ADDENDUM #1



INDIANA UNIVERSITY

TRUSTEE OF INDIANA UNIVERSITY

BL000A SITE - CAMPUS RIVER RESTORATION PROJECT NUMBER – IU 20230520

STABILIZATION AND MAINTENANCE

PREPARED BY:

V3 COMPANIES, INC.

619 N. PENSYLVANIA STREET INDIANAPOLIS, INDIANA



The Trustees of Indiana University 1800 North Range Road Bloomington, Indiana 47408

April 25, 2025

Campus River Phase III - Addendum #1

April 22, 2025

Attendees:
Joe Townsend (IU)
Michael Girvin (IU)
Jim Rinehart (V3)
John Cummings (Crider & Crider)
John Simpson (Monroe LLC)
Chris Schaumberg (Williams Creek)
Nolan O'Farrell (Williams Creek)

Pre-Bid Meeting and Walkthrough

- Discussed of Schedule
 - Questions due April 23, 2025
 - o Responses to questions NLT April 25, 2025
 - o Bids Due April 30, 2025 at 2pm
 - O Notice to Proceed April 12, 2025
 - Substantial Completion August 15, 2025
- Will all sidewalks be required to use IU Beige color?
 - The contractor is expected to use IU Beige J177. A more detailed concrete specification has been added to the details.
- There were questions about the limits of the wall reconstruction downstream of the Forest Avenue Bridge.
 - Due to recent repairs of portions of the wall, Addendum #1 includes an updated depiction of the limits of the 100' of repair listed in Alternate 1. Rather than being 1 continuous repair 100 feet in length, the 100 foot repair will be split into 2 segments as described and shown in plan view.
- In previous sections White River Ledge Stone was replaced with Sandstone. Will this segment be constructed with Sandstone?
 - This phase is to be built with sandstone as a replacement for the previously referenced
 White River Ledgestone as allowed in previous phases.
- Is Chipped wood allowed in place of shredded hardwood mulch?
 - This substitute is acceptable as long as it is understood that the 12" minimum depth is maintained, all material is removed and lawn restored upon completion.
- Will Fencing be required around the construction limits of S1.18?
 - Fencing has been added to the plans to protect the public for the improvements associated with S1.18.
- In Detail Z, #53 stone is the only material listed for the base and top dressing. Is that correct or will a different material be used for top dressing?
 - Detail Z has been modified to depict the use of Course L stone for the top layer.

Additional Addendum #1 Items

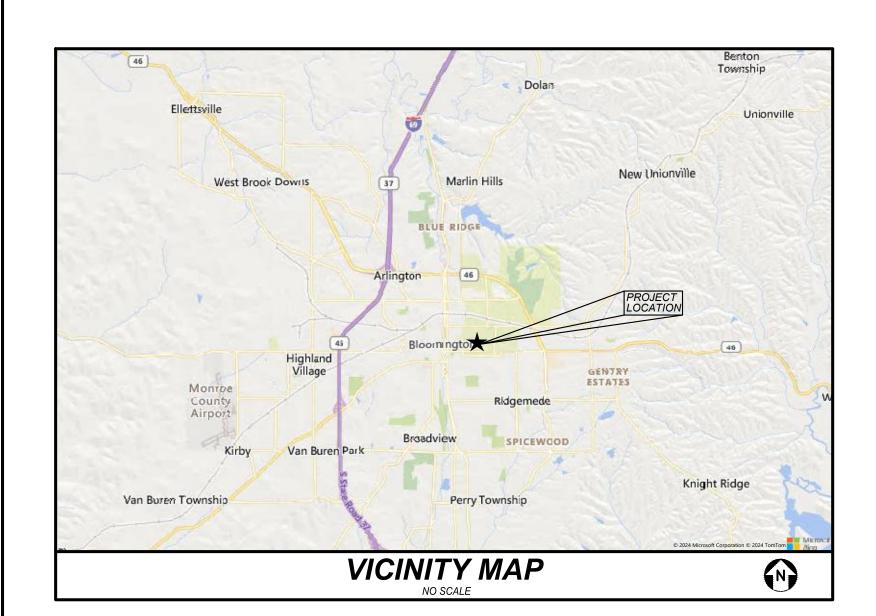
In addition to the questions provided and answered above, Addendum 1 includes an updated plan set intended to provide additional clarity by adding a clear construction limits line, and removal of hatches on the south bank of the stream on Sheet C2.0. With the exception of the added construction limit line, all revisions, including those in direct response to the questions above are clouded.

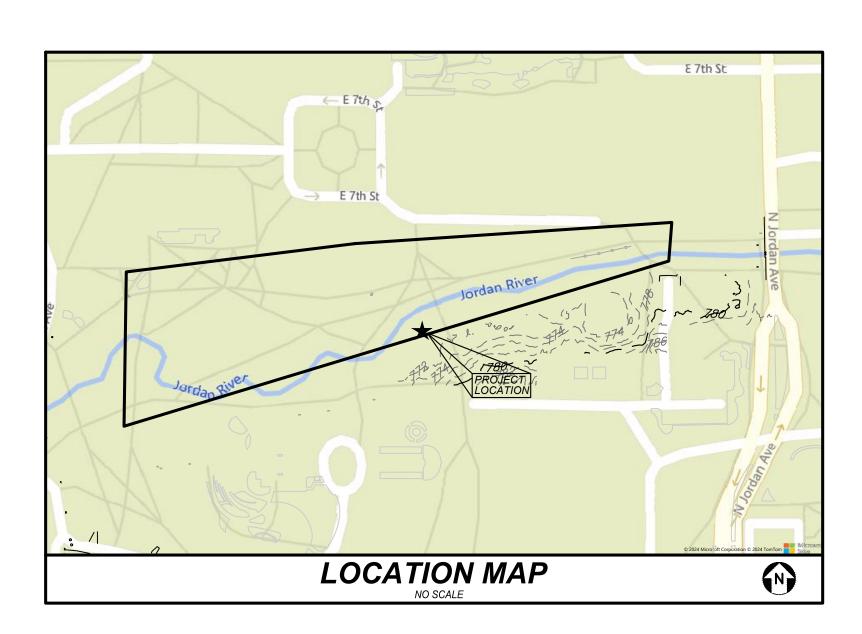
FINAL ENGINEERING PLANS

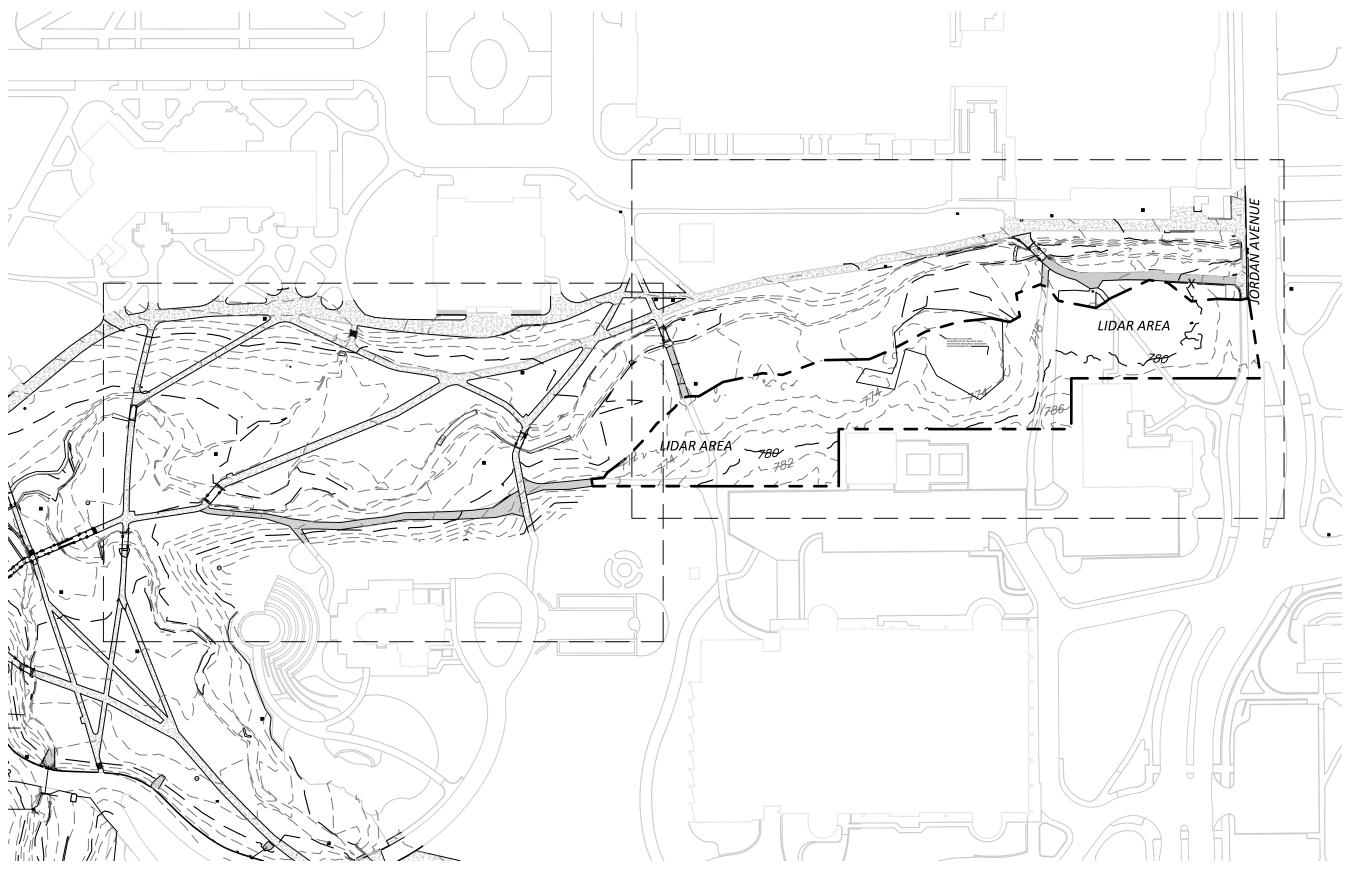
FOR

CAMPUS RIVER PHASE 3

BLOOMINGTON, INDIANA







INDEX

CIVIL ENGINEERING PLANS

C0.0
C0.1
GENERAL NOTES, LEGEND, AND ABBREVIATIONS
C0.2 - C0.22
PHASING AND ACCESS PLAN
C1.0 - C01.1
MAINTENANCE ACTION PLAN
C2.0 - C2.3
STABILIZATION ACTION PLAN
C4.0 - C4.3
EROSION CONTROL PLAN
SWPPP
C8.0 - C8.1
CONSTRUCTION DETAILS

OWNER/DEVELOPER

Trustees of Indiana University 2901 E. Discovery Parkway Bloomington, Indiana 47408 812-855-7030 Contact: Mia Williams

ENGINEER

V3 Companies, Ltd.
619 North Pennsylvania Street
Indianapolis, Indiana 46204
317-423-0690
Project Manager: Jim Rinehart, P.E.
jrinehart@v3co.com
Project Engineer: Matt Vogel
mvogel@v3co.com



PROFESSIONAL ENGINEER'S CERTIFICATION

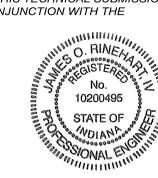
I, JIM RINEHART, A LICENSED PROFESSIONAL ENGINEER OF INDIANA, HEREBY CERTIFY THAT THE CIVIL ENGINEERING PLANS WERE PREPARED ON BEHALF OF INDIANA UNIVERSITY BY V3 COMPANIES, LTD. UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

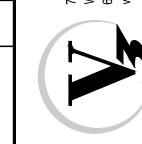
ATED THIS 25th DAY OF MARCVH, 2025.

Know what's below.

Call before you dig.

INDIANA LICENSED PROFESSIONAL ENGINEER MY LICENSE EXPIRES ON JULY 31, 2026





SHEE

CO.O

GENERAL NOTES

1. EXISTING SITE TOPOGRAPHY, UTILITIES, RIGHT-OF-WAY AND HORIZONTAL CONTROL SHOWN ON THE DRAWINGS WERE OBTAINED FROM A SURVEY PREPARED BY:

BLEDSOE RIGGERT COOPER JAMES
1351 WEST TAPP ROAD
BLOOMINGTON, INDIANA 47403

COPIES OF THE SURVEY ARE AVAILABLE FROM THE SURVEYOR. SITE CONDITIONS MAY HAVE CHANGED SINCE THE SURVEY WAS PREPARED. CONTRACTORS TO VISIT SITE TO FAMILIARIZE THEMSELVES WITH THE CURRENT CONDITIONS.

- 2. ALL EXISTING TOPOGRAPHY, UNDERGROUND UTILITIES, STRUCTURES AND ASSOCIATED FACILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS AND ELEVATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER FACILITIES, THE EXISTENCE OF WHICH ARE NOT PRESENTLY KNOWN.
- 3. CONTRACTOR IS TO VERIFY ALL EXISTING STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL AND STARTING WORK.
- 4. ALL APPLICABLE PROVISIONS OF THE CURRENT OCCUPATIONAL SAFETY AND HEALTH ACT ARE HEREIN INCORPORATED BY REFERENCE.
- 5. THE CONTRACTOR SHALL SUBSCRIBE TO ALL GOVERNING REGULATIONS AND SHALL OBTAIN ALL NECESSARY PUBLIC AGENCY PERMITS PRIOR TO STARTING WORK. THE CONTRACTOR, BY USING THESE PLANS FOR THEIR WORK, AGREE TO HOLD HARMLESS V3 COMPANIES LTD., THE MUNICIPALITY, THEIR EMPLOYEES AND AGENTS AND THE OWNER WHILE ACTING WITHIN THE SCOPE OF THEIR DUTIES FROM AND AGAINST ANY AND ALL LIABILITY, CLAIMS, DAMAGES, AND THE COST OF DEFENSE ARISING OUT OF CONTRACTOR(S) PERFORMANCE OF THE WORK DESCRIBED HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, THEIR AGENTS, THE ENGINEER, THEIR EMPLOYEES AND AGENTS.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE OWNER OF THE ROADWAY.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION. BARRICADES AND WARNING SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH THE INDOT STANDARD SPECIFICATIONS. ALL TRAFFIC CONTROL WORK SHALL BE DONE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
- 8. EXCEPT WHERE MODIFIED BY THE CONTRACT DOCUMENTS, ALL WORK PROPOSED HEREON SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS WHICH ARE HEREBY MADE A PART HEREOF:
- a. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS PREPARED BY INDOT, LATEST EDITION.
- b. "RECOMMENDED STANDARDS FOR WATER WORKS" LATEST
- c. "RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES"LATEST EDITION..
- d. THE LATEST EDITIONS OF THE MUNICIPAL CODE AND STANDARDS OF THE CITY OF BLOOMINGTON.
- e. THE NATIONAL ELECTRIC CODE.
- f. THE INDIANA ACCESSIBILITY CODE.

IN THE EVENT OF CONFLICTING SPECIFICATIONS WITH REGARD TO SITE WORK ISSUES DESIGNED BY THE ENGINEER, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

- 9. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY HAVING JURISDICTION AT LEAST 48 HOURS PRIOR TO COMMENCING ANY WORK AND FOR ANY NEW CONSTRUCTION REQUIRING INSPECTION.
- 10. ALL TREES TO BE SAVED SHALL BE IDENTIFIED PRIOR TO CONSTRUCTION AND SHALL BE PROTECTED PER 622-LSPR-05 STANDARDS. THE RIGHT-OF-WAY LINE AND LIMITS OF THE CONTRACTOR'S OPERATIONS SHALL BE CLEARLY DEFINED THROUGHOUT THE CONSTRUCTION PERIOD. ALL TREES IDENTIFIED TO REMAIN SHALL BE PROTECTED FROM DAMAGE INCLUDING TRUNKS, BRANCHES AND ROOTS. NO EXCAVATING, FILLING OR GRADING IS TO BE DONE INSIDE THE DRIP LINE OF TREES UNLESS OTHERWISE INDICATED.
- 11. CONSTRUCTION ACCESS POINTS TO THE SITE SHALL BE PROTECTED IN SUCH A WAY AS TO PREVENT ACCUMULATION OF MUD OR SOIL ON PUBLIC THOROUGHFARES. AT THE END OF EACH DAY AND AS OFTEN AS OTHERWISE NECESSARY THE CONTRACTOR SHALL CLEAN UP ALL MUD OR SOIL WHICH HAS BEEN TRACKED ONTO PUBLIC STREETS AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND AS DETAILED IN THE STORM WATER POLLUTION PREVENTION PLAN, SHEET C4.3.
- 12. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS WHERE HIS/HER OPERATIONS ABUT PUBLIC THOROUGHFARES AND ADJACENT PROPERTY IN ACCORDANCE WITH THE CITY OF BLOOMINGTON MUNICIPAL CODE AND INDOT REQUIREMENTS.

- 13. NO HOLES ARE TO BE LEFT OPEN IN THE PAVEMENT OR TRAILS OVER A HOLIDAY, WEEKEND OR AFTER 3:00 P.M. ON THE DAY PRECEDING A HOLIDAY OR A WEEKEND.
- 14. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT ALONG LIMITS OF PROPOSED REMOVAL BEFORE COMMENCEMENT OF PAVEMENT REMOVAL.
- 15. REMOVED PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR AS PART OF THE BASE CONTRACT.
- 16. NO BURNING OR INCINERATION OF RUBBISH WILL BE PERMITTED ON SITE.
- 17. FOR REGULATED UTILITY LOCATIONS, THE CONTRACTOR SHALL CONTACT INDIANA811 AT 811 OR 800-382-5544. LOCAL GOVERNMENT AGENCIES SHOULD BE CONTACTED BY THE CONTRACTOR FOR LOCATION OF ALL NONREGULATED UTILITY LOCATIONS. CALL FOR LOCATES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION.
- 18. BEFORE EXCAVATING OVER OR ADJACENT TO ANY EXISTING UTILITIES, CONTRACTOR SHALL NOTIFY THE OWNER OF SUCH UTILITIES TO ENSURE THAT PROTECTIVE WORK WILL BE COORDINATED AND PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER OF THE UTILITY INVOLVED. IF ANY EXISTING SERVICE LINES, UTILITIES AND UTILITY STRUCTURES WHICH ARE TO REMAIN IN SERVICE ARE UNCOVERED OR ENCOUNTERED DURING THIS OPERATION, THEY SHALL BE SAFEGUARDED, PROTECTED FROM DAMAGE AND SUPPORTED IF NECESSARY.
- 19. THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF "APPROVED" ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL.
- 21. ANY AREAS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN CONFORMANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND SHALL BE INCIDENTAL TO THE CONTRACT.
- 22. STREET PAVING AND CURBS TO REMAIN SHALL BE PROTECTED FROM DAMAGE AND IF DAMAGED, SHALL BE REPLACED PROMPTLY IN CONFORMANCE WITH THE MUNICIPALITY OR INDOT STANDARD SPECIFICATIONS IN MATERIALS AND WORKMANSHIP.
- 23. PROPOSED ELEVATIONS INDICATE FINISHED CONDITIONS. FOR ROUGH GRADING ELEVATIONS ALLOW FOR THICKNESS OF PROPOSED PAVING (ROADS, WALKS, ETC.) OR TOPSOIL AS INDICATED ON DRAWINGS.
- 24. CAD FILES ARE AVAILABLE FOR CONSTRUCTION LAYOUT UPON REQUEST.
- 25. BACKFILL SHALL BE PLACED NEXT TO THE CURB AS SOON AS PERMISSIBLE AFTER CONSTRUCTION TO PREVENT SCOURING AND UNDERCUTTING BY STORM WATER RUNOFF.
- 26. WHEN AN EXISTING DRAINAGE ROUTE, EITHER A STORM SEWER OR WATERWAY, IS INTERRUPTED DUE TO CONSTRUCTION, THE DRAINAGE ROUTE SHALL BE REESTABLISHED TO ORIGINAL CONDITIONS BY THE END OF THE SAME WORK DAY. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- 27. FINAL ADJUSTMENT OF MANHOLES TO FINISHED GRADE ARE INCIDENTAL TO THEIR COST.
- 28. ANY EXISTING UTILITY STRUCTURES REQUIRING ADJUSTMENT ARE TO BE ADJUSTED OR RECONSTRUCTED BY THE CONTRACTOR TO THE UTILITY OWNER'S SATISFACTION. ADJUSTMENTS OR RECONSTRUCTIONS NOT CALLED FOR ON THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 29. ALL UTILITY CONNECTIONS TO EXISTING LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND TO THE SATISFACTION OF THE UTILITY OWNER.
- 30. PROVIDE TRENCH BACKFILL IN ACCORDANCE WITH THE CITY OF BLOOMINGTON SPECIFICATIONS. BACKFILL SHALL BE PLACED AND COMPACTED PER THE MUNICIPALITY AND INDOT SPECIFICATIONS. COST OF BACKFILL IS TO BE CONSIDERED INCIDENTAL TO THE UTILITY WORK.
- 31. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 32. PRIOR TO DEMOBILIZATION, ALL WORK SHALL BE CLEANED AND INSPECTED TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 33. THE GENERAL CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO PROVIDE CABLE TV, PHONE, ELECTRIC, GAS AND IRRIGATION SERVICES. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SITE LAYOUTS FOR THESE UTILITIES AND SHALL COORDINATE AND PROVIDE CONDUIT CROSSINGS AS REQUIRED. THIS COORDINATION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. ANY CONFLICTS IN UTILITIES SHALL BE CORRECTED BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 34. BAND-SEAL CONNECTORS OR EQUIVALENT SHALL BE USED TO JOIN PIPES OF DISSIMILAR MATERIAL.
- 35. CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ALL CONSTRUCTION IN CONFORMANCE WITH ALL MUNICIPAL AND CLIENT REQUIREMENTS FOR USE IN PREPARING RECORD DRAWINGS.
- 36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING ANY EXCAVATION. ANY DEWATERING REQUIRED SHALL BE INCIDENTAL TO THE CONTRACT.

- 37. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE EXTENDED TO OUTLET INTO THE EXISTING DRAINAGE WAY AS DETERMINED BY THE ENGINEER. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE OF SIMILAR SIZE AND MATERIAL TO THE ORIGINAL LINE AND PUT IN ACCEPTABLE OPERATIONAL CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE FOR ON-SITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE SUBCONTRACTOR AND SUBMITTED TO THE ENGINEER UPON COMPLETION OF THE PROJECT. ALL FIELD TILE REPAIRS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.
- 38. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS/HER WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
- 39. DAMAGE TO THE EXISITNG RIGHT-OF-WAY SHALL BE RESTORED/REPAIRED TO THE SATISFACTION OF THE TOWN AT THE COMPLETION OF THE PROJECT. THE CONTRACTOR IS ENCOURAGED TO INSPECT THE RIGHT-OF-WAY WITH THE CITY PRIOR TO THE START OF CONSTRUCTION TO DOCUMENT THE EXISTING CONDITION OF THE RIGHT-OF-WAY.

LEGEND

ARC LENGTH PROPOSED DESCRIPTION BACK TO BACK OF CURB RIGHT-OF-WAY LINE B/C BACK OF CURB PROPERTY LINE (EXTERIOR) BUILDING BLDG BENCHMARK LOT LINE (INTERIOR) BOTTOM OF PIPE EASEMENT LINE BV/VV BUTTERFLY VALVE IN VALVE VAULT FENCE LINE **CURB AND GUTTER** CATCH BASIN CENTERLINE CENTERLINE PROPERTY CORNER CLOSED LID CLEAN OUT CONTOUR **DUCTILE IRON PIPE** DIP CURB & GUTTER DIA DIAMETER DEPRESSED CURB & GUTTER DIWM DUCTILE IRON WATER MAIN DWG DRAWING REVERSE PITCHED CURB V V V V V EAST OR ELECTRIC OR EDGE × 706.00 × 706.0 SPOT ELEVATION **EXPANSION JOINT** TOP OF CURB ELEVATION ELEV ELEVATION EDGE OF PAVEMENT ELEVATION EDGE OF PAVEMENT UTILITY STUB **EXISTING** SANITARY SEWER FRAME & CLOSED LID SANITARY FORCE MAIN F&G FRAME & GRATE F & OL FRAME & OPEN LID _>--->--STORM SEWER FLARED END SECTION WATER MAIN FACE TO FACE OF CURB GAS MAIN FINISHED FLOOR FINISHED GRADE F/G UNDERGROUND TELEPHONE ____ T/E ____ FIRE HYDRANT & ELECTRIC DUCT BANK FLOW LINE BURIED CABLE-ELECTRIC GAS LINE BURIED CABLE-TELEPHONE GV/VB GATE VALVE IN VALVE BOX ATLAS LOCATED UTILITY GV/VV GATE VALVE IN VALVE VAULT HDCP HANDICAP UTILITY STRUCTURE WITH CLOSED LID HDPE HIGH DENSITY POLYETHYLENE PIPE CURB INLET HDW HEADWALL DRAINAGE STRUCTURE WITH OPEN LID HOR HORIZONTAL HIGH POINT FIRE HYDRANT HIGH WATER LEVEL VALVE IN VALVE BOX INVERT ELEVATION GATE VALVE IN VALVE VAULT INLET LINEAL FEET POST INDICATOR VALVE LOW POINT OR LIGHT POLE THRUST BLOCK MATCH EXISTING MANHOLE TREE LINE MONITORING WELL CONCRETE HEADWALL NOT IN CONTRACT / NOT INCLUDED SUBMERGED HEADWALL NWL NORMAL WATER LEVEL FLARED END SECTION (F.E.S.) OC ON CENTER **GUY WIRES** OL OPEN LID POINT OF CURVATURE FLOOD LIGHT PORTLAND CEMENT CONCRETE PCC UTILITY POLE OR POINT OF COMPOUND CURVE LIGHT STANDARD PROFILE GRADE LINE POINT OF INTERSECTION TRAFFIC SIGNAL POLE PROPERTY LINE HAND HOLE POWER POLE SOIL BORING POINT OF REVERSE CURVATURE PΤ POINT OF TANGENCY IRRIGATION HEADS PUE PUBLIC UTILITY EASEMENT POINT OF VERTICAL CURVATURE OR POLYVINYL CHLORIDE PIPE TELEPHONE MANHOLE PVI POINT OF VERTICAL INTERSECTION MONITORING WELL POINT OF VERTICAL TANGENCY TELEPHONE PEDESTAL RADIUS OR RIGHT RCP REINFORCED CONCRETE PIPE TRANSFORMER PAD ROW **RIGHT OF WAY** ///>/ UTILITY TO BE ABANDONED SLOPE OR SOUTH FEATURE TO BE REMOVED SAN SANITARY SILTATION FENCE STORMWATER FLOW DIRECTION SFM SANITARY FORCE MAIN STORMWATER OVERFLOW ROUTE SHT SHEET DITCH CHECK SHW ____ SUBMERGED HEADWALL SMH SANITARY MANHOLE **INLET FILTER BASKET** STA STATION RIP RAP STORM STRUCTURE OR STORM SEWER STORM MANHOLE BOLLARD TANGENT LENGTH OR TELEPHONE SILT FENCE T/C TOP OF CURB WATER MAIN PROTECTION T/P TOP OF PIPE (C01) T/W TOP OF WALL UTILITY CROSSING LABEL ΤY TYPE **GUARDRAIL** TYP **TYPICAL** RAILROAD TRACKS **UTILITY POLE VERTICAL CURVE RETAINING WALL VERT** VERTICAL REVISION DELINEATION VCP VITRIFIED CLAY PIPE WEST CONSTRUCTION LIMIT LINE _____ CLL____ WATER MAIN WM

TREE PROTECTION FENCE

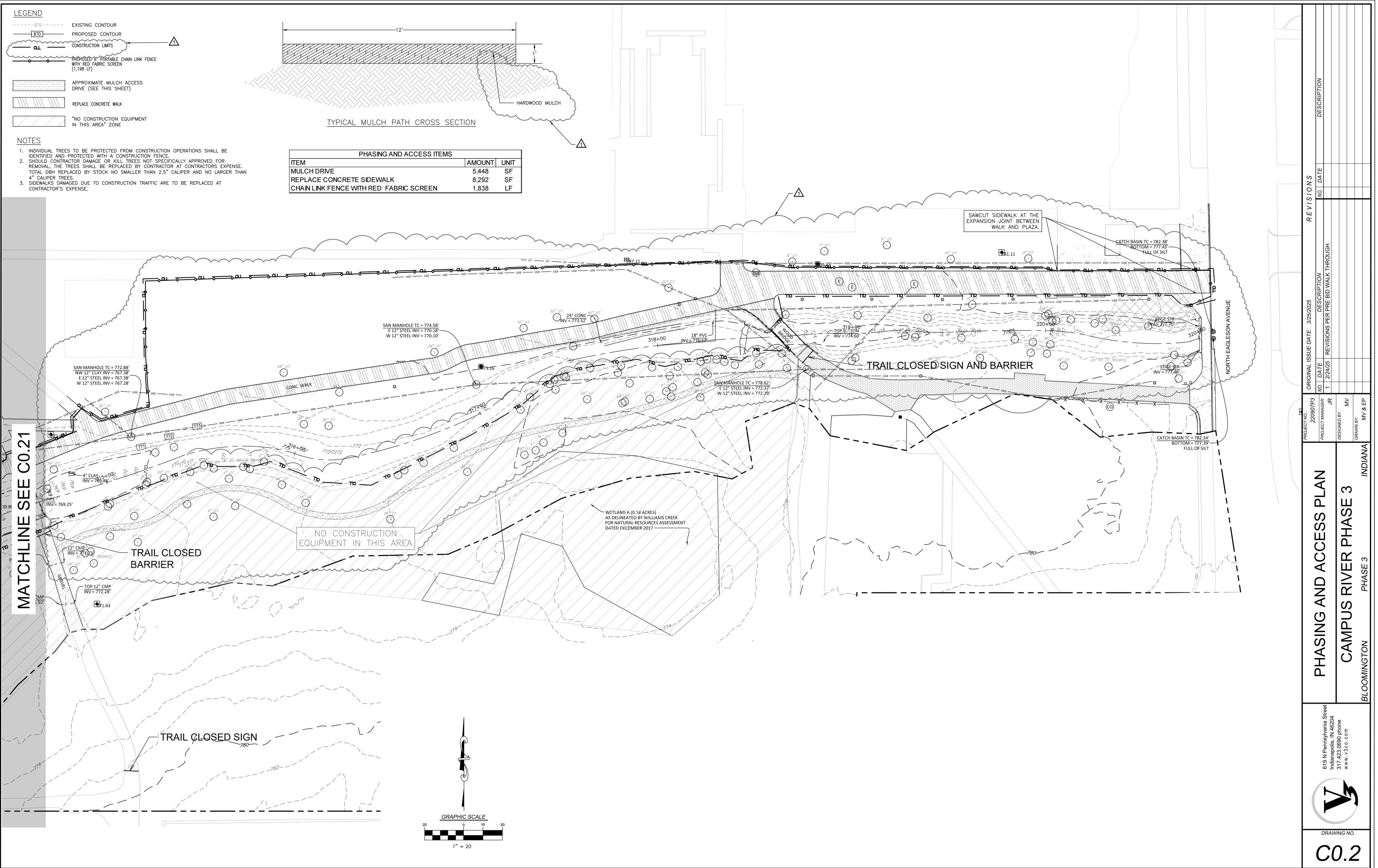
ABBREVIATIONS

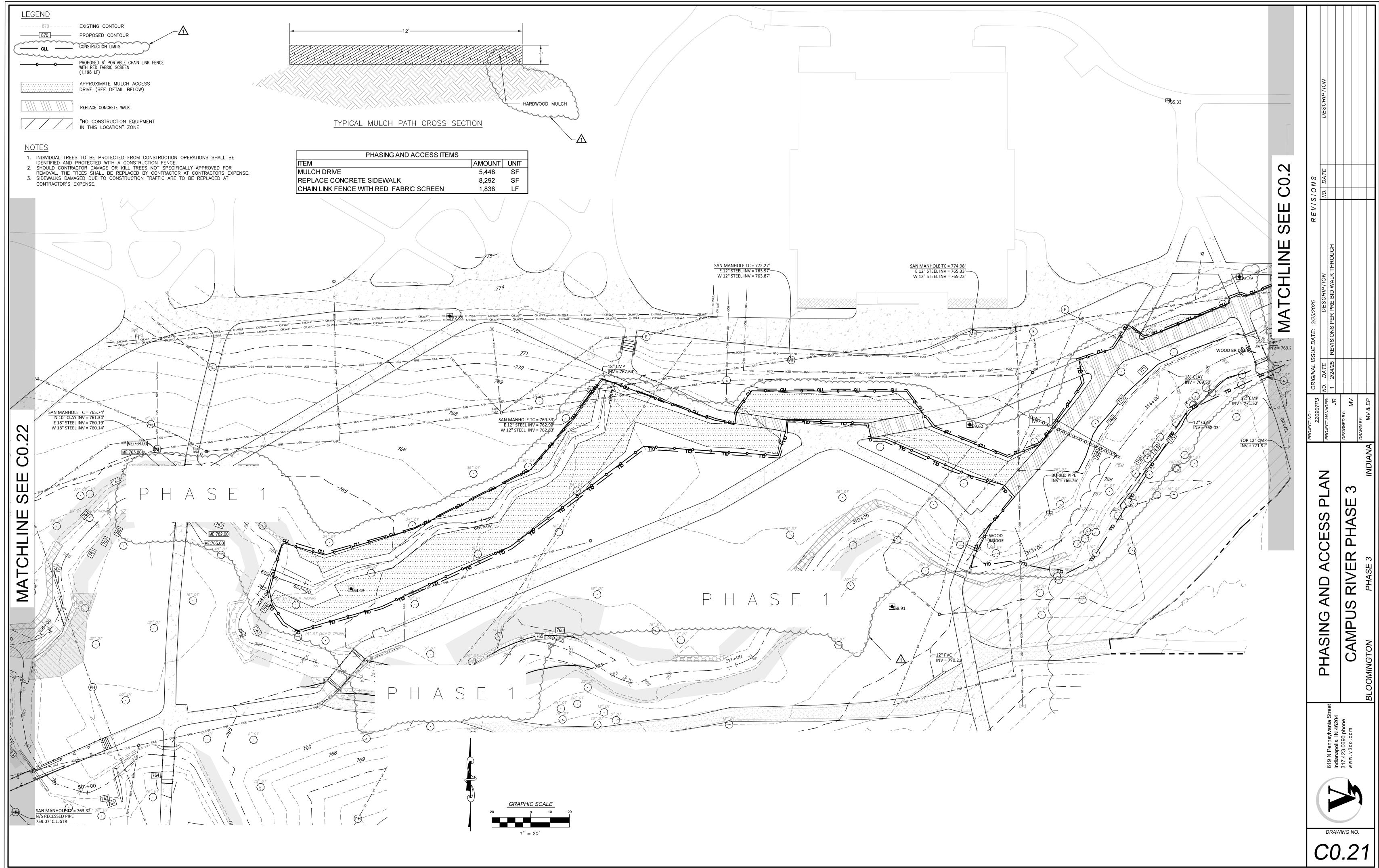
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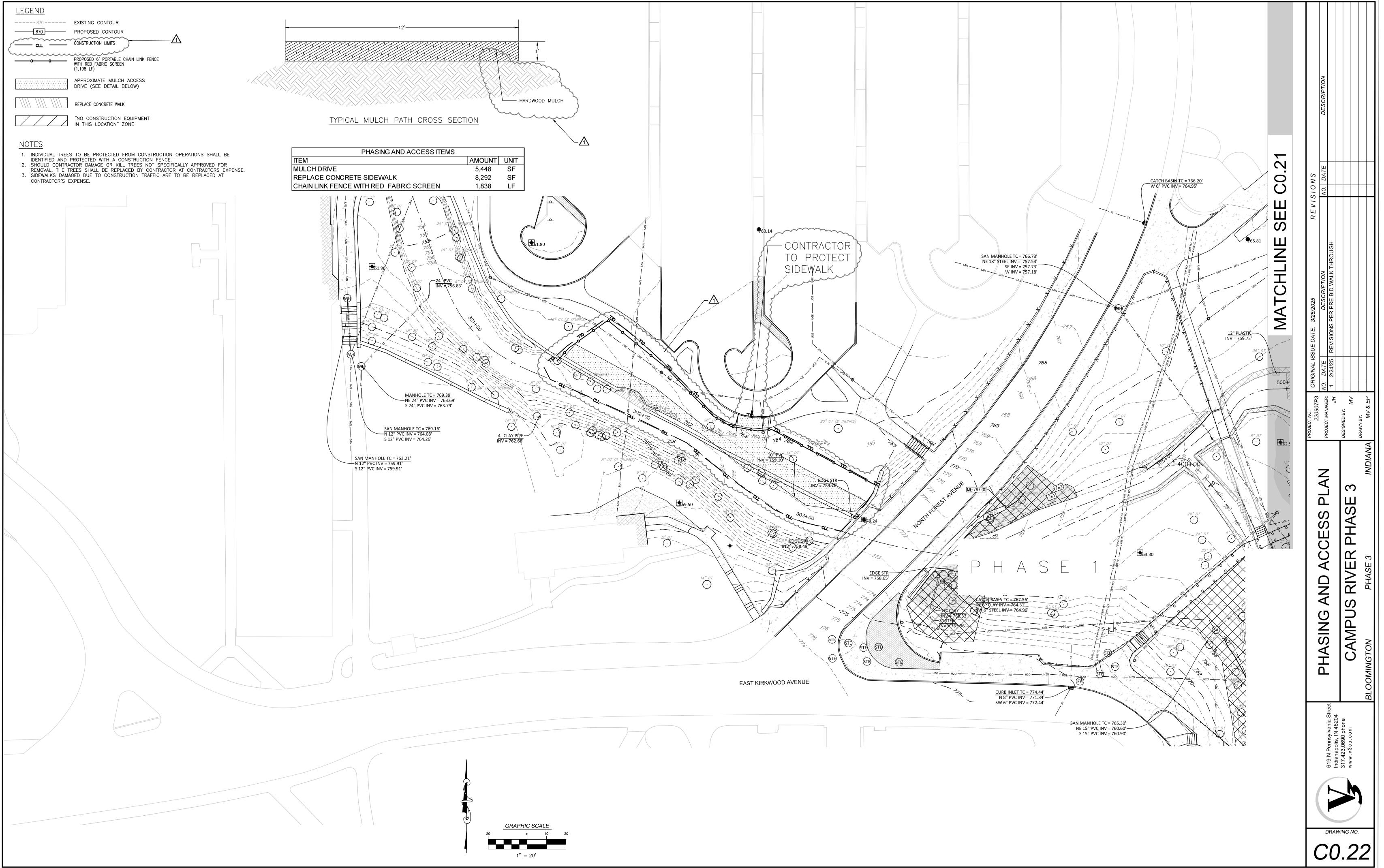
N Pennsylvania Street anapolis, IN 46204 .423.0690 phone w.v3co.com

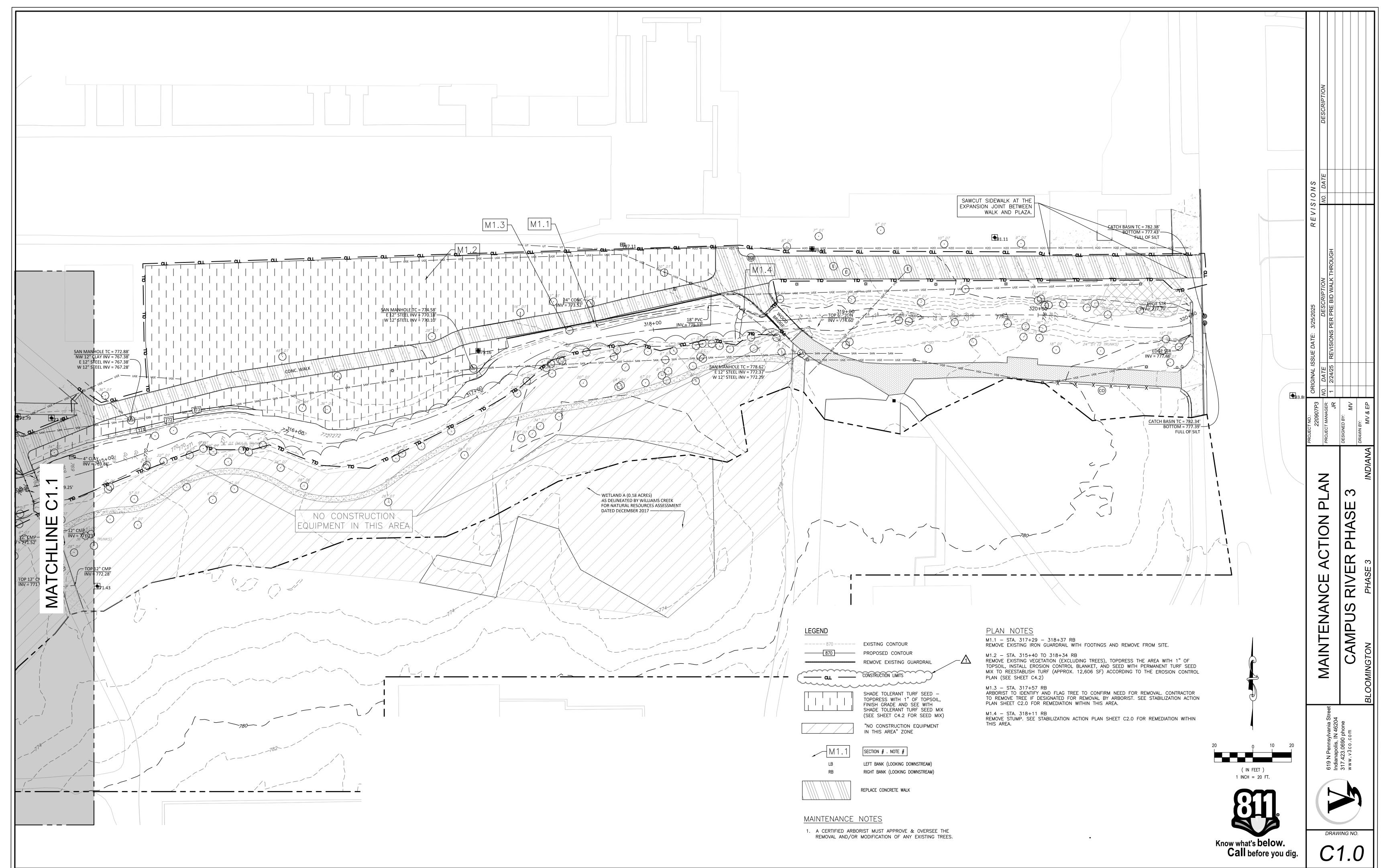


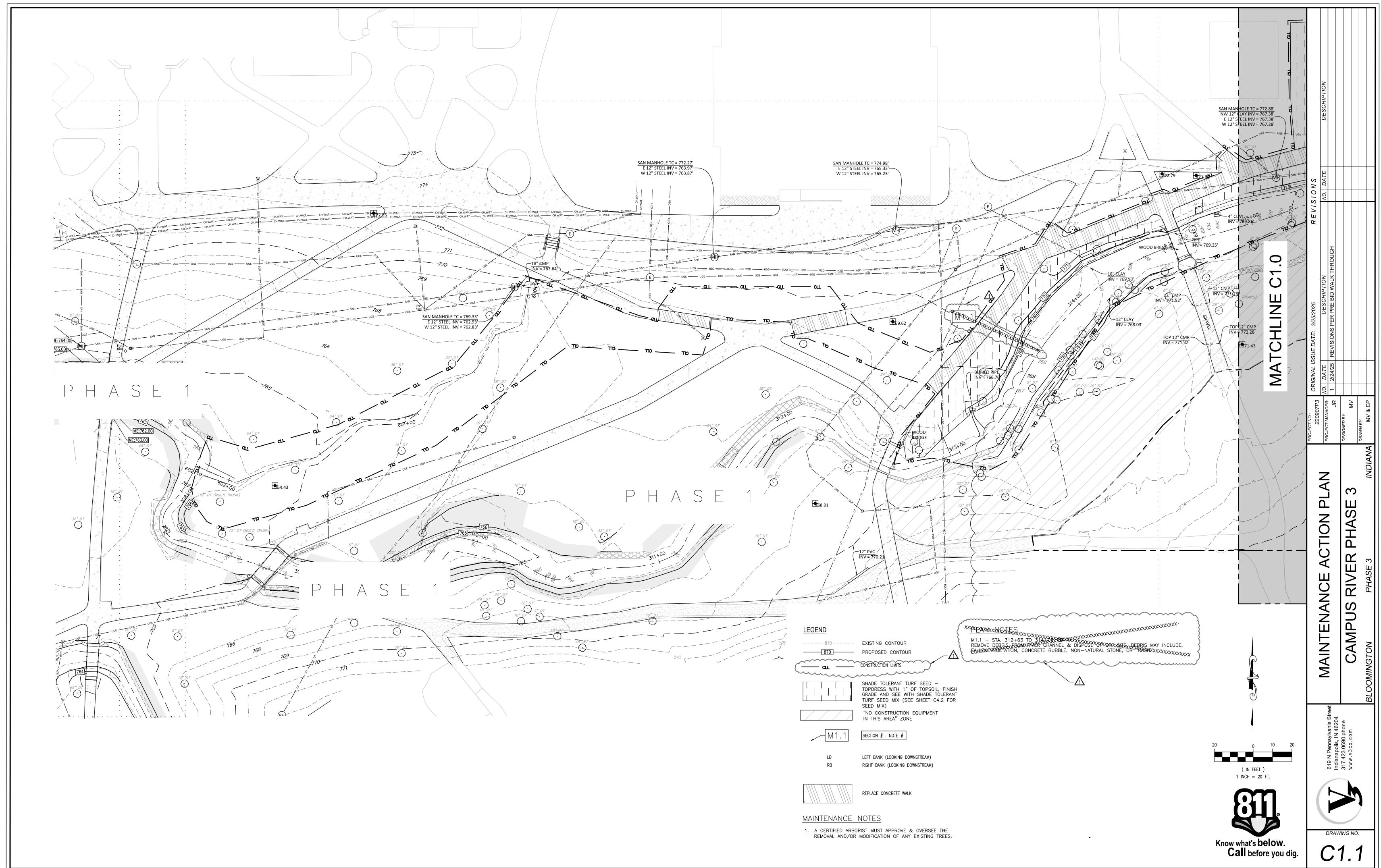
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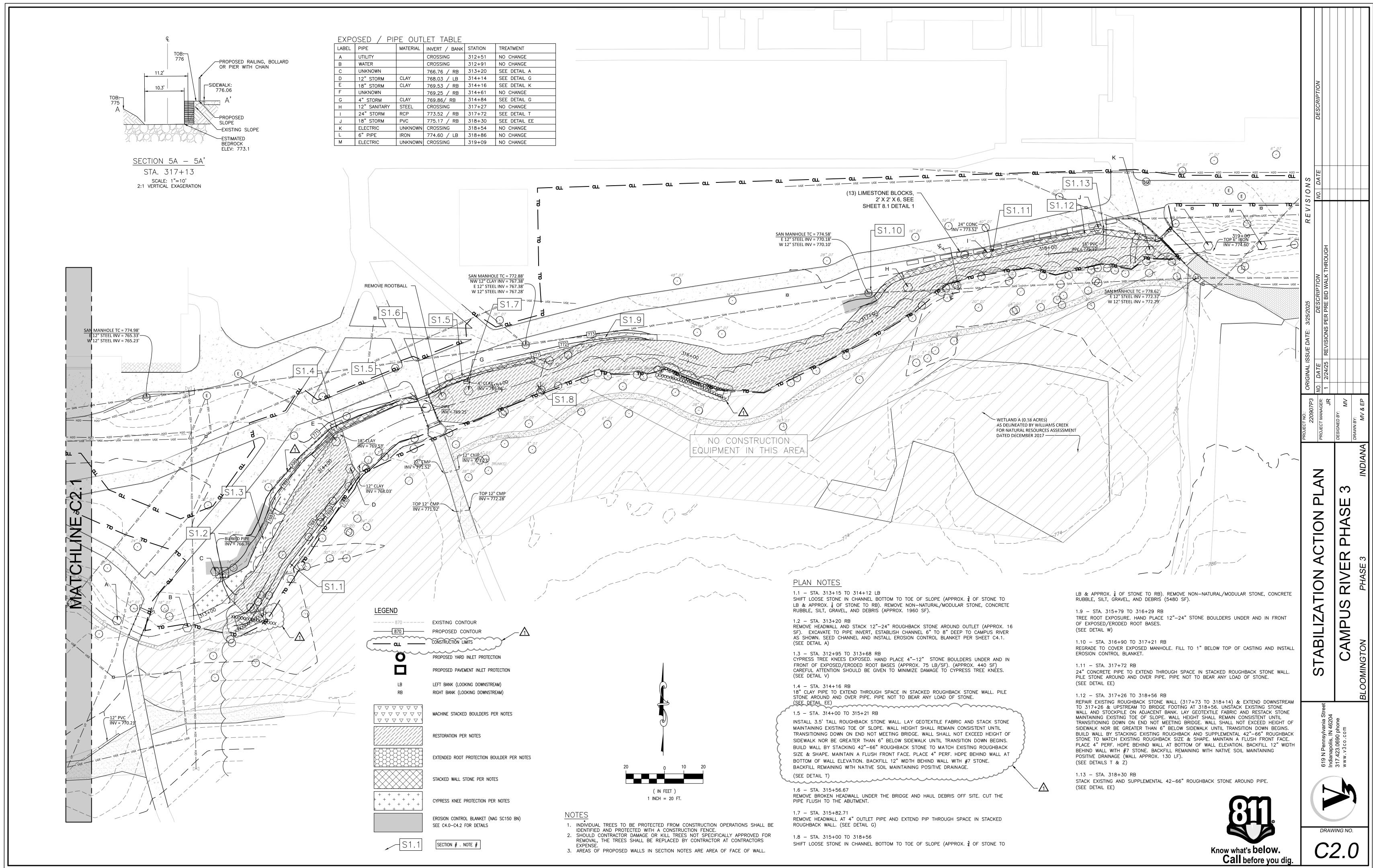


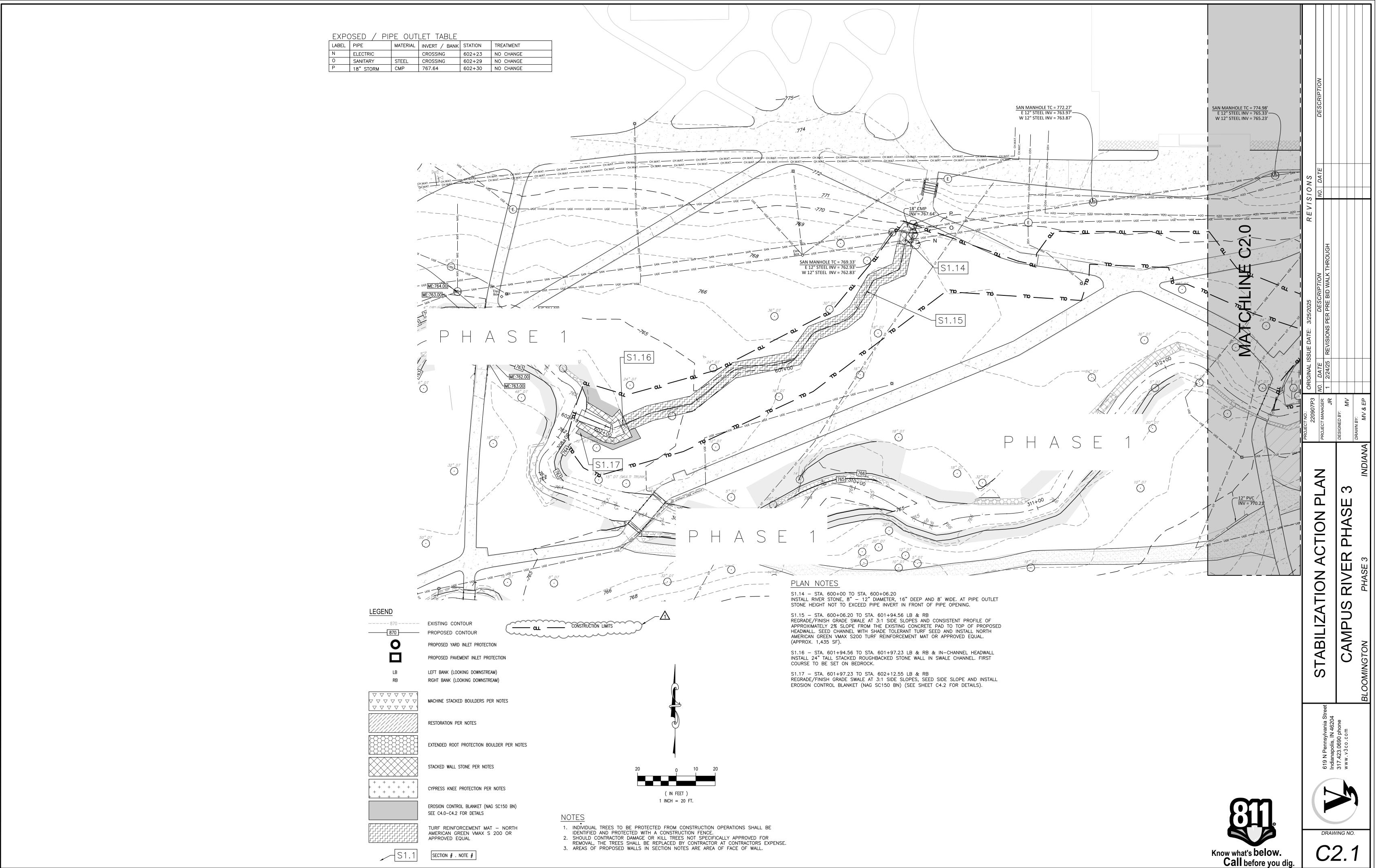


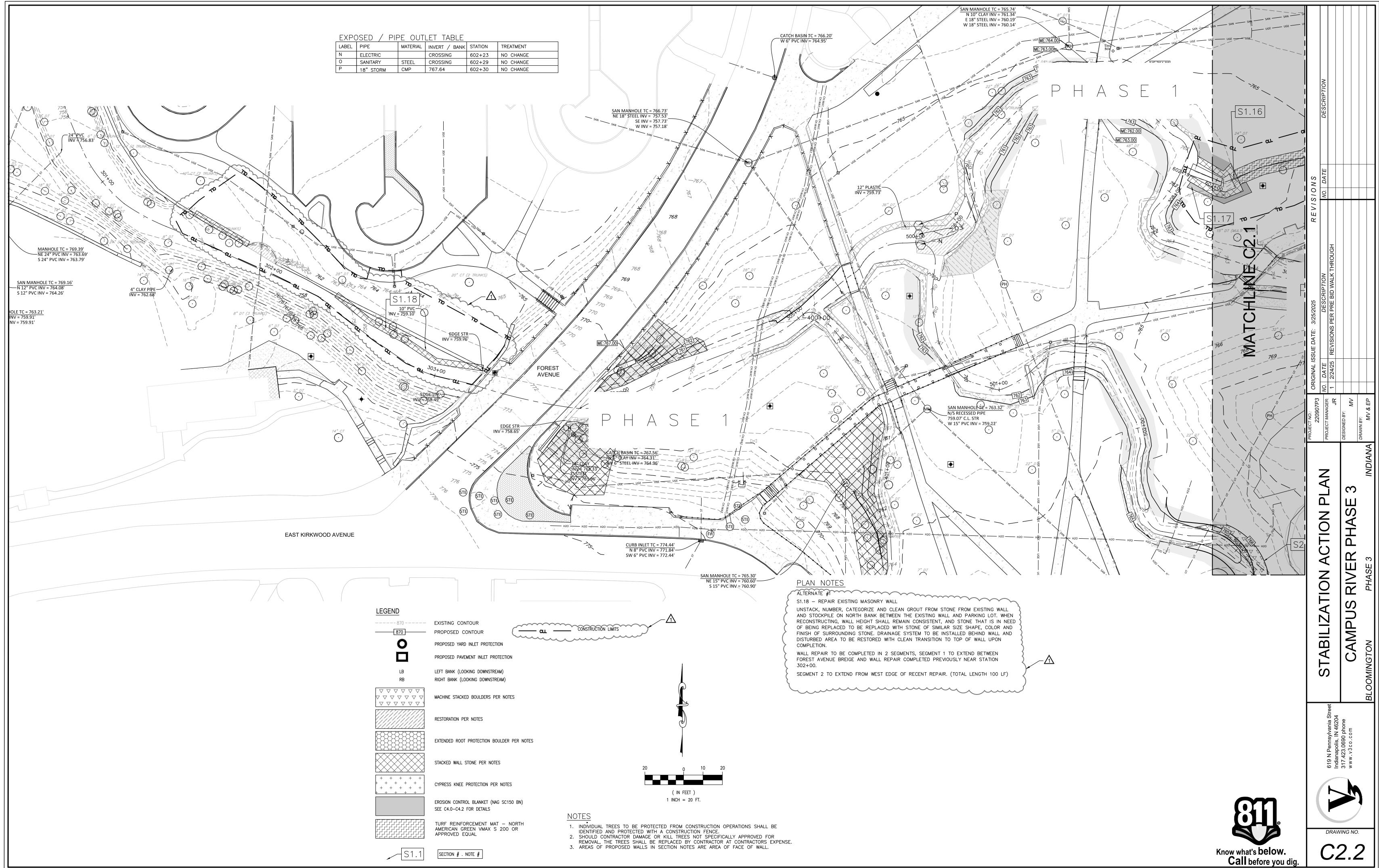


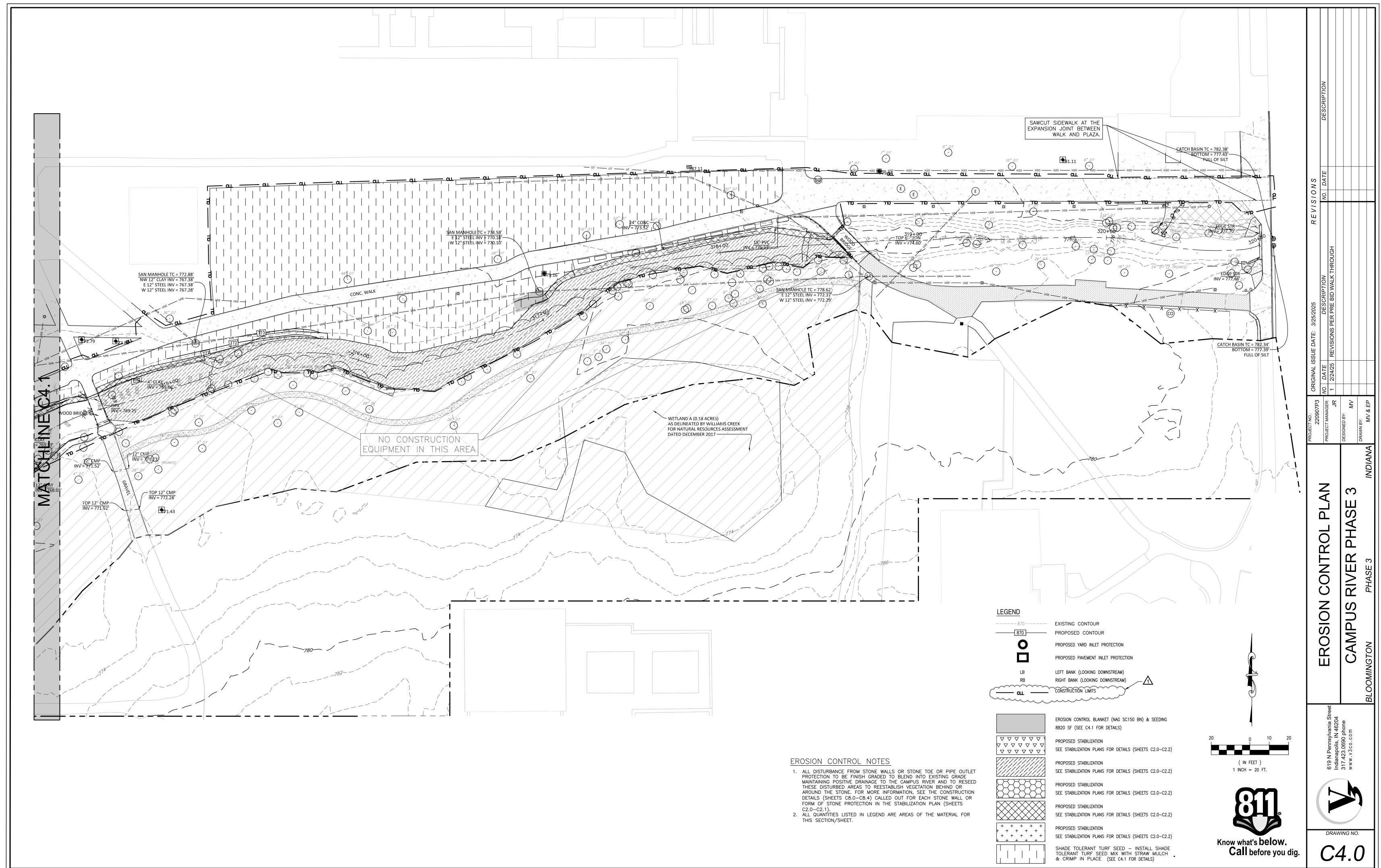


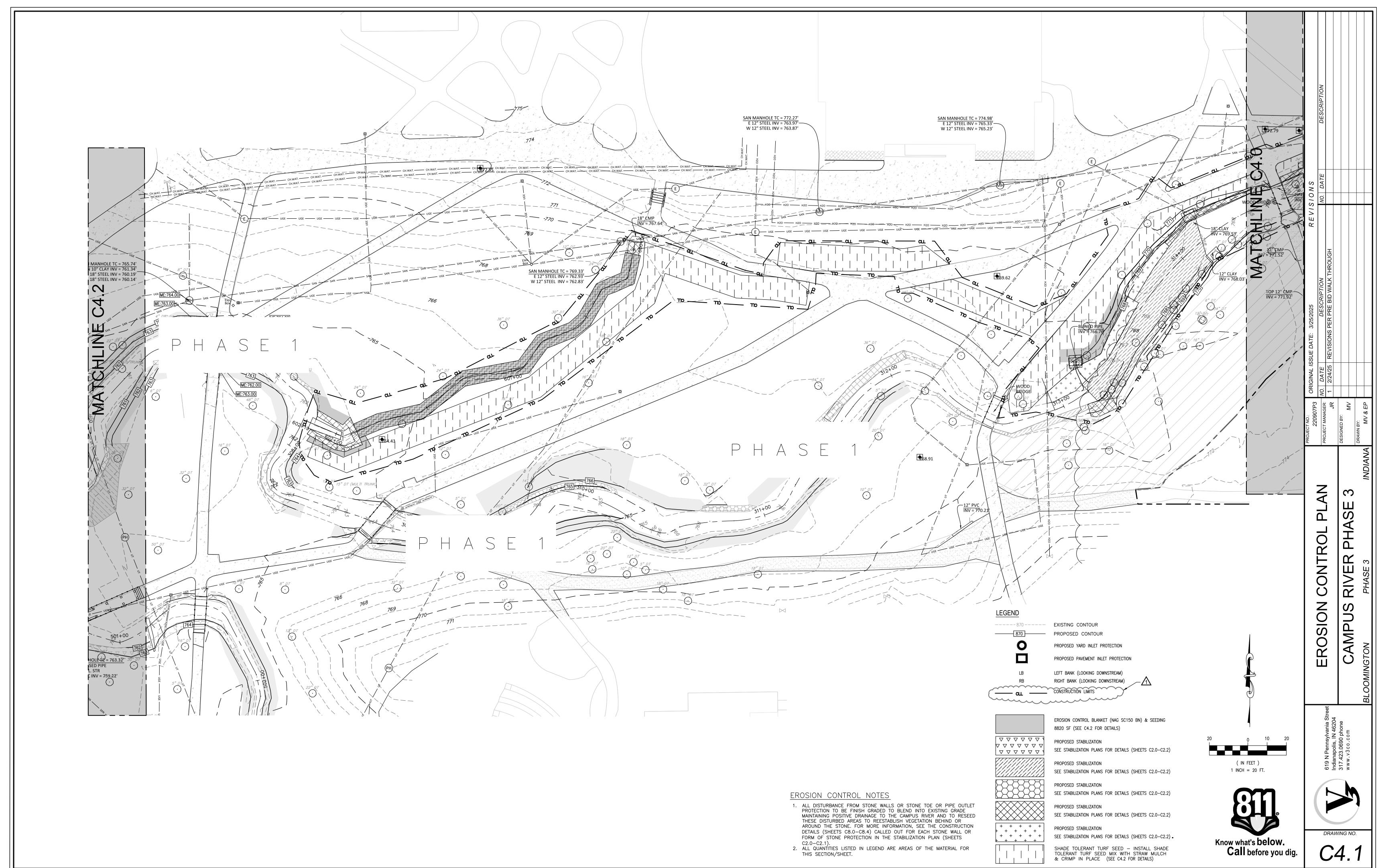


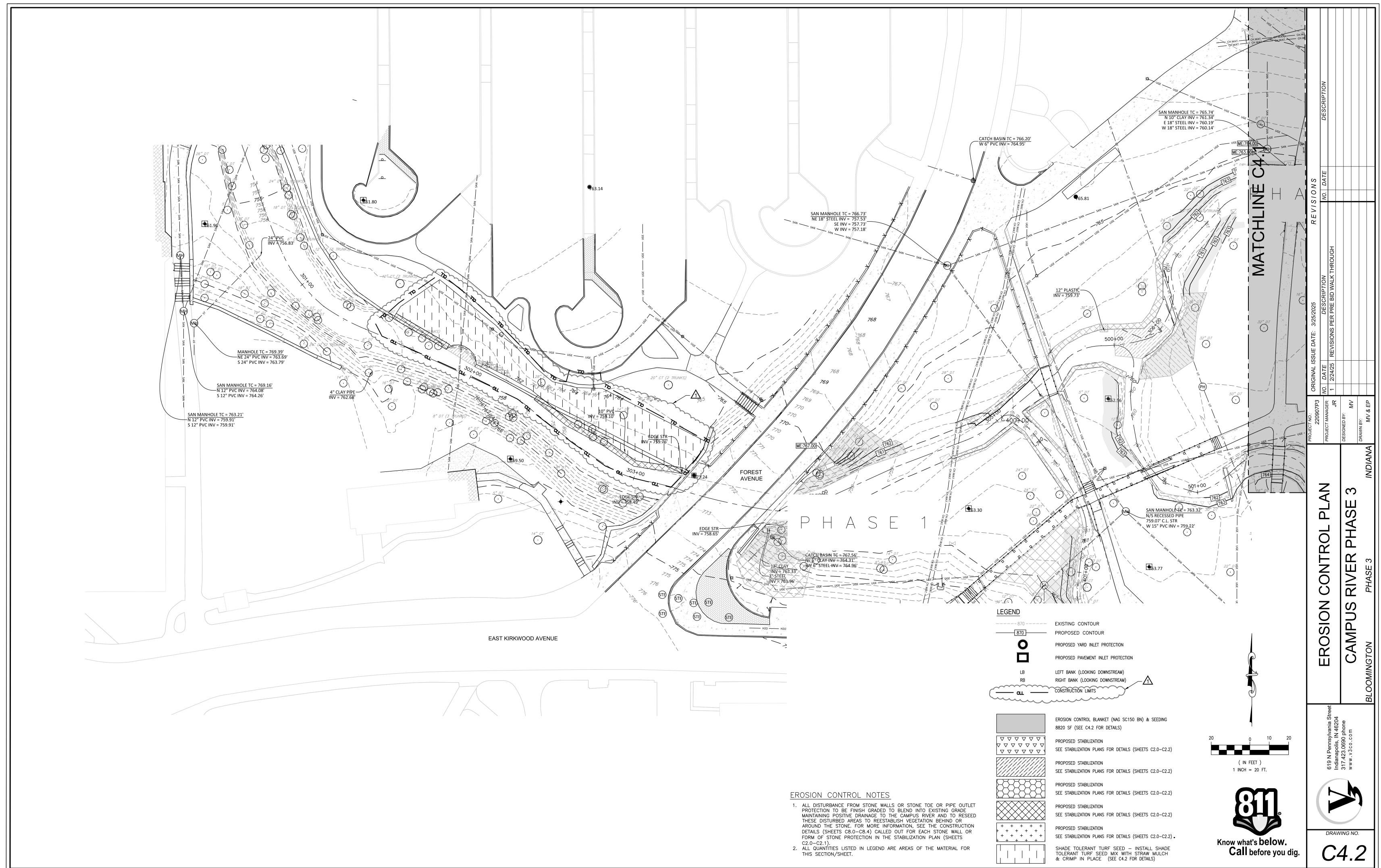


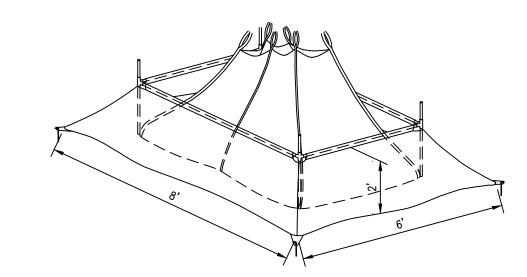












Concrete Washout Specifications

VINYL CON CONCRETE WASHOUT SYSTEM SPECIFICATIONS

Vinyl-Con[™] system utilizes a portable, self-contained and watertight container with filter bag system and Aqua-Solution[™] to control, capture and contain caustic concrete wastewater and washout material.

Vinyl Con System is compliant with EPA regulations for Concrete Washout.

Complete installation of the system and have washout locations operational prior to concrete delivery.

. Do not wash out concrete trucks or equipment into storm drains, wetlands, streams, rivers, creeks, ditches, or streets. Never wash out into a storm sewer drainage system. These systems are typically connected to a natural conveyance system.

Where necessary, provide stable ingress and egress

• Do not back flush equipment at the project site. Back flushing should be restricted to the plant os it generates large volumes of waste that may exceed the capacity of the washout systems. If an emergency arises, back flush should only be performed with the permission of the on-site manager for the project.

· Locate concrete washout systems at least 50 feet from any creeks, wetlands. ditches, karst features. or storm drains/manmade conveyance systems. • To the extent practical, locate concrete washout systems in relatively flat areas that have established vegetation aid do not receive runoff from adjacent land

 Locate in areas that provide easy access for concrete trucks and other construction equipment. Locate away from other construction traffic to reduce the potential for damage to the system.

Vinyl Con Container

1. Locate the washout in an area that is free of rocks and other debris that may cause tears or punctures in the Vinyl Con Container.

2. Spread the Vinyl-Con™ flat on the ground with the opening facing up

3. Layout the framework pieces on the ground as follows:

6x8 Vinyl-Con™: (4) 4-way corner fittings; (4) 7" upright fittings; (2) couplers; (4) 19" legs; (2) 47" walls; (4) 35.5" walls

Insert 47" wall into 4' pocket of Vinyl-Con™ (repeat on opposite side)

- Attach (2) 35.5" walls together with (1) coupler (repeat on opposite side) Insert the wall with coupler into 6' pocket of Vinyl-Con™ (repeat on opposite side)
- Connect (4) legs into 4-ways
- Connect (4) 4-ways in each corner to the walls
- Insert 7" upright into the top of the 4-way on each corner (for use of filter bags)

5. Loops are available on each corner to secure the Vinyl-Con™ to the ground with stakes in high wind areas. Once the concrete is in the Vinyl-Con™ there is no need for stakes.

Install Filter Bag

Spread the Vinyl-Con™ Filter Bag flat inside the Vinyl-Con™ container

- 2. Insert the 7" pvc uprights into the top of the corner fittings on the Vinyl-Con™ container
- 3. Place the Filter Bag corner loops over the Vinyl-Con™ corner uprights. Be sure to twist the loops several times and then loop over the corner pvc uprights. This helps secure the filter bag is place.
- 4. Begin pouring concrete washout into the filter bag
- 5. When the filter bag is full of concrete, lift the bag with the straps allowing the water to permeate through the bag and into the Vinyl-Con™ container.
- 6. Set the filter bag aside and refill the Vinyl-Con™ container with another filter bag

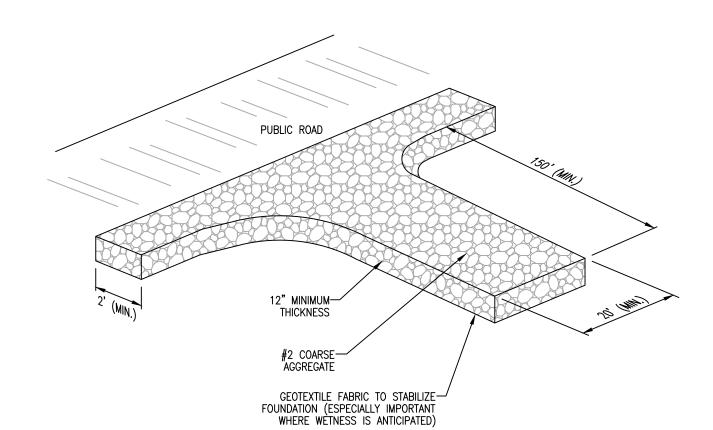
- Place a cover over the washout facility prior to a predicted rainfall event to prevent accumulation of water and possible overflow of the system
- Inspect daily and after each storm event.
- Inspect the integrity of overall structure including, the containment system. Inspect the system for leaks, spills, and tracking of soil by equipment
- Once filter bag is full of hardened washout material, remove for recycling. Place another filter bag inside the Vinyl-Con watertight container and repeat step #1 over again multiple times.
- Once Vinyl-Con watertight container is full of cementitious wastewater, place last filter bag inside to allow wastewater to permeate up through the filter bag and broadcast Aqua-Solution into wastewater turning the wastewater into a gelled content in about 5 minutes.
- Once entire filter bag of wastewater is a gelled content, remove for recycling. Reuse Vinyl-Con watertight container, begin with step #1 with more filter bags.

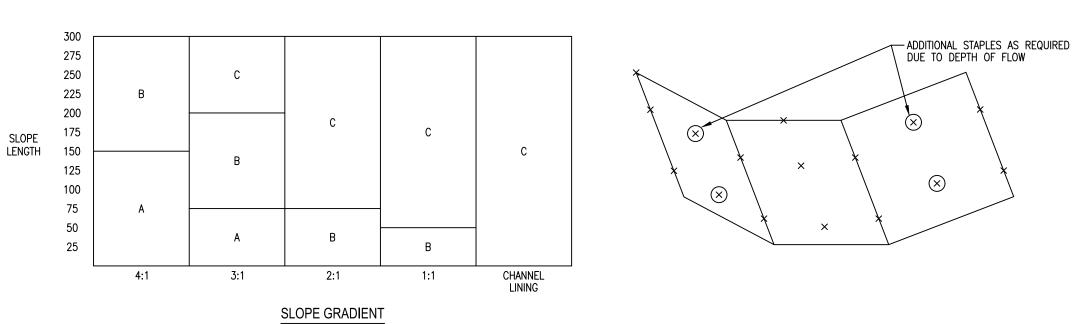
The Vinyl-Con™ Washout Systems is reusable with the filter bags. You may fill 1-3 filter bags by washing out 75+ concrete trucks (Vinyl Con 68). Once each filter bag is full of hardened concrete you lift the filter bag (rated for 2.500lbs) out of the Vinyl-Con container and set it aside for the concrete recycling company. Then after filling about 3 filter bags the Vinyl-Con is full of wash water. Place the fourth filter bag into the Vinyl-Con and let the water permeate up through the filter bag until the bag has settled on the bottom of the Vinyl-Con container. Sprinkle aqua-solution into the water, the water turn to gel in about 5 minutes. Once the water is in gel form lift the fourth filter bag and set aside for the concrete recyclers. The Vinyl-Con container is empty and ready to use again. (http://www.vinyl-con.com/)

DETAIL A:2 -Vinyl Con 68 (6'X8'size) Approximately 25+ concrete trucks per filter bag to washout up to 75-90+ concrete trucks until Vinyl-Con watertight container is full of wastewater. Reuse again.

6'X8'X2' PORTABLE CONCRETE WASHOUT CONTAINER VINYL-CON™

NOT TO SCALE





1å STAPLES PER SQ. YD.

Erosion Control Blanket

Temporary Construction Entrance

Washing Facility (optional)

Inspect daily.

Thickness - eight inches minimum.

leaving the surface smooth and sloped for drainage.

Reshape pad as needed for drainage and runoff control.

Top dress with clean aggregate as needed.

Divert waste water to a sediment trap or basin.

 Width - 20 feet minimum or full width of entrance/exit roadway, whichever is greater. Length - 150 feet minimum (length can be shorter for small sites).

1. Remove all vegetation and other objectionable material from the foundation area.

3. Install a culvert pipe under the pad if needed to maintain proper public road drainage.

Immediately remove mud and sediment tracked or washed onto public roads.

Flushing should only be used if the water can be conveyed into a sediment trap or basin.

Level area with three inch, or larger, washed aggregate or install a commercial wash rack.

2. Grade foundation and crown for positive drainage. If the slope of the construction entrance is toward a

public road and exceeds two percent, construct an eight inch high diversion ridge with a ratio of 3-to-1 side

slopes across the foundation area about 15 feet from the entrance to divert runoff away from the road.

4. If wet conditions are anticipated, place geotextile fabric on the graded foundation to improve stability.

5. Place aggregate (INDOT CA No. 2) to the dimensions and grade shown in the construction plans,

- 1. Select the type and weight of erosion control blanket to fit the site conditions (e.g., slope, channel, flow velocity) per the manufacturer's specifications. Prepare the seedbed, add soil amendments, and permanently seed the area immediately following seedbed preparation. 3. Lay erosion control blankets on the seeded area so that they are in continuous contact with the soil with each up-slope or up-stream blanket
- overlapping the down-slope or down-stream blanket by at least eight inches, or follow manufacturer's recommendations. 4. Tuck the uppermost edge of the upper blankets into a check slot (slit trench), backfill with soil and tamp down. In certain applications, the manufacturer

GENERAL STAPLE RECOMMENDATIONS

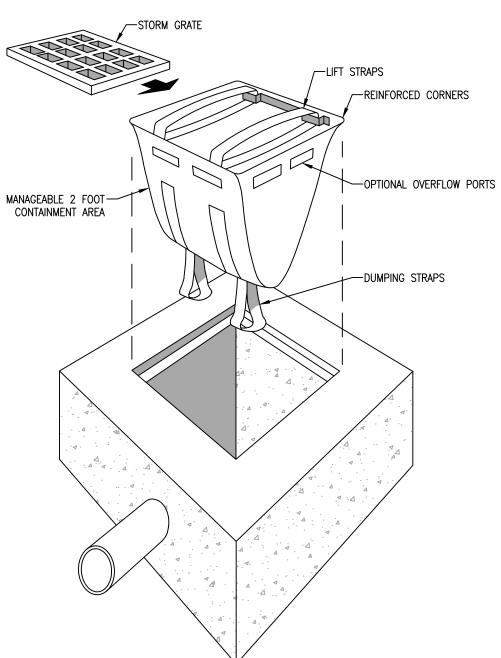
may require additional check slots at specific locations down slope from the uppermost edge of the upper blankets. 5. Anchor the blankets in place by driving staples, pins, or stakes through the blanket and into the underlying soil. Follow an anchoring pattern appropriate for the site conditions and as recommended by the manufacturer.

Inspect within 24 hours of each rain event and at least once every seven calendar days.

1 STAPLE PER SQ. YD.

 Check for erosion or displacement of the blanket. • If any area shows erosion, pull back that portion of the blanket covering the eroded area, add soil and tamp, reseed the area, replace and staple the

EROSION CONTROL MAT INSTALLATION GUIDE DETAIL NOT TO SCALE



2 STAPLES PER SQ. YD.

CHANNEL LININGS UTILIZE STAPLE PATTERN "C"

WITH ADDITIONAL STAPLES ON SIDE SLOPES AT

STAPLE PATTERN "C" SHOULD BE UTILIZED.

STAPLE PATTERNS APPLY TO ALL NORTH AMERICAN GREEN

DEPENDING UPON SOIL TYPE AND AVERAGE RAINFALL.

AT SLOPE LENGTHS GREATER THAN 300 FEET OR WHERE

EROSION CONTROL BLANKETS. STAPLE PATTERNS MAY VARY

DRAINAGE OVER LARGE AREAS IS DIRECTED ONTO THE BLANKETS,

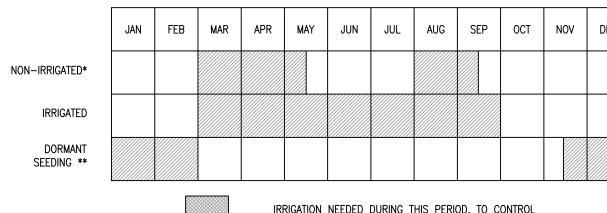
PROJECTED WATER LINE.

CURB INLET DANDY SACK™ DETAIL NOT TO SCALE

JUN JUL AUG SEP WHEAT OR RYE RED TOP GRASS SPRING OATS ANNUAL RYEGRASS

PERMANENT SEEDING DATES

TEMPORARY SEEDING DATES



EROSION AT TIMES OTHER THAN IN THE SHADED AREAS. USE MULCH. LATE SUMMER SEEDING DATES MAY BE EXTENDED 5 DAYS

IF MULCH IS APPLIED. INCREASE SEEDING APPLICATION BY 50%.

TEMF	PORARY SEEDIN	NGS *
TYPE OF SEED	LBS/ACRE	REMARKS
WHEAT OR RYE	150 LB.	COVER SEED 1" TO 1 1/2" DEEP
RED TOP GRASS — Agrostis alba	1-5 LB.	COVER SEED 1/4" DEEP
SPRING OATS — Avena sativa	100 LB.	COVER SEED 1" DEEP
ANNUAL RYEGRASS – Lolium multiflorum	40 LB.	COVER SEED 1/4" DEEP

 $\stackrel{\checkmark}{-}$ ENTRENCH WIRE FRAME OR APRON 6-9" OR ADD 6" ROCK DONUT/ROCK LOG

WELDED WIRE MONOFILAMENT YARD INLET PROTECTION

NOT TO SCALE

* NOT NECESSARY WHERE MULCH IS APPLIED.

PERMANENT TURF GRASS SEED MIX TYPE OF SEED — GRASSES LATIN NAME COMMON NAME lbs/ACRE Festuca arundinacea Tall Fescue 210 Festuca rubra Creeping Red Fescue 70 Poa pratensis Kentucky Bluegrass Poa trivialis Rough Bluegrass GRASSES Ibs PER ACRE 350 TYPE OF SEED - COVER CROP LATIN NAME COMMON NAME lbs/ACRE Seed Oats Avena sativa 32 Annual Rye Lolium multiflorum 6

SEEDBED PREPARATION

COVER CROP Ibs PER ACRE

APPLY LIME TO RAISE THE pH TO THE LEVEL NEEDED FOR SPECIES BEING SEEDED. APPLY 23 POUNDS OF 12-12-12 ANALYSIS FERTILIZER (OR EQUIVALENT) PER 1000 SQ. FT. (APPROXIMATELY 1000 POUNDS PER ACRE) OR FERTILIZE ACCORDING TO TEST. APPLICATION OF 150 LBS. OF AMMONIUM NITRATE ON AREAS LOW IN ORGANIC MATTER AND FERTILITY WILL GREATLY ENHANCE VEGETATIVE GROWTH.

WORK THE FERTILIZER AND LIME INTO THE SOIL TO A DEPTH OF 2-3 INCHES WITH A HARROW, DISK OR RAKE OPERATED ACROSS THE SLOPE AS MUCH AS POSSIBLE.

SELECT A SEED MIXTURE BASED ON PROJECTED USE OF THE AREA (SEE PERMANENT SEED MIXTURE CHART). WHILE CONSIDERING BEST SEEDING DATES. IF PERMANENT SEEDING IS NOT PÉRMITTED USE TEMPORARY SEEDING UNTIL PERMANENT SEEDING CAN BE APPLIED. IF TOLERANCES ARE A PROBLEM, SUCH AS SALT TOLERANCE OF SEEDINGS ADJACENT TO STREETS AND HIGHWAYS, SEE SEED TOLERANCE CHART.

NOTE: TALL FESCUE SEED SHALL INCLUDE LOW-ENDOPHYTE, FRIENDLY ENDOPHYTE, AND ENDOPHYTE FREE TALL FESCUE, BUT SHALL EXLUDE ALL OTHER VARIETIES OF TALL FESCUE.

EVALUATION FOR CONSTRUCTION PROJECTS A trained individual shall perform a written evaluation of the project site:

	ect Name:	
Nam	ne of Trained Individual: Date of Inspection:	
ls th	is Evaluation following a rainfall: Yes No If yes, date the rain stopped:	Inches
No.	PROBLEM or CONCERN	YES
1.	Is the site information posted at the entrance?	
2.	Are all necessary permits attained and special provisions being implemented?	
3.	Is a construction entrance installed? Is it effective? Is it enough?	
4.	Public and private streets are clean?	
5.	Are appropriate practices installed where stormwater leaves the site?	
6.	Silt fence is entrenched into the ground?	
7.	Silt fence is upright? Fabric and stakes meet specifications? Fabric is not too torn? Terminated to higher ground? Property joined at ends?	
8.	Sediment basins and traps are installed according to the plan? The pipe or rock spillway is functional?	
9.	The earthwork for erosion and sediment control practices is properly graded, seeded and/or mulched?	
10.	Diversions swales and/or waterbars are installed to plan and protected?	
11.	Perimeter practices have adequate capacity and do not need to be cleaned out?	
12.	Inlet protection is installed on all functional inlets? (not filter fabric under grate)	
13.	Inlet protection is installed so water does not flow under it?	
14.	The frame, cross-bracing and/or stakes are adequate and meet specifications?	
15.	The fabric, straw, mulch and/or stone is intact without holes or tears?	
16.	Catch basin insert protection is installed where required?	
17.	Sediment has been removed from the practice?	
18.	Swales and ditches have been stabilized or protected?	
19.	Stormwater outlets are adequately stabilized?	
20.	Temporary stabilization of disturbed ground has been addressed?	
21.	Disturbed areas that will lie dormant for 15 days are planned to be protected?	
22.	All protected dormant areas meet a minimum 70% coverage	
23.	Growing vegetation has sufficient water and/or nutrients to grow?	
24.	Permanent stabilization of disturbed ground is progressing through the project?	
25.	Final grading and stabilization is progressing on completed areas?	
26.	The soil has been properly prepared for seeding?	
27.	Hard or soft armoring is installed where natural vegetation will erode?	
28.	Water pumping operations have a protected outlet and discharge water is clear?	
29.	A designated washout is established for concrete trucks?	
30.	A dumpster is onsite for trash disposal?	
31.	Fuel tanks and other toxic materials are safely stored and protected?	
32.	Smaller construction sites not required to file a separate NOI are complying with the overall plan?	
33.		
34.		

Report Submitted by:

THE WIRE FRAME WILL BE SECURED IN THE CIRCULAR CONFIGURATION BY OVERLAPPING THE ENDS TO THE DESIRED SIZE AND FASTENING ONE END OF THE WELDED WIRE FRAME TO THE OVERLAPPED SECTION WITH NYLON SIP TIES OR WIRE HOG RING TYPE FASTENERS.

SILT FENCE SHALL BE PLACED IN A CIRCULAR CONFIGURATION AROUND THE INLET TO FORM A

BASED ON MANUFACTURE RECOMMENDATIONS AND/OR PRODUCT CONSTRUCTION; 1. INLET PROTECTORS WITH AND APRON-

SILT FENCE SHALL BE OF HEAVY DUTY TYPE. SECURED TO A WELDED WIRE FRAME.

MINIMUM 5 FOOT DIAMETER ZONE OF PROTECTION.

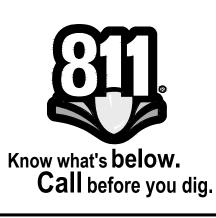
THE APRON OF THE SILT FENCE SHALL BE TRENCHED INTO THE SOIL (6-9") OR A ROCK DONUT PLACED ON THE APRON. (ROCK LOGS MAY BE SUBSTITUTED FOR THE ROCK DONUT) 2. INLET PROTECTORS WITHOUT AN APRON-THE WIRE FRAME SHALL BE TRENCHED INTO THE SOIL 6-9". IF THE FRAME CANNOT BE TRENCHED

INTO THE SOIL, A ROCK DONUT SHALL BE PLACED AROUND THE BOTTOM OF THE DEVICE. (ROCK LOGS MAY BE SUBSTITUTED FOR THE ROCK DONUT) THE DEVICE SHALL BE SECURED BY EITHER ATTACHING THE WIRE FRAME TO POSTS SECURED INTO THE GROUND OR THE FRAME MAY BE WIRED DIRECTLY TO THE INLET GRATE FROM TWO OPPOSITE DIRECTIONS. MAINTENANCE

1. INSPECT THE DROP INLET PROTECTION WEEKLY AND AFTER EACH STORM EVENT, MAKE NEEDED REPAIRS IMMEDIATELY. 2. REMOVE SEDIMENT FROM THE POOL AREA TO ENSURE ADEQUATE RUNOFF STORAGE FOR THE

3. WHEN THE SURROUNDING AREA HAS BEEN STABILIZED, REMOVE THE INLET PROTECTION, AND SEDIMENT, GRADE THE DISTURBED AREA TO THE ELEVATION OF THE TOP OF THE INLET AND







OSIO

N:\2022\220907P3\Drawings\ACAD\LD\S04\Sheet Drawings\C4.0 EROSION CONTROL PLAN.dwg 4/24/2025

Cleanup Parameters: Index of Required Plan Elements Spread the Vinyl-Con™ Filter Bag flat inside the Vinyl-Con™ container Permanent Seeding The developer shall be continually kept informed, maintain lists of qualified contractors and available vac-trucks, tank pumpers, and other Discourage "topping-off" of fuel tanks. A. Assessment of Construction Plan Elements Insert the 7" pvc uprights into the top of the corner fittings on the Vinyl-Con™ container equipment readily accessible for clean-up operations. In addition, a continually updated list of available absorbent materials and clean-up supplies Absorbent spill cleanup materials and spill kits shall be available in fueling areas and on fueling trucks, and shall be disposed of properly after Place the Filter Bag corner loops over the Vinyl-Con™ corner uprights. Be sure to twist the loops several times and then loop over the corner

• Soil Amendments - Select materials and rates as determined by a soil test (contact your county soil and A 1. Index Location: C0.0 pvc uprights. This helps secure the filter bag is place. water conservation district or cooperative extension office for assistance and soil information, including A 2. Location of Building Lot Numbers/Boundaries and Road Layout/Names: All sheets 2. All maintenance personnel will be made aware of techniques for prevention of spills. They will be informed of the requirements and Drip pans of absorbent pads shall be used during vehicle and equipment fueling, unless the fueling is performed over an impermeable surface in available soil testing services) or 400 to 600 pounds of 12-12-12 analysis fertilizer or equivalent. Conside Begin pouring concrete washout into the filter bag procedures outlined in this plan. They will be kept abreast of current developments or new information on the prevention of spills and/or necessary A 3. Narrative Describing Project Nature and Purpose: Approximately 1,000 LF of UNT Clear Creek (and the tributaries that make up the Jordan When the filter bag is full of concrete, lift the bag with the straps allowing the water to permeate through the bag and into the Vinyl-Con™ the use of reduced phosphorus application where soil tests indicate adequate phosphorous levels in the River at Indiana University) will be stabilized by regrading the banks, placing stone, repairing retaining walls, placing geotextile fabric, and alterations to this plan. Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the absorbent materials promptly and dispose of properly. planting permanent turf grass to protect the banks from further erosion. Set the filter bag aside and refill the Vinyl-Con™ container with another filter bag When spills occur which could endanger human life and this becomes primary concern, the discharge of the life saving protection function will Seed - Select an appropriate plant species seed or seed mixture on the basis of soil type, soil pH, region Avoid mobile fueling construction equipment around the site: rather, transport the equipment to designated fueling areas A 4. Vicinity Map: Title Sheet - C0.0 be carried out by the local police and fire departments. of the state, time of year, and intended land use of the area to be seeded (see Table 1). Train employees and subcontractors in proper fueling and cleanup procedures A 5. Legal description of Project Site: Sections 33 & 34, T9N, R1W, Bloomington, Bloomington Township, Monroe County. 4. Absorbent materials which are used in cleaning up spilled materials will be disposed of in a manner subject to the approval of the Indiana Fueling areas shall be protected from stormwater runoff and runoff, and shall be located at least 50 ft away from downstream drainage facilities

Place a cover over the washout facility prior to a predicted rainfall event to prevent accumulation of water and possible overflow of the system Straw, hay, wood fiber, etc. (to protect seedbed, retain moisture, and encourage plant growth). Department of Environmental Management A 6. Locations of all Lots and Proposed Site Improvements: C1.0 through C2.1 Anchored to prevent removal by wind or water or covered with premanufactured erosion control blankets. Inspect daily and after each storm event. and watercourses. Fueling must be performed on level-grade areas. 5. Flushing of spilled material with water will not be permitted unless so authorized by the Indiana Department of Environmental Management. A 7. Hydrologic Unit Area Code: 05120208090010 Inspect the integrity of overall structure including, the containment system. Protect fueling areas with berms and dikes to prevent runon, runoff, and to contain spills. B 14. Monitoring and Maintenance Guidelines for Each Proposed Pollution Prevention Measure: To be completed by the contractor or a designated Inspect the system for leaks, spills, and tracking of soil by equipment A 8. State or Federal Water Quality Permits: USACE 404 Permit, IDEM 401 Permit, IDNR Construction in a Floodway Permit entity, who is trained and experienced in the principles of storm water quality, including erosion and sediment control as may be demonstrated by state Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shutoff to control drips. Fueling operations shall not be left

Once filter bag is full of hardened washout material, remove for recycling. Site Preparation A 9. Specific Points Where Stormwater Will Leave the Site: Site Runoff Leaves Site at N Indiana Avenue, 120' south of E 6th Street. Place another filter bag inside the Vinyl-Con watertight container and repeat step #1 over again multiple times. 1. Grade the site to achieve positive drainage. registration, professional certification, experience, or completion of coursework that enable the individual to make judgments regarding storm water A 10. Location and Names of All Wetlands, Lakes, and Water Courses on and Adjacent to the Site: Wetlands - N/A, Water Courses - C1.0 through control or treatment and monitoring. Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. All Once Vinyl-Con watertight container is full of cementitious wastewater, place last filter bag inside to allow wastewater to permeate up through

2. Add topsoil or compost mulch to achieve needed depth for establishment of vegetation. (Compost material Federal, state, and local requirements shall be observed for any stationary shave ground storage tanks. tormwater quality measures must be monitored on a weekly basis and after each ½ inch rainfall event. Sample Inspection Sheet on C4.7, inspection the filter bag and broadcast Aqua-Solution into wastewater turning the wastewater into a gelled content in about 5 minutes. may be added to improve soil moisture holding capacity, soil friability, and nutrient availability.) Once entire filter bag of wastewater is a gelled content, remove for recycling. records shall be completed, maintained onsite, and made available to agencies if requested. A 11. Identify All Receiving Waters: Clear Creek. Vehicles and equipment shall be inspected each day of use for leaks. Leaks shall be repaired immediately or problem vehicles or equipment

• Reuse Vinyl-Con watertight container, begin with step #1 with more filter bags. All sediment and erosion control devices shall be kept in good condition. Repairs must be made within 24 hours of the inspection report. A 12. Identify Potential Discharges to Groundwater: Infiltration via karst geology. shall be removed from the project site. 1. Test soil to determine pH and nutrient levels. A 13. 100 Year Floodplains, Floodways, and Floodway Fringes: Zone A, C0.0. Inlet Protection Maintenance Requirements 2. Apply soil amendments as recommended by the soil test and work into the upper two to four inches of soil. Keep ample supplies of spill cleanup materials onsite. The Vinyl-ConTM Washout Systems is reusable with the filter bags. You may fill 1-3 filter bags by washing out 75+ concrete trucks (Vinyl Con 68). If testing is not done, apply 400 to 600 pounds per acre of 12-12-12 analysis fertilizer, or equivalent. A 14. Pre-Construction and Post Construction Estimate of Peak Discharge: Inspect inlet protection after each storm event and promptly remove any sediment deposits to insure adequate storage volume for the next Immediately clean up spills and properly dispose of contaminated soil and cleanup materials. Once each filter bag is full of hardened concrete you lift the filter bag (rated for 2,500lbs) out of the Vinyl-Con container and set it aside for the

3. Till the soil to obtain a uniform seedbed. Use a disk or rake, operated across the slope, to work the soil Pre-Construction 100 year Peak Discharge: N/A - Linear project with no additional impervious surface added concrete recycling company. Then after filling about 3 filter bags the Vinyl-Con is full of wash water. Place the fourth filter bag into the Vinyl-Con and amendments into the upper two to four inches of the soil. Inspect periodically for deterioration or damage from construction activities and replace immediately. Post-Construction 100 year Peak Discharge: N/A - Linear project with no additional impervious surface added let the water permeate up through the filter bag until the bag has settled on the bottom of the Vinyl-Con container. Sprinkle aqua-solution into the SOLID WASTE MANAGEMENT After all contributing drainage areas have been stabilized, remove inlet protection and sediment deposits. water, the water turn to gel in about 5 minutes. Once the water is in gel form lift the fourth filter bag and set aside for the concrete recyclers. The Seeding A 15. Adjacent Land use Including Upstream Watershed: Description and Purpose Optimum seeding dates are March 1 to May 10 and August 10 to September 30 Vinyl-Con container is empty and ready to use again. (http://www.vinyl-con.com/) North - Campus and Residential Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or Permanent seeding done between May 10 and August 10 may need to be irrigated. Inspect weekly and after each storm event to see that vegetative stands are adequately established; reseed if necessary. construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and South - Campus and Residentia Seeding outside or beyond optimum seeding dates is still possible with the understanding that reseeding or Check for erosion damage after storm events and repair; reseed and mulch if necessary. subcontractors. overseeding may be required if adequate surface cover is not achieved. Reseeding or overseeding can be East - Campus and Residential Topdress fall seeded wheat or rye seedings with 50 lbs./acre of nitrogen in February or march if nitrogen deficiency is apparent. Suitable Applications DETAIL A:2 -Vinyl Con 68 (6'X8'size) Approximately 25+ concrete trucks per filter bag to washout up to 75-90+ concrete trucks until Vinyl-Con easily accomplished if the soil surface remains well protected with mulch. West - Campus and Residential watertight container is full of wastewater. Reuse again. 1. Select a seeding mixture and rate. Select seed mixture based on site conditions, soil pH, intended land use This BMP is suitable for construction sites where the following wastes are generated or stored: A 16. Construction Limits: C1.0 through C2.1 and expected level of maintenance. Inspect weekly and after each storm event until vegetation is fully established. Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction A 17. Identification of Existing Cover: 2. Apply seed uniformly with a drill or cultipacker seeder or by broadcasting. Plant or cover the seed to a depth Packaging materials including wood, paper, and plastic. Plan to add fertilizer the following growing season according to soil test recommendations. of one-fourth to one-half inch. If drilling or broadcasting the seed, ensure good seed-to-soil contact by firming North - Grass, Trees, Buildings, Roads, Parking the seedbed with a roller or cultipacker after completing seeding operations. (If seeding is done with a 3. Repair damaged, bare, or sparse areas by filling any gullies, re-fertilizing, re-fertilizing, or reseeding, and mulching. Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces and masonry products. Dig an eight-inch deep, four-inch wide trench around the perimeter of the inlet. South - Grass, Trees, Buildings, Roads, Parking If using pre-assembled geotextile fabric and posts, drive the posts into the soil, tightly stretching the geotextile fabric between posts as each is hydroseeder fertilizer and mulch can be applied with the seed in a slurry mixture.) Domestic wastes including food containers such as beverage cans, coffee cups, paper bogs, plastic wrappers, and cigarettes. 4. If vegetation fails to grow, consider soil testing to determine acidity or nutrient deficiency problems. East - Grass, Trees, Buildings, Roads, Parking 3. Mulch all seeded areas and use appropriate methods to anchor the mulch in place. Consider using erosion driven. (Posts must be placed on the inlet side of the anchor trench with the geotextile fabric on the side of the trench farthest from the inlet.) Construction wastes including brick, mortar, timber, steel and metal scraps, pipe and electrical cuttings, non-hazardous equipment parts, B 15. Erosion and Sediment Control Specifications for Individual Building Lots: N/A for this site. Note: If assembling the geotextile fabric and posts on-site, drive the posts into the soil and then secure the geotextile fabric to the posts by placing a control blankets on sloping areas and conveyance channels. West - Grass, Trees, Buildings, Roads, Parking Styrofoam, and other materials and transport and package construction materials. C. Stormwater Pollution Prevention Plan - Post Construction Component piece of lathe over the fabric and fastening it to the post (stretching the fabric between posts as it is fastened) A 18. Soils Information: Location and Descriptions: C0.0 (CtC) Crider-Urban Complex, 6% to 12% slopes, well drained. (Ua) Udorthents, loamy. Use the wrap join method when joining posts. C 1. Description of Pollutants and Their Sources Associated with the Proposed Land Use: Silt and sediment from exposed soils, leaves, mulch, A 19. Locations, Size and Dimensions of Proposed Stormwater Systems: C1.0 through C2.1 Place the bottom 12 inches of geotextile fabric into the eight-inch deep trench, laying the remaining four inches in the bottom of the trench and

• Inspect within 24 hours of each rain event and at least once every seven calendar days until the vegetation The following steps will help keep a clean site and reduce stormwater pollution: vehicular sources such as, leaking fuel, or oil, brake fluid, brake dust, grease, antifreeze, metals, rubber fragments, road grit, salts and sands, is successfully established. A 20. Plans for Any Off-site Construction Activities: No Off-Site Activities with this Project. extending away from the inlet. construction trash and debris, fertilizers, items associated with park building including but not limited to, cleaning agents, chemicals, paints, Select designated waste collection areas onsite. · Characteristics of a successful stand include vigorous dark green or bluishgreen seedlings with a uniform Backfill the trench with soil material and compact it in place. miscellaneous home improvement materials, clothing and animal waste, elevated storm water runoff temperatures, acid rain, pesticides and A 21. Locations of Proposed Soil Stockpiles and/or Borrow/Disposal Areas: N/A Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use. vegetative cover density of 90 percent or more. Brace the posts by nailing braces into each corner post or utilize rigid panels to support fabric. A 22. Proposed Final Topography: C1.0 through C2.1 Inspect dumpsters for leaks and repair any dumpster that is not watertight. Check for erosion or movement of mulch. C 2. Sequence Describing Stormwater Quality Measure Implementation: Provide an adequate number of containers with lids or covers that can be placed over the container to keep rain out or to prevent loss of wastes

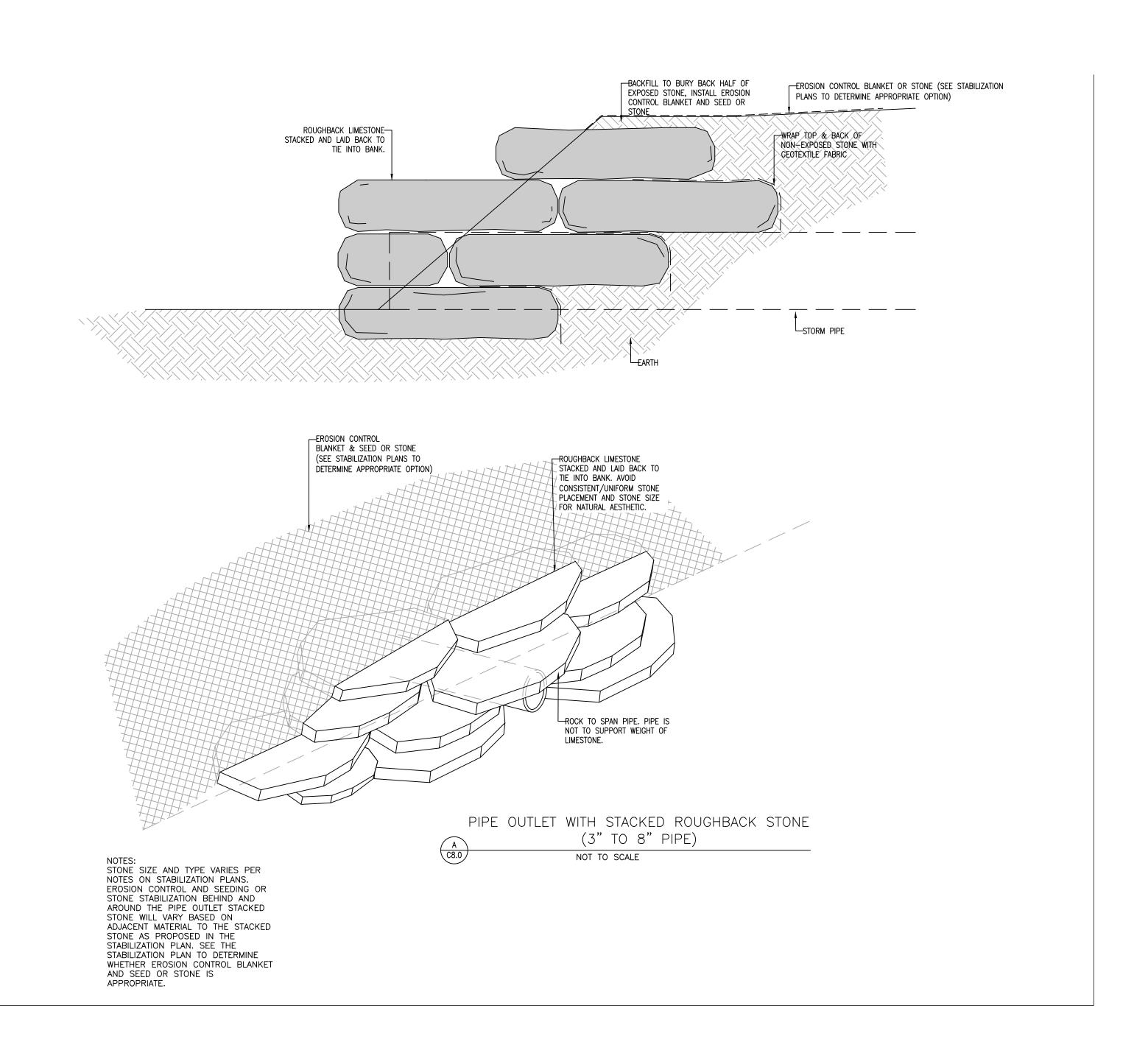
Note: In situations where storm water may bypass the structure, either: B. Assessment of Stormwater Pollution Prevention Plan - Construction Component Repair damaged, bare, gullied, or sparsely vegetated areas and then fertilize, reseed, and apply and 1. Inspect and maintain all post construction BMPs as detailed in the Stormwater Pollution Prevention Measures Maintenance Requirements Set the top of the geotextile fabric filter at least six inches lower than the ground elevation on the down-slope side of the storm drain inlet, anchor mulch. B 1. Description of Potential Pollution Sources Associated with the Construction: Potential pollution during construction includes: Trash, fossil fuels, • If plant cover is sparse or patchy, evaluate the plant materials chosen, soil fertility, moisture condition, and beginning immediately after installation and continuing until vegetation has been sufficiently established and all construction activity is complete. Build a temporary dike, compacted to six inches higher than the fabric, on the down-slope side of the storm drain inlet, AND/OR oil, grease, and sediment. Exposure of these pollutants to stormwater runoff should be minimized by performing activities such as Plan for additional containers and more frequent pickup during the demolition phase of construction. mulch application; repair affected areas either by overseeding or preparing a new seedbed and reseeding. . Remove all individual inlet protection only after seeding and sufficient vegetative growth has been established in each area to a point where Use in conjunction with excavated drop inlet protection equipment storage, refueling, and maintenance placement in designated areas. Collect site trash daily especially during rainy and windy conditions. Apply and anchor mulch on the newly seeded areas. sediment/pollutants will not enter surface drains or the storm sewer system B 2. Sequence Describing Stormwater Quality Measure Implementation Relative to Land Disturbing Activities: This plan has been created in an effort If vegetation fails to grow, consider soil testing to determine soil pH or nutrient deficiency problems Remove this solid waste promptly since erosion and sediment control devices tend to collect litter. 3. Inspection and maintenance of the project is the responsibility of the owner/developer or his designee until the improvements are accepted for INSPECTION AND MAINTENANCE to eliminate sediment from leaving the project during construction, protecting adjoining properties. (Contact your soil and water conservation district or cooperative extension office for assistance.) Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not Trained Individual • If additional fertilization is needed to get a satisfactory stand, do so according to soil test PRE CONSTRUCTION ACTIVITIES: disposed of in dumpsters designated for construction debris. A trained individual is required to conduct the self-monitoring program for the inspection and evaluation of the project site as defined in 327 IAC 4. When the site is stabilized the owner or representative shall submit a Notice of Termination to IDEM with a copy to the Hamilton County Soil and Call the Indiana Underground Plant Protection Systems, Inc. at 811 to check location of any existing utilities. They should be notified two 15-5-7. The level of training is not defined in the IAC. Indiana University defines trained individual as an employee of the site contractor Add fertilizer the following growing season. Fertilize according to soil test recommendations. Do not hose out dumpsters on the construction site. Leave dumpster cleaning to the trash-hauling contractor. Water Conservation District. working days in advance of any construction activities. responsible to implement, inspect, and maintain the SWPPP at the project site. The trained individual must be certified in sediment and erosion Fertilize turf areas annually. Apply fertilizer in a split application. For cool-season grasses, apply one-half Arrange for regular waste collection before containers overflow. C 3. Description of Proposed Post Construction Stormwater Quality Measures: Site and facility design for post construction protection on this site control by one of the following agencies: Certified Inspector of Sediment and Erosion Control (CISEC), Certified Professional in Erosion and Install temporary portable chain link fence, per the Phasing and Access Plans for the active phase. of the fertilizer in late spring and one half in early fall. For warm-season grasses, apply one-third in early employs a multi-level strategy consisting of: Clean up immediately if a container does spill. Sediment Control (CPESC), or Qualified Professional Inspector (QPI) administered by the Southern Indiana Stormwater Advisory Committee. spring, one-third in late spring, and the remaining one-third in middle summer. Install mulch access drives for vehicle travel per the Phasing and Access Plans for the active phase. 1. Reducing or eliminating post-project runoff. Other comparable certifications may qualify with prior written approval from EHS. Make sure that construction waste is collected, removed, and disposed of only at authorized disposal areas. • Final stabilization shall be achieved when the land disturbing activities are complete and a uniform Establish construction staging area for equipment and vehicles per the Phasing and Access Plans for the active phase. Controlling sources of pollutants. Collection, Storage, and Disposal perennial vegetated cover with a density of seventy percent (70%) has been established. (327 IAC 15-5-4 Establish onsite location for owner/operator/contractor placement of approved plans, Rule 5 Notice of Intent, and Rule 5 inspection 3. Treating stormwater runoff by means of retention facility before discharging it into receiving waters. Littering on the project site shall be prohibited. documentation. Typical post construction BMPs for reducing, eliminating or controlling pollutants (source controls) include: To prevent clogging of the storm drainage system, litter and debris removal from drainage grates, trash racks, and ditch lines shall be a priority. CONSTRUCTION ACTIVITIES: Inspect geotextile fabric and make needed repairs immediately a.) Bioretention, Detention/Retention devices Trash receptacles shall be provided in the contractor's yard, field trailer areas, and at locations where workers congregate for lunch and break Install inlet protection as shown on plans. Remove sediment from pool area to provide storage for the next storm event. b.) Reducing runoff or direct runoff from impervious areas Install erosion control measures as shown on plans upon completion of bank stabilization activities. Do not leave large areas unprotected for Avoid damaging or undercutting fabric during sediment removal. Litter from work areas within the construction limits of the project site shall be collected and placed I watertight dumpsters at least weekly

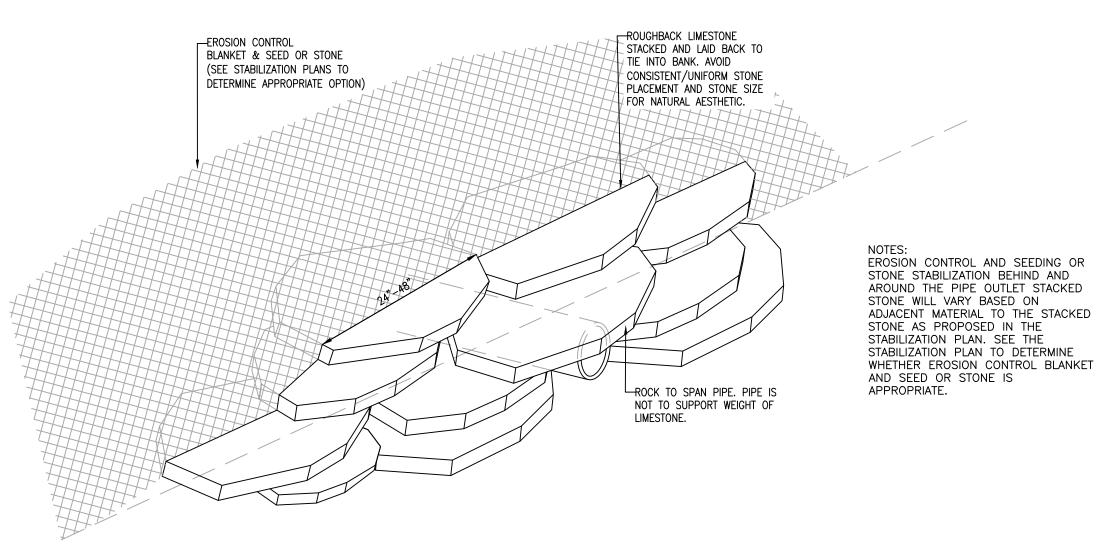
When contributing drainage area has been stabilized, remove sediment, properly dispose of all construction material, grade area to the c.) Vegetated strips and or swales more than 7 days. Construction Stormwater General Permitrequires all disturbed areas idle for 7 days or more will be stabilized (seeded, regardless of whether the litter was generated by the contractor, the public, or others. Collected litter and debris shall not be placed in or next to elevation of the storm drain inlet top, then stabilize immediately. mulched, etc.) immediately. d.) Permanent erosion control seeding and plantings drain inlets, stormwater drainage systems, or watercourses. Finish grade all specified areas. e.) Outlet protection and velocity dissipation devices Dumpsters of sufficient size and number shall be provided to contain the solid waste generated by the project. emporary Construction Entrance Install permanent seeding. f.) Earthen dikes and drainage swales Full dumpsters shall be removed from the project site and the contents shall be disposed of by the trash-hauling contractor. B 3. Stable Construction Entrance Location and Specifications: C4.0 through C4.2 • Width - 20 feet minimum or full width of entrance/exit roadway, whichever is greater. g.) Mulching and seeding Construction debris and waste shall be removed from the site biweekly or more frequently as needed. Length - 150 feet minimum (length can be shorter for small sites). B 4. Sediment Control Measures for Sheet Flow Areas: Stone and Erosion Control Blanket are the primary measures used to control this type of It is the intent of this plan that that the implementation of the above mentioned post construction BMPs be executed in accordance with the enclosed Construction material visible to the public shall be stored or stacked in an orderly manner. Thickness - eight inches minimum plans and details in order to meet the requirements of 327 IAC 15-5 (Rule 5) stormwater quality Stormwater runoff shall be prevented from contacting stored solid waste through the use of berms, dikes, or other temporary diversion structures Washing Facility (optional) B 5. Sediment Control Measures for Concentrated Flow Areas: C4.0 through C4.2 C 4. Location, Dimensions, Specifications and Construction Details of Each Stormwater Quality Measure: locations of post construction measures: Level area with three inch, or larger, washed aggregate or install a commercial wash rack. or through the use of measures to elevate waste from site surfaces. C4.0 through C4.6; details and specifications: C4.7 and C4.8 B 6. Storm Sewer Inlet Protection Measure and Location: locations: C4.0 through C4.2 Divert waste water to a sediment trap or basin. Solid waste storage areas shall by located at least 50 ft from drainage facilities and watercourses and shall not be located in areas prone to C 5. Description of Maintenance Guidelines for Proposed Post Construction Water Quality Measures: B 7. Runoff Control Measures: location: C4.0 through C4.2; flooding or ponding. See attached BMP Operation and Maintenance Manual. Maintenance of all post construction stormwater pollution prevention measures will be the B 8. Stormwater Outlet Protection Specifications: locations C1.0 through C2.1; details: C8.0 through C8.1 responsibility of the Contractor. The maintenance guidelines consist mainly of good housekeeping measures. Any grassed or vegetated areas that B 9. Grade Stabilization Structure Locations and Specifications: locations: C4.0 through C4.2; specifications: C8.0 through C8.1 Remove all vegetation and other objectionable material from the foundation area. To be completed by a certified sediment and erosion control individual employed by the contractor or a designated entity experience erosion from rainfall events should be repaired and revegetated as soon as possible. Trash or litter should be picked up and properly B 10. Location, Dimensions, Specifications and Construction Details of Each Stormwater Quality Measure: locations C4.0 through C4.2, details and disposed of to prevent it from getting into downstream waterways. Grade foundation and crown for positive drainage. If the slope of the construction entrance is toward a public road and exceeds two percent Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. All stormwater quality measures construct an eight inch high diversion ridge with a ratio of 3-to-1 side slopes across the foundation area about 15 feet from the entrance to divert specifications C8.0 through C8 1 must be monitored on a weekly basis and after each ½ inch rainfall event. ADDITIONAL STORMWATER POLLUTION PREVENTION MEASURES runoff away from the road. B 11.Temporary Surface Stabilization Methods Appropriate for Each Season: The stormwater pollution prevention plans along with the detail sheets All sediment and erosion control devices shall be kept in good condition. Repairs must be made within 24 hours of the inspection report. The provides different methods and sequences for each measure to be utilized. Any areas left dormant for 15 days on C4.0 through C4.1, must Install a culvert pipe under the pad if needed to maintain proper public road drainage temporary construction entrance will be incorporated into driveway construction 4. If wet conditions are anticipated, place geotextile fabric on the graded foundation to improve stability Description and Purpose be stabilized per specifications on C4.2 Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur. 5. Place aggregate (INDOT CA No. 2) to the dimensions and grade shown in the construction plans, leaving the surface smooth and sloped for B 12. Permanent Surface Stabilization Specifications: locations: C4.0 through C4.1; details: C4.2 Prevent or reduce the contamination of stormwater resulting from vehicle and equipment maintenance by running a 'dry and clean site'. The Inspect construction waste area regularly best option would be to perform maintenance activities at an offsite facility. If this option is not available then work shall be performed in 6. Top-dress the first 50 feet adjacent to the public roadway with two to three inches of washed aggregate (INDOT CA No. 53) [optional, used B 13. Material Handling and Spill Prevention Plan: Arrange for regular waste collection. designated areas only while providing cover for materials stored outside, checking for leaks and spills, and containing and cleaning up spills primarily where the purpose of the pad is to keep soil from adhering to vehicle tires]. MATERIAL HANDLING AND SPILL PREVENTION PLAN 7. Where possible, divert all storm water runoff and drainage from the ingress/egress pad to a sediment trap or basin. The intention of this spill prevention, control and countermeasures (SPCC) plan is to establish the procedures and equipment required to Onsite vehicle and equipment maintenance shall only be used where it is impractical to send vehicles and equipment offsite for maintenance Inspect daily prevent the discharge of oil and hazardous substances in quantities that violate applicable water quality standards, cause a sheen and repair. Outdoor vehicle or equipment maintenance is a potentially significant source of stormwater pollution. Activities that can contaminate Select the type and weight of erosion control blanket to fit the site conditions (e.g., slope, channel, flow velocity) per the manufacturer's Reshape pad as needed for drainage and runoff control. upon or discoloration of the surface of navigable waters or adjoining shorelines, or cause sludge or emulsion to be deposited beneath stormwater include engine repair and service, changing or replacement of fluids, and outdoor equipment storage and parking (engine fluid the surface of the water or adjoining shorelines. The plan also establishes the activities required to mitigate such discharges (i.e., Top dress with clean aggregate as needed. Prepare the seedbed, add soil amendments, and permanently seed the area immediately following seedbed preparation. Immediately remove mud and sediment tracked or washed onto public roads countermeasures) should they occur. Lay erosion control blankets on the seeded area so that they are in continuous contact with the soil with each up-slope or up-stream blanket Implementation Flushing should only be used if the water can be conveyed into a sediment trap or basin. overlapping the down-slope or down-stream blanket by at least eight inches, or follow manufacturer's recommendations. If maintenance must occur onsite, use designated areas located away from drainage courses. Pollutant: Means pollutant of any kind or in any form, including but not limited to sediment, paint, cleaning agents, concrete washout. Tuck the uppermost edge of the upper blankets into a check slot (slit trench), backfill with soil and tamp down. In certain applications, the Temporary Seeding Specifications Maintenance areas shall be protected from stormwater runoff and runoff, and shall be located at least 50 ft from downstream drainage facilities pesticides, nutrients, trash, hydraulic fluids, fuel, oil, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than manufacturer may require additional check slots at specific locations down slope from the uppermost edge of the upper blankets. Anchor the blankets in place by driving staples, pins, or stakes through the blanket and into the underlying soil. Follow an anchoring pattern Seeding Frequency Seed rough graded areas daily while soil is still loose and moist. Place a stockpile of spill cleanup materials where it will be readily accessible appropriate for the site conditions and as recommended by the manufacturer. <u>Discharge:</u> Includes but not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping. All fueling trucks and fueling areas are required to have spill kits and/or use other spill protection devices. Navigable Waters: Means all waters of the United States that are connected with a navigable stream, lake, or sea. [Note: This definition is Density of vegetative cover eighty percent or greater over the soil surface. Use absorbent materials on small spills. Remove the absorbent materials promptly and dispose of properly. usually interpreted to mean any wastewater (even normally dry wash or storm sewer) that eventually drains into a navigable Inspect within 24 hours of each rain event and at least once every seven calendar days. Inspect onsite vehicles and equipment daily at startup for leaks, and repair immediately. Keep vehicles and equipment clean; do not allow Check for erosion or displacement of the blanket If any area shows erosion, pull back that portion of the blanket covering the eroded area, add soil and tamp, reseed the area, replace and

• Consider the use of phosphorus free application where soil tests indicate Plan Review and Administration: This plan shall be reviewed and/or amended, if necessary, whenever there is a change in the design of excessive build-up of oil and grease. adequate phosphorous levels in the soil profile. the site, construction, operation, or maintenance which materially affects the site's potential for the discharge of regulated Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic and Seed - select appropriate plant species seed or seed mixtures on the basis of transmission fluids. Provide secondary containment and covers for these materials if stored onsite. VINYL CON CONCRETE WASHOUT SYSTEM SPECIFICATIONS quick germination, growth, and time of year to be seeded (see Table 1 Sheet C4.1). Prediction of Potential Spills: Train employees and subcontractors in proper maintenance and spill procedures. Vinyl-Con™ system utilizes a portable, self-contained and watertight container with filter bag system and Aqua-Solution™ to control, capture and Properly dispose of used oils, fluids, lubricants, and spill cleanup materials. Do not place used oil in a dumpster or pour into a storm drain or contain caustic concrete wastewater and washout material. Nearest Navigable Water: Clear Creek • Straw, hay, wood fiber, etc. (to protect seedbed, retain moisture, and encourage plant growth). Drainage System: The storm drainage flows overland to the Jordan River (UNT Clear Creek). Vinyl Con System is compliant with EPA regulations for Concrete Washout. • Anchored to prevent removal by wind or water or covered with manufactured erosion control blankets. Properly dispose of or recycle used batteries. Groundwater Contamination: Karst geology Application Site Management Do not bury used tires. Alert Procedures for Spills: Complete installation of the system and have washout locations operational prior to concrete delivery. seedbed preparation Repair leaks of fluids and oil immediately Any personnel observing a spill will immediately instigate the following procedure: Do not wash out concrete trucks or equipment into storm drains, wetlands, streams, rivers, creeks, ditches, or streets. 1. Test soil to determine ph and nutrient levels (optional). Never wash out into a storm sewer drainage system. These systems are typically connected to a natural conveyance system. 2. Apply soil amendments as recommended by the soil test (optional). Listed below is further information if you must perform vehicle or equipment maintenance onsite. A.) Dialing '0' from any telephone. Work the soil amendments into the upper two to four inches of the soil with a disk or rake operated across the slope. Where necessary, provide stable ingress and egress Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic and B.) Notify the appropriate emergency personnel. Do not back flush equipment at the project site. Back flushing should be restricted to the plant os it generates large volumes of waste that may transmission fluids. Provide secondary containment and covers for these materials if stored onsite. The emergency coordinator will then take the following actions: exceed the capacity of the washout systems. If an emergency arises, back flush should only be performed with the permission of the on-site Seeding Train employees and subcontractors in proper maintenance and spill procedures. 1. Select a seed species or an appropriate seed mixture and application rate from A.) Barricade the area allowing no vehicles to enter or leave the spill zone. Properly dispose of used oils, fluids, lubricants, and spill cleanup materials. Do not place used oil in a dumpster or pour into a storm drain or B.) Notify the Indiana Department of Environmental Management Office of Emergency Response by calling the appropriate 2. Apply seed uniformly with a drill or cultipacker seeder or by broadcasting. Plant or Locate concrete washout systems at least 50 feet from any creeks, wetlands. ditches, karst features. or storm drains/manmade conveyance cover seed to the depth shown in Table 1 Sheet C4.7 Properly dispose of or recycle used batteries. Office Do not bury used tires 1. If drilling or broadcasting the seed, ensure good seed-to-soil contact Toll free 800-233-7745 To the extent practical, locate concrete washout systems in relatively flat areas that have established vegetation aid do not receive runoff from Repair leaks of fluids and oil immediately by firming the seedbed with a roller or cultipacker after completing C.) Notify the IU EHS phone: 812-855-631 Locate in areas that provide easy access for concrete trucks and other construction equipment seeding operations Listed below is further information if you must perform vehicle or equipment maintenance onsite. D.) Notify the IU Police Department phone: 812-855-4111 2. Daily seeding when the soil is moist is usually most effective. Locate away from other construction traffic to reduce the potential for damage to the system. Inspection and Maintenance 3. If seeding is done with a hydroseeder, fertilizer and mulch can be Inspect and verify that BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are Vinyl Con Container applied with the seed in a slurry mixture. Also notify the National Response Center at 800-424-8802 and provide the following information: under way inspect weekly to verify continued BMP implementation. Locate the washout in an area that is free of rocks and other debris that may cause tears or punctures in the Vinyl Con Container. 3. Apply mulch and anchor it in place. -Time of observation of the spill Spread the Vinyl-Con™ flat on the ground with the opening facing up Keep ample supplies of spill cleanup materials onsite. -Location of the spill Layout the framework pieces on the ground as follows Maintain waste fluid containers in leak proof condition 6x8 Vinyl-Con™: (4) 4-way corner fittings; (4) 7" upright fittings; (2) couplers; (4) 19" legs; Inspect within 24 hours of each rain event and at least once every seven -Identification of material spilled Vehicles and equipment shall be inspected on each day of use. Leaks shall be repaired immediately or the problem vehicle(s) or equipment (2) 47" walls; (4) 35.5" walls -Probable time of spill shall be removed from the project site. Check for erosion or movement of mulch and repair immediately Volume of the spill and duration monitor for erosion damage and adequate cover (80 percent density); reseed, Insert 47" wall into 4' pocket of Vinyl-Con™ (repeat on opposite side) Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed. and apply mulch where necessary. Attach (2) 35.5" walls together with (1) coupler (repeat on opposite side) -Present and anticipated movement of the spill VEHICLE AND EQUIPMENT FUELING If nitrogen deficiency is apparent, top-dress fall seeded wheat or rye seeding Insert the wall with coupler into 6' pocket of Vinyl-Con™ (repeat on opposite side) -Weather conditions Connect (4) legs into 4-ways with 50 pounds per acre of nitrogen in february or march. -Personnel at the scene Connect (4) 4-ways in each corner to the walls Vehicle equipment fueling procedures and practices are designed to prevent fuel spills and leaks, and reduce or eliminate contamination of 1 Perennial species may be used as a temporary cover, especially if the area to be seeded will remain idle for more than one year . Insert 7" upright into the top of the 4-way on each corner (for use of filter bags) -Action initiated by personnel stormwater. This can be accomplished by using offsite facilities, fueling in designated areas only, enclosing or covering stored fuel, 2 Seeding done outside the optimum seeding dates increases the chances of seeding failure. Dates may be extended or shortened based on the location Loops are available on each corner to secure the Vinyl-Con™ to the ground with stakes in high wind areas. Once the concrete is in the implementing spill controls, and training employees and subcontractors in proper fueling procedures. E.) Notify Indiana University Environmental Health & Safety: Vinvl-Con™ there is no need for stakes. of the project site within the state. 812-855-6311 Onsite vehicle and equipment fueling shall only be used where it is impractical to send vehicles and equipment offsite for fueling. Sending F.) Notify Waste Recovery Contractor, maintenance personnel or other contractual personnel as necessary for Mulch alone is an acceptable temporary cover and may be used in lieu of temporary seeding, provided that it is appropriately anchored. vehicles and equipment offsite shall be done in conjunction with a stabilized construction entrance/exit A high potential for fertilizer, seed, and mulch to wash exists on steep banks, cuts, and in channels and areas of concentrated flow. G.) Coordinate and monitor cleanup until the situation has been stabilized and all spills have been eliminated. H.) Cooperate with the IDEM-OER on procedures and reports involved with the event.

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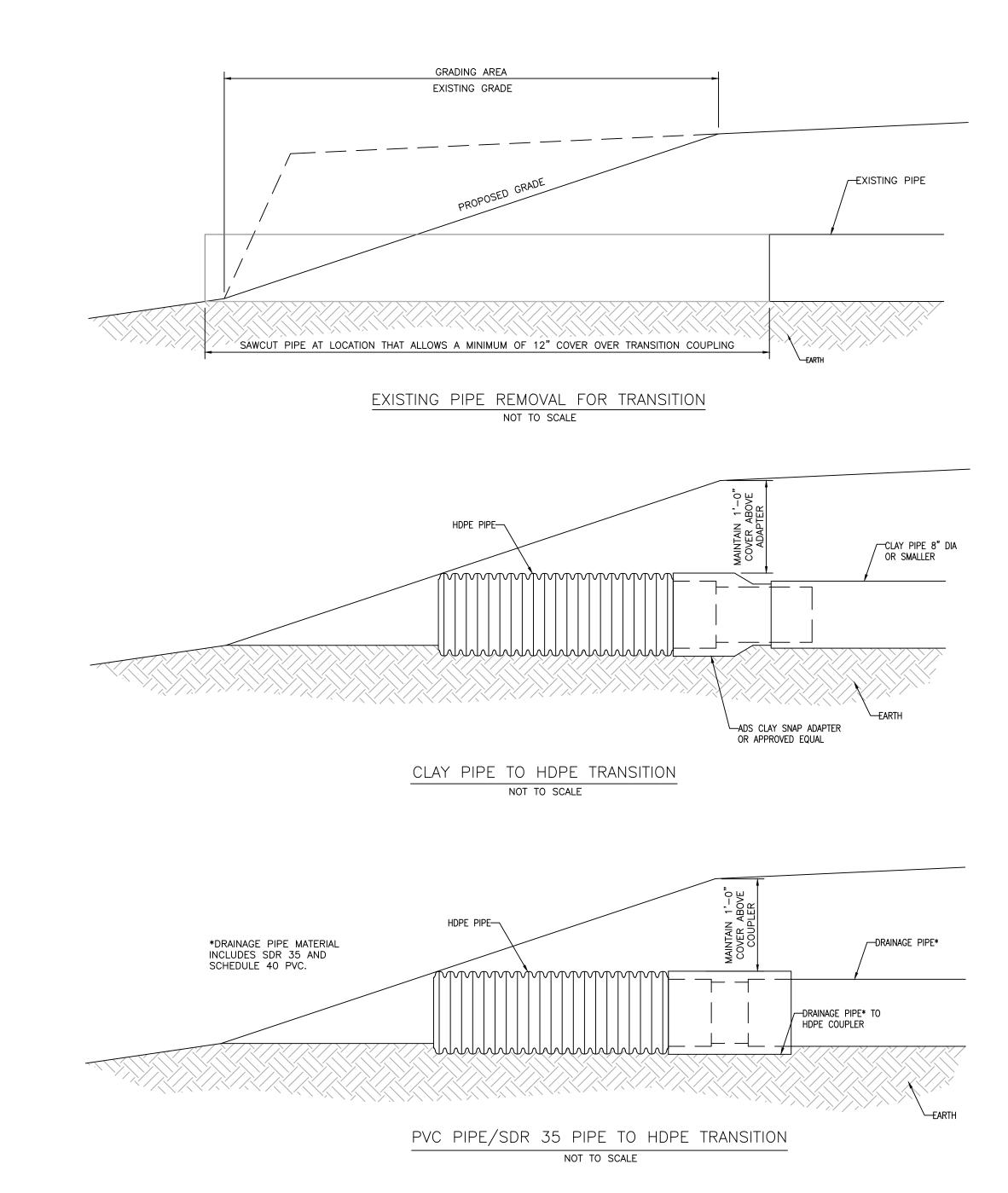
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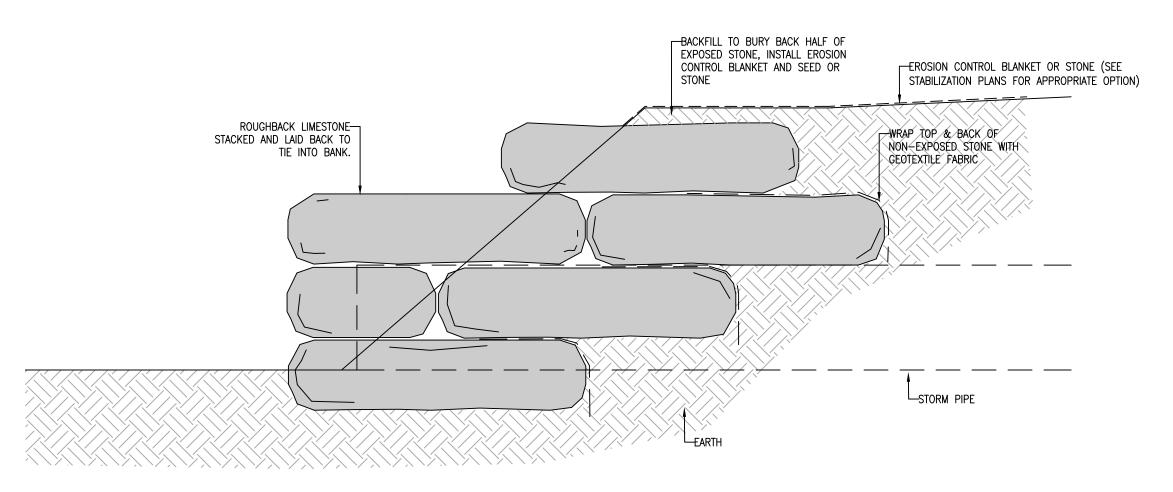




PIPE OUTLET WITH STACKED ROUGH BACK STONE

NOT TO SCALE





PIPE OUTLET WITH STACKED ROUGHBACK STONE

NOT TO SCALE

G PIPE TRANSITION AND END SECTION TREATMENT NOT TO SCALE

DETAIL CONSTRUCTION RIVE

DRAWING NO.

