

**ADDENDUM NO. 2
UNION STREET IMPROVEMENTS
CITY OF CONCORD, NORTH CAROLINA**

This Addendum No. 2 is issued this 25th day of August 2021 to all parties who hold a set of Bidding Documents for the project entitled “Union Street Improvements, Concord, North Carolina”. This Addendum No. 2 shall become part of the Contract Documents and its receipt acknowledged on the Bidding Documents at the time of bidding.

The following changes shall be made:

1. **Revision to Contract Documents:**

The following revisions are made to the contract documents:

Replace the following documents in their entirety.

Exhibit A Bid Form

Please review carefully items have been added and quantities revised

Exhibit C Special Provisions

Please review carefully items have been added and descriptions revised

Construction Document Sheets – See attached Revised Plans

CD-101 – CD-107 – Update variable mill limits in legend

C-104 – Update courthouse phased construction note to include curb and N2 key tag.

C-111 – Update courthouse phased construction note to include curb

C-201 thru C-207 – Update key notes to include double catch basin

C-202 thru C-203 - Update key tags to include double catch basin

C-204 - Update courthouse phased construction note to include curb

C-301 – Removed specific size from pressure reducing valve

L-104 – Update courthouse phased construction note to include curb

C-501 – Update seat wall detail and update wood fence notes

C-502 – Clarification of stair cheek wall

C-503 – Specified pressure reducing valve size to match size of existing water service line

C-504 – Update stormwater trench pavement detail

C-507 – Revised Utility Cut Replacement Details to include temporary pavement repair and clarify permanent pavement repair in areas of complete street reconstruction and areas of milling/overlay.

C-508- Revised Pressure Reducing Valve and curb stop valve information in Water Meter Box Detail

C-510 – Add double catch basin inlet detail and update temporary courthouse detail

ED-101 – Added General Note 9

E-501 – Edit to Typical Concrete Duct bank Under Pavement Detail

E-502 – Edit to Fiber Duct bank Under Pavement Detail

2. **Clarifications/Questions:**

- a. Question on temporary trench cap – Is there a detail provided?

A detail for temporary trench cap has been added to C-507.

- b. Question on asphalt repair payment item for Utility Trench Cut?

Bid items 204, 205, 206, and 207 have been added to address temporary and permanent asphalt repair for utility trench cuts.

Stormwater trench detail and pay items revised.

- c. Question: Is any information available for the size/depth of the existing light pole bases to be demolished? Will the Contractor be required to remove the entire base or would 2’-3’ below grade be acceptable?

Light pole bases / footings are estimated to be between 3’ and 4’ in depth. The contractor shall remove the entire base/footing above and below grade.

- d. Question: Based on Sheet C-510, in front of the courthouse, the Contractor will be installing temporary 5’ concrete sidewalk, temporary wheelchair ramps, tactile plates, and temporary asphalt paving. Will the curbing be installed in this area as well? Will the space between the concrete curb and temporary 5’ concrete sidewalk be

constructed as shown on the plans or will this be brought to proposed grades with dirt and seeded/mulched?

Yes, the curb will be installed. We previously showed the areas to be installed with a concrete hatch, since it appears that was not clear enough, we are increasing the hatching detail and notes to clear up any confusion. The elevations will be brought up to proposed as noted on the grading plans. The exact location of the sidewalk may shift in the field due to staging/construction needs between the two projects. For bidding purposes, we are showing all hardscape. There may be some areas of gravel as the projects progress.

- e. Question: What typical section shall we follow for the temporary asphalt paving?

See sheet C-510 we have added additional information to the detail.

- f. Question: Detail 6, Sheet C-501, shows different block sizes in each wall detail. 8"x8"x12" appears to be incorrect. Please clarify what is required.

Wall details have been revised. Please review as multiple items have changed. Sheet is attached to this addendum.

- g. Question: Speaking with both a masonry contractor and precast producer, they've both stated that the precast cap for the seat walls would need to be at least 3" thick vs. the 2" proposed. The precast producer stated the 2" cap does not provide enough cover for reinforcement and will likely have failures within the 1-2 year time frame and they will not warranty a 2" cap. Please confirm 3" would be acceptable.

A three-inch cap is acceptable for the seat walls. Detail has been revised.

- h. Question: Addendum 1 increased the quantity of item 21, Brick Paver Crosswalk, from 78 SY to 142 SY. I have not seen where any Brick Paver Crosswalks. Please clarify.

There are 3 brick paver crosswalks identified on the drawings. One at the one of the alley crossings and two on Barbrick. Quantity revised.

- i. Question: Item 6, Undercut Excavation, references NCDOT Spec Section 225. Referencing Section 225 would warrant an item be added to replace the material removed as Undercut Excavation. Please clarify.

NCDOT reference section has been changed to 226.

- j. Question: Addendum 1, Clarifications/Questions, item g. did not address our request for an item to be added to cover replacing unsuitable backfill material required for the storm and utility trenches. Our concern is if the material excavated from the trench is deemed unsuitable by the City/Engineer for backfill of the pipe from bedding

(embedment) to roadway subgrade that we would need to import suitable material that would not be paid for separately. This could be a very large quantity of material and is an unknown scenario similar to undercut excavation. Please clarify.

Any unsuitable material excavated above the “bottom” of the trench or any of the proposed site improvements is unclassified. The undercut excavation amount only starts where the design depths stop. This depth will vary depending on the design depth of the item being installed. The roadway does not set the undercut depth for the entire project, only the road itself.

- k. Question: We’ve had a heavy bid schedule this month and now starting to get into these plans more. An extra week would help a lot in preparing our bid if possible. I’ve spoken with some subcontractors today that have also been concerned with the bid date.

Bid date will remain August 31, 2021.

- l. It appears on the Drainage Drawings that there may be double catch basins. Specifically, Structure 16 on Sheet C-202, Structures 5, 6, 8, 22 and 24 on Sheet C-203. If they are double catch basins, please provide a detail.

Detail has been added and bid form revised to include additional pay item for double inlets.

- m. Question: Concerning Items 141 thru 145, Connection to Existing Water System, there are numerous locations where new pipe, valves and fittings are placed up to the connection point. There are bid items and quantities for pipe, valves and fittings that would apply at these locations. SP-117 thru 121, Description states, “...including, but not limited to.... removing the existing water main pipe plug, cutting and removing the section of existing water main piping, all pipe, fittings, adapters, connecting valve, and associated work in replacing the section of main which was removed and furnished... . In most cases the connections are detailed to be made with a RJ Sleeve. Please clarify the limits of the connection items.

Permanent fittings, including compact connection sleeves, needed to make the final connections to the water system will be paid under Bid Item “Compact Ductile Iron Fittings”. Permanent valves needed to make the final connection to the water system will be paid under the appropriate “Gate Valve” bid item. The remainder of the work and materials required to complete the final connection to the existing water system and acceptance (including any necessary temporary connections to accommodate project phasing and temporary jumpers and blow-offs) is to be included in the cost for the appropriate “Connection to Existing Water System” bid item. Language for SP-118 and SP-119 thru 123 has been revised for clarification.

- n. Question: Item 140, Compact DI Fittings has a bid quantity of 25,000 LB. It appears the bid quantity was estimated using full body fitting weights and is therefore grossly overstated. Please clarify.

The bid quantity for “Compact Ductile Iron Fittings” has been revised to reflect compact ductile iron fittings.

- o. Question: Items 167 and 168 cover the costs to remove the existing 8” AC water main. What items cover the costs for removal of all the other cast iron, ductile iron water mains and hydrants that are shown to be removed?

Removal of existing public and private utility pipe and appurtenances is covered under the Comprehensive Grading bid item

- p. What item covers the cost to disconnect and plug 4” laterals shown on sheet C-308?

Bid Item 201 has been added to cover disconnecting and plugging the sewer service lines between Killarney Avenue and Cabarrus Avenue on C-308.

- q. What item covers the cost to remove the existing 8” sanitary sewer and manholes shown on sheets C-308 thru C-311?

Removal of existing public and private utility pipe and appurtenances is covered under the Comprehensive Grading bid item

- r. Where existing water mains and sewer mains are labeled “remove existing”, can they be filled with flowable fill and left in place?

The existing water and sewer mains are to be removed as shown on the drawings.

- s. Clarification: Water meters 2” and smaller are being provided by the City of Concord. Water meters larger than 2” are to be provided by the Contractor according to City of Concord requirements. Language for SP-124 4” Meter Vault has been revised accordingly.

- t. Site Plans item O2 states “plans to be provided by the City”. Please provide a detail for item 28 – Concrete Edge Restraint to Match Plaza.

This item is minor and does not need its own individual detail. There are details that cover the general intention of this strip. The concrete strips have been shown to match the pattern for the plaza on the Courthouse renovation drawings. Measurement changed to SF.

- u. Question Item 4, SP-02, Pedestrian Access Safety and Item 5, SP-03, Comprehensive Grading have partial payments in 25% increments or four payments. This is an eighteen month project therefore there would be about 18 partial or monthly

payments. These are costly items and warrant payment on each progress estimate in proportion to the work completed to date. Please consider changing the Payment specification to one that is both fair to the Owner and the Contractor.

Pay item will be revised to a partial payment that will be equal to the percentage of such item that is complete as estimated by the Engineer

- v. Clarification: For the asphalt paving sequencing. All of the asphalt placed for the roadways must have 1.5" of S9.5C placed to seal the I109.C prior to any freezing temperatures.
- w. Clarification: Joints at surface and building interface to be sealed with a self-leveling polyurethane sealant in a grey color that blends with the proposed concrete.
- x. Clarification: Water service line pressure reducing valve size is to match the size of the existing water service line. While an approximate size breakdown is provided in SP-130 for establishing pricing, the contractor shall verify existing service line sizes in the field prior to ordering materials.

This Addendum Number Two is issued this day the 25th of August 2021.

CARRIE CRANWILL, PLA, EI



Shaping Communities Together

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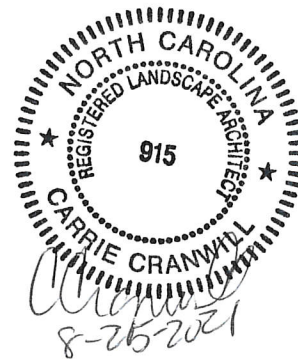


EXHIBIT A – BID FORM

PROJECT IDENTIFICATION:

**Union Street Improvements
Project No. 2020-009 (McGill Associates project #19.01726)**

THIS BID IS SUBMITTED TO:

Sue Hyde, Engineering Director
City of Concord
635 Alfred Brown Jr Court SW
P.O. Box 308
Concord, North Carolina 28026-0308

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with Owner in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents within the specified time and for the amount indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Invitation to Bid and the Instructions to Bid, including without limitation those dealing with the disposition of the Bid security is required for this project.
3. This Bid will remain subject to acceptance for 90 days after the day designated for reception of Bids. Bidder will sign and submit the Agreement with the Bonds and other documents required by the Quoting Documents within 10 days after the date of Owner's Notice of Award.
4. In submitting this Bid, Bidder represents that:
 - a. Bidder has examined copies of all the Quoting Documents and of the following Addenda (receipt of all which is hereby acknowledged):

No. _____	Dated _____
No. _____	Dated _____
No. _____	Dated _____
No. _____	Dated _____
No. _____	Dated _____
 - b. Bidder has visited the site and become familiar with and satisfied itself as to the general, local, and site conditions that may affect cost, progress, performance, and furnishing of the Work.
 - c. Bidder is familiar with and has satisfied itself as to all Federal, State, and Local Laws and Regulations that may affect cost, progress, performance, and furnishing of Work.

- d. Bidder has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except underground facilities) which have provided by the owner and under the conditions normally used and identified in the Supplementary Conditions and Special Conditions as provided in Paragraph 4.2.1 of the General Conditions. Bidder accepts the determination set forth in the Supplementary Conditions and Special Conditions of the extent of the "technical data" contained in such reports and drawings upon which Bidder is entitled to rely as provided in Paragraph 4.2 of the General Conditions. Bidder acknowledges that such reports and drawings are not Contract Documents and may not be complete for Bidder's purposes. Bidder acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Quoting Documents with respect to underground facilities at or contiguous to the site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.
 - e. Bidder is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
 - f. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
 - g. Bidder has given Engineer written and verbal notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
 - h. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid Bidder has not solicited or induced any person, firm, or corporation to refrain from quoting; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
5. Bidder will complete the Work for the following unit prices. Quantities indicated are estimated and not guaranteed; they are solely for comparing Bids and establishing the initial Contract Price. Final payment will be based on actual quantities.

Union Streetscape Site Improvements						
City Project No. 2020-009						
McGill Project No. 19.01726						
Addendum 2						
No.	Item	Description	Qty.	Units	Unit Price (\$)	Item Total (\$)
Base Bid - General Work Items						
1	800	Mobilization (3.0%)	1	LS		
2	801	Construction Surveying	1	LS		
3	SP-01	Vehicular Traffic Control	1	LS		
4	SP-02	Pedestrian Access and Safety	1	LS		
5	SP-03	Comprehensive Grading	1	LS		
6	226	Undercut Excavation	500	CY		
7	607	Variable Asphalt Mill	3,166	SY		
8	520	Aggregate Base Course	4,834	TN		
9	610	S9.5C surface course	828	TN		
10	610	I19.0C Intermediate Course	1,150	TN		
11	610	B25.0C Base Course	125	TN		
12	610	Variable Asphalt Overlay 1.5"-3"	450	TN		
13	620	Asphalt Binder for Plant Mix	185	TN		
14	SP-04	18" Concrete Grade Beam	46	LF		
15	SP-05	6" Concrete Drive Apron/Drive/HC Ramps	326	SY		
16	SP-06	4" Concrete Sidewalk and HC Ramps	4,116	SY		
17	SP-07	Pavers - Light Duty on 4" Concrete Base	276	SY		
18	SP-08	Pavers - Heavy Duty on 6" Concrete Base/HC Ramps	310	SY		
19	SP-09	Brick Band on 4" Concrete Base	3,517	LF		
20	SP-10	Plaza Pavers - Vehicular	230	SY		
21	SP-11	Brick Paver Crosswalk	70	SY		
22	SP-12	Stamped Asphalt Crosswalk	400	SY		
23	SP-13	2'-6" Concrete Curb and Gutter	159	LF		
24	SP-14	6" Concrete Stand-up Curb	582	LF		
25	SP-15	8" Concrete Stand-up Curb	3,038	LF		
26	SP-16	Concrete Landscape Edging	1,013	LF		
27	SP-17	6" Concrete Edge Restraint	1,249	LF		
28	SP-18	Concrete Edge Restraint to Match Plaza	30	SF		
29	SP-19	Granite Edge Restraint	318	LF		
30	SP-20	Bronze Sidewalk Trail Markers	1	LS		
31	SP-21	Detectable Warning Plate	599	SF		

32	SP-22	Metal Handrail at HC Ramps	68	LF		
33	SP-23	Sign Installation	18	EA		
34	SP-24	Salvaged Wayfinding Sign Installation	1	EA		
35	SP-25	Bench Installation (Owner Provided)	16	EA		
36	SP-26	Trash/Recycling Receptacle Installation (Owner Provided)	16	EA		
37	SP-27	Cigarette Receptacle Installation (Owner Provided)	1	EA		
38	SP-28	Reinstall Bike Rack	2	EA		
39	SP-29	Drinking Fountain	1	EA		
40	SP-30	Bollards (Non-lighted)	5	EA		
41	SP-31	Flag Holder	1	LS		
42	SP-32	Horse Hook Art Installation	1	LS		
43	SP-33	Granite Marker for Surveyor Stone	1	LS		
44	SP-34	Metal Air Vent Replacement	1	LS		
45	1087	4" Thermoplastic Paint - 90 mils	2,010	LF		
46	1087	4" Thermoplastic Paint - 120 mils	3,856	LF		
47	1087	8" Thermoplastic Paint - 120 mils	1,116	LF		
48	1087	24" White Thermoplastic Paint - 120 mils	221	LF		
49	1087	Thermoplastic Traffic Arrows and Symbols - 120 mils	39	EA		
50	1087	Thermoplastic Compass - 120 mils	1	LS		
51	1205	4" Temporary Paint	3,856	LF		
52	1205	8" Temporary Paint	1,116	LF		
53	1205	24" Temporary Paint	221	LF		
54	1205	Temporary Paint Traffic Arrows and Symbols	38	EA		
55	SP-35	Monolithic Retaining Wall	528	LF		
56	SP-36	Stone Seat Wall	1	LS		
57	SP-37	Concrete Stair w/ Handrails	1	LS		
58	SP-38	Concrete Stair and HC Ramp w/ Handrails	1	LS		
59	SP-39	Wood Fence Replacement w/Gate	1	LS		
60	SP-40	Ornamental Railing Installation	482	LF		
61	SP-41	4'x4' Tree Grate	24	EA		
62	SP-42	Planting Cells	1	LS		
63	SP-43	Regal Prince Oak	11	EA		
64	SP-44	Japanese Zelkova	8	EA		
65	SP-45	Dwarf Japanese Maple	2	EA		
66	SP-46	Rising Sun Redbud	4	EA		
67	SP-47	Espresso Kentucky Coffee Tree	11	EA		
68	SP-48	Wildfire Black Gum	9	EA		
69	SP-49	Skyline Honeylocust	4	EA		

70	SP-50	Dwarf Hinoki Cypress	17	EA		
71	SP-51	Jewel Box Distylium	4	EA		
72	SP-52	Treeform Limelight Hydrangea	9	EA		
73	SP-53	Birchleaf Spirea	14	EA		
74	SP-54	Gem box Inkberry Holly	36	EA		
75	SP-55	Anna's Magic Ball Arborvitae	55	EA		
76	SP-56	Virginia Sweetspire	12	EA		
77	SP-57	Purple Pixie Loropetalum	6	EA		
78	SP-58	Chokeberry	72	EA		
79	SP-59	Witherod Viburnum	79	EA		
80	SP-60	Kelsey's Dwarf Red-Osier Dogwood	113	EA		
81	SP-61	Feather Reed Grass	71	EA		
82	SP-62	Dwarf Fountain Grass	114	EA		
83	SP-63	Palace Purple Heuchera	50	EA		
84	SP-64	Tickseed	75	EA		
85	SP-65	Firewitch Dianthus	123	EA		
86	SP-66	Variegated Liriope	109	EA		
87	SP-67	Liriope	727	EA		
88	SP-68	Littleleaf Periwinkle	293	EA		
89	SP-69	Creeping Lily Turf	115	EA		
90	SP-70	Annuals	61	SF		
91	SP-71	Irrigation	1	LS		
92	SP-72	Granite Stormwater Flume Installation	1	LS		
93	SP-73	Straw Wattle Protection	1	LS		
94	SP-74	Mud Mat Construction Entrance	1	LS		
95	SP-75	Silt Sak	1	LS		
96	SP-76	Stone Inlet Protection	27	EA		
97	840	Drop Inlet w/ Frame and Grate	2	EA		
98	840	Curb Inlet w/ Frame, Grate, and Hood	14	EA		
99	840	Stormwater Manhole	5	EA		
100	SP-77	6" Nyoplast Drains	5	EA		
101	SP-78	10" Nyoplast Drains	1	EA		
102	SP-79	3" Cleanouts	5	EA		
103	SP-80	4" Cleanouts	1	EA		
104	SP-81	6" Cleanouts	4	EA		
105	SP-82	8" Cleanouts	2	EA		
106	SP-83	3" SCH 40 PVC Stormwater	278	LF		
107	SP-84	4" SCH 40 PVC Stormwater	94	LF		
108	SP-85	6" SCH 40 PVC Stormwater	171	LF		
109	SP-86	8" SCH 40 PVC Stormwater	65	LF		
110	300	Foundation Conditioning	25	TN		
111	300	Foundation Conditioning Fabric	100	SY		
112	654	Stormwater Trench Repair Surface S9.5C	46	TN		

113	654	Stormwater Trench Repair Intermediate I19.0C	46	TN		
114	654	Stormwater Trench Repair Base B25.0C	76	TN		
115	310	15" RCP Class IV NCDOT Utility Cut w/ Flowable Fill	107	LF		
116	310	15" RCP Class IV	492	LF		
117	310	18" RCP Class IV	153	LF		
118	310	24" RCP Class IV	373	LF		
119	310	30" RCP Class IV	623	LF		
120	310	36" RCP Class IV	32	LF		
121	310	42" RCP Class IV	479	LF		
122	WSACC	4' Dia. Sewer MH	1	EA		
123	SP-87	5' Dia. Doghouse Sewer MH - Flowable Fill Backfill	1	EA		
124	SP-88	8" DI Sewer	200	LF		
125	SP-89	8" DI Sewer - Flowable Fill Backfill	15	LF		
126	SP-90	8" PVC Sewer Service	30	LF		
127	SP-91	6" PVC Sewer Service	300	LF		
128	SP-92	4" PVC Sewer Service	700	LF		
129	SP-93	4" PVC Sewer Service - Flowable Fill Backfill	10	LF		
130	SP-94	4" PVC Sewer Service - Class A Arch Encasement	150	LF		
131	SP-95	8" Clean-Out with Mini Manhole	1	EA		
132	SP-96	6" Clean-Out with Mini Manhole	18	EA		
133	SP-97	4" Clean-Out with Mini Manhole	38	EA		
134	SP-98	Disconnect and Reconnect Exist Sewer Service	1	EA		
135	SP-99	Replace Exist. 12" VCP Sewer Main with 12" DIP Sewer Main	120	LF		
136	SP-100	Replace Exist. 8" VCP Sewer Main with 8" DIP Sewer Main	50	LF		
137	SP-101	Concrete Collar	3	EA		
138	SP-102	16" Ductile Iron Water Line	1600	LF		
139	SP-103	12" Ductile Iron Water Line	30	LF		
140	SP-104	8" Ductile Iron Water Line	70	LF		
141	SP-105	6" Ductile Iron Water Line	350	LF		
142	SP-106	4" Ductile Iron Water Line	120	LF		
143	SP-107	16" Ductile Iron Water Line - Flowable Fill Backfill	50	LF		
144	SP-108	12" Ductile Iron Water Line - Flowable Fill Backfill	55	LF		
145	SP-109	10" Ductile Iron Water Line - Flowable Fill Backfill	25	LF		

146	SP-110	16" Gate Valve	15	EA		
147	SP-111	12" Gate Valve	2	EA		
148	SP-112	8" Gate Valve	2	EA		
149	SP-113	6" Gate Valve	18	EA		
150	SP-114	4" Gate Valve	4	EA		
151	SP-115	12" Gate Valve - Flowable Fill Backfill	2	EA		
152	SP-116	Fire Hydrant Assembly	7	EA		
153	SP-117	Fire Hydrant Assembly with Tapping Sleeve and Valve	1	EA		
154	SP-118	Compact DI Fittings	12500	LB		
155	SP-119	16" Connection to Existing Water System	3	EA		
156	SP-120	12" Connection to Existing Water System	1	EA		
157	SP-121	10" Connection to Existing Water System	2	EA		
158	SP-122	8" Connection to Existing Water System	3	EA		
159	SP-123	6" Connection to Existing Water System	1	EA		
160	SP-124	4" Meter Vault	2	EA		
161	SP-125	2" Water Service Tap	61	EA		
162	SP-126	3/4" Water Service Tap	1	EA		
163	SP-127	2" Copper Water Service Line	1500	LF		
164	SP-128	3/4" Copper Water Service Line	50	LF		
165	SP-129	2" Water Meter Box	61	EA		
166	SP-130	Pressure Reducing Valve in Meter Box	61	EA		
167	SP-131	3/4" Reduced Pressure Backflow Assembly	2	EA		
168	SP-132	Air Release Valve	2	EA		
169	SP-133	Temporary 2" Water Service	35	EA		
170	SP-134	Remove and Abate Exist. 8" AC Water Line	1500	LF		
171	SP-135	Remove and Abate Exist. 8" AC Water Line - Flowable Fill Backfill	50	LF		
172	SP-136	Demo - Concrete Pole Bases / Footings	22	EA		
173	SP-137	Demo - Existing Circuits, Handholes, Electrical Appliances And Concrete Encased Ductbanks	1	LS		
174	SP-138	Light Poles Type A	18	EA		
175	SP-139	Light Poles Type B	2	EA		
176	SP-140	Wiring Devices and Appliances	1	LS		
177	SP-141	Lighted Bollards	8	EA		
178	SP-142	Exothermic Weld	28	EA		
179	SP-143	Intelligent Panel	2	EA		
180	SP-144	Wiring 600V Copper #12	28000	LF		
181	SP-145	Wiring 600V Copper #10	14000	LF		

182	SP-146	Wiring 600V Copper #8	15000	LF		
183	SP-147	Wiring 600V Copper #6	36000	LF		
184	SP-148	Conduit RGS 1"	300	LF		
185	SP-149	PVC Schedule 40 1" Conduit	28000	LF		
186	SP-150	PVC Schedule 40 2" Conduit	2000	LF		
187	SP-151	PVC Schedule 40 4" Conduit	9300	LF		
188	SP-152	Electrical Trenching	16000	LF		
189	SP-153	Announcement Kiosk	1	EA		
190	SP-154	Light Pole Bases / Footings	26	EA		
191	SP-155	Ground Rod 10' x 3/4"	34	EA		
192	SP-156	Electrical Hand Holes	18	EA		
193	SP-157	Communication Manholes	6	EA		
194	SP-158	Fiber Cable	2400	LF		
195	SP-159	Service Panel Enclosure and Concrete Pad	1	EA		
196	SP-160	Grounding Electrode Conductors	1	LS		
197	SP-161	Panelboard LP-B2	1	EA		
198	SP-162	Temporary Lighting	1	LS		
199	SP-163	Concrete Duct Bank Encasement	2500	LF		
200	EC	Erosion Control Application Fee/Permit	1	LS		
201	SP-164	Disconnect and Plug Existing Sewer Service	8	EA		
202	SP-165	Plumbing Permit/Fee	65	EA		
203	SP-166	Double Brick Curb Inlet w/ Frame, Grate, and Hood	6	EA		
204	WSACC	Temporary Utility Trench Cap S9.5C Asphalt Surface	135	TN		
205	WSACC	Temporary Utility Trench Cap ABC Base	650	TN		
206	654	Permanent Utility Trench Repair I19.0C Asphalt Base	78	TN		
207	654	Permanent Utility Trench Repair B25.0C Asphalt Base	100	TN		
CONSTRUCTION SUBTOTAL						\$ -
CONTINGENCY (10%)						\$ -
TOTAL BASE BID SITE IMPROVEMENTS						\$ -
A-1	840	Add Alt #1 Curb Inlet w/ Frame, Grate, and Hood	1	EA		

A-2	310	Add Alt #1 15" RCP Class IV	50	LF		
A-3	SP-77	Add Alt #1 Stone Inlet Protection	1	EA		
Total ADD ALTERNATE #1						\$ -
TOTAL SITE IMPROVEMENT COST						\$ -

CONSTRUCTION SUBTOTAL \$ _____

(WORDS)

10% CONTINGENCY \$ _____

(WORDS)

TOTAL BASE BID SITE IMPROVEMENTS \$ _____

(WORDS)

TOTAL ADD ALTERNATE #1 \$ _____

(WORDS)

TOTAL PROJECT COST \$ _____

(WORDS)

6. Bidder agrees that all work will be completed and ready for final payment in accordance with Paragraph 14.13 of the General Conditions within 540 days from the date of notice to proceed.

7. Liquidated damages are \$250.00 per each day past the contract completion date.

8. Communications concerning this Bid shall be sent to Bidder at the following address:

NAME: _____

ADDRESS: _____

P.O. BOX: _____

CITY: _____

STATE: _____

ZIP: _____

9. The terms used in this BID, which are defined in the General Conditions (Section II), have the meanings assigned to them in the General Conditions.

SIGNATURE OF BIDDER: _____

Contractor's License Number _____

License Expiration Date _____

If an Individual

By _____
(signature of individual)

doing business as _____

Business address _____

Phone No. _____

Date _____, 20____

ATTEST _____ TITLE

If a Partnership

By _____
(firm name)

(signature of general partner)

Business address _____

Phone No. _____

Date _____, 20____

ATTEST _____ TITLE

If a Corporation

By _____
(corporation name)

By _____
(signature of authorized person) (title) _____

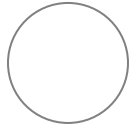
Business address _____

Phone No. _____

Date _____, 20_____

ATTEST _____ TITLE _____

(Seal)



If a Joint Venture (Other party must sign below.)

By (name) _____

Contractor's License Number _____

License Expiration Date _____

If an Individual

By _____
(signature of individual)

doing business as _____

Business address _____

Phone No. _____

Date _____, 20_____

ATTEST _____ TITLE _____

If a Partnership

By _____
(firm name)

(signature of general partner)

Business address _____

Phone No. _____

Date _____, 20_____

ATTEST _____ TITLE _____

If a Corporation

By _____
(corporation name)

By _____
(signature of authorized person)(title) _____

Business address _____

Phone No. _____

Date _____, 20_____

ATTEST _____ TITLE _____

(Seal)

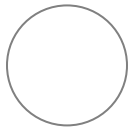


EXHIBIT C – PROJECT SPECIAL PROVISIONS
Union Street Improvements
Project No. 2020-009 (McGill Associates Project #19.01726)

STANDARD PROVISIONS

- 1) Contractor shall utilize the 2018 NCDOT Standard Specifications & Standard Drawings for Roads and Structures, the City of Concord Technical Standards, and Water & Sewer Authority of Cabarrus County Technical specifications, the most restrictive requirement shall apply unless otherwise noted. WSACC items in the Bid Form and these Project Special Provisions reference the Water & Sewer Authority of Cabarrus County Technical specifications. NCDOT Article Numbers in the Bid Form and these Project Special Provisions reference the NCDOT Standard Specifications for Roadways and Structures.
- 2) The Geotechnical Report is available in Appendix A. It should be noted that the data provided does not reflect the variations in subsurface conditions which could exist between test locations and/or unexplored areas of the site.
- 3) This project is subject to an Encroachment Agreement with NCDOT (see Appendix B).
- 4) Hours of work within NCDOT's ROW are 9:00 am – 4:00 pm Monday through Friday, or as required by the Encroachment Agreement. Hours of work outside NCDOT's ROW are 7:00 am – 7:00 pm Monday through Friday. Contractor to obtain approval from the City for work to be performed outside of the standard hours and must provide a minimum of 48 hours notice.
- 5) Ingress and egress shall be maintained to all business and dwellings affected by the project. Contractor shall notify the adjacent property owners in writing a minimum of 72 hours in advance of construction at the work site. Driveway work shall be coordinated with the city inspector and the property owner(s).
- 6) Maintain water and sewer service to existing customers during construction. Minimize the duration of any service disruption. Notify the City of Concord Construction Manager at least 48 hours in advance of any scheduled service disruption. Provide notice on a City approved form to City of Concord customers specifying the day and duration of any scheduled disruption, including appropriate City contact numbers. Provide temporary potable water supplies to City of Concord customers when the duration of water service disruption exceeds 4 hours. This work is considered incidental to the project. No additional payment will be made.
- 7) The Contractor shall include the cost of any coordination and cooperation of utilities in his bid. No additional compensation shall be allowed for delays or inconvenience sustained by the Contractor due to utility relocation or adjustments. No additional payment will be made for re-mobilization required by the utility's failure to relocate a utility at the request of the Contractor.
- 8) Financial Responsibility, Sedimentation Pollution Control Act: If this project is subject to the "NC Department of Environmental Health and Natural Resources Sediment Pollution Control Act", the City has already acquired the Letter of Approval (see Appendix C). The Contractor, upon recommendation of award, shall complete Part B of the Financial Responsibility/Ownership form provided in Appendix D. The City will then transfer financial responsibility of the erosion control permit to the Contractor. The Contractor will be responsible for any fines levied for violation of the approved erosion control plan
- 9) Notice of Intent –The erosion and sedimentation control plan letter of approval in Appendix C requires that a Notice of Intent (NOI) form is submitted prior to the commencement of any land disturbing activity on the project. The Contractor shall complete and submit the NOI.

SPECIAL PROVISIONS

SP-01: VEHICULAR TRAFFIC CONTROL

1.0 DESCRIPTION

Beginning Work and Street Closings: The Contractor is responsible for notifying the Concord Department of Transportation and NCDOT for any work where the number of travel lanes is reduced from normal conditions.

The Contractor shall install advance warning signs for the Project. These signs shall be in place for one week before construction activity begins. The Contractor shall begin construction activity on a street on the scheduled date for the closing of the travel lane.

Traffic Control Plan: Traffic control will be provided by the Contractor to the City for approval prior to start of construction.

All traffic control devices and procedures shall conform to the requirements of the current edition of the Federal Highway Administration (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD), the current edition of the North Carolina Department of Transportation (NCDOT) Supplement to the *Manual on Uniform Traffic Control Devices for Streets and Highways*, the NCDOT Roadway Standard Drawings and the current edition of the NCDOT Standard Specifications for Roads and Structures.

The Contractor shall maintain the traffic control as described herein.

Traffic Control Phasing shall be in accordance with the construction sequence shown on the plans. Changes to the sequence shall be discussed and agreed upon by the City prior to the Contractor making changes. Additional signs, cones, drums, barricades and warning devices may be used, but at no time will less than what is specified on the plans or in the standards be acceptable.

Maintenance of Traffic: The Contractor shall maintain all travel lanes in accordance with the Traffic Control Plan sheets.

In areas of drop-offs and low shoulders, the Contractor shall backfill up to the edge and elevation of the existing pavement.

The Contractor will be required to maintain ingress and egress to all businesses and dwellings, and easy access to fire hydrants.

The Contractor shall provide adequate drainage under driveways and within the Project area for the duration of the Project.

The Contractor shall mark all hazards within the Project limits with well-maintained signs, barricades, warning and/or channelizing devices.

Traffic Control Devices: The Contractor shall furnish, install, operate, relocate, maintain and remove all temporary traffic control devices necessary for controlling traffic in accordance with the Traffic Control Plans and standards. All construction signs and barricades shall remain in place until the appropriate permanent signs and pavement markings are installed.

Equipment and Material Storage: During periods of construction inactivity, all construction materials and equipment shall be stored by the Contractor. The right-of-way or temporary project easement may be used for this purpose, but equipment and materials must be placed safely 10 or more feet away from any open travel lane. It is recommended that all construction equipment and materials be stored on private property, which is posted against trespassing. It is the responsibility of the organization performing the work to obtain the permission to use a property for this purpose.

Excavation and Trenches: Excavations and trenches that cannot be properly backfilled and patched prior to the end of the workday shall be secured.

2.0 MEASUREMENT

There will be no separate measurement made for Traffic Control.

3.0 PAYMENT

Traffic Control will be paid at the lump sum price for "Traffic Control". This payment will be full compensation for all elements of work required to complete the Project as specified.

Partial payments will be made as a percentage of the work completed as estimated by City and/or Engineer.

Payment will be made under:

VEHICULAR TRAFFIC CONTROL..... LS

SP-02: PEDESTRIAN ACCESS AND SAFETY

1.0 DESCRIPTION

Work associated with this line item shall include pedestrian access and safety measures during all phases of construction. Work associated with this line item shall include, but not be limited to providing signs, barricades, cones, and temporary construction fencing to secure work areas from the general public as well as construction of temporary access ramps/drives to provide access to stores and businesses.

2.0 MEASUREMENT

There will be no separate measurement made for pedestrian access and safety.

3.0 PAYMENT

Traffic Control will be paid at the lump sum price for "Pedestrian Access and Safety". This payment will be full compensation for all elements of work required to complete the Project as specified.

Partial payments will be made as a percentage of the work completed as estimated by City and/or Engineer.

Payment will be made under:

PEDESTRIAN ACCESS AND SAFETY LS

SP-03: COMPREHENSIVE GRADING

1.0 DESCRIPTION

This item shall include all elements of work covered by the referenced NCDOT Specifications and the numbered Additional City Specifications provided herein.

NCDOT Specifications

- 225, "Roadway Excavation"
- 250, "Removal of Existing Pavement"
- 260, "Proof Rolling"
- 340, "Pipe Removal"
- 412, "Unclassified Structure Excavation"
- 416, "Channel Excavation"
- 500, "Fine Grading, Sub-grade, Shoulders and Ditches"
- 545, "Incidental Stone Base"
- 560, "Shoulder Construction"
- 1530, "Abandon or Remove Utilities"

Additional City Specifications

1. Traffic Bearing Road Plates: The Contractor shall be responsible for all traffic bearing road plates needed in accordance with NCDOT Utility Cut Replacement Detail.
2. Fence Removal and Disposal and or Fence Relocation: as shown on the plans and any additional removal or relocation identified by the Contractor's means and methods shall be included in this item.
3. Mailboxes and Site Amenities: remove, protect, and reset mailboxes and site amenities. The Contractor shall keep mailboxes in service at all times and allow / provide for other services, including but not limited to trash pickup.

4. Existing Road Signs: remove, salvage, protect, reset and/or replace road signs as directed on the drawings and in accordance with the City of Concord transportation department and NCDOT Specifications 903 and 904.

5. Removal and Disposal of Existing Infrastructure: concrete curb, sidewalk, miscellaneous concrete, asphalt, driveways, pads, slabs, walls, culverts, structures, catch basins, manholes, etc. within the construction limits as shown on the plans and any additional infrastructure removal identified on the plans or by the Contractor's means and methods shall be included in this item.

6. Shoring: The Contractor shall be responsible for all shoring to include means, methods, materials and engineering needed to construct the project.

7. Saw Cutting: all saw cutting required to build the Project. Where asphalt or concrete (curb, sidewalk, roadway, driveways, parking lots, etc.) is to be removed, the Contractor shall provide a neat edge along the pavement being retained by sawing the pavement a minimum of 2" deep and 1' wide before breaking and removing adjacent pavement. When the Contractor proposes to saw pavement more than one foot from the proposed pavement (curb, sidewalk, structure, etc.), the Contractor shall obtain approval from the City prior to saw cutting and removing pavement. The cost of sawing asphalt or concrete shall be included in this item.

8. Tree Protection: The Contractor shall provide tree protection as shown on the plans, including any pruning which shall be performed by a certified arborist in accordance with proper arboricultural standards, and any additional Tree Protection identified by the Contractor's means and methods shall be in accordance with the City of Concord Landscaping Technical Standards and included in this item.

9. Tree and/or Stump Removal and Disposal: as shown on the plans and any additional tree and/or stump removal identified by the Contractor's means and methods shall be included in this item. Trees to be removed shall be approved by the City prior to removal.

10. Water Meter / Sewer Clean Out Protection: all labor and materials required to protect, and replace, if necessary, impacted water meters and sewer clean outs in the work area.

11. Utility Pipe/Conduit Removal and Disposal: existing public or private utility pipe / conduit with related appurtenances, subsurface and shoulder drainpipe removal and disposal, as shown on the plans and any additional utility pipe / conduit removal identified by the Contractor's means and methods shall be included in this item. Trench and excavation backfill shall consist of excavatable flowable fill according to NCDOT Specification Section 1000 within NCDOT (Cabarrus Avenue) Right of Way. Utility cut repair shall be performed according to the Utility Cut Replacement Detail for Pavement Surface Milling and Overlay Areas in areas where surface milling and overlay is to occur and areas of complete road reconstruction where utility trenches are excavated and backfilled prior to full pavement removal.

12. Utility Pipe/Conduit Abandonment: existing public or private utility pipe/conduit cutting, disconnection, plugging, and filling with excavatable flowable fill according to NCDOT specification Section 1000 as shown on the drawings and identified by the Contractor's means and methods shall be included in this item.

13. Property Access: all labor and materials required to maintain access to properties and businesses during construction.

14. Miscellaneous items: Items not shown but necessary for construction of the project shall be included in this item.

2.0 MEASUREMENT

There will be no separate measurement made for Comprehensive Grading.

3.0 PAYMENT

This payment will be full compensation for all elements of work required to complete the Project as specified.

Partial payments will be made as a percentage of the work completed as estimated by City and/or Engineer.

Payment will be made under:

COMPREHENSIVE GRADING LS

SP-04: 18" CONCRETE GRADE BEAM

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

848 "Concrete Sidewalks, Driveways and Curb Ramps"

Additional City Specifications:

1. Minimum Compressive Strength at 28 day – 4,000 psi

Work associated with this line item shall consist of the installation of concrete grade beams in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, rebar, installation, curing, and maintenance during the construction period.

2.0 MEASUREMENT

Measurement shall be made along the top surface of the beam.

3.0 PAYMENT

18" CONCRETE GRADE BEAM LF

SP-05: 6" CONCRETE DRIVE APRON/DRIVE/HC RAMPS

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

848 "Concrete Sidewalks, Driveways and Curb Ramps"

Additional City Specifications:

- 1. Minimum Compressive Strength at 28 day – 4,000 psi
- 2. HC ramps vary in size, location, and layout. Ramps will not be a separate pay item but included in the 6" concrete drive measurement as applicable per the site plans. Tactile plates and handrails associated with ramps are a separate pay item.

Work associated with this line item shall consist of the actual number of square yards of concrete drive apron installed in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, and reinforcement as required in details, installation, curing, and maintenance during the construction period.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

6" CONCRETE DRIVE APRON/DRIVE..... SY

SP-06: 4" CONCRETE SIDEWALK AND HC RAMPS

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

848 "Concrete Sidewalks, Driveways and Curb Ramps"

Additional City Specifications:

- 1. Minimum Compressive Strength at 28 day – 4,000 psi

2. HC ramps vary in size and layout. Ramps will not be a separate pay item but included in the sidewalk measurement. Tactile plates and handrails associated with ramps are a separate pay item.

Work associated with this line item shall consist of the installation of 4” concrete sidewalk and handicap ramp construction in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, reinforcement as required in details, installation, curing, and maintenance during the construction period.

2.0 MEASUREMENT

Measurement shall be made along the top surface. HC ramps will not be a separate pay item.

3.0 PAYMENT

4” CONCRETE SIDEWALK SY

SP-07: PAVERS-LIGHT DUTY ON 4" CONCRETE BASE

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

848 “Concrete Sidewalks, Driveways and Curb Ramps”

Additional City Specifications:

1. Minimum Compressive Strength at 28 day – 4,000 psi

Work associated with this line item shall consist of the installation of pavers including a 4” concrete base at locations and patterns shown in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, curing, pavers, sand and maintenance during the construction period.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

PAVERS – LIGHT DUTY ON 4” CONCRETE BASE SY

SP-08: PAVERS – HEAVY DUTY ON 6" CONCRETE BASE/HC RAMPS

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

848 “Concrete Sidewalks, Driveways and Curb Ramps”

Additional City Specifications:

- 1. Minimum Compressive Strength at 28 day – 4,000 psi
- 2. HC ramps vary in size, location, and layout. Ramps will not be a separate pay item but included with the pavers – heavy duty on 6” concrete as applicable per the site plans. Tactile plates and handrails associated with ramps are a separate pay item.

Work associated with this line item shall consist of the installation of pavers including a 6” concrete base at locations, colors and patterns shown in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, curing, pavers, sand and maintenance during the construction period.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

PAVERS – HEAVY DUTY ON 6” CONCRETE BASE SY

SP-09: BRICK BAND ON 4" CONCRETE BASE

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

848 “Concrete Sidewalks, Driveways and Curb Ramps”

Additional City Specifications:

- 1. Minimum Compressive Strength at 28 day – 4,000 psi

Work associated with this line item shall consist of the installation of pavers including a 4” concrete base at locations and patterns shown in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, curing, pavers, mortar and maintenance during the construction period.

2.0 MEASUREMENT

Measurement shall be made along the centerline top surface of the band.

3.0 PAYMENT

BRICK BAND ON 4" CONCRETE BASE LF

SP-10: PLAZA PAVERS – VEHICULAR

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

848 "Concrete Sidewalks, Driveways and Curb Ramps"

Additional City Specifications:

1. Minimum Compressive Strength at 28 day – 4,000 psi

Work associated with this line item shall consist of the installation of pavers including a 6" reinforced concrete base at locations, colors and patterns shown in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, metal reinforcement, concrete, curing, pavers, mortar, sand and maintenance during the construction period.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

PLAZA PAVERS – VEHICULAR..... SY

SP-11: BRICK PAVER CROSSWALK

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

848 "Concrete Sidewalks, Driveways and Curb Ramps"

Additional City Specifications:

1. Minimum Compressive Strength at 28 day – 4,000 psi

Work included in this line item shall consist of construction and installation of all required and necessary individual items to complete each crosswalk at the designated locations. The work at each crosswalk location shall include traffic control, layout, pedestrian crossing signs, excavation, fine grading, concrete, curing, pavers, concrete edge restraint, sand, protection of crosswalks and striping until cured for traffic.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

BRICK PAVER CROSSWALK SY

SP-12: STAMPED ASPHALT CROSSWALK

1.0 DESCRIPTION

Work included in these line items of payment shall consist of construction and installation of all required and necessary individual items to complete each crosswalk at the designated locations. The work at each crosswalk location shall include traffic control, layout (with owner’s approval prior to construction), pedestrian crossing signs, pavement repair, imprinting, protection of crosswalks and striping until cured for traffic.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

STAMPED ASPHALT CROSSWALK SY

SP-13: 2’-6” CONCRETE CURB AND GUTTER

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

848 “Concrete Sidewalks, Driveways and Curb Ramps”

Additional City Specifications:

1. Minimum Compressive Strength at 28 day – 4,000 psi

Work associated with this line item shall consist of the installation of 6” concrete curb installed in accordance with the plans and specifications. The unit price will be the full

compensation for all work including, but not limited to excavation, fine grading, concrete, installation, curing, and maintenance during the construction period. Measurement shall be made along the top surface of the curb.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

2'-6" CONCRETE CURB AND GUTTER LF

SP-14: 6" CONCRETE STAND-UP CURB

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

848 "Concrete Sidewalks, Driveways and Curb Ramps"

Additional City Specifications:

- 1. Minimum Compressive Strength at 28 day – 4,000 psi

Work associated with this line item shall consist of the installation of 6" concrete curb installed in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, installation, curing, and maintenance during the construction period. Measurement shall be made along the top surface of the curb.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

6" CONCRETE STAND-UP CURB LF

SP-15: 8" CONCRETE STAND-UP CURB

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

846 "Concrete Curb, Curb and Gutter, Concrete Cutter, Shoulder Berm Gutter, Concrete Expressway Gutter and Concrete Valley Gutter"

n

Additional City Specifications:

- 1. Minimum Compressive Strength at 28 day – 4,000 psi

Work associated with this line item shall consist of the installation of 8” concrete curb installed in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, installation, curing, and maintenance during the construction period. Measurement shall be made along the top surface of the curb.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

8” CONCRETE STAND-UP CURB LF

SP-16: CONCRETE LANDSCAPE EDGING

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

846 “Concrete Curb, Curb and Gutter, Concrete Cutter, Shoulder Berm Gutter, Concrete Expressway Gutter and Concrete Valley Gutter”

Additional City Specifications:

- 1. Minimum Compressive Strength at 28 day – 4,000 psi

Work associated with this line item shall consist of the installation of concrete landscape edge installed in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, installation, curing, and maintenance during the construction period. Measurement shall be made along the top surface of the curb.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

CONCRETE LANDSCAPE EDGING LF

SP-17: 6" CONCRETE EDGE RESTRAINT

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

846 "Concrete Curb, Curb and Gutter, Concrete Cutter, Shoulder Berm Gutter, Concrete Expressway Gutter and Concrete Valley Gutter"

Additional City Specifications:

- 1. Minimum Compressive Strength at 28 day – 4,000 psi

Work associated with these line items shall consist of the installation of concrete edge restraint in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, installation, curing, and maintenance during the construction period. Measurement shall be made along the top surface of the edge restraint.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

CONCRETE EDGE RESTRAINT LF

SP18: PLAZA CONCRETE EDGE RESTRAINT

1.0 DESCRIPTION

NCDOT SPECIFICATIONS:

846 "Concrete Curb, Curb and Gutter, Concrete Cutter, Shoulder Berm Gutter, Concrete Expressway Gutter and Concrete Valley Gutter"

Additional City Specifications:

- 2. Minimum Compressive Strength at 28 day – 4,000 psi

Work associated with these line items shall consist of the installation of concrete edge restraint in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, concrete, installation, curing, and maintenance during the construction period. Measurement shall be made along the top surface of the edge restraint.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

CONCRETE EDGE RESTRAINT SF

SP-19: GRANITE EDGE RESTRAINT

1.0 DESCRIPTION

Work associated with these line items shall consist of the installation of granite edge restraint in accordance with the plans and specifications. The unit price will be the full compensation for all work including, but not limited to excavation, fine grading, mortar, installation, curing, and maintenance during the construction period. Measurement shall be made along the top surface of the edge restraint.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

GRANITE EDGE RESTRAINT LF

SP-20: BRONZE SIDEWALK TRAIL MARKERS

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of bronze sidewalk trail markers at locations shows on the plans.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

BRONZE SIDEWALK TRAIL MARKERS LS

SP-21: DETECTABLE WARNING PLATE

1.0 DESCRIPTION

Work associated with this line item shall consist of the installation of composite detectable warning plates in accordance with the plans and specifications.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

DETECTABLE WARNING PLATE SF

SP-22: METAL HANDRAIL AT HC RAMPS

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of the metal railing, posts, anchors, etc. as shown on the project plans. The price shall include rail, post, concrete, grout, hardware, and all related items.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

METAL HANDRAIL AT HC RAMPS LF

SP-23: SIGN INSTALLATION

1.0 DESCRIPTION

Work associated with this line item shall consist of the installation of furnishing and installation of decorative break away street signposts to match existing and installation of street signs provided by the City in accordance with the plans and specifications at locations shown on the plans. signs are to be reinstalled and shall conform to MUTCD and NCDOT requirements.

2.0 MEASUREMENT

Measurement shall be made based of the actual number of signs installed and accepted.

3.0 PAYMENT

SIGN INSTALLATION EA

SP-24: SALVAGED WAYFINDING SIGN INSTALLATION

1.0 DESCRIPTION

Work associated with this line item shall consist of the installation of the salvaged wayfinding signs and furnishing and installation of decorative break away pole systems to match existing. Contractor to provide signed and sealed structural drawings for footing design. Salvaged signs are to be reinstalled and shall conform to MUTCD and NCDOT requirements.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of wayfinding signs installed and accepted.

3.0 PAYMENT

SALVAGED WAYFINDING SIGN INSTALLATION..... EA

SP-25: BENCHES (OWNER PROVIDED, CONTRACTOR INSTALLED)

1.0 DESCRIPTION

This item of work includes the installation of benches at locations as shown on the project plans and in conformance with the details and specifications. Owner to provide benches and contractor to install.

2.0 MEASUREMENT

Measurement shall be made based of the actual number of benches installed and accepted.

3.0 PAYMENT

BENCHES EA

SP-26: TRASH/RECYCLING RECEPTACLE (OWNER PROVIDED, CONTRACTOR INSTALLED)

1.0 DESCRIPTION

This item of work includes the installation of trash/recycling receptacles and foundations at locations as shown on the project plans and in conformance with the details and specifications. The price shall include foundation and all related items as needed for installation. Owner to provide trash/recycling receptacles and contractor to install.

2.0 MEASUREMENT

Measurement shall be made based of the actual number of receptacles installed and accepted.

3.0 PAYMENT

TRASH/RECYCLING RECEPTACLE EA

SP-27: CIGARETTE RECEPTACLE (OWNER PROVIDED, CONTRACTOR INSTALLED)

1.0 DESCRIPTION

This item of work includes the installation of cigarette receptacles at locations as shown on the project plans and in conformance with the details and specifications. The price shall include all related items as needed for installation. Owner to provide benches and contractor to install.

2.0 MEASUREMENT

Measurement shall be made based of the actual number of receptacles installed and accepted.

3.0 PAYMENT

CIGARETTE RECEPTACLE..... EA

SP-28: BIKE RACK INSTALLATION

1.0 DESCRIPTION

This item of work includes the installation of salvaged bike racks and proposed concrete foundations as shown on the project plans and in conformance with the details and specifications. The price shall include the foundation, finishes, and all related items as needed for installation.

2.0 MEASUREMENT

Measurement shall be made based of the actual number of bike racks installed and accepted.

3.0 PAYMENT

BIKE RACK INSTALLATION EA

SP-29: DRINKING FOUNTAIN

1.0 DESCRIPTION

This item of work includes the installation of potable drinking fountain as shown on the project plans and in conformance with the details and specifications. The price shall include the foundation, fountain, and all related items as needed for installation.

2.0 MEASUREMENT

Measurement shall be made based of the actual number of drinking fountains installed and accepted.

3.0 PAYMENT

DRINKING FOUNTAIN EA

SP-30: BOLLARDS (NON-LIGHTED)

This item of work includes the furnishing and installation of bollards at locations as shown on the project plans and in conformance with the details and specifications. The price shall include all related items as needed for installation.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of bollards installed and accepted.

3.0 PAYMENT

BOLLARDS (NON-LIGHTED) EA

SP-31: FLAG HOLDER

1.0 DESCRIPTION

This item of work includes the furnishing and installation of Sch 40 PVC flag holders at locations as shown on the project plans and in conformance with the details and specifications. The price shall include all related items as needed for installation.

2.0 MEASUREMENT

There will be no separate measurement made for Flag Holder Installation.

3.0 PAYMENT

FLAG HOLDER..... LS

SP-32: HORSE HOOKS ART INSTALLATION

1.0 DESCRIPTION

Work associated with this line item shall consist of the installation of the salvaged existing horse hooks, furnishing and installation of bronze horseshoes, and granite plaque as noted on the plans and specifications.

2.0 MEASUREMENT

There will be no separate measurement made for Horse Hooks Art Installation.

3.0 PAYMENT

HORSE HOOKS ART INSTALLATION..... LS

SP-33: GRANITE MARKER FOR SURVEYOR STONE

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of a granite marker for the existing corner stone as shown on the plans.

2.0 MEASUREMENT

There will be no separate measurement made for granite marker surveyor stone.

3.0 PAYMENT

GRANITE MARKER FOR SURVEYOR STONE LS

SP-34: METAL AIR VENT REPLACEMENT

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of metal air vent grates to match existing vents.

2.0 MEASUREMENT

There will be no separate measurement made for Metal Air Vent Replacement.

3.0 PAYMENT

METAL AIR VENT REPLACEMENT LS

SP-35: MONOLITHIC RETAINING WALL

1.0 DESCRIPTION

Work associated with this line item shall include the construction of all monolithic retaining walls in accordance with the plans and specifications. The unit price shall be full compensation for all materials and installation including but not limited to concrete, footing, rebar, gravel, landscape edge where noted, and restoration of any surfaces. Measurement shall be made along the top surface of the wall and include a width of 14", height of wall varies. Areas of concrete/pavers installed past the 14" width shall be measure as 4" sidewalk or brick pavers as noted.

2.0 MEASUREMENT

Measurement shall be made at the unit bid price per linear foot (12" length x 14" width, height varies) of work installed and accepted.

3.0 PAYMENT

MONOLITHIC RETAINING WALLLF

SP-36: STONE SEAT WALL

1.0 DESCRIPTION

Work associated with this line item shall include the construction of all seat walls in accordance with the plans and specifications. The unit price shall be full compensation for all materials and installation including but not limited to concrete block, footing, rebar, grout, mortar, veneer, pre-cast concrete wall cap, drainage materials, and restoration of any surfaces.

2.0 MEASUREMENT

There will be no separate measurement made for Stone Seat Wall.

3.0 PAYMENT

STONE SEAT WALL..... LS

SP-37: CONCRETE STAIR WITH HANDRAILS

1.0 DESCRIPTION

Work associated with this line item shall include the construction of all stairs with handrails

in accordance with the plans and specifications. The unit price shall be full compensation for all materials and installation including but not limited to concrete, footing, rebar, restoration of any surfaces, rail, post, hardware, and all related items.

2.0 MEASUREMENT

There will be no separate measurement made for Concrete Stair with Handrails.

3.0 PAYMENT

CONCRETE STAIR WITH HANDRAILS LS

SP-38: CONCRETE STAIR AND HC RAMP WITH HANDRAILS

1.0 DESCRIPTION

Work associated with this line item shall include the construction of the combined stair and ramp with handrails in accordance with the plans and specifications. The unit price shall be full compensation for all materials and installation including but not limited to brick, concrete, footing, rebar, restoration of any surfaces, rail, post, hardware, and all related items.

2.0 MEASUREMENT

There will be no separate measurement made for Concrete Stair and HC Ramp with Handrails.

3.0 PAYMENT

CONCRETE STAIR AND HC RAMP WITH HANDRAILS LS

SP-39: WOOD FENCE REPLACEMENT WITH GATE

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of the wood fence, posts, anchors, etc. as shown on the project plans. The price shall include wood fencing, access gate, posts, concrete, hardware, and all related items.

2.0 MEASUREMENT

There will be no separate measurement made for Wood Fence Replacement with Gate.

3.0 PAYMENT

WOOD FENCE REPLACEMENT WITH GATE LS

SP-40: ORNAMENTAL RAILING INSTALLATION

1.0 DESCRIPTION

Work associated with this line item shall consist of the installation of ornamental railing installation as shown on the plans. Railing to be provided by the City.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

ORNAMENTAL RAILING INSTALLATION LF

SP-41: 4'x4' TREE GRATE

1.0 DESCRIPTION

This item of work includes the furnishing and installation of tree grates at locations as shown on the project plans and in conformance with the details and specifications. The price shall include grate, finish, foundation and all related items.

2.0 MEASUREMENT

Measurement shall be made based of the actual number of tree grates installed and accepted.

3.0 PAYMENT

4'X4' TREE GRATE..... EA

SP-42: PLANTING CELLS

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of planting cells in their entirety as shown on the plans and specifications. Work shall include, but not be limited to, the furnishing, installation and maintenance of devices during the project construction.

2.0 MEASUREMENT

There will be no separate measurement made for planting cells.

3.0 PAYMENT

PLANTING CELLS LS

SP-43 THRU 49: TREES

1.0 DESCRIPTION

Work associated with this line item shall consist of furnishing, installation and planting of trees in accordance with the plans and specifications. The work at each tree shall include layout, excavation, planting, staking, soil amendments, mulch, and all related construction.

2.0 MEASUREMENT

Measurement shall be made based of the actual number of trees installed and accepted.

3.0 PAYMENT

TREES EA

SP-50 THRU 64: SHRUBS AND PERENNIALS

1.0 DESCRIPTION

Work associated with this line item shall consist of furnishing, installation and planting of shrubs and perennials in accordance with the plans and specifications. The work at each plant shall include layout, excavation, planting, soil amendments, mulch, and all related construction.

2.0 MEASUREMENT

Measurement shall be made based of the actual number of shrubs and perennials installed and accepted.

3.0 PAYMENT

SHRUBS AND PERENNIALS..... EA

SP-65 THRU 69: GROUNDCOVERS

1.0 DESCRIPTION

Work associated with this line item shall consist of furnishing, installation, and planting of groundcovers in accordance with the plans and specifications. The work associated with groundcover installation shall include layout, excavation, planting, soil amendments, mulch, and all related construction.

2.0 MEASUREMENT

Measurement shall be made based of the actual number of groundcovers installed and accepted.

3.0 PAYMENT

GROUNDCOVERS EA

SP-70: ANNUALS

1.0 DESCRIPTION

Work associated with this line item shall consist of furnishing, installation and planting of annuals in accordance with the plans and specifications. The work associated with annual installation shall include layout, planting, soil amendments, mulch, and all related construction.

2.0 MEASUREMENT

Measurement shall be made based of the square foot of annuals installed and accepted.

3.0 PAYMENT

ANNUALS SF

SP-71: IRRIGATION

1.0 DESCRIPTION

Work associated with this line item shall consist of furnishing and installing irrigation per the plans and specifications. The price will be full compensation for all labor, equipment, and materials necessary for work associated with irrigation, including but not limited to connection to water line, main line, irrigation lines to all valves, controllers, electrical connection, drip pipe, and all related items as needed for installation.

2.0 MEASUREMENT

There will be no separate measurement made for irrigation.

3.0 PAYMENT

IRRIGATION..... LS

SP-72: GRANITE STORMWATER FLUME INSTALLATION

1.0 DESCRIPTION

The work covered by this section consists of the installation of granite stormwater flumes, in accordance with the requirements shown on the plans and specifications. Granite used to be salvaged from the removal of existing curb lines with additional granite being provided by the City. The lump sum price will be the full compensation for all work including, but not limited to excavation, fine grading, mortar, concrete, installation, curing, removal of any sharp edges, and maintenance during the construction period. This includes all special cuts as required for installation.

2.0 MEASUREMENT

There will be no separate measurement made for granite stormwater flume installation.

3.0 PAYMENT

GRANITE STORMWATER FLUME INSTALLATION LS

SP-73: STRAW WATTLE PROTECTION

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of straw wattles around the perimeter of the work area. Locations will vary based on active work areas. Lump sum price shall include but is not limited to materials, installation, maintenance, replacement, and removal.

2.0 MEASUREMENT

There will be no separate measurement made for straw wattle installation and maintenance.

3.0 PAYMENT

STRAW WATTLE PROTECTION LS

SP-74: MUD MAT CONSTRUCTION ENTRANCE

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of temporary construction entrance mud mat. Location will vary based on active work areas. Lump sum price shall include but is not limited to furnishing, installation, relocation as needed, replacement as needed, and removal.

2.0 MEASUREMENT

There will be no separate measurement made for mud mat installation and maintenance.

3.0 PAYMENT

MUD MAT CONSTRUCTION ENTRANCE LS

SP-75: SILT SAK

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing, installation and maintenance of silt saks storm inlets protection devices for proposed and existing structures as noted on the plans or as needed due to phasing of construction. The lump sum price shall include furnishing, installation, replacement, and maintenance of device while in active use and all associated items.

2.0 MEASUREMENT

There will be no separate measurement made for silt sak installation and maintenance.

3.0 PAYMENT

SILT SAK..... LS

SP-76: STONE INLET PROTECTION – STORM INLETS

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of gravel storm inlet protection for proposed and existing structures in accordance with the plans and specifications. Unit bid price shall include but is not limited to excavation, installation, maintenance, gravel and all associated items.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of storm inlets installed and accepted.

3.0 PAYMENT

STONE INLET PROTECTION – STORM INLETS..... EA

SP-77: 6” NYLOPLAST STORM DRAINS

1.0 DESCRIPTION

Work associated with this line item shall consist of the installation of Nyloplast drains associated with roof drain piping. Work includes furnishing all materials necessary for the installation in accordance with the plans and specifications. Unit bid price shall include but is not limited to excavation, installation, storm structures, and backfill.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of drains installed and accepted.

3.0 PAYMENT

6” NYOPLAST STORM DRAINS EA

SP-78: 10” NYLOPLAST STORM DRAINS

1.0 DESCRIPTION

Work associated with this line item shall consist of the installation of Nyloplast drains associated with roof drain piping. Work includes furnishing all materials necessary for the installation in accordance with the plans and specifications. Unit bid price shall include but is not limited to excavation, installation, storm structures, and backfill.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of drains installed and accepted.

3.0 PAYMENT

10” NYOPLAST STORM DRAINS EA

SP-79 THRU 82: PVC CLEANOUTS

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of cleanouts in accordance with the plans and specifications, in sizes as shown on plans. The unit price bid shall include all excavation, installation, temporary and permanent connections to existing lines, backfill including washed stone around the pipe, compaction, testing, cleanup and removal and disposal of existing materials.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of cleanouts installed and accepted.

3.0 PAYMENT

PVC CLEANOUTS.....EA

SP-83 THRU 86: SCH 40 PVC PIPE

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of Schedule 40 PVC pipe in accordance with the plans and specifications, in sizes as specified on plans. The unit price bid shall include but is not limited to all excavation, pipe installation, temporary and permanent connections to existing lines, backfill including washed stone around the pipe, compaction, testing, cleanup and removal and disposal of existing materials.

2.0 MEASUREMENT

Measurement will be per linear foot from the starting point to the finish point of each section of line along the top of the pipe.

3.0 PAYMENT

SCHEDULE 40 PVC PIPE..... LF

**SP-87: 5' DIA. CONCRETE DOGHOUSE SEWER MANHOLE – FLOWABLE
FILL BACKFILL**

1.0 DESCRIPTION

Work associated with this line item shall consist of the complete installation of doghouse sewer manholes according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006 including but not limited to pavement cutting and removal, excavation, sheeting/shoring/bracing, excavation dewatering, foundation preparation, locating existing sewer line, installation, cutting of existing sewer line,

flowable fill backfill, concrete, pipe connections (including drop connections and existing pipe connections where applicable), boots, construction of invert, installation of frame and lid (watertight or standard), adjustment rings, backfill, bypass pumping as required, testing, and all related construction to complete the work as specified. Paving is to be performed simultaneously with street paving and is not included under this bid item.

Additional City Specifications:

1. Backfill shall consist of excavatable flowable fill according to NCDOT Specification Section 1000.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of Doghouse Manholes installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

5' DIA. CONCRETE DOGHOUSE SEWER MANHOLE – FLOWABLE FILL BACKFILL..... EA

SP-88: 8" DUCTILE IRON GRAVITY SEWER

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of ductile iron slip joint pipe according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006. The unit price bid shall include but is not limited to location of existing utilities, pavement cutting and removal, excavation, excavation dewatering, bypass pumping as required, pipe bedding stone, pipe installation, service wyes, testing, temporary and permanent connections to existing lines, standard compacted backfill, testing, cleanup, removal and disposal of existing materials, and all related construction to complete the work as specified. Paving is to be performed simultaneously with street paving and is not included under this bid item.

2.0 MEASUREMENT

Measurement shall be made according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006 with no depth classification. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

8" DUCTILE IRON GRAVITY SEWER..... LF

SP-89: 8" DUCTILE IRON GRAVITY SEWER – FLOWABLE FILL BACKFILL

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of ductile iron slip joint pipe according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006. The unit price bid shall include but is not limited to location of existing utilities, pavement cutting and removal, excavation, excavation dewatering, bypass pumping as required, pipe bedding stone, pipe installation, service wyes, testing, temporary and permanent connections to existing lines, backfill, testing, cleanup, removal and disposal of existing materials, and all related construction to complete the work as specified. Paving is to be performed simultaneously with street paving and is not included under this bid item.

Additional City Specifications:

- 1. Backfill shall consist of excavatable flowable fill according to NCDOT Specification Section 1000.

2.0 MEASUREMENT

Measurement shall be made according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006 with no depth classification. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

8" DUCTILE IRON GRAVITY SEWER – FLOWABLE FILL BACKFILL..... LF

SP-90 THRU 92: PVC SEWER SERVICE

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of C-900 DR-14 PVC slip joint sewer service pipe according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006. The unit price bid shall include but is not limited to location of existing utilities, excavation, excavation dewatering, removal of existing sewer service line for replacement as shown on drawings, bypass pumping as required, pipe bedding stone, pipe installation, fittings, testing, temporary and permanent connections to existing lines, backfill, testing, cleanup, removal and disposal of existing materials, and all related construction to complete the work as specified. Paving is to be performed simultaneously with street paving and is not included under this bid item.

2.0 MEASUREMENT

Measurement will be per linear foot from the starting point to the finish point of each section of line along the top of the pipe. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

___” PVC SEWER SERVICE.....LF

SP-93: PVC SEWER SERVICE – FLOWABLE FILL BACKFILL

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of C-900 DR-14 PVC slip joint sewer service pipe according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006. The unit price bid shall include but is not limited to location of existing utilities, excavation, excavation dewatering, removal of existing sewer service line for replacement as shown on drawings, bypass pumping as required, pipe bedding stone, pipe installation, fittings, testing, temporary and permanent connections to existing lines, backfill, testing, cleanup, removal and disposal of existing materials, and all related construction to complete the work as specified. Paving is to be performed simultaneously with street paving and is not included under this bid item.

Additional City Specifications:

1. Backfill shall consist of excavatable flowable fill according to NCDOT Specification Section 1000.

2.0 MEASUREMENT

Measurement will be per linear foot from the starting point to the finish point of each section of line along the top of the pipe. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

___” PVC SEWER SERVICE – FLOWABLE FILL BACKFILL.....LF

SP-94: PVC SEWER SERVICE–CLASS A ARCH ENCASEMENT

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of C-900 DR-14 PVC slip joint sewer service pipe according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006. The unit price bid shall include but is not limited to location of existing utilities, excavation, excavation

dewatering, removal of existing sewer service line for replacement as shown on drawings, bypass pumping as required, removal of existing sewer service line as shown on drawings, pipe bedding stone, pipe installation, fittings, excavatable concrete arch encasement according to NCDOT Specification Section 1000, testing, temporary and permanent connections to existing lines, standard compacted backfill, testing, cleanup, removal and disposal of existing materials, and all related construction to complete the work as specified. Paving is to be performed simultaneously with street paving and is not included under this bid item.

2.0 MEASUREMENT

Measurement will be per linear foot from the starting point to the finish point of each section of line along the top of the pipe. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

___” **PVC SEWER SERVICE – CLASS A ARCH ENCASEMENT.....LF**

SP-95 THRU 97: SEWER CLEAN-OUT WITH MINI MANHOLE

1.0 DESCRIPTION

Work associated with this line item shall consist of the furnishing and installation of sewer cleanouts according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006, in sizes as shown on plans. The unit price bid shall include but is not limited to location of existing utilities, excavation, excavation dewatering, bypass pumping as required, pipe bedding stone, installation, temporary and permanent connections to existing lines, standard compacted backfill, mini manhole frame and lid, testing, final adjustment, cleanup, removal and disposal of existing materials, and all related construction to complete the work as specified. Paving is to be performed simultaneously with street paving and is not included under this bid item.

2.0 MEASUREMENT

Measurement will be based on the actual number of cleanouts with mini-manhole installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

___” **SEWER CLEAN-OUT WITH MINI MANHOLE.....EA**

SP-98: DISCONNECT AND RECONNECT EXIST. SEWER SERVICE

1.0 DESCRIPTION

Work associated with this line item shall consist of disconnecting existing sewer service from existing sewer main to be abandoned and re-connecting to sewer line to remain along Cabarrus Avenue according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006. The unit price bid shall include but is not limited to location of existing utilities, excavation, disconnection of existing sewer service, plugging abandoned end of sewer service with flowable fill plug, tapping saddle, reconnection of sewer service to live sewer main, flowable fill backfill, cleanup, and all related construction to complete the work as specified. Related pavement patching and restoration of areas outside of the Union Street/Cabarrus Avenue intersection that are otherwise not being reconstructed shall be included under this item.

Additional City Specifications:

1. Backfill shall consist of excavatable flowable fill according to NCDOT Specification Section 1000.

2.0 MEASUREMENT

Measurement shall be made at the unit bid price per each existing sewer service disconnected and reconnected. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

DISCONNECT AND RECONNECT EXIST. SEWER SERVICE.....EA

SP-99 THRU 100: REPLACE EXISTING VCP SEWER MAIN WITH DIP SEWER MAIN

1.0 DESCRIPTION

Work associated with this line item shall consist of replacement of VCP sewer main with ductile iron slip joint pipe according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006, in sizes as specified on plans. Ductile iron slip joint pipe shall be of the same nominal size as the existing VCP sewer and be installed along the same alignment and grade. Measurement will be from the starting point to the finish point of each section of line. The unit price bid shall include but is not limited to location of existing utilities, pavement cutting and removal, excavation, excavation dewatering, bypass pumping as required, removal of existing sewer, pipe bedding stone, pipe installation, transition couplings, testing, temporary and permanent connections to existing lines, standard compacted backfill, testing, cleanup, removal and disposal of existing materials, and all related construction to complete the work as specified. Paving is to be performed simultaneously with street paving and is not included under this bid item.

2.0 MEASUREMENT

Measurement will be per linear foot from the starting point to the finish point of each section of line along the top of the pipe. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

REPLACE EXIST. ___" VCP SEWER MAIN WITH ___" DIP SEWER MAIN.....LF

SP-101: CONCRETE COLLAR

1.0 DESCRIPTION

Work associated with this line item shall consist of construction of concrete collars where new sewer lines connect to existing brick manholes as shown on the drawings and according to the specifications. The unit price bid shall include connection of the sewer pipe to the existing manhole and installation of the concrete collar.

Additional City Specifications:

1. Concrete shall consist of excavatable flowable fill according to NCDOT Specification Section 1000.

2.0 MEASUREMENT

Measurement shall be made at the unit bid price per each concrete collar installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

CONCRETE COLLAR.....EA

SP-102 THRU 106: DUCTILE IRON WATER LINE

1.0 DESCRIPTION

Work associated with this line item shall consist of ductile iron water line according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006, in sizes as specified on plans. Price and payment shall constitute full compensation for furnishing all equipment, tools, labor and materials to complete the work as specified, including but not limited to the following items:

- a. Site Preparation
- b. Location of Existing Utilities
- c. Common Excavation, and Trench Backfilling with Standard Compacted Backfill
- d. Dewatering of Excavated Areas
- e. Rock Excavation, unless otherwise noted
- f. Waste Material Disposal

- g. Restraining gaskets or glands (as applicable)
- h. Pipe wrap
- i. Pipe Installation, disinfection, and Applicable Testing
- j. Installation of temporary fencing as needed, along with repair and/or replacement of fencing.

2.0 MEASUREMENT

Measurement of waterline shall be the actual number of linear feet of pipe water line installed by pipe joint type, and wrap type (if shown), which has been properly incorporated into the completed and accepted work. Quantities of pipe shall be verified in the field by the Owner or the Engineer. Pipe length shall be measured by horizontal linear feet in place measured along the pipe center line with no deduction for fittings, valves, etc. Separate measurement items shall be made for each different size pipe.

3.0 PAYMENT

___” DUCTILE IRON WATER LINE.....LF

SP-107 THRU 109: DUCTILE IRON WATER LINE – FLOWABLE FILL BACKFILL

1.0 DESCRIPTION

Work associated with this line item shall consist of ductile iron water line according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006, in sizes as specified on plans. Price and payment shall constitute full compensation for furnishing all equipment, tools, labor and materials to complete the work as specified, including but not limited to the following items:

- a. Site Preparation
- b. Location of Existing Utilities
- c. Common Excavation, and Trench Backfilling with Backfill
- d. Dewatering of Excavated Areas
- e. Rock Excavation, unless otherwise noted
- f. Waste Material Disposal
- g. Restraining gaskets or glands (as applicable)
- h. Pipe wrap
- i. Pipe Installation, disinfection, and Applicable Testing
- j. Pavement repair/restoration
- k. Installation of temporary fencing as needed, along with repair and/or replacement of fencing.

Additional City Specifications:

1. Backfill shall consist of excavatable flowable fill according to NCDOT Specification Section 1000.

2.0 MEASUREMENT

Measurement of waterline shall be the actual number of linear feet of pipe water line installed by pipe joint type, and wrap type (if shown), which has been properly incorporated into the completed and accepted work. Quantities of pipe shall be verified in the field by the Owner or the Engineer. Pipe length shall be measured by horizontal linear feet in place measured along the pipe center line with no deduction for fittings, valves, etc. Separate measurement items shall be made for each different size pipe.

3.0 PAYMENT

___” **DUCTILE IRON WATER LINE – FLOWABLE FILL BACKFILL.....LF**

SP-110 THRU 114: GATE VALVES AND BOXES:

1.0 DESCRIPTION

Work associated with this item shall include all costs related to construction of gate valves and boxes according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006, in sizes as specified on plans, including, but not limited to excavation, valve support pads, materials, valve box, installation, extension stems as directed by the Owner or Engineer, standard backfill and compaction, and site restoration.

2.0 MEASUREMENT

Measurement will be made at the unit price bid for the actual number and size of valve installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

___” **GATE VALVES AND BOXES.....EA**

SP-115: GATE VALVES AND BOXES – FLOWBLE FILL BACKFILL

1.0 DESCRIPTION

Work associated with this item shall include all costs related to construction of gate valves and boxes according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006, in sizes as specified on plans, including, but not limited to excavation, valve support pads, materials, valve box, installation, extension stems as directed by the Owner or Engineer, backfill, and site restoration.

Additional City Specifications:

1. Backfill shall consist of excavatable flowable fill according to NCDOT Specification Section 1000.

2.0 MEASUREMENT

Measurement will be made at the unit price bid for the actual number and size of valve installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

___” **GATE VALVES AND BOXES – FLOWABLE FILL.....EA**

SP-116: FIRE HYDRANT ASSEMBLY:

1.0 DESCRIPTION

Work associated with this item shall include all costs related to construction of fire hydrants according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006, including, but not limited to hydrant, hydrant extension, excavation, hydrant support pads, backfill and compaction, joint restraint, site restoration, and all related appurtenances.

2.0 MEASUREMENT

Measurement will be made based on the actual number of hydrants, complete with all appurtenances, installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

FIRE HYDRANT ASSEMBLY.....EA

SP-117: FIRE HYDRANT ASSEMBLY WITH TAPPING SLEEVE AND VALVE:

1.0 DESCRIPTION

Work associated with this item shall include all costs related to construction of fire hydrants according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006, including, but not limited to hydrant, hydrant extension, excavation, hydrant support pads, hydrant leg, valve box, precast concrete valve box protector, tapping sleeve and valve in lieu of hydrant tee, backfill and compaction, joint restraint and thrust blocking, site restoration, and all related appurtenances as shown on the Typical Fire Hydrant Assembly Detail.

2.0 MEASUREMENT

Measurement will be made based on the actual number of hydrants, complete with all appurtenances, installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

FIRE HYDRANT ASSEMBLY WITH TAPPING SLEEVE AND VALVE.....EA

SP-118: COMPACT DUCTILE IRON FITTINGS:

1.0 DESCRIPTION

Work associated with this item shall include all costs related to furnishing and installing permanent compact ductile iron fittings of the type and size shown on the Plans according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006, including, but not limited to excavation, materials, installation including restrained retainer glands or deadmen as shown on the plans, permanent connection sleeves of the type and size shown on the Plans, backfill and compaction, and site restoration.

2.0 MEASUREMENT

Measurement will be made based on the actual number of pounds of permanent compact ductile iron fittings installed and accepted. The contractor shall compute the number of pounds installed based upon the weight of each fitting. Weight basis shall be manufacturer’s standard published information for weight of compact fittings. Weights shall be computed for each fitting excluding accessories, retainer glands and blocking.

3.0 PAYMENT

COMPACT DUCTILE IRON FITTINGS.....LB

SP-119 THRU 123: CONNECTION TO EXISTING WATER SYSTEM

1.0 DESCRIPTION

Work associated with this item shall include all costs related to furnishing and installing permanent connections to the existing water system according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006, including, but not limited to excavation, dewatering the existing water main between the connection and the nearest existing sectionalizing valves, removing the existing water main pipe plug, cutting and removing the section of existing water main piping, any additional temporary fittings and adapters necessary for accomplishing the connection not shown on the drawings, and associated work in replacing the section of main which was

removed or furnished, jointing materials including gaskets and bolts, temporary jumpers and appurtenances, and all other work required for installation of the connection complete, tested, and placed into satisfactory service, in accordance with the Contract Documents and plans.

This item shall also include any materials, labor, and costs associated with installation and removal of temporary connections to the existing water system required to maintain domestic and fire protection water service through various phases of project construction.

This item does not include connection of domestic or fire service lines.

2.0 MEASUREMENT

The quantity of permanent connections to existing water systems to be paid will be actual number and size of permanent connections installed as shown on the drawings, with restrained sleeves and all appurtenances necessary to provide a complete and water tight connection to an existing water line as indicated on the drawings. Quantities shall be verified in the field by the Owner or the Engineer.

No separate measurement will be made for temporary connections to the existing water system in support of construction phasing.

3.0 PAYMENT

___" CONNECTION TO EXISTING WATER SYSTEM.....EA

SP-124: 4" METER VAULT:

1.0 DESCRIPTION

Work associated with this item shall include all costs related to furnishing and installing the vault, vault access doors, excavation, stone base, valves and piping inside the vault, 4" water meter according to City requirements, pipe supports, drain piping, compacted backfill, and all related appurtenances as shown on the meter vault detail on the plans.

2.0 MEASUREMENT

The quantity of 4" meter vaults to be paid will be the actual number of meter vaults, complete with all appurtenances, installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

4" METER VAULT.....EA

SP-125 & 126: WATER SERVICE TAP:

1.0 DESCRIPTION

Work associated with this item shall include all costs related to furnishing and installing permanent water service taps by tap size according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006 and includes water service taps and service gate valves where indicated on the drawings, excavation, tapping saddle, corporation stop, gate valve, valve box, and compacted backfill.

2.0 MEASUREMENT

Measurement of water service taps shall be the actual number and size of permanent water service taps installed which have been properly incorporated into the completed and accepted work. Separate measurement items shall be made for each different size. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

___" WATER SERVICE TAP.....EA

SP-127 & 128: COPPER WATER SERVICE LINE:

1.0 DESCRIPTION

Work associated with this item shall include all costs related to furnishing and installing permanent Type K copper water service lines by size according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006 and includes all costs for excavation, Type K copper service line, fittings, transitions, connection to existing service line, removal of existing service line, and compacted backfill.

2.0 MEASUREMENT

Measurement of copper water service lines shall be the actual number of linear feet and size of permanent copper pipe water line installed which has been properly incorporated into the completed and accepted work. Pipe length shall be measured by horizontal linear feet in place measured along the pipe center line with no deduction for fittings, valves, etc. Separate measurement items shall be made for each different size pipe. Quantities shall be verified in the field by the Owner or the Engineer. No measurement will be made for temporary water service lines under this item.

3.0 PAYMENT

___" COPPER WATER SERVICE LINE.....LF

SP-129: 2" WATER METER BOX

1.0 DESCRIPTION

Work associated with this item shall include all costs related to furnishing and installing water meter boxes according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006 and project drawings. This item includes all costs for the meter boxes, excavation, stone base, and all related appurtenances as shown on the meter box detail on the plans.

The meter and meter valve flange shall be provided by the Owner.

2.0 MEASUREMENT

The quantity of 2" water meter boxes to be paid will be the actual number of permanent meter boxes, complete with all appurtenances, installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer. No measurement will be made for temporary water meter box installations under this item.

3.0 PAYMENT

2" WATER METER BOX.....EA

SP-130: PRESSURE REDUCING VALVE IN METER BOX

1.0 DESCRIPTION

Work associated with this item shall include all costs related to furnishing and installing permanent pressure reducing valves in meter boxes and includes meter boxes, excavation, stone base, pressure reducing valve, curb stop valves, and all related appurtenances as shown on the meter box detail on the plans and necessary to provide a complete connection. Pressure reducing valve size shall match the size of the existing water service line, ranging from ¾" to 2", with an approximate size breakdown as follows: 50% ¾", 25% 1", 25% 2". Pressure reducing valves shall be according to the following criteria:

DOMESTIC WATER PRESSURE REGULATING VALVES (PRV)

- A. Pressure regulating valves shall be direct acting piston type, bronze body and bell housing, reinforced neoprene diaphragm, renewable monel seats, strainer and union connection.
- B. Water service applications -250 psig rated at 160 degrees Fahrenheit (F). Each regulator shall have a "Y" type bronze strainer, spring range shall be as required for application. The Contractor shall field assemble regulating stations with shutoff valves on discharge side of manifold. Each regulating valve shall be isolated with two full port ball shutoff valves. Field adjust PRV's to maintain required outlet pressure, (maximum of 80 psig).

2.0 MEASUREMENT

Measurement shall be made based on the actual number of permanent installations, complete with all appurtenances, installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer. No measurement will be made for temporary pressure reducing valve installations under this item.

3.0 PAYMENT

PRESSURE REDUCING VALVE IN METER BOX.....EA

SP-131: 3/4" REDUCED PRESSURE BACKFLOW ASSEMBLY

1.0 DESCRIPTION

Work associated with this item shall include all costs related to furnishing and installing permanent 3/4" reduced pressure backflow assemblies, complete with all appurtenances and includes excavation, concrete base, fittings, supports, insulated enclosure, electrical wiring and conduit, heating source, and all related appurtenances as required by the drawings and specifications.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of permanent installations, complete with all appurtenances, installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

3/4" REDUCED PRESSURE BACKFLOW ASSEMBLY.....EA

SP-132: AIR RELEASE VALVE

1.0 DESCRIPTION

Work associated with this item shall include all costs related to furnishing and installing permanent air release valve assemblies, complete with all appurtenances and includes excavation, corporation stop, tapping saddle, copper piping, meter box, gate valve, stone base, base, fittings, supports, backfill, and all related appurtenances as required by the drawings and specifications.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of permanent installations, complete with all appurtenances, installed and accepted. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

AIR RELEASE VALVE.....EA

SP-133: TEMPORARY 2” WATER SERVICE

1.0 DESCRIPTION

Work associated with this item shall include all costs related to furnishing and installing temporary 2” water services including excavation, temporary Type K copper service line, tie-ins, fittings, transitions, meter boxes for temporary meter sets, compacted backfill, adjustments to previously installed temporary water services, and removal of previously installed temporary water services.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of temporary services installed, complete with all appurtenances. The Contractor shall receive approval from the Owner prior to installing temporary water services. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

TEMPORARY 2” WATER SERVICE.....EA

SP-134 & 135: REMOVE AND ABATE EXISTING 8” ASBESTOS CEMENT WATER LINE:

1.0 DESCRIPTION

Work associated with this item shall include all costs related to removal, abatement, and disposal of existing asbestos cement water line, excavation, backfill by type (either standard compacted backfill or flowable fill backfill), and all work and materials as required by the drawings and specifications.

Additional City Specifications:

1. Flowable fill backfill shall consist of excavatable flowable fill according to NCDOT Specification Section 1000.

Guidelines and Procedures

The Contractor shall follow the requirements in the “Abatement of Asbestos-Cement Piping Guidelines and Procedures” document included in the appendix.

The Contractor shall obtain approval from the Engineer prior to removing any section of AC pipe.

Final clearance testing (if needed) will be paid for by the City of Concord.

Additional Insurance Requirements for Asbestos Abatement Contractors/Subcontractors

In addition to the insurance requirements set forth in the Construction Contract, asbestos abatement contractors/subcontractors are required to provide additional insurance coverages as follows:

Asbestos Abatement Liability Insurance:

Asbestos abatement liability coverage including coverage for liability for bodily injury and property damage arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos containing materials with a limit of \$1,000,000 per accident; \$1,000,000 disease per employee; and \$1,000,000 disease policy limit, with a combined single limit of at least \$2,000,000 per occurrence.

The policy must be a claims-made policy and the coverage period shall be determined by the following formula: continuous coverage for life of the Contract, plus one (1) year (to provide coverage for the warranty period), with an extended discovery period for a minimum of five (5) years which shall not commence until the expiration of the longest warranty period(s).

Asbestos abatement liability insurance shall comply with the requirements in Section 8 of the Construction Contract, including listing the City as additional insured. Asbestos abatement liability insurance shall also include a Waiver of Subrogation in favor of the City of Concord.

2.0 MEASUREMENT

Measurement shall be made based on the actual number of linear feet removed and abated. Separate measurements will be made for standard compacted trench backfill and flowable fill backfill. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

REMOVE AND ABATE EXIST. 8" AC WATER LINE.....LF

REMOVE AND ABATE EXIST. 8" AC WATER LINE – FLOWABLE FILL BACKFILL.....LF

SP-136: DEMO - CONCRETE POLE BASES / FOOTINGS

1.0 DESCRIPTION

Work associated with this line item shall consist of the demolition of existing pole bases for light poles being replaced along Union Street, including any associated ground rods.

2.0 MEASUREMENT

Measurement shall be made based upon the actual number of pole bases demolished.

3.0 PAYMENT

DEMOLISHED LIGHT POLE BASES EA

SP-137: DEMO - EXISTING CIRCUITS, HANDHOLES, ELECTRICAL APPLIANCES AND CONCRETE ENCASED DUCTBANKS

1.0 DESCRIPTION

Work associated with this line item shall consist of the demolition of all electrical circuits and electrical appliances located on Union Street and Barbrick Avenue as shown on the drawings. This shall include demolition of existing feeder and branch circuits including wiring, conduit, and ductbanks; demolition of existing electrical handholes; demolition of existing wiring appliances, and tree lighting circuits, etc.

2.0 MEASUREMENT

There will be no separate measurement made for demolition of existing circuits, handholes, and electrical appliances.

3.0 PAYMENT

DEMOLISHED CIRCUITS, HANDHOLES AND ELECTRICAL APPLIANCES LS

SP-138: INSTALLATION OF LIGHT POLES, TYPE A

1.0 DESCRIPTION

Work associated with this line item shall include all labor required for the installation of Type 'A' light poles (light poles provided by others). This scope shall include installation only and shall not include connecting power and communication circuits.

2.0 MEASUREMENT

Measurement shall be made based upon the actual number of Type A light poles installed.

3.0 PAYMENT

TYPE A LIGHT POLE INSTALLATION EA

SP-139: INSTALLATION OF LIGHT POLES, TYPE B

1.0 DESCRIPTION

Work associated with this line item shall include all labor required for the installation of Type 'B' light poles (light poles provided by others). This scope shall include installation only and shall not include connecting power and communication circuits.

2.0 MEASUREMENT

Measurement shall be made based upon the actual number of Type B light poles installed.

3.0 PAYMENT

TYPE B LIGHT POLE INSTALLATION EA

SP-140: WIRING DEVICES AND APPLIANCES

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of all wiring devices including vendor receptacles, tree lighting receptacles, special outlets, up-light fixtures, and heat tracing shown on plans, including all appurtenances required for complete installation.

2.0 MEASUREMENT

There will be no separate measurement made for this line item.

3.0 PAYMENT

WIRING DEVICES INSTALLATION LS

SP-141: LIGHTED BOLLARDS

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of lighted bollards, including all appurtenances required for complete installation.

2.0 MEASUREMENT

Measurement shall be made based upon the actual number of Lighted Bollards installed.

3.0 PAYMENT

LIGHTED BOLLARD INSTALLATION EA

SP-142: EXOTHERMIC WELD

1.0 DESCRIPTION

Work associated with this line item shall include the exothermic weld connections of all grounding electrode conductors to all grounding electrodes including all listed appurtenances and components required.

2.0 MEASUREMENT

Measurement shall be made based upon the actual number of ground rods welded to grounding electrode conductors.

3.0 PAYMENT

WELDED GROUND RODS EA

SP-143: INTELLIGENT LIGHTING PANELS

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of intelligent lighting panels including service feeder conductors and conduit from the utility transformer or meter base to the panel. This scope shall also include all branch circuit breakers and all appurtenances required for the installation and operation of the panel. This scope shall also include the procurement and installation of surge protective devices (SPD) for each panel.

2.0 MEASUREMENT

Measurement shall be made based upon the actual number of Intelligent Lighting Panels installed.

3.0 PAYMENT

INTELLIGENT LIGHTING PANELS EA

SP-144: NO. 12 AWG COPPER WIRING

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation in conduit of all No. 12 AWG copper wire for designated branch circuits as shown on plans. This shall include all required terminations at electrical components for a complete and working electrical circuit.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

NO. 12 AWG WIRE INSTALLATION LF

SP-145: NO. 10 AWG COPPER WIRING

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation in conduit of all No. 10 AWG copper wire for designated branch circuits as shown on plans. This shall include all required terminations at electrical components for a complete and working electrical circuit.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

NO.10 AWG WIRE INSTALLATION LF

SP-146: NO. 8 AWG COPPER WIRING

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation in conduit of all No. 8 AWG copper wire for designated branch circuits as shown on plans. This shall include all required terminations at electrical components for a complete and working electrical circuit.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

NO. 8 AWG WIRE INSTALLATION LF

SP-147: NO. 6 AWG COPPER WIRING

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation in conduit of all No. 6 AWG copper wire for designated branch circuits as shown on plans. This shall include all required terminations at electrical components for a complete and working electrical circuit.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

NO. 6 AWG WIRE INSTALLATION LF

SP-148: RGS CONDUIT 1" TRADE SIZE

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of 1" RGS conduit as shown on the plans. This shall include all conduit fixtures, supports, and appliances required for the installation of conduit per plans and specifications. This shall include nylon pull cable in all installed conduit.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

RGS CONDUIT 1" INSTALLATION LF

SP-149: PVC SCHEDULE 40 CONDUIT 1" TRADE SIZE

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of 1” PVC Schedule 40 conduit as shown on the plans. This shall include all conduit fixtures, supports, and appliances required for the installation of conduit per plans and specifications. This shall include nylon pull cable in all installed conduit.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

PVC SCHEDULE 40 1” INSTALLATION LF

SP-150: PVC SCHEDULE 40 CONDUIT 2” TRADE SIZE

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of 2” PVC Schedule 40 conduit as shown on the plans. This shall include all conduit fixtures, supports, and appliances required for the installation of conduit per plans and specifications. This shall include nylon pull cable in all installed conduit.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

PVC SCHEDULE 40 2” INSTALLATION LF

SP-151: PVC SCHEDULE 40 CONDUIT 4” TRADE SIZE

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of 4” PVC Schedule 40 conduit as shown on the plans. This shall include all conduit fixtures, supports, and appliances required for the installation of conduit per plans and specifications. This shall include nylon pull cable in all installed conduit.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

PVC SCHEDULE 40 4” INSTALLATION LF

SP-152: TRENCHING

1.0 DESCRIPTION

Work associated with this line item shall include all required trenching for the installation of ductbanks including ductbanks located beneath sidewalks and ductbanks located within roadways. This scope of work shall also include the procurement of all required equipment and the backfill of all trenches. Trenching including but not limited to suitable compacted backfill (earth or washed screenings) and base as applicable.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

ELECTRICAL TRENCHING LF

SP-153: ANNOUNCEMENT KIOSK

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of the announcement kiosk together with all required supports, anchors, and appurtenances required for complete installation.

2.0 MEASUREMENT

Measurement shall be made based upon the complete installation of the Announcement Kiosk.

3.0 PAYMENT

ANNOUNCEMENT KIOSK INSTALLATION EA

SP-154: LIGHT POLE BASES / FOOTINGS

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of all light pole footings, including but not limited to concrete, rebar, and all appurtenances required for complete installation.

2.0 MEASUREMENT

Measurement shall be made based upon the actual number of light pole bases installed.

3.0 PAYMENT

LIGHT POLE BASE INSTALLATION EA

SP-155: GROUND RODS

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of grounding electrode rods for service entrance grounding, light pole grounding, and grounding of manholes, including all appurtenances and equipment required for complete installation.

2.0 MEASUREMENT

Measurement shall be made based upon the actual number of ground rods installed.

3.0 PAYMENT

GROUND ROD INSTALLATION EA

SP-156: ELECTRICAL HAND HOLES

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of all electrical hand holes as shown on plans, including all appurtenances required for complete installation.

2.0 MEASUREMENT

Measurement shall be made based upon the actual number of hand holes installed.

3.0 PAYMENT

HAND HOLE INSTALLATION EA

SP-157: COMMUNICATION MANHOLES

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of communication manholes as shown on the plans, including all appurtenances required for complete installation.

2.0 MEASUREMENT

Measurement shall be made based upon the actual number of manholes installed.

3.0 PAYMENT

MANHOLE INSTALLATION EA

SP-158: FIBEROPTIC CABLE

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of all fiberoptic cable in conduit, including termination, and including all appurtenances and appliances required for complete installation.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

FIBEROPTIC CABLE INSTALLATION LF

SP-159: SERVICE PANEL ENCLOSURE AND CONCRETE PAD

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of the NEMA rated enclosure for housing service entrance panel LP-A, concrete housekeeping pad and all appurtenances required for complete installation.

2.0 MEASUREMENT

Measurement shall be made based upon the complete installation of Service Panel Enclosure.

3.0 PAYMENT

SERVICE PANEL ENCLOSURE INSTALLATION EA

SP-160: GROUNDING ELECTRODE CONDUCTORS

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of all grounding electrode conductors or jumpers for grounding of the service entrance, light poles, and manholes, including all appurtenances required for complete installation.

2.0 MEASUREMENT

There will be no separate measurement made for this line item.

3.0 PAYMENT

GROUNDING ELECTRODE CONDUCTORS INSTALLATION LS

SP-161: PANELBOARD LP-B2

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of panel LP-B2, including all appurtenances required for complete installation. Also included are all integral circuit breakers and electrical components as well as the connection of all branch or feeder circuits within the panel.

2.0 MEASUREMENT

Measurement shall be made based upon the complete installation of Panel LP-B2.

3.0 PAYMENT

PANEL LP-B2 INSTALLATION EA

SP-162: TEMPORARY LIGHTING

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and operation of temporary lighting fixtures for use on Union Street. This scope shall also include the cost of generators and fuel, when necessary, for the recharging of battery stations. This scope shall also include the relocation of said lighting fixtures when required to meet the temporary lighting needs of the city whenever permanent light fixtures along Union Street are out of service. This scope covers temporary lighting requirements for the duration of the project. The scope of work in this line item shall be considered complete when temporary lighting is no longer required as agreed upon by the owner and engineer.

2.0 MEASUREMENT

There will be no separate measurement made for this line item.

3.0 PAYMENT

TEMPORARY LIGHTING LS

SP-163: CONCRETE DUCT BANK ENCASEMENT

1.0 DESCRIPTION

Work associated with this line item shall include the procurement and installation of concrete encasement for electrical duct banks, including concrete and rebar and all other necessary items for complete concrete ductbank installation.

2.0 MEASUREMENT

Measurement shall be made along the top surface.

3.0 PAYMENT

CONCRETE DUCT BANK ENCASEMENT LF

SP-164: DISCONNECT AND PLUG EXIST. SEWER SERVICE

1.0 DESCRIPTION

Work associated with this line item shall consist of disconnecting, plugging and abandoning existing sewer service lines along Union Street between Killarney Avenue and Cabarrus Avenue according to Water and Sewer Authority of Cabarrus County Standard Specifications dated August 2006. The unit price bid shall include but is not limited to location of existing utilities, excavation, disconnection of existing sewer service, plugging the sewer service upstream and downstream of the disconnection, backfill, cleanup, and all related construction to complete the work as specified.

2.0 MEASUREMENT

Measurement shall be made at the unit bid price per each existing sewer service disconnected and plugged. Quantities shall be verified in the field by the Owner or the Engineer.

3.0 PAYMENT

DISCONNECT AND PLUG EXIST. SEWER SERVICE.....EA

SP-165: PLUMBING PERMIT/FEE

1.0 DESCRIPTION

The Contractor shall be responsible for complying with the current plumbing requirements associated with re-establishing the water service connection and obtaining all necessary plumbing permits, in accordance with the most current version of the North Carolina Plumbing Code and Cabarrus County Building Code. The plumbing requirements shall include, but not be limited to, the materials, equipment, labor, and workmanship associated with the installation of any required appurtenances on the private property owner's plumbing to re-establish service, in accordance with the most current version of the North Carolina Plumbing Code, and associated permitting fees.

2.0 MEASUREMENT

Plumbing Permit/Fee will be measured and paid in units of each permit acquired. The Contractor shall procure permits such that each permit applies to temporary and permanent work related to each service connection.

3.0 PAYMENT

PLUMBING PERMIT/FEE EA

SP-166: BRICK DOUBLE CURB INLET

1.0 DESCRIPTION

The Contractor shall be responsible for constructing brick double curb inlet per the details.

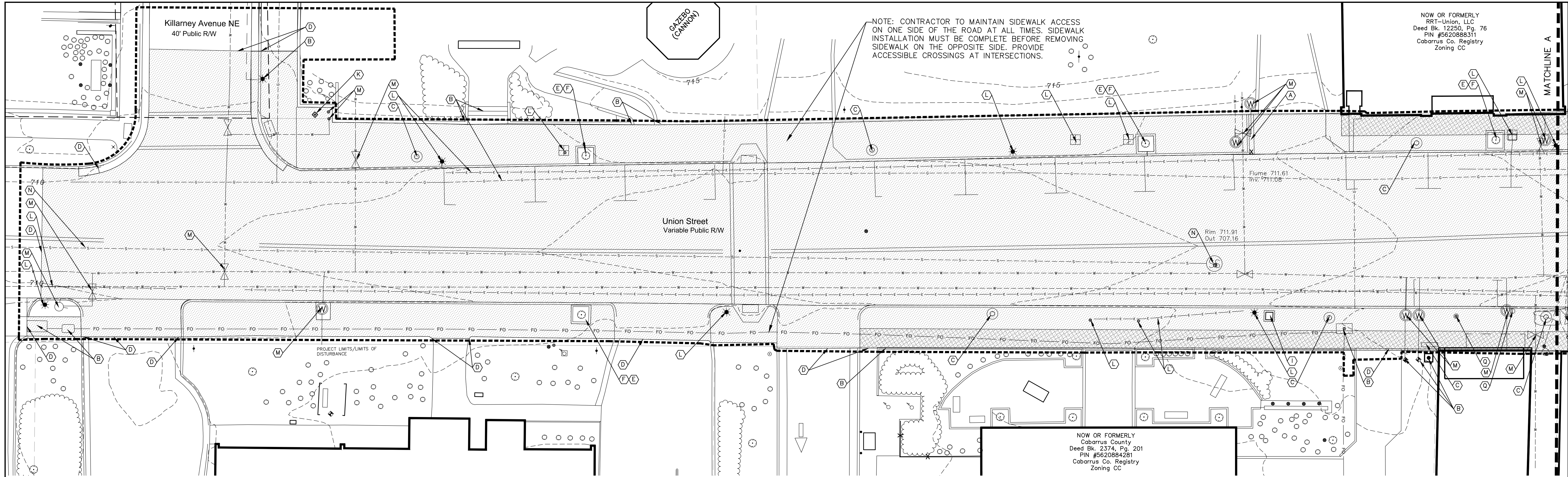
2.0 MEASUREMENT

Measurement shall be made based of the actual number of curb inlets installed and accepted.

3.0 PAYMENT

BRICK DOUBLE CURB INLET EA

END OF SECTION



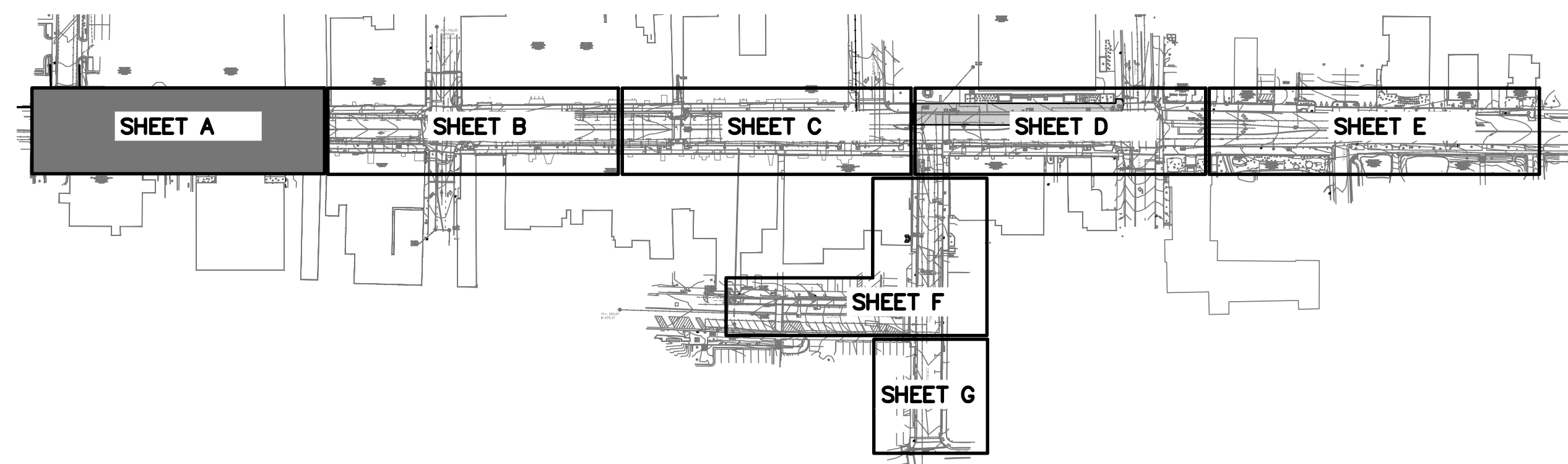
GENERAL NOTES:

1. ALL EXISTING CONDITIONS AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM NORSTAR LAND SURVEYING, INC. DATED MAY 2, 2019.
2. ALL UTILITIES OR STRUCTURES NOT DESIGNATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN. ALL STRUCTURES/UTILITIES TO REMAIN OR FOR MODIFICATION SHALL BE PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION AND REMAIN IN WORKING ORDER.
3. ALL DEMOLITION WORK SHALL BE PERFORMED WITH "DUE CARE AND DILIGENCE" SO AS TO PREVENT THE ARBITRARY DESTRUCTION OR INTERRUPTION OF CONCEALED UTILITIES WHICH ARE INTENDED TO REMAIN IN USE AND THE ROUTING OF WHICH COULD NOT BE DETERMINED UNTIL DEMOLITION WAS STARTED. ALL SUCH DISCOVERIES OF UTILITIES DURING THE DEMOLITION PROCESS WHICH ARE IN A LOCATION DIFFERENT FROM THAT INDICATED, OR ARE UNIDENTIFIED, SHALL BE REPORTED TO THE ENGINEER BEFORE REMOVAL.
4. ANY EXISTING ASPHALT, DESIGNATED TO REMAIN THAT IS DAMAGED DURING DEMOLITION AND CONSTRUCTION SHALL BE REPAIRED AT NO COST TO THE OWNER.
5. ANY NOTE OR REFERENCE TO AN ELEMENT, WHICH DOES NOT SPECIFY ACTION BY THE CONTRACTOR SHALL BE CONSTRUED AS INFORMATION ONLY.
6. THE GENERAL CONTRACTOR IS TO CONTACT AND COORDINATE WITH ALL APPROPRIATE PUBLIC AND PRIVATE UTILITY COMPANIES PRIOR TO ANY DEMOLITION OR RELOCATION OF EXISTING UTILITIES. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL UTILITIES HAVE BEEN PROPERLY CAPPED OFF OR RELOCATED.
7. PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC, AND ALL THE OWNER'S FACILITIES FROM DAMAGE. THE CONTRACTOR SHALL REPAIR ANY DAMAGE IMMEDIATELY AND SHALL MAKE REPAIRS AT THE CONTRACTOR'S EXPENSE.
8. CONTRACTOR SHALL HOLD HARMLESS THE OWNER FOR DAMAGES OR OTHER ACCIDENTS WHICH OCCUR DURING THESE CONSTRUCTION ACTIVITIES.
9. TREES AND LANDSCAPING NOT DESIGNATED FOR REMOVAL SHALL BE PROTECTED DURING CONSTRUCTION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF ALL ILLUSTRATED CONSTRUCTION ACTIVITIES AT THE JOB SITE.
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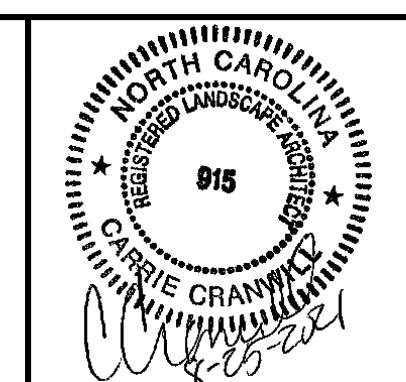
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mcgill
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Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com



NO.	DATE	BY	DESCRIPTION
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE: 0 5 10 20
DIVISION VALUE = 10 FEET

OFFICE MANAGER: D.G. CHAPMAN
DESIGNER: C.L. CRANWILL
PROJECT MANAGER: M.J. NORRIS
REVIEWER: B. ROARK

DEMOLITION PLAN - A

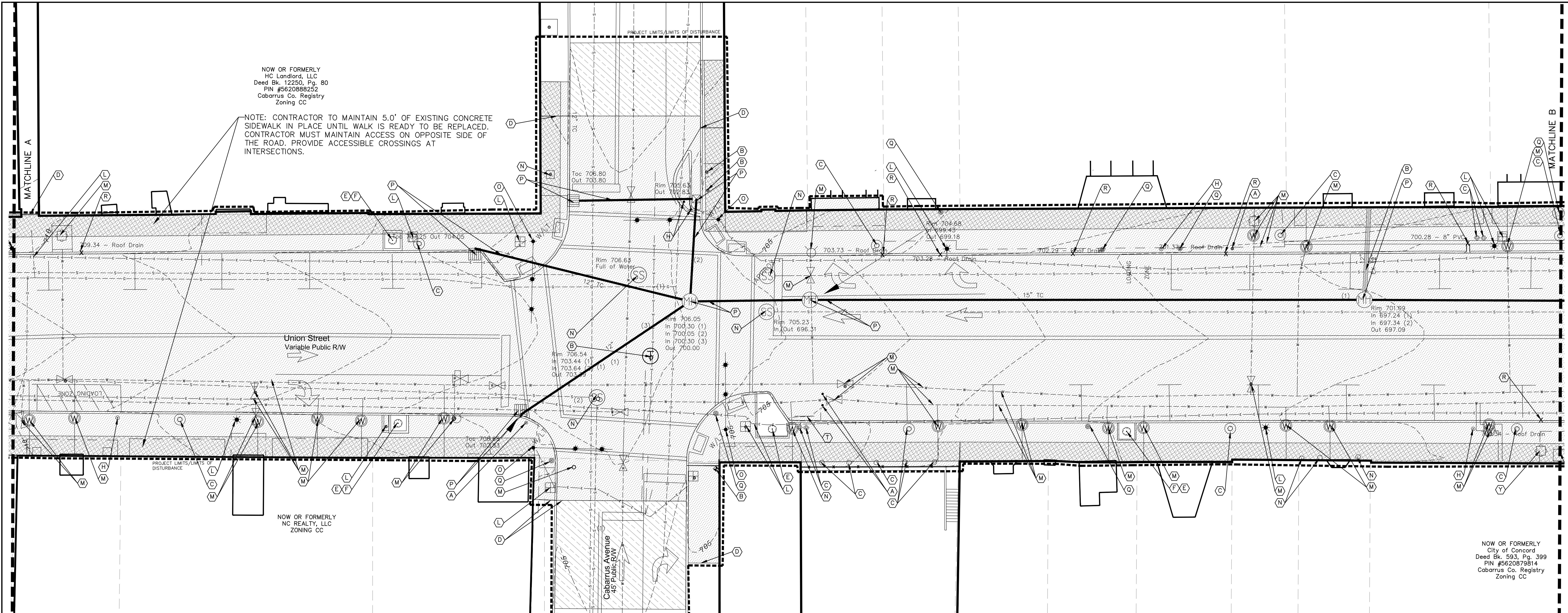
DATE: JULY 2021
PROJECT #: 19.01726
FUNDING #: N/A

SHEET
CD-101

P:\2019\19.01726-CONCORD\CONCORD\UNION STREET\SCAPE PROJECT\DRAWINGS\19.01726 UNION BASE DWG 19.01726 DATE 8/25/2021 2:37 PM\MJN\ETS.DWG

NOW OR FORMERLY
 HC Landlord, LLC
 Deed Bk. 12250, Pg. 80
 PIN #562088252
 Cabarrus Co. Registry
 Zoning CC

NOTE: CONTRACTOR TO MAINTAIN 5.0' OF EXISTING CONCRETE SIDEWALK IN PLACE UNTIL WALK IS READY TO BE REPLACED. CONTRACTOR MUST MAINTAIN ACCESS ON OPPOSITE SIDE OF THE ROAD. PROVIDE ACCESSIBLE CROSSINGS AT INTERSECTIONS.



NOW OR FORMERLY
 NC REALTY, LLC
 ZONING CC

NOW OR FORMERLY
 City of Concord
 Deed Bk. 593, Pg. 399
 PIN #5620879814
 Cabarrus Co. Registry
 Zoning CC

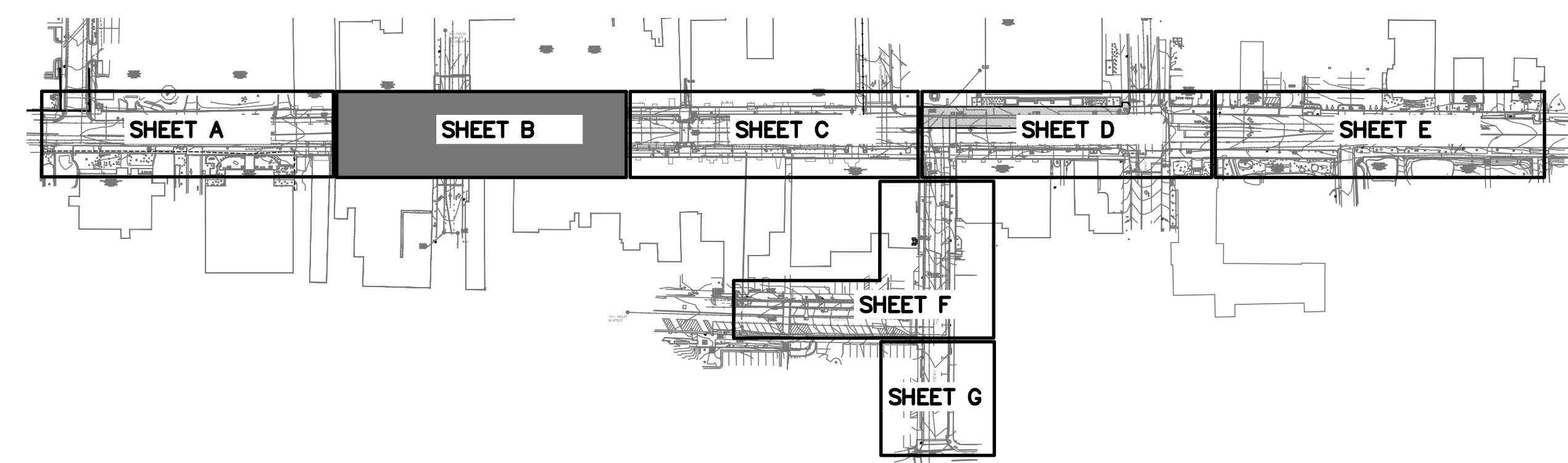
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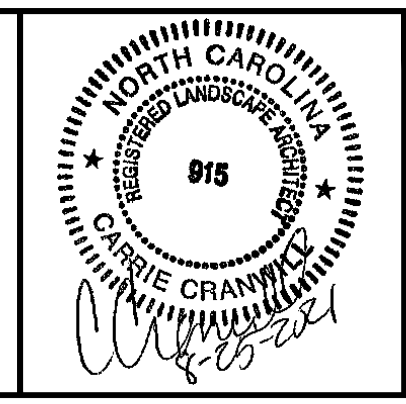
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NO.	DATE	BY	DESCRIPTION
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
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 CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE DIVISION VALUE = 10 FEET

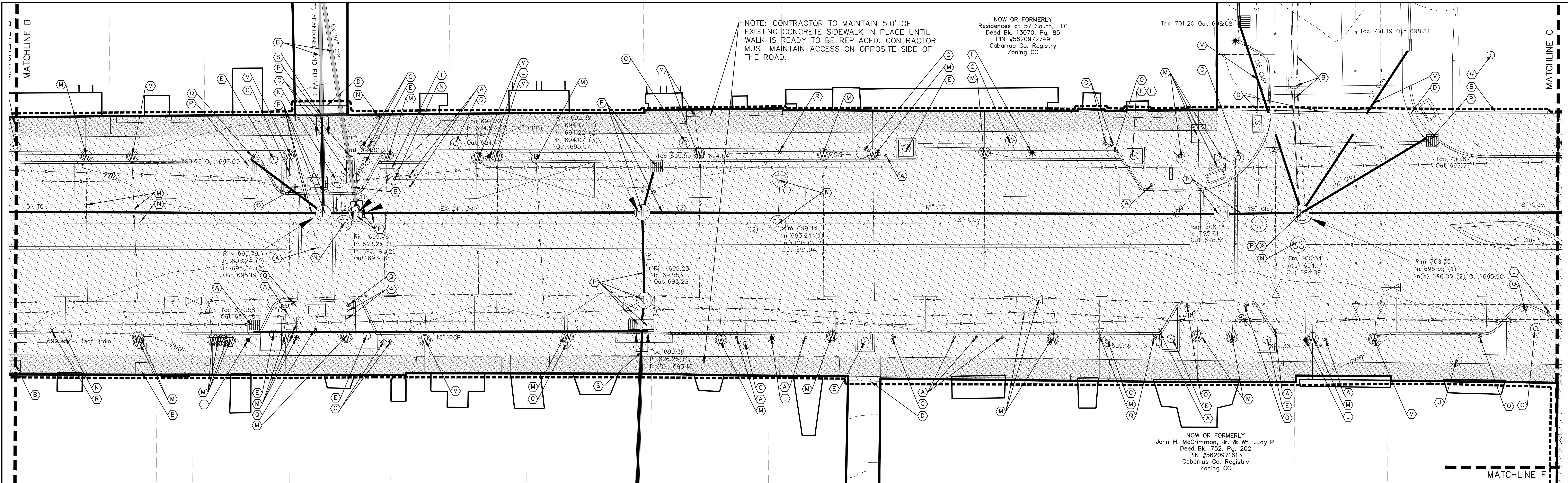
OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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SHEET
CD-102

P:\2019\190726-CONCORD\UNION STREET\SCAPE PROJECT\DRAWINGS\1901726-UNION ST\BASE DWG 19.01726-UNION ST.DWG DATE 8/25/2021 2:30 PM RW:RMTS:DJR:BAT

1901726 CITY OF CONCORD UNION STREET IMPROVEMENTS



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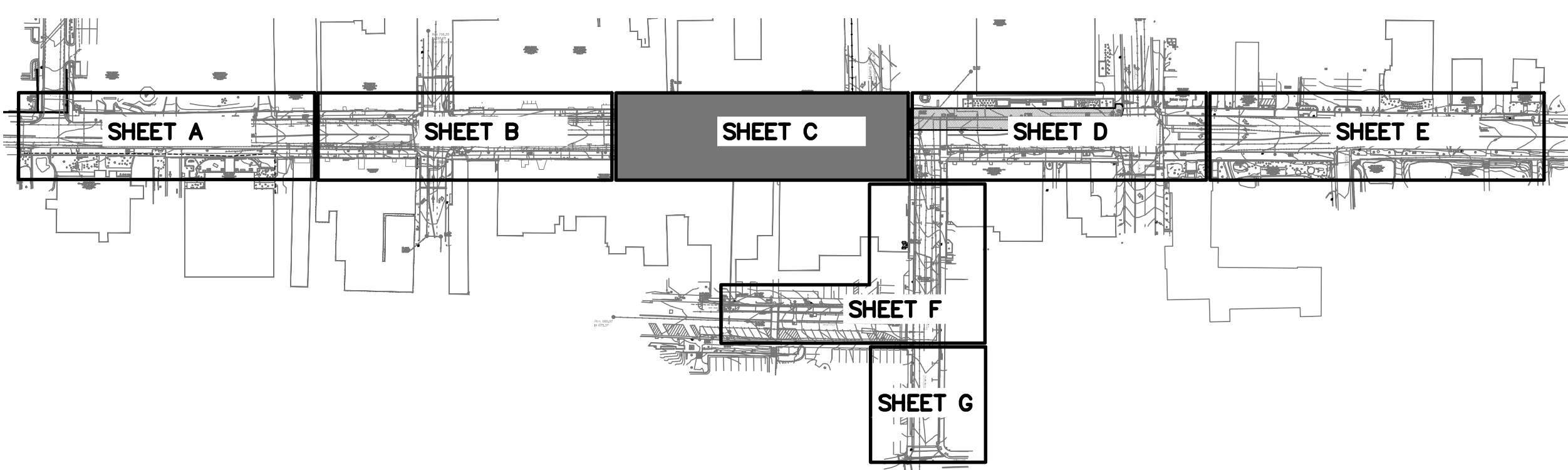
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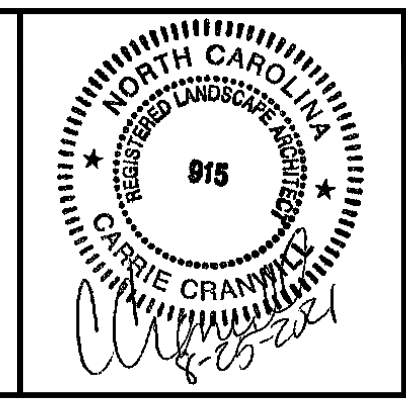
NOTE: CONTRACTOR TO MAINTAIN 5.0' OF EXISTING CONCRETE SIDEWALK IN PLACE UNTIL WALK IS READY TO BE REPLACED. CONTRACTOR MUST MAINTAIN ACCESS ON OPPOSITE SIDE OF THE ROAD.

NOW OR FORMERLY
Residences of 57 South, LLC
Deed Bk. 13070, Pg. 85
PIN #5620972749
Cabarrus Co. Registry
Zoning CC

NOW OR FORMERLY
John H. McCrimmon, Jr. & Wf. Judy P.
Deed Bk. 752, Pg. 202
PIN #5520971613
Cabarrus Co. Registry
Zoning CC



1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com



NO.	DATE	BY	DESCRIPTION
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE: 1" = 10 FEET
DIVISION VALUE = 10 FEET

OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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SHEET
CD-103

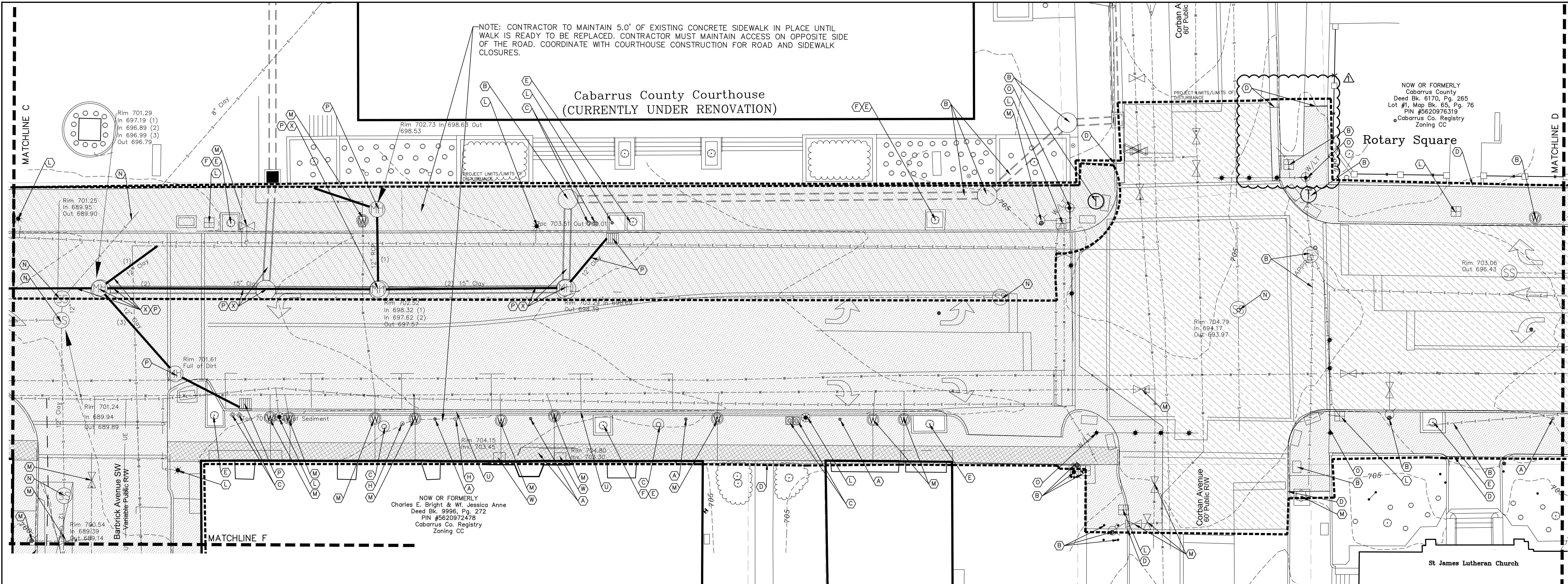
P:\2019\19.01726\CONCORD\CONCORD\UNION STREET\SCAPE PROJECT\DRAWINGS\19.01726\UNION BASE DWG 19.01726.DWG DATE 8/25/2021 2:36 PM RWB:ETS:SUBRANT

NOTE: CONTRACTOR TO MAINTAIN 5.0' OF EXISTING CONCRETE SIDEWALK IN PLACE UNTIL WALK IS READY TO BE REPLACED. CONTRACTOR MUST MAINTAIN ACCESS ON OPPOSITE SIDE OF THE ROAD. COORDINATE WITH COURTHOUSE CONSTRUCTION FOR ROAD AND SIDEWALK CLOSURES.

Cabarrus County Courthouse (CURRENTLY UNDER RENOVATION)

NOW OR FORMERLY
Cabarrus County
Deed Bk. 6170, Pg. 265
Lot #1, Map Bk. 65, Pg. 76
PIN #5620976319
Cabarrus Co. Registry
Zoning CC

Rotary Square



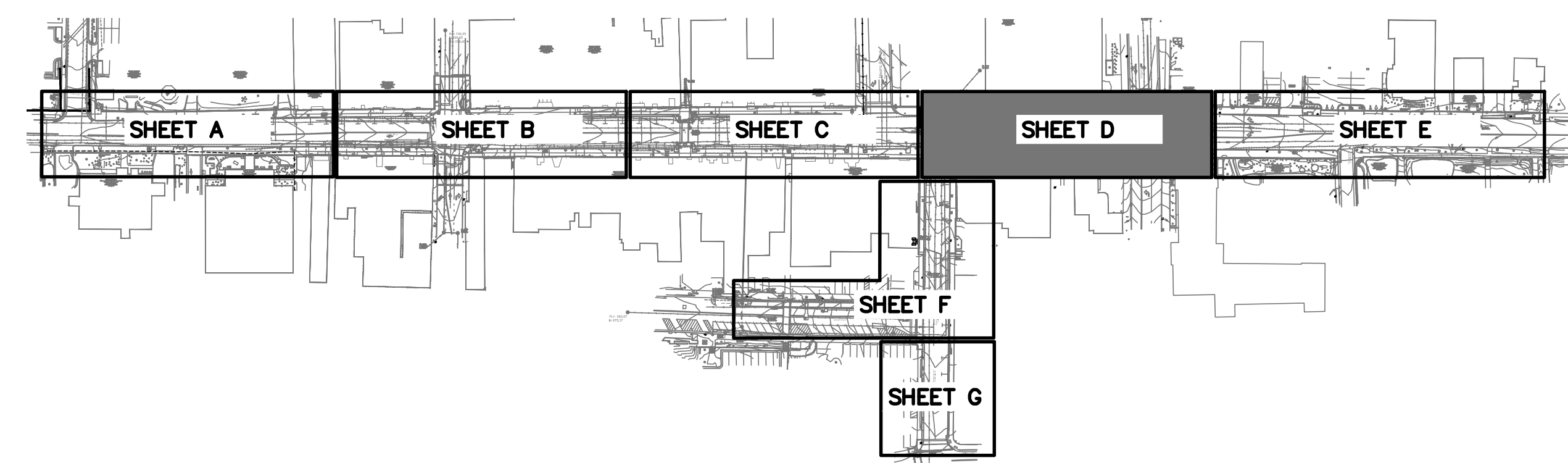
GENERAL NOTES:

- ALL EXISTING CONDITIONS AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM NORSTAR LAND SURVEYING, INC. DATED MAY 2, 2019.
- ALL UTILITIES OR STRUCTURES NOT DESIGNATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN. ALL STRUCTURES/UTILITIES TO REMAIN OR FOR MODIFICATION SHALL BE PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION AND REMAIN IN WORKING ORDER.
- ALL DEMOLITION WORK SHALL BE PERFORMED WITH "DUE CARE AND DILIGENCE" SO AS TO PREVENT THE ARBITRARY DESTRUCTION OR INTERRUPTION OF CONCEALED UTILITIES WHICH ARE INTENDED TO REMAIN IN USE AND THE ROUTING OF WHICH COULD NOT BE DETERMINED UNTIL DEMOLITION WAS STARTED. ALL SUCH DISCOVERIES OF UTILITIES DURING THE DEMOLITION PROCESS WHICH ARE IN A LOCATION DIFFERENT FROM THAT INDICATED, OR ARE UNIDENTIFIED, SHALL BE REPORTED TO THE ENGINEER BEFORE REMOVAL.
- ANY EXISTING ASPHALT, DESIGNATED TO REMAIN THAT IS DAMAGED DURING DEMOLITION AND CONSTRUCTION SHALL BE REPAIRED AT NO COST TO THE OWNER.
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- PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC, AND ALL THE OWNER'S FACILITIES FROM DAMAGE. THE CONTRACTOR SHALL REPAIR ANY DAMAGE IMMEDIATELY AND SHALL MAKE REPAIRS AT THE CONTRACTOR'S EXPENSE.
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- UNDER ABSOLUTELY NO CIRCUMSTANCES SHALL ANY UNMANNED EXCAVATION BE LEFT OPEN OR UNPROTECTED DURING NON-WORKING HOURS. UTILIZE SIGNS, BARRICADES, ETC. TO ENSURE THE SAFETY OF THE GENERAL PUBLIC.
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- NOTE LIMITS OF DISTURBANCE FOR STREETScape WORK AND UTILITY INSTALLATION VARY. SEE EACH SET OF PLAN SHEETS FOR LIMITS OF DISTURBANCE.
- ENSURE SMOOTH TRANSITION FROM PROPOSED SIDEWALK TO ALL STORE FRONTS.
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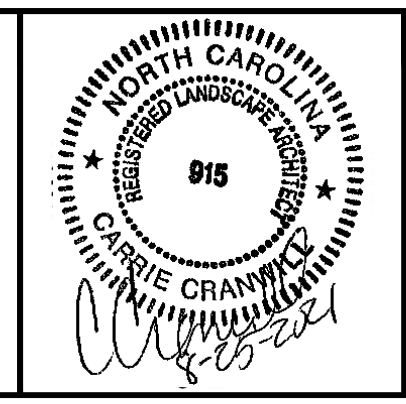
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- VARIABLE ASPHALT MILL, 1.5" TO 3"
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KEY NOTES:

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- CONTRACTOR TO FIELD VERIFY IF EXISTING STRUCTURE IS ACTIVE AND IN USE. IF IN USE PROTECT, IF NO LONGER IN USE REMOVE.
- EXISTING DRINKING FOUNTAIN TO BE SALVAGED AND RETURNED TO THE CITY. SEE SITE PLAN FOR PROPOSED DRINKING FOUNTAIN.
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- EXISTING WATERLINE, HYDRANTS, VALVES, METERS AND ASSOCIATED APPURTENANCES TO BE REMOVED/REPLACE/MODIFIED PER UTILITY PLANS. SEE UTILITY SHEETS C-301 TO C-306 FOR PROPOSED CHANGES.
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- EXISTING TRAFFIC SIGNALS TO BE REMOVED AND REPLACED PRIOR TO START OF PROJECT BY OTHERS, NOT IN CONTRACT. FIELD VERIFY LOCATION OF NEW SIGNALS PRIOR TO START OF CONSTRUCTION. SEE SITE PLAN.
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- EXISTING SANITARY SEWER CLEANOUTS TO BE REMOVED.
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828.328.2024
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NO.	DATE	BY	DESCRIPTION
1	8/20/2021	KCD	ADDENDUM #1
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

10 0 5 10 20
GRAPHIC SCALE DIVISION VALUE = 10 FEET

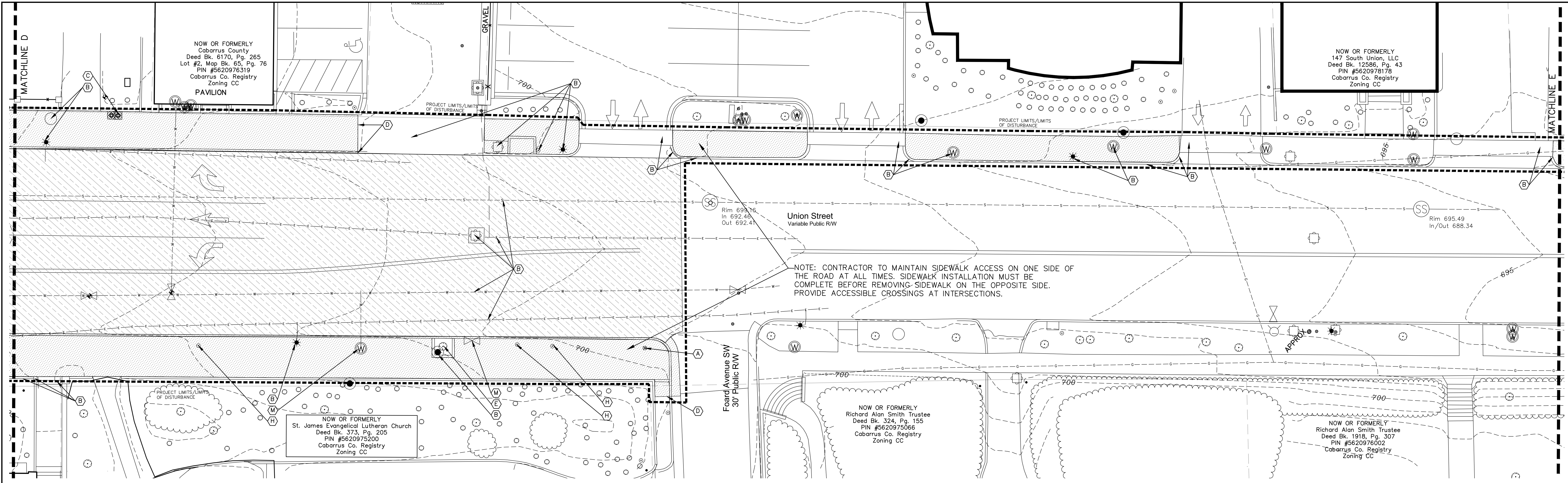
OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

DEMOLITION PLAN - D

DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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SHEET
CD-104

P:\2019\19.01726-CONCORD\CONCORD\UNION STREET IMPROVEMENTS\PROJECT DRAWINGS\19.01726 UNION BASE DWG 5-DT DATE 8/20/2021 2:40 PM RW:KJETS:SUBRANT



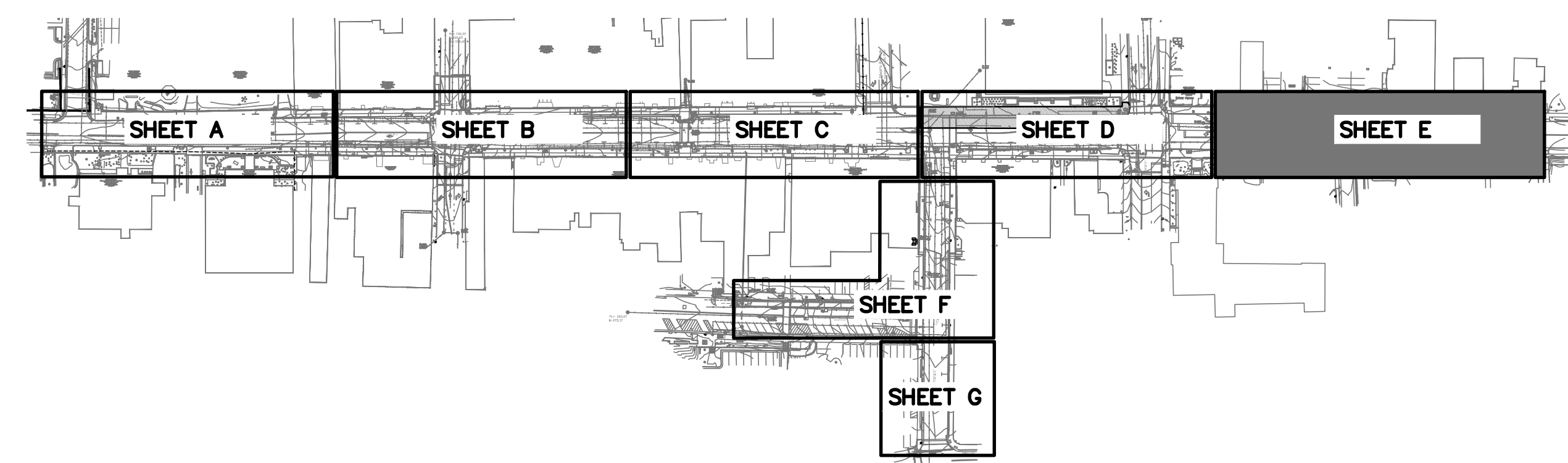
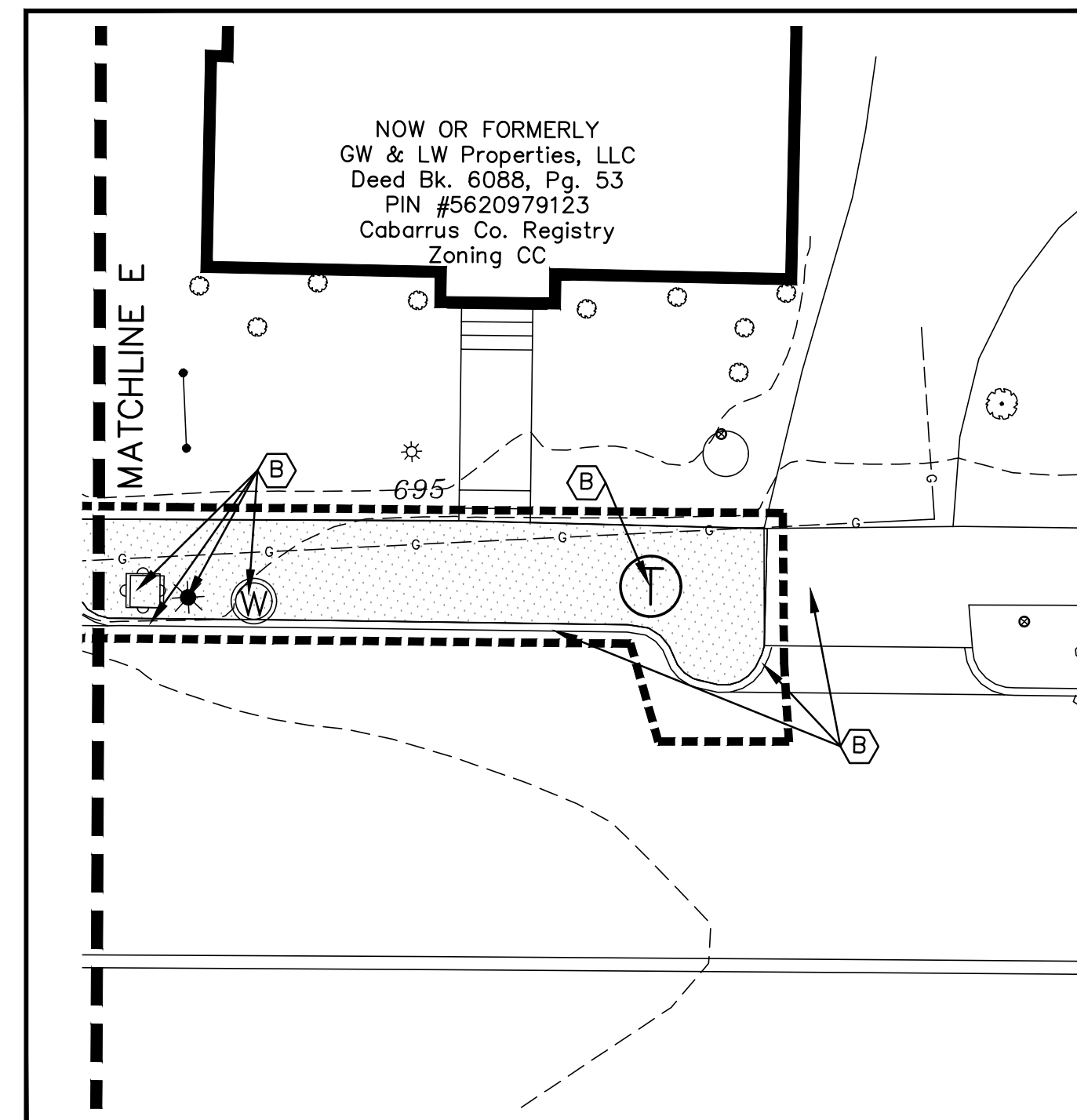
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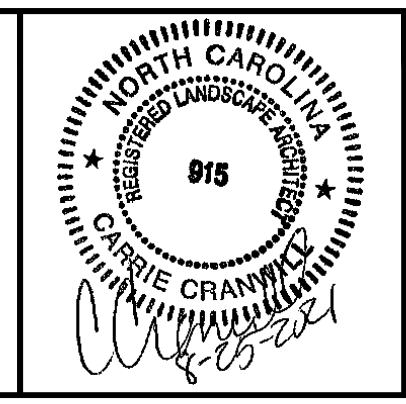
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KEY NOTES:

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mcgill
 1240 19th Street Lane NW
 Hickory, NC 28601
 828.328.2024
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NO.	DATE	BY	DESCRIPTION
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
 CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE: 1" = 10 FEET
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OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

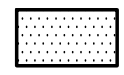



DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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SHEET
CD-105

P:\2019\19.01726\CONCORD\UNION STREET IMPROVEMENTS\19.01726 UNION BASE.DWG (PLOT DATE 8/25/2021 2:49 PM) MURKINS.DIBRANT

GENERAL NOTES:

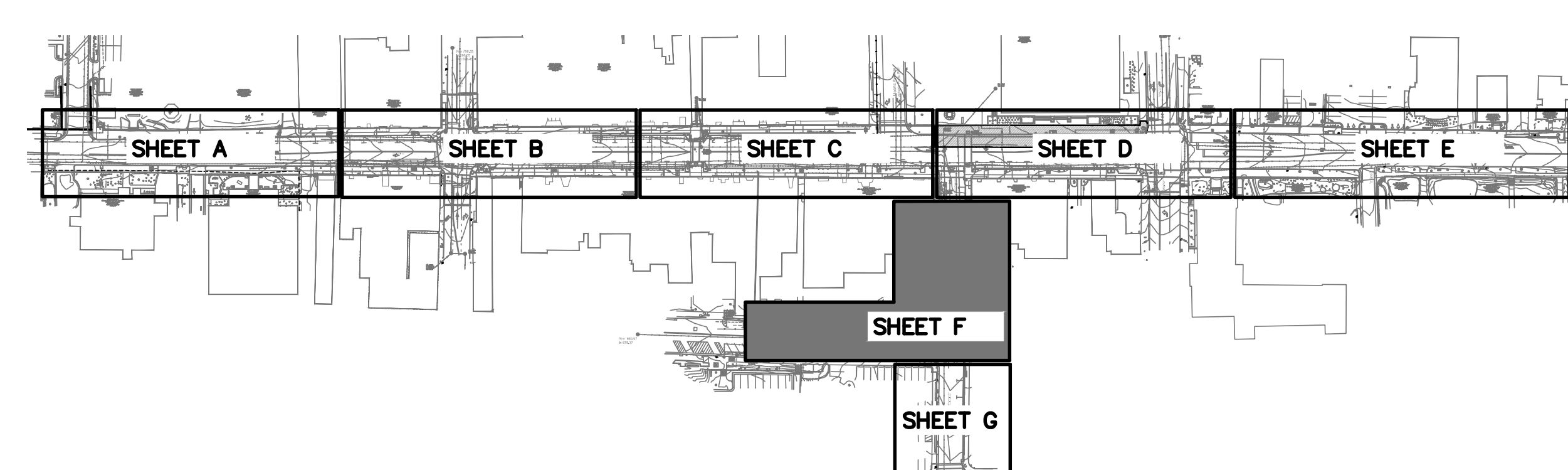
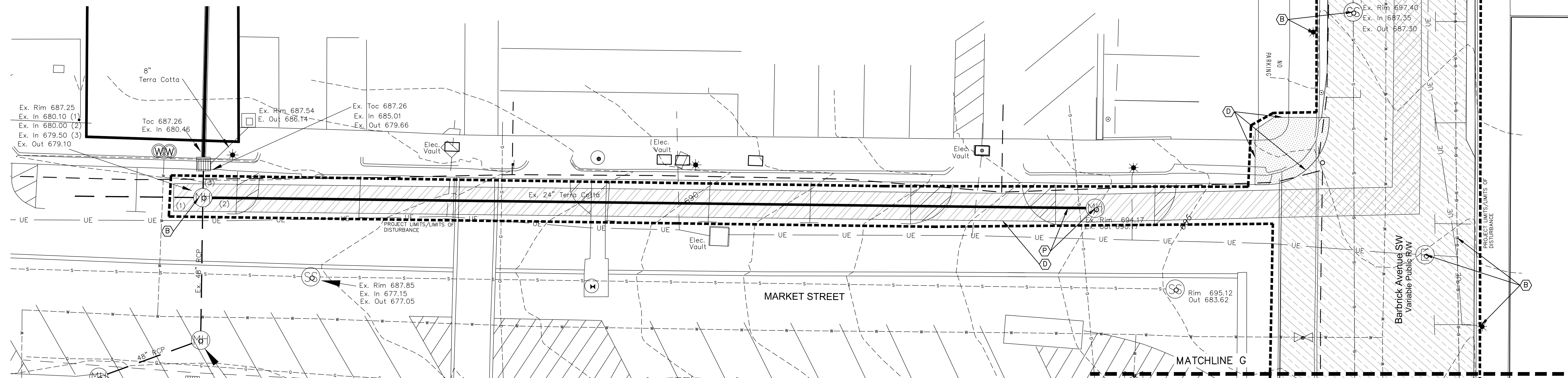
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- SALVAGED MATERIALS RELINQUISHED TO CITY OF CONCORD SHALL BE TRANSPORTED BY THE CONTRACTOR TO THE CITY'S OPERATION CENTER OR AS DIRECTED BY OWNER.
- CONTRACTOR TO PROVIDE SAFETY FENCING TO KEEP THE PUBLIC OUT OF ACTIVE CONSTRUCTION AREAS.

-  EXISTING ASPHALT, CONCRETE, AND CURB AND GUTTER TO BE DEMOLISHED AND REMOVED. EXISTING GRANITE CURB TO BE SALVAGED AND RETURNED TO THE CITY.
-  VARIABLE ASPHALT MILL, 1.5" TO 3"
-  CONTRACTOR TO LEAVE 5.0' OF EXISTING CONCRETE WALK IN PLACE UNTIL WALK IS READY TO BE REPLACED. AS WALK IS REMOVED CONTRACTOR MUST REPLACE EACH SECTION WITH A NON-SLIP ACCESSIBLE SURFACE FOR STORE ACCESS UNTIL NEW WALK IS INSTALLED.
-  STORMWATER AND UTILITY TRENCH ASPHALT REMOVAL

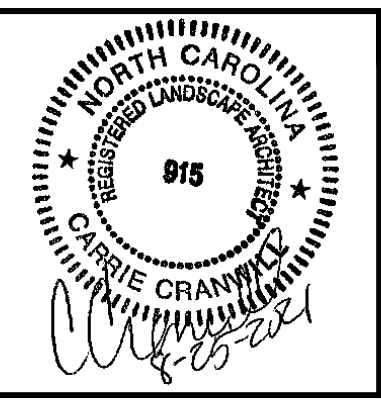
KEY NOTES:

- (A) EXISTING UTILITY/STRUCTURE TO BE REMOVED.
- (B) EXISTING UTILITY/STRUCTURE TO REMAIN AND BE PROTECTED.
- (C) EXISTING TRASH RECEPTACLES, BENCHES, AND PLANTERS TO BE REMOVED BY THE CITY. NOT IN CONTRACT.
- (D) SAWCUT EXISTING PAVEMENT, CONCRETE, SIDEWALK, AND CURB AND GUTTER TO PROVIDE A STRAIGHT AND UNIFORM EDGE.
- (E) EXISTING TREE TO BE REMOVED, INCLUDING STUMPS AND ROOTS.
- (F) EXISTING TREE GRATES TO BE SALVAGED AND RETURNED TO THE CITY.
- (G) EXISTING TREE TO REMAIN AND BE PROTECTED.
- (H) EXISTING TRAFFIC SIGNS TO BE SALVAGED AND RETURNED TO THE CITY.
- (I) EXISTING USPS/UPS/FEDEX BOX TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION. COORDINATE WITH CITY AND USPS FOR PROPOSED LOCATION.
- (J) CONTRACTOR TO FIELD VERIFY IF EXISTING STRUCTURE IS ACTIVE AND IN USE. IF IN USE PROTECT, IF NO LONGER IN USE REMOVE.
- (K) EXISTING DRINKING FOUNTAIN TO BE SALVAGED AND RETURNED TO THE CITY. SEE SITE PLAN FOR PROPOSED DRINKING FOUNTAIN.
- (L) EXISTING ELECTRICAL TO BE REMOVED, SALVAGED, MODIFIED, OR PROTECTED PER ELECTRICAL PLANS. SEE SHEETS E-001 TO E-601.
- (M) EXISTING WATERLINE, HYDRANTS, VALVES, METERS AND ASSOCIATED APPURTENANCES TO BE REMOVED/REPLACE/MODIFIED PER UTILITY PLANS. SEE UTILITY SHEETS C-301 TO C-306 FOR PROPOSED CHANGES.
- (N) EXISTING SANITARY SEWER TO BE REMOVED/REPLACED/MODIFIED PER UTILITY PLANS. SEE UTILITY SHEETS C-301 TO C-306 FOR PROPOSED CHANGES.
- (O) EXISTING TRAFFIC SIGNALS TO BE REMOVED AND REPLACED PRIOR TO START OF PROJECT BY OTHERS, NOT IN CONTRACT. FIELD VERIFY LOCATION OF NEW SIGNALS PRIOR TO START OF CONSTRUCTION. SEE SITE PLAN.
- (P) EXISTING STORMWATER STRUCTURE AND PIPING TO BE REMOVED. CONTRACTOR TO FIELD VERIFY IF THERE ARE ANY UNKNOWN DRAIN LINES CONNECTED TO EXISTING BOX TO BE REMOVED. IF STORM LINES EXIST ROUTE TO PROPOSED BOX, PRIOR TO REMOVAL OF EXISTING BOX. SEE GRADING PLAN FOR PROPOSED BOX LOCATIONS.
- (Q) EXISTING SANITARY SEWER CLEANOUTS TO BE REMOVED.
- (R) EXISTING ROOF DRAIN PIPING TO BE REMOVED TO 1.0' OUTSIDE FACE OF BUILDING AT TIME OF INSTALLATION OF PROPOSED DRAINAGE PIPES. SEE GRADING, DRAINAGE AND EROSION CONTROL SHEETS C-201 TO C-208.
- (S) EXISTING 24" STORMWATER PIPE TO BE PLUGGED WITH FLOWABLE FILL.
- (T) EXISTING BIKE RACK TO BE SALVAGED AND REFURBISHED BY THE CITY. CONTRACTOR TO REINSTALL. SEE SITE PLAN FOR PROPOSED LOCATION.
- (U) EXISTING HORSE HOOKS EMBEDDED IN CURB (TOTAL OF 2) ARE TO BE SALVAGED AND REINSTALLED. SEE SITE PLAN FOR PROPOSED LOCATION.
- (V) STORMWATER PIPE DEMOLITION TO BE COMPLETED BY OTHERS AS PART OF THE COURTHOUSE PROJECT, CONTRACTOR TO COORDINATE WITH COURTHOUSE PROJECT CONTRACTOR.
- (W) EXISTING GRATE TO BE REMOVED AND REPLACED WITH NEW GRATE TO MATCH EXISTING SIZE AND STYLE.
- (X) EXISTING STORMWATER PIPES AND BOXES INSTALLED/MODIFIED AS PART OF THE COURTHOUSE RENOVATION TO BE REMOVED/REPLACED AS PROPOSED STORMWATER PIPES/STRUCTURES ARE INSTALLED.
- (Y) EXISTING DRAINAGE STRUCTURE TO BE REMOVED FOR THE FIRST 5.0 FEET AND THE REMAINDER CAPPED FOR A MINIMUM OF 5' WITH FLOWABLE FILL AND ABANDONED IN PLACE. REMOVE STORM DRAIN TO EXISTING CURB INLET.

NOTE: CONTRACTOR TO MAINTAIN SIDEWALK ACCESS ON ONE SIDE OF THE ROAD AT ALL TIMES. SIDEWALK INSTALLATION MUST BE COMPLETE BEFORE REMOVING SIDEWALK ON THE OPPOSITE SIDE. PROVIDE ACCESSIBLE CROSSINGS AT INTERSECTIONS.



mcgill
 1240 19th Street Lane NW
 Hickory, NC 28601
 828.328.2024
 NC Firm License # C-0459
 mcgillassociates.com



NO.	DATE	BY	DESCRIPTION
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
 CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE DIVISION VALUE = 10 FEET

OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

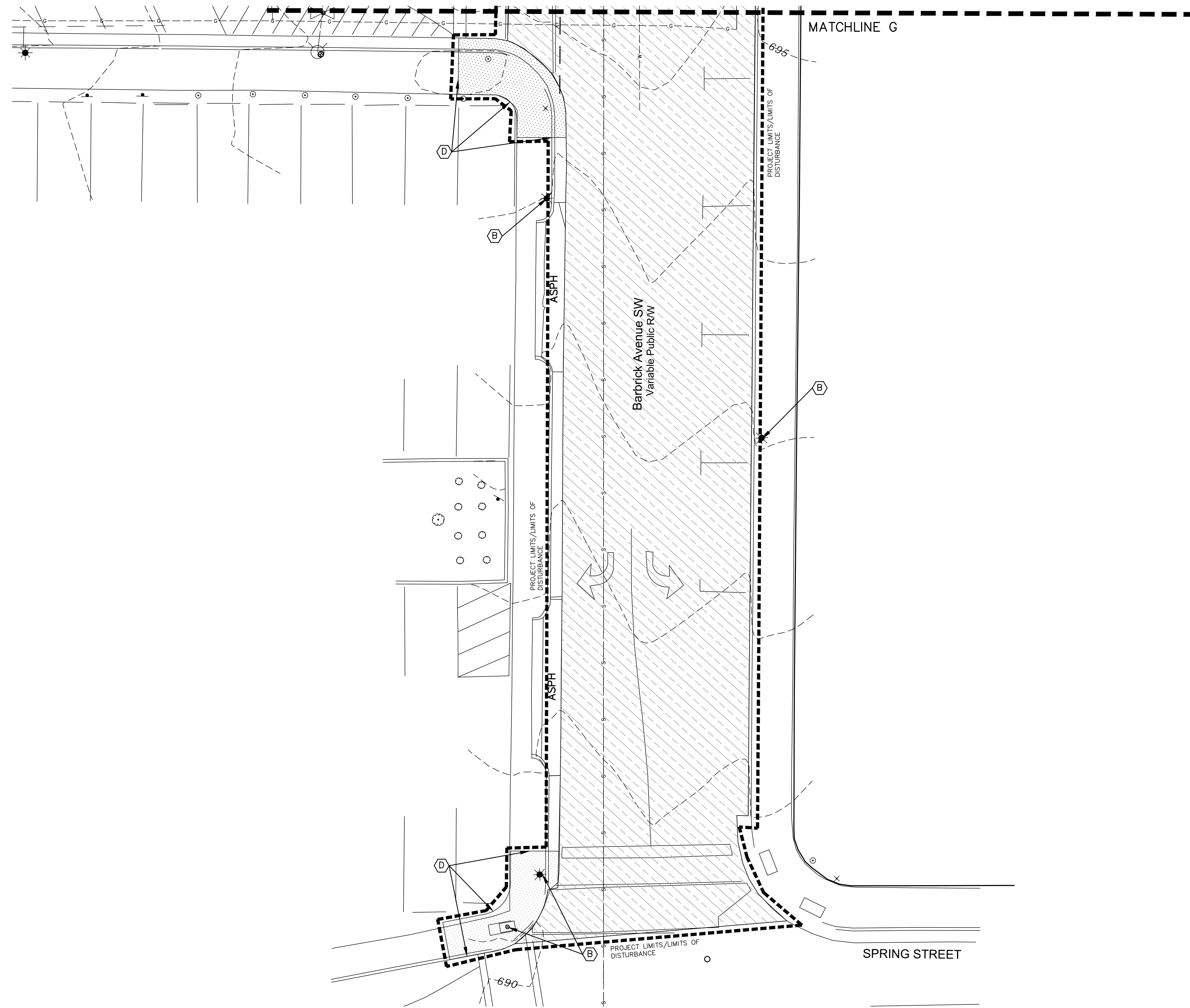
DEMOLITION PLAN - F

DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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SHEET
CD-106

P:\2019\19.01726\CONCORD\CONCORD\UNION STREET\SCAPE PROJECT\DRAWINGS\19.01726\UNION BASE DWG 01.DWG 01.DWG DATE 8/25/2021 2:46 PM USER IS DUBRANT

19.01726 CITY OF CONCORD UNION STREET IMPROVEMENTS



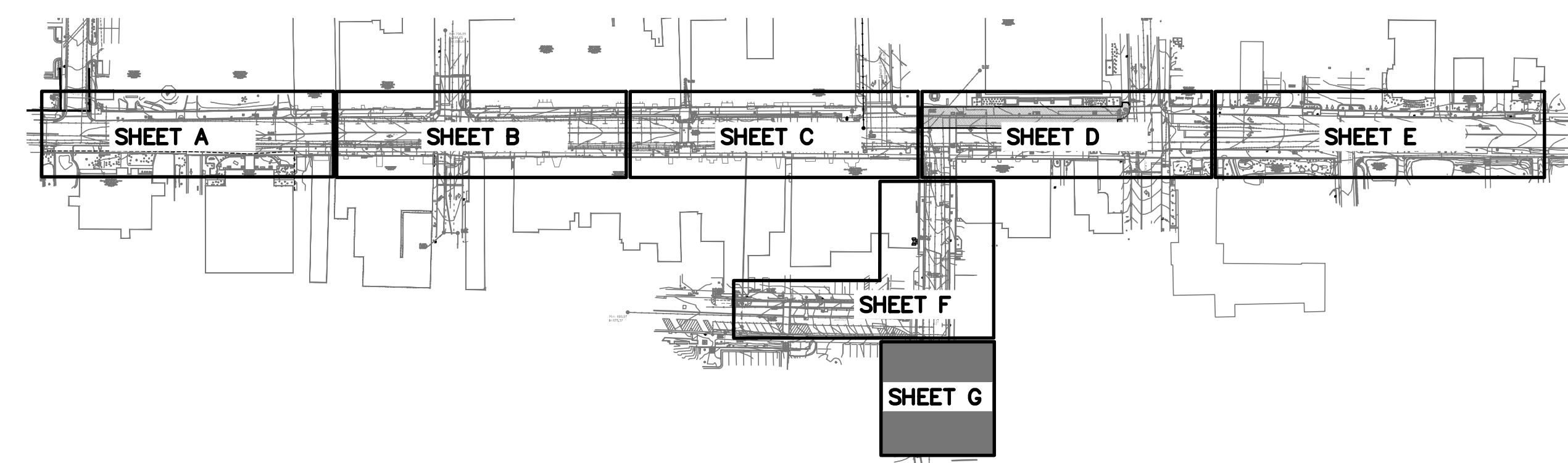
KEY NOTES:

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GENERAL NOTES:

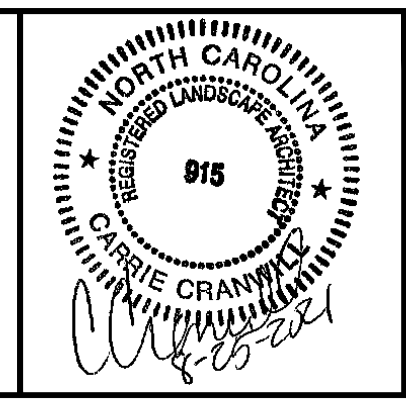
1. ALL EXISTING CONDITIONS AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM NORSTAR LAND SURVEYING, INC. DATED MAY 2, 2019.
2. ALL UTILITIES OR STRUCTURES NOT DESIGNATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN. ALL STRUCTURES/UTILITIES TO REMAIN OR FOR MODIFICATION SHALL BE PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION AND REMAIN IN WORKING ORDER.
3. ALL DEMOLITION WORK SHALL BE PERFORMED WITH "DUE CARE AND DILIGENCE" SO AS TO PREVENT THE ARBITRARY DESTRUCTION OR INTERRUPTION OF CONCEALED UTILITIES WHICH ARE INTENDED TO REMAIN IN USE AND THE ROUTING OF WHICH COULD NOT BE DETERMINED UNTIL DEMOLITION WAS STARTED. ALL SUCH DISCOVERIES OF UTILITIES DURING THE DEMOLITION PROCESS WHICH ARE IN A LOCATION DIFFERENT FROM THAT INDICATED, OR ARE UNIDENTIFIED, SHALL BE REPORTED TO THE ENGINEER BEFORE REMOVAL.
4. ANY EXISTING ASPHALT, DESIGNATED TO REMAIN THAT IS DAMAGED DURING DEMOLITION AND CONSTRUCTION SHALL BE REPAIRED AT NO COST TO THE OWNER.
5. ANY NOTE, OR REFERENCE TO AN ELEMENT, WHICH DOES NOT SPECIFY ACTION BY THE CONTRACTOR SHALL BE CONSTRUED AS INFORMATION ONLY.
6. THE GENERAL CONTRACTOR IS TO CONTACT AND COORDINATE WITH ALL APPROPRIATE PUBLIC AND PRIVATE UTILITY COMPANIES PRIOR TO ANY DEMOLITION OR RELOCATION OF EXISTING UTILITIES. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL UTILITIES HAVE BEEN PROPERLY CAPPED OFF OR RELOCATED.
7. PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC, AND ALL THE OWNER'S FACILITIES FROM DAMAGE. THE CONTRACTOR SHALL REPAIR ANY DAMAGE IMMEDIATELY AND SHALL MAKE REPAIRS AT THE CONTRACTOR'S EXPENSE.
8. CONTRACTOR SHALL HOLD HARMLESS THE OWNER FOR DAMAGES OR OTHER ACCIDENTS WHICH OCCUR DURING THESE CONSTRUCTION ACTIVITIES.
9. TREES AND LANDSCAPING NOT DESIGNATED FOR REMOVAL SHALL BE PROTECTED DURING CONSTRUCTION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF ALL ILLUSTRATED CONSTRUCTION ACTIVITIES AT THE JOB SITE.
11. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS GOVERNING THE CONSTRUCTION INDUSTRY, INCLUDING BUT NOT LIMITED TO THOSE PERTAINING TO TRAVELING OPERATIONS AND OSHA.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION/ADJUSTMENTS OF ALL EXISTING VAULTS (REGARDLESS OF FUNCTION), METER BOXES, FIRE HYDRANTS, CLEAN OUTS, MANHOLES, ETC. TO MATCH FINISHED GRADES AND SITE PLAN.
13. UNDER ABSOLUTELY NO CIRCUMSTANCES SHALL ANY UNMANNED EXCAVATION BE LEFT OPEN OR UNPROTECTED DURING NON-WORKING HOURS. UTILIZE SIGNS, BARRICADES, ETC. TO ENSURE THE SAFETY OF THE GENERAL PUBLIC.
14. UNDER NO CIRCUMSTANCES ARE ANY DECORATIVE TILES AT THE EXISTING STORE FRONTS TO BE DAMAGED DURING THE DEMOLITION OF EXISTING SIDEWALKS. ANY DAMAGE MUST BE REPAIRED IMMEDIATELY TO EXISTING OR BETTER CONDITION.
15. NOTE LIMITS OF DISTURBANCE FOR STREETSCAPE WORK AND UTILITY INSTALLATION VARY. SEE EACH SET OF PLAN SHEETS FOR LIMITS OF DISTURBANCE.
16. ENSURE SMOOTH TRANSITION FROM PROPOSED SIDEWALK TO ALL STORE FRONTS.
17. SALVAGED MATERIALS RELINQUISHED TO CITY OF CONCORD SHALL BE TRANSPORTED BY THE CONTRACTOR TO THE CITY'S OPERATION CENTER OR AS DIRECTED BY OWNER.
18. CONTRACTOR TO PROVIDE SAFETY FENCING TO KEEP THE PUBLIC OUT OF ACTIVE CONSTRUCTION AREAS.

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- VARIABLE ASPHALT MILL, 1.5" TO 3"
- CONTRACTOR TO LEAVE 5.0' OF EXISTING CONCRETE WALK IN PLACE UNTIL WALK IS READY TO BE REPLACED. AS WALK IS REMOVED CONTRACTOR MUST REPLACE EACH SECTION WITH A NON-SLIP ACCESSIBLE SURFACE FOR STORE ACCESS UNTIL NEW WALK IS INSTALLED.
- STORMWATER AND UTILITY TRENCH ASPHALT REMOVAL



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1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com



NO.	DATE	BY	DESCRIPTION
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE: 0 5 10 20
DIVISION VALUE = 10 FEET

OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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SHEET
CD-107

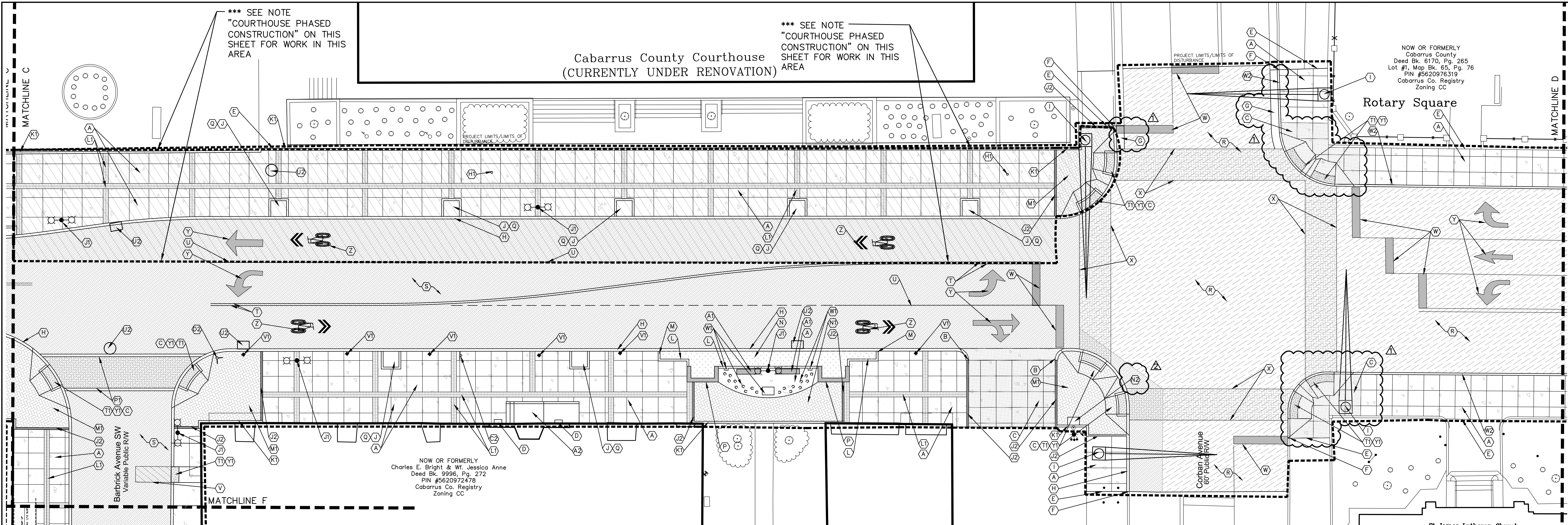
Cabarrus County Courthouse
(CURRENTLY UNDER RENOVATION)

*** SEE NOTE
"COURTHOUSE PHASED
CONSTRUCTION" ON THIS
SHEET FOR WORK IN THIS
AREA

*** SEE NOTE
"COURTHOUSE PHASED
CONSTRUCTION" ON THIS
SHEET FOR WORK IN THIS
AREA

NOW OR FORMERLY
Cabarrus County
Deed Bk. 6170, Pg. 265
Lot #1, Map Bk. 65, Pg. 76
PIN #5620976319
Cabarrus Co. Registry
Zoning CC

Rotary Square



KEY NOTES

- (A) 4" THICK CONCRETE SIDEWALK. SEE DETAIL SHEET C-501.
- (B) TAPER CURB FLUSH WITH WALK.
- (C) CONCRETE DRIVE APRON. GENERAL CONTRACTOR TO MATCH EXISTING ELEVATIONS AND ENSURE SMOOTH TRANSITION TO EXISTING DRIVES AND STREET. SEE CONCRETE SECTION DETAIL SHEET C-501.
- (D) METAL AIR VENT GRATES TO MATCH EXISTING. CONTRACTOR TO FIELD VERIFY DIMENSION OF EXISTING GRATES. PROVIDE ADA ACCESSIBLE GRATE.
- (E) MATCH EXISTING SURFACE WITH SMOOTH TRANSITION. USE ISOLATION JOINT AT INTERFACE OF EXISTING AND PROPOSED SIDEWALKS AND VERTICAL SURFACES.
- (F) TE PROPOSED CURB TO EXISTING CURB AND/OR CURB AND GUTTER WITH SMOOTH TRANSITION. USE CONSTRUCTION JOINT AT INTERFACE OF EXISTING AND PROPOSED. TAPER PROPOSED CURB AS NECESSARY TO MATCH EXISTING TOP OF CURB.
- (G) 30" CURB AND GUTTER. NOTE HEIGHT OF CURB VARIES. SEE GRADING PLAN. SEE DETAIL SHEET C-501.
- (H) 8" STAND UP CURB. SEE DETAIL SHEET C-501.
- (I) TRAFFIC SIGNAL INSTALLED BY OTHERS AFTER SURVEY WAS COMPLETED. CONTRACTOR TO FIELD VERIFY LOCATIONS AND NOTIFY ENGINEER/LANDSCAPE ARCHITECT IF LOCATIONS DIFFER FROM THOSE SHOWN ON PLANS. CONTRACTOR TO COORDINATE WITH CITY FOR INSTALLATION OF PEDESTRIAN HEADS TO BE INSTALLED DURING THE STREETScape CONSTRUCTION.
- (J) 4'x4' TREE GRATE AND FRAME WITH CONCRETE EDGE RESTRAINT. SEE DETAIL SHEET C-503.
- (K) EXISTING TREE TO BE PROTECTED.
- (L) 3" CONCRETE LANDSCAPE EDGE WITH DRAINAGE SLOTS. SEE DETAIL SHEET C-501.
- (M) TAPER LANDSCAPE EDGING FLUSH IN 6". ALL LANDSCAPE EDGING ADJOINING CURB AT ROADWAY SHOULD BE TAPERED FLUSH.
- (N) LANDSCAPE AREA. SEE LANDSCAPE SHEETS L-101 TO L-106.
- (O) ELECTRICAL PANEL AND DIGITAL DISPLAY. SEE ELECTRICAL SHEETS E101-E107.
- (P) SEAT WALL. SEE DETAIL SHEET C-501.
- (Q) SOIL CELLS. SEE SHEETS I-101 TO I-104 AND LANDSCAPE SHEETS L-101 TO L-106 FOR TREE LOCATIONS.
- (R) VARIABLE ASPHALT OVERLAY. SEE DETAIL SHEET C-501.
- (S) FULL DEPTH ASPHALT PAVING. SEE DETAIL SHEET C-501.
- (T) 4" CENTER LINE, YELLOW THERMOPLASTIC PAINT, 120 MILS. SEE DETAIL SHEET C-506.
- (U) 4" PAVEMENT STRIPE, WHITE THERMOPLASTIC PAINT, 120 MILS. SEE DETAIL SHEET C-506.
- (V) 4" PAVEMENT STRIPE, WHITE THERMOPLASTIC PAINT, 90 MILS (TYPICAL). SEE DETAIL SHEET C-506.
- (W) 24" WIDE STOP BAR, WHITE THERMOPLASTIC PAINT, 120 MILS. EXTEND ACROSS LANE WIDTH. SEE DETAIL SHEET C-506.
- (X) STAMPED ASPHALT CROSSWALK WITH 8" WHITE THERMOPLASTIC STRIPE, 120 MILS. SEE DETAIL SHEET C-504.
- (Y) TRAFFIC ARROWS AND SYMBOLS, WHITE THERMOPLASTIC PAINT, 90 MILS. SEE DETAIL SHEET C-505.
- (Z) BICYCLE SHARED LANE MARKINGS, WHITE THERMOPLASTIC PAINT, 90 MILS. SEE DETAIL SHEET C-503.
- (AA) BENCH. OWNER TO PROVIDE AND CONTRACTOR TO INSTALL.
- (AB) TRASH/RECYCLING RECEPTACLES. OWNER TO PROVIDE AND CONTRACTOR TO INSTALL.
- (AC) RELOCATED BIKE RACK.

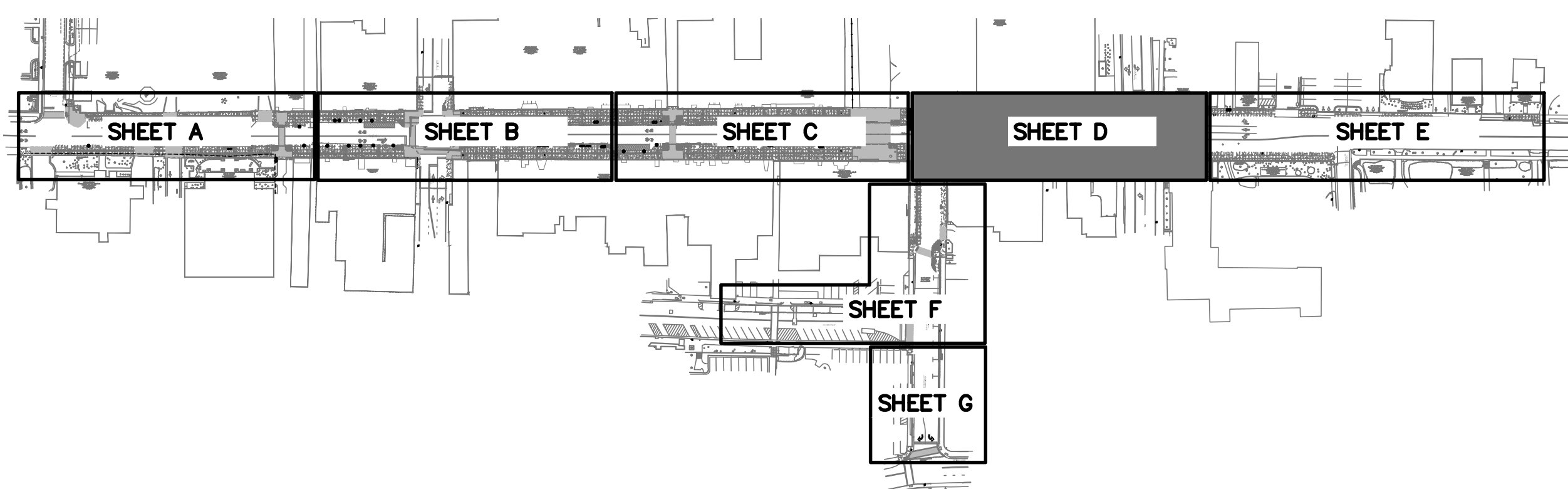
- (AD) DRINKING FOUNTAIN - SEE DETAIL SHEET C-503. COLOR TO BE BLACK.
- (AE) CIGARETTE RECEPTACLE. OWNER TO SUPPLY CONTRACTOR TO INSTALL.
- (AF) BOLLARDS. SEE DETAIL SHEET C-501.
- (AG) BRONZE CAROLINA THREAD TRAIL MARKERS. TRAIL MARKERS TO BE MORTARED IN PLACE AND FLUSH WITH PROPOSED CONCRETE SIDEWALK. SEE DETAIL SHEET C-504.
- (AH) BRONZE DOWNTOWN GREENWAY LOOP TRAIL MARKERS. TRAIL MARKERS TO BE MORTARED IN PLACE AND FLUSH WITH PROPOSED CONCRETE SIDEWALK. SEE DETAIL SHEET C-504.
- (AI) RELOCATED USPS/UPS/FEDEX BOX.
- (AJ) PROPOSED LIGHT POLE/LIGHTED BOLLARD. SEE ELECTRICAL SHEETS E-001 TO E-107.
- (AK) 6" CONCRETE EDGE RESTRAINT, FLUSH WITH WALK. SEE DETAIL SHEET C-502.
- (AL) BRICK BAND - PINEHALL BRICK PATHWAY RED. SEE DETAIL SHEET C-502.
- (AM) BRICK PAVERS - PINEHALL BRICK PATHWAY AUTUMN, HERRINGBONE PATTERN, HEAVY DUTY. SEE DETAIL SHEET C-502.
- (AN) BRICK PAVERS - PINEHALL BRICK PATHWAY AUTUMN, HERRINGBONE PATTERN, LIGHT DUTY. SEE DETAIL SHEET C-502.
- (AO) PLAZA PAVERS, PINEHALL BRICK PATHWAY AUTUMN, HERRINGBONE PATTERN STREET SECTION. SEE DETAIL SHEET C-502.
- (AP) BRICK PAVER CROSSWALK WITH 8" CONCRETE EDGE RESTRAINT, 8" WHITE THERMOPLASTIC STRIPE, 120 MILS, PAVER TO BE PINEHALL BRICK PATHWAY RED. SEE DETAIL SHEET C-504.
- (AQ) 18" CONCRETE GRADE BEAM. SEE DETAIL SHEET C-502.
- (AR) HC PARKING. SEE DETAIL SHEET C-503.
- (AS) HC PARKING SIGN. SEE DETAIL SHEET C-503.
- (AT) HC RAMP, LAYOUT OF RAMPS VARY. SEE DETAIL SHEET C-503.
- (AU) WOOD FENCE. SEE DETAILS SHEET C-501.
- (AV) FLAG HOLDER, 2" SCHEDULE 40 PVC SLEEVE SET IN CONCRETE. 6" DEPTH. SEE DETAIL SHEET C-506.
- (AW) HORSE HOOKS, DECORATIVE HORSESHOES AND GRANITE PLAQUE. HORSESHOES TO BE SET FLUSH WITH PROPOSED CONCRETE SIDEWALK. SEE DETAIL SHEET C-506.
- (AX) STORMWATER TRENCH REPAIR. SEE DETAIL SHEET C-504.
- (AY) BRICK RED COMPOSITE DETECTABLE WARNING PLATE, SET IN CONCRETE. 6" CONCRETE BAND AROUND DOME INSET. SEE HANDICAP DETAIL SHEET C-503.
- (AZ) CONCRETE STAIR WITH HANDRAIL. SEE DETAIL SHEET C-502.
- (BA) CONCRETE STAIR AND RAMP STORE ENTRANCE ACCESS. SEE DETAIL SHEET C-502.
- (BB) NO PARKING SIGN. SEE SIGN INSTALLATION DETAIL SHEET C-503.
- (BC) RELOCATED WAYFINDING SIGN, SALVAGED REINSTALL. CONTRACTOR TO PROVIDE SIGNED AND SEALED STRUCTURAL DRAWINGS FOR FOOTING AND POLE INSTALLATION.
- (BD) STREET SIGN. SEE SIGN INSTALLATION DETAIL SHEET C-503.
- (BE) LOADING ZONE SIGN. SEE SIGN INSTALLATION DETAIL SHEET C-503.
- (BF) ADOPT A STREET SIGN. SEE SIGN INSTALLATION DETAIL SHEET C-503.
- (BG) CONCORD HISTORIC DISTRICT SIGN. SEE SIGN INSTALLATION DETAIL SHEET C-503.
- (BH) ORIGINAL CITY LIMIT SIGN. SEE SIGN INSTALLATION DETAIL SHEET C-503.
- (BI) HISTORICAL SIGN. SEE SIGN INSTALLATION DETAIL SHEET C-503.

- (BJ) GRANITE EDGE RESTRAINT FLUSH WITH WALK. OWNER TO SUPPLY GRANITE FOR PROJECT. CONTRACTOR TO INSTALL. SEE DETAIL SHEET C-502.
- (BK) GRANITE STORMWATER FLUME. OWNER TO SUPPLY GRANITE FOR PROJECT, CONTRACTOR TO INSTALL. SEE DETAIL SHEET C-504.
- (BL) PROPOSED FUTURE CLOCK, CLOCK NOT IN CONTRACT. SEE ELECTRICAL PLANS FOR CONDUIT LOCATIONS.
- (BM) MOSAIC LIGHT STRUCTURES. SEE ELECTRICAL PLANS PROVIDED BY THE CITY.
- (BN) GRANITE MARKER FOR ORIGINAL SURVEYORS STONE. SEE DETAIL SHEET C-506.
- (BO) CONCRETE EDGE RESTRAINT TO MATCH LOCATION AND WIDTH OF PROPOSED PLAZA CONCRETE BANDS. VERIFY LOCATION OF BANDS WITH CURRENT SET OF COURTHOUSE RENOVATION PLANS BY KIMLEY HORN. PLANS TO BE PROVIDED BY THE CITY.
- (BP) MONOLITHIC RETAINING WALL WITH LANDSCAPE CURB OR METAL RAILING. SEE DETAIL SHEET C-506.
- (BQ) THERMOPLASTIC COMPASS SYMBOL, 120 MILS. SEE DETAIL SHEET C-506.
- (BR) HC RAMP WITH HANDRAILS. SEE DETAILS SHEET C-503.
- (BS) PUBLIC PARKING DIRECTION SIGN. SEE DETAIL SHEET C-503.
- (BT) 18" METAL RAILING/TREE GUARD TO BE PROVIDED BY THE OWNER AND CONTRACTOR INSTALLED. SEE DETAIL C-506.
- (BU) STORMWATER STRUCTURE. SEE GRADING, DRAINAGE AND EROSION CONTROL PLANS.
- (BV) RIGHT TURN PROHIBITED SIGN. SEE DETAIL SHEET C-503.
- (BW) 6" STAND UP CURB. SEE DETAIL SHEET C-501.
- (BX) NCDOT ASPHALT PAVING. SEE DETAIL SHEET C-501.
- (BY) NCDOT 8" STAND UP CURB. SEE DETAIL SHEET C-501.

GENERAL NOTES

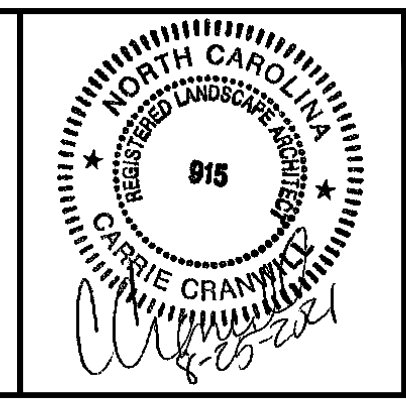
1. ALL EXISTING CONDITIONS AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM SURVEY BY NORSTAR LAND SURVEYING, INC. MAY 2, 2019.
2. ALL DEVELOPMENT SHALL CONFORM WITH THE CITY OF CONCORD DEVELOPMENT ORDINANCE.
3. SITE SIGNAGE SHALL CONFORM WITH APPLICABLE CODES AND ORDINANCES.
4. ALL PAINT STRIPING, PAVEMENT MARKINGS, AND SIGNAGE SHALL CONFORM TO THE LATEST "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND CITY OF CONCORD STANDARDS.
5. ALL DIMENSIONS ARE FACE OF CURB, EDGE OF PAVEMENT AND FACE OF WALL, UNLESS OTHERWISE NOTED.
6. THIS SITE IS NOT LOCATED IN ANY FLOOD ZONE.
7. ALL IMPROVEMENTS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA STATE STANDARDS. ALL IMPROVEMENTS SHALL COMPLY WITH THE CITY OF CONCORD STANDARDS FOR STORM DRAINAGE, SIGNAGE, LANDSCAPE, PLANTING, UTILITY AND PARKING REQUIREMENTS.
8. ANY DISCREPANCIES FOUND IN THE FIELD SHALL BE CALLED TO THE ATTENTION OF THE OWNER/ENGINEER/DESIGNER PRIOR TO PROCEEDING WITH ANY WORK.
9. THE GENERAL CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHT OF WAYS, PUBLIC OR PRIVATE, PRIOR TO WORKING IN THESE AREAS.
10. HATCHING OF HARD SURFACE MATERIALS SUCH AS BRICK AND CONCRETE ARE FOR GENERAL INFORMATION PURPOSES. IN NO INSTANCE IS A UTILITY LID, COVER OR ACCESS POINT TO BE COVERED OVER AND CONCEALED BY THE PROPOSED SURFACE MATERIAL. ANY HIDDEN UTILITY BOXES, COVERS, ETC DISCOVERED DURING CONSTRUCTION SHALL BE ADJUSTED TO MATCH PROPOSED GRADE ELEVATIONS.
11. PROVIDE CONSTRUCTION JOINTS AT ALL INTERFACES BETWEEN PROPOSED AND EXISTING SURFACES/BUILDINGS. ALL CONSTRUCTION JOINTS ARE TO BE SEALED.
12. ENSURE SMOOTH TRANSITION FROM PROPOSED SIDEWALK TO ALL STORE FRONTS
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14. NOTE LIMITS OF DISTURBANCE FOR STREETScape WORK AND UTILITY INSTALLATION VARY. SEE EACH SET OF PLANS FOR LIMITS OF DISTURBANCE.
15. CONTRACTOR MUST PROVIDE SECURE, NON-SLIP ADA ACCESSIBLE SURFACES/STRUCTURES AND MAINTAIN ACCESS TO BUSINESSES DURING CONSTRUCTION.
16. CONTRACTOR TO PROVIDE MINIMUM OF FOUR PROJECT IDENTIFICATION SIGNS.

COURTHOUSE PHASED CONSTRUCTION:
DUE TO THE RENOVATION OF THE COURTHOUSE, ONLY PART OF THE ILLUSTRATED CONSTRUCTION ACTIVITIES WILL BE INSTALLED UNDER THIS CONTRACT. THE REMAINING ITEMS WILL BE INSTALLED UNDER SEPARATE CONTRACT AFTER THE COMPLETION OF THE COURTHOUSE RENOVATION IN 2024. ITEMS UNDER THIS CONTRACT INCLUDE:
COMPREHENSIVE GRADING, ELECTRICAL DEMOLITION, ASPHALT PAVING, STRIPING, TEMPORARY CONCRETE SIDEWALK, 6" CURB, HC RAMPS, TACTILE PLATES, STORMWATER INSTALLATION, AND WATER LINES AS NOTED ON THE UTILITY SHEET. THIS AREA IS TO BE GRADED TO PROPOSED ELEVATIONS AND THE GRADES TAPERED DOWN TO MEET EXISTING ELEVATIONS AT THE COURTHOUSE STEPS. EXISTING DRAINAGE STRUCTURES TO BE UTILIZED FOR DRAINAGE.
FOR TEMPORARY PAVING SEE DETAIL SHEET C-510.



P:\2019\191726\CONCORD\UNION STREET\SCAPE PROJECT\DRAWINGS\191726\UNION BASE DWG PLOT DATE 8/20/2021 3:01 PM RWRETS SUBRANT

mcgill
1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com



NO.	DATE	BY	DESCRIPTION
1	8/20/2021	KCD	ADDENDUM #1
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE DIVISION VALUE = 10 FEET

OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

SITE PLAN - D

DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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SHEET
C-104

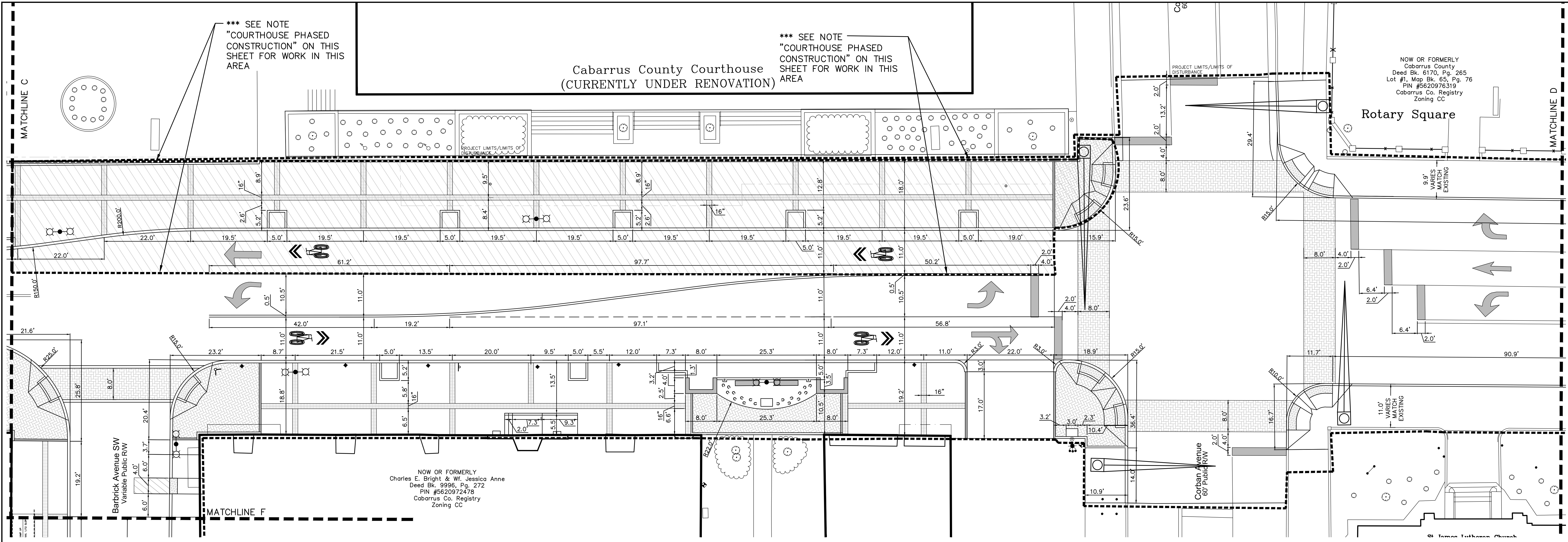
**Cabarrus County Courthouse
(CURRENTLY UNDER RENOVATION)**

*** SEE NOTE
"COURTHOUSE PHASED
CONSTRUCTION" ON THIS
SHEET FOR WORK IN THIS
AREA

*** SEE NOTE
"COURTHOUSE PHASED
CONSTRUCTION" ON THIS
SHEET FOR WORK IN THIS
AREA

NOW OR FORMERLY
Cabarrus County
Deed Bk. 6170, Pg. 265
Lot #1, Map Bk. 65, Pg. 76
PIN #5620976319
Cabarrus Co. Registry
Zoning CC

Rotary Square

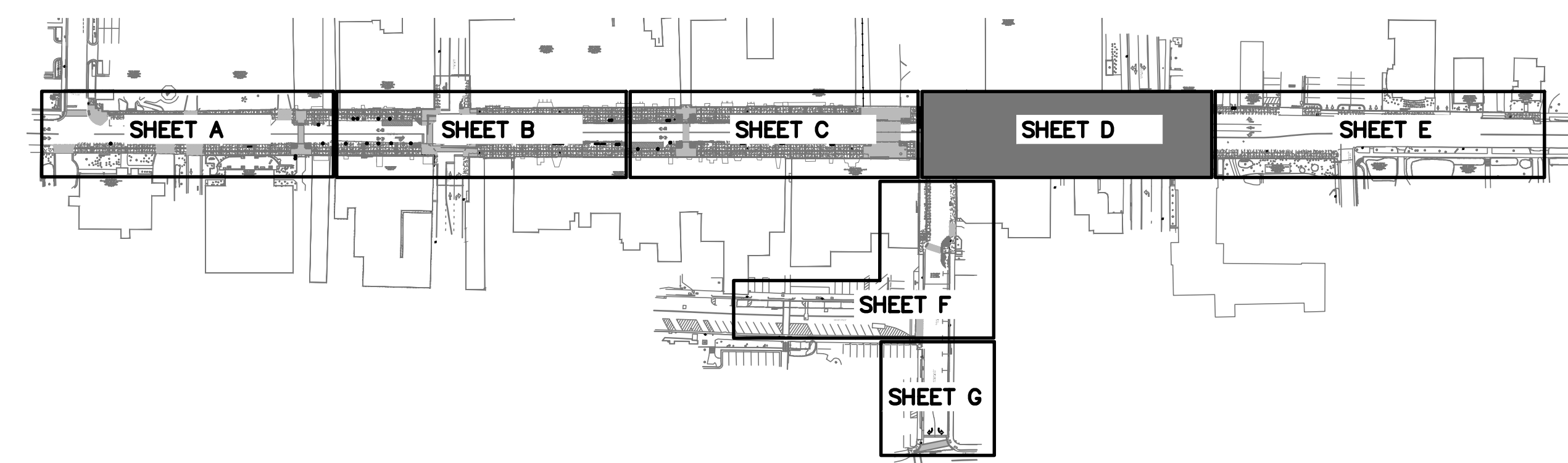
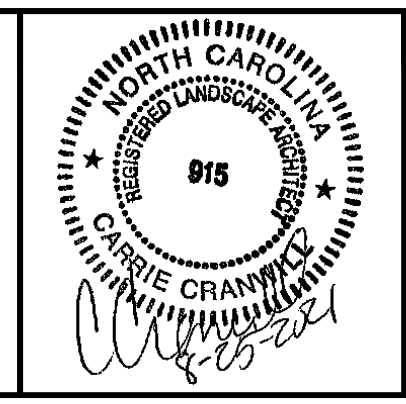


GENERAL NOTES

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 FOR TEMPORARY PAVING SEE DETAIL SHEET C-510.

NO.	DATE	BY	DESCRIPTION
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
 CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE: 0 5 10 20
 DIVISION VALUE = 10 FEET

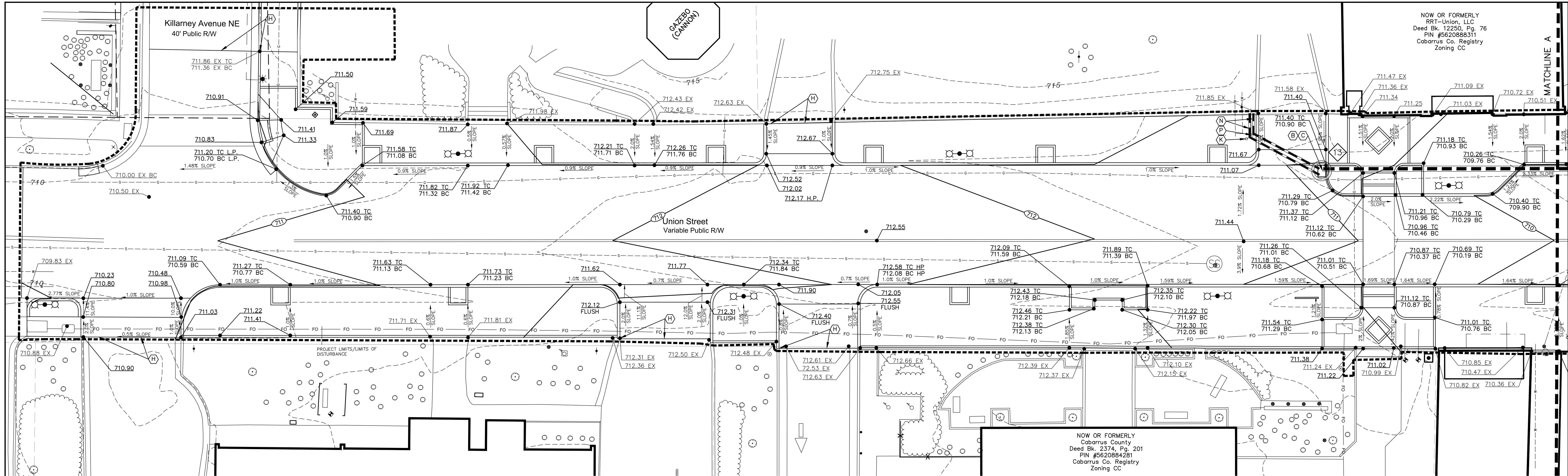
OFFICE MANAGER: D.G. CHAPMAN
 DESIGNER: C.L. CRANWILL
 PROJECT MANAGER: M.J. NORRIS
 REVIEWER: B. ROARK

LAYOUT PLAN - D

DATE: JULY 2021
 PROJECT #: 19.01726
 FUNDING #: N/A

SHEET
C-111

P:\2019\19.01726-CONCORD-UNION-STREET-IMPROVEMENTS\PROJECT\DRAWINGS\19.01726-UNION-STREET-IMPROVEMENTS\19.01726-UNION-STREET-IMPROVEMENTS.DWG PLOT DATE: 8/25/2021 3:04 PM RW: JETIS SUBRANT



STORM DRAINAGE SCHEDULE									
From Structure Number	To Structure Number	Rim/Grate Elevation	Pipe Data			Pipe Diameter (inches)	Pipe Material	Pipe Slope	Structure Type
			Pipe Length (FT)	Pipe Invert Downstream	Pipe Invert Upstream				
1	EX MH	694.17	195.00	679.50	688.22	42	RCP CLASS IV	4.47%	MH
2	1	696.40	68.00	688.32	689.12	42	RCP CLASS IV	1.18%	MH
3	2	700.80	216.00	689.12	691.28	42	RCP CLASS IV	1.00%	MH
4	3	699.81	34.00	692.28	692.58	30	RCP CLASS IV	0.88%	CI
5	4	698.81	100.00	692.58	693.37	30	RCP CLASS IV	0.79%	CI
6	5	698.61	107.00	693.37	694.22	30	RCP CLASS IV	0.79%	CI
7	6	698.83	64.00	694.22	694.70	30	RCP CLASS IV	0.75%	CI
8	7	699.08	56.00	694.70	695.00	30	RCP CLASS IV	0.54%	CI
9	8	700.56	112.00	695.00	696.06	30	RCP CLASS IV	0.95%	CI
10	9	704.05	150.00	696.06	697.50	30	RCP CLASS IV	0.96%	CI
11	10	706.80	82.00	697.50	699.78	15	RCP CLASS IV	2.78%	CI
12	11	707.11	32.00	701.90	703.06	15	RCP CLASS IV	3.62%	CI
13	12	710.90	166.00	703.16	707.40	15	RCP CLASS IV	2.55%	CI
14	10	705.09	34.00	700.25	700.90	18	RCP CLASS IV	1.91%	GI
15	14	705.26	22.00	701.00	702.83	18	RCP CLASS IV	8.32%	GI
16	15	705.95	32.00	703.08	703.70	15	RCP CLASS IV	1.94%	CI
17	9	700.53	21.00	696.80	697.20	18	RCP CLASS IV	1.90%	CI
18	17	701.67	72.00	697.45	698.20	15	RCP CLASS IV	1.04%	CI
19	3	700.98	32.00	691.65	691.90	36	RCP CLASS IV	0.78%	CI
20	19	699.51	91.00	691.93	692.39	24	RCP CLASS IV	0.51%	MH
21	20	699.00	42.00	693.39	693.60	24	RCP CLASS IV	0.50%	CI
22	21	698.68	107.00	693.60	694.13	24	RCP CLASS IV	0.50%	CI
23	22	699.79	92.00	694.13	694.59	24	RCP CLASS IV	0.50%	CI
24	23	699.56	40.00	696.00	696.30	15	RCP CLASS IV	0.75%	CI
25	19	702.36	41.00	693.00	695.69	24	RCP CLASS IV	6.56%	MH
26	25	703.73	76.00	696.19	699.66	18	RCP CLASS IV	4.57%	EX MH
27	3	701.60	34.00	694.80	696.00	15	RCP CLASS IV	3.53%	CI
28	27	703.95	141.00	696.10	699.00	15	RCP CLASS IV	2.06%	CI
ALT 29	11	709.32	50.00	701.90	705.82	15	RCP CLASS IV	7.84%	CI

KEY NOTES

- (A) PROPOSED STORMWATER MANHOLE. SEE NCDOT STANDARD DETAIL 840.52 AND 840.54. SEE DETAIL SHEET C-505.
- (B) PROPOSED CATCH BASIN WITH FRAME, GRATE, AND HOOD. SEE DETAIL SHEET C-505.
- (C) PROPOSED TEMPORARY STANDARD CATCH BASIN INLET PROTECTION. SEE DETAIL SHEET C-504.
- (D) PROPOSED DROP INLET WITH FRAME AND GRATE. SEE NCDOT STANDARD DETAIL 840.14 AND 840.16 ON DETAIL SHEET D-504.
- (E) PROVIDE TEMPORARY BLOCK AND GRAVEL DROP INLET FILTER. SEE DETAIL SHEET D-504.
- (F) TIE PROPOSED PIPE INTO EXISTING BOX. PATCH AND REPAIR AS NECESSARY TO ENSURE SEALED CONNECTION.
- (G) SILT SAK. SEE DETAIL SHEET C-504.
- (H) MATCH EXISTING GRADE WITH SMOOTH TRANSITION.
- (I) PROPOSED 6" SCHEDULE 40 PVC.
- (J) CONNECT PROPOSED BOX TO EX. PIPE. VERIFY INVERTS OF EXISTING PIPE PRIOR TO BOX INSTALLATION.
- (K) PROPOSED 3" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
- (L) PROPOSED 8" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT AT WALL LOCATION SHOWN. PROVIDE 2" AIR GAP BETWEEN PIPE EXIT AND TOP OF 10" NYOPLAST DRAIN. CONNECT 10" DROP IN DRAIN TO PROPOSED BOX AS SHOWN, MIN. SLOPE 2%. PROVIDE CLEANOUTS AS SHOWN.
- (M) SEDIMENT WATTLE. SEE DETAILS SHEET C-504.
- (N) PROPOSED 3" AND 6" SCHEDULE 40 PVC DRAINS FROM EXISTING UTILITY BOX TO TIE TO PROPOSED STORM STRUCTURE.
- (O) PROPOSED 3" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT AT WALL LOCATION SHOWN. PROVIDE 2" AIR GAP BETWEEN PIPE EXIT AND TOP OF 6" DROP IN NYOPLAST DRAIN. CONNECT 6" DROP IN DRAINS TO PROPOSED BOX WITH 6" SCHEDULE 40 PVC AS SHOWN, MIN SLOPE 2%. PROVIDE CLEANOUTS AS SHOWN.
- (P) PROPOSED 6" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
- (Q) PROPOSED 8" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
- (R) PROPOSED 3" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT TO CURB. PROVIDE CLEANOUTS AS SHOWN.
- (S) ADD ALTERNATE #1 CATCH BASIN WITH FRAME, GRATE, AND HOOD. SEE DETAIL SHEET C-505.
- (T) ADD ALTERNATE #1 15" CLASS IV RCP.
- (U) ADD ALTERNATE #1 PROVIDE TEMPORARY STANDARD CATCH BASIN INLET PROTECTION. SEE DETAIL SHEET C-504.
- (V) MUD MAT TO BE INSTALLED AS TEMPORARY CONSTRUCTION ENTRANCE AND RELOCATED AS NECESSARY TO ACTIVE CONSTRUCTION AREAS.
- (W) PROVIDE 3" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN. 1% SLOPE. CONTRACTOR TO REMOVE EX. 3" PIPE TO BUILDING FACE AND REDIRECT FOR MANHOLE CONNECTION. LOCATION SHOWN IS APPROXIMATE. NOT FROM SURVEY.
- (X) PROVIDE 4" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN. 1% SLOPE. CONTRACTOR TO REMOVE ENOUGH EXISTING CONCRETE AROUND END OF PIPE AS NECESSARY TO INSTALL ELBOW FOR CONNECTION TO STORMWATER MANHOLE PIPE. INSTALL ELBOW SO THAT THERE IS NO CONFLICT WITH PROPOSED SIDEWALK. PROVIDE CLEANOUTS AS SHOWN.
- (Y) PROVIDE 6" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN. 1% SLOPE.
- (Z) DOUBLE CATCH BASIN. SEE DETAIL SHEET C-510.

GENERAL NOTES:

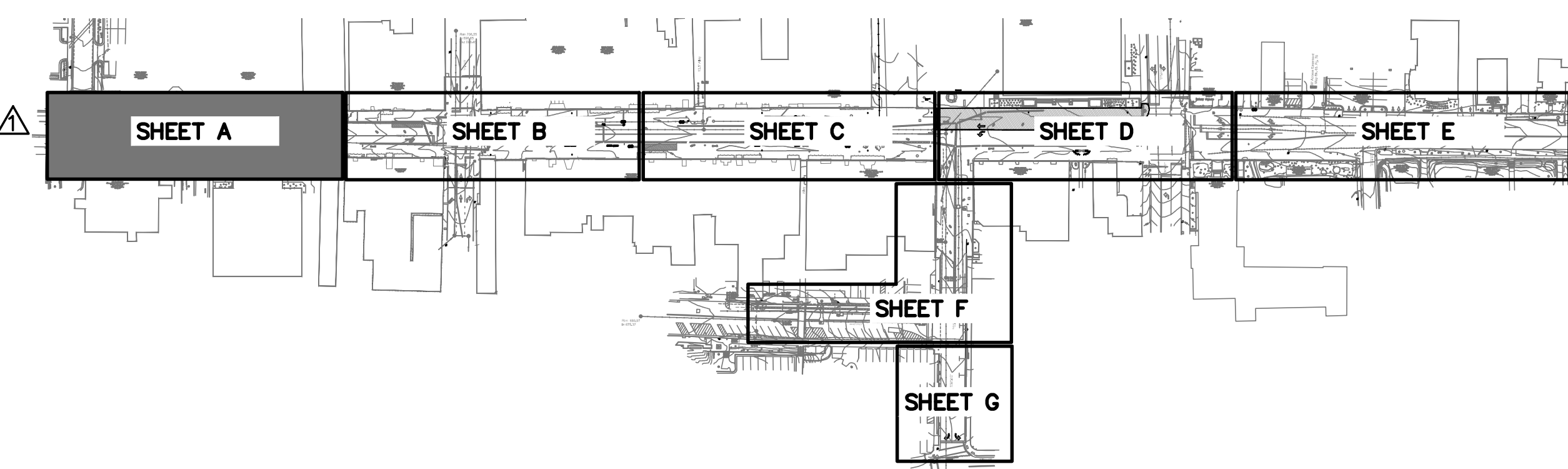
1. ALL EXISTING CONDITIONS AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM SURVEY BY NORSTAR LAND SURVEYING, INC. MAY 2, 2019.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR THE OWNER.
4. CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR DISPOSAL OF ALL WASTE MATERIALS OFF SITE. THIS RESPONSIBILITY SHALL INCLUDE ALL REQUIRED APPROVALS AND CONDITIONS DICTATED BY LOCAL OR STATE EROSION CONTROL AUTHORITIES.
5. THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT TESTING LABORATORY (ITL) TO PROVIDE TESTING OF EARTHEN MATERIALS DURING EXCAVATION AND FILL OPERATIONS. ALL FILL MATERIALS SHALL BE APPROVED FOR SUITABILITY BY THE ITL.
6. SEED ALL DISTURBED AREAS UTILIZING A FESCUE BLEND (MIN. 2 REBEL, JAGUAR, FALCON). APPLICATION RATE OF SEED PER AAN STANDARDS. ALL FERTILIZER AND LIME AS RECOMMENDED BY SOIL TEST.
7. ALL SPOT ELEVATIONS AT CURB ARE AT TOP FACE OF CURB. ALL OTHER SPOT ELEVATIONS ARE AT SLAB GRADE OR AS INDICATED.
8. ALL OPEN STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY. SEE DETAIL SHEET C-504.
9. CONTRACTOR TO ENSURE POSITIVE DRAINAGE ON ALL SURFACES. NOTIFY ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ANY PAVING/SURFACES IF ON SITE CONDITIONS ARE FIELD DETERMINED NOT TO PROVIDE POSITIVE DRAINAGE.
10. CONTRACTOR TO INSTALL SILT SAK EROSION PROTECTION AS SHOWN ON THE DRAWINGS AND ON THE FIRST DOWNSTREAM INLET STRUCTURES OUTSIDE OF THE PROJECT AREA RECEIVING RUNOFF FROM THE ACTIVE CONSTRUCTION AREA. AS WORK IS PHASED, CONTRACTOR TO UTILIZE WATTLES AS APPLICABLE AROUND THE OPEN WORK AREA TO DISCHARGE THE STORM WATER. DEWATERING BAGS/SEDIMENT FILTER BAGS MAY BE USED TO FILTER STORMWATER FROM TRENCHING ACTIVITIES. UNDER NO CIRCUMSTANCE IS UNTREATED WATER TO BE RELEASED FROM THE WORK AREA WITHOUT PASSING THROUGH AN EROSION CONTROL DEVICE.
11. PROJECT IS BID UNCLASSIFIED.

LEGEND

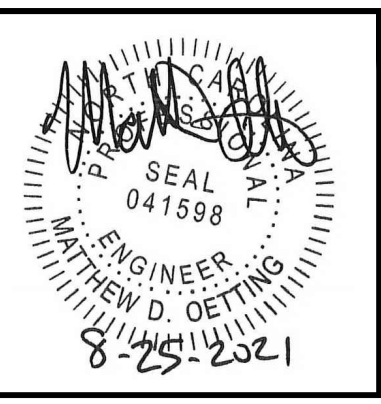
- PROJECT LIMITS
- SEDIMENT WATTLE
- INLET PROTECTION
- BC BOTTOM OF CURB
- TC TOP OF CURB
- BW BOTTOM OF WALL
- TW TOP OF WALL
- ◇ STORMWATER STRUCTURE ID

SITE DATA

RIVER BASIN: YADKIN - PEE DEE RIVER
 RECEIVING WATER: IRISH BUFFALO CREEK
 PROJECT LIMITS/DISTURBED ACREAGE: 3.32 ACRES.
 PERMITTED DISTURBED AREA: 3.5 ACRES.
 MUNICIPALITY: CITY OF CONCORD



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 mcgillassociates.com



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UNION STREET IMPROVEMENTS
CITY OF CONCORD
 CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE: 1" = 10 FEET
 DIVISION VALUE = 10 FEET

OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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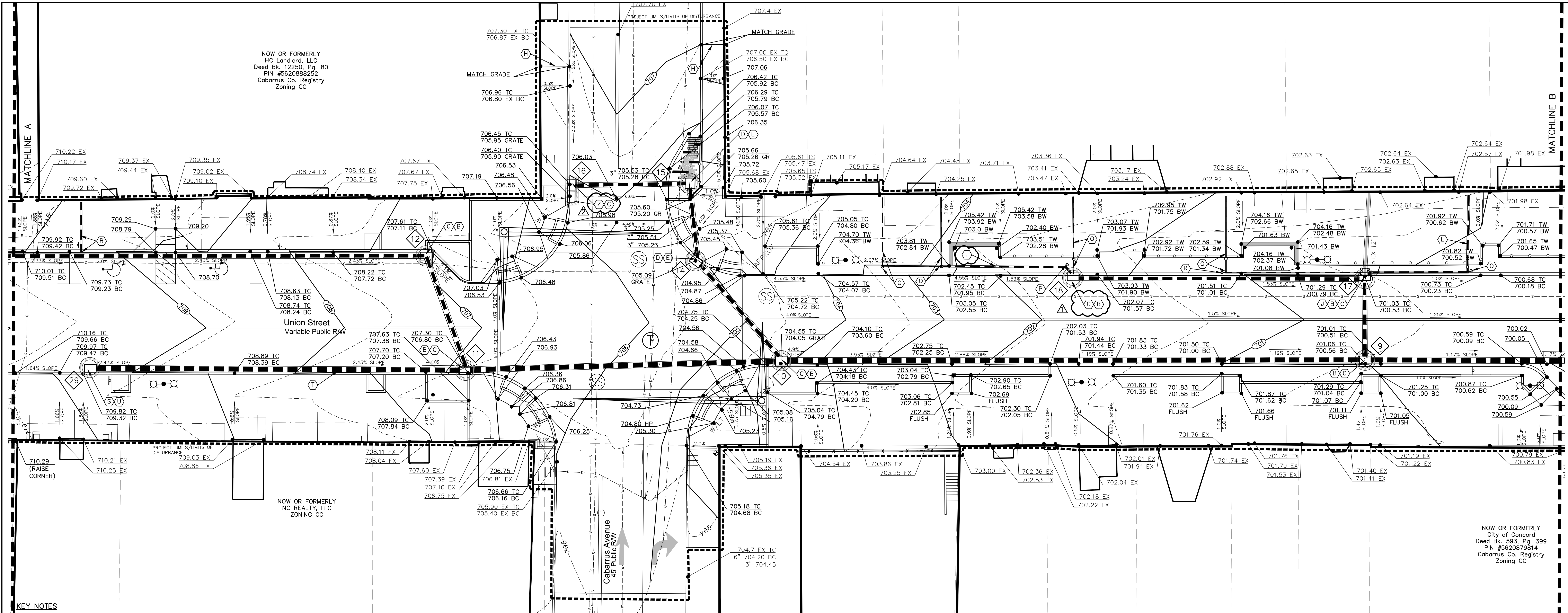
SHEET
C-201

P:\2019\190726\CONCORD\UNION STREET IMPROVEMENTS\PROJECT DRAWINGS\190726\UNION BASE DWG.PLOT DATE 8/20/2021 3:03 PM\LIMITS.DWG

NOW OR FORMERLY
 HC Landford, LLC
 Deed Bk. 12250, Pg. 80
 PIN #562088252
 Cabarrus Co. Registry
 Zoning CC

NOW OR FORMERLY
 NC REALTY, LLC
 ZONING CC

NOW OR FORMERLY
 City of Concord
 Deed Bk. 593, Pg. 399
 PIN #5620879814
 Cabarrus Co. Registry
 Zoning CC

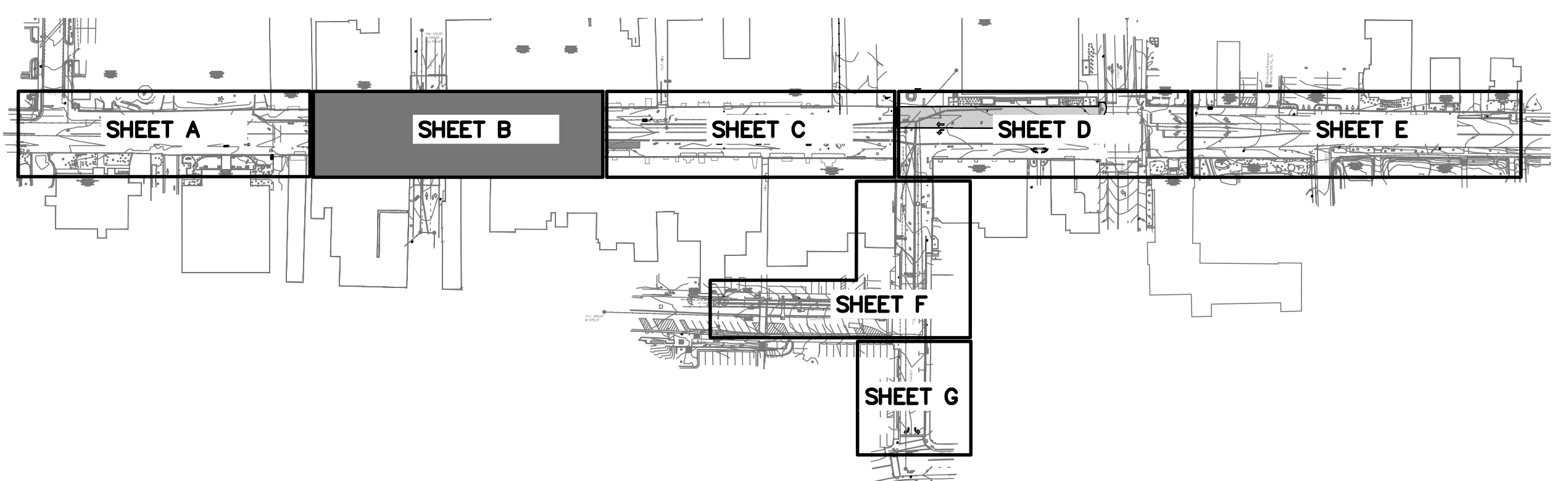


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 - (C) PROVIDE TEMPORARY STANDARD CATCH BASIN INLET PROTECTION. SEE DETAIL SHEET C-504.
 - (D) PROPOSED DROP INLET WITH FRAME AND GRATE. SEE NCDOT STANDARD DETAIL 840.14 AND 840.16 ON DETAIL SHEET D-506.
 - (E) PROVIDE TEMPORARY BLOCK AND GRAVEL DROP INLET FILTER. SEE DETAIL SHEET D-504.
 - (F) TIE PROPOSED PIPE INTO EXISTING BOX. PATCH AND REPAIR AS NECESSARY TO ENSURE SEALED CONNECTION.
 - (G) SILT SAK. SEE DETAIL SHEET C-504.
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 - (I) PROPOSED 6" SCHEDULE 40 PVC.
 - (J) CONNECT PROPOSED BOX TO EX. PIPE. VERIFY INVERTS OF EXISTING PIPE PRIOR TO BOX INSTALLATION.
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 - (L) PROPOSED 8" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT AT WALL LOCATION SHOWN. PROVIDE 2" AIR GAP BETWEEN PIPE EXIT AND TOP OF 10" NYOPLAST DRAIN. CONNECT 10" DRAIN TO PROPOSED BOX AS SHOWN, MIN. SLOPE 2%. PROVIDE CLEANOUTS AS SHOWN.
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 - (V) MUD MAT TO BE INSTALLED AS TEMPORARY CONSTRUCTION ENTRANCE AND RELOCATED AS NECESSARY TO ACTIVE CONSTRUCTION AREAS.
 - (W) PROVIDE 3" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN.1% SLOPE. CONTRACTOR TO REMOVE EX. 3" PIPE TO BUILDING FACE AND REDIRECT FOR MANHOLE CONNECTION. LOCATION SHOWN IS APPROXIMATE. NOT FROM SURVEY.
 - (X) PROVIDE 4" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN.1% SLOPE. CONTRACTOR TO REMOVE ENOUGH EXISTING CONCRETE AROUND END OF PIPE AS NECESSARY TO INSTALL ELBOW FOR CONNECTION TO STORMWATER MANHOLE PIPE. INSTALL ELBOW SO THAT THERE IS NO CONFLICT WITH PROPOSED SIDEWALK. PROVIDE CLEANOUTS AS SHOWN.
 - (Y) PROVIDE 6" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN.1% SLOPE.
 - (Z) DOUBLE CATCH BASIN. SEE DETAIL SHEET C-510.

STORM DRAINAGE SCHEDULE										
From Structure Number	To Structure Number	Rim/ Grate Elevation	Pipe Data			Pipe Material	Pipe Slope	Structure Type		
			Pipe Length (FT)	Pipe Invert Downstream	Pipe Invert Upstream					
1	EX MH	694.17	195.00	679.50	688.22	42	RCP CLASS IV	4.47%	MH	
2	1	696.40	68.00	688.32	689.12	42	RCP CLASS IV	1.18%	MH	
3	2	700.80	216.00	689.12	691.28	42	RCP CLASS IV	1.00%	MH	
4	3	699.81	34.00	692.28	692.58	30	RCP CLASS IV	0.88%	CI	
5	4	698.81	100.00	692.58	693.37	30	RCP CLASS IV	0.79%	CI	
6	5	698.61	107.00	693.37	694.22	30	RCP CLASS IV	0.79%	CI	
7	6	698.83	64.00	694.22	694.70	30	RCP CLASS IV	0.75%	CI	
8	7	699.08	56.00	694.70	695.00	30	RCP CLASS IV	0.54%	CI	
9	8	700.56	112.00	695.00	696.06	30	RCP CLASS IV	0.95%	CI	
10	9	704.05	150.00	696.06	697.50	30	RCP CLASS IV	0.96%	CI	
11	10	706.80	82.00	697.50	699.78	15	RCP CLASS IV	2.78%	CI	
12	11	707.11	32.00	701.90	703.06	15	RCP CLASS IV	3.62%	CI	
13	12	710.90	166.00	703.16	707.40	15	RCP CLASS IV	2.55%	CI	
14	10	705.09	34.00	700.25	700.90	18	RCP CLASS IV	1.91%	GI	
15	14	705.26	22.00	701.00	702.83	18	RCP CLASS IV	8.32%	GI	
16	15	705.95	32.00	703.08	703.70	15	RCP CLASS IV	1.94%	CI	
17	9	700.53	21.00	696.80	697.20	18	RCP CLASS IV	1.90%	CI	
18	17	701.67	72.00	697.45	698.20	15	RCP CLASS IV	1.04%	CI	
19	3	700.98	32.00	691.65	691.90	36	RCP CLASS IV	0.78%	CI	
20	19	699.51	91.00	691.93	692.39	24	RCP CLASS IV	0.51%	MH	
21	20	699.00	42.00	693.39	693.60	24	RCP CLASS IV	0.50%	CI	
22	21	698.68	107.00	693.60	694.13	24	RCP CLASS IV	0.50%	CI	
23	22	699.79	92.00	694.13	694.59	24	RCP CLASS IV	0.50%	CI	
24	23	699.56	40.00	696.00	696.30	15	RCP CLASS IV	0.75%	CI	
25	19	702.36	41.00	693.00	695.69	24	RCP CLASS IV	6.58%	MH	
26	25	703.73	76.00	696.19	699.66	18	RCP CLASS IV	4.57%	EX MH	
27	3	701.60	34.00	694.80	696.00	15	RCP CLASS IV	3.53%	CI	
28	27	703.95	141.00	696.10	699.00	15	RCP CLASS IV	2.06%	CI	
ALT 29	11	709.32	50.00	701.90	705.82	15	RCP CLASS IV	7.84%	CI	

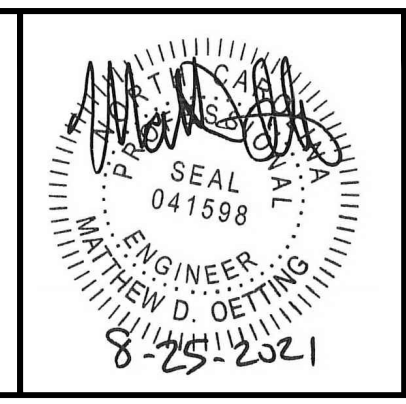
- GENERAL NOTES:**
1. ALL EXISTING CONDITIONS AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM SURVEY BY NORSTAR LAND SURVEYING, INC. MAY 2, 2019.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR THE OWNER.
 4. CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR DISPOSAL OF ALL WASTE MATERIALS OFF SITE. THIS RESPONSIBILITY SHALL INCLUDE ALL REQUIRED APPROVALS AND CONDITIONS DICTATED BY LOCAL OR STATE EROSION CONTROL AUTHORITIES.
 5. THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT TESTING LABORATORY (ITL) TO PROVIDE TESTING OF EARTHEN MATERIALS DURING EXCAVATION AND FILL OPERATIONS. ALL FILL MATERIALS SHALL BE APPROVED FOR SUITABILITY BY THE ITL.
 6. SEED ALL DISTURBED AREAS UTILIZING A FESCUE BLEND (MIN. 2 REBEL, JAGUAR, FALCON). APPLICATION RATE OF SEED PER AAN STANDARDS. ALL FERTILIZER AND LIME AS RECOMMENDED BY SOIL TEST.
 7. ALL SPOT ELEVATIONS AT CURB ARE AT TOP FACE OF CURB. ALL OTHER SPOT ELEVATIONS ARE AT SLAB GRADE OR AS INDICATED.
 8. ALL OPEN STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY. SEE DETAIL SHEET C-504.
 9. CONTRACTOR TO ENSURE POSITIVE DRAINAGE ON ALL SURFACES. NOTIFY ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ANY PAVING/SURFACES IF ON SITE CONDITIONS ARE FIELD DETERMINED NOT TO PROVIDE POSITIVE DRAINAGE.
 10. CONTRACTOR TO INSTALL SILT SAK EROSION PROTECTION AS SHOWN ON THE DRAWINGS AND ON THE FIRST DOWNSTREAM INLET STRUCTURES OUTSIDE OF THE PROJECT AREA RECEIVING RUNOFF FROM THE ACTIVE CONSTRUCTION AREA. AS WORK IS PHASED, CONTRACTOR TO UTILIZE WATTLES AS APPLICABLE AROUND THE OPEN WORK AREA TO DISCHARGE THE STORM WATER. Dewatering BAGS/SEDIMENT FILTER BAGS MAY BE USED TO FILTER STORMWATER FROM TRENCHING ACTIVITIES. UNDER NO CIRCUMSTANCE IS UNTREATED WATER TO BE RELEASED FROM THE WORK AREA WITHOUT PASSING THROUGH AN EROSION CONTROL DEVICE.
 11. PROJECT IS BID UNCLASSIFIED.

- LEGEND**
- PROJECT LIMITS
 - SEDIMENT WATTLE
 - INLET PROTECTION
 - BC BOTTOM OF CURB
 - TC TOP OF CURB
 - BW BOTTOM OF WALL
 - TW TOP OF WALL
 - ◇ 5 STORMWATER STRUCTURE ID
- SITE DATA**
- RIVER BASIN: YADKIN - PEE DEE RIVER
 RECEIVING WATER: IRISH BUFFALO CREEK
- PROJECT LIMITS/DISTURBED ACREAGE: 3.32 ACRES.
 PERMITTED DISTURBED AREA: 3.5 ACRES.
- MUNICIPALITY: CITY OF CONCORD



P:\2019\191726\CONCORD\CONCORD\STREETS\PROJECT\DRAWINGS\191726\UNION ST\BASE DWG\20210130\191726\191726.DWG

1240 19th Street Lane NW
 Hickory, NC 28601
 828.328.2024
 NC Firm License # C-0459
 mcgillassociates.com



NO.	DATE	BY	DESCRIPTION
1	8/20/2021	KCD	ADDENDUM #1
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
 CITY OF CONCORD
 CABARRUS COUNTY, NORTH CAROLINA

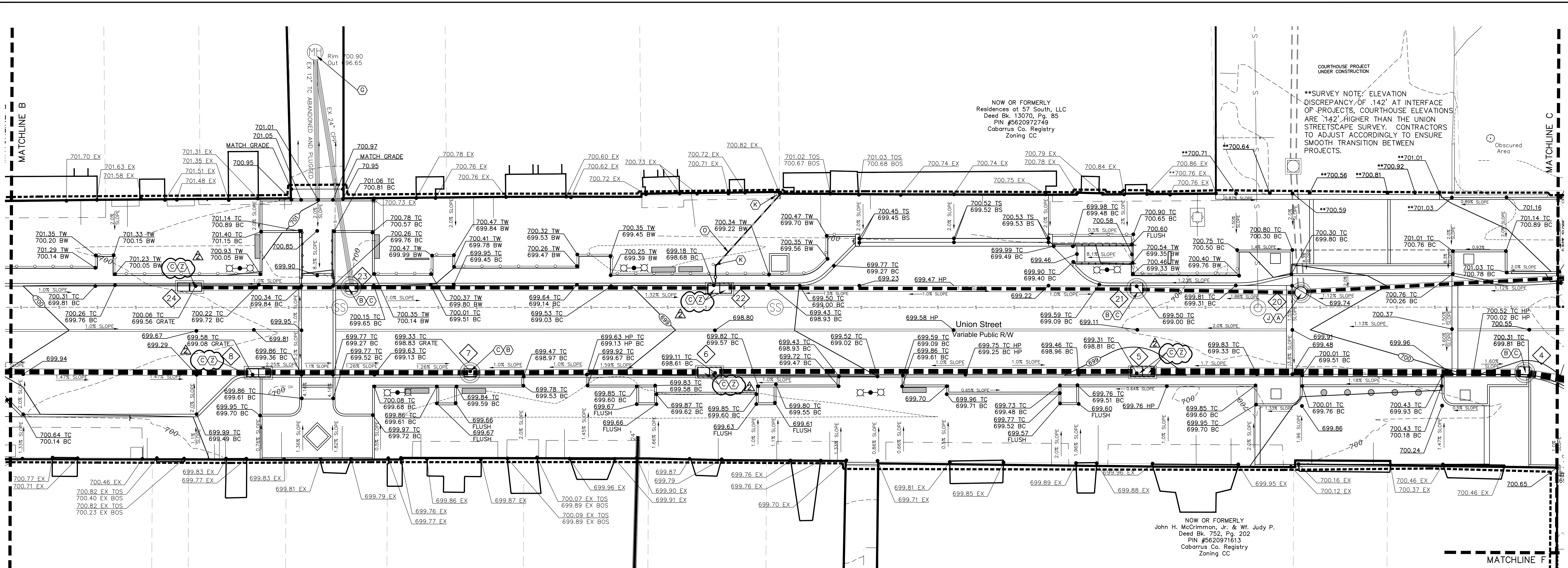
GRAPHIC SCALE: 0 5 10 20
 DIVISION VALUE = 10 FEET

OFFICE MANAGER: D.G. CHAPMAN
 DESIGNER: C.L. CRANWILL
 PROJECT MANAGER: M.J. NORRIS
 REVIEWER: B. ROARK

GRADING, DRAINAGE, &
 EROSION CONTROL - B

DATE: JULY 2021
 PROJECT #: 19.01726
 FUNDING #: N/A

SHEET
 C-202



- KEY NOTES**
- (A) PROPOSED STORMWATER MANHOLE. SEE NCDOT STANDARD DETAIL 840.52 AND 840.54. SEE DETAIL SHEET C-505.
 - (B) PROPOSED CATCH BASIN WITH FRAME, GRATE, AND HOOD. SEE DETAIL SHEET C-505.
 - (C) PROVIDE TEMPORARY STANDARD CATCH BASIN INLET PROTECTION. SEE DETAIL SHEET C-504.
 - (D) PROPOSED DROP INLET WITH FRAME AND GRATE. SEE NCDOT STANDARD DETAIL 840.14 AND 840.16 ON DETAIL SHEET D-506.
 - (E) PROVIDE TEMPORARY BLOCK AND GRAVEL DROP INLET FILTER. SEE DETAIL SHEET D-504.
 - (F) TIE PROPOSED PIPE INTO EXISTING BOX. PATCH AND REPAIR AS NECESSARY TO ENSURE SEALED CONNECTION.
 - (G) SILT SAK. SEE DETAIL SHEET C-5004.
 - (H) MATCH EXISTING GRADE WITH SMOOTH TRANSITION.
 - (I) PROPOSED 6" SCHEDULE 40 PVC.
 - (J) CONNECT PROPOSED BOX TO EX. PIPE. VERIFY INVERTS OF EXISTING PIPE PRIOR TO BOX INSTALLATION.
 - (K) PROPOSED 3" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
 - (L) PROPOSED 8" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT AT WALL LOCATION SHOWN. PROVIDE 2" AIR GAP BETWEEN PIPE EXIT AND TOP OF 10" NYOPLAST DRAIN. CONNECT 10" DROP IN DRAIN TO PROPOSED BOX AS SHOWN, MIN. SLOPE 2%. PROVIDE CLEANOUTS AS SHOWN.
 - (M) SEDIMENT WATTLE. SEE DETAILS SHEET C-504.
 - (N) PROPOSED 3" AND 6" SCHEDULE 40 PVC DRAINS FROM EXISTING UTILITY BOX TO TIE TO PROPOSED STORM STRUCTURE.
 - (O) PROPOSED 3" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT AT WALL LOCATION SHOWN. PROVIDE 2" AIR GAP BETWEEN PIPE EXIT AND TOP OF 6" DROP IN NYOPLAST DRAIN. CONNECT 6" DROP IN DRAINS TO PROPOSED BOX WITH 6" SCHEDULE 40 PVC AS SHOWN, MIN SLOPE 2%. PROVIDE CLEANOUTS AS SHOWN.
 - (P) PROPOSED 6" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
 - (Q) PROPOSED 8" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
 - (R) PROPOSED 3" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT TO CURB. PROVIDE CLEANOUTS AS SHOWN.
 - (S) ADD ALTERNATE #1 CATCH BASIN WITH FRAME, GRATE, AND HOOD. SEE DETAIL SHEET C-505.
 - (T) ADD ALTERNATE #1 15" CLASS IV RCP.
 - (U) ADD ALTERNATE #1 PROVIDE TEMPORARY STANDARD CATCH BASIN INLET PROTECTION. SEE DETAIL SHEET C-504.
 - (V) MUD MAT TO BE INSTALLED AS TEMPORARY CONSTRUCTION ENTRANCE AND RELOCATED AS NECESSARY TO ACTIVE CONSTRUCTION AREAS.
 - (W) PROVIDE 3" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN.1% SLOPE. CONTRACTOR TO REMOVE EX. 3" PIPE TO BUILDING FACE AND REDIRECT FOR MANHOLE CONNECTION. LOCATION SHOWN IS APPROXIMATE. NOT FROM SURVEY.
 - (X) PROVIDE 4" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN.1% SLOPE. CONTRACTOR TO REMOVE ENOUGH EXISTING CONCRETE AROUND END OF PIPE AS NECESSARY TO INSTALL ELBOW FOR CONNECTION TO STORMWATER MANHOLE PIPE. INSTALL ELBOW SO THAT THERE IS NO CONFLICT WITH PROPOSED SIDEWALK. PROVIDE CLEANOUTS AS SHOWN.
 - (Y) PROVIDE 6" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN.1% SLOPE.
 - (Z) DOUBLE CATCH BASIN. SEE DETAIL SHEET C-510.

STORM DRAINAGE SCHEDULE									
From Structure Number	To Structure Number	Rim/Grate Elevation	Pipe Data			Pipe Diameter (inches)	Pipe Material	Pipe Slope	Structure Type
			Pipe Length (FT)	Pipe Invert Downstream	Pipe Invert Upstream				
1	EX MH	694.17	195.00	679.50	688.22	42	RCP CLASS IV	4.47%	MH
2	1	696.40	68.00	688.32	689.12	42	RCP CLASS IV	1.18%	MH
3	2	700.80	216.00	689.12	691.28	42	RCP CLASS IV	1.00%	MH
4	3	699.81	34.00	692.28	692.58	30	RCP CLASS IV	0.88%	CI
5	4	698.81	100.00	692.58	693.37	30	RCP CLASS IV	0.79%	CI
6	5	698.61	107.00	693.37	694.22	30	RCP CLASS IV	0.79%	CI
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8	7	699.08	56.00	694.70	695.00	30	RCP CLASS IV	0.54%	CI
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16	15	705.95	32.00	703.08	703.70	15	RCP CLASS IV	1.94%	CI
17	9	700.53	21.00	696.80	697.20	18	RCP CLASS IV	1.90%	CI
18	2	701.67	72.00	697.45	698.20	15	RCP CLASS IV	1.04%	CI
19	3	700.98	32.00	691.65	691.90	36	RCP CLASS IV	0.78%	CI
20	19	699.51	91.00	691.93	692.39	24	RCP CLASS IV	0.51%	MH
21	20	699.00	42.00	693.39	693.60	24	RCP CLASS IV	0.50%	CI
22	21	698.68	107.00	693.60	694.13	24	RCP CLASS IV	0.50%	CI
23	22	699.79	92.00	694.13	694.59	24	RCP CLASS IV	0.50%	CI
24	23	699.56	40.00	696.00	696.30	15	RCP CLASS IV	0.75%	CI
25	19	702.36	41.00	693.00	695.69	24	RCP CLASS IV	6.56%	MH
26	25	703.73	76.00	696.19	699.66	18	RCP CLASS IV	4.57%	EX MH
27	3	701.60	34.00	694.80	696.00	15	RCP CLASS IV	3.53%	CI
28	27	703.95	141.00	696.10	699.00	15	RCP CLASS IV	2.06%	CI
ALT 29	11	709.32	50.00	701.90	705.82	15	RCP CLASS IV	7.84%	CI

- GENERAL NOTES:**
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 - SEE ALL DISTURBED AREAS UTILIZING A FESCUE BLEND (MIN. 2 REBEL, JAGUAR, FALCON). APPLICATION RATE OF SEED PER AAN STANDARDS. ALL FERTILIZER AND LIME AS RECOMMENDED BY SOIL TEST.
 - ALL SPOT ELEVATIONS AT CURB ARE AT TOP FACE OF CURB. ALL OTHER SPOT ELEVATIONS ARE AT SLAB GRADE OR AS INDICATED.
 - ALL OPEN STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY. SEE DETAIL SHEET C-504.
 - CONTRACTOR TO ENSURE POSITIVE DRAINAGE ON ALL SURFACES. NOTIFY ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ANY PAVING/SURFACES IF ON SITE CONDITIONS ARE FIELD DETERMINED NOT TO PROVIDE POSITIVE DRAINAGE.
 - CONTRACTOR TO INSTALL SILK SAK EROSION PROTECTION AS SHOWN ON THE DRAWINGS AND ON THE FIRST DOWNSTREAM INLET STRUCTURES OUTSIDE OF THE PROJECT AREA RECEIVING RUNOFF FROM THE ACTIVE CONSTRUCTION AREA. AS WORK IS PHASED, CONTRACTOR TO UTILIZE WATTLES AS APPLICABLE AROUND THE OPEN WORK AREA TO DISCHARGE THE STORM WATER. DETERMINING BAGS/SEDIMENT FILTER BAGS MAY BE USED TO FILTER STORMWATER FROM TRENCHING ACTIVITIES. UNDER NO CIRCUMSTANCE IS UNTREATED WATER TO BE RELEASED FROM THE WORK AREA WITHOUT PASSING THROUGH AN EROSION CONTROL DEVICE.
 - PROJECT IS BID UNCLASSIFIED.

LEGEND

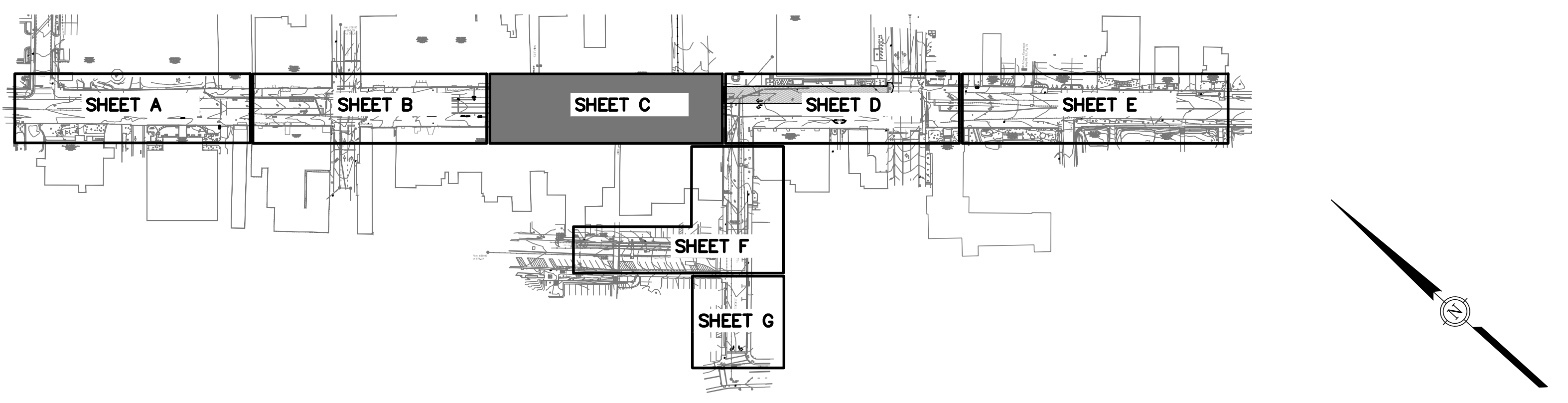
- PROJECT LIMITS
- SEDIMENT WATTLE
- INLET PROTECTION
- BC BOTTOM OF CURB
- TC TOP OF CURB
- BW BOTTOM OF WALL
- TW TOP OF WALL
- ⬠ STORMWATER STRUCTURE ID

SITE DATA

RIVER BASIN: YADKIN - PEE DEE RIVER
RECEIVING WATER: IRISH BUFFALO CREEK

PROJECT LIMITS/DISTURBED ACREAGE: 3.32 ACRES.
PERMITTED DISTURBED AREA: 3.5 ACRES.

MUNICIPALITY: CITY OF CONCORD



1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com

1	8/20/2021	KCD	ADDENDUM #1
2	8/25/2021	KCD	ADDENDUM #2
NO.	DATE	BY	DESCRIPTION

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

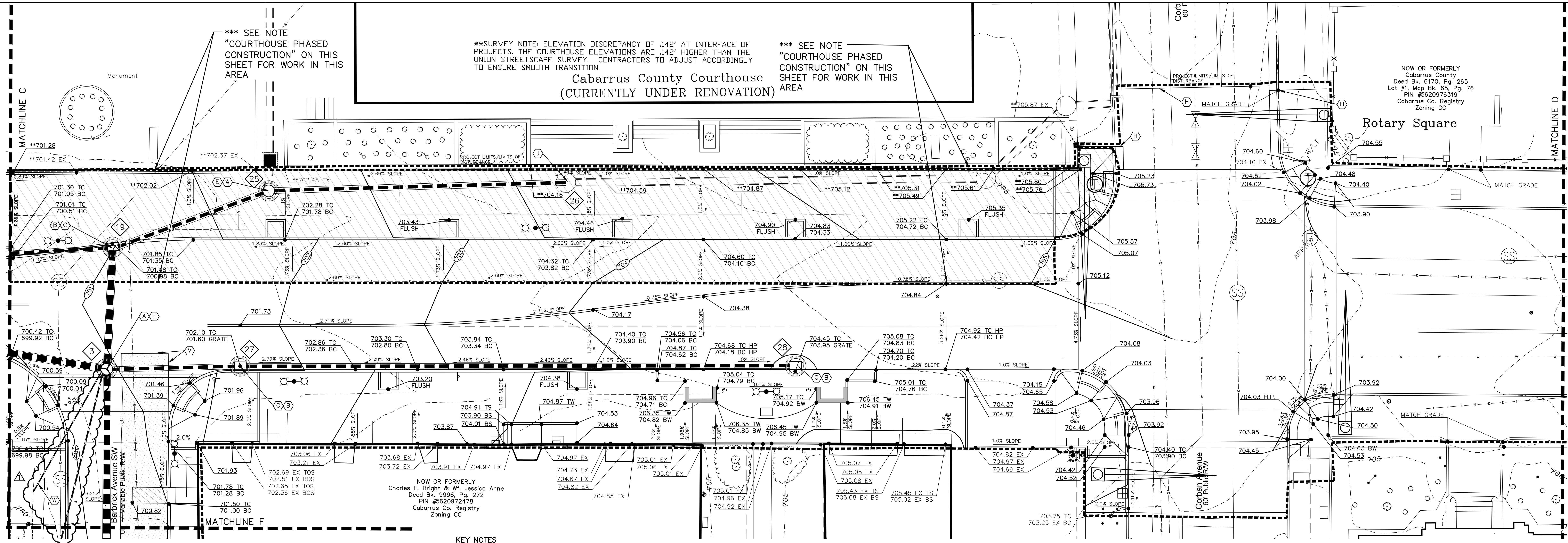
GRAPHIC SCALE: DIVISION VALUE = 10 FEET

OFFICE MANAGER: D.G. CHAPMAN
DESIGNER: C.L. CRANWILL
PROJECT MANAGER: M.J. NORRIS
REVIEWER: B. ROARK

GRADING, DRAINAGE, & EROSION CONTROL - C

DATE: JULY 2021
PROJECT #: 19.01726
FUNDING #: N/A

SHEET
C-203



STORM DRAINAGE SCHEDULE

From Structure Number	To Structure Number	Rim/Grate Elevation	Pipe Data			Pipe Diameter (inches)	Pipe Material	Pipe Slope	Structure Type
			Pipe Length (FT)	Pipe Invert Downstream	Pipe Invert Upstream				
1	EX MH	694.17	195.00	679.50	688.22	42	RCP CLASS IV	4.47%	MH
2	1	696.40	68.00	688.32	689.12	42	RCP CLASS IV	1.18%	MH
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11	11	707.11	32.00	701.90	703.06	15	RCP CLASS IV	3.62%	CI
12	12	710.90	166.00	703.16	707.40	15	RCP CLASS IV	2.55%	CI
13	10	705.09	34.00	700.25	700.90	18	RCP CLASS IV	1.91%	GI
14	15	705.26	22.00	701.00	702.83	18	RCP CLASS IV	8.32%	GI
16	15	705.95	32.00	703.08	703.70	15	RCP CLASS IV	1.94%	CI
17	9	700.53	21.00	696.80	697.20	18	RCP CLASS IV	1.90%	CI
18	17	701.67	72.00	697.45	698.20	15	RCP CLASS IV	1.04%	CI
19	3	700.98	32.00	691.65	691.90	36	RCP CLASS IV	0.78%	CI
20	19	699.51	91.00	691.93	692.39	24	RCP CLASS IV	0.51%	MH
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22	21	698.68	107.00	693.60	694.13	24	RCP CLASS IV	0.50%	CI
23	22	699.79	92.00	694.13	694.59	24	RCP CLASS IV	0.50%	CI
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28	27	703.95	141.00	696.10	699.00	15	RCP CLASS IV	2.06%	CI
ALT 29	11	709.32	50.00	701.90	705.82	15	RCP CLASS IV	7.84%	CI

KEY NOTES

- (A) PROPOSED STORMWATER MANHOLE. SEE NCDOT STANDARD DETAIL 840.52 AND 840.54. SEE DETAIL SHEET C-505.
- (B) PROPOSED CATCH BASIN WITH FRAME, GRATE, AND HOOD. SEE DETAIL SHEET C-505.
- (C) PROVIDE TEMPORARY STANDARD CATCH BASIN INLET PROTECTION. SEE DETAIL SHEET C-504.
- (D) PROPOSED DROP INLET WITH FRAME AND GRATE. SEE NCDOT STANDARD DETAIL 840.14 AND 840.16 ON DETAIL SHEET D-506.
- (E) PROVIDE TEMPORARY BLOCK AND GRAVEL DROP INLET FILTER. SEE DETAIL SHEET D-504.
- (F) TIE PROPOSED PIPE INTO EXISTING BOX. PATCH AND REPAIR AS NECESSARY TO ENSURE SEALED CONNECTION.
- (G) SILT SAK. SEE DETAIL SHEET C-504.
- (H) MATCH EXISTING GRADE WITH SMOOTH TRANSITION.
- (I) PROPOSED 6" SCHEDULE 40 PVC.
- (J) CONNECT PROPOSED BOX TO EX. PIPE. VERIFY INVERTS OF EXISTING PIPE PRIOR TO BOX INSTALLATION.
- (K) PROPOSED 3" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
- (L) PROPOSED 8" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT AT WALL LOCATION SHOWN. PROVIDE 2" AIR GAP BETWEEN PIPE EXIT AND TOP OF 10" NYOPLAST DRAIN. CONNECT 10" DROP IN DRAIN TO PROPOSED BOX AS SHOWN, MIN. SLOPE 2%. PROVIDE CLEANOUTS AS SHOWN.
- (M) SEDIMENT WATTLE. SEE DETAILS SHEET C-504.
- (N) PROPOSED 3" AND 6" SCHEDULE 40 PVC DRAINS FROM EXISTING UTILITY BOX TO TIE TO PROPOSED STORM STRUCTURE.
- (O) PROPOSED 3" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT AT WALL LOCATION SHOWN. PROVIDE 2" AIR GAP BETWEEN PIPE EXIT AND TOP OF 6" DROP IN NYOPLAST DRAIN. CONNECT 6" DROP IN DRAINS TO PROPOSED BOX WITH 6" SCHEDULE 40 PVC AS SHOWN, MIN SLOPE 2%. PROVIDE CLEANOUTS AS SHOWN.
- (P) PROPOSED 6" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
- (Q) PROPOSED 8" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
- (R) PROPOSED 3" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT TO CURB. PROVIDE CLEANOUTS AS SHOWN.
- (S) ADD ALTERNATE #1 CATCH BASIN WITH FRAME, GRATE, AND HOOD. SEE DETAIL SHEET C-505.
- (T) ADD ALTERNATE #1 15" CLASS IV RCP.
- (U) ADD ALTERNATE #1 PROVIDE TEMPORARY STANDARD CATCH BASIN INLET PROTECTION. SEE DETAIL SHEET C-504.
- (V) MUD MAT TO BE INSTALLED AS TEMPORARY CONSTRUCTION ENTRANCE AND RELOCATED AS NECESSARY TO ACTIVE CONSTRUCTION AREAS.
- (W) PROVIDE 3" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN. 1% SLOPE. CONTRACTOR TO REMOVE EX. 3" PIPE TO BUILDING FACE AND REDIRECT FOR MANHOLE CONNECTION. LOCATION SHOWN IS APPROXIMATE. NOT FROM SURVEY.
- (X) PROVIDE 4" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN. 1% SLOPE. CONTRACTOR TO REMOVE ENOUGH EXISTING CONCRETE AROUND END OF PIPE AS NECESSARY TO INSTALL ELBOW FOR CONNECTION TO STORMWATER MANHOLE PIPE. INSTALL ELBOW SO THAT THERE IS NO CONFLICT WITH PROPOSED SIDEWALK. PROVIDE CLEANOUTS AS SHOWN.
- (Y) PROVIDE 6" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN. 1% SLOPE.
- (Z) DOUBLE CATCH BASIN. SEE DETAIL SHEET C-510.

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4. CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR DISPOSAL OF ALL WASTE MATERIALS OFF SITE. THIS RESPONSIBILITY SHALL INCLUDE ALL REQUIRED APPROVALS AND CONDITIONS DICTATED BY LOCAL OR STATE EROSION CONTROL AUTHORITIES.
5. THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT TESTING LABORATORY (ITL) TO PROVIDE TESTING OF EARTHEN MATERIALS DURING EXCAVATION AND FILL OPERATIONS. ALL FILL MATERIALS SHALL BE APPROVED FOR SUITABILITY BY THE ITL.
6. SEED ALL DISTURBED AREAS UTILIZING A FESCUE BLEND (MIN. 2 REBEL, JAGUAR, FALCON). APPLICATION RATE OF SEED PER AAN STANDARDS. ALL FERTILIZER AND LIME AS RECOMMENDED BY SOIL TEST.
7. ALL SPOT ELEVATIONS AT CURB ARE AT TOP FACE OF CURB. ALL OTHER SPOT ELEVATIONS ARE AT SLAB GRADE OR AS INDICATED.
8. ALL OPEN STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY. SEE DETAIL SHEET C-504.
9. CONTRACTOR TO ENSURE POSITIVE DRAINAGE ON ALL SURFACES. NOTIFY ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ANY PAVING/SURFACES IF ON SITE CONDITIONS ARE FIELD DETERMINED NOT TO PROVIDE POSITIVE DRAINAGE.
10. CONTRACTOR TO INSTALL SILT SAK EROSION PROTECTION AS SHOWN ON THE DRAWINGS AND ON THE FIRST DOWNSTREAM INLET STRUCTURES OUTSIDE OF THE PROJECT AREA RECEIVING RUNOFF FROM THE ACTIVE CONSTRUCTION AREA. AS WORK IS PHASED, CONTRACTOR TO UTILIZE WATTLES AS APPLICABLE AROUND THE OPEN WORK AREA TO DISCHARGE THE STORM WATER. DEWATERING BAGS/SEDIMENT FILTER BAGS MAY BE USED TO FILTER STORMWATER FROM TRENCHING ACTIVITIES. UNDER NO CIRCUMSTANCE IS UNTREATED WATER TO BE RELEASED FROM THE WORK AREA WITHOUT PASSING THROUGH AN EROSION CONTROL DEVICE.
11. PROJECT IS BID UNCLASSIFIED.

LEGEND

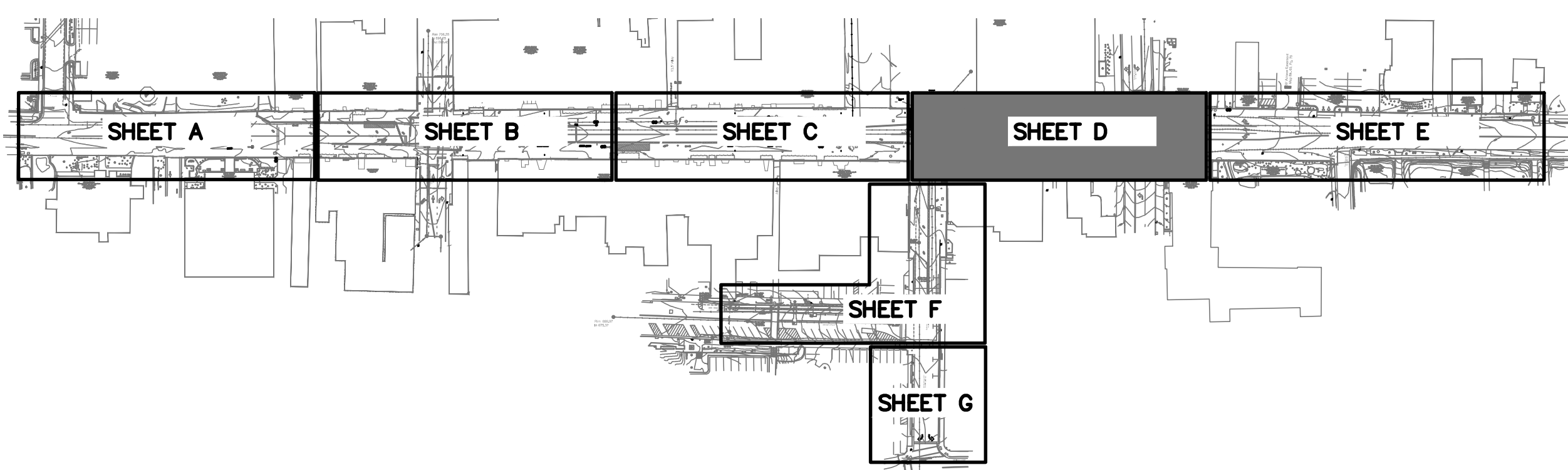
- PROJECT LIMITS
- SEDIMENT WATTLE
- INLET PROTECTION
- BC BOTTOM OF CURB
- TC TOP OF CURB
- BW BOTTOM OF WALL
- TW TOP OF WALL
- 5 STORMWATER STRUCTURE ID

SITE DATA

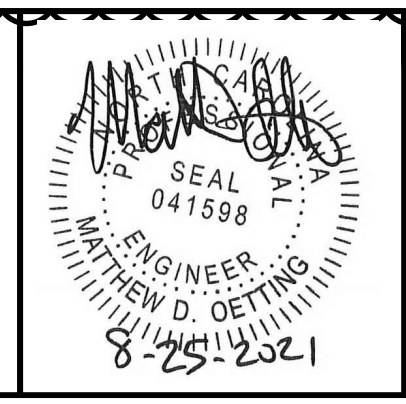
RIVER BASIN: YADKIN - PEE DEE RIVER
RECEIVING WATER: IRISH BUFFALO CREEK
PROJECT LIMITS/DISTURBED ACREAGE: 3.32 ACRES.
PERMITTED DISTURBED AREA: 3.5 ACRES.
MUNICIPALITY: CITY OF CONCORD

COURTHOUSE PHASED CONSTRUCTION:

DUE TO THE RENOVATION OF THE COURTHOUSE, ONLY PART OF THE ILLUSTRATED CONSTRUCTION ACTIVITIES WILL BE INSTALLED UNDER THIS CONTRACT. THE REMAINING ITEMS WILL BE INSTALLED UNDER SEPARATE CONTRACT AFTER THE COMPLETION OF THE COURTHOUSE RENOVATION IN 2024. ITEMS UNDER THIS CONTRACT INCLUDE: COMPREHENSIVE GRADING, ELECTRICAL DEMOLITION, ASPHALT PAVING, STRIPING, TEMPORARY CONCRETE SIDEWALK, 6" CURB, HC RAMPS, TACTILE PLATES, STORMWATER INSTALLATION, AND WATER LINES AS NOTED ON THE UTILITY SHEET. THIS AREA IS TO BE GRADED TO PROPOSED ELEVATIONS AND THE GRADES TAPERED DOWN TO MEET EXISTING ELEVATIONS AT THE COURTHOUSE STEPS. EXISTING DRAINAGE STRUCTURES TO BE UTILIZED FOR DRAINAGE.
FOR TEMPORARY PAVING SEE DETAIL SHEET C-510.



mcgill
1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com



NO.	DATE	BY	DESCRIPTION
1	8/20/2021	KCD	ADDENDUM #1
2	8/25/2021	KCD	ADDENDUM #2

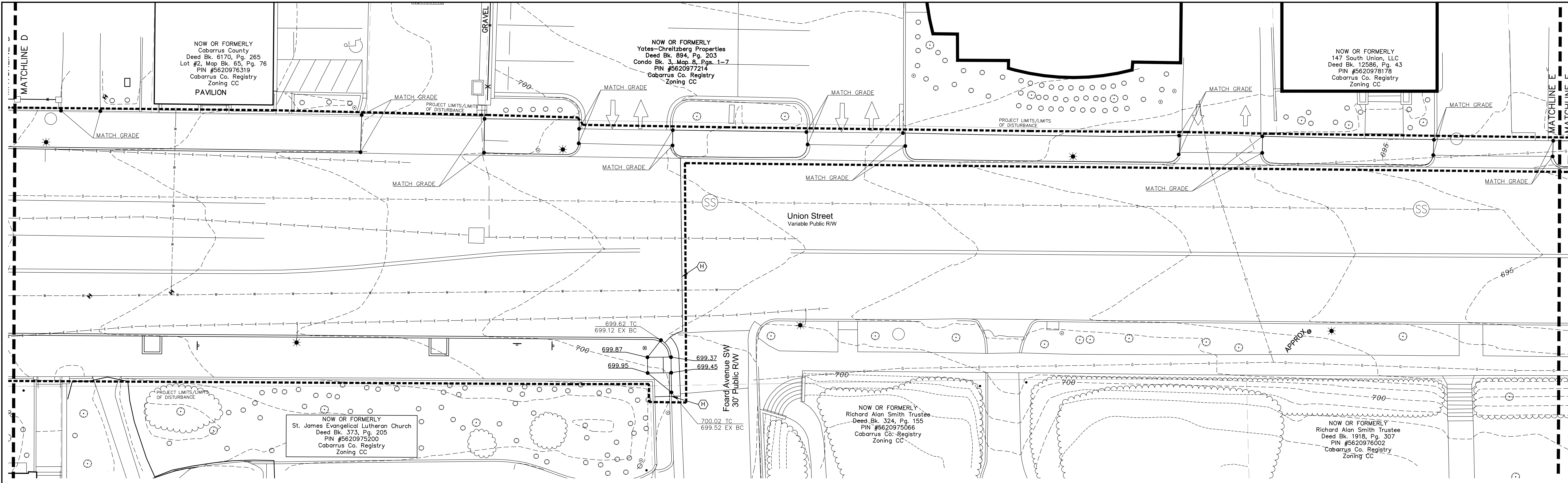
UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE: 1" = 10 FEET
DIVISION VALUE = 10 FEET

OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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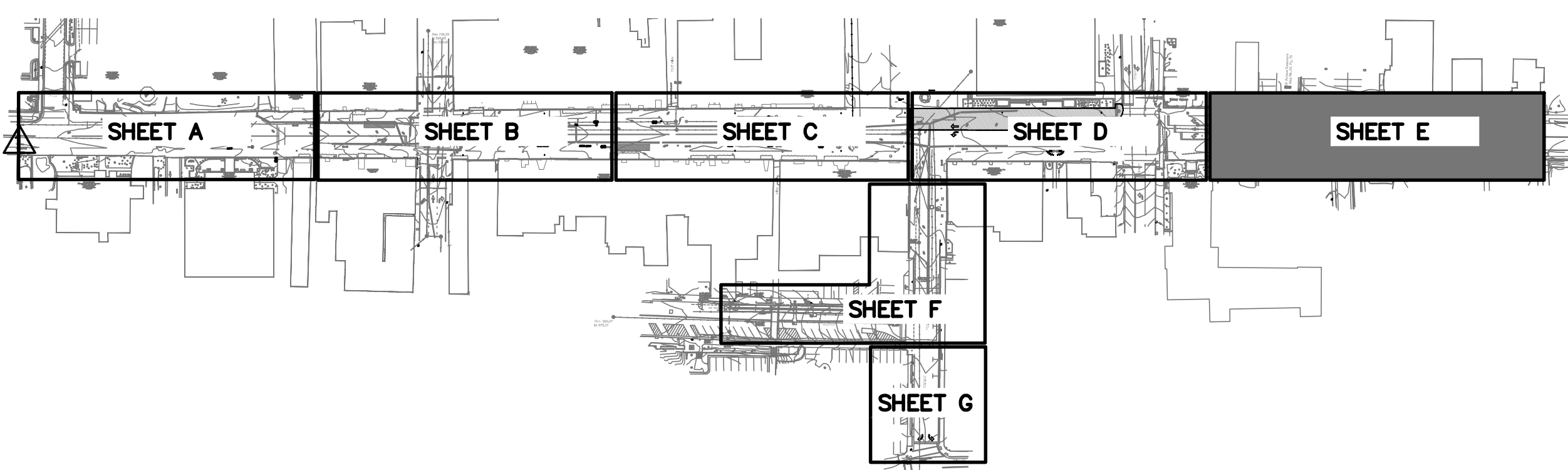
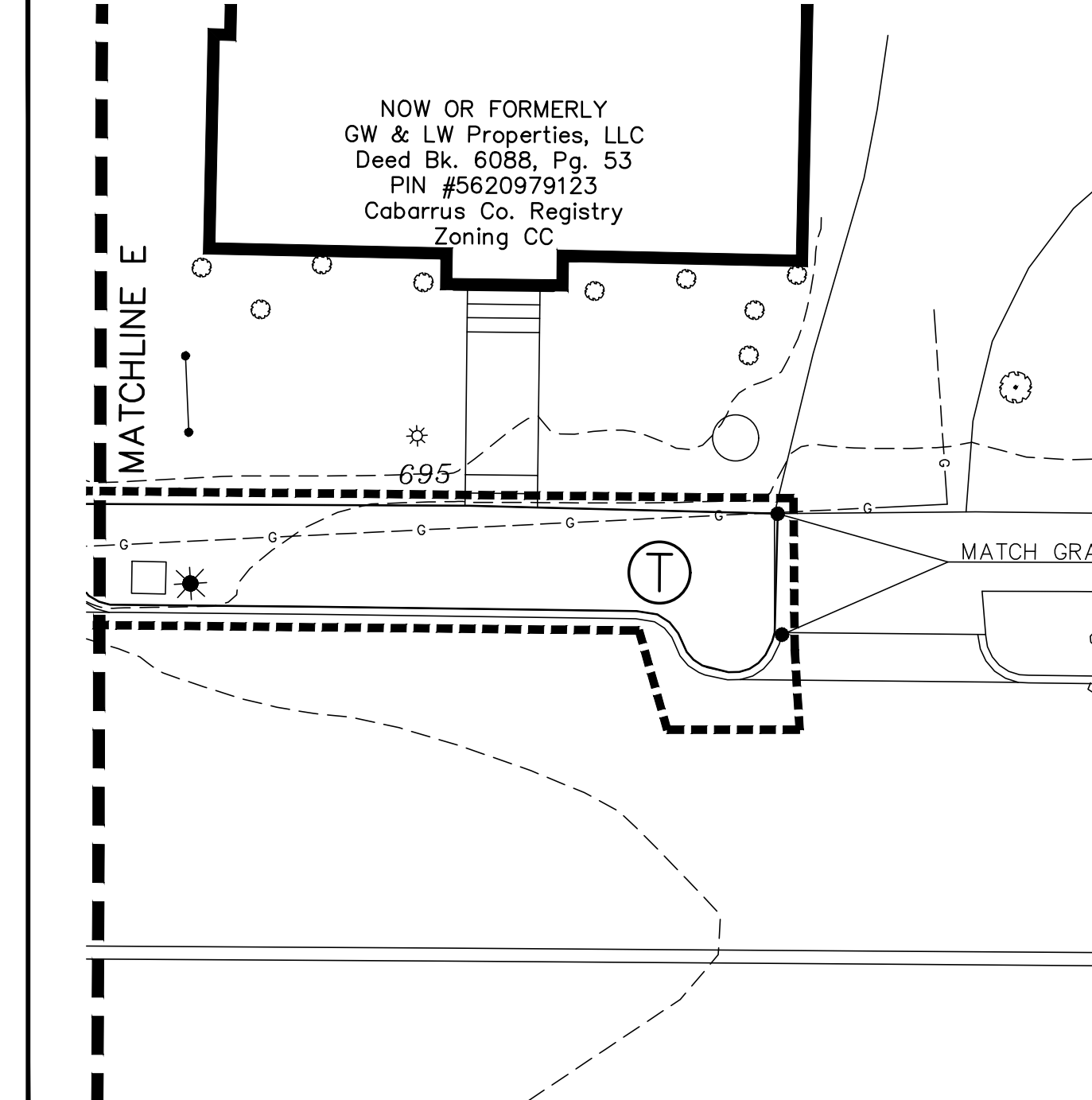
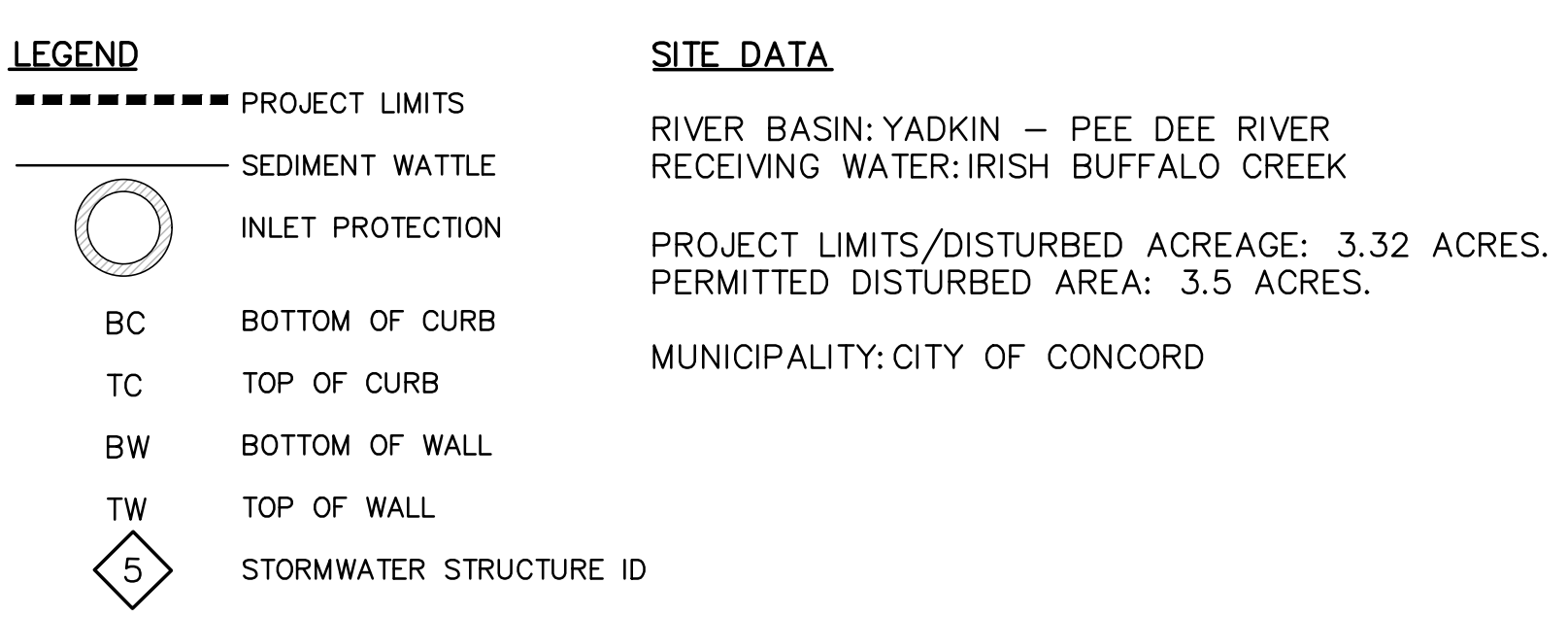
SHEET
C-204



STORM DRAINAGE SCHEDULE									
From Structure Number	To Structure Number	Rim/Grate Elevation	Pipe Data		Pipe Diameter (inches)	Pipe Material	Pipe Slope	Structure Type	
			Pipe Length (FT)	Pipe Invert Downstream					
1	EX MH	694.17	195.00	679.50	688.22	42 RCP	CLASS IV	4.47%	MH
2	1	696.40	68.00	688.32	689.12	42 RCP	CLASS IV	1.18%	MH
3	2	700.80	216.00	689.12	691.28	42 RCP	CLASS IV	1.00%	MH
4	3	699.81	34.00	692.28	692.58	30 RCP	CLASS IV	0.88%	CI
5	4	698.81	100.00	692.58	693.37	30 RCP	CLASS IV	0.79%	CI
6	5	698.61	107.00	693.37	694.22	30 RCP	CLASS IV	0.79%	CI
7	6	698.83	64.00	694.22	694.70	30 RCP	CLASS IV	0.75%	CI
8	7	699.08	56.00	694.70	695.00	30 RCP	CLASS IV	0.54%	CI
9	8	700.56	112.00	695.00	696.06	30 RCP	CLASS IV	0.95%	CI
10	9	704.05	150.00	696.06	697.50	30 RCP	CLASS IV	0.96%	CI
11	10	706.80	82.00	697.50	699.78	15 RCP	CLASS IV	2.78%	CI
12	11	707.11	32.00	701.90	703.06	15 RCP	CLASS IV	3.62%	CI
13	12	710.90	166.00	703.16	707.40	15 RCP	CLASS IV	2.55%	CI
14	10	705.09	34.00	700.25	700.90	18 RCP	CLASS IV	1.91%	GI
15	14	705.26	22.00	701.00	702.83	18 RCP	CLASS IV	8.32%	GI
16	15	705.95	32.00	703.08	703.70	15 RCP	CLASS IV	1.94%	CI
17	9	700.53	21.00	698.80	697.20	18 RCP	CLASS IV	1.90%	CI
18	17	701.67	72.00	697.45	698.20	15 RCP	CLASS IV	1.04%	CI
19	3	700.98	32.00	691.65	691.90	36 RCP	CLASS IV	0.78%	CI
20	19	699.51	91.00	691.93	692.39	24 RCP	CLASS IV	0.51%	MH
21	20	699.00	42.00	693.39	693.60	24 RCP	CLASS IV	0.50%	CI
22	21	698.68	107.00	693.60	694.13	24 RCP	CLASS IV	0.50%	CI
23	22	699.79	92.00	694.13	694.59	24 RCP	CLASS IV	0.50%	CI
24	23	699.56	40.00	696.00	696.30	15 RCP	CLASS IV	0.75%	CI
25	19	702.36	41.00	693.00	695.69	24 RCP	CLASS IV	6.56%	MH
26	25	703.73	76.00	696.19	699.66	18 RCP	CLASS IV	4.57%	EX MH
27	3	701.60	34.00	694.80	696.00	15 RCP	CLASS IV	3.53%	CI
28	27	703.95	141.00	696.10	699.00	15 RCP	CLASS IV	2.06%	CI
ALT 29	11	709.32	50.00	701.90	705.82	15 RCP	CLASS IV	7.84%	CI

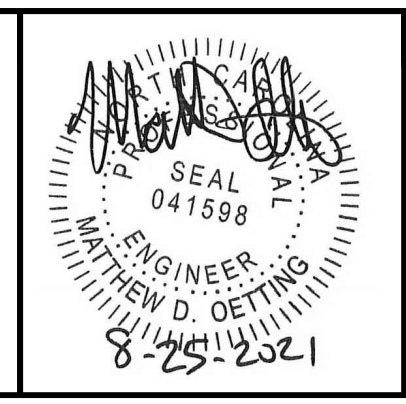
- KEY NOTES**
- (A) PROPOSED STORMWATER MANHOLE. SEE NCDOT STANDARD DETAIL 840.52 AND 840.54. SEE DETAIL SHEET C-505.
 - (B) PROPOSED CATCH BASIN WITH FRAME, GRATE, AND HOOD. SEE DETAIL SHEET C-505.
 - (C) PROVIDE TEMPORARY STANDARD CATCH BASIN INLET PROTECTION. SEE DETAIL SHEET C-504.
 - (D) PROPOSED DROP INLET WITH FRAME AND GRATE. SEE NCDOT STANDARD DETAIL 840.14 AND 840.16 ON DETAIL SHEET D-506.
 - (E) PROVIDE TEMPORARY BLOCK AND GRAVEL DROP INLET FILTER. SEE DETAIL SHEET D-504.
 - (F) TIE PROPOSED PIPE INTO EXISTING BOX. PATCH AND REPAIR AS NECESSARY TO ENSURE SEALED CONNECTION.
 - (G) SILT SAK. SEE DETAIL SHEET C-504.
 - (H) MATCH EXISTING GRADE WITH SMOOTH TRANSITION.
 - (I) PROPOSED 6" SCHEDULE 40 PVC.
 - (J) CONNECT PROPOSED BOX TO EX. PIPE. VERIFY INVERTS OF EXISTING PIPE PRIOR TO BOX INSTALLATION.
 - (K) PROPOSED 3" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
 - (L) PROPOSED 8" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT AT WALL LOCATION SHOWN. PROVIDE 2" AIR GAP BETWEEN PIPE EXIT AND TOP OF 10" NYOPLAST DRAIN. CONNECT 10" DROP IN DRAIN TO PROPOSED BOX AS SHOWN, MIN. SLOPE 2%. PROVIDE CLEANOUTS AS SHOWN.
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P:\2019\1910726-CONCORD-UNION STREET\SCAPE PROJECT\DRAWINGS\1910726-UNION BASE DWG.PLOT DATE 6/20/2021 3:07 PM USER IS DUBRANT

1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com



NO.	DATE	BY	DESCRIPTION
1	8/20/2021	KCD	ADDENDUM #1
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

10 0 5 10 20
GRAPHIC SCALE DIVISION VALUE = 10 FEET

OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

GRADING, DRAINAGE, &
EROSION CONTROL - E

DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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SHEET
C-205

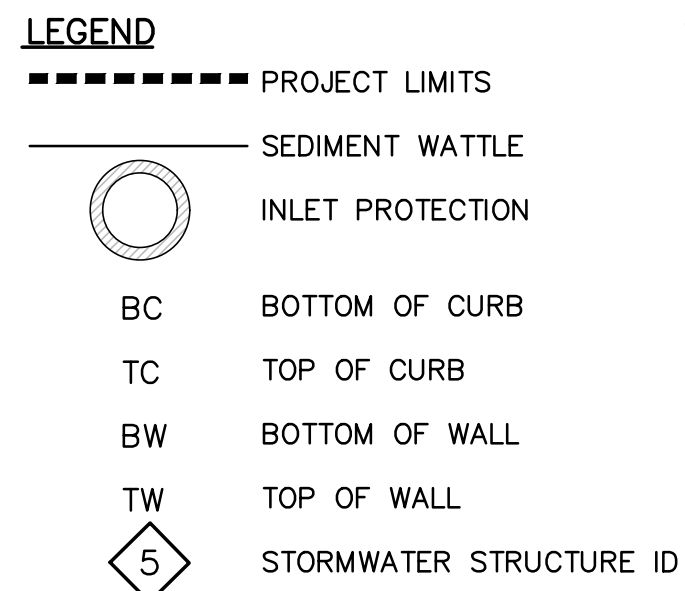
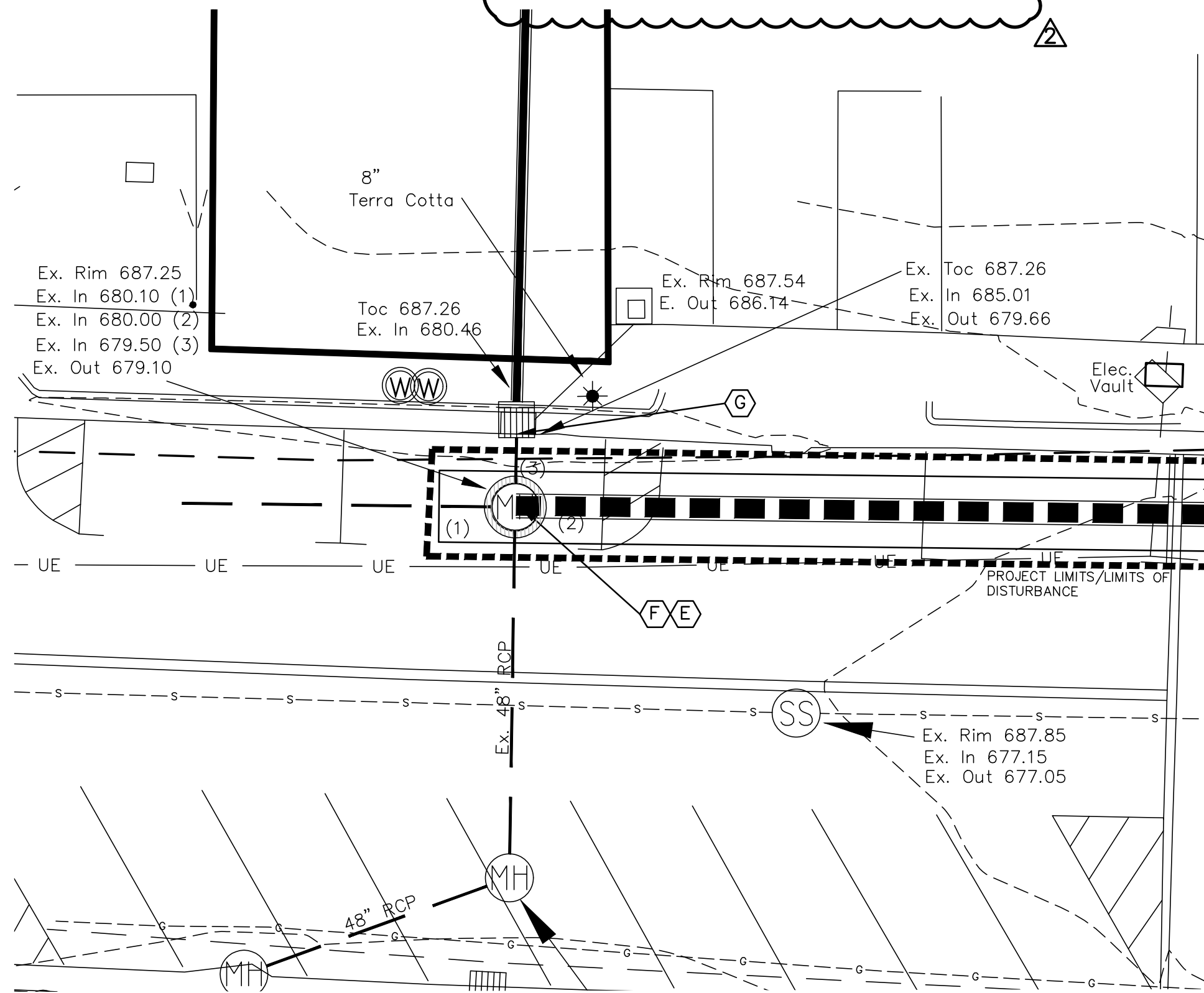
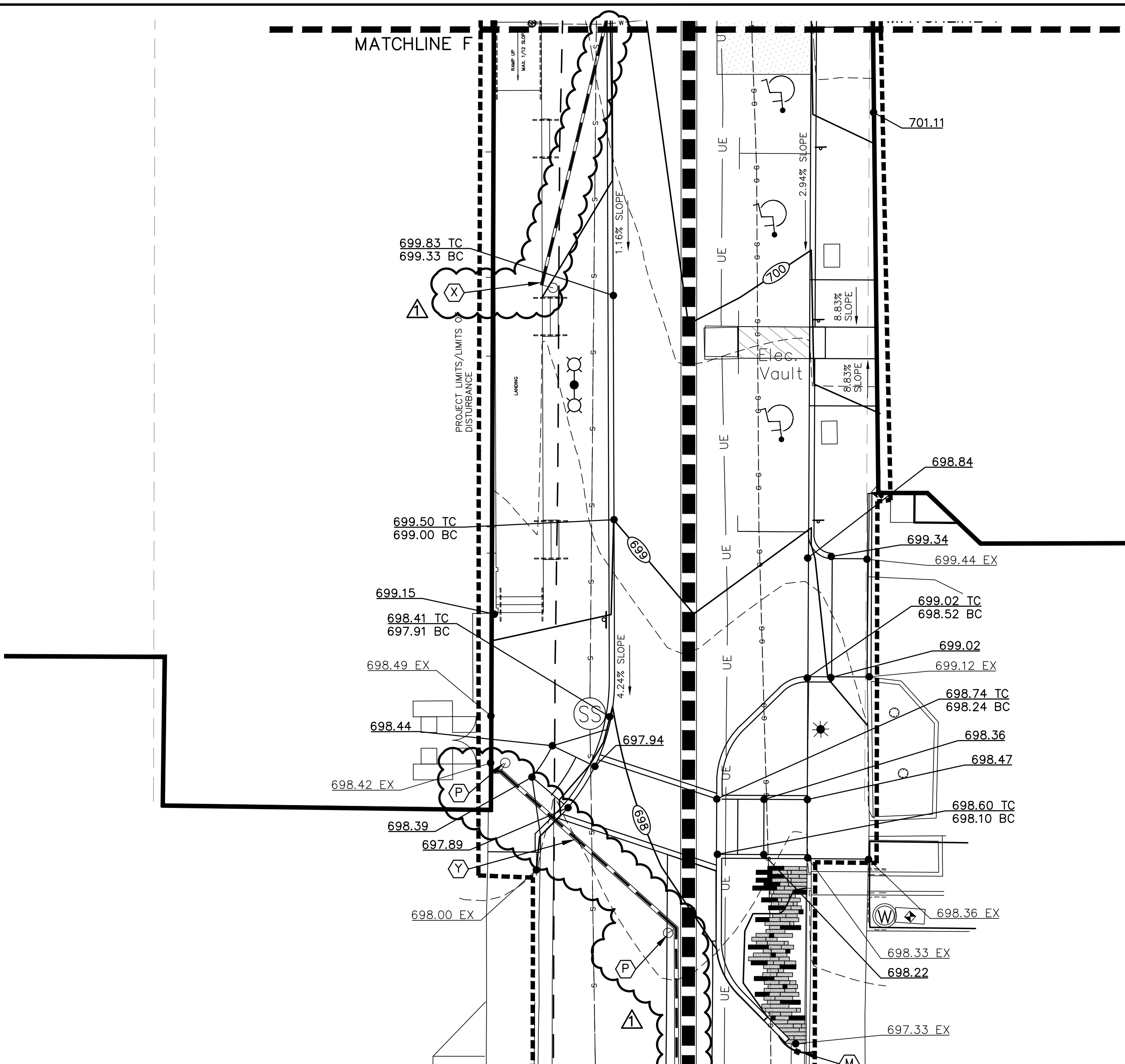
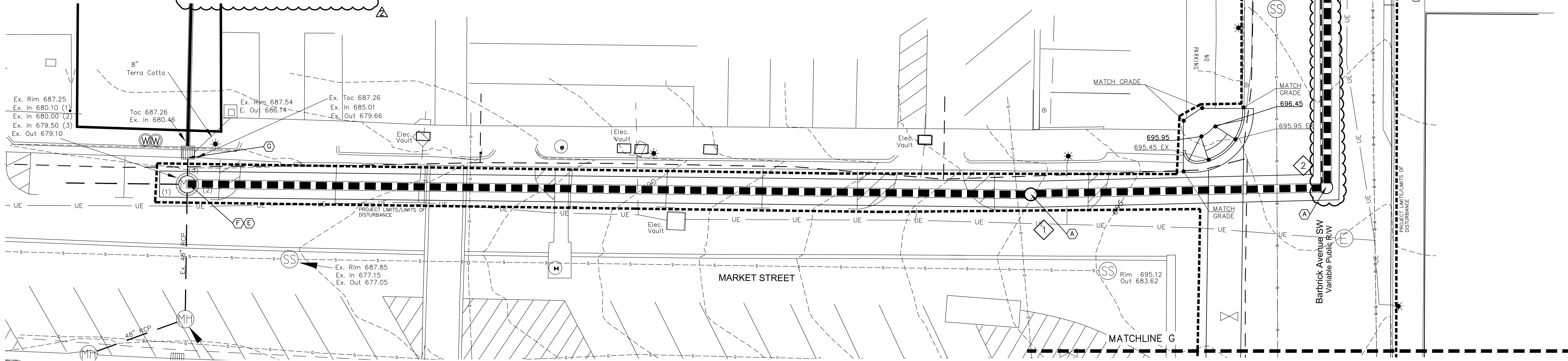
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2	1	696.40	68.00	688.32	689.12	42	RCP CLASS IV	1.18%	MH	
3	2	700.80	216.00	689.12	691.28	42	RCP CLASS IV	1.00%	MH	
4	3	699.81	34.00	692.28	692.58	30	RCP CLASS IV	0.88%	CI	
5	4	698.81	100.00	692.58	693.37	30	RCP CLASS IV	0.79%	CI	
6	5	698.61	107.00	693.37	694.22	30	RCP CLASS IV	0.79%	CI	
7	6	698.83	64.00	694.22	694.70	30	RCP CLASS IV	0.75%	CI	
8	7	699.08	56.00	694.70	695.00	30	RCP CLASS IV	0.54%	CI	
9	8	700.56	112.00	695.00	696.06	30	RCP CLASS IV	0.95%	CI	
10	9	704.05	150.00	696.06	697.50	30	RCP CLASS IV	0.96%	CI	
11	10	706.80	82.00	697.50	699.78	15	RCP CLASS IV	2.78%	CI	
12	11	707.11	32.00	701.90	703.06	15	RCP CLASS IV	3.62%	CI	
13	12	710.90	166.00	703.16	707.40	15	RCP CLASS IV	2.55%	CI	
14	10	705.09	34.00	700.25	700.90	18	RCP CLASS IV	1.91%	GI	
15	14	705.26	22.00	701.00	702.83	18	RCP CLASS IV	8.32%	GI	
16	15	705.95	32.00	703.08	703.70	15	RCP CLASS IV	1.94%	CI	
17	9	700.53	21.00	696.80	697.20	18	RCP CLASS IV	1.90%	CI	
18	17	701.67	72.00	697.45	698.20	15	RCP CLASS IV	1.04%	CI	
19	3	700.98	32.00	691.65	691.90	36	RCP CLASS IV	0.78%	CI	
20	19	699.51	91.00	691.93	692.39	24	RCP CLASS IV	0.51%	MH	
21	20	699.00	42.00	693.39	693.60	24	RCP CLASS IV	0.50%	CI	
22	21	698.68	107.00	693.60	694.13	24	RCP CLASS IV	0.50%	CI	
23	22	699.79	92.00	694.13	694.59	24	RCP CLASS IV	0.50%	CI	
24	23	699.56	40.00	696.00	696.30	15	RCP CLASS IV	0.75%	CI	
25	19	702.36	41.00	693.00	695.69	24	RCP CLASS IV	6.56%	MH	
26	25	703.73	76.00	696.19	699.66	18	RCP CLASS IV	4.57%	EX MH	
28	27	703.95	141.00	696.10	699.00	15	RCP CLASS IV	2.06%	CI	
ALT 29	11	709.32	50.00	701.90	705.82	15	RCP CLASS IV	7.84%	CI	

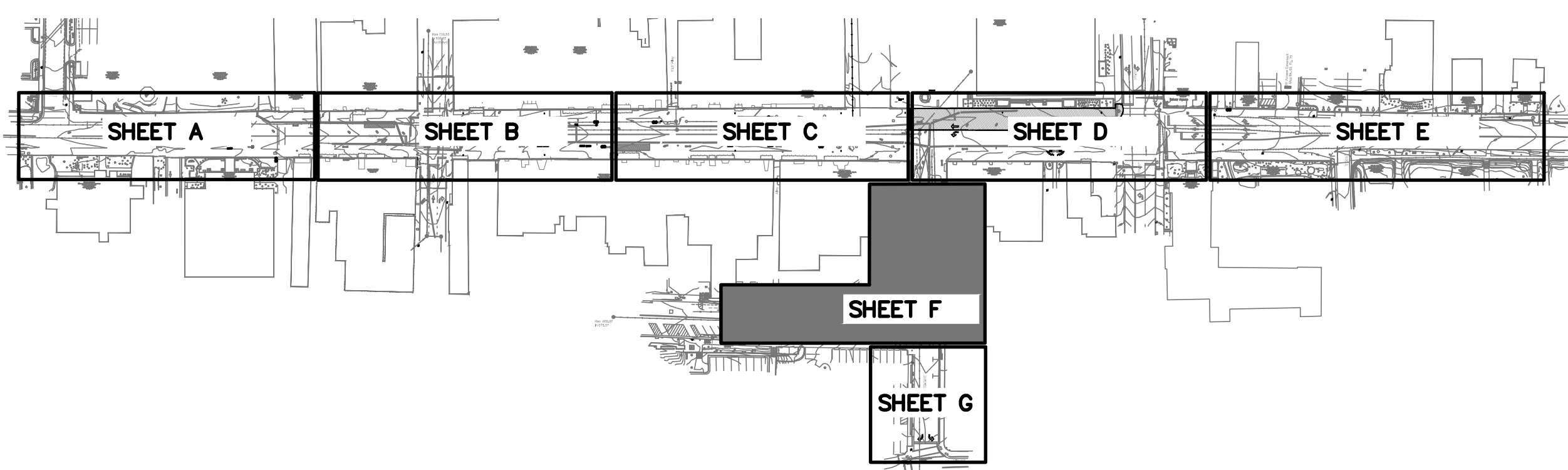


SITE DATA

RIVER BASIN: YADKIN - PEE DEE RIVER
RECEIVING WATER: IRISH BUFFALO CREEK

PROJECT LIMITS/DISTURBED ACREAGE: 3.32 ACRES.
PERMITTED DISTURBED AREA: 3.5 ACRES.

MUNICIPALITY: CITY OF CONCORD



mcgill
1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com

SEAL
ENGINEER
MATTHEW D. OETTING
041598

NO.	DATE	BY	DESCRIPTION
1	8/20/2021	KCD	ADDENDUM #1
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

10 0 5 10 20
GRAPHIC SCALE DIVISION VALUE = 10 FEET

OFFICE MANAGER: D.G. CHAPMAN
DESIGNER: C.L. CRANWILL
PROJECT MANAGER: M.J. NORRIS
REVIEWER: B. ROARK

GRADING, DRAINAGE, &
EROSION CONTROL - F

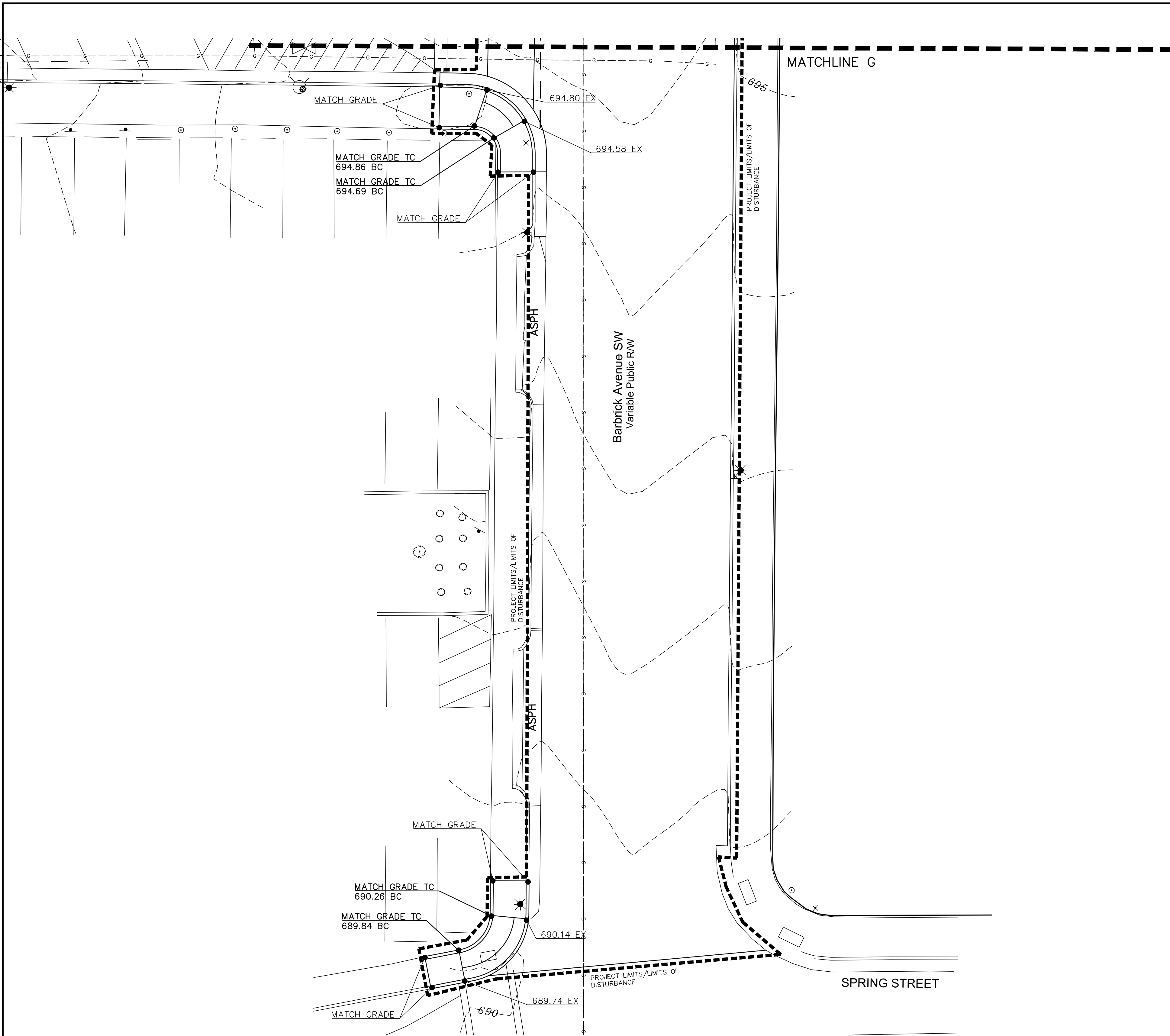
DATE: JULY 2021
PROJECT #: 19.01726
FUNDING #: N/A

SHEET
C-206

P:\2019\19.01726\CONCORD\UNION STREET\SCAPE PROJECT\DRAWINGS\19.01726\UNION BASE DWG PLOT DATE 8/20/2021 3:07 PM\MATTHEW.DUBRANT

19.01726 CITY OF CONCORD UNION STREET IMPROVEMENTS

P:\2019\1910726-CONCORD-UNION STREET\SCAPE PROJECT\DRAWINGS\1910726-UNION ST. BASE DWG 19.DWG DATE 8/20/2021 3:00 PM MKR/MS/DUBRANT

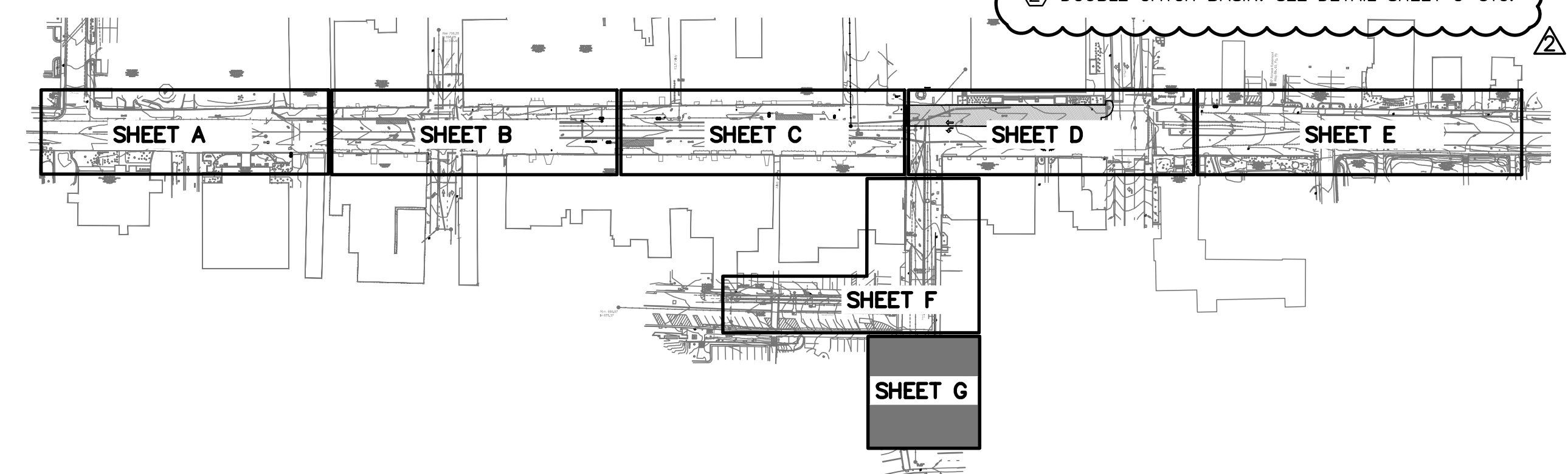


STORM DRAINAGE SCHEDULE										
From Structure Number	To Structure Number	Rim/Grate Elevation	Pipe Data			Pipe Diameter (inches)	Pipe Material	Pipe Slope	Structure Type	
			Pipe Length (FT)	Pipe Invert Downstream	Pipe Invert Upstream					
1	EX MH	694.17	195.00	679.50	688.22	42	RCP CLASS IV	4.47%	MH	
2	1	696.40	68.00	688.32	689.12	42	RCP CLASS IV	1.18%	MH	
3	2	700.80	216.00	689.12	691.28	42	RCP CLASS IV	1.00%	MH	
4	3	699.81	34.00	692.28	692.58	30	RCP CLASS IV	0.88%	CI	
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23	22	699.79	92.00	694.13	694.59	24	RCP CLASS IV	0.50%	CI	
24	23	699.56	40.00	696.00	696.30	15	RCP CLASS IV	0.75%	CI	
25	19	702.36	41.00	693.00	695.69	24	RCP CLASS IV	6.56%	MH	
26	25	703.73	76.00	696.19	699.66	18	RCP CLASS IV	4.57%	EX MH	
27	3	701.60	34.00	694.80	696.00	15	RCP CLASS IV	3.53%	CI	
28	27	703.95	141.00	696.10	699.00	15	RCP CLASS IV	2.06%	CI	
ALT 29	11	709.32	50.00	701.90	705.82	15	RCP CLASS IV	7.84%	CI	

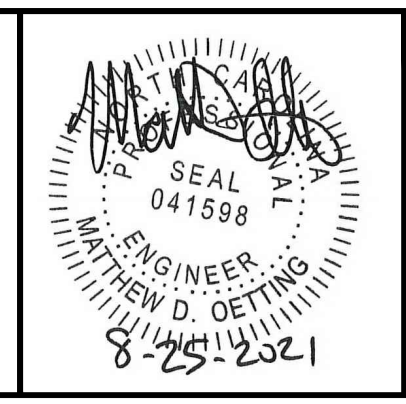
- GENERAL NOTES:**
1. ALL EXISTING CONDITIONS AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM SURVEY BY NORSTAR LAND SURVEYING, INC. MAY 2, 2019.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR THE OWNER.
 4. CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR DISPOSAL OF ALL WASTE MATERIALS OFF SITE. THIS RESPONSIBILITY SHALL INCLUDE ALL REQUIRED APPROVALS AND CONDITIONS DICTATED BY LOCAL OR STATE EROSION CONTROL AUTHORITIES.
 5. THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT TESTING LABORATORY (ITL) TO PROVIDE TESTING OF EARTHEN MATERIALS DURING EXCAVATION AND FILL OPERATIONS. ALL FILL MATERIALS SHALL BE APPROVED FOR SUITABILITY BY THE ITL.
 6. SEED ALL DISTURBED AREAS UTILIZING A FESCUE BLEND (MIN. 2 REBEL, JAGUAR, FALCON). APPLICATION RATE OF SEED PER AAN STANDARDS. ALL FERTILIZER AND LIME AS RECOMMENDED BY SOIL TEST.
 7. ALL SPOT ELEVATIONS AT CURB ARE AT TOP FACE OF CURB. ALL OTHER SPOT ELEVATIONS ARE AT SLAB GRADE OR AS INDICATED.
 8. ALL OPEN STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY. SEE DETAIL SHEET C-504.
 9. CONTRACTOR TO ENSURE POSITIVE DRAINAGE ON ALL SURFACES. NOTIFY ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ANY PAVING/SURFACES IF ON SITE CONDITIONS ARE FIELD DETERMINED NOT TO PROVIDE POSITIVE DRAINAGE.
 10. CONTRACTOR TO INSTALL SILK SAK EROSION PROTECTION AS SHOWN ON THE DRAWINGS AND ON THE FIRST DOWNSTREAM INLET STRUCTURES OUTSIDE OF THE PROJECT AREA RECEIVING RUNOFF FROM THE ACTIVE CONSTRUCTION AREA. AS WORK IS PHASED, CONTRACTOR TO UTILIZE WATTLES AS APPLICABLE AROUND THE OPEN WORK AREA TO DISCHARGE THE STORM WATER. DEWATERING BASIN/SEDIMENT FILTER BASIN MAY BE USED TO FLETER STORMWATER FROM TRENCHING ACTIVITIES. UNDER NO CIRCUMSTANCE IS UNTREATED WATER TO BE RELEASED FROM THE WORK AREA WITHOUT PASSING THROUGH AN EROSION CONTROL DEVICE.
 11. PROJECT IS BID UNCLASSIFIED.

- LEGEND**
- PROJECT LIMITS
 - SEDIMENT WATTLE
 - INLET PROTECTION
 - BC BOTTOM OF CURB
 - TC TOP OF CURB
 - BW BOTTOM OF WALL
 - TW TOP OF WALL
 - STORMWATER STRUCTURE ID
- SITE DATA**
- RIVER BASIN: YADKIN -- PEE DEE RIVER
 - RECEIVING WATER: IRISH BUFFALO CREEK
 - PROJECT LIMITS/DISTURBED ACREAGE: 3.32 ACRES.
 - PERMITTED DISTURBED AREA: 3.5 ACRES.
 - MUNICIPALITY: CITY OF CONCORD

- KEY NOTES**
- PROPOSED STORMWATER MANHOLE. SEE NCDOT STANDARD DETAIL 840.52 AND 840.54. SEE DETAIL SHEET C-505.
 - PROPOSED CATCH BASIN WITH FRAME, GRATE, AND HOOD. SEE DETAIL SHEET C-505.
 - PROVIDE TEMPORARY STANDARD CATCH BASIN INLET PROTECTION. SEE DETAIL SHEET C-504.
 - PROPOSED DROP INLET WITH FRAME AND GRATE. SEE NCDOT STANDARD DETAIL 840.14 AND 840.16 ON DETAIL SHEET D-506.
 - PROVIDE TEMPORARY BLOCK AND GRAVEL DROP INLET FILTER. SEE DETAIL SHEET D-504.
 - TIE PROPOSED PIPE INTO EXISTING BOX. PATCH AND REPAIR AS NECESSARY TO ENSURE SEALED CONNECTION.
 - SILT SAK. SEE DETAIL SHEET C-504.
 - MATCH EXISTING GRADE WITH SMOOTH TRANSITION.
 - PROPOSED 6" SCHEDULE 40 PVC.
 - CONNECT PROPOSED BOX TO EX. PIPE. VERIFY INVERTS OF EXISTING PIPE PRIOR TO BOX INSTALLATION.
 - PROPOSED 3" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
 - PROPOSED 8" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT AT WALL LOCATION SHOWN. PROVIDE 2" AIR GAP BETWEEN PIPE EXIT AND TOP OF 10" NYOPLAST DRAIN. CONNECT 10" DROP IN DRAIN TO PROPOSED BOX AS SHOWN, MIN. SLOPE 2%. PROVIDE CLEANOUTS AS SHOWN.
 - SEDIMENT WATTLE. SEE DETAILS SHEET C-504.
 - PROPOSED 3" AND 6" SCHEDULE 40 PVC DRAINS FROM EXISTING UTILITY BOX TO TIE TO PROPOSED STORM STRUCTURE.
 - PROPOSED 3" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT AT WALL LOCATION SHOWN. PROVIDE 2" AIR GAP BETWEEN PIPE EXIT AND TOP OF 6" DROP IN NYOPLAST DRAIN. CONNECT 6" DROP IN DRAINS TO PROPOSED BOX WITH 6" SCHEDULE 40 PVC AS SHOWN, MIN SLOPE 2%. PROVIDE CLEANOUTS AS SHOWN.
 - PROPOSED 6" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
 - PROPOSED 8" ROOF DRAIN CLEANOUT. SEE DETAIL SHEET C-504.
 - PROPOSED 3" SCHEDULE 40 PVC ROOF DRAIN TO DAYLIGHT TO CURB. PROVIDE CLEANOUTS AS SHOWN.
 - ADD ALTERNATE #1 CATCH BASIN WITH FRAME, GRATE, AND HOOD. SEE DETAIL SHEET C-505.
 - ADD ALTERNATE #1 15" CLASS IV RCP.
 - ADD ALTERNATE #1 PROVIDE TEMPORARY STANDARD CATCH BASIN INLET PROTECTION. SEE DETAIL SHEET C-504.
 - MUD MAT TO BE INSTALLED AS TEMPORARY CONSTRUCTION ENTRANCE AND RELOCATED AS NECESSARY TO ACTIVE CONSTRUCTION AREAS.
 - PROVIDE 3" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN.1% SLOPE. CONTRACTOR TO REMOVE EX. 3" PIPE TO BUILDING FACE AND REDIRECT FOR MANHOLE CONNECTION. LOCATION SHOWN IS APPROXIMATE. NOT FROM SURVEY.
 - PROVIDE 4" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN.1% SLOPE. CONTRACTOR TO REMOVE ENOUGH EXISTING CONCRETE AROUND END OF PIPE AS NECESSARY TO INSTALL ELBOW FOR CONNECTION TO STORMWATER MANHOLE PIPE. INSTALL ELBOW SO THAT THERE IS NO CONFLICT WITH PROPOSED SIDEWALK. PROVIDE CLEANOUTS AS SHOWN.
 - PROVIDE 6" SCHEDULE 40 PVC ROOF DRAIN TO CONNECT TO PROPOSED MANHOLE AT MIN.1% SLOPE.
 - DOUBLE CATCH BASIN. SEE DETAIL SHEET C-510.



1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com



NO.	DATE	BY	DESCRIPTION
1	8/20/2021	KCD	ADDENDUM #1
2	8/25/2021	KCD	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE DIVISION VALUE = 10 FEET

OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL
PROJECT MANAGER M.J. NORRIS	REVIEWER B. ROARK

DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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SHEET
C-207

1910726-CONCORD-UNION STREET IMPROVEMENTS

GENERAL UTILITY NOTES:

- LOCATIONS OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE, AND ARE SHOWN ACCORDING TO A SITE SURVEY PROVIDED BY NORSTAR LAND SURVEYING, INC., UTILITY MAPS PROVIDED BY THE CITY OF CONCORD, AND SEWER TV INSPECTION RECORDS PROVIDED BY THE CITY OF CONCORD. EXACT LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. CALL BEFORE YOU DIG, NORTH CAROLINA ONE CALL (1-800-632-4949).
- ALL PROPOSED DOMESTIC WATER SERVICES SHALL BE 2-INCH TYPE K COPPER UNLESS NOTED OTHERWISE. NEW DOMESTIC WATER SERVICES SHALL BE CONNECTED TO EXISTING SERVICES USING APPROPRIATE COUPLINGS.
- EXACT LOCATION AND SIZE OF FIRE SPRINKLER SERVICE LINES IS UNKNOWN. THE CONTRACTOR SHALL NOTIFY THE CITY OF CONCORD WATER RESOURCES, ENGINEERING, AND FIRE DEPARTMENTS OF THE LOCATION AND SIZE OF ANY FIRE SPRINKLER LINES DISCOVERED DURING PROJECT EXCAVATION WHICH ARE NOT SHOWN ON THE PLANS AND SHALL COORDINATE TIE-OVER OF EXISTING FIRE SPRINKLER LINES WITH THESE DEPARTMENTS PRIOR TO EXECUTING TIE-OVER WORK. EXISTING FIRE SPRINKLER LINES SHALL BE REPLACED AND CONNECTED TO THE NEW WATER MAIN USING DUCTILE IRON PIPE OF LIKE SIZE AS THE EXISTING FIRE SPRINKLER SERVICE PIPE. ACCORDING TO THE CITY OF CONCORD FIRE DEPARTMENT, THE FOLLOWING PROPERTIES HAVE FIRE SPRINKLER SYSTEMS:
 - 9 NORTH UNION STREET
 - 14 NORTH UNION STREET
 - 30 NORTH UNION STREET
 - 11 SOUTH UNION STREET
 - 30 SOUTH UNION STREET
 - 57 SOUTH UNION STREET
- NEW AND REPLACEMENT SEWER SERVICE LINES ARE TO BE CONSTRUCTED USING C-900 DR-14 PVC PIPE OF LIKE SIZE AS THE EXISTING SEWER SERVICE LINES, WITH THE MINIMUM SIZE BEING 4" DIAMETER. ALL SEWER LATERAL CLEANOUTS SHALL BE HOUSED IN A TRAFFIC RATED STEEL MINI-MANHOLE (C-509). CONNECTION TO EXISTING SEWER LATERALS SHALL BE ACCOMPLISHED USING CONNECTION COUPLINGS. NEW SEWER LATERAL CONNECTIONS TO EXISTING SEWER MAINS SHALL BE ACCOMPLISHED USING CAST IRON SADDLE CONNECTORS. NEW SEWER LATERAL CONNECTIONS TO NEW SEWER MAINS SHALL BE ACCOMPLISHED USING SEWER WYE FITTINGS INSTALLED WITH THE MAIN.
- THE CONTRACTOR SHALL REPORT ANY UNKNOWN WATER AND SEWER SERVICE LINES TO THE CITY OF CONCORD UPON DISCOVERY AND COORDINATE WITH THE CITY OF CONCORD REGARDING REPLACEMENT OR DISCONNECTION/ABANDONMENT/REMOVAL OF UNKNOWN SERVICE LINES.
- THE CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED MANHOLE TOP ELEVATIONS AND EXISTING MANHOLE INVERTS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR SHALL ADJUST ALL PROPOSED SEWER STRUCTURES TO MATCH FINISHED PAVEMENT ELEVATIONS. COSTS OF ADJUSTING STRUCTURE TOPS SHALL BE CONSIDERED INCIDENTAL TO OTHER WORK ON THE PROJECT.
- UTILITY SERVICE AND FIRE WATER COVERAGE IS TO BE MAINTAINED THROUGHOUT PROJECT CONSTRUCTION EXCEPT FOR BRIEF PERIODS DURING TIE-OVER OF MAINS AND SERVICE LINES. THE CONTRACTOR SHALL PROVIDE TEMPORARY VALVES, FITTINGS, AND CONNECTIONS TO MAINTAIN UTILITY SERVICE AND TO ACCOMMODATE PROJECT PHASING.
- ALL CONNECTIONS TO EXISTING WATER LINES 4-INCHES AND LARGER SHALL BE ACCOMPLISHED USING MECHANICAL SLEEVES WITH RESTRAINED JOINTS.
- THE CONTRACTOR SHALL MAINTAIN SEWAGE FLOW IN SEWER SYSTEM AT ALL TIMES AND SHALL PROVIDE BYPASS PUMPING AND/OR PIPING AS REQUIRED. THE CONTRACTOR SHALL SUBMIT A SEWER BYPASS PLAN TO THE CITY ENGINEERING DEPARTMENT FOR APPROVAL PRIOR TO INSTALLATION. NO SANITARY SEWER OVERFLOWS ARE PERMITTED.
- THE CONTRACTOR SHALL COORDINATE WATER LINE ISOLATION WITH THE DESIGNATED CITY OF CONCORD INSPECTOR.
- METER BOXES AND METER BOX LIDS SHALL BE INSTALLED FLUSH WITH THE FINAL GRADE.
- METER VAULTS, METER BOXES, PRV BOXES, AND OTHER WATER RELATED APPURTENANCES SHALL NOT BE INSTALLED IN BRICK PAVER BAND AREAS.
- THE CONTRACTOR SHALL COORDINATE THE LOCATIONS OF TEMPORARY JUMPER CONNECTION ASSEMBLIES AND BLOW-OFFS WITH THE CITY OF CONCORD DESIGNATED INSPECTOR. THE LOCATION OF THE TEMPORARY JUMPER CONNECTION ASSEMBLIES AND BLOW-OFF ASSEMBLIES MUST NOT IMPEDE VEHICULAR AND PEDESTRIAN TRAFFIC AND OTHER UTILITY RELOCATION WORK. WHERE POSSIBLE, THE PROPOSED HYDRANTS AND/OR EXISTING HYDRANTS SHOULD BE UTILIZED FOR FLUSHING IN LIEU OF TEMPORARY BLOW-OFF ASSEMBLIES. THE CONTRACTOR SHALL ALSO COORDINATE LOCATIONS FOR TEMPORARY JUMPER ASSEMBLIES AND BLOW-OFFS WITHIN CABARRUS ROAD RIGHT OF WAY WITH NCDOT.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN 5' OF GAS LINES WITH DOMINION ENERGY PRIOR TO BEGINNING WORK.
- REFER TO SHEET G-003 FOR SEQUENCING AND TRAFFIC CONTROL INFORMATION. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS AND COORDINATE TRAFFIC CONTROL WITH THE CITY OF CONCORD AND NCDOT AS APPLICABLE PRIOR TO CLOSING ANY STREET, ROAD, OR SIDEWALK.
- REFER TO SHEETS G-002 AND SHEETS C-201 THROUGH C-207 FOR PROJECT EROSION CONTROL INFORMATION.
- THE CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS FOR SUBMISSION TO NCDOT RELATED TO WORK WITHIN NCDOT RIGHT OF WAY.
- THE CONTRACTOR SHALL PROVIDE SOIL INVESTIGATION, PLANS, DETAILS, DESIGN CALCULATIONS, ETC. FOR TEMPORARY SHORING FOR TRENCHING WITHIN NCDOT RIGHT OF WAY AS REQUIRED BY NCDOT FOR SUBMISSION AND APPROVAL BY NCDOT.
- THE CONTRACTOR SHALL NOT REMOVE SOIL FROM THE PROJECT WITHOUT APPROVAL FROM THE ENGINEER OR THE CITY'S REPRESENTATIVE. UNSUITABLE SOIL NOT INCORPORATED INTO THE PROJECT WILL BE REMOVED FROM THE JOB SITE AT NO ADDITIONAL COST TO THE CITY.
- UTILITY TRENCHES SHALL BE CLOSED WITH AN ASPHALT CAP ACCORDING TO THE DETAILS ON C-507 FOR UTILITY TRENCHES IN STREET RECONSTRUCTION AREAS INTENDED TO BE RE-OPENED TO TRAFFIC PRIOR TO COMPLETE PAVEMENT REMOVAL, AND IN AREAS WHERE SURFACE MILLING AND OVERLAY ARE SHOWN. CLOSURE OF UTILITY TRENCHES IN AREAS OF STREET RECONSTRUCTION FOLLOWING COMPLETE PAVEMENT REMOVAL DO NOT REQUIRE AN ASPHALT CAP AND SHALL BE ACCOMPLISHED PRIOR TO INSTALLATION OF PERMANENT PAVEMENT. PAYMENT FOR ASPHALT TRENCH CAPS SHALL BE INCIDENTAL TO THE UNIT PRICE OF THE ASSOCIATED UTILITY BID ITEM.

SPECIAL REQUIREMENTS FOR ASBESTOS CEMENT PIPE

CONSTRUCTION ACTIVITIES WILL REQUIRE CUTTING, MODIFYING, REMOVAL, AND DISPOSAL OF EXISTING ASBESTOS CEMENT (AC) PIPE. WHERE RECORDS ARE AVAILABLE, EXISTING AC PIPE MATERIALS ARE LABELED ON THE PLANS. THE CONTRACTOR SHALL ANTICIPATE ENCOUNTERING AC PIPE THAT MAY NOT BE LABELED. ALL EXISTING AC PIPE SHOWN TO BE ABANDONED SHALL BE ABANDONED IN PLACE UNLESS SPECIFICALLY LABELED TO BE REMOVED. AC PIPE TO BE ABANDONED IN PLACE SHALL NOT BE CRUSHED BY MACHINERY. IF AC PIPE IS CRUSHED, THE SITE SHALL BE CONSIDERED A REGULATED ASBESTOS CONTAINING MATERIALS (RACM) SITE AND CONSIDERED AN ACTIVE WASTE DISPOSAL SITE. THE CRUSHED PIPE AND CONTAMINATED SOIL SHALL BE REMOVED, HANDLED, AND DISPOSED BY A LICENSED ASBESTOS REMOVAL CONTRACTOR FOLLOWING REQUIRED PROTOCOLS FOR HANDLING AND DISPOSAL OF ASBESTOS. WHERE EXCAVATIONS OR GRADING REQUIRED FOR CONSTRUCTION EXPOSES EXISTING AC PIPES, THE WORK SITE SHALL BE MARKED WITH SIGNAGE WARNING OF ASBESTOS. EXPOSED PIPE, WHETHER INTACT OR NOT, SHALL BE HANDLED AND DISPOSED OF BY A LICENSED ASBESTOS REMOVAL CONTRACTOR. ALL WORK REQUIRING HANDLING, REMOVAL, OR DISPOSAL OF AC PIPE SHALL BE DONE IN STRICT ACCORDANCE WITH NCGS CHAPTER 130A PUBLIC HEALTH ARTICLE 19: ASBESTOS HAZARD MANAGEMENT PROGRAM.

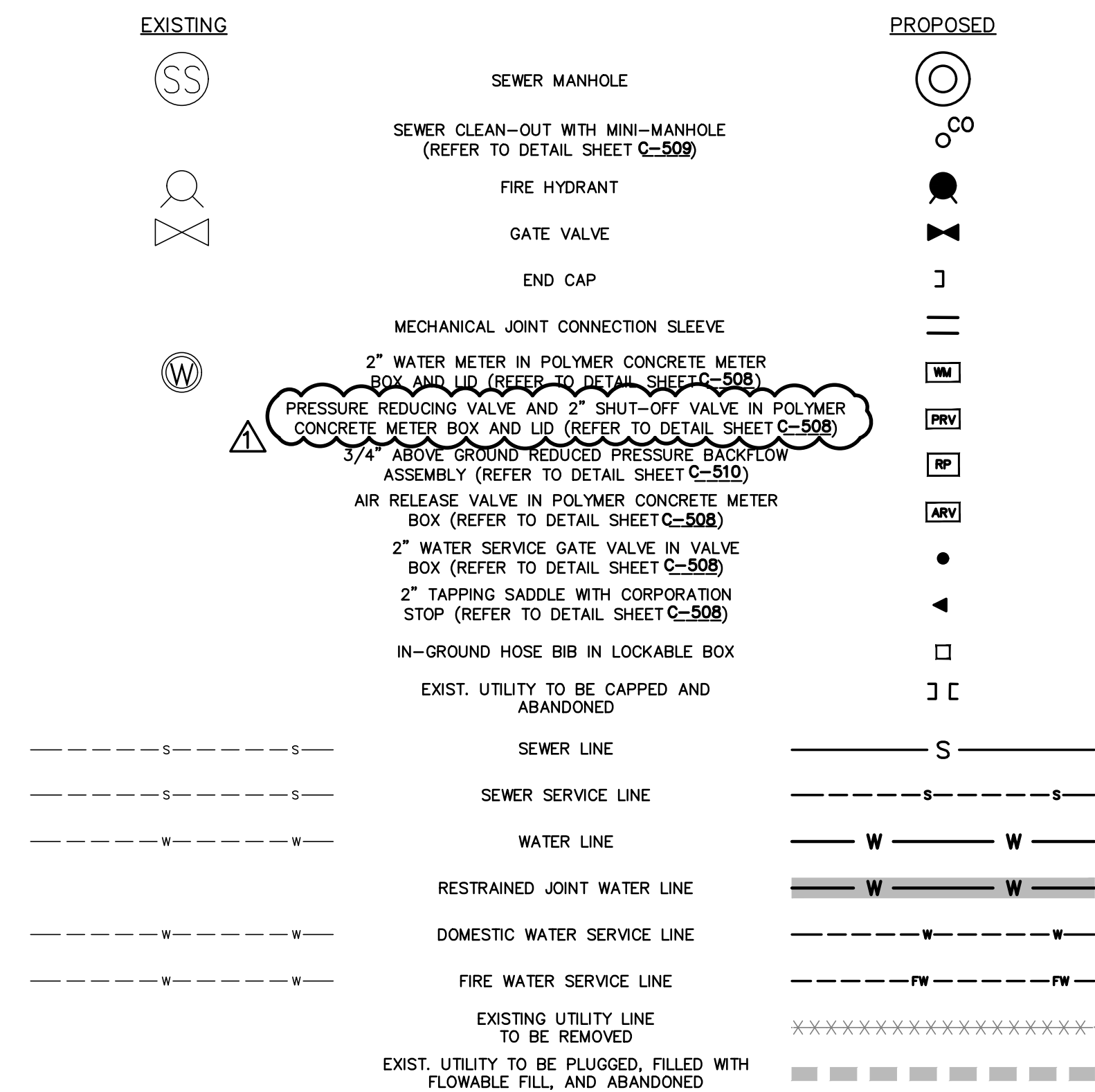
WORKER TRAINING AND WORKPLACE RULES AND PROCEDURES SHALL MEET THE MINIMUM REQUIREMENTS OF NC AND FEDERAL OSHA RULES. WHERE THE WORK REQUIRES CONNECTING INTO EXISTING AC PIPING, THE FOLLOWING REQUIREMENTS SHALL APPLY:

- ALL PERSONNEL INVOLVED IN THE WORK SHALL RECEIVE TRAINING IN PROPER PROCEDURES FOR HANDLING AND WORKING WITH AC PIPE.
- ALL PERSONNEL SHALL BE EQUIPPED WITH APPROVED PERSONAL PROTECTIVE EQUIPMENT (PPE) INCLUDING SHOES, CLOTHING, AND BREATHING EQUIPMENT.
- THE CONTRACTOR SHALL DESIGNATE A "PERSON IN CHARGE" WHO SHALL BE PRESENT AT ALL TIMES WHEN AC PIPE IS BEING MODIFIED.
- ALL PIPE CUTTING SHALL BE BY APPROVED "SNAP CUTTERS". THE USE OF SAWS OR GRINDERS EMPLOYING CARBIDE BLADES IS STRICTLY PROHIBITED.
- COMPRESSED AIR SHALL NEVER BE USED TO BLOW OR CLEAN PIPE CUTS WHERE NEW PIPES ARE TO BE CONNECTED TO EXISTING AC PIPE.
- MODIFIED WATER CONTAINING SURFACTANTS SHALL BE USED TO LUBRICATE AND WET ALL PIPE CUTS TO MINIMIZE PRODUCTION OF DUST.
- WORK SITES SHALL BE ROPED OFF AND SIGNS WARNING OF ASBESTOS SHALL BE POSTED.
- ALL SECTIONS OF AC PIPE CUT FOR CONNECTIONS OF NEW PIPING SHALL BE REMOVED FROM THE EXCAVATION, DOUBLE BAGGED IN HEAVY PLASTIC WRAP, LABELED AS "ASBESTOS" AND PLACED IN A SECURE STORAGE AREA PENDING TRANSPORT AND DISPOSAL TO A LICENSED ASBESTOS DISPOSAL LANDFILL.
- WHERE THE WORK REQUIRES PREPARING THE CUT END OF AN EXISTING AC PIPE FOR CONNECTION OF A NEW PIPE, ONLY TOOLS APPROVED FOR THIS WORK SHALL BE USED. PIPE SHALL BE CONTINUOUSLY LUBRICATED WITH "MODIFIED WATER" TO LIMIT DUST.
- CLEAN UP AT WORK SITES SHALL NEVER EMPLOY COMPRESSED AIR, BLOWERS, MECHANICAL BROOMS, OR OTHER DEVICES THAT WILL PRODUCE DUST.
- AT THE END OF EACH WORK DAY WHERE AC PIPE IS CUT, HANDLED, MODIFIED, OR REMOVED, ALL WORKERS' PERSONAL PROTECTION EQUIPMENT (PPE) SHALL BE STORED AT A SUITABLE LOCATION FOR CLEANING, DECONTAMINATION DISPOSAL, OR FUTURE USE. WORKERS INVOLVED IN CUTTING, REMOVAL, AND DISPOSAL OF AC PIPE SHALL NOT BE ALLOWED TO REMOVE PIPE FROM THE WORK SITE.
- REFER TO PROJECT SPECIFICATIONS AND SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

CITY OF CONCORD UTILITY NOTES:

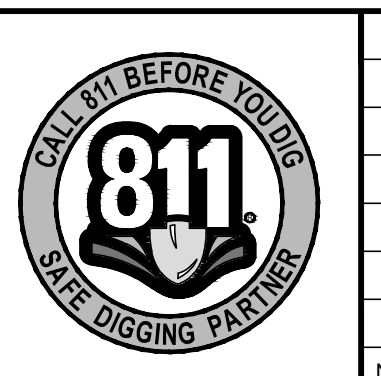
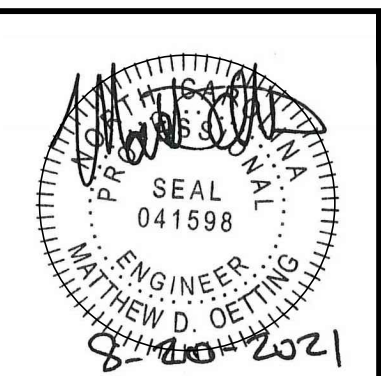
- PER CITY OF CONCORD CODE OF ORDINANCE CHAPTER 62, ARTICLE 3, SECTION 62-98 (2) ALL MATERIALS, EQUIPMENT, LABOR, AND WORKMANSHIP ASSOCIATED WITH PUBLIC WATER AND /OR SEWER EXTENSION AND/OR MODIFICATION SHALL BE IN ACCORDANCE WITH AND SUBJECT TO THE WATER AND SEWER AUTHORITY OF CABARRUS COUNTY'S STANDARD SPECIFICATIONS, THE CITY OF CONCORD'S ORDINANCES, POLICIES, AND STANDARD SPECIFICATIONS, AND THE NORTH CAROLINA ADMINISTRATIVE CODE FOR WASTEWATER COLLECTION AND WATER DISTRIBUTION SYSTEMS. IN THE EVENT OF CONFLICT BETWEEN THE WATER AND SEWER AUTHORITY OF CABARRUS COUNTY'S STANDARD SPECIFICATIONS, THE CITY OF CONCORD'S ORDINANCES, POLICIES, AND STANDARD SPECIFICATIONS, OR THE NORTH CAROLINA ADMINISTRATIVE CODE, THE MORE RESTRICTIVE REQUIREMENTS SHALL APPLY.
- REVIEW AND APPROVAL OF THE PLANS DOES NOT RELIEVE THE OWNER, CONTRACTOR, OR DEVELOPER FROM MEETING THE REQUIREMENTS OF THE CITY OF CONCORD'S OR CABARRUS COUNTY ORDINANCES, POLICIES, AND STANDARD SPECIFICATIONS, (AS APPLICABLE), CONCORD WATER & SEWER POLICIES AND TECHNICAL SPECIFICATIONS, THE STANDARD SPECIFICATION FOR WASTEWATER COLLECTION & WASTE DISTRIBUTION FOR CABARRUS COUNTY (WSACC MANUAL) AND ANY OTHER LOCAL, STATE, AND FEDERAL REGULATIONS & APPROVALS.
- THE CONTRACTOR MUST CONTACT THE CITY OF CONCORD ENGINEERING CONSTRUCTION MANAGER AT 704-920-5425 AT LEAST 24-HOURS PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITY.
- THE EXISTING WATER MAIN VALVE RIMS AND STEMS AND THE EXISTING SEWER MAIN MANHOLES RIMS ARE TO BE RAISED OR LOWERED TO FINAL GRADE, AS APPLICABLE AND AT LEAST 3-FT OF GROUND COVER IS TO BE MAINTAINED OVER THE EXISTING UTILITIES AT ALL TIMES PER THE CITY OF CONCORD CODE OF ORDINANCE CHAPTER 62, ARTICLE 3, SECTION 62-98.
- CONCORD CODE OF ORDINANCES CHAPTER 62, ARTICLE II WATER AND SEWER SERVICE, SEC. 62-34(I) - THE CUSTOMER SHALL BE RESPONSIBLE FOR INSTALLING THE NECESSARY APPROVED DEVICE(S) TO MAKE ANY ADJUSTMENTS TO THE WATER PRESSURE SUPPLIED BY CONCORD UTILITIES AND SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL SUCH DEVICES.
- PER THE CITY OF CONCORD CODE OF ORDINANCE CHAPTER 62, ARTICLE 3, SECTION 62-98- THE FOLLOWING MINIMUM SEPARATIONS MUST BE INDICATED, UNLESS OTHERWISE APPROVED BY THE CITY:
 - A MINIMUM HORIZONTAL SEPARATION OF FIVE FEET SHALL BE MAINTAINED BETWEEN ANY TYPE OF MAINTENANCE OBSTRUCTION AND THE CITY'S WATER DISTRIBUTION LINES, WASTEWATER COLLECTION LINES, AND ASSOCIATED APPURTENANCES, UNLESS AN EXCEPTION IS GRANTED. GREATER SEPARATION DISTANCES MAY BE REQUIRED AS SPECIFIED BY FEDERAL, STATE, OR LOCAL REGULATIONS.
 - INCLUDING BUT NOT LIMITED TO ANY OTHER UTILITY PROVIDER'S LINES OR EQUIPMENT, AND THE CITY WATER DISTRIBUTION LINES, WASTEWATER COLLECTION LINES, AND ASSOCIATED APPURTENANCES, UNLESS AN EXCEPTION IS GRANTED. IF AN EXCEPTION IS GRANTED, A MINIMUM VERTICAL SEPARATION OF ONE FOOT MUST BE MAINTAINED AND THE CITY WATER DISTRIBUTION LINES, WASTEWATER COLLECTION LINES, AND ASSOCIATED APPURTENANCES SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE OR AN APPROVED FERROUS MATERIAL WITH JOINTS THAT ARE EQUIVALENT TO POTABLE WATER MAIN STANDARDS FOR A DISTANCE OF TEN FEET ON EITHER SIDE OF THE POINT OF CROSSING. GREATER SEPARATION DISTANCES MAY BE REQUIRED AS SPECIFIED BY FEDERAL, STATE, OR LOCAL REGULATIONS.
 - A MINIMUM HORIZONTAL SEPARATION OF TEN FEET SHALL BE MAINTAINED BETWEEN THE CITY WATER DISTRIBUTION SYSTEM AND WASTEWATER COLLECTION LINES, AND ASSOCIATED APPURTENANCES, UNLESS AN EXCEPTION IS GRANTED.
- CONTRACTOR SHALL OBTAIN REQUIRED PLUMBING PERMITS AND PAY APPLICABLE PLUMBING PERMITTING CHARGES AND FEES; AND COMPLY WITH THE REQUIRED PLUMBING CODE IN ASSOCIATION WITH ESTABLISHING THE WATER AND SEWER SERVICE CONNECTIONS TO THE PUBLIC MAINS.
- THE DURATION OF ANY SERVICE DISRUPTION SHALL BE MINIMIZED. THE CONTRACTOR SHALL NOTIFY THE CITY OF CONCORD ENGINEERING CONSTRUCTION MANAGER, GARY STANSBURY, AT 704-920-5425 AT LEAST 48 HOURS IN ADVANCE OF ANY SCHEDULED SERVICE DISRUPTION. PROVIDE NOTICE ON A CITY APPROVED FORM TO CITY OF CONCORD CUSTOMERS SPECIFYING THE DAY AND DURATION OF ANY SCHEDULED DISRUPTION, INCLUDE APPROPRIATE CITY CONTACT NUMBERS.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY POTABLE WATER SUPPLIES TO CITY OF CONCORD CUSTOMERS WHEN THE DURATION OF WATER SERVICE DISRUPTION EXCEEDS 6 HOURS OR AS DIRECTED BY THE DESIGNATED CITY INSPECTOR. THIS PROVISION IS CONSIDERED INCIDENTAL TO THE WATER LINE. NO ADDITIONAL PAYMENT WILL BE MADE.

UTILITIES LEGEND



PUBLIC WATER DISTRIBUTION SYSTEM AND WASTEWATER COLLECTION SYSTEM IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO WATER AND SEWER AUTHORITY OF CABARRUS COUNTY'S (WSACC) STANDARD SPECIFICATIONS FOR WASTEWATER COLLECTION AND WATER DISTRIBUTION CONSTRUCTION FOR CABARRUS COUNTY, DATED AUGUST 2006 AND THE CITY OF CONCORD DEVELOPMENT ORDINANCE, CODE OF ORDINANCES CHAPTER 62 AND TECHNICAL STANDARDS

mcgill
 1240 19th Street Lane NW
 Hickory, NC 28601
 828.328.2024
 NC Firm License # C-0459
 mcgillassociates.com



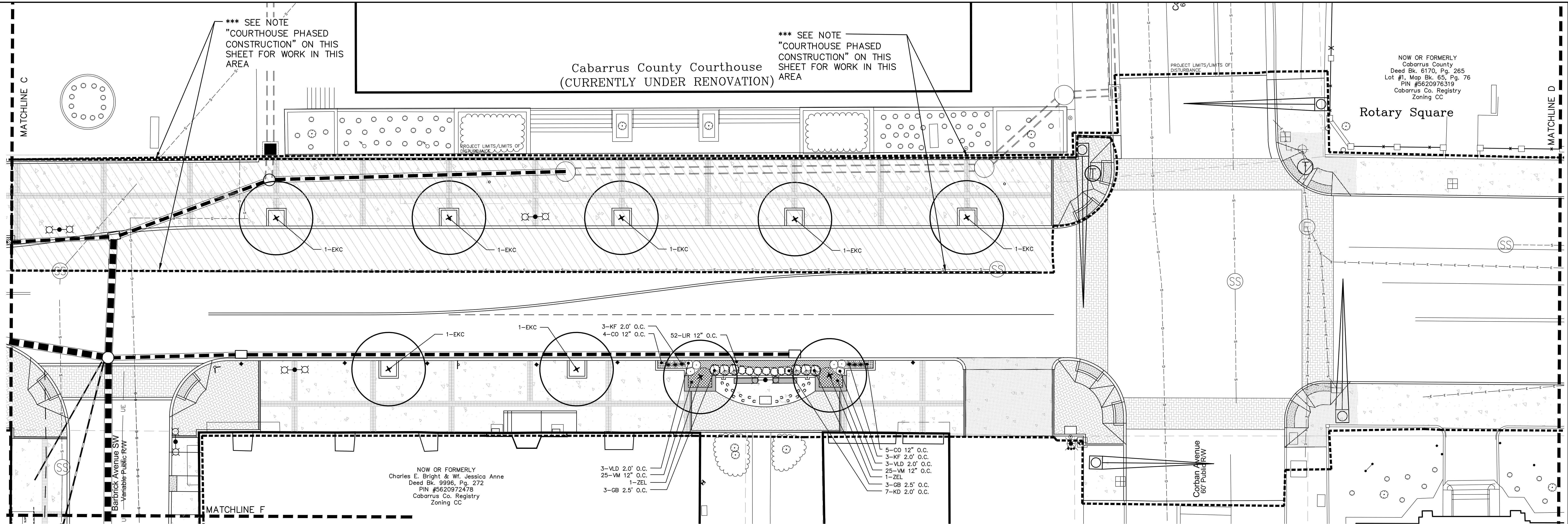
NO.	DATE	BY	DESCRIPTION
1	8/25/2021	MDO	ADDENDUM #2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
 CABARRUS COUNTY, NORTH CAROLINA

GRAPHIC SCALE DIVISION VALUE = 10 FEET
 OFFICE MANAGER: D.G. CHAPMAN
 DESIGNER: M. OETTING
 PROJECT MANAGER: M.J. NORRIS
 REVIEWER: D.G. CHAPMAN

UTILITY NOTES AND LEGEND
 DATE: JULY, 2021
 PROJECT #: 19.01726
 FUNDING #: N/A

SHEET
C-301



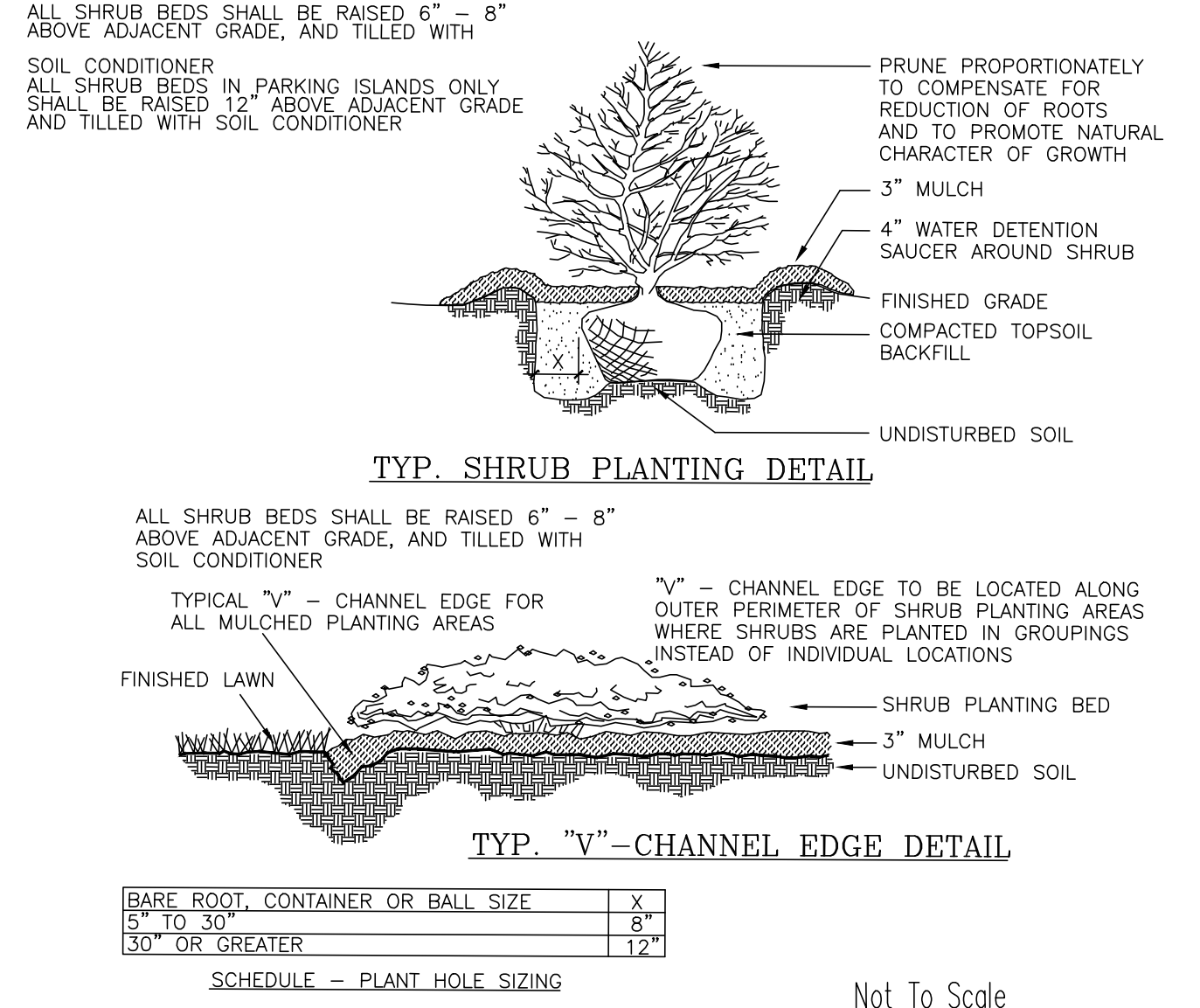
**Cabarrus County Courthouse
(CURRENTLY UNDER RENOVATION)**

Rotary Square

GENERAL NOTES:

- LANDSCAPE CONTRACTOR TO VISIT THE SITE AND ACCEPT THE CONDITIONS PRIOR TO BIDDING AND PLANT MATERIAL INSTALLATION.
- LANDSCAPE CONTRACTOR TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY PLANT MATERIAL. UTILITY LINES SHOWN ON DRAWINGS ARE FOR GENERAL REFERENCE AND MAY NOT BE ALL INCLUSIVE.
- LANDSCAPE CONTRACTOR TO PROTECT ALL EXISTING STRUCTURES DURING INSTALLATION OF PLANT MATERIAL.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL STONES, GRAVEL, AND ALL EXTRANEOUS DEBRIS INCLUDING ROOTS AND LIMBS FROM TREE PITS PRIOR TO INSTALLATION.
- ALL PLANT BEDS TO BE COVERED WITH 3" CLEAN TRIPLE SHRED HARDWOOD MULCH IMMEDIATELY AFTER PLANTING.
- TOP 6" OF ALL BEDS TO BE TILLED AND AMENDED WITH ORGANIC MATTER. TOP 6" OF TREE PITS TO BE AMENDED WITH ORGANIC MATTER AND WORKED INTO BACKFILL.
- LANDSCAPE CONTRACTOR SHALL FURNISH ALL QUANTITIES NECESSARY TO COMPLETE PLANTINGS AS SHOWN/LOCATED ON DRAWINGS. QUANTITIES SHOWN ON PLANT LIST ARE FOR CONVENIENCE OF CONTRACTORS AND ARE BELIEVED TO BE SUBSTANTIALLY CORRECT, BUT ACCURACY OF QUANTITIES IN LIST IS NOT GUARANTEED.
- LANDSCAPE CONTRACTOR TO GUARANTEE ALL PLANT MATERIAL AND WORK FOR A PERIOD OF ONE YEAR FROM ACCEPTANCE OF WORK BY OWNER.
- ANY PLANT MATERIAL SUBSTITUTIONS OR ADJUSTMENTS ARE TO BE REQUESTED IN WRITING TO THE OWNER. NO SUBSTITUTIONS WILL BE PERMITTED WITHOUT WRITTEN NOTICE BY THE OWNER.
- ALL PLANT MATERIAL TO CONFORM TO THE CURRENT EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK".
- ALL TREES TO BE LIMBED UP TO 6" MINIMUM CLEAR HEIGHT.
- ALL TREES SHALL BE SPECIMEN QUALITY AND WELL SHAPED.
- ALL TREES OF THE SAME VARIETY SHALL MATCH IN SHAPE, FORM AND SIZE WHERE THEY ARE TO BE INSTALLED IN GROUPS, ROWS, OR AS STREET TREES.

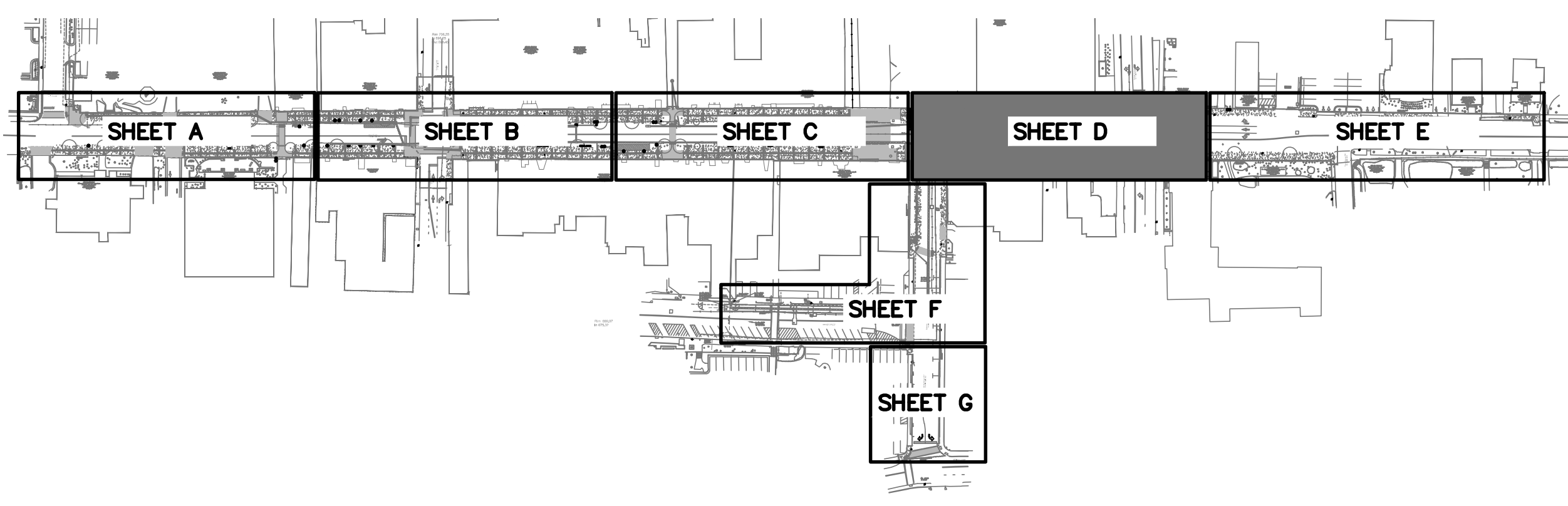
SYM/QTY	BOTANICAL NAME	COMMON NAME	SIZE	WAL/PER	HEIGHT	NOTES	NATIVE*
TREES							
CS 11	<i>Quercus x waresii</i> 'Long'	Regal Prince Oak	B&B	2.5"	MIN. 12'	Min.	
ZEL 8	<i>Zelkova serrata</i> 'Musashino'	Japanese Zelkova	B&B	2.5"	MIN. 12'	Min.	
DAM 2	<i>Acer palmatum</i> 'Red Dragon'	Dwarf Japanese Maple	B&B	12"	MIN. 4'	Min.	
CCR 4	<i>Cercia canadensis</i> 'N2'	Rising Sun Redbud	B&B	2"	MIN. 8'	Min.	
EKC 11	<i>Gymnocladus dioica</i> 'Espresso'	Espresso Kentucky Coffee Tree	B&B	2"	MIN. 12'	Min.	
NS 9	<i>Nyssa sylvatica</i> 'Wildfire'	Black Gum Wildfire	B&B	2"	MIN. 12'	Min.	
GSH 4	<i>Gleditsia triacanthos</i> f. 'Inermis' 'Skycole'	Skyline Honeylocust	B&B	2.5"	MIN. 12'	Min.	
SHRUBS							
SGG 14	<i>Spiraea betulifolia</i> 'Glow Girl'	Birchleaf Spiraea	3 Gal		15"	Min.	
GB 36	<i>Ilex glabra</i> 'Gem Box'	Gem Box Inkberry Holly	1 Gal		10"	Min.	
TAB 55	<i>Thuja occidentalis</i> 'Anna Van Voten'	Anna's Magic Ball Arborvitae	1 Gal		8"	Min.	
IV 12	<i>Itea virginica</i> 'Henry's Garnet'	Virginia Sweetspire	1 Gal		8"	Min.	
LPP 6	<i>Loropetalum chinense</i> 'Peack'	Purple Pixie Weeping Loropetalum	3 Gal		8"	Min.	
ALM 72	<i>Aronia melanocarpa</i> 'Low Scope Mound'	Chokeberry	1 Gal		8"	Min.	
VD 79	<i>Viburnum cassinoides</i> 'L3 Ditty'	Withered Viburnum	1 Gal		8"	Min.	
DHC 17	<i>Chamaecyparis obtusa</i> 'Nano Gracilis'	Dwarf Hinoki Cypress	3 Gal		18"	Min.	
KD 113	<i>Cornus sericea</i> 'Kelsey'	Kelsey's Dwarf Red-Osier Dogwood	1 Gal		12"	Min.	
DW 4	<i>Diastylum hybrid</i> 'SBDY01'	Jewel Box Diastylum	3 Gal		12"	Min.	
TH 9	<i>Hydrangea paniculata</i> 'Limelight'	Transform Limelight Hydrangea	7 Gal		48"	Min.	
ORNAMENTAL GRASSES/PERENNIALS/GROUNDCOVERS							
KF 71	<i>Calamagrostis acutiflora</i> 'Karl Foerster'	Feather Reed Grass	1 Gal				
PAH 114	<i>Pennisetum alopecuroides</i> 'Hameln'	Dwarf Fountain Grass	1 Gal				
HP 50	<i>Heuchera micrantha</i> 'Palace Purple'	Heuchera Palace Purple	1 Gal				
CO 75	<i>Cornopsis</i>	Ticksseed	Quart				
DIA 123	<i>Dianthus gratianopolitanus</i> 'Firewitch'	Firewitch Dianthus	Quart				
VLI 109	<i>Liriope muscari</i> 'Variegata'	Variegated Liriope	4"				
LUR 727	<i>Liriope muscari</i> 'Royal Purple'	Liriope	4"				
VM 293	<i>Viola Minor</i>	Littletree Periwinkle	4"				
LSP 115	<i>Liriope spicata</i>	Creeping Lilly turf	4"				
61 SF ANNUALS							



CITY OF CONCORD LANDSCAPE NOTES:

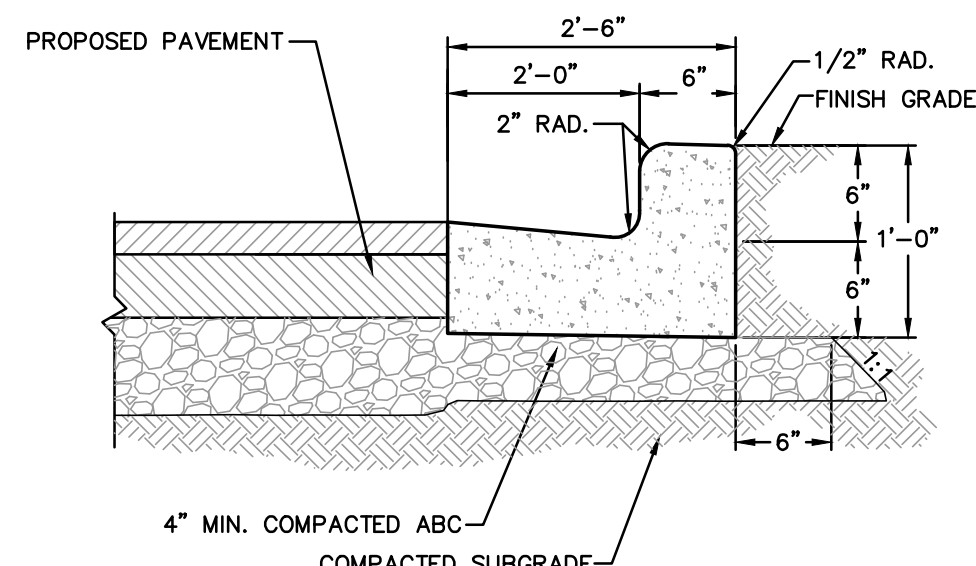
- LANDSCAPE CONTRACTOR SHALL COORDINATE AN ON-SITE MEETING WITH THE CITY ARBORIST BEFORE INSTALLATION OF ANY PLANT MATERIAL.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE ANSI A300 STANDARD FOR TREE, SHRUB, AND OTHER WOODY PLANT MANAGEMENT STANDARD PRACTICES.
- ALL PLANT STOCK SHALL COMPLY WITH THE CURRENT EDITION OF ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK.
- ALL PLANTING AREAS SHALL MEET THE REQUIREMENTS OF THE CONCORD DEVELOPMENT ORDINANCE ARTICLE 11 AND TECHNICAL STANDARD ARTICLE 7.
- HEIGHT AND WIDTH OF PLANT MATERIAL SUPERSEDES CONTAINER SIZE.
- UTILITIES SHALL BE LOCATED BEFORE PLANTING WWW.NC811.ORG
- PLANTING LOCATIONS WILL BE ADJUSTED TO PROVIDE SUFFICIENT SPACE FOR UTILITIES, EASEMENTS, STREET LIGHTING, TRAFFIC SIGNS, AND SIGHT TRIANGLES. 5' CLEARANCE AROUND ALL SIDES OF FIRE HYDRANTS AND UTILITY APPURTENANCES. NO TREES SHALL BE PLANTED WITHIN 75' OF A STOP SIGN. NO PLANTS OR TREES LOCATED WITHIN SITE TRIANGLES. 15' CLEARANCE FROM ALL STREET LIGHT POLES.
- ANY PROPOSED REDESIGN OF THE APPROVED PLANTING PLAN OR PLANT SPECIES SUBSTITUTIONS SHALL BE APPROVED BY THE CITY ARBORIST BEFORE INSTALLATION.
- ALL TREES AND THEIR PLANTED LOCATION SHALL BE INSPECTED BY CITY STAFF BEFORE APPROVAL. ANY PLANT MATERIAL WHICH HAS DIED, TURNED BROWN, OR DEFOLIATED PRIOR TO INSPECTION SHALL BE REJECTED.
- ANY PROPOSED PRIVATE IRRIGATION MAY BISECT BUT SHALL NOT RUN PARALLEL WITHIN UTILITY EASEMENTS OR STREET RIGHT OF WAYS, AND SHALL MEET THE REQUIREMENTS OF THE CITY OF CONCORD CODE OF ORDINANCE CHAPTER 62, SECTION 62-164.

COURTHOUSE PHASED CONSTRUCTION:
 DUE TO THE RENOVATION OF THE COURTHOUSE, ONLY PART OF THE ILLUSTRATED CONSTRUCTION ACTIVITIES WILL BE INSTALLED UNDER THIS CONTRACT. THE REMAINING ITEMS WILL BE INSTALLED UNDER SEPARATE CONTRACT AFTER THE COMPLETION OF THE COURTHOUSE RENOVATION IN 2024. ITEMS UNDER THIS CONTRACT INCLUDE:
 COMPREHENSIVE GRADING, ELECTRICAL DEMOLITION, ASPHALT PAVING, STRIPING, TEMPORARY CONCRETE SIDEWALK, 6" CURB, HC RAMPS, TACTILE PLATES, STORMWATER INSTALLATION, AND WATER LINES AS NOTED ON THE UTILITY SHEET. THIS AREA IS TO BE GRADED TO PROPOSED ELEVATIONS AND THE GRADES TAPERED DOWN TO MEET EXISTING ELEVATIONS AT THE COURTHOUSE STEPS. EXISTING DRAINAGE STRUCTURES TO BE UTILIZED FOR DRAINAGE.
 FOR TEMPORARY PAVING SEE DETAIL SHEET C-510.

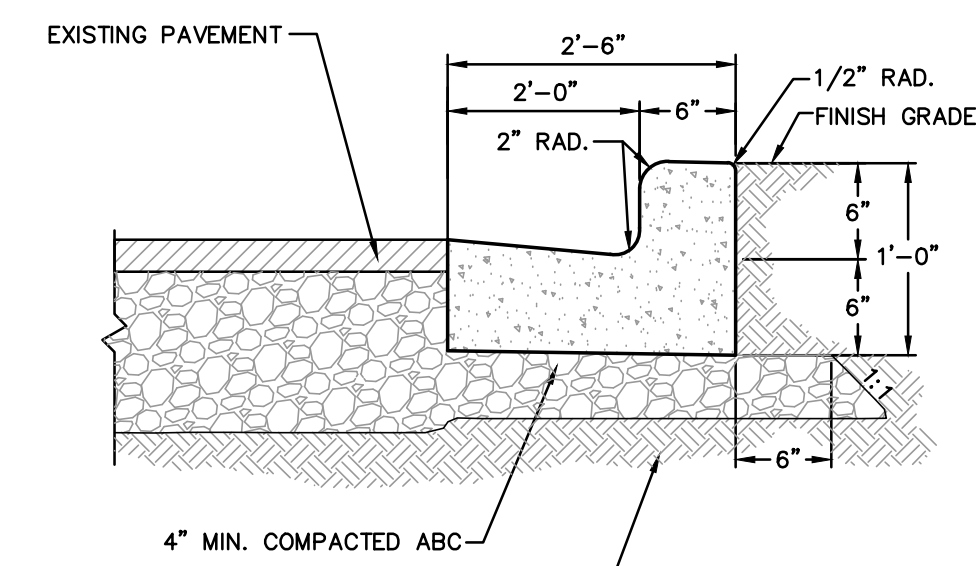


<p>1240 19th Street Lane NW Hickory, NC 28601 828.328.2024 NC Firm License # C-0459 mcgillassociates.com</p>	<p>615 CRANWILL 8/25/2024</p>	2	8/25/2021	KCD	ADDENDUM #2	<p>UNION STREET IMPROVEMENTS CITY OF CONCORD CABARRUS COUNTY, NORTH CAROLINA</p>	<p>GRAPHIC SCALE: 0 5 10 20 DIVISION VALUE = 10 FEET</p>	<p>LANDSCAPE PLAN - D</p>	<p>SHEET L-104</p>
		NO.	DATE	BY	DESCRIPTION				

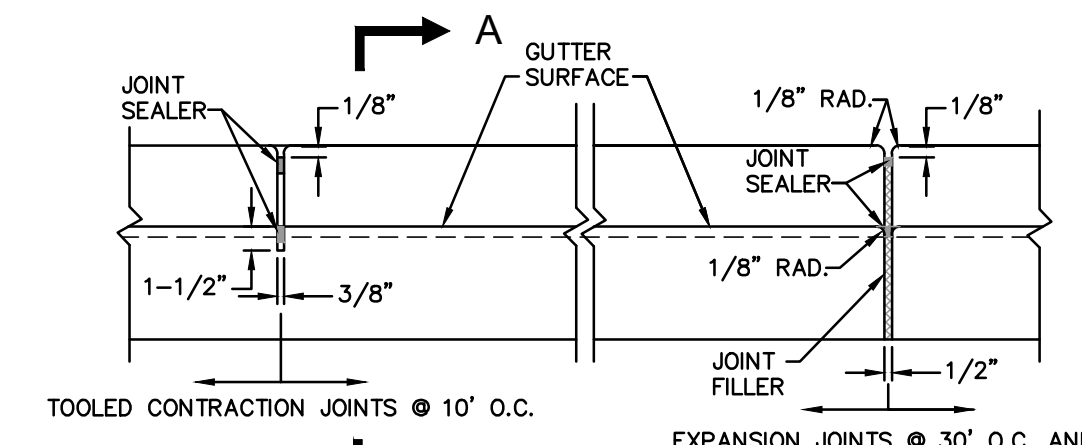
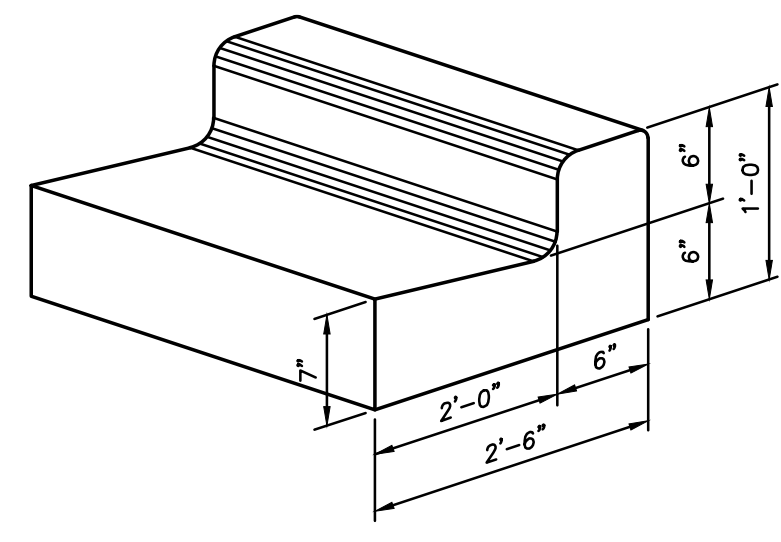
P:\2019\19.01726\CONCORD\UNION STREET\SCAPE PROJECT\DRAWINGS\19.01726\UNION BASE DWG.DWG DATE 8/25/2021 3:00 PM RW:KRETS/DUBERANT



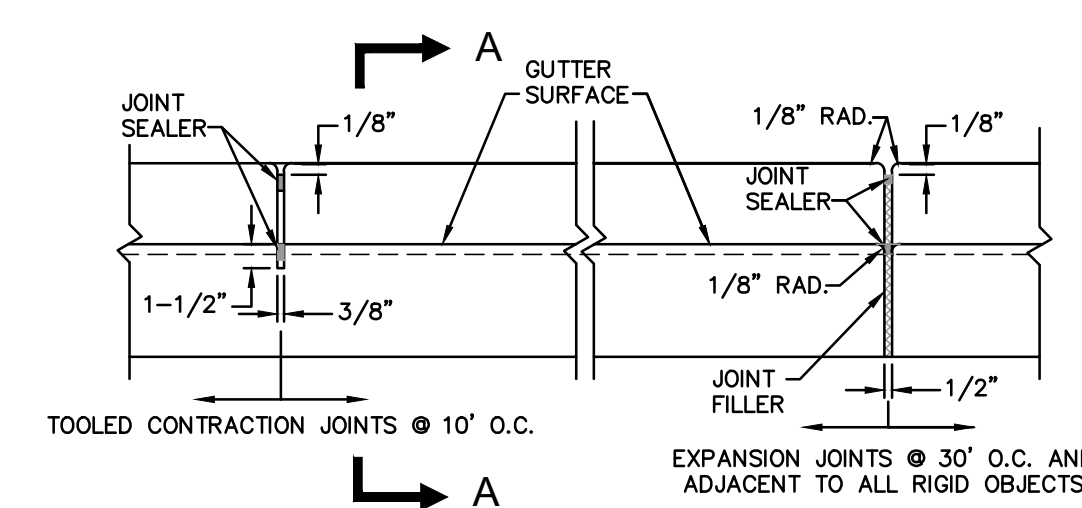
SECTION A-A
DETAIL WITH PROPOSED PAVEMENT



SECTION A-A
DETAIL WITH EXISTING PAVEMENT



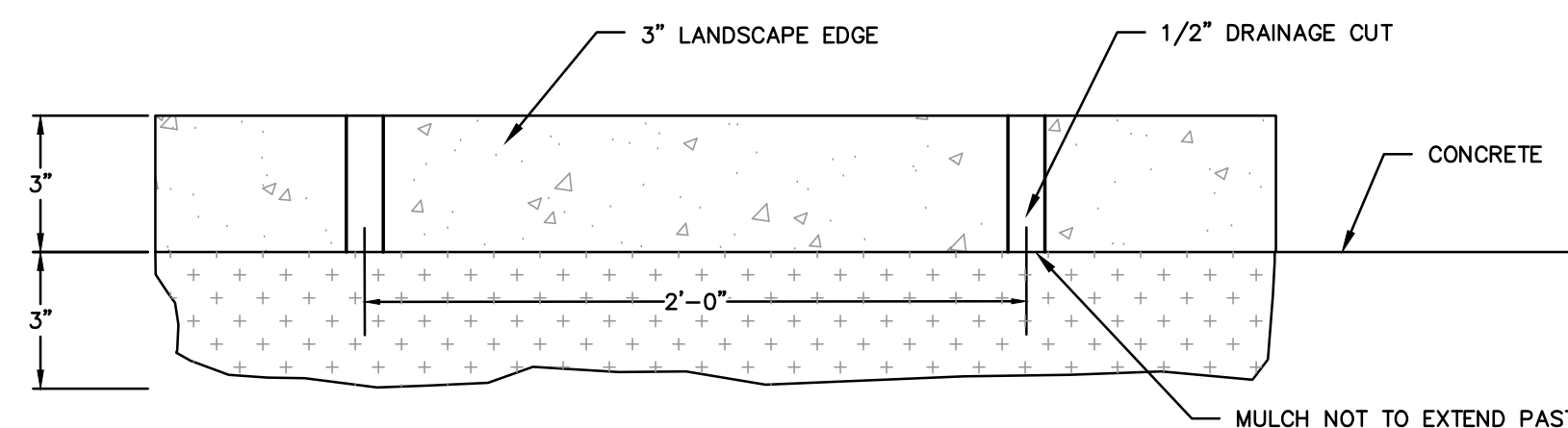
ELEVATION



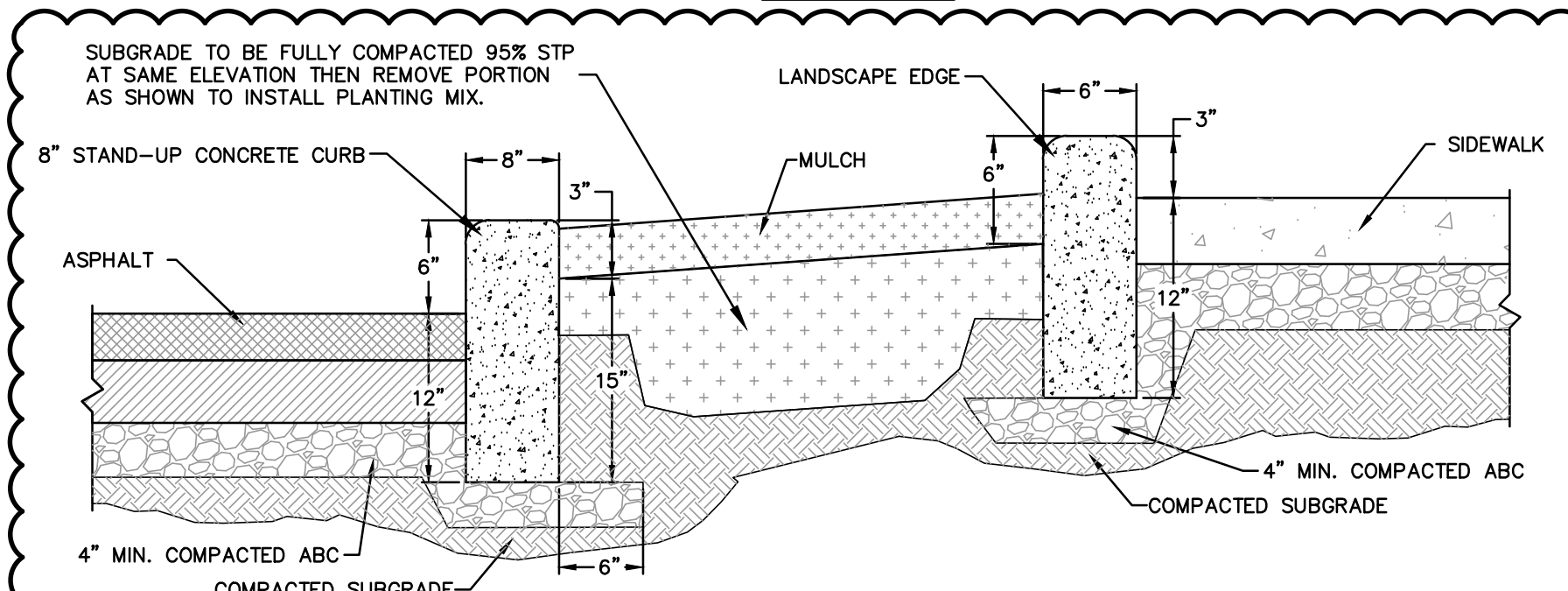
ELEVATION

- NOTES:**
1. CURB SHALL BE CONSTRUCTED WITH 4000 PSI CONCRETE.
 2. SURFACE SHALL BE GIVEN A LIGHT BROOM FINISH WITH THE BRUSH MARKS PARALLEL TO THE CURB.
 3. FILL AND SEAL THE TOP 1/2" OF EXPANSION JOINTS AND TOP 1" OF CONTRACTION JOINTS WITH APPROVED JOINT SEALING COMPOUND.
 4. REFERENCE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, SECTION 846-3.

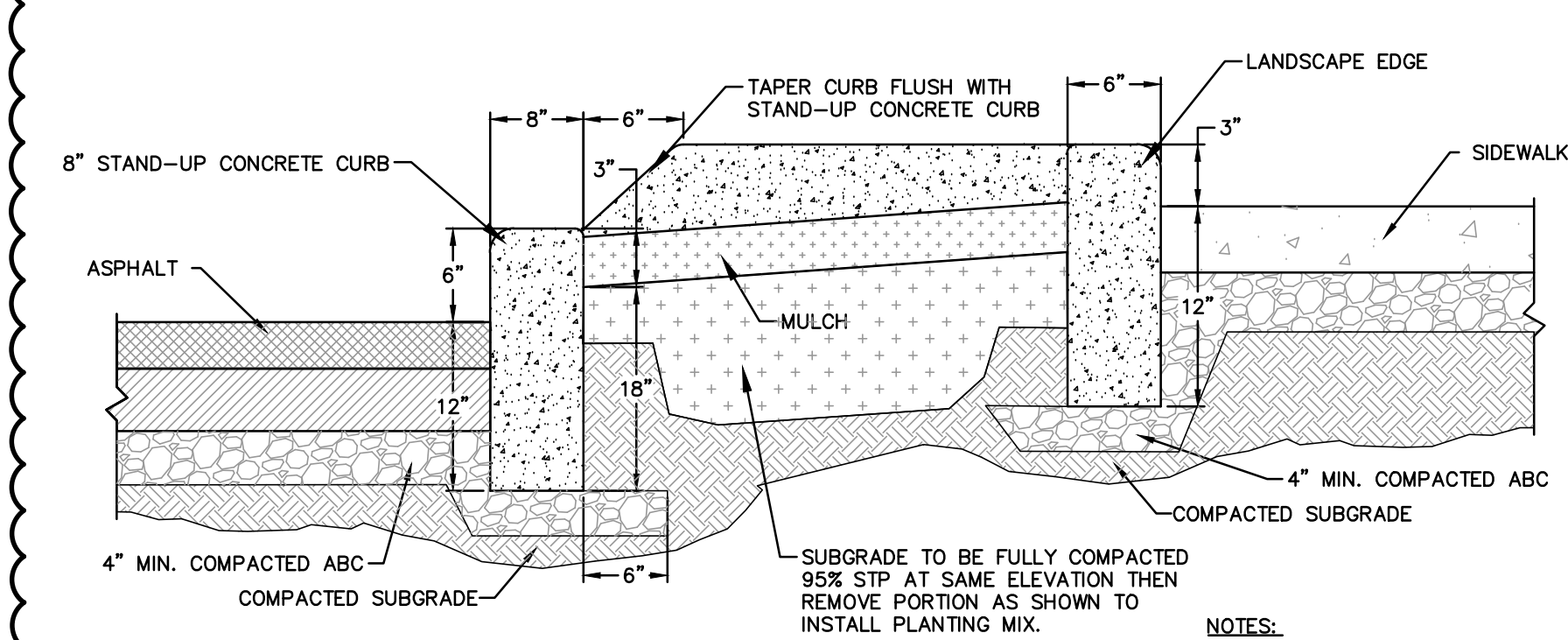
1 CONCRETE CURB & GUTTER (2'-6")
UPDATED MARCH, 2017
NOT TO SCALE



PLAN VIEW

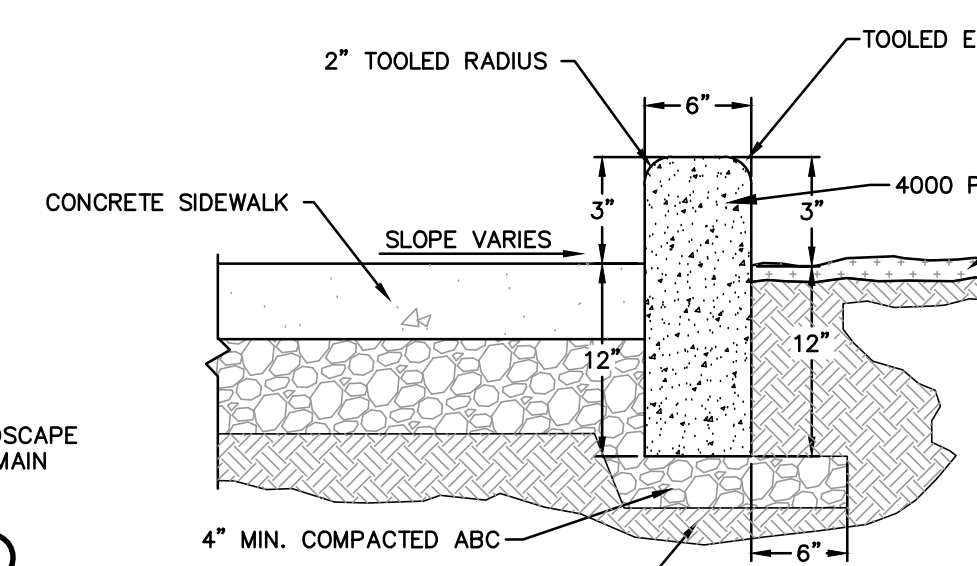


SECTION AT ROADWAY

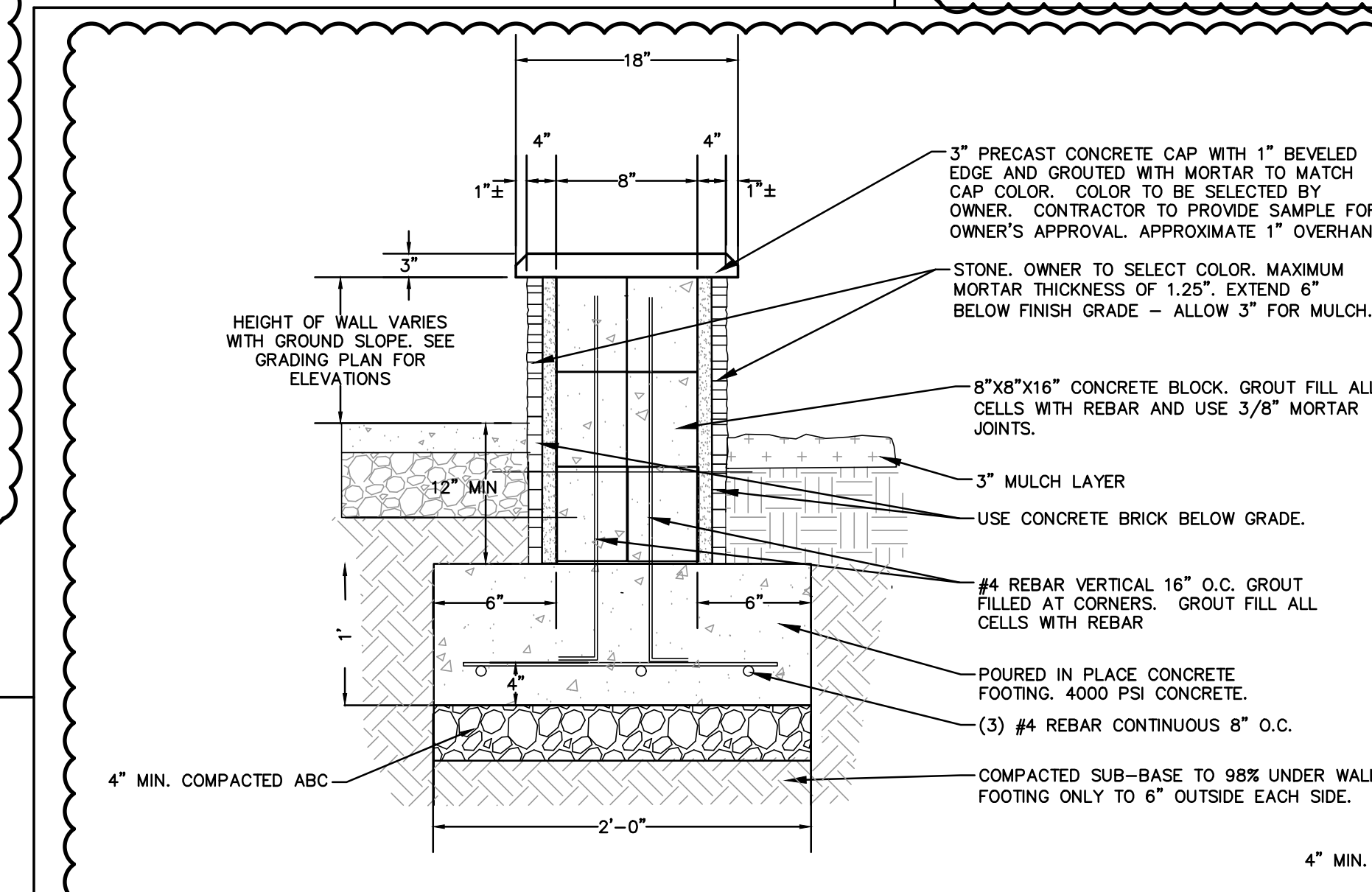
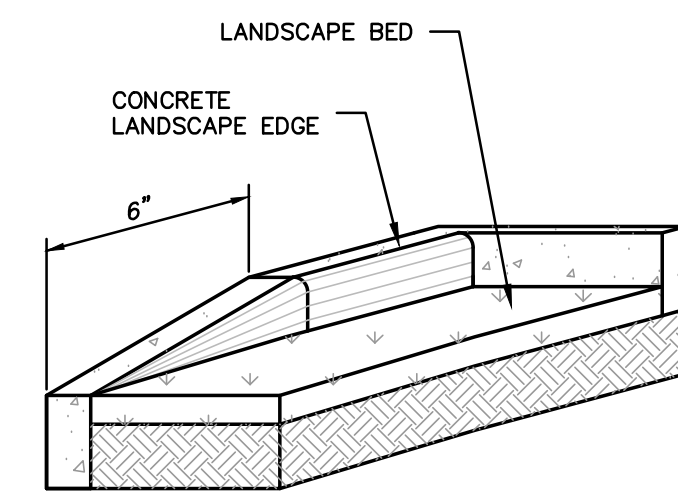


END SECTION AT ROADWAY

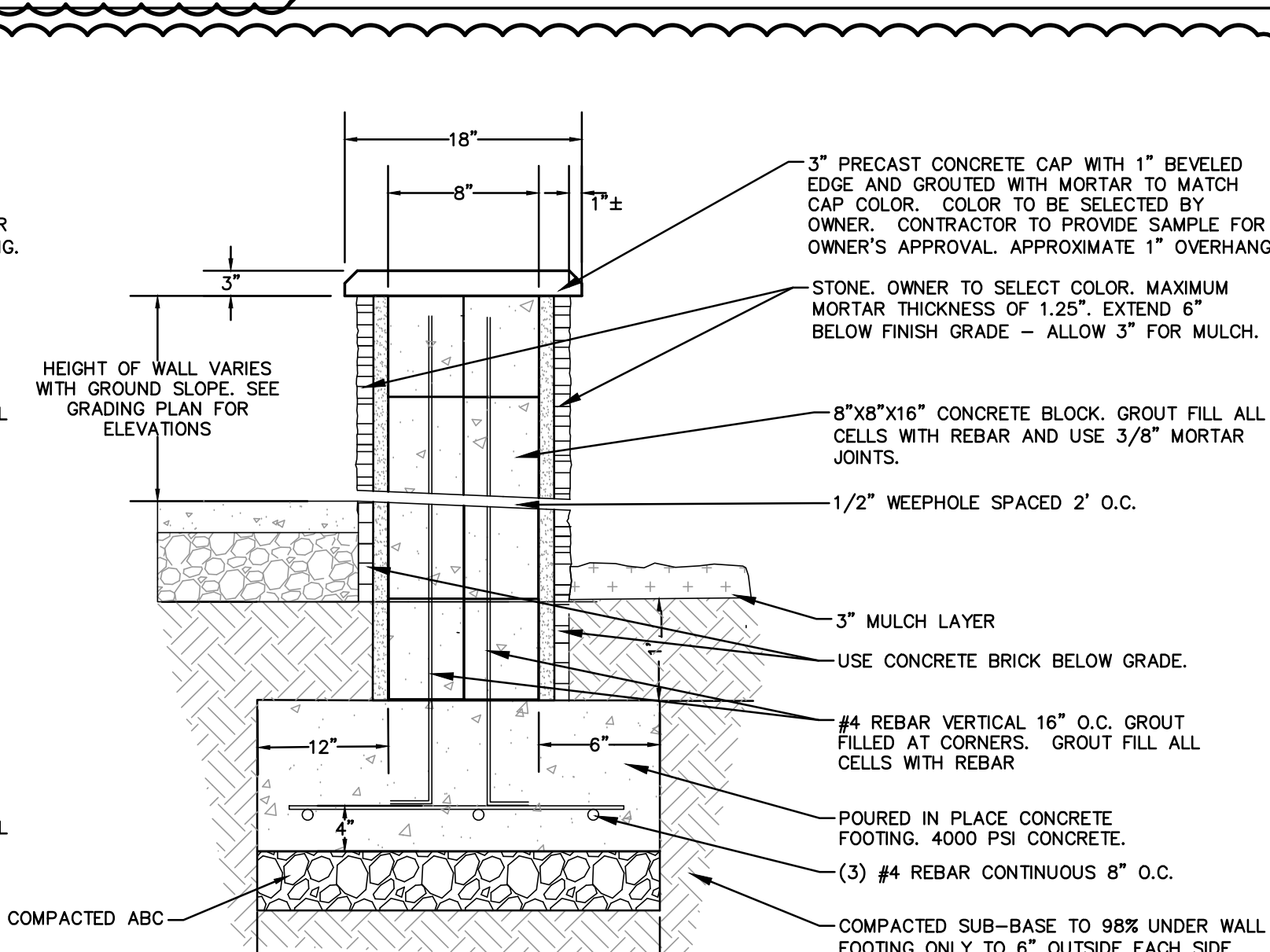
2 3" CONCRETE LANDSCAPE EDGE
UPDATED MARCH, 2017
NOT TO SCALE



SECTION

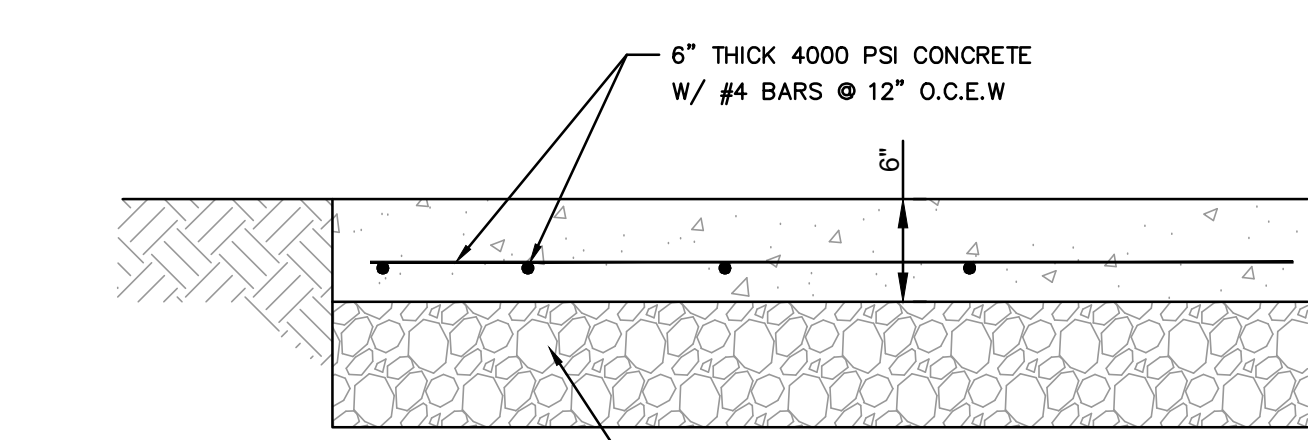
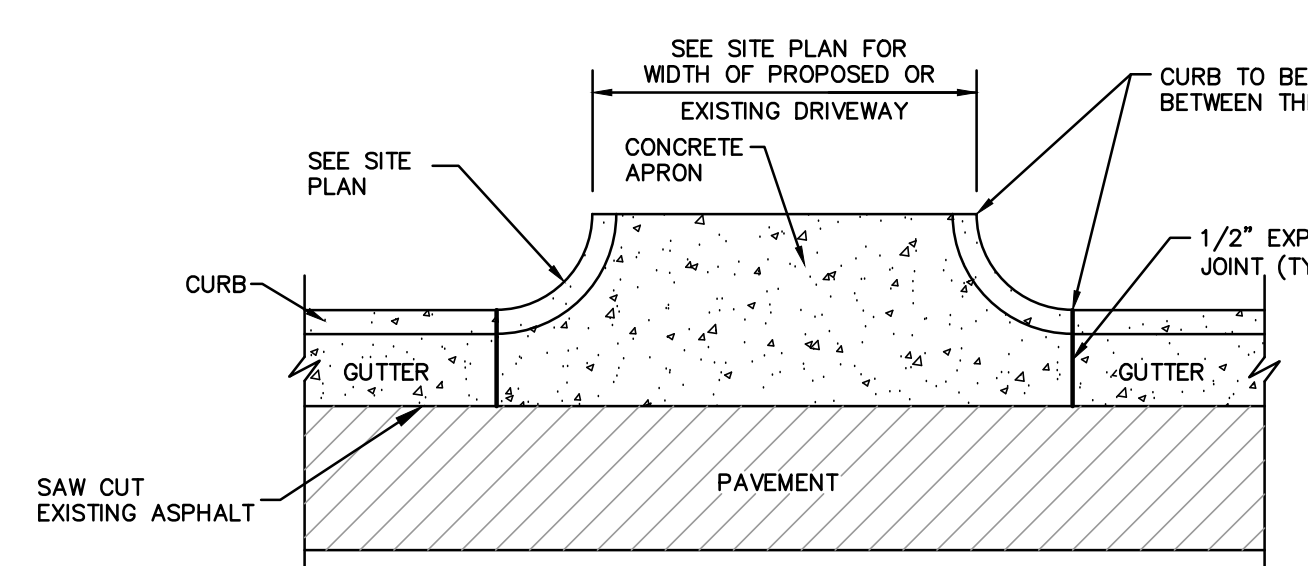


FREESTANDING



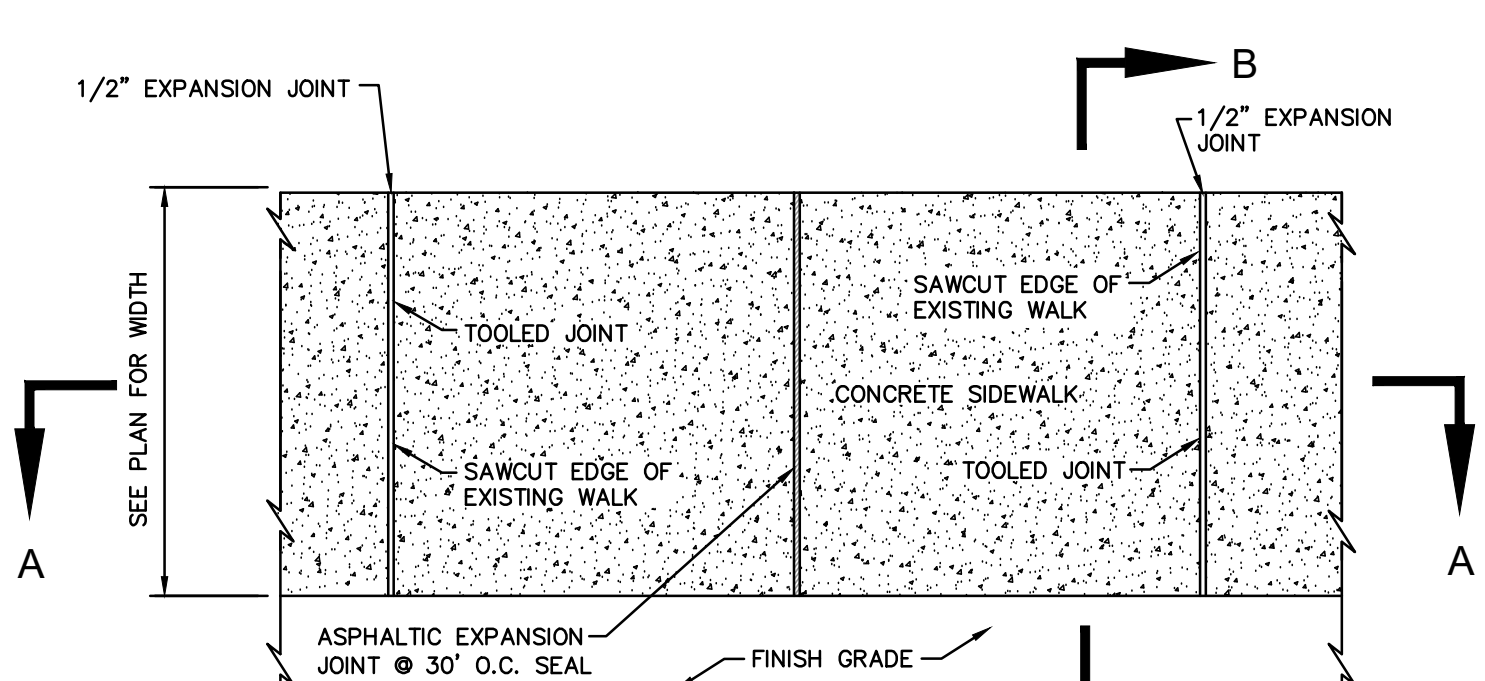
SECTION

6 SEAT WALL
REVISOR FOR THIS PROJECT
NOT TO SCALE

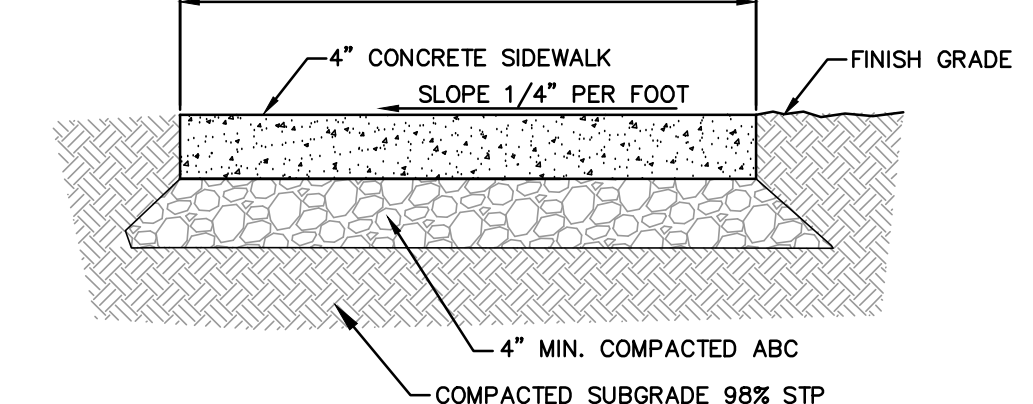


DRIVE SECTION

4 DRIVEWAY APRON
REVISOR FOR THIS PROJECT
NOT TO SCALE



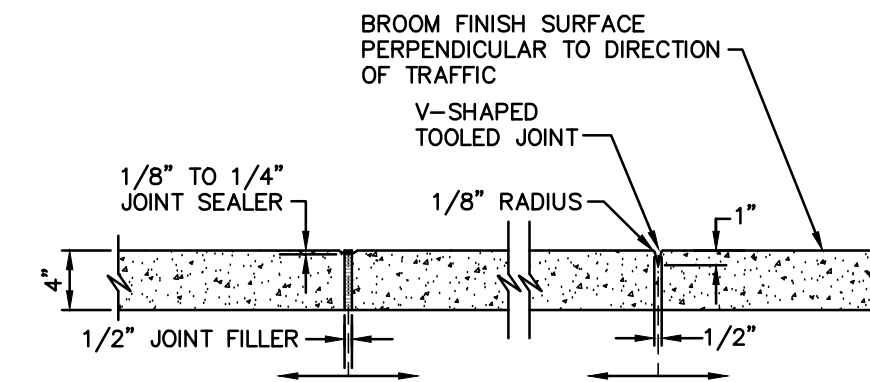
PLAN



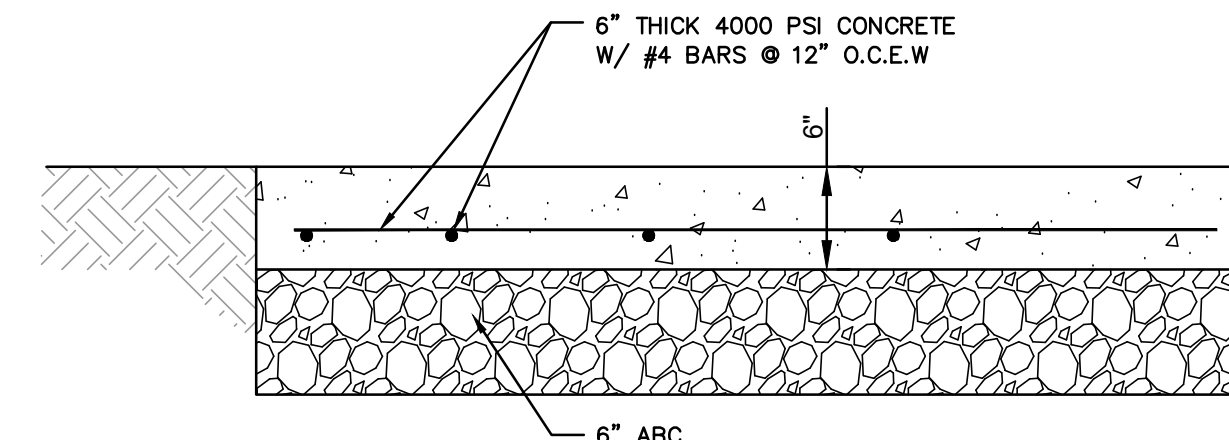
SECTION B-B

- NOTES:**
1. SIDEWALK SHALL BE CONSTRUCTED WITH 4000 PSI CONCRETE.
 2. SIDEWALK SURFACE SHALL BE GIVEN A LIGHT BROOM FINISH WITH THE BRUSH MARKS PERPENDICULAR TO THE TRAFFIC.
 3. SCORE JOINTS AS SHOWN ON SITE PLAN (4'x4' PR 6'x6' AS SHOWN).

5 CONCRETE SIDEWALK
UPDATED MARCH, 2017
NOT TO SCALE

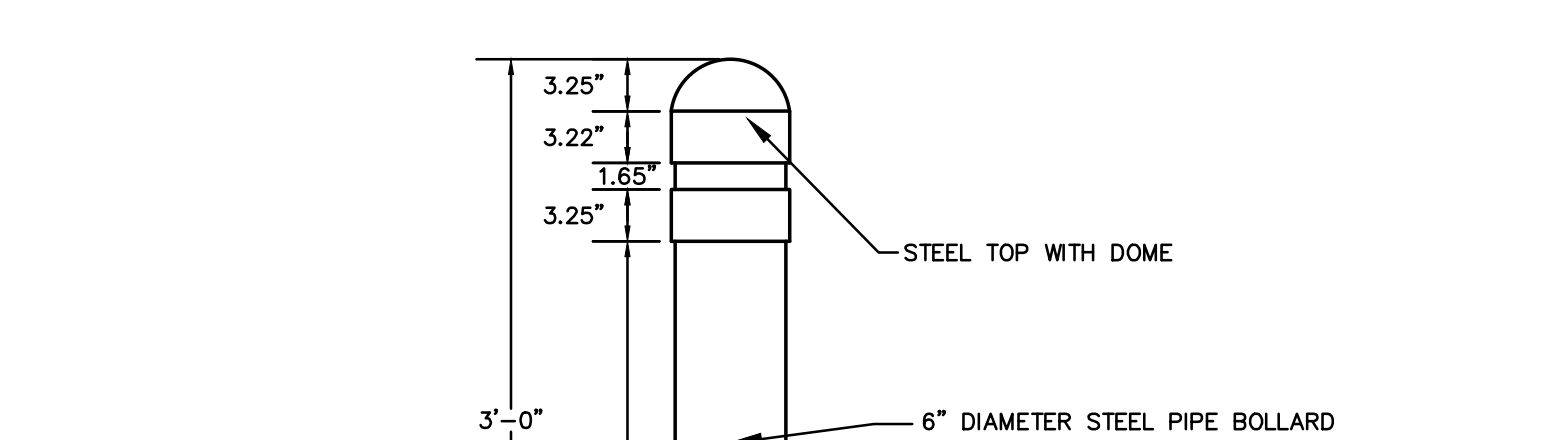


SECTION A-A

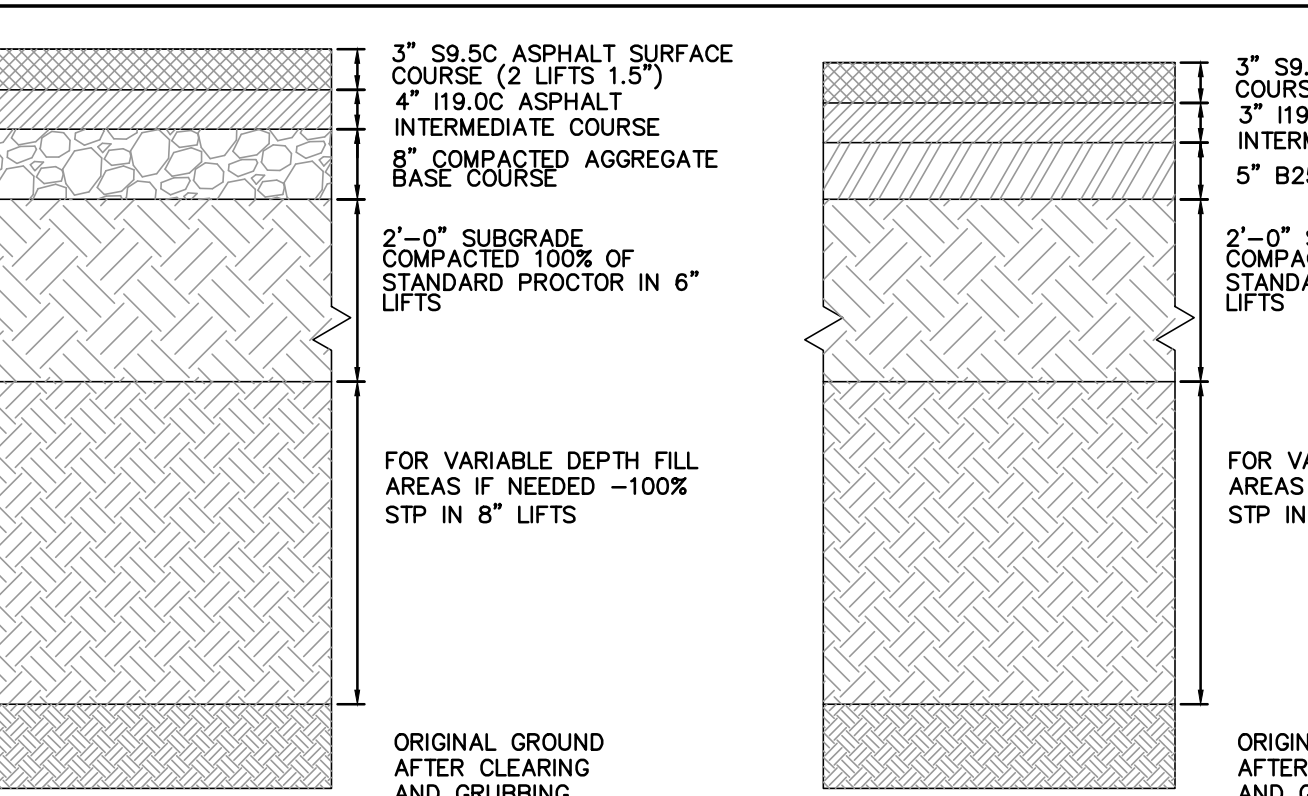


6" CONCRETE DRIVE

7
REVISOR FOR THIS PROJECT
NOT TO SCALE



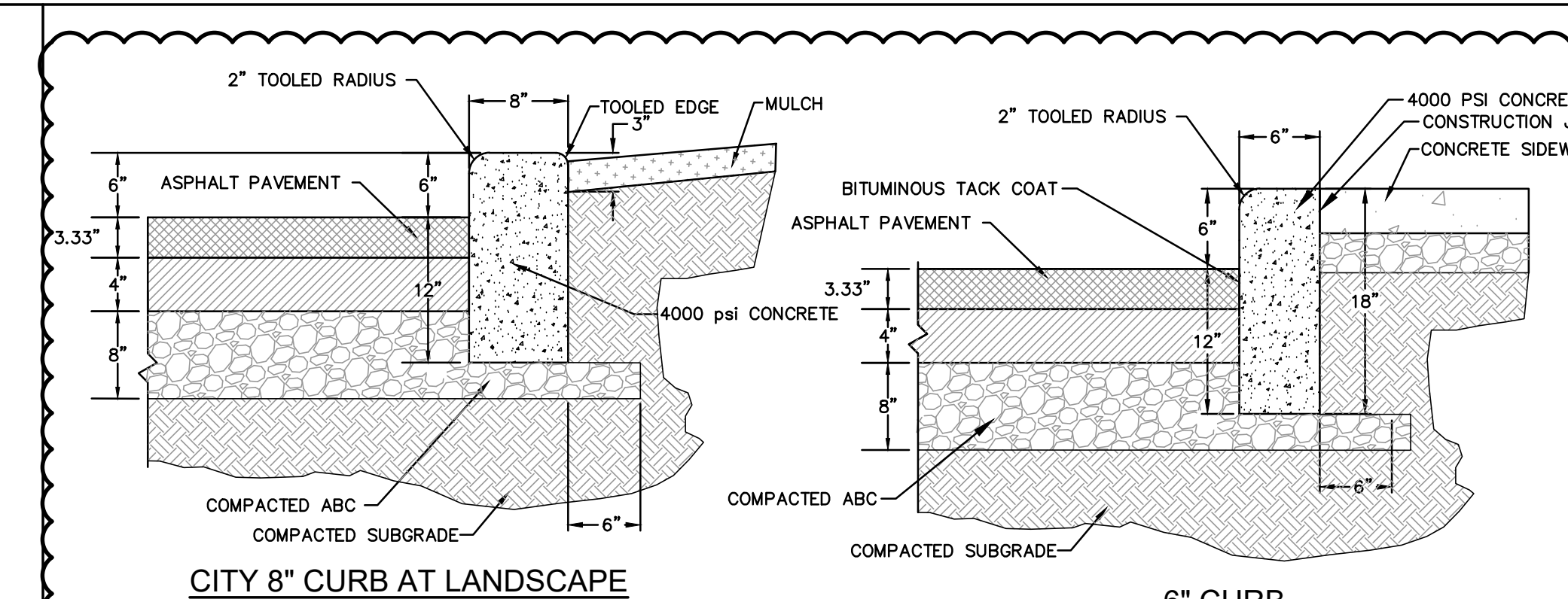
10 BOLLARD
REVISOR FOR THIS PROJECT
NOT TO SCALE



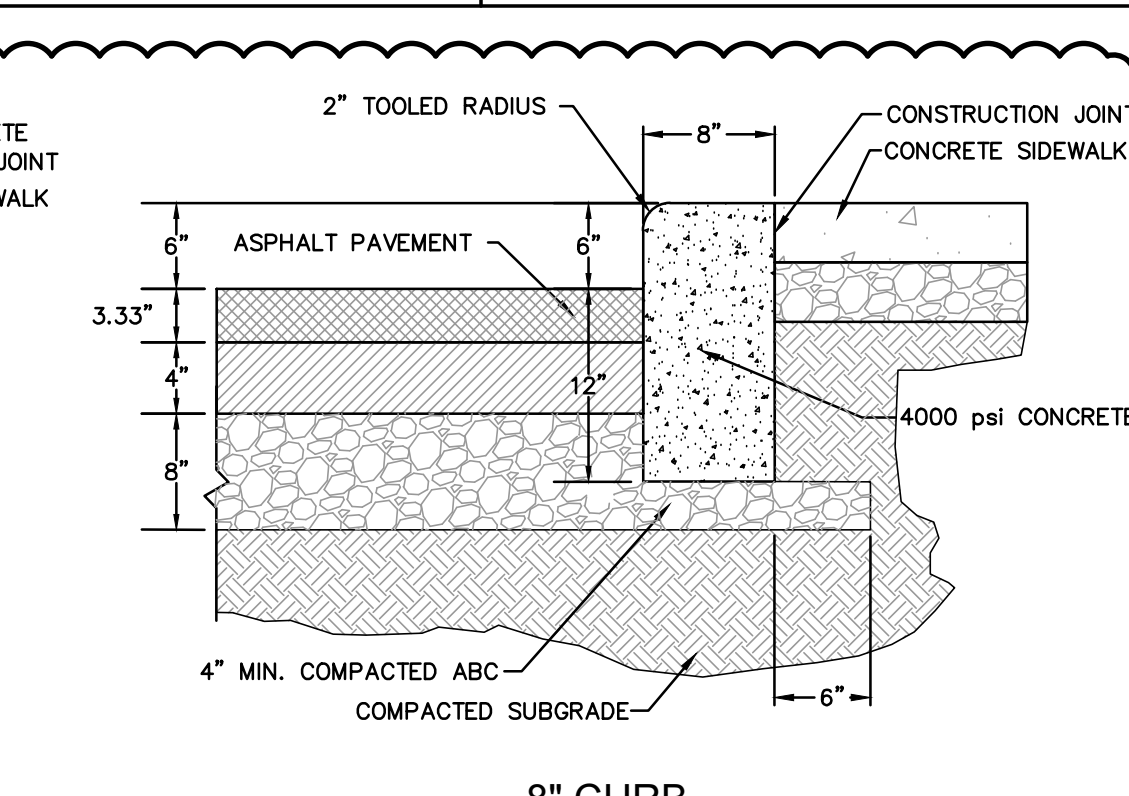
CITY STREETS ASPHALT PAVEMENT CROSS SECTION
REVISOR FOR THIS PROJECT
NOT TO SCALE



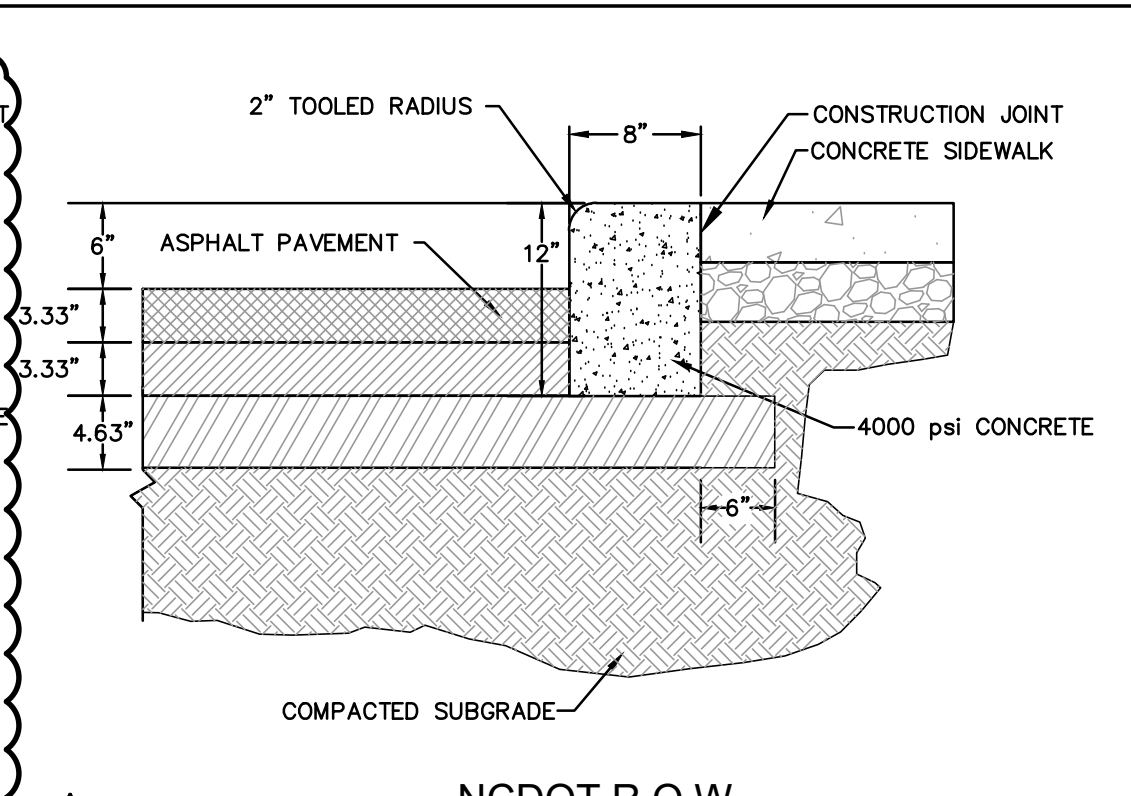
NCDOT R.O.W (CABARRUS)



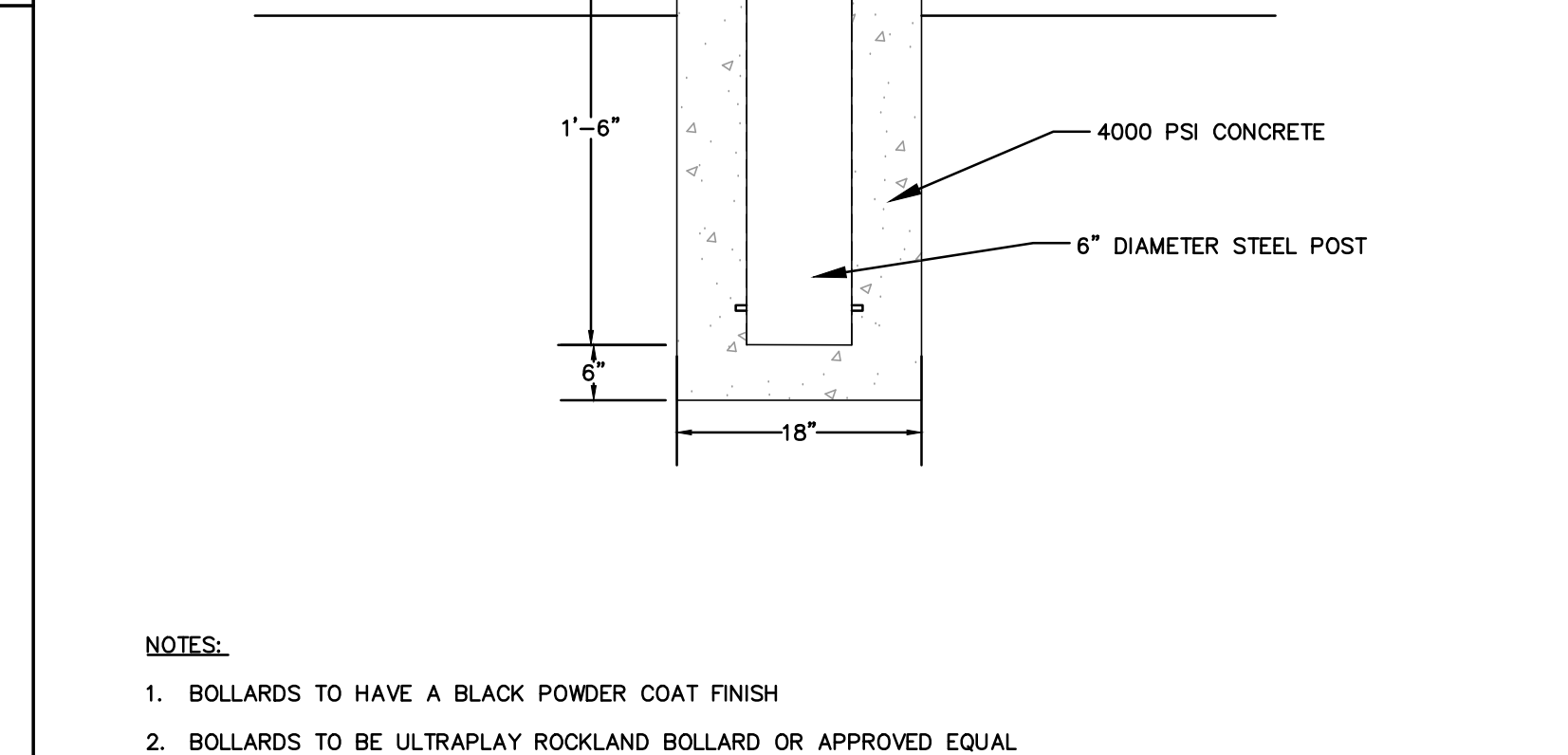
CITY 8" CURB AT LANDSCAPE BEDS



6" CURB



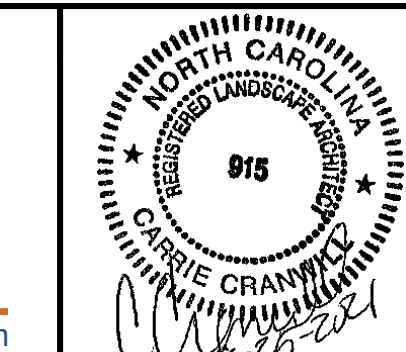
8" CURB



NCDOT R.O.W

9 STAND-UP CONCRETE CURB
UPDATED MARCH, 2017
NOT TO SCALE

mcgill
1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com

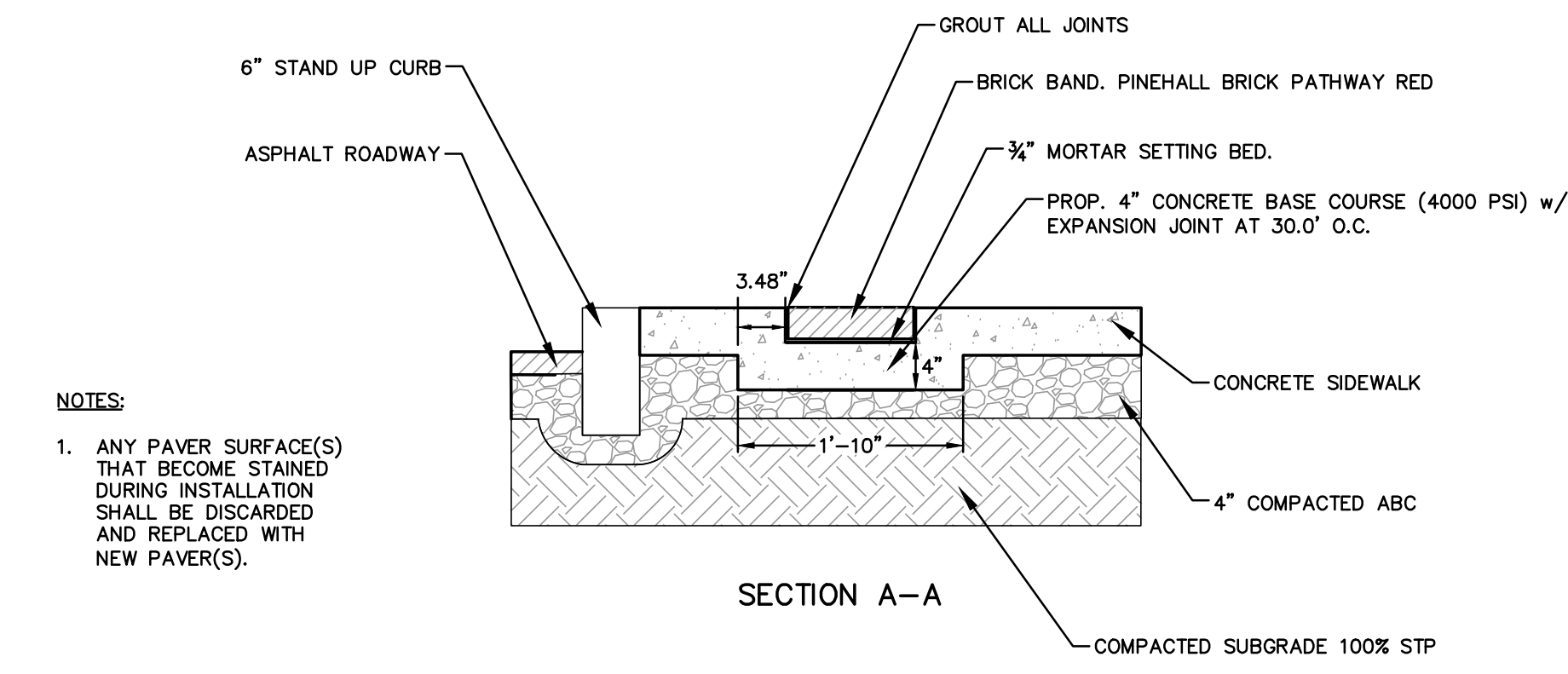
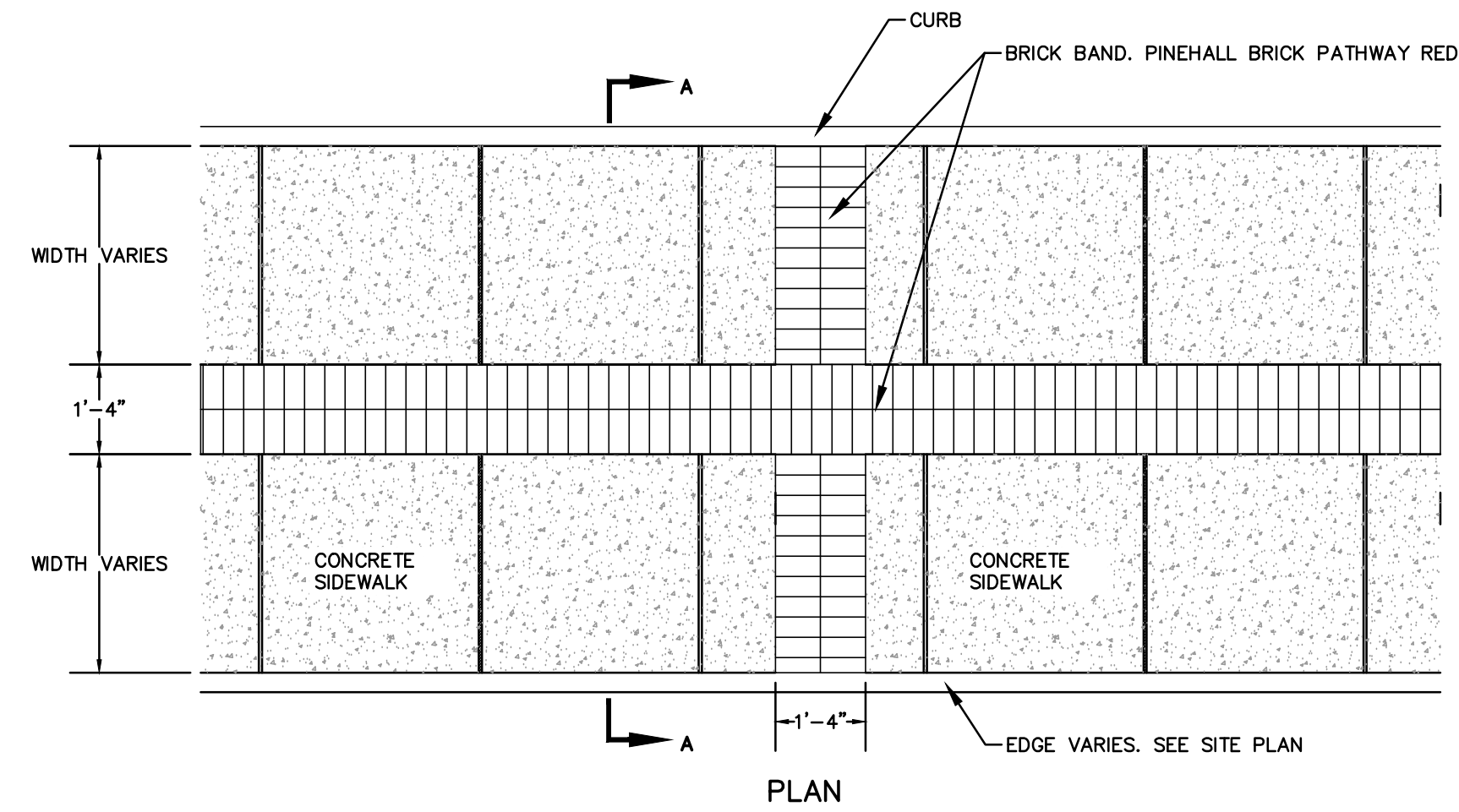


NO.	DATE	BY	DESCRIPTION
1	8/20/2021	KCD	ADDENDUM #1
2	8/25/2021	KCD	ADDENDUM #2

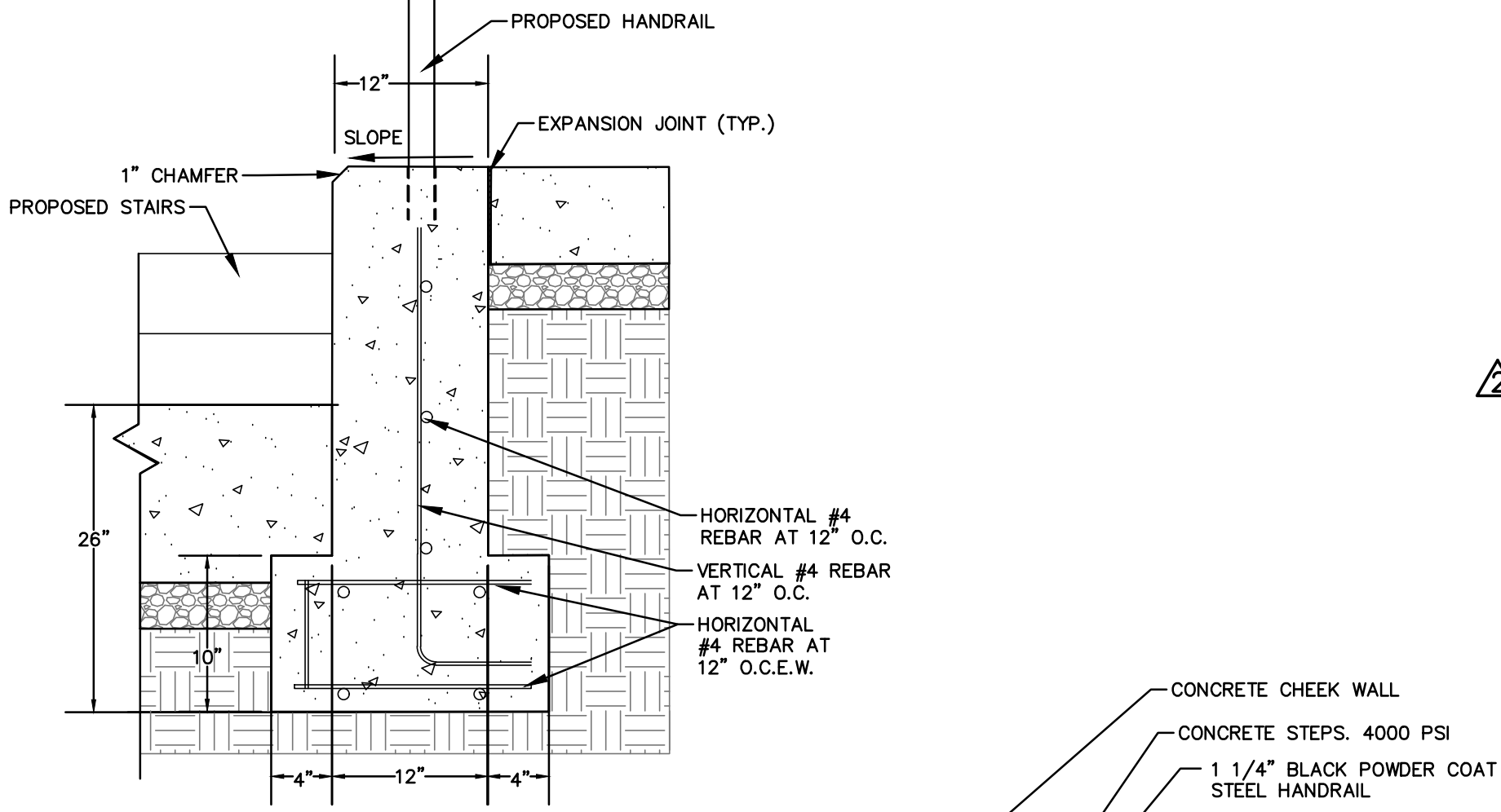
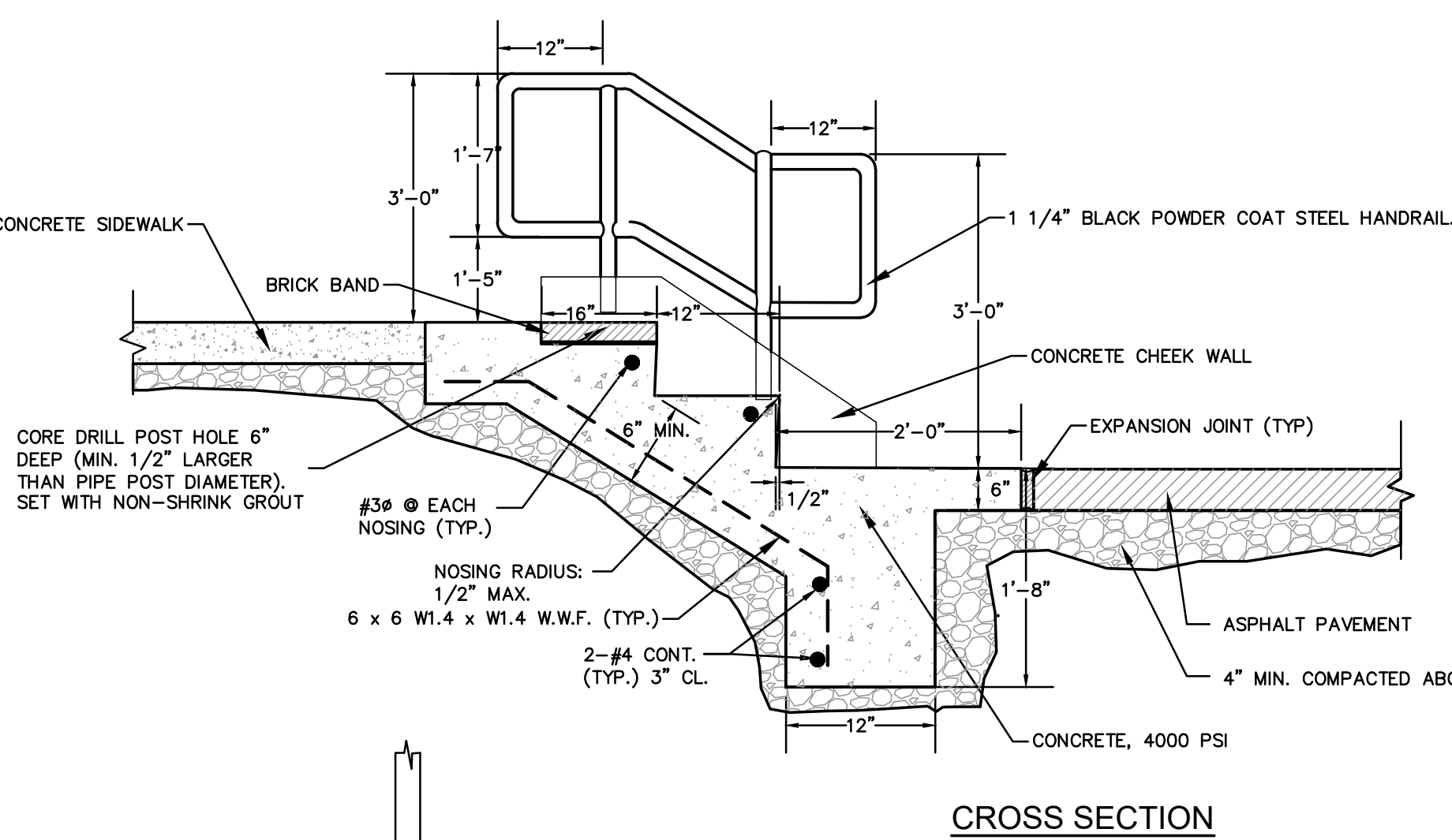
UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

NOT TO SCALE		DETAILS		SHEET	
OFFICE MANAGER D.G. CHAPMAN	DESIGNER C.L. CRANWILL	REVIEWER M.J. NORRIS	DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A

C-501

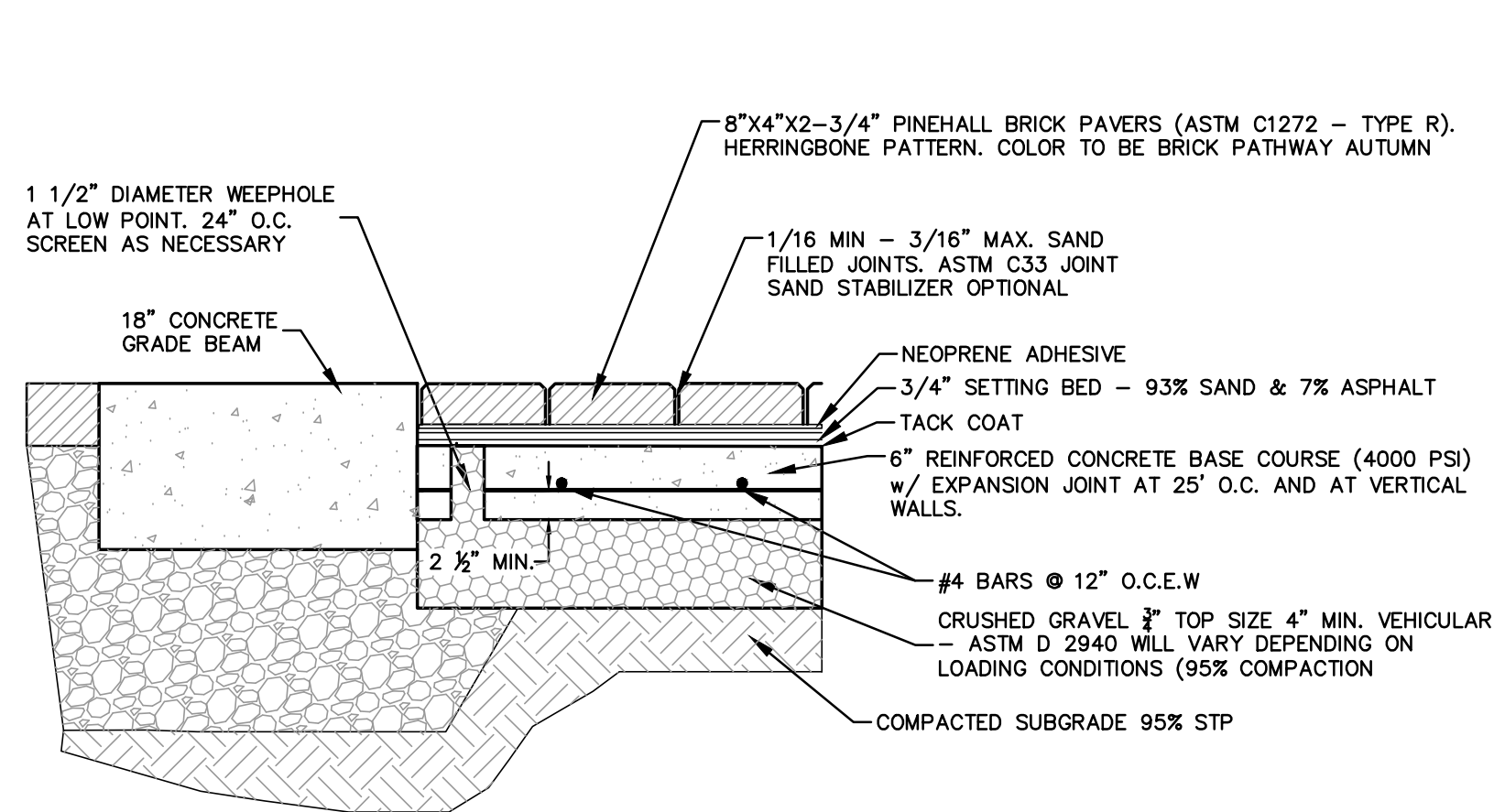


1 BRICK PAVER BAND
REVISED FOR THIS PROJECT
NOT TO SCALE



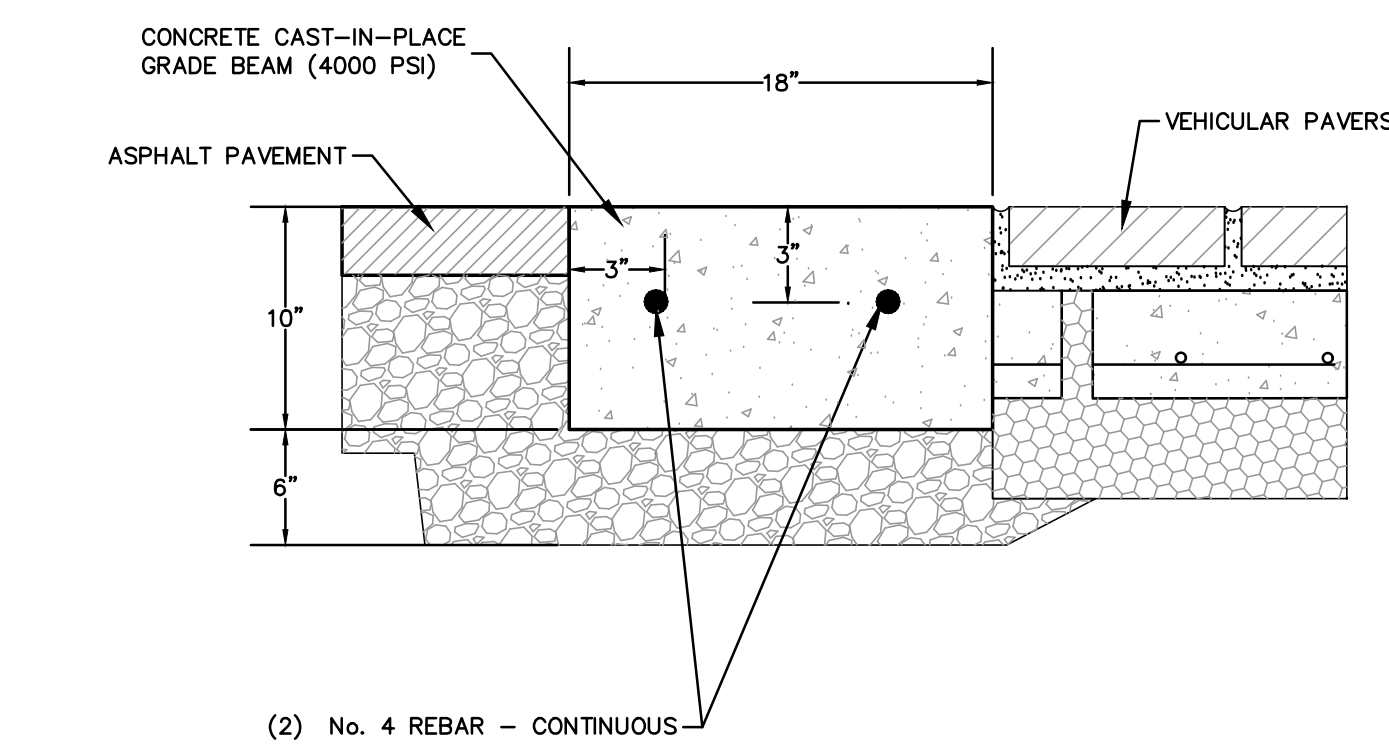
8 CONCRETE STEPS AND PIPE RAILING DETAIL
REVISED FOR THIS PROJECT
NOT TO SCALE

NOTES:
1. STAIR TREADS AND RISERS SHALL BE OF UNIFORM SIZE AND SHAPE. SEE GRADING PLAN FOR RISER HEIGHT. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST RISER HEIGHT OR BETWEEN THE LARGEST AND SMALLEST TREAD DEPTH SHALL NOT EXCEED 0.375 INCH IN ANY FLIGHT OF STAIRS.
2. CONCRETE SURFACE SHALL BE GIVEN A LIGHT BROOM FINISH WITH THE BRUSH MARKS PARALLEL TO THE CURB.
3. MAX. SLOPE ON TREADS 2.0%



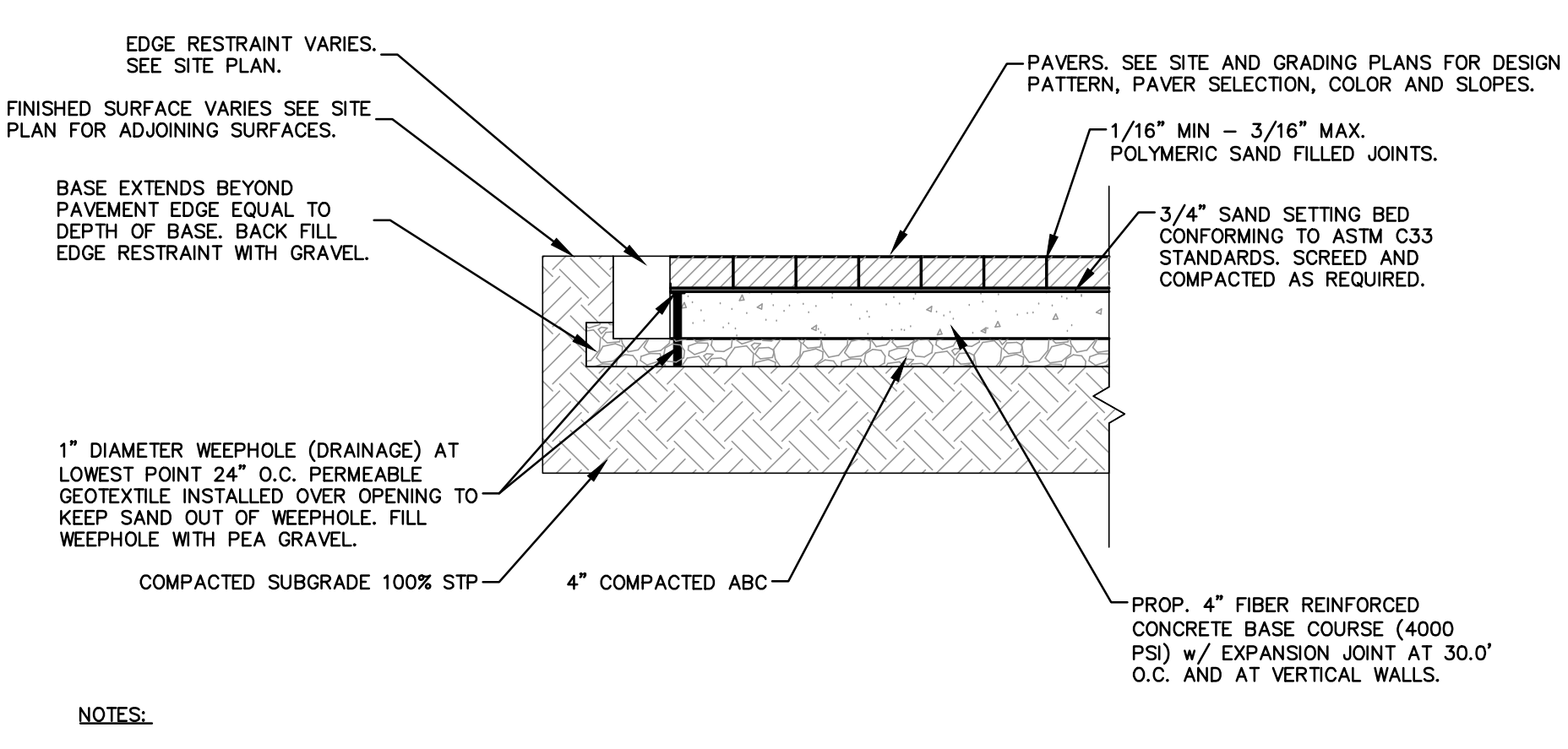
2 VEHICULAR PAVERS
REVISED FOR THIS PROJECT
NOT TO SCALE

NOTES:
1. PAVERS TO BE INSTALLED PER MANUFACTURER'S SPECS.
2. ANY PAVER SURFACE(S) THAT BECOME STAINED DURING INSTALLATION SHALL BE DISCARDED AND REPLACED WITH NEW PAVER(S).



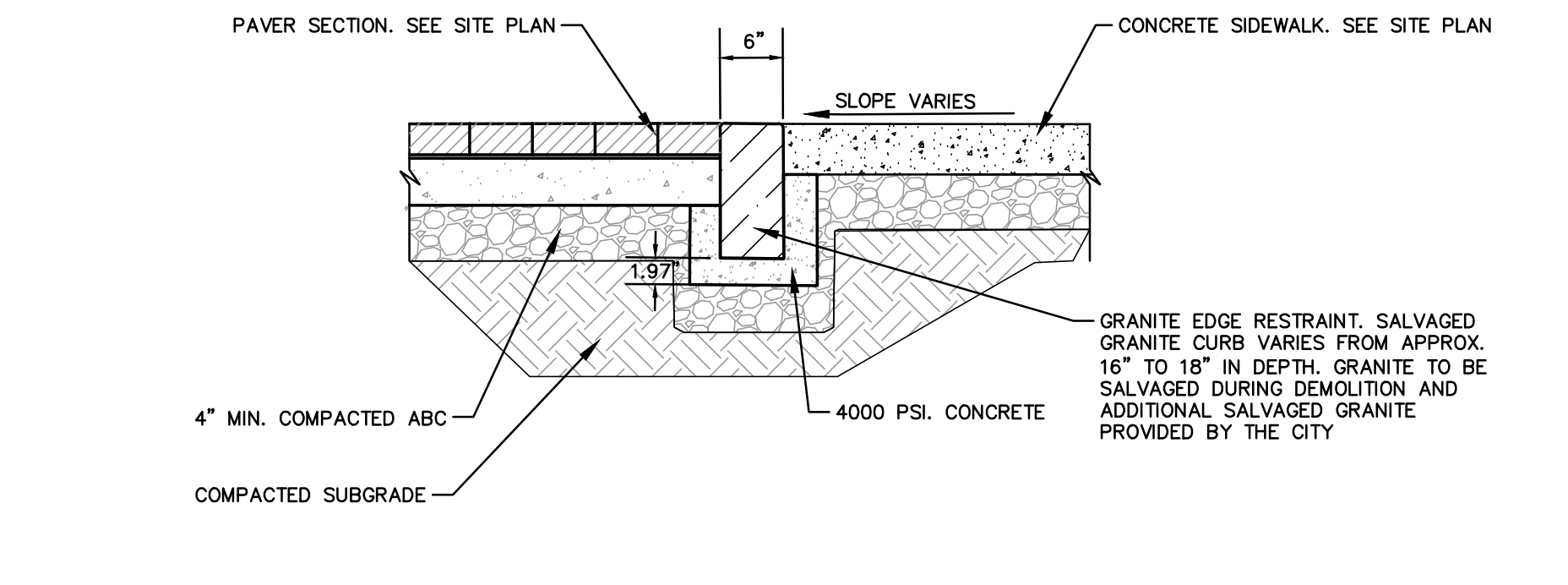
5 18" CONCRETE GRADE BEAM
REVISED FOR THIS PROJECT
NOT TO SCALE

NOTES:
1. EXISTING "ABC" IN ROADWAY MAY BE USED AS BASE COURSE AFTER COMPACTING TO ACHIEVE 100% PROCTOR. LOCALIZED UNDERCUTTING AND REPAIR SHALL BE REQUIRED WHERE PROCTORING RESULTS IN PUMPING OR AS DIRECTED BY THE INSPECTOR. TESTING OF "SUBGRADE"/"ABC" COMPACTION SHALL BE REQUIRED.
2. EXISTING ROADWAY PAVING SHALL BE SAW-CUT TO RECEIVE PLACEMENT OF GRADE BEAMS. A THREE-DAY CURING PERIOD SHALL BE REQUIRED FOR GRADE BEAMS PRIOR TO REMOVAL OF REMAINING BITUMINOUS PAVING. BASE BELOW GRADE BEAMS SHALL BE COMPACTED TO 100% PROCTOR.



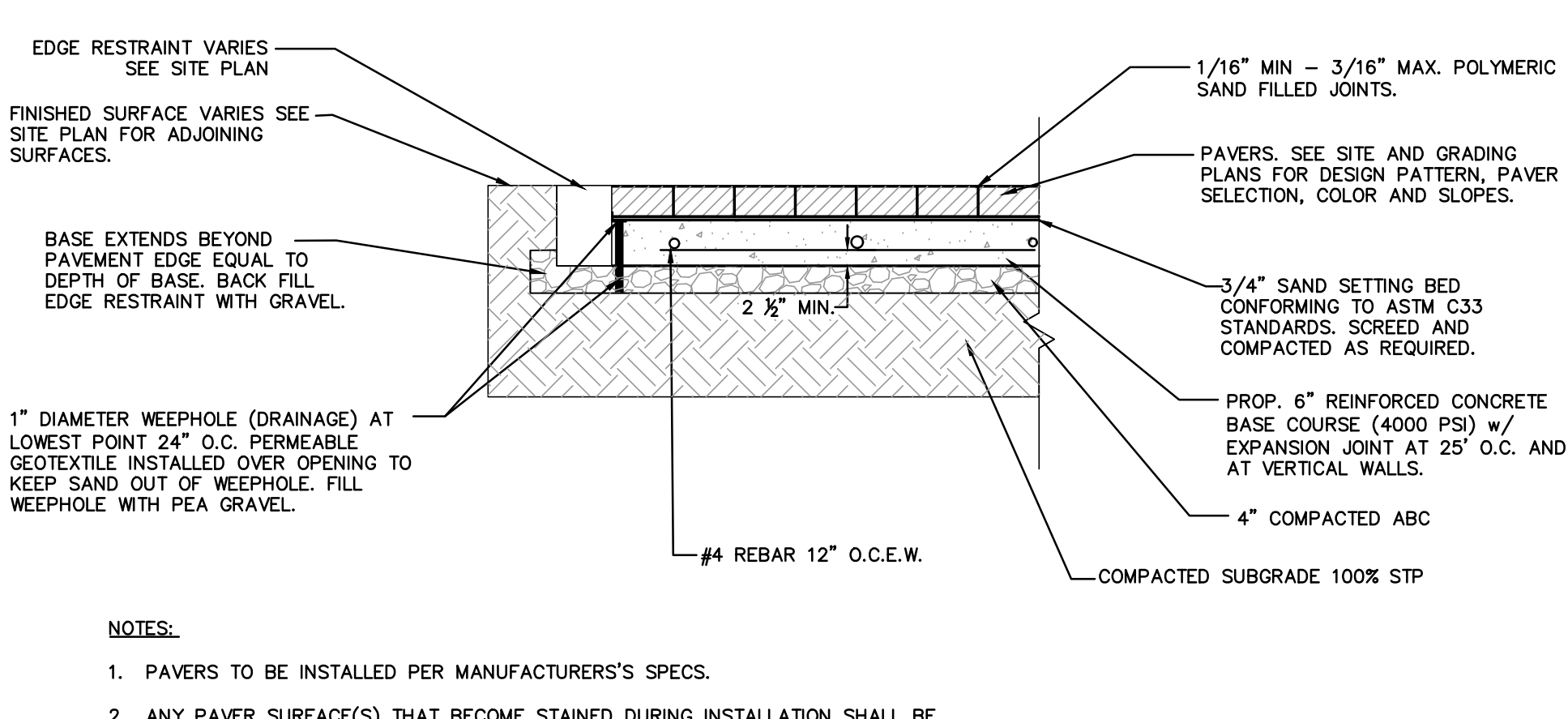
3 FLEXIBLE PAVER OVER RIGID BASE - LIGHT DUTY
REVISED FOR THIS PROJECT
NOT TO SCALE

NOTES:
1. PAVERS TO BE INSTALLED PER MANUFACTURER'S SPECS.
2. ANY PAVER SURFACE(S) THAT BECOME STAINED DURING INSTALLATION SHALL BE DISCARDED AND REPLACED WITH NEW PAVER(S).



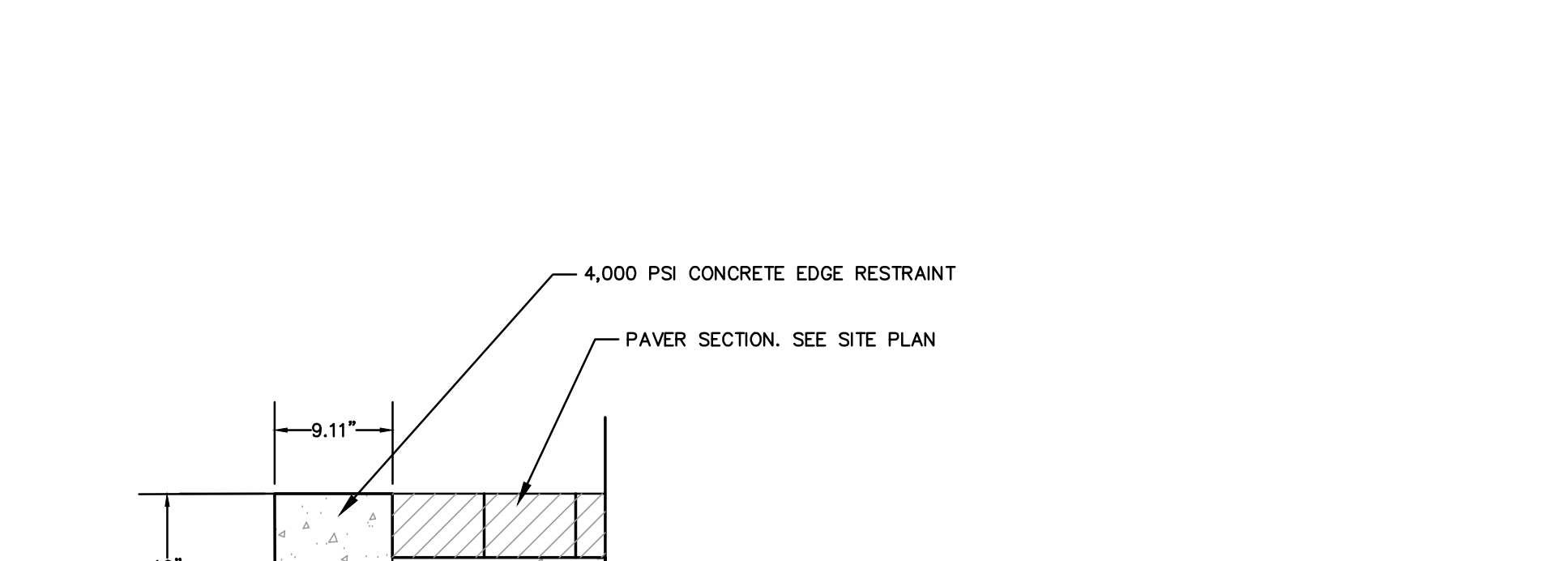
6 GRANITE EDGE RESTRAINT
REVISED FOR THIS PROJECT
NOT TO SCALE

NOTES:
1. GRANITE TO BE SUPPLIED BY THE OWNER.
2. THE GRANITE SHALL BE SOUND AND DURABLE AND FREE FROM SEAMS WHICH COULD IMPAIR THE STRUCTURAL STABILITY. THE EDGE RESTRAINT SHALL BE STRAIGHT FROM END TO END WITH A VARIANCE OF NO MORE THAN 3/16" IN EITHER DIRECTION. QUARRY DRILL HOLES OR OTHER IMPERFECTIONS WILL NOT BE ACCEPTED. THE ENDS SHALL BE PERPENDICULAR TO THE TOP. THE ENDS SHALL ALIGN SO THAT NO SPACE GREATER THAN 1/4" IS CREATED BETWEEN THE ENDS.
3. THE GRANITE EDGE RESTRAINT SHALL BE CLEANED OR PROTECTED FROM CONCRETE SPLASH AT ALL TIMES.



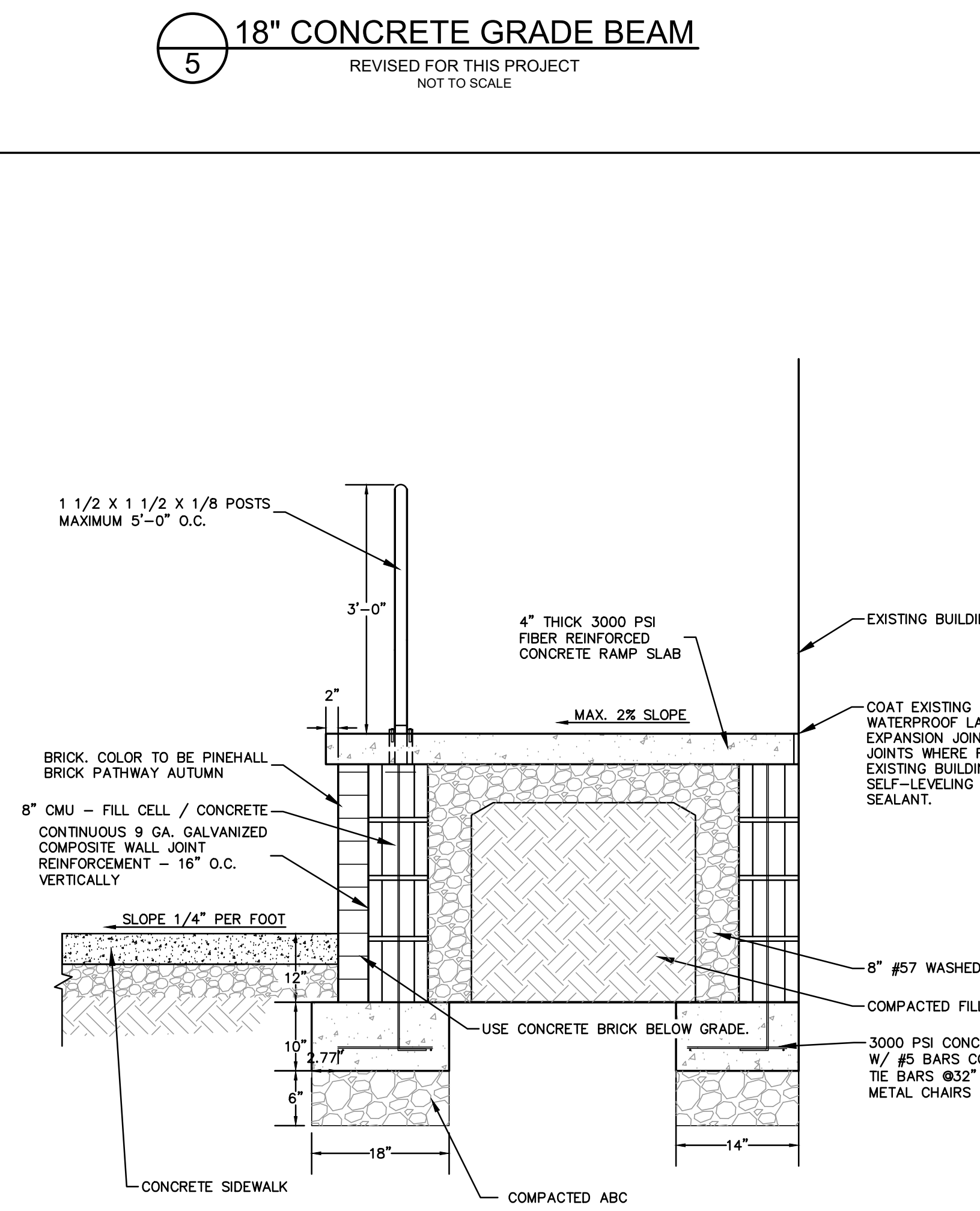
4 FLEXIBLE PAVER OVER RIGID BASE - HEAVY DUTY
REVISED FOR THIS PROJECT
NOT TO SCALE

NOTES:
1. PAVERS TO BE INSTALLED PER MANUFACTURER'S SPECS.
2. ANY PAVER SURFACE(S) THAT BECOME STAINED DURING INSTALLATION SHALL BE DISCARDED AND REPLACED WITH NEW PAVER(S).



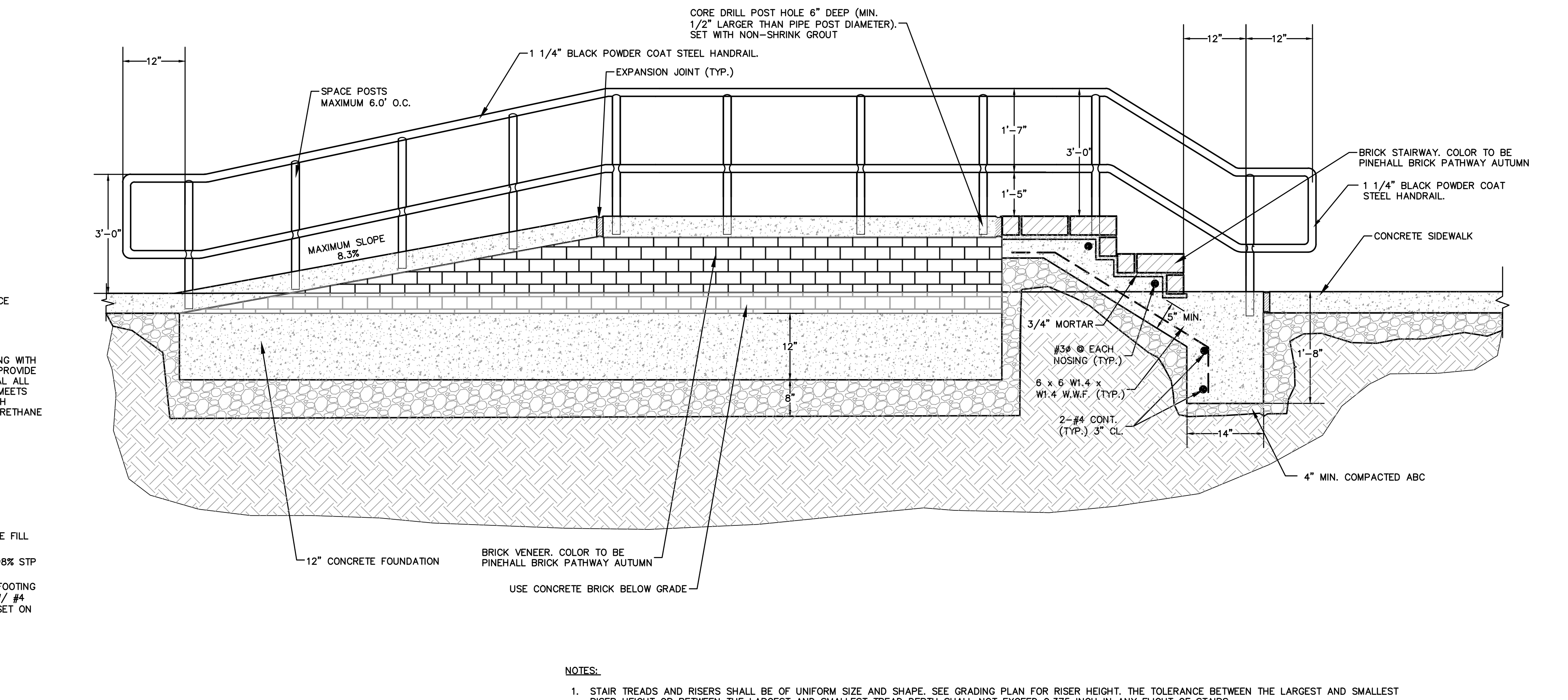
7 CONCRETE EDGE RESTRAINT
NOT TO SCALE
REVISED FOR THIS PROJECT

NOTES:
1. EXPANSION JOINTS @ 30' O.C. & ADJACENT TO ALL RIGID OBJECTS.
2. TOOLED CONTRACTION JOINTS 10.0' O.C.



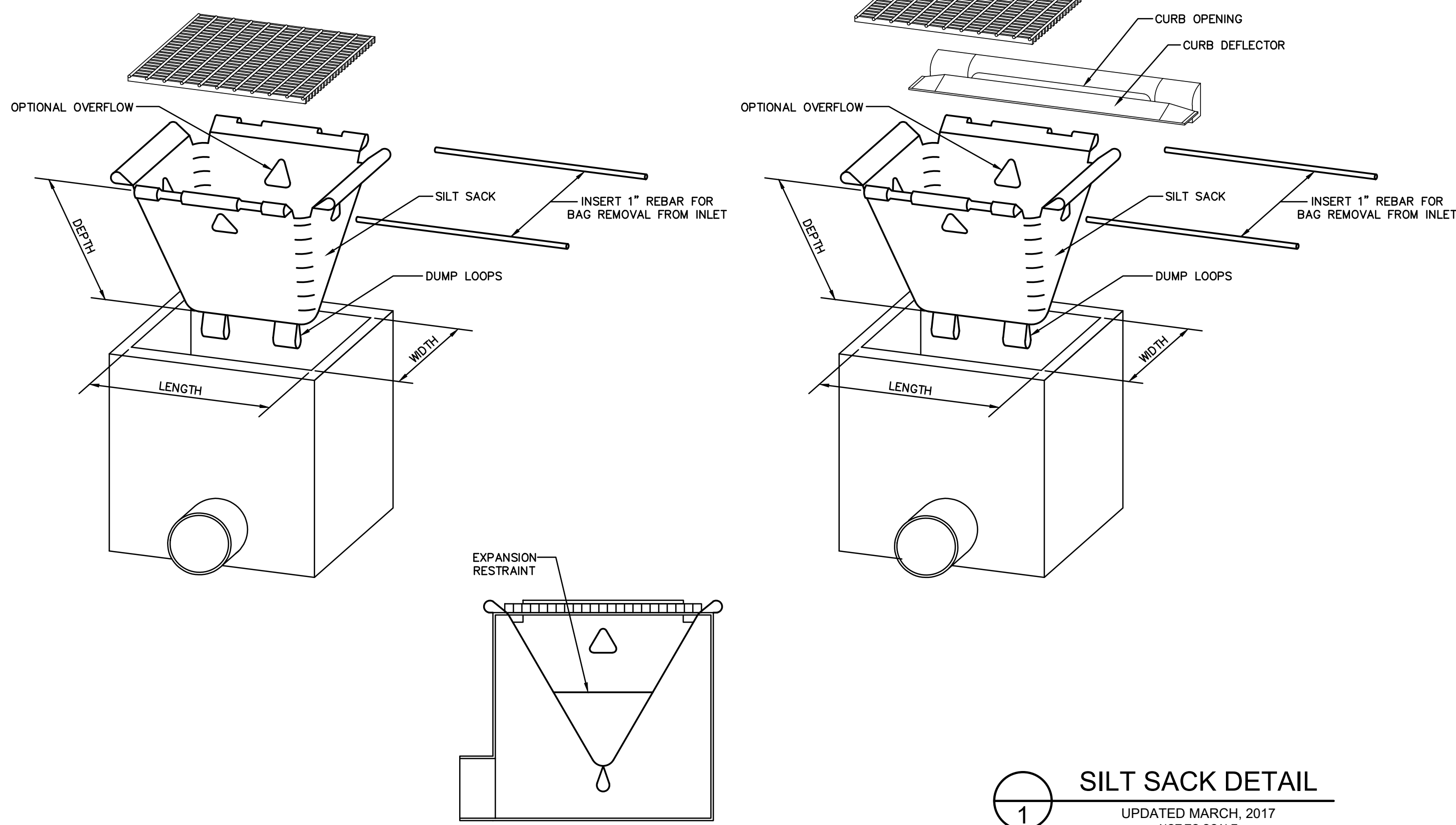
9 CONCRETE STEPS AND RAMP STORE ACCESS
REVISED FOR THIS PROJECT
NOT TO SCALE

NOTES:
1. STAIR TREADS AND RISERS SHALL BE OF UNIFORM SIZE AND SHAPE. SEE GRADING PLAN FOR RISER HEIGHT. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST RISER HEIGHT OR BETWEEN THE LARGEST AND SMALLEST TREAD DEPTH SHALL NOT EXCEED 0.375 INCH IN ANY FLIGHT OF STAIRS.
2. CONCRETE SURFACE SHALL BE GIVEN A LIGHT BROOM FINISH WITH THE BRUSH MARKS PERPENDICULAR TO THE CURB.
3. MAX. SLOPE ON TREADS 2.0%

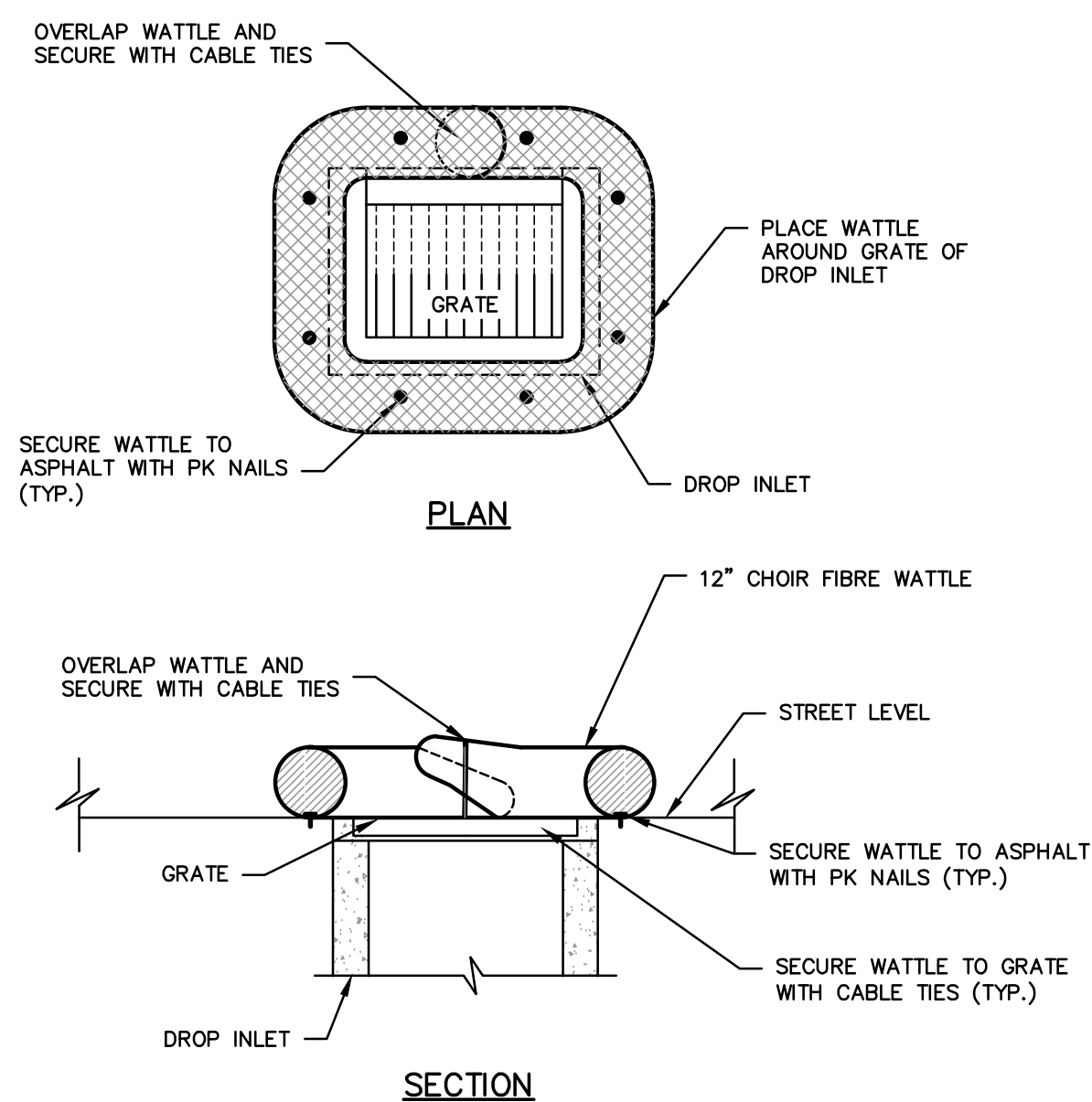


9 CONCRETE STEPS AND RAMP STORE ACCESS
REVISED FOR THIS PROJECT
NOT TO SCALE

NOTES:
1. STAIR TREADS AND RISERS SHALL BE OF UNIFORM SIZE AND SHAPE. SEE GRADING PLAN FOR RISER HEIGHT. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST RISER HEIGHT OR BETWEEN THE LARGEST AND SMALLEST TREAD DEPTH SHALL NOT EXCEED 0.375 INCH IN ANY FLIGHT OF STAIRS.
2. CONCRETE SURFACE SHALL BE GIVEN A LIGHT BROOM FINISH WITH THE BRUSH MARKS PERPENDICULAR TO THE CURB.
3. MAX. SLOPE ON TREADS 2.0%

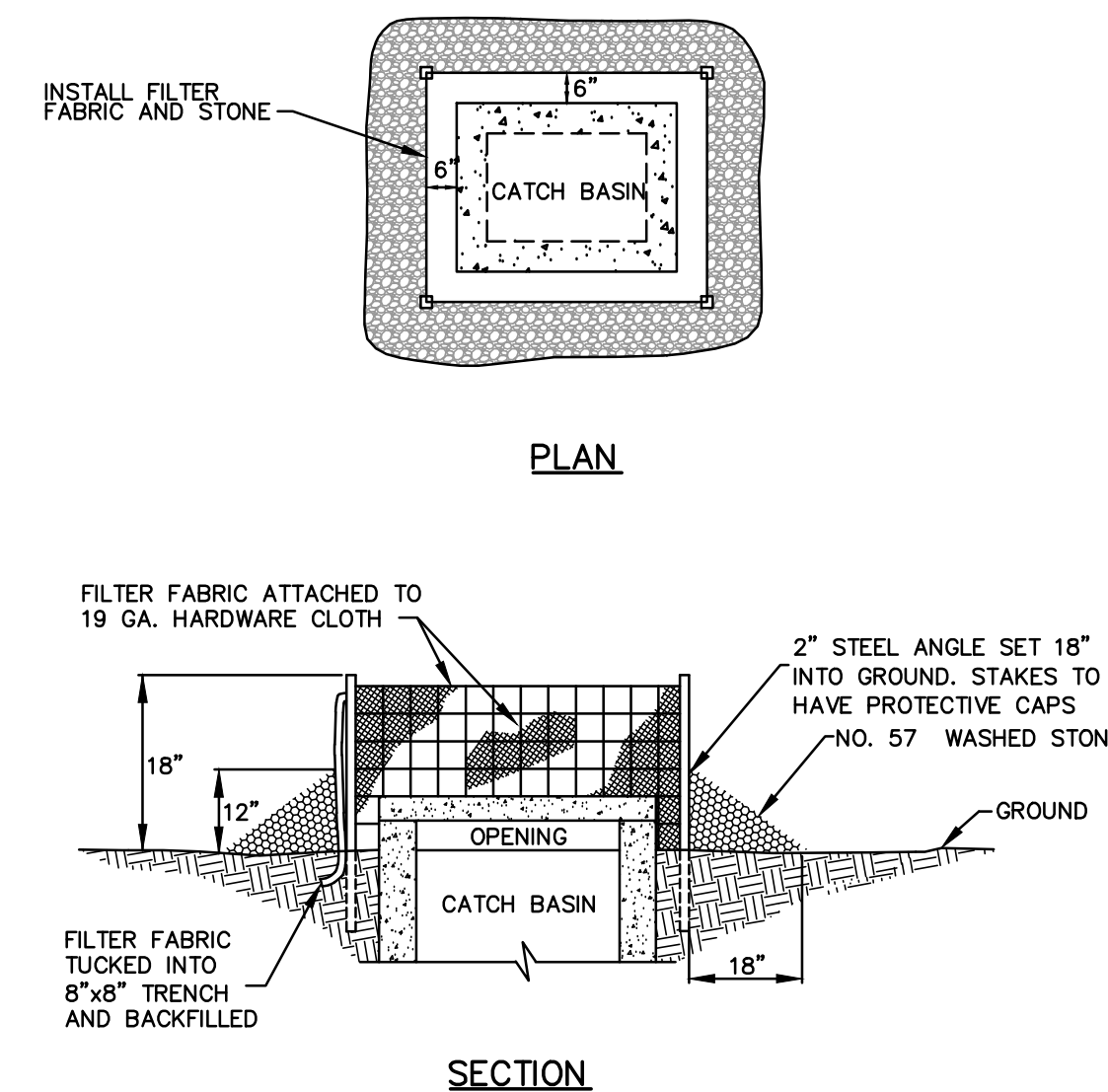


1 SILT SACK DETAIL
 UPDATED MARCH, 2017
 NOT TO SCALE



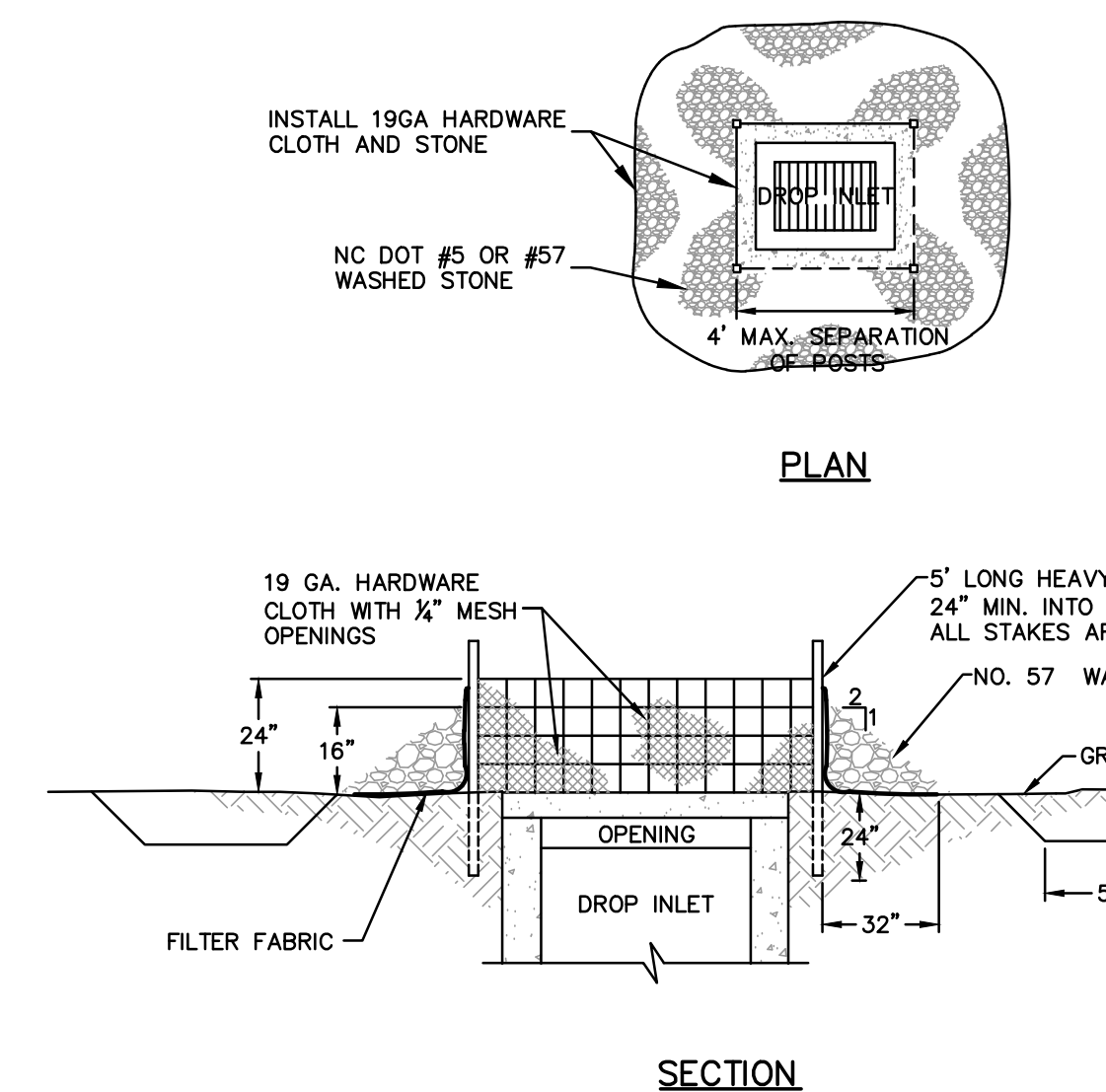
NOTES:
 1. WATTLES MUST BE SECURED AS SHOWN, OR PER MANUFACTURER'S RECOMMENDATIONS.
 2. ALL MATERIALS INSTALLED WITHIN NCDOT RIGHT-OF-WAY MUST MEET NCDOT STANDARDS.

2 INLET PROTECTION - WATTLE
 REVISED FOR THIS PROJECT
 NOT TO SCALE



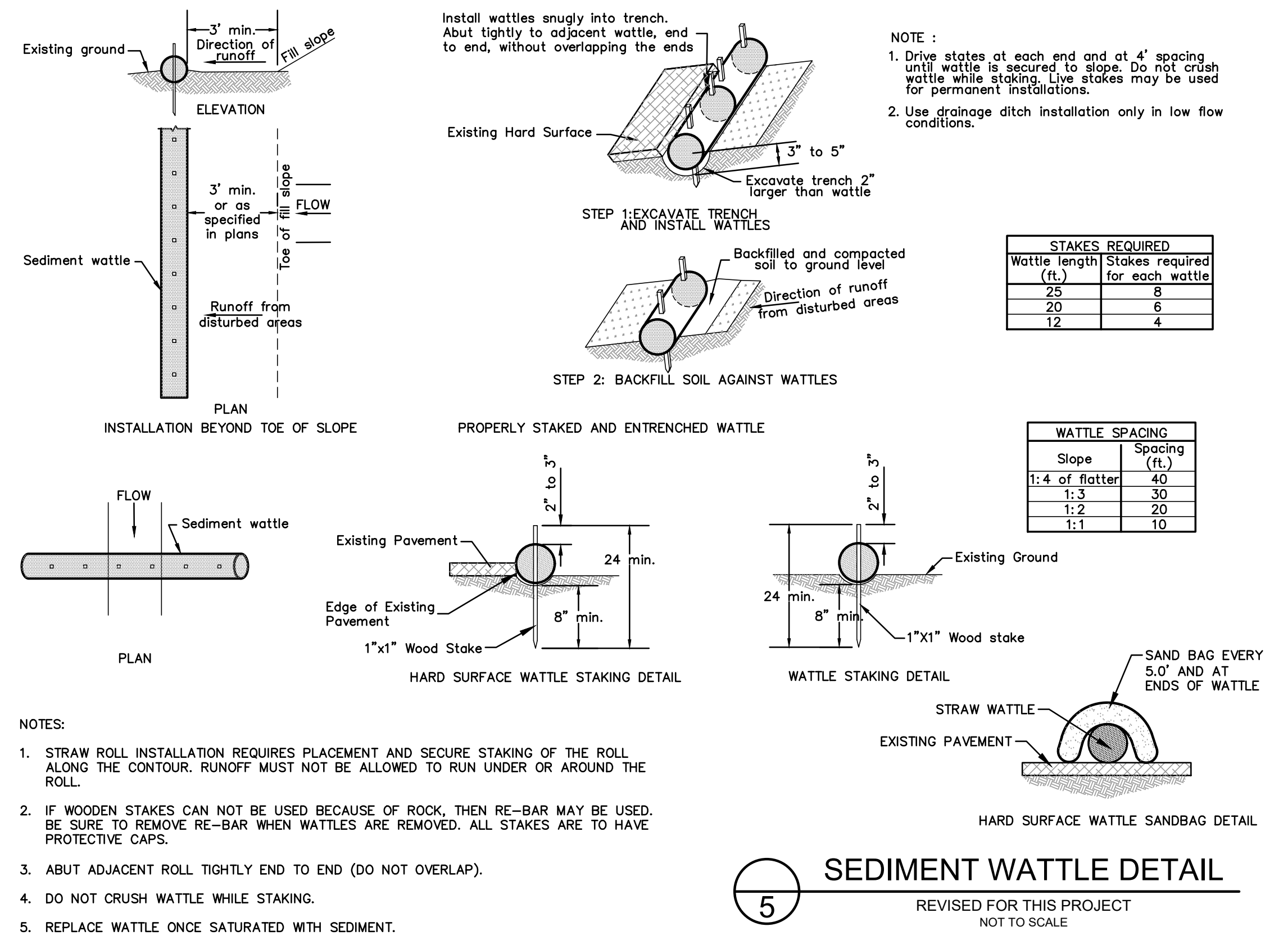
NOTES:
 1. ATTACH WIRE AND FABRIC TO POSTS ON OUTSIDE OF FENCE WITH APPROVED FASTENERS.
 2. ALL STAKES/POSTS TO HAVE PROTECTIVE CAPS.
 3. FILTERS SHALL BE INSPECTED AFTER EVERY RAIN AND REPAIRED AS REQUIRED.
 4. SEDIMENT SHALL BE REMOVED AFTER DEPOSITS REACH 1/3 HEIGHT OF BARRIER.

3 CURB INLET PROTECTION
 REVISED FOR THIS PROJECT
 NOT TO SCALE

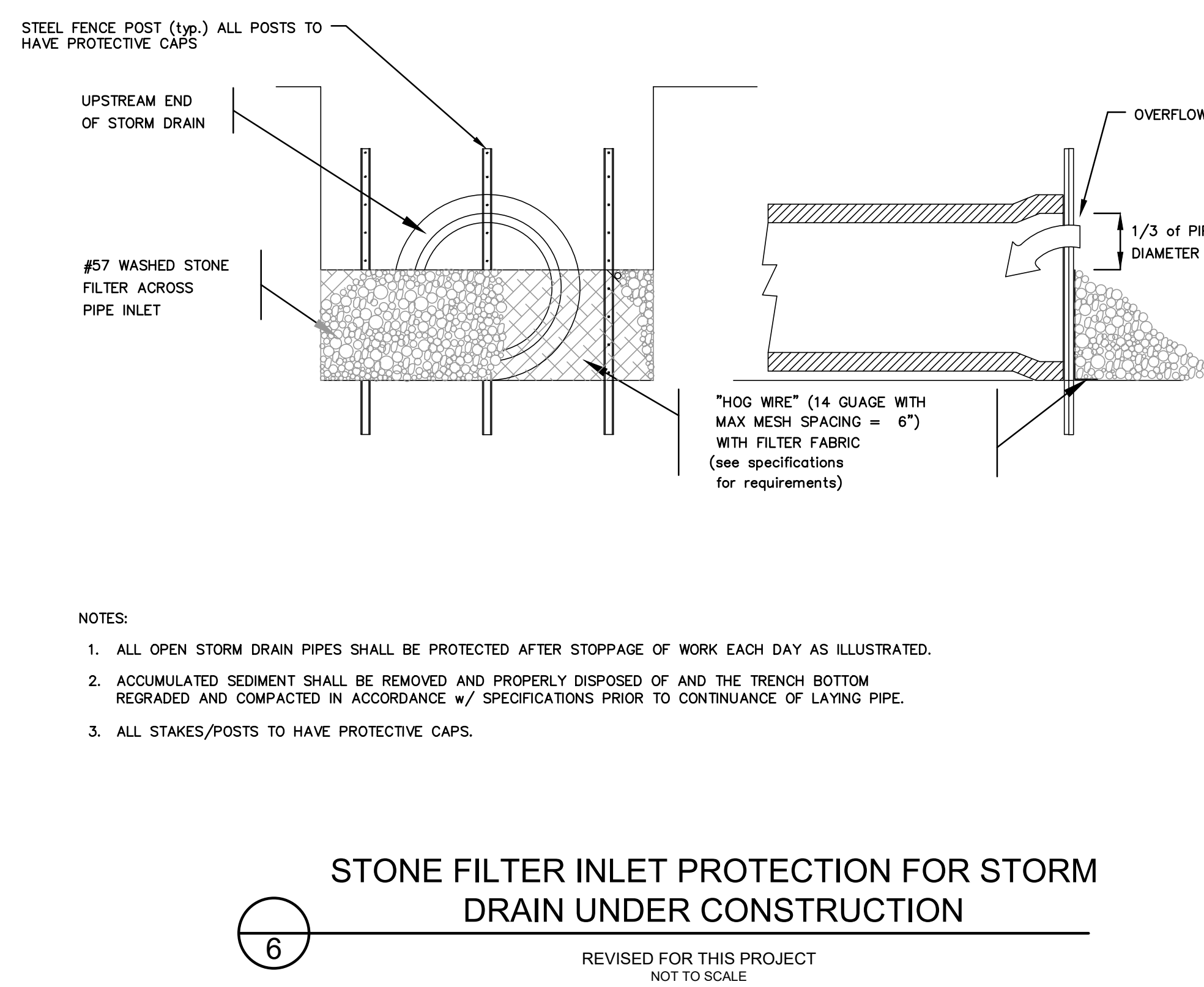


NOTES:
 1. ATTACH HARDWARE TO OUTSIDE OF FENCE POSTS WITH APPROVED FASTENERS.
 2. FILTERS SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAIN AND REPAIRED AS REQUIRED.
 3. SEDIMENT SHALL BE REMOVED AFTER DEPOSITS REACH HEIGHT OF BARRIER.
 4. STEEL POSTS SHALL BE MINIMUM 1:25 POUND PER L.F.
 5. ALL STAKES/POSTS ARE TO HAVE PROTECTIVE CAPS.

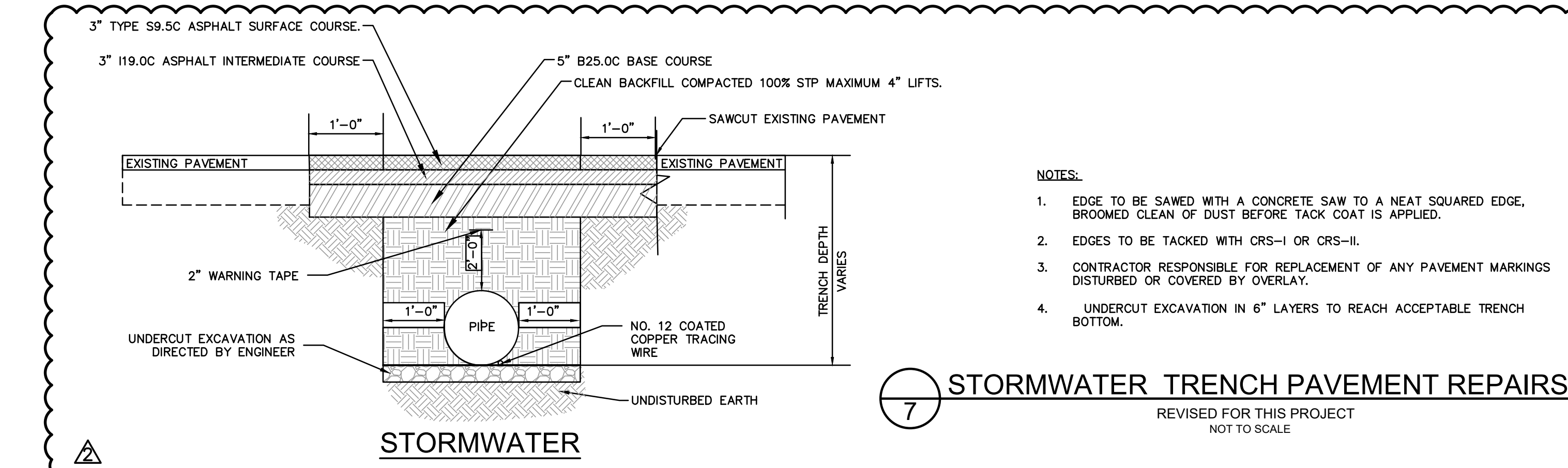
4 DROP INLET PROTECTION
 UPDATED MARCH, 2017
 NOT TO SCALE



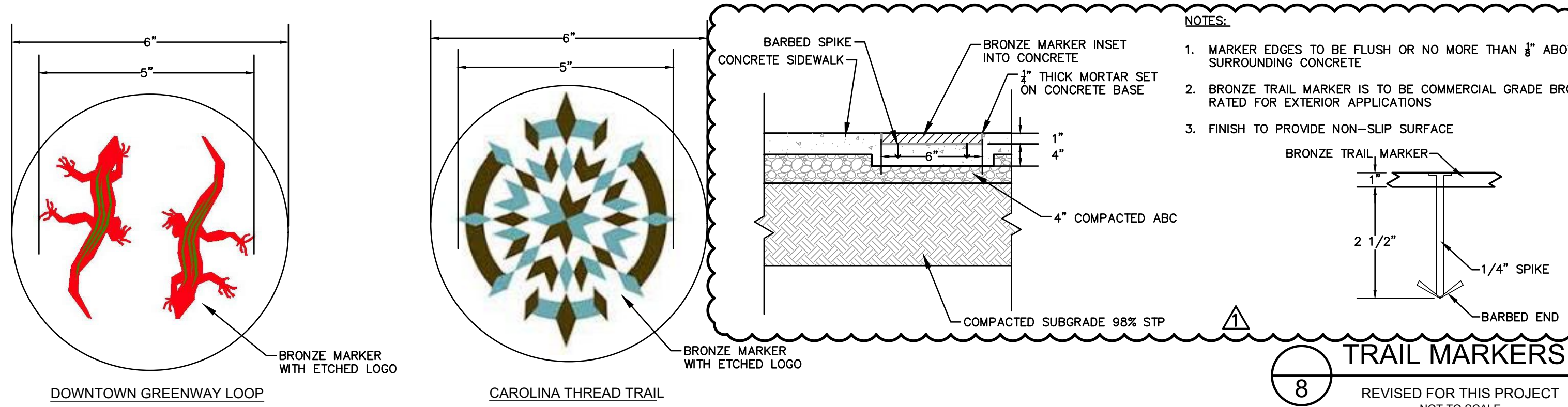
5 SEDIMENT WATTLE DETAIL
 REVISED FOR THIS PROJECT
 NOT TO SCALE



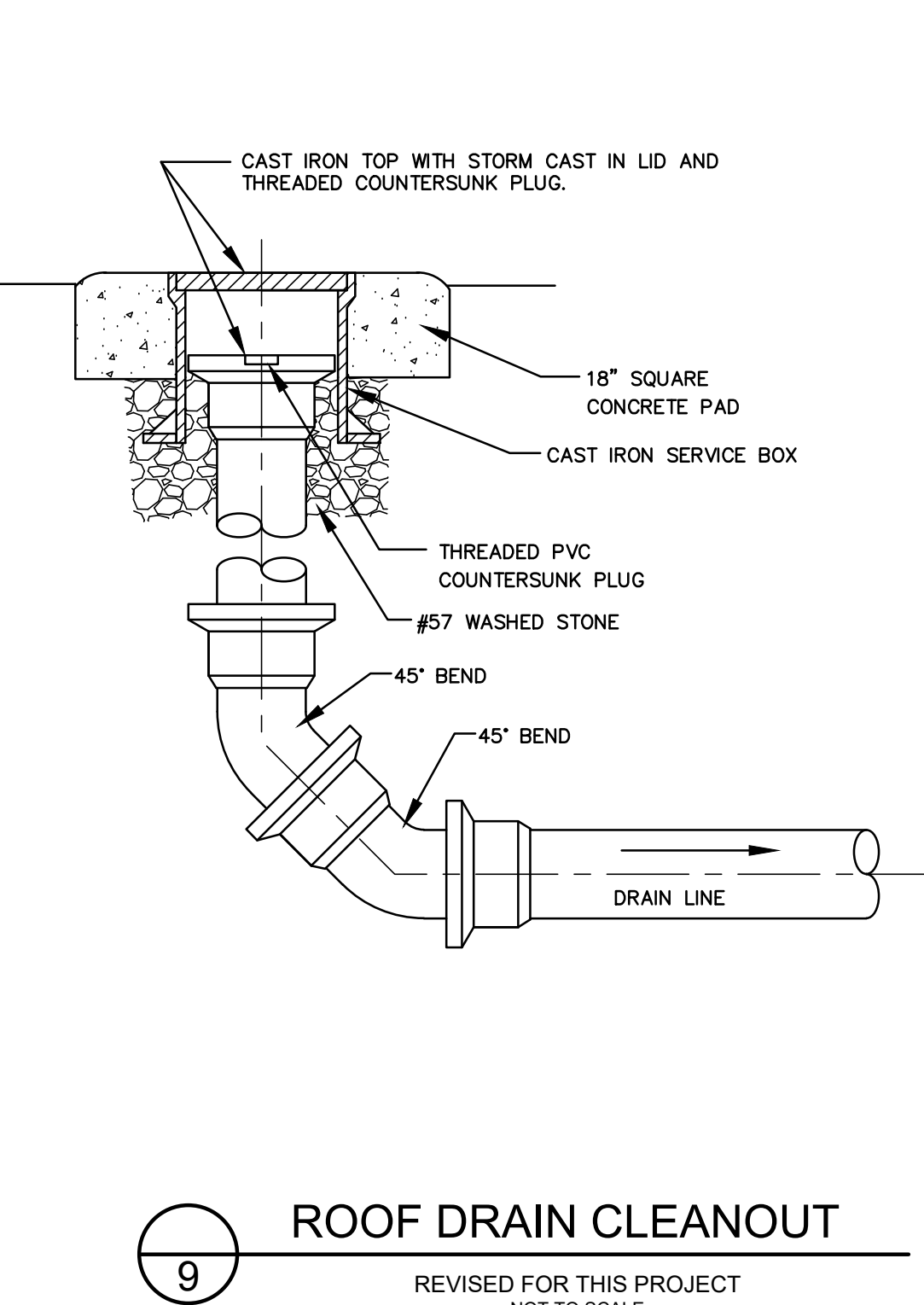
6 STONE FILTER INLET PROTECTION FOR STORM DRAIN UNDER CONSTRUCTION
 REVISED FOR THIS PROJECT
 NOT TO SCALE



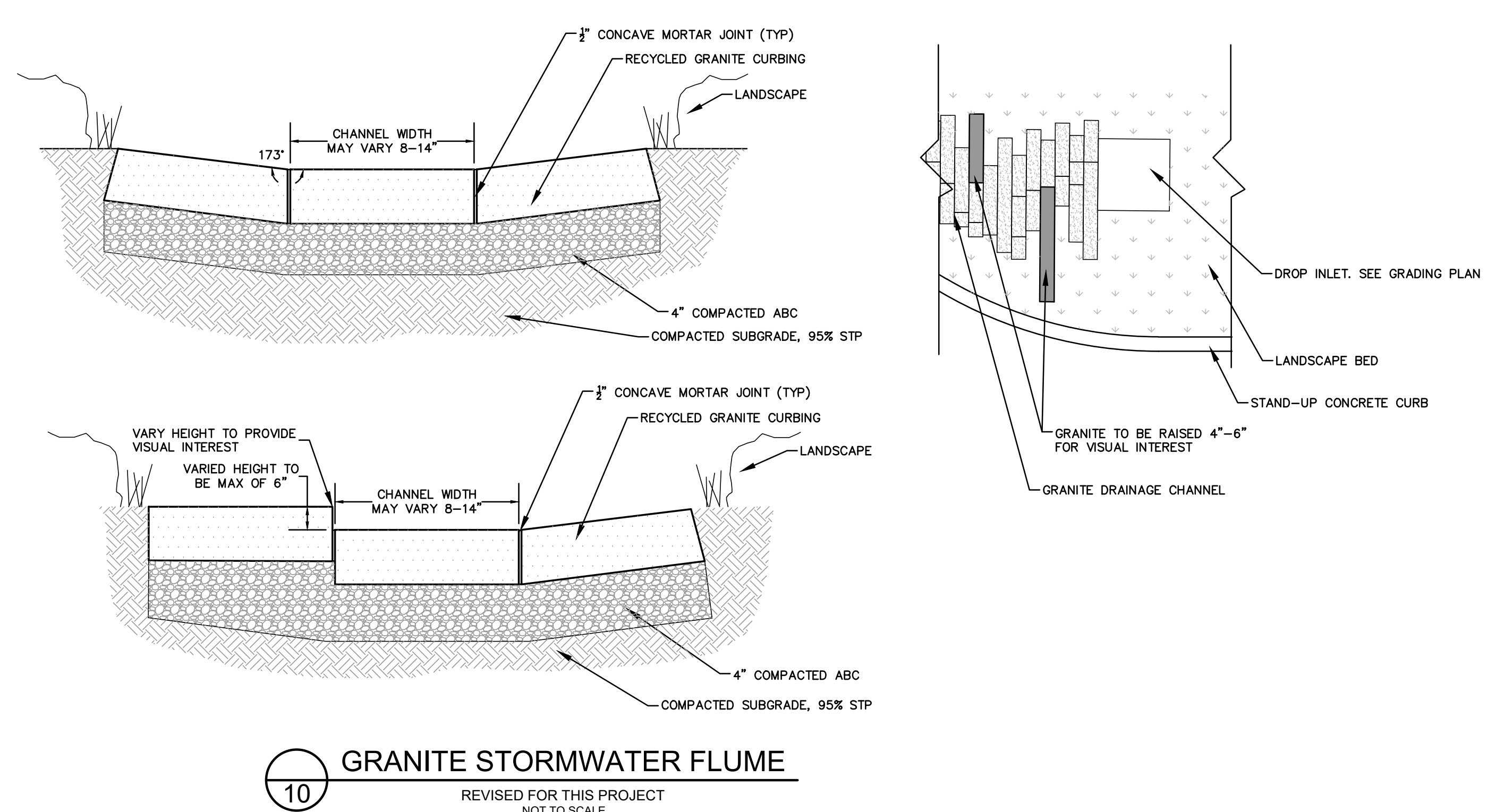
7 STORMWATER TRENCH PAVEMENT REPAIRS
 REVISED FOR THIS PROJECT
 NOT TO SCALE



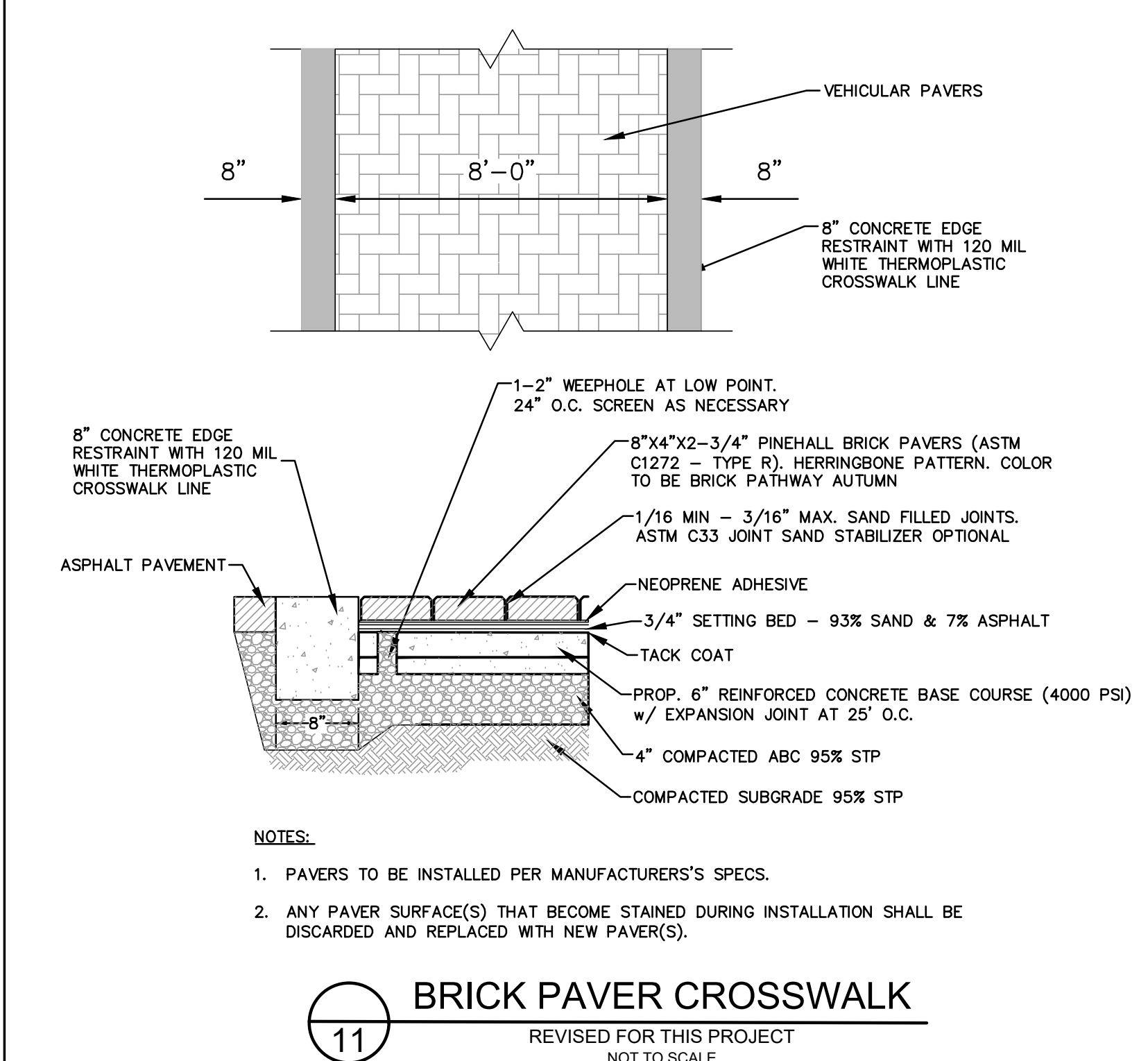
8 TRAIL MARKERS
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 NOT TO SCALE



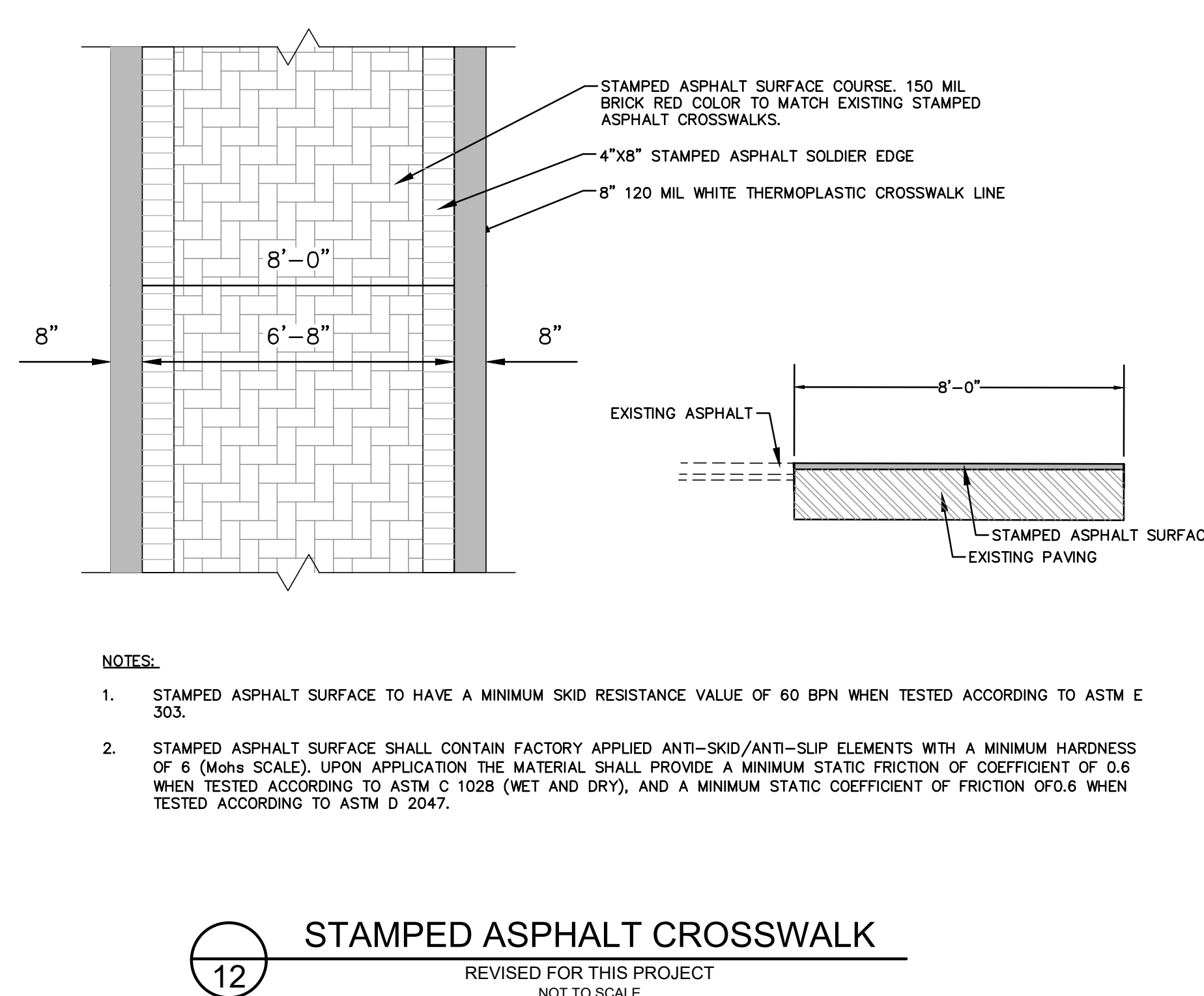
9 ROOF DRAIN CLEANOUT
 REVISED FOR THIS PROJECT
 NOT TO SCALE



10 GRANITE STORMWATER FLUME
 REVISED FOR THIS PROJECT
 NOT TO SCALE



11 BRICK PAVER CROSSWALK
 REVISED FOR THIS PROJECT
 NOT TO SCALE

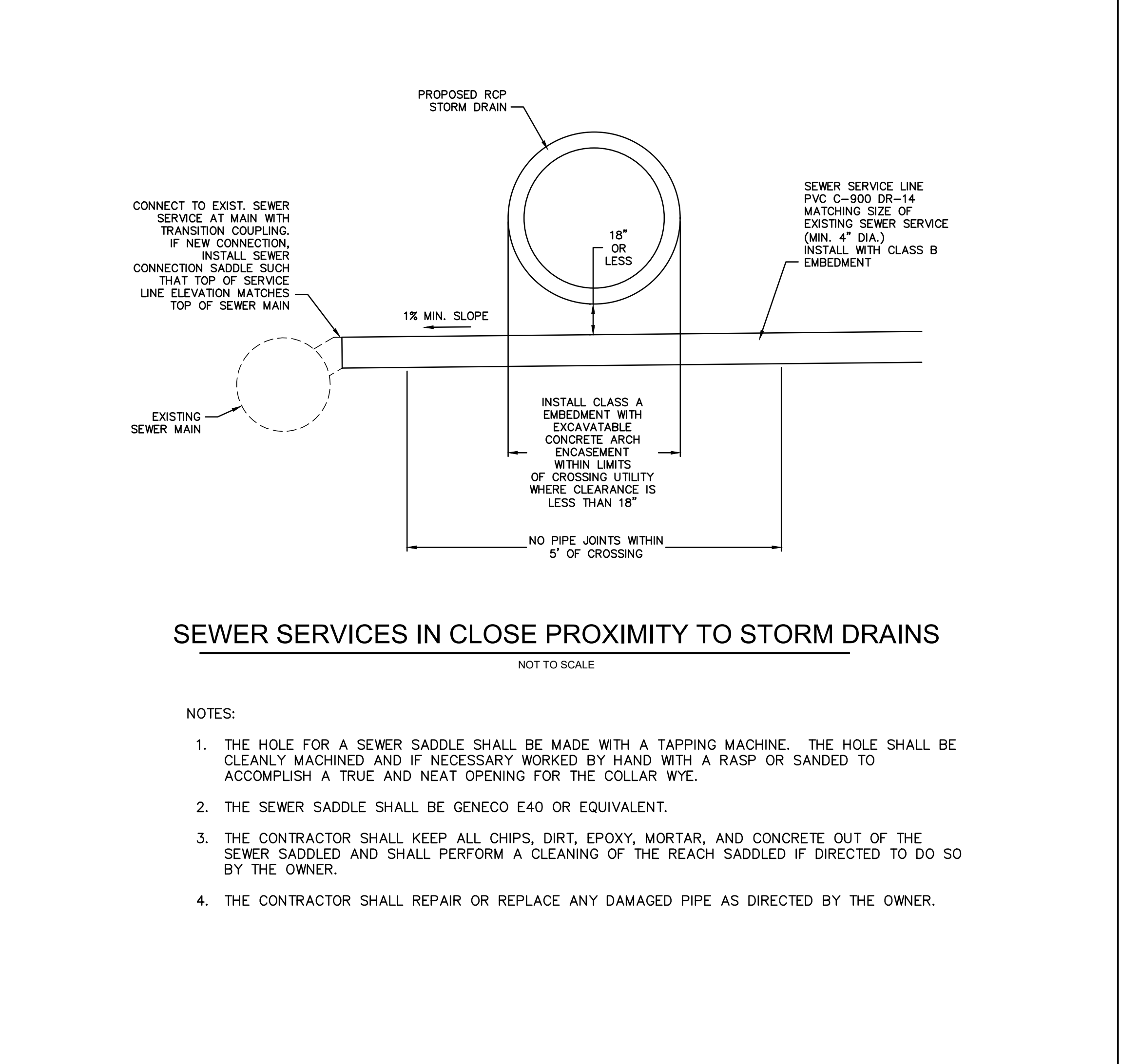
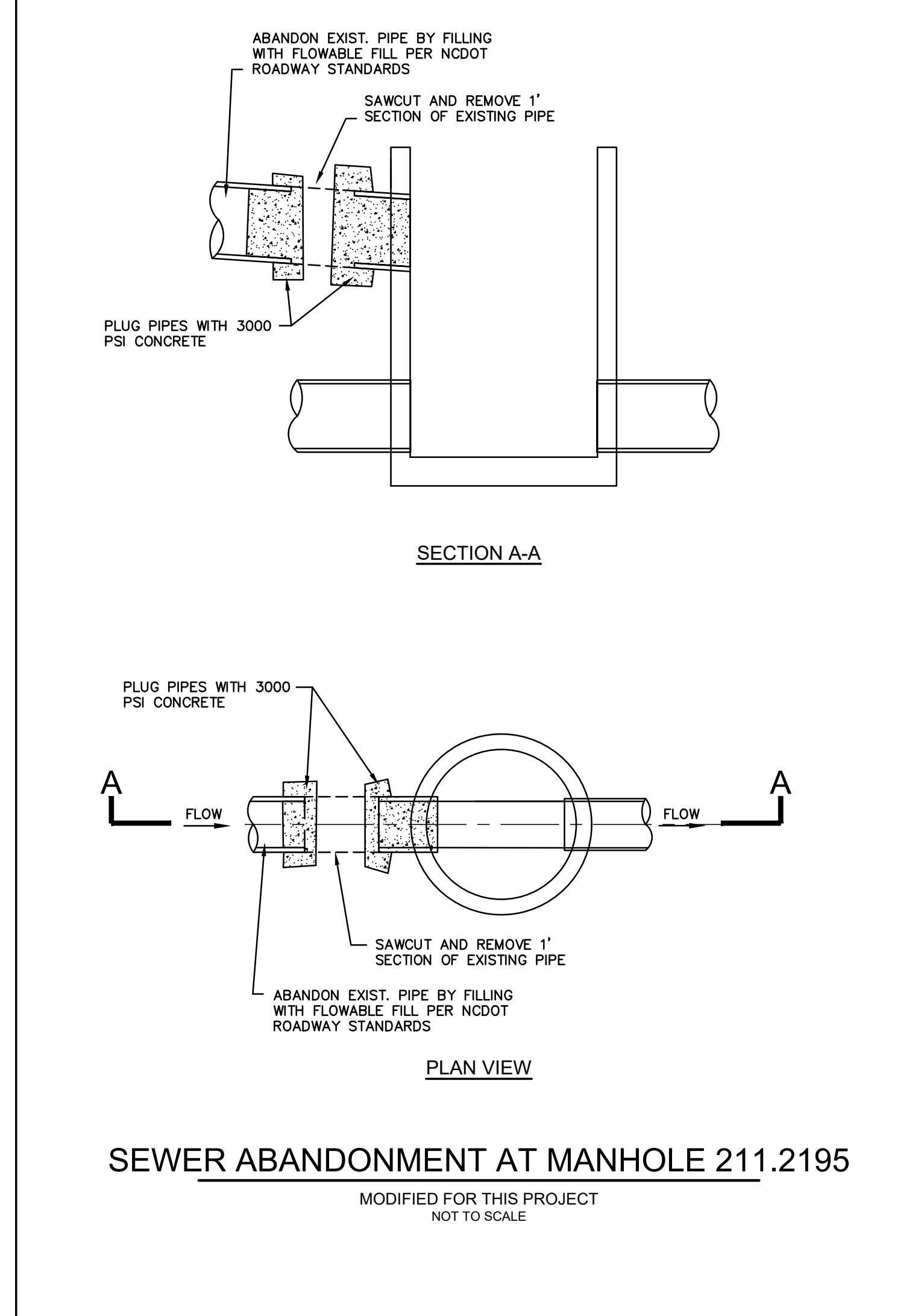
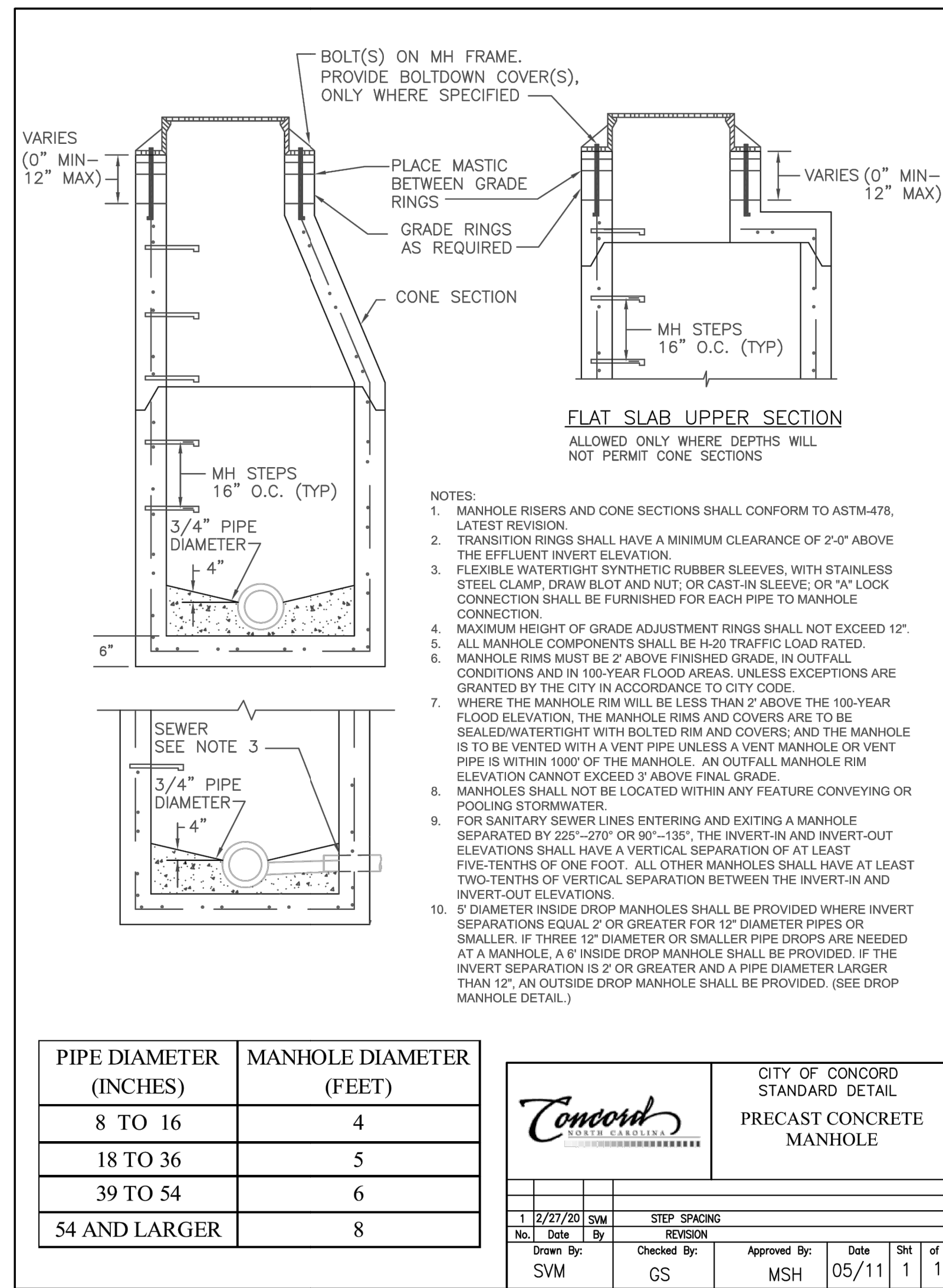


12 STAMPED ASPHALT CROSSWALK
 REVISED FOR THIS PROJECT
 NOT TO SCALE

NO.	DATE	BY	DESCRIPTION
1	8/20/2021	KCD	ADDENDUM #1
2	8/25/2021	KCD	ADDENDUM #2

P:\2019\19.01726\CONCORD\UNION STREET IMPROVEMENTS\19.01726 - UNION ST DETAILS.DWG 8/20/2021 3:10 PM MARCUS DURRANT

19.01726 - CITY OF CONCORD - UNION STREET IMPROVEMENTS

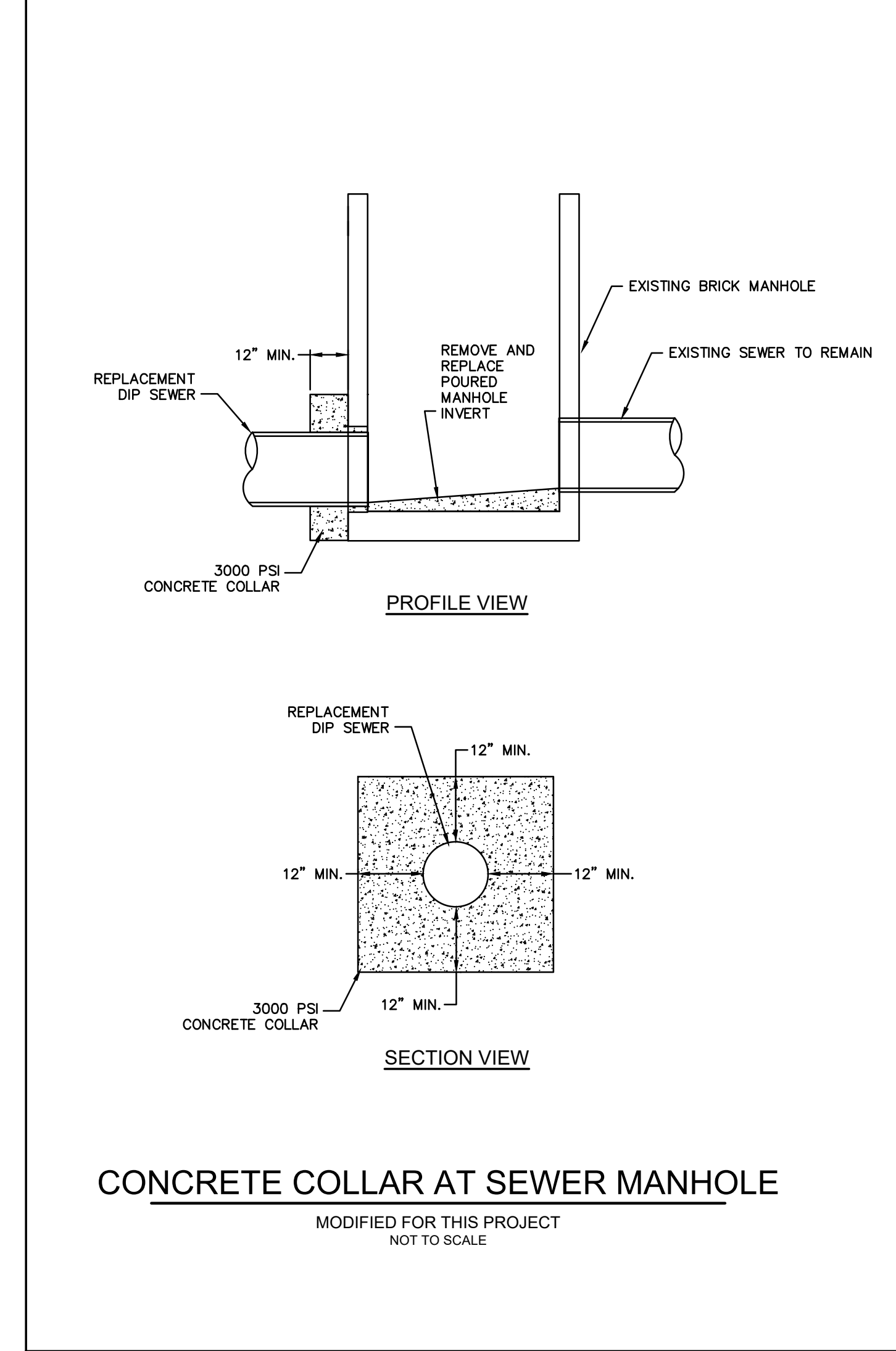
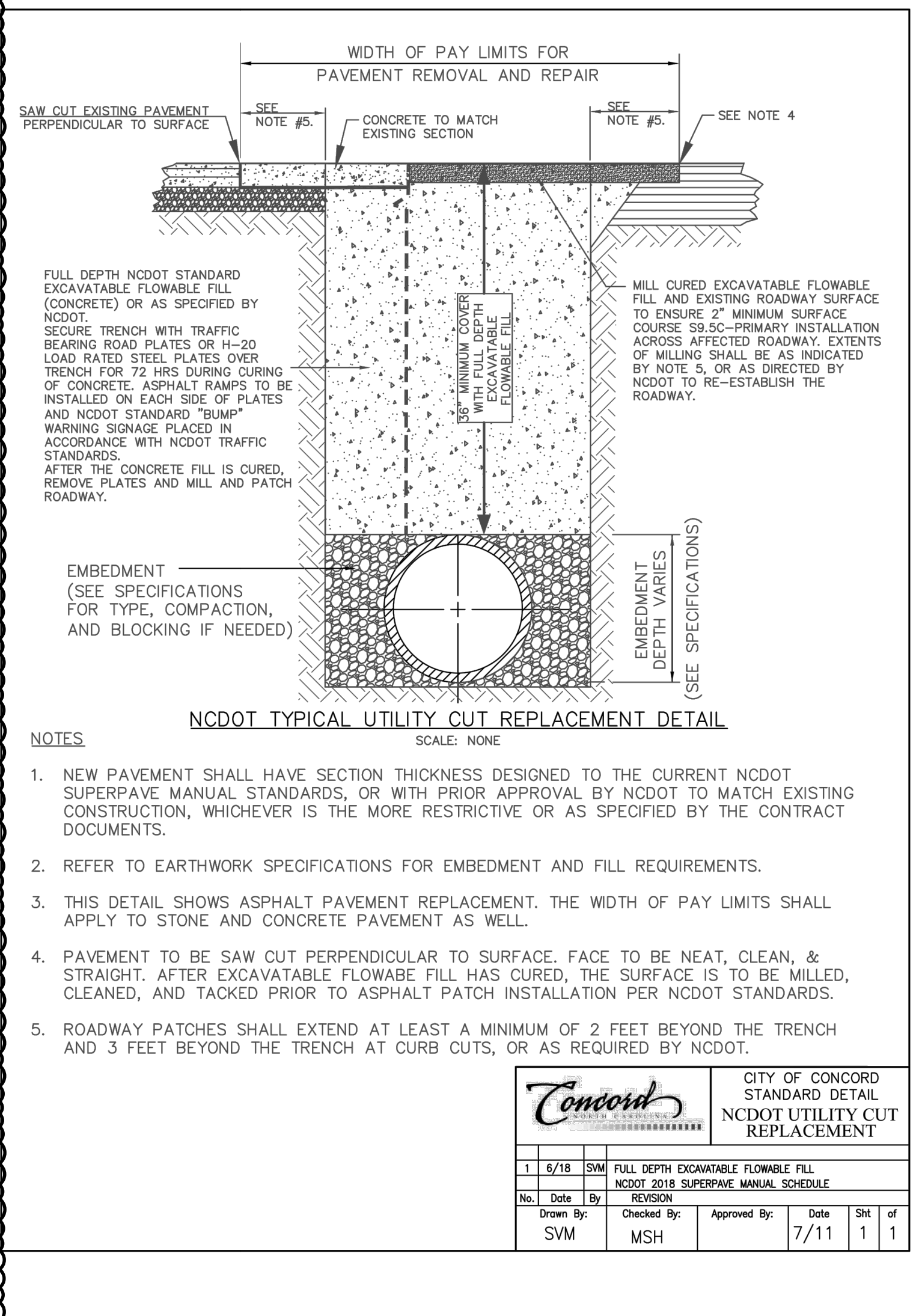
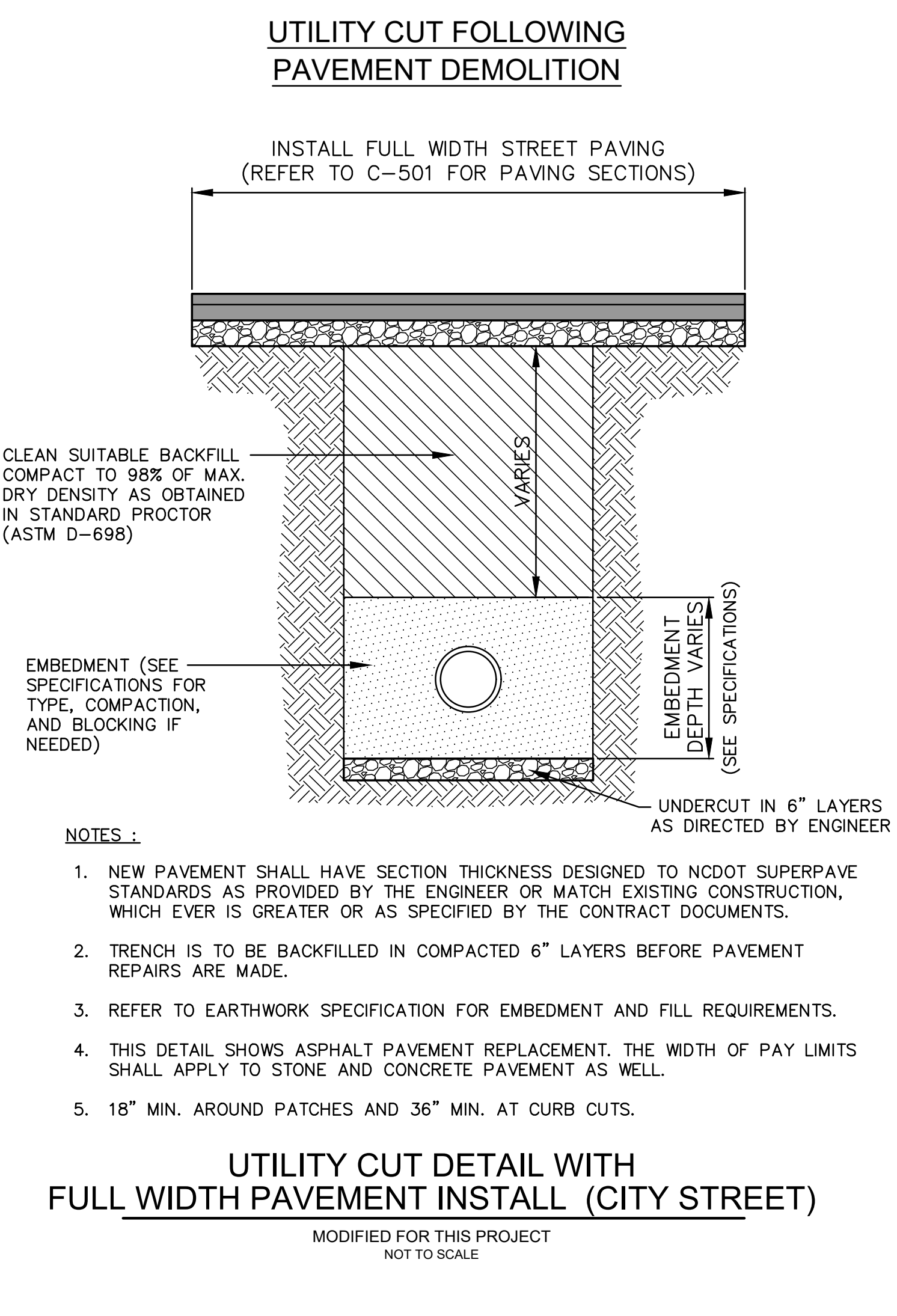
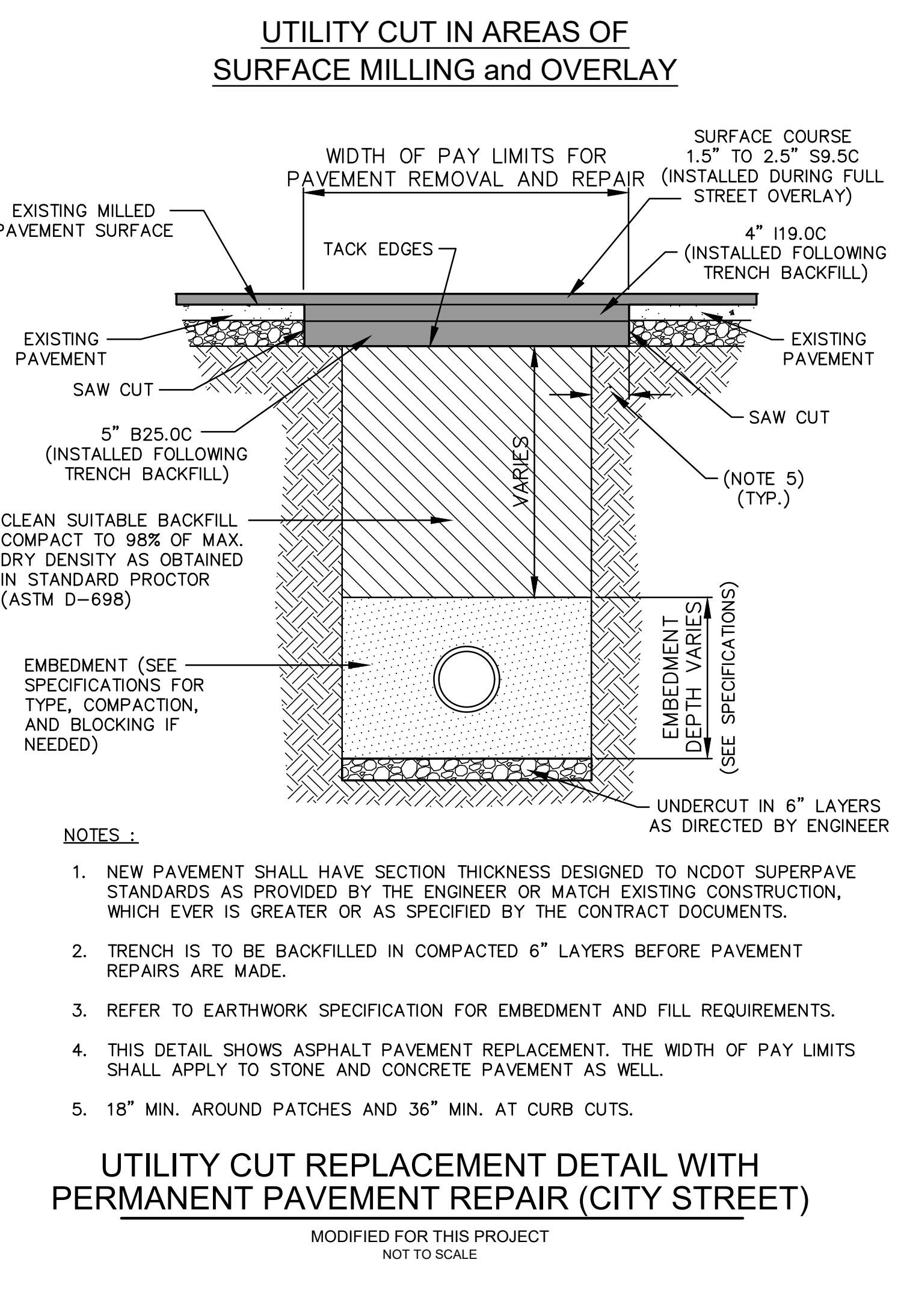
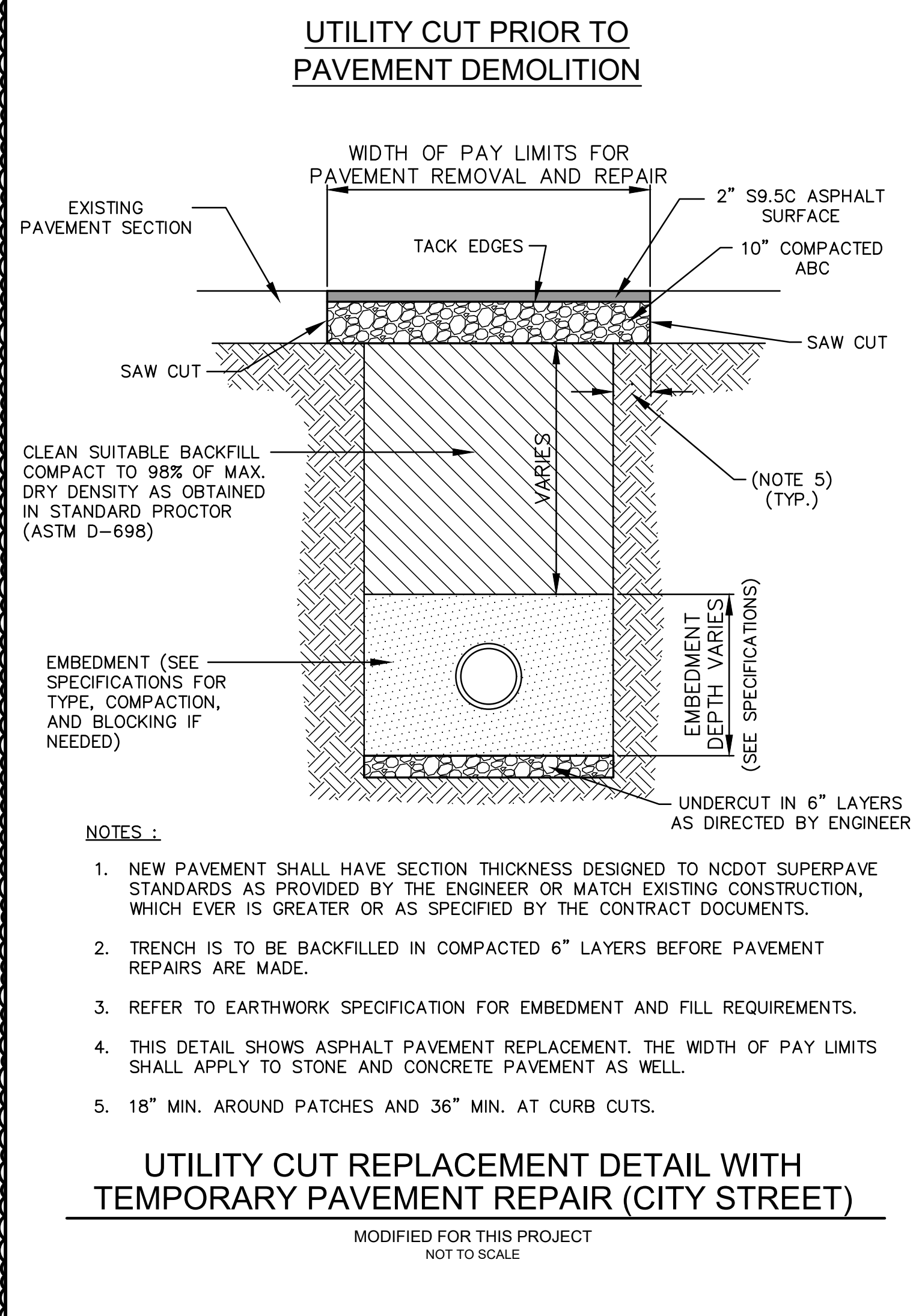


PIPE DIAMETER (INCHES)	MANHOLE DIAMETER (FEET)
8 TO 16	4
18 TO 36	5
39 TO 54	6
54 AND LARGER	8

CITY OF CONCORD STANDARD DETAIL		PRECAST CONCRETE MANHOLE	
1	12/7/20	MSH	05/11
Drawn By:	Checked By:	Approved By:	Date
SVM	GS	MSH	05/11

SEWER ABANDONMENT AT MANHOLE 211.2195
MODIFIED FOR THIS PROJECT
NOT TO SCALE

- SEWER SERVICES IN CLOSE PROXIMITY TO STORM DRAINS
NOT TO SCALE
- NOTES:
- THE HOLE FOR A SEWER SADDLE SHALL BE MADE WITH A TAPPING MACHINE. THE HOLE SHALL BE CLEANLY MACHINED AND IF NECESSARY WORKED BY HAND WITH A RASP OR SANDED TO ACCOMPLISH A TRUE AND NEAT OPENING FOR THE COLLAR WYE.
 - THE SEWER SADDLE SHALL BE GENECO E40 OR EQUIVALENT.
 - THE CONTRACTOR SHALL KEEP ALL CHIPS, DIRT, EPOXY, MORTAR, AND CONCRETE OUT OF THE SEWER SADDLED AND SHALL PERFORM A CLEANING OF THE REACH SADDLED IF DIRECTED TO DO SO BY THE OWNER.
 - THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGED PIPE AS DIRECTED BY THE OWNER.



UTILITY CUT REPLACEMENT DETAIL WITH TEMPORARY PAVEMENT REPAIR (CITY STREET)
MODIFIED FOR THIS PROJECT
NOT TO SCALE

UTILITY CUT REPLACEMENT DETAIL WITH PERMANENT PAVEMENT REPAIR (CITY STREET)
MODIFIED FOR THIS PROJECT
NOT TO SCALE

UTILITY CUT DETAIL WITH FULL WIDTH PAVEMENT INSTALL (CITY STREET)
MODIFIED FOR THIS PROJECT
NOT TO SCALE

NCDOT TYPICAL UTILITY CUT REPLACEMENT DETAIL
SCALE: NONE

NOTES:

- NEW PAVEMENT SHALL HAVE SECTION THICKNESS DESIGNED TO THE CURRENT NCDOT SUPERPAVE MANUAL STANDARDS, OR WITH PRIOR APPROVAL BY NCDOT TO MATCH EXISTING CONSTRUCTION, WHICHEVER IS THE MORE RESTRICTIVE OR AS SPECIFIED BY THE CONTRACT DOCUMENTS.
- REFER TO EARTHWORK SPECIFICATIONS FOR EMBEDMENT AND FILL REQUIREMENTS.
- THIS DETAIL SHOWS ASPHALT PAVEMENT REPLACEMENT. THE WIDTH OF PAY LIMITS SHALL APPLY TO STONE AND CONCRETE PAVEMENT AS WELL.
- PAVEMENT TO BE SAW CUT PERPENDICULAR TO SURFACE. FACE TO BE NEAT, CLEAN, & STRAIGHT. AFTER EXCAVATABLE FLOWABLE FILL HAS CURED, THE SURFACE IS TO BE MILLED, CLEANED, AND TACKED PRIOR TO ASPHALT PATCH INSTALLATION PER NCDOT STANDARDS.
- ROADWAY PATCHES SHALL EXTEND AT LEAST A MINIMUM OF 2 FEET BEYOND THE TRENCH AND 3 FEET BEYOND THE TRENCH AT CURB CUTS, OR AS REQUIRED BY NCDOT.

CITY OF CONCORD STANDARD DETAIL		NCDOT UTILITY CUT REPLACEMENT	
1	6/18	MSH	7/11
Drawn By:	Checked By:	Approved By:	Date
SVM	MSH	MSH	7/11

CONCRETE COLLAR AT SEWER MANHOLE
MODIFIED FOR THIS PROJECT
NOT TO SCALE

<p>1240 19th Street Lane NW Hickory, NC 28601 828.328.2024 NC Firm License # C-0459 mcgillassociates.com</p>			1	8/25/2021	MDO	ADDENDUM #2														
			NO.	DATE	BY	DESCRIPTION														

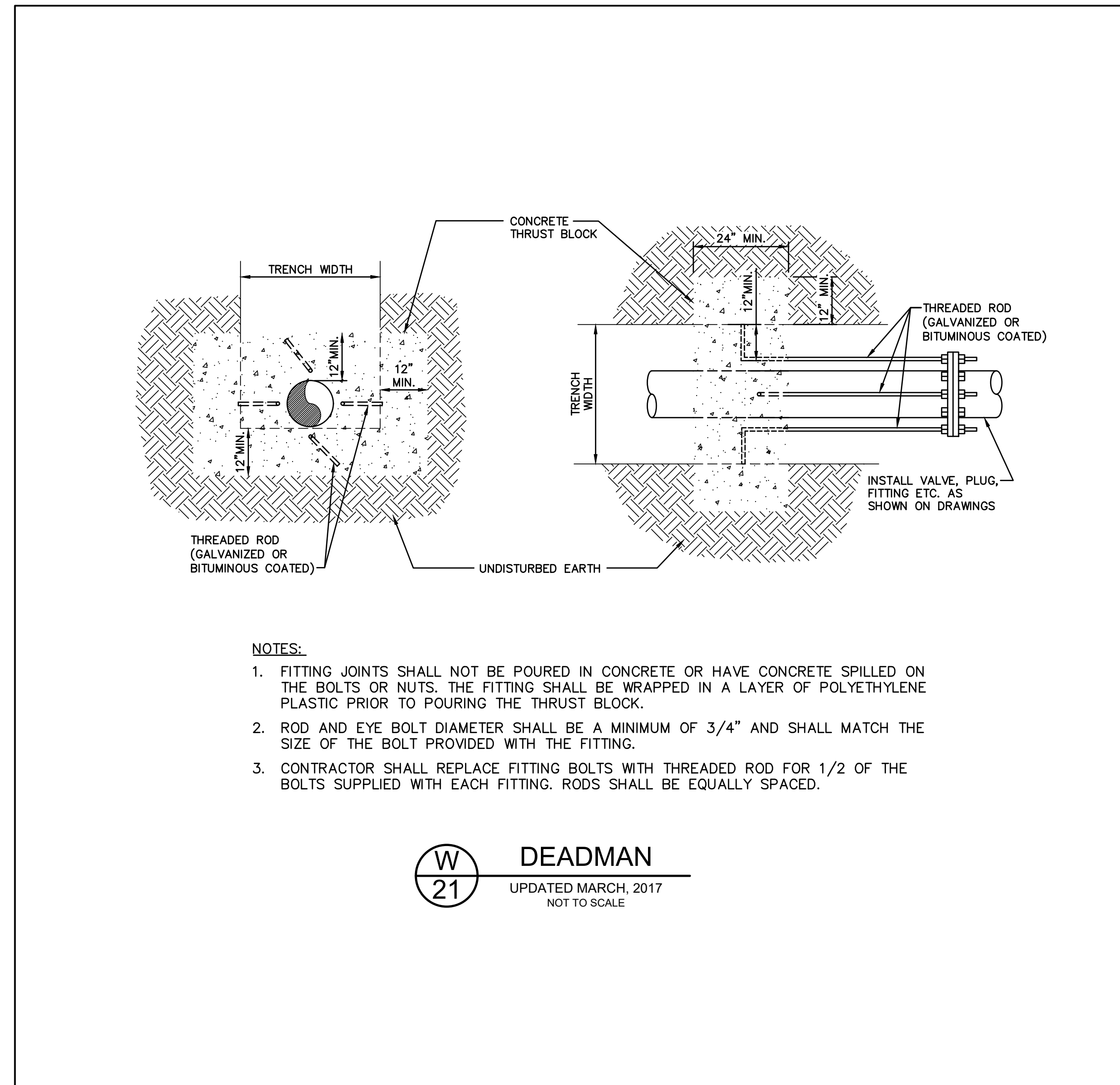
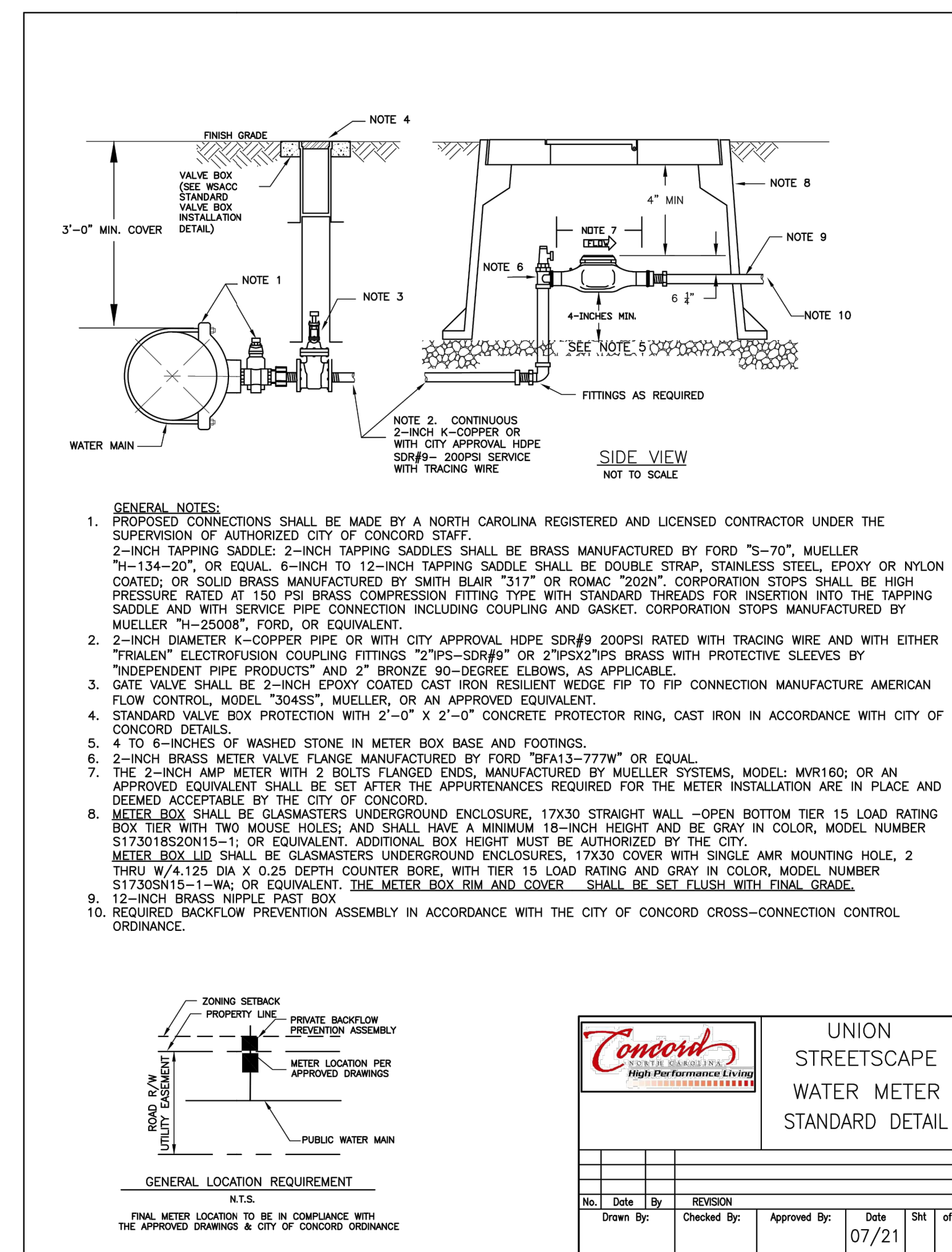
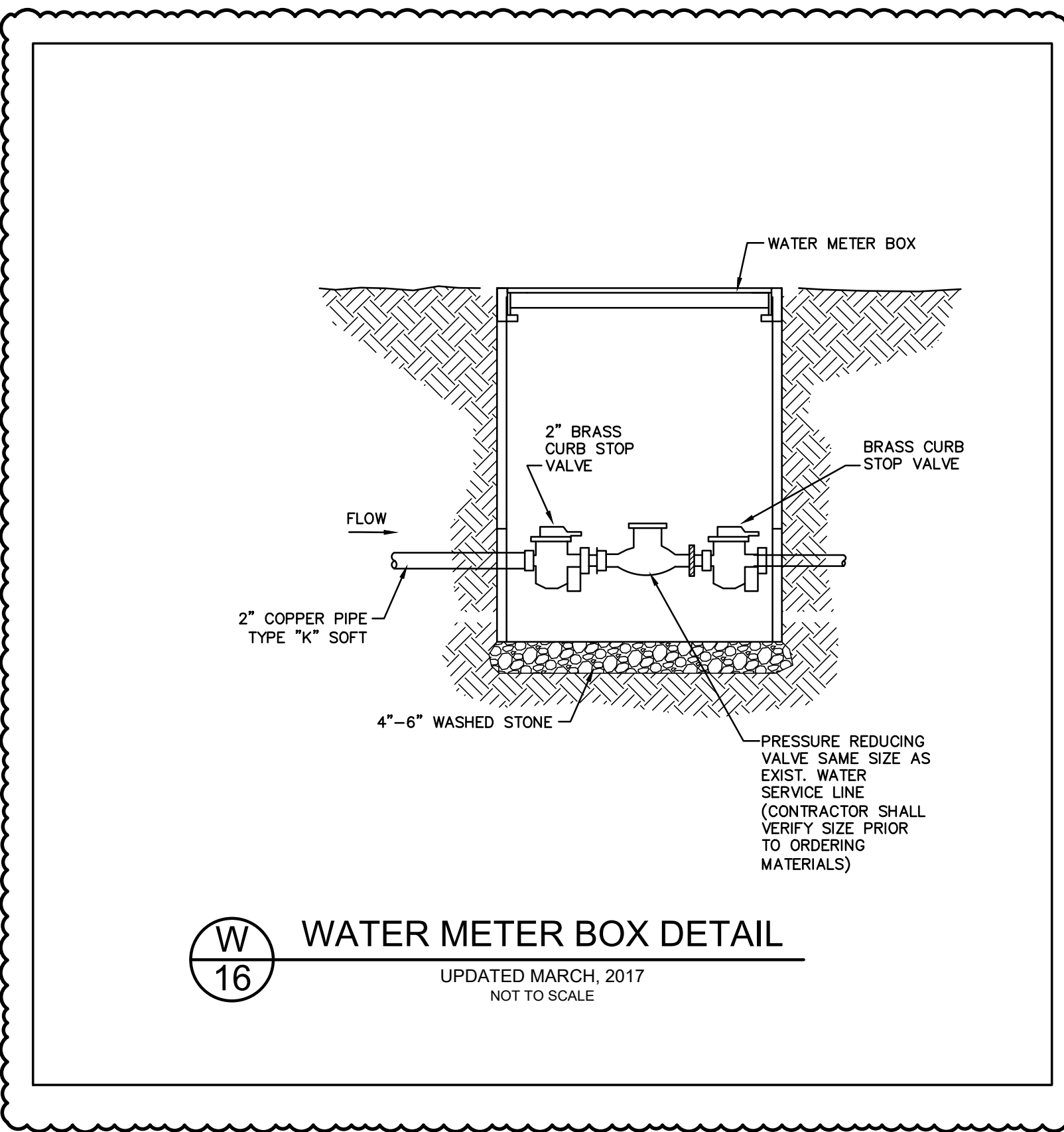
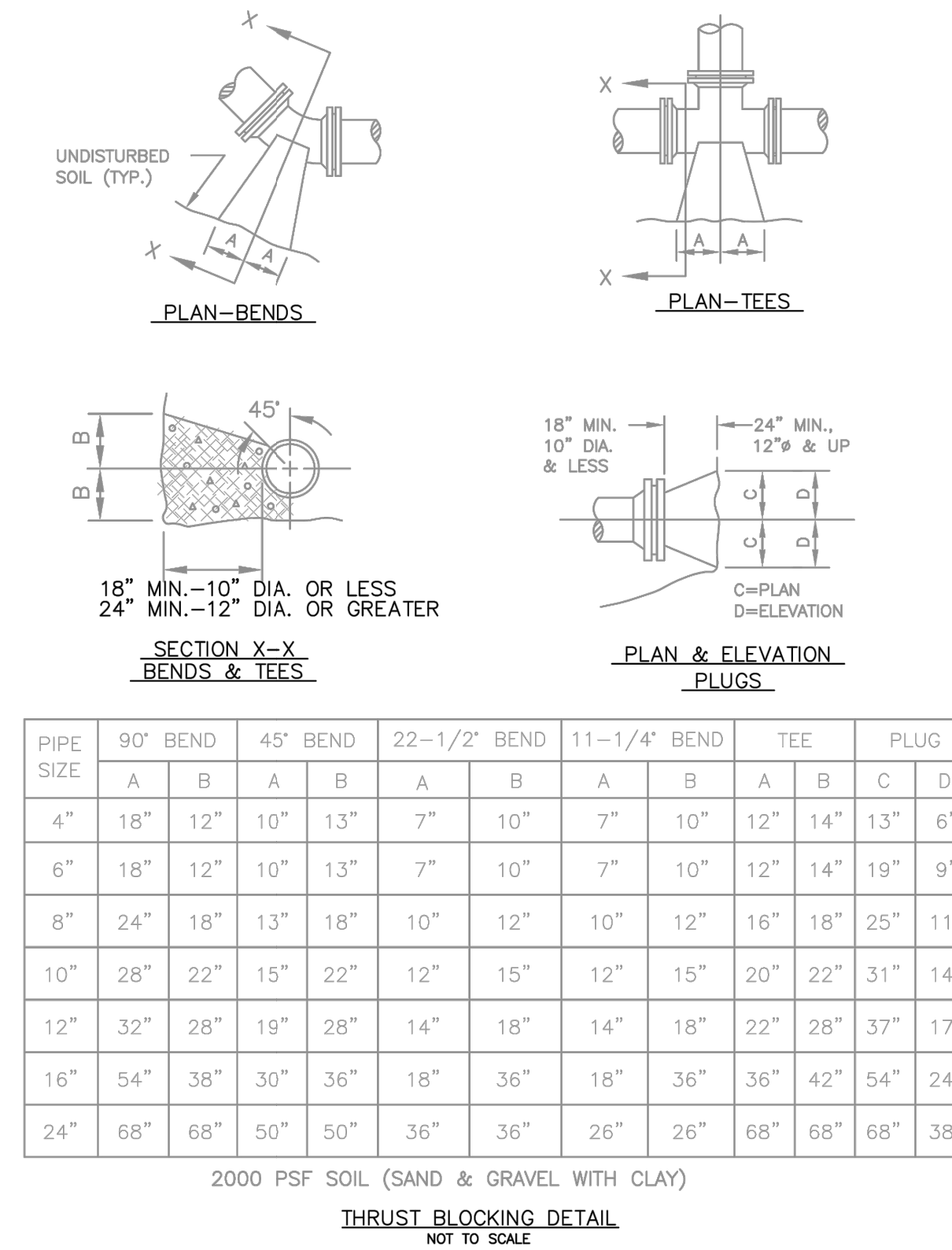
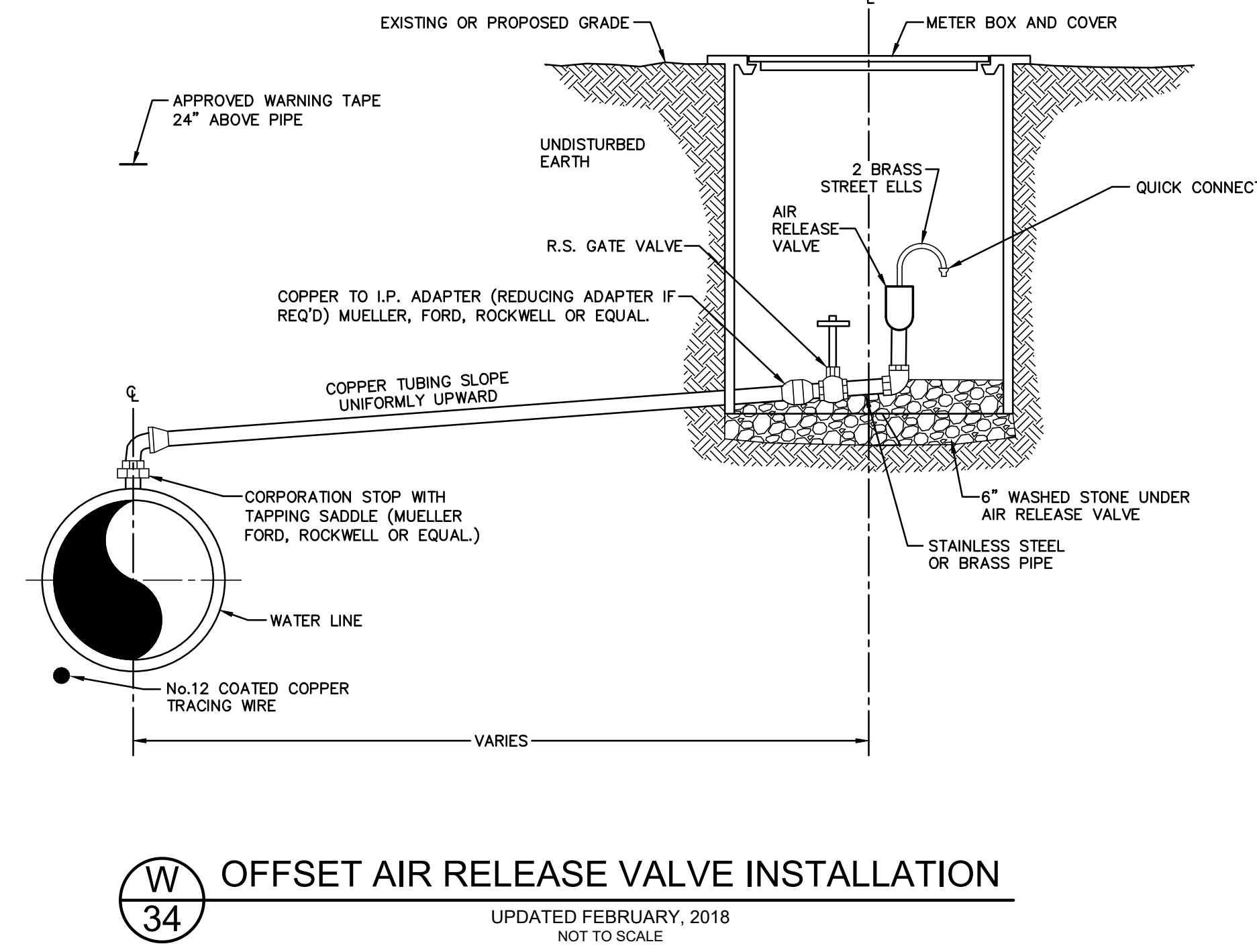
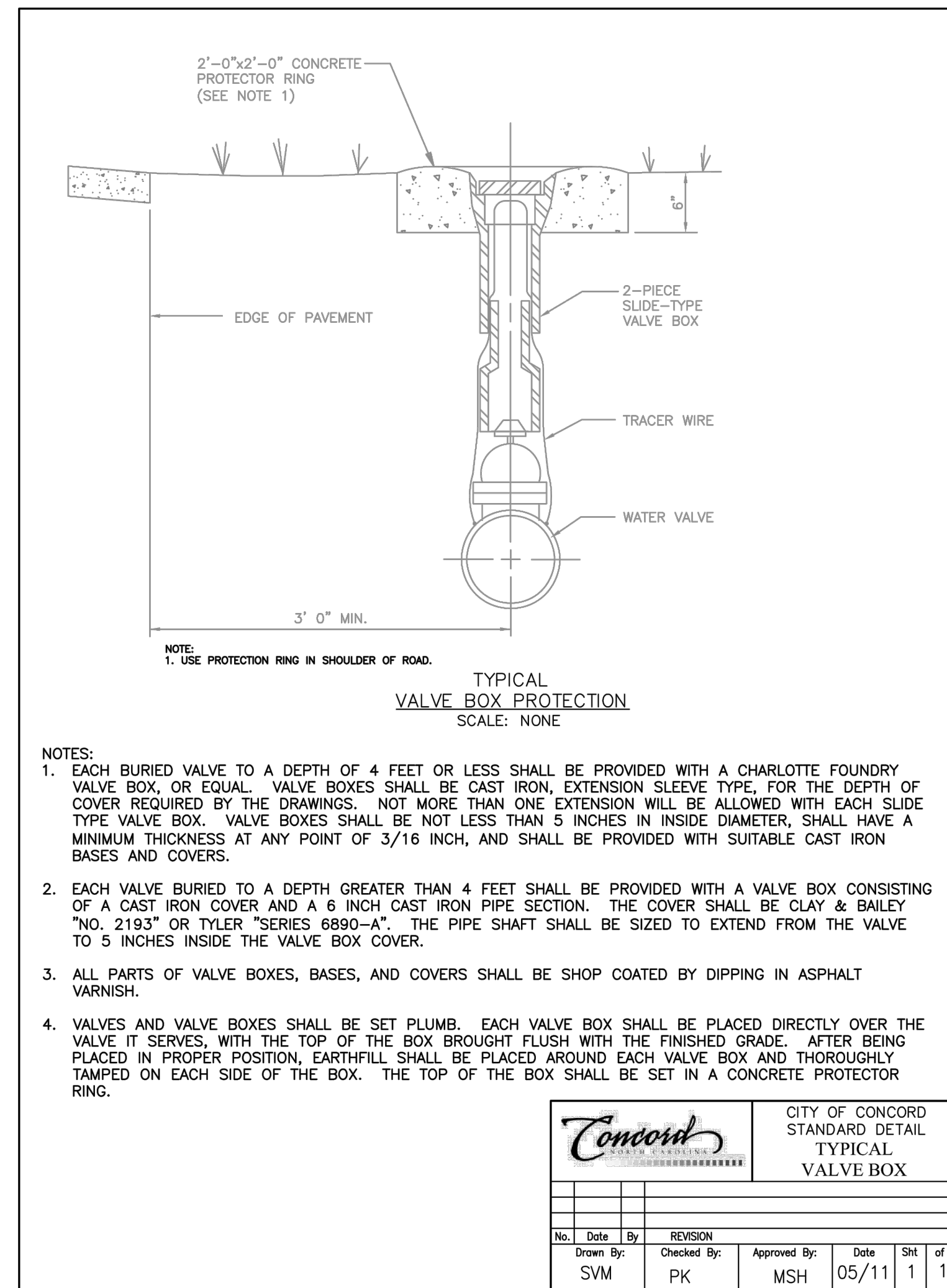
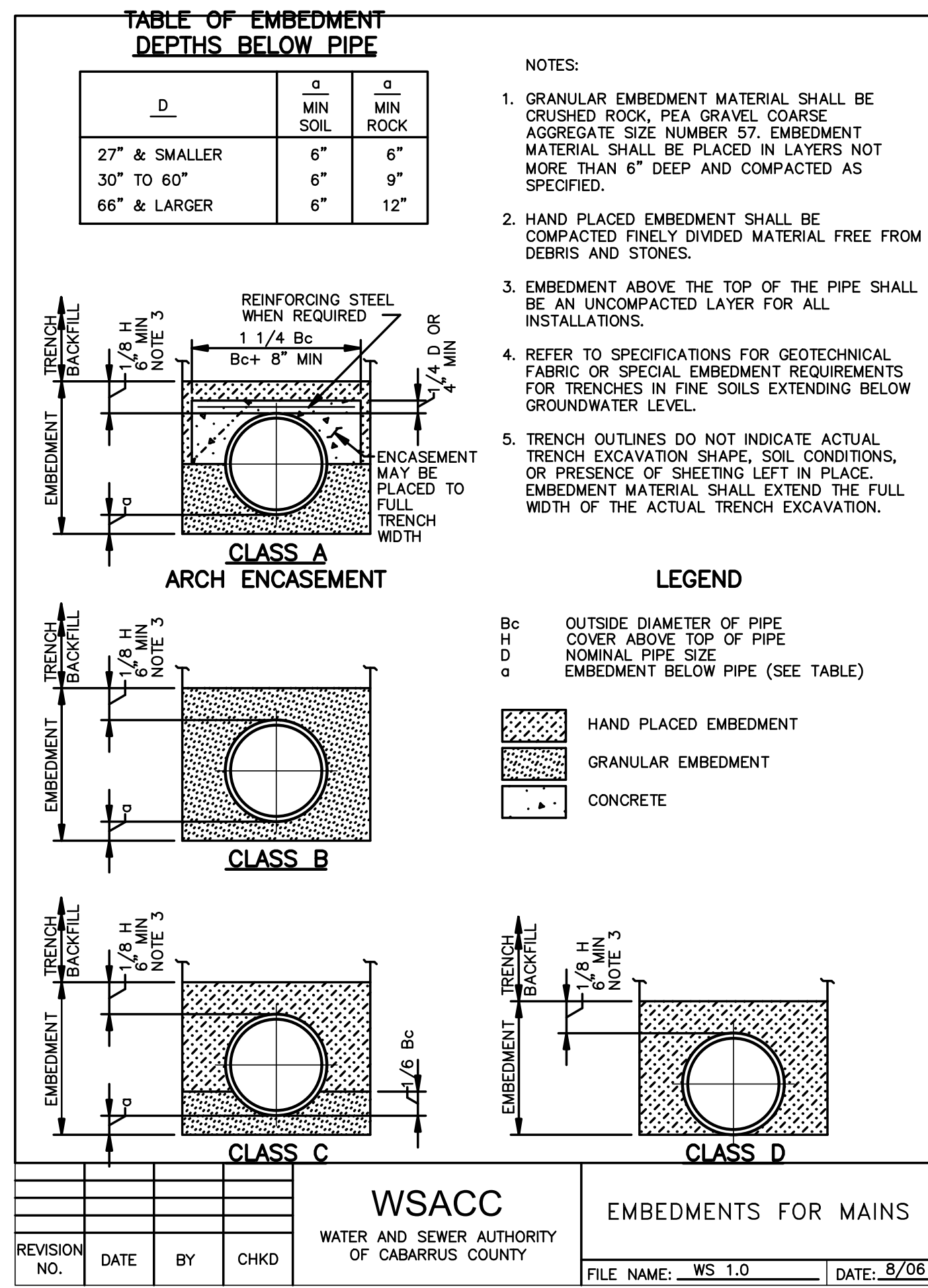
UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

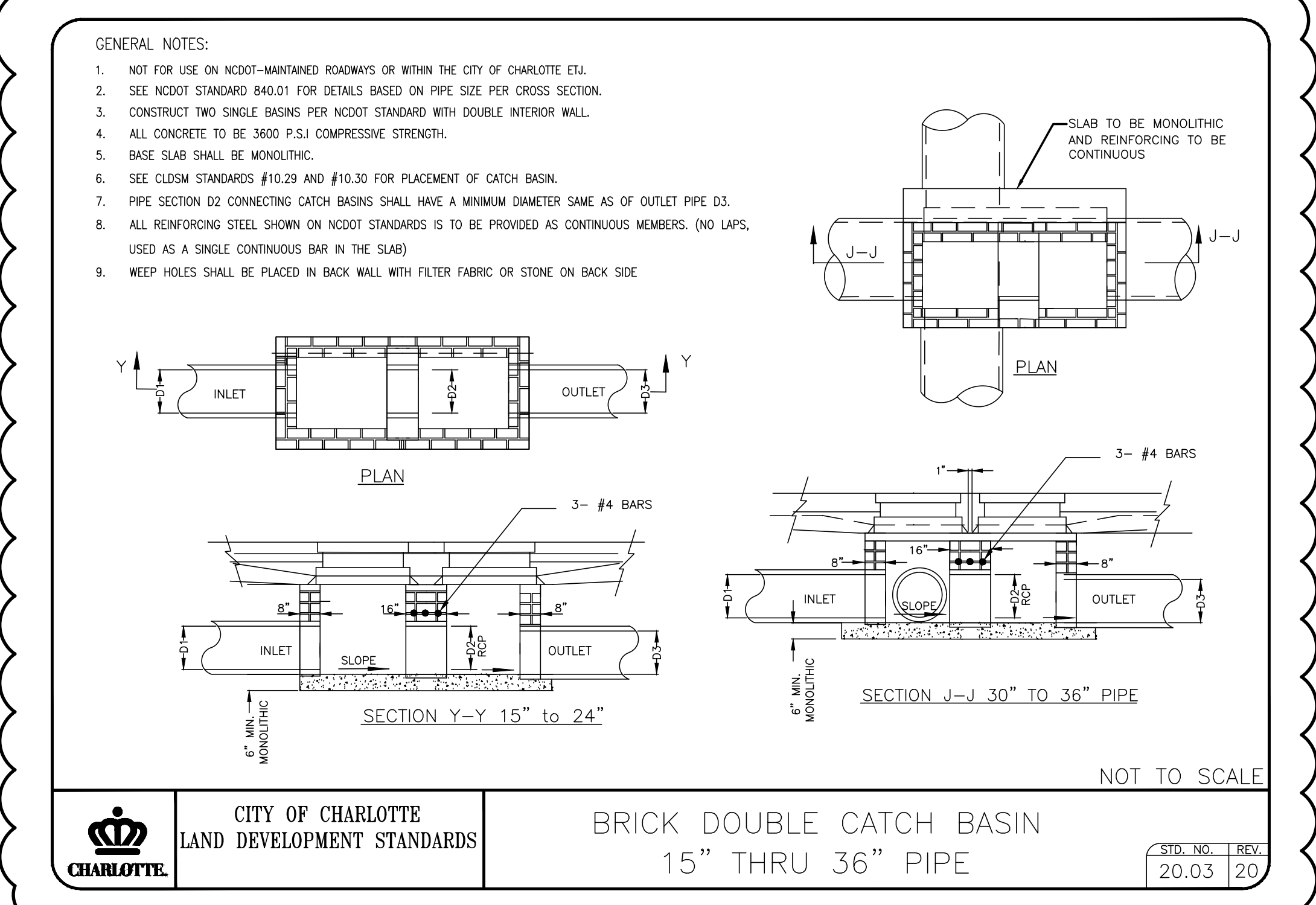
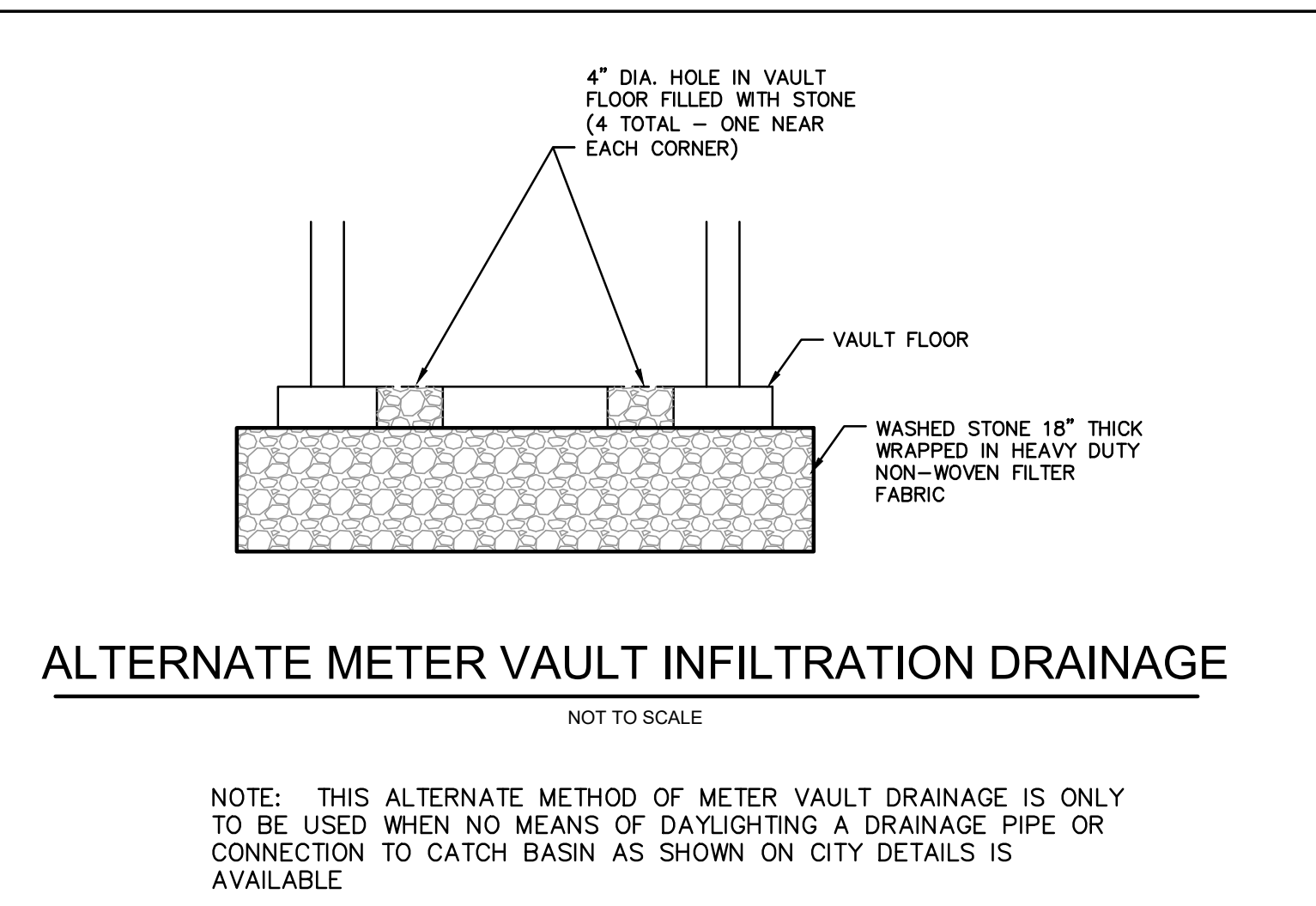
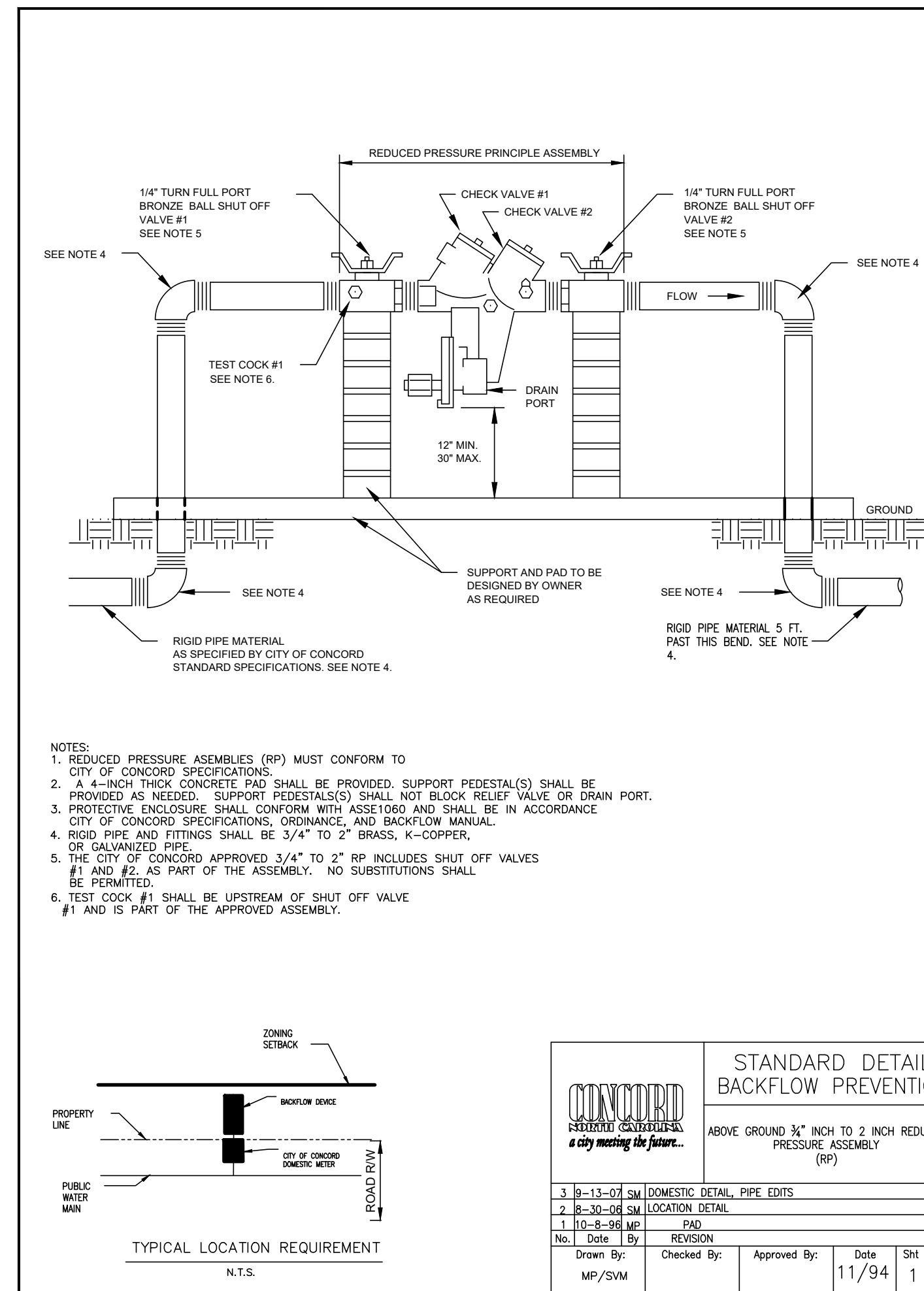
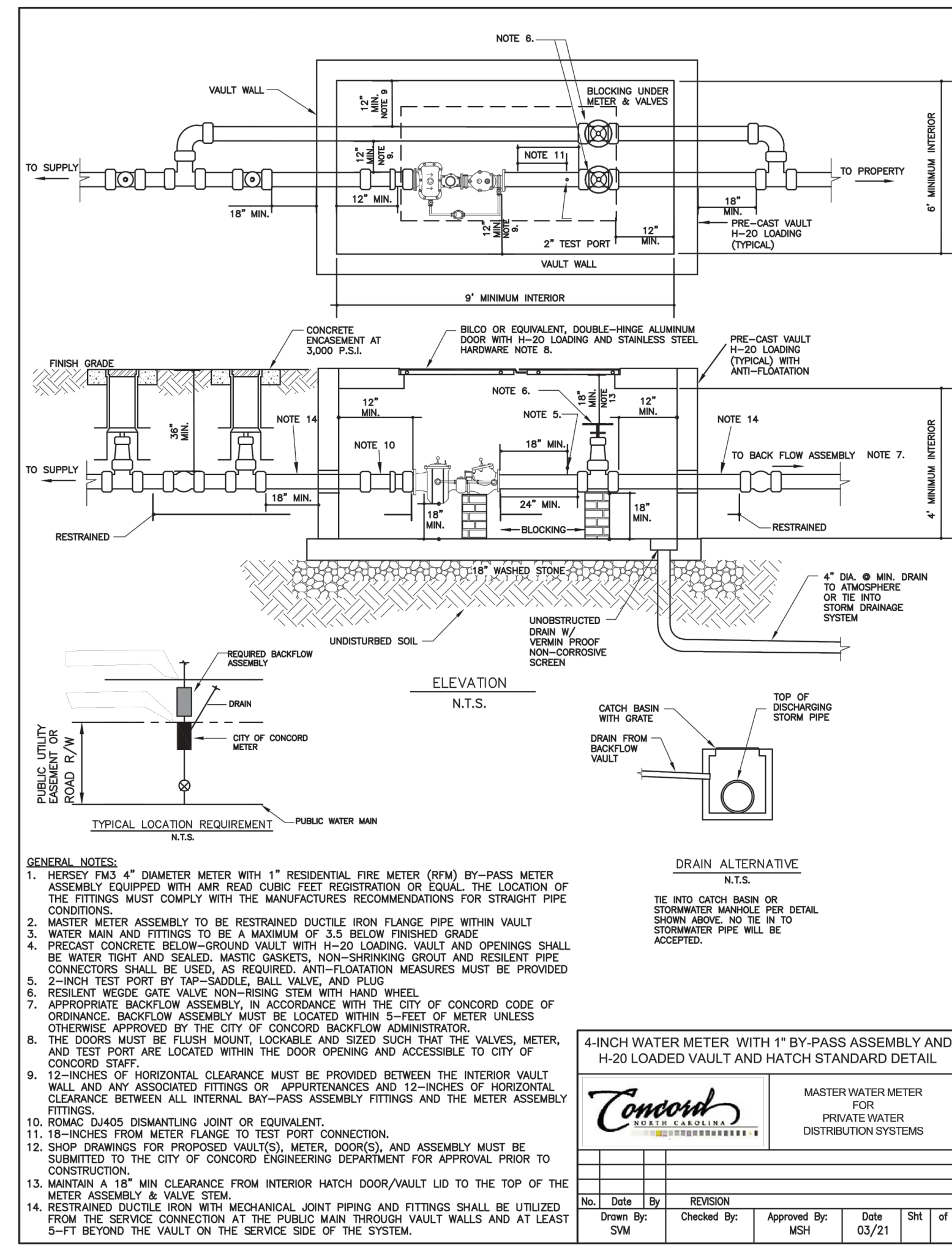
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STANDARD UTILITY DETAILS

SHEET
C-507

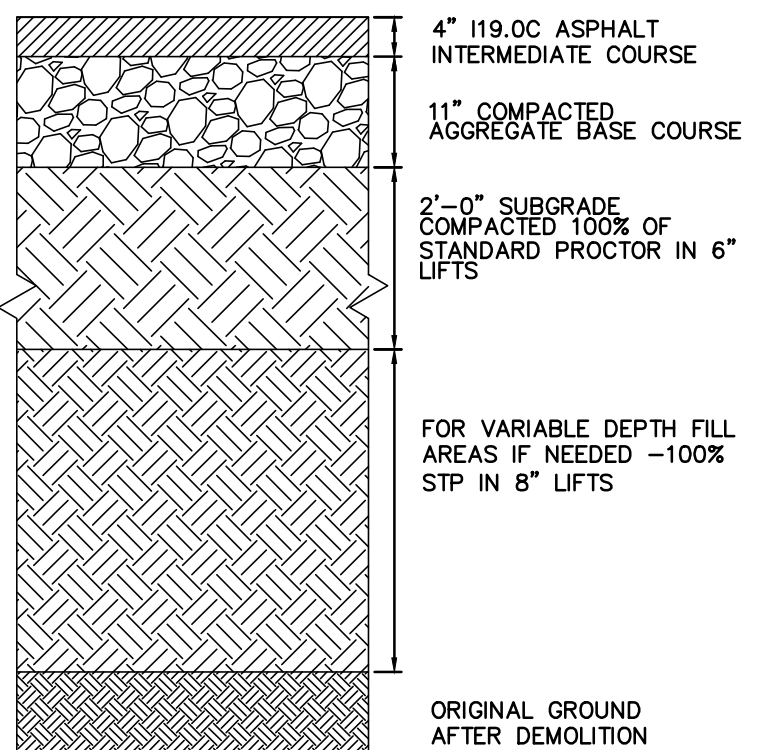
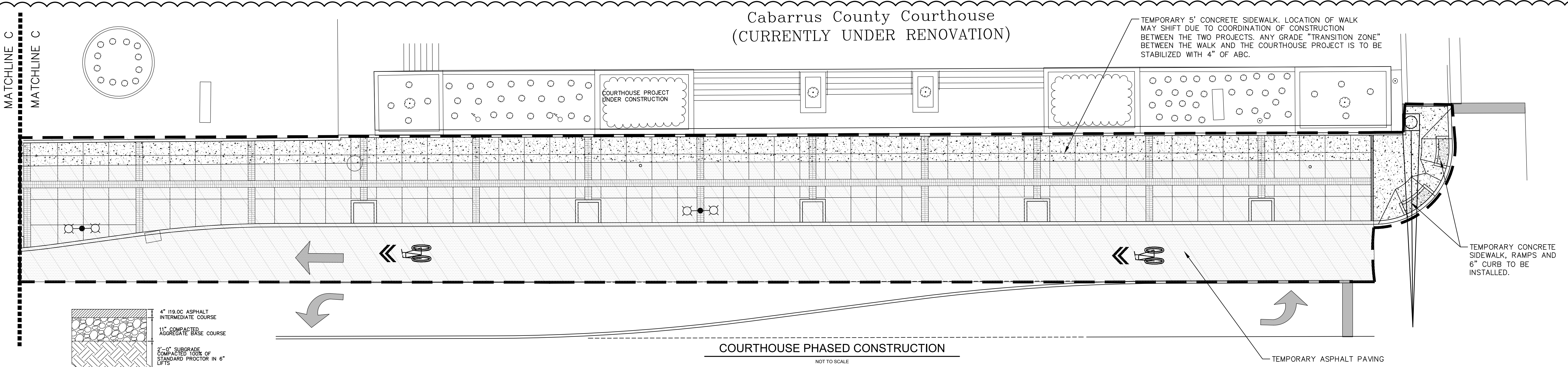
OFFICE MANAGER D.G. CHAPMAN	DESIGNER M. OETTING	DATE JULY, 2021	PROJECT # 19.01726	FUNDING # N/A
PROJECT MANAGER M.J. NORRIS	REVIEWER D.G. CHAPMAN			





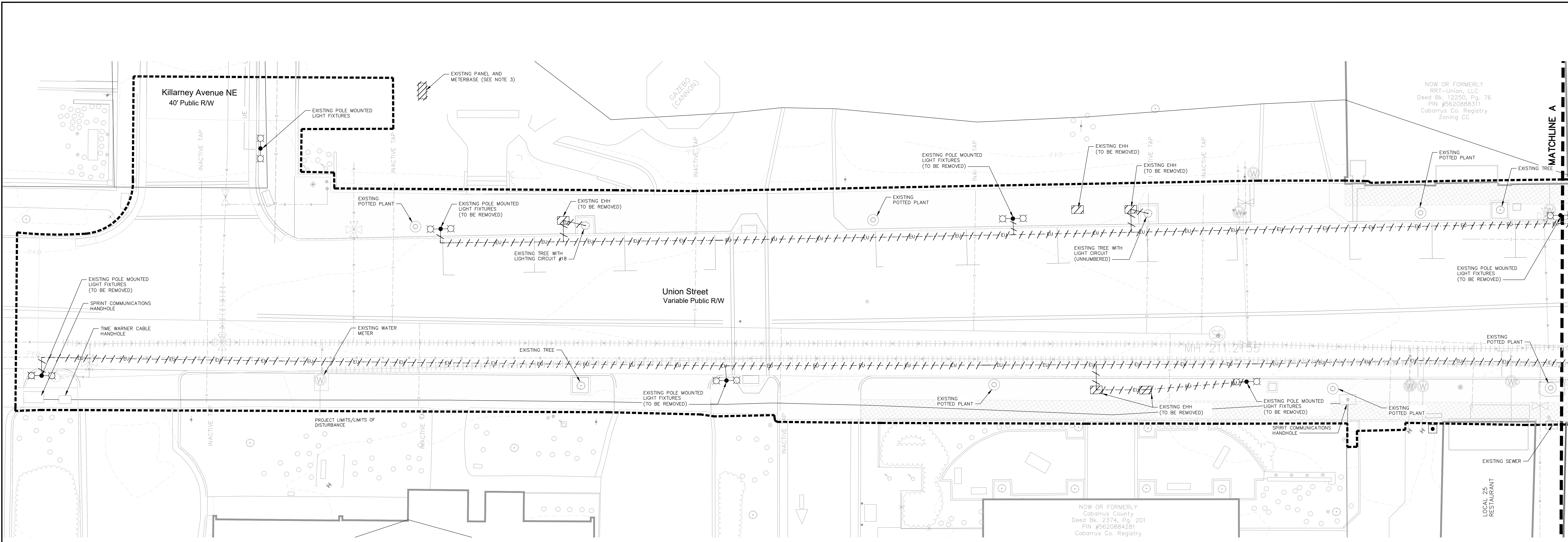
- ADDITIONAL REDUCED PRESSURE ZONE BACKFLOW PREVENTER NOTES:**
1. PROTECTIVE ENCLOSURE SHALL BE INSULATED FIBERGLASS.
 2. HEAT SOURCE SHALL BE PROVIDED TO PROTECT TO -30 DEGREES. HEAT SOURCE MAY BE HEAT TAPE, CABLE, OR HEATER PER MANUFACTURER'S STANDARD. HEAT SOURCE SHALL BE RATED FOR USE IN DAMP ENVIRONMENTS PER NATIONAL ELECTRIC CODE.
 3. CONTRACTOR SHALL PROVIDE ELECTRICAL SERVICE TO RECEPTACLE INSIDE ENCLOSURE FOR HEAT SOURCE. RECEPTACLE SHALL BE RATED FOR OUTDOOR USE.
 4. ENCLOSURE SHALL BE DESIGNED TO BE REMOVED OR OTHERWISE PROVIDE ACCESS FOR NORMAL MAINTENANCE.
 5. ENCLOSURE SHALL BE LOCKABLE FOR SECURITY.
 6. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ENCLOSURE AND HEATING DEVICE FOR OWNER APPROVAL.

Cabarrus County Courthouse (CURRENTLY UNDER RENOVATION)

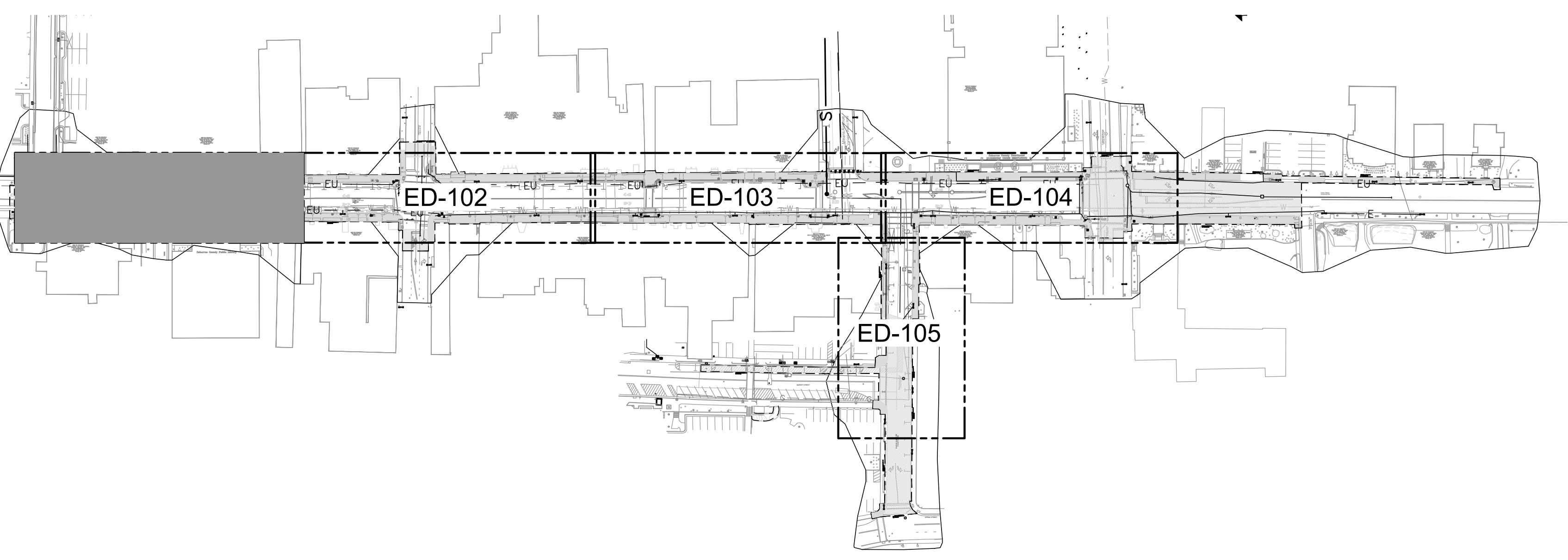


<p>1240 19th Street Lane NW Hickory, NC 28601 828.328.2024 NC Firm License # C-0459 mcgillassociates.com</p>	<p>Matthew D. Oetting Professional Engineer No. 041588 Exp. 12-31-2021</p>	<p>811 BEFORE YOU DIG SAFE DIGGING PARTNER</p>	<p>2 8/25/2021 KCD</p>	<p>ADDENDUM #2</p>	<p>UNION STREET IMPROVEMENTS</p>	<p>NOT TO SCALE</p>	<p>STANDARD UTILITY DETAILS</p>	<p>SHEET</p>
			<p>CITY OF CONCORD CABARRUS COUNTY, NORTH CAROLINA</p>	<p>PROJECT MANAGER M.J. NORRIS</p>	<p>DESIGNER M. OETTING</p>	<p>DATE JULY, 2021</p>	<p>PROJECT # 19.01726</p>	<p>FUNDING # N/A</p>

P:\2019\19.01726-CONCORD-UNION STREETScape PROJECT\DRAWINGS\19.01726 UTILITY DETAILS DWG PLOT DATE 8/25/2021 3:21 PM KURTIS DURRANT



- GENERAL NOTES:**
- EXISTING TREE LIGHTS AND STREET LIGHT CIRCUITS ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR SHALL FIELD VERIFY EXISTING ROUTING OF CIRCUITS PRIOR TO DEMOLITION OF CIRCUITS.
 - ALL EXISTING LIGHTING CONDUIT AND WIRING SHALL BE REMOVED FROM THE EXISTING TREE LIGHTS AND STREET LIGHTING BEING REPLACED UNDER THE SCOPE OF THIS PROJECT.
 - EXISTING PANEL AND METERBASE TO BE DEMOLISHED LIGHTING CIRCUITS FOR GAZEBO AND MONUMENT TO BE EXTENDED AND RECONNECTED TO NEW PANEL LP-A. COORDINATE WITH ELECTRIC UTILITY FOR THE REMOVAL OF EXISTING SERVICE CONDUCTORS.
 - LIGHT POLE FIXTURES THAT ARE DESIGNATED TO BE REMOVED SHALL BE REMOVED BY THE CITY ELECTRIC UTILITY. POLE BASES AND CIRCUITS INCLUDING WIRING AND CONDUIT TO BE REMOVED BY CONTRACTOR.
 - CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING UTILITIES. COORDINATE WITH OTHER UTILITIES.
 - COORDINATE WITH EXISTING UTILITY TO DETERMINE SOURCE OF DEMOLISHED LIGHTING CIRCUITS AND WHERE TO SECURE AND TERMINATE.
 - IT IS THE INTENTION THAT TRAFFIC SIGNAL CIRCUITS SHALL NOT BE INTERRUPTED OR DISTURBED DURING THE DEMOLITION OR CONSTRUCTION PROCESS. CONTRACTOR TO FIELD VERIFY THAT DEMOLISHED CIRCUITS WILL NOT INTERRUPT TRAFFIC SIGNAL OPERATION.
 - ALL ELECTRICAL INSTALLATIONS MUST COMPLY WITH CITY OF CONCORD TECHNICAL STANDARDS MANUAL. COORDINATE ALL ELECTRICAL DEMOLITION AND INSTALLATION WITH CITY ELECTRIC DEPARTMENT.
 - CONTRACTOR TO CALL 811 TO HAVE UTILITIES MARKED BEFORE BEGINNING DEMOLITION. UPON EXPOSING A CONCRETE DUCT BANK, CONTRACTOR SHALL CONFIRM WITH ELECTRIC UTILITY WHETHER THE DUCT BANK IS SECONDARY LIGHTING AND WIRING APPLIANCES (TO BE REMOVED) OR HIGH VOLTAGE (TO REMAIN).



KEYPLAN
SCALE: 1"=120'-0"

P:\2019\19.01726\CONCORD\CONCORD\STREETS\SCAPE PROJECT\DRAWINGS\ELECTRICAL\19.01726 - EXISTING ELECTRICAL SITE PLANS.DWG @ 01 DATE: 8/25/2021 2:01 PM SONIA ROBERTS

1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com

NO.	DATE	BY	DESCRIPTION
1	8-25-2021	WF	ADDENDUM 2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

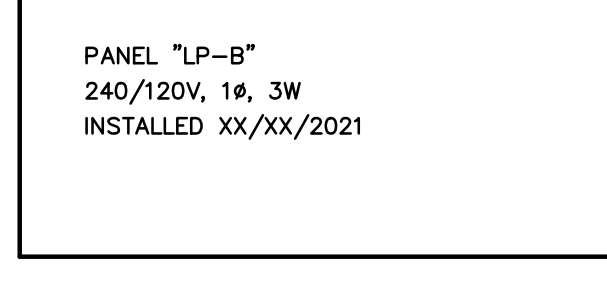
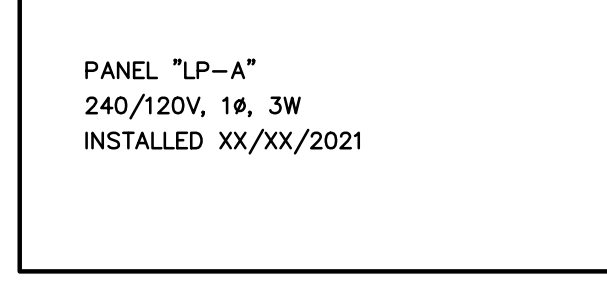
GRAPHIC SCALE DIVISION VALUE = 10 FEET

OFFICE MANAGER D.G. CHAPMAN	DESIGNER W. FLEMING
PROJECT MANAGER N. HUFFMAN	REVIEWER P. FISHER

ELECTRICAL DEMOLITION PLAN - A

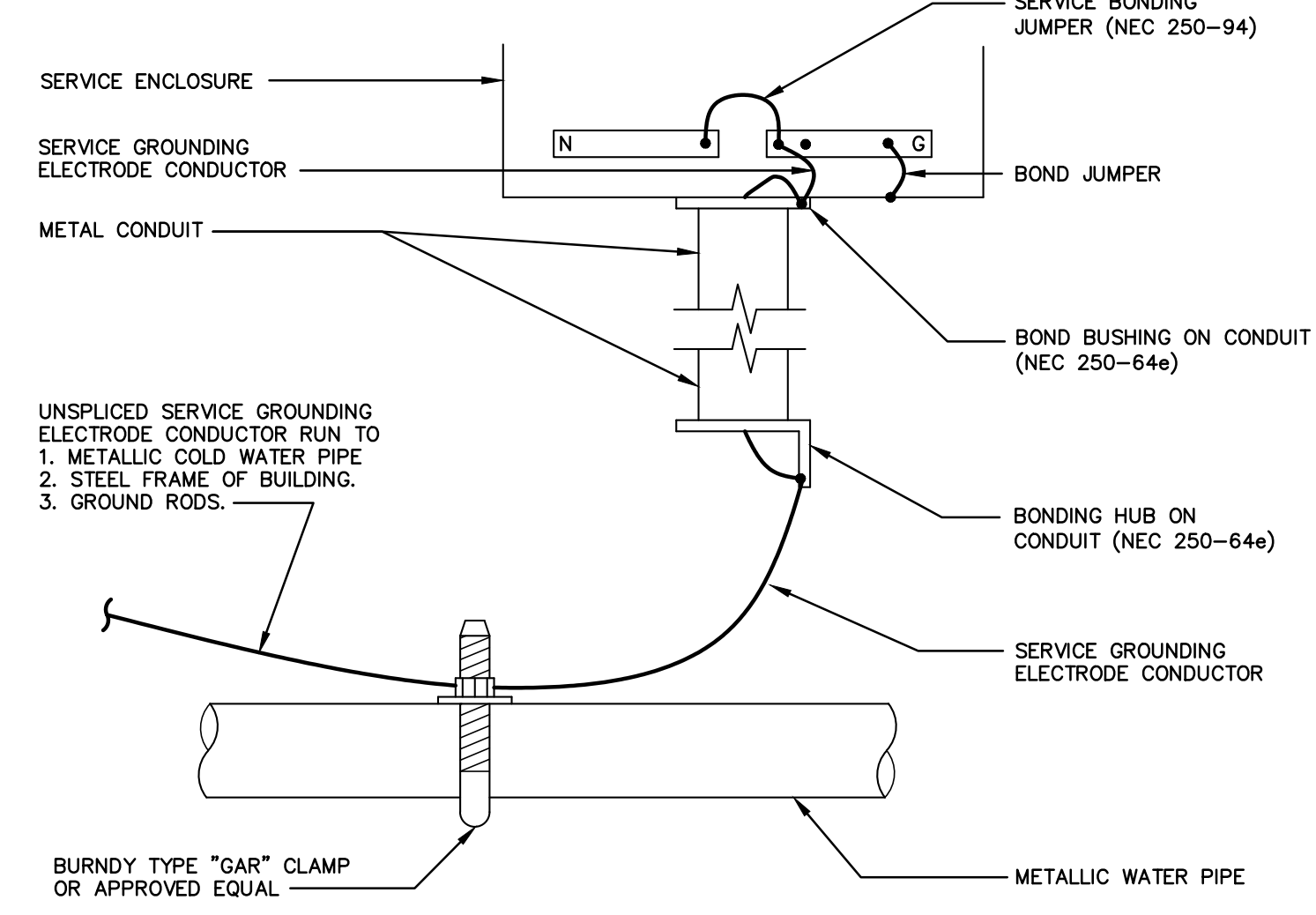
DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A
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SHEET
ED-101

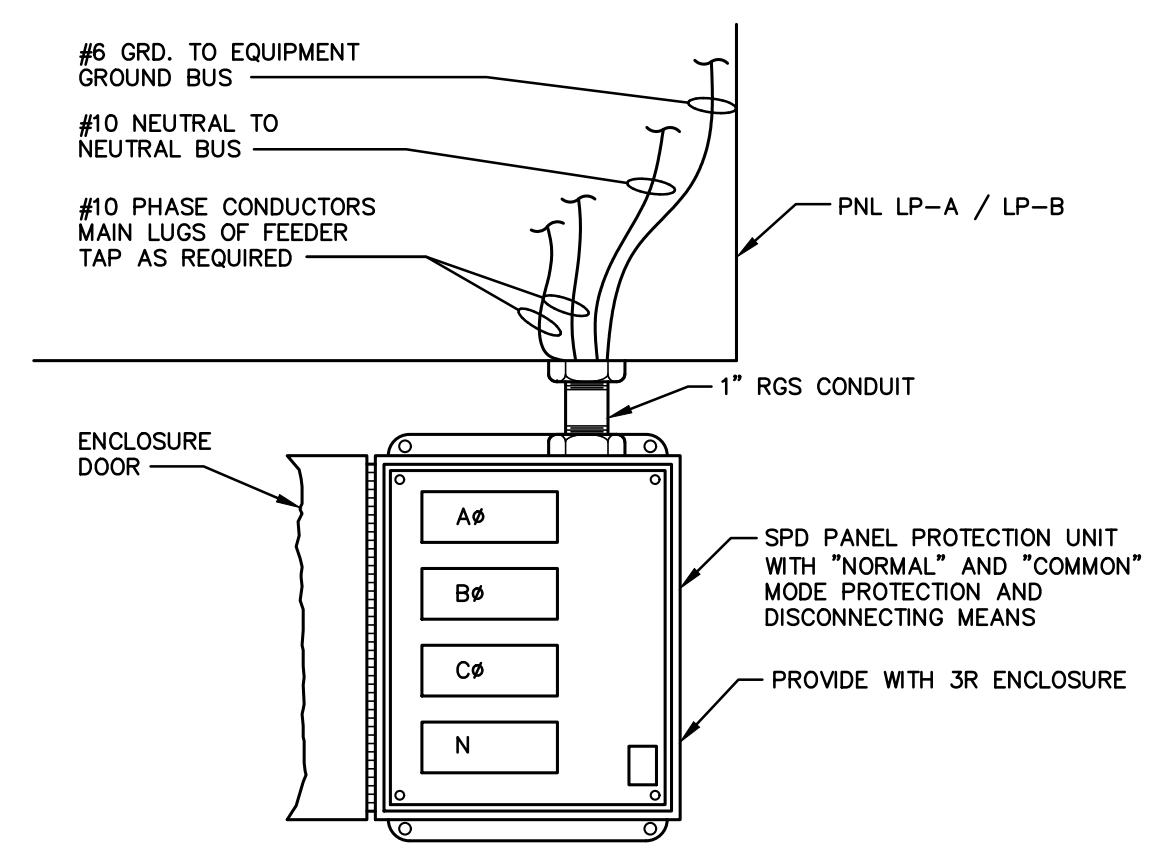


NOTES:
 1. REFER TO SPECIFICATION SECTION 260553 FOR ADDITIONAL INFORMATION.
 2. SUBMIT COMPLETE LIST OF PROPOSED NAMEPLATES TO ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

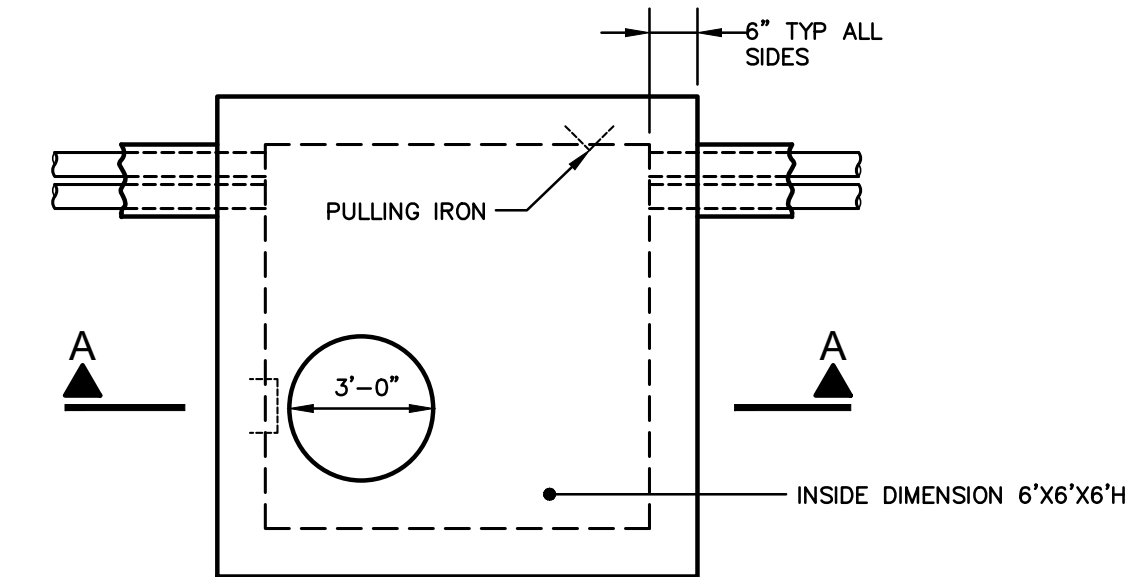
E 1 TYPICAL NAME PLATE DETAIL
NOT TO SCALE



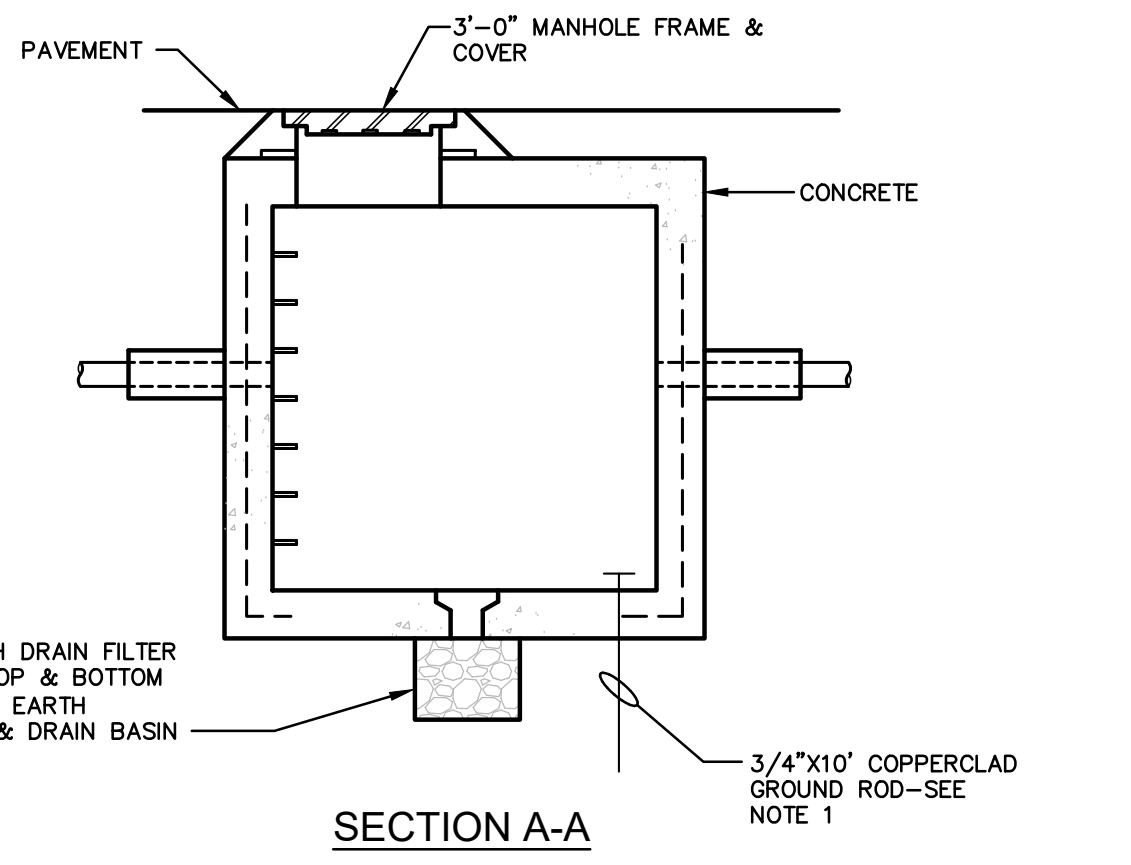
E 2 SERVICE ENTRANCE EQUIPMENT GROUNDING
NOT TO SCALE



E 4 SPD DETAIL
NOT TO SCALE



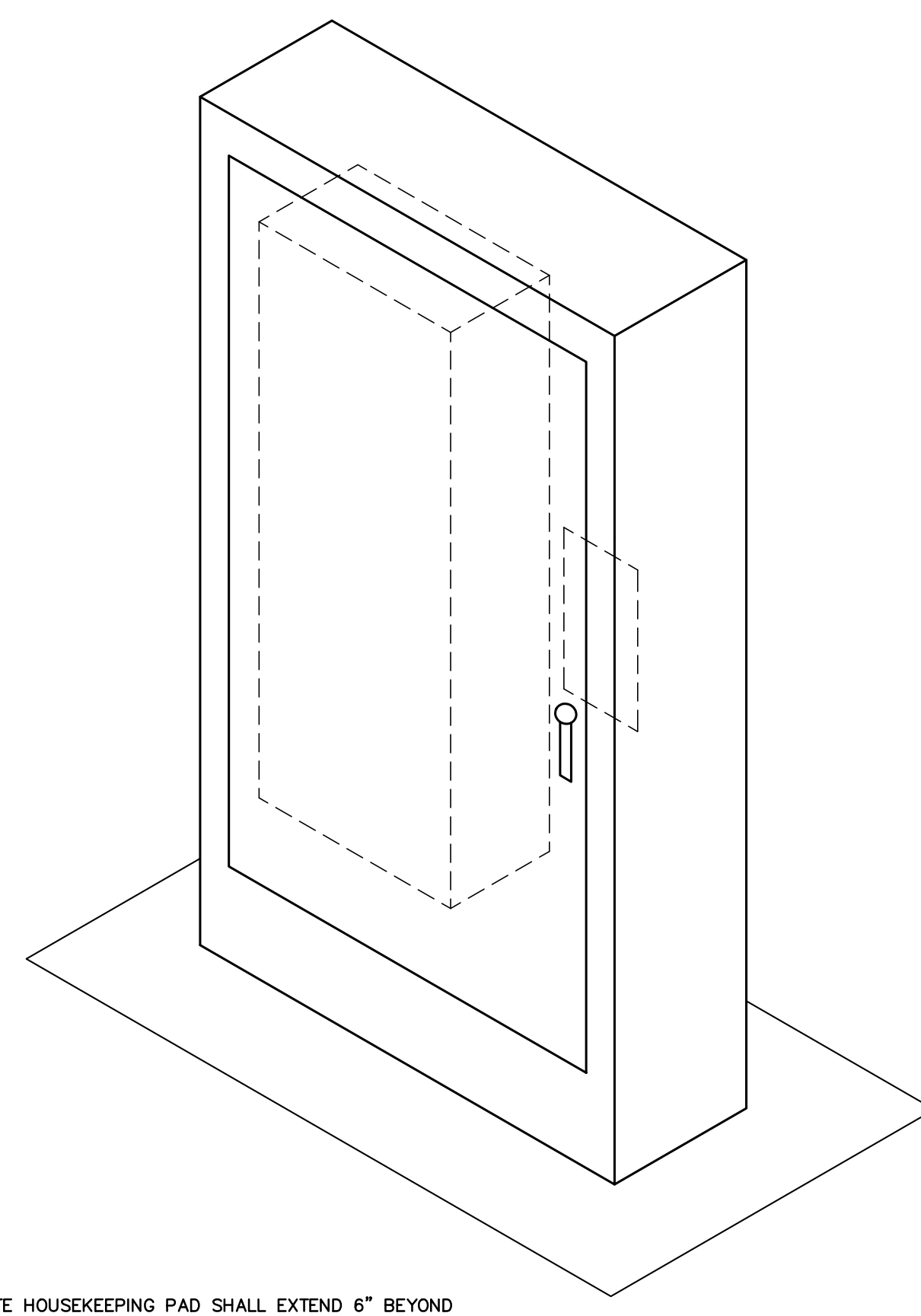
PLAN VIEW



SECTION A-A

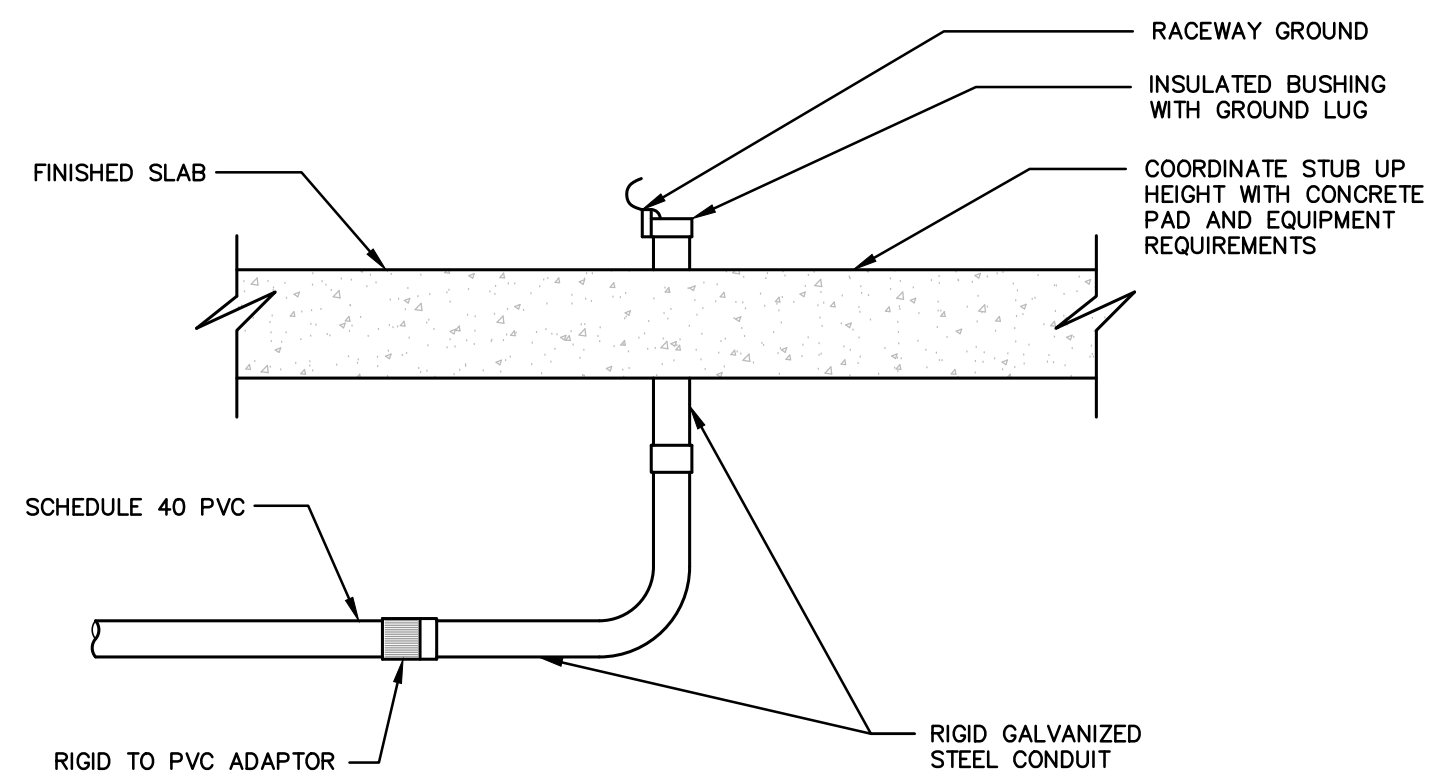
COMMUNICATION MANHOLE NOTES:
 1. A 3/4" X 10'-0" GROUND ROD WITH 6" OF THE ROD EXTENDING ABOVE FLOOR OF MANHOLE SHALL BE INSTALLED IN CORNER OF EACH MANHOLE WITH ALL METAL MATERIALS BONDED THERE TO, AND ALL GROUND WIRES BONDED THERE TO.
 2. MANHOLE FRAME TO BE BOLTED INTO PLACE WITH TWO 3/4" DIA. BOLTS AND FLAT WASHERS.
 3. ALL REINFORCING STEEL SHALL BE #5 AT 12" CENTERS UNLESS OTHERWISE NOTED.
 4. FINISHED GRADE SHALL BE FLUSH WITH THE TOP OF THE COVER ON MANHOLE FRAME AND COVER.

E 6 MANHOLE DETAIL
NOT TO SCALE



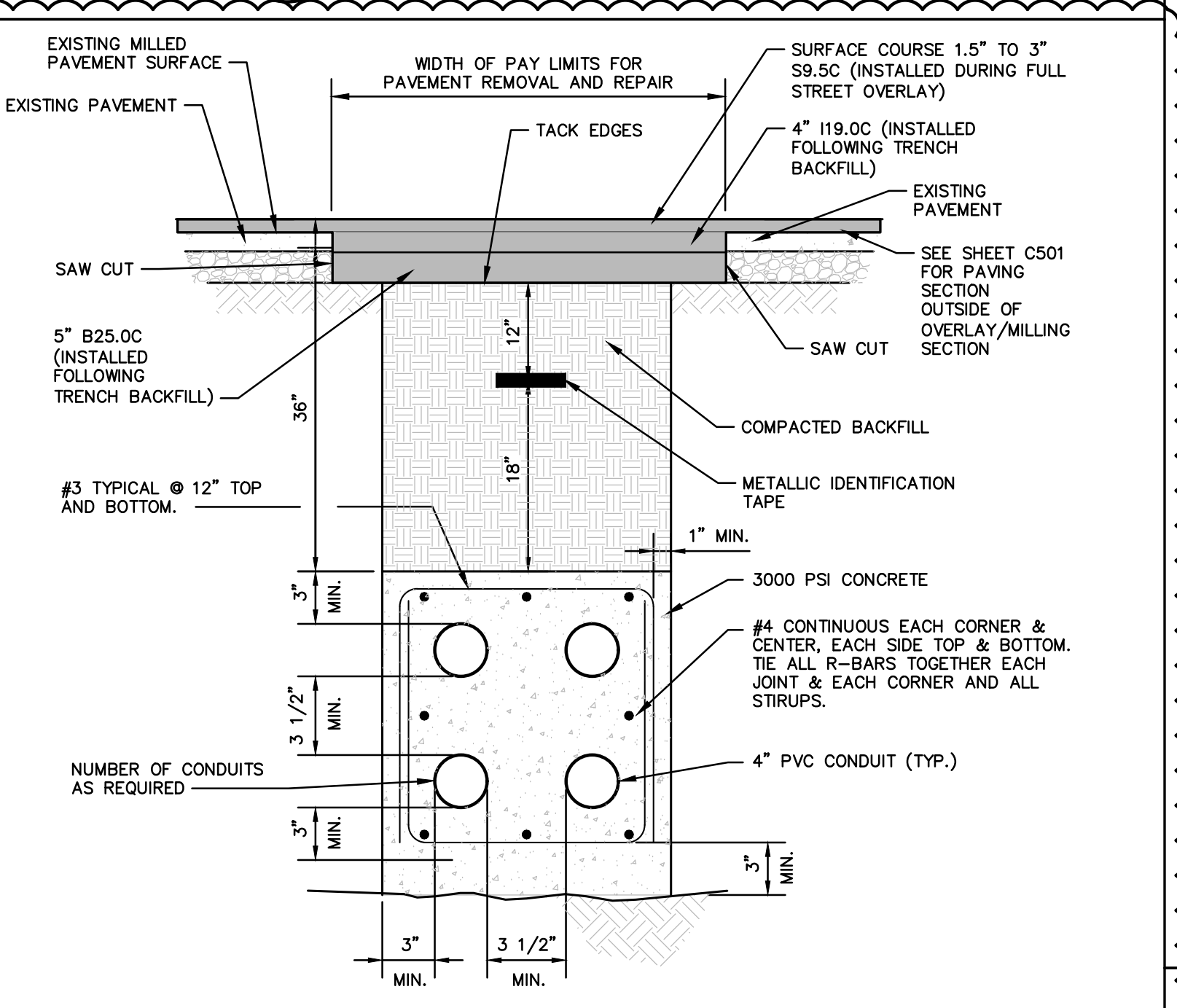
NOTES:
 1. CONCRETE HOUSEKEEPING PAD SHALL EXTEND 6" BEYOND ENCLOSURE ON ALL SIDES.
 2. ENCLOSURE SHALL BE HAMMOND MODEL HN4F5722418S16 OR EQUAL. EQUAL MODELS MUST BE APPROVED BY ENGINEER IN ADVANCE.

E 7 PANEL MOUNTING DETAIL FOR PANEL LP-A
NOT TO SCALE

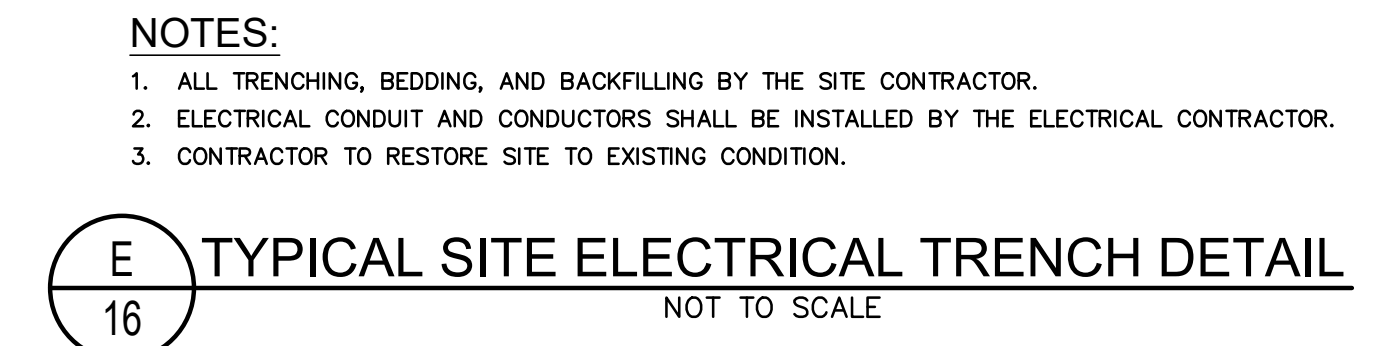


NOTES:
 1. THIS DETAIL APPLIES TO ALL UNDERGROUND CONDUITS WHERE PVC IS UTILIZED. PVC SHALL NOT BE EXTENDED ABOVE GRADE UNLESS SPECIFICALLY APPROVED.

E 3 TYPICAL CONDUIT STUB UP
NOT TO SCALE

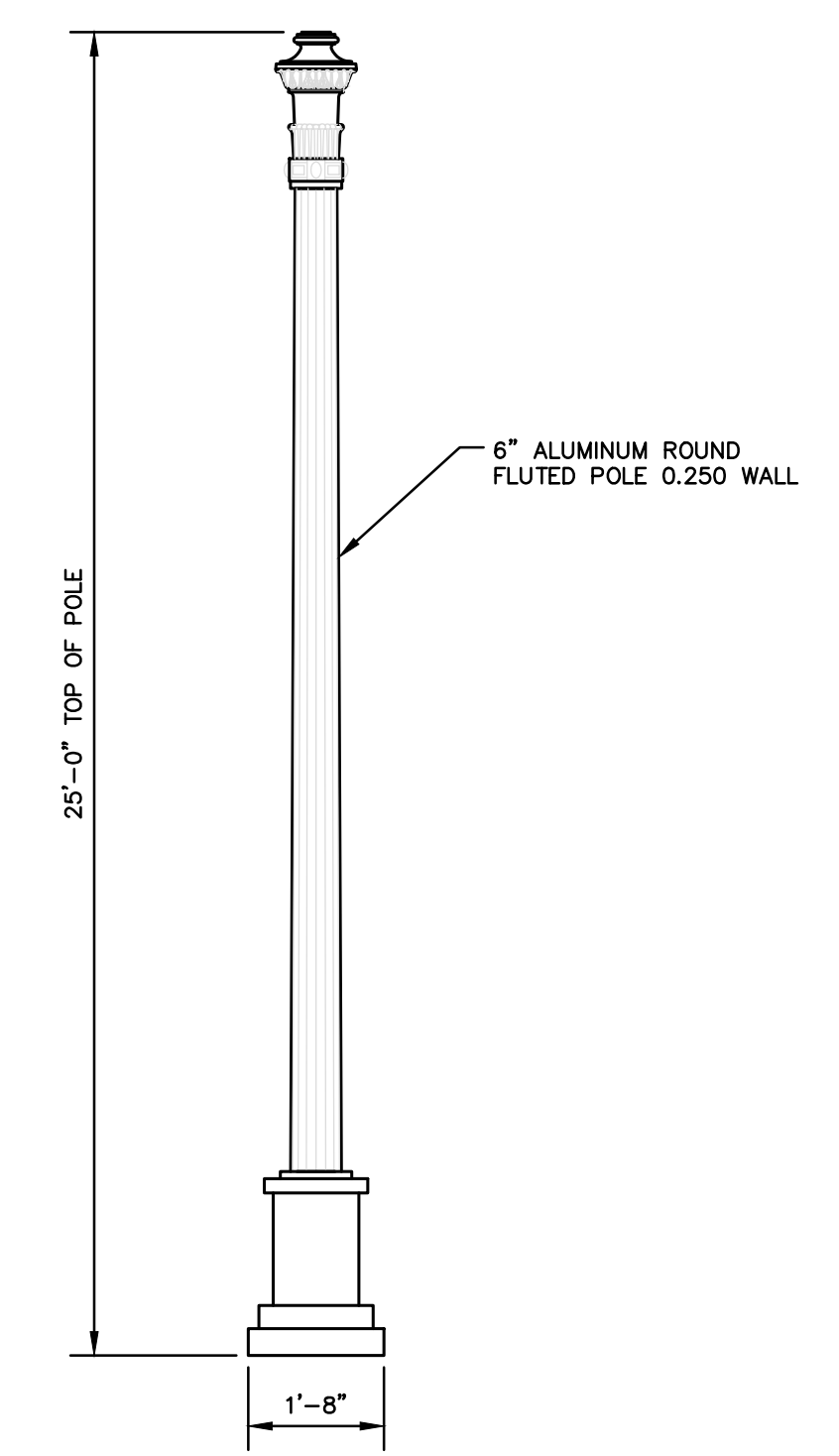


E 8 TYPICAL CONCRETE ENCASED DUCTBANK UNDER PAVEMENT DETAIL
NOT TO SCALE

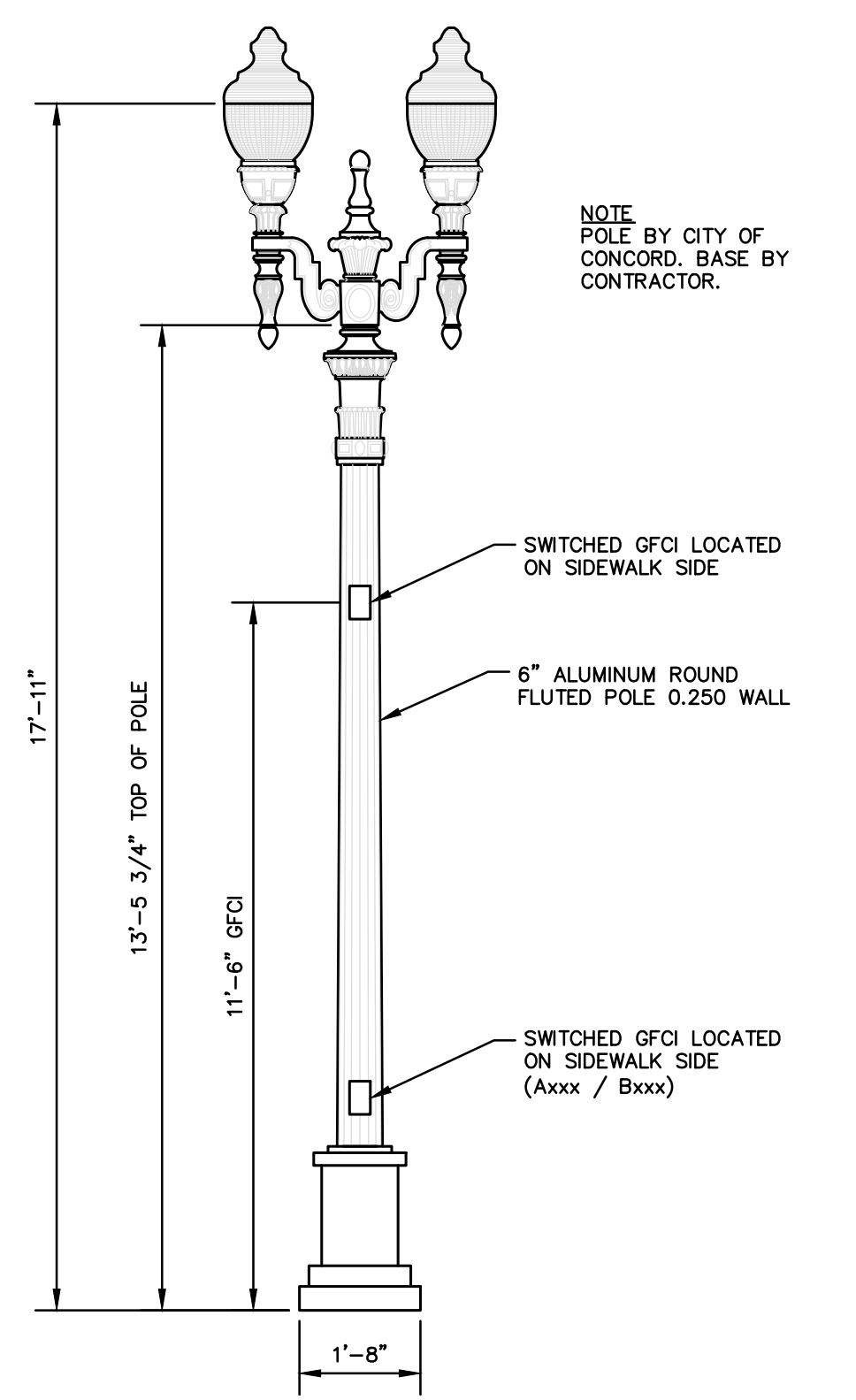


NOTES:
 1. ALL TRENCHING, BEDDING, AND BACKFILLING BY THE SITE CONTRACTOR.
 2. ELECTRICAL CONDUIT AND CONDUCTORS SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.
 3. CONTRACTOR TO RESTORE SITE TO EXISTING CONDITION.

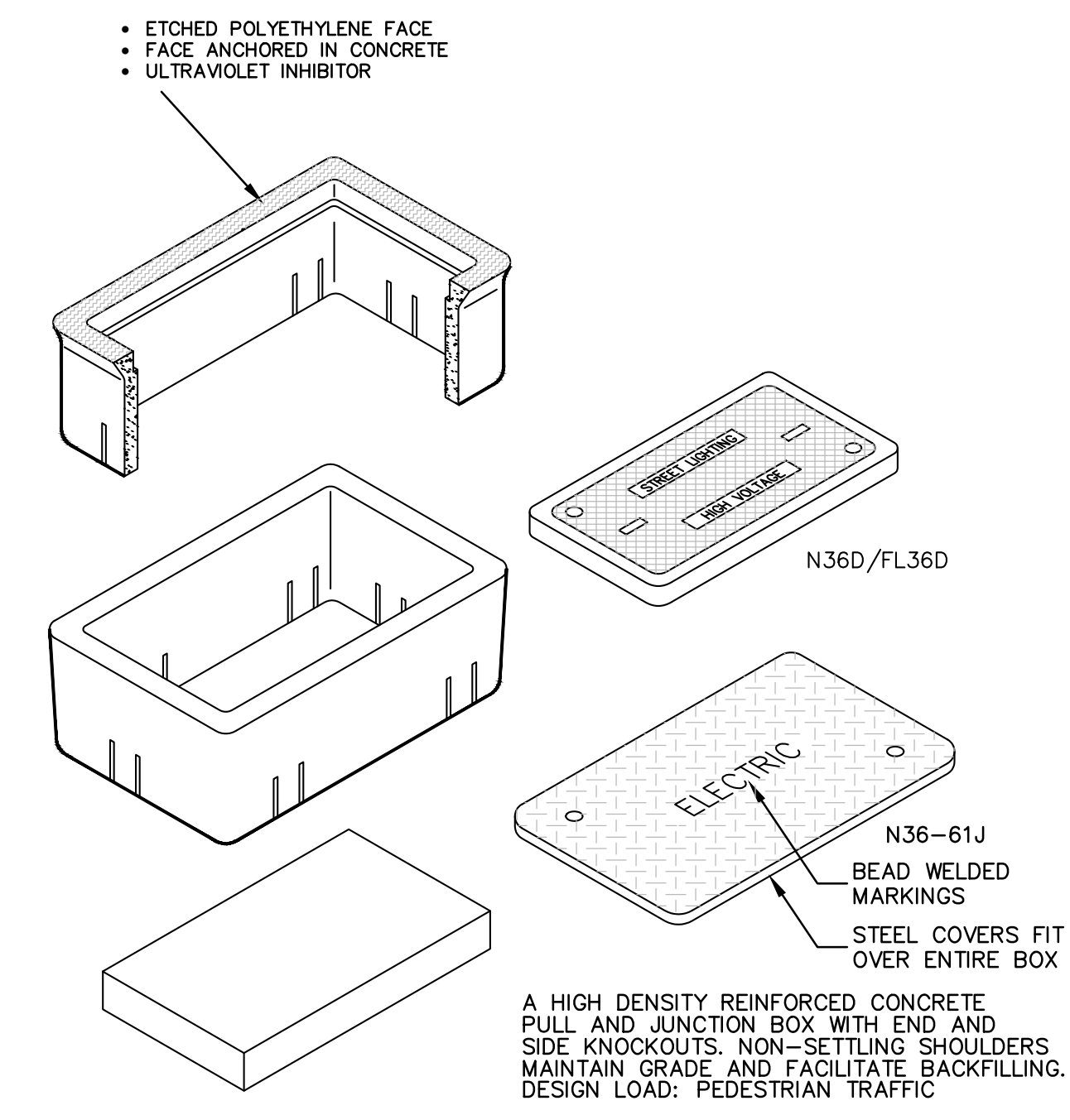
E 16 TYPICAL SITE ELECTRICAL TRENCH DETAIL
NOT TO SCALE



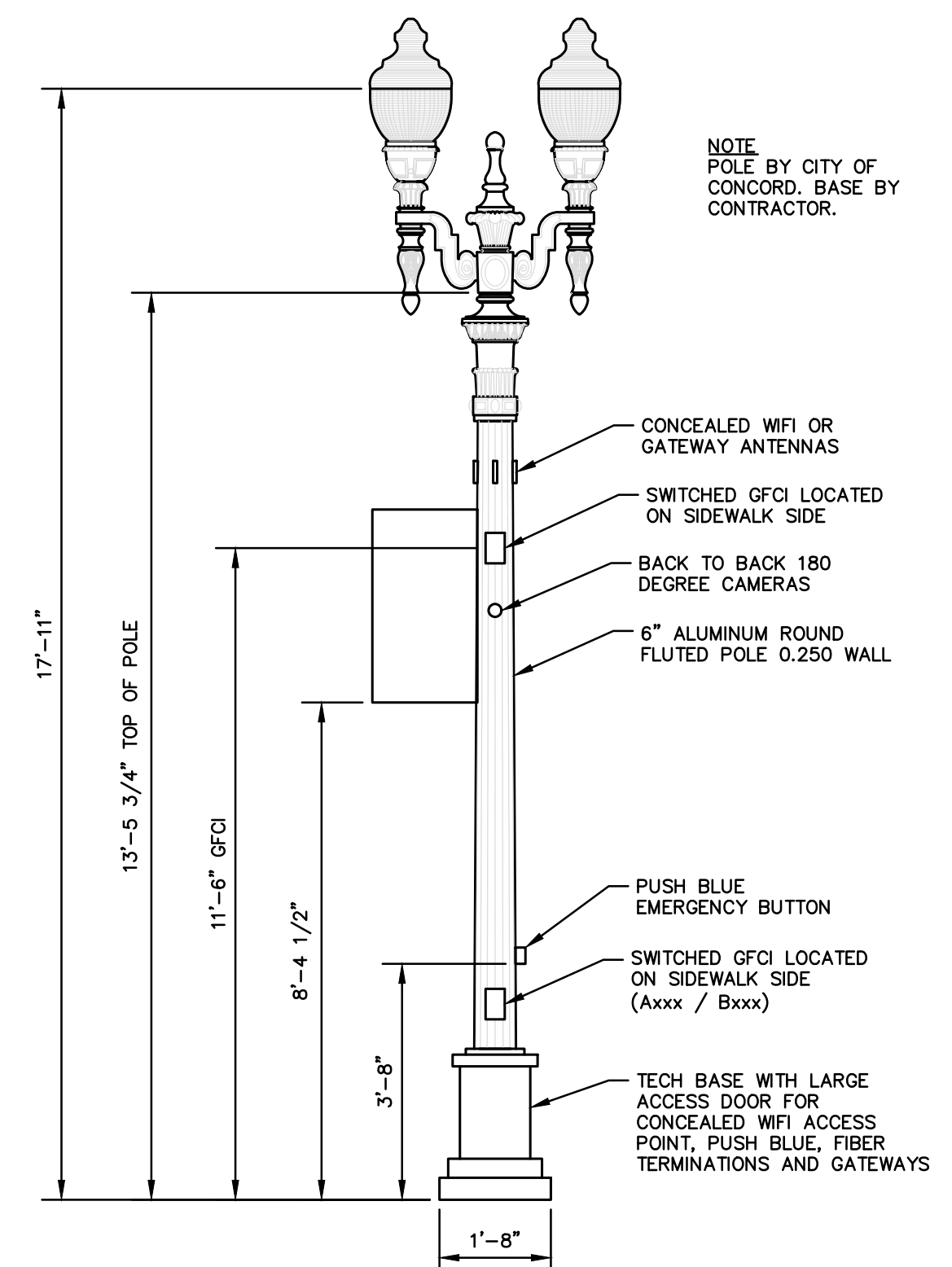
E 10 FESTOON LIGHTING SUPPORT POLE
NOT TO SCALE



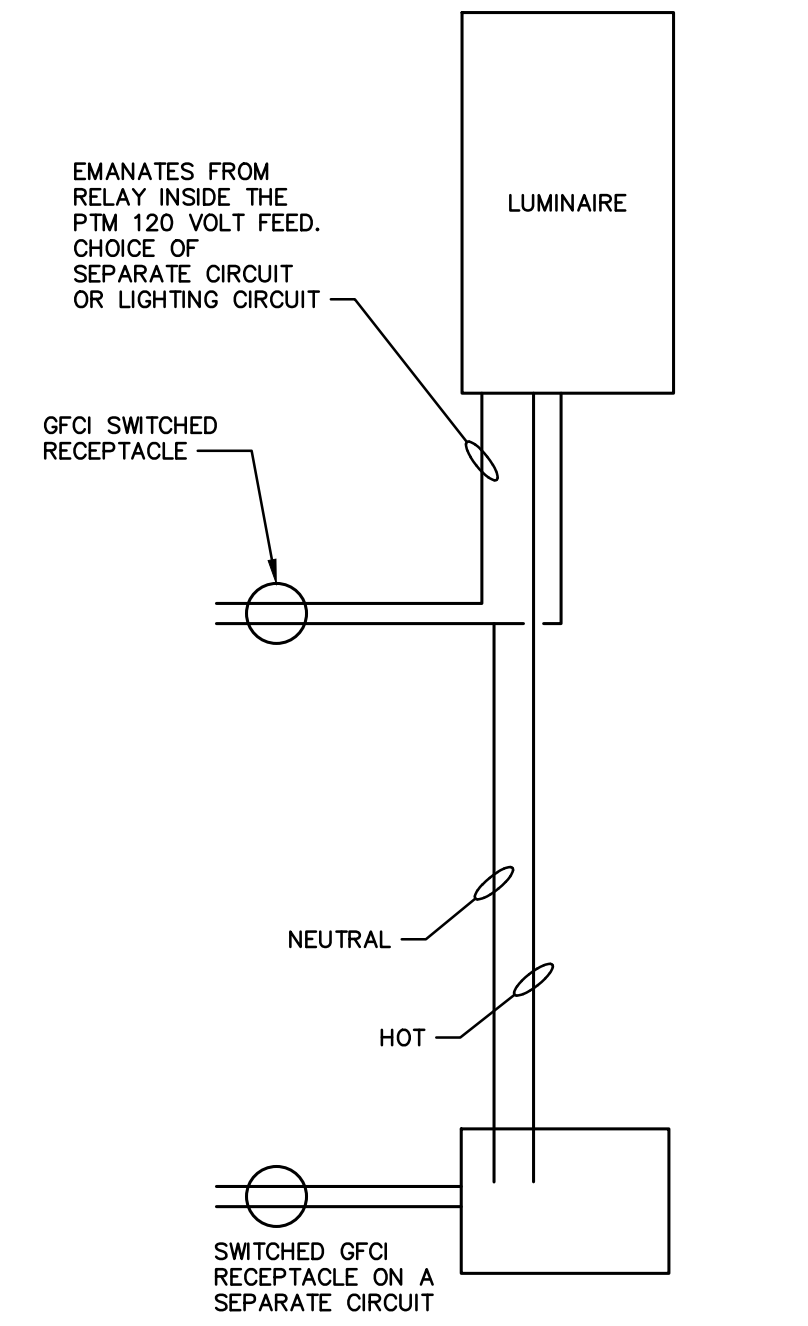
E 5 TYPE 'A' POLE AND LIGHT FIXTURE
NOT TO SCALE



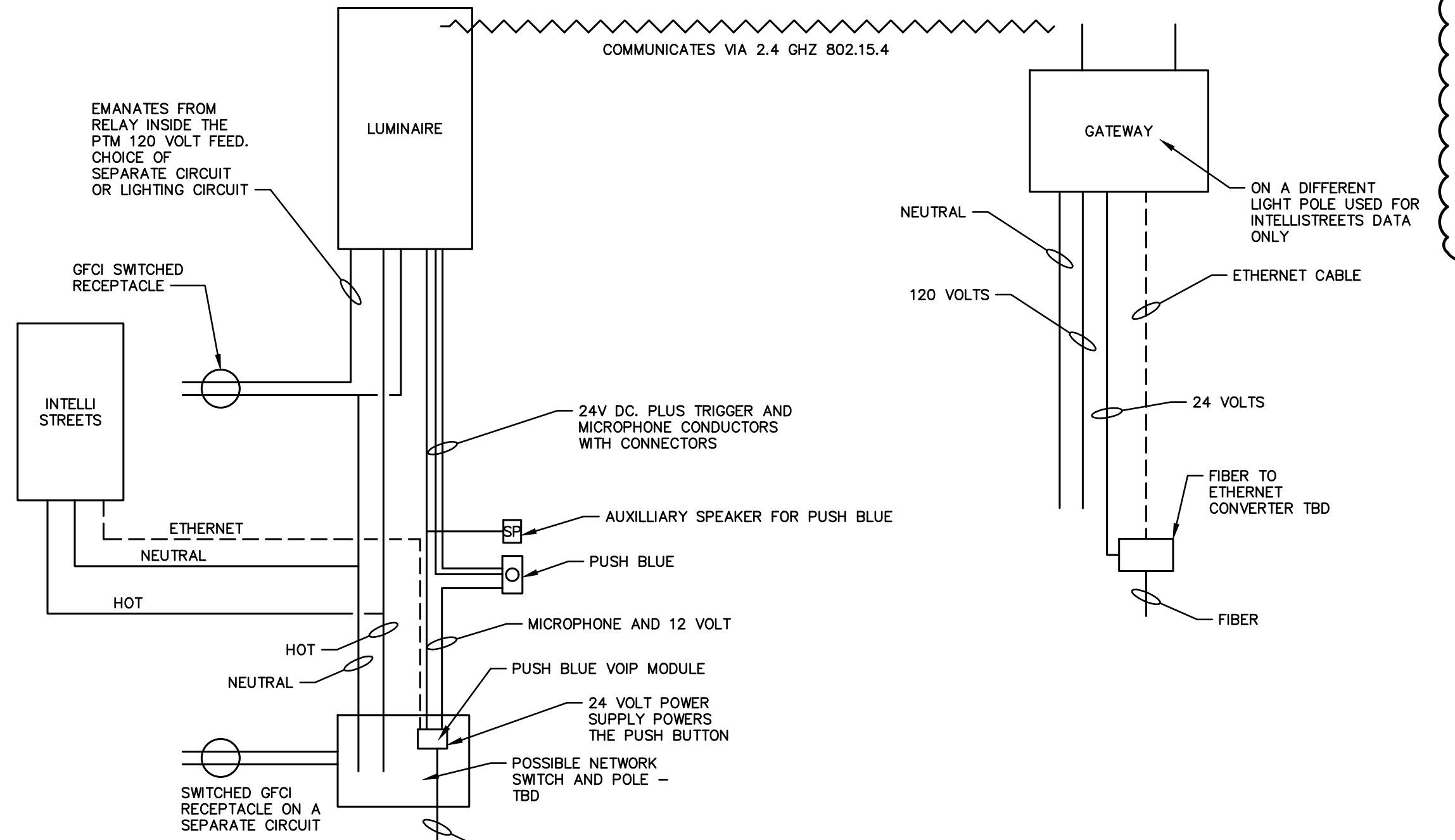
E 9 TYPICAL HANDHOLE DETAIL
NOT TO SCALE



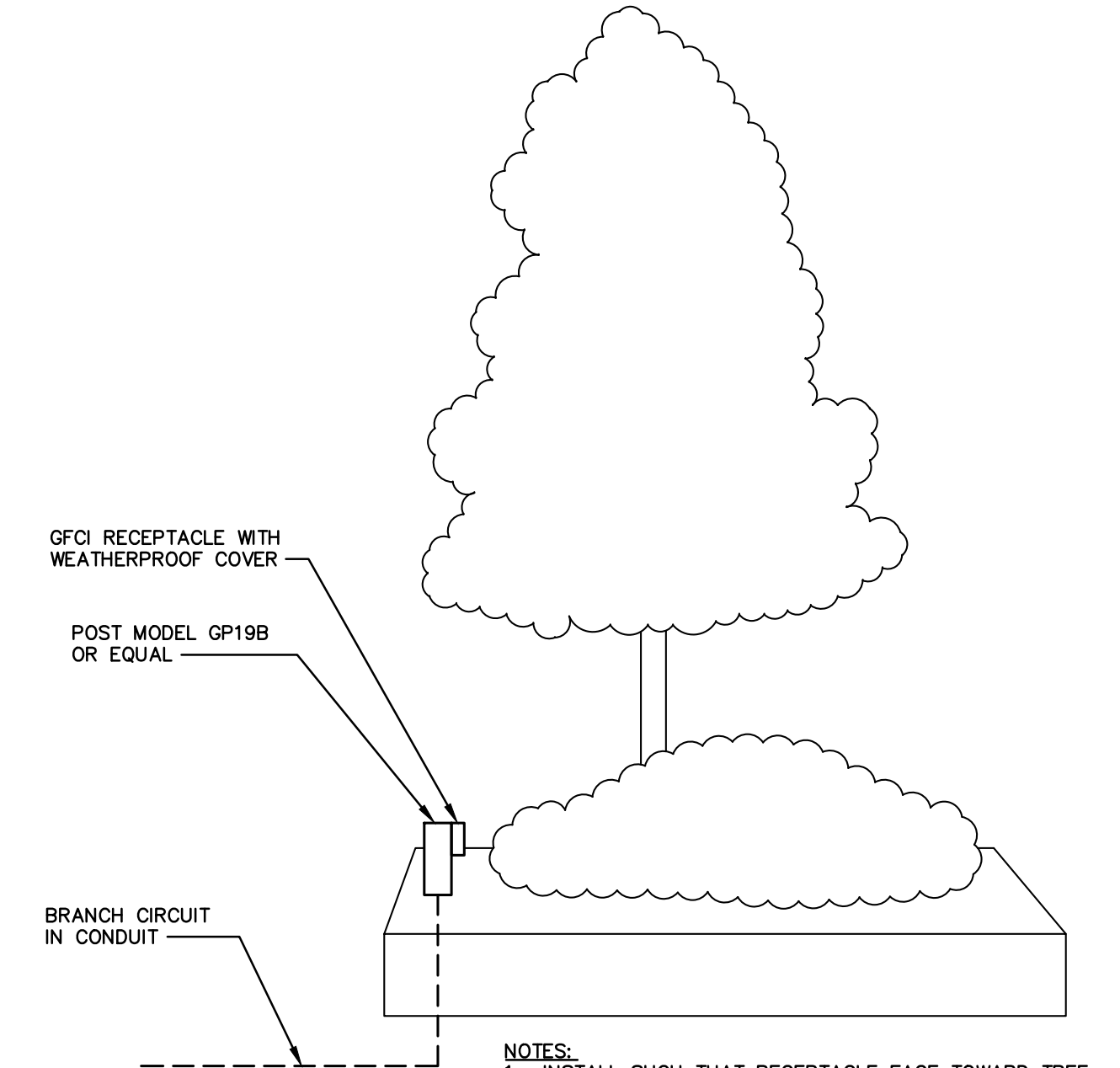
E 11 TYPE 'B' POLE AND LIGHT FIXTURE
NOT TO SCALE



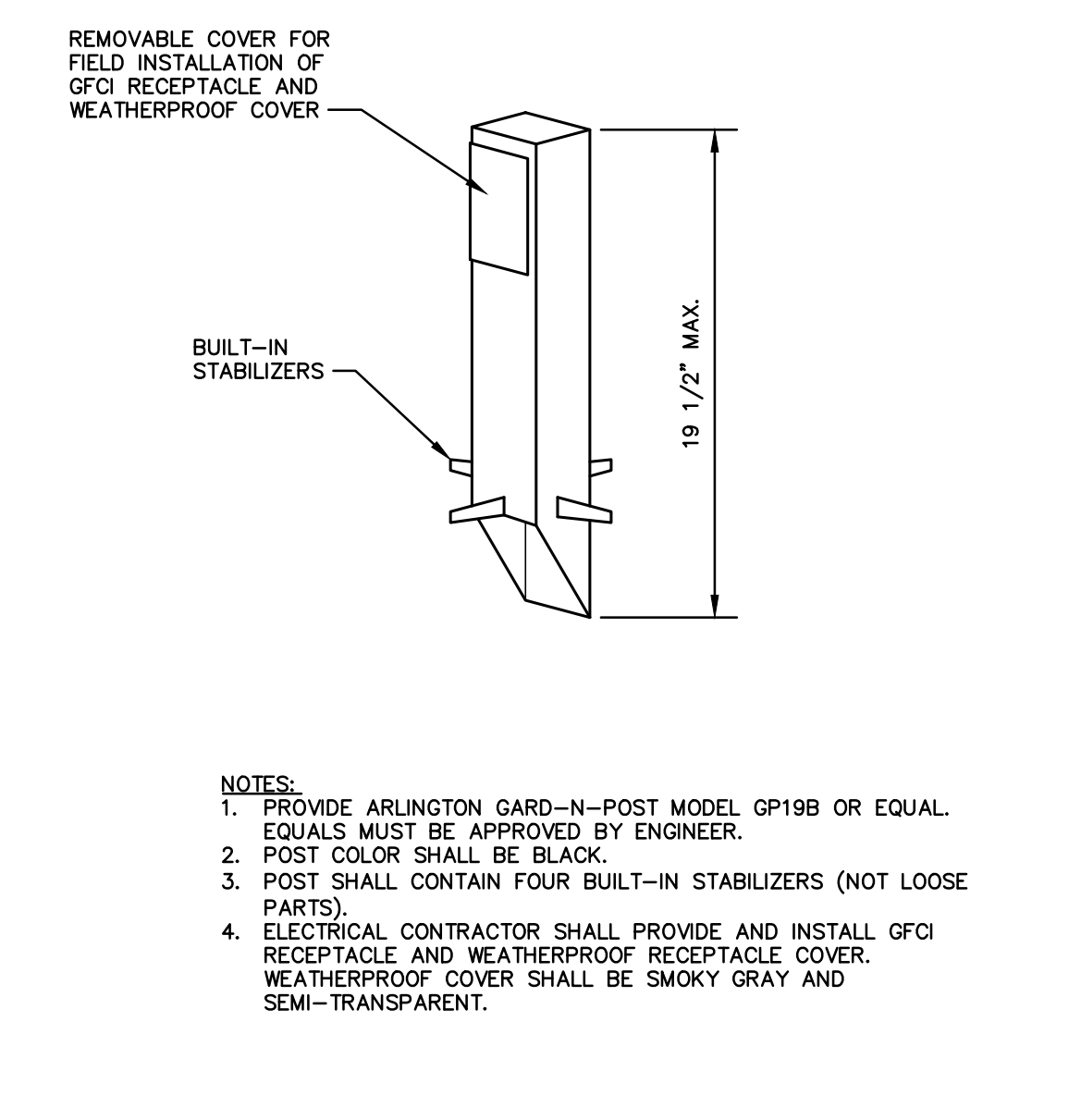
E 12 TYPE A WIRING DIAGRAM
NOT TO SCALE



E 13 TYPE B WIRING DIAGRAM
NOT TO SCALE



E 14 TYPICAL RECEPTACLE MOUNT IN PLANTER
NOT TO SCALE



E 15 TYPICAL POST FOR OUTDOOR RECEPTACLE MOUNT IN PLANT BEDS
NOT TO SCALE

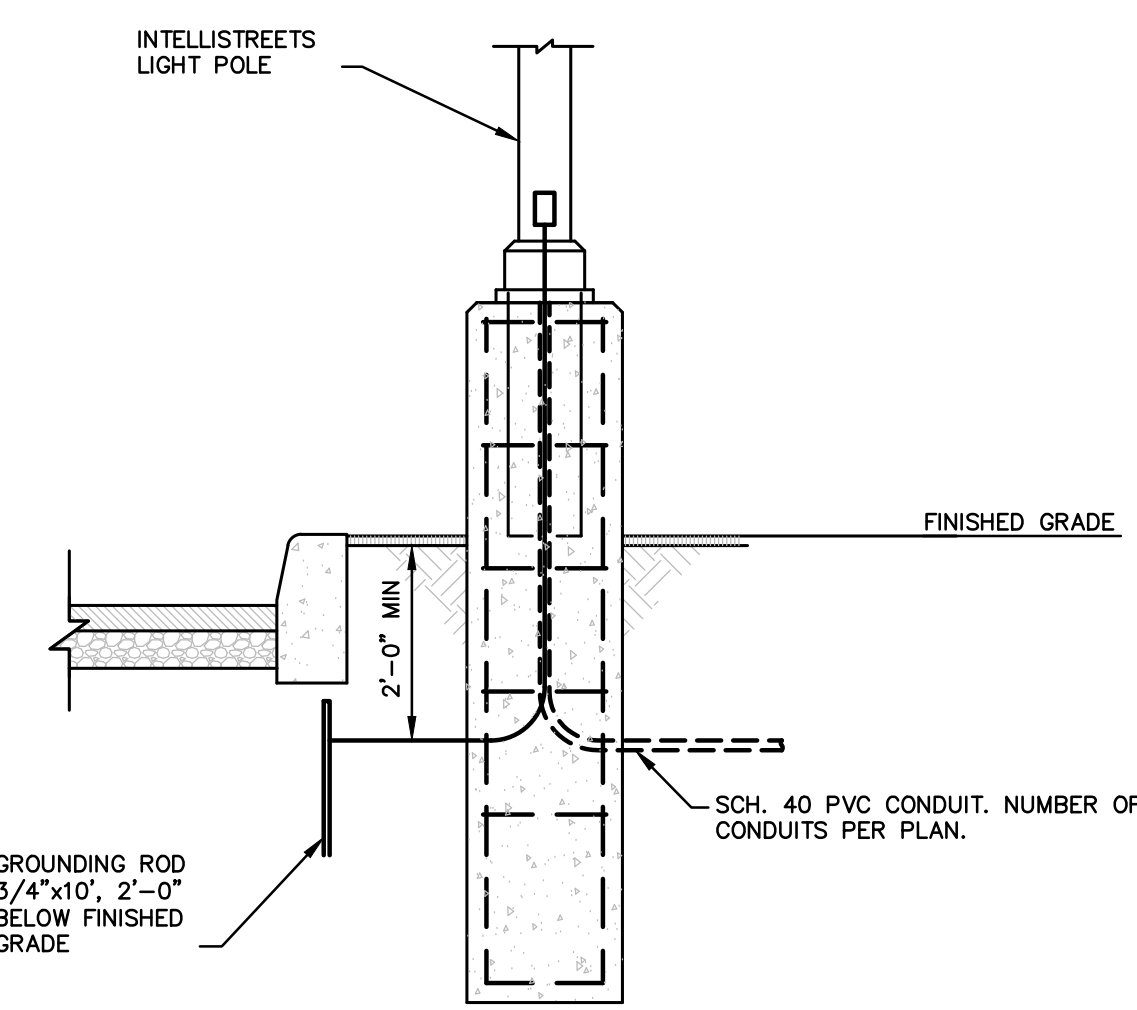
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NO.	DATE	BY	DESCRIPTION
2	8-25-2021	WF	ADDENDUM 2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
 CABARRUS COUNTY, NORTH CAROLINA

AS NOTED	
OFFICE MANAGER D.G. CHAPMAN	DESIGNER W. FLEMING
PROJECT MANAGER N. HUFFMAN	REVIEWER P. FISHER

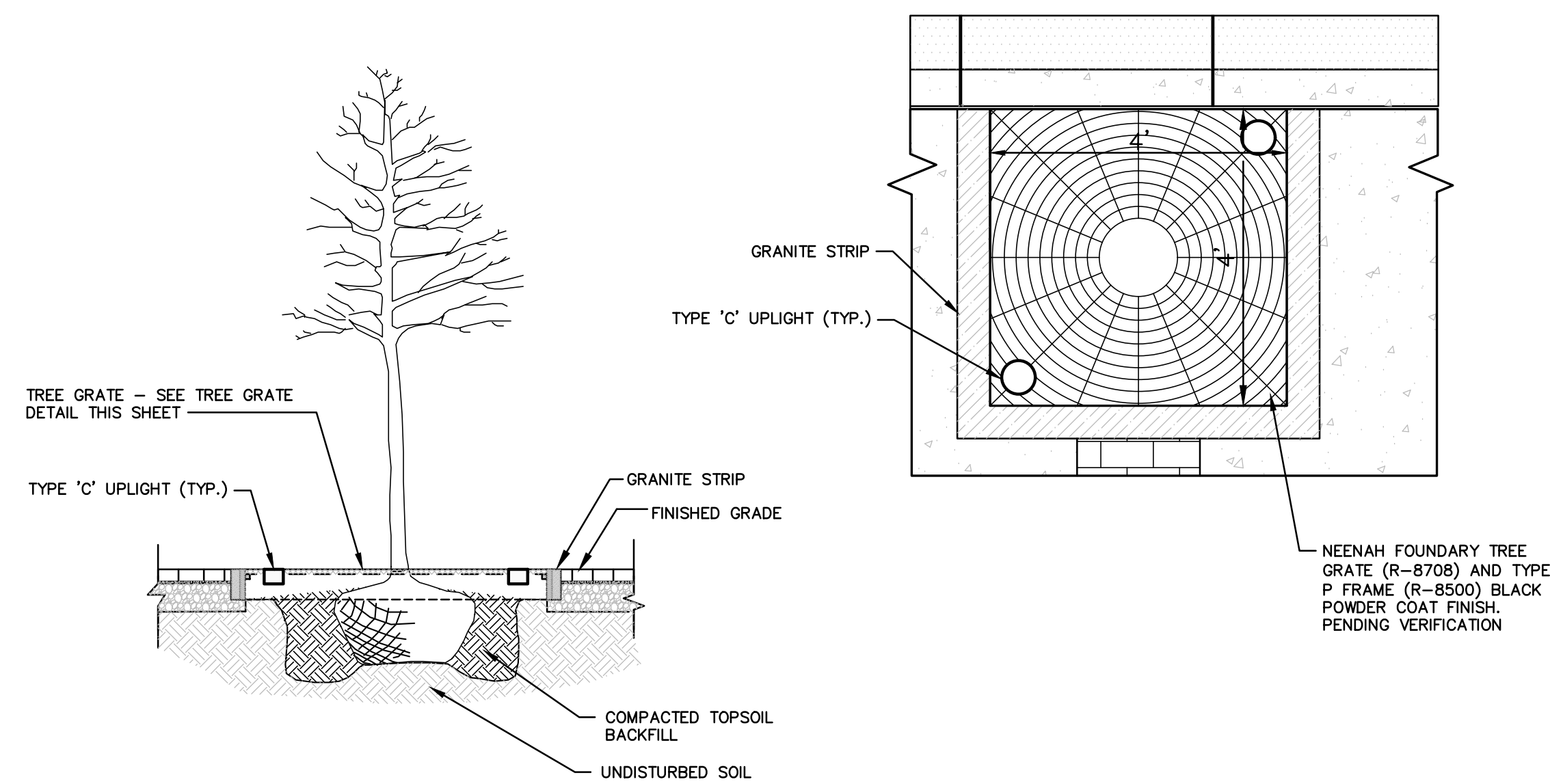
ELECTRICAL DETAILS			
DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A	SHEET E-501



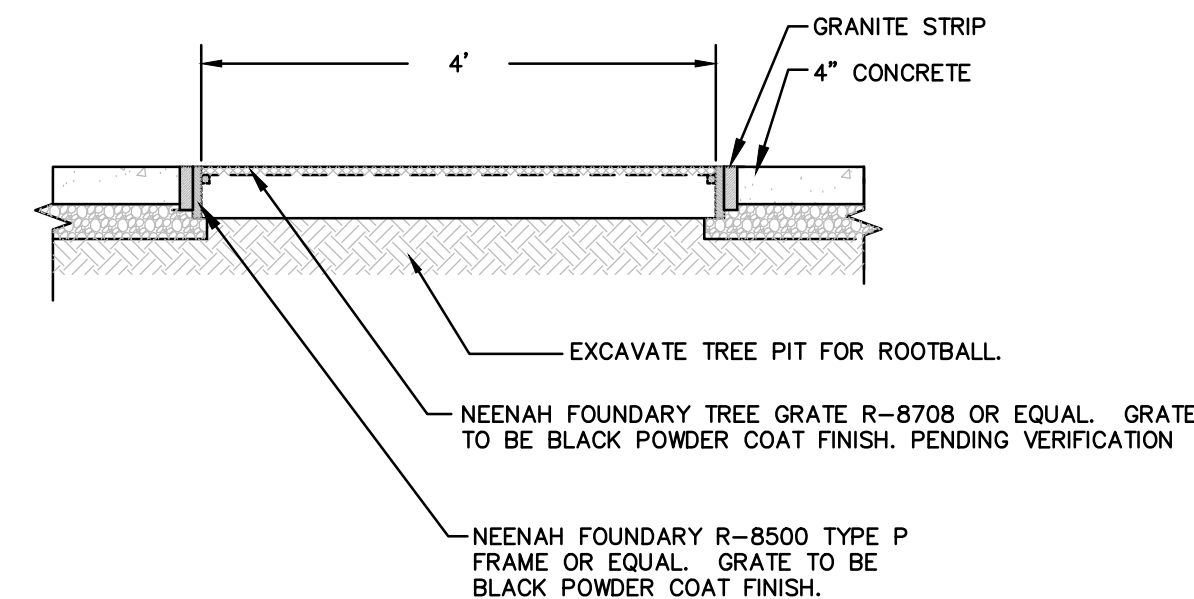
TYPICAL BASE

- NOTES:
- CONTRACTOR TO PROVIDE COMPLETE LIGHT POLE BASE DETAIL WITH ALL DIMENSIONS AND REQUIREMENTS SEALED BY STRUCTURAL ENGINEER.
 - EXPOSED CONCRETE AND GROUT SHALL BE PAINTED. COLOR AND PAINT TYPE IS TO BE SELECTED BY THE OWNER.

E TYPICAL LIGHT STANDARD BASE
20 NOT TO SCALE



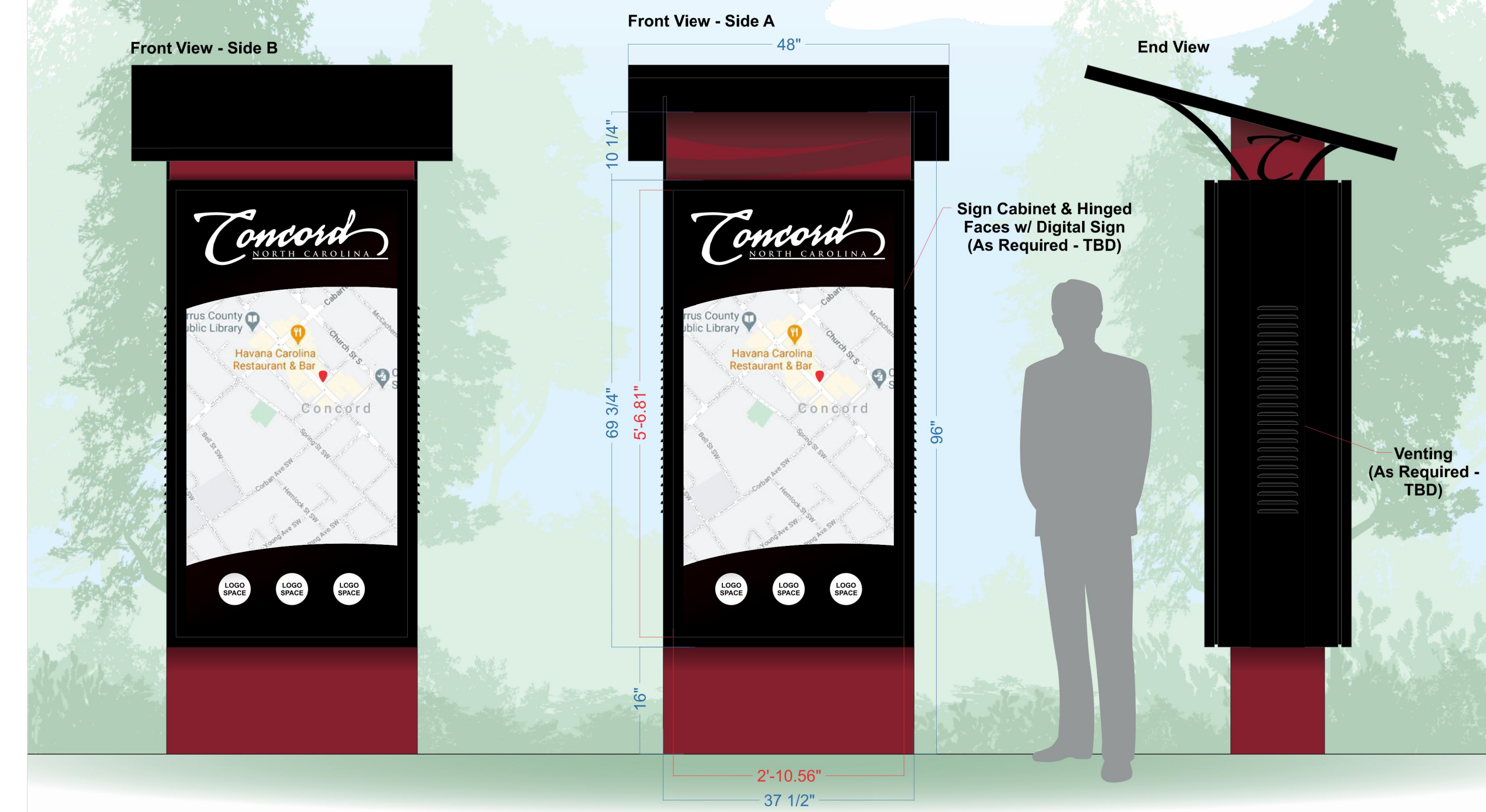
- NOTES:
- UPLIGHT CIRCUIT TO BE ROUTED AROUND PERIMETER OF TREE GRATE TO AVOID ROOT BALL.
 - TYPE 'C' LIGHT FIXTURE TO BE MOUNTED FLUSH IN TREE GRATE.



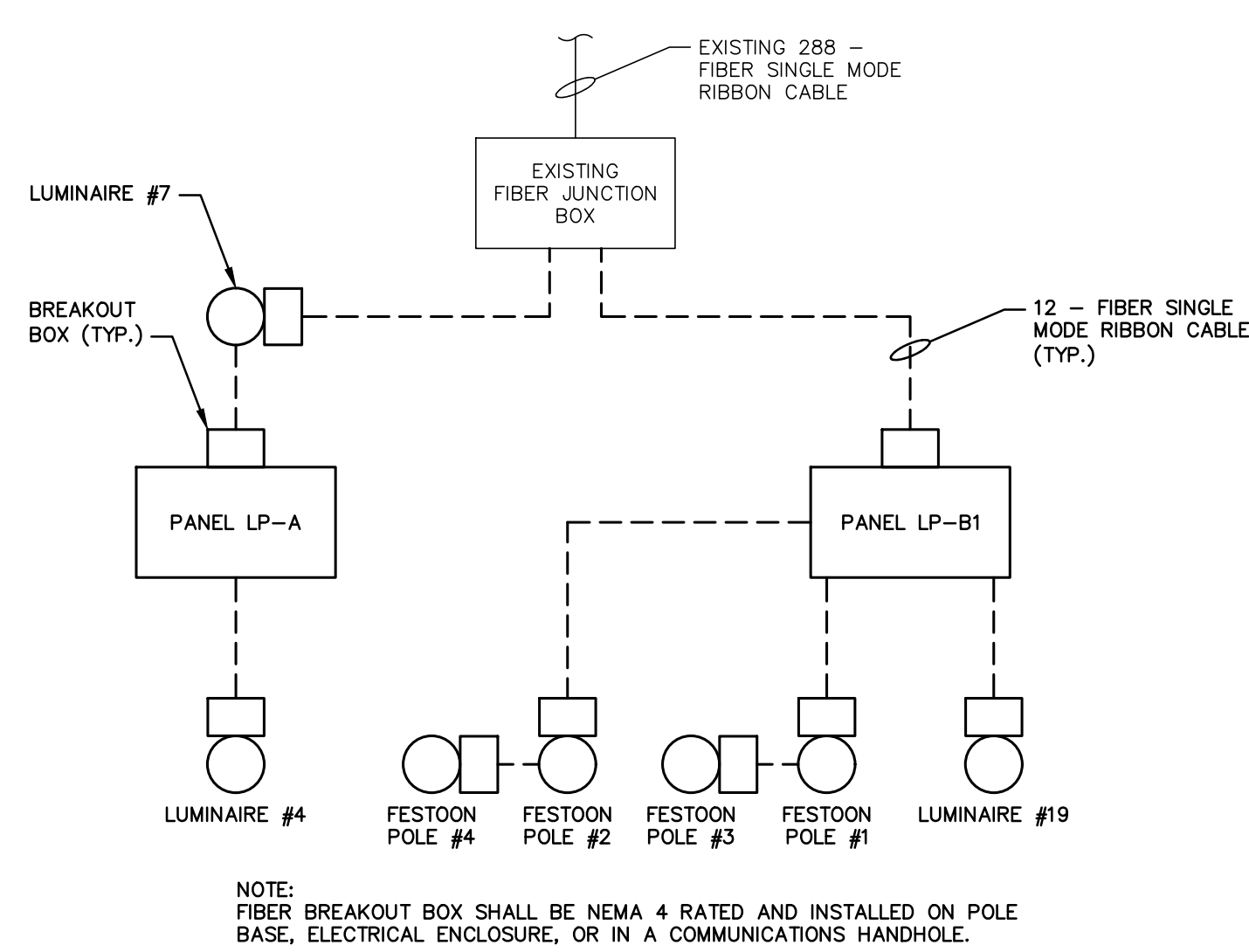
E TREE GRATE LIGHTING DETAIL
22 NOT TO SCALE

- Map Kiosk (Qty. TBD - DIS - Non-Lighted)
- Black Alum. Cabinet w/ Lockable Face Cover Over Side A & B
 - Digital Sign Displays Mounted Inside Cabinet
 - Alum. Shrouding w/ Vinyl Graphics Applied To Faces & Sides
 - Angled Roof w/ Decorative Routed Brackets & "C" Accent Mounted To Sides Of Upper Shrouding
 - Signage To Have Electrical Box Housed Within Cabinet/Shrouding w/ Electrical Access Behind Cabinet Faces - TBD
- NOTE: Shrouding And/Or Cabinet To Have Hinged Access For Electrical Box, As Well As Downward Faced Venting As Needed (TBD)
- Concord Kiosking Only. Actual Size & Specs TBD
- NOTE: Vector Logo Graphics Required From Customer For Production

- NOTES:
- PROVIDE PANEL WITH DIMENSIONS SUFFICIENT FOR INSTALLATION OF PANELS LP-B1 AND LP-B2. COORDINATE REQUIRED PANEL DIMENSIONS WITH MANUFACTURER.
 - HINGED ACCESS DOOR SHALL OPEN TO A MINIMUM OF 90 DEGREES AND SHALL BE PROVIDED WITH A MECHANICAL MEANS TO HOLD DOOR IN OPEN POSITION FOR THE PURPOSES OF MAINTENANCE.

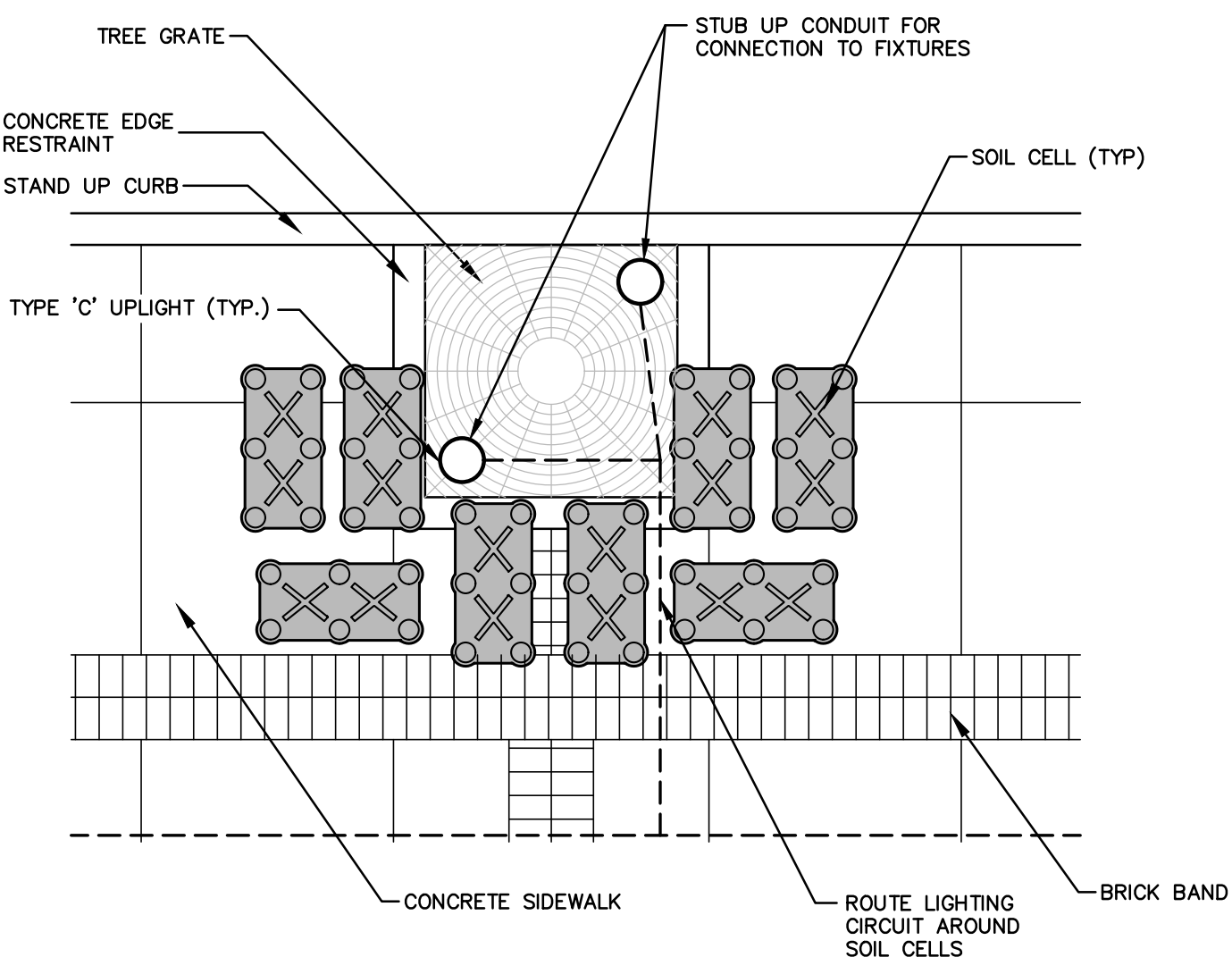


E KIOSK PANEL
23 NOT TO SCALE

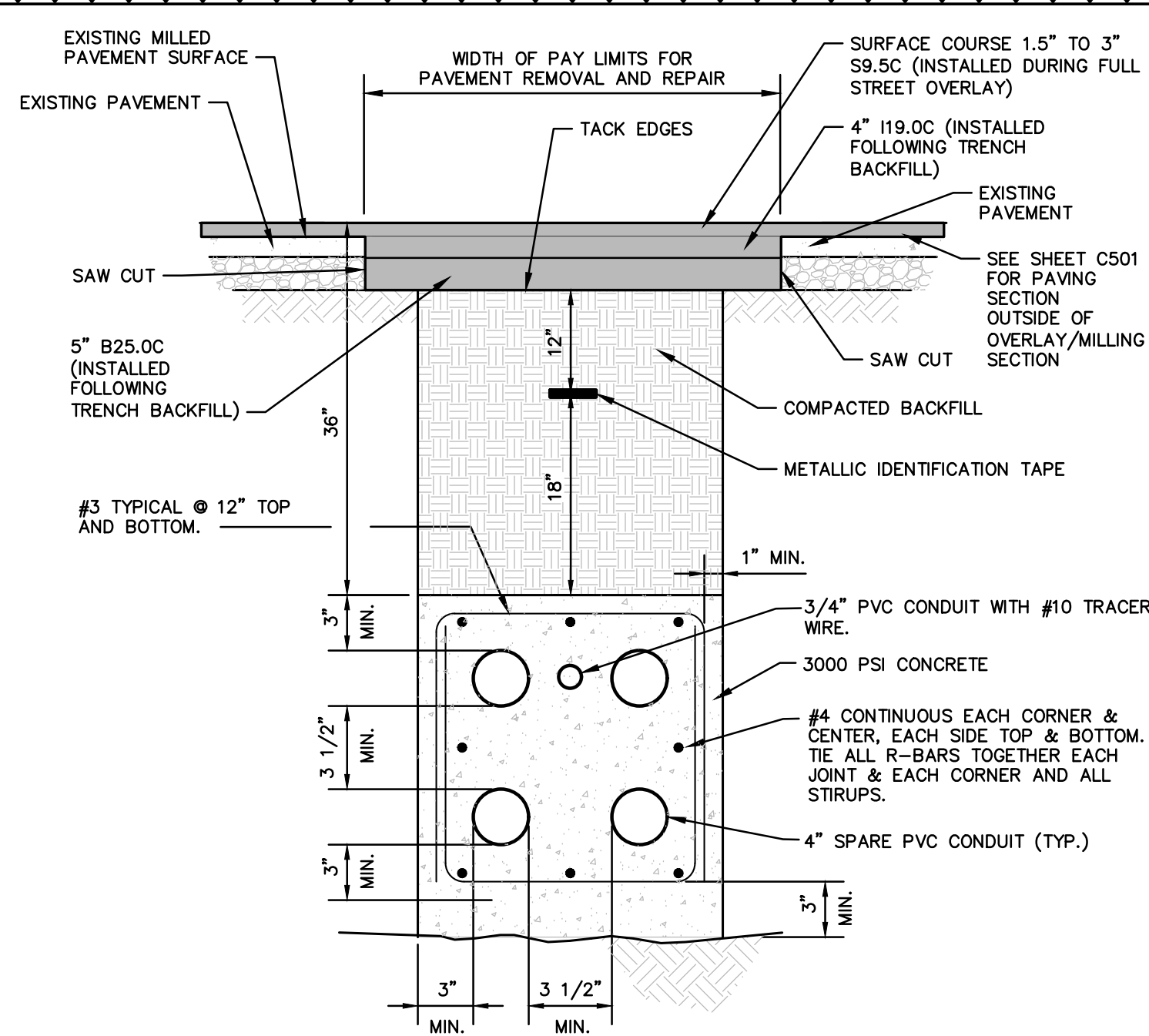


NOTE: FIBER BREAKOUT BOX SHALL BE NEMA 4 RATED AND INSTALLED ON POLE BASE, ELECTRICAL ENCLOSURE, OR IN A COMMUNICATIONS HANDHOLE.

E CONTROL CONNECTION DIAGRAM
21 NOT TO SCALE



E SOIL CELLS CONDUIT & LIGHTING DETAIL
24 NOT TO SCALE



F FIBER DUCTBANK UNDER PAVEMENT DETAIL
25 NOT TO SCALE

mcgill 1240 19th Street Lane NW
Hickory, NC 28601
828.328.2024
NC Firm License # C-0459
mcgillassociates.com

Professional Engineer Seal for P. Fisher, License # 036840, dated 8-25-21.

NO.	DATE	BY	DESCRIPTION
2	8-25-2021	WF	ADDENDUM 2

UNION STREET IMPROVEMENTS
CITY OF CONCORD
CABARRUS COUNTY, NORTH CAROLINA

AS NOTED	
OFFICE MANAGER D.G. CHAPMAN	DESIGNER W. FLEMING
PROJECT MANAGER N. HUFFMAN	REVIEWER P. FISHER

ELECTRICAL DETAILS			
DATE JULY 2021	PROJECT # 19.01726	FUNDING # N/A	

SHEET
E-502