

C-R-S: PRE SR 726 8.62 PID 116568 DRAFT Scope Narrative

Note: This scope narrative pertains only to PID 116568 which will be sold as a separate construction project on a separate schedule from PID 119233. Currently, SAFe only reflects PID 119233. Once the PID 119233 fee negotiation is accepted and complete, SAFe will be populated with information specific for PID 116568 to be entered as a separate contract modification.

PDP Phase Included in this Agreement:

- Agreement is for the Preliminary Engineering (PE) and Detail Design.
- Agreement between Consultant and Ohio Department of Transportation.
- This is a one part agreement to prepare plans through final design.

Study Location:

Bridge PRE-726-0862 (SFN 6804764) which carries SR 726 over Price Creek south of The Village of Eldorado.

Map of existing bridge:

The existing bridge is highlighted in red on the map below.



Study Description:**Purpose & Need:**

Bridge PRE-726-0862 (SFN 6804764) which carries SR 726 over Price Creek is deteriorated and in need of repair.

The primary deficiencies include:

1. Substructure is deficient due to concrete spalling, cracking, and reinforcing deterioration directly underneath several adjacent boxbeams.

Secondary issues that require consideration are as follows:

1. The non-composite prestressed concrete box beams are leaking and showing moderate deterioration including some cracks and spalls.
2. The asphalt wearing surface is near deficient due to cracking, raveling and its inability to protect the underlying beams.
3. Expansion joints at the abutments have failed, have been paved over, and substantial leakage onto the beam ends is occurring.
4. Guardrail does not meet current standards and is beginning to deteriorate.

Project Scope: Discipline specific scope items have been identified below.

Structures:

1. Replace the existing structure. The new structure shall carry two 11' wide lanes, two 6' wide shoulders, with over the side drainage per [TST-2-21](#) for a total bridge width of 34 feet. Align the bridge to the stream with a left forward skew allowing a little more room at the southwest corner for guardrail transition. The guardrail and bridge terminal assemblies may need to be constructed in a curve. Early during Stage 1 Plan Development, design the driveway apron at the southwest corner of the bridge and check the site distance of the driveway to ensure the bridge does not need to be widened or abutment shifted.
2. Construct the bridge as a single span, prestressed I-beam bridge on semi-integral abutments with straight wingwalls. New structure shall be supported on deep foundations. The south abutment shall be located in the same approximate location to minimize impact to the driveway. The north abutment may vary as needed for hydraulic capacity and may be spill thru or full height.
3. Perform a hydrologic and hydraulic report per L&D Volume 2, Section 1107
 - a. Complete FEMA coordination per L&D Volume 2, Section 1005
 - b. Conduct a scour analysis per L&D Volume 2, Section 1008.10
 - c. Complete a Waterway Permit Hydraulic Analysis per L&D Volume 2, Section 1010.
4. Seal the exposed concrete surfaces with an Epoxy Urethane sealer per the typical limits shown in the bridge design manual. Color shall be Federal Color 17778 (light neutral).
5. Replace the existing approach guardrail as needed to meet MGS standards.
6. Load Rate the structure per section 900 of the BDM.
7. Replace roadway/ditch drainage as necessary within the limits of the bridge/approach slabs.

Materials for all alternatives:

1. Concrete: Include macro-fibers and corrosion inhibitor in concrete mix. District to provide notes during design development.
2. Reinforcing steel: Use continuously galvanized reinforcing steel for all new reinforcing steel.

Roadway:

1. Mill and fill the approach roadway as necessary to obtain the final profile given the excavation.
2. Early during Stage 1 Plan Development, design the driveway apron (Village of Eldorado Maintenance Building) at the southwest corner of the bridge and check the site distance of the driveway.

Traffic Analysis:

Not required.

Geotechnical:

The existing archive boring information is sufficient for the geotechnical recommendations and additional borings are not needed for the foundation design. Design temporary shoring to maintain driveway at the southwest corner.

Drainage:

See structures section for hydrologic and hydraulic requirements.

Maintenance:

None required

Maintenance of Traffic:

- Close SR726 and maintain traffic by detour
- Provide a detour map that uses US 40 – US 127 – SR 722. ODOT to provide similar detour plan to consultant during project scoping. Consultant to modify for current project as necessary.
- Include a window contract table.

ODOT PM will coordinate the detour route and verify no schedule conflicts with District 7 Work Zone Traffic Engineer (WZTE). ODOT PM has also reach out to the Village of Eldorado to coordinate closure of SR 726 with the Village. Lastly District 8 has reached out to Preble County about the project.

Environmental:

The consultant shall coordinate the environmental work. See the task list in SAFe for anticipated coordination.

Survey:

Consultant to survey.

Right-of-Way:

Additional right-of-way to be acquired. Consultant to prepare simplified R/W plans. Assume 4 parcels.

Utility Coordination Requirements:

Consultant to try to avoid utility conflicts throughout design while holding to the scope of work. If utility conflicts cannot be avoided, they should be minimized. Consultant to provide a copy of the OUPS ticket information to ODOT PM (if applicable). Up to date utility contacts shall be used at each plan submission. Utility contact information can be requested by consultant from ODOT PM. If Ohio 811 (OUPS) are more than two (2) years old, a design non-marking ticket shall be requested to obtain most up to date Utility Members List. The ticket does not need to be submitted to obtain the Utility Members List.

Consultant to provide a utility set of plans with the utility lines shown in color using the most recent version of ODOTcadd_UTPen.tbl at each plan submission. This file is found in the standard ODOTcadd executable file that can be downloaded from the [CADD services webpage](#). Additionally, Consultant to prepare a summary of potential utility conflicts at each plan submission. Summary to be provided to Utility Companies at each plan submission. Summary to include, but not limited to station and offset of conflict, type of conflict (direct, decreased cover, proximity, etc.), utility owner (if known) and utility type. Consultant to use District 8's 'standardized' letter for sending submissions and plans to Utility Companies for review and comment. Consultant to provide the ODOT PM a copy of all Utility Correspondence. Consultant to compile Utility Company responses and forward to the ODOT PM. Final compilation of utility correspondence is due 35 days after plan submission to utilities.

A "no response" from a utility on a plan submission review cannot be considered as "no comment", "no conflicts" and/or "a confirmation of the consultant's findings" from the utility. A written response (email is sufficient) must be received from the utility verifying that they have no comments, no conflicts and/or they agree with the conflicts identified by the consultant.

Consultant to review the Utility Company responses and evaluate. The evaluation of the responses shall include validating that a conflict does exist or that a utility may remain in place. If a conflict does exist, consultant should provide an evaluation of the feasibility of potential resolutions. A disposition of utility status (i.e. utility to stay in place, utility facility relocation plan in writing or plan format) is required at the Stage 3 submission. This disposition shall be included to the utilities with the Stage 3 plan submission. This disposition shall be formulated based on utility responses from previous plan submissions.

A draft utility note shall be submitted after evaluation of the Stage 3 utility coordination in word format. The note should include discussion about the existing utilities for each utility, if they are staying in place and in service or if they are being relocated. If a utility is relocating, information about the location of their relocation should be included. Additionally, the relocation time frames should be included in the utility note as discussed with the utility companies. Example utility notes can be provided by the District utility coordinator upon request.

Feasibility Study:

A formal feasibility study is not required. Critical items may be reviewed with the project manager during Stage 1 development if necessary.

Project Management:

The project will be designed in 1 part and shall include all efforts through the completion of Final Tracings. The fee preparation should include a narrative that includes assumptions made during the preparation of the fee. Any scope revisions/additions necessary to complete the project that were not initially scoped may be modified as the project progresses when justified.

Funding:

This project will likely be financed by the following funds:

- District Preservation Bridge (Percentage of State and Federal)
- Plan splits will be required per the funding in Ellis at the time of Stage 3 Plans.

Design Designations:

	SR 726
Functional Class	5 Major Collector (Rural)
NHS	No
Opening Year AADT (2028)	1,200
Design Year AADT (2048)	1,300
Design Hourly Volume (2048)	200
Directional Distribution	0.61
TRUCKS (24 Hour B&C)	5%
Trucks (Design Hour)	12%
Posted Speed	55 MPH
Design Speed	60 MPH

Existing Plans: See the [FTP site](#) for existing plans.

	Arch No	Name	Year	PID	Description
1	08C1899	PRE-726-8.70	1983		Original bridge plans
2	08C1380	PRE-726-9.93	2000	19346	Bridge Rehab

Bridge Inspection Photos: See the FTP for existing inspection photos.

2023 Insp Photos: \\D08FS100\archives\structures\bridges\23_photos\PRE\SR726\0870

Schedule:

The Official schedule will be maintained in Ellis.