RESULTING BARE AREAS IMMEDIATELY.
5. INSTALL VELOCITY DISSIPATORS AND/OR LEVEL SPREADERS AS REQUIRED ON THE EROSION CONTROL PLAN.
6. WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVISE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION. NOTE: A MEETING SHOULD ALSO BE SCHEDULED WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE WHEN A BASIN MAY BE CONVERTED FOR STORMWATER USE. SOME MUNICIPALITIES MAY ALSO REQUIRE THIS.

Skimmer Basin #2

Item	Value	Status
6.99 Drainage Area (Acres)	6.99	Okay
25.23 Peak Flow from 10-year Storm (cfs)	25.23	Okay
12.862 Required Volume (ft ³)	12.862	Okay
10975 Required Surface Area (ft ²)	10975	Okay
74.1 Suggested Width (ft)	74.1	Okay
148.2 Suggested Length (ft)	148.2	Okay
58 Trial Top Width at Spillway Invert (ft)	58	Okay
190 Trial Top Length at Spillway Invert (ft)	190	Okay
3 Trial Side Slope Ratio 2:1	3	Okay
3 Trial Depth (ft) (2 to 3.5 feet above grade)	3	Okay
46 Bottom Width (ft)	46	Okay
178 Bottom Length (ft)	178	Okay
8188 Bottom Area (ft ²)	8188	Okay
28740 Actual Surface Area (ft ²)	28740	Okay
11020 Actual Surface Area (ft ²)	11020	Okay
20 Trial Weir Length (ft)	20	Okay
0.75 Suggested Trial Depth of Flow (ft)	0.75	Okay
39.9 Spillway Capacity (cfs)	39.9	Okay
4 Skimmer Size (Inches)	4	Okay
0.333 Head on Skimmer (feet)	0.333	Okay
156 Orifice Size (1/4 inch increments)	156	Okay
4.20 Dewatering Time (days)	4.20	Okay

Skimmer Size (Inches)

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SEDIMENT BASIN SUMMARY CHART

Sediment Basin Number	1	2
Drainage Area (acres)	1.74	6.99
Q10(cfs)	(0.5)(7.22)(1.74)=6.28	(0.5)(7.22)(6.99)=25.23
Weir Size (ft)	10 x 1.5	10 x 1.5
Surface Area Required (SF)	(435)(6.28)=2,732	(435)(25.23)=10,975
Volume Required (CF)	(1800)(1.74)=3,132	(1800)(6.99)=12,582
Dimensions (ft)	see plans	see plans
Surface Area Provided (SF)	2,800	11,000
Volume Provided (CF)	5,646	27,900
Skimmer Size	4"	4"
Orifice Radius	0.4"	0.75"
Orifice Diameter	0.75"	1.5"
Drawdown Time (Days)	4.18	4.2
Number of Baffles	3	3

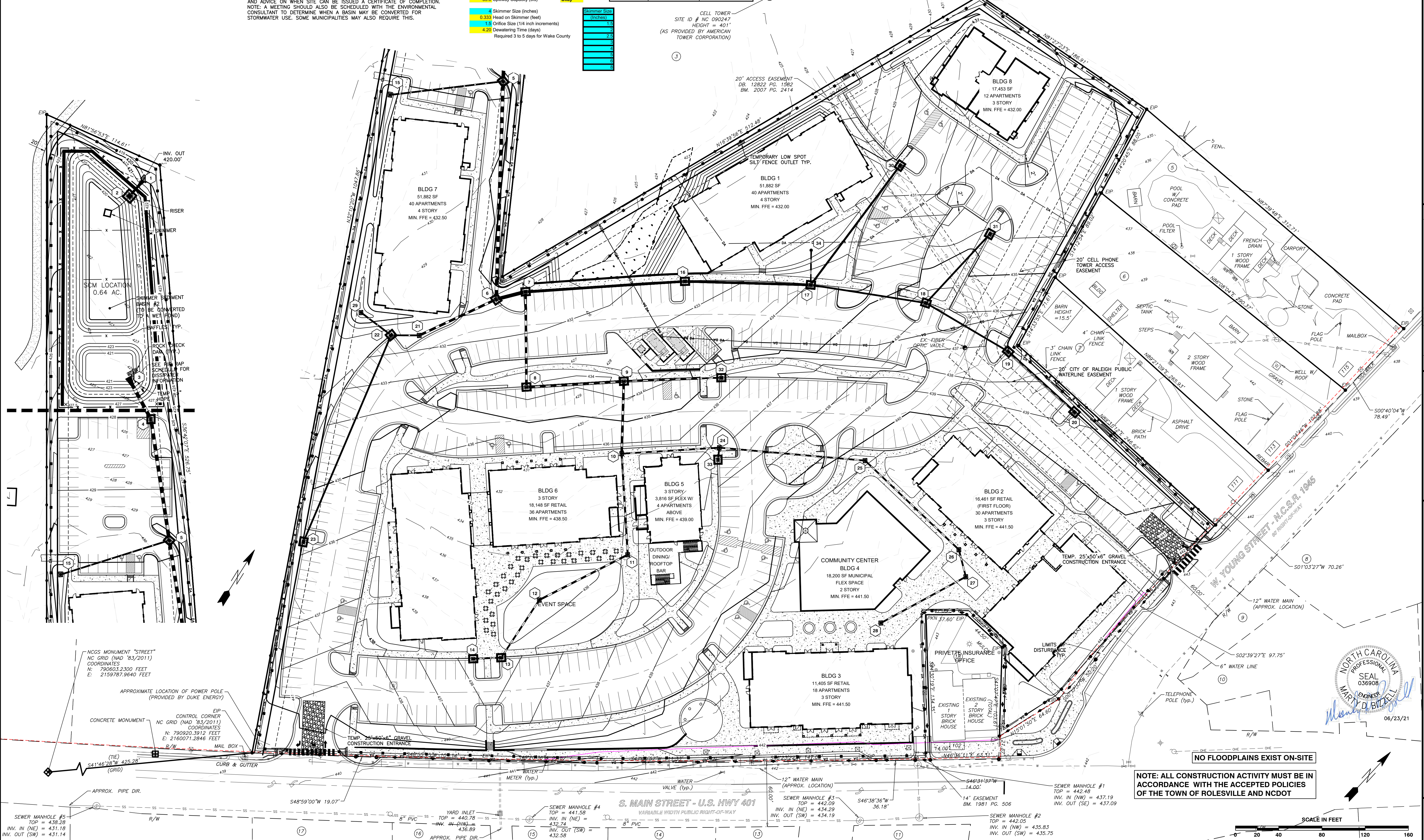
DITCH/CHANNEL CALCULATIONS

DIVERSION DITCH ID	LENGTH (LF)	DA (Ac)	Q10 (%)	SLOPE (FPS)	V10 (FPS)	LINER *	PERMISSIBLE SHEAR STRESS (PSF)	CALCULATED SHEAR STRESS (PSF)
DV-1	296	1.02	2.34	2.00	2.01	SC150	2.00	0.78
DV-2	495	1.00	2.30	2.60	2.29	SC150	2.00	0.94
DV-3	442	0.52	1.19	1.80	0.92	SC150	1.80	0.29
DV-4	167	0.06	0.13	2.90	0.96	SC150	1.80	0.38

* NAG = NORTH AMERICAN GREEN OR EQUIVALENT

LEGEND

- TEMP CONSTRUCTION ENTRANCE
- TEMP LOW SPOT SILT FENCE OUTLET
- TEMP INLET PROTECTION
- RIP-RAP DISSIPATOR
- TEMP SILT FENCE
- TEMP TREE PROTECTION FENCE
- LIMITS OF DISTURBANCE
- SEDIMENT BASIN BAFFLE
- TEMP TREE PROTECTION & SILT FENCE COMBO



BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
 6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
 TELEPHONE: (919)881-4122 FAX: (919)881-6868
 CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

COBBLESTONE VILLAGE
MIXED USE DEVELOPMENT
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

EROSION CONTROL PLAN - STAGE 2

NO. DATE DESCRIPTION REVISIONS

03-19157 PROGRESS MRN
 JOB NO. DATE DRAWN BY

SCALE: 1" = 40' CHK BY: MDB

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 MARY D. BILZELL
 06/23/21

NO FLOODPLAINS EXIST ON-SITE

NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF ROLESVILLE AND NCDOT

SCALE IN FEET

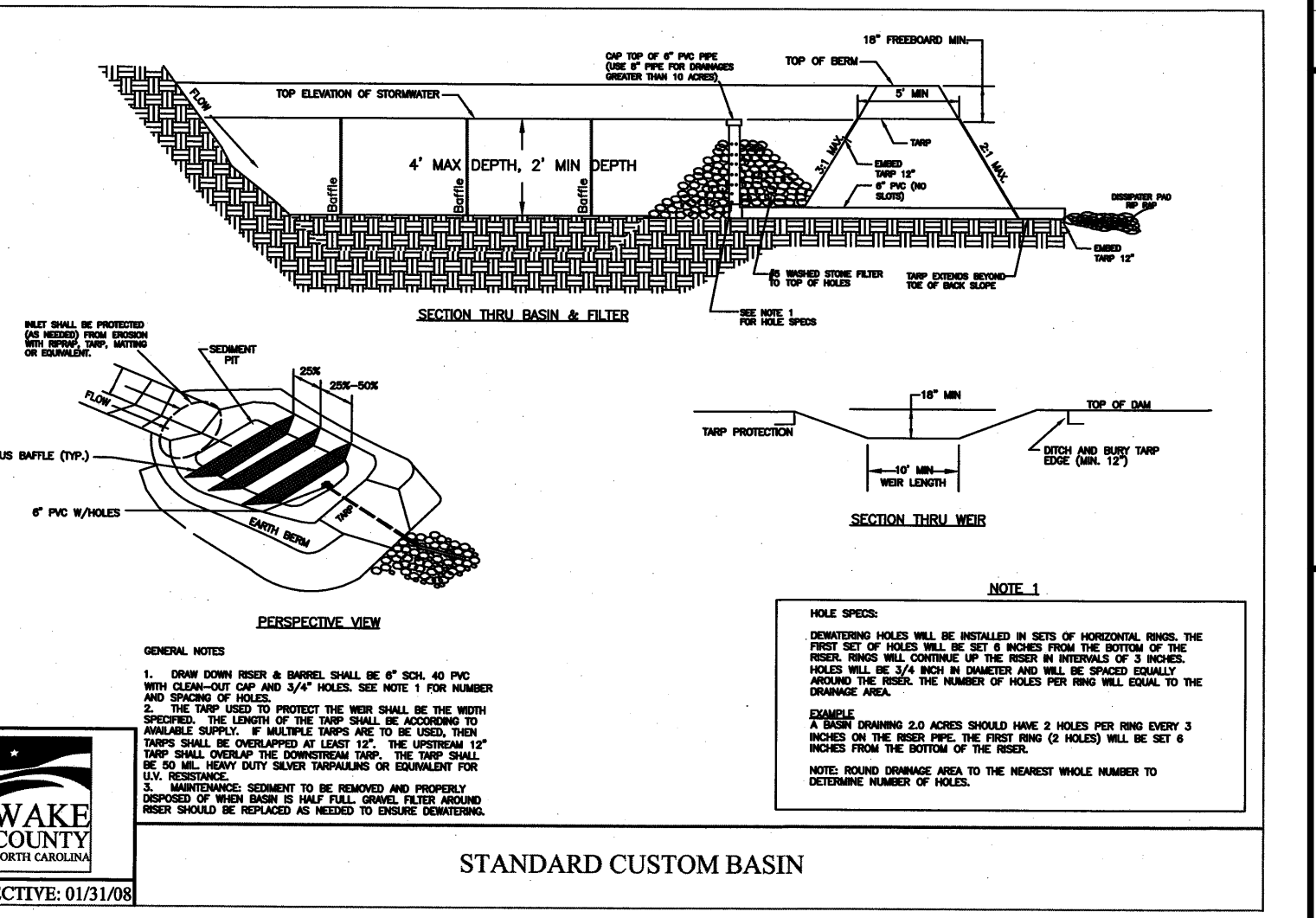
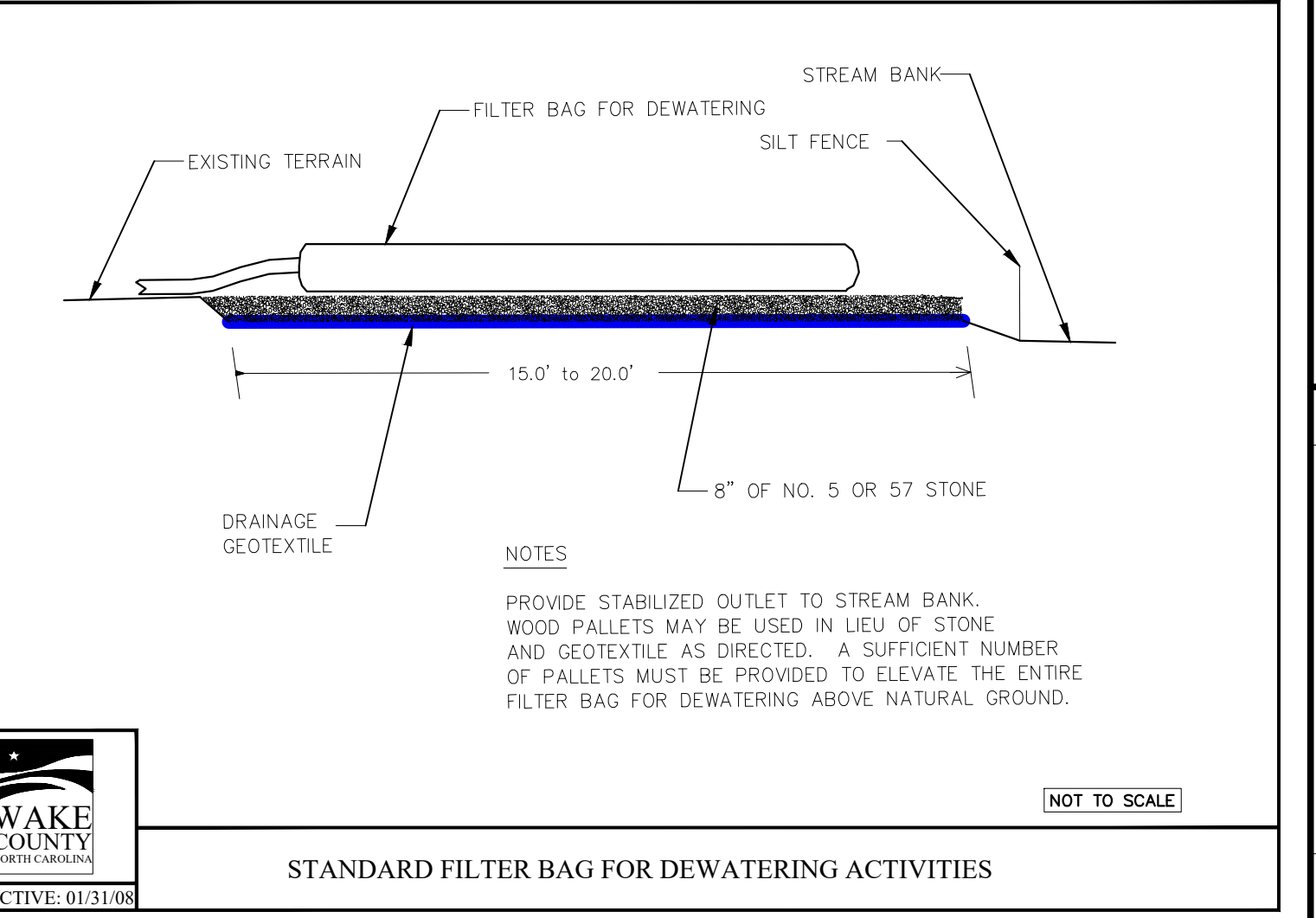
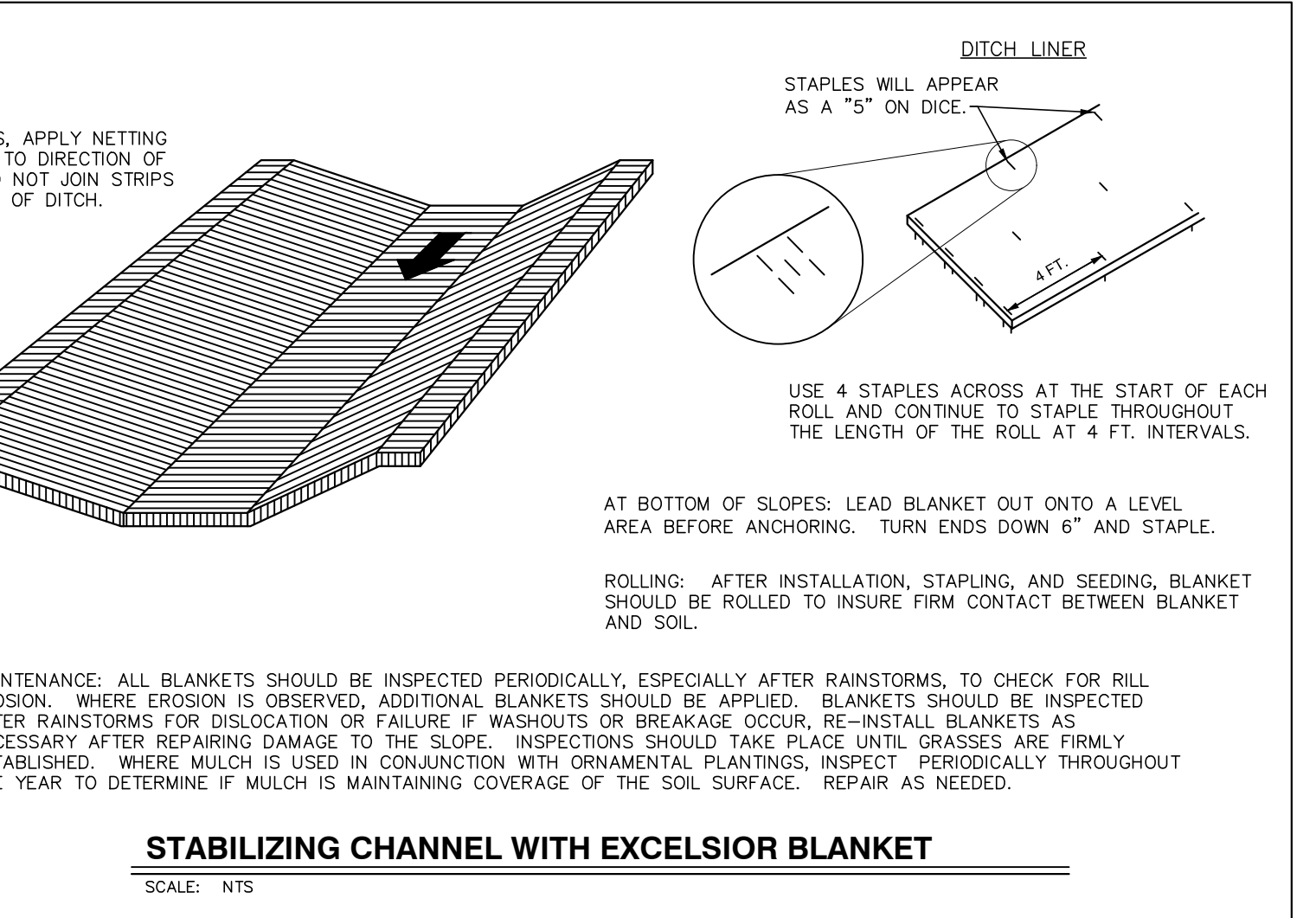
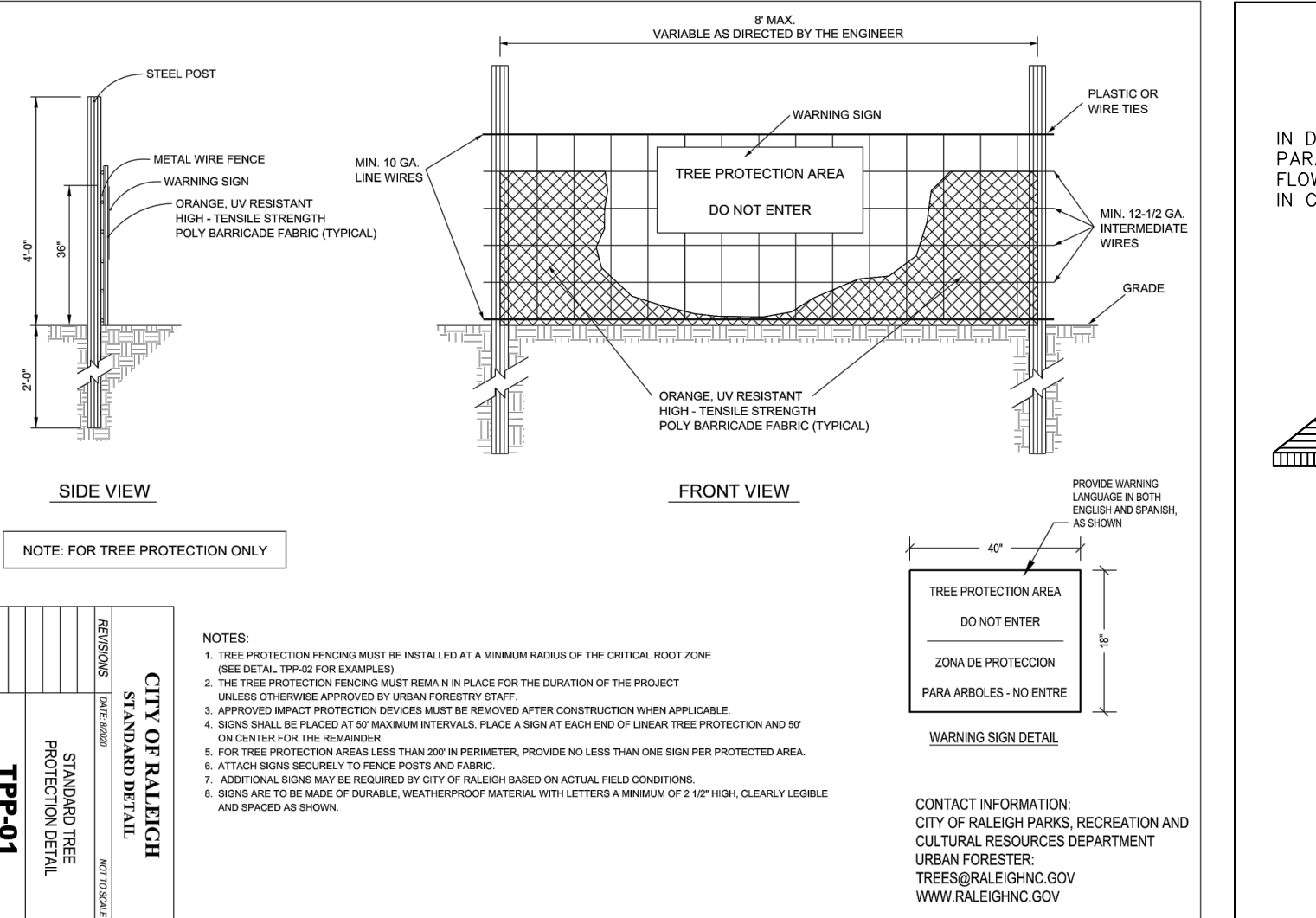
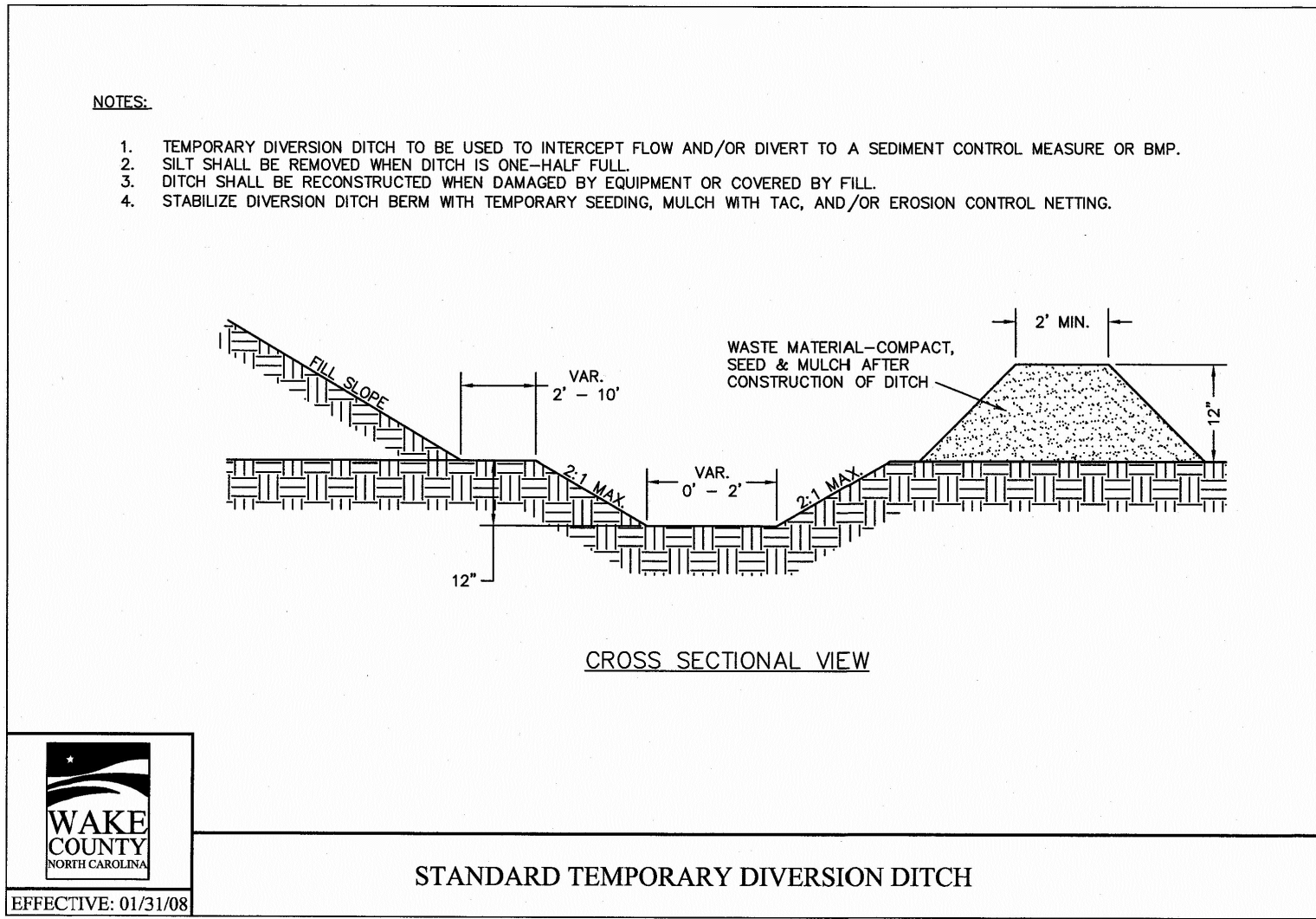
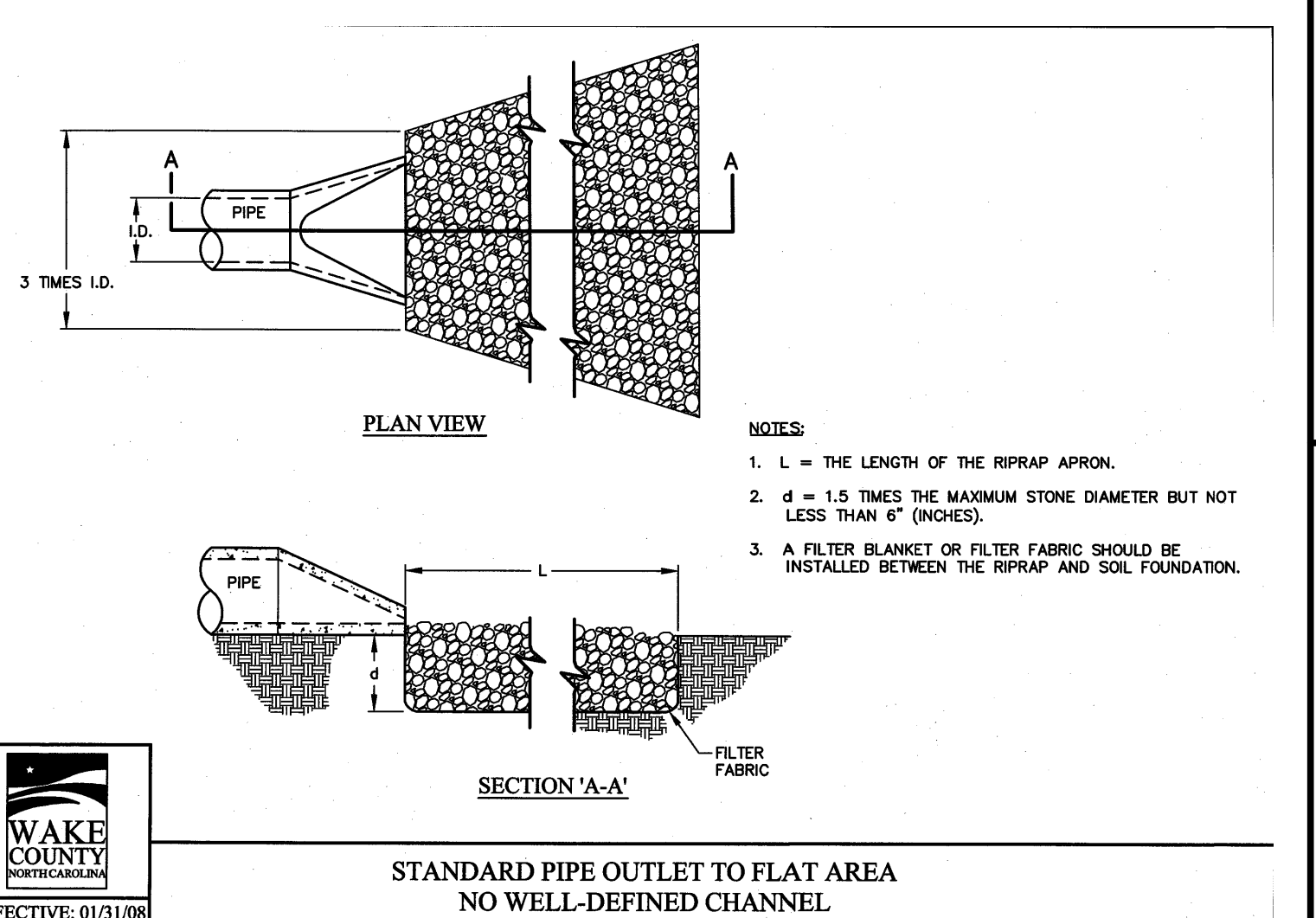
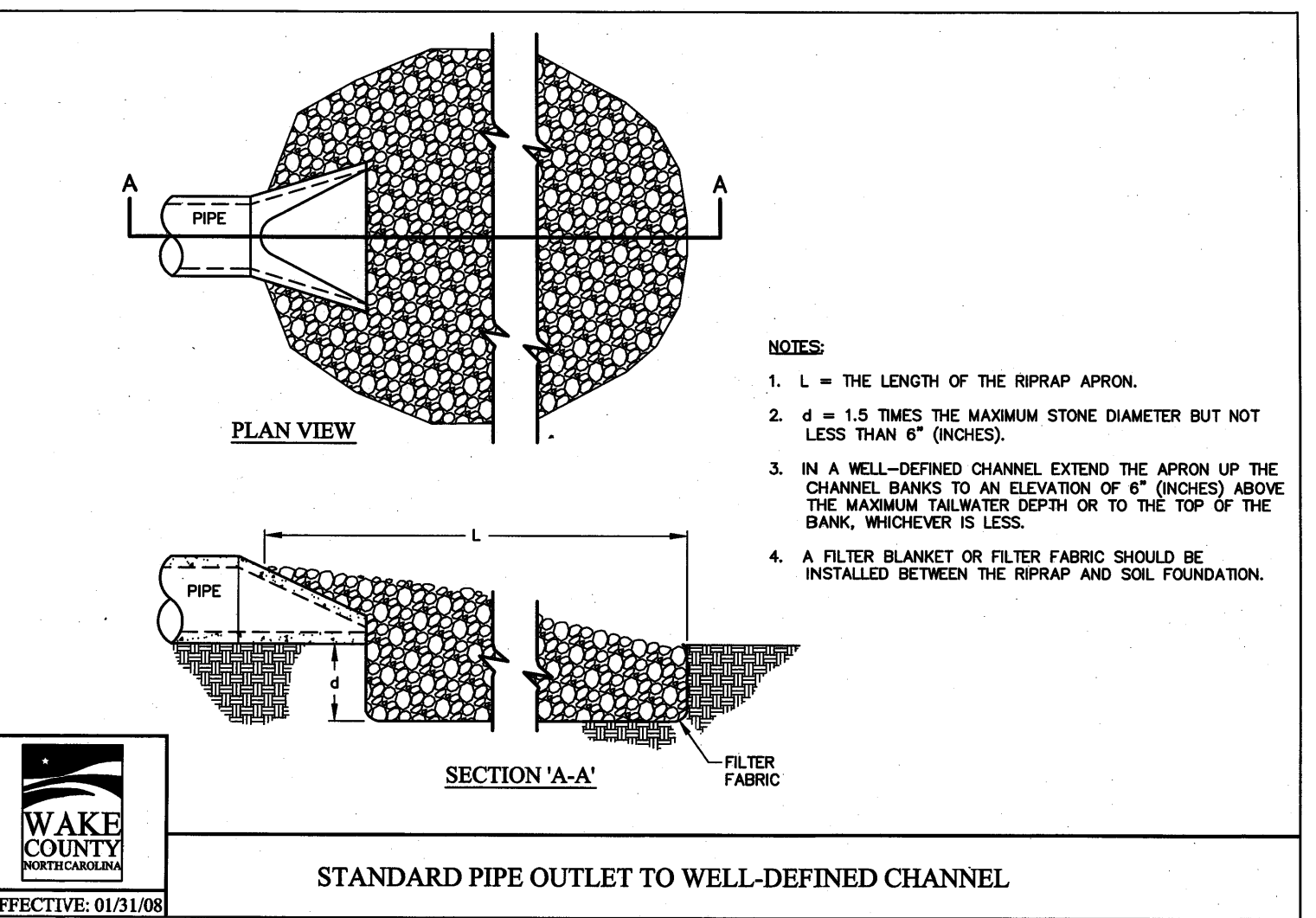
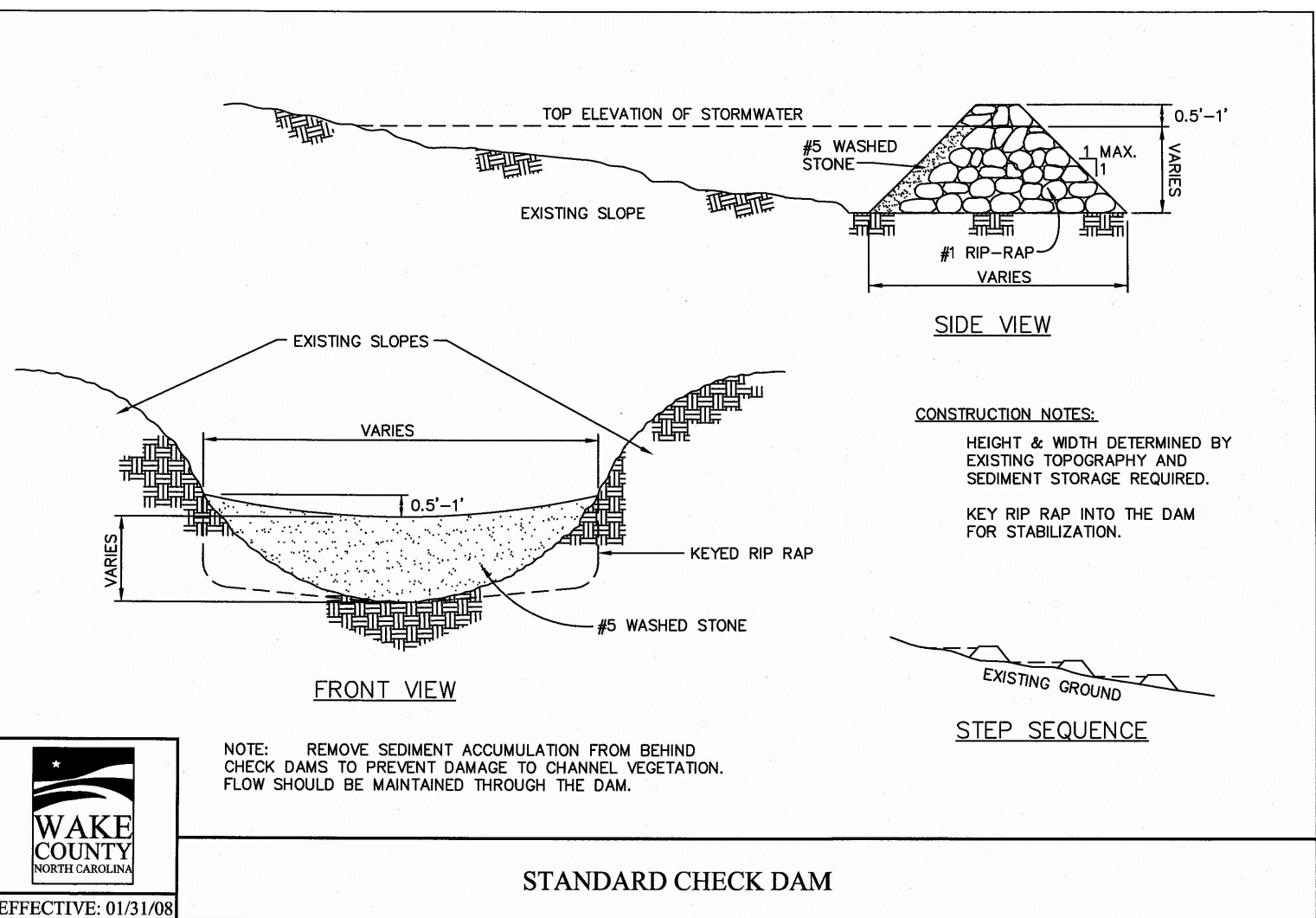
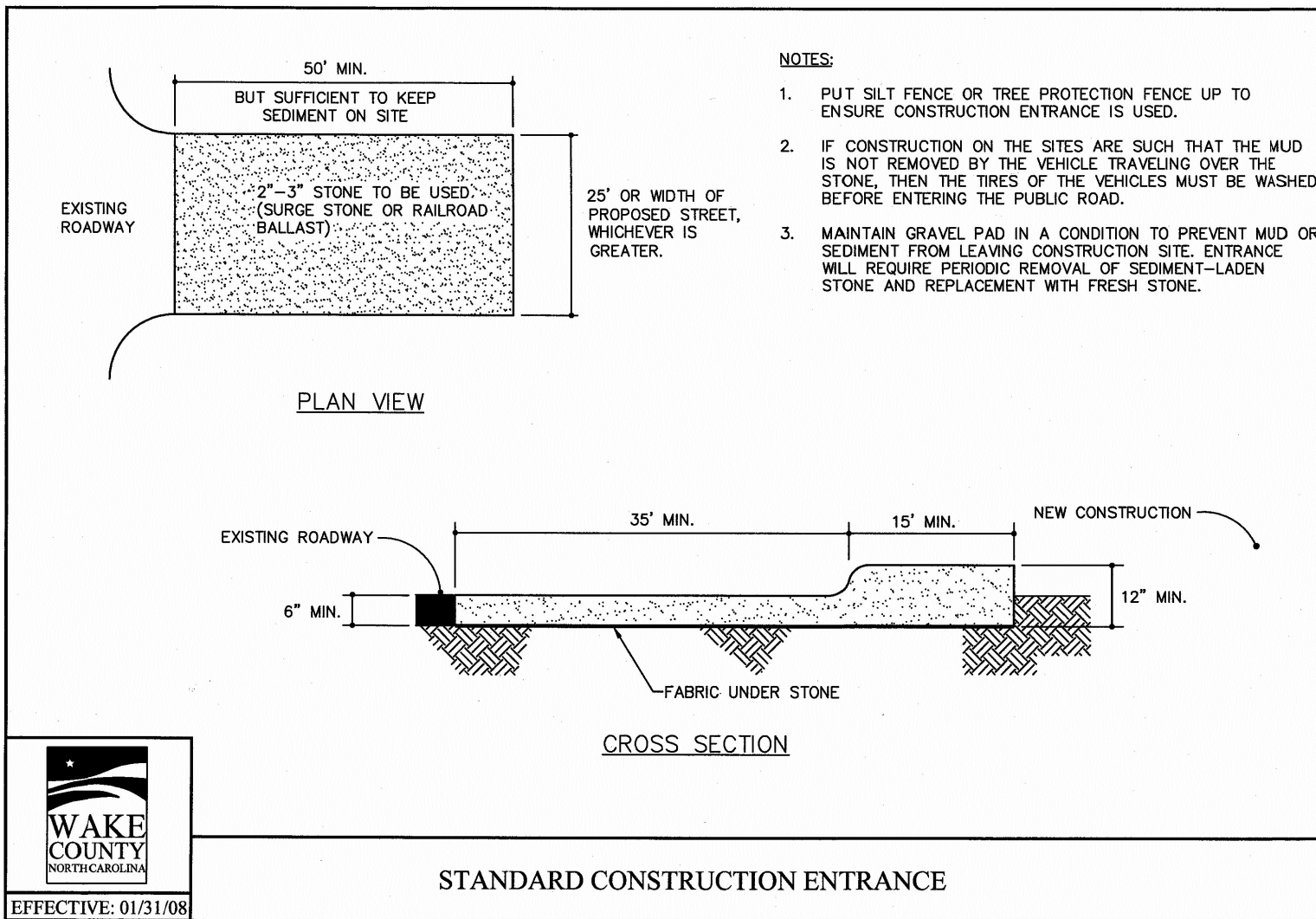
0 20 40 80 120 160

SHEET C3.4

TOWN OF ROLESVILLE PROJECT NO.

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

R:\2019\19157 - Rolesville Town Center\CIVIL\04 Construction\06 - 19157_Erosion Control Phase 2.dwg, Erosion Control Phase 2, 6/23/2021 10:17:28 AM, mtracumweller



BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
 6310 CHARLETT HILL ROAD, SUITE 250, RALEIGH, NC 27607
 TELEPHONE: (919) 881-1122 FAX: (919) 881-6888
 CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

COBBLESTONE VILLAGE MIXED USE DEVELOPMENT
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

PROGRESS MRN
DATE DRAWN BY
JOB NO. EROSION CONTROL DETAILS
 SCALE: N.T.S. CHK BY: MDB

NO.	DATE	DESCRIPTION	BY

REVISIONS

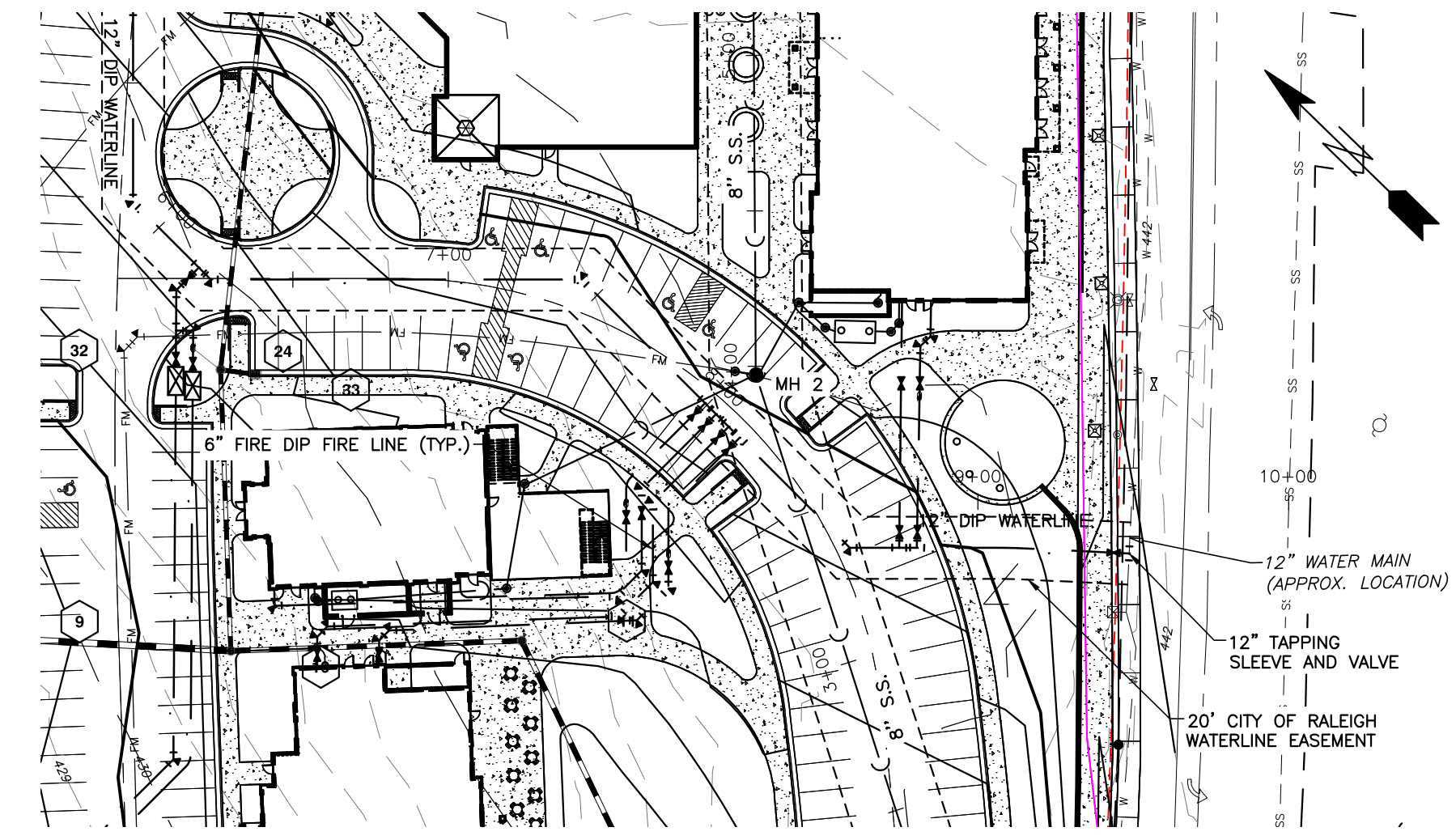
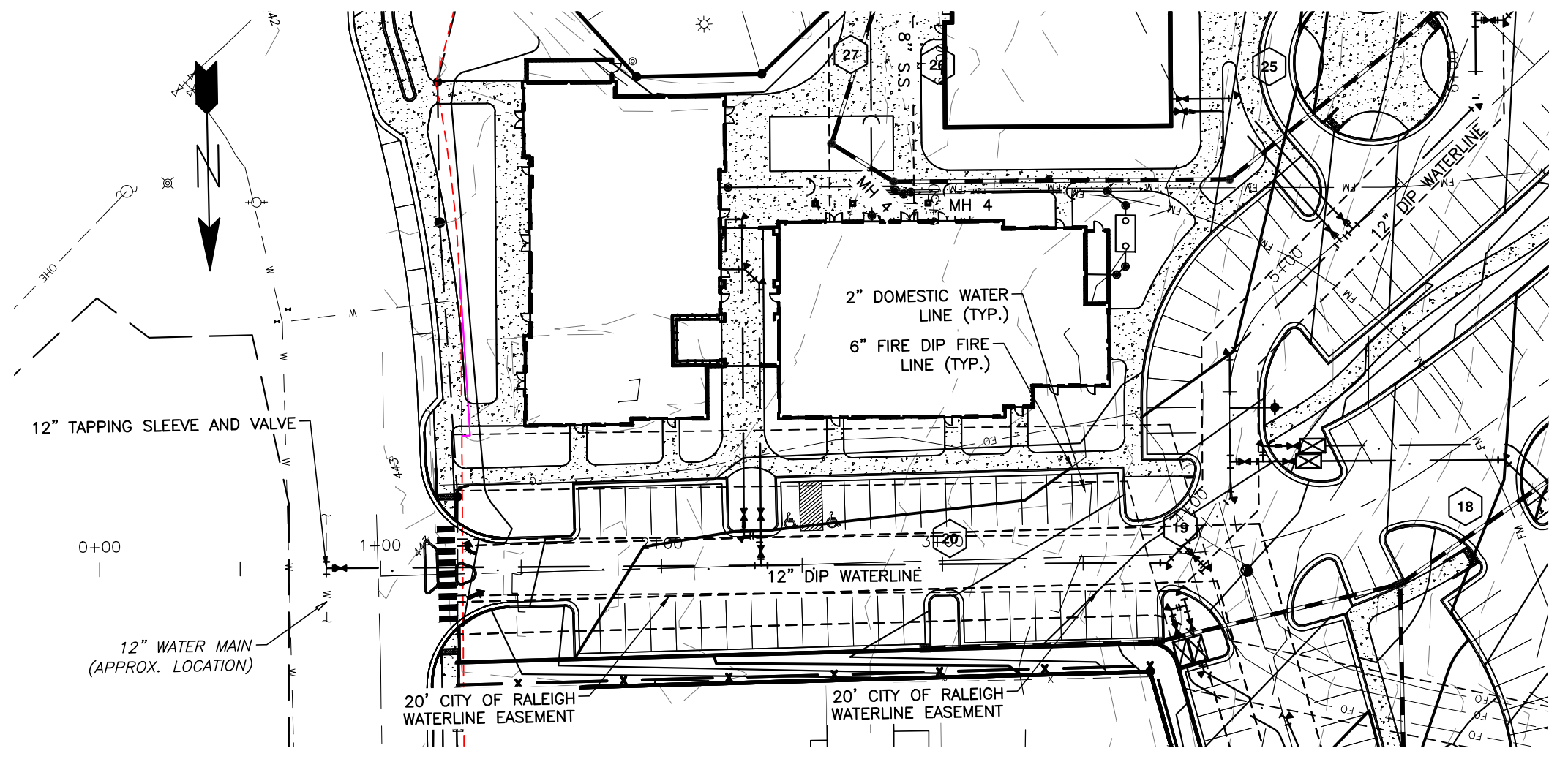
SEAL
 NORTH CAROLINA
 036908
 MARY D. BIZELL
 ENGINEER

06/23/21

SHEET C3.5

TOWN OF ROLESVILLE PROJECT NO.

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

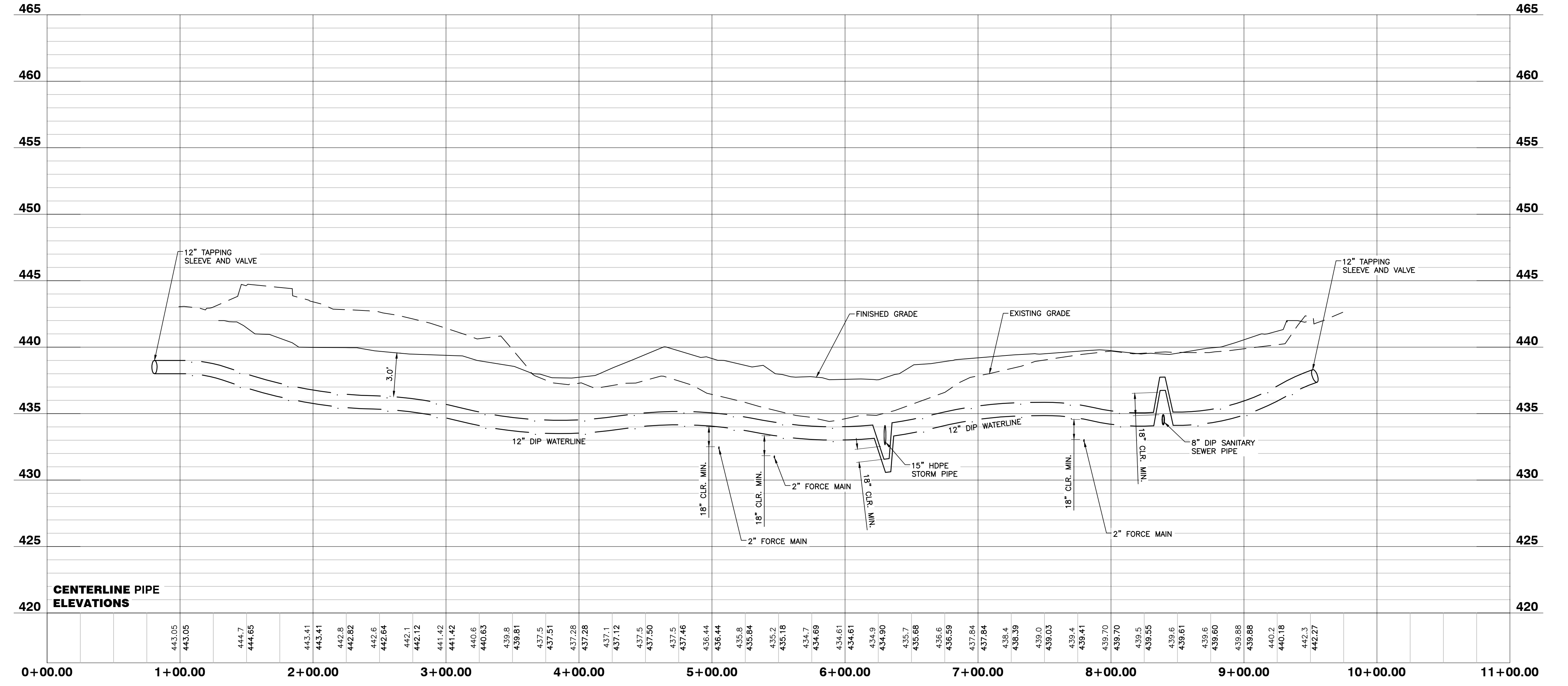


Public
Water Distribution / Extension System
 The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
 City of Raleigh
 Public Utilities Department Permit # _____
 Authorization to Construct See digital signature



BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
 6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
 TELEPHONE: (919)881-1122 FAX: (919)881-8686
 CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

PUBLIC WATERLINE PROFILE



NORTH CAROLINA
 PROFESSIONAL
 SEAL
 036908
 ENGINEER
 MARY D. BIZZELL
 06/23/21

NO FLOODPLAINS EXIST ON-SITE
 NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF ROLESVILLE AND NCDOT

R:\2019\19187 - Rolesville Town Center\CIVIL\04 Construction\10 - 19187_Data.dwg, Waterline Profile, 6/23/2021 10:21:48 AM, mtrc.mwallter

NO.	DATE	DESCRIPTION	BY

PROGRESS	MRM	DATE	DRAWN BY
03-19187			

PUBLIC WATERLINE PROFILE

SCALE: 1" = 50' H; 1" = 5' V CHK BY: MDB

COBBLESTONE VILLAGE MIXED USE DEVELOPMENT
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

SHEET **C4.1**

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Private Sewer Collection / Extension System
 The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
 City of Raleigh
 Public Utilities Department Permit # S-4711 (P)
 Authorization to Construct See digital signature



BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
 6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
 TELEPHONE: (919)851-1422 FAX: (919)851-8988
 CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

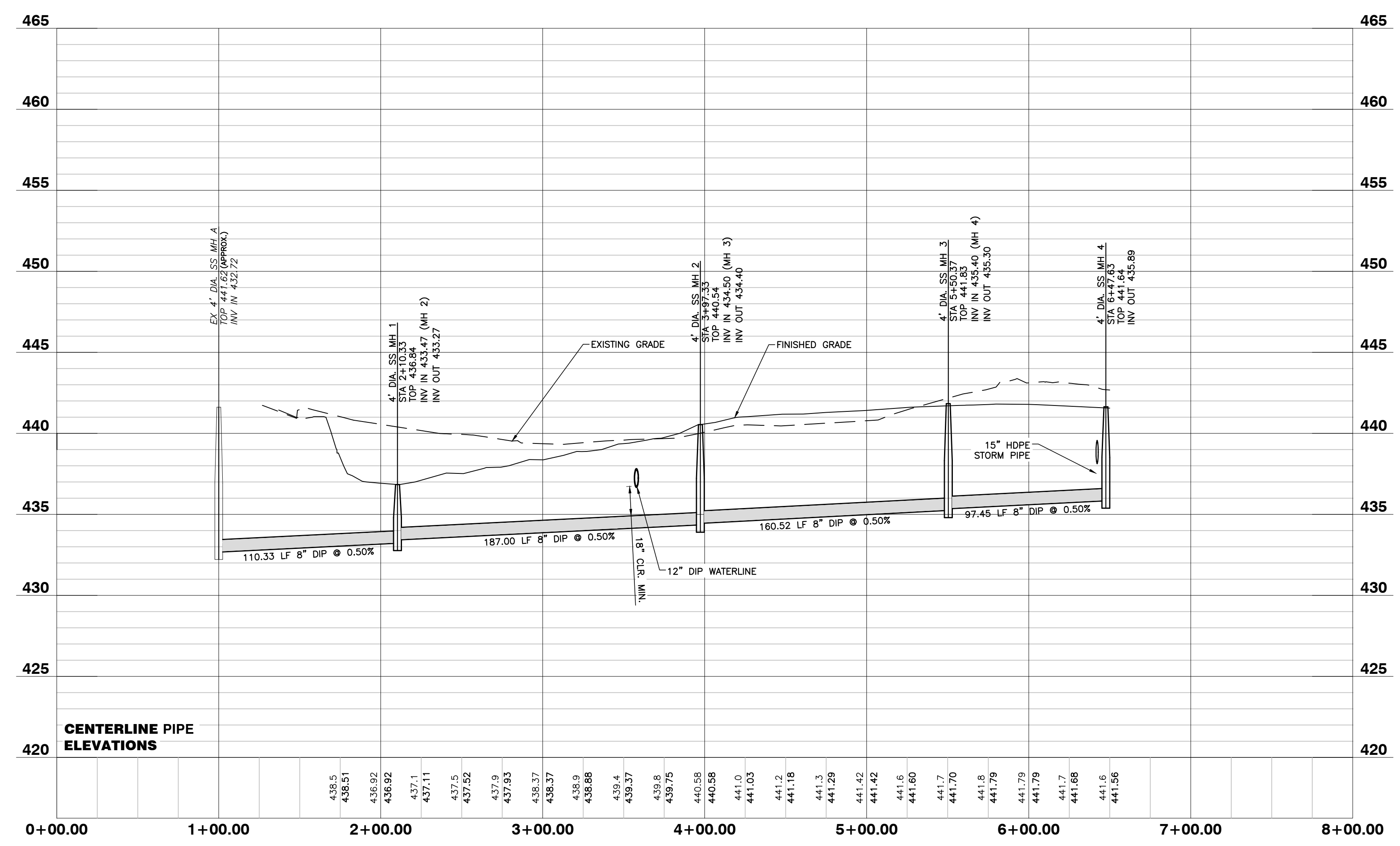
NO.	DATE	DESCRIPTION	BY

03-19187 PROGRESS MRM
 JOB NO. DATE DRAWN BY
SANITARY SEWER PROFILE
 SCALE: 1" = 50' H; 1" = 5' V CHK BY: MDB

COBBLESTONE VILLAGE
MIXED USE DEVELOPMENT
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

SHEET
C4.2

SANITARY SEWER PROFILE

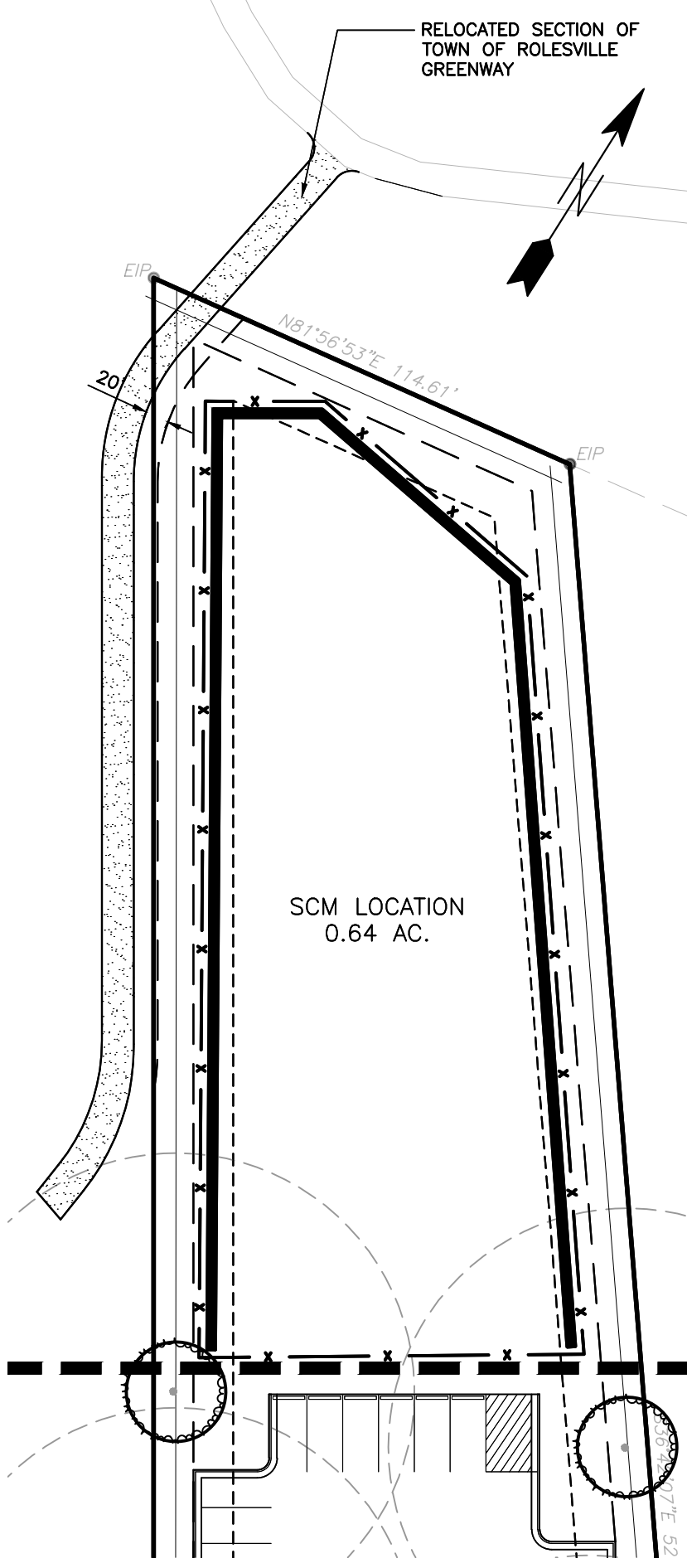


NO FLOODPLAINS EXIST ON-SITE

NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF ROLESVILLE AND NCDOT

GENERAL NOTES

1. A/C UNITS, TRANSFORMERS AND OTHER MECHANICAL OR UTILITY EQUIPMENT, NOT SHOWN ON THE PLAN, SHALL BE SCREENED FROM VIEW EITHER BY ADJUSTING PLANTINGS SHOWN IN CLOSE PROXIMITY TO EQUIPMENT OR BY THE ADDITION OF WAX MYRTLES @ 24" HT., 5' OC (SEE GENERAL NOTES FOR EQUIPMENT ACCESSIBILITY AND PLANTING PROXIMITY, ETC.). DUMPSTER IS SCREENED FROM OFF-SITE VIEWS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO PLANTING.
3. MULCH SHALL BE 3" DEEP MULCH UNLESS OTHERWISE NOTED.
4. VERIFICATION OF TOTAL QUANTITIES AS SHOWN IN THE PLANT LIST AND ON THE PLAN SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. ANY DISCREPANCIES BETWEEN PLANT LIST AND PLANTING PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
5. ALL TREES, SHRUBS, GROUNDCOVER, ETC. SHALL CONFORM TO ACCEPTED STANDARDS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN.
6. ALL ROOTBALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO PLANTING.
7. B&B AS LISTED UNDER "ROOT" IN THE PLANT LIST INDICATES BALLED & BURLAPPED.
8. ALL PLANTS/PLANTINGS SHALL BE MULCHED IMMEDIATELY AFTER PLANTING AND WATERED.
9. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THEY BORE TO PREVIOUS EXISTING GRADE (UNLESS OTHERWISE NOTED).
10. ALL TREES AND SHRUBS SHALL REQUIRE MULCH RINGS AT THEIR BASE IF LEFT WITHIN LAWN AREAS.
11. MULCH EDGES AND PROPOSED PLANTINGS SHALL NOT DISTURB ANY EXISTING GROUPS OF TREES TO REMAIN. EDGES ARE SHOWN FOR APPROXIMATION ONLY, BUT ARE TO INDICATE SMOOTH, CLEAN CURVES.
12. CULVERTS, RIP-RAP STRUCTURES, AND OTHER STORMWATER DEVICES SHALL BE SCREENED WITH EVERGREEN SHRUBS. IF STRUCTURES ARE NOT SHOWN ON THE PLAN, INSTALL WAX MYRTLES @ 24" HT., 5' OC.
13. A 2' BUMPER OVERHANG, FROM THE BACK OF CURB, SHALL BE ALLOTTED FOR MATURE SHRUBS.
14. TREE PROTECTION FENCING SHALL BE MAINTAINED UNTIL ALL SITE WORK IS COMPLETED. THE FENCING SHALL BE REMOVED PRIOR TO THE FINAL SITE INSPECTION FOR THE CERTIFICATE OF OCCUPANCY (C.O.). THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A (C.O.).



PLANT LIST

KEY	SCIENTIFIC NAME	COMMON NAME	QUAN.	CAL.	HT.	ROOT
CANOPY TREES						
CD	Cedrus deodara	Deodar Cedar	6	2.5"	8'	B&B
JV	Juniperus virginiana	Eastern Red Cedar	27	2.5"	8'	B&B
AF	Acer freemanii	Freeman Maple	30	2.5"	8'	B&B
QN	Quercus nuttallii	Nuttall Oak	19	2.5"	8'	B&B
AR	Acer rubrum 'Brandywine'	Brandywine Red Maple	21	2.5"	8'	B&B
SHRUBS						
ICC	Ilex crenata 'Chesapeake'	Chesapeake Holly	153	N/A	24"	CONT.
OF	Osmanthus fragrans	Fragrant Tea Olive	142	N/A	24"	CONT.
ICG	Ilex crenata 'Green Lustre'	Green Lustre Japanese Holl	120	N/A	24"	CONT.
VML	Viburnum x 'Moonlit Lace'	Moonlit Lace Viburnum	186	N/A	24"	CONT.
DG	Distylium 'Green Wave'	Green Wave Distylium	31	N/A	24"	CONT.

LANDSCAPE CALCULATIONS

PERIMETER BUFFERS (10' TYPICAL):
 WEST (1) - 352 LF = 4 TREES / 100 LF = 14 TREES REQUIRED/PROVIDED
 = 40 SHRUBS / 100 LF = 141 SHRUBS REQUIRED/PROVIDED
 = 352 LF MIN. 6' TALL FENCE REQUIRED

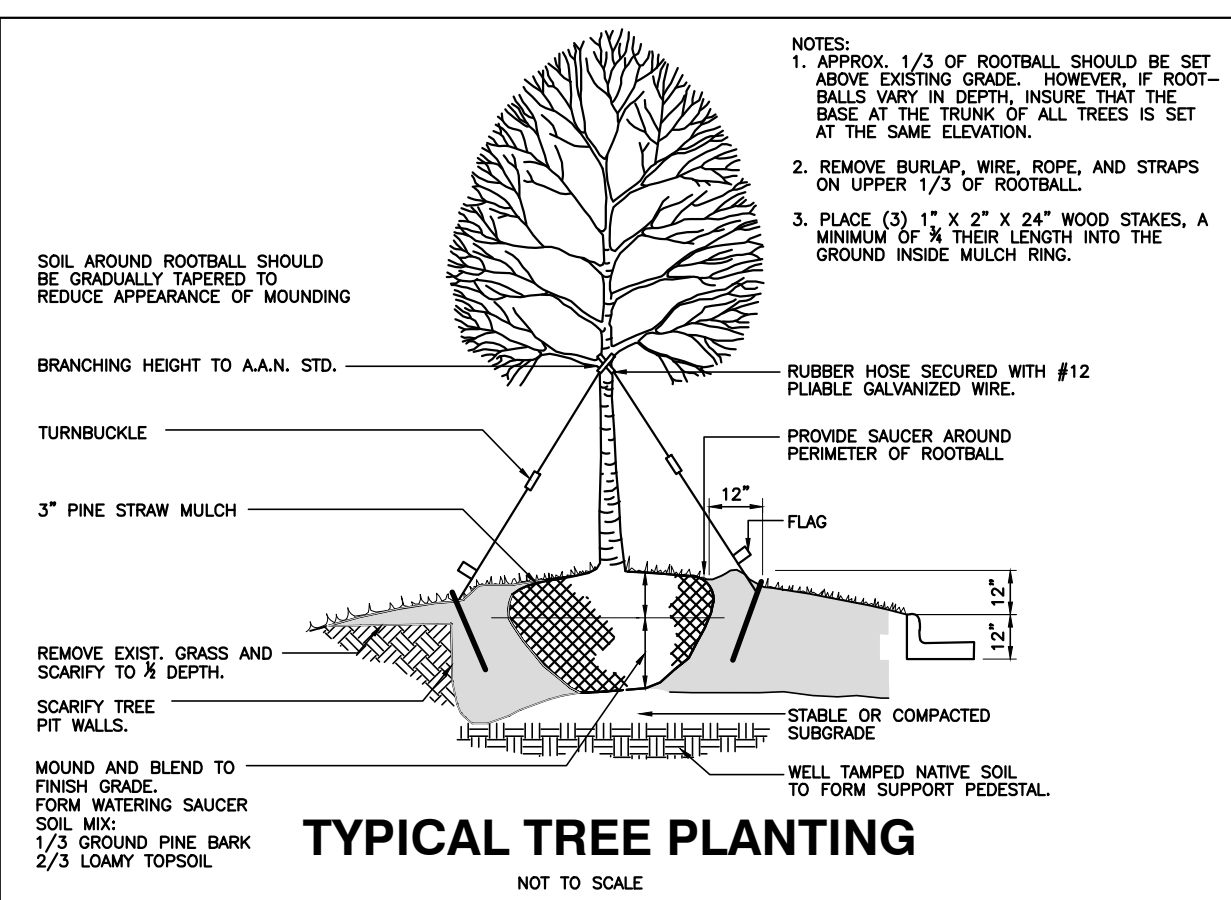
NORTH (2) - 187 LF = 4 TREES / 100 LF = 8 TREES REQUIRED/PROVIDED
 = 40 SHRUBS / 100 LF = 75 SHRUBS REQUIRED/PROVIDED
 = 187 LF MIN. 6' TALL FENCE REQUIRED

NORTHEAST (3) - 249 LF = 4 TREES / 100 LF = 10 TREES REQUIRED/PROVIDED
 = 40 SHRUBS / 100 LF = 100 SHRUBS REQUIRED/PROVIDED
 = 249 LF MIN. 6' TALL FENCE REQUIRED

EAST (4) - 247 LF = 4 TREES / 100 LF = 10 TREES REQUIRED/PROVIDED
 = 40 SHRUBS / 100 LF = 100 SHRUBS REQUIRED/PROVIDED
 = 247 LF MIN. 6' TALL FENCE REQUIRED

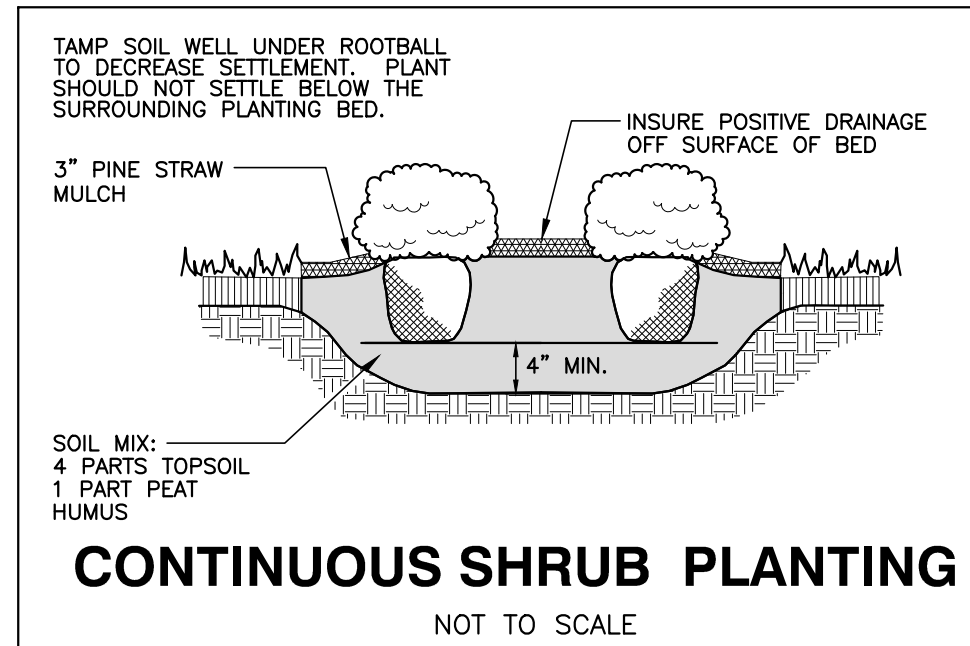
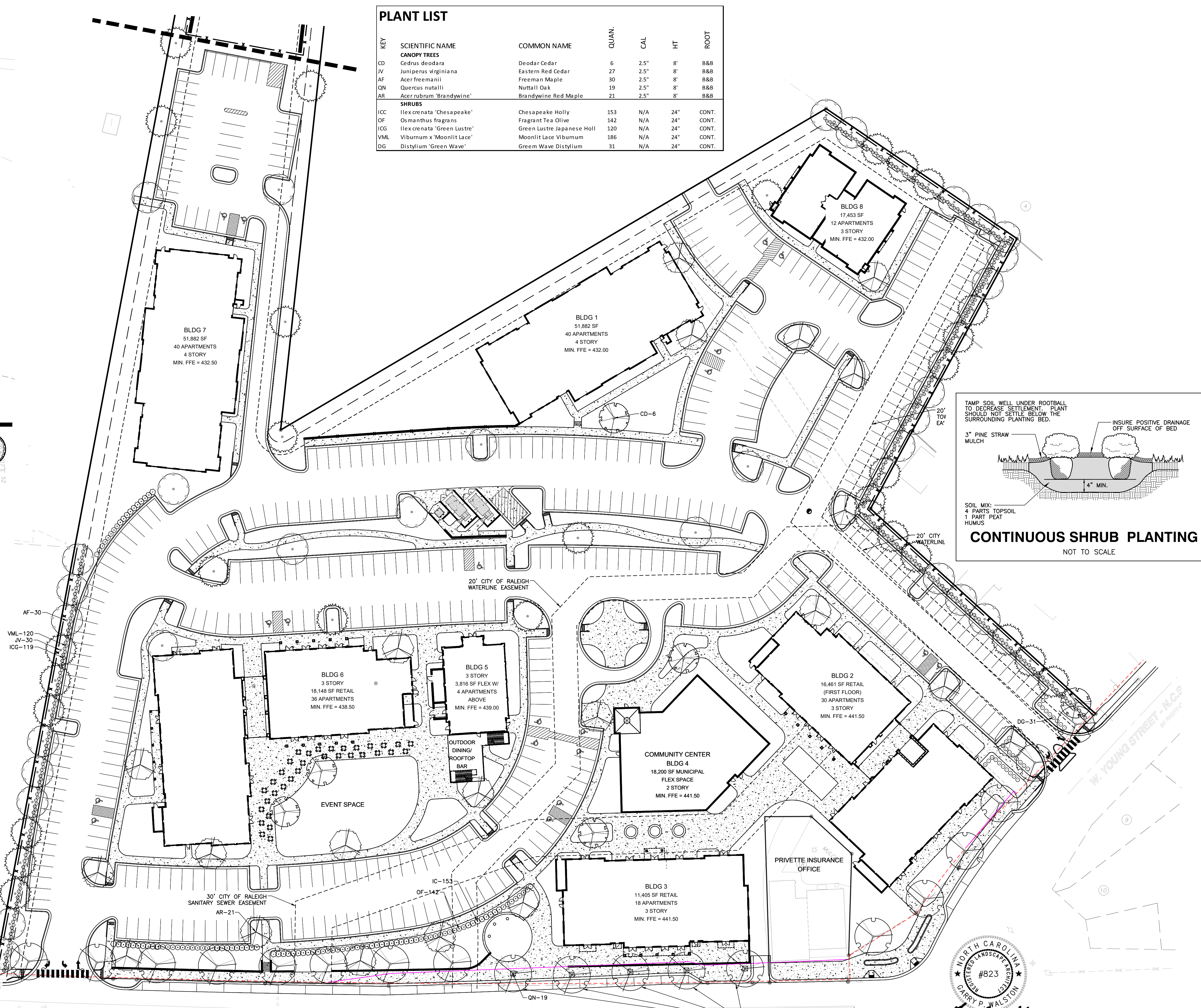
STREET YARDS:
 MAIN ST - 595 LF = 1 TREE / 50 LF = 12 TREES REQUIRED/PROVIDED
 WEST YOUNG ST - 242 LF = 1 TREE / 50 LF = 5 TREES REQUIRED/PROVIDED

VEHICULAR USE AREA COVERAGE: 1 TREE WITHIN 60' OF EACH PARKING SPACE



PLANTING NOTES:
 LOCATE PLANTS AND PLANTING BEDS BY USING SCALED DIMENSIONS FROM STREET, PROPERTY LINES, BACK OF CURB, BUILDINGS, WALLS, ETC. ALL PLANTS SHALL MEET OR EXCEED THE MINIMUM STANDARDS SET BY THE U.S.D.A. FOR NURSERY STOCK SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERMEN, WASHINGTON, D.C. NO SUBSTITUTIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL FROM THE OWNER AND/OR THE LANDSCAPE ARCHITECT. SYMBOLS: B&B = BALLED & BURLAPPED; B.R. = BARE ROOT; CONT. = CONTAINER, O.C. = ON-CENTER

STREET TREE PLANTINGS TO BE COORDINATED IN CONCURRENCE WITH NCDOT STREETSCAPE IMPROVEMENT PROJECT ALONG S. MAIN AND YOUNG STREET(S).

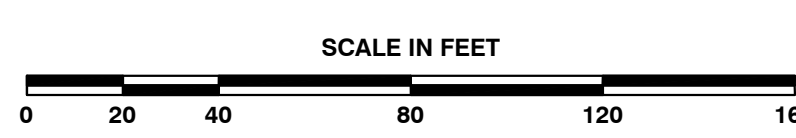


NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
 #823
 GARRY P. WALTON
 Garry P. Walton
 06-23-21

COORDINATE STREET TREE PLANTINGS WITH NCDOT STREETSCAPE IMPROVEMENTS PROJECT (BY OTHERS). FINAL C.O. TO BE HELD UNTIL STREET TREES ARE PLANTED OR SURVEY PROVIDED BY DEVELOPER.

NO FLOODPLAINS EXIST ON-SITE

NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF ROLESVILLE AND NCDOT



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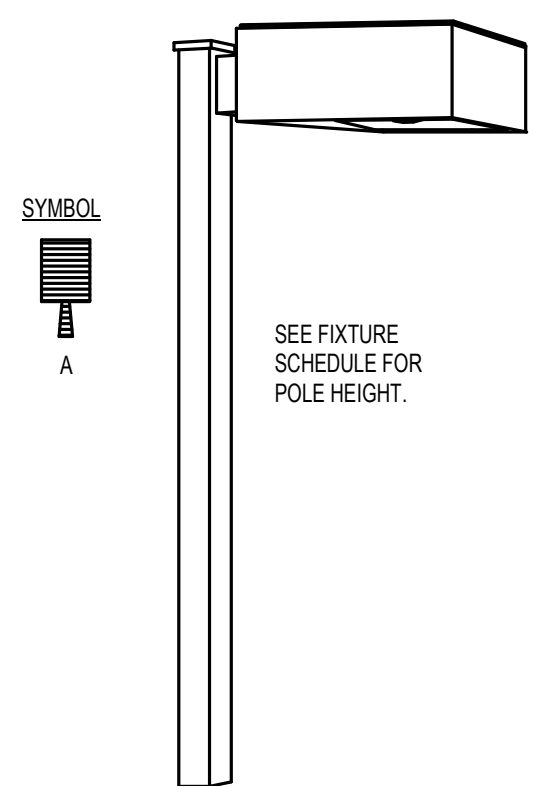
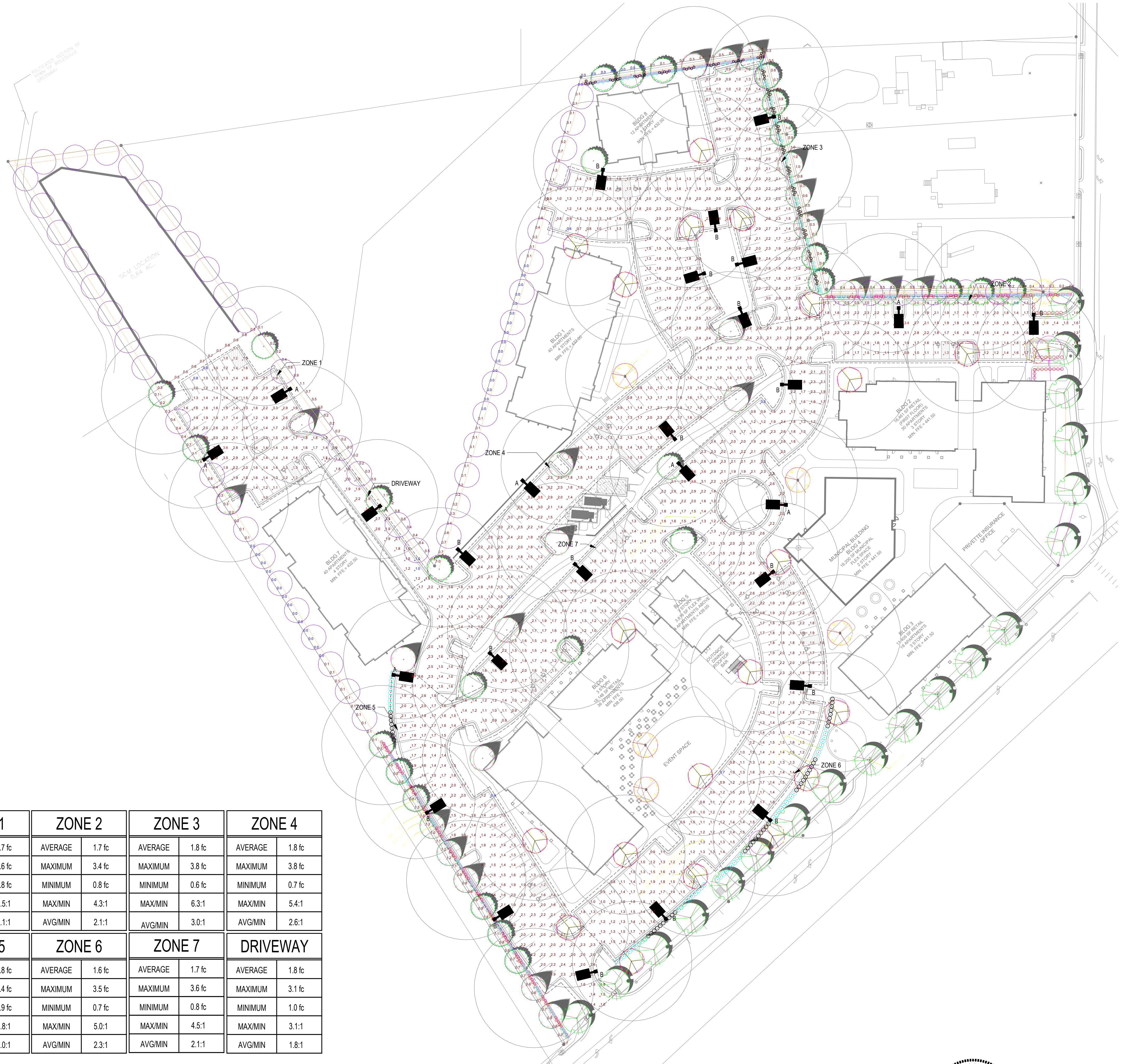
NO.	DATE	DESCRIPTION	BY

LANDSCAPE PLAN
 SCALE: 1" = 40'
 CHK BY: GPW

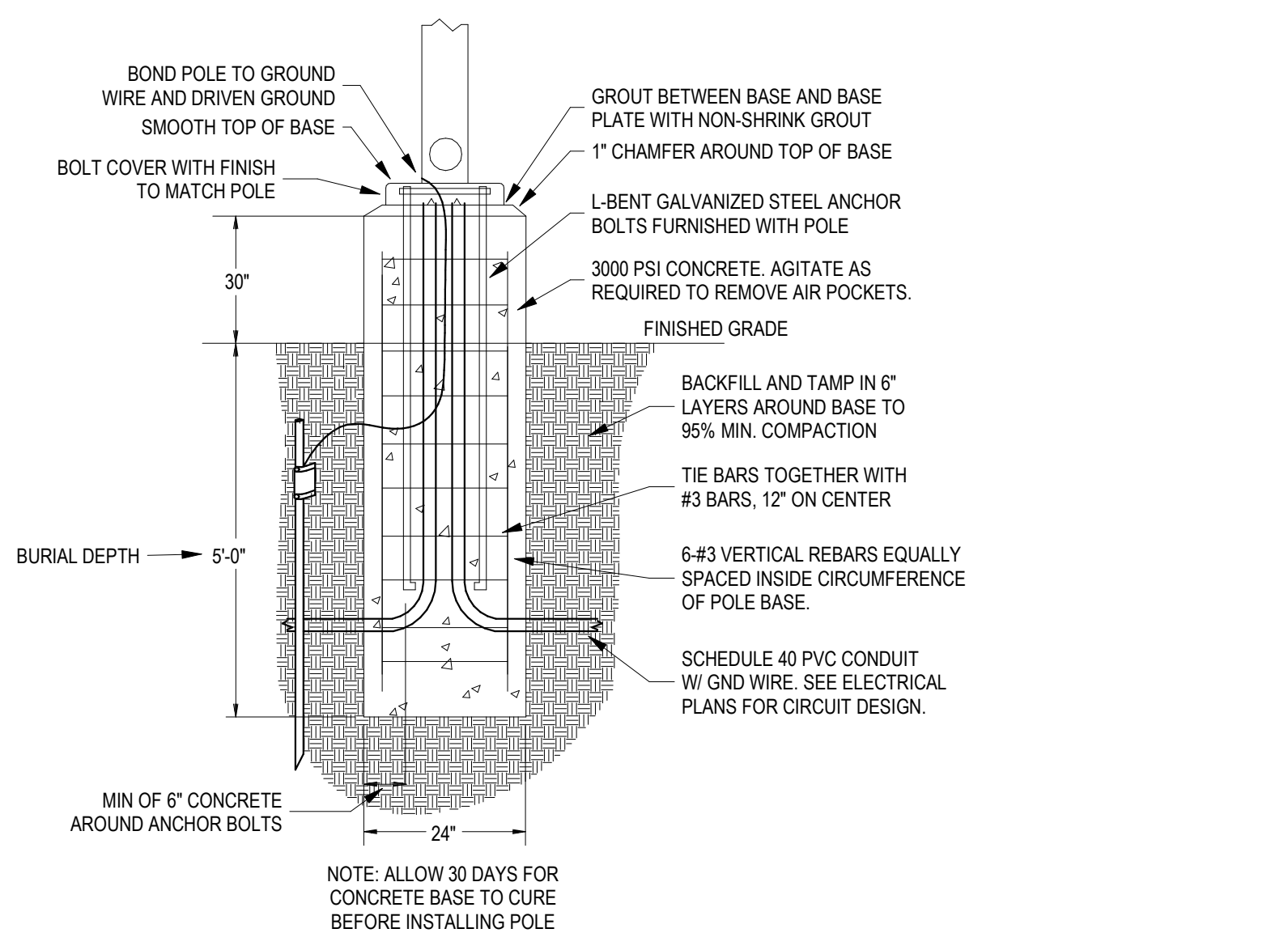
COBBLESTONE VILLAGE
MIXED USE DEVELOPMENT
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

SHEET
L1.1

NO.	DATE	DESCRIPTION



2 FIXTURE "A" DETAIL 4
 SCALE: N.T.S.



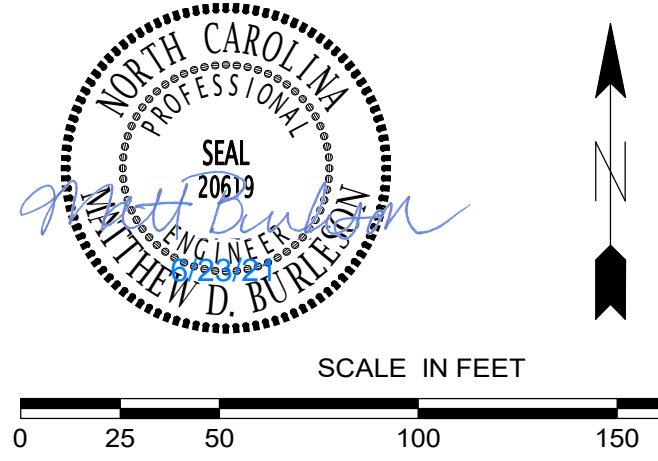
3 SITE LIGHTING POLE BASE DETAIL - 5'(30" AFG)
 SCALE: N.T.S.

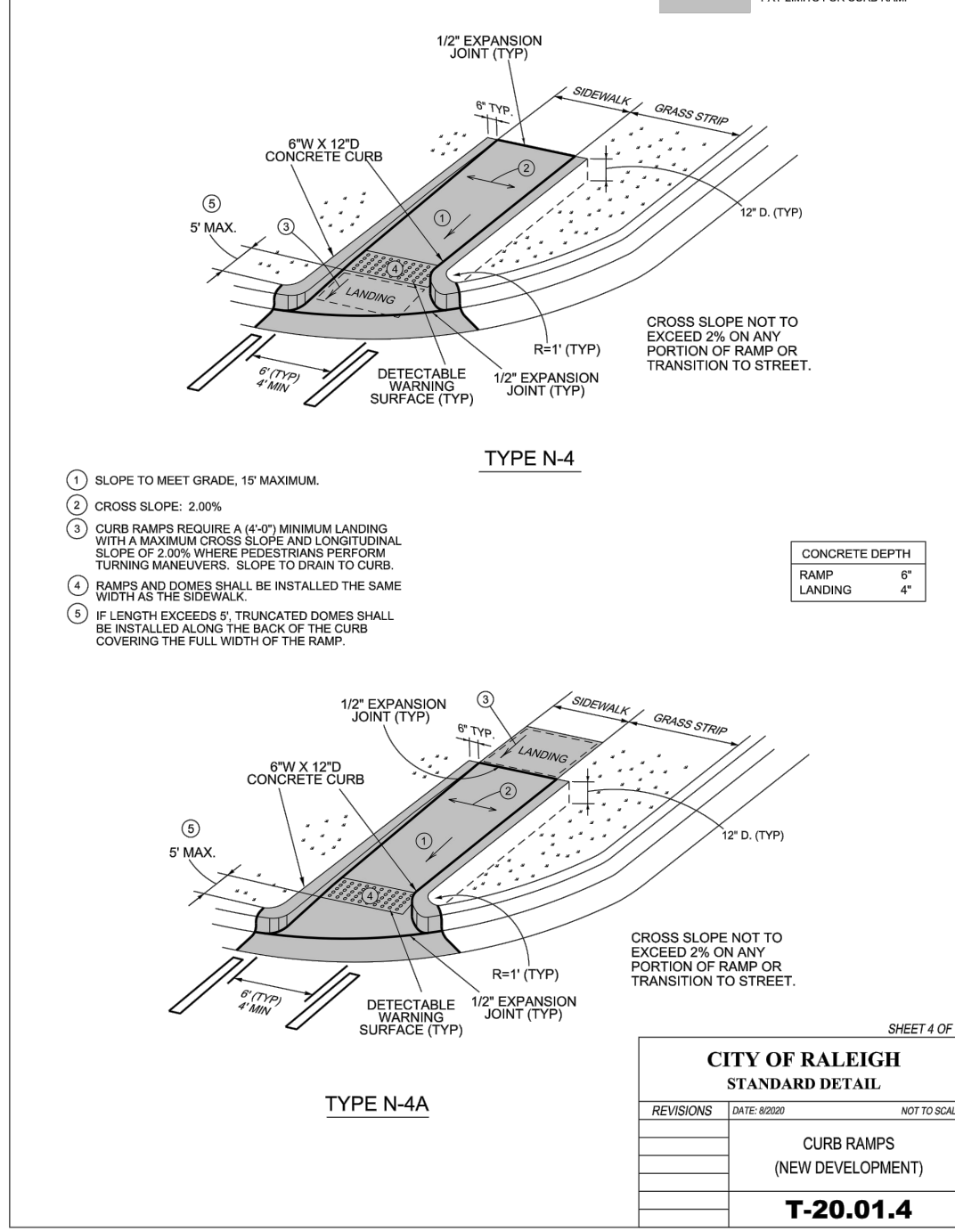
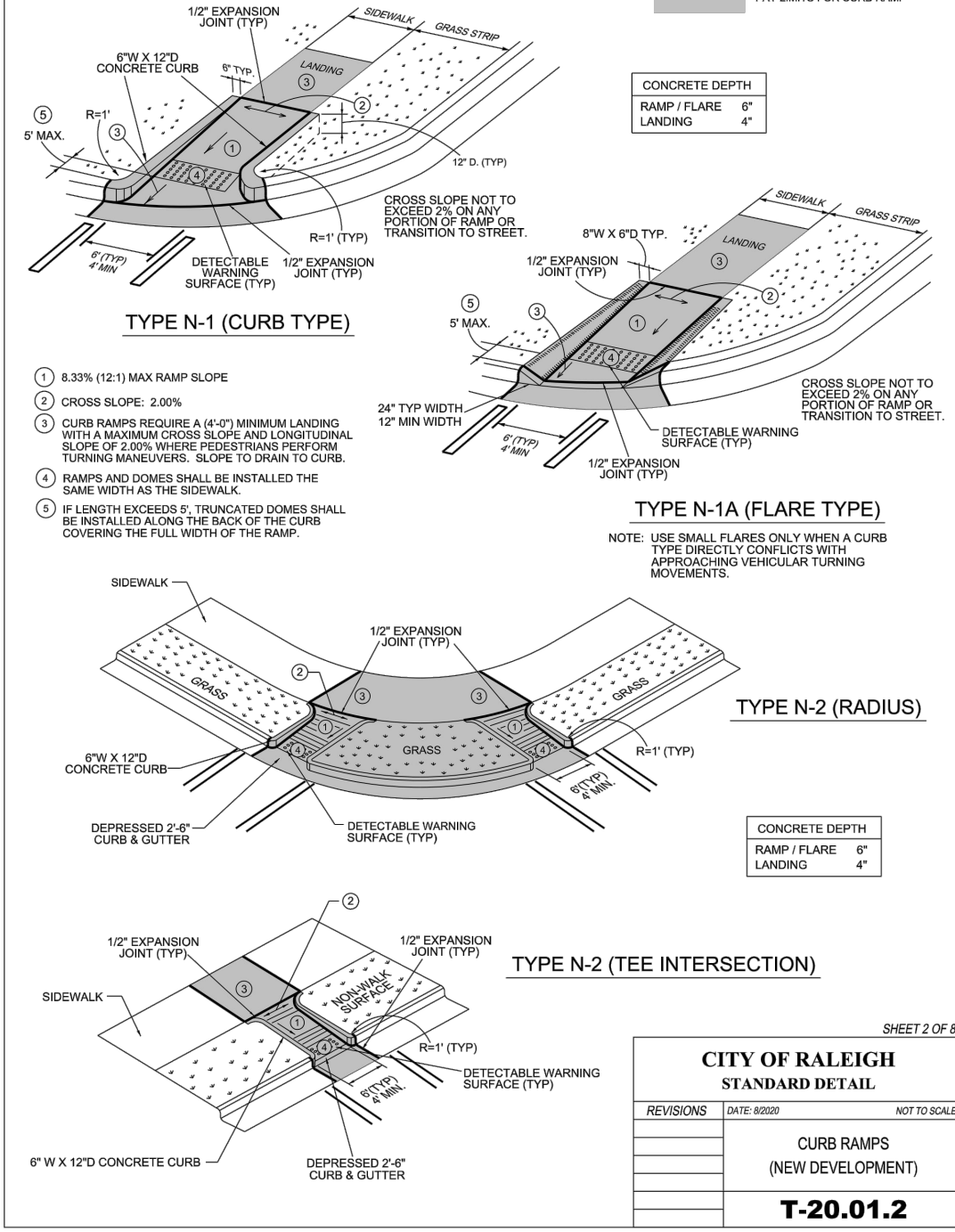
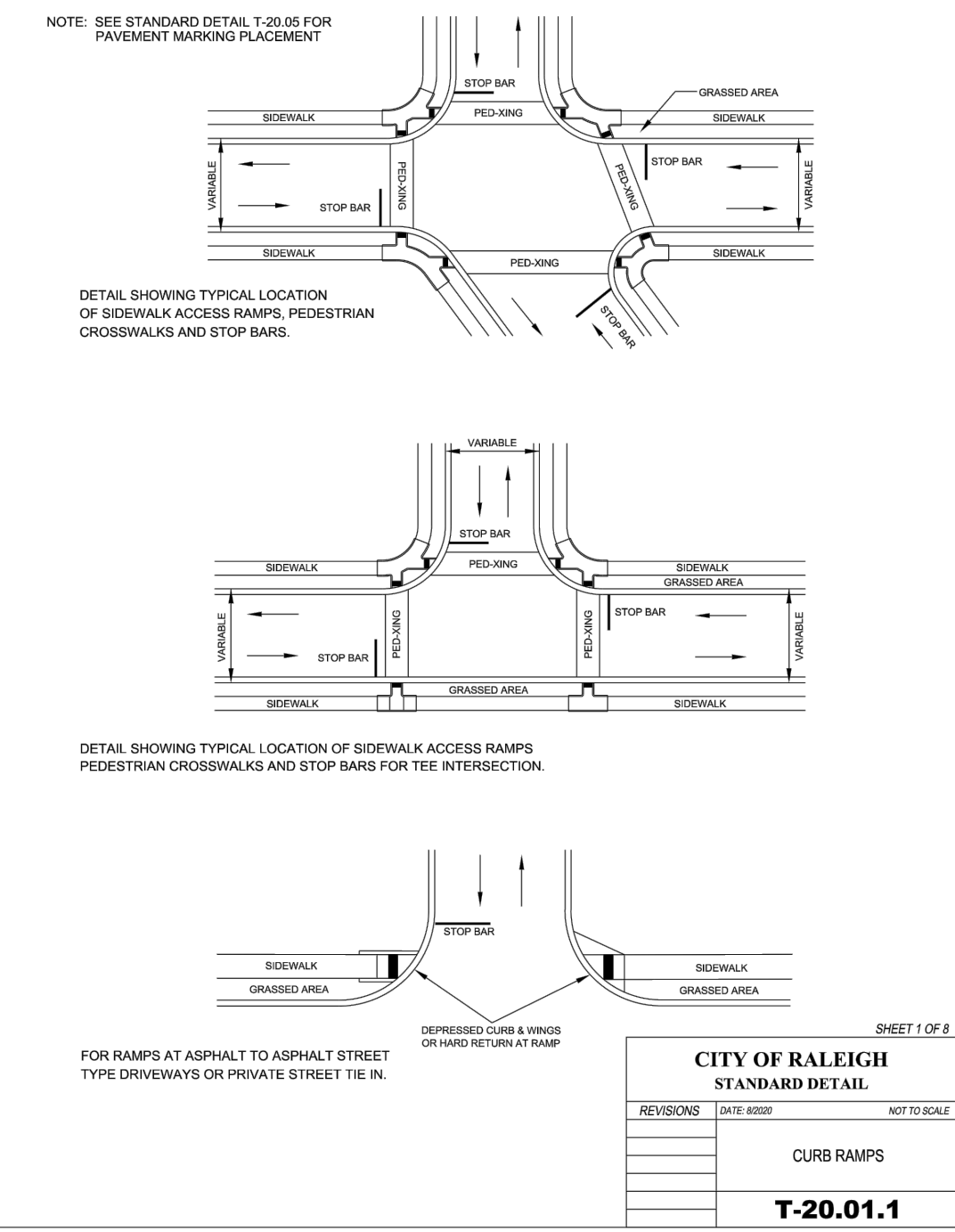
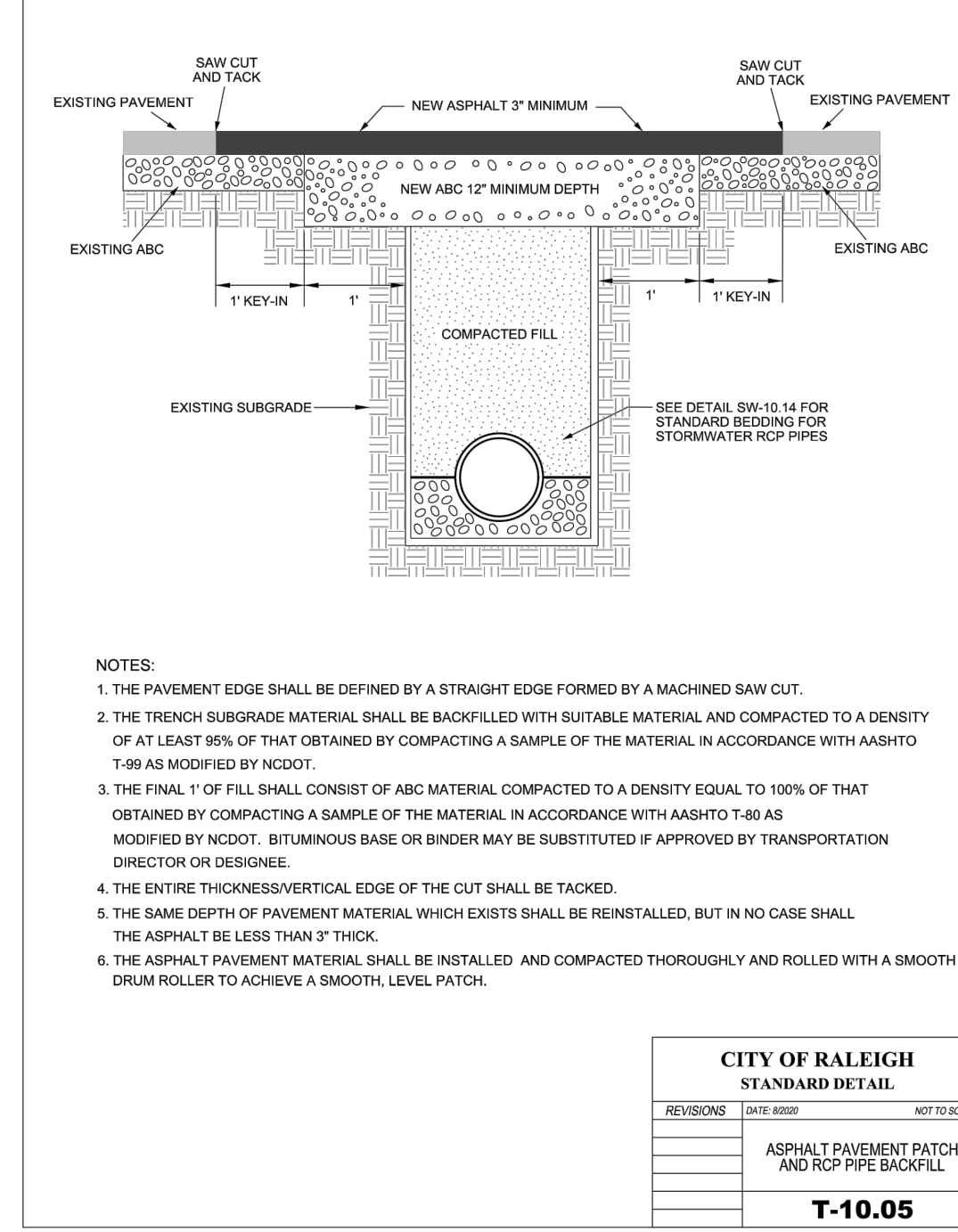
ZONE 1		ZONE 2		ZONE 3		ZONE 4	
AVERAGE	1.7 fc	AVERAGE	1.7 fc	AVERAGE	1.8 fc	AVERAGE	1.8 fc
MAXIMUM	3.6 fc	MAXIMUM	3.4 fc	MAXIMUM	3.8 fc	MAXIMUM	3.8 fc
MINIMUM	0.8 fc	MINIMUM	0.8 fc	MINIMUM	0.6 fc	MINIMUM	0.7 fc
MAX/MIN	4.5:1	MAX/MIN	4.3:1	MAX/MIN	6.3:1	MAX/MIN	5.4:1
AVG/MIN	2.1:1	AVG/MIN	2.1:1	AVG/MIN	3.0:1	AVG/MIN	2.6:1
ZONE 5		ZONE 6		ZONE 7		DRIVEWAY	
AVERAGE	1.8 fc	AVERAGE	1.6 fc	AVERAGE	1.7 fc	AVERAGE	1.8 fc
MAXIMUM	3.4 fc	MAXIMUM	3.5 fc	MAXIMUM	3.6 fc	MAXIMUM	3.1 fc
MINIMUM	0.9 fc	MINIMUM	0.7 fc	MINIMUM	0.8 fc	MINIMUM	1.0 fc
MAX/MIN	3.8:1	MAX/MIN	5.0:1	MAX/MIN	4.5:1	MAX/MIN	3.1:1
AVG/MIN	2.0:1	AVG/MIN	2.3:1	AVG/MIN	2.1:1	AVG/MIN	1.8:1

LIGHTING FIXTURE SCHEDULE

TYPE MARK	DESCRIPTION	MANUFACTURER	MODEL	WATTAGE
A	GALLEON AREA AND ROADWAY LUMINAIRE (3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS	EATON - STREETWORKS	GAN-AF-03-LED-U-T3R	166.0 W
B	GALLEON AREA AND ROADWAY LUMINAIRE (3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS	EATON - STREETWORKS	GAN-AF-03-LED-U-T4W	166.0 W

1 SITE LIGHTING
 SCALE: 1" = 50'-0"

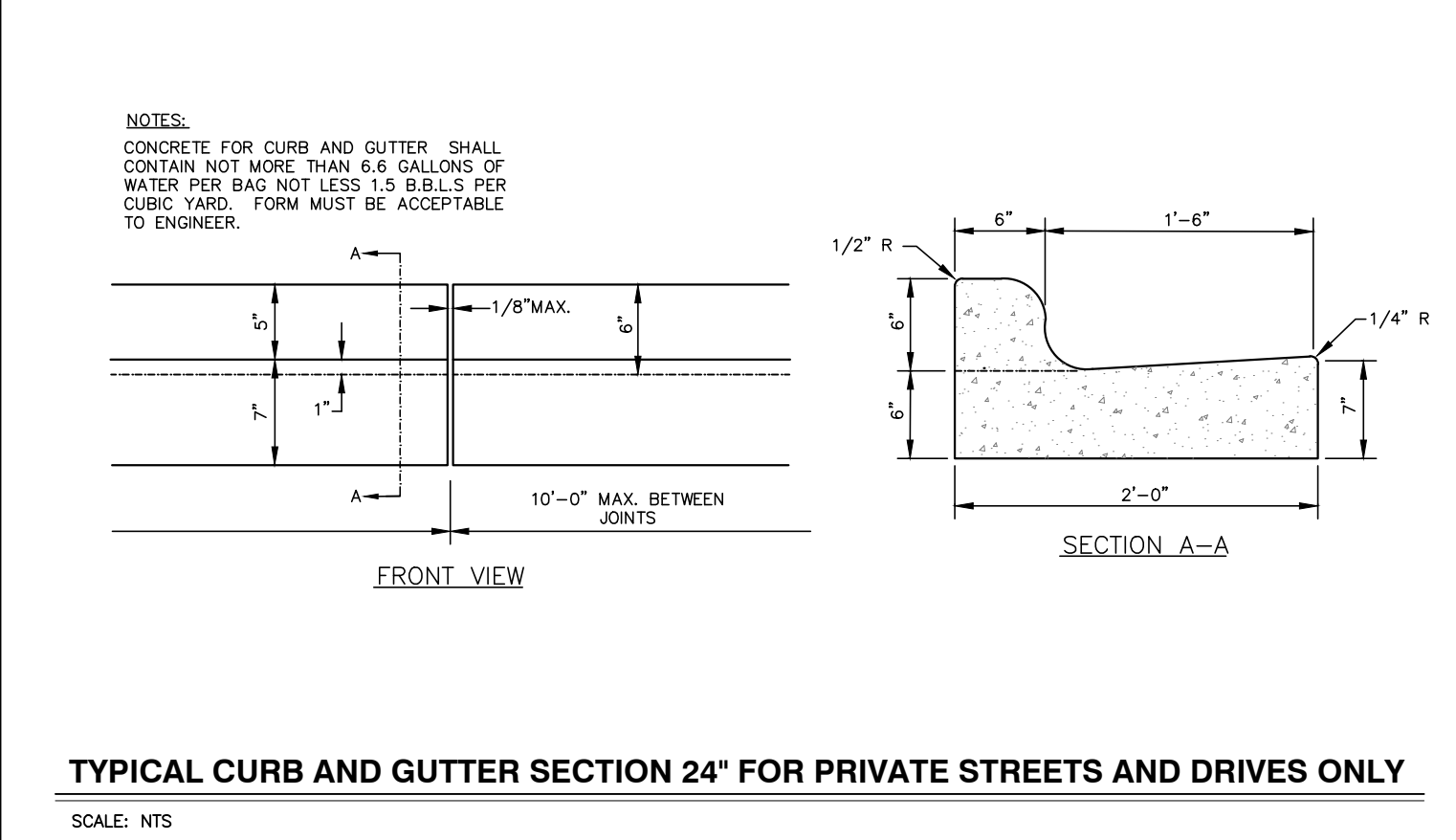
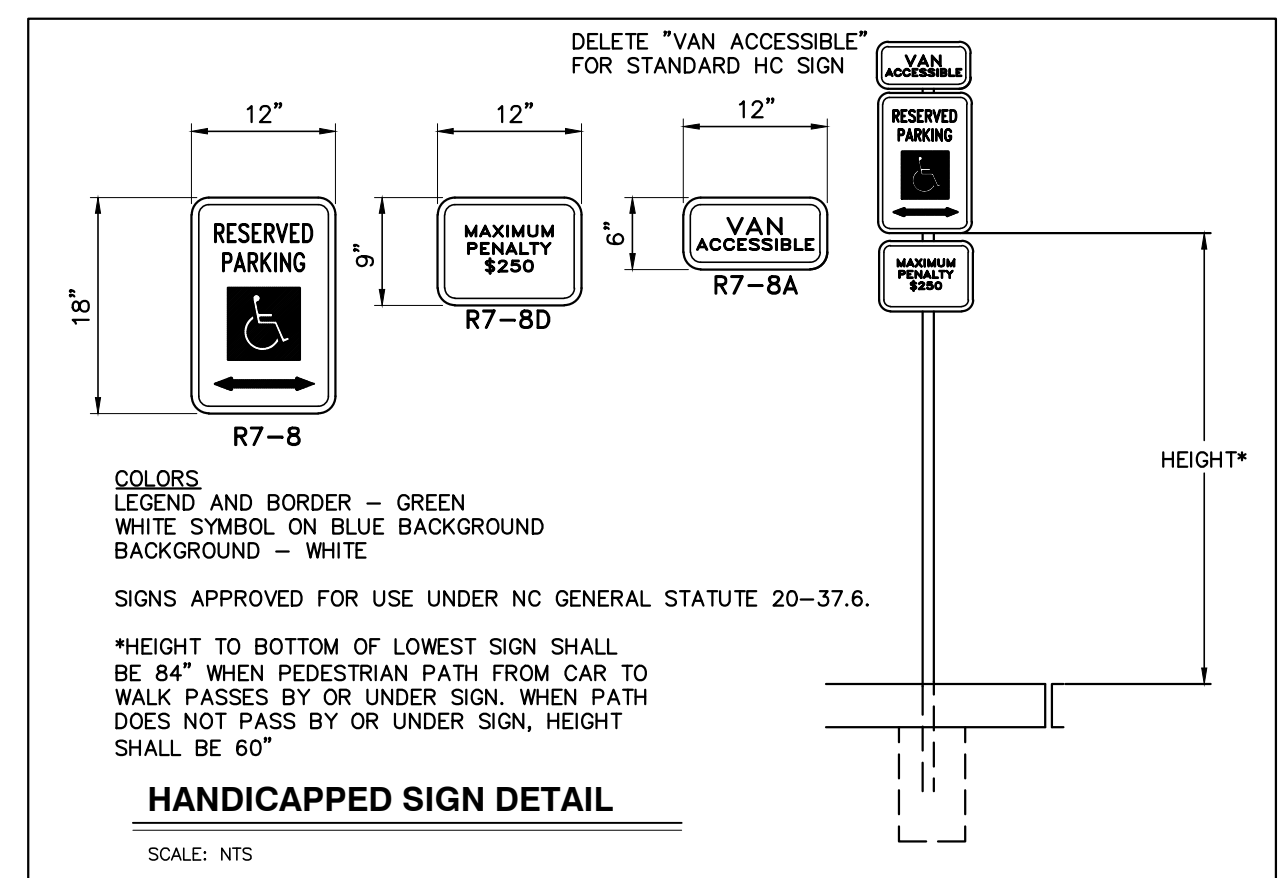
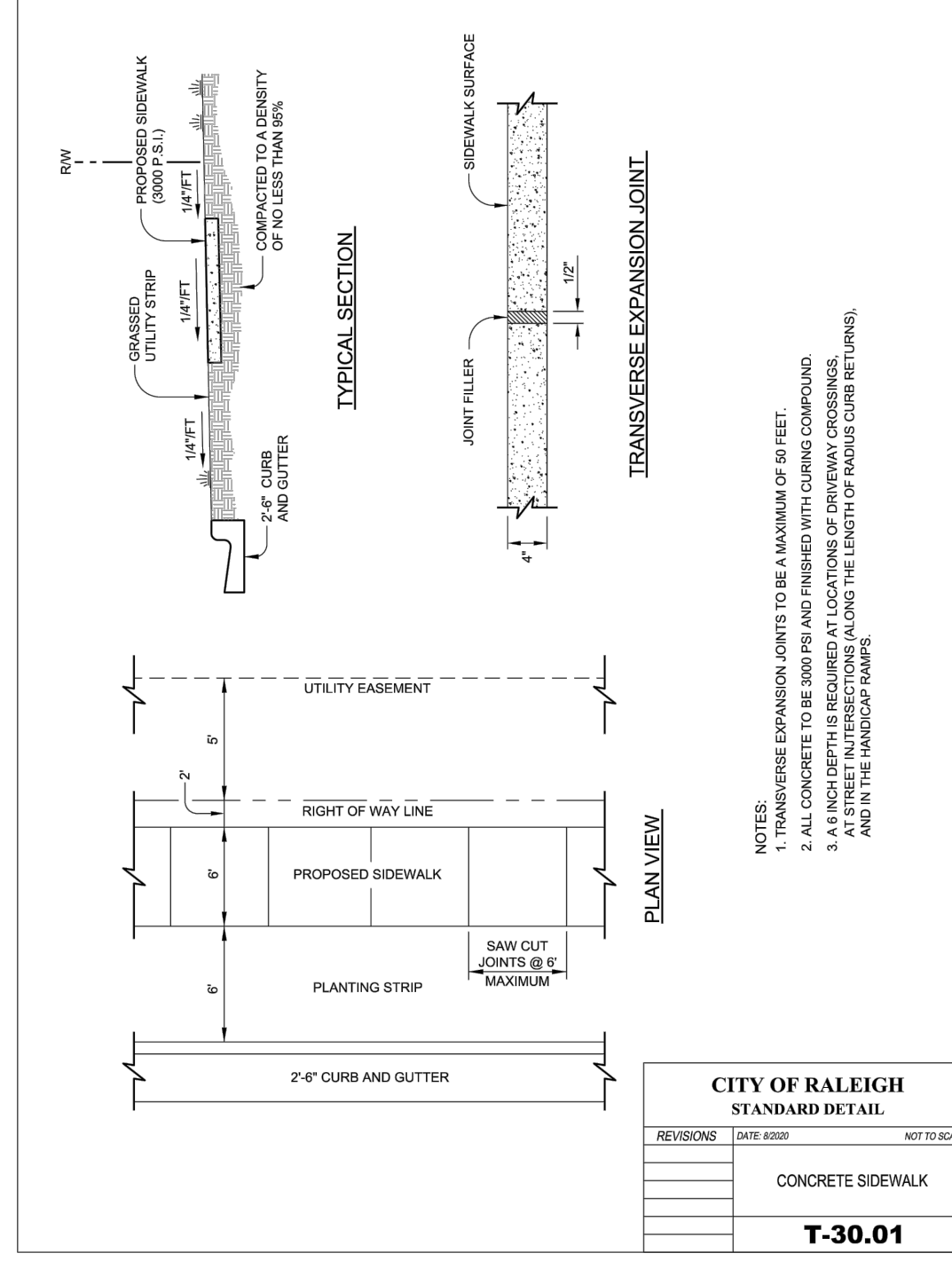
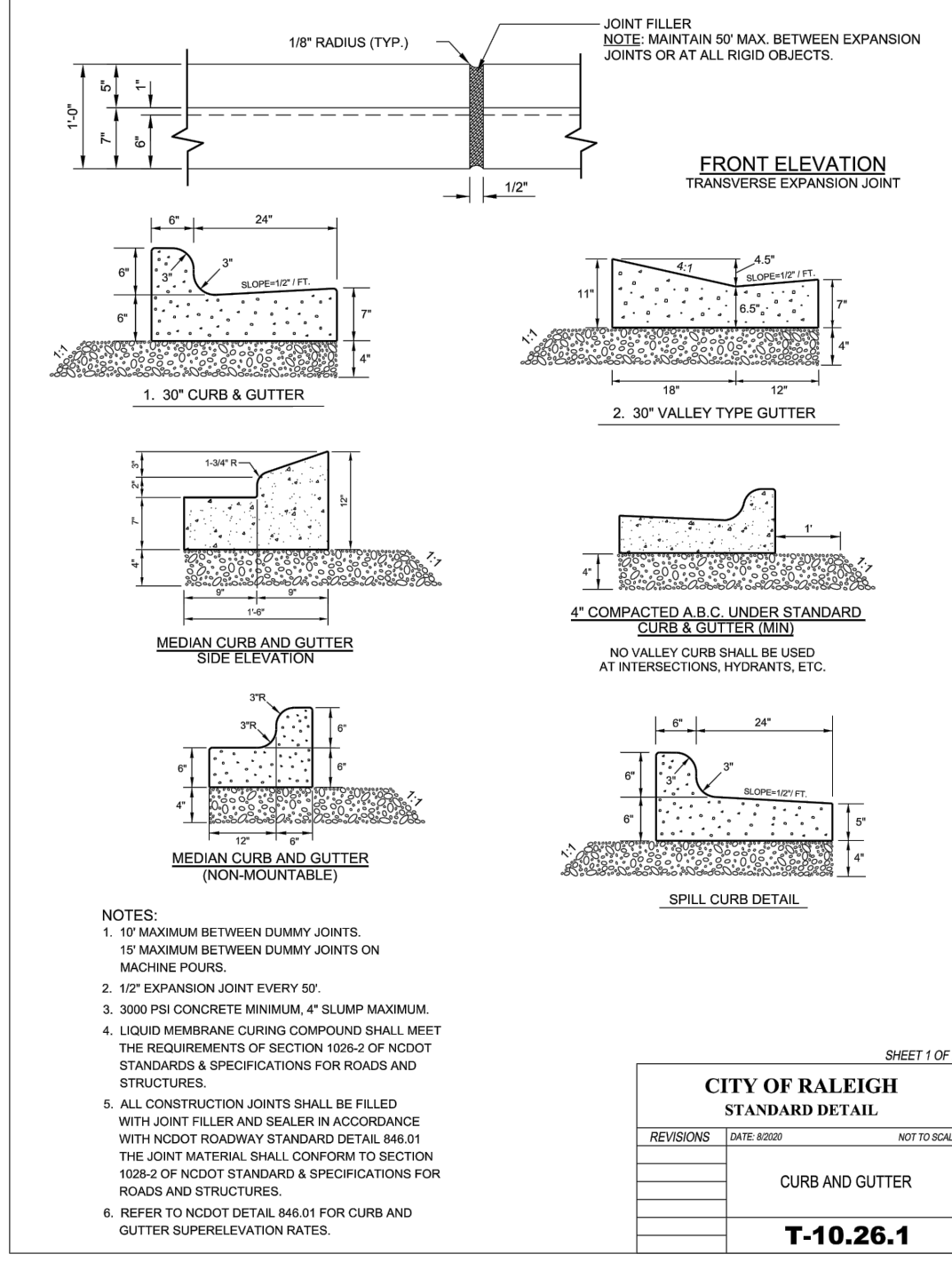
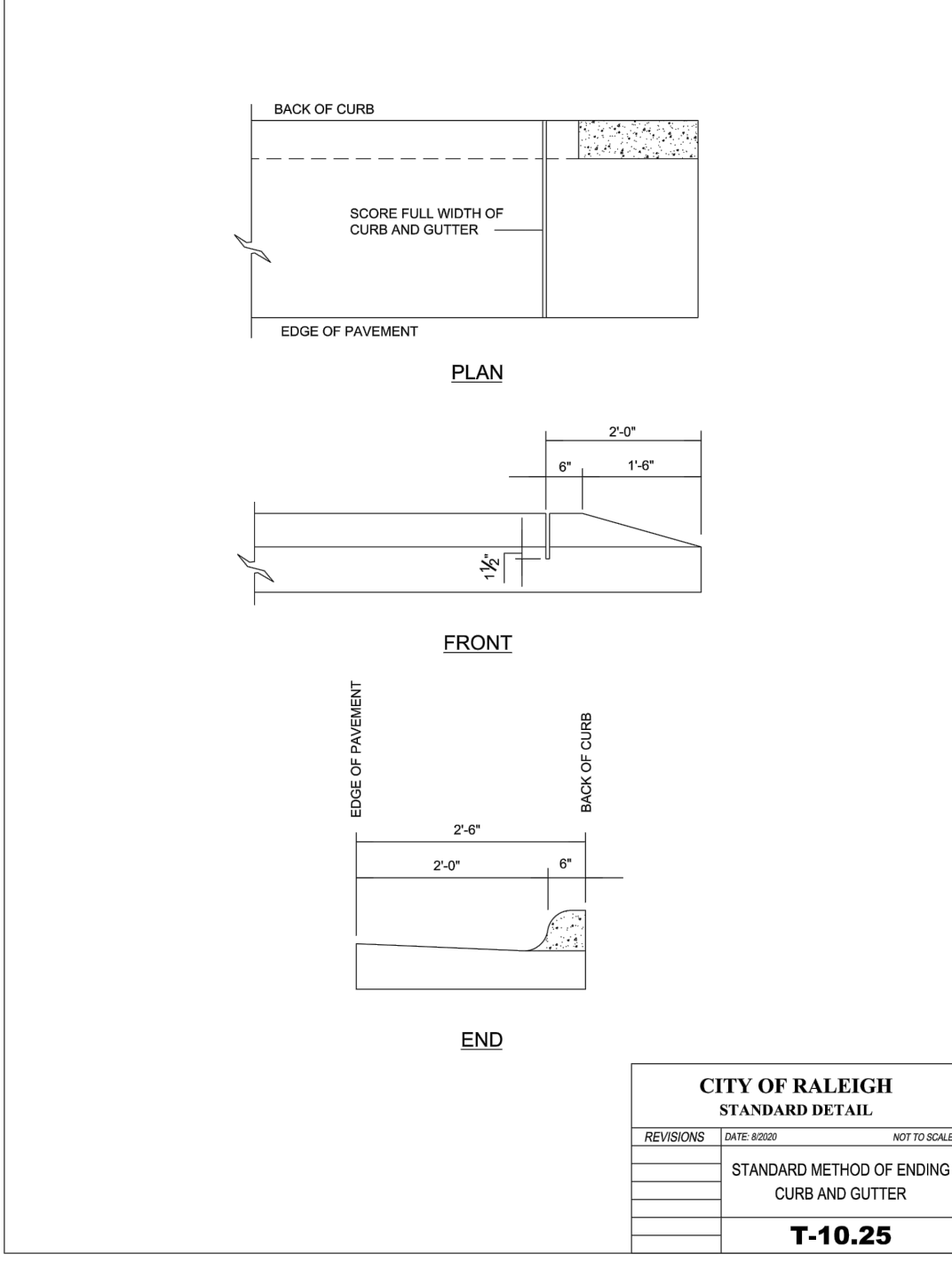




CITY OF RALEIGH CURB RAMPS GENERAL NOTES

- CITY OF RALEIGH STANDARD CURB RAMPS HAVE BEEN DEVELOPED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND PUBLIC RIGHT OF WAY ACCESS GUIDELINES (PROWAG).
- CURB RAMPS SHALL BE PROVIDED AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. SIDEWALK ACCESS RAMPS SHALL BE LOCATED AS INDICATED IN THE DETAIL, HOWEVER, THE LOCATION MAY BE ADJUSTED IN COORDINATION WITH THE CITY OF RALEIGH WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT.
- DOUBLE WHEELCHAIR RAMPS ARE TO BE INSTALLED AT ALL PUBLIC STREET INTERSECTIONS WHERE SIDEWALK IS REQUIRED.
- THE WALKING SURFACE SHALL BE SLIP RESISTANT. THE COLOR FOR THE DETECTABLE WARNING AREA SHALL BE YELLOW FOR CONTRAST.
- NO SLOPE ON THE SIDEWALK ACCESS RAMP SHALL EXCEED 1" (2:1) IN RELATIONSHIP TO THE GRADE OF THE STREET.
- IN NO CASE SHALL THE WIDTH OF THE SIDEWALK ACCESS RAMP BE LESS THAN 48" ALL RAMPS SHALL BE INSTALLED THE SAME WIDTH AS THE SIDEWALK.
- USE CLASS A (3000 PSI) CONCRETE WITH A SIDEWALK FINISH IN ORDER TO OBTAIN A ROUGH NONSKID SURFACE.
- A 1/2" EXPANSION JOINT INSTALLED FULL DEPTH WILL BE REQUIRED WHERE THE CONCRETE SIDEWALK ACCESS RAMP JOINS THE CURB AND ALSO WHERE NEW CONCRETE ABUTS EXISTING CONCRETE.
- CURB RAMPS SHOULD BE PLACED PARALLEL TO THE DIRECTION OF TRAVEL.

CITY OF RALEIGH STANDARD DETAIL
 T-20.01.8
 CURB RAMP NOTES



BASS, NIXON & KENNEDY, INC.
 CONSULTING ENGINEERS
 6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
 TELEPHONE: (919)881-1122 FAX: (919)881-8686
 CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

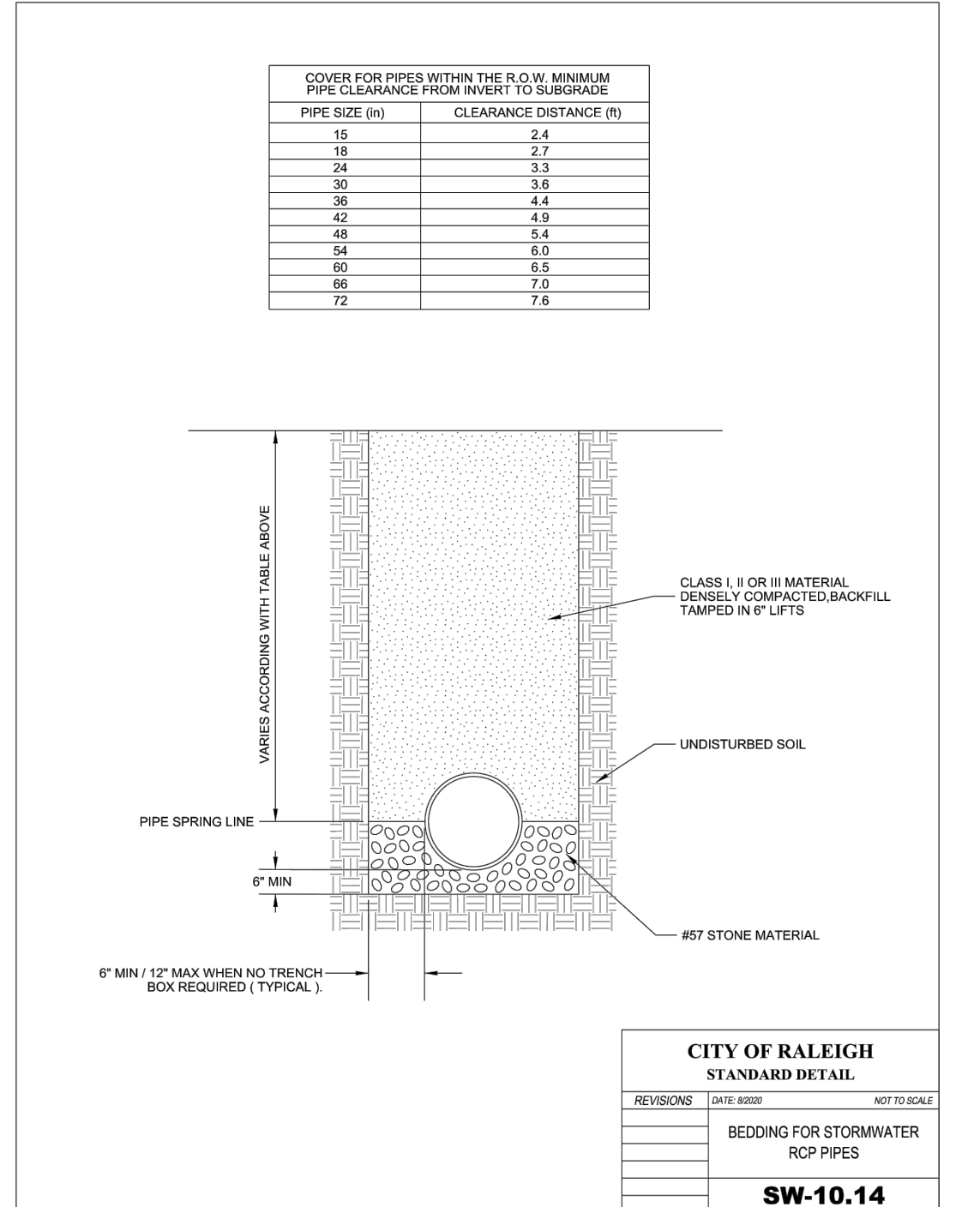
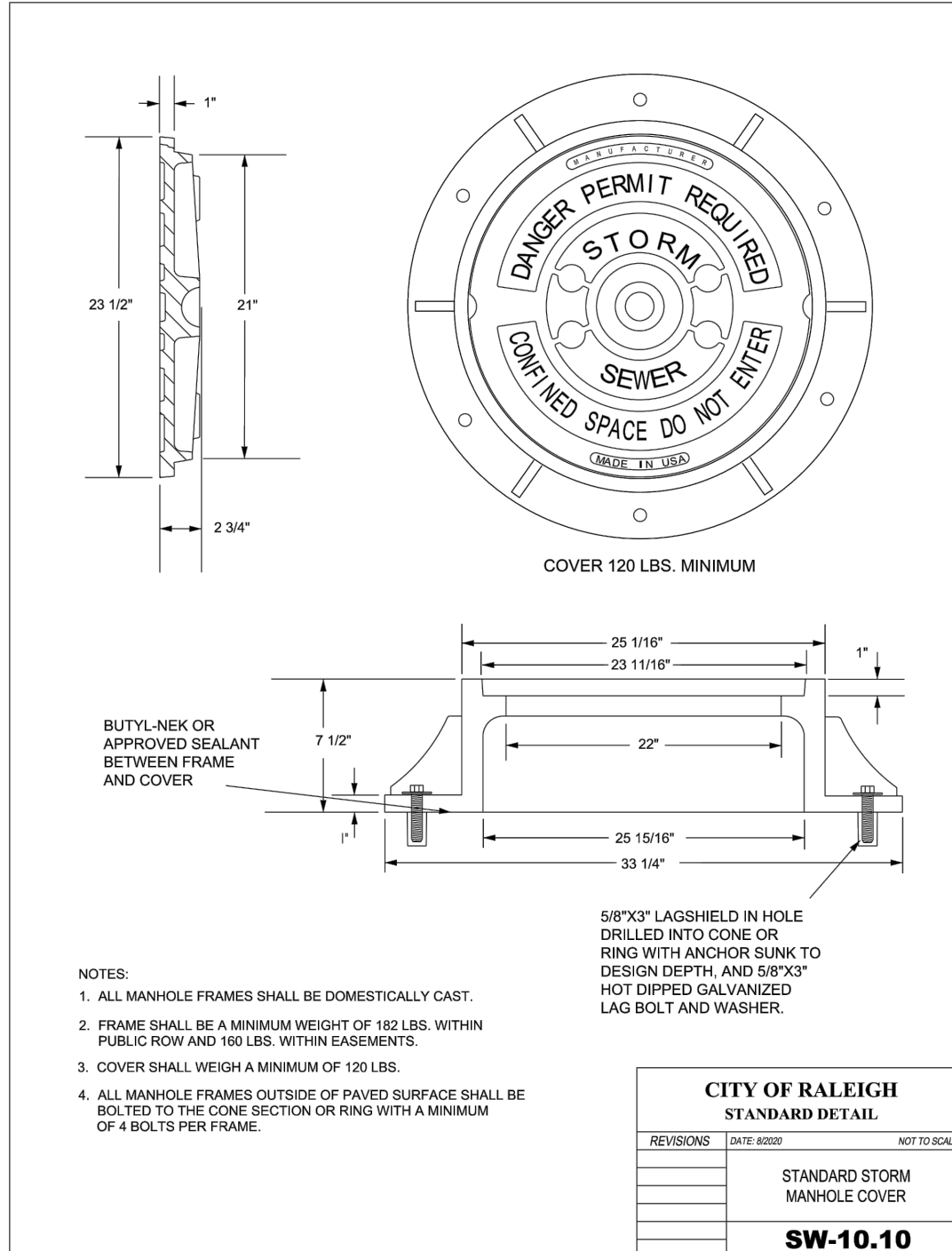
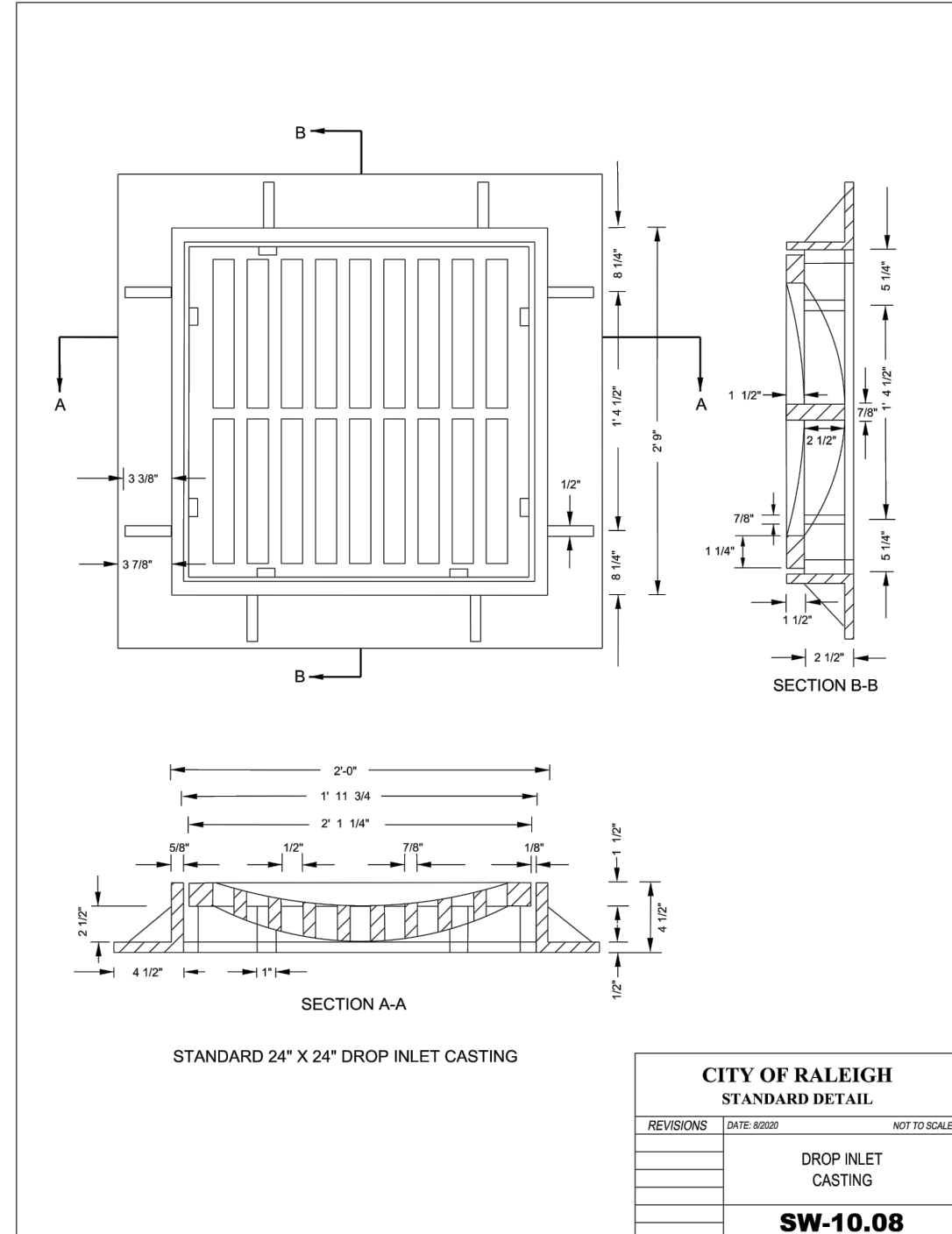
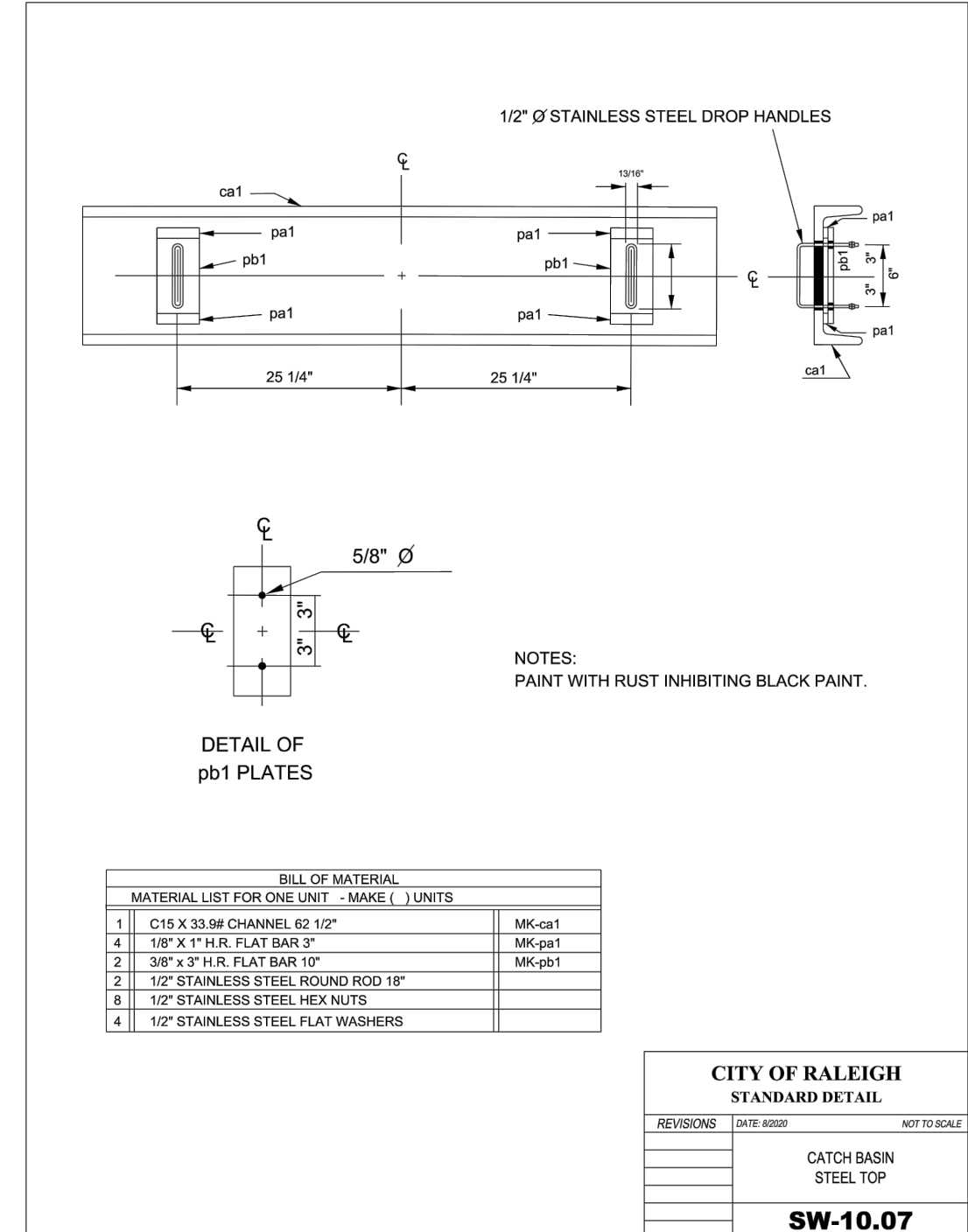
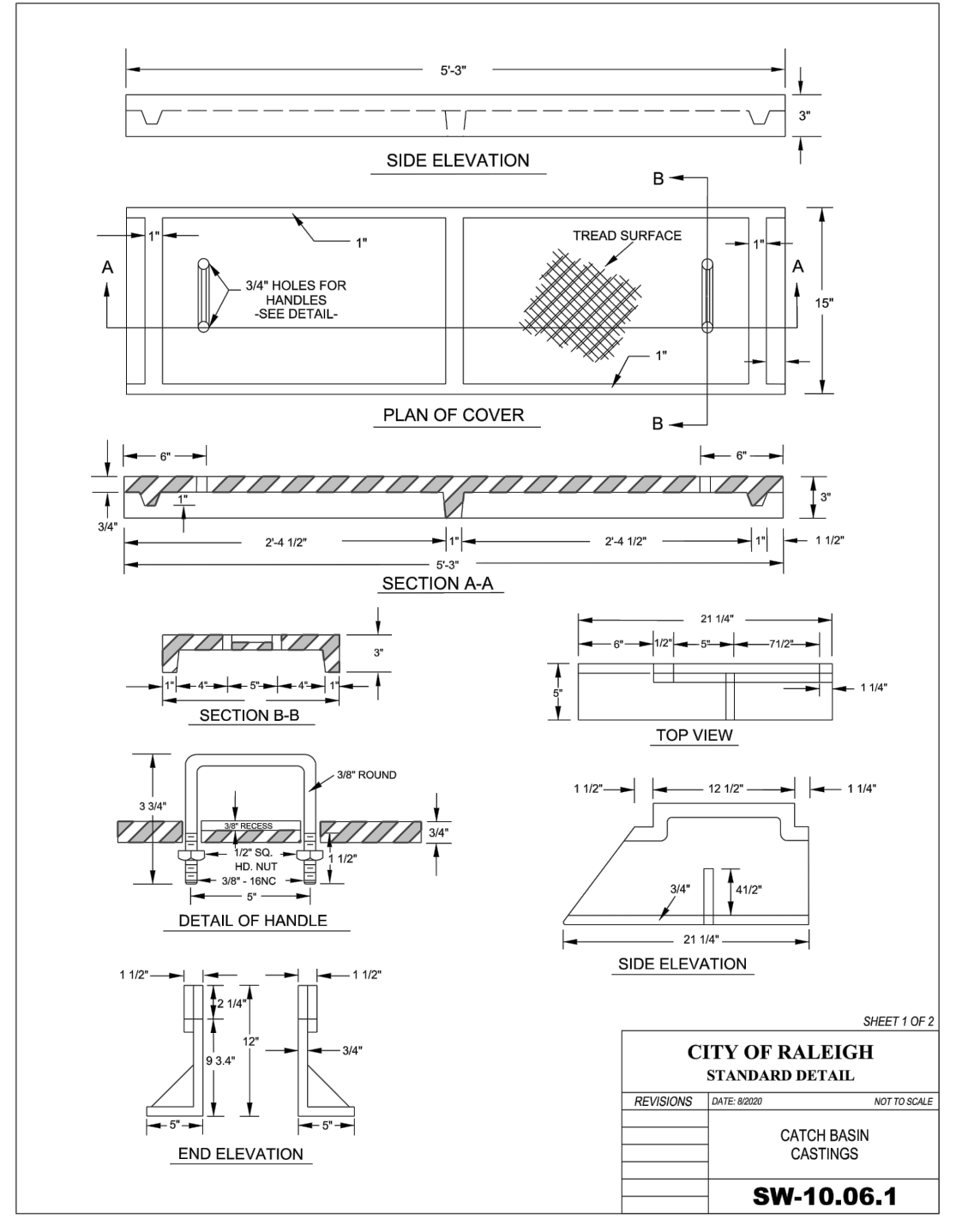
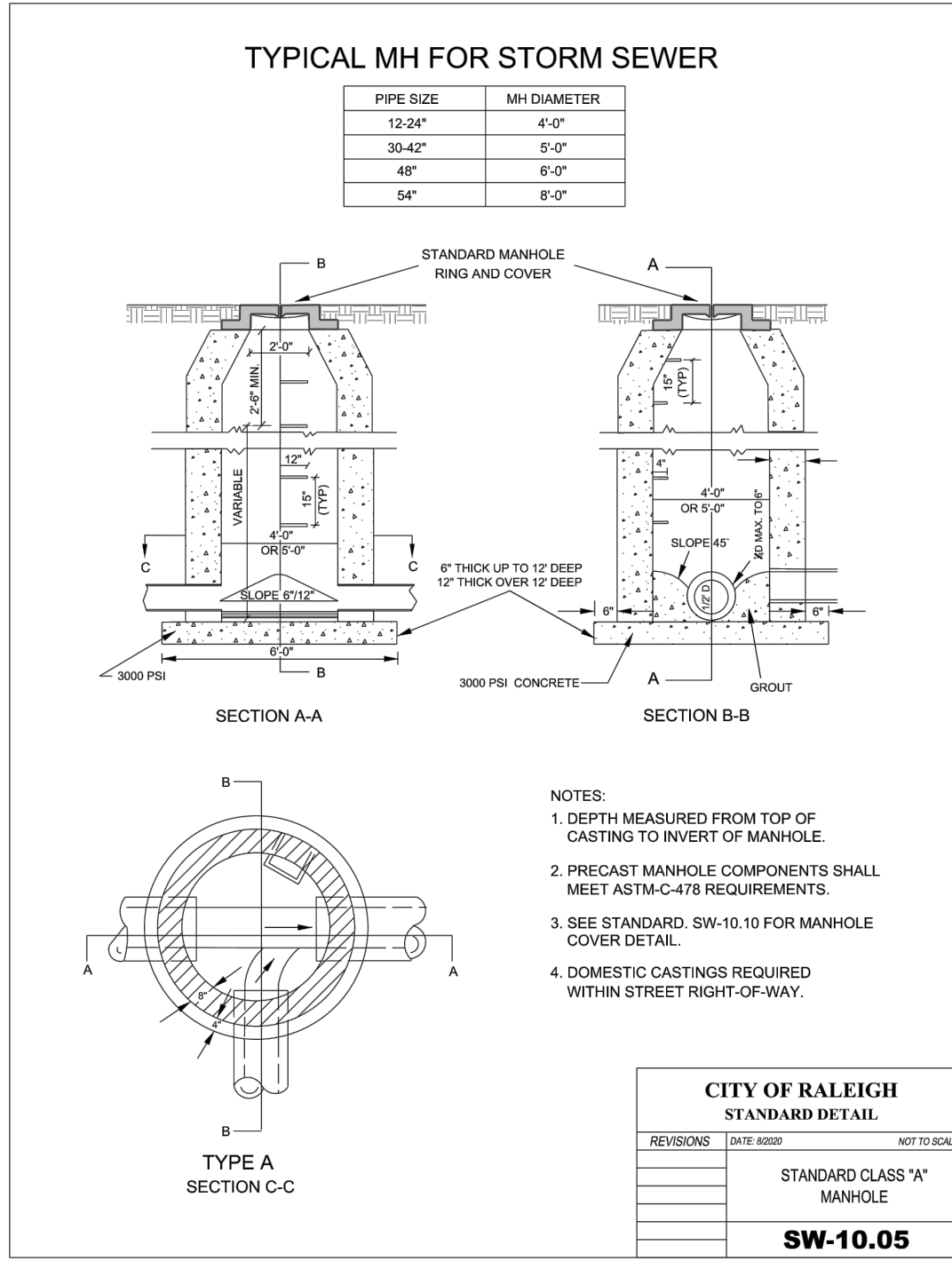
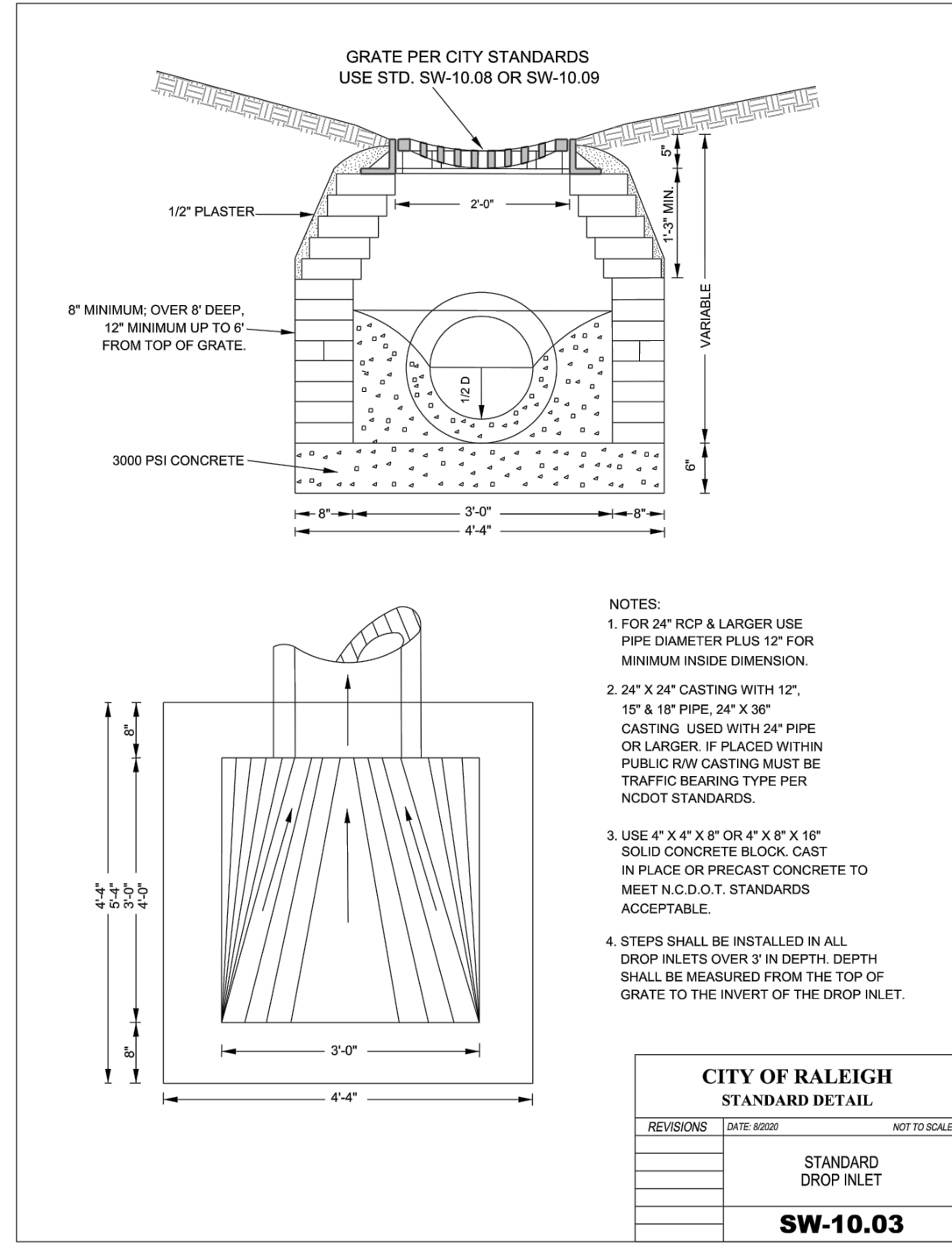
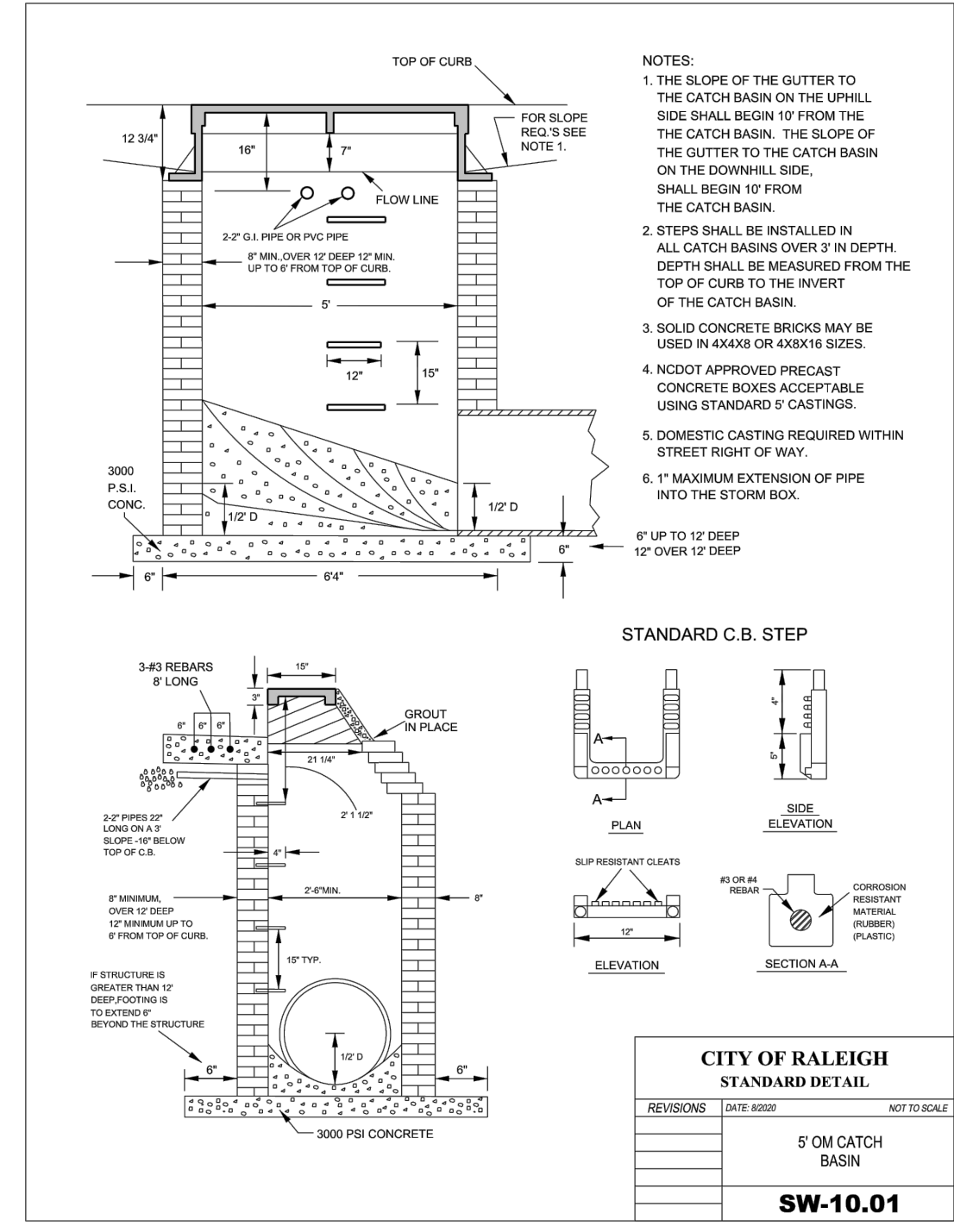
NO.	DATE	DESCRIPTION	BY

COBBLESTONE VILLAGE MIXED USE DEVELOPMENT
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

PROGRESS MRM
DATE DRAWN BY
JOB NO. DETAILS
 SCALE: N.T.S. CHK BY: MDB



06/23/21



BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
 6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
 TELEPHONE: (919)881-1232 FAX: (919)881-8686
 CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

COBBLESTONE VILLAGE MIXED USE DEVELOPMENT
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

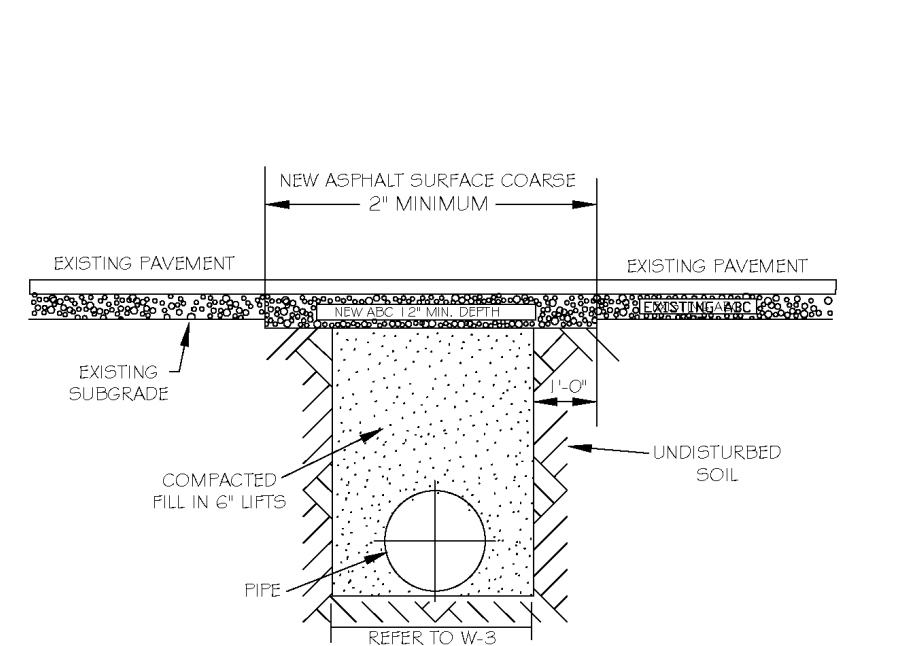
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DETAILS
 SCALE: N.T.S. CHK BY: MDB

NO. DATE DESCRIPTION REVISIONS

SHEET C5.2

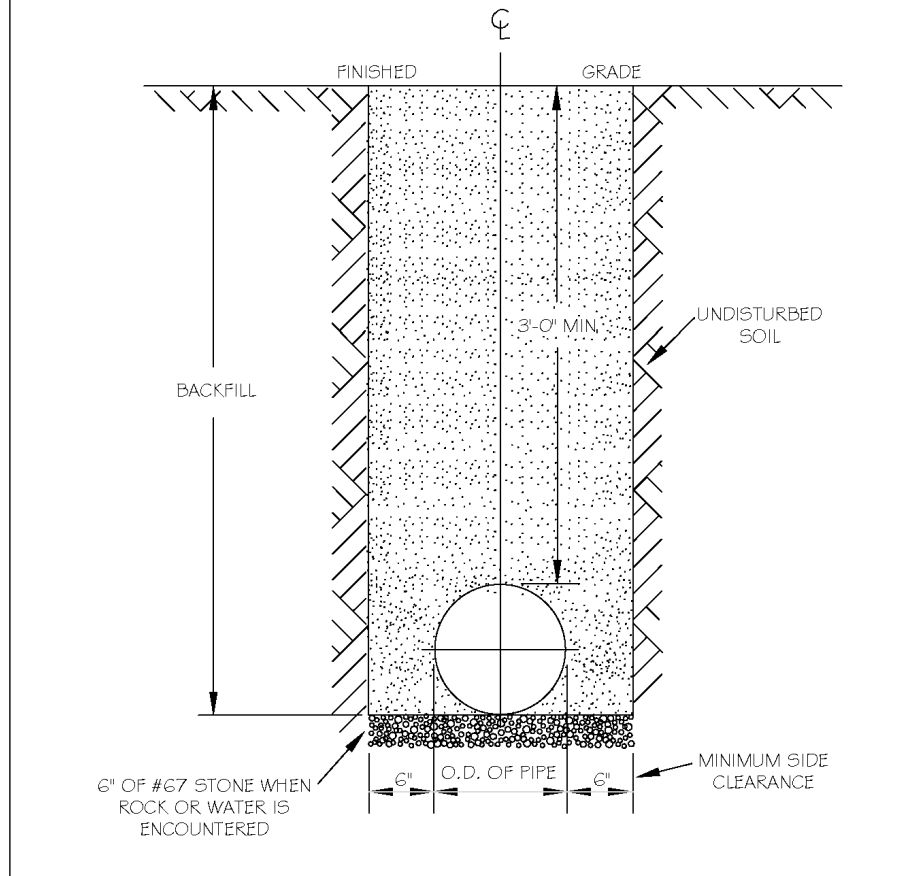


06/23/21



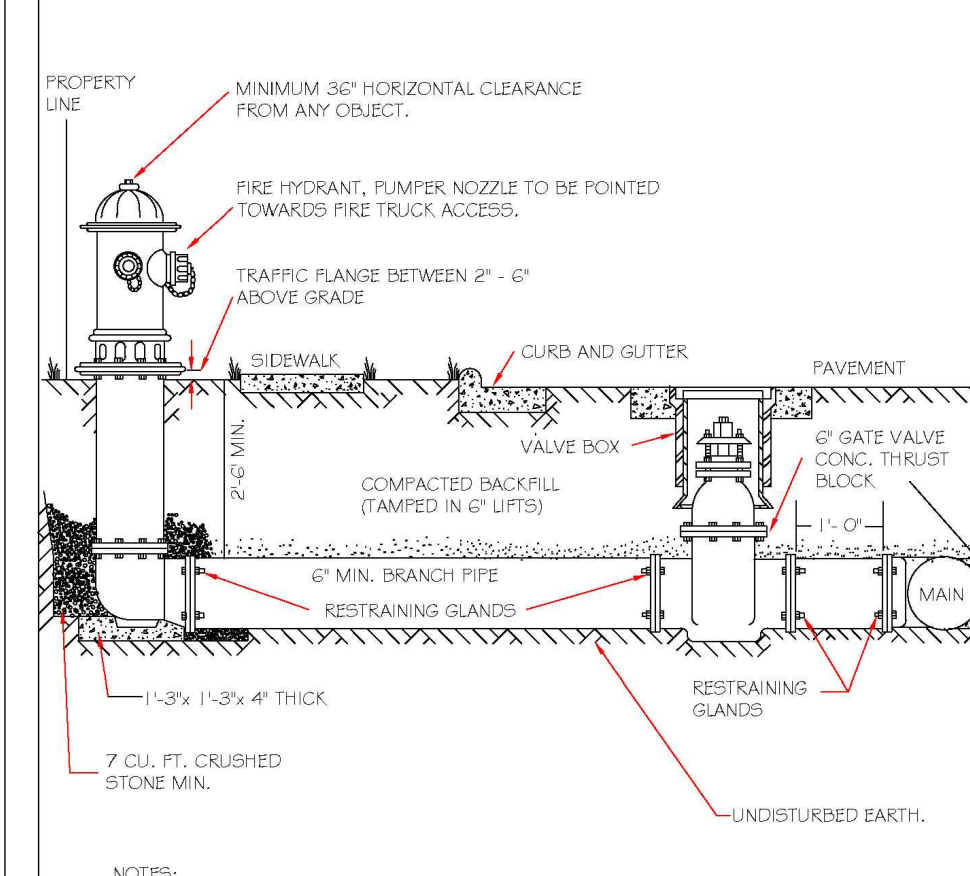
NOTES:
 1. THE PAVEMENT CUT SHALL BE DEFINED BY A STRAIGHT EDGE AND CUT WITH AN APPROPRIATE SAW CUT MACHINE.
 2. THE TRENCH SUBGRADE MATERIAL SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO A DENSITY OF AT LEAST 95% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY NC DOT.
 3. THE FINAL 1" OF FILL SHALL CONSIST OF ABC MATERIAL COMPACTED TO A DENSITY EQUAL TO 100% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY NC DOT.
 4. THE ENTIRE THICKNESS VERTICAL EDGE OF CUT SHALL BE TACKED.
 5. THE SAME DEPTH OF PAVEMENT MATERIAL WHICH EXISTS SHALL BE REINSTALLED, BUT IN NO CASE SHALL THE ASPHALT BE LESS THAN 2" THICK.
 6. THE ASPHALT PAVEMENT MATERIAL SHALL BE INSTALLED AND COMPACTED THOROUGHLY WITH A SMOOTH DRUM ROLLER TO ACHIEVE A SMOOTH LEVEL PATCH.
 7. REFER TO CITY OF RALEIGH STANDARDS FOR TRENCHES AND PIPE BEDDING, W-3, FOR ADDITIONAL DETAILS.
 8. NO HAND PATCHING ALLOWED.
 9. PAVEMENT CUTS WITHIN NC DOT ROW SHALL CONFORM TO THE APPROVED ON SITE ENCROACHMENT PERMIT.

CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD ASPHALT PAVEMENT PATCH DETAIL			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-2	RRH	3-31-00	A.S.B.
	D.W.C.	11-1-03	J.P.S.



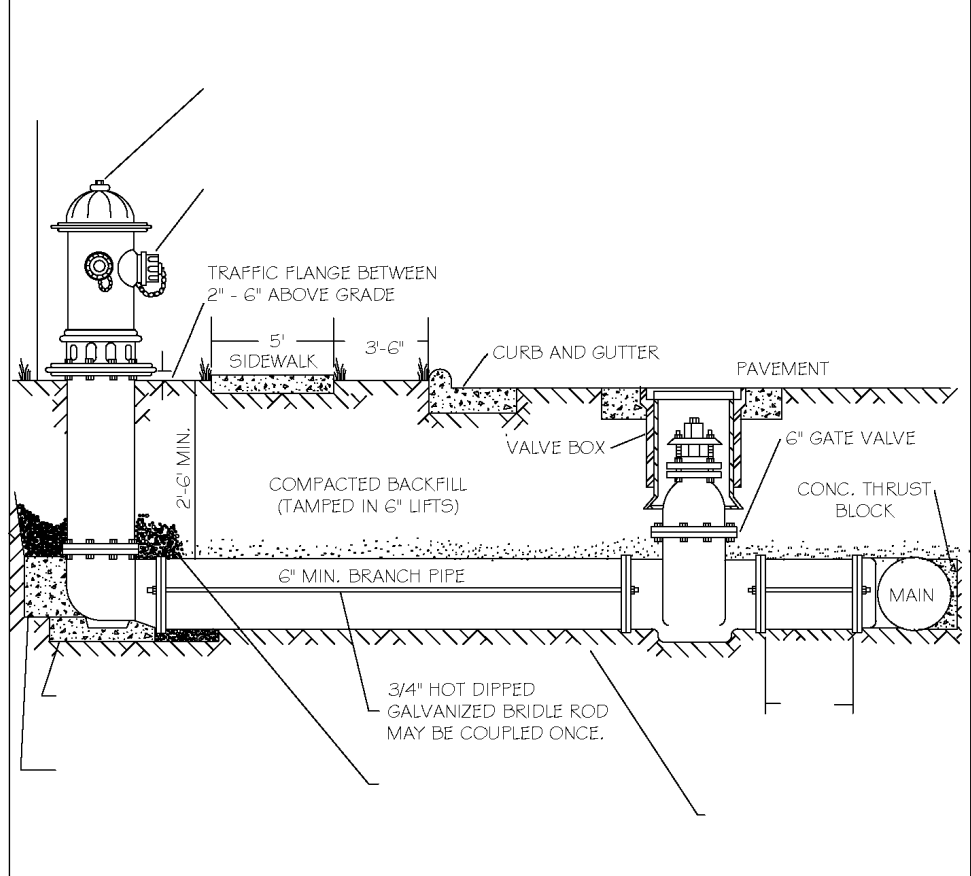
NOTES:
 1. TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
 2. NO ROCKS OR BouldERS 4" OR LARGER TO BE USED IN BACKFILL.
 3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
 4. BACKFILL SHALL BE TAMPED IN 6" LIFTS.
 5. ACHIEVE 95% COMPACTION IN BACKFILL.

CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
TRENCH BOTTOM DIMENSIONS & BACKFILL REQUIREMENTS FOR DUCTILE IRON			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-3	RRH	3-31-00	ABB
	D.W.C.	3-31-00	J.P.S.



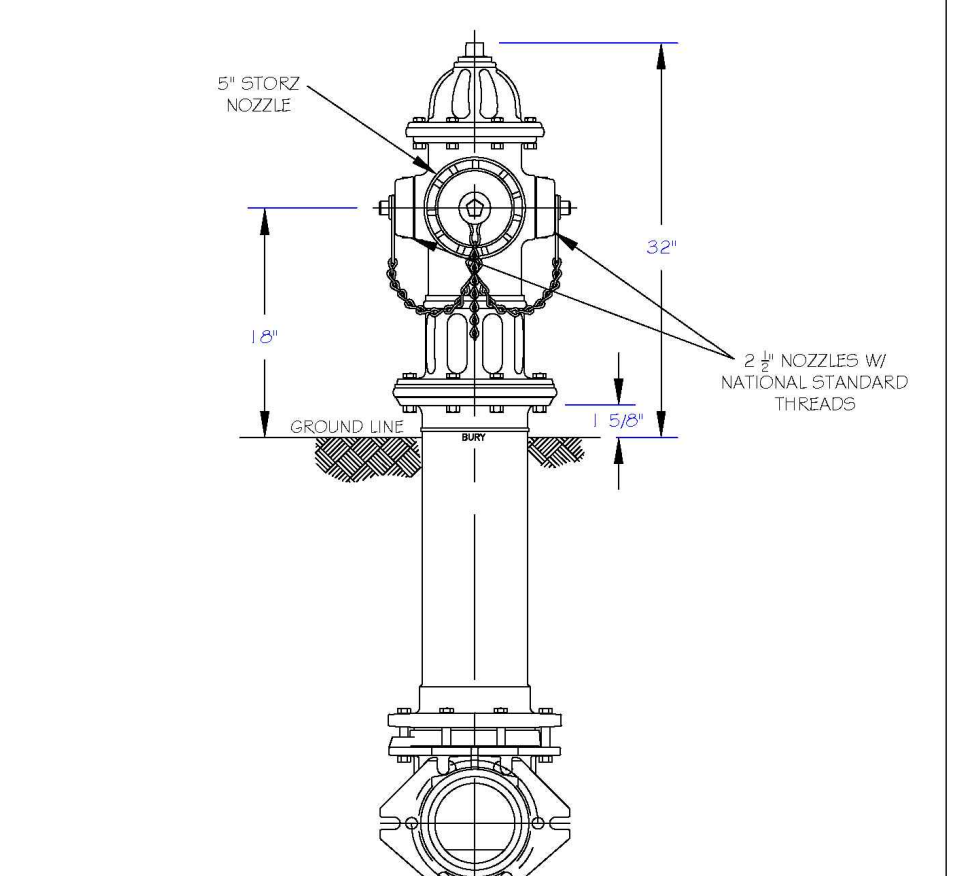
NOTES:
 1. FIRE HYDRANT SHALL BE AS MANUFACTURED: MUELLER, AMERICAN DARLING, KENNEDY, MHI, WATERLOUS, GLOW, EAST JORDAN IRON WORKS, OR US PIPE.
 2. BRANCH PIPE SHALL BE DUCTILE IRON ANMA C150-20.
 3. 6" GATE VALVE SHALL BE ANMA C200-20 OPEN LEFT.
 4. STEEL RODS AND BOLTS SHALL BE #4 HOT DIPPED GALVANIZED.
 5. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION.
 6. ROADS SHALL NOT BE COUPLED MORE THAN ONCE. IF THE LENGTH FROM THE VALVE TO THE HYDRANT EXCEEDS 20' THEN A MECHANICAL RESTRAINING GLAND WITH A REBAR CASE SHALL BE INSTALLED NO MORE THAN 10' FROM HYDRANT AND POURED IN CONCRETE.
 7. FIRE HYDRANTS TO BE LOCATED IN ROW OR 2 FOOT EASEMENT ADJACENT TO ROW.

CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD FIRE HYDRANT INSTALLATION DETAIL			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-4	ABB	4-6-04	FW
	D.W.C.	2-7-08	2-7-08



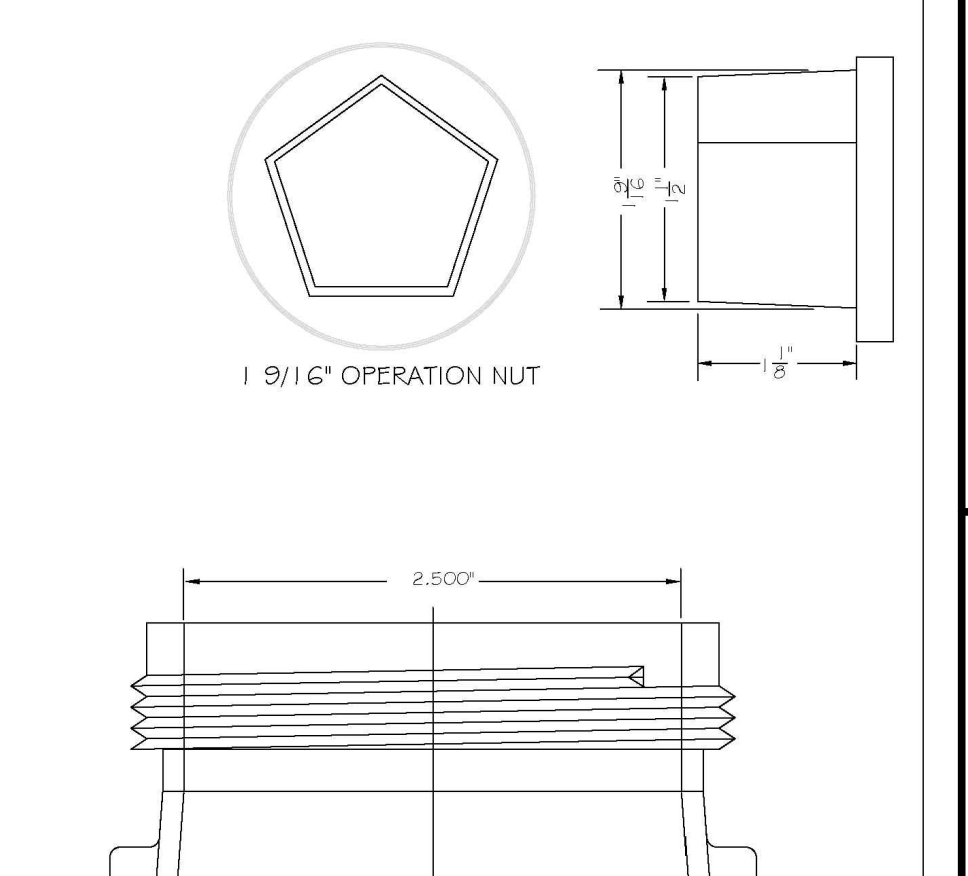
NOTES:
 1. FIRE HYDRANT SHALL BE AS MANUFACTURED: MUELLER, AMERICAN DARLING, KENNEDY, MHI, WATERLOUS, GLOW, EAST JORDAN IRON WORKS, OR US PIPE.
 2. BRANCH PIPE SHALL BE DUCTILE IRON ANMA C150-20.
 3. 6" GATE VALVE SHALL BE ANMA C200-20 OPEN LEFT.
 4. STEEL RODS AND BOLTS SHALL BE #4 HOT DIPPED GALVANIZED.
 5. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION.
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 7. FIRE HYDRANTS TO BE LOCATED IN ROW OR 2 FOOT EASEMENT ADJACENT TO ROW.

CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD FIRE HYDRANT INSTALLATION DETAIL			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-4a	ABB	4-6-04	FW
	D.W.C.	2-7-08	2-7-08



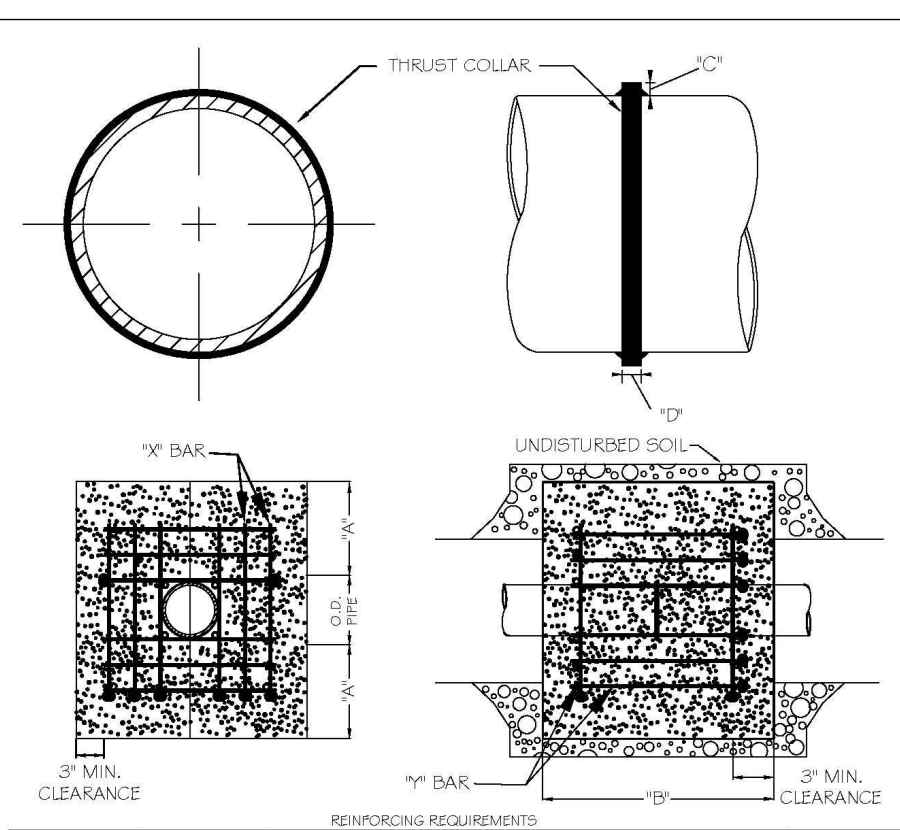
NOTES:
 1. RALEIGH PUBLIC HYDRANTS SHALL BE PAINTED SOLID RED.
 2. KNIGHTDALE, 4 ROLLSVILLE PUBLIC HYDRANTS SHALL BE PAINTED RED W/ SILVER OPERATING NUTS.
 3. ZEBULON PUBLIC HYDRANTS SHALL BE PAINTED RED W/ SILVER BONNETS AND OPERATING NUTS.
 4. WAKE FOREST AND GARNER, AND WENDELL PUBLIC AND PRIVATE HYDRANTS TO BE PAINTED SAFETY YELLOW W/ SILVER CAPS AND OPERATING NUTS.
 5. OPERATING NUTS ON HYDRANTS CONNECTED TO PUBLIC MAINS LARGER THAN 12\"/>

CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD FIRE HYDRANT WITH 5\"/>			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-5	RRH	3-1-07	ARR
	D.W.C.	3-31-00	D.H.L.



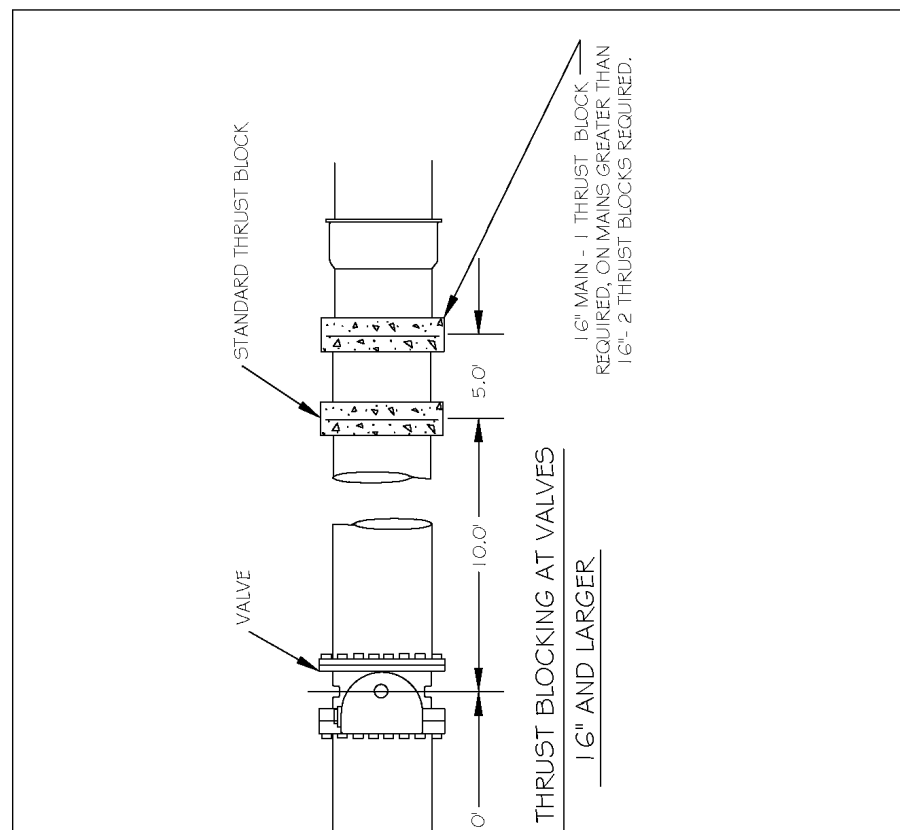
NOTES:
 1. STEEL RODS AND BOLTS SHALL BE #4 HOT DIPPED GALVANIZED.
 2. RESTRAINING MECHANICAL JOINT SHALL BE USED AT ALL FITTINGS.
 3. 3\"/>

CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
HYDRANT OPERATING NUT AND 2\"/>			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-6	RRH	3-31-00	D.H.L.
	A.S.B.	6-13-04	J.P.S.



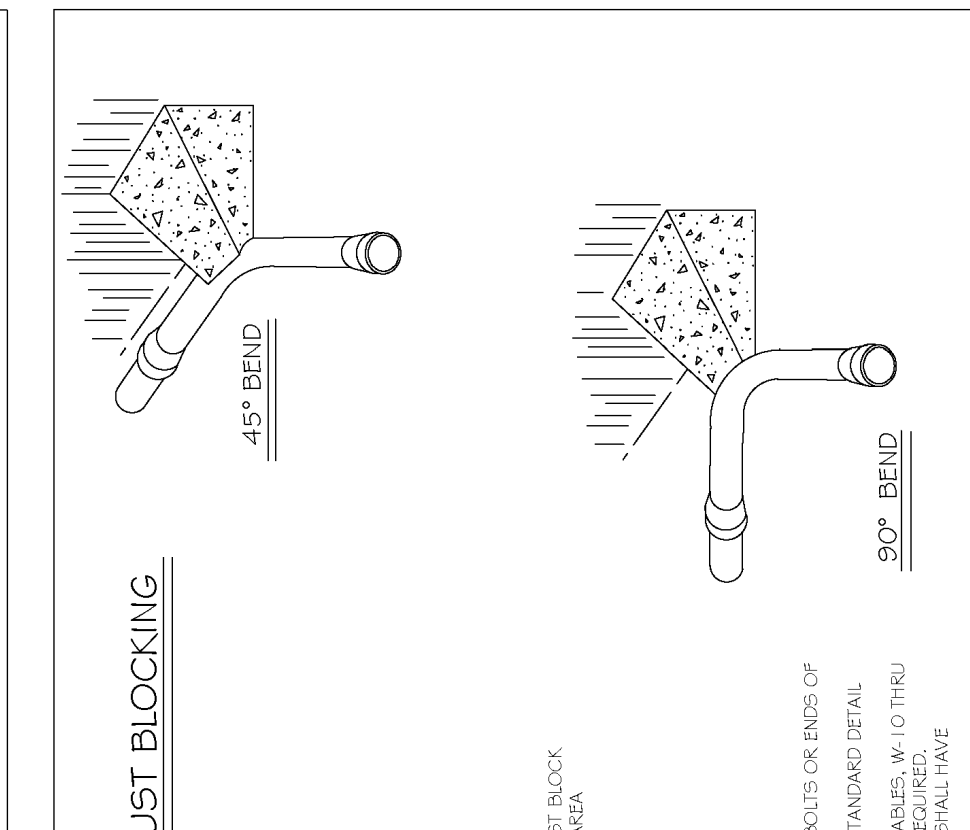
CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD THRUST BLOCKING DESIGN DATA FOR WATER MAINS			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-7	RRH	3-1-00	J.P.S.
	D.W.C.	12-18-03	

NOTES:
 1. SEE STANDARD DETAIL W-9 FOR THRUST BLOCK LOCATIONS.
 2. CONCRETE SHALL BE 3000 PSI AND RANSIT MIXED.
 3. REINFORCING BARS SHALL BE DROPPED AND TIED TOGETHER.
 4. TRENCH BOTTOM WIDTH IN VICINITY OF THRUST BLOCK INSTALLATION SHALL BE THE MINIMUM WIDTH AS SHOWN ON STANDARD DETAIL W-3.
 5. BACKFILL TAMPED IN 6\"/>



CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD THRUST BLOCK INSTALLATION FOR 16\"/>			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-8	Y.C.A.	4-2-92	RRH
	D.W.C.	3-31-00	

NOTES:
 1. CONCRETE SHALL NOT CONTACT RODS OR ENDS OF MECHANICAL JOINT FITTINGS.
 2. MECHANICAL JOINT FITTINGS SHALL CONFORM TO STANDARD DETAIL W-3.
 3. ALL BENDS AND INTERSECTIONS SHALL HAVE CONCRETE THRUST BLOCKING.



CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD THRUST BLOCKING VIEWS			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-9	D.W.C.	3-7-99	D.H.L.
	D.W.C.	3-31-00	

NOTES:
 1. USE OF 90 DEGREE VALVE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTOR.

CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
THRUST BLOCKING DESIGN QUANTITY TABLE			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-10	Y.C.A.	3-23-92	

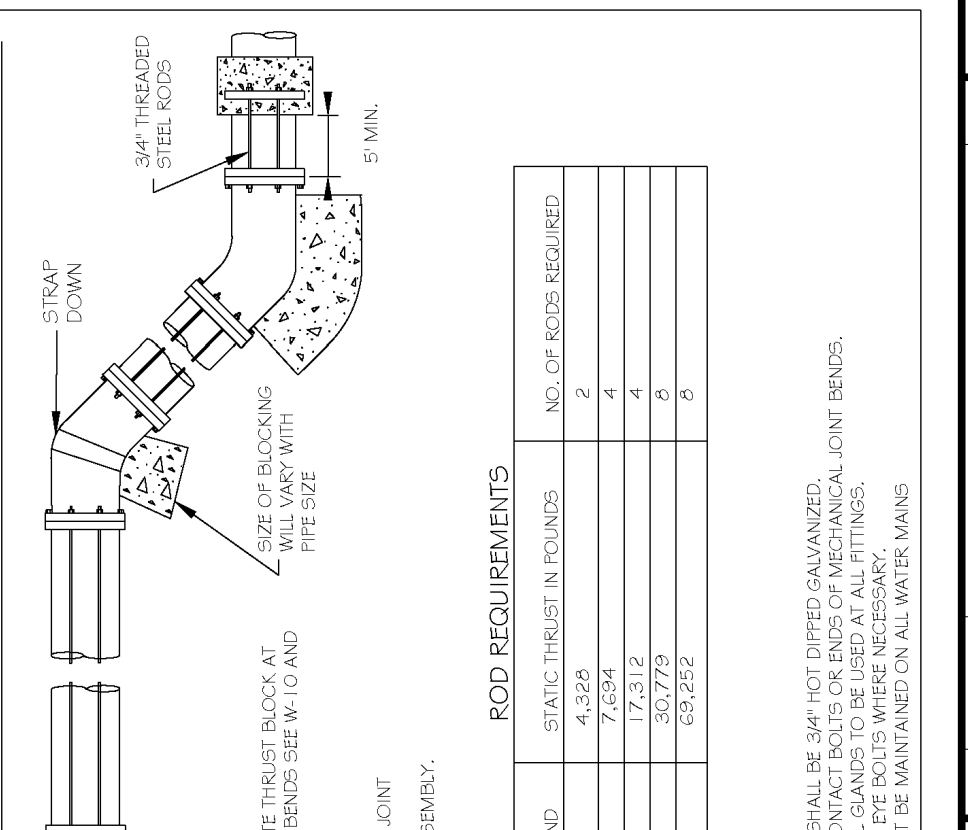
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DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
THRUST BLOCKING DESIGN QUANTITY TABLE			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-11	D.W.C.	3-23-92	

NOTES:
 1. POTABLE WATER MARKER TO BE BLUE IN COLOR.
 2. POTABLE WATER MARKER TO BE LABELED "RALEIGH WATER".
 3. TO BE SPACED ALONG CENTERLINE OF MAIN EVERY 300 FEET.
 4. MARKERS TO BE ROUND AND 4\"/>

CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
THRUST BLOCKING DESIGN QUANTITY TABLE			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-14	Y.C.A.	2-31-91	RRH
	D.W.C.	3-7-99	J.P.S.

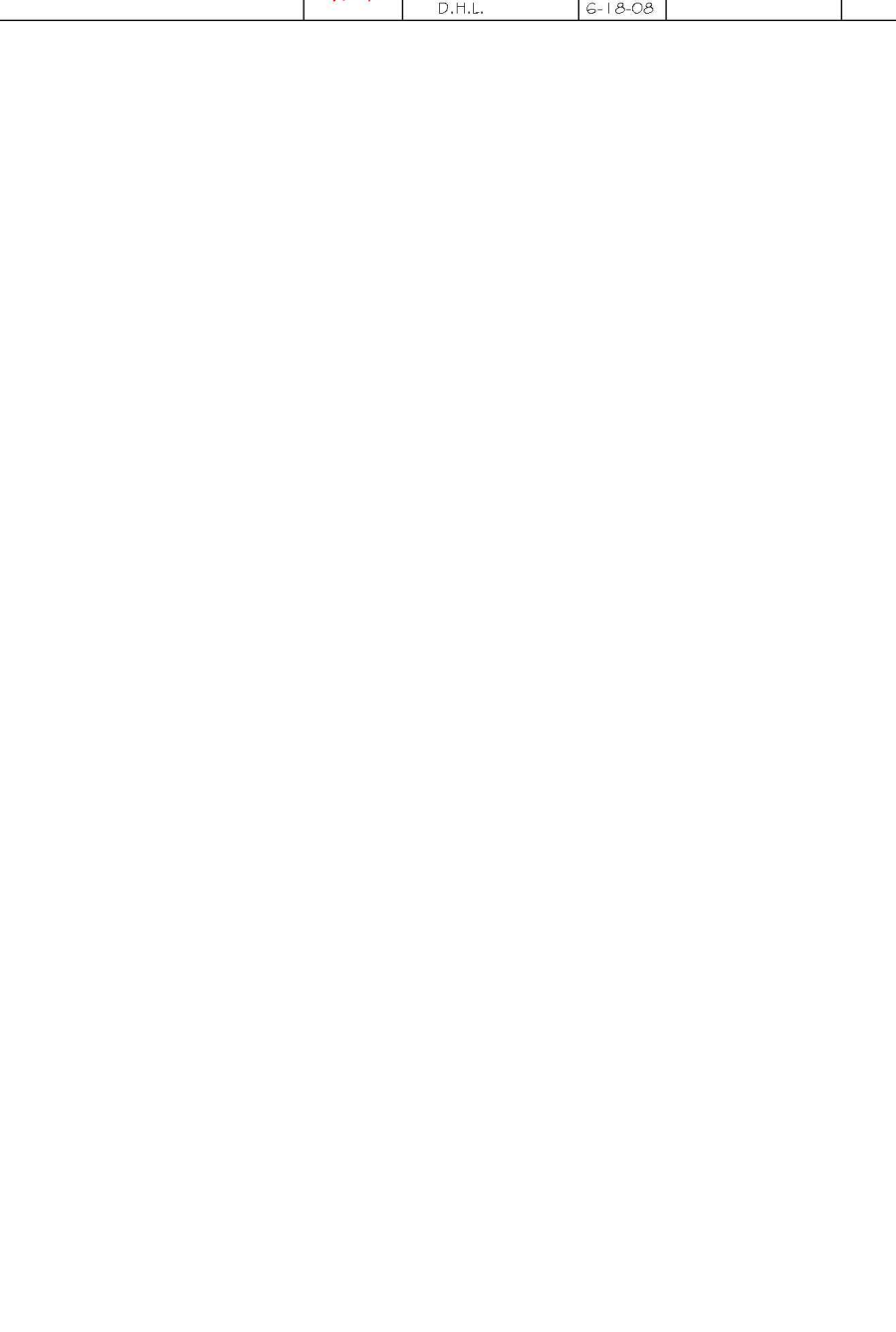
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DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
4\"/>			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-14	Y.C.A.	2-31-91	RRH
	D.W.C.	3-7-99	J.P.S.

NOTES:
 1. CONCRETE SHALL NOT CONTACT RODS OR ENDS OF MECHANICAL JOINT FITTINGS.
 2. SEE STANDARD REACTION BLOCK TABLES, W-10 AND W-11 FOR AREA OF CONCRETE REQUIRED.



CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD VERTICAL BEND			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-12	RRH	4-6-04	J.P.S.
	D.H.L.	6-14-08	

NOTES:
 1. CONCRETE SHALL NOT CONTACT RODS OR ENDS OF MECHANICAL JOINT FITTINGS.
 2. SEE STANDARD REACTION BLOCK TABLES, W-10 AND W-11 FOR AREA OF CONCRETE REQUIRED.



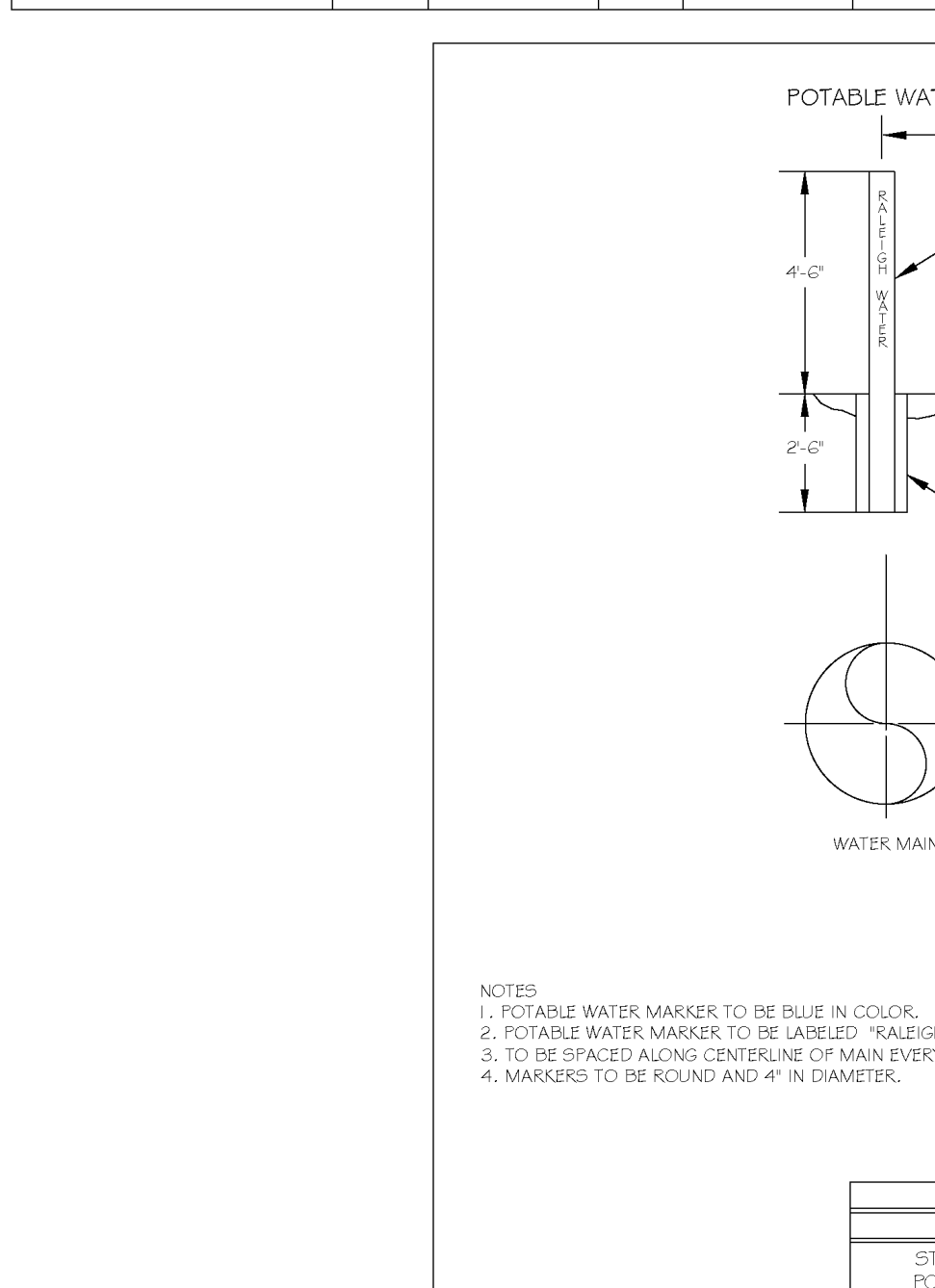
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DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD MAN & VALVE MARKERS FOR POTABLE & REUSE WATER IN EASEMENTS			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-13	RRH	3-31-00	J.P.S.
	D.H.L.	11-11-10	



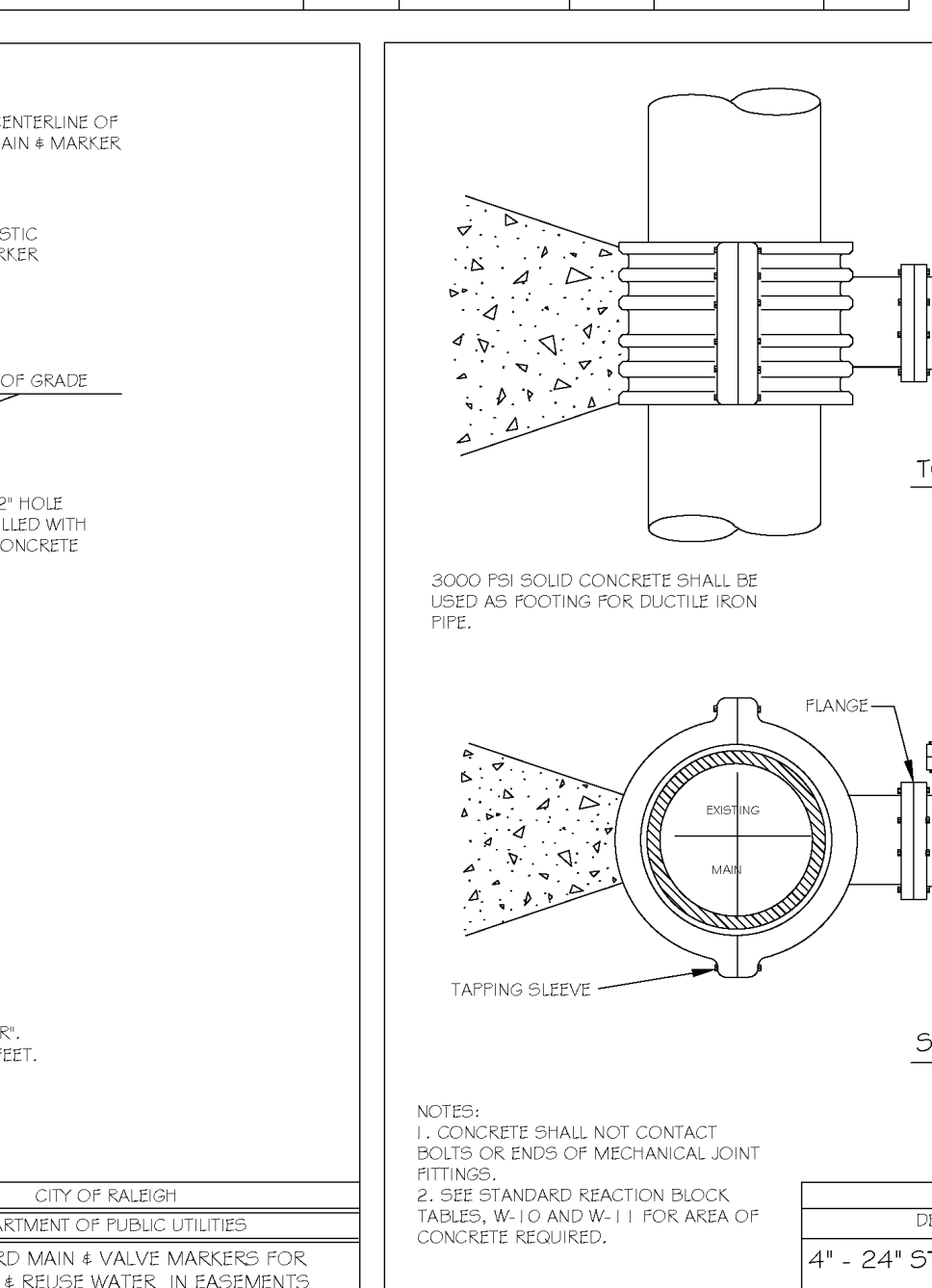
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DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD MAN & VALVE MARKERS FOR POTABLE & REUSE WATER IN EASEMENTS			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-13	RRH	3-31-00	J.P.S.
	D.H.L.	11-11-10	



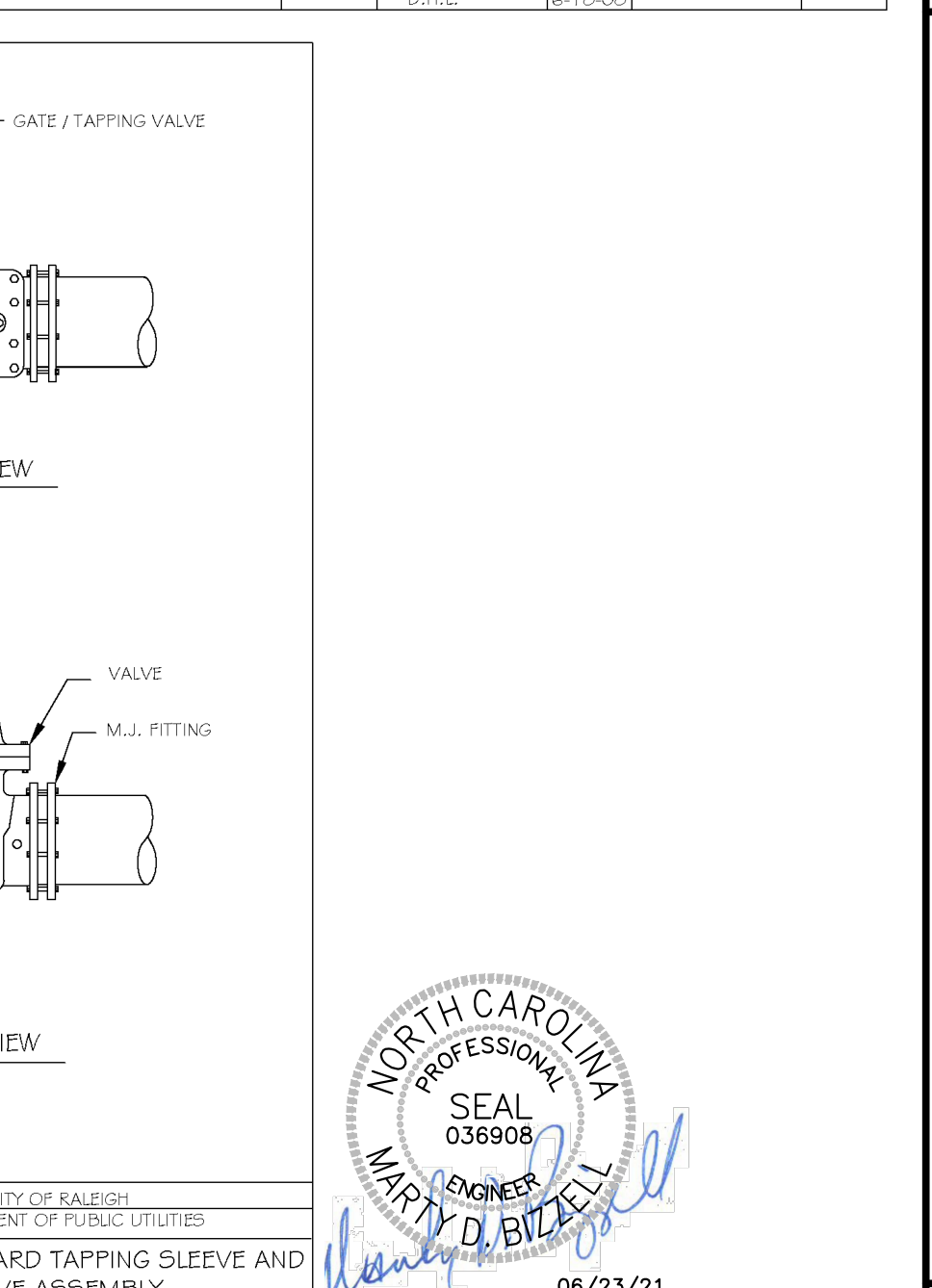
CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD MAN & VALVE MARKERS FOR POTABLE & REUSE WATER IN EASEMENTS			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-13	RRH	3-31-00	J.P.S.
	D.H.L.	11-11-10	



CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD MAN & VALVE MARKERS FOR POTABLE & REUSE WATER IN EASEMENTS			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-13	RRH	3-31-00	J.P.S.
	D.H.L.	11-11-10	



CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD MAN & VALVE MARKERS FOR POTABLE & REUSE WATER IN EASEMENTS			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-13	RRH	3-31-00	J.P.S.
	D.H.L.	11-11-10	



CITY OF RALEIGH		CITY OF RALEIGH	
DEPARTMENT OF PUBLIC UTILITIES		DEPARTMENT OF PUBLIC UTILITIES	
STANDARD MAN & VALVE MARKERS FOR POTABLE & REUSE WATER IN EASEMENTS			
DWG. NO.	REVISIONS	DATE	REVISIONS
W-13	RRH	3-31-00	J.P.S.
	D.H.L.	11-11-10	

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
 6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
 TELEPHONE: (919)881-1122 FAX: (919)881-8686
 CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY

COBBLESTONE VILLAGE
MIXED USE DEVELOPMENT
 TOWN OF ROLLSVILLE, WAKE COUNTY, NORTH CAROLINA

PROGRESS DRAWN BY: **MRN**
 DATE: **03-18-17**

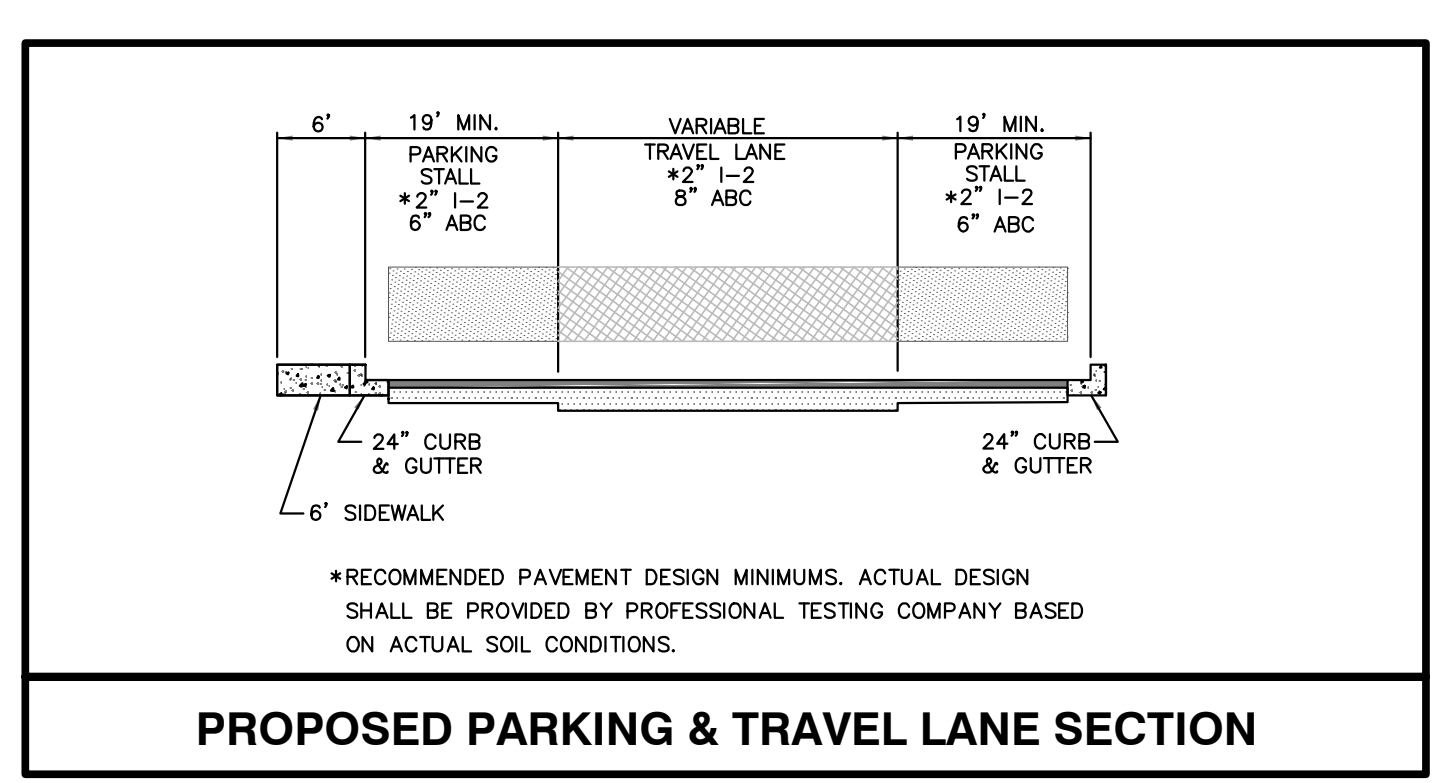
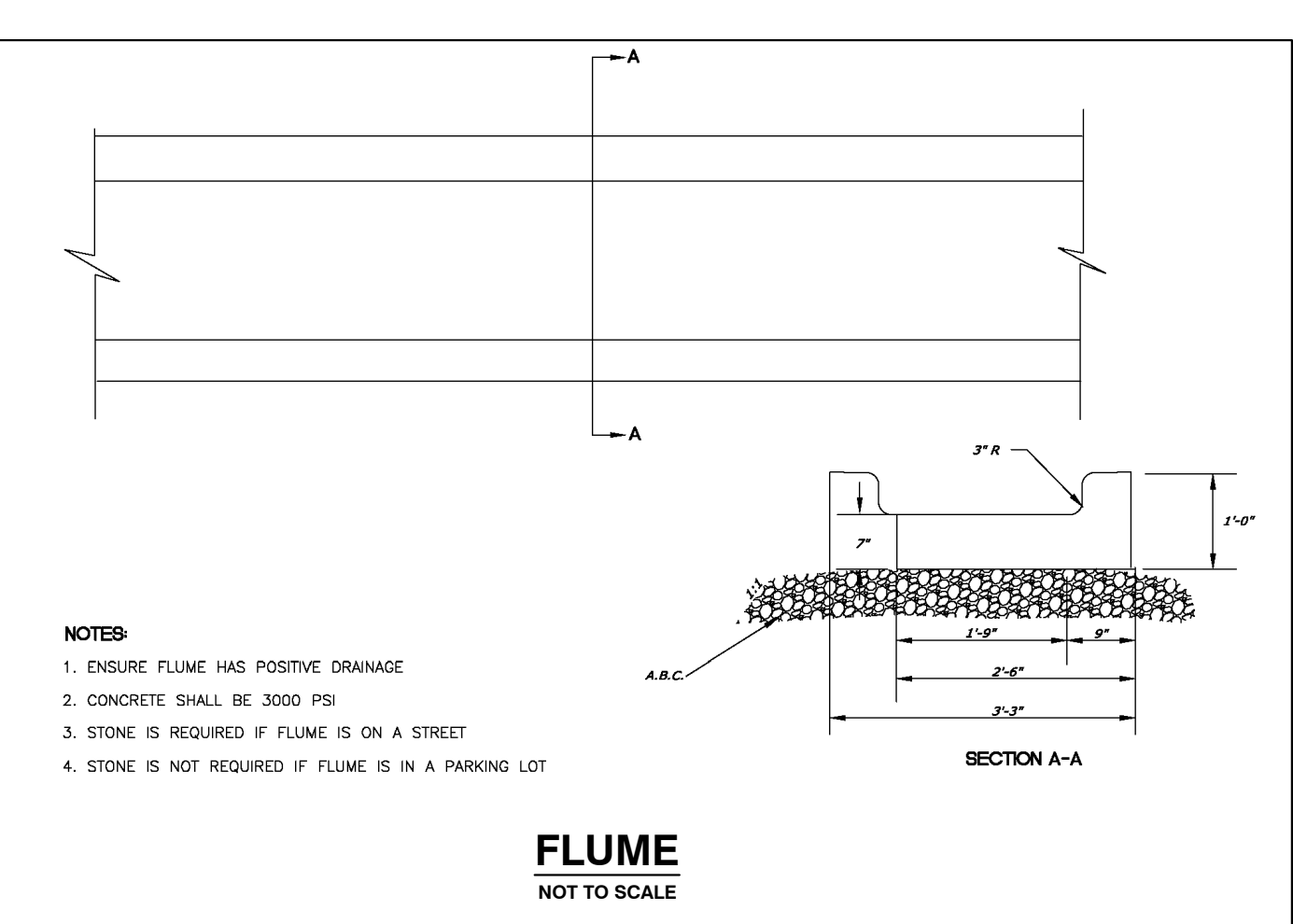
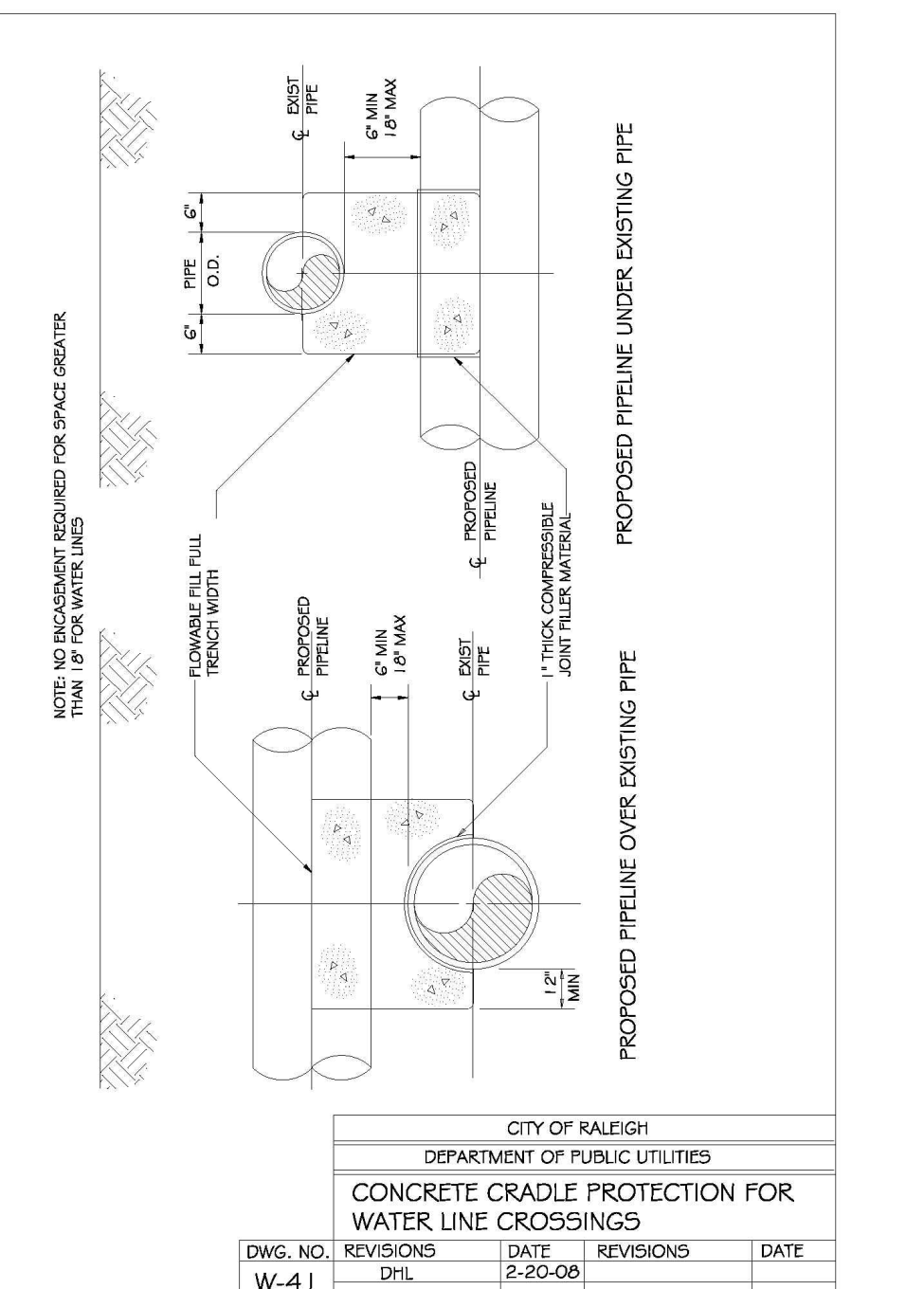
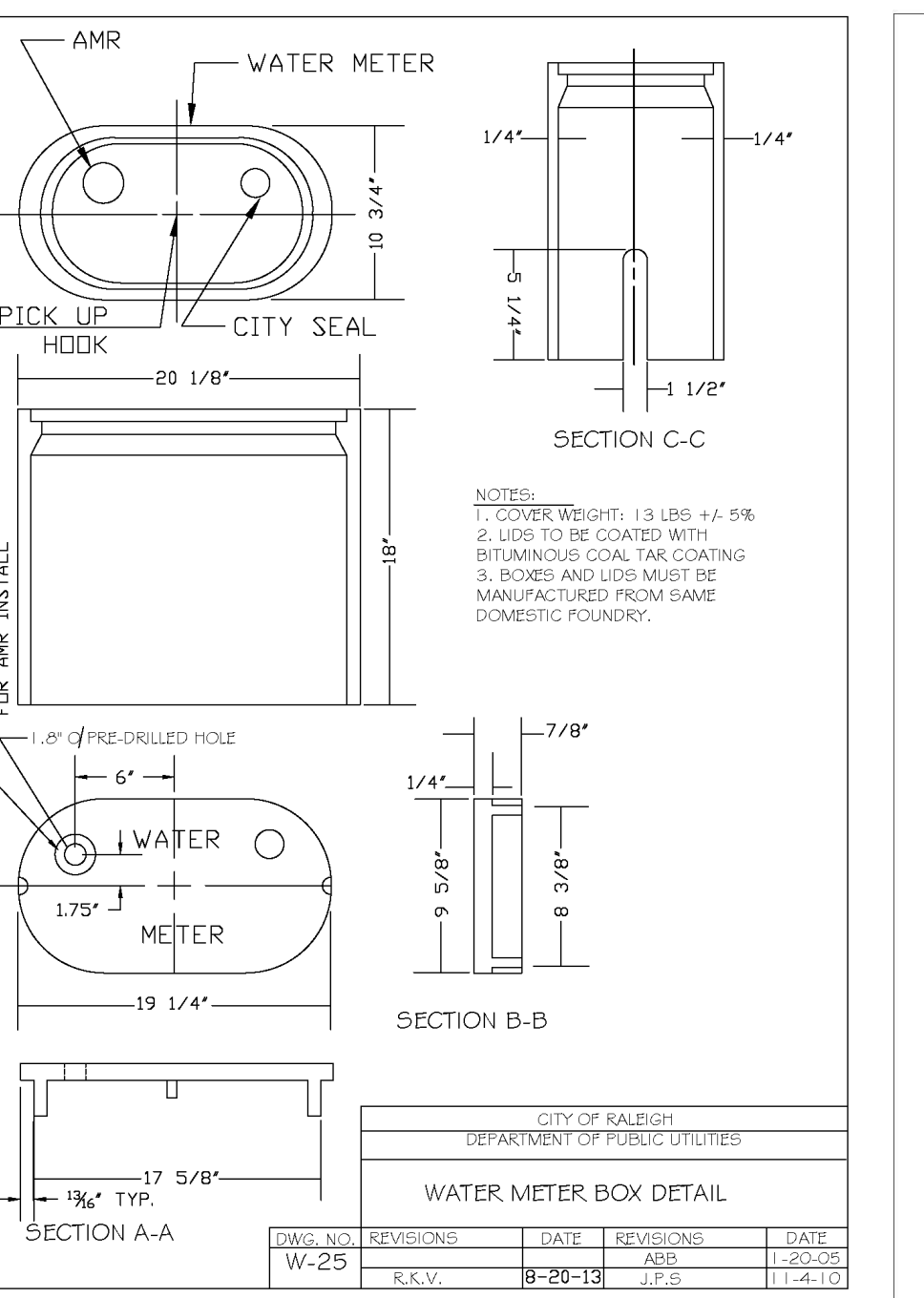
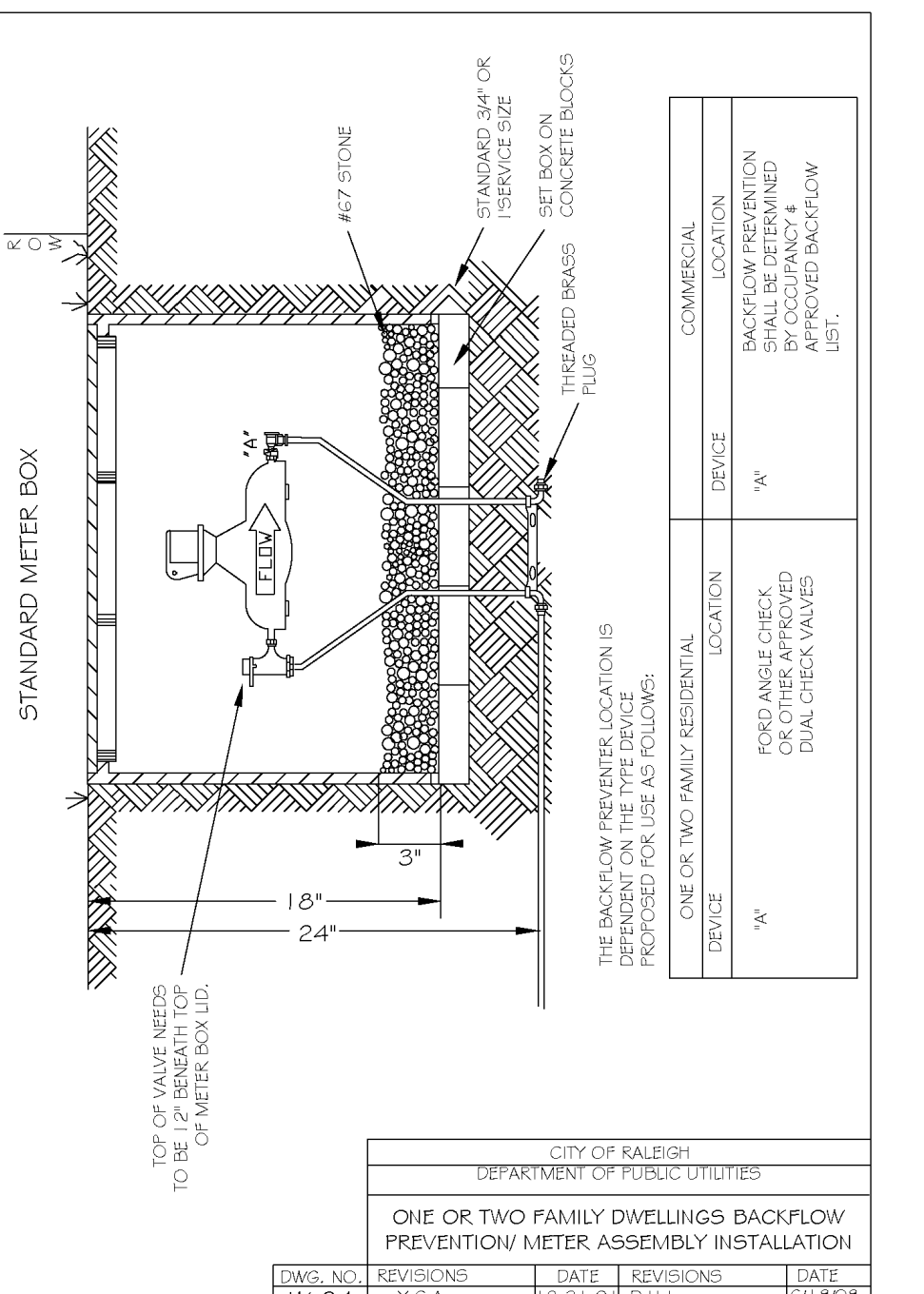
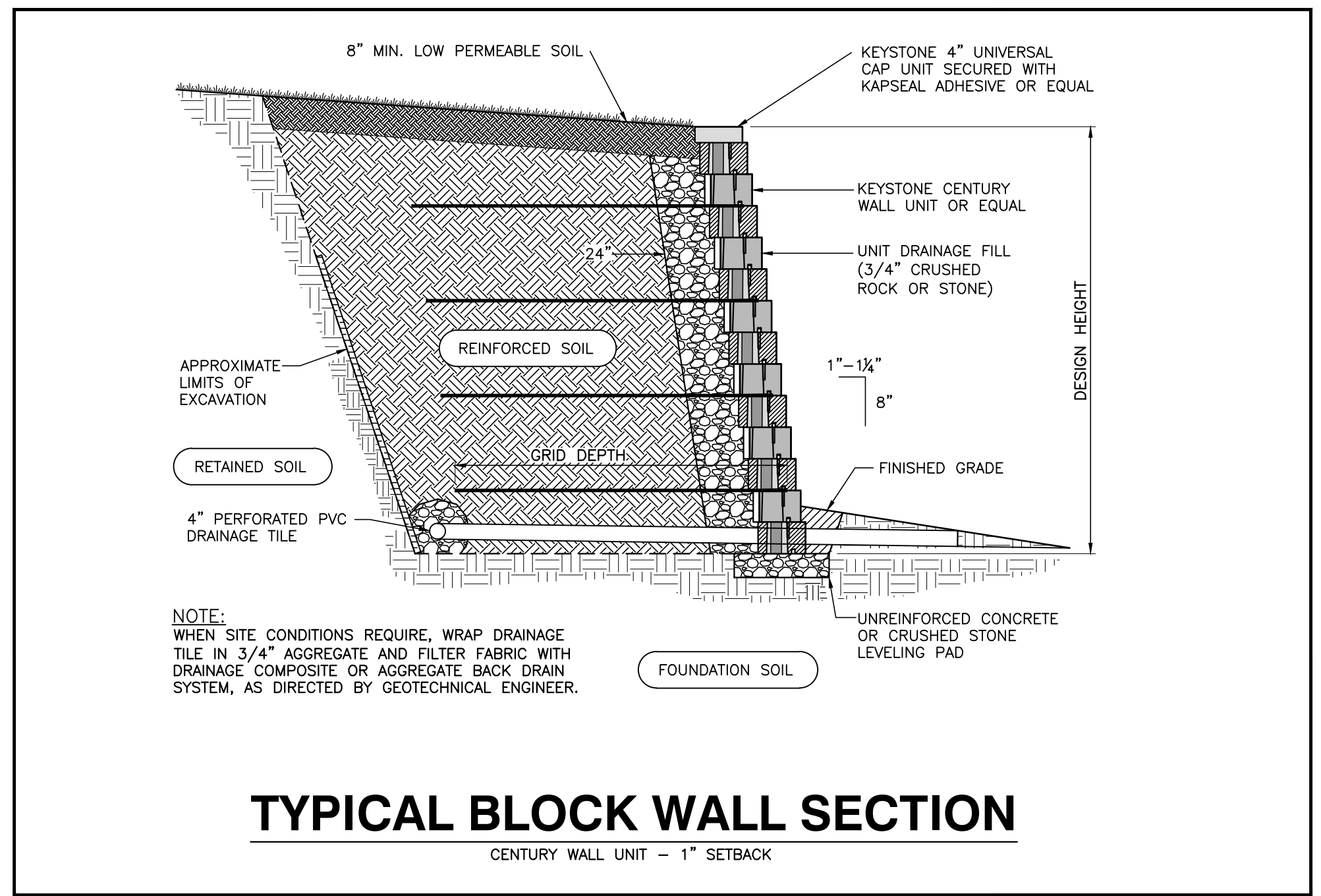
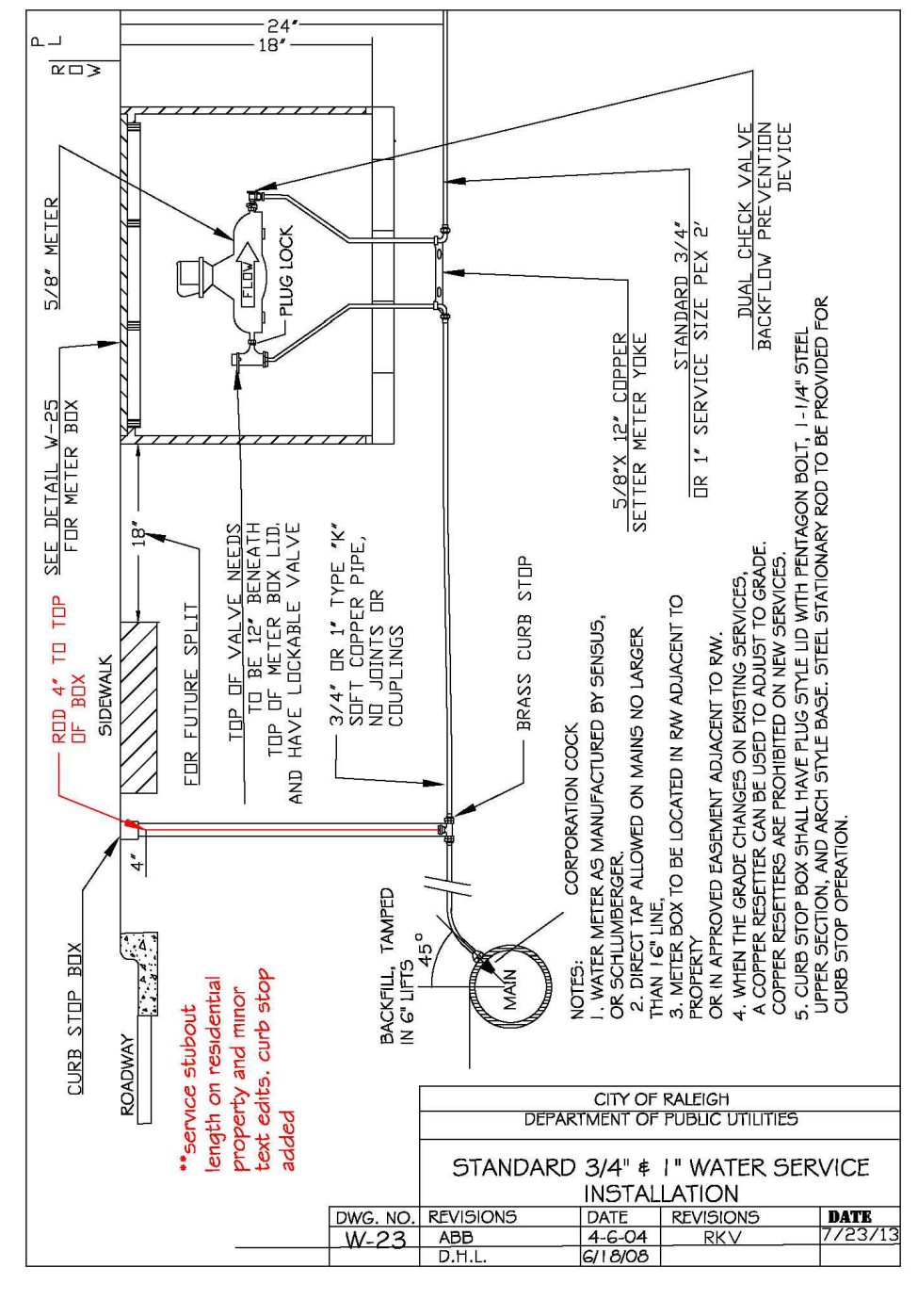
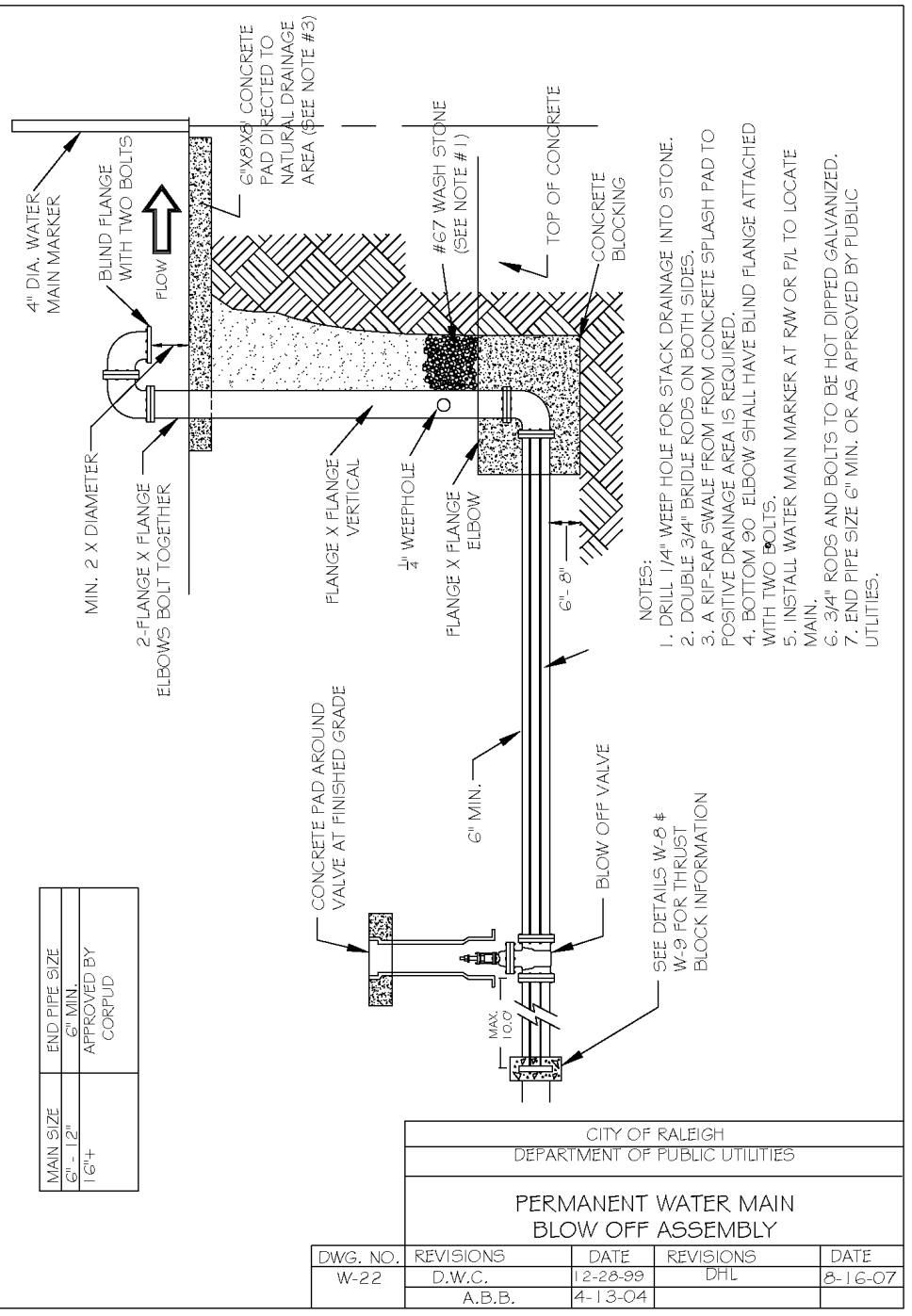
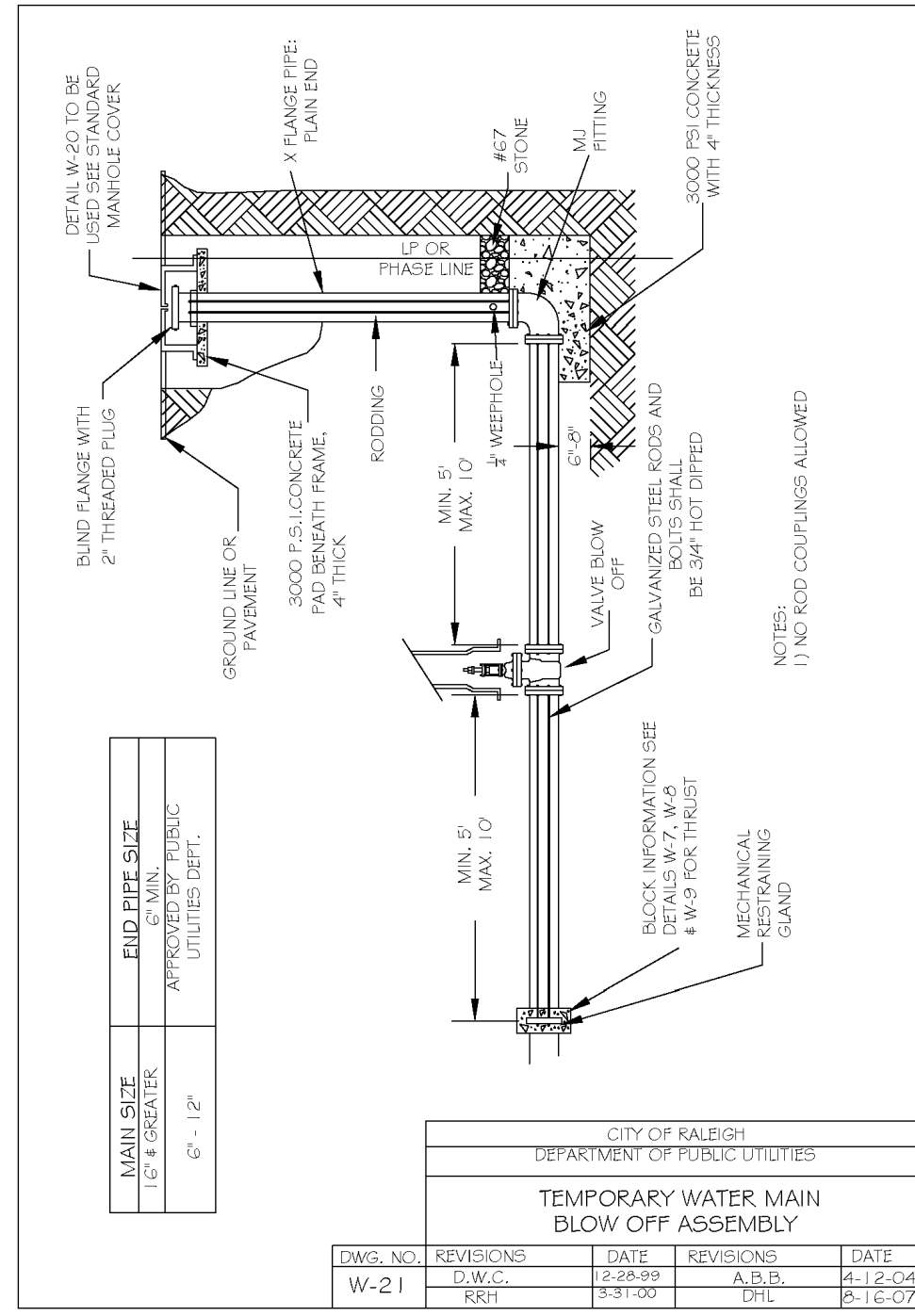
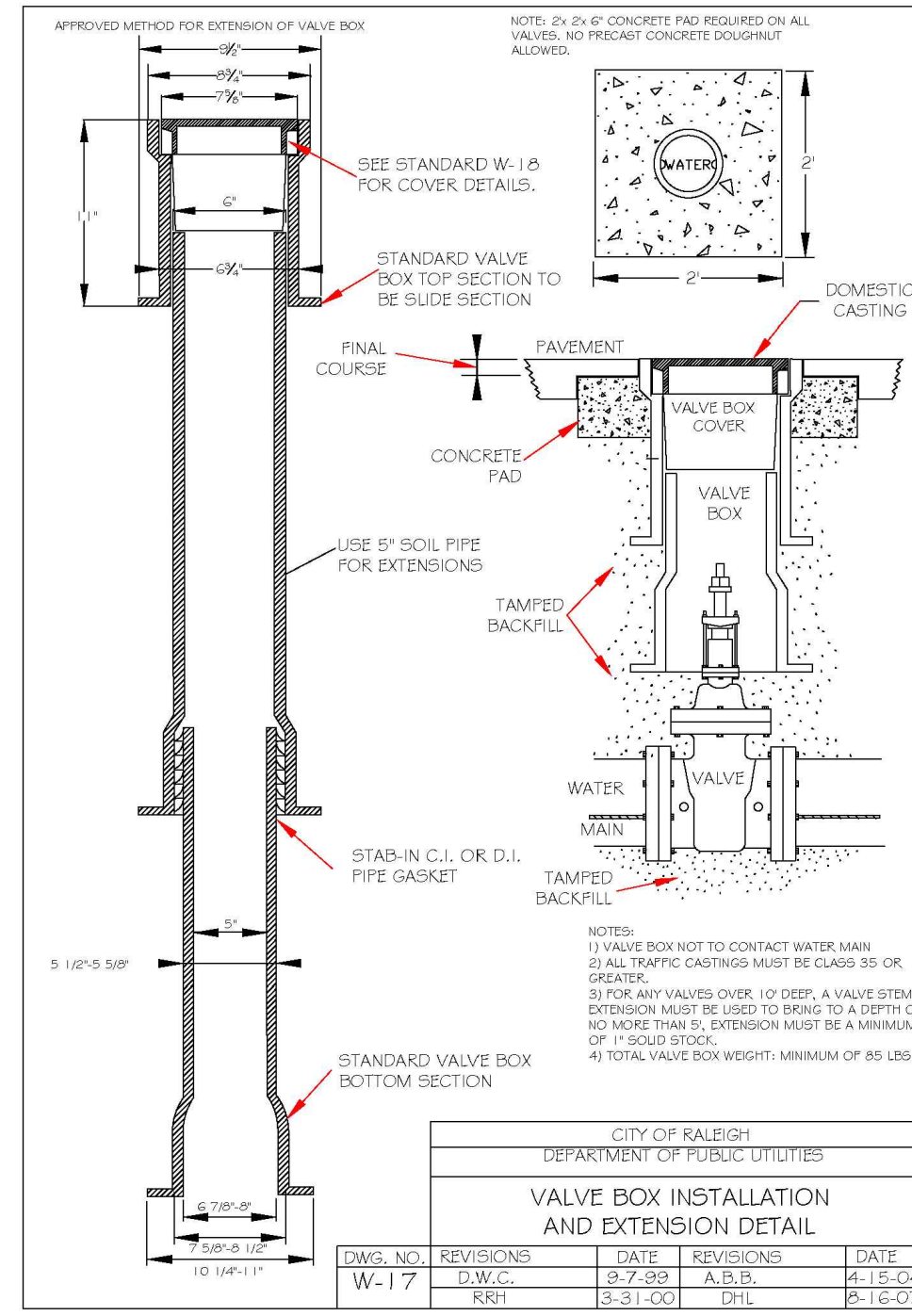
DETAILS

SCALE: **N.T.S.**

CHECK BY: **MDB**

SHEET **C5.4**

TOWN OF ROLLSVILLE PROJECT NO. **03-1817**



BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHASEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)881-4222 FAX: (919)881-8686
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY

COBBLESTONE VILLAGE
MIXED USE DEVELOPMENT
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

PROGRESS DRAWN BY: MRM
DATE: 03-19-17
JOB NO.: 03-1917

DETAILS
SCALE: N.T.S.
CHK BY: MDB



06/23/21



TRANSPARENCY CALCULATIONS
 GROUND LEVEL (RETAIL USE):
 TOTAL FACADE AREA (WxH): 983 SF
 REQ'D AREA OF TRANSPARENCY: 983 SF x 0.4 = 394 SF
 AREA OF TRANSPARENCY: 390 SF 40%

Section 7.4 - Town Center Overlay District
 7.4.18 Windows, doors, display windows and/or arcades shall make up at least 40 percent of the street facade on the first story as measured from two feet above grade to ten feet above grade.
 Blank walls are not permitted adjacent to streets.

BLDG 2 - EAST ELEVATION 1
 1/8" = 1'-0"



TRANSPARENCY CALCULATIONS
 GROUND LEVEL (RETAIL USE):
 TOTAL FACADE AREA (WxH): 836 SF
 REQ'D AREA OF TRANSPARENCY: 836 SF x 0.4 = 334 SF
 AREA OF TRANSPARENCY: 363 SF 43%

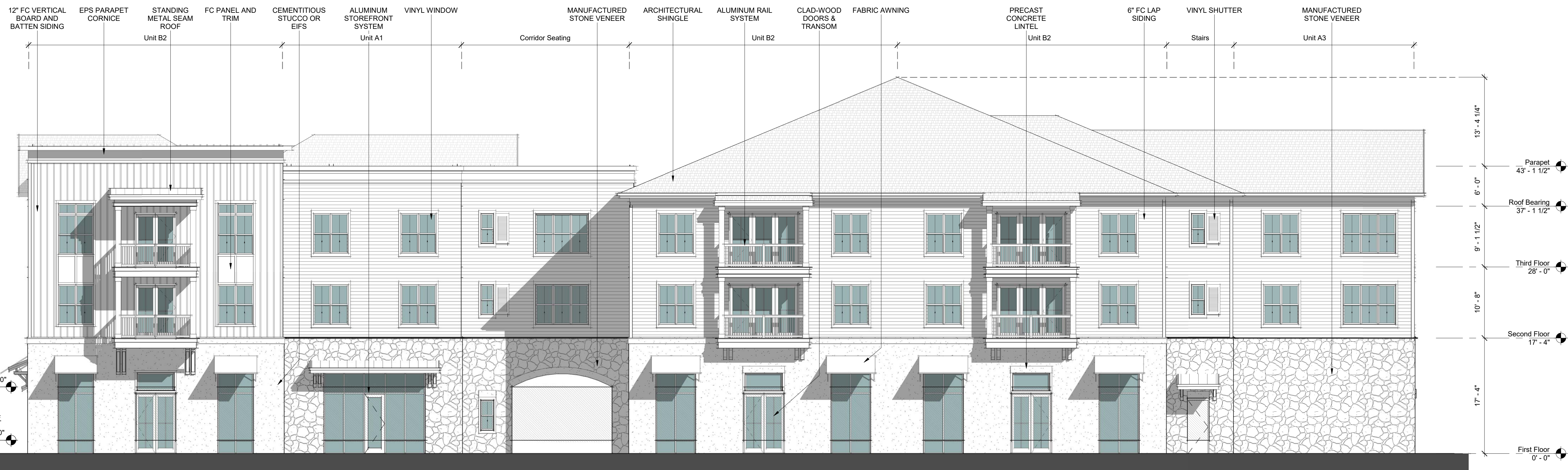
BLDG 2 - WEST ELEVATION 2
 1/8" = 1'-0"



COBBLESTONE VILLAGE
 ROLESVILLE, NORTH CAROLINA

EXTERIOR ELEVATIONS - BLDG 2 A2.21

1/8" = 1'-0" 019032 | 10.16.2020
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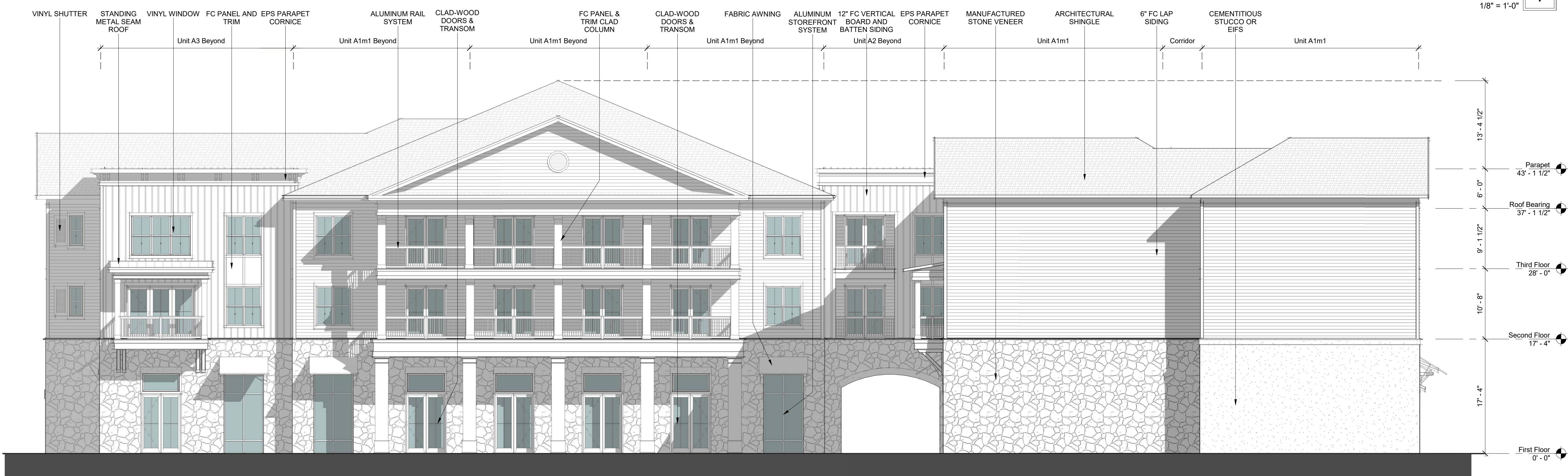


TRANSPARENCY CALCULATIONS
 GROUND LEVEL (RETAIL USE): 1,667 SF
 TOTAL FACADE AREA (Net): 1,667 SF x 0.4 = 667 SF
 REQ'D AREA OF TRANSPARENCY: 665 SF 41% 2' - 0"

Section 7.4 - Town Center Overlay District

7.4.18 Windows, doors, display windows and/or arcades shall make up at least 40 percent of the street facade on the first story as measured from two feet above grade to ten feet above grade. Blank walls are not permitted adjacent to streets.

BLDG 2 - NORTH ELEVATION 1
 1/8" = 1'-0"

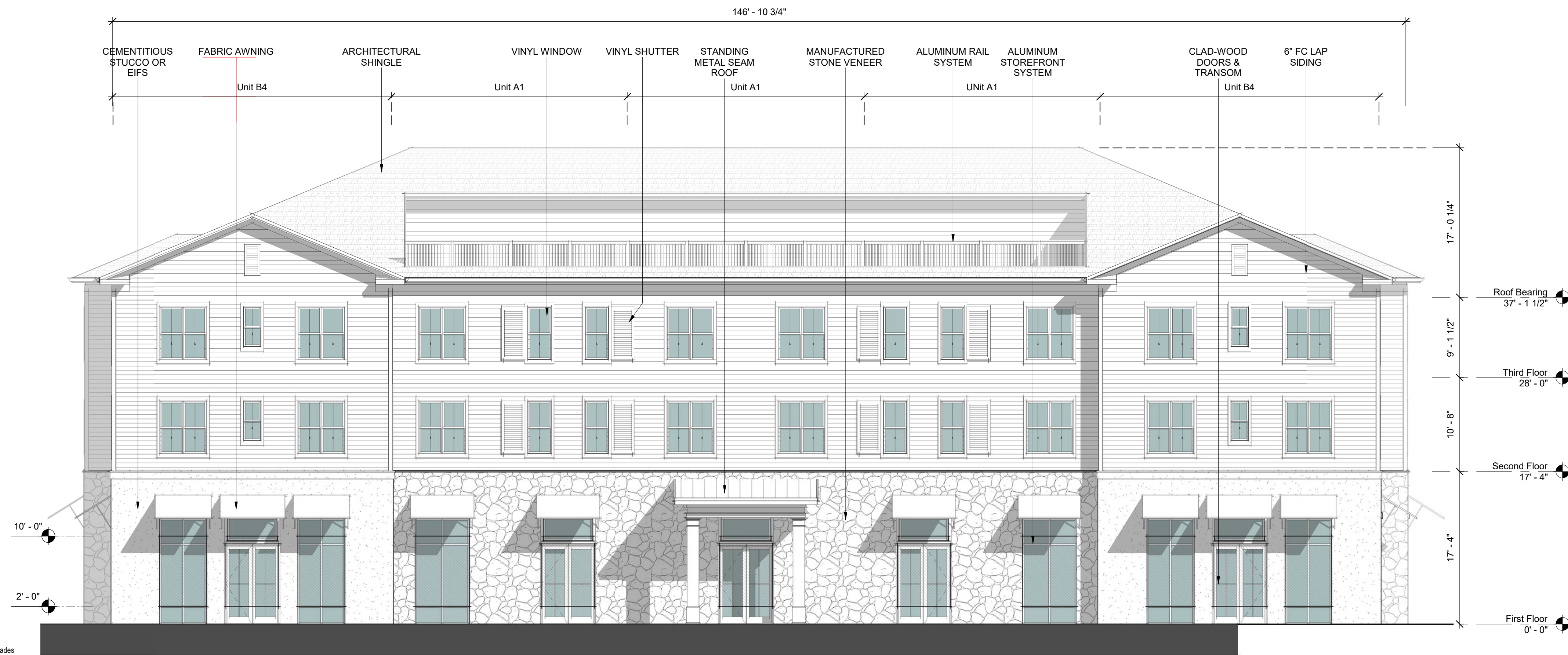


BLDG 2 - SOUTH ELEVATION 2
 1/8" = 1'-0"



COBBLESTONE VILLAGE
 ROLESVILLE, NORTH CAROLINA

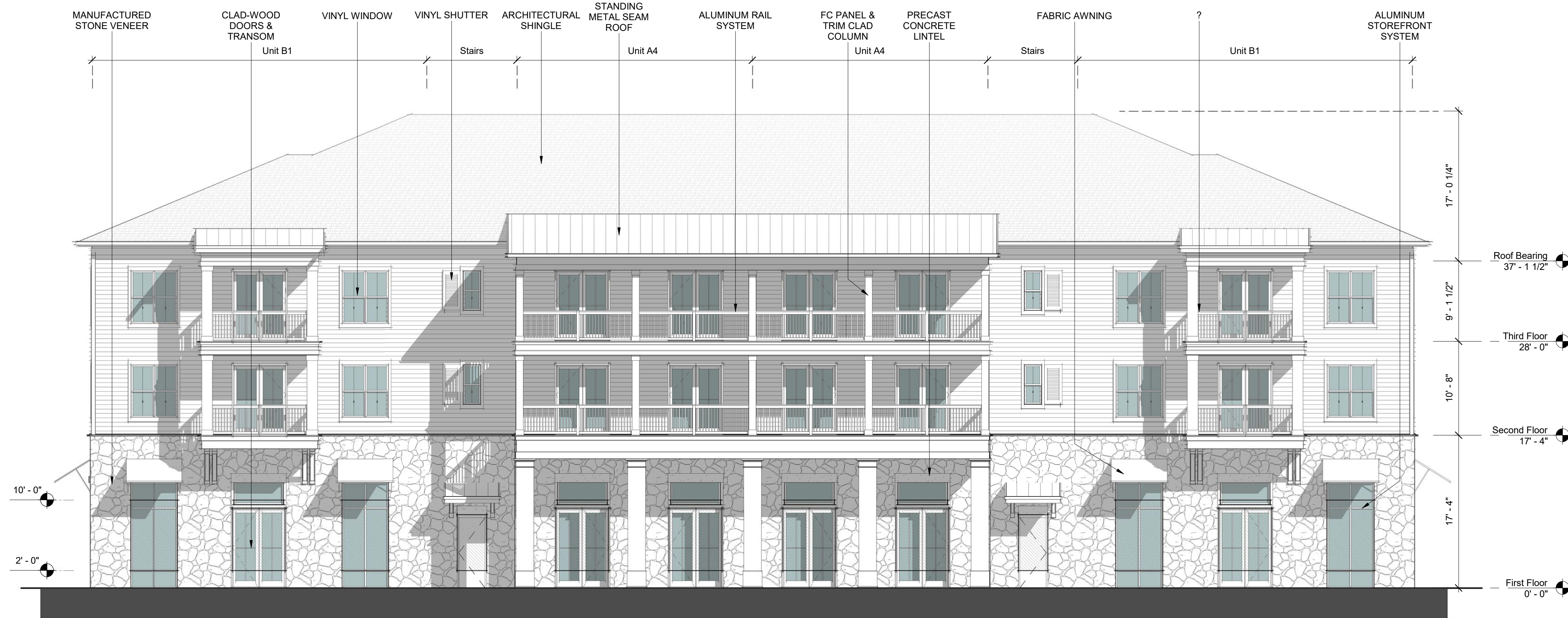
EXTERIOR ELEVATIONS - BLDG 2 A2.22
 1/8" = 1'-0" 019032 | 10.16.2020
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TRANSPARENCY CALCULATIONS
 GROUND LEVEL (RETAIL USE):
 TOTAL FACADE AREA (W/H): 1,155 SF
 REQ'D AREA OF TRANSPARENCY: 1,155 SF x 0.4 = 462 SF
 AREA OF TRANSPARENCY: 495 SF 43%

Section 7.4 - Town Center Overlay District
 7.4.18 Windows, doors, display windows and/or arcades shall make up at least 40 percent of the street facade on the first story as measured from two feet above grade to ten feet above grade. Blank walls are not permitted adjacent to streets.

BLDG 3 - NORTH ELEVATION 1
 1/8" = 1'-0"



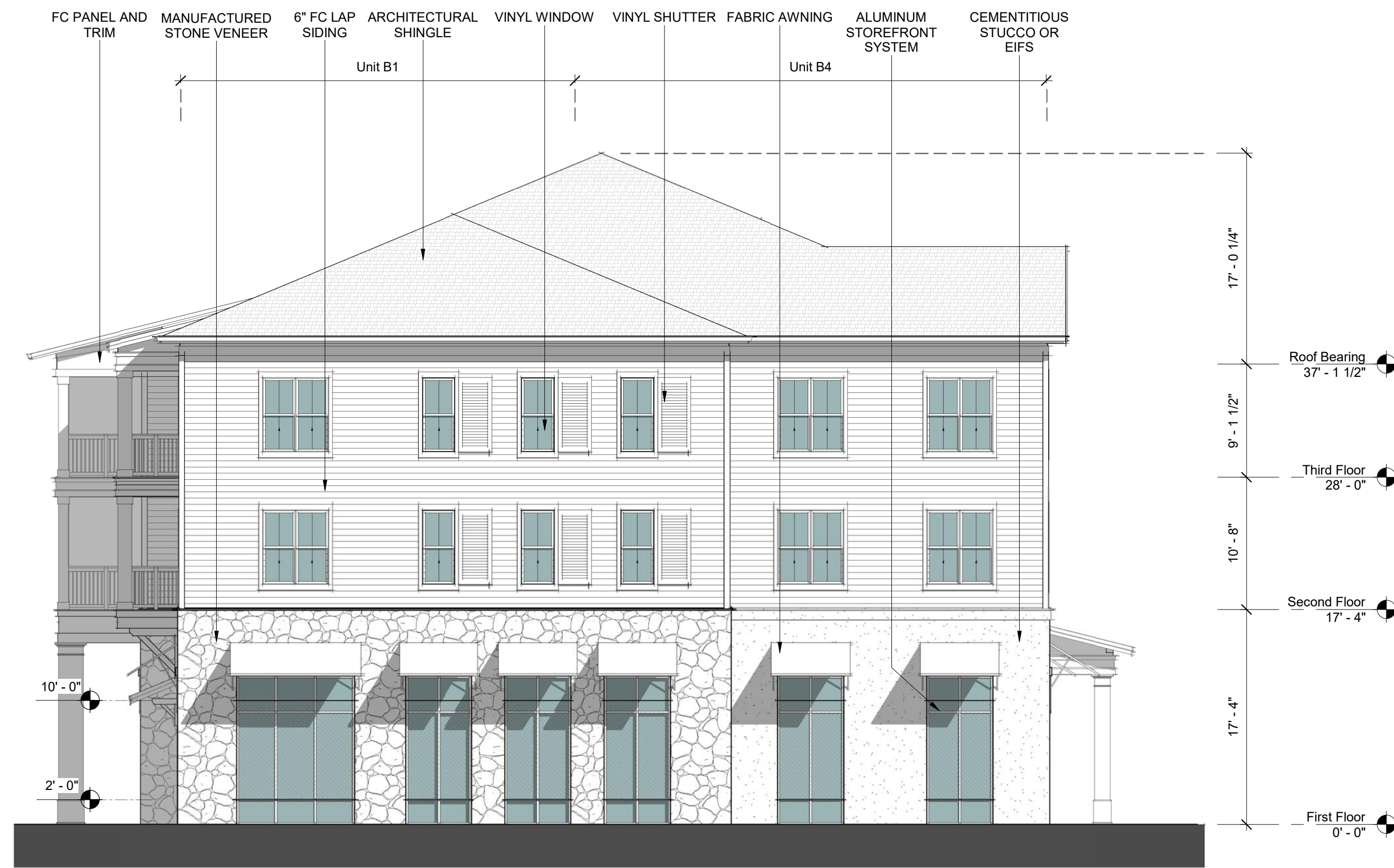
TRANSPARENCY CALCULATIONS
 GROUND LEVEL (RETAIL USE):
 TOTAL FACADE AREA (W/H): 1,204 SF
 REQ'D AREA OF TRANSPARENCY: 1,204 SF x 0.4 = 482 SF
 AREA OF TRANSPARENCY: 843 SF 40%

BLDG 3 - SOUTH ELEVATION 2
 1/8" = 1'-0"



COBBLESTONE VILLAGE
 ROLESVILLE, NORTH CAROLINA

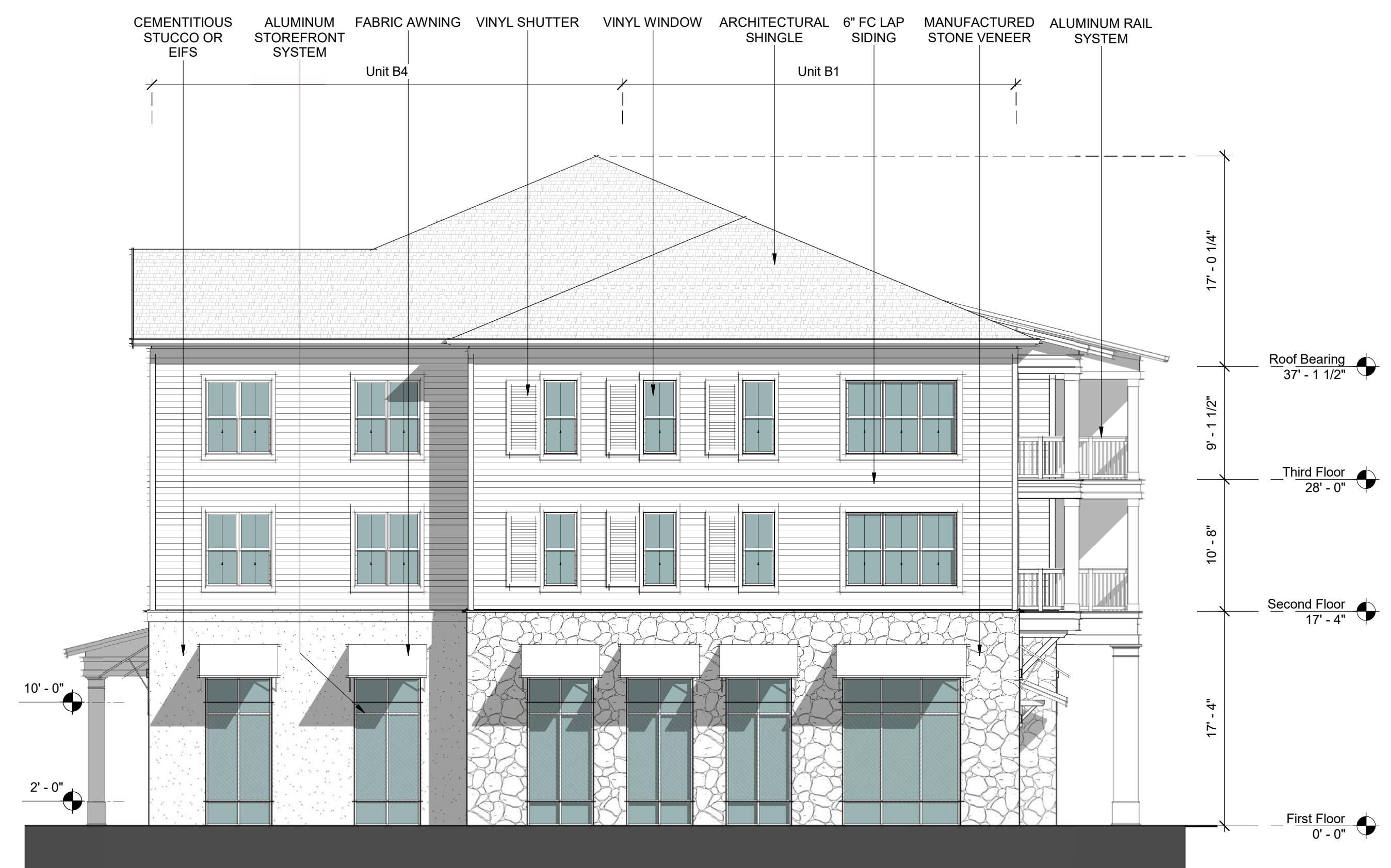
EXTERIOR ELEVATIONS - BLDG 3 A2.31
 1/8" = 1'-0" 019032 | 10.16.2020
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TRANSPARENCY CALCULATIONS
 GROUND LEVEL (RETAIL USE): 563 SF
 TOTAL FACADE AREA (W/H): 563 SF x 0.4 = 225 SF
 REQ'D AREA OF TRANSPARENCY: 289 SF 51%
 AREA OF TRANSPARENCY: 289 SF 51%

Section 7.4 - Town Center Overlay District
 7.4.18 Windows, doors, display windows and/or arcades shall make up at least 40 percent of the street facade on the first story as measured from two feet above grade to ten feet above grade.
 Blank walls are not permitted adjacent to streets.

BLDG 3 - EAST ELEVATION 1
 1/8" = 1'-0"



TRANSPARENCY CALCULATIONS
 GROUND LEVEL (RETAIL USE): 563 SF
 TOTAL FACADE AREA (W/H): 563 SF x 0.4 = 225 SF
 REQ'D AREA OF TRANSPARENCY: 289 SF 51%
 AREA OF TRANSPARENCY: 289 SF 51%

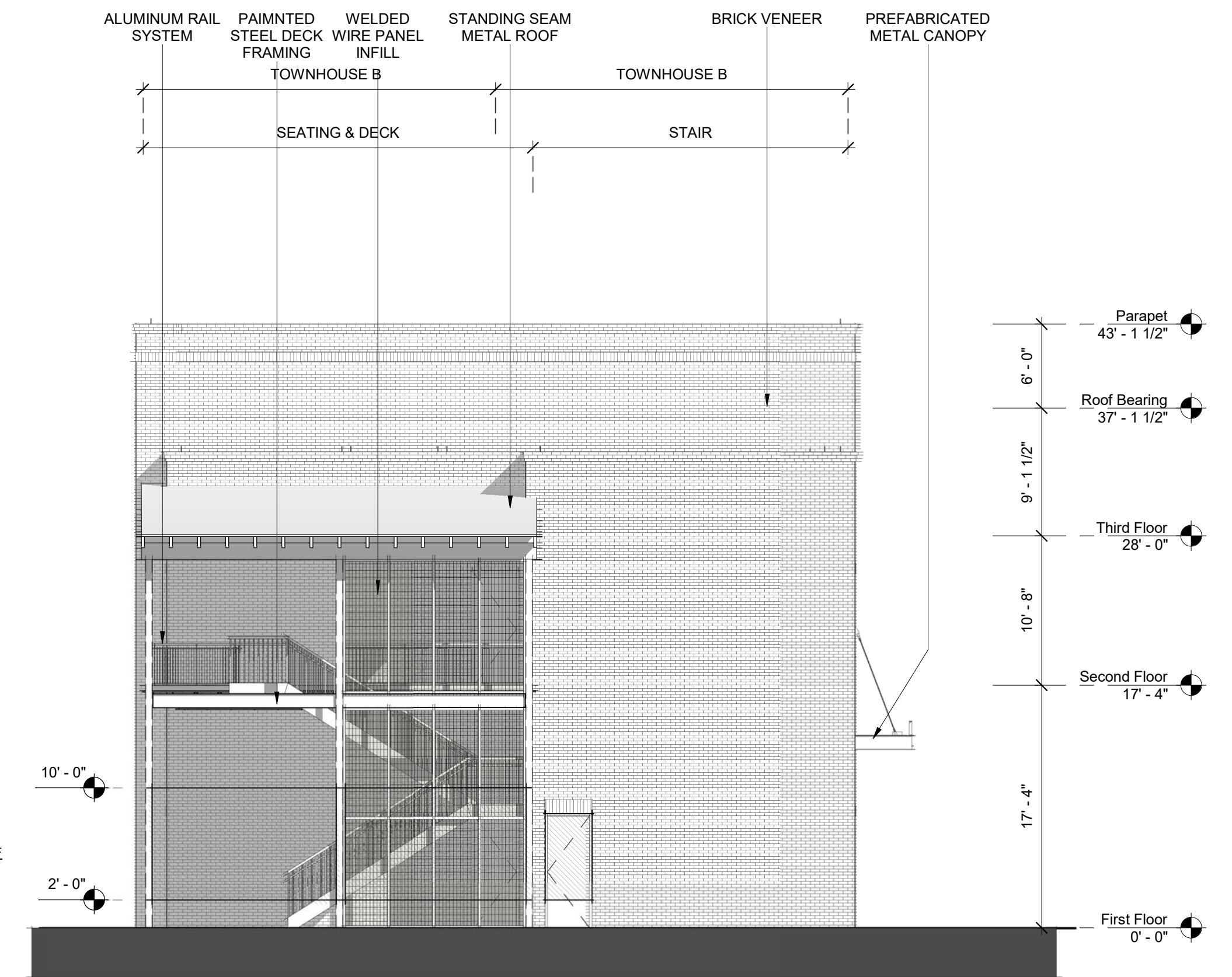
BLDG 3 - WEST ELEVATION 2
 1/8" = 1'-0"



COBBLESTONE VILLAGE
 ROLESVILLE, NORTH CAROLINA



BLDG 5 - WEST ELEVATION 4
1/8" = 1'-0"



BLDG 5 - SOUTH ELEVATION 2
1/8" = 1'-0"



BLDG 5 - EAST ELEVATION 3
1/8" = 1'-0"



BLDG 5 - NORTH ELEVATION 1
1/8" = 1'-0"

TRANSPARENCY CALCULATIONS
GROUND LEVEL (RETAIL USE): 411 SF
TOTAL FACADE AREA (W/H): 411 SF x 0.4 = 164 SF
REQD AREA OF TRANSPARENCY: 229 SF 56%

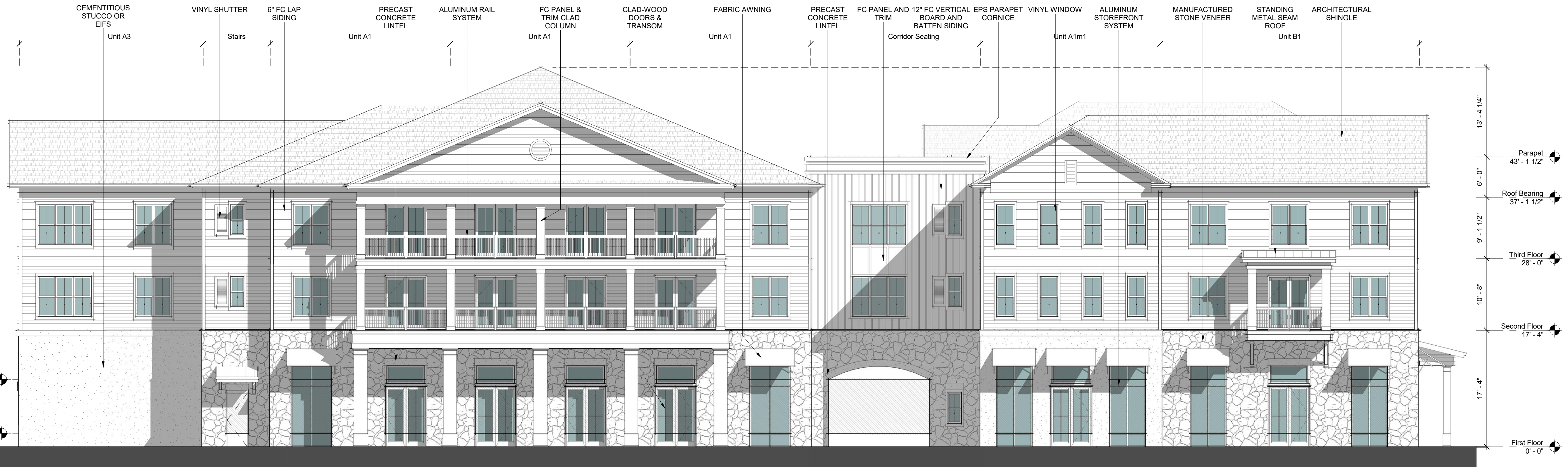
TRANSPARENCY CALCULATIONS
GROUND LEVEL (RETAIL USE): 411 SF
TOTAL FACADE AREA (W/H): 411 SF x 0.4 = 164 SF
REQD AREA OF TRANSPARENCY: 203 SF 49%

Section 7.4 - Town Center Overlay District
7.4.18 Windows, doors, display windows and/or arcades shall make up at least 40 percent of the street facade on the first story as measured from two feet above grade to ten feet above grade.
Blank walls are not permitted adjacent to streets.



COBBLESTONE VILLAGE
ROLESVILLE, NORTH CAROLINA

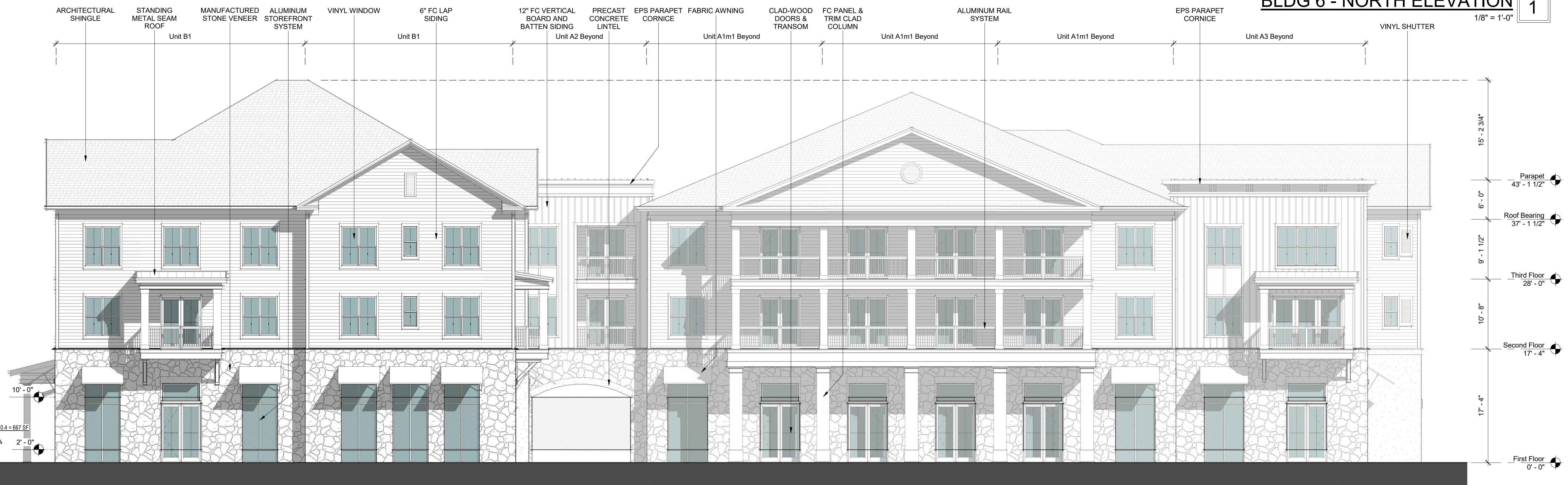
EXTERIOR ELEVATIONS - BLDG 5 A2.51
1/8" = 1'-0" 019032 | 10.16.2020
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TRANSPARENCY CALCULATIONS
 GROUND LEVEL (RETAIL USE):
 TOTAL FACADE AREA (WxH): 1,667 SF
 REQD AREA OF TRANSPARENCY: 1,667 SF x 0.4 = 667 SF
 AREA OF TRANSPARENCY: 668 SF 41%
 2' - 0"

Section 7.4 - Town Center Overlay District
 7.4.18 Windows, doors, display windows and/or arcades shall make up at least 40 percent of the street facade on the first story as measured from two feet above grade to ten feet above grade.
 Blank walls are not permitted adjacent to streets.

BLDG 6 - NORTH ELEVATION 1
 1/8" = 1'-0"



TRANSPARENCY CALCULATIONS
 GROUND LEVEL (RETAIL USE):
 TOTAL FACADE AREA (WxH): 1,667 SF
 REQD AREA OF TRANSPARENCY: 1,667 SF x 0.4 = 667 SF
 AREA OF TRANSPARENCY: 749 SF 45%
 2' - 0"

BLDG 6 - SOUTH ELEVATION 2
 1/8" = 1'-0"



COBBLESTONE VILLAGE
 ROLESVILLE, NORTH CAROLINA

EXTERIOR ELEVATIONS - BLDG 6 A2.61
 1/8" = 1'-0" 019032 | 10.16.2020
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TRANSPARENCY CALCULATIONS

GROUND LEVEL (RETAIL USE):
 TOTAL FACADE AREA (WtH): 1,229 SF
 REQ'D AREA OF TRANSPARENCY: 1,229 SF x 0.4 = 492 SF

AREA OF TRANSPARENCY: 490 SF 40%

Section 7.4 - Town Center Overlay District

7.4.18 Windows, doors, display windows and/or arcades shall make up at least 40 percent of the street facade on the first story as measured from two feet above grade to ten feet above grade.
 Blank walls are not permitted adjacent to streets.

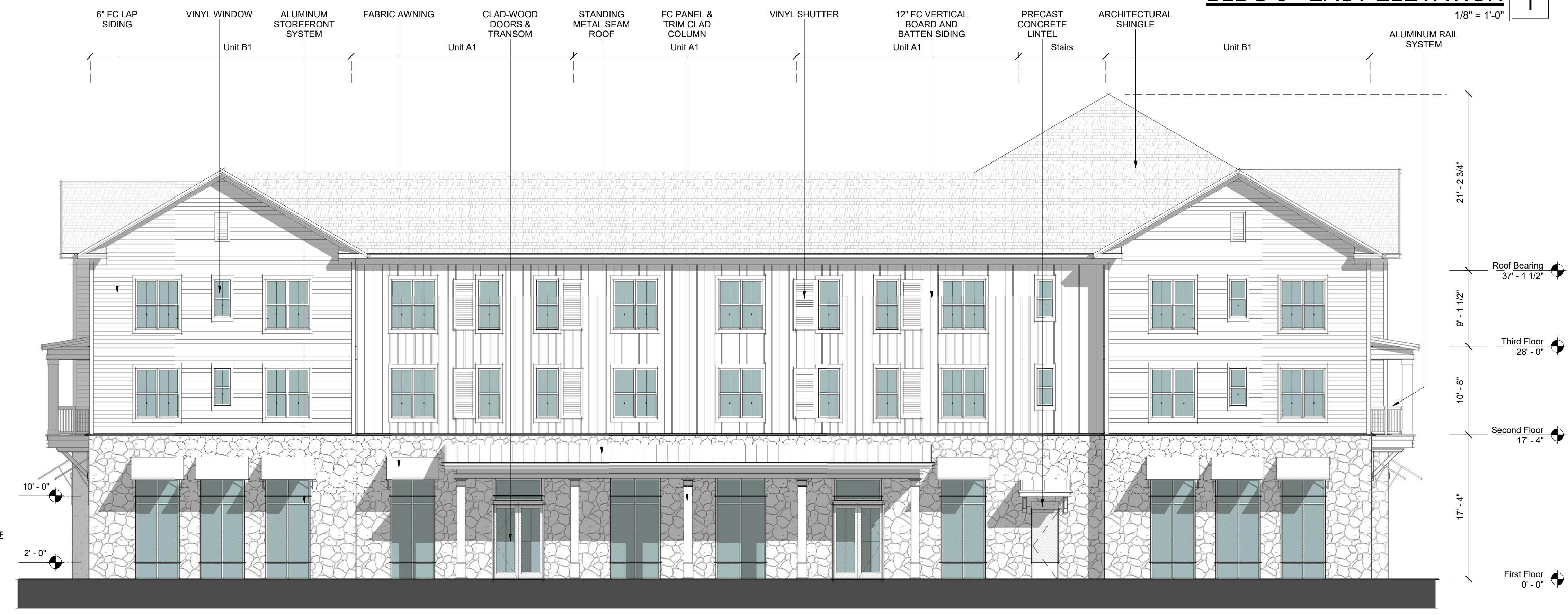


BLDG 6 - EAST ELEVATION 1
 1/8" = 1'-0"

TRANSPARENCY CALCULATIONS

GROUND LEVEL (RETAIL USE):
 TOTAL FACADE AREA (WtH): 1,236 SF
 REQ'D AREA OF TRANSPARENCY: 1,236 SF x 0.4 = 494 SF

AREA OF TRANSPARENCY: 573 SF 46%



BLDG 6 - WEST ELEVATION 2
 1/8" = 1'-0"



COBBLESTONE VILLAGE
 ROLESVILLE, NORTH CAROLINA

EXTERIOR ELEVATIONS - BLDG 6 A2.62
 1/8" = 1'-0" 019032 | 10.16.2020
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BLDG 1 & 7 - REAR ELEVATION 2
1/8" = 1'-0"



BLDG 1 & 7 - FRONT ELEVATION 1
1/8" = 1'-0"



COBBLESTONE VILLAGE
ROLESVILLE, NORTH CAROLINA

EXTERIOR ELEVATIONS - BLDGS 1 & 7 A2.71
1/8" = 1'-0" 019032 | 10.16.2020
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BLDG 1 & 7 - LEFT SIDE ELEVATION 2
1/8" = 1'-0"



BLDG 1 & 7 - RIGHT SIDE ELEVATION 1
1/8" = 1'-0"



BLDG 8 - RIGHT SIDE ELEVATION 4
1/8" = 1'-0"



BLDG 8 - REAR ELEVATION 2
1/8" = 1'-0"



BLDG 8 - LEFT SIDE ELEVATION 3
1/8" = 1'-0"



BLDG 8 - FRONT ELEVATION 1
1/8" = 1'-0"



COBBLESTONE VILLAGE
ROLESVILLE, NORTH CAROLINA

EXTERIOR ELEVATIONS - BLDG 8 A2.81

1/8" = 1'-0"

019032 | 10.16.2020

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