

COUNTY OF ALBEMARLE
Department of Community Development
401 McIntire Road, North Wing
Charlottesville, Virginia 22902-4596
Phone (434) 296-5832

To: Albemarle County Planning Commission
From: Mariah Gleason
Date: June 16, 2020
Item: **SUB202000021 Foothill Crossing Ph V - Modification Request** to waive the establishment of sidewalks on both sides of a public street as required under County Code §14-422.
Tax Map Parcel(s): 05600-00-00-057B3
Magisterial District: White Hall
School Districts: Western Albemarle H.S.; Henley M.S.; Crozet E.S.
Zoning District: R-6 Residential

Summary of Request for Modification of Sidewalk:

The applicant is requesting a modification of the requirement to provide sidewalk facilities on the south side of an extended portion of Indigo Road. This road will serve as the entrance to this development. In lieu of providing sidewalks on the south side of Indigo Road, where no residential lots are proposed, the applicant proposes a connection to existing pedestrian facilities in Claudius Crozet Park that run parallel and adjacent to locations where sidewalks would otherwise be required. A letter of approval from the President of the Crozet Park Board of Directors for the connection to the park's walkways is included in Attachment 1. It is worth noting that this is a private park and may not always remain a park in the future.

County Code §14-422(A) requires the establishment of sidewalks on both sides of each new street within a residential subdivision in the development areas. Per County Code §14-422(E), this requirement can be modified by the commission as provided in County Code §14-203.1(B) according to the evaluation criteria contained in County Code §14-422(E)(2).

Staff Recommendation:

With regards to the findings contained in the Staff Analysis (Attachment 2), inclusive of the criteria to be considered pursuant to Albemarle County Code §14-422(E)(2), **staff recommends approval** of this modification request with the following condition:

1. The locations of sidewalks for the Foothill Crossing Phase V development must be in general accord with the sidewalk locations as shown on the plans entitled "Foothill Crossing Phase V - Road Plans, SUB2020-00021," which were prepared by Collins Engineering and are last dated March 30, 2020.

Attachments:

- 1 – Justification and Application Materials
- 2 – Staff Analysis
- 3 – SUB202000021 Foothill Crossing Ph V - Road Plans (under review; last dated 3/30/2020)

May 28, 2020

Mariah Gleason, Senior Planner
Albemarle County, Department of Community Development
401 McIntire Road
Charlottesville, VA 22902

**Regarding: SDP2020-013 – Foothill Crossing Phase V Final Site Plan
Request for an Exception to the sidewalk requirement**

Dear Mariah:

I'm writing to request a waiver exception for the requirement to provide sidewalks on both sides of a public street within the Foothill Crossing development for the extension of the existing Indigo Road into the development. In accordance with Sec. 14-422, the applicant requests an exception to the sidewalk requirement as noted below.

The existing Indigo Road, which serves as the entrance roadway into the development, currently has a sidewalk on the north side of the roadway, adjacent to the development lots. The existing roadway does not have a sidewalk on the southern portion of the roadway, adjacent to the Crozet Park. However, there is an existing 5' to 6' asphalt pathway running parallel to the existing roadway within the Park. This existing asphalt pathway continues along the entire portion of the existing Indigo roadway and continues along proposed portion of the roadway extension of Indigo Road within the limits of this development. Because there is an existing asphalt pathway along the southern portion of the Indigo Road right of way and because there are no proposed development lots along the southern portion of Indigo Road, we are requesting an exception for the requirement of a sidewalk on this portion of the roadway. A planting strip will still be provided along this portion of the roadway, and a sidewalk and planting strip will be provided on the northern portion of Indigo Road. However, since there is an existing asphalt pathway parallel to this roadway within five feet to ten feet of the right of way, adding a sidewalk on the southern side of the roadway parallel to the existing pathway is redundant and not necessary.

As shown in the development plans, the other roadway within the development will have sidewalks and planting strips on both sides of the roadway, as required by the County Ordinance. All portions of the proposed roadway adjacent to the development lots will have the required 6' planting strip and 5' concrete sidewalk. The only portion of the proposed roadway where an exception is being requested is adjacent to the existing Crozet Park. In addition, attached is a letter from the Crozet Park board allowing an asphalt pathway connection from the proposed sidewalks within this development to the existing asphalt pathway within the Crozet Park. This connection is a benefit to the community, allowing access to the park from this proposed development and the adjacent neighborhoods.

Please let me know if you have any questions or require any additional information.

Sincerely,

Scott R. Collins
Scott Collins, PE



April 21, 2020

Re: **Crozet Park Perimeter Trail Access**

Dear Stanley Martin Companies, LLC,

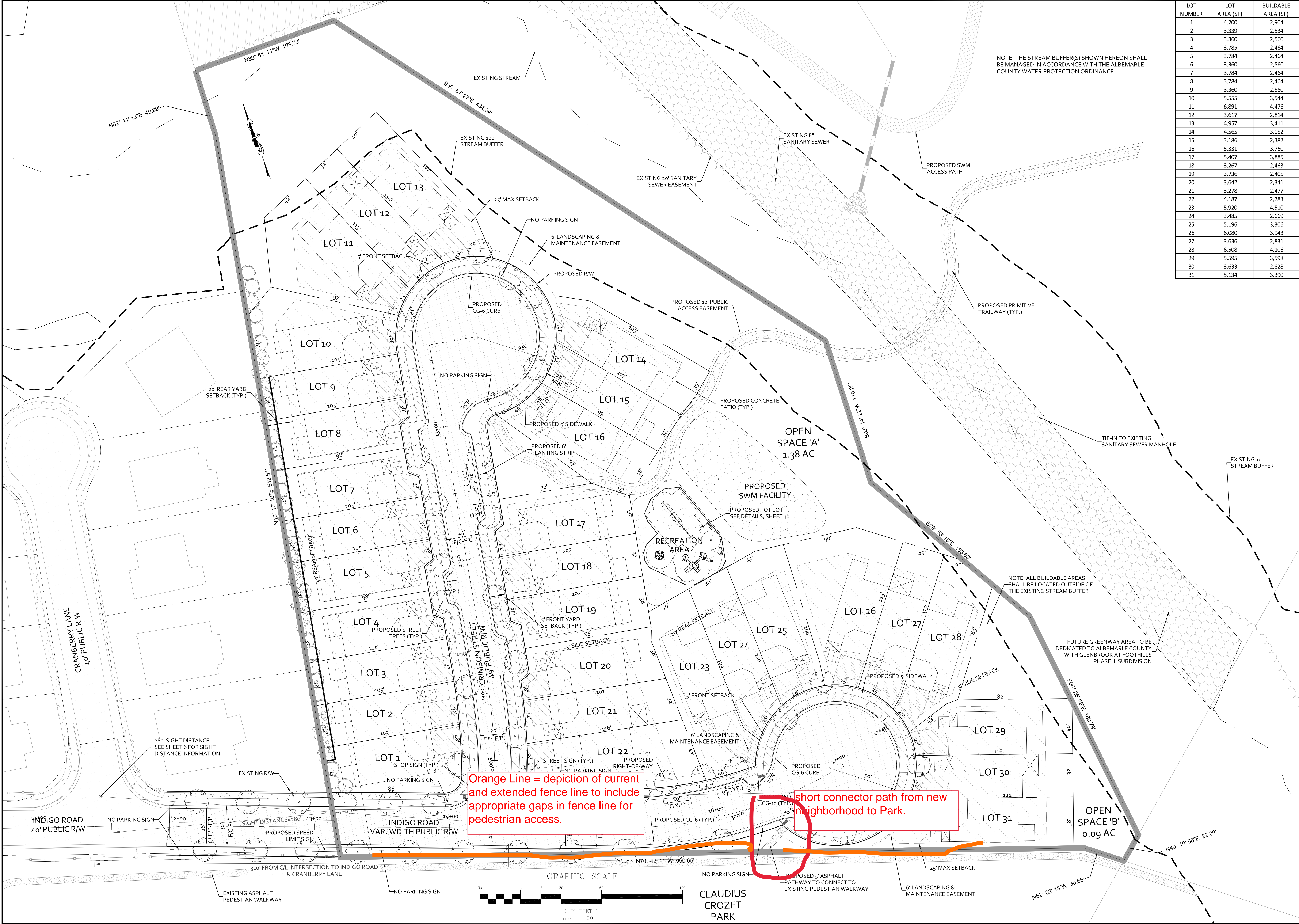
The Crozet Park Board of Directors approves the "Proposed 5' Asphalt Pathway To Connect To Existing Pedestrian Walkway" as shown on the attached Exhibit A. Stanley Martin Companies, LLC shall be wholly responsible for installing the proposed connection to the walkway.

Additionally, Stanley Martin Companies, LLC will extend the three-board fence along the shared boundary as shown in Exhibit A. This would take the existing fence line to the Park's NE boundary.

Sincerely,

Kim Guenther
President, Board of Directors
Claudius Crozet Park, Inc.

Claudius Crozet Park is a 501(c)3 non-profit organization. All donations are tax deductible.



Orange Line = depiction of current and extended fence line to include appropriate gaps in fence line for pedestrian access.

Short connector path from new neighborhood to Park.

NOTE: THE STREAM BUFFER(S) SHOWN HEREON SHALL BE MANAGED IN ACCORDANCE WITH THE ALBEMARLE COUNTY WATER PROTECTION ORDINANCE.

NOTE: ALL BUILDABLE AREAS SHALL BE LOCATED OUTSIDE OF THE EXISTING STREAM BUFFER

FUTURE GREENWAY AREA TO BE DEDICATED TO ALBEMARLE COUNTY WITH GLENBROOK AT FOOTHILLS PHASE III SUBDIVISION

LOT NUMBER	LOT AREA (SF)	BUILDABLE AREA (SF)
1	4,200	2,904
2	3,339	2,534
3	3,360	2,560
4	3,785	2,464
5	3,784	2,464
6	3,360	2,560
7	3,784	2,464
8	3,784	2,464
9	3,360	2,560
10	5,555	3,544
11	6,891	4,476
12	3,617	2,814
13	4,957	3,411
14	4,565	3,052
15	3,186	2,382
16	5,331	3,760
17	5,407	3,885
18	3,267	2,463
19	3,736	2,405
20	3,642	2,341
21	3,278	2,477
22	4,187	2,783
23	5,920	4,510
24	3,485	2,669
25	5,196	3,306
26	6,080	3,943
27	3,636	2,831
28	6,508	4,106
29	5,595	3,598
30	3,633	2,828
31	5,134	3,390

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200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902-434.293.3719

FOOTHILL CROSSING PHASE V - FINAL SITE PLAN

SITE PLAN

PROJECT

JOB NO.

112066

SCALE

1" = 30'

SHEET NO.

3

REVISIONS

REVISION DESCRIPTION	DATE	INITIAL
INITIAL SUBMITTAL	10/02/18	

SCOTT R. COLLINS
No. 35791
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ATTACHMENT B – STAFF ANALYSIS

STAFF PERSON:
PLANNING COMMISSION:

Mariah Gleason
June 16, 2020

Sidewalks are required to be established on both sides of each new street within a subdivision in the development areas. The applicant has requested that this requirement be waived along the south side of the proposed extension of Indigo Road. Staff analysis of the special exception was conducted according to the evaluation criteria contained in Section 14-422(E)(2). The requirements for sidewalks may be varied by the commission as provided in Section 14-203.1(B)(1).

STAFF ANALYSIS

Ordinance language is provided below in **bold** followed by staff comment and analysis. In reviewing the request to except the requirement for sidewalks, the commission shall consider whether:

- i. **a variation or exception to allow a rural cross-section has been granted**
A waiver to allow a rural cross section has not been granted or requested.
Evaluation criteria not applicable.
- ii. **a surface other than concrete is more appropriate for the subdivision because of the character of the proposed subdivision and the surrounding neighborhood**
No alternative surface is proposed.
Evaluation criteria not applicable.
- iii. **sidewalks on one side of the street are appropriate due to environmental constraints such as streams, stream buffers, steep slopes, floodplain, or wetlands, or because lots are provided on only one side of the street**
Proposed lots with the Foothill Crossing Ph V development will only be located on one side of the extended portion of Indigo Road (see Attachment 3). Sidewalks will be provided in areas where residential lots are adjacent to the proposed public right-of-way.
Evaluation criteria met.
- iv. **the sidewalks reasonably can connect into an existing or future pedestrian system in the area**
The sidewalks for this development will tie into existing sidewalks along the north side of Indigo Road. There are currently no sidewalk facilities along the south side of the road, which abuts Claudius Crozet Park. Also, the development will provide a pathway to connect proposed sidewalks on the north side of Indigo Road to existing pedestrian facilities located within Claudius Crozet Park. The Board of Directors for Claudius Crozet Park has approved this proposed connection (see Attachment 1). Pedestrian facilities within Claudius Crozet Park run parallel and adjacent to locations where sidewalks are requested to be waived.
Evaluation criteria met.
- v. **the length of the street is so short and the density of the development is so low that it is unlikely that the sidewalk would be used to an extent that it would provide a public benefit**
The length of sidewalk that is requesting to be waived is relatively short (approximately 465 feet) and the density within this area will likely be and remain low as future additions to this development are unlikely given the location of a nearby stream along the northern and eastern edges of the property. Also, as mentioned above, in areas where sidewalks will not be provided, the applicant is proposing to utilize walkways within Claudius Crozet Park that are parallel and adjacent to locations where sidewalks would be required.
Evaluation criteria met.

- vi. **an alternate pedestrian system including an alternative pavement could provide more appropriate access throughout the subdivision and to adjoining lands, based on a proposed alternative profile submitted by the subdivider**

The applicant has not proposed an alternative profile for the proposed sidewalks. Proposed sidewalks will meet the County's design standards.

Evaluation criteria not applicable.

- vii. **the sidewalks would be publicly or privately maintained**

Sidewalks within the Foothill Crossing Ph V development, as well as the proposed pathway to connect the sidewalk to existing pedestrian facilities in Claudius Crozet Park, will be maintained by the Homeowner's Association.

Evaluation criteria met.

- viii. **the waiver promotes the goals of the comprehensive plan, the neighborhood model, and the applicable neighborhood master plan**

This waiver aligns with the goals of the Crozet Master Plan and neighborhood model. The Transportation Plan in the Crozet Mater Plan envisions an extension of Indigo Road in this location. While the development works to implement the build out of this road in accordance with the Master Plan, this waiver to the sidewalk requirement does not work against the fulfillment of the Master Plan. Also, the provision of sidewalks in front of proposed lots and the connection to walkways in Crozet Park supports an interconnected system of local pedestrian travelways to designation areas (i.e. parks and residences) which aligns with the neighborhood model principles.

Evaluation criteria met.

- ix. **waiving the requirement would enable a different principle of the neighborhood model to be more fully achieved**

Waiving this requirement would not work to enable a different principle of the neighborhood model to be more fully realized.

Evaluation criteria not applicable.

STAFF RECOMMENDATION

With regards to the findings contained herein, **staff recommends approval** of this modification request with the following condition:

1. The locations of sidewalks for the Foothill Crossing Phase V development must be in general accord with the sidewalk locations as shown on the plans entitled "Foothill Crossing Phase V - Road Plans, SUB2020-00021," which were prepared by Collins Engineering and are last dated March 30, 2020.

GENERAL NOTES

OWNER: GLENBROOK, LLC
PO BOX 1467
CHARLOTTESVILLE, VA 22902

DEVELOPER: RIVERBEND DEVELOPMENT, INC.
455 SECOND STREET, SE SUITE 400
CHARLOTTESVILLE, VA 22902
ATTN: ALAN TAYLOR

ENGINEER: COLLINS ENGINEERING
200 GARRETT ST, SUITE K
CHARLOTTESVILLE, VA 22902
(434)293-3719

TAX MAP NO.: 05600-00-00-057B3

TOTAL AREA: 5.84 AC.

ZONING: R-6 RESIDENTIAL, STANDARD LEVEL - CLUSTER DEVELOPMENT

DENSITY: ALLOWABLE DENSITY FOR STANDARD LEVEL CLUSTER DEVELOPMENT: 6 DU/AC
5.84 ACRES x 6 UNITS / ACRE = 35 UNITS

PROPOSED DENSITY: PROPOSED LOTS = 31
31 UNITS/ 5.84 AC. = 5.3 DU/AC.

PROPOSED USE: 31 SINGLE FAMILY ATTACHED UNITS (TYPICAL NUMBER OF BEDROOMS FOR EACH UNIT SHALL BE (2) OR (3) BEDROOMS)

OPEN SPACE: TOTAL OPEN SPACE PROPOSED = 1.622 AC (27.8%)
TOTAL OPEN SPACE REQUIRED (25%) = 1.46 ACRES
OPEN SPACE TO BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION. ALL OPEN SPACE SHALL BE RESERVED IN A DEED FOR THE COMMON USE OF LOT OWNERS IN THE SUBDIVISION.

RECREATION AREA: OPEN SPACE A = 0.067 ACRES OPEN SPACE B = 0.092 ACRES
OPEN SPACE C = 1.383 ACRES OPEN SPACE D = 0.055 ACRES
OPEN SPACE E = 0.025 ACRES

RECREATION AREA: TOTAL AREA PROVIDED = 37,950 SF (6,200 SF REQUIRED)
4,450 SF PROVIDED FOR ACTIVE RECREATIONAL TOT LOT.
(MIN. TOT LOT SIZE = 2,000 SF)
33,500 SF PROVIDED FOR THE PRIMITIVE WALKING TRAIL AND PASSIVE RECREATIONAL AREA.
SEE SHEET 3 FOR DETAILS ON THE ACTIVE AND PASSIVE RECREATIONAL AREAS.

PRESERVED/MANAGED SLOPES: NO PRESERVED SLOPES ARE SHOWN WITHIN THE LIMITS OF THE PROPERTY. SMALL AREAS OF MANAGED SLOPES ARE LOCATED ON THE PROPERTY AND SHOWN ON THE EXISTING CONDITIONS PLAN SHEET.

BUILDING HEIGHTS: MAXIMUM BUILDING HEIGHTS SHALL NOT EXCEED 35 FEET
NOTE: VILLA UNITS WILL BE 1-1/2 STORIES AND A MAXIMUM OF 25' IN HEIGHT

SETBACKS: FRONT: MIN. 5' (18' MINIMUM FROM R/W OR EDGE OF SIDEWALK TO GARAGE)
MAXIMUM - 25' MAXIMUM SETBACK
SIDE: MINIMUM - 5 FEET, UNLESS THE BUILDING SHARES A COMMON WALL
MAXIMUM - NONE
BUILDING SEPARATION: 10 FEET, UNLESS THE BUILDING SHARES A COMMON WALL
REAR: 20' MINIMUM AND NO MAXIMUM

SUBDIVISION STREETS: CURB & GUTTER

WATERSHED: LICKINGHOLE CREEK WATER SUPPLY WATERSHED

AGRICULTURAL/ FORESTAL DISTRICT: NONE

TOPO & SURVEY: TOPOGRAPHY PROVIDED BY A COMBINATION OF ROUDABUSH, GALE AND ASSOCIATES AND LOUISA AERIAL SURVEYS INC., JANUARY 2007. THE BOUNDARY LINE INFORMATION IS PROVIDED BY ROUDABUSH, GALE AND ASSOCIATES. INFORMATION FIELD VERIFIED BY COLLINS ENGINEERING IN DECEMBER OF 2018.

DATUM: NAD 83

EXISTING VEGETATION: LARGELY WOODED WITH SMALL OPEN SPACES & LIGHT UNDERBRUSH

LIGHTING: NO LIGHTING IS PROPOSED

PARKING: 2 OFF-STREET PARKING SPACES SHALL BE PROVIDED FOR EACH UNIT.
ON-STREET PARKING SHALL BE PROVIDED WHERE INDICATED ON SITE PLAN.
ONE GUEST PARKING SPACE IS REQUIRED FOR EVERY 4 UNITS.
TOTAL UNITS = 31 UNITS/4 = 8 GUEST PARKING SPACES REQUIRED
TOTAL ON STREET GUEST PARKING SPACES PROVIDED = 8 SPACES

PHASING: THE PROJECT WILL BE COMPLETED IN ONE PHASE. THE EROSION & SEDIMENT CONTROL PLAN IS SEPARATED INTO TWO PHASES.

BURIAL SITES: NO CEMETERIES WERE FOUND DURING A FIELD INVESTIGATION OF THE SITE.

STREAM BUFFERS: THE STREAM BUFFERS SHOWN HEREON SHALL BE MANAGED IN ACCORDANCE WITH THE ALBEMARLE COUNTY WATER PROTECTION ORDINANCE

RETAINING WALLS: A RETAINING WALL IS PROPOSED WITH THIS PLAN, SEE SHEET 5.

IMPERVIOUS AREAS:

Proposed Roadway	34,600 sf
Proposed Sidewalk	9,425 sf
Proposed Driveways	16,225 sf
Proposed Residences	58,550 sf
Proposed Emergency Access	9550

- NOTES:
- THIS PROPERTY DOES NOT LIE WITHIN AN AGRICULTURAL AND/OR FORESTAL DISTRICT.
 - ONLY (1) DWELLING PER LOT SHALL BE PERMITTED.
 - THIS PROJECT IS NOT LOCATED WITHIN FLOODPLAIN LIMITS, BASED ON FEMA MAP NUMBERS 51003C0229D ADOPTED FEBRUARY 4, 2005.
 - STREET TREES SHALL BE PROVIDED ALONG ALL THE PUBLIC STREETS 40' O.C. IN ACCORDANCE WITH VDOT AND ALBEMARLE COUNTY STANDARDS.
 - ITE TRIP GENERATION: TRAFFIC IMPACT NUMBERS ARE BASED ON THE ITE TRIP GENERATION MANUAL, 10TH EDITION. CODE 220 WAS USED FOR THE DEVELOPMENT
PROPOSED 31 DWELLING UNITS
ADT RATE - 7.32 VPD PER DU = 227 ADT (113.5 ENTER/113.5 EXIT)
AM PEAK RATE - 0.46 VPH PER DU = 14 VPH (3 ENTER/11 EXIT)
PM PEAK RATE - 0.56 VPH PER DU = 17 VPH (11 ENTER/6 EXIT)
 - ALL TRASH SHALL BE COLLECTED BY A DRIVING DUMPSTER SERVICE - EACH LOT SHALL HAVE AN INDIVIDUAL TRASH CONTAINER.
 - THIS PROPERTY IS NOT LOCATED WITHIN A DAM INUNDATION ZONE.
 - RETAINING WALLS GREATER THAN 3' IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT. WALLS EXCEEDING 4' IN HEIGHT REQUIRE A STAMPED ENGINEERED DESIGN. WALLS CROSSING LOT LINES REQUIRE AN EASEMENT.
 - ALL WATER LINES, SEWER LINES, AND FIRE LINES FROM THE MAIN TO THE STRUCTURE MUST HAVE A VISUAL INSPECTION PERFORMED BY THE BUILDING DEPARTMENT.

FOOTHILL CROSSING

PHASE V - ROAD PLAN

SUB2020-00021

WHITEHALL DISTRICT

ALBEMARLE COUNTY, VIRGINIA

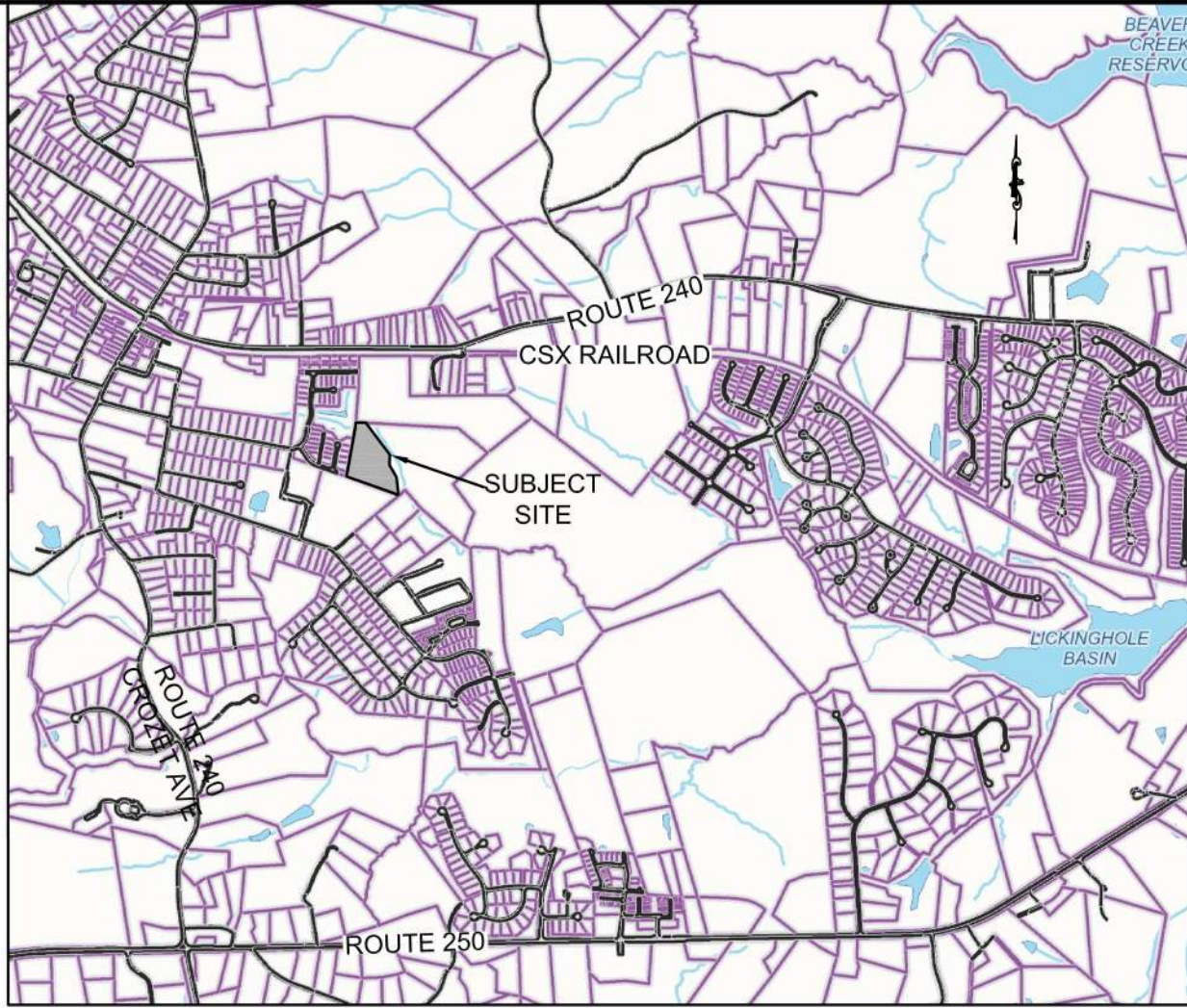


SHEET LAYOUT

SCALE: 1" = 60'

OVERALL ACREAGES	
TOTAL ACRES OF LOTS:	2.99 AC (51.2%)
TOTAL ACRES OF OPEN SPACE:	1.62 AC (27.8%)
TOTAL ACRES OF ROW:	1.23 AC (21.0%)

- GENERAL BUILDING DEPARTMENT NOTES:
- WHERE THE FLOOD LEVEL RIMS OF PLUMBING FIXTURES ARE BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER, THE FIXTURES SHALL BE PROTECTED BY A BACKWATER VALVE INSTALLED IN THE BUILDING DRAIN, BRANCH OF THE BUILDING DRAIN OR HORIZONTAL BRANCH SERVING SUCH FIXTURES. PLUMBING FIXTURES HAVING FLOOD LEVEL RIMS ABOVE THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER SHALL NOT DISCHARGE THROUGH A BACKWATER VALVE.
 - DUE TO REQUIRED DISTANCES FROM LOT LINES AND STRUCTURES AS REQUIRED BY THE NFPA, UNDERGROUND PROPANE TANKS MAY BE PROHIBITED. THE BUILDER/DEVELOPER SHALL PLAN ACCORDINGLY.



VICINITY MAP
SCALE: 1" = 2000'

ROADS		LEGEND	
	EXISTING CULVERT		EARTH DITCH
	CULVERT		DRIVEWAY CULVERT
	DROP INLET & STRUCTURE NO.		BENCH MARK
	CURB & GUTTER		CLEARING LIMITS
	PROPOSED PAVEMENT		EXISTING CONTOUR
	EC-3A DITCH		PROPOSED CONTOUR
	DEPTH OF EC-3A DITCH		VDOT STANDARD STOP SIGN
	EC-2 DITCH		PROPOSED SPOT ELEVATION
	DEPTH OF EC-2 DITCH		

FINAL SITE PLAN SHEET LIST	
Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING CONDITIONS
3	SITE PLAN
4	UTILITY PLAN
5	GRADING & DRAINAGE PLAN
6	ROAD PROFILES
7	STORM PROFILES
8	SANITARY PROFILES
9	NOTES & DETAILS
10	SITE UTILITY DETAILS
11	LANDSCAPING PLAN
12	DRAINAGE AREA PLAN & CALCULATIONS
13	CULVERT PLAN
TOTAL SHEETS	13

APPROVALS		DATE
DEPARTMENT OF COMMUNITY DEVELOPMENT		
PLANNER/ZONING		
ENGINEER		
INSPECTIONS		
ARB		
DEPARTMENT OF FIRE RESCUE		
ALBEMARLE COUNTY SERVICE AUTHORITY		
VIRGINIA DEPARTMENT OF TRANSPORTATION		
HEALTH DEPARTMENT		

COLLINS ENGINEERING IS NOT RESPONSIBLE OR LIABLE FOR ANY CONSTRUCTION OR DAMAGES TO THIS PROJECT PRIOR TO ALL FINAL PLAN APPROVALS.



REVISIONS

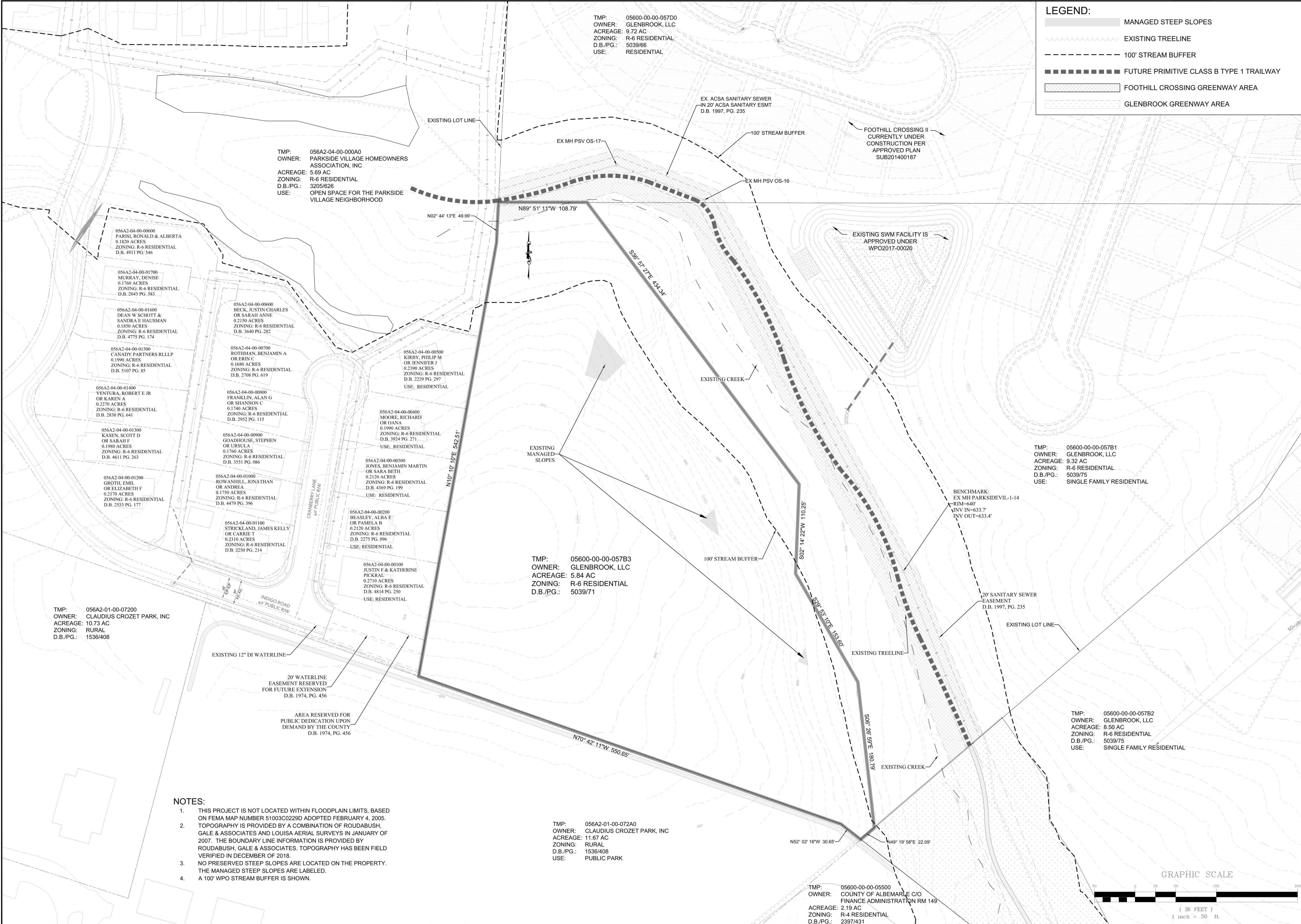
REVISION DESCRIPTION	DATE
INITIAL SUBMITTAL	1/30/20
SECOND SUBMISSION - RESUBMITTAL OF ROAD PLANS ADDRESSING CITY COMMENTS	3/30/20

COLLINS ENGINEERING

200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902 -434.293.3719

FOOTHILL CROSSING PHASE V - ROAD PLAN
COVER SHEET

PROJECT	JOB NO.
	112066
	SCALE
	AS SHOWN
	SHEET NO.
	1



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PROJECT

JOB NO. 112066

SCALE 1" = 50'

SHEET NO. 2

FOOTHILL CROSSING PHASE V - ROAD PLAN

EXISTING CONDITIONS

REVISIONS

DATE	REVISION DESCRIPTION
1/30/20	INITIAL SUBMITTAL
3/30/20	SECOND SUBMISSION - RESUBMITTAL OF ROAD PLANS ADDRESSING CITY COMMENTS

COMMONWEALTH OF VIRGINIA

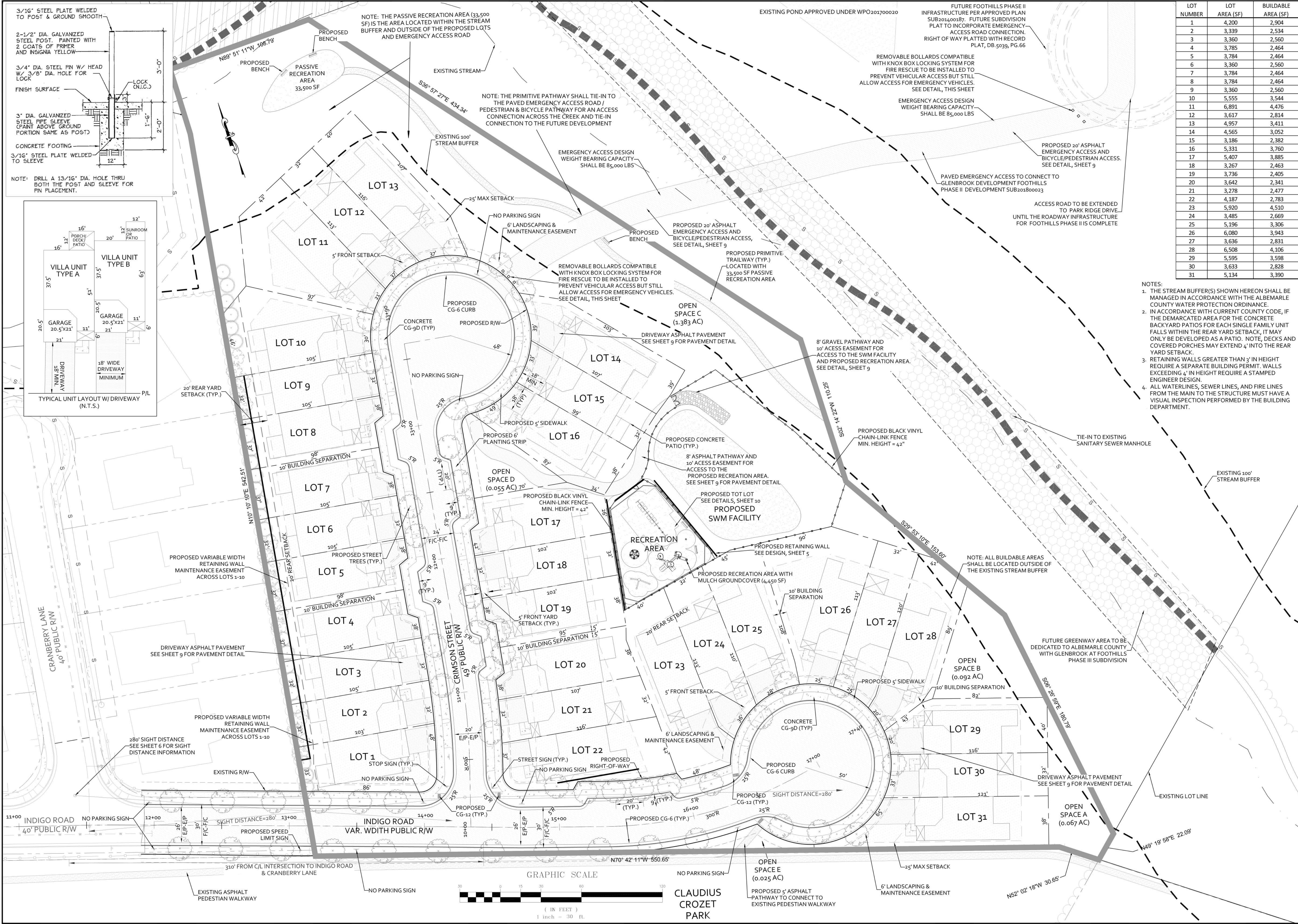
SCOTT R. COLLINS

Lic. No. 035791

03/30/20

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REVISIONS

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INITIAL SUBMITTAL	1/30/20
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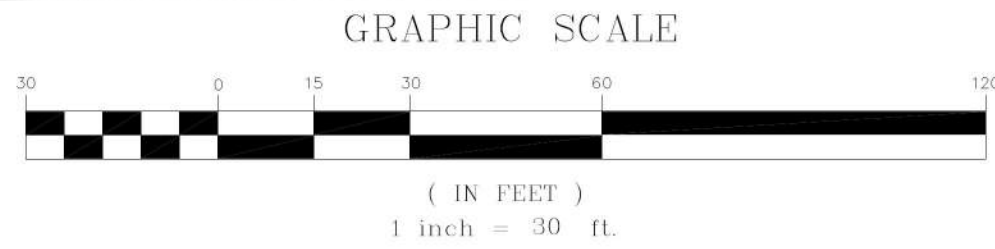
200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902-434.293.3719

FOOTHILL CROSSING PHASE V - ROAD PLAN
SITE PLAN

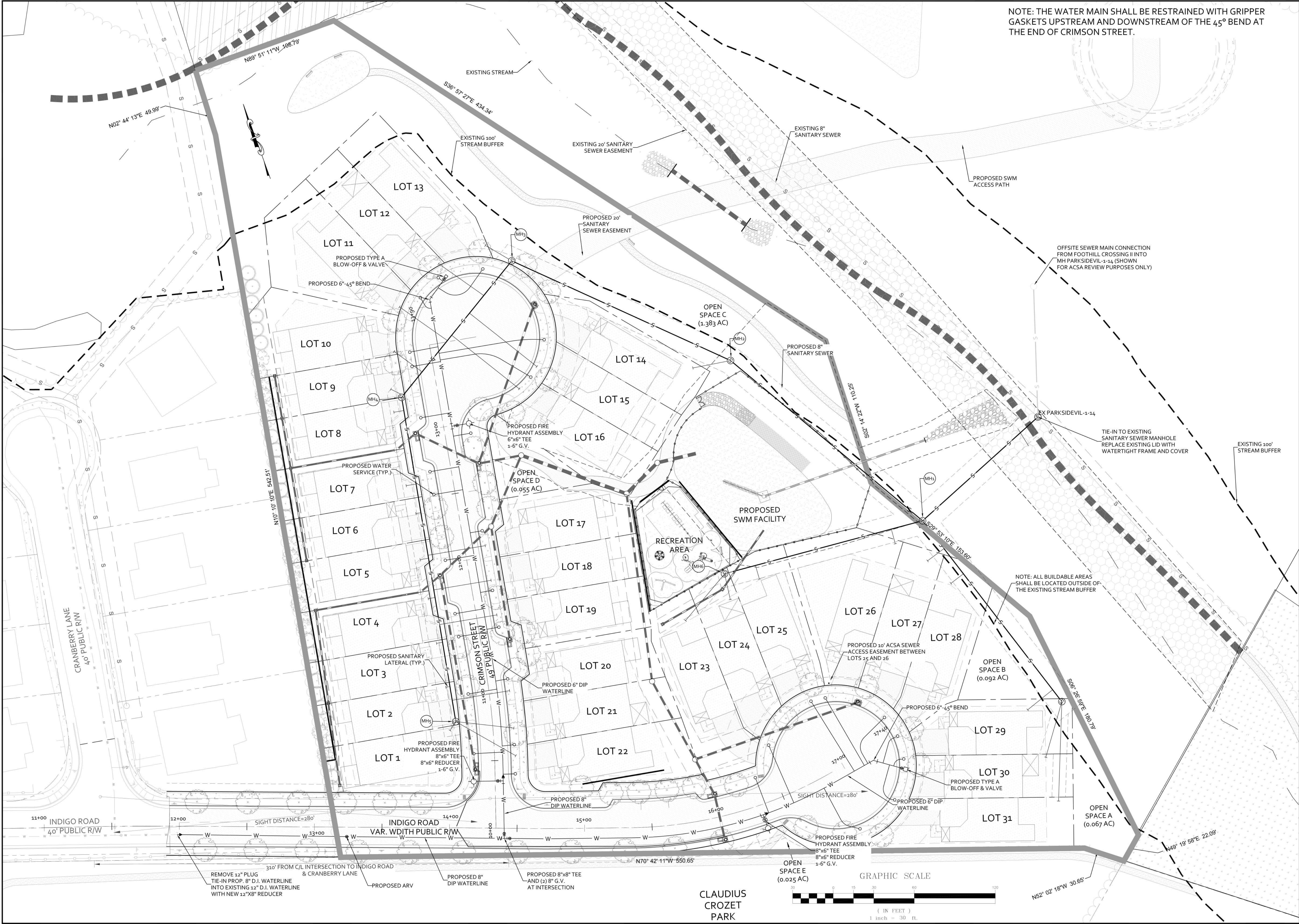
PROJECT	JOB NO.
	112066
SCALE	1" = 30'
SHEET NO.	3

LOT NUMBER	LOT AREA (SF)	BUILDABLE AREA (SF)
1	4,200	2,904
2	3,339	2,534
3	3,360	2,560
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27	3,636	2,831
28	6,508	4,106
29	5,595	3,598
30	3,633	2,828
31	5,134	3,390

- NOTES:
- THE STREAM BUFFER(S) SHOWN HEREON SHALL BE MANAGED IN ACCORDANCE WITH THE ALBEMARLE COUNTY WATER PROTECTION ORDINANCE.
 - IN ACCORDANCE WITH CURRENT COUNTY CODE, IF THE DEMARCATED AREA FOR THE CONCRETE BACKYARD PATIOS FOR EACH SINGLE FAMILY UNIT FALLS WITHIN THE REAR YARD SETBACK, IT MAY ONLY BE DEVELOPED AS A PATIO. NOTE, DECKS AND COVERED PORCHES MAY EXTEND 4' INTO THE REAR YARD SETBACK.
 - RETAINING WALLS GREATER THAN 3' IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT. WALLS EXCEEDING 4' IN HEIGHT REQUIRE A STAMPED ENGINEER DESIGN.
 - ALL WATER LINES, SEWER LINES, AND FIRE LINES FROM THE MAIN TO THE STRUCTURE MUST HAVE A VISUAL INSPECTION PERFORMED BY THE BUILDING DEPARTMENT.



CLAUDIUS CROZET PARK



NOTE: THE WATER MAIN SHALL BE RESTRAINED WITH GRIPPER GASKETS UPSTREAM AND DOWNSTREAM OF THE 45° BEND AT THE END OF CRIMSON STREET.



REVISIONS

DATE	REVISION DESCRIPTION
1/30/20	INITIAL SUBMITTAL
3/30/20	SECOND SUBMISSION - RESUBMITTAL OF ROAD PLANS ADDRESSING CITY COMMENTS

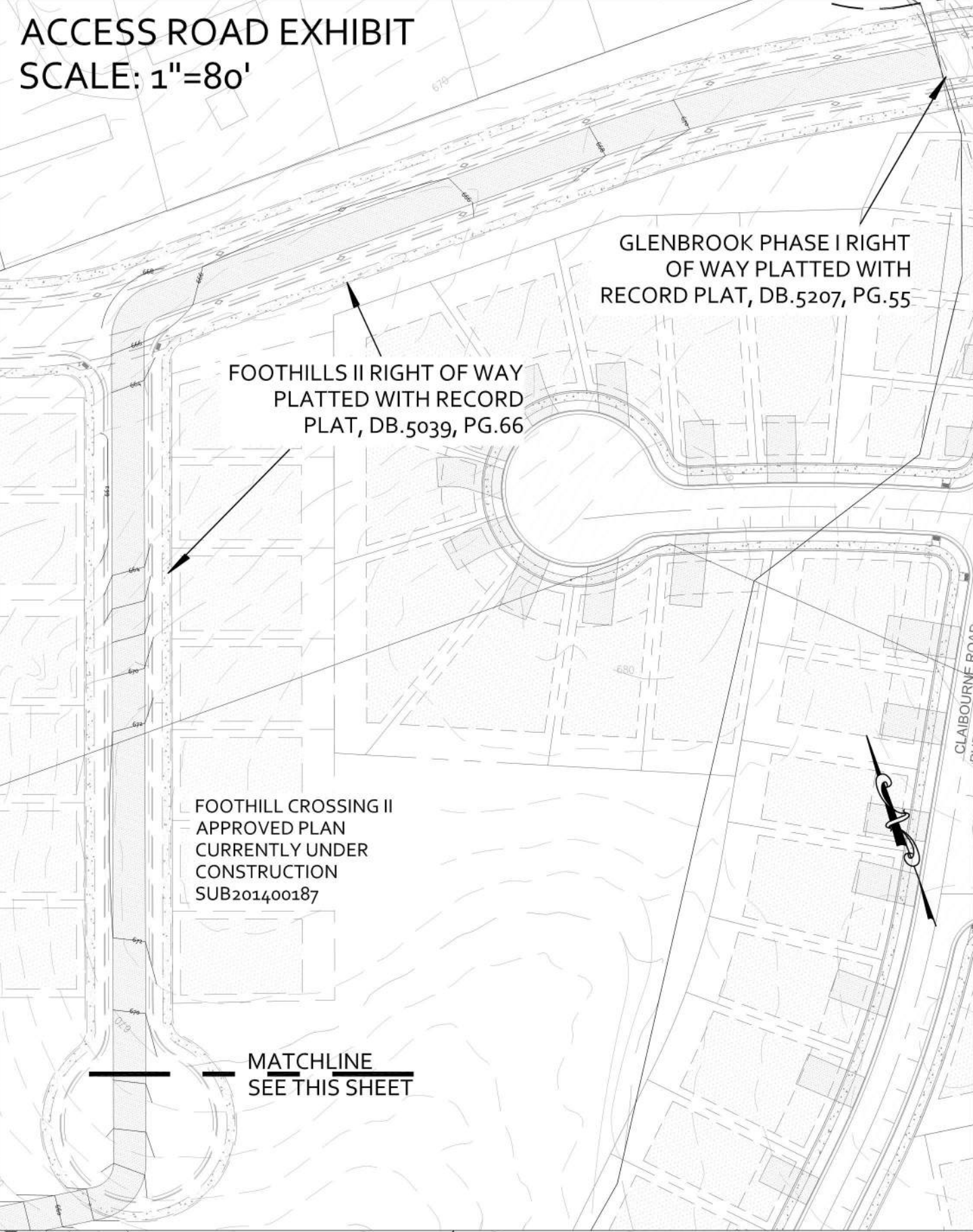
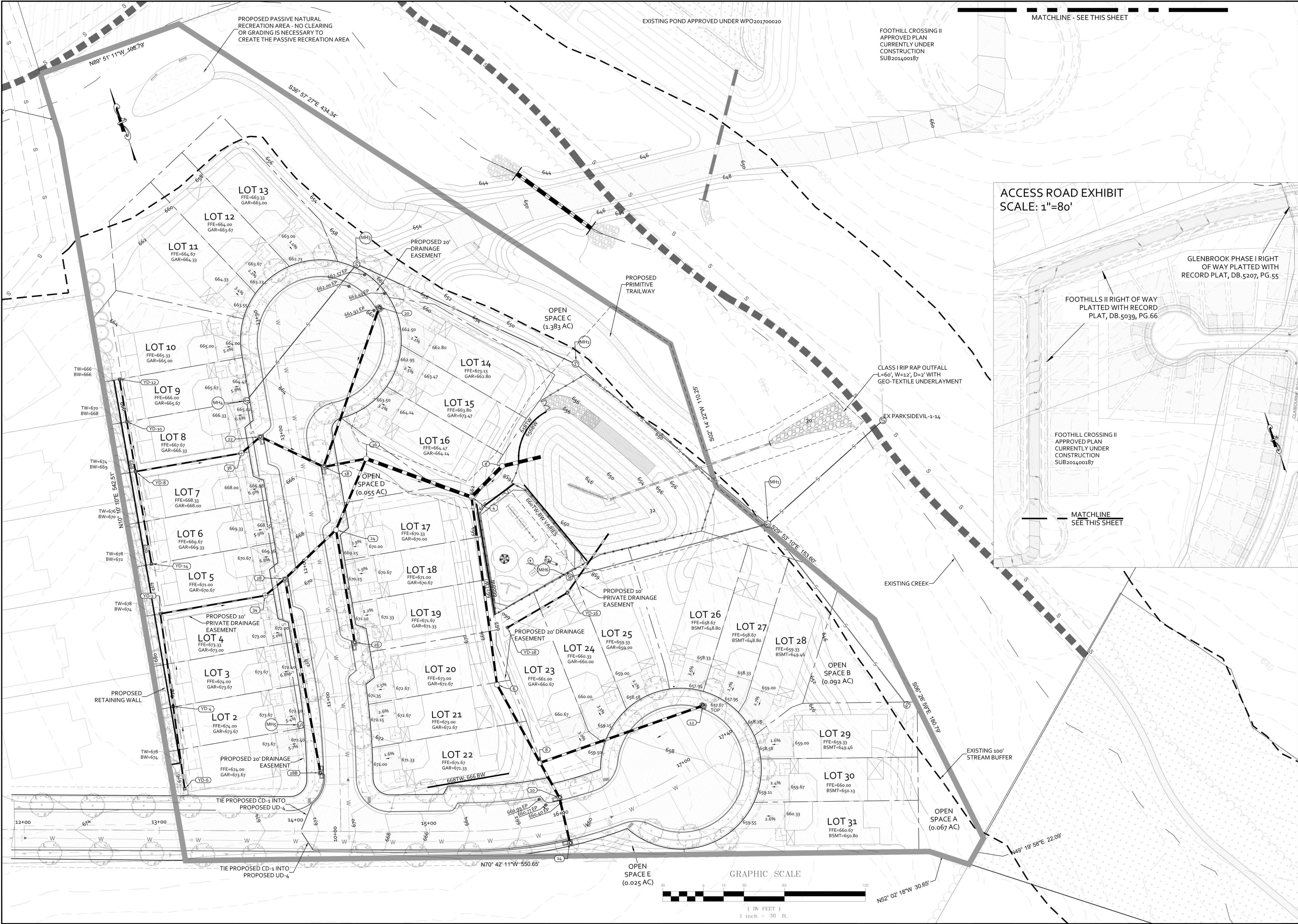
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FOOTHILL CROSSING PHASE V - ROAD PLAN
UTILITY PLAN

PROJECT	JOB NO.
112066	
SCALE	1" = 30'
SHEET NO.	4

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REVISIONS

DATE	REVISION DESCRIPTION
1/30/20	INITIAL SUBMITTAL
3/30/20	SECOND SUBMISSION - RESUBMITTAL OF ROAD PLANS ADDRESSING CITY COMMENTS

CE

COLLINS ENGINEERING

200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902-434.293.3719

PROJECT

JOB NO.

112066

SCALE

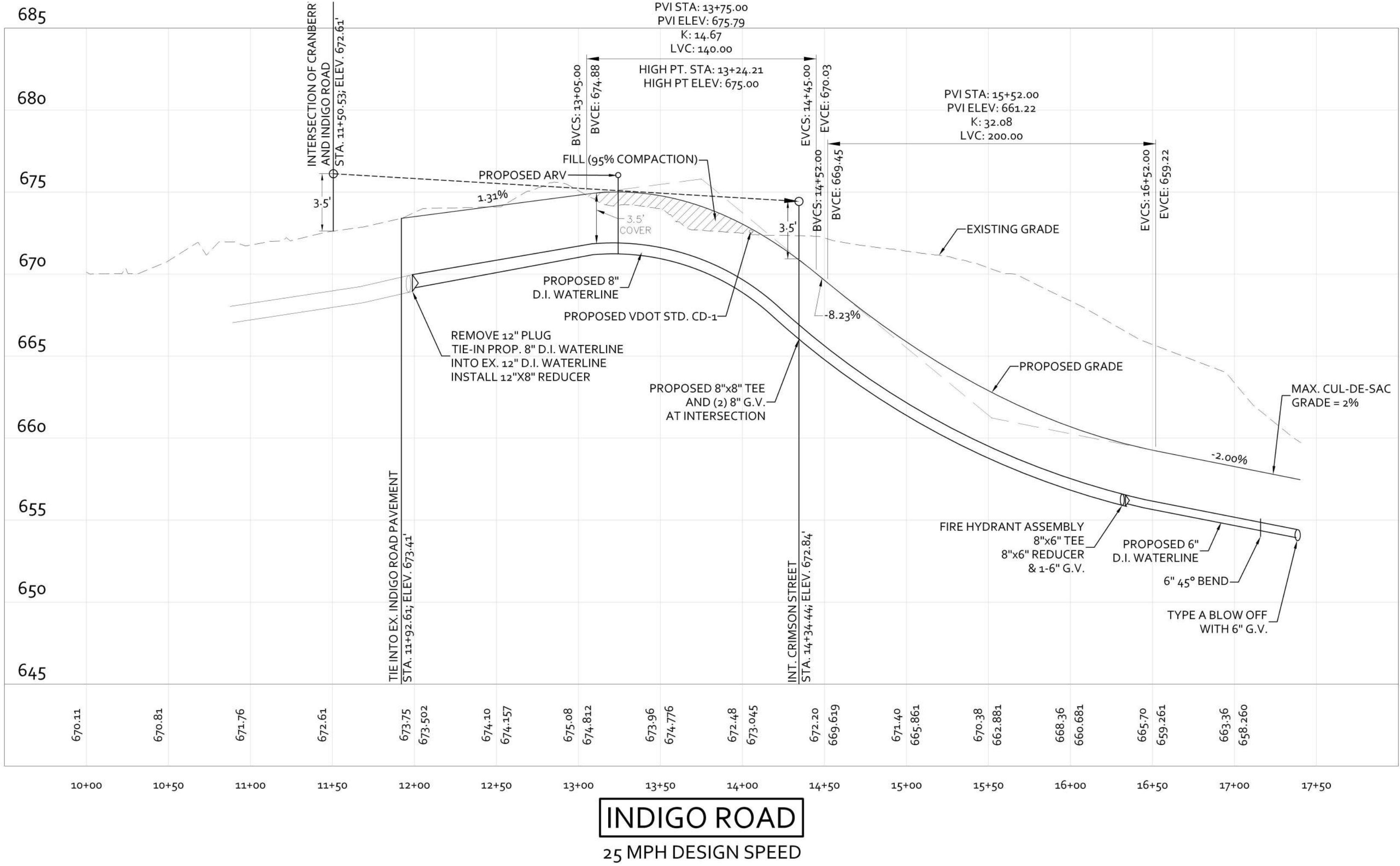
1" = 30'

SHEET

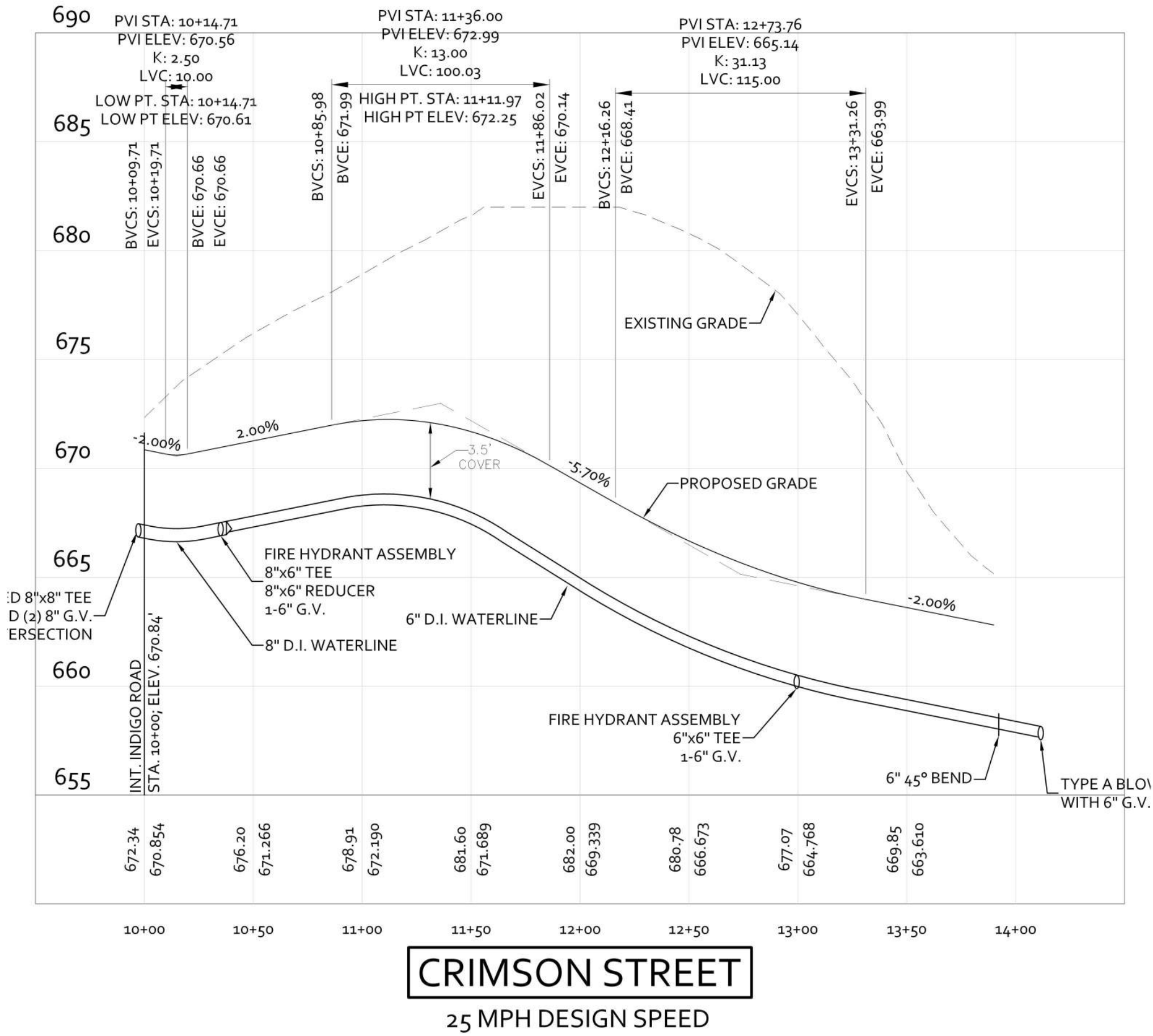
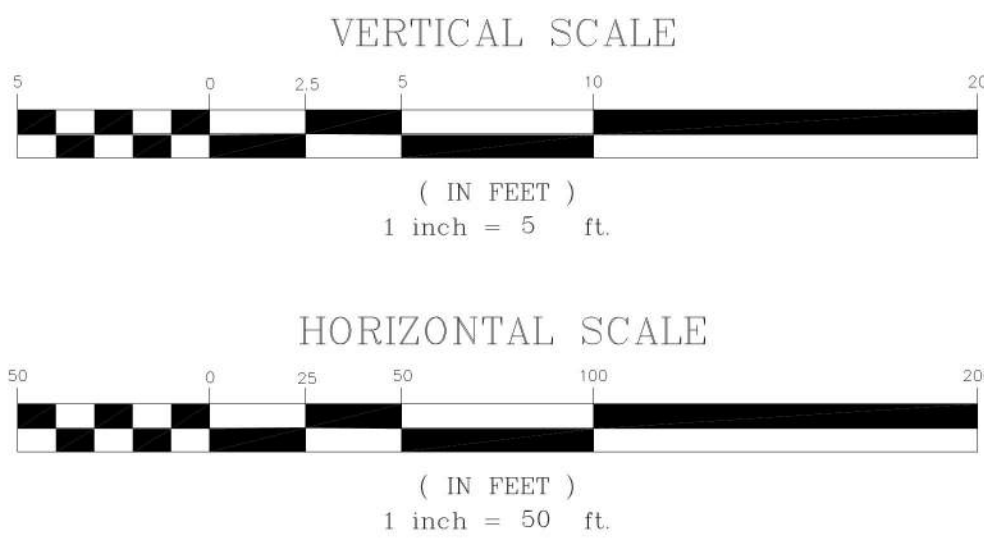
SHEET NO.

5

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- NOTES:
1. HDPE IS AN ACCEPTABLE SUBSTITUTE FOR ALL THE RCP PIPES AS SHOWN ON THE PROFILES (OTHER THAN THE CULVERT PIPES). ALL CULVERTS AND OUTFALLS FROM THE STORMWATER MANAGEMENT POND SHALL REMAIN RCP PIPES. A MINIMUM OF 2' COVER OVER STORM PIPES MUST BE PROVIDED.
 2. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST PREDOMINANTLY OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 8 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2007 ROAD AND BRIDGE SPECIFICATION 303.04.
 3. ALL FILL MUST MEET 95% COMPACTION.
 4. MINIMUM 3' OF COVER MUST BE MAINTAINED OVER SANITARY SEWER.
 5. MINIMUM 3' OF COVER MUST BE MAINTAINED OVER W/L
 6. MINIMUM 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L AND 1.5' OF SEPARATION BETWEEN W/L & SANITARY SEWER MUST BE PROVIDED.
 7. VDOT STD. IS-1 INLET SHAPING REQUIRED ON ALL STRUCTURES.
 8. VDOT STD. SL-1 SAFETY SLAB REQUIRED ON ALL STORM STRUCTURES GREATER THAN 12" DEEP.
 9. VDOT STD. ST-1 STEPS REQUIRED ON ALL STRUCTURES 4' DEEP OR GREATER.



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200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902 -434.293.3719

FOOTHILL CROSSING PHASE V - ROAD PLAN
ROAD PROFILES

PROJECT	JOB NO.
	112066
SCALE	AS NOTED
SHEET NO.	6

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FOOTHILL CROSSING PHASE V - ROAD PLAN

STORM PROFILES

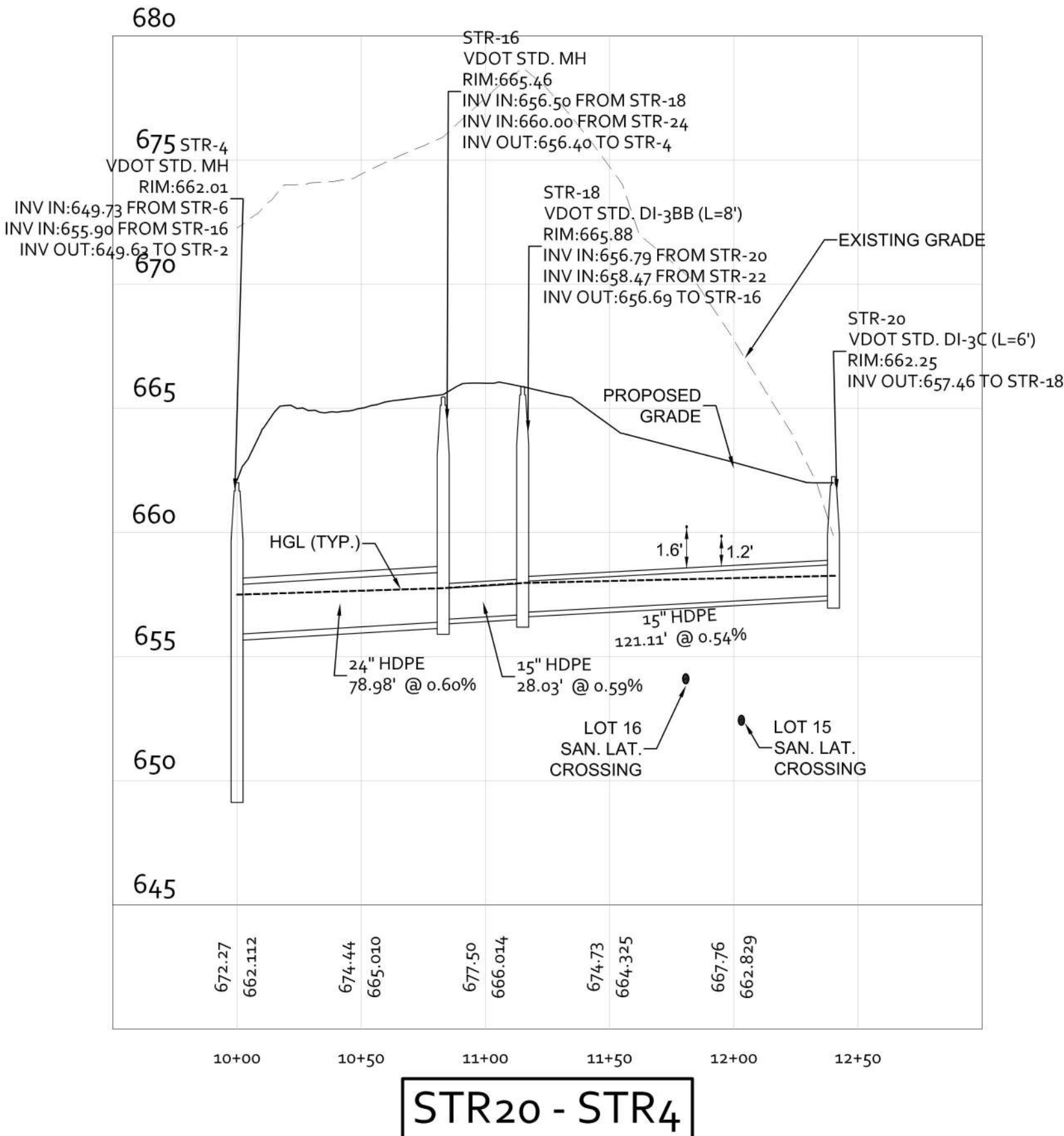
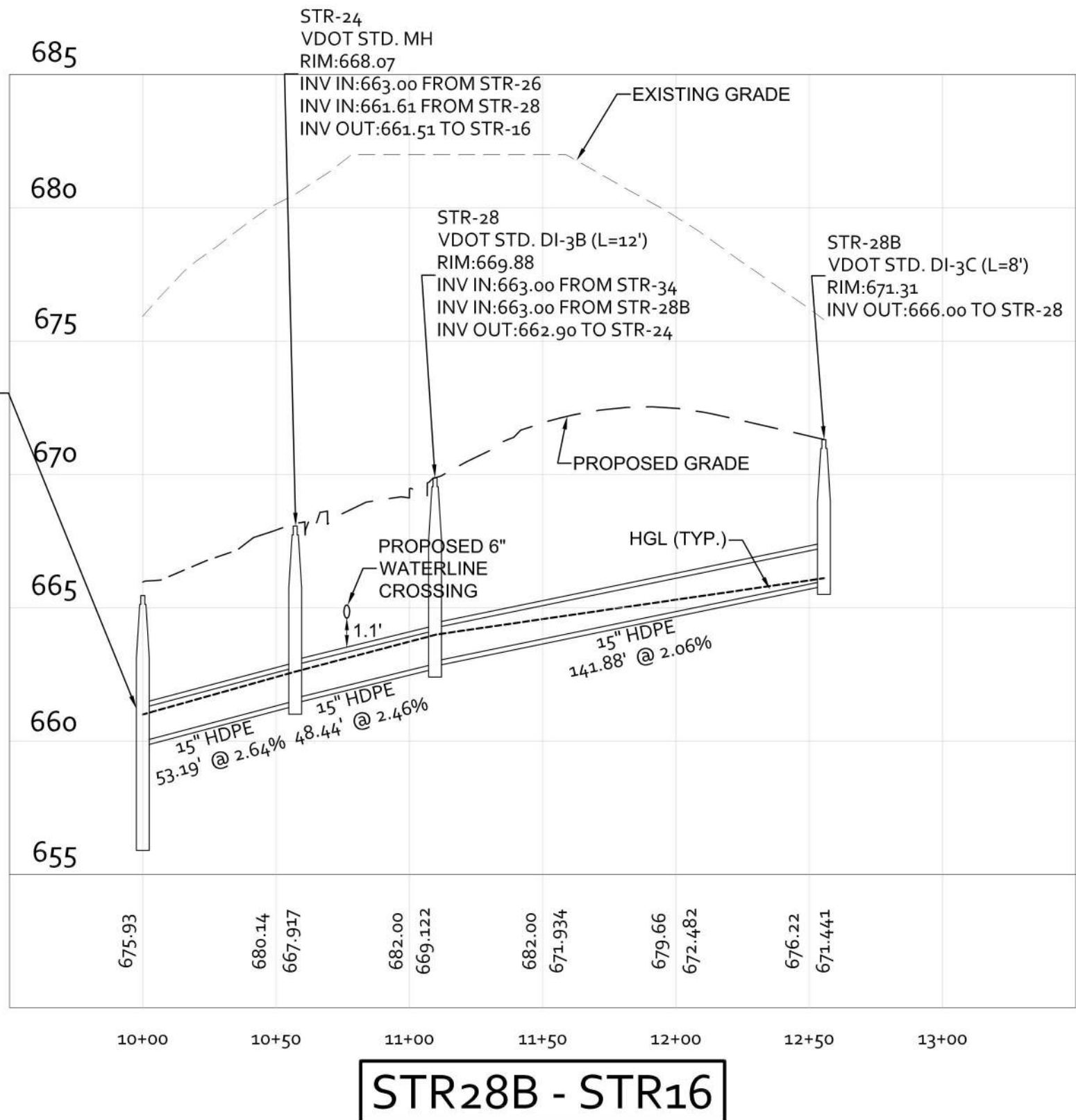
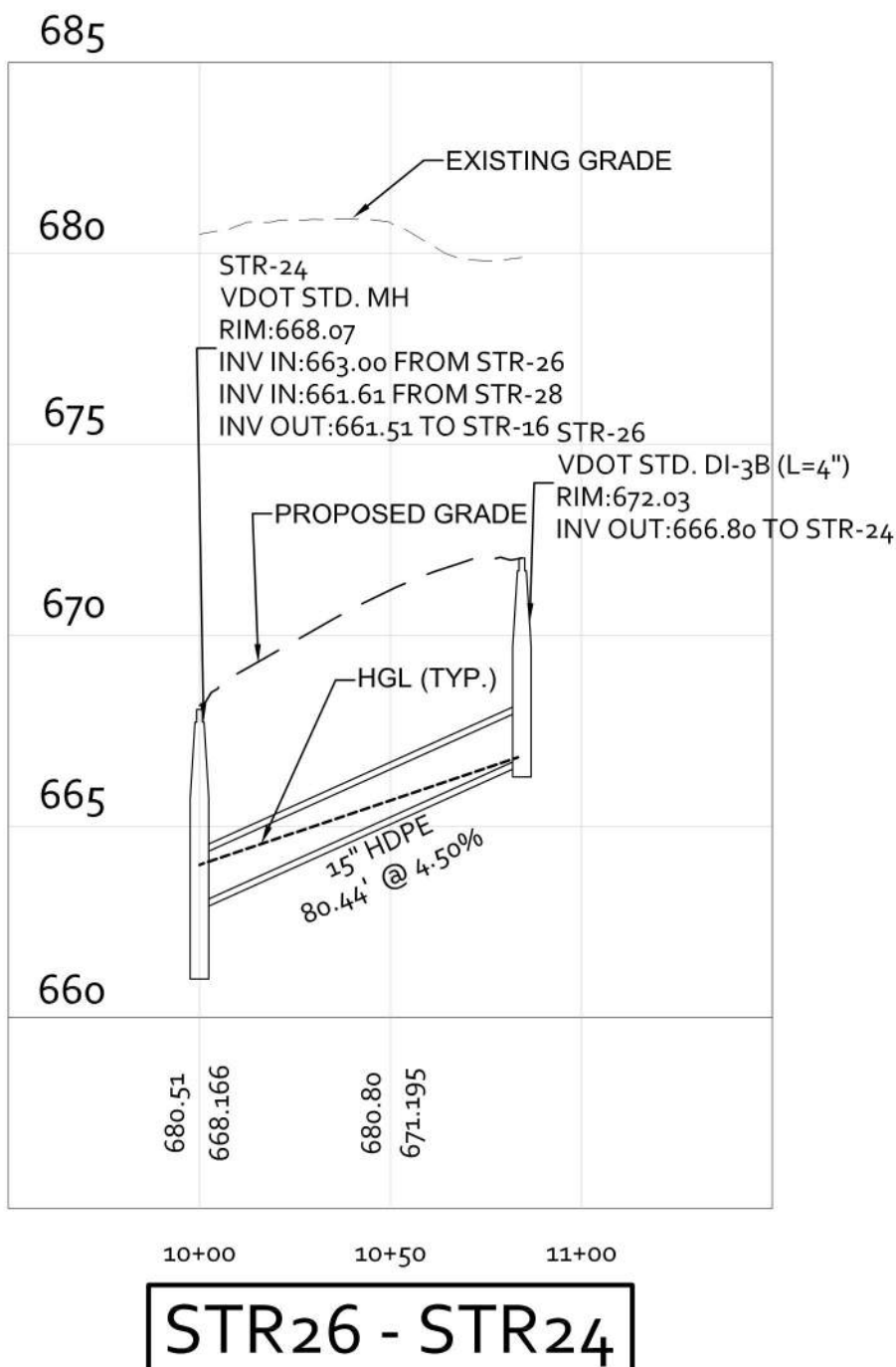
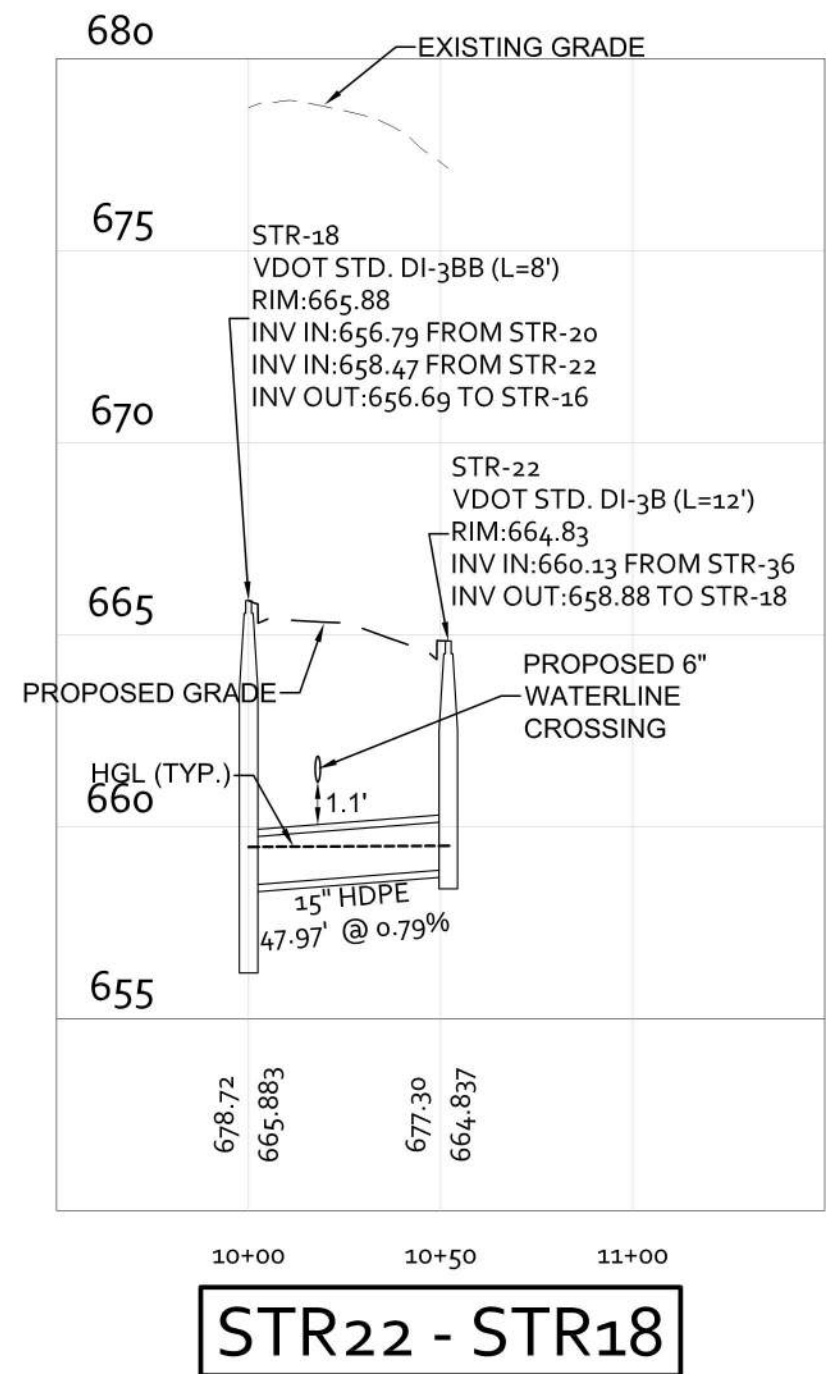
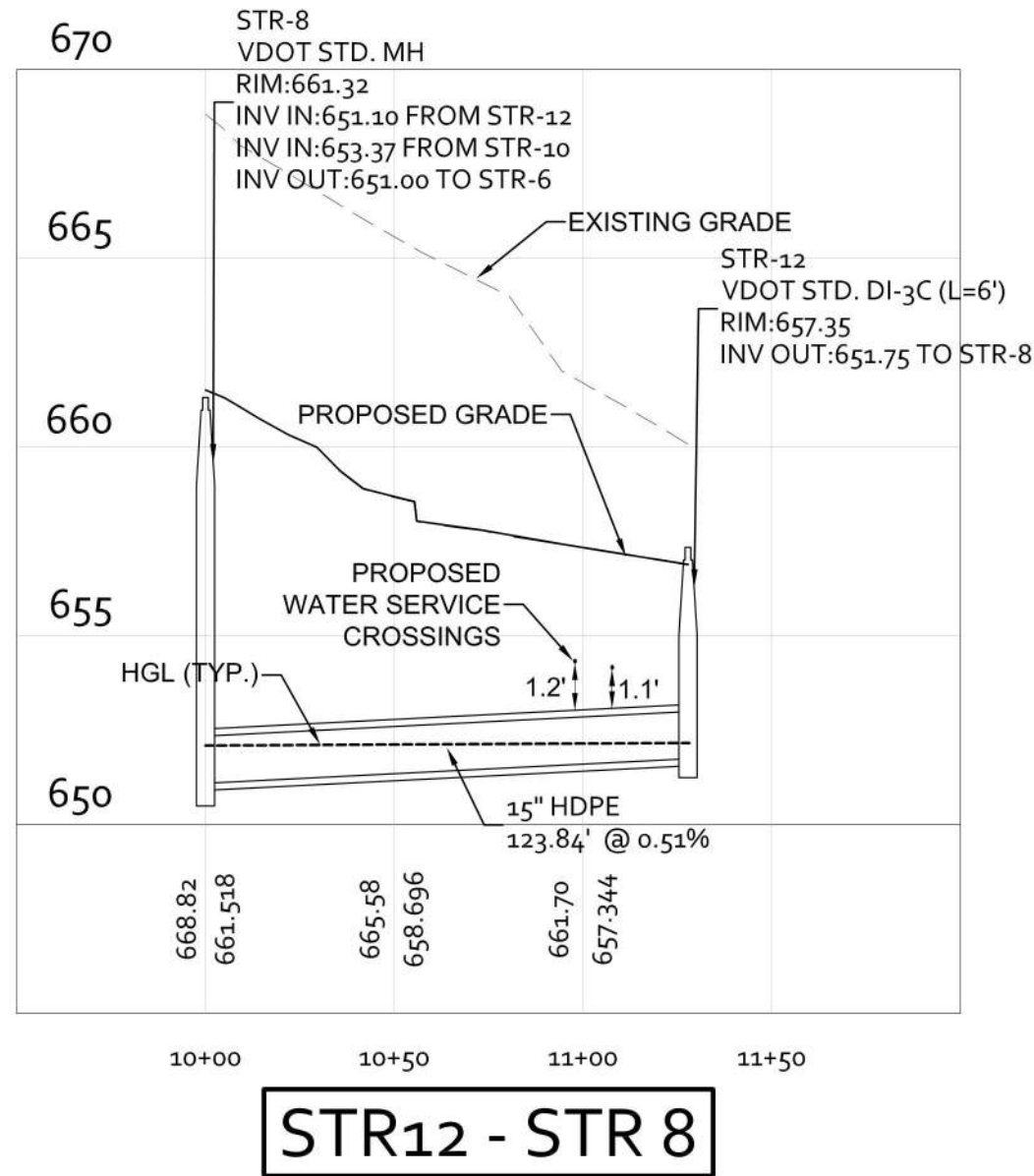
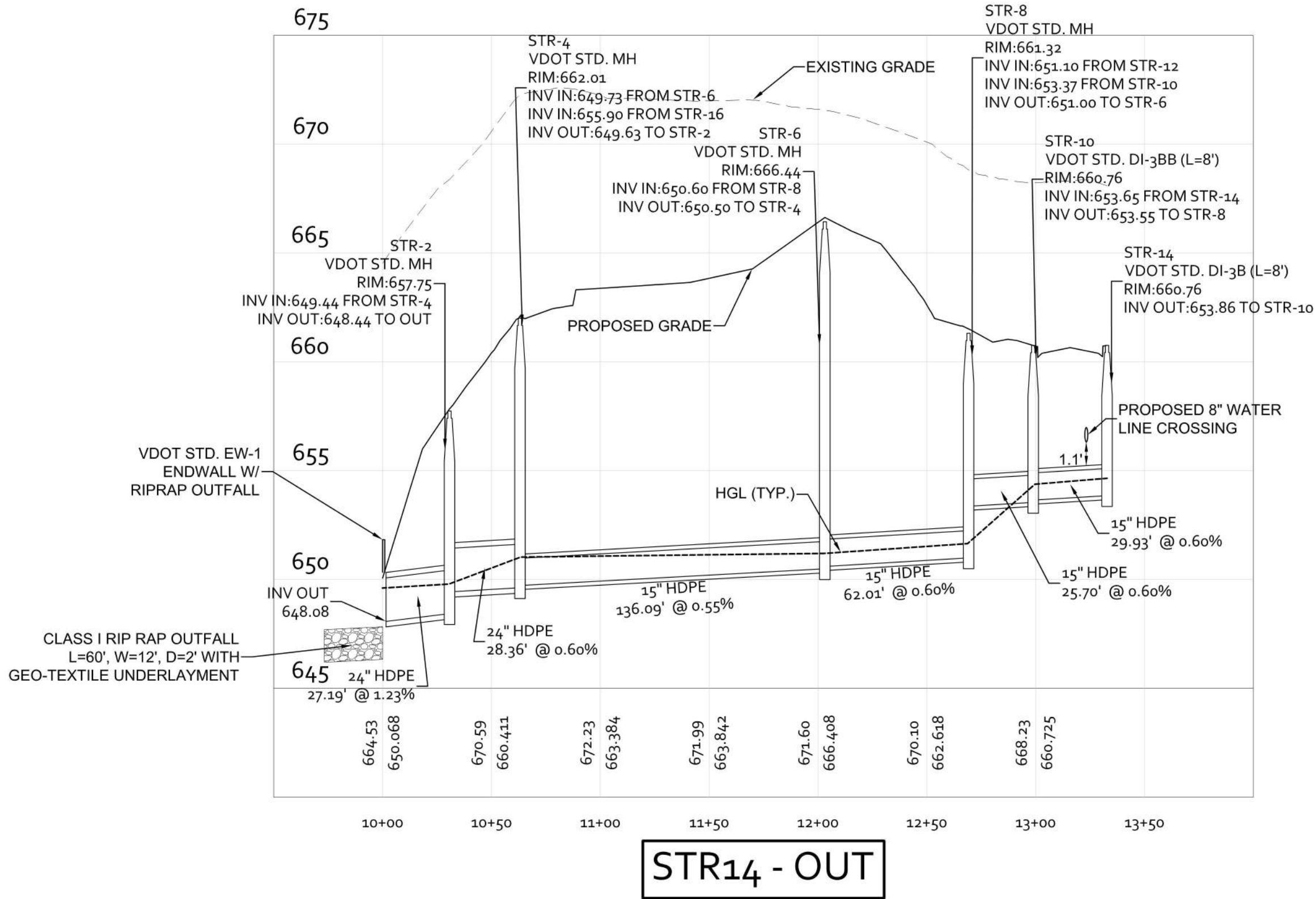
PROJECT

JOB NO.
112066

SCALE
AS NOTED

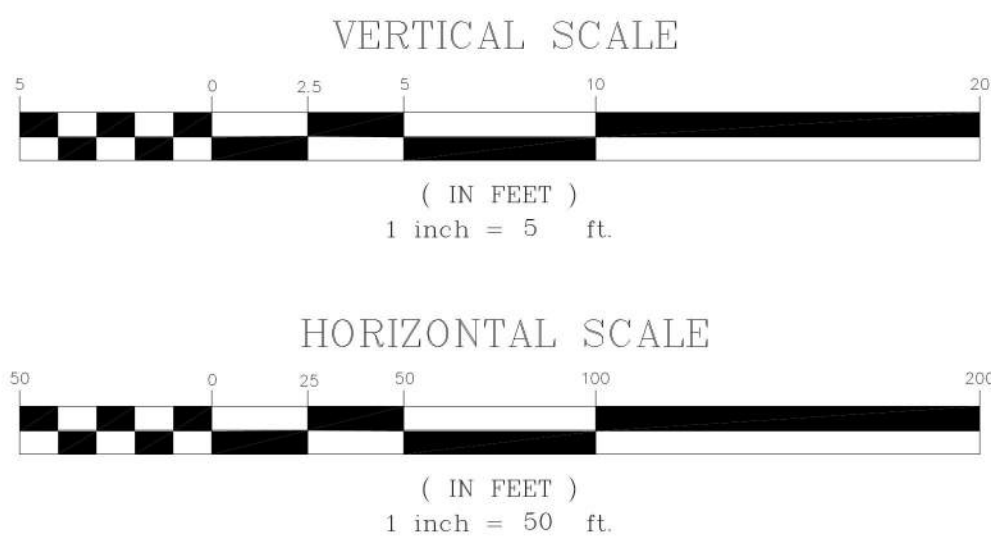
SHEET NO.
7

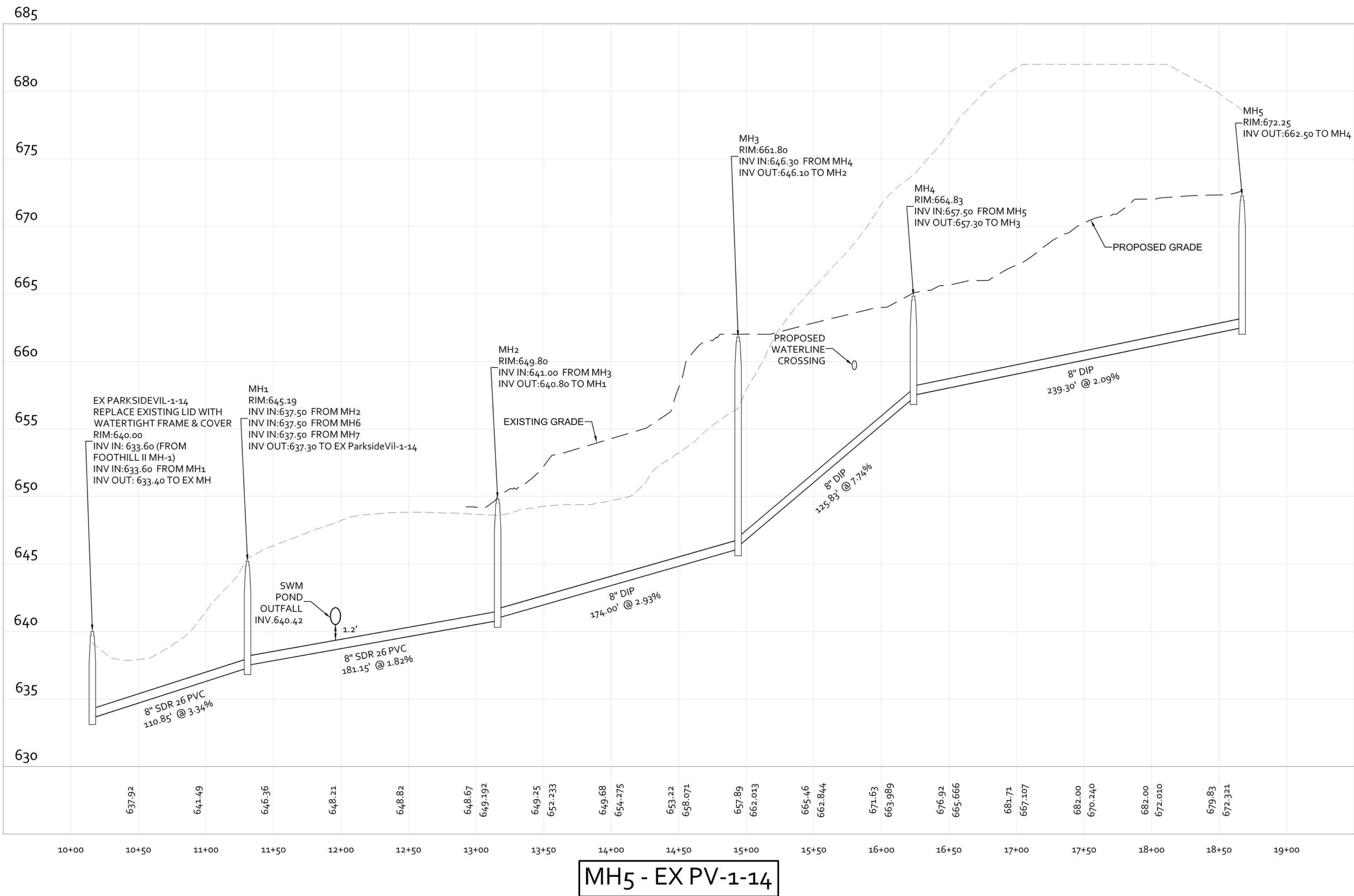
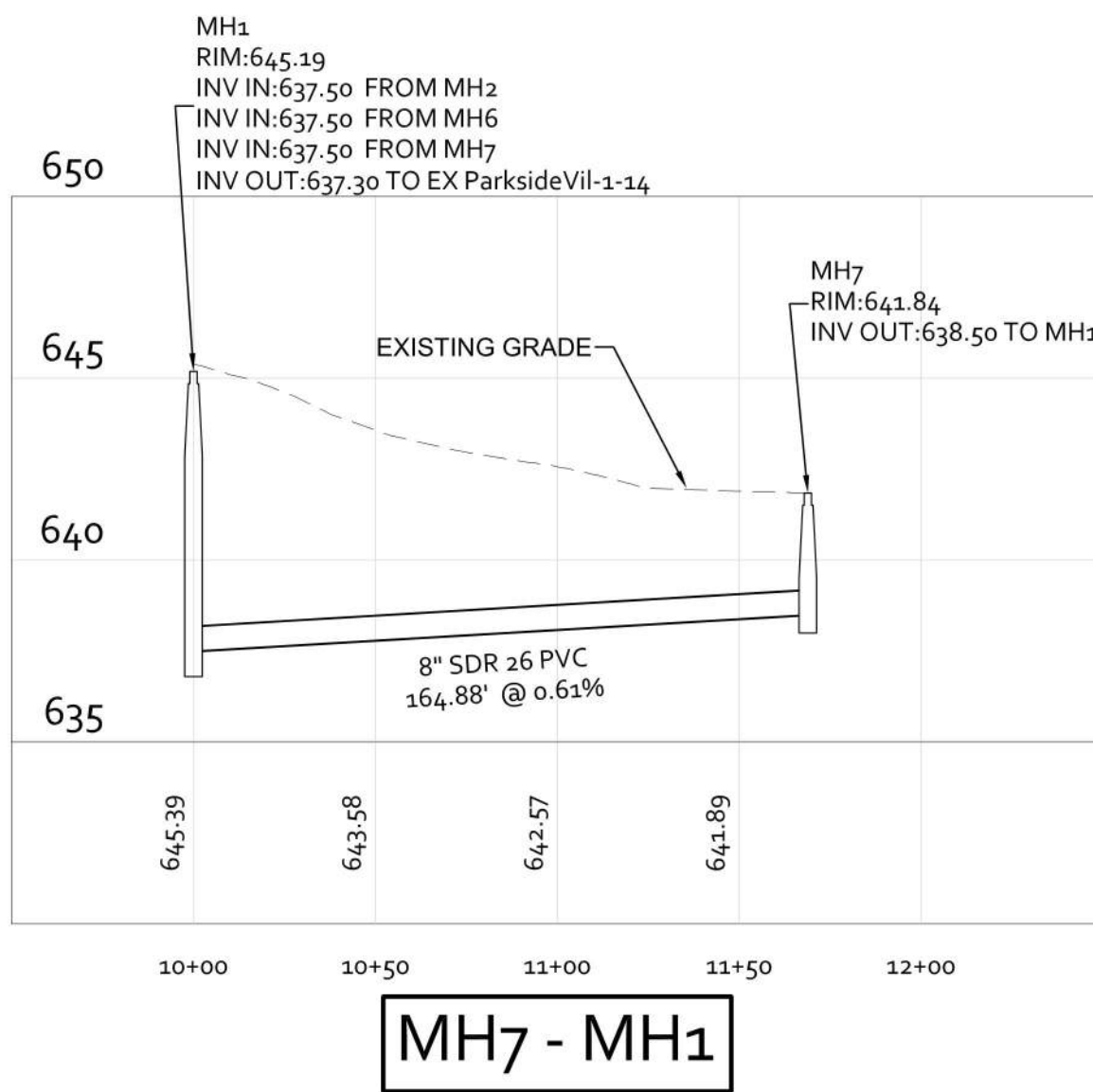
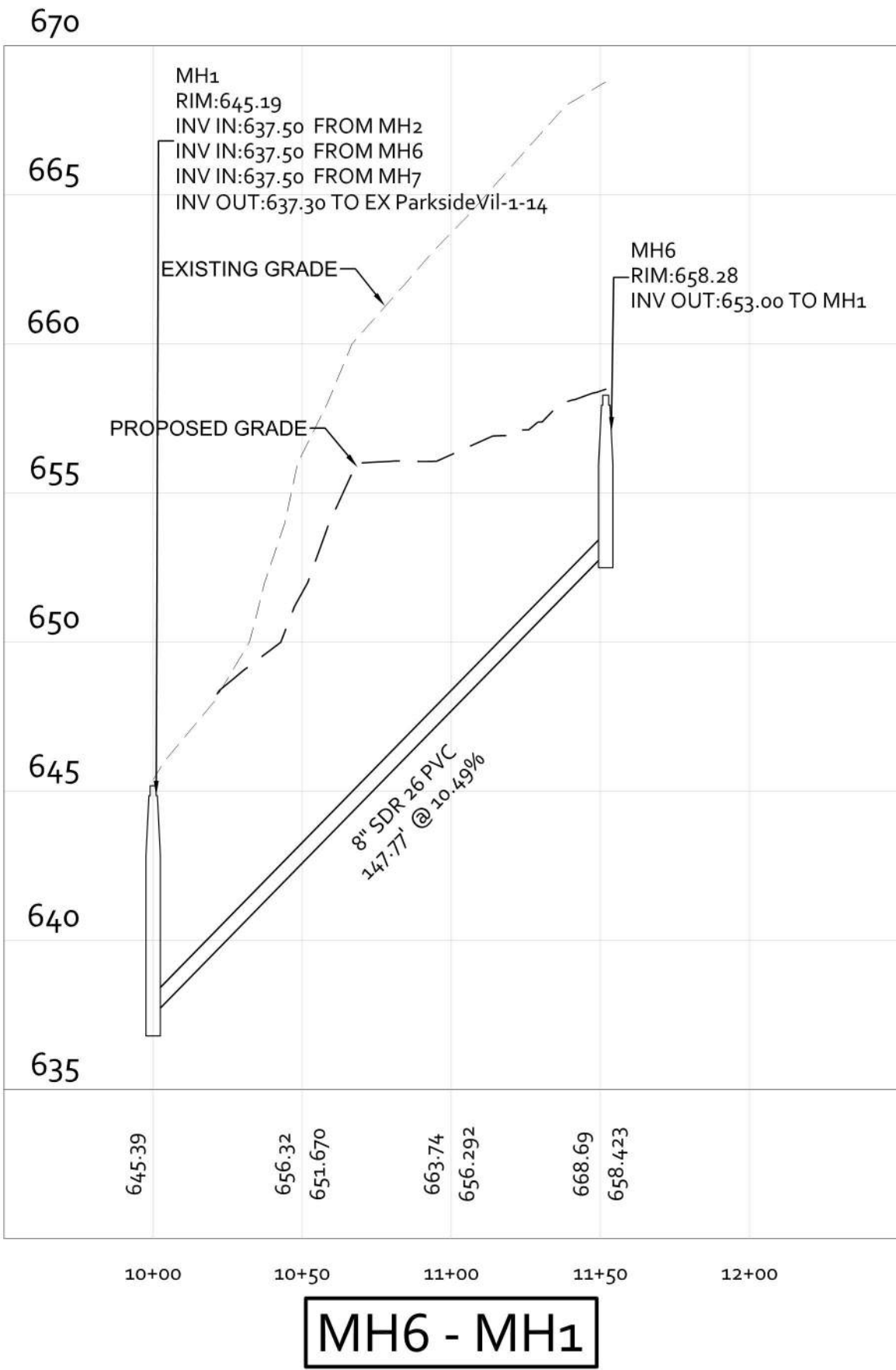
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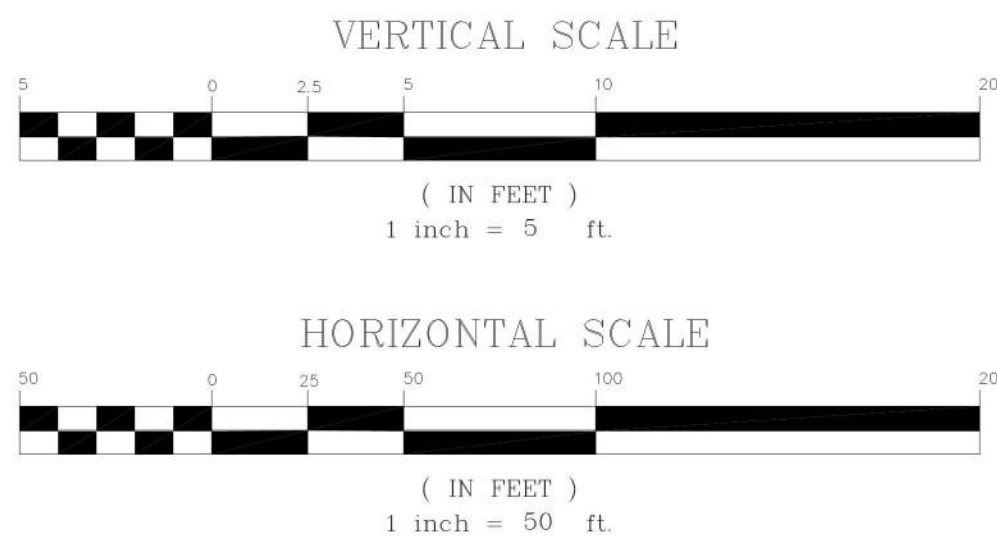
NOTES:

1. MINIMUM 3' OF COVER MUST BE MAINTAINED OVER SANITARY SEWER.
2. MINIMUM 3' OF COVER MUST BE MAINTAINED OVER W/L
3. MINIMUM 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L AND 1.5' OF SEPARATION BETWEEN W/L & SANITARY SEWER MUST BE PROVIDED.
4. THE DUCTILE IRON WATERLINES SHALL BE WRAPPED IN POLYETHYLENE ENCASEMENT IF NEEDED BASED ON SOIL CONDITIONS, WHICH WILL BE TESTED AND INSPECTED DURING THE CONSTRUCTION PROCESS.





- NOTES:
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COLLINS ENGINEERING

200 GARRETT STREET, SUITE K.-CHARLOTTESVILLE, VA 22902-434,293.3719

FOOTHILL CROSSING PHASE V - ROAD PLAN

SANITARY PROFILES

PROJECT	JOB NO.
	112066
SCALE	AS NOTED
SHEET NO.	8

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GENERAL CONSTRUCTION NOTES FOR STREETS

1. CONSTRUCTION INSPECTION OF ALL PROPOSED ROADS WITHIN THE DEVELOPMENT WILL BE MADE BY THE COUNTY. THE CONTRACTOR MUST NOTIFY THE DEPARTMENT OF COMMUNITY DEVELOPMENT (296-5832) 48 HOURS IN ADVANCE OF THE START OF CONSTRUCTION.
2. UPON COMPLETION OF FINE GRADING AND PREPARATION OF THE ROADBED SUBGRADE, THE CONTRACTOR SHALL HAVE CBR TESTS PERFORMED ON THE SUBGRADE SOIL. THREE (3) COPIES OF THE TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY. IF A SUBGRADE SOIL CBR OF 10 OR GREATER IS NOT OBTAINABLE, A REVISED PAVEMENT DESIGN SHALL BE MADE BY THE DESIGN ENGINEER AND SUBMITTED WITH THE TEST RESULTS FOR APPROVAL.
3. SURFACE DRAINAGE AND PIPE DISCHARGE MUST BE RETAINED WITHIN THE PUBLIC RIGHT-OF-WAY OR WITHIN EASEMENTS PRIOR TO ACCEPTANCE BY THE COUNTY. ALL DRAINAGE OUTFALL EASEMENTS ARE TO BE EXTENDED TO A BOUNDARY LINE OR A NATURAL WATERCOURSE.
4. GUARDRAIL LOCATIONS ARE APPROXIMATE. EXACT LENGTH, LOCATION AND APPROPRIATE END TREATMENTS WILL BE FIELD VERIFIED AT THE TIME OF CONSTRUCTION. ADDITIONAL GUARDRAIL MAY BE REQUIRED AT LOCATIONS NOT SHOWN WHEN, IN THE OPINION OF THE COUNTY ENGINEER, OR DESIGNEE, IT IS DEEMED NECESSARY. WHEN GUARDRAIL IS REQUIRED, IT SHALL BE INSTALLED FOUR (4) FEET OFFSET FROM THE EDGE OF PAVEMENT TO THE FACE OF GUARDRAIL, AND ROADWAY SHOULDER WIDTHS SHALL BE INCREASED TO SEVEN (7) FEET.
5. WHERE URBAN CROSS SECTIONS ARE INSTALLED, ALL RESIDENTIAL DRIVEWAY ENTRANCES SHALL CONFORM TO VDOT CG-9(A, B OR C).
6. WHERE RURAL CROSS SECTIONS ARE INSTALLED, ALL RESIDENTIAL DRIVEWAY ENTRANCES SHALL CONFORM TO VDOT STANDARD PE-1.
7. COMPLIANCE WITH THE MINIMUM PAVEMENT WIDTH, SHOULDER WIDTH AND DITCH SECTIONS, AS SHOWN ON THE TYPICAL PAVEMENT SECTION DETAIL, SHALL BE STRICTLY ADHERED TO.
8. ROAD PLAN APPROVAL FOR SUBDIVISIONS IS SUBJECT TO FINAL SUBDIVISION PLAT VALIDATION. SHOULD THE FINAL PLAT FOR THIS PROJECT EXPIRE PRIOR TO SIGNING AND RECORDATION, THEN APPROVAL OF THESE PLANS SHALL BE NULL AND VOID.
9. ALL SIGNS OR OTHER REGULATORY DEVICES SHALL CONFORM WITH THE VIRGINIA MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES AND THE ALBEMARLE COUNTY ROAD NAMING AND PROPERTY NUMBERING ORDINANCE AND MANUAL.
10. TRAFFIC CONTROL OR OTHER REGULATORY SIGNS OR BARRICADES SHALL BE INSTALLED BY THE DEVELOPER WHEN, IN THE OPINION OF THE COUNTY ENGINEER, OR DESIGNEE, THEY ARE DEEMED NECESSARY IN ORDER TO PROVIDE SAFE AND CONVENIENT ACCESS.
11. THE SPEED LIMITS TO BE POSTED ON SPEED LIMIT SIGNS ARE 5 MPH BELOW THE DESIGN SPEED, OR AS DETERMINED BY VDOT FOR PUBLIC ROADS.
12. VDOT STANDARD CD-1 OR CD-2 CROSS-DRAINS UNDER TO BE INSTALLED UNDER THE SUBBASE MATERIAL AT ALL CUT AND FILL TRANSITIONS AND GRADE SAG POINTS AS SHOWN ON THE ROAD PROFILES.
13. A VIDEO CAMERA INSPECTION IS REQUIRED FOR ALL STORM SEWERS AND CULVERTS THAT ARE DEEMED INACCESSIBLE TO VDOT OR COUNTY INSPECTIONS. THE VIDEO INSPECTION SHALL BE CONDUCTED IN ACCORDANCE WITH VDOT'S VIDEO CAMERA INSPECTION PROCEDURE AND WITH A VDOT OR COUNTY INSPECTOR PRESENT.

ROAD NOTES

GRADING:

1. THE LATEST EDITION OF THE ROAD & BRIDGE SPECIFICATIONS, THE ROAD & BRIDGE STANDARDS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS SHALL GOVERN THE MATERIAL AND CONSTRUCTION METHODS OF THIS PROJECT.
2. WHERE UNSUITABLE MATERIAL IS ENCOUNTERED IN THE ROADWAY, IT SHALL BE REMOVED FROM THE ENTIRE ROAD RIGHT OF WAY WIDTH AND REPLACED WHERE NECESSARY WITH SUITABLE MATERIAL TO THE SATISFACTION OF THE ENGINEER.
3. ALL GROWTH OF TREES AND VEGETATION SHALL BE CLEARED AND GRUBBED FOR THE ENTIRE EASEMENT. OTHER TREES AND VEGETATION WHICH OBSTRUCT SIGHT DISTANCES AT ROAD INTERSECTIONS SHALL BE REMOVED.
4. ALL VEGETATION AND OVERBURDEN TO BE REMOVED FROM SHOULDER TO SHOULDER PRIOR TO THE CONSTRUCTION OF THE SUBGRADE.

DRAINAGE:

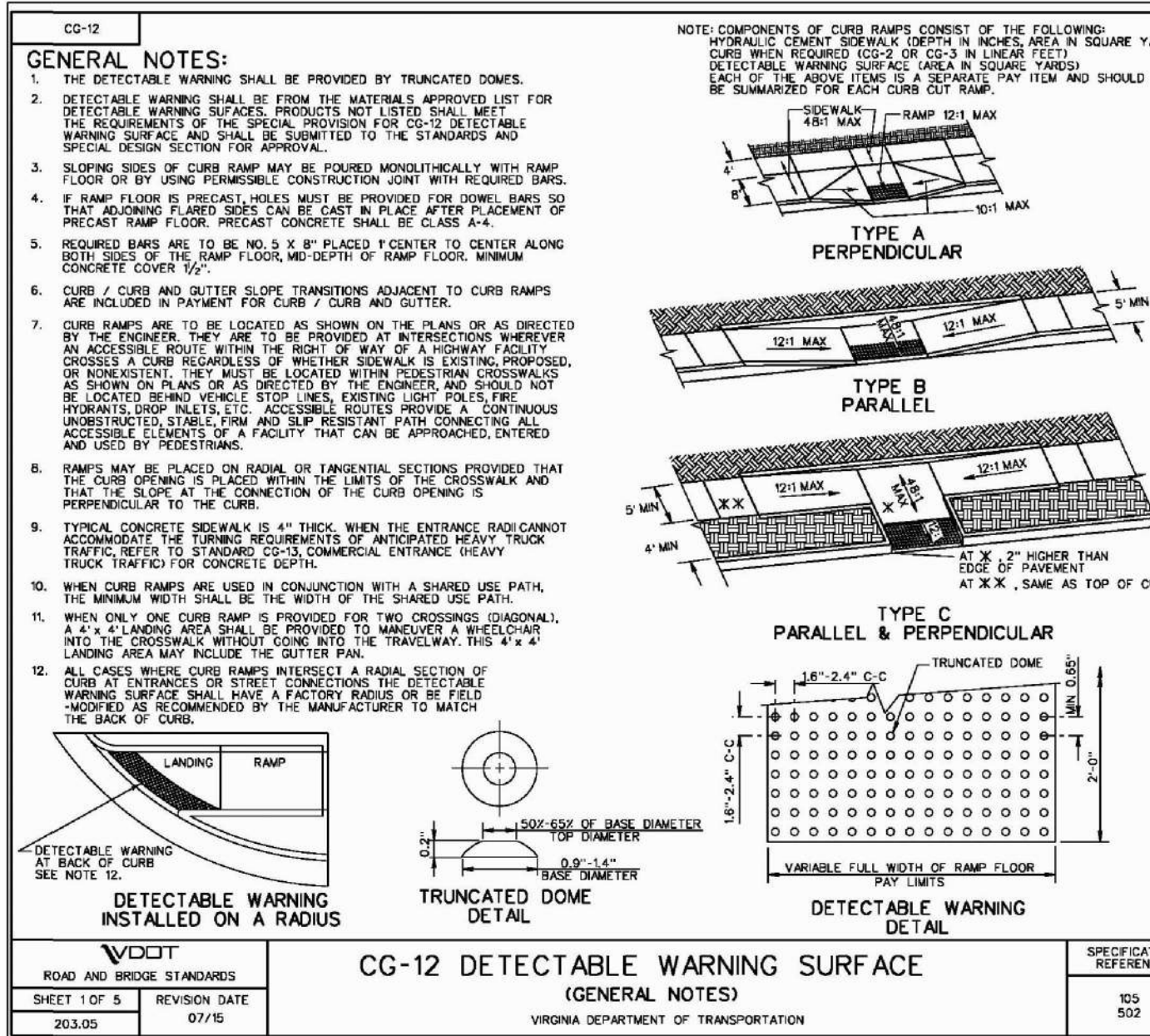
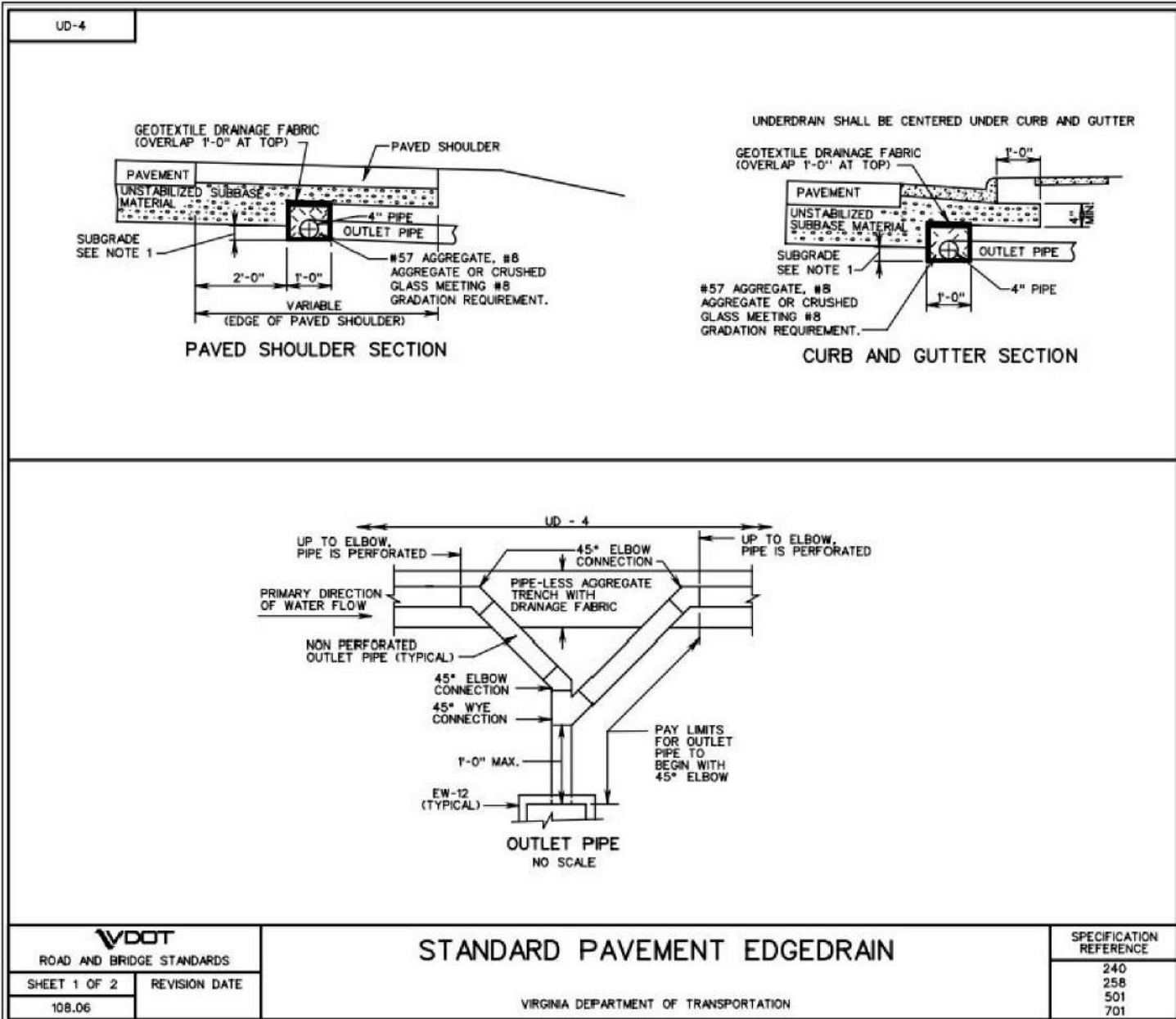
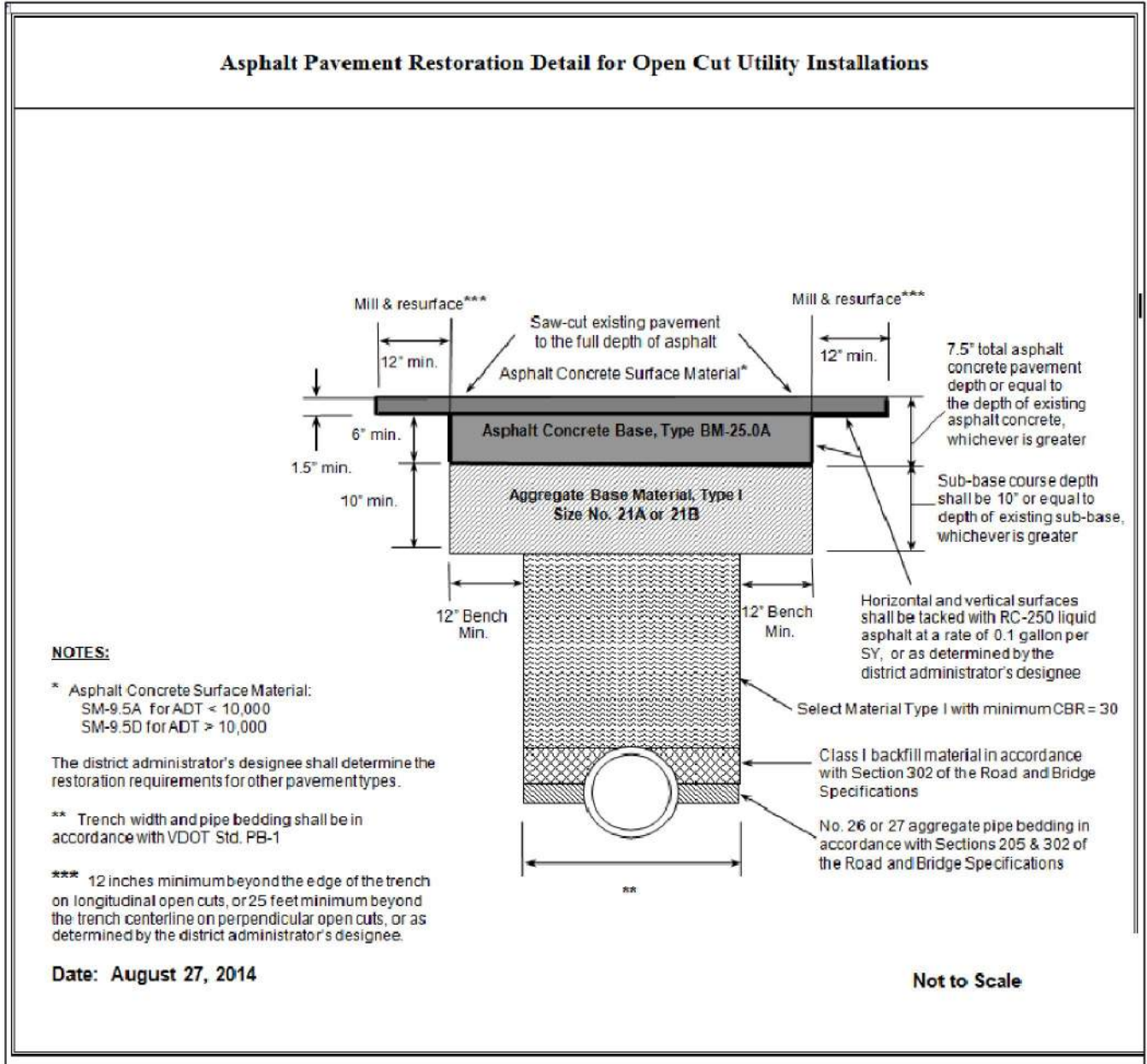
1. ALL PIPE CULVERTS, EXCEPT PRIVATE ENTRANCES, SHOWN HEREON ARE TO BE RCP WITH A MINIMUM COVER OF ONE (1) FOOT.
2. STANDARD UNDERDRAINS (CD-1 OR CD-2 OR UD-4'S) TO BE PROVIDED AS INDICATED ON THE PLANS, OR WHERE FIELD CONDITIONS INDICATE.
3. ALL DRIVEWAY ENTRANCE PIPES SHALL BE A MINIMUM OF TWENTY (20) FEET IN LENGTH AND HAVE A MINIMUM DIAMETER OF FIFTEEN (15) INCHES AND SHALL BE PLACED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS UNLESS OTHERWISE NOTED ON PLANS.
4. ALL DRAINAGE EASEMENT SHALL BE CLEARED AND GRADED TO THE SATISFACTION OF THE ENGINEER. DRAINAGE EASEMENTS SHALL EXTEND TO A POINT DEEMED AS NATURAL WATER COURSE.

PAVEMENT:

1. AN ACTUAL COPY OF THE CBR REPORT IS TO BE SUBMITTED PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE MATERIAL. IF THE SSV VALUES ARE LESS THAN 10, THE DEVELOPER WILL BE REQUIRED TO SUBMIT FOR ENGINEERS APPROVAL THE PROPOSED METHOD OF CORRECTION.
2. SUBGRADE MUST BE APPROVED BY THE ENGINEER FOR GRADE, TEMPLATE AND COMPACTION BEFORE BASE IS PLACED.
3. TEST REPORTS ON SELECT MATERIALS MUST BE SUBMITTED SHOWING THE MATERIAL MEETS REQUIRED GRADATION FOR TYPE I, II, OR III PRIOR TO PLACING AGGREGATE BASE.
4. THE REQUIREMENTS TO PUGMILL AGGREGATE BASE WILL BE WAIVED IN THE EVENT THAT THE SURFACE COURSE IS BEGINNING AT THE COMPLETION OF THE INSTALLATION OF THE AGGREGATE BASE. IN THE EVENT THAT THE SURFACE COURSE IS APPLIED PRIOR TO 60 DAYS, THE PUGMILL REQUIREMENT WILL APPLY.

BUILDING OFFICIAL NOTE:

WHERE THE FLOOD LEVEL RIMS OF PLUMBING FIXTURES ARE BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER, THE FIXTURES SHALL BE PROTECTED BY A BACKWATER VALVE INSTALLED IN THE BUILDING DRAIN, BRANCH OF THE BUILDING DRAIN OR HORIZONTAL BRANCH SERVING SUCH FIXTURES. PLUMBING FIXTURES ABOVE THE FLOOD LEVEL RIMS ABOVE THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER SHALL NOT DISCHARGE THROUGH A BACKWATER VALVE.



MIRACLE RECREATION EQUIPMENT - OR EQUAL



2 LEG GALVANIZED SWING W/ 6 SEATS
MODEL# 2931S



GROOVE SLIDE W/ PVC STEPS
MODEL# 65-727



315° FUNNEL TUNNEL SLIDE
W/ PVC STEPS
MODEL# 65-742-8



MIRACOTE HORIZONTAL LADDER
MODEL# 431



TEN SPIN
MODEL# 3043



LANDSCAPE STRUCTURES - WAVY CLIMBER
MODEL# 150636

NOTE:
THE PROPOSED PLAY
EQUIPMENT CAN BE
SUBSTITUTED FOR AN
EQUAL PLAY
EQUIPMENT PRODUCT.

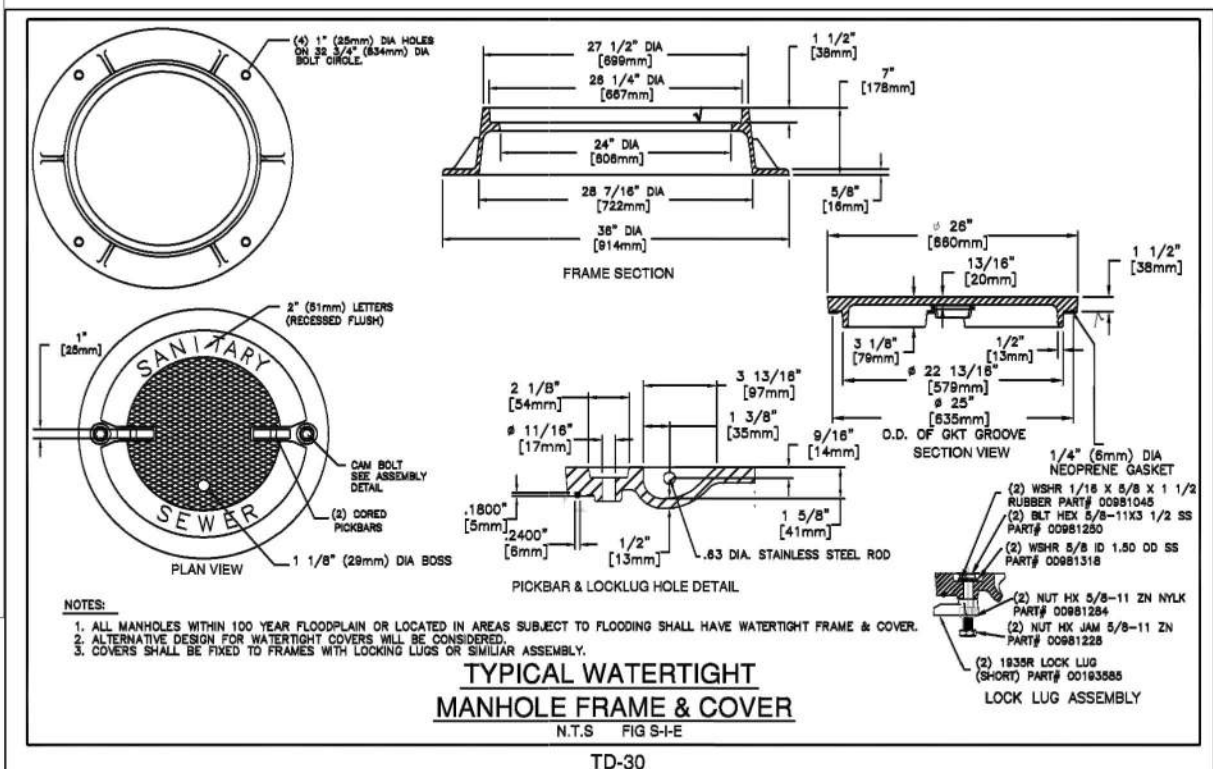
ALBEMARLE COUNTY
FINAL PLAN GENERAL NOTES

GENERAL WATER & SEWER CONDITIONS

November 16, 2015

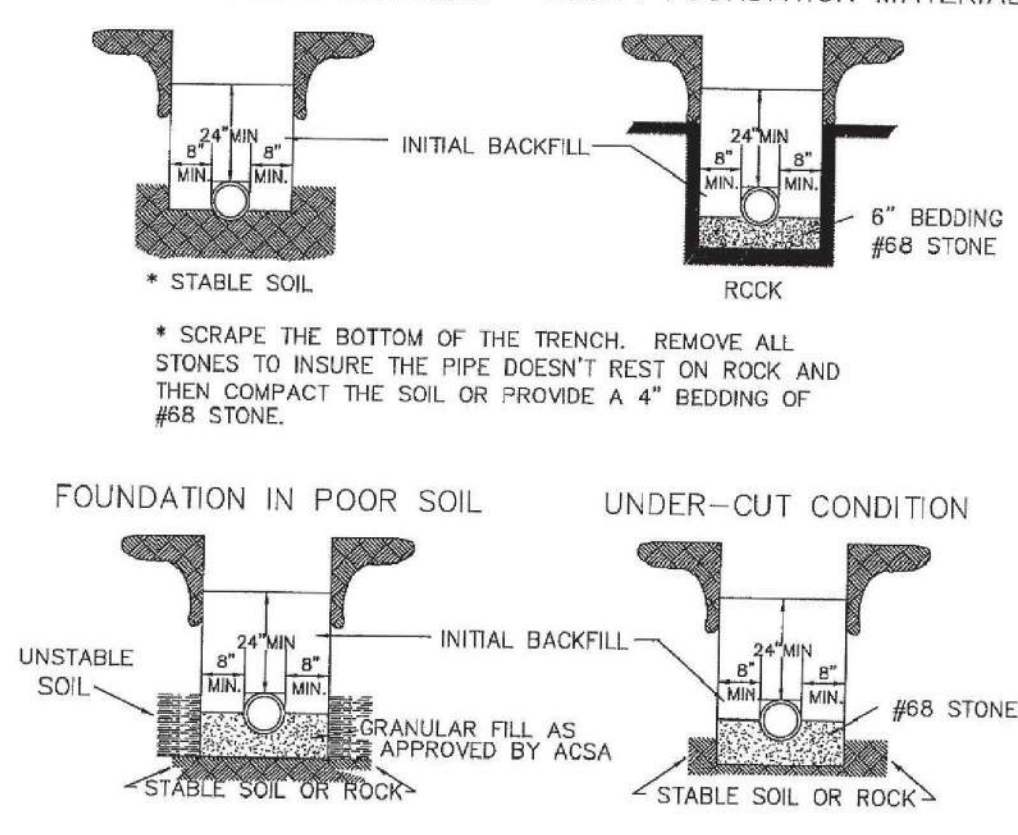
ACSA GENERAL WATER & SEWER CONDITIONS

1. WORK SHALL BE SUBJECT TO INSPECTION BY ALBEMARLE COUNTY SERVICE AUTHORITY (ACSA) INSPECTORS. THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING THE PROPER ACSA OFFICIALS AT THE START OF THE WORK.
2. THE LOCATION OF EXISTING UTILITIES ACROSS THE LINE OF THE PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS AND WHERE SHOWN ARE ONLY APPROXIMATELY CORRECT. THE CONTRACTOR SHALL, ON HIS OWN INITIATIVE, LOCATE ALL UNDERGROUND LINES AND STRUCTURES, AS NECESSARY.
3. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE CURRENT EDITION OF THE GENERAL WATER AND SEWER CONSTRUCTION SPECIFICATIONS, AS ADOPTED BY THE ACSA.
4. DATUM FOR ALL ELEVATIONS SHOWN IN NATIONAL GEODETIC SURVEY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY (1-800-552-7001).
6. ALL WATER AND SEWER PIPES SHALL HAVE A MINIMUM OF THREE AND A HALF (3.5) FEET OF COVER MEASURED FROM THE TOP OF PIPE, OVER THE CENTERLINE OF PIPE. THIS INCLUDES ALL FIRE HYDRANT LINES, SERVICE LATERALS AND WATER LINES, ETC.
7. ALL WATER AND SEWER APPURTENANCES ARE TO BE LOCATED OUTSIDE OF ROADSIDE DITCHES.
8. VALVES ON DEADEND LINES SHALL BE RODDED TO PROVIDE ACCESS RESTRAINT FOR THE VALVE DURING A FUTURE EXTENSION OF THE LINE.
9. TREES ARE NOT PERMITTED IN THE ACSA EASEMENT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH THE NO-LEAD REGULATION REGARDING BRASS FITTINGS EFFECTIVE JANUARY 4, 2014 (SENATE BILL 3874 WHICH AMENDS THE SAFE DRINKING WATER ACT).



TYPICAL WATERTIGHT
MANHOLE FRAME & COVER
N.T.S. FIG. S-4

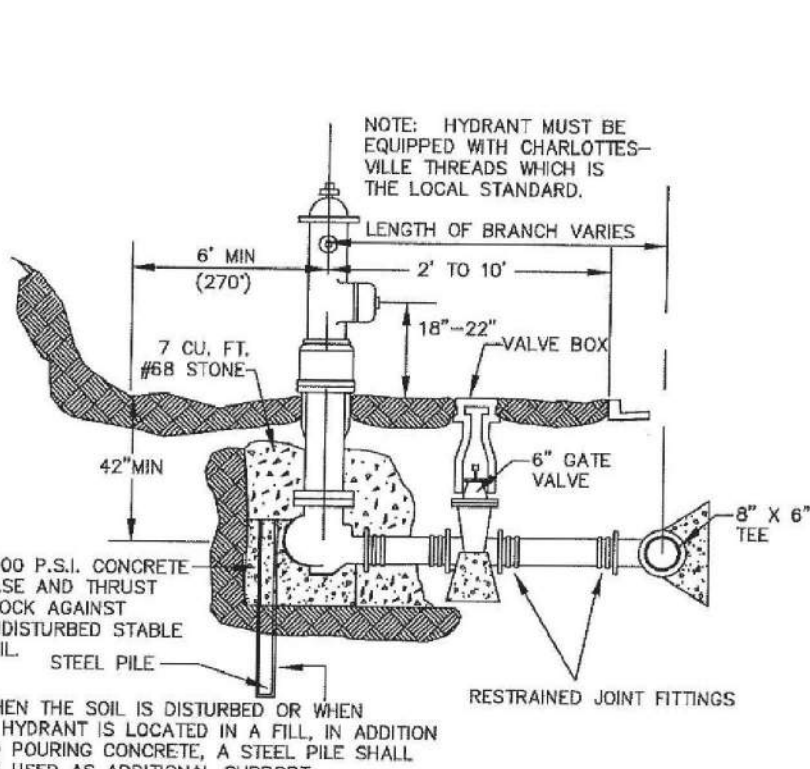
GOOD FOUNDATION MATERIAL ROCKY FOUNDATION MATERIAL



- NOTE:
1. NO ROCKS SHALL BE ALLOWED WITHIN 24" OF THE WATER LINES.
 2. NO ROCKS LARGER THAN 6" IN ANY DIMENSION SHALL BE ALLOWED ABOVE THE INITIAL BACKFILL.
 3. THE INITIAL BACKFILL SHALL BE PLACED AND COMPACTED IN 6" LIFTS.
 4. NO ORGANIC OR FROZEN MATERIAL OR DEBRIS SHALL BE ALLOWED IN THE TRENCH.
 5. BELL HOLES SHALL BE DUG OUT IN ALL CASES.

DUCTILE IRON WATER
PIPE INSTALLATION & BEDDING

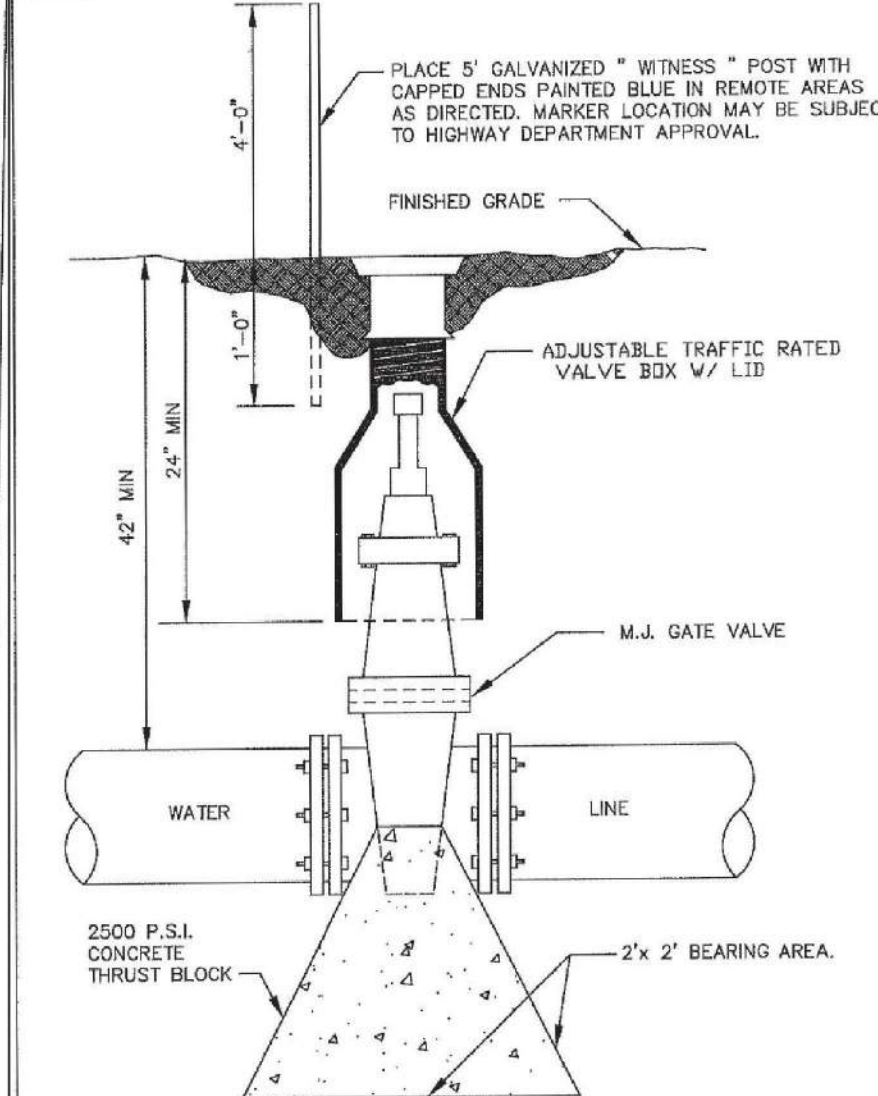
N.T.S.
FIG. W-2
TD-2



- NOTE:
1. SURROUND WEEP HOLES WITH GRAVEL AND KEEP FREE OF CONCRETE.
 2. MAINTAIN A 3 1/2" MIN. COVER FROM THE MAIN TO THE FIRE HYDRANT (INCLUDING DITCHES).
 3. FINISHED GRADE SHALL SLOPE AWAY FROM THE FIRE HYDRANT AND VALVE BOX.
 4. THE GATE VALVE IS ALLOWED IN SHOULDER OR BEHIND THE DITCH. IT IS NOT ALLOWED IN THE DITCH.
 5. FIRE HYDRANTS SHALL BE INSTALLED AT LOCATIONS WHERE WEEP HOLES ARE ABOVE THE PREVAILING GROUNDWATER ELEVATION. IF REQUIRED TO BE IN WET AREAS, THE WEEP HOLES SHALL BE PLUGGED AND THE HYDRANT SHALL BE PUMPED DRY.

TYPICAL FIRE HYDRANT ASSEMBLY DETAIL

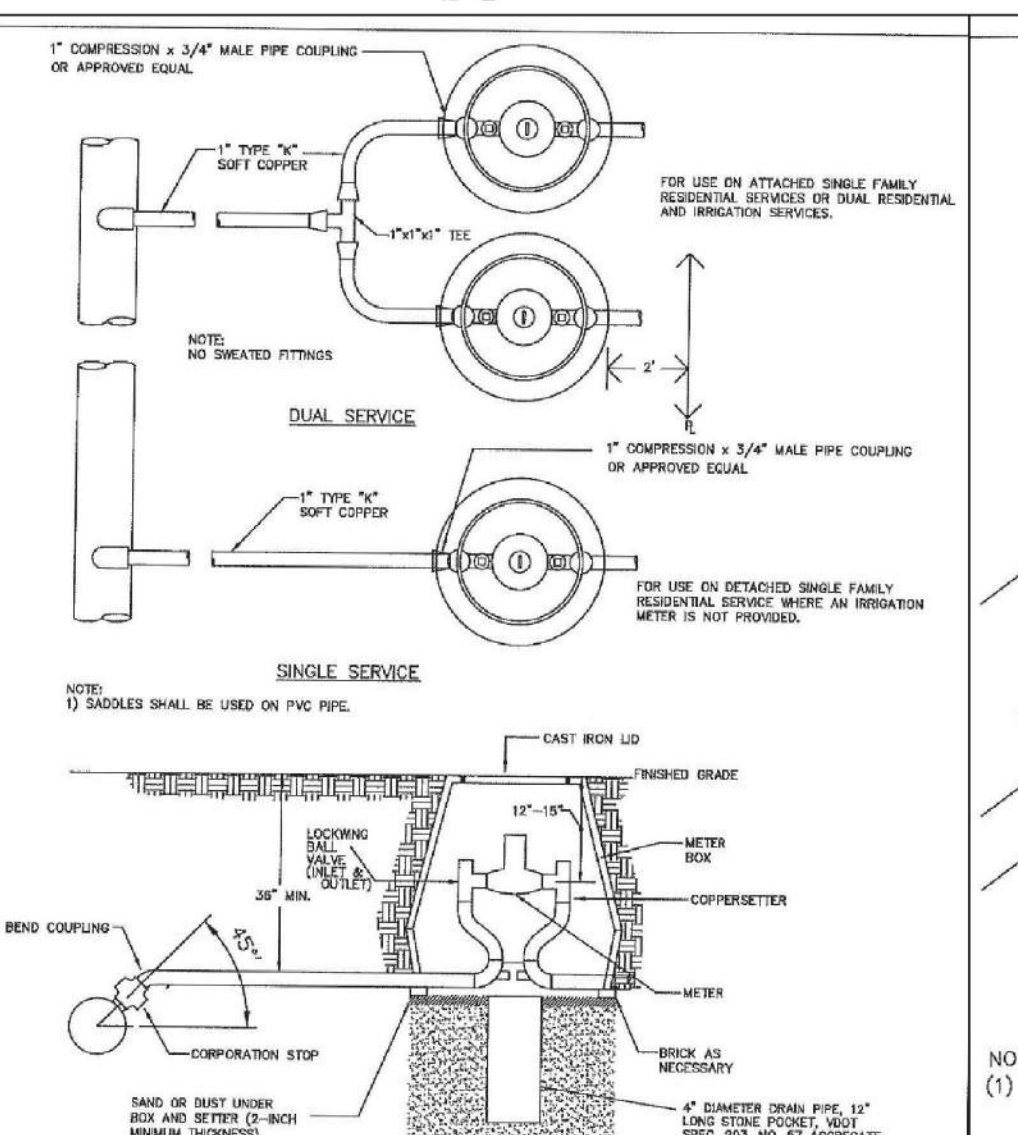
N.T.S.
FIG. W-4
TD-8



NOTE: IN REMOTE AREAS, VALVE BOXES SHALL EXTEND SIX (6) INCHES ABOVE GRADE.

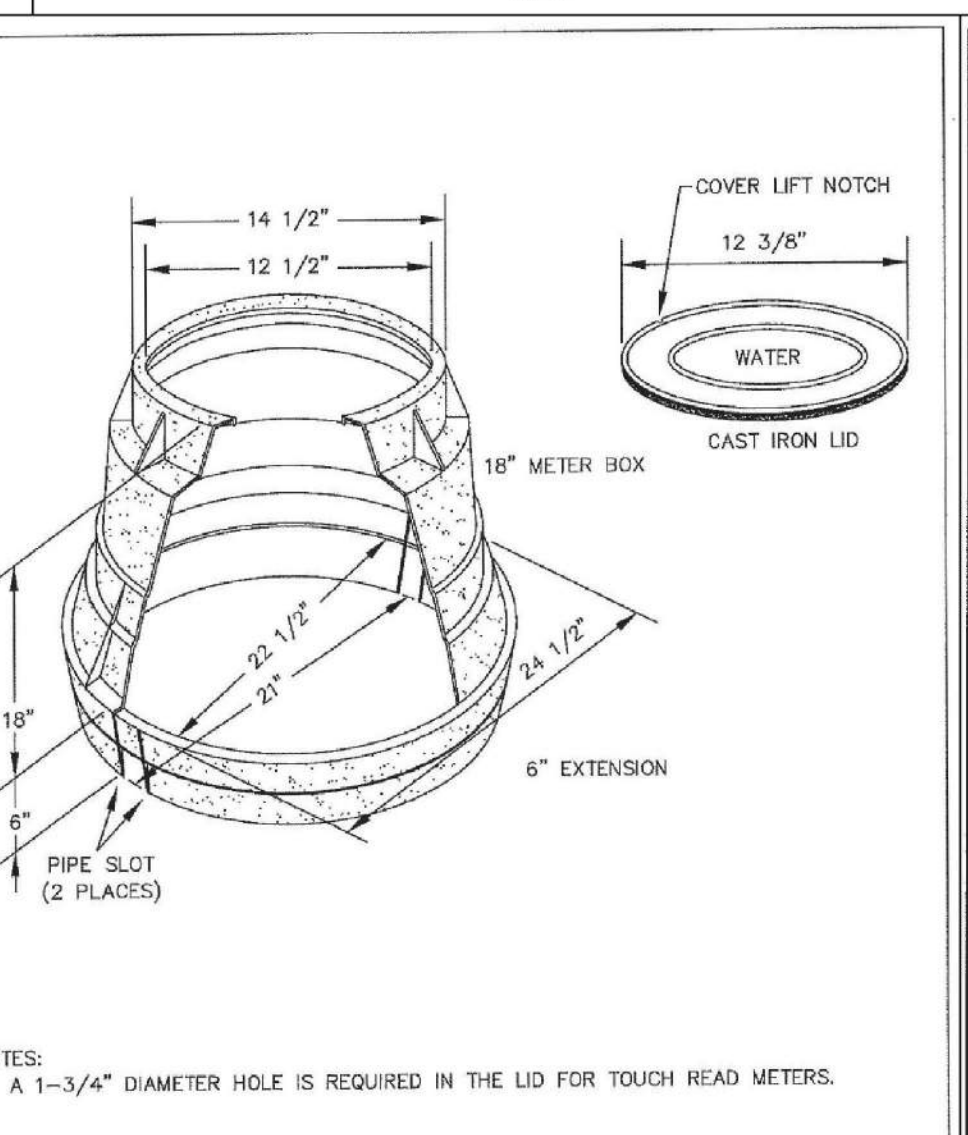
TYPICAL GATE VALVE

N.T.S.
FIG. W-5
TD-9



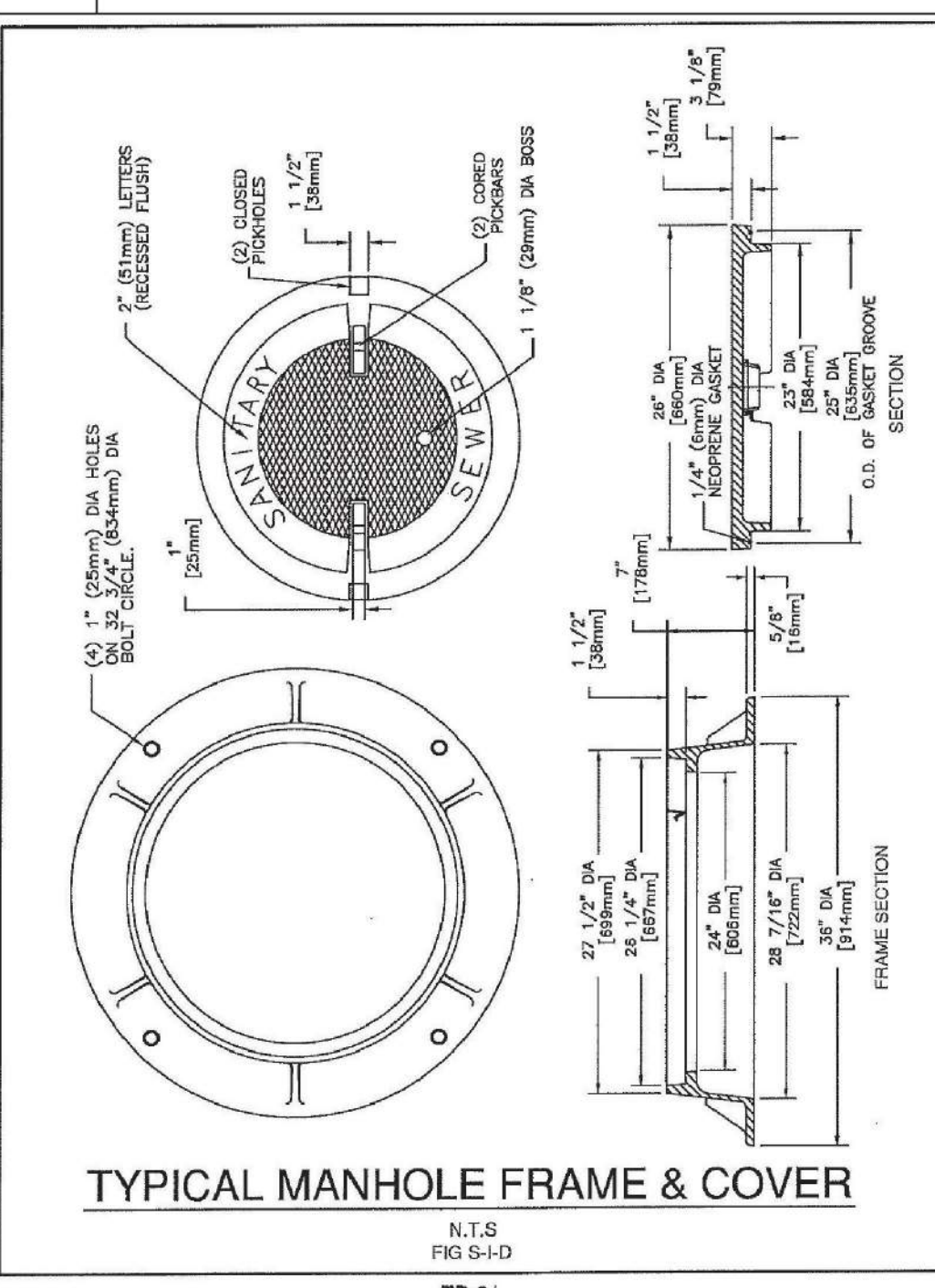
TYPICAL SERVICE LATERAL INSTALLATION
(5/8" & 1" METERS)

N.T.S.
FIG. W-6A
TD-10



TYPICAL METER BOXES
(5/8" - 1" METERS)

N.T.S.
FIG. W-7
TD-13

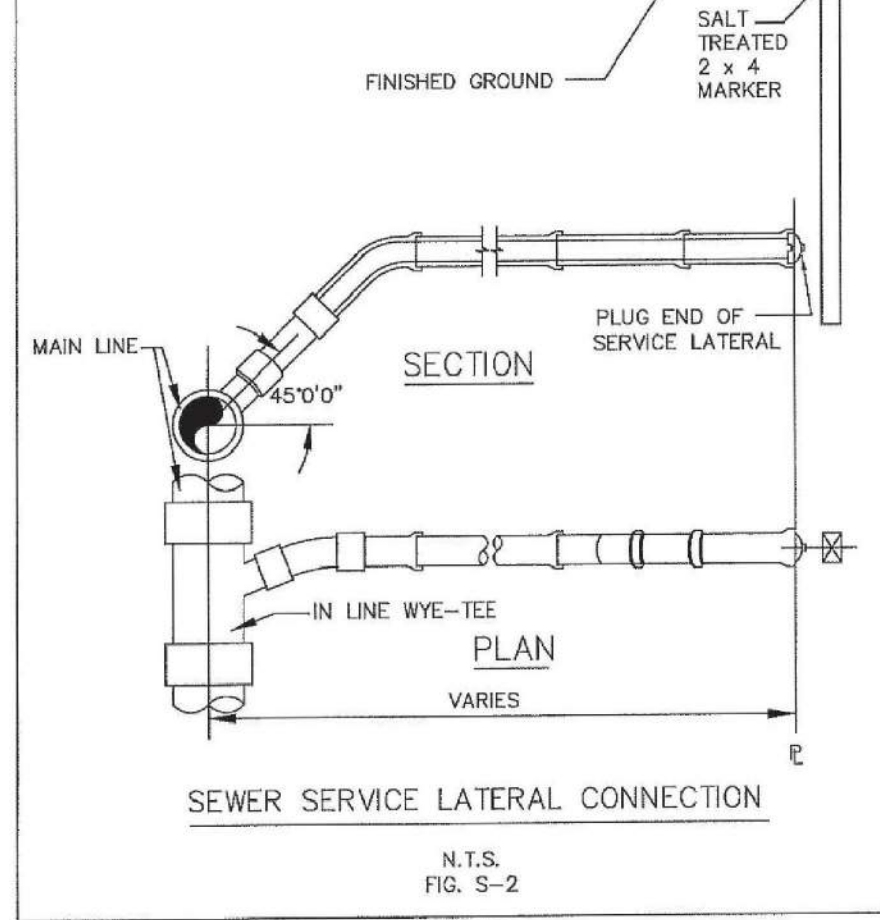


TYPICAL MANHOLE FRAME & COVER

N.T.S.
FIG. S-1-D
TD-31

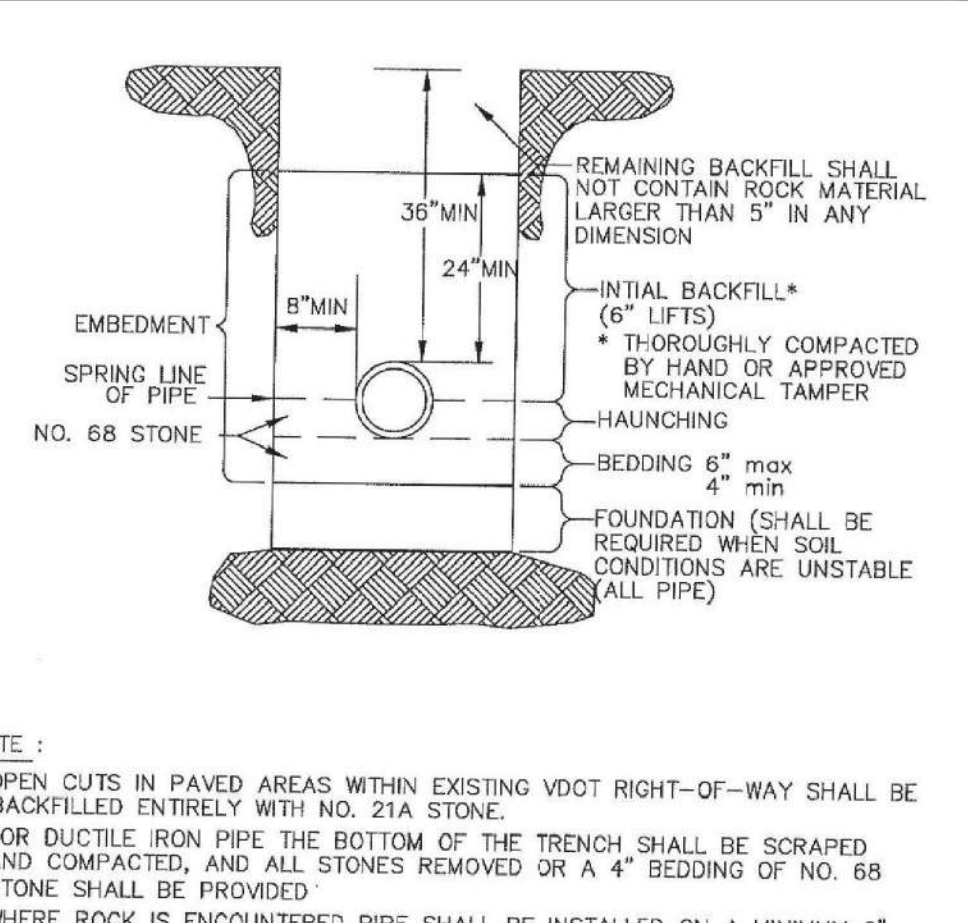
SEWER SERVICE LATERAL CONNECTION NOTES:

1. WHERE A SEWER SERVICE LATERAL CONNECTS TO A MANHOLE AND NO INVERT ELEVATION FOR THE SERVICE LATERAL IS INDICATED, THE TOP (CROWN) ELEVATION OF THE SERVICE LATERAL PIPE SHALL BE AT LEAST 0.2' HIGHER THAN THE TOP (CROWN) ELEVATION OF THE LOWEST PIPE CONNECTED TO THE MANHOLE.
2. SEWER LATERALS TAPPED INTO AN EXISTING SEWER MAIN SHALL BE CONNECTED USING A PIPE SADDLE.
3. MINIMUM GRADE FOR SEWER SERVICE CONNECTION SHALL BE 2% (1/4" PER FOOT).
4. ALL SEWER LATERALS SHALL HAVE A MINIMUM COVER DIAMETER OF 4".
5. ALL SEWER LATERALS SHALL HAVE A MINIMUM COVER OF 3 FEET.



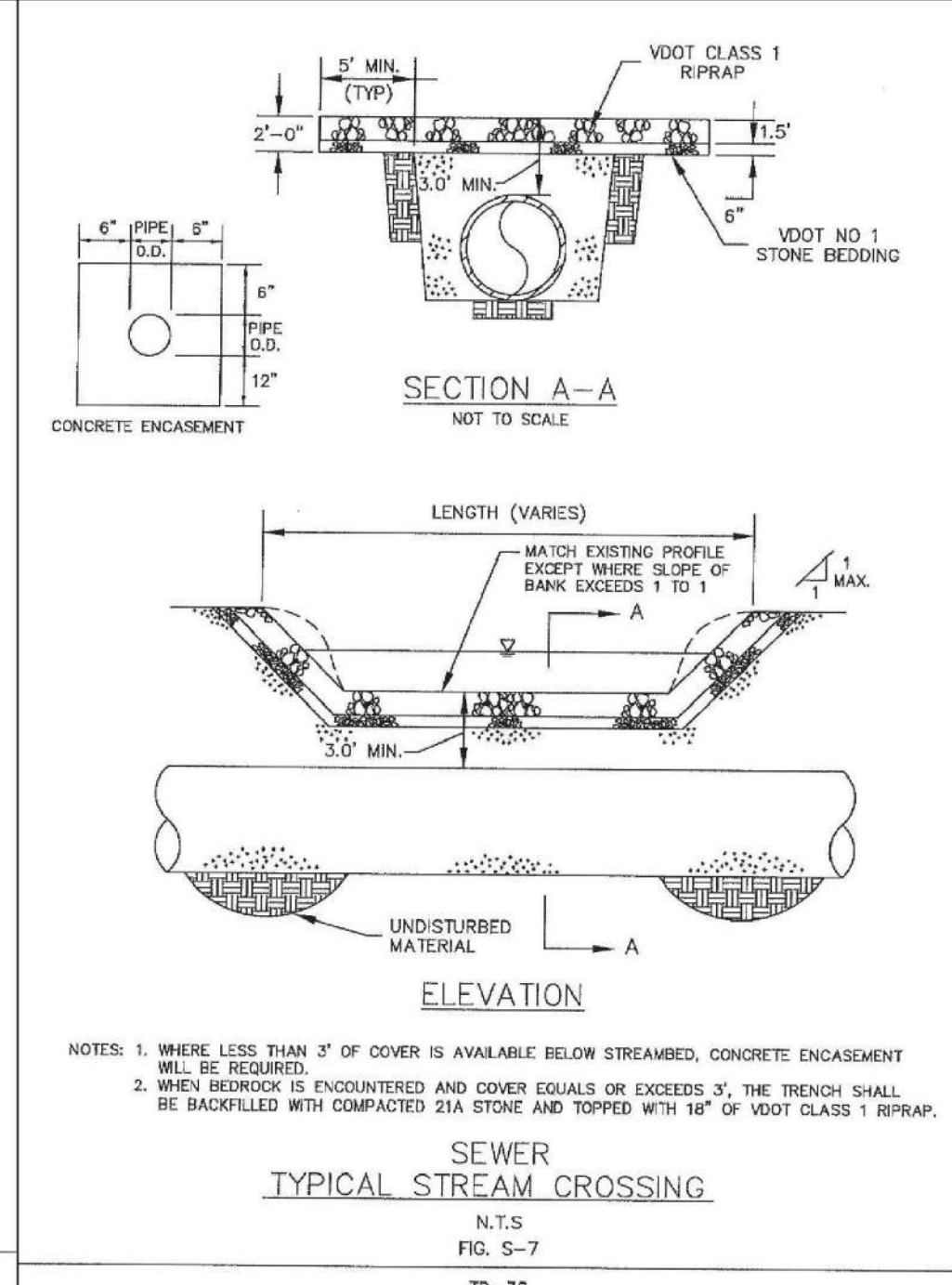
SEWER SERVICE LATERAL CONNECTION

N.T.S.
FIG. S-2
TD-33



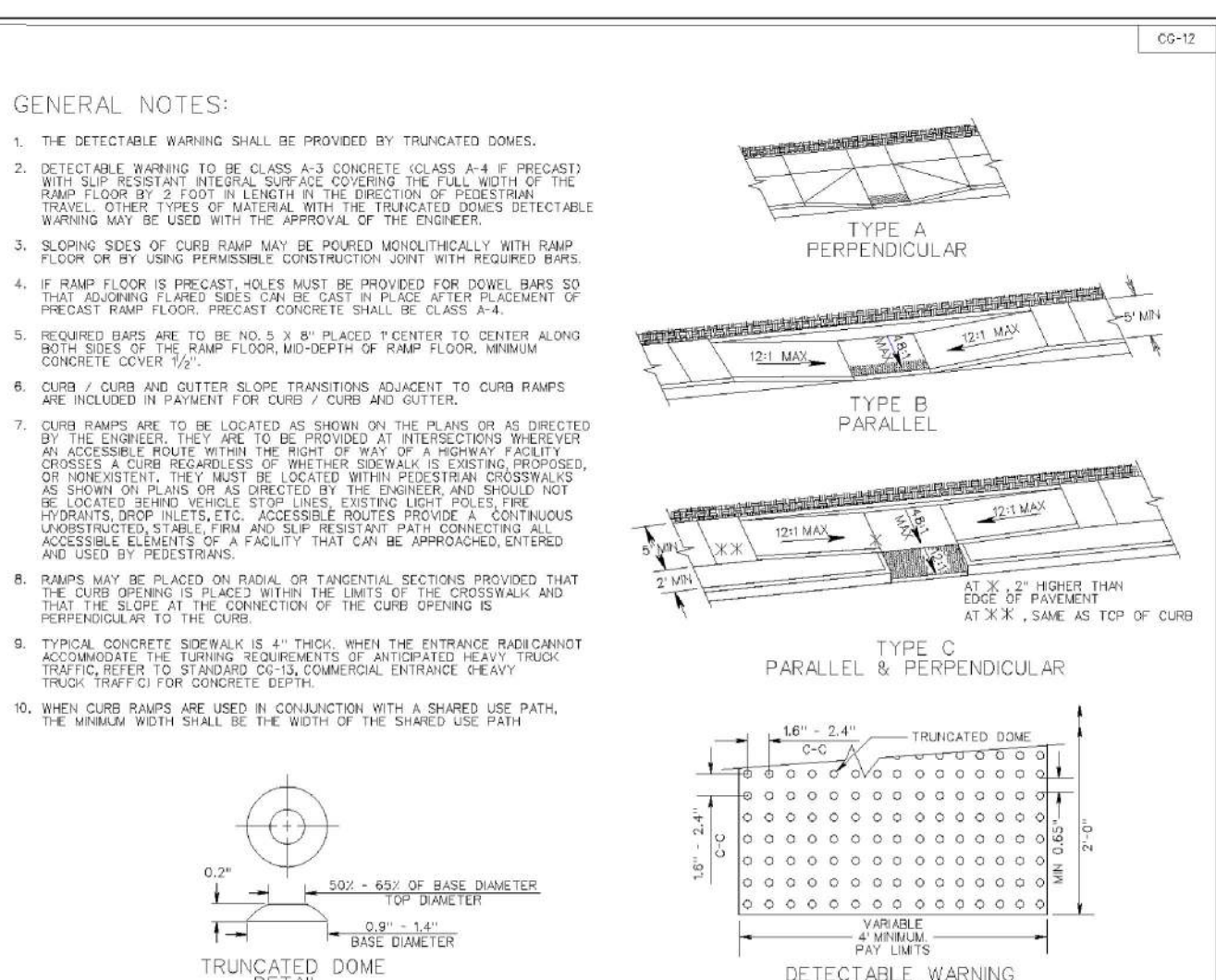
TYPICAL SEWER PIPE
INSTALLATION IN TRENCH

N.T.S.
FIG. S-3
TD-34



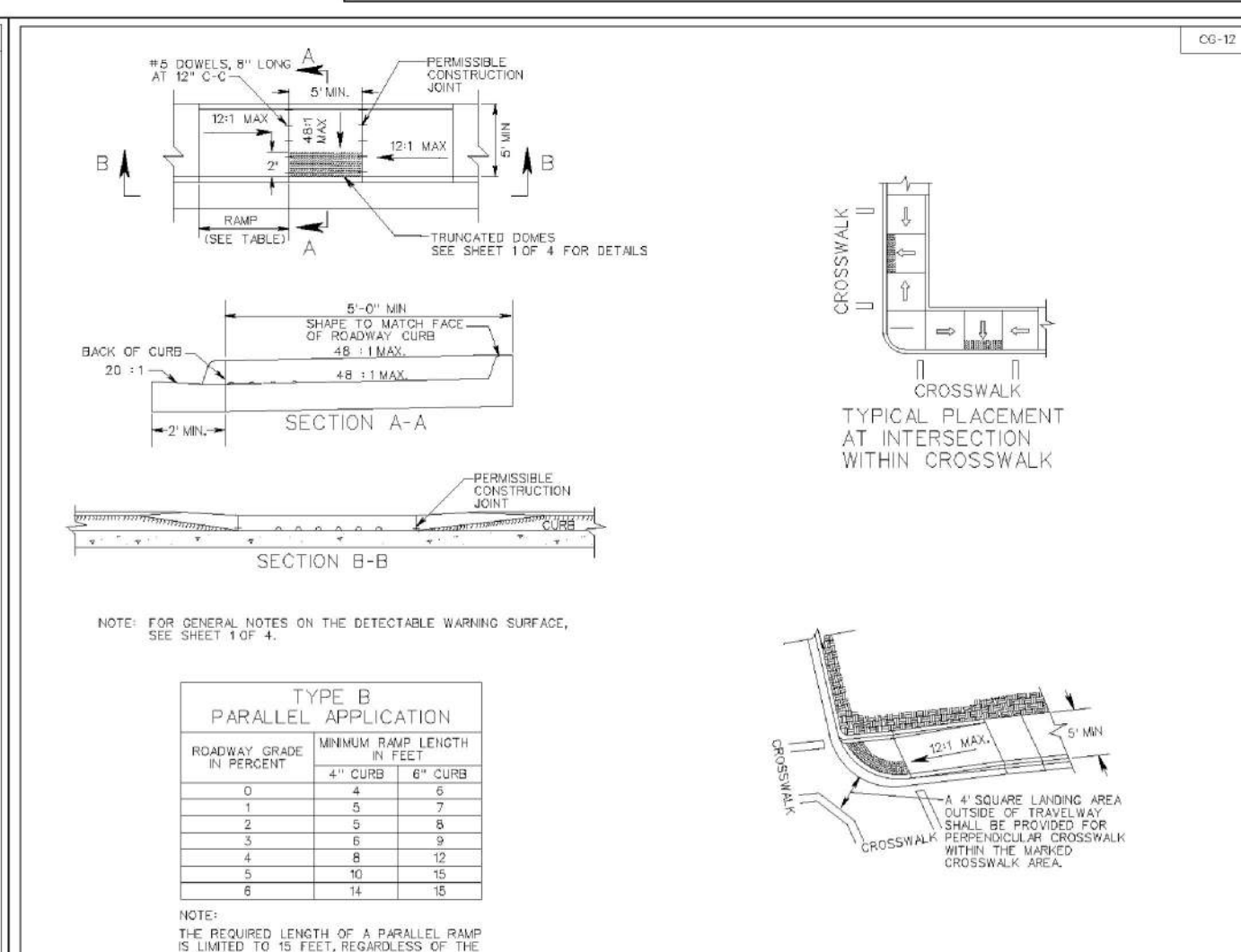
SEWER
TYPICAL STREAM CROSSING

N.T.S.
FIG. S-7
TD-38



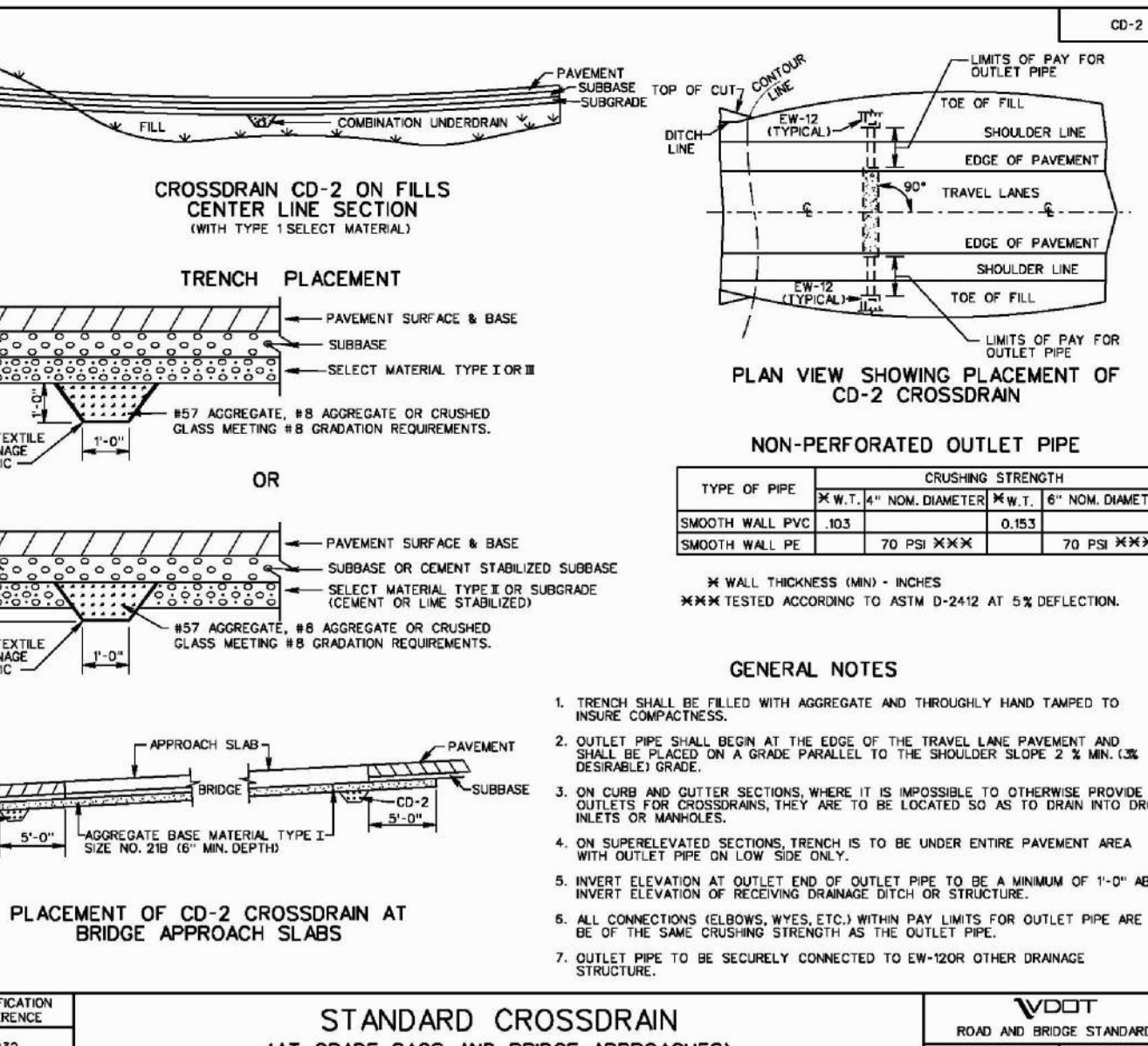
CG-12 DETECTABLE WARNING SURFACE
GENERAL NOTES

REV. 7/09
203.05
VIRGINIA DEPARTMENT OF TRANSPORTATION



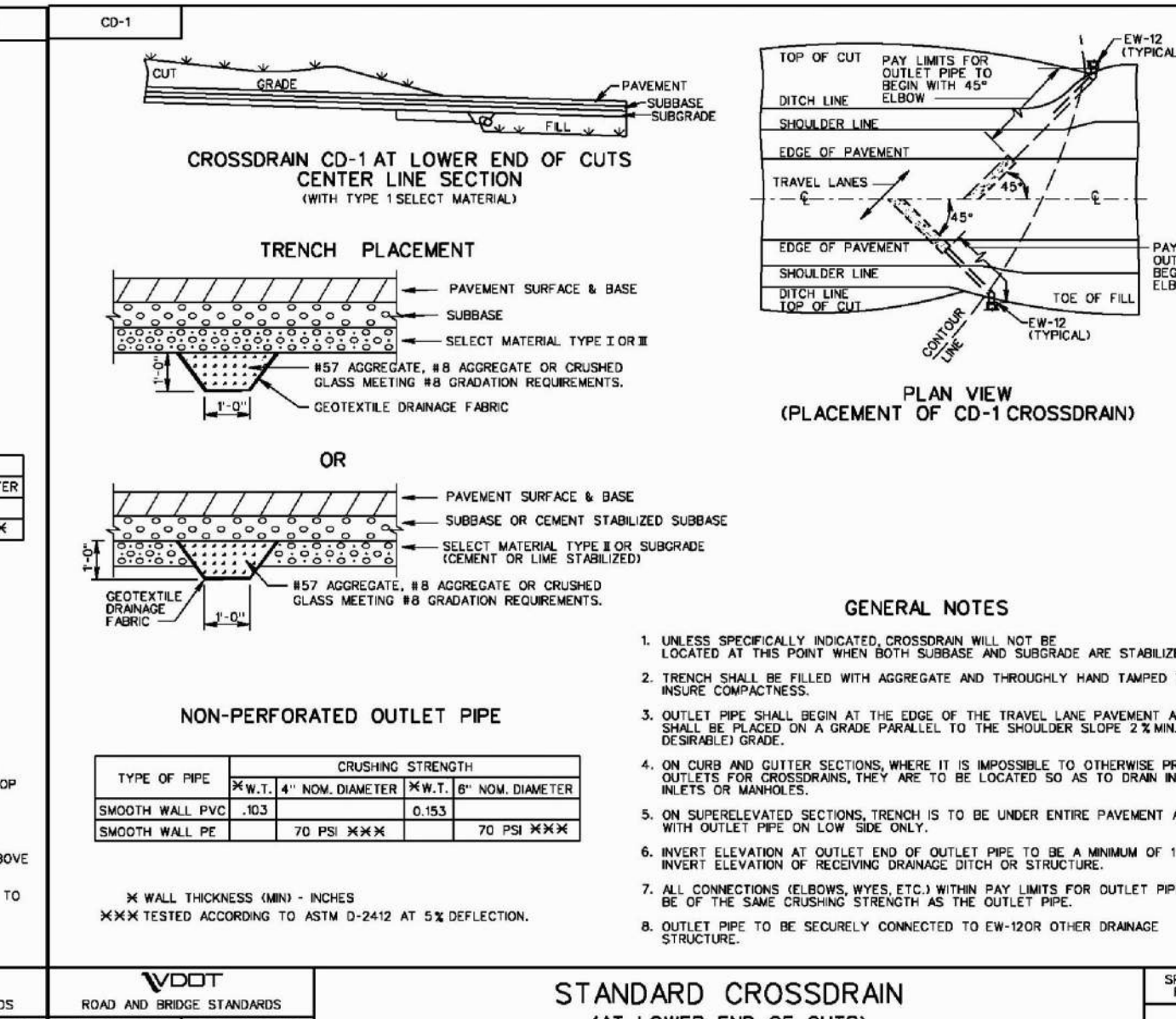
CG-12 DETECTABLE WARNING SURFACE
TYPE B (PARALLEL) APPLICATION

REV. 7/09
203.05
VIRGINIA DEPARTMENT OF TRANSPORTATION



STANDARD CROSSDRAIN
(AT GRADE SAGS AND BRIDGE APPROACHES)

REV. 05/05
501
701
VIRGINIA DEPARTMENT OF TRANSPORTATION



STANDARD CROSSDRAIN
(AT LOWER END OF CUTS)

REV. 05/05
501
701
VIRGINIA DEPARTMENT OF TRANSPORTATION



REVISIONS	
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CE

COLLINS ENGINEERING

200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902-434.293.3719

FOOTHILL CROSSING PHASE V - ROAD PLAN

SITE UTILITY DETAILS

PROJECT

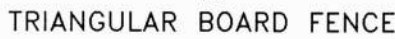
112066

SCALE

N/A

SHEET NO.

10



Source: Va. DSWC

Plate 3.38-2

III - 401

County of Albemarle
Conservation Plan Checklist – To be placed on Landscape Plan
(Handbook, pp III-284-III-297 for complete specifications)

- NOTE: IT IS THE DEVELOPER'S RESPONSIBILITY TO CONFER WITH THE CONTRACTOR ON TREE CONSERVATION REQUIREMENTS.**

OWNER SIGNATURE _____ (DATE) _____

1/15/20

CONTRACT PURCHASER SIGNATURE	(DATE)
-------------------------------------	---------------

(DATE)

5/1/06 Page 1 of 1

NOTE

1. LANDSCAPING PLANTS AND TREES ADJACENT TO THE SIGHT DISTANCE TRIANGLE WILL NEED TO BE MAINTAINED IN AREA BETWEEN 2 TO 7 FEET ABOVE GROUND AS A CLEAR ZONE TO PRESERVE SIGHT LINES AND ACCOMMODATE PEDESTRIANS.



Not To Scale

DOUBLE STRAND #12 GAUGE WIRE WITH RUBBER HOSE & TURNBUCKLES

2"x2" HARDWOOD STAKE

CUT & REMOVE BURLAP FROM TOP 1/3 OF BALL AS SHOWN

SCARIFY SUBSOIL TO 4" MIN. DEPTH

MULCH SAUCER

FINISHED GRADE

TREES UP TO 4" CAL. SHALL BE STAKED. TREES 4" CAL. OR LARGER SHALL BE GUYED WITH 3 EQUALLY SPACED TWISTED, #12 GAUGE WIRE WITH HOSE AND TURNBUCKLES. LOOP HOSE AROUND TRUNK ABOVE BRANCHES AS SHOWN, FLAG WIRES WITH COURVAY TAPE. REFER TO SPECS FOR ADDITIONAL INFORMATION.

TREES UP TO 4" CAL. SHALL BE STAKED WITH 2"x2" HARDWOOD STAKES. TREES OF 4" CAL. OR LARGER SHALL BE GUYED WITH 3 EQUALLY SPACED, TWISTED AND TURNBUCKLES. LOOP HOSE AROUND TRUNK. FLAG WIRES WITH COURVAY TAPE. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION

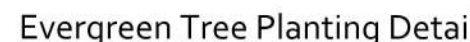
GUYWIRES WITH RUBBER HOSE AND TURNBUCKLES 2/3 UP TREE

2"x2" HARDWOOD STAKES, ALIGN TOP OF STAKES

MULCH SAUCER

AMENDED SOIL MIX

COMPACTED SUBGRADE



Not To Scale

TREES UP TO 4" CAL. SHALL BE STAKED WITH 2-2"x2" HARDWOOD STAKES. TREES OF 4" CAL. OR LARGER SHALL BE GUYED WITH 3 EQUALLY SPACED, TWISTED AND TURNBUCKLES. LOOP HOSE AROUND TRUNK. FLAG WIRES WITH COURVEY TAPE. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION

- GUYWIRES WITH RUBBER HOSE AND TURNBUCKLES 2/3 UP TREE
- 2"x2" HARDWOOD STAKES, ALIGN TOP OF STAKES
- MULCH SAUCER
- AMENDED SOIL MIX

- CUT AND REMOVE BURLAP FROM TOP 1/3 OF BALL AS SHOWN
- SCARIFY SUBSOIL TO 4" MIN. DEPTH
- COMPACTED SUBGRADE

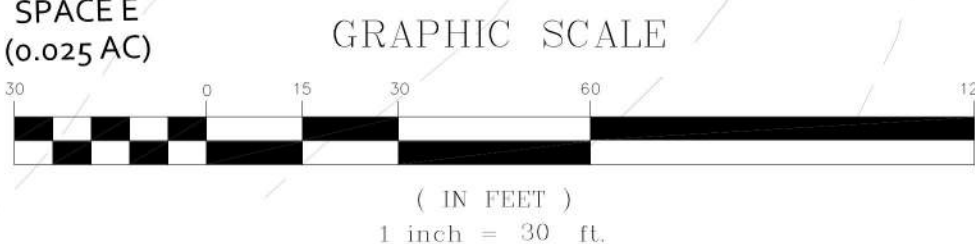
PLANT SCHEDULE

NOTE:

1. STREET TREES PROVIDED 40' O.C. AND 5'-10" FROM PROPOSED UTILITIES.
2. ALL SITE PLANTINGS OF TREES AND SHRUBS SHALL BE ALLOWED TO REACH, AND BE MAINTAINED AT, MATURE HEIGHT; THE TOPPING OF TREES IS PROHIBITED. SHRUBS AND TREES SHALL BE PRUNED MINIMALLY AND ONLY TO SUPPORT THE OVERALL HEALTH OF THE PLANT.
3. TOTAL STREET FRONTAGE = 1,110' (INDIGO RD) & 866' (CRIMSON ST) = 1,970'
 REQUIRED STREET TREES: 51 (1 TREE PER EVERY 40' OF STREET FRONTAGE)
 PROPOSED STREET TREES: 53
 NOTE: 1,110' OF STREET FRONTAGE ALONG INDIGO ROAD
 REQUIRED STREET TREES: 29
 PROPOSED STREET TREES: 31
 NOTE: 866' OF STREET FRONTAGE ALONG CRIMSON STREET
 REQUIRED STREET TREES: 22
 PROPOSED STREET TREES: 22

TOTAL SITE AREA:	5.841 ACRES	254,434 SF
TOTAL STREAM BUFFER AREA (OUTSIDE EMERGENCY ACCESS ROAD):	0.795 ACRES	34,650 SF
TOTAL ACTIVE RECREATION AREA:	0.102 ACRES	4,450 SF
CANOPY REQUIRED (20%) = (5.841 AC - 0.897 AC) x 20%	0.989 ACRES	43,072 SF
PROPOSED PLANTING CANOPY CALCULATIONS:	0.994 ACRES	43,284 SF

1. ALL TREES TO BE PRESERVED AND PROTECTED SHALL BE MARKED WITH PAINT OR RIBBON AT THE CLEARLY VISIBLE TO EQUIPMENT OPERATORS. NO LAND DISTURBING ACTIVITY SHALL BEGIN UNTIL THE CONTRACTOR AND THE COUNTY ENGINEERING DEPARTMENT HAVE INSPECTED AND APPROVED BY THE COUNTY ENGINEERING DEPARTMENT.
2. HEAVY EQUIPMENT, VEHICULAR TRAFFIC, AND THE STORAGE OF CONSTRUCTION MATERIALS AND SOIL SHALL NOT BE PERMITTED WITHIN THE OUTSIDE DIAPHRINE OF TREES TO BE PRESERVED AND PROTECTED.
3. TEMPORARY EROSION CONTROL MEASURED AND/OR PERMANENT STORMWATER MANAGEMENT FACILITIES LOCATIONS SHALL BE COORDINATED SUCH THAT THEY SHALL NOT ADVERSELY AFFECT TREES TO BE PRESERVED AND PROTECTED.
4. FIRES SHALL NOT BE PERMITTED WITHIN 100 FEET OF THE OUTSIDE DIAPHRINE OF TREES TO BE PRESERVED AND PROTECTED.
5. TOXIC MATERIALS SHALL NOT BE STORED WITHIN 100 FEET OF THE OUTSIDE DIAPHRINE OF TREES TO BE PRESERVED AND PROTECTED.
6. NO LAND DISTURBING ACTIVITY SHALL BEGIN UNTIL THE TREE PROTECTIVE FENCING HAS BEEN INSTALLED BY THE CONTRACTOR AND INSPECTED AND APPROVED BY THE COUNTY ENGINEERING DEPARTMENT.
7. WHEN TRENCING FOR ANY KIND OF UNDERGROUND WATER, SEWER, ELECTRICAL, CABLE, TELEPHONE, OR OTHER UTILITY SERVICE IS NECESSARY WITHIN THE LIMITS OF TREE PROTECTION OR BEYOND THE LIMITS OF TREE PROTECTION, THE TRENCHING FROM THE TRUNKS OF TREES SHALL BE MAXIMIZED TO THE FURTHEST EXTENT POSSIBLE. TUNNELING SHALL BE REQUIRED WHEN DEEMED, BY THE COUNTY ENGINEER, THAT TRENCHING WILL SIGNIFICANTLY DAMAGE FEEDER ROOTS OF TREES TO BE PRESERVED AND PROTECTED.
8. ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM OF ANY TREE TO BE PRESERVED AND PROTECTED SHALL BE REPAIRED IMMEDIATELY, IN ACCORDANCE WITH THE PRACTICES IN THE EROSION AND SEDIMENT CONTROL HANDBOOK. CARE FOR SERIOUS INJURIES SHALL BE PRESCRIBED BY A PROFESSIONAL FORESTER OR TREE SPECIALIST.
9. SOILS WHICH HAVE BEEN COMPACTED, OVER THE ROOT ZONES OF TREES TO BE PRESERVED AND PROTECTED, SHALL BE AERATED BY PUNCHING HOLES WITH AN IRON BAR EVERY 18" OVER THE ROOT ZONE. THE BAR SHALL BE DRIVEN 12" DEEP AND MOVED BACK AND FORTH IN EACH HOLE UNTIL SOIL IS LOOSENED.
10. TREE PROTECTIVE MEASURES SHALL BE THE LAST OF THE TEMPORARY EROSION CONTROL PLAN AND SHALL BE REMOVED DURING THE FINAL CLEAN-UP.



CLAUDIUS
CROZET
PARK



REVISIONS

REVISION DESCRIPTION	INITIAL SUBMITTAL	SECOND SUBMISSION - RESUBMITTAL OF ROAD PLANS ADDRESSING CITY COMMENTS
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COLLINS ENGINEERING

2200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902 -434.293.3719

FOOTHILL CROSSING PHASE V - ROAD PLAN
LANDSCAPING PLAN

PROJECT	SHEET
JOB NO. 112066	
SCALE 1" = 30'	
SHEET NO. 11	

Design Storm Year = 10																
POINT	DOWNSTREAM STRUCTURE	DRAIN AREA ACRES	RUNOFF COEFF. C	CA INCR	CA ACCUM	INLET TIME MIN	RAIN FALL MIN	RUNOFF Q C.F.S.	INVERT ELEVATIONS		LENGTH FEET	SLOPE FT./FT.	DIA INCHES	CAPA- CITY C.F.S.	VEL F.P.S.	FLOW TIME SEC
14		0.13	0.90	0.12	0.12	5.00	6.67	0.8	653.00	652.00	32.00	0.0313	15	11.4	5.2	6.2
10	10	0.17	0.79	0.13	0.25	5.10	6.63	1.7	651.90	651.10	25.70	0.0311	15	11.4	6.5	3.9
8	8	0.00	0.30	0.00	0.48	5.61	6.47	3.1	651.00	650.20	62.01	0.0129	15	7.3	5.7	10.9
6	6	0.00	0.90	0.00	0.48	5.79	6.42	3.1	650.10	649.35	136.09	0.0055	15	4.8	4.1	32.9
4	4	0.00	0.90	0.00	1.70	6.34	6.25	10.6	648.50	648.34	28.36	0.0056	24	17.0	5.7	5.0
2	2	0.00	0.90	0.00	1.70	6.42	6.23	10.6	648.23	648.08	27.19	0.0055	24	16.8	5.6	4.8
	OUT															
12	8	0.27	0.86	0.23	0.23	5.00	6.67	1.5	651.75	651.10	123.84	0.0052	15	4.7	3.4	36.4
20	18	0.61	0.76	0.46	0.46	5.00	6.67	3.1	657.00	656.33	121.11	0.0055	15	4.8	4.1	29.2
18	16	0.09	0.83	0.07	0.75	5.49	6.51	4.9	656.23	656.00	28.03	0.0082	15	5.9	5.3	5.2
16	4	0.00	0.90	0.00	1.21	5.66	6.46	7.8	654.90	653.25	78.98	0.0209	24	32.7	8.5	9.3
28B	28	0.27	0.72	0.19	0.19	5.00	6.67	1.3	666.00	663.00	141.88	0.0211	15	9.4	5.4	26.5
28	24	0.03	0.70	0.02	0.22	5.44	6.53	1.4	662.90	661.00	48.44	0.0392	15	12.8	6.8	7.1
24	16	0.09	0.85	0.08	0.46	5.56	6.49	3.0	660.90	658.50	53.19	0.0451	15	13.7	8.8	6.0
26	24	0.23	0.72	0.17	0.17	5.00	6.67	1.1	665.00	662.00	80.44	0.0373	15	12.5	6.3	12.9
22	18	0.30	0.72	0.22	0.22	5.00	6.67	1.4	658.50	657.50	47.97	0.0208	15	9.3	5.4	8.8

Design Year: 10				Project:				Foothill Ph VI										Job #: 112066				Prepared by:				JKP	
INLET STATION	OUTLET WATER SURFACE ELEV	L ₀	D ₀	Q ₀ ZW	S ₀	H ₀	V ₀	H ₁	Q ₁	V ₁	H ₂	Q ₂ *V ₁	V ₁ /2g	H ₃	ANGLE	H ₄	H ₅	1.3H ₄	5H ₄	FINAL H	INLET WATER SURFACE ELEV	RIM ELEV					
22	658.50	47.97	15	1.44	0.000	0.02	1.2	0.0							0.00	0	0	0.01	NA	0.00	0.03	658.53	664.83				
	663.00	80.44	15	1.10	0.000	0.02	0.9	0.0							0.00	0	0	0.00	NA	0.00	0.03	663.03	672.03				
26																											
	659.50	53.19	15	2.97	0.002	0.11	2.4	0.0																			
24	662.00	48.44	15	1.41	0.000	0.02	1.1	0.0		1.1	6.3	6.902	0.6	0.21	0	0	0.24	N/A	0.12	0.23	659.73	668.07					
28	664.00	141.88	15	1.30	0.000	0.06	1.1	0.0		1.3	1.1	1.368	0.0	0.01	0	0	0.01	NA	0.01	0.03	662.03	669.88					
28B															0.00	0	0	0.00	NA	0.00	0.06	664.06	671.31				
	654.85	78.98	24	7.82	0.001	0.09	2.5	0.0																			
16	657.00	28.03	15	4.91	0.006	0.16	4.0	0.1		3.0	8.8	26.23	1.2	0.42	0	0	0.45	N/A	0.22	0.32	655.17	665.46					
18	657.33	121.11	15	3.09	0.002	0.28	2.5	0.0		1.4	5.4	7.84	0.5	0.16	0	0	0.22	NA	0.11	0.27	657.27	665.88					
20															0.00	0	0	0.02	NA	0.01	0.29	657.62	662.25				
	652.10	123.84	15	1.55	0.001	0.07	1.3	0.0							0.00	0	0	0.01	NA	0.00	0.07	652.17	657.35				
12																											
	649.68	27.19	24	10.60	0.002	0.06	3.4	0.0																			
2	649.94	28.36	24	10.60	0.002	0.06	3.4	0.0		10.6	3.4	35.78	0.2	0.06	0	0	0.11	N/A	0.05	0.12	649.80	657.75					
4	650.35	136.09	15	3.13	0.002	0.32	2.6	0.0		7.8	8.5	66.55	1.1	0.39	0	0	0.44	N/A	0.22	0.28	650.22	662.01					
6	651.20	62.01	15	3.13	0.002	0.15	2.6	0.0		3.1	2.6	7.982	0.1	0.04	0	0	0.06	N/A	0.03	0.35	650.70	666.44					
8	652.10	25.70	15	1.67	0.001	0.02	1.4	0.0		1.5	3.4	5.259	0.2	0.06	0	0	0.09	N/A	0.04	0.19	651.39	661.32					
10	653.00	32.00	15	0.78	0.000	0.00	0.6	0.0		0.8	0.6	0.496	0.0	0.00	0	0	0.01	NA	0.00	0.02	652.12	660.76					
14															0.00	0	0	0.00	NA	0.00	0.01	653.01	660.34				

LD-269
Rev. 3-83

Project Foothill Crossing Phase V
Culvert beneath Pedestrian & Emergency Access

Plan Sheet No.
Rev. Date

Designer FGM, PE
Date 3/28/19

Sheet 1 of 1

HYDROLOGICAL DATA
D.A. = 53.4 ac.

Culvert DA: Cw = 0.38, Tc = 27 min., I2 = 2.5 in/hr, I10 = 3.4 in/hr, I25 = 3.9 in/hr

DISCHARGES USED

RISK ASSESSMENT

ADT

Length

Detours Available

Overlapping Stage

Flood Plain Management

Criteria and Significant Impact

STATION:

AHW Controls

100 yr. Flood plain

Design AHW depth

Structures

elev.

elev.

elev.

freq.

T Welev.

Shoulder elev. 649.0

CL elev. 649.2

Skew

Cover

t

Inv. El. 641.5

Sp= 0.50%

L= 68

Inv. El. 641.16

Orig. Gr. Elev.

CULVERT TYPE & SIZE	Q	Q/B	HEADWATER COMPUTATIONS										CONT. HW. ELEV.	OUTLET VELOCITY C.M. Smooth	End Treat.	COMMENTS
			INLET CONT.		OUTLET CONTROL											
			HWID	HW	Ke	dc	ho	H	Lso	HW						
Proposed 36" RCP Culvert (10 yr)	68.99	68.99	2.0	6.0	0.5	2.6	2.80	2.80	4.0	0.3	6.5	6.5		N/A	Outlet Controlled w/ downstream riprap. Culvert shall be countersunk 6".	
Proposed 36" RCP Culvert (25 yr)	79.14	79.14	2.5	7.5	0.5	2.9	2.95	2.95	5.0	0.3	7.6	7.6		N/A	Outlet Controlled w/ downstream riprap. Culvert shall be countersunk 6".	

SUMMARY & RECOMMENDATIONS:

Design Flood Exceed. Prob.

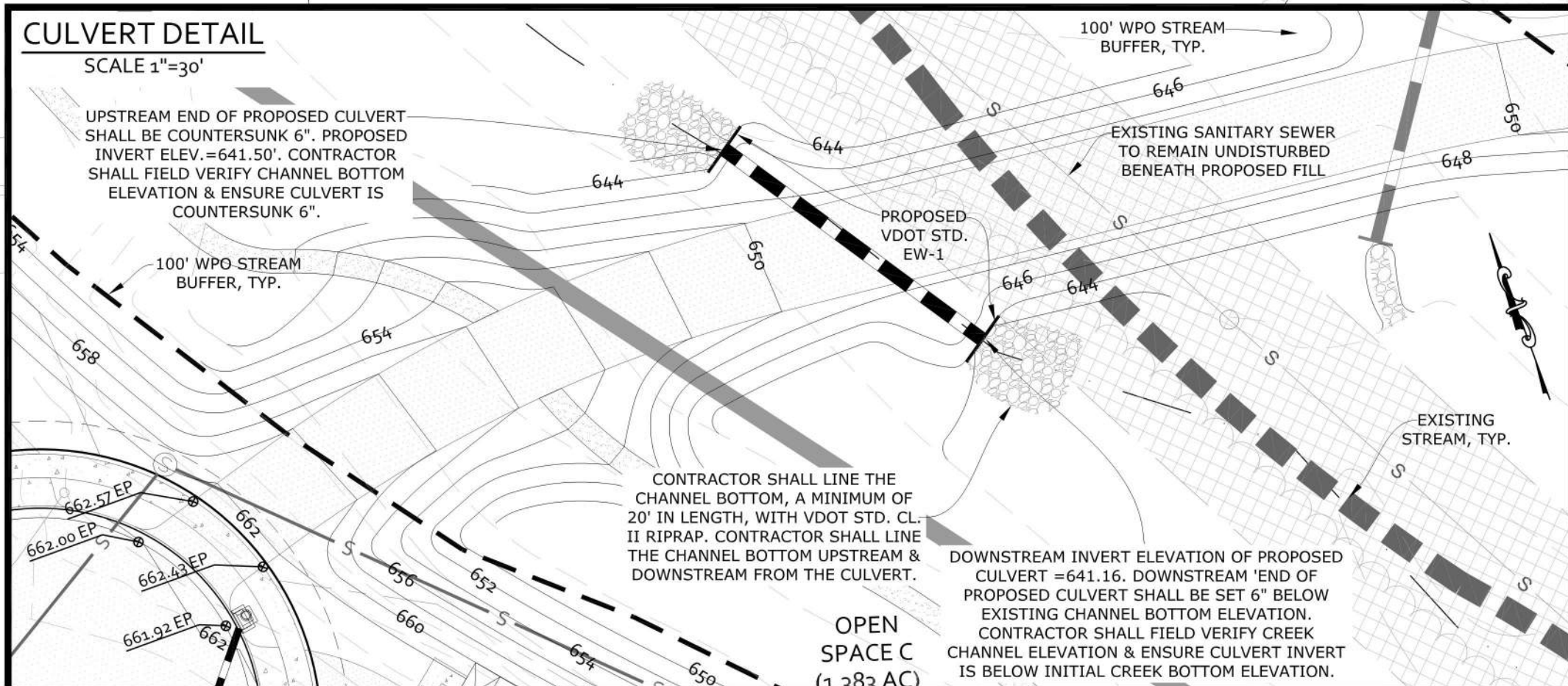
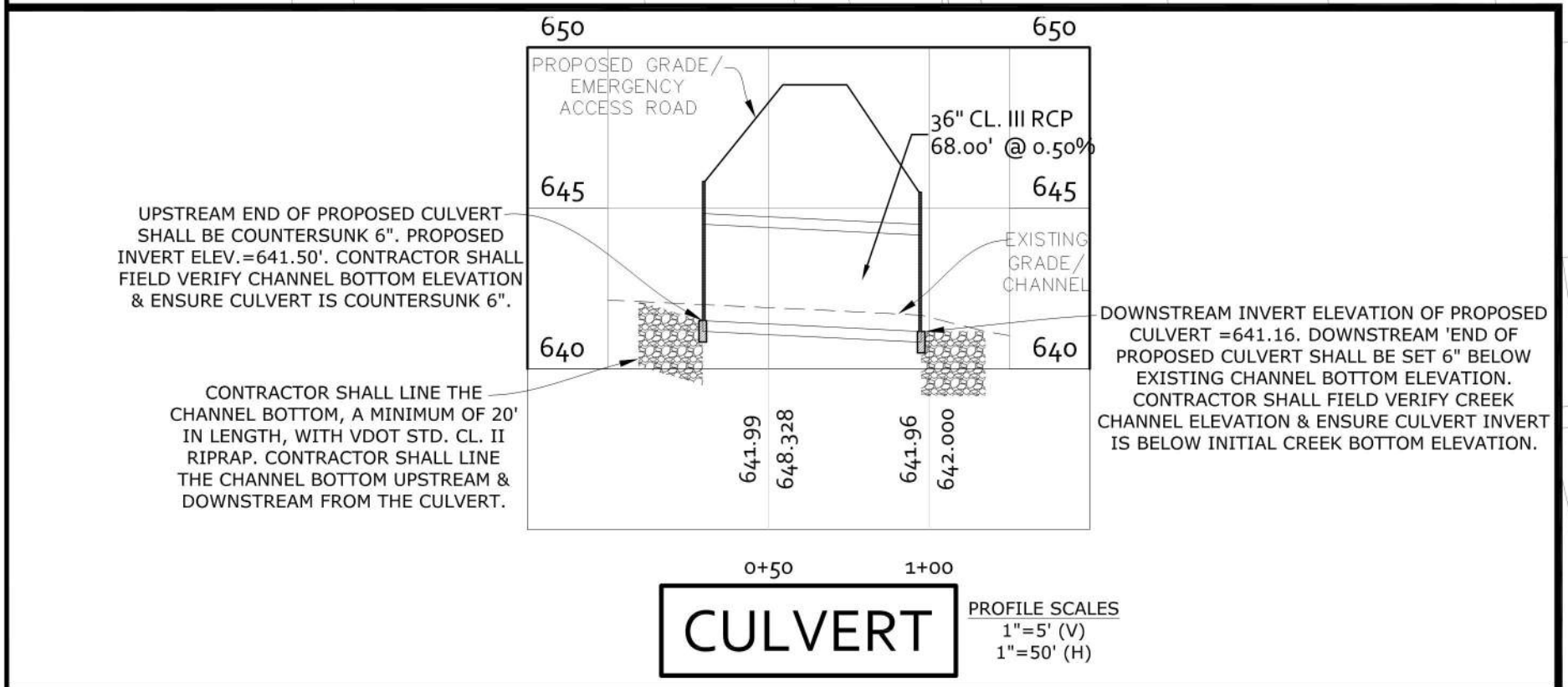
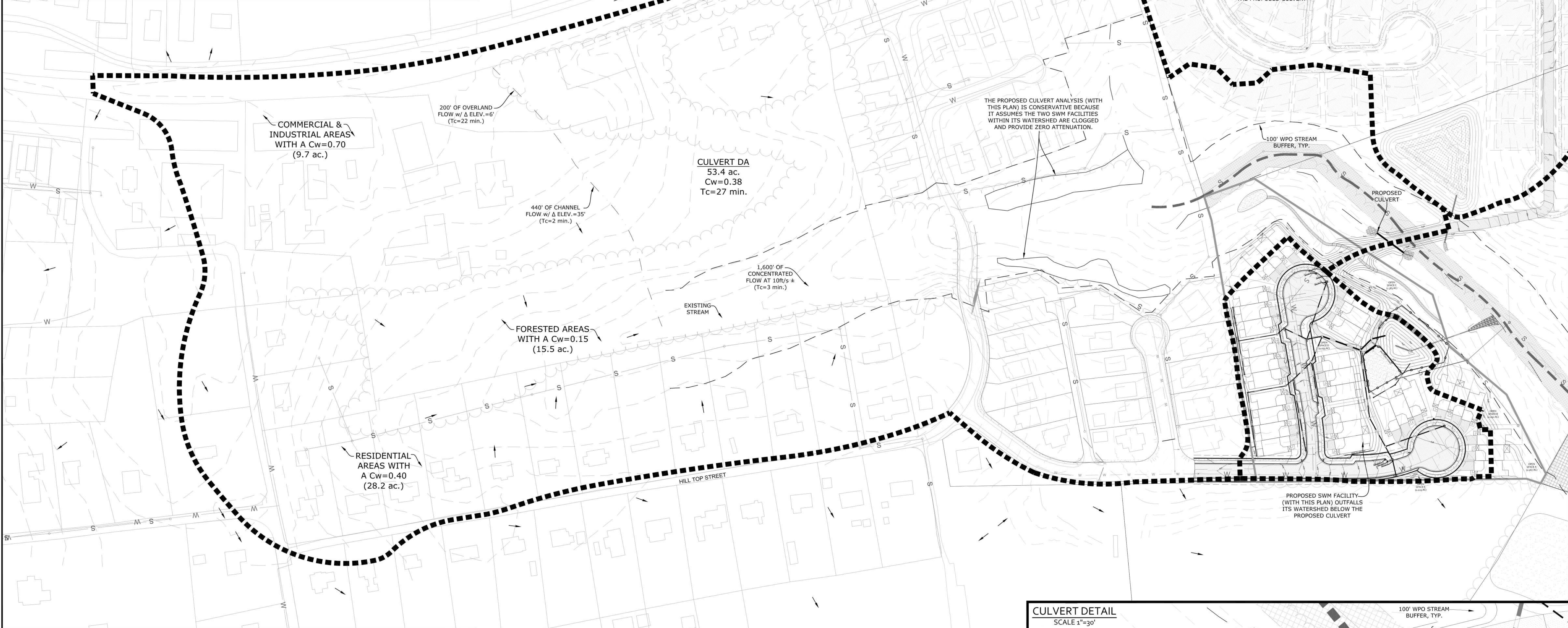
Overlap Flood Exceed. Prob.

Base Flood 1% Exceed. Prob.

Elev.

Elev.

Elev.



COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
03/30/20
PROFESSIONAL ENGINEER

REVISIONS

DATE	REVISION DESCRIPTION
1/30/20	INITIAL SUBMITTAL
3/30/20	SECOND SUBMISSION - RESUBMITTAL OF ROAD PLANS ADDRESSING CITY COMMENTS

COLLINS ENGINEERING

200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902 434.293.3719

FOOTHILL CROSSING PHASE V - ROAD PLAN

CULVERT PLAN

PROJECT

JOB NO.

112066

SCALE

AS SHOWN

SHEET

13

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