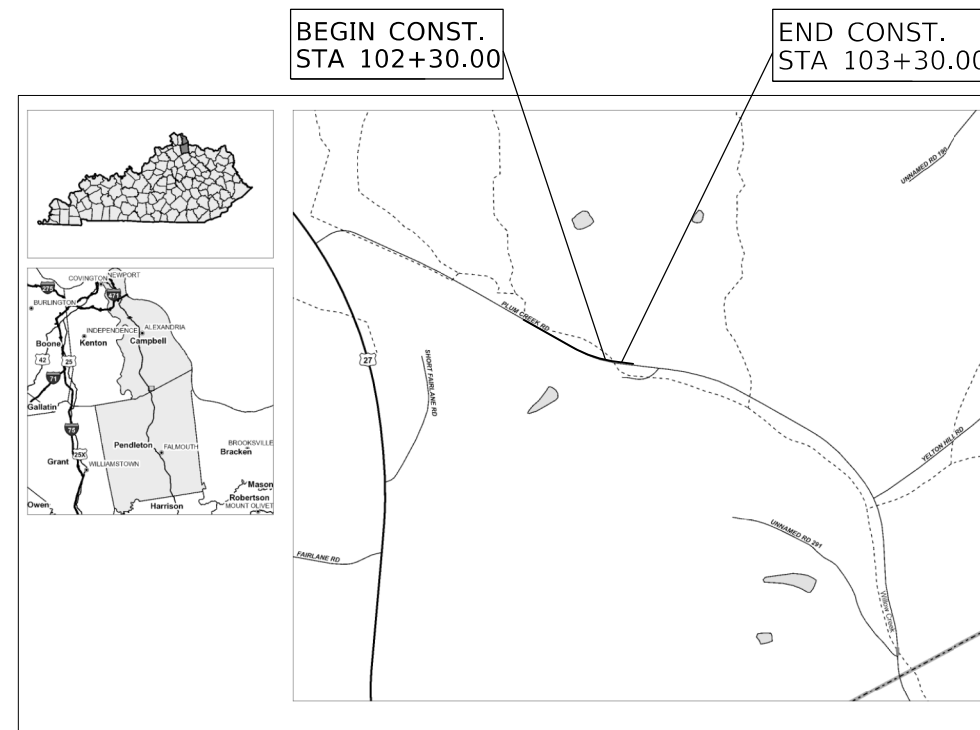
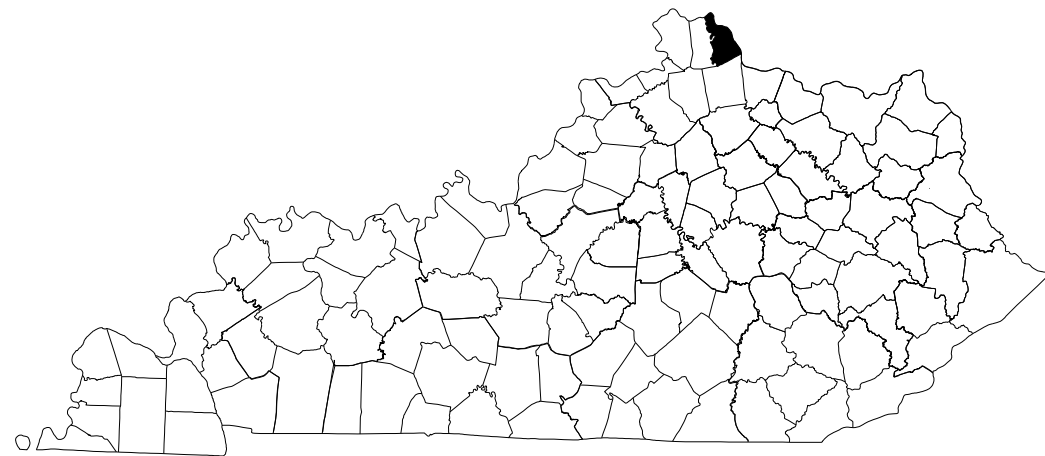


CAMPBELL COUNTY FISCAL COURT (CCFC)

THE CONTROL OF ACCESS ON THIS PROJECT SHALL BE BY PERMIT

PLANS OF PROPOSED PROJECT Plum Creek Road (CR 1118) over Willow Creek Campbell County, Kentucky

THIS PROJECT IS OFF THE NH SYSTEM



LAYOUT MAP

DESIGN CRITERIA

CLASS OF HIGHWAY RURAL LOCAL
 TYPE OF TERRAIN ROLLING
 DESIGN SPEED _____
 REQUIRED NPSD _____
 REQUIRED PSD _____
 LEVEL OF SERVICE _____
 ADT PRESENT (-) : _____
 ADT FUTURE (-) : _____
 DHV : _____
 D % : _____
 T % : _____

GEOGRAPHIC COORDINATES

LATITUDE 38 DEGREES 49 MINUTES 57 SECONDS NORTH
 LONGITUDE 84 DEGREES 21 MINUTES 34 SECONDS WEST

DESIGNED

% RESTRICTED SD : _____
 LEVEL OF SERVICE : _____
 MAX. DISTANCE W/O PASSING : _____

INDEX OF SHEETS

R1	TITLE SHEET	S6	WING 2 DETAILS
R2	TYPICAL SECTIONS	S7	WING 3 DETAILS
R3	MOT & ESC NOTES	S8	WING 4 DETAILS - 1
R4	MOT DETOUR SHEET	S9	WING 4 DETAILS - 2
S1	LAYOUT	S10	BILL OF REINFORCEMENT
S2	GENERAL NOTES		
S3	BARREL DETAILS - 1		
S4	BARREL DETAILS - 2		
S5	WING 1 DETAILS		

STANDARD DRAWINGS

RBI-001-12	RDX-220-05	SPECIAL NOTE FOR TREE CLEARING
RBI-002-07	RGX-001-06	SN FOR SEDIMENT PREVENTION AND
RBR-001-13	RGX-100-07	EROSION CONTROL
RBR-005-11	RGX-105-09	SPECIAL NOTE FOR LIQUIDATED
RBR-025-06	RGX-200-01	DAMAGES
RBR-035-12	BDP-005-06	SPECIAL NOTE FOR ONE STEP
RBR-015-06	BGX-006-10	MEMBRANE
RBR-055-01	SEPIA 034	SPECIAL NOTE FOR TRAFFIC CONTROL
RBR-060		SPECIAL PROVISION 69
RDX-210-03		SPECIAL NOTE FOR PERMITTING
RDX-215-01		SPECIAL NOTE FOR COMMUNICATING
		ALL PROMISES

LENGTH <u>100</u> LIN. FT. <u>0.019</u> MILES ADDED [] FOR EQUALITIES [] NOT INCLUDED	LENGTH <u>X</u> LIN. FT. <u>X</u> MILES ADDED [] FOR EQUALITIES [] NOT INCLUDED	LENGTH <u>X</u> LIN. FT. <u>X</u> MILES ADDED [] FOR EQUALITIES [] NOT INCLUDED	LENGTH <u>X</u> LIN. FT. <u>X</u> MILES ADDED [] FOR EQUALITIES [] NOT INCLUDED
RAILROAD CROSSINGS NO. <u>-</u> LIN. FT. _____ BRIDGES <u>-</u> LIN. FT. _____	RAILROAD CROSSINGS NO. <u>X</u> LIN. FT. _____ BRIDGES <u>X</u> LIN. FT. _____	RAILROAD CROSSINGS NO. <u>X</u> LIN. FT. _____ BRIDGES <u>X</u> LIN. FT. _____	RAILROAD CROSSINGS NO. <u>X</u> LIN. FT. _____ BRIDGES <u>X</u> LIN. FT. _____

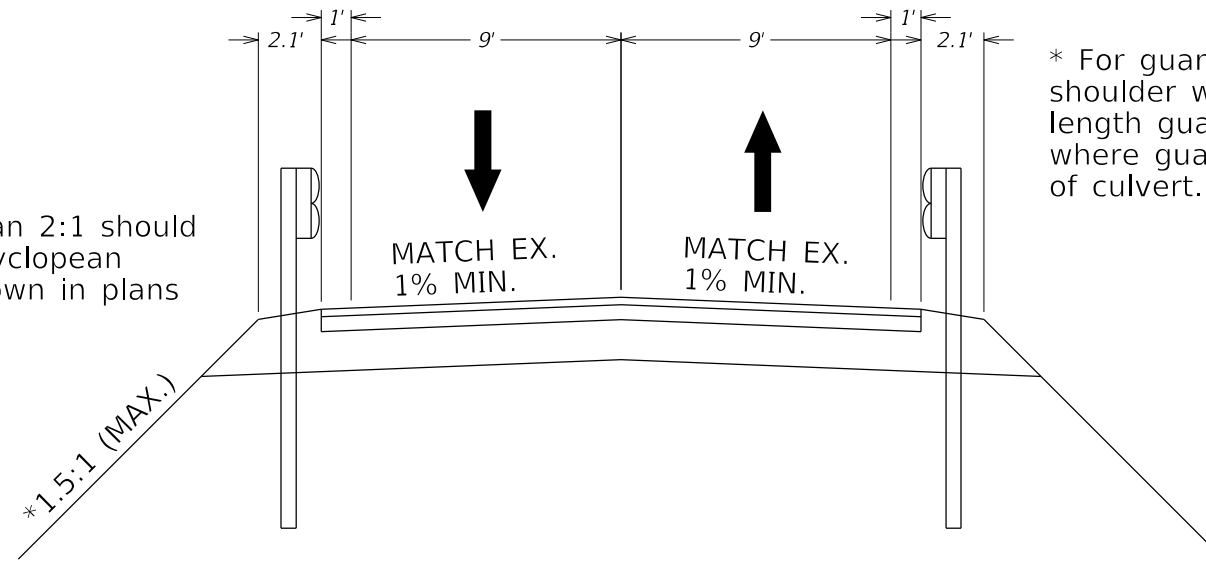
PROJECT NUMBER: _____

PROJECT DESCRIPTION: BRIDGE REPLACEMENT. PLUM CREEK ROAD OVER WILLOW CREEK

RECOMMENDED BY: CORY LARKIN, P.E. PROJECT MANAGER DATE: _____
 PLAN APPROVED BY: _____ COUNTY ENGINEER DATE: _____

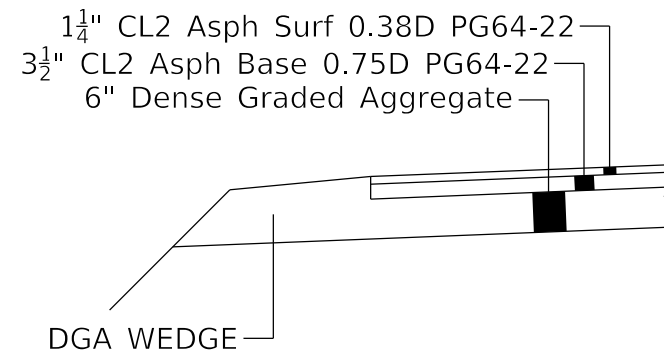
LETTING DATE: _____
 ITEM NO. N/A COUNTY OF CAMPBELL
 SHEET NO. R1

* Slopes steeper than 2:1 should be stabilized with cyclopean stone rip rap as shown in plans



Plum Creek Road Typical

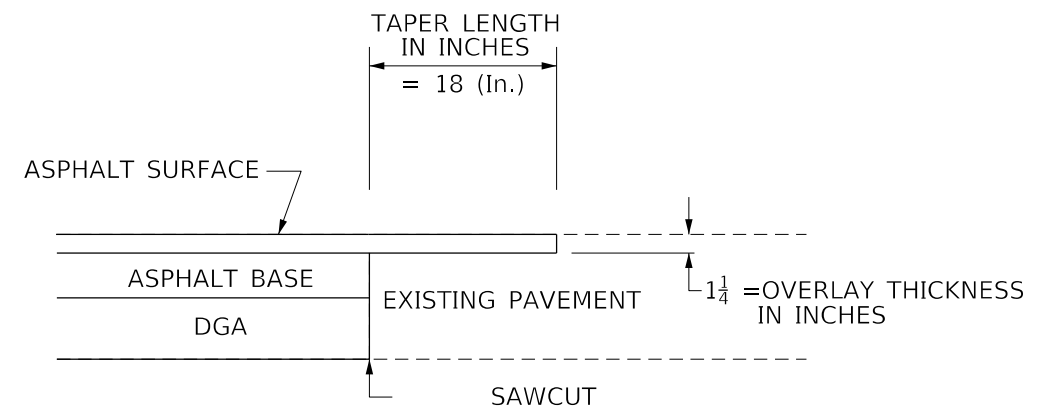
Sta 102+30.00 To Sta 103+30.00



Plum Creek Road Pavement Design

From Edge Of Paved Shoulder To A Point 2' Down The Slope
Bituminous Seal-two Applications Of The Following:

- Asphalt Seal Coat 2.4 Lbs/sy
- Asphalt Seal Aggregate 20 Lbs/sy



Edge Key Detail

OpenRoads Designer v10.16.2.269	REVISION	DATE	PREPARED BY Michael Baker INTERNATIONAL	DATE: 7/15/2024	CHECKED BY C. LARKIN	TYPICAL SECTIONS SHEET	ROUTE PLUM CREEK RD	ITEM NO. N/A	COUNTY OF CAMPBELL
	USER: Shelby.Wilson	DATE PLOTTED: 27-SEP-2024	1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 MBAKERINTL.COM	DESIGNED BY: S. WILSON	DETAILED BY: S. WILSON		CROSSING WILLOW CREEK	SHEET NO. R2	DRAWING NUMBER N/A

MAINTENANCE OF TRAFFIC GENERAL NOTES

1. Traffic shall be maintained in accordance with the Manual on Uniform Traffic Control Devices, the Standard Specifications for Road and Bridge Construction and the Standard Drawings, current editions.
2. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic" as set forth in the current Standard Specifications for Road and Bridge Construction unless otherwise provided for in these notes. The lump sum bid to "Maintain and Control Traffic" shall also include, but is not limited to, the following items and operations:
 - a. All labor and materials necessary for construction and maintenance of traffic control devices and markings.
 - b. All flagpersons and traffic control devices such as, but not limited to, flashers, plastic drums (steel drums will not be permitted) and cones necessary for the control and protection of vehicular and pedestrian traffic as specified in these notes, the plans, the MUTCD or by the Engineer.
3. Any temporary traffic control items, devices, materials and incidentals shall remain the property of the contractor when no longer needed.
4. The contractor shall close the road for duration of construction and provide a marked detour along US-27 Alexandria Pike and Plum Creek Road and KY 154 Peach Grove Road and Yelton Hill Road.
5. The contractor shall completely cover any signs, either existing, permanent or temporary, which do not properly apply to the current traffic phasing, and shall maintain the covering until the signs are applicable or are removed.
6. In general, all traffic control devices shall be placed starting and proceeding in the direction of the flow of traffic and removed starting and proceeding in the direction opposite the flow of traffic.
7. The Engineer and the Contractor, or their authorized representatives, shall review the signing before traffic is allowed to use any lane closures, crossovers or detours. All signing shall be approved by the Engineer before work can be started by the contractor.
8. If the contractor desires to deviate from the traffic control scheme and construction schedule outlined in these plans and this proposal, he shall prepare an alternate plan and present it in writing to the Engineer. This alternate plan can be used only after review and approval of the Divisions of Traffic, Design and Construction, and the Federal Highway Administration, where applicable.
9. If traffic should be stopped due to construction operations and an emergency vehicle on an official emergency run arrives at the scene, the Contractor shall make the provisions for the passage of that vehicle as quickly as possible.
10. All signs necessary for a marked detour will be provided by the Contractor as required by standard drawings and the MUTCD. Signs outside the project limits shall be paid for by the square foot. This quantity shall include sign mounting hardware and posts.
11. Barricades, Type III necessary for road closure will be provided by the Contractor as required by standard drawings and the MUTCD. A minimum of (4) Barricades, Type III are to be used at each end of the bridge for a total of (8) Barricades, Type III. Contrary to the standard specifications, no direct payment will be made for barricades, but they shall be included in the lump sum price for "Maintain and Control Traffic".

EROSION CONTROL NOTES

All silt control devices shall be sized to retain a volume of 3,600 cubic feet per disturbed contributing acre.

The Contractor shall conduct his operations to minimize the amount of disturbed ground during each phase of construction. The Contractor shall compute the volume necessary to control sediment during each phase of construction. As work proceeds, silt traps may be added or removed in order to achieve the best management plan. The required volume at each added silt trap shall be computed as up gradient contributing areas are disturbed or are stabilized to the satisfaction of the Engineer. The required volume calculation for each silt trap shall be determined by the Contractor and verified by the Engineer. The required volume at each silt trap may be reduced by the following amounts:

- Up gradient areas not disturbed (acres).
- Up gradient areas that have been reclaimed and protected by erosion control blanket or other ground protection material such as temporary mulch.(acres).
- The use of temporary mulch is encouraged.
- Up gradient areas that have been protected by silt fence (acres). areas protected by silt fence shall be computed at a maximum rate of 100 square foot per linear foot of silt fence.
- Up gradient areas that have been protected by silt traps (acres).

The Erosion Control Plan shall be annotated as the work proceeds by the contractor to detail the selection of each erosion control device used and the volume provided by each silt trap in accordance with the documentation procedures established by the Division of Construction.


If a silt basin is not used then one Silt Trap Type A, Alternate Number 2 or Silt Trap Type B shall always be placed at the most remote downstream collection point prior to discharging into a blue line stream or onto an adjacent property owner. Where overland flow exist, a silt fence or other filter devices may be used or the overland flow may be diverted to one of the aforementioned silt basin or traps.

The Contractor shall develop the BMP according to section 213.03.01 of the Standard Specifications For Road and Bridge Construction, and the supplemental specs effective with August 2024 letting.

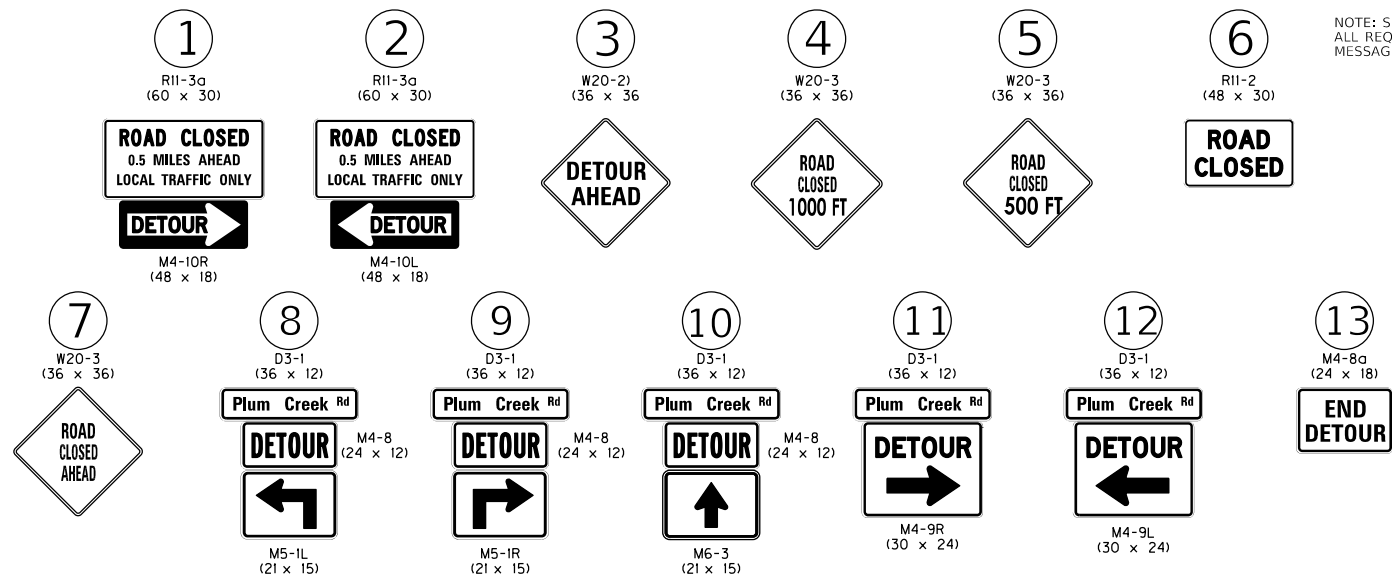
Erosion control measures shall be in place and functioning prior to any excavation or disturbance within a drainage area.

The Contractor shall be required to clean out (remove sediment from) silt traps and silt fences whenever they become one- half full and properly dispose of the material at sites approved by the Engineer.

Erosion control measures employed by the Contractor will be unique to the project and work conditions and shall be approved by the Engineer. The development and utilization of these measures will be recorded as part of the BMP, kept on site, and available for public inspection.

	REVISION	DATE	PREPARED BY 	DATE: 7/15/2024	CHECKED BY	MOT & EROSION CONTROL NOTES	ROUTE	ITEM NO.	COUNTY OF
			1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 MBAKERINTL.COM		C. LARKIN	CROSSING	PLUM CREEK RD	N/A	CAMPBELL
			INTERNATIONAL		C. LARKIN	WILLOW CREEK		SHEET NO. R3	DRAWING NUMBER N/A

SIGN CHART						
SIGN NO.	SIGN DESC.	DIMENSION		SQ FT	EACH	TOTAL SQ FT
		(IN)	(IN)			
8, 9, 10, 11, 12	D3-1	36	12	3	14	42
8, 9, 10	M4-8	24	12	2	8	16
13	M4-8a	24	18	3	2	6
12	M4-9L	30	24	5	3	15
11	M4-9R	30	24	5	3	15
2	M4-10L	48	18	6	1	6
1	M4-10R	48	18	6	1	6
8	M5-1L	21	15	2.2	3	6.6
9	M5-1R	21	15	2.2	3	6.6
10	M6-3	21	15	2.2	2	4.4
6	R11-2	48	30	10	2	20
1, 2	R11-3a	60	30	12.5	2	25
3	W20-2	36	36	9	3	27
4, 5, 7	W20-3	36	36	9	6	54
TOTAL						250



NOTE: SEE SPECIAL NOTE FOR TRAFFIC CONTROL FOR ALL REQUIREMENTS, INCLUDING CHANGEABLE MESSAGE BOARDS.



REVISION	DATE	PREPARED BY Michael Baker INTERNATIONAL 1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 MBAKERINTL.COM	DATE: 9/06/2024	CHECKED BY C. LARKIN	DETOUR SHEET	ROUTE PLUM CREEK RD	ITEM NO. N/A	COUNTY OF CAMPBELL
			DESIGNED BY: S. WILSON	C. LARKIN		CROSSING WILLOW CREEK	SHEET NO. R4	DRAWING NUMBER N/A

CONTROL POINTS						
CP	KY NORTH ZONE			MONUMENT	KY SINGLE ZONE	
	NORTHING	EASTING	ELEV. FT		NORTHING	EASTING
2	485323.392	1609028.020	645.827	RBSC	4193860.447	5317176.386
100	485300.135	1609018.567	646.648	NLS	4193837.046	5317167.31
101	485268.417	1609099.881	644.797	NLS	4193806.636	5317249.125
102	485267.646	1609187.313	643.645	NLS	4193807.273	5317336.562
103	485245.446	1609200.118	643.744	NLS	4193785.281	5317349.728
1	485231.846	1609257.152	641.973	RBSC	4193772.599	5317406.973
105	485227.385	1609307.993	641.378	NLS	4193768.958	5317457.881
106	485237.329	1609406.723	640.559	NLS	4193780.485	5317556.445
107	485213.821	1609411.525	639.792	NLS	4193757.054	5317561.623
200	485164.519	1609743.244	637.380	NLS	4193713.095	5317894.113
104	485261.988	1609219.040	643.000	NLS	4193802.124	5317368.381

ROADWAY NOTES:
 FIELD SURVEY PERFORMED IN KY NORTH ZONE. REPROJECTED TO SINGLE ZONE AS SHOWN ABOVE. PROPOSED STRUCTURE AND PROPOSED CENTERLINES ARE LAID OUT IN KENTUCKY SINGLE ZONE.

IN DISTURBED AREAS RE-GRADE SLOPES AND DITCHES TO DRAIN ACCORDING TO EXISTING CONDITIONS. ALL LABOR AND MATERIAL TO PERFORM WORK SHALL BE INCIDENTAL TO CYCLOPEAN STONE RIP RAP INSTALL.

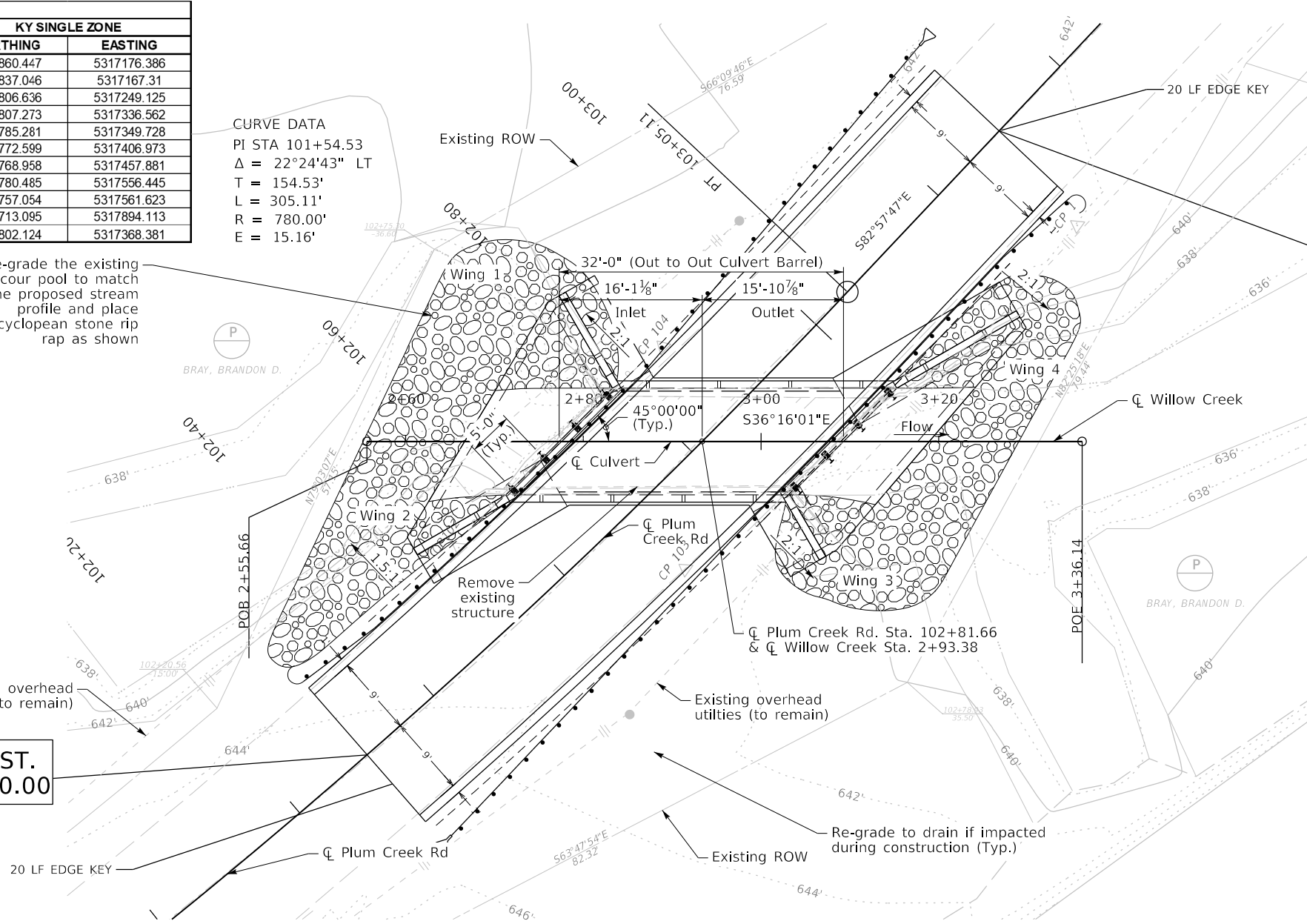
STA 102+30 LT CONSTRUCT 50 LF STEEL GUARDRAIL W BEAM-S FACE & 1 GR END TREATMENT TYPE 4A & 1 GR END TREATMENT TYPE 2A

STA 102+30 TO STA 103+30 REMOVE 225 SQ YD PAVEMENT. ALL ROADWAY EXCAVATION NECESSARY FOR REMOVAL AND PLACEMENT OF NEW PAVEMENT SHALL BE INCLUDED IN THE BID ITEM REMOVE PAVEMENT.

MATCH EXISTING GRADE AND CROSS SLOPE FOR PLACEMENT OF NEW ASPHALT.

Re-grade the existing scour pool to match the proposed stream profile and place cyclopean stone rip rap as shown

CURVE DATA
 PI STA 101+54.53
 $\Delta = 22^\circ 24' 43''$ LT
 T = 154.53'
 L = 305.11'
 R = 780.00'
 E = 15.16'



BEGIN CONST.
 STA 102+30.00

END CONST.
 STA 103+30.00

STA 102+30 RT CONSTRUCT 50 LF STEEL GUARDRAIL W BEAM-S FACE & 1 GR END TREATMENT TYPE 4A & 1 GR END TREATMENT TYPE 2A

APPROX. STA 102+74 REMOVE EXISTING STRUCTURE IN ACCORDANCE WITH SECTION 203 OF THE STANDARD SPECIFICATIONS: SINGLE SPAN BRIDGE.

CONSTRUCT 1 OBJECT MARKER TYPE 2 AT EACH CORNER OF CULVERT. 4 TOTAL.

PLUM CREEK RD CENTERLINE			
POINT	STATION	NORTHING (Y)	EASTING (X)
POB	96+52.80	4194054.621	5316795.374
PC	100+00.00	4193883.922	5317097.713
HPI	101+54.53	4193807.948	5317232.275
PT	103+05.11	4193789.017	5317385.639
POE	104+07.76	4193776.441	5317487.519

WILLOW CREEK STREAMLINE			
POINT	STATION	NORTHING (Y)	EASTING (X)
POB	2+55.658	4193822.656	5317340.082
POE	3+36.137	4193757.768	5317387.689

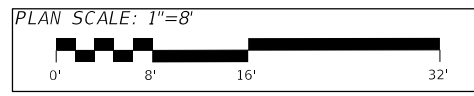
COORDINATE SYSTEM

Coordinates for horizontal control were obtained from GPS methods and adjusted to the National NAD83/FBN System.

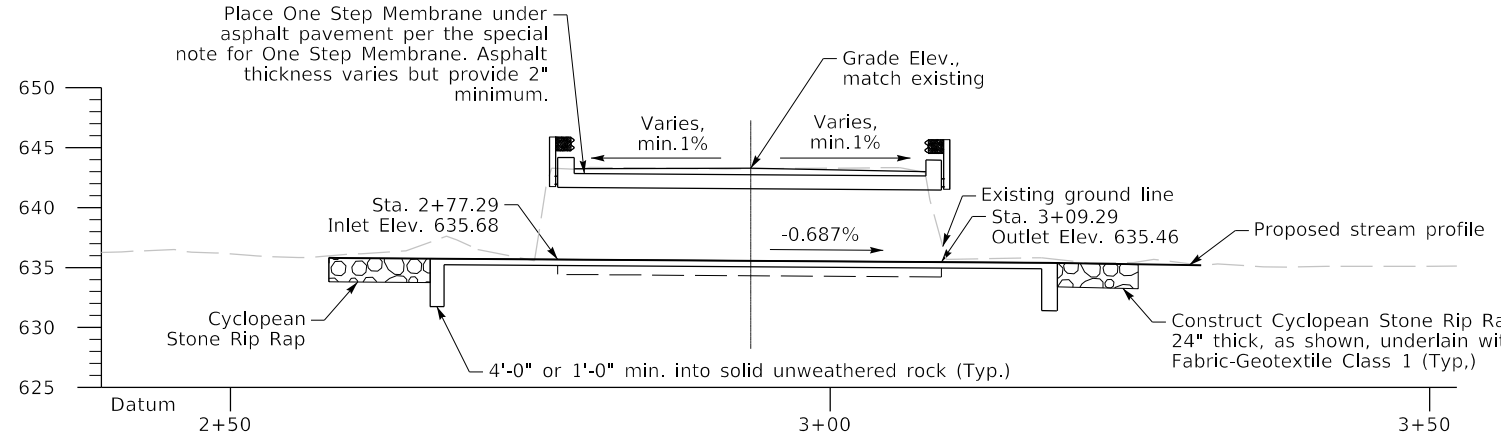
Coordinates are based on State Plane Coordinate System Single Zone and in U.S. Survey Feet.

BASIS OF ELEVATIONS

Elevations were derived from GPS methods and are adjusted to the NAVD88 Vertical Datum. Geoid model used was Geoid18.



PLAN
 12'-0" X 6'-0" X 32'-0" RCBC, Skew 45°0'0",
 1:2 Fill slopes unless noted otherwise with paved inlet & outlet
 1.51' Max. Fill height, Non-Yielding Foundation, KYHL-93,
 20'-0" out to out shoulders



Structure Notes:
 For guardrail attachment to culvert headwall, see Standard Drawing BDP-005-06.

Guardrail quantities included in Roadway Quantities. All costs to attach guardrail to top of culvert are included in price bid for guardrail.

For sidewall and wingwall backfill, and method of construction, see Special Provision 69. Geotextile Fabric is incidental to Structure Granular Backfill.

ELEVATION
 Along \bar{C} Culvert

REVISION	DATE	PREPARED BY Michael Baker INTERNATIONAL	DATE: 7/15/2024	CHECKED BY C. LARKIN	LAYOUT CROSSING WILLOW CREEK	ROUTE PLUM CREEK RD	ITEM NO. N/A	COUNTY OF CAMPBELL
		1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 MBAKERINTL.COM	DESIGNED BY: S. WILSON	DETAILED BY: S. WILSON		SHEET NO. S1	DRAWING NUMBER N/A	

GENERAL NOTES

SPECIFICATIONS: References to the specifications are to the 2019 edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction including any current supplemental specifications. All references to the AASHTO specifications are to the AASHTO LRFD Bridge Design Specifications, 9th edition with all interim revisions and the AASHTO LRFD Bridge Construction Specifications 4th edition with all interim revisions.

DESIGN LIVE LOAD: This structure is designed for KY HL-93 live load. The KY HL-93 live load is arrived at by increasing the standard HL-93 trucks and lane loads as specified in the AASHTO specifications by 25%.

DESIGN METHOD: All structural members are designed to have a capacity equivalent or greater than the load and resistance factor design method, as specified in the referenced AASHTO Specifications.

MATERIALS DESIGN SPECIFICATIONS:
 For Class "A" Reinforced Concrete $f'_c = 3,500$ psi
 For Steel Reinforcement $F_y = 60,000$ psi

CONCRETE: Class A Concrete is to be used throughout the entire culvert.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Any reinforcing bars designated by suffix E in the plans shall be epoxy coated in accordance with section 811.10 of the Standard Specifications. Any reinforcing bars designated by suffix S in a Bill of Reinforcement shall be considered a stirrup for purposes of bend diameters. Clear cover shall be 2" unless noted otherwise.

CONSTRUCTION IDENTIFICATION: The names of the Prime Contractor and the Sub-Contractor shall be imprinted in the concrete with 1 inch letters at a location designated by the engineer. The contractor shall furnish all plans, equipment and labor necessary to do the work for which no direct payment will be made. See STD. DWG. BGX-006, C.E.

BEVELED EDGES: All exposed edges shall be beveled $\frac{3}{4}$ ", unless otherwise shown.

COMPLETION OF THE STRUCTURE: The contractor is required to complete the structure in accordance with the plans and specifications. Material, Labor or Construction Operations, not otherwise specified, are to be included in the Bid Item most appropriate to the work involved, this may include cofferdams, dewatering, shoring, excavations, backfilling, removal of all parts of existing structures, phase construction, incidental materials, labor, or anything else required to complete the structure.

CONSTRUCTION JOINTS: Vertical construction joints shall be located in the field, except that no construction joint shall be located in the barrel within six feet of the ends of the culvert.

FOUNDATION PREPARATION: Foundation Preparation shall be in accordance with Section 603 of the Specifications.

Foundation excavations should be properly braced/shored to provide adequate safety to persons working in or around excavations. Bracing should be performed in accordance with applicable federal, state, and local guidelines.

The Contractor is responsible for slope stability during any activity required for installation of foundations. Temporary sheeting and/or shoring methods may be required. Any temporary device used for stability is to be designed by a professional Engineer registered in Kentucky. The Engineer is to have 21 days to review any proposed sheeting or shoring designs. Cost of any device used for stabilizing the site for installation of foundations is incidental to installation of the foundation.

Temporary shoring, sheeting, cofferdams, and/or dewatering methods may be required to facilitate foundation construction. It should be anticipated that groundwater will be encountered at foundation locations within the flood plain.

Temporary shoring, sheeting, cofferdams, and/or dewatering methods shall be included in the Lump Sum Bid for Foundation Preparation.

CULVERTS WITH UNYIELDING FOUNDATIONS: If solid rock is not encountered at the design footing elevation, soil must be excavated and backfilled with "Granular Embankment", non-erodible only, meeting the material requirements of Section 805 in the current edition of the Kentucky Standard Specifications with the exception that the maximum size is 4 inches. Payment for this work shall be included in the lump sum bid for Foundation Preparation.

Any bedrock or boulders encountered within 2 ft. of the bottom slab must be excavated and backfilled with "Granular Embankment" to the base of the footing elevation.

CONSTRUCTION NOTES: Temporary shoring, sheeting, cofferdams, and/or dewatering methods may be required to facilitate foundation construction.

The Contractor shall be responsible for the stability and safety of all excavations including the impact to adjacent properties and infrastructure. The Contractor shall be responsible for the evaluation of construction loads on the structures.

Solid rock excavation will be required for the construction of the culvert barrel, wingwall spread footings, paved flowline, paved inlet / outlet, and apron turn downs / toe walls.

The culvert barrel, paved flowline, and paved inlet / outlet shall bear on unweathered bedrock, concrete on unweathered bedrock, or granular replacement on unweathered bedrock.

Granular replacement material shall consist of "Granular Embankment," non-erodible only, meeting the material requirements of Section 805 of the Standard Specifications for Road and Bridge Construction, current edition. Contrary to the Standard Specifications, the maximum size limit for "Granular Embankment" is 4 inches. The excavation for the granular replacement shall extend to the bedrock surface a minimum width beyond the sides of the culvert barrel equal to the replacement depth. The granular replacement shall be placed on a 1H:1V slope or flatter down and away from the sides of the culvert barrel to the bottom of the excavation. Place Fabric-Geotextile Class 1 (Stabilization) between the soil and granular replacement. The geotextile fabric shall be in accordance with Sections 214 and 843 of the Standard Specifications for Road and Bridge Construction, current edition.

Where concrete is used to backfill excavations of soil or loose rock below the culvert footprint, the concrete shall meet the material requirements of Class B Concrete in accordance with Section 601 of the Standard Specifications for Road and Bridge Construction, current edition.

Concrete for the apron turn down / toe wall shall be extended to the minimum depth (Ha) indicated by the Apron Details (SD-9513) in the KYTC Structural Design Guidance Manual and shall be embedded a minimum of 1 foot into unweathered bedrock without the use of granular replacement. At the inlet end, the turn down / toe wall shall also be embedded a minimum of 2 feet below the base of the existing scour pool located upstream of the inlet.

The bottoms of the footings for the wingwalls shall bear at least 1 foot into competent, unweathered bedrock. At the inlet end, the wingwall footings shall also bear at least 2 feet below the base of the scour pool located at the upstream (north) end of the crossing.

The bottoms of the wingwall footings shall be at least 2.5 feet below final grades to provide protection from frost.

All apron turn down / toe wall and wingwall footing excavations in bedrock shall be cut neatly so that no forming or backfilling is necessary in the construction of the portions of the footings located in bedrock. Concrete shall be placed directly against the cut bedrock faces.

Where the tops of the footings are below the bedrock surface, mass concrete shall be placed from the top of the footing up to the bedrock surface.

The bedrock at this location has the potential to soften when exposed to water. The footing steel and concrete shall be placed the same day as the footing excavation is made. If the bedrock becomes softened at bearing elevation, the softened material shall be undercut to unweathered bedrock prior to placing the concrete.

STRUCTURE GRANULAR BACKFILL: Materials for Structure Granular Backfill shall be in accordance with Section 805 of the Specifications.

SCOUR PROTECTION: Scour Protection shall be Cyclopean Stone Riprap in accordance with the plans and specifications. Geotextile Fabric, Class 1 shall be placed between the native material and the scour protection in accordance with Standard Specifications 214 and 843. Geotextile Fabric is incidental to the bid item for Cyclopean Stone Riprap.

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal measurements.

WEIGHT OF FILL MATERIAL: The assumed weight of fill material is 120 lbs per cubic foot.

FOOTING PRESSURE: Foundation materials for barrel and wing footings shall resist a maximum service limit state bearing pressure of 4110 PSF.

FLOWLINE REINFORCEMENT: Construct the 6" paved flowline using Size 4 bars at 18in centers in each direction or an equivalent area of welded deformed steel fabric. The bars shall extend a minimum of 12 in into wing footings and/or the barrel footing. The cost of this reinforcement shall be incidental to the unit price bid for Concrete, Class "A".

ROADWAY GENERAL NOTES

Division 100 -- General Provisions

165 Before You Dig

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the ky 811 one-call before-u-dig (bud) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the county court clerk to determine what utility companies have facilities in the area.

Division 400 -- Asphalt Pavements

448 Compaction Of Asphalt Mixtures

Will accept the compaction of asphalt mixtures furnished on this project by Option B according to Subsections 402.03.02 and 403.03.10 of the Standard Specifications.

455 Edge Key

This work includes cutting out the existing asphalt surface to a minimum depth and width as detailed elsewhere in the plans so that the new surface may heel into the existing surface. The contract unit price bid linear foot (per meter) for "edge key" includes all necessary materials, labor and equipment necessary to perform the work and dispose of the removed asphalt material.

Division 600 -- Structures and Concrete


650 Standard Drawings

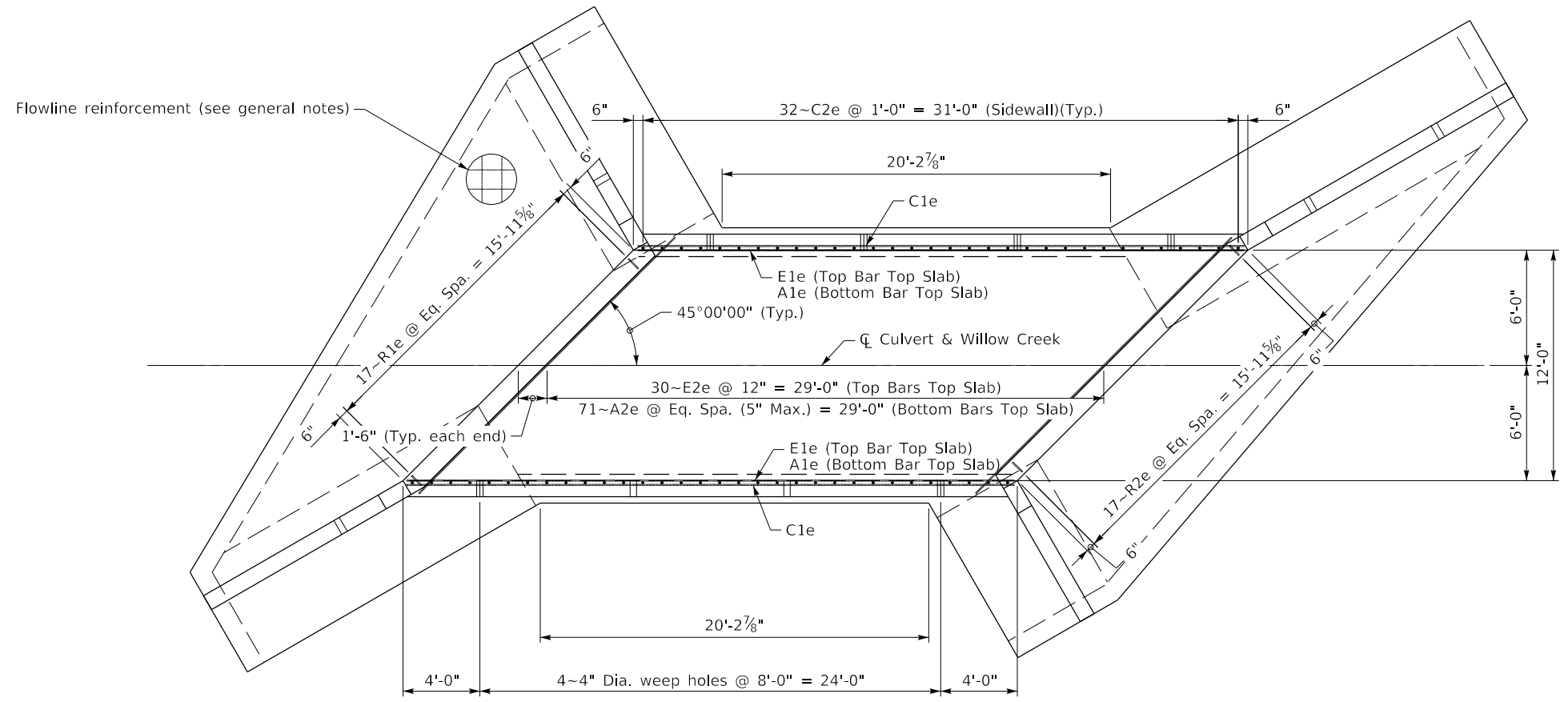
Standard Drawings are not attached to these plans. A Standard Drawing Book and the Headwall Supplemental Book may be obtained from the Policy Support Branch of the Department of Administrative Services in Frankfort, KY. at (502) 564-4610

Special Notes

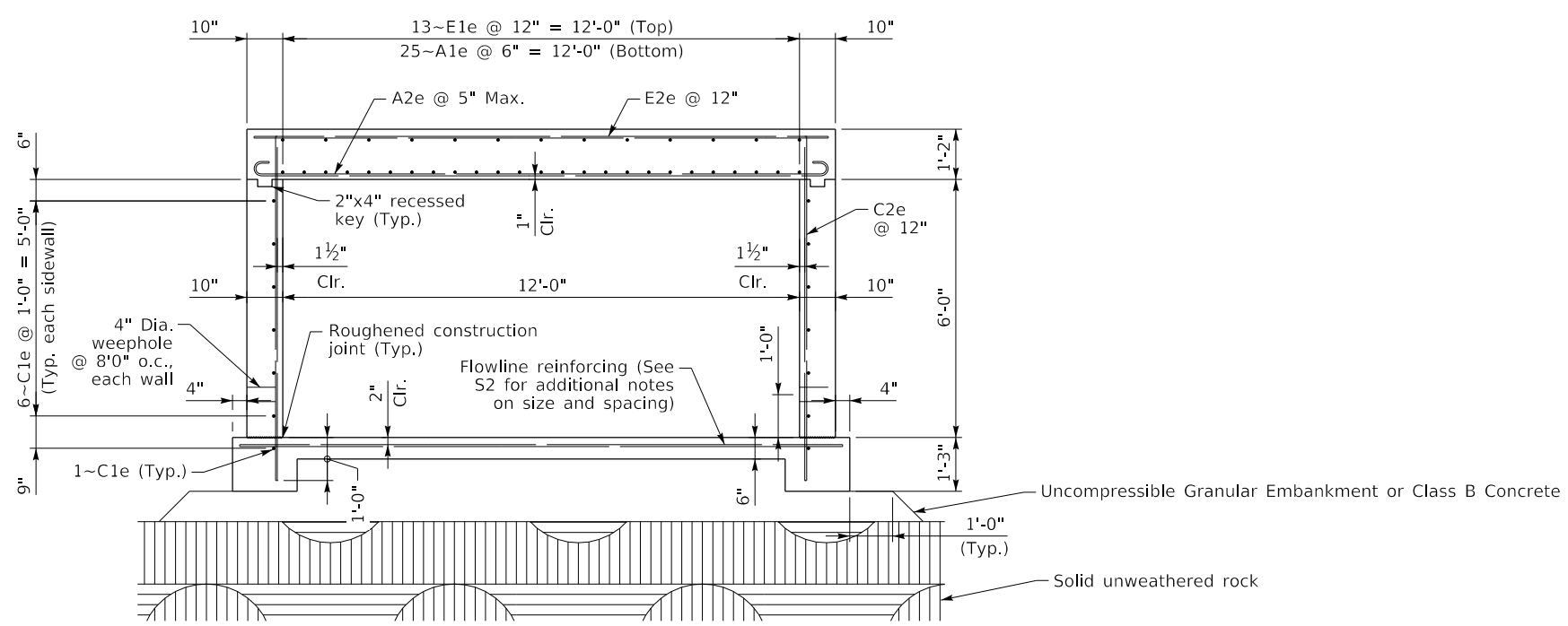
The contractor is advised that the earthwork calculations shown are for information only. Assumptions for shrinkage and swell factors are the contractor's responsibility.

Along Plum Creek Road, clear and grub only that riparian area that is necessary for staging and construction. If vegetation does not conflict with construction activities it should remain undisturbed.

	REVISION	DATE	PREPARED BY 	DATE: 7/15/2024	CHECKED BY:	<h2 style="margin: 0;">GENERAL NOTES</h2>	ROUTE	ITEM NO.	COUNTY OF
					C. LARKIN	CROSSING WILLOW CREEK	PLUM CREEK RD	N/A	CAMPBELL
					C. LARKIN			SHEET NO. S2	DRAWING NUMBER N/A



PLAN



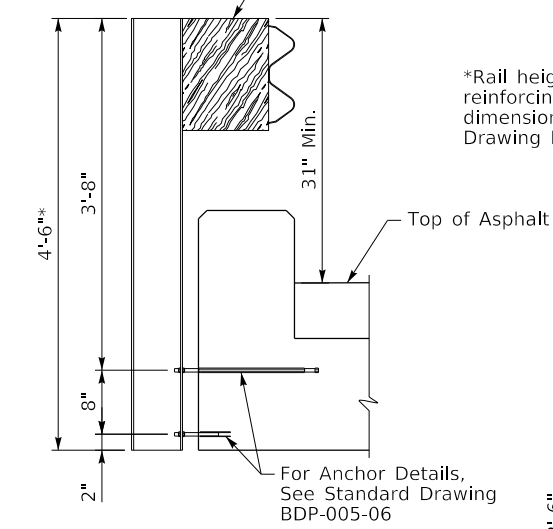
TYPICAL SECTION

- Notes:
- For additional dimensions, see wingwall sheets.

REVISION DATE	PREPARED BY Michael Baker INTERNATIONAL 1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 M.BAKERINTL.COM	DATE: 7/15/2024	CHECKED BY: C. LARKIN	BARREL DETAILS - 1 CROSSING WILLOW CREEK	ROUTE PLUM CREEK RD	ITEM NO. N/A	COUNTY OF CAMPBELL
		DESIGNED BY: S. WILSON	DETAILED BY: S. WILSON		SHEET NO. S3	DRAWING NUMBER N/A	

Guardrail face shall be flush with the face of curb. Modification to the standard guardrail spacer blocks may be necessary.

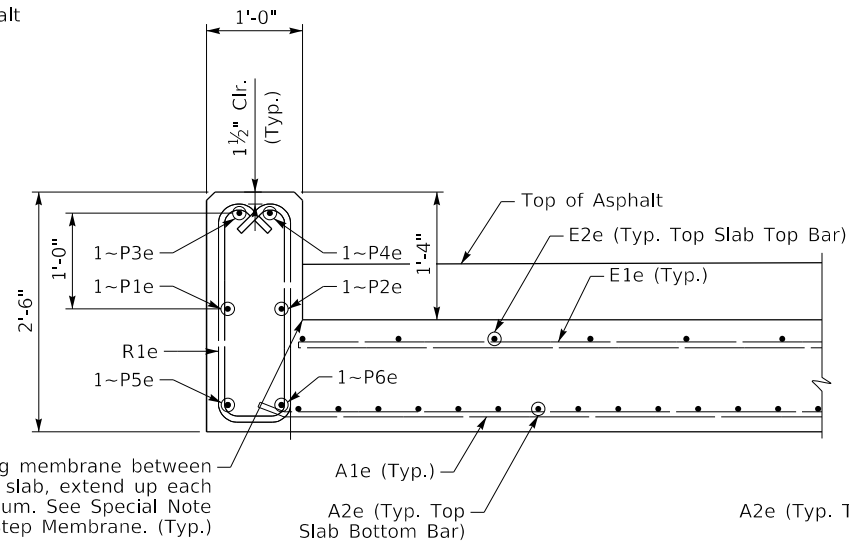
*Rail height adjusted to accommodate Headwall reinforcing and meet 31" ± 1" minimum dimension. For all other rail details, see Standard Drawing BDP-005-06



TYPE II RAILING

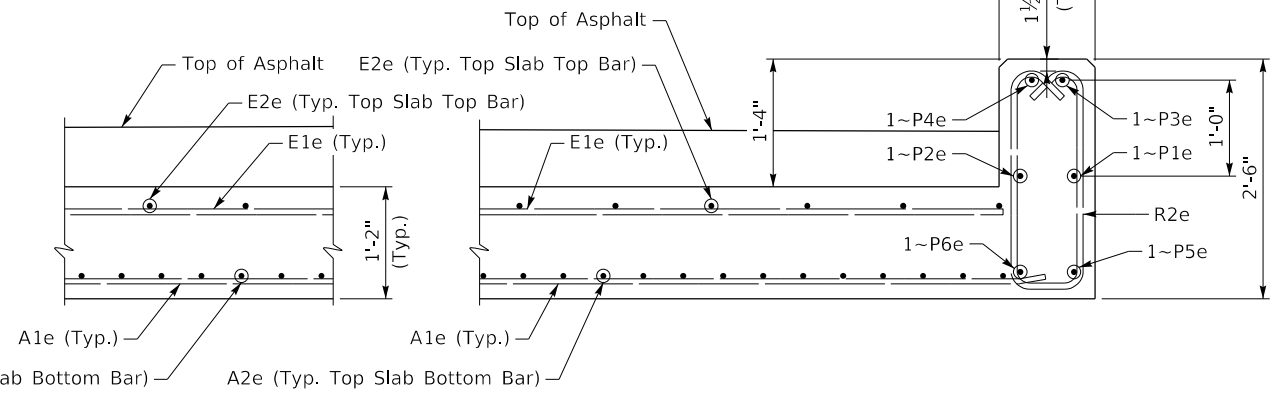
(Left Guardrail at Headwall Shown, Right Similar)

Install waterproofing membrane between asphalt and top slab, extend up each curb face 6" minimum. See Special Note for One Step Membrane. (Typ.)



LEFT HEADWALL

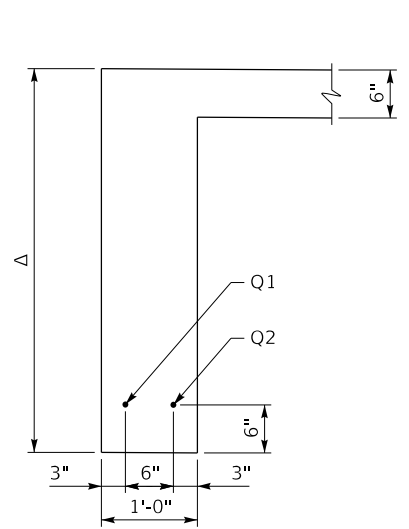
(Perpendicular to Headwall)



SECTION ON C-C

RIGHT HEADWALL

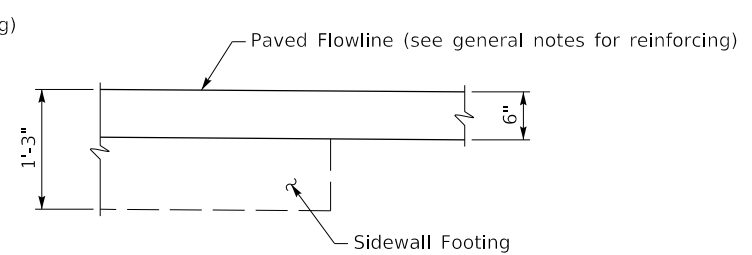
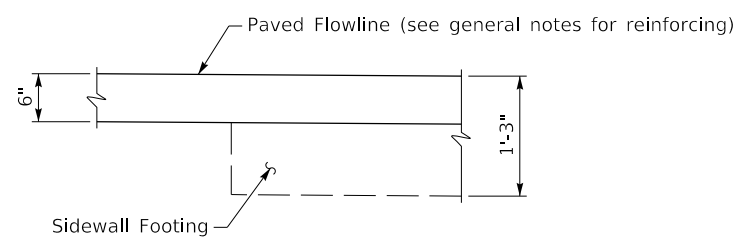
(Perpendicular to Headwall)



UPSTREAM END

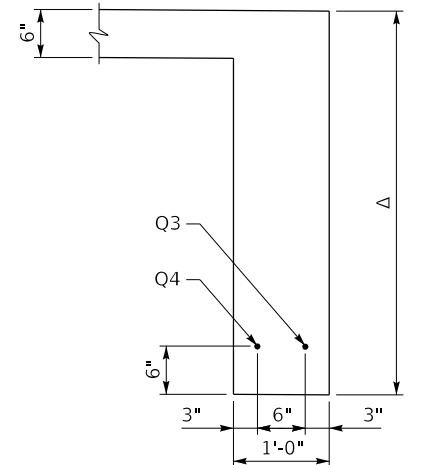
(Perpendicular to Apron)

Δ - 4'-0" or 1'-0" min. into solid unweathered rock



BARREL ELEVATION

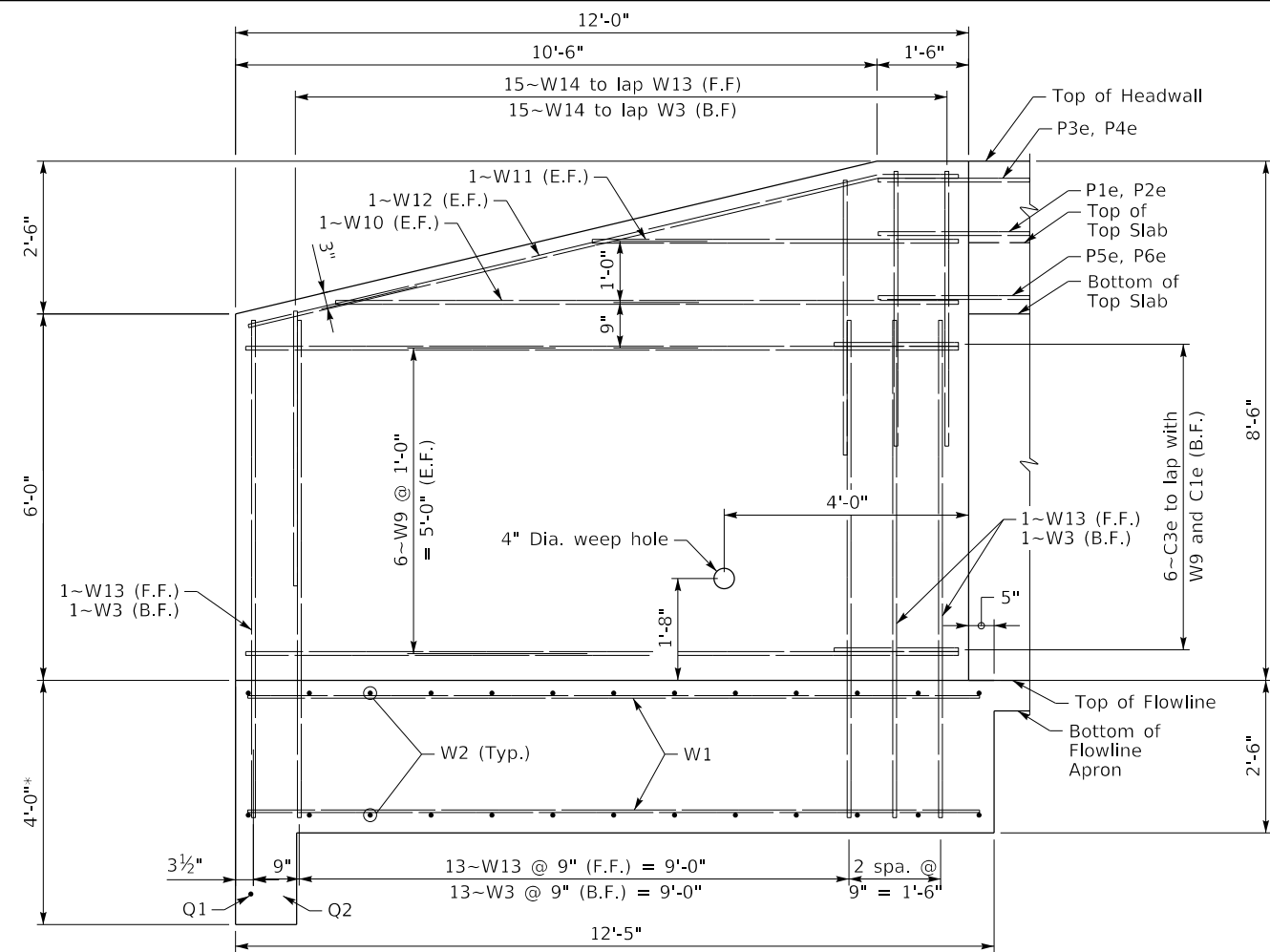
Note: Embed apron 1'-0" min. into solid unweathered bedrock. Pour all sides against solid rock. Any extra concrete required is incidental to the unit price bid for Class A concrete. Apron to be a maximum of 4'-0" long if solid rock is deep. Quantities are included for the full 4'-0" depth. Adjust concrete paid as necessary for actual depth used.



DOWNSTREAM END

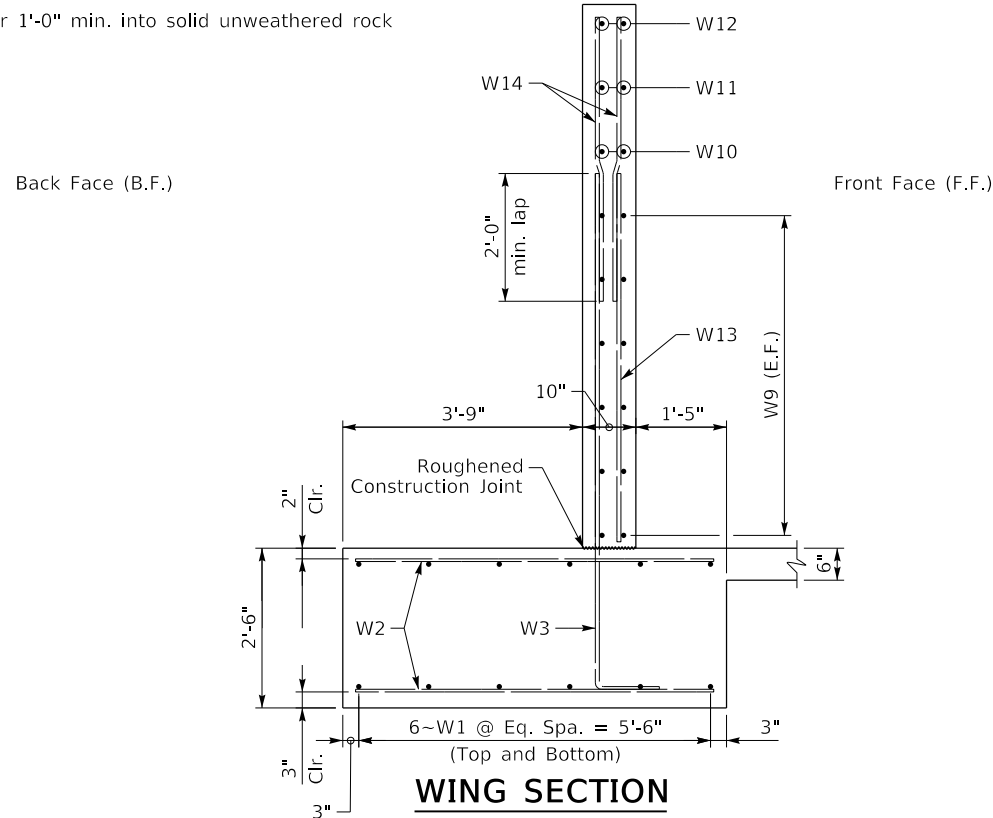
(Perpendicular to Apron)

REVISION DATE PREPARED BY Michael Baker INTERNATIONAL 1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 M.BAKER@INTL.COM	DATE: 7/15/2024 DESIGNED BY: S. WILSON DETAILED BY: S. WILSON	CHECKED BY: C. LARKIN C. LARKIN	BARREL DETAILS - 2 CROSSING WILLOW CREEK	ROUTE PLUM CREEK RD	ITEM NO. N/A SHEET NO. S4	COUNTY OF CAMPBELL DRAWING NUMBER N/A
	FILE NAME: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Cincinnati_OH/01_Projects/Campbell_County/Bridge_Replacements_23-24/Plum_Creek/Structures/2D_Drawing/S4 - Barrel Details 2.dgn			USER: Shelby.Wilson	DATE PLOTTED: 27-SEP-2024	OpenRoads Designer v10.16.2.267

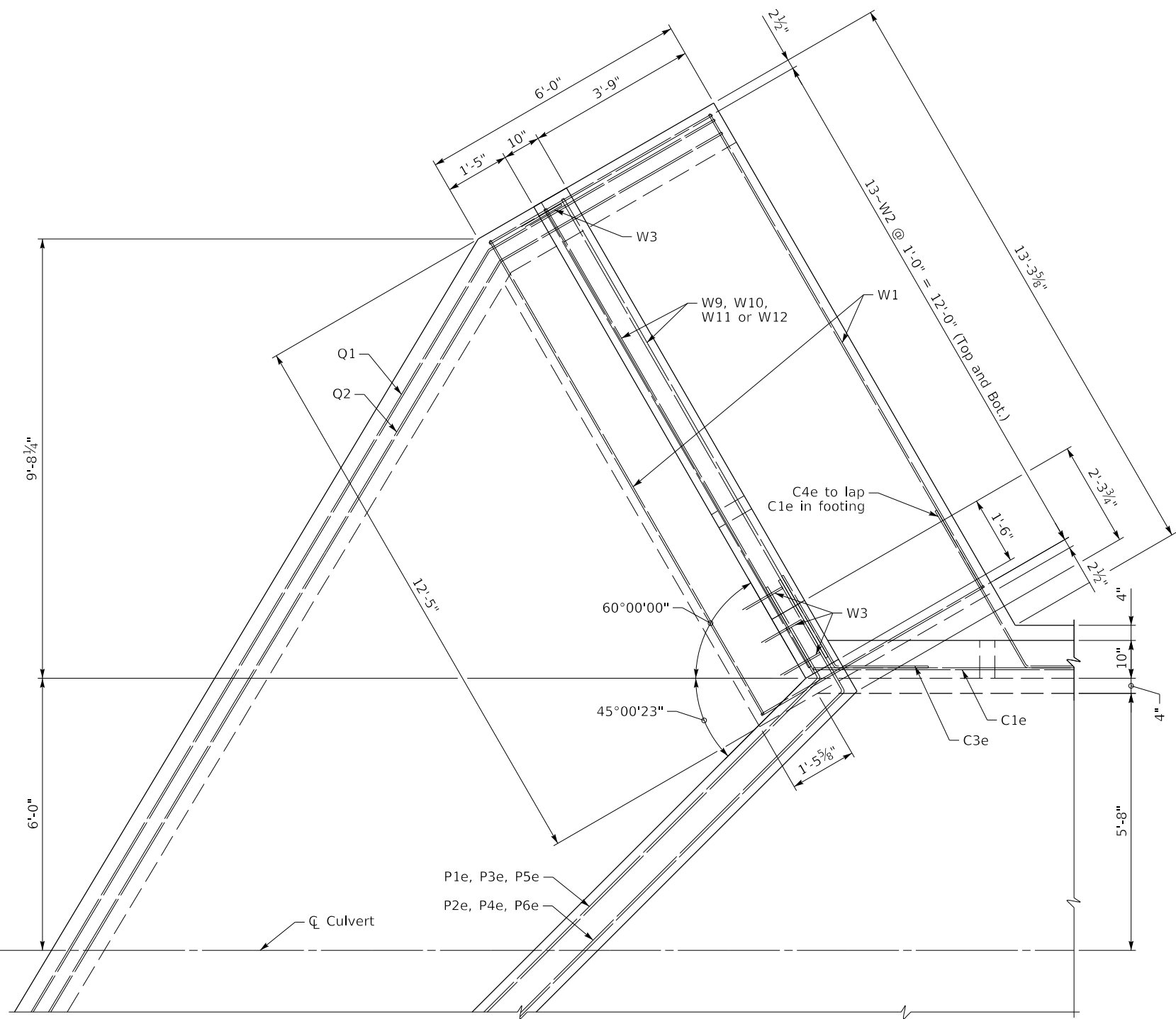


WING ELEVATION

* - 4'-0" or 1'-0" min. into solid unweathered rock



WING SECTION

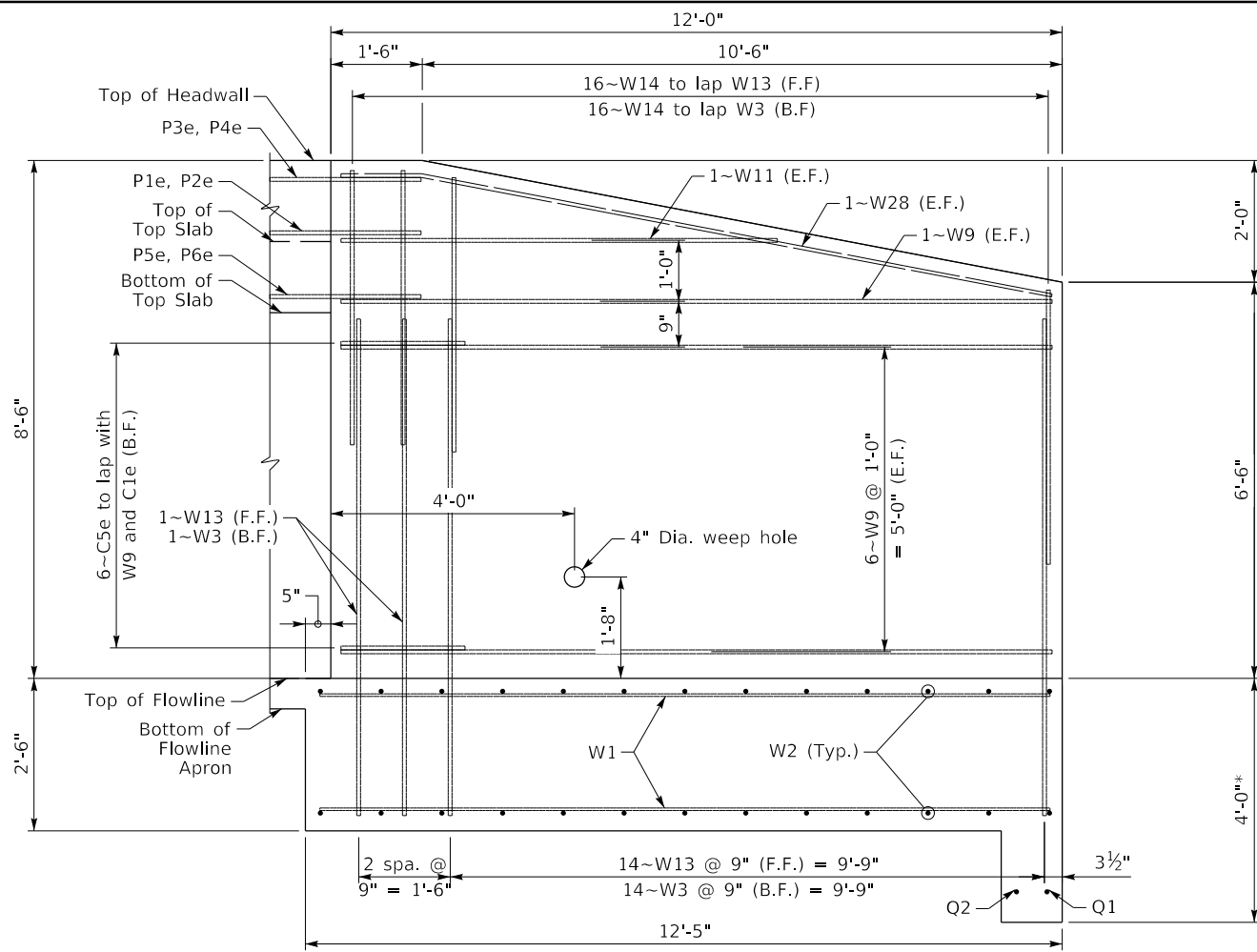


PLAN

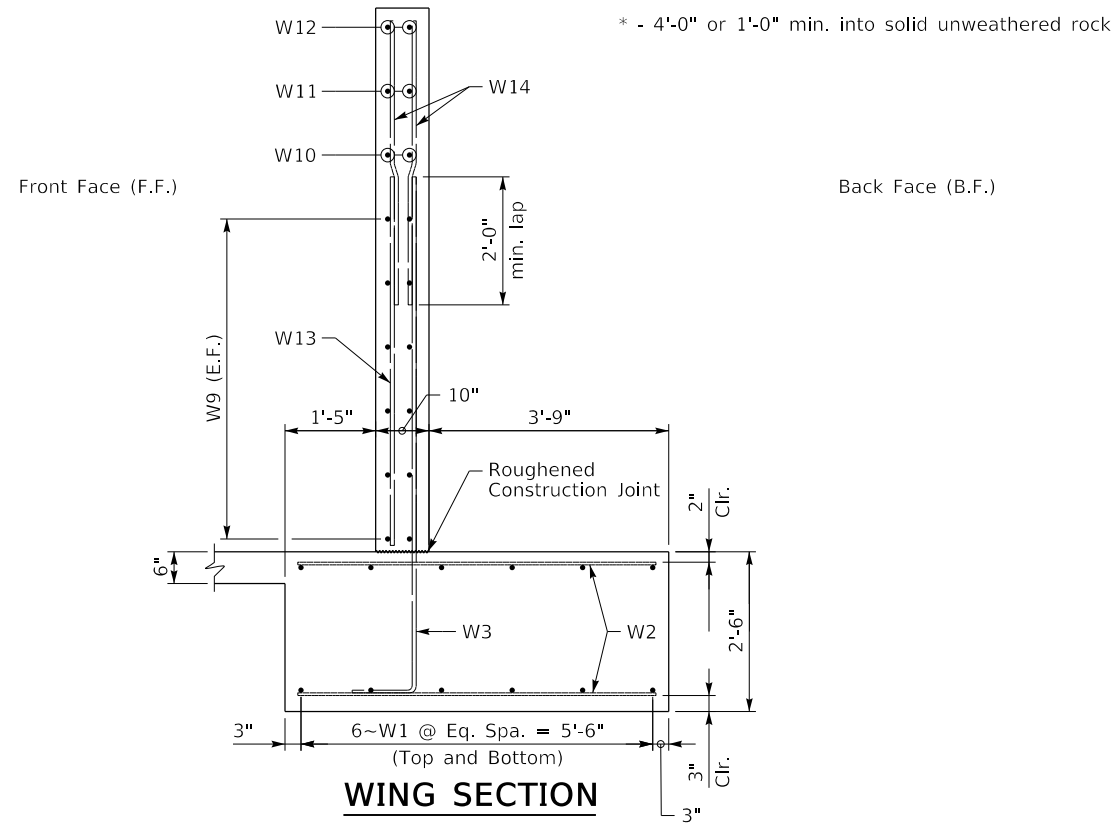
Notes:

- Where additional embedment of wingwall footing is needed per the notes on S1, increase the footing thickness as needed. The thickened footing will extend from the wing tip to the culvert barrel. Pour all sides against solid rock where encountered. Any extra concrete required is incidental to the unit price bid for Class A concrete. Adjust concrete paid as necessary for actual depth used.

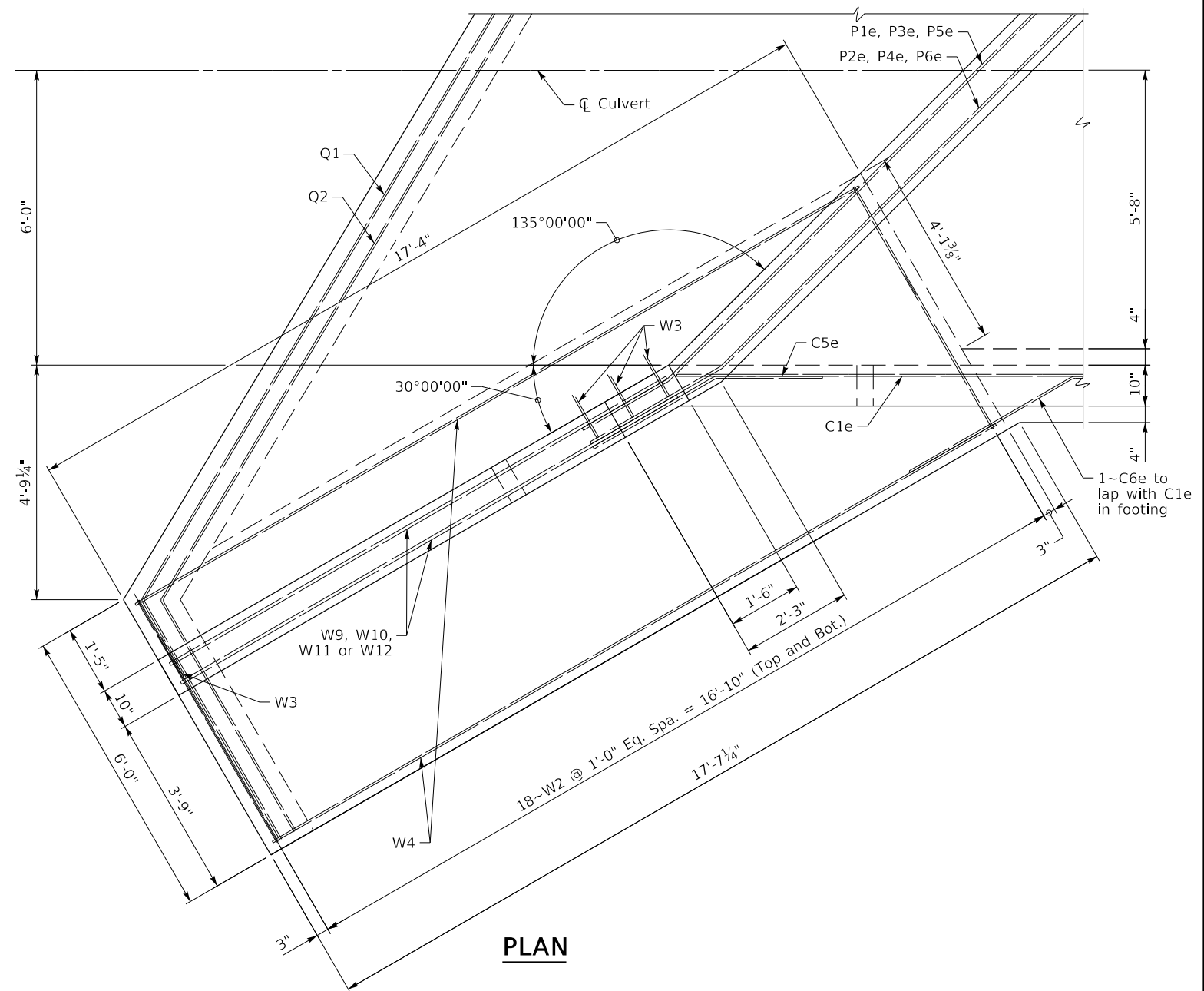
REVISION DATE DATE DATE	PREPARED BY Michael Baker INTERNATIONAL 1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 M.BAKERINTL.COM	DATE: 7/15/2024	CHECKED BY: C. LARKIN	WING 1 DETAILS CROSSING WILLOW CREEK	ROUTE PLUM CREEK RD	ITEM NO. N/A	COUNTY OF CAMPBELL
		DESIGNED BY: S. WILSON	DETAILED BY: S. WILSON		SHEET NO. S5	DRAWING NUMBER N/A	



WING ELEVATION



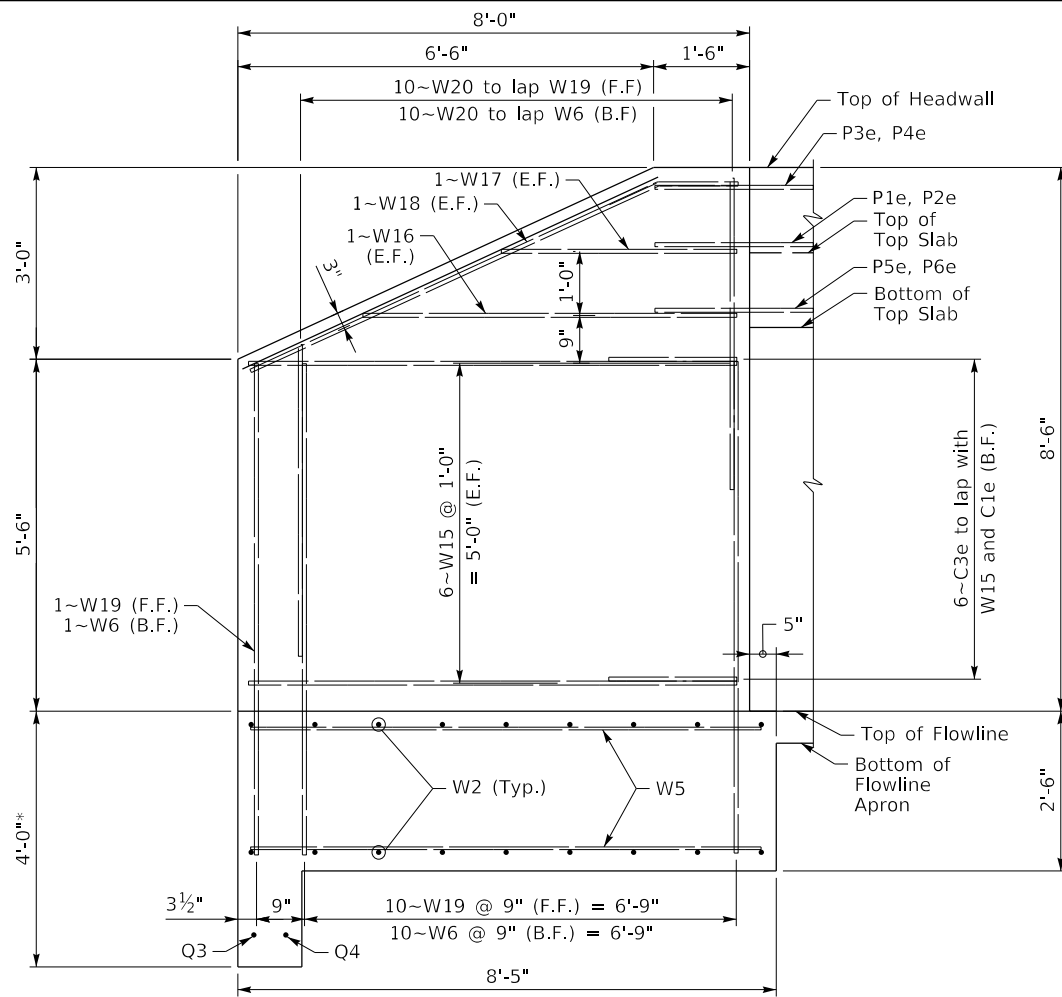
WING SECTION



PLAN

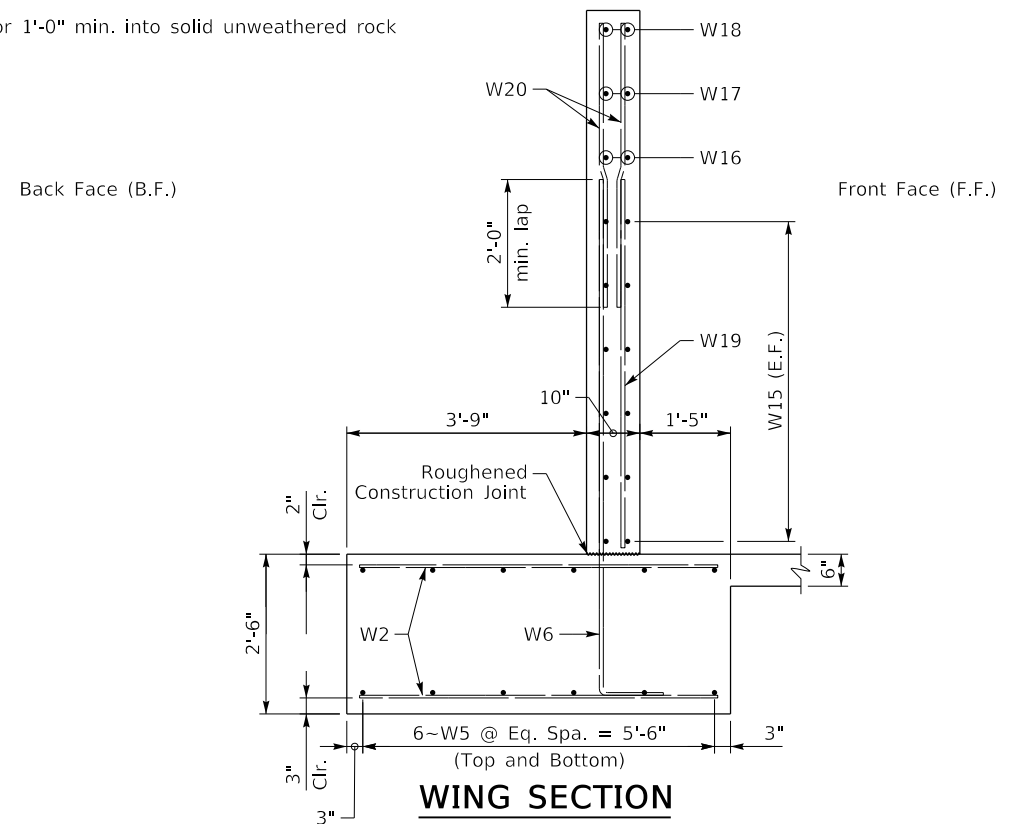
- Notes:
- Where additional embedment of wingwall footing is needed per the notes on S1, increase the footing thickness as needed. The thickened footing will extend from the wing tip to the culvert barrel. Pour all sides against solid rock where encountered. Any extra concrete required is incidental to the unit price bid for Class A concrete. Adjust concrete paid as necessary for actual depth used.

REVISION	DATE	PREPARED BY	DATE: 7/15/2024	CHECKED BY	WING 2 DETAILS	ROUTE	ITEM NO.	COUNTY OF
			1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 MBAKERINTL.COM	DESIGNED BY: S. WILSON		C. LARKIN	PLUM CREEK RD	N/A
		Michael Baker INTERNATIONAL	DETAILED BY: S. WILSON	C. LARKIN	CROSSING WILLOW CREEK		SHEET NO. S6	DRAWING NUMBER N/A

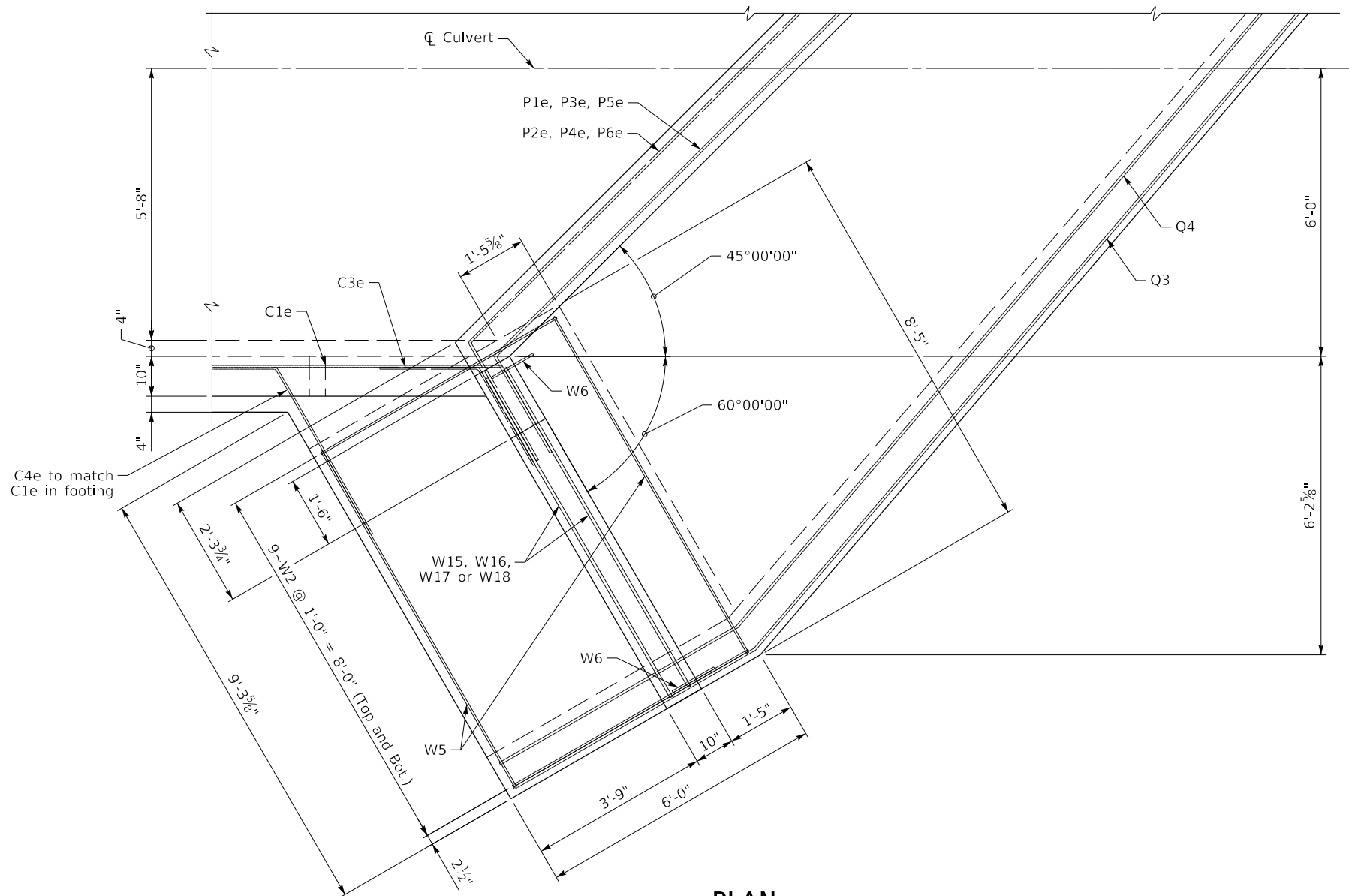


WING ELEVATION

* - 4'-0" or 1'-0" min. into solid unweathered rock



WING SECTION

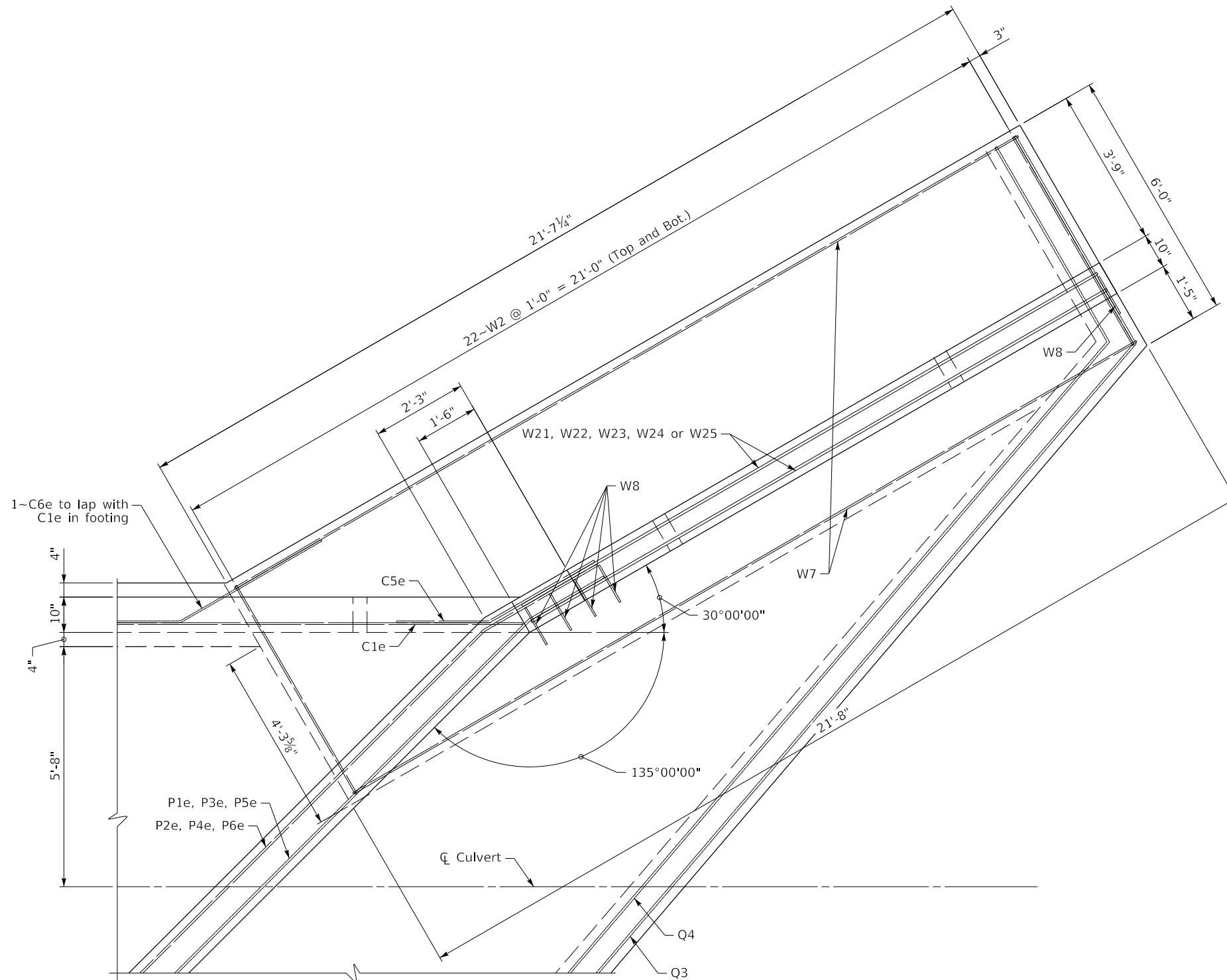


PLAN

Notes:

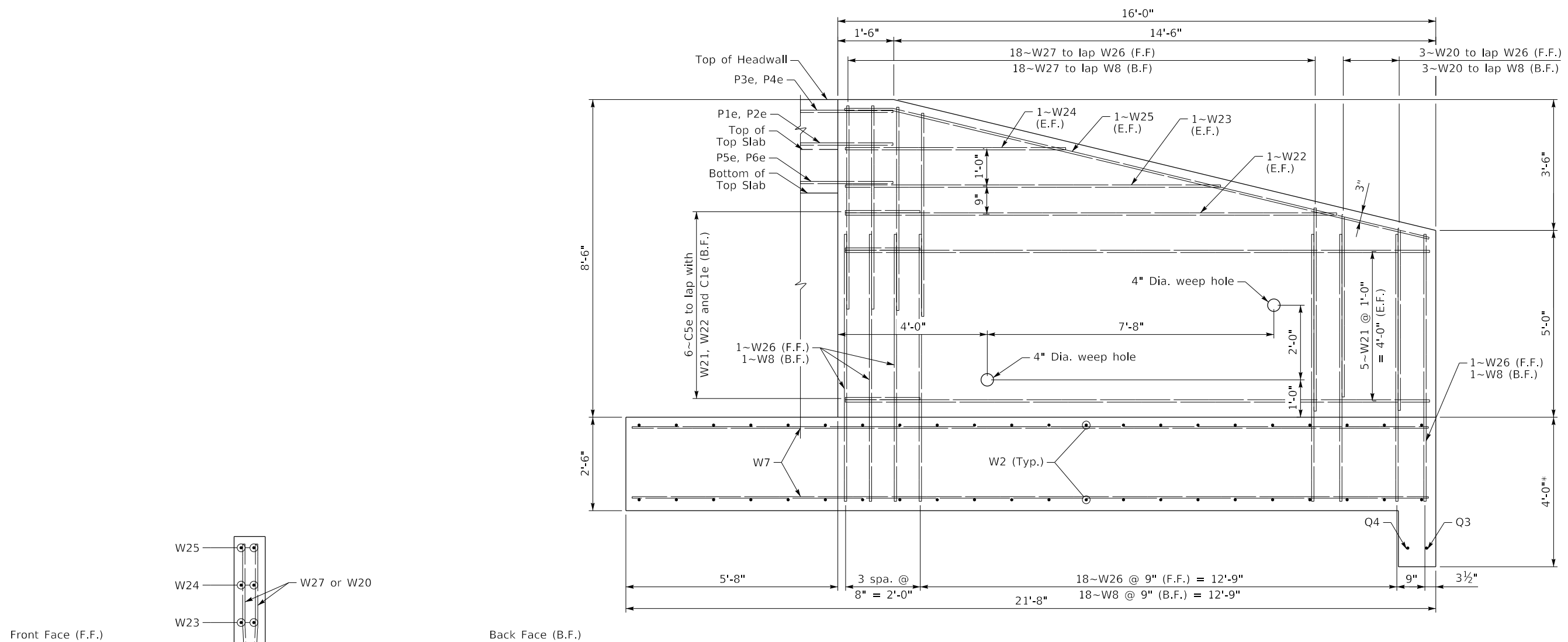
- Where additional embedment of wingwall footing is needed per the notes on S1, increase the footing thickness as needed. The thickened footing will extend from the wing tip to the culvert barrel. Pour all sides against solid rock where encountered. Any extra concrete required is incidental to the unit price bid for Class A concrete. Adjust concrete paid as necessary for actual depth used.

REVISION DATE	PREPARED BY Michael Baker INTERNATIONAL 1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 M.BAKERINTL.COM	DATE: 7/15/2024	CHECKED BY: C. LARKIN	WING 3 DETAILS CROSSING WILLOW CREEK	ROUTE PLUM CREEK RD	ITEM NO. N/A	COUNTY OF CAMPBELL
		DESIGNED BY: S. WILSON	DETAILED BY: S. WILSON		C. LARKIN	SHEET NO. S7	DRAWING NUMBER N/A



PLAN

REVISION DATE	PREPARED BY Michael Baker INTERNATIONAL 1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 M.BAKERINTL.COM	DATE: 7/15/2024	CHECKED BY: C. LARKIN	WING 4 DETAILS - 1 CROSSING WILLOW CREEK	ROUTE PLUM CREEK RD	ITEM NO. N/A	COUNTY OF CAMPBELL
		DETAILED BY: S. WILSON	C. LARKIN		SHEET NO. S8	DRAWING NUMBER N/A	

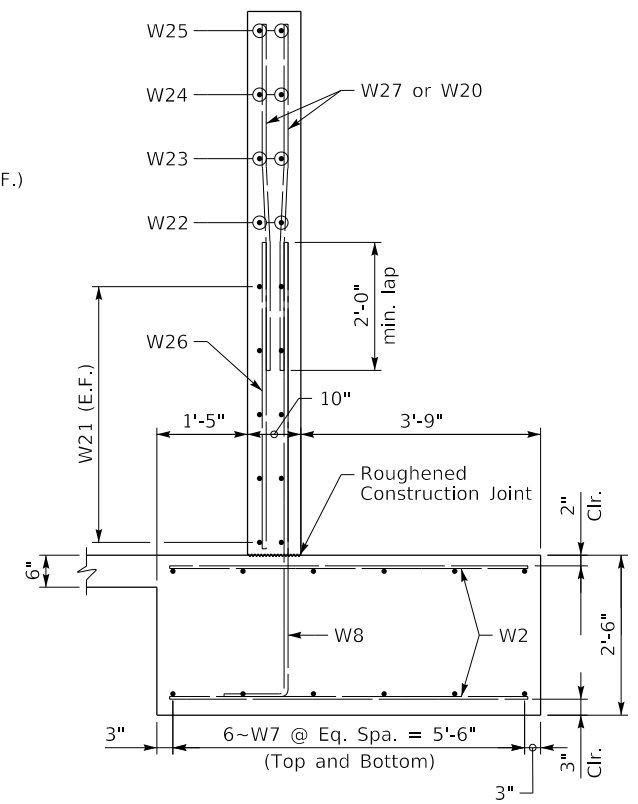


WING ELEVATION

* - 4'-0" or 1'-0" min. into solid unweathered rock

Front Face (F.F.)

Back Face (B.F.)



WING SECTION

Notes:

1. Where additional embedment of wingwall footing is needed per the notes on S1, increase the footing thickness as needed. The thickened footing will extend from the wing tip to the culvert barrel. Pour all sides against solid rock where encountered. Any extra concrete required is incidental to the unit price bid for Class A concrete. Adjust concrete paid as necessary for actual depth used.

REVISION	DATE	PREPARED BY	DATE: 7/15/2024	CHECKED BY	WING 4 DETAILS - 2	ROUTE	ITEM NO.	COUNTY OF
		Michael Baker INTERNATIONAL	DESIGNED BY: S. WILSON	C. LARKIN		CROSSING	N/A	CAMPBELL
		1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 MBAKERINTL.COM	DETAILED BY: S. WILSON	C. LARKIN	WILLOW CREEK	PLUM CREEK RD	SHEET NO. S9	DRAWING NUMBER N/A
		USER: Shelby.Wilson	DATE PLOTTED: 27-SEP-2024	FILE NAME: pw://mb-us-pw.bentley.com/mb-us-pw-03/Documents/Cincinnati_OH/01_Projects/Campbell_County/Bridge_Replacements_23-24/Plum_Creek/Structures/2D_Drawing/S9 - Wing 4 Details - 2.dgn				

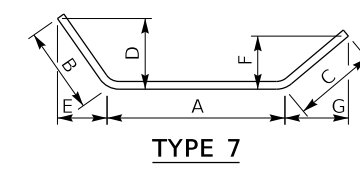
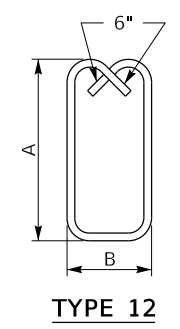
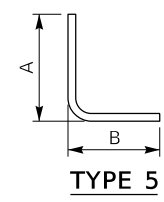
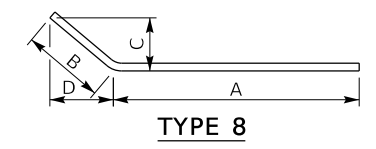
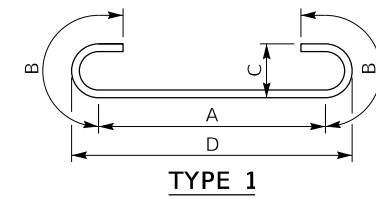
TOP SLAB BILL OF REINFORCEMENT														
MARK	TYPE	NO.	SIZE	LENGTH		LOCATION	A/E		B/F		C/G		D/H	
				FT	IN		FT	IN	FT	IN	FT	IN	FT	IN
E1e	Str.	13	#5	31	6	Top Slab								
A1e	Str.	25	#6	31	6	Top Slab								
E2e	Str.	30	#5	18	11	Top Slab								
A2e	1	71	#8	20	2	Top Slab	17	8	1	3	0	8	18	4

SIDEWALL BILL OF REINFORCEMENT														
MARK	TYPE	NO.	SIZE	LENGTH		LOCATION	A/E		B/F		C/G		D/H	
				FT	IN		FT	IN	FT	IN	FT	IN	FT	IN
C1e	Str.	14	#5	31	8	Sidewall								
C2e	Str.	64	#5	8	0	Sidewall								
C3e	8	12	#5	5	0	Sidewall	2	10	2	6	2	2	1	3
C4e	8	2	#5	7	0	Sidewall	4	6	2	6	2	2	1	3
C5e	8	12	#5	5	0	Sidewall	3	6	2	6	1	3	2	2
C6e	8	2	#5	7	0	Sidewall	4	6	2	6	1	3	2	2

BOTTOM SLAB BILL OF REINFORCEMENT														
MARK	TYPE	NO.	SIZE	LENGTH		LOCATION	A/E		B/F		C/G		D/H	
				FT	IN		FT	IN	FT	IN	FT	IN	FT	IN
Q1	7	1	#5	41	6 1/8	Apron	30	5/8	5	9 1/4	5	8 1/4	2	9 5/8
							5	1/2	4	11 5/8	2	9 1/4		
Q2	7	1	#5	41	3	Apron	30	2 5/8	5	7 5/8	5	4 3/4	2	8 7/8
							4	11 1/8	4	8 5/8	2	7 1/2		
Q3	7	1	#5	44	1 1/8	Apron	32	7 3/4	5	7 7/8	5	9 1/2	1	11 1/4
							5	5 1/2	5	4	1	10 5/8		
Q4	7	1	#5	43	2 5/8	Apron	32	2 1/2	5	4	5	8 1/8	1	10 5/8
							5	4 1/4	5	3/8	1	9 3/8		

WING WALLS BILL OF REINFORCEMENT														
MARK	TYPE	NO.	SIZE	LENGTH		LOCATION	A/E		B/F		C/G		D/H	
				FT	IN		FT	IN	FT	IN	FT	IN	FT	IN
W1	Str.	12	#5	12	1	Wing Walls Footing								
W2	Str.	124	#5	5	8	Wing Walls Footing								
W3	5	32	#5	8	11	Wing Walls Footing	8	1	0	10				
W4	Str.	12	#5	17	0	Wing Walls Footing								
W5	5	12	#5	8	1	Wing Walls Footing								
W6	5	11	#5	8	6	Wing Walls Footing	7	8	0	10				
W7	Str.	12	#5	21	3	Wing Walls Footing								
W8	5	22	#5	7	11 3/4	Wing Walls Footing	7	1 3/4	0	10				
W9	Str.	24	#5	11	8	Wing Walls								
W10	Str.	2	#5	10	2	Wing Walls								
W11	Str.	4	#5	7	1	Wing Walls								
W12	8	2	#6	12	1	Wing Walls	10	10	1	3	0	3	1	3 5/8
W13	Str.	32	#5	5	9	Wing Walls								
W14	Str.	62	#5	4	7	Wing Walls								
W15	Str.	12	#5	7	8	Wing Walls								
W16	Str.	2	#5	5	10	Wing Walls								
W17	Str.	2	#5	3	8	Wing Walls								
W18	8	2	#6	8	3	Wing Walls	7	1	1	2	0	5 7/8	1	3/4
W19	Str.	11	#5	5	4	Wing Walls								
W20	Str.	26	#5	5	0	Wing Walls								
W21	Str.	10	#5	15	8	Wing Walls								
W22	Str.	2	#5	13	1	Wing Walls								
W23	Str.	2	#5	10	0	Wing Walls								
W24	Str.	2	#5	5	10	Wing Walls								
W25	8	2	#6	16	0	Wing Walls	14	11	1	1	0	3	1	5/8
W26	Str.	22	#5	4	9 3/4	Wing Walls								
W27	Str.	36	#5	5	5 1/4	Wing Walls								
W28	8	2	#6	11	9	Wing Walls	10	6	1	3	0	3	1	3 5/8

HEADWALLS BILL OF REINFORCEMENT															
MARK	TYPE	NO.	SIZE	LENGTH		LOCATION	A/E		B/F		C/G		D/H		
				FT	IN		FT	IN	FT	IN	FT	IN	FT	IN	
P1e	7	2	#5	22	9 1/4	Headwall	17	4 1/4	2	7	2	5	10	0	8
							2	6	2	8 7/8	0	8 3/4			
P2e	7	2	#5	23	7	Headwall	16	8	3	7	3	4	0	11 1/8	
							3	5 1/2	3	2 5/8	0	10 3/8			
P3e	7	2	#6	20	1/2	Headwall	17	4 1/4	1	2 1/2	1	5 3/4	0	3 3/4	
							1	2	1	5 1/8	0	4 5/8			
P4e	7	2	#6	20	10 1/2	Headwall	16	8	2	2 1/2	2	0	0	6 7/8	
							2	1 5/8	1	11 1/8	0	6 1/4			
P5e	7	2	#8	20	1/2	Headwall	17	4 1/4	1	2 1/2	1	5 3/4	0	3 3/4	
							1	2	1	5 1/8	0	4 5/8			
P6e	7	2	#8	20	10 1/2	Headwall	16	8	2	2 1/2	2	0	0	6 7/8	
							2	1 5/8	1	11 1/8	0	6 1/4			
R1e	12s	17	#5	6	1	Headwall	2	2 1/2	0	9					
R2e	12s	17	#5	6	1	Headwall	2	2 1/2	0	9					



REVISION	DATE		PREPARED BY	1502 Vine St Suite #200 Cincinnati, OH 45202 Phone: (513) 810-6000 MBAKERTL.COM	DATE: 7/15/2024	CHECKED BY	BILL OF REINFORCEMENT CROSSING WILLOW CREEK	ROUTE	ITEM NO.	COUNTY OF
			DESIGNED BY: S. WILSON	C. LARKIN	PLUM CREEK RD	N/A		CAMPBELL		
			DETAILED BY: S. WILSON	C. LARKIN			SHEET NO.	DRAWING NUMBER		
							S10	N/A		