Department of Public Works
Engineering Division
602 S Main Street
Joplin, Missouri 64801
417-624-0820

May 15, 2025

CITY OF JOPLIN
Main Street Streetscapes 8th St. to 15th St.

Addendum No. 1

Contract Bidders:

Enclosed is Addendum No. 1 for the above referenced project. Please execute, attach, and submit this Addendum No. 1 with your bid.

Please note that the bid opening date has been changed to **Thursday May 21st at 10:00 AM** in the City Hall 4th Floor Conference Room

City of Joplin

Rob Beachner,
Project Manager

The undersigned hereby acknowledges receipt of this addendum, which by this reference is hereby incorporated in and becomes a part of the Contract Documents for the above referenced project.

_____

Company Name

_____

Signature

_____

Printed Name, Title

May 14, 2026

ADDENDUM NO. 1

PROJECT:	Main Street Streetscapes – 8th ST to 15th ST Joplin, Missouri
BID OPENING:	10:00 A.M., May 21, 2026 602 S Main St. 4th Floor Joplin, Missouri

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This addendum forms a part of the Bid Documents for the project described above. The original Bid Documents and any prior addenda remain in full force and effect except as modified by the following, which shall take precedence over any contrary provision in the prior documents. The following clarifications are made:

Clarifications

1. Project bid opening shall hereby be delayed until May 21, 2026 at 10:00 AM.
2. Pre-Bid Questions & Responses: pre-bid questions and responses are included as a part of this addendum.
3. **Pre-**Bid: Agenda and Sign-in Sheet attached to this addendum
4. Bid Form: A revised bid form is included as part of this addendum.

Plan Sheets

The following plan sheets have been updated and included with this addendum.

1. Sheet 4 – Summary of Quantities
2. Sheet 5 – Summary of Quantities
3. Sheet 6 – Summary of Quantities
4. Sheet 7 – Summary of Quantities
5. Sheet 8 – Summary of Quantities
6. Sheet 9 – Summary of Quantities
7. Sheet 10 – Summary of Quantities
8. Sheet 25 – Typical Sections
9. Sheet 27– Demolition and Removal Plans
10. Sheet 29 – Demolition and Removal Plans
11. Sheet 39 – Roadway Plan and Profile
12. Sheet 47 – Roadway Plan and Profile
13. Sheet 48 – Roadway Plan and Profile
14. Sheet 72 – Standard Details
15. Sheet 74 – Standard Details
16. Sheet 80 – Standard Details
17. Sheet 86 – Storm Sewer Plan and Profile

Job Special Provisions

The following job special provisions have been updated and included with this addendum.

1. JSP-0400-04 Silva Cell
2. JSP-0400-05 Mosaic Brick Paver
3. JSP-0400-06 Brick Paver
4. JSP-1100-01 Clearing, Grubbing & Demolition

In order to have a valid bid proposal, this addendum must be acknowledged and returned with your bid proposal.

If you have any questions concerning this addendum, please feel free to contact Jonathan Peitz at (417) 885-1763.

Jonathan Peitz, P.E.
Project Manager
Olsson

Main Street Streetscapes – 8th ST to 15th ST

Pre-Bid Questions and Responses:

1. What forms are required to turn in with the bid?
    a. Reference the Pre-Bid meeting agenda (attached) and the Bid Package documentation.
2. What is the city's expected schedule for construction?
    a. It is anticipated that the NTP will be issued to the Contractor in early to mid-July.
3. There is pay item for coal chute remediation but there are no details to follow, there's also no quantity.
    a. This item has been revised to a per EACH unit and a detail has been added to sheet 74.
4. A building at the Northwest Corner of 10th and Main Street is called out to be demolished. There is no LS pay item for Demo and there is no spec/requirements for the building demo. Are there permits required for this?
    a. The demolition JSP is a modifier to the City Standard Specification Section 1100. The City Specification states "removal of foundations or walls of any construction." In regards to permits, the Contractor shall be responsible for all required testing and permits by the City. A revised JSP is included in this addendum.
5. Does the city have a dumpsite for removals (including the building?)
    a. The City does not have a dump site for any of the construction debris. The Contractor is responsible for disposal of all removed items unless otherwise stated in the Standard Specifications or the JSPs.
6. There are no pavement details, what are the requirements for dowels, baskets and joint spacing?
    a. The Concrete Pavement for the intersection at Main Street and 10th Street shall be non-reinforced, dowel-jointed concrete pavement (NR-DJ). Refer to the MODOT Standard Plans 502.05s for joint layout, spacing, dowels and other details. Additionally see the Concrete Jointing Notes on plan sheet 72 for the spacing and other requirements.
7. There is no pay item for pavement repair (Including in the Alternative bids) and there are two separate details for repairs, one is 2" of Asphalt over 6" Concrete, the other is 2" Asphalt over 10" Concrete.
    a. The pavement repair shown on sheet 71 is for any storm crossings or trenched crossings, this is similar to the City Standard Detail SAN-05, with

the addition of the 2" asphalt surfacing to facilitate the full project asphalt overlay. The full depth reconstruction that is shown on the Typical Sections is intended to match the average pavement thickness of the existing roadway. These have been updated and broken out into 3 separate bid items for clarity and are as follows:

i. Concrete Pavement (10", Trench Repair)
ii. Concrete Pavement (8", NR-DJ Intersection Paving)
iii. Concrete Pavement Repair (6")

8. There are two separate details for expansion joint where the sidewalk meets the building face, one calls for ½" Expansion the other calls for ¾".
    a. The plans have been updated to reflect ½" expansion. This is typical of the other projects completed in the Main Street corridor.
9. Are there any special RR requirements such as right of entry, permits, other fees, insurance Etc.. Etc..
    a. At this time, no permitting or special fees or insurance is required to perform the contract work. Coordination with the rail operator will be necessary when performing the activities that may impact rail activities and normal operation of the rail crossing equipment.
10. Who pays for materials testing?
    a. The City will be responsible for material testing.
11. What materials are the ADA Domes supposed to be?
    a. See City of Joplin Standard Specification 3300.3.6
12. Is the stamped concrete supposed to be colored?
    a. No, the stamped concrete does not have any coloring. For reference, see the stamped concrete adjacent to the sidewalk between 15th Street and 20th Street along Main Street.
13. Are the landscaping plans (pages 163-172) part of the scope of this contract? If so there are no pay items for plantings.
    a. No, as stated on the cover sheet and on each of the plan sheets, they are for reference only. A separate bidding will be let for this work. The intent is to coordinate the landscape work to begin close to the end of the Streetscape project.
14. Plans call for 6" Concrete Sidewalk- pay item is for 4"
    a. The plans and bid form have been corrected to reflect the City Standard of 6" thickness for Commercial areas.
15. Plans call for 4" base rock- pay item is for 2"
    a. The depth of base rock pay item has been corrected to 4" as indicated in the plans.

16. There seems to be missing JSP's, for example JSP 800 for Bioretention Soil Mix. The JSP's jump from 400 to 1000
    a. The JSPs are supplemental to the City Standard Specifications. The numbering has been coordinated with the City specifications to either supplement existing standard specifications or to be in a related section. Additionally the referenced section for Bioretention soil mix has been removed and the requirements for the soils have been added to the JSP for the Silva Cells.
17. Benches, there are 4 Downtowns and 5 Midtowns, there's one pay item for 12 EA, please clarify
    a. The quantities have been updated in the plans and on the bid form.
18. Litter Receptacles, there are 5 Downtowns and 6 Midtowns, there's one pay item for 10 EA. Please Clarify.
    a. The quantities have been updated in the plans and on the bid form.
19. District Plaques, pay item has 3 EA, found 4 on the plans. Assuming there is supposed to be 2 Downtowns and 2 Midtowns? Please clarify
    a. There is 1 existing plaque that is called out on the plans. This has been updated to note it as existing. There are only 3 plaques in the plans to be supplied and installed.
20. Tree Wells, there is no spec I can find for the Midtown tree guard and tree grate.
    a. The Midtown tree wells do not receive a tree grate or tree guard. For reference, see the existing Midtown tree wells between 15th Street and 20th Street along Main Street.
21. Will all quantities be field measured and paid as built?
    a. Please see the Joplin City Standards and the Job Special Provisions for Measurement and Payment details for each bid item.
22. The Alternative Bid items do not have a pay item for new Curb and Gutter
    a. The bid item has been added and the quantities have been updated in the plans and on the bid form.
23. What class of material does the drainage pipe in the Silva Cell need to be?
    a. See JSP 0400 for the material requirements, this JSP has been updated.
24. Will any time be added to the contract duration for each added bid alternative selected?
    a. No, additional time will not be added to the contract for selected bid alternatives.
25. Please provide a list of installers for the Silva Cells?
    a. For a list of installers, please contact DeepRoot directly.
        i. Nicole Peterson, (415) 746-1602, nicole@deeproot.com

26. Concerns about the depth of asphalt over the existing railroad tracks crossing Main Street north of 14th ST.
    a. Full Depth removal of the existing pavement has been added as well as the notes to remove the tracks from the ROW have been revised to call out the tracks in the roadway. A letter from the city will be provided to the Contractor to facilitate disposal of the track materials.
27. A Type E storm structure is called out on sheet 86, Joplin Standard Details do not include a Type E structure and no detail is included in the plan set. Please clarify this structure.
    a. The structures on sheet 86 identified as Type E should be Joplin Standard Type A structures. The plan sheet has been revised.
28. "Special Decorative Planter" bid item questions
    a. Due to the quantity of questions regarding the supplier of the planters and the need to source a new planter with approval from the City, this bid item has been removed from the project.

29. What is the unit of measure on the bid form for Silva Cells referring to? Is that the amount of Bioretention Soil Mix (JSP-800.6.2.1) required to fill the tree wells around all Silva Cells? My calculation yielded a similar number in cubic feet, but the Quantity Tabulation Sheet page 5 references (CU. YD. 2X) for that number. Method of Measurement and Basis of Payment (JSP-400.6.7.1 Silva Cell) in the specs state to be prices as Lump Sum. Is this to be bid as Lump Sum, 449 Silva Cell Units, 13,346 cubic feet, or 13,346 cubic yards (assumed typo)?
    a. Yes, the bid item should be the CF of the Silva Cells and backfill. The bid item has been updated to reflect this. Additionally the JSP has been updated to provide more clarification to the measurement and payment of the bid item.
30. Also is the specified soil mix to be included in the Tree Well pricing?
    a. The soil mix for the Silva Cells should not be included in the Tree Well Bid Item pricing, it is subsidiary to the Silva Cell bid item.
31. The installation of Silva Cells requires filter fabric, compacted base, underdrain pipe, cells, root barrier, stakes, geogrid, compacted backfill around the perimeter, and irrigation or distribution lines. Will the water distribution perf pipe under the cell decks and surface port be part of the Silva Cell install, or Tree Well? Do you have any more detail or spec on the surface watering port? Will they all be installed in the concrete portion of the sidewalk, or should the watering port stub up inside the tree well opening?
    a. The water distribution pipe and watering port is to be installed as part of the Silva Cell bid item. The watering port shall be installed in the concrete sidewalk. The watering port is an item provided by DeepRoot as a part of the Silva Cell package and will be part of the shop drawings.
32. What does that leave for the Tree Well unit pricing? Downtown would be only the Tree Grates and Guards, and Midtown the Cedar Mulch? Would this include the Root Barrier since it is only indicated around the well opening? Typically, we see the Silva Cells and components as part of the Tree Well install if all areas are similarly designed and sized. Otherwise, we see "Silva Cells" and "Tree Grates" as the two price units, with the Cedar Mulch falling in the Landscape scope.

   a. The bid items for Tree Well is intended for the blocking out and forming of the openings in the sidewalk and stamped concrete or brick pavers, coordinating and supporting the electrical and lighting installation at each of the identified tree well locations shown on the plans. The Downtown tree wells include a frame and grate as well as the tree guard. The Midtown tree wells do not receive any tree grate or tree guard. Examples of the Midtown tree well can be found on Main Street between 20th ST and 15th ST. Examples of the Downtown tree well can be found on Main Street between 1st ST and 8th ST. Cedar Mulch is not included in this project scope, the landscape project will be bid separately at a later date.

33. Also, the Root Barrier and Cedar Mulch are both included in the Summary of Quantities page 2 of the Landscape Plans. Are those items to be included in the Landscape contract and not the Streetscapes contract?
    a. The Landscape Plan sheets are for information only and will be bid at a later date. The Root Barrier is to be installed at the time of the silva cell installation. The Cedar Mulch shall be installed by others under the separate landscape project.
34. Bid Item No. 17 - Brick Pavers: The quantity reflects the 4"x8" patterned, 3' wide strip between curb and sidewalk (detail page 74). Do you have any more info on the manufacturer and color of those pavers? Is there a city standard, or would Pavestone Holland 4x8 or Keystone CityScape 4x8 be sufficient? Page 74 section detail calls out 4" concrete setting bed. "JSP-0400-05 Mosaic Brick Paver" spec section references 2" concrete setting bed place on 6" concrete base. It further references a fine aggregate bituminous setting bed of maximum 1" thick, minimum 1/2" thick, nominal 3/4" thick. Can you verify which is actually required? Are you able to provide the bituminous fine aggregate material from the asphalt plant at 300°? Is that material included in another bid line [13-Aggregate Base (2")(Sidewalk) or 15-Asphaltic Concrete Surface (2")(MoDot BP-1)]? Each phase (East and West) of the 800 & 900 blocks would require about half a load each @ 1" depth, but would have to be coordinated in even smaller batches to prevent cooling during the precise install and compaction of that long, narrow space. Also, this spec section does not mention a required tack coat of bituminous mastic. Should that be included? Spec shows a "Demo & Removal" payment as lump sum for JSP-0400-05, which I'm assuming wasn't updated properly? Do you have a specific pay item number you would like referenced with the SY quantity?
    a. The JSP 0400-06 “Brick Paver” has been added and the subsection in the 0400-04 Landscape JSP has been removed and further clarification for Silva Cell specification has been included in the addendum. The brick shall match the adjacent existing brick pavers in the Downtown District (1st ST to 8th ST). The revised JSP provides clarification for all of the above questions. Specifically, the bituminous setting bed requirement has been removed, and the material for the brick has been revised.
35. Bid Item No. 34 - Mosaic Brick Paver: This lump sum seems to be to install all (5) 3'6" x 12' sections of the mosaic patterned concrete paver pads at each of the MIDTOWN decorative planter locations, but this isn't completely clear with the Method of Measurement and Payment stated in the JSP spec section. Spec JSP-400.2 seems to fit this item. This spec references 3 different Techo-Bloc pavers that would make at least one of the three patterns shown on plan page 80. Section 400.2.1.1 Summary states sand setting bed over concrete base slab, as does the following install specs. 400.2.4 Method of Measurement: "Concrete Pavers" states it shall include bituminous sand laying course, tack coat, concrete base, etc. The Quantity Table on page 5 lists Concrete Sidewalk (4") and MoDOTType 5 Aggregate

Base (2"), which furthers the confusion. Sand setting this install would make the most sense, but please verify the bituminous setting bed is not meant for the (5) patterned or mosaic decorative pads in the MIDTOWN portion of the job. Also, the Method and Basis of payment (JSP-400.11.5.1 Concrete Paver) in this spec section states to be paid per SF, as does the qty table on page 5. Please verify whether this is to be paid per SF or LS. Are the pattern options on plan page 80 to be mixed throughout the five areas, or are each of these supposed to be priced as different alternatives? Option F and C have similar production rates, but Option B would be much more labor intensive with the custom cuts and sizes. Unless there is another spec for a kit for Option B, the circular paver would have to be cut from a large format paver. This would need to be waterjet cut or hand ground for precision, creating a substantial cost difference from the other two options. None of the options perfectly fit the three specified pavers in that spec section, but F and C could easily be created using alternative sizes and textures from Techo-Bloc or from several other manufacturers with the same quality standards and specs.

a. The JSP 0400-05 has been revised to provide clarification to the measurement and payment of the Mosaic Brick Paver bid item. The bituminous setting bed is not required in the revised JSP. In regards to the different patterns, the contractor shall select one (1) pattern that they are providing the lump sum bid pricing for and indicate the selected pattern on the bid form. The Contractor should consider the feasibility, installation complexity and availability of materials when selecting the pattern to provide the bid item pricing. Only 1 pattern shall be installed throughout the MidTown district in each of the Mosaic Paver Areas. The JSP has been revised to reflect the Lum Sum pricing.

36. Will there be any sod or seed included in the Landscape contract, or is that to be included in the Streetscape contract according to Erosion Control sheets 90 and 91 (base bid)?
    a. The seeding that is shown on the erosion control sheets and quantified on sheet 5, is intended to be only for restoring areas that were disturbed for installation of the sidewalk or other improvements. At this time, any landscape improvements shown for installation in the Landscape Plans included for reference only, will be bid at a later date.

MAIN STREET STREETSCAPES - 8TH STREET TO 15TH STREET
INVITATION FOR BID #

BASE BID - MAIN STREET - 8TH STREET TO 15TH STREET					
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
1	Mobilization	LS	1		
2	Contractor Furnished Construction Staking and Surveying	LS	1		
3	Clearing, Grubbing & Demolition	LS	1		
4	Full Depth Asphalt Demolition	SY	3632		
5	Sidewalk & Drive Removal	SY	5672		
6	Curb & Gutter Removal	LF	5398		
7	Misc Utility Adjustment	LS	1		
8	Erosion Control	LS	1		
9	Embankment Grading	CY	100		
10	Removal of Unsuitable Material*	CY	100		
11	Backfill of Unsuitable Material*	CY	100		
12	Aggregate Base (4") (Roadway)	SY	2542		
13	Aggregate Base (4") (Sidewalk)	SY	3668		
14	2" Asphalt Milling	SY	14327		
15	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	1780		
16	Concrete Pavement (8") (NR-DJ) (Intersection at 10th ST)	SY	2145		
17	Concrete Pavement (10") (Trench Pavement Repair)	SY	397		
18	Concrete Pavement (6") (Pavement Repair)	SY	1444		
19	Brick Pavers	SY	483		
20	Class A Concrete Sidewalk (6")	SY	3286		
21	Stamped Concrete Sidewalk (4")	SY	1019		
22	Sidewalk Ramp (inc. Truncated Domes)	SY	67		
23	Standard Upright Curb & Gutter	LF	3757		
24	Commercial Driveway Construction (8" Concrete) (Incl. 4" Mo	SY	983		
25	Storm Sewer Inlet (3' x 2' I.D.) (Type A)	EA	5		
26	Storm Sewer Inlet (3' x 4.5' I.D.) (Modified Combination)	EA	1		

BASE BID - MAIN STREET - 8TH STREET TO 15TH STREET					
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
27	Storm Sewer Inlet (3' x 2' I.D.) (Type C)	EA	1		
28	Storm Sewer Inlet (3'8" x 3' I.D.) (Type D)	EA	2		
29	Junction Box 3' x 3' I.D.	EA	1		
30	48" Manhole	EA	2		
31	Storm Sewer Pipe (15") (Class III RCP)	LF	80		
32	Storm Sewer Pipe (18") (Class III RCP)	LF	440		
33	Litter Receptacles	EA	11		
34	Benches	EA	9		
35	Mosaic Brick Paver (Selected Pattern _____)	LS	1		
36	Remove and Replace Existing Signage	LS	1		
37	District Plaques ("Midtown" & "Downtown")	EA	3		
38	4" Yellow Pavement Marking	LF	4948		
39	24" White Pavement Marking	LF	339		
40	Left/Right/Through Turn Arrow White Pavement Marking Syn	EA	5		
41	6" Dashed White Pavement Marking	LF	1173		
42	6" Solid White	LF	2185		
43	Accessible Parking Marking	EA	8		
44	Rail Road Pavement Markings	EA	4		
45	9th ST Traffic Signal, Complete	LS	1		
46	10th ST Traffic Signal, Complete	LS	1		
47	Street Lighting	LS	1		
48	Tree Well Uplighting	LS	1		
49	Traffic Control	LS	1		
50	Tree Well (Downtown) (Inc. Tree Grate & Frame)	EA	11		
51	Tree Well (Midtown)	EA	16		
52	SilvaCell	CF	13346		
53	Coal Schute Remediation	EA	2		

BASE BID TOTAL = _____

BID ALTERNATIVE 1 - 9TH ST RECONSTRUCTION					
ITEM NO.	**DESCRIPTION**	**UNIT**	**ESTIMATED QUANTITY**	**UNIT PRICE**	**TOTAL PRICE**
101	Mobilization	LS	1		
102	Contractor Furnished Construction Staking and Surveying	LS	1		
103	Clearing, Grubbing & Demolition	LS	1		
104	Full Depth Asphalt Demolition	SY	213		
105	Sidewalk & Drive Removal	SY	741		
106	Curb & Gutter Removal	LF	955		
107	Erosion Control	LS	1		
108	Aggregate Base (4") (Sidewalk)	SY	644		
109	2" Asphalt Milling	SY	1543		
110	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	174		
111	Concrete Pavement (8")	SY	216		
112	Standard Upright Curb & Gutter	LF	765		
113	Class A Concrete Sidewalk (6")	SY	644		
114	Commercial Driveway Construction (8" Concrete) (Incl. 4" Mo	SY	239		
115	Traffic Control	LS	1		
116	Adjust Manhole	EA	1		

BID ALTERNATIVE 1 (9TH STREET) TOTAL = _____

BID ALTERNATIVE 2 - 10TH ST RECONSTRUCTION					
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
201	Mobilization	LS	1		
202	Contractor Furnished Construction Staking and Surveying	LS	1		
203	Clearing, Grubbing & Demolition	LS	1		
204	Full Depth Asphalt Demolition	SY	148		
205	Sidewalk & Drive Removal	SY	332		
206	Curb & Gutter Removal	LF	654		
207	Erosion Control	LS	1		
208	Aggregate Base (4") (Sidewalk)	SY	406		
209	2" Asphalt Milling	SY	1264		
210	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	143		
211	Concrete Pavement (8")	SY	155		
212	Standard Upright Curb & Gutter	LF	625		
213	Class A Concrete Sidewalk (6")	SY	406		
214	Commercial Driveway Construction (8" Concrete) (Incl. 4" Mo	SY	244		
215	Traffic Control	LS	1		
216	Adjust Manhole	EA	2		

BID ALTERNATIVE 2 (10TH STREET) TOTAL =

BID ALTERNATIVE 3 - 12TH ST RECONSTRUCTION					
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
301	Mobilization	LS	1		
302	Contractor Furnished Construction Staking and Surveying	LS	1		
303	Clearing, Grubbing & Demolition	LS	1		
304	Full Depth Asphalt Demolition	SY	206		
305	Sidewalk & Drive Removal	SY	582		
306	Curb & Gutter Removal	LF	982		
307	Erosion Control	LS	1		
308	Aggregate Base (4") (Roadway)	SY	28		
309	Aggregate Base (4") (Sidewalk)	SY	456		
310	2" Asphalt Milling	SY	1521		
311	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	172		
312	Concrete Pavement (8")	SY	187		
313	Standard Upright Curb & Gutter	LF	622		
314	Class A Concrete Sidewalk (6")	SY	456		
315	Commercial Driveway Construction (8" Concrete) (Incl. 4" Mo	SY	184		
316	Traffic Control	LS	1		
317	Adjust Manhole	EA	2		

BID ALTERNATIVE 3 (12TH STREET) TOTAL = _____

BID ALTERNATIVE 4 - 13TH ST RECONSTRUCTION					
ITEM NO.	**DESCRIPTION**	**UNIT**	**ESTIMATED QUANTITY**	**UNIT PRICE**	**TOTAL PRICE**
401	Mobilization	LS	1		
402	Contractor Furnished Construction Staking and Surveying	LS	1		
403	Clearing, Grubbing & Demolition	LS	1		
404	Full Depth Asphalt Demolition	SY	250		
405	Sidewalk & Drive Removal	SY	729		
406	Curb & Gutter Removal	LF	934		
407	Erosion Control	LS	1		
408	Aggregate Base (4") (Roadway)	SY	29		
409	Aggregate Base (4") (Sidewalk)	SY	580		
410	2" Asphalt Milling	SY	1395		
411	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	158		
412	Concrete Pavement (8")	SY	247		
413	Standard Upright Curb & Gutter	LF	627		
414	Class A Concrete Sidewalk (6")	SY	580		
415	Commercial Driveway Construction (8" Concrete) (Incl. 4" Mo	SY	308		
416	Traffic Control	LS	1		
417	Adjust Manhole	EA	2		

BID ALTERNATIVE 4 (13TH STREET) TOTAL = _____

BID ALTERNATIVE 5 - 14TH ST RECONSTRUCTION					
ITEM NO.	**DESCRIPTION**	**UNIT**	**ESTIMATED QUANTITY**	**UNIT PRICE**	**TOTAL PRICE**
501	Mobilization	LS	1		
502	Contractor Furnished Construction Staking and Surveying	LS	1		
503	Clearing, Grubbing & Demolition	LS	1		
504	Full Depth Asphalt Demolition	SY	209		
505	Sidewalk & Drive Removal	SY	747		
506	Curb & Gutter Removal	LF	945		
507	Erosion Control	LS	1		
508	Aggregate Base (4") (Sidewalk)	SY	648		
509	2" Asphalt Milling	SY	1471		
510	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	166		
511	Concrete Pavement (8")	SY	218		
512	Standard Upright Curb & Gutter	LF	842		
513	Class A Concrete Sidewalk (6")	SY	648		
514	Commercial Driveway Construction (8" Concrete) (Incl. 4" Mo	SY	227		
515	Traffic Control	LS	1		
516	Adjust Manhole	EA	4		

BID ALTERNATIVE 5 (14TH STREET) TOTAL = _____

BID TOTAL SUMMARY SHEET

BASE BID TOTAL = _____

BID ALTERNATIVE 1 (9TH STREET) TOTAL = _____

BID ALTERNATIVE 2 (10TH STREET) TOTAL = _____

BID ALTERNATIVE 3 (12TH STREET) TOTAL = _____

BID ALTERNATIVE 4 (13TH STREET) TOTAL = _____

BID ALTERNATIVE 5 (14TH STREET) TOTAL = _____

MEETING AGENDA

Pre-Bid Meeting

Project Name:	Main Street Streetscapes – 8th Street to 15th Street
Project Location:	Joplin, MO
Client:	City of Joplin
Project Manager:	Jonathan Peitz
Project #:	023-00893
Date:	05/05/2026

1) **Introductions and Sign In**
2) **General Overview of the Project**
   a) Purpose
      i) Project Description: Project generally consists of milling and overlaying main street from 8th street to 15th street, new curb and gutter, sidewalks, street lighting, new traffic signal at 9th street and 10th street, stamped concrete, brick pavers, concrete intersection and other appurtenances required for a complete project.
      ii) Side Street improvement as funding allows for bid alternatives.
   b) Right of way and easements
      i) All necessary Right-of-Way and Easements have been acquired for this project
3) **Bonding & Insurance**
   a) Must submit a Bid Bond or Certified Check (5% of total bid) with sealed bid
   b) Performance and Payment Bonds are required
   c) Insurance is required – see specifications
4) **Key Dates**
   a) Deadline for Questions: May 12, 2026, 5:00 PM
   b) Bid Opening
      i) May 19, 2026, 2:00 PM
      ii) 4th Floor Conference Room
   c) Substantial Completion Date: 270 Calendar days
   d) Liquidated Damages: $2,300 per day
5) **Bidding and Contract Requirements**
   a) The Contractor shall seal their bid in an envelope and clearly mark the outside with the name of the Project and company name/letterhead.
   b) Required with each bid:
      i) Bid Form

ii) Bid Bond (5%)

iii) Subcontractors List & Disclosure Forms

iv) EDI CPF – Section 3 Forms

v) Anti-Collusion Statement

vi) Statement of Bidders Qualifications, and/or identification of LLC participants.

vii) Acknowledgement of Addendums

viii) Subcontractors Certification Regarding Affirmative Action

ix) E-Verify Affidavit & MOU

c) Project is exempt from Sales Tax

i) Tax exemption certificate will be furnished to the General Contractor.

ii) It is the General Contractor's responsibility to ensure that copies of the certificate are provided to other necessary parties, as outlined in RSMo 144.062.3

d) Prevailing Wages and/or Davis Bacon

i) Federal Wage Determination No. MO20260001 (01/09/2026)

ii) Prevailing Wage – Wage Order 32

e) Weather Delays.

i) In general, there will be no extension of Contract time due to weather.

f) Review what is needed at the time contracts is signed, such as Payment Bond (100% of base bid) and a Labor & Materials Bond (100% of base bid), Insurance with endorsements, OSHA 10-hr.

6) General Overview of the Project

a) JSP – Utility Coordination

i) Gas – Spire – no relocation anticipated, coordination at 14th will be required

ii) Water – Missouri American Water – coordination required for water service relocations and Lead Service Investigations

iii) Electric – Liberty Overhead Distribution - Coordination required for removal of existing street lighting and for new meter pedestal locations.

iv) Phone - AT&T Distribution – no conflicts

v) Cable/Fiber – Sparklight – no conflicts

vi) Fiber – Allo – no conflicts

b) JSP –

c) Traffic Control

i) Traffic control plans provided. Maintain access to businesses at all times, coordinate with property owners and tenants.

7) Addendums/Questions Received

a) May be issued to clarify questions / comments from this meeting

b)

8) Questions & Answers

9) Notes

MEETING ATTENDANCE RECORD

Project Name:	Main Street Streetscape – 8th Street to 15th Street
Client:	City of Joplin
Project Manager:	Jonathan Peitz
Project #:	023-00893
Date:	May 5th, 2026

Name of Attendee (Please print)	Company / Role	Phone #	Cell #	Email
Doug SPROULS	SCI / PROJ MANAGER	417-682-9577	417-214-1089	doug@sci96.com
Brooke England	Branco	417-451-5250	417-455-8140	estimating@branco.com
Tommy Scotten	ATS Contractors	417-684-7446		tscotten@atsjoplin.com
ERIC MCCALL	ELEMENTS CONSTRUCTION	417-214-4225		eric.mccall@elementscc.com
Dave Ewing	Midwest Traffic Signal	417-827-1490	same	daveewing@midwesttss.com
Dakota Rusk	COJ	417-624-0820		drusk@joplinmo.org
Rob Beachner	COJ	11 11 11		rbeachner@joplinmo.org
Michael Murphrth	Olsson	2537079808		MMURPHY FARTH @ olsson.com
Kevin Smith	Ess	417-592-5149		Kevin.Smith@emerysapp.com
Gavin Lux	Emery Sapp + Sons	417-546-0802		gavin.lux@emerysapp.com
Clayton Cristy	Olsson	417 438-9930	Same	ccristy@olsson.com
Jeremy Hagerman	COJ	417-624-0820		jhagerman@joplinmo.org

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MAIN STREET - BASE BID QUANTITIES

BID ITEM	DESCRITPION	UNIT	QUANTITY
1	Mobilization	LS	1
2	Contractor Furnished Construction Staking and Surveying	LS	1
3	Clearing & Grubbing / Tree & Brush Removal	LS	1
4	Full Depth Asphalt Demo	SY	3539
5	Sidewalk & Drive Removal	SY	5672
6	Curb & Gutter Removal	LF	5398
7	Misc Utility Adjustment	LS	1
8	Erosion Control	LS	1
9	Embankment Grading	CY	100
10	Removal of Unsuitable Material*	CY	100
11	Backfill of Unsuitable Material*	CY	100
12	Aggregate Base (4") (Roadway)	SY	2542
13	Aggregate Base (4") (Sidewalk)	SY	3668
14	2" Asphalt Milling	SY	14327
15	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	1780
16	Concrete Pavement (8") (NR-DJ) (Intersection at 10th ST)	SY	2145
17	Concrete Pavement (8") (Trench Pavement Repair)	SY	397
18	Concrete Pavement (6") (Pavement Repair)	SY	1444
19	Brick Pavers	SY	483
20	Class A Concrete Sidewalk (6")	SY	3286
21	Stamped Concrete Sidewalk (4")	SY	1019
22	Sidewalk Ramp (inc. Truncated Domes)	SY	67
23	Standard Upright Curb & Gutter	LF	3757
24	Commercial Driveway Construction (8" Concrete) (Incl. 4" MoDOT Type 5 Agg. Base)	SY	983
25	Storm Sewer Inlet (3' x 2' I.D.) (Type A)	EA	5
26	Storm Sewer Inlet (3' x 4.5' I.D.) (Modified Combination)	EA	1
27	Storm Sewer Inlet (3' x 2' I.D.) (Type C)	EA	1
28	Storm Sewer Inlet (3'8" x 3' I.D.) (Type D)	EA	2
29	Junction Box 3' x 3' I.D.	EA	1
30	48" Manhole	EA	2
31	Storm Sewer Pipe (15") (Class III RCP)	LF	80
32	Storm Sewer Pipe (18") (Class III RCP)	LF	440
33	Litter Receptacles	EA	11
34	Benches	EA	9
35	"Special" Decorative Planter	EA	5
36	Mosaic Brick Paver	LS	1
37	Remove and Replace Existing Signage	LS	1
38	District Plaques ("Midtown" & "Downtown")	EA	3
39	4" Yellow Pavement Marking	LF	4948
40	24" White Pavement Marking	LF	339
41	Left/Right/Through Turn Arrow White Pavement Marking Symbol	EA	5
42	6" Dashed White Pavement Marking	LF	1173
43	6" Solid White	LF	2185
44	Accessible Parking Marking	EA	8
45	Rail Road Pavement Markings	EA	4
46	9th ST Traffic Signal, Complete	LS	1
47	10th ST Traffic Signal, Complete	LS	1
48	Street Lighting	LS	1
49	Tree Well Uplighting	LS	1
50	Traffic Control	LS	1
51	Tree Well (Downtown) (Inc. Tree Grate & Frame)	EA	11
52	Tree Well (Midtown)	EA	16
53	SilvaCell	CF	13346
54	Coal Schute Remediation	EA	2

9TH ST - BID ALTERNATIVE QUANTITIES

BID ITEM	DESCRITPION	UNIT	QUANTITY
101	Mobilization	LS	1
102	Contractor Furnished Construction Staking and Surveying	LS	1
103	Clearing & Grubbing / Tree & Brush Removal	LS	1
104	Full Depth Asphalt Demo	SY	213
105	Sidewalk & Drive Removal	SY	741
106	Curb & Gutter Removal	LF	955
107	Erosion Control	LS	1
108	Aggregate Base (4") (Sidewalk)	SY	644
109	2" Asphalt Milling	SY	1543
110	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	174
111	Concrete Pavement (8")	SY	216
112	Standard Upright Curb & Gutter	LF	765
113	Class A Concrete Sidewalk (6")	SY	644
114	Commercial Driveway Construction (8" Concrete) (Incl. 4" MoDOT Type 5 Agg. Base)	SY	239
115	Traffic Control	LS	1
116	Adjust Manhole	EA	1

10TH ST - BID ALTERNATIVE QUANTITIES

BID ITEM	DESCRITPION	UNIT	QUANTITY
201	Mobilization	LS	1
202	Contractor Furnished Construction Staking and Surveying	LS	1
203	Clearing & Grubbing / Tree & Brush Removal	LS	1
204	Full Depth Asphalt Demo	SY	148
205	Sidewalk & Drive Removal	SY	332
206	Curb & Gutter Removal	LF	654
207	Erosion Control	LS	1
208	Aggregate Base (4") (Sidewalk)	SY	406
209	2" Asphalt Milling	SY	1264
210	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	143
211	Concrete Pavement (8")	SY	155
212	Standard Upright Curb & Gutter	LF	625
213	Class A Concrete Sidewalk (6")	SY	406
214	Commercial Driveway Construction (8" Concrete) (Incl. 4" MoDOT Type 5 Agg. Base)	SY	244
215	Traffic Control	LS	1
216	Adjust Manhole	EA	2

12TH ST - BID ALTERNATIVE QUANTITIES

BID ITEM	DESCRITPION	UNIT	QUANTITY
301	Mobilization	LS	1
302	Contractor Furnished Construction Staking and Surveying	LS	1
303	Clearing & Grubbing / Tree & Brush Removal	LS	1
304	Full Depth Asphalt Demo	SY	206
305	Sidewalk & Drive Removal	SY	582
306	Curb & Gutter Removal	LF	982
307	Erosion Control	LS	1
308	Aggregate Base (4") (Roadway)	SY	28
309	Aggregate Base (4") (Sidewalk)	SY	456
310	2" Asphalt Milling	SY	1521
311	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	172
312	Concrete Pavement (8")	SY	187
313	Standard Upright Curb & Gutter	LF	622
314	Class A Concrete Sidewalk (6")	SY	456
315	Commercial Driveway Construction (8" Concrete) (Incl. 4" MoDOT Type 5 Agg. Base)	SY	184
316	Traffic Control	LS	1
317	Adjust Manhole	EA	2

13TH ST - BID ALTERNATIVE QUANTITIES

BID ITEM	DESCRITPION	UNIT	QUANTITY
401	Mobilization	LS	1
402	Contractor Furnished Construction Staking and Surveying	LS	1
403	Clearing & Grubbing / Tree & Brush Removal	LS	1
404	Full Depth Asphalt Demo	SY	250
405	Sidewalk & Drive Removal	SY	729
406	Curb & Gutter Removal	LF	934
407	Erosion Control	LS	1
408	Aggregate Base (4") (Roadway)	SY	29
409	Aggregate Base (4") (Sidewalk)	SY	580
410	2" Asphalt Milling	SY	1395
411	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	158
412	Concrete Pavement (8")	SY	247
413	Standard Upright Curb & Gutter	LF	627
414	Class A Concrete Sidewalk (6")	SY	580
415	Commercial Driveway Construction (8" Concrete) (Incl. 4" MoDOT Type 5 Agg. Base)	SY	308
416	Traffic Control	LS	1
417	Adjust Manhole	EA	2

14TH ST - BID ALTERNATIVE QUANTITIES

BID ITEM	DESCRITPION	UNIT	QUANTITY
501	Mobilization	LS	1
502	Contractor Furnished Construction Staking and Surveying	LS	1
503	Clearing & Grubbing / Tree & Brush Removal	LS	1
504	Full Depth Asphalt Demo	SY	209
505	Sidewalk & Drive Removal	SY	747
506	Curb & Gutter Removal	LF	945
507	Erosion Control	LS	1
508	Aggregate Base (4") (Sidewalk)	SY	648
509	2" Asphalt Milling	SY	1471
510	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	166
511	Concrete Pavement (8")	SY	218
512	Standard Upright Curb & Gutter	LF	842
513	Class A Concrete Sidewalk (6")	SY	648
514	Commercial Driveway Construction (8" Concrete) (Incl. 4" MoDOT Type 5 Agg. Base)	SY	227
515	Traffic Control	LS	1
516	Adjust Manhole	EA	4

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority # 001592
1027 S. Main Street, Suite 503
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
MICHAEL J. MAYFARTH
NUMBER PE-2023037181
PROFESSIONAL ENGINEER
5/14/2026

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	5/8/2026	ADDENDUM #1	

REVISIONS

QUANTITY TABULATION SHEETS

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

2025

JOPLIN, MO

drawn by: CTK/MJM
checked by: MJM
approved by: JWP
QA/QC by: JWP
project no.: 023-00893
drawing no.: T_QTY01_02300893
date: 5.14.2026

SHEET
4 of 162

DWG: F:\2023\00501-01000\023-00893\40-Design\AutoCAD\Final Plans\Sheets\RDBR\T_QTY01_02300893.dwg USER: mmayfarth
DATE: May 14, 2026 3:20pm XREFS: T_PTBLK_02300893

BASE BID STANDARD UPRIGHT CURB AND GUTTER					
STATION	STATION	LOCATION	SIDE	City of Joplin Standard (LN. FT.)	Spill Curb (LN. FT.)
100+74.23	104+83.76	MAIN ST (8th - 9th)	LT	357.74	
100+78.05	104+83.30	MAIN ST (8th - 9th)	RT	336.15	
105+17.30	109+02.88	MAIN ST (9th - 10th)	LT	382.75	
105+17.76	109+01.94	MAIN ST (9th - 10th)	RT	408.04	
109+36.89	116+52.41	MAIN ST (10th - 12th)	LT	634.6	
110+89.24	116+51.35	MAIN ST (10th - 12th)	RT	393.6	
120+34.52	125+10.05	MAIN ST (12th - 13th)	LT	345.3	
120+35.37	120+48.31	MAIN ST	RT		20.47
120+48.28	125+09.11	MAIN ST (12th - 13th)	RT	378.73	
125+43.50	128+04.50	MAIN ST (13th - 14th)	LT	267.37	
125+42.90	128+04.58	MAIN ST (13th - 14th)	RT	231.95	
TOTAL				3736.23	20.47

BASE BID STAMPED CONCRETE		
LOCATION	CONCRETE PAVEMENT (4") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
10TH STREET CROSSWALKS	132	132
10TH ST TO 12TH ST - RT	127	127
10TH ST TO 12TH ST - LT	175	175
12TH ST TO 13TH ST - RT	106	106
12TH ST TO 13TH ST - LT	81	81
13TH ST TO 14TH ST - RT	130	130
13TH ST TO 14TH ST - LT	108	108
14TH ST TO 15TH ST - RT	73	73
14TH ST TO 15TH ST - LT	87	87
TOTAL	1019	1019

BASE BID BRICK PAVERS		
LOCATION	BRICK PAVER (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
8TH ST TO 9TH ST - RT	106	106
8TH ST TO 9TH ST - LT	117	117
9TH ST TO 10TH ST - RT	117	117
9TH ST TO 10TH ST - LT	104	104
10TH ST TO 12TH ST - LT	39	39
TOTAL	483	483

BASE BID SIDEWALK RAMP		
LOCATION	CONCRETE CURB RAMP (4") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
9TH ST INTERSECTION	66.6	66.6
10TH ST INTERSECTION	56.3	56.3
12TH ST INTERSECTION	69	69
13TH ST INTERSECTION	75	75
14TH ST INTERSECTION	75.6	75.6
TOTAL	66.6	66.6

BASE BID SIDEWALK		
LOCATION	CONCRETE SIDEWALK (4") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
8TH ST TO 9TH ST - RT	303	303
8TH ST TO 9TH ST - LT	324	324
9TH ST TO 10TH ST - RT	358	358
9TH ST TO 10TH ST - LT	290	290
10TH ST TO 12TH ST - RT	296	296
10TH ST TO 12TH ST - LT	440	440
12TH ST TO 13TH ST - RT	209	209
12TH ST TO 13TH ST - LT	157	157
13TH ST TO 14TH ST - RT	271	271
13TH ST TO 14TH ST - LT	247	247
14TH ST TO 15TH ST - RT	219	219
14TH ST TO 15TH ST - LT	172	172
TOTAL	3286	3286

STRIPING QUANTITIES		
LAYER/TYPE	LENGTH	UNITS
4" BROKEN WHITE	1378	FT
4" SOLID YELLOW	5246	FT
6" WHITE PARKING STRIPE	1050	FT
CROSS WALK STRIPE	1791	FT
4" SOLID WHITE	282	FT
24" STOP BAR	304	FT

BASE BID ASPHALT SURFACING QUANTITIES						
STATION TO STATION		LOCATION	SIDE	ASPHALTIC CONCRETE SURFACE (2") (TONS)*	ASPHALT TACK COAT (GAL.)**	MILL & OVERLAY ASPHALT SURFACE (2") (SQ. YD.)
100+81.92	107+87.92	MAIN STREET	NORTH	507.0	720.4	4503
110+86.51	128+04.54	MAIN STREET	SOUTH	1273.0	1809.2	11308
		TOTALS		1780.0	2529.6	15811

1

BASE BID CONCRETE SURFACING QUANTITIES					
STATION TO STATION		LOCATION	SIDE	CONCRETE PAVEMENT (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (4") (SQ. YD.)
100+81.92	107+87.92	BASE BID (PAVEMENT REPAIR) (6")	NORTH	320.1	0.0
110+84.20	128+04.53	BASE BID (PAVEMENT REPAIR) (6")	SOUTH	1123.9	0.0
107+87.92	110+54.80	BASE BID (INTERSECTION 10TH & MAIN) (8")	NORTH	2144.8	2144.8
PROJECT WIDE		BASE BID (TRENCH PATCH & TRACK REMOVAL) (8")	SOUTH	397.0	397.0
TOTALS					2541.8

MAIN STREET DEMOLITION		
2" ASPHALT MILLING	14327	SY
FULL DEPTH ASPHALT REMOVAL	3539	SY
SIDEWALK & DRIVE REMOVAL	5672	SY
CURB & GUTTER REMOVAL	5398	LF

ADJUSTMENT OF MANHOLES			
STATION	LOCATION	SIDE	EACH
118+55.81	MAIN STREET	LT	1
119+06.58	MAIN STREET	RT	1
	TOTAL		2

BASE BID SEEDING				
STATION	STATION	LOCATION	SIDE	SQ FT
109+42.89	109+61.31	MAIN STREET	LT	210
110+04.57	110+52.43	MAIN STREET	LT	239
109+49.14	110+67.80	MAIN STREET	RT	581
110+90.27	112+21.23	MAIN STREET	RT	633
110+98.24	111+85.28	MAIN STREET	LT	435
112+11.98	112+49.56	MAIN STREET	LT	191
114+21.83	116+43.07	MAIN STREET	LT	1163
119+74.40	119+87.90	MAIN STREET	LT	132
120+47.50	120+72.11	MAIN STREET	LT	186
122+31.99	122+91.80	MAIN STREET	LT	253
123+27.44	124+84.45	MAIN STREET	LT	834
TOTAL				4857

STORM SEWER STRUCTURES & PIPE												
STATION	STATION	LOCATION	SIDE	STRUCTURE NO.	JUNCTION BOX (3'x3') (Each)	INLET (CURB) (2'x3') TYPE A (Each)	INLET (CURB) (3'x4.5') MODIFIED (Each)	TYPE D CURB INLET	TYPE C INLET	48" MANHOLE	RCP 15" (Ft.)	RCP 18" (FT)
125+61.36		Main Street	LT	A1		1						
125+61.36	125+42.05	Main Street		P-1							16.6	
125+42.05		Main Street	LT	A2	1							
125+42.02	125+41.98	Main Street		P-2							18.39	
125+41.98		Main Street	LT	A3			1					
100+82		Main Street	RT						1			
108+90		Main Street	LT			1						
108+90	109+40	Main Street	LT								44	
109+55		Main Street	LT			1						
111+32.45		Main Street	RT	C2				1				
111+32.45	111+32.45	Main Street		P-2 (1)								54.51
111+32.45		Main Street	LT	C1				1				
111+32.45	111+69.18	Main Street		P-2 (2)								36.67
602+94.99		13th Street	RT	B1		1						
602+94.99	603+87.36	13th Street		P-3								88.53
603+87.36		13th Street	RT	B2		1						
603+85.36	603+52.50	13th Street		P-4								15.88
603+85.50		13th Street	LT	B3						1		
603+85.50	606+31.32	13th Street		P5								240.98
606+31.32		13th Street	LT	B4						1		
TOTAL					1	5	1	2	1	2	78.99	436.57

SLIVA CELL			
STATION	SIDE	# PER	CU. FT. (2X CELLS)
101+17	RT	19	508
101+99	LT	14	377
103+20	LT	17	444
103+50	RT	10	457
103+92	LT	17	457
104+16	RT	10	457
105+78	LT	19	516
106+25	RT	19	508
106+97	RT	19	508
107+45	LT	17	457
108+27	LT	17	444
113+10	RT	17	516
114+25	RT	17	516
114+75	LT	17	516
115+72	RT	17	516
115+44	LT	17	516
117+34	LT	17	516
117+97	RT	17	516
118+94	LT	17	516
121+50	LT	16	473
121+99	RT	17	516
122+53	LT	17	516
123+68	LT	17	516
124+65	LT	17	516
126+44	LT	17	516
127+02	RT	17	516
127+85	LT	17	516
TOTAL		449	13346

BASE BID INLET PROTECTION (EXISTING STRUCTURES)			
STATION	LOCATION	SIDE	EA
100+61	MAIN STREET	RT	1
100+79	MAIN STREET	RT	1
108+93	Main Street	RT	1
109+52	Main Street	LT	1
109+69	Main Street	RT	1
110+44	Main Street	RT	1
110+50	Main Street	LT	1
111+88	Main Street	RT	1
112+60	Main Street	RT	1
112+61	Main Street	LT	1
125+61	Main Street	LT	1
401+97	10th Street	LT	1
402+03	10th Street	RT	1
402+91	10th Street	RT	1
406+25	10th Street	LT	1
506+25	12th Street	LT	1
506+25	12th Street	RT	1
602+96	13th Street	RT	1
603+84	13th Street	RT	1
606+30	13th Street	RT	1
606+30	13th Street	RT	1
701+07	14th Street	RT	1
703+92	14th Street	RT	1
TOTAL			23

BASE BID COMMERCIAL DRIVEWAYS		
LOCATION	MODOT TYPE 1 AGGREGATE SURFACE (6") (SQ. YD.)	CONCRETE PAVEMENT (8") (SQ. YD.)
STA 101+28 LT	57.0	57.0
STA 101+89 RT	53.0	53.0
STA 103+17 RT	54.0	54.0
STA 108+00 LT	55.0	55.0
STA 108+88 RT	49.0	49.0
STA 111+98 LT	53.0	53.0
STA 112+34 RT	53.0	53.0
STA 113+68 RT	71.0	71.0
STA 114+12 LT	39.0	39.0
STA 114+73 RT	43.0	43.0
STA 115+13 RT	43.0	43.0
STA 116+03 RT	44.0	44.0
STA 119+45 LT	57.0	57.0
STA 120+82 LT	45.0	45.0
STA 121+22 LT	50.0	50.0
STA 123+09 LT	67.0	67.0
STA 124+06 RT	55.0	55.0
STA 124+57 RT	48.0	48.0
STA 126+25 RT	47.0	47.0
TOTAL BASE BID	983.0	983.0

BASE BID MOSAIC PAVERS		
LOCATION	CONCRETE SIDEWALK (4") (SQ. FT.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
STA 118+95 LT	42	4.7
STA 120+65 RT	42	4.7
STA 123+65 RT	42	4.7
STA 125+65 RT	42	4.7
STA 113+40 LT	42	4.7
TOTAL	210	23.5

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority # 001592
1027 S. Main Street, Suite 503
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
MICHAEL J. MAYFARTH
NUMBER PE-2023037181
PROFESSIONAL ENGINEER
5/14/2026

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	5/8/2026	ADDENDUM #1	

REVISIONS

QUANTITY TABULATION SHEETS
BASE BID (MAIN STREET)

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

2025

JOPLIN, MO

drawn by: CTK/MJM
checked by: MJM
approved by: JWP
QA/QC by: JWP
project no.: 023-00893
drawing no.: T_QTY01_02300893
date: 5.14.2026

SHEET
5 of 162

DWG: F:\2023\00501-01000\023-00893\40-Design\AutoCAD\Final Plans\Sheets\RDBR\T_QTY01_02300893.dwg
DATE: May 14, 2026 3:20pm
XREFS: T_PTBLK_02300893
USER: mmayfarth

9TH STREET ADD ALTERNATE ASPHALT SURFACING QUANTITIES						
STATION TO STATION		LOCATION	SIDE	ASPHALTIC CONCRETE SURFACE (2") (TONS)*	ASPHALT TACK COAT (GAL.)**	MILL & OVERLAY ASPHALT SURFACE (2") (SQ. YD.)
300+51.11	302+89.13	9TH ST ADD ALT	WEST	87.0	123.2	770
303+94.14	306+33.22	9TH ST ADD ALT	EAST	87.0	123.6	773
			TOTALS	174.0	246.8	1543

1

9TH STREET ALTERNATE CONCRETE SURFACING QUANTITIES					
STATION TO STATION		LOCATION	SIDE	CONCRETE PAVEMENT (8") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (4") (SQ. YD.)
300+51.11	302+89.13	9TH ST ADD ALT	WEST	107.2	0.0
303+94.17	306+33.22	9TH ST ADD ALT	EAST	108.4	0.0
TOTALS				215.6	0.0

STANDARD UPRIGHT CURB AND GUTTER 9th STREET				
STATION	STATION	LOCATION	SIDE	City of Joplin Standard (LN. FT.)
300+56.16	301+34.99	9th	LT	78.85
301+55.01	301+67.19	9th	LT	12.18
301+97.19	302+89.13	9th	LT	91.94
300+56.07	301+67.07	9th	RT	111
301+97.07	302+89.13	9th	RT	92.06
303+94.12	304+87.50	9th	LT	93.38
305+17.50	305+81.28	9th	LT	63.79
306+11.28	306+28.22	9th	LT	16.93
303+94.23	304+87.66	9th	RT	93.43
305+17.66	306+28.22	9th	RT	110.56
			TOTAL	764.12

9TH STREET COMMERCIAL DRIVEWAYS		
LOCATION	MODOT TYPE 1 AGGREGATE SURFACE (6") (SQ. YD.)	CONCRETE PAVEMENT (8") (SQ. YD.)
STA 301+45 LT	24.0	24.0
STA 301+82 LT	35.0	35.0
STA 301+82 RT	35.0	35.0
STA 305+03 LT	34.0	34.0
STA 305+03 RT	34.0	34.0
STA 305+56 RT	43.0	43.0
STA 305+96 LT	34.0	34.0
9TH ST ADD ALT TOTAL	239.0	239.0

9TH STREET ALTERNATE SIDEWALK		
LOCATION	CONCRETE SIDEWALK (4") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
9TH ST ADD ALT	644	644
TOTAL	644	644

9TH STREET DEMOLITION		
2" ASPHALT MILLING	1328	SY
FULL DEPTH ASPHALT REMOVAL	213	SY
SIDEWALK & DRIVE REMOVAL	741	SY
CURB & GUTTER REMOVAL	955	LF

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MICHAEL J. MAYFARTH
NUMBER PE-2023037181
PROFESSIONAL ENGINEER
5/14/2026

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QUANTITY TABULATION SHEETS
9TH STREET BID ALTERNATIVE 1

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

JOPLIN, MO

2025

drawn by: CTK/MJM
checked by: MJM
approved by: JWP
QA/QC by: JWP
project no.: 023-00893
drawing no.: T_QTY01_02300893
date: 5.14.2026

SHEET
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USER: mmayfarth

10TH STREET ADD ALTERNATE ASPHALT SURFACING QUANTITIES						
STATION TO STATION		LOCATION	SIDE	ASPHALTIC CONCRETE SURFACE (2") (TONS)*	ASPHALT TACK COAT (GAL.)**	MILL & OVERLAY ASPHALT SURFACE (2") (SQ. YD.)
400+61.89	402+50.82	10TH ST ADD ALT	WEST	68.0	95.5	597
404+28.45	406+29.27	10TH ST ADD ALT	EAST	75.0	106.6	667
			TOTALS	143.0	202.1	1264

1

10TH STREET ALTERNATE CONCRETE SURFACING QUANTITIES					
STATION TO STATION		LOCATION	SIDE	CONCRETE PAVEMENT (8") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (4") (SQ. YD.)
400+61.93	402+50.82	10TH ST ADD ALT	WEST	79.1	0.0
404+28.45	406+29.26	10TH ST ADD ALT	EAST	75.8	0.0
			TOTALS	154.9	0.0

STANDARD UPRIGHT CURB AND GUTTER 10th STREET				
STATION	STATION	LOCATION	SIDE	City of Joplin Standard (LN. FT.)
400+66.86	401+65.87	10th	LT	99.01
401+95.86	402+88.40	10th	LT	92.53
400+66.86	401+76.16	10th	RT	109.29
404+19.20	404+51.03	10th	LT	31.84
405+16.80	405+52.38	10th	LT	35.58
405+88.37	406+35.05	10th	LT	46.6
404+19.20	406+29.27	10th	RT	210.15
			TOTAL	625

10TH STREET COMMERCIAL DRIVEWAYS		
LOCATION	MODOT TYPE 1 AGGREGATE SURFACE (6") (SQ. YD.)	CONCRETE PAVEMENT (8") (SQ. YD.)
STA 401+38 LT	30.0	30.0
STA 401+80 LT	33.0	33.0
STA 402+24 LT	52.0	52.0
STA 404+84 LT	82.0	82.0
STA 405+70 LT	47.0	47.0
10TH ST ADD ALT TOTAL	244.0	244.0

10TH STREET ALTERNATE SIDEWALK		
	CONCRETE SIDEWALK (4") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
10TH ST ADD ALT	406	406
TOTAL	406	406

10TH STREET DEMOLITION		
2" ASPHALT MILLING	1115	SY
FULL DEPTH ASPHALT REMOVAL	148	SY
SIDEWALK & DRIVE REMOVAL	332	SY
CURB & GUTTER REMOVAL	654	LF

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Joplin, MO 64801
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www.olsson.com

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QUANTITY TABULATION SHEETS
10TH STREET BID ALTERNATIVE 2

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

JOPLIN, MO

2025

drawn by: CTK/MJM
checked by: MJM
approved by: JWP
QA/QC by: JWP
project no.: 023-00893
drawing no.: T_QTY01_02300893
date: 5.14.2026

12TH STREET ADD ALTERNATE ASPHALT SURFACING QUANTITIES						
STATION TO STATION		LOCATION	SIDE	ASPHALTIC CONCRETE SURFACE (2") (TONS)*	ASPHALT TACK COAT (GAL.)**	MILL & OVERLAY ASPHALT SURFACE (2") (SQ. YD.)
500+50.15	502+88.03	12TH ST ADD ALT	WEST	90.0	127.3	796
503+95.03	506+33.70	12TH ST ADD ALT	EAST	82.0	115.9	725
			TOTALS	172.0	243.2	1521

1

12TH STREET ALTERNATE CONCRETE SURFACING QUANTITIES					
STATION TO STATION		LOCATION	SIDE	CONCRETE PAVEMENT (8") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (4") (SQ. YD.)
500+39.92	502+88.03	12TH ST ADD ALT	WEST	131.3	27.8
503+95.02	506+33.70	12TH ST ADD ALT	EAST	55.6	0.0
TOTALS				186.9	27.8

STNADARD UPRIGHT CURB AND GUTTER 12th STREET				
STATION	STATION	LOCATION	SIDE	City of Joplin Standard (LN. FT.)
500+55.03	501+27.09	12th	LT	112.06
501+53.09	501.67.09	12th	LT	13.99
501+97.09	502+88.04	12th	LT	90.95
500+55.27	501+66.73	12th	RT	111.46
501+96.73	502+88.03	12th	RT	91.29
503+95.03	504+91.13	12th	RT	93.98
505+19.41	506+24.76	12th	RT	107.8
			TOTAL	621.53

12TH STREET COMMERCIAL DRIVEWAYS		
LOCATION	MODOT TYPE 1 AGGREGATE SURFACE (6") (SQ. YD.)	CONCRETE PAVEMENT (8") (SQ. YD.)
STA 501+40 LT	30.0	30.0
STA 501+82 LT	35.0	35.0
STA 501+82 RT	35.0	35.0
STA 504+45 RT	44.0	44.0
STA 505+05 RT	40.0	40.0
12TH ST ADD ALT TOTAL	184.0	184.0

12TH STREET ALTERNATE SIDEWALK		
LOCATION	CONCRETE SIDEWALK (4") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
12TH ST ADD ALT	456	456
TOTAL	456	456

12TH STREET ALTERNATE SIDEWALK RAMP		
LOCATION	CONCRETE CURB RAMP (4") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
12TH STREET	19.8	19.8
TOTAL	19.8	19.8

12TH STREET DEMOLITION		
2" ASPHALT MILLING	1281	SY
FULL DEPTH ASPHALT REMOVAL	206	SY
SIDEWALK & DRIVE REMOVAL	582	SY
CURB & GUTTER REMOVAL	982	LF

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QUANTITY TABULATION SHEETS
12TH STREET BID ALTERNATIVE 3

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

JOPLIN, MO

2025

drawn by: CTK/MJM
checked by: MJM
approved by: JWP
QA/QC by: JWP
project no.: 023-00893
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13TH STREET ADD ALTERNATE ASPHALT SURFACING QUANTITIES						
STATION TO STATION		LOCATION	SIDE	ASPHALTIC CONCRETE SURFACE (2") (TONS)*	ASPHALT TACK COAT (GAL.)**	MILL & OVERLAY ASPHALT SURFACE (2") (SQ. YD.)
600+49.42	602+87.56	13TH ST ADD ALT	WEST	89.0	126.2	789
603+92.57	606+32.53	13TH ST ADD ALT	EAST	69.0	96.9	606
			TOTALS	158.0	223.1	1395

1

13TH STREET ALTERNATE CONCRETE SURFACING QUANTITIES					
STATION TO STATION		LOCATION	SIDE	CONCRETE PAVEMENT (8") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (4") (SQ. YD.)
600+36.36	602+87.69	13TH ST ADD ALT	WEST	132.2	28.6
603+92.55	606+32.53	13TH ST ADD ALT	EAST	114.3	0.0
TOTALS				246.5	28.6

STANDARD UPRIGHT CURB AND GUTTER 13th STREET				
STATION	STATION	LOCATION	SIDE	City of Joplin Standard (LN. FT.)
600+54.41	601+64.99	13th	LT	115.52
600+41.06	600+42.20	13th	LT	5.38
601.94.99	602+87.71	13th	LT	92.72
500+42.22	600+40.83	13th	RT	6.16
600+54.42	601+65.26	13th	RT	116.52
601+95.26	602+87.42	13th	RT	92.15
603+92.54	604+24.05	13th	LT	31.5
604+56.05	604+81.46	13th	LT	27.66
603+92.59	604+90.17	13th	RT	55.27
604+80.02	604+90.17	13th	RT	6.15
605+27.24	605+69.69	13th	RT	42.42
605+89.20	606+24.67	13th	RT	35.47
TOTAL				626.92

13TH STREET ALTERNATE SIDEWALK		
LOCATION	CONCRETE SIDEWALK (4") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
13TH ST ADD ALT	580	580
TOTAL	580	580

13TH STREET DEMOLITION		
2" ASPHALT MILLING	1101	SY
FULL DEPTH ASPHALT REMOVAL	250	SY
SIDEWALK & DRIVE REMOVAL	729	SY
CURB & GUTTER REMOVAL	934	LF

13TH STREET ALTERNATE SIDEWALK RAMP		
LOCATION	CONCRETE CURB RAMP (4") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
13TH STREET	18.4	18.4
TOTAL	18.4	18.4

13TH STREET COMMERCIAL DRIVEWAYS		
LOCATION	MODOT TYPE 1 AGGREGATE SURFACE (6") (SQ. YD.)	CONCRETE PAVEMENT (8") (SQ. YD.)
STA 601+80 LT	35.0	35.0
STA 601+80 RT	36.0	36.0
STA 604+40 LT	36.0	36.0
STA 604+64 RT	36.0	36.0
STA 604+96 LT	44.0	44.0
STA 605+04 RT	98.0	98.0
STA 605+79 RT	23.0	23.0
13TH ST ADD ALT TOTAL	308.0	308.0

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MICHAEL J. MAYFARTH
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PROFESSIONAL ENGINEER
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QUANTITY TABULATION SHEETS
13TH STREET BID ALTERNATIVE 4

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

JOPLIN, MO

2025

drawn by: CTK/MJM
checked by: MJM
approved by: JWP
QA/QC by: JWP
project no.: 023-00893
drawing no.: T_QTY01_02300893
date: 5.14.2026

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14TH STREET ADD ALTERNATE ASPHALT SURFACING QUANTITIES						
STATION TO STATION		LOCATION	SIDE	ASPHALTIC CONCRETE SURFACE (2") (TONS)*	ASPHALT TACK COAT (GAL.)**	MILL & OVERLAY ASPHALT SURFACE (2") (SQ. YD.)
700+50.25	702+89.48	14TH ST ADD ALT	WEST	87.0	123.6	773
703+95.63	706+32.45	14TH ST ADD ALT	EAST	78.5	111.6	697.8
			TOTALS	165.5	235.2	1471

1

14TH STREET ALTERNATE CONCRETE SURFACING QUANTITIES					
STATION TO STATION		LOCATION	SIDE	CONCRETE PAVEMENT (8") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (4") (SQ. YD.)
700+50.25	702+89.42	14TH ST ADD ALT	WEST	108.6	0.0
703+92.39	706+32.36	14TH ST ADD ALT	EAST	109.0	0.0
			TOTALS	217.6	0.0

STANDARD UPRIGHT CURB AND GUTTER 14th STREET				
STATION	STATION	LOCATION	SIDE	City of Joplin Standard (LN. FT.)
700+55.22	702+89.28	14th	LT	234.07
700+55.28	701+67	14th	RT	111.72
701+97	702+89.73	14th	RT	92.66
703+92.35	704+86.85	14th	LT	94.48
705+16.80	706+25.57	14th	LT	108.77
703+95.83	704+86.89	14th	RT	91.07
705+16.89	706+25.61	14th	RT	108.73
			TOTAL	841.5

14TH STREET ALTERNATE SIDEWALK		
LOCATION	CONCRETE SIDEWALK (4") (SQ. YD.)	MODOT TYPE 5 AGGREGATE BASE (2") (SQ. YD.)
14TH ST ADD ALT	648	648
TOTAL	648	648

14TH STREET COMMERCIAL DRIVEWAYS		
LOCATION	MODOT TYPE 1 AGGREGATE SURFACE (6") (SQ. YD.)	CONCRETE PAVEMENT (8") (SQ. YD.)
STA 701+82 RT	36.0	36.0
STA 704+18 RT	42.0	42.0
STA 704+66 RT	33.0	33.0
STA 705+00 LT	79.0	79.0
STA 705+02 RT	37.0	37.0
14TH ST ADD ALT TOTAL	227.0	227.0

14TH STREET DEMMOLITION		
2" ASPHALT MILLING	1239	SY
FULL DEPTH ASPHALT REMOVAL	209	SY
SIDEWALK & DRIVE REMOVAL	747	SY
CURB & GUTTER REMOVAL	945	LF

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QUANTITY TABULATION SHEETS
14TH STREET BID ALTERNATIVE 5

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

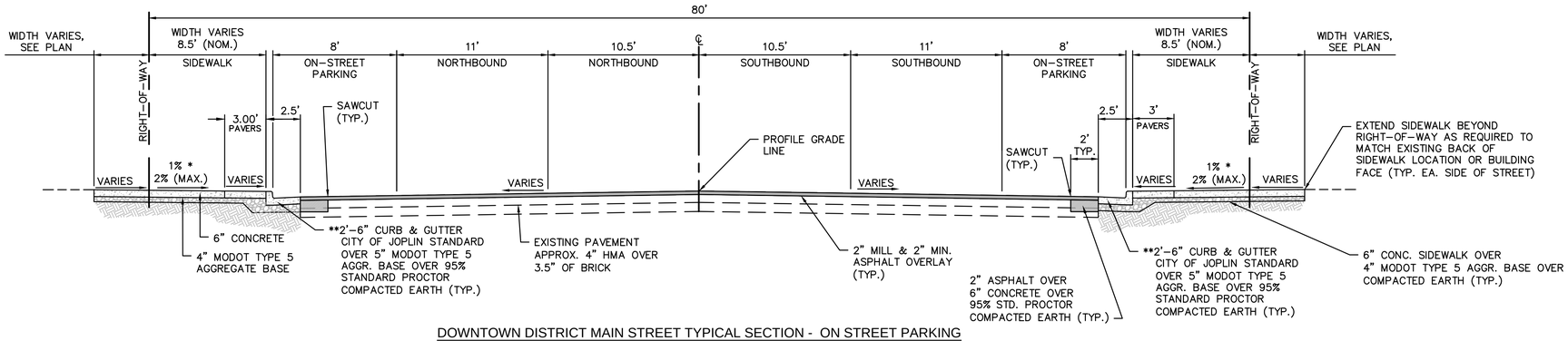
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2025

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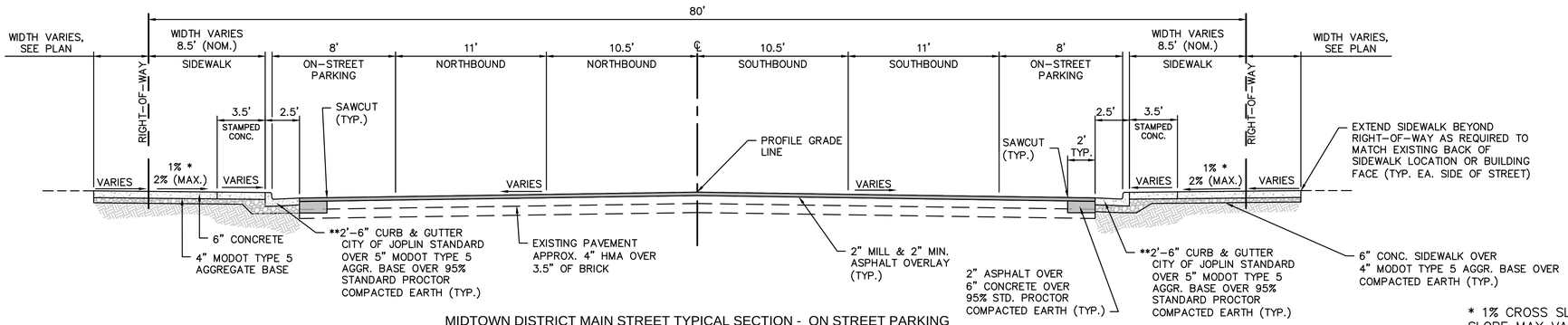
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DOWNTOWN DISTRICT MAIN STREET TYPICAL SECTION - ON STREET PARKING

STA: 100+81.92 TO 104+70.69
STA: 105+30.40 TO 107+87.92
N.T.S.

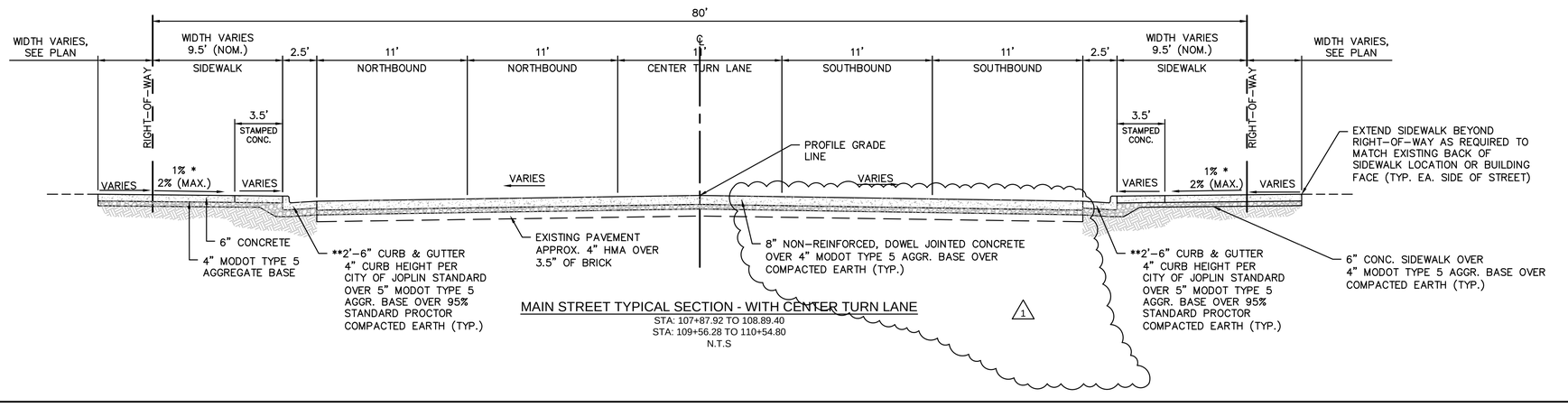


MIDTOWN DISTRICT MAIN STREET TYPICAL SECTION - ON STREET PARKING

STA: 110+86.51 TO 116+38.79
STA: 116+97.70 TO 119+88.81
STA: 120+47.17 TO 124+97.10
STA: 125+55.72 TO 126+88.05
N.T.S.

* 1% CROSS SLOPE IS PREFERED. SLOPE MAY VARY FROM 1% MIN. TO 2% MAX.

CONTRACTOR SHALL ENSURE THAT THE SIDEWALK CROSS SLOPES DO NOT EXCEED 2% ACROSS THE PEDESTRIAN ACCESS ROUTE. SIDEWALK IN THE PEDESTRIAN ACCESS ROUTE THAT IS NOT COMPLIANT WITH ADA STANDARDS SHALL BE REMOVED AND RECONSTRUCTED AT THE CONTRACTOR'S EXPENSE.



MAIN STREET TYPICAL SECTION - WITH CENTER TURN LANE

STA: 107+87.92 TO 108.89.40
STA: 109+56.28 TO 110+54.80
N.T.S

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MICHAEL J. MAYFARTH
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TYPICAL SECTIONS

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

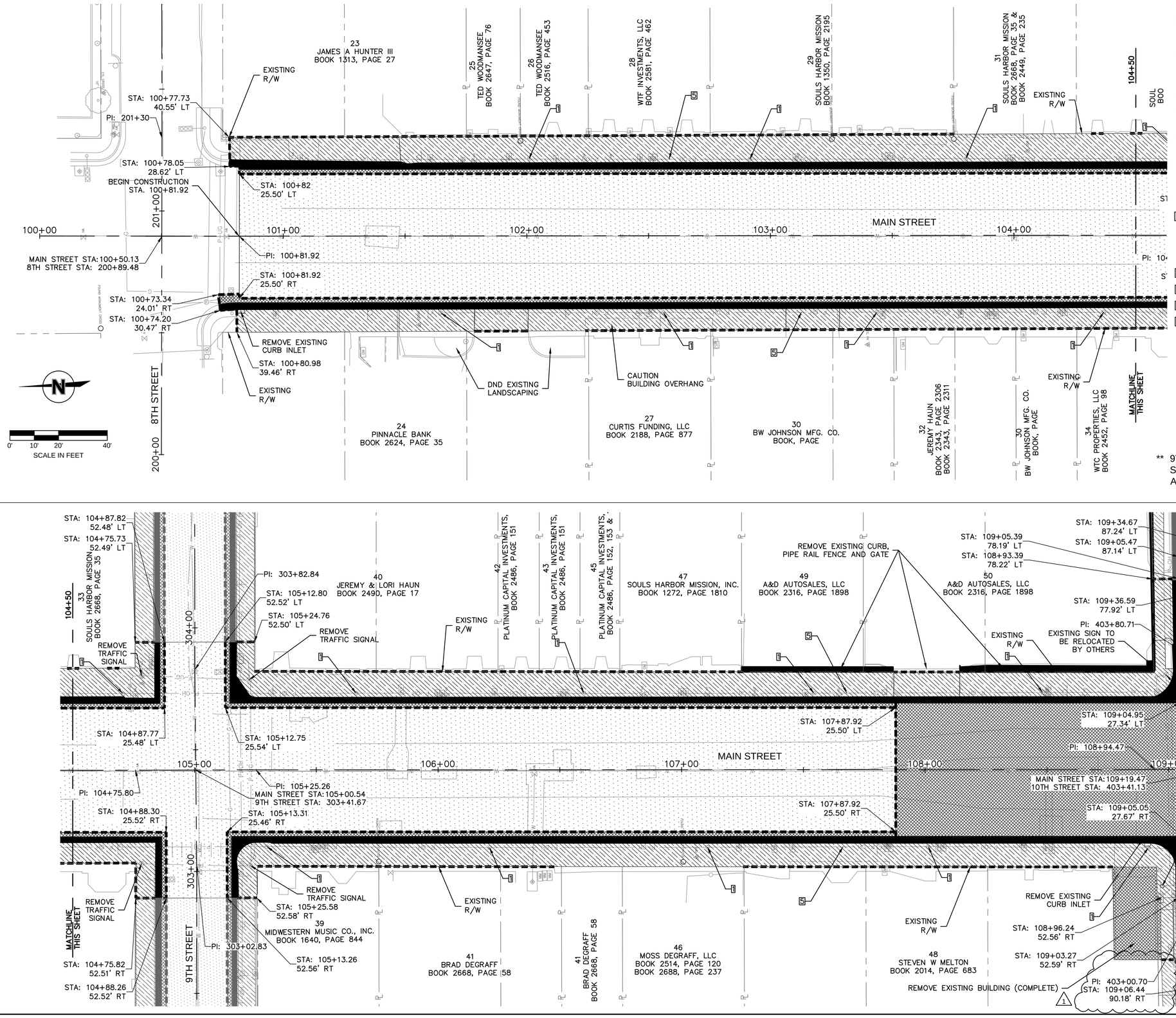
JOPLIN, MO

2025

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project no.: 023-00893
drawing no.: T_TYP01 02300893
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NOTES

1. ALL REMOVED MATERIAL SHALL BE DISPOSED OF OFF-SITE AT AN APPROVED DISPOSAL SITE AT CONTRACTORS EXPENSE UNLESS OTHERWISE NOTED.
2. SAWCUT SHALL BE CONSIDERED SUBSIDIARY TO REMOVAL OF EXISTING IMPROVEMENTS. THERE SHALL BE NO DIRECTED PAY FOR SAWCUT.
3. SAWCUT OF EXISTING SIDEWALK SHALL BE AT THE NEAREST JOINT LINE.
4. ALL WORK SHALL BE COMPLETED WITH-IN RIGHT-OF-WAY UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL COORDINATE REMOVAL. RELOCATION, AND/OR PROTECTION OF EXISTING SIGNAGE WITH CITY.
6. CURB AND GUTTER REMOVAL ANTICIPATES AN EXISTING FULL WIDTH CURB AND GUTTER UNDER THE EXISTING ASPHALT.
7. CONTRACTOR SHALL MAINTAIN AND COORDINATE OWNER, TENANT, DELIVERY AND EMERGENCY ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES, SEE NOTE 48 ON SHEET 2 FOR MORE DETAILS.

[1] EXISTING STREET LIGHT FIXTURE AND POLE TO BE REMOVED BY CONTRACTOR AND DELIVERED TO EVERGY ELECTRIC.
EXISTING STREET LIGHT BASE TO BE REMOVED BY CONTRACTOR. CONTRACTOR SHALL COORDINATE REMOVALS WITH EVERGY ELECTRIC.

[2] REMOVE EXISTING TREE

[3] REMOVE EXISTING STORM WATER INLET

[4] REMOVE EXISTING STORM DRAIN PIPE

[5] RELOCATE SERVICE TO STREET LIGHTS UNDERGROUND

LEGEND:

- PAVEMENT MILLING
- FULL DEPTH REMOVAL
- STORM DRAIN REMOVAL
- CONCRETE REMOVAL
- CONCRETE CURB REMOVAL
- SAWCUT

** 9TH STREET AND 10TH STREET SEE SHEETS 30 - 31 FOR BID ALTERNATIVE DETAILS

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1	5/13/2026	ADDENDUM #1	

REVISIONS

DEMOLITION AND REMOVAL PLANS

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

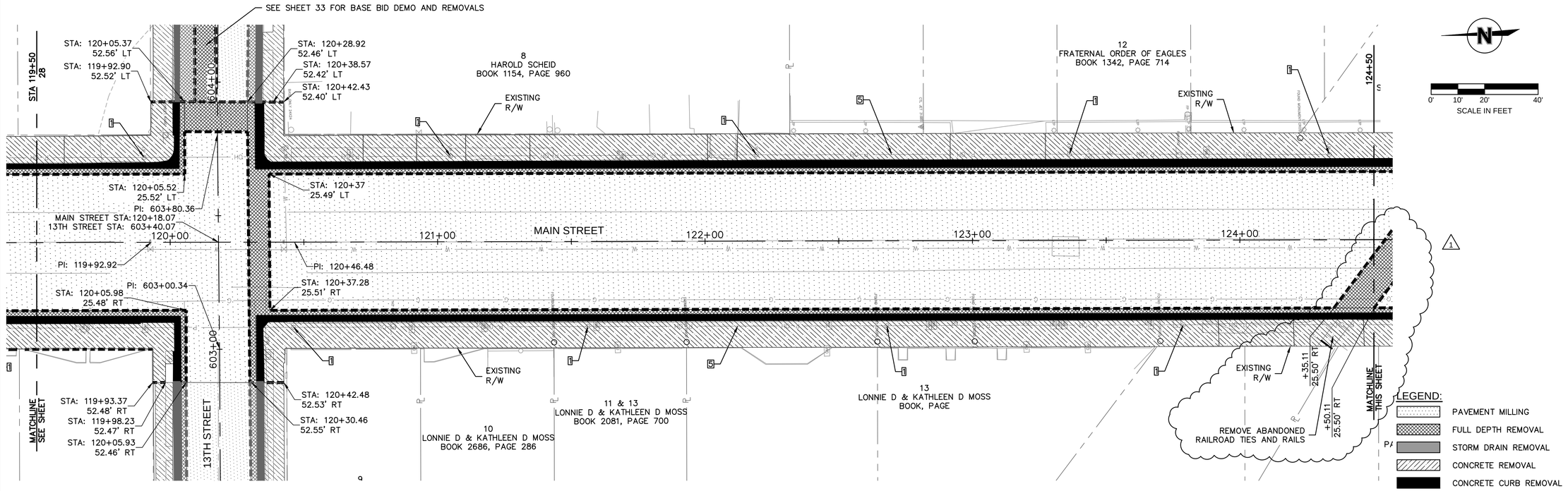
JOPLIN, MO

2025

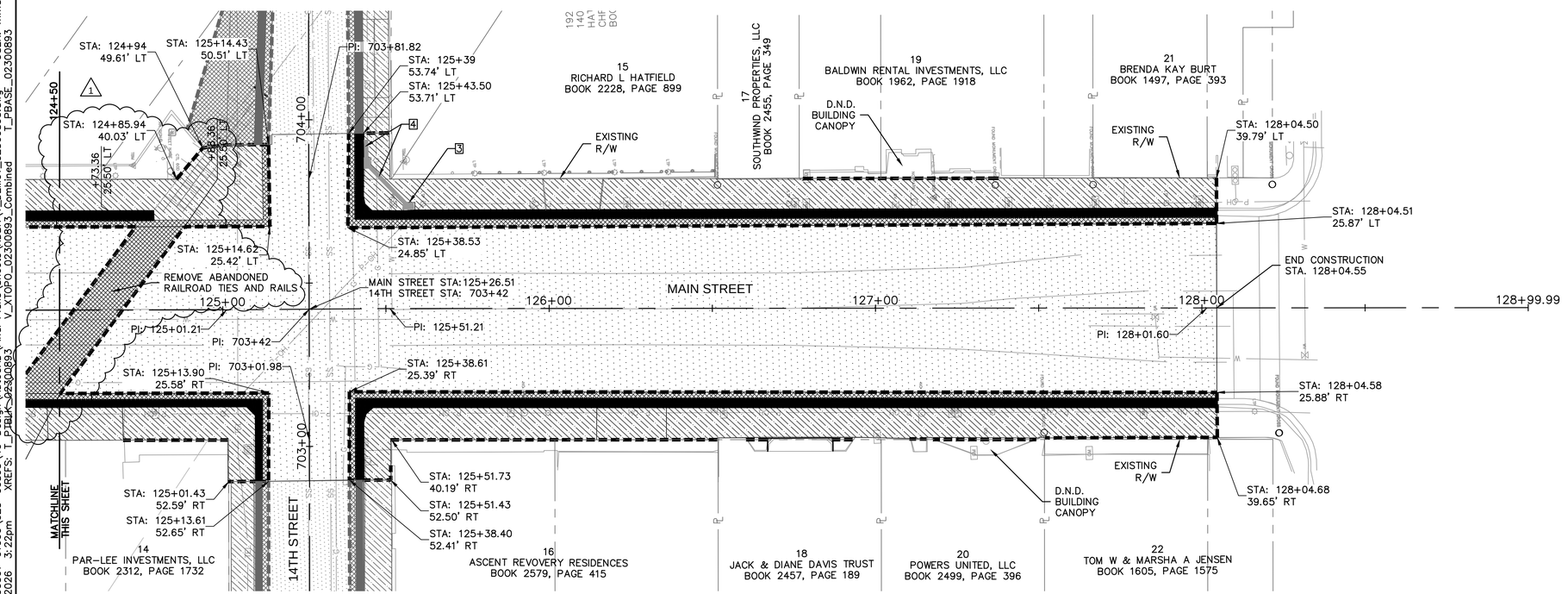
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checked by: MJM
approved by: JWP
QA/QC by: JWP
project no.: 023-00893
drawing no.: T_DEM01_02300893
date: 5.14.2026

SHEET
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** 13TH STREET AND 14TH STREET
SEE SHEETS 33 - 34 FOR BID
ALTERNATIVE DETAILS



1. EXISTING STREET LIGHT FIXTURE AND POLE TO BE REMOVED BY CONTRACTOR AND DELIVERED TO EMPIRE DISTRICT ELECTRIC.
   EXISTING STREET LIGHT BASE TO BE REMOVED BY CONTRACTOR. CONTRACTOR SHALL COORDINATE REMOVALS WITH EMPIRE DISTRICT ELECTRIC.
2. REMOVE EXISTING TREE
3. REMOVE EXISTING STORM WATER INLET
4. REMOVE EXISTING STORM DRAIN PIPE
5. RELOCATE SERVICE TO STREET LIGHTS UNDERGROUND

NOTES

1. ALL REMOVED MATERIAL SHALL BE DISPOSED OF OFF-SITE AT AN APPROVED DISPOSAL SITE AT CONTRACTORS EXPENSE UNLESS OTHERWISE NOTED.
2. SAWCUT SHALL BE CONSIDERED SUBSIDIARY TO REMOVAL OF EXISTING IMPROVEMENTS. THERE SHALL BE NO DIRECTED PAY FOR SAWCUT.
3. SAWCUT OF EXISTING SIDEWALK SHALL BE AT THE NEAREST JOINT LINE.
4. ALL WORK SHALL BE COMPLETED WITH-IN RIGHT-OF-WAY UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL COORDINATE REMOVAL. RELOCATION, AND/OR PROTECTION OF EXISTING SIGNAGE WITH CITY.
6. CURB AND GUTTER REMOVAL ANTICIPATES AN EXISTING FULL WIDTH CURB AND GUTTER UNDER THE EXISTING ASPHALT.
7. CONTRACTOR SHALL MAINTAIN AND COORDINATE OWNER, TENANT, DELIVERY AND EMERGENCY ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES, SEE NOTE 48 ON SHEET 2 FOR MORE DETAILS.

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STATE OF MISSOURI
MICHAEL J. MAYFARTH
NUMBER
PE-2023037181
PROFESSIONAL ENGINEER
5/14/2026

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	5/13/2026	REVISION FOR RAIL REMOVAL	

REVISIONS

DEMOLITION AND REMOVAL PLANS

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

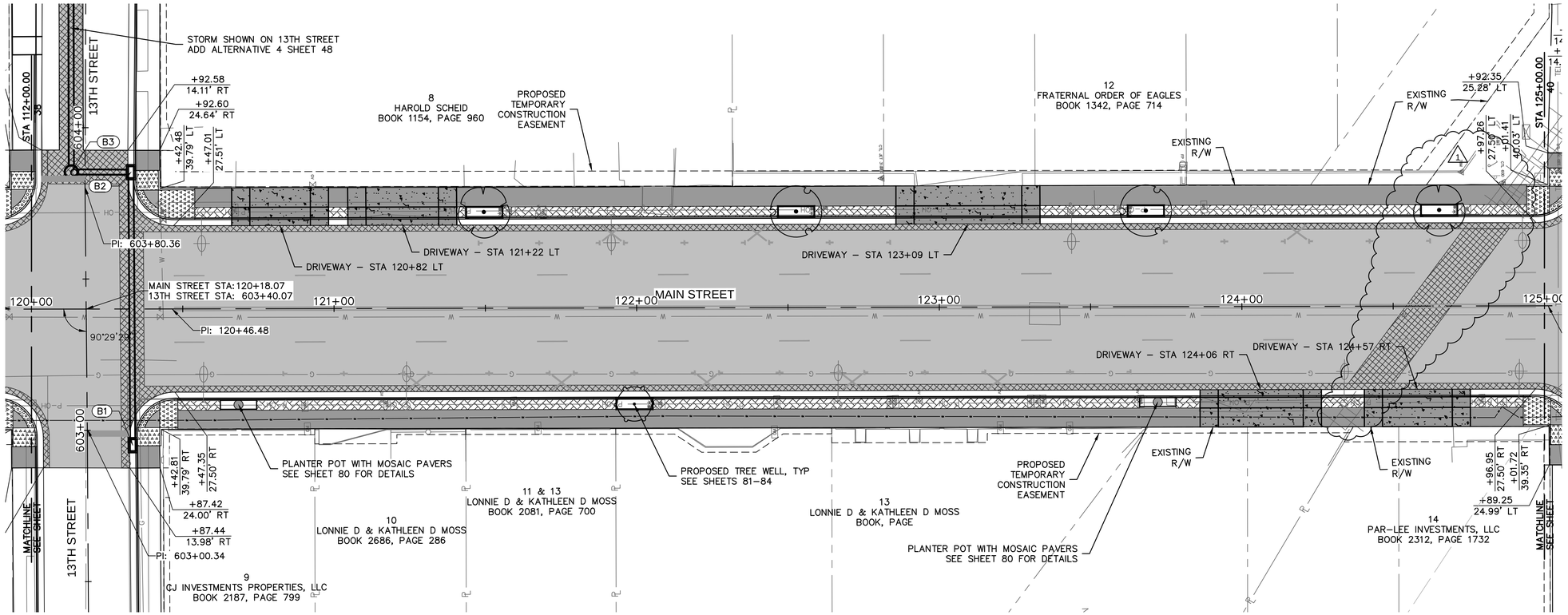
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JOPLIN, MO

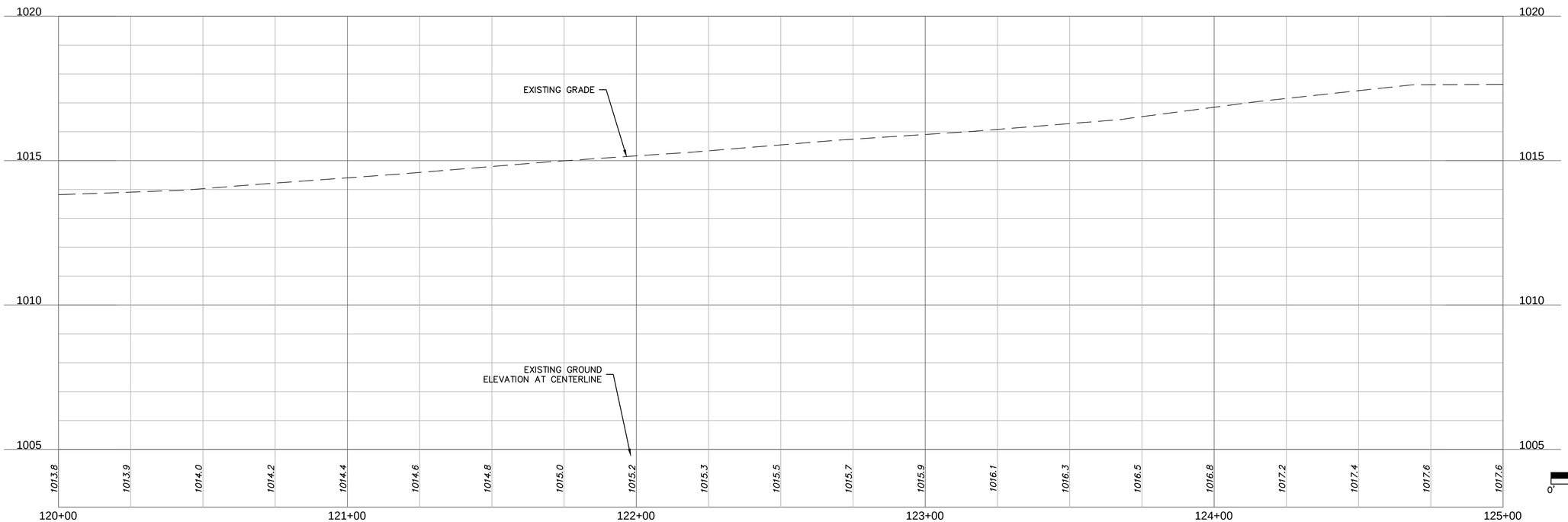
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drawing no.: T_DEM01_02300893
date: 5.14.2026

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USER: mmayfarth
T_DEM-PATT



MAIN STREET (120+00 - 125+00)



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MICHAEL J. MAYFARTH
NUMBER PE-2023037181
PROFESSIONAL ENGINEER
5/14/2026

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	5/13/2026	REVISION FOR REMOVAL OF RAILS FROM ROADWAY	

REVISIONS

ROADWAY PLAN AND PROFILE

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

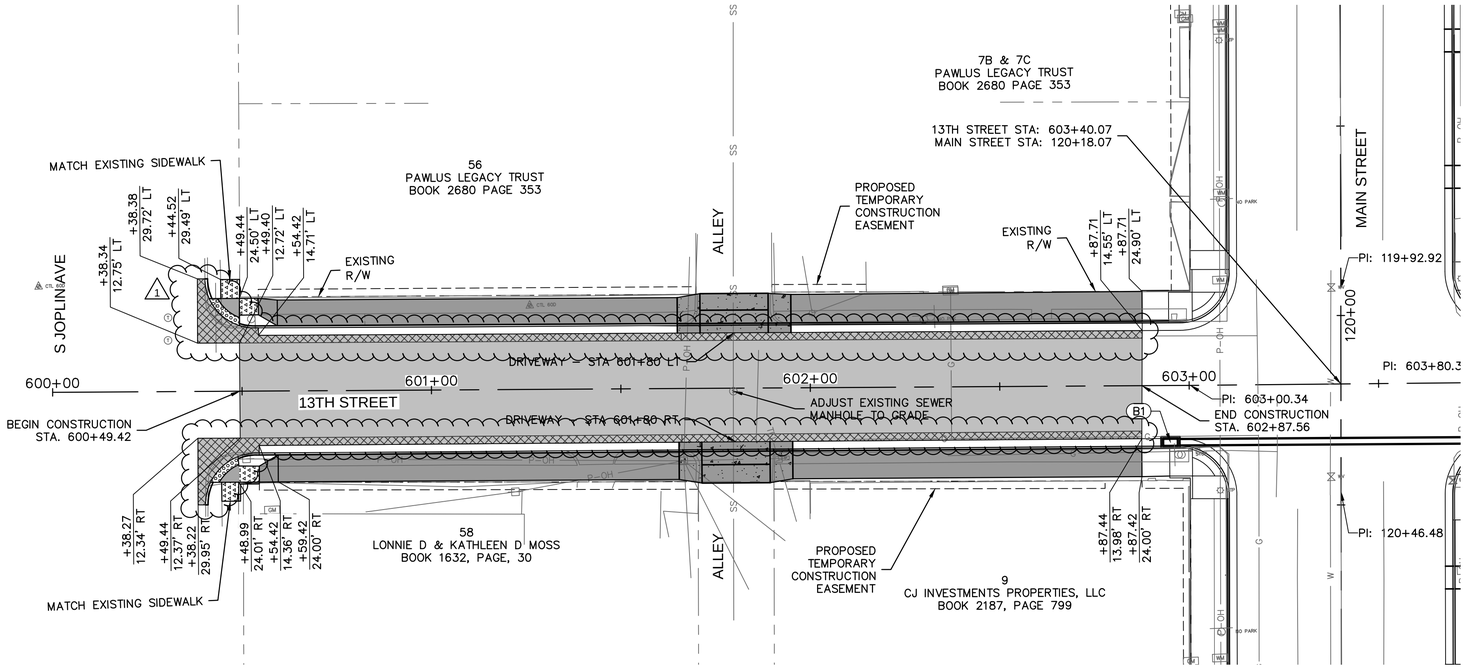
JOPLIN, MO

2025

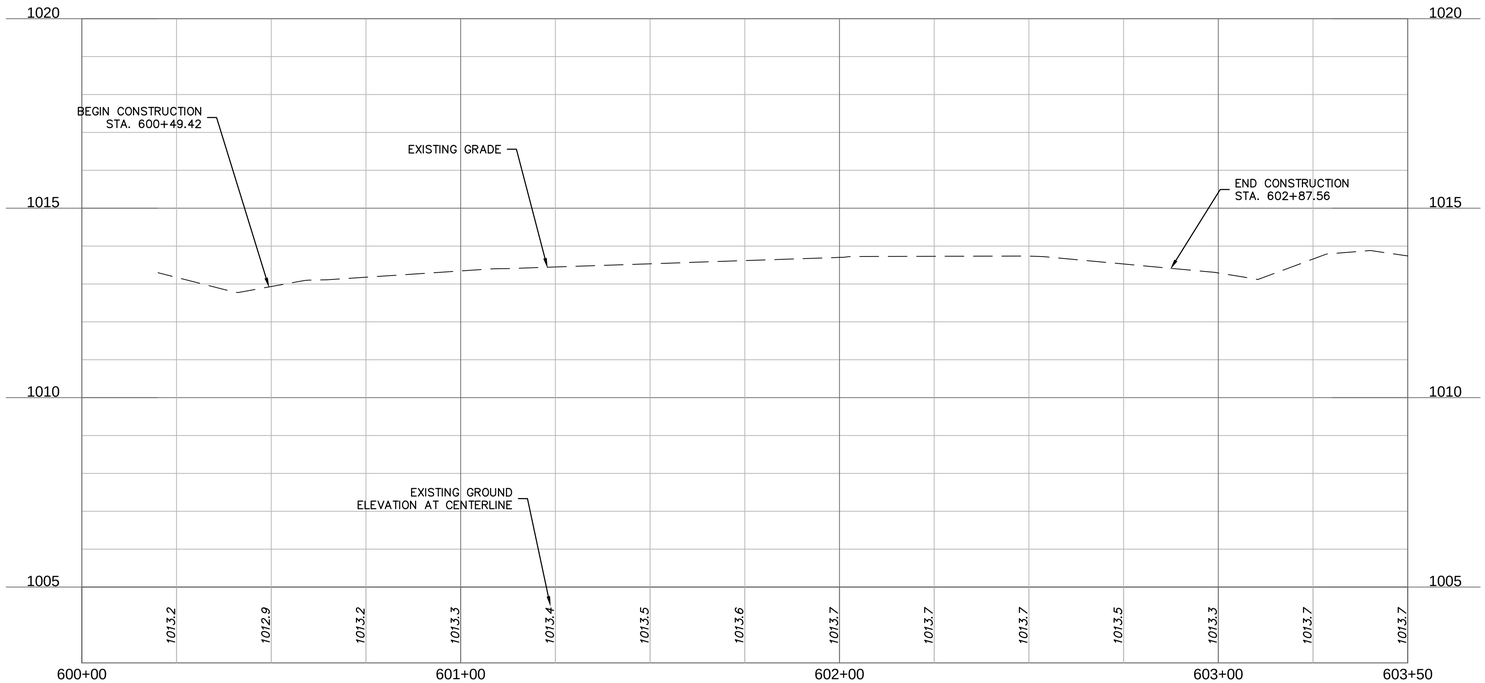
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13TH STREET (600+00 - 603+50)



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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REVISIONS

ROADWAY PLAN AND PROFILE
BID ALTERNATIVE #4

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

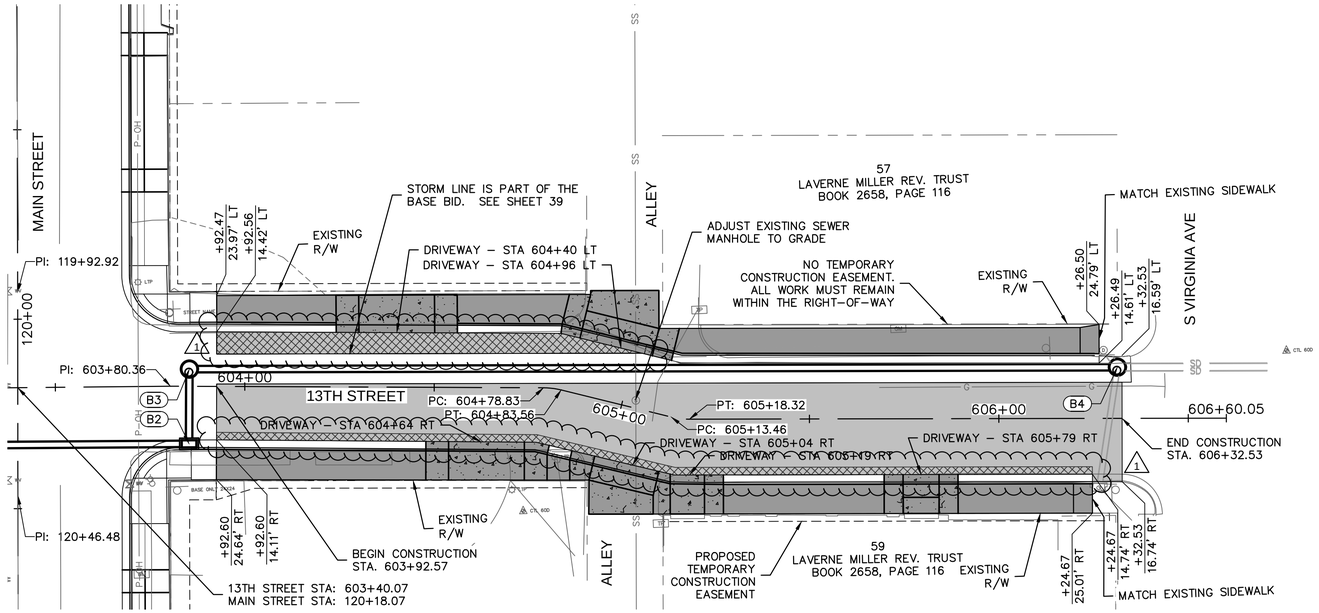
JOPLIN, MO

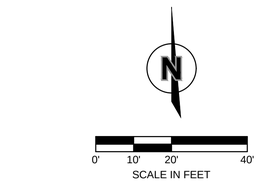
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drawn by: CTK/MJM
checked by: MJM
approved by: JWP
QA/QC by: JWP
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date: 5.14.2026

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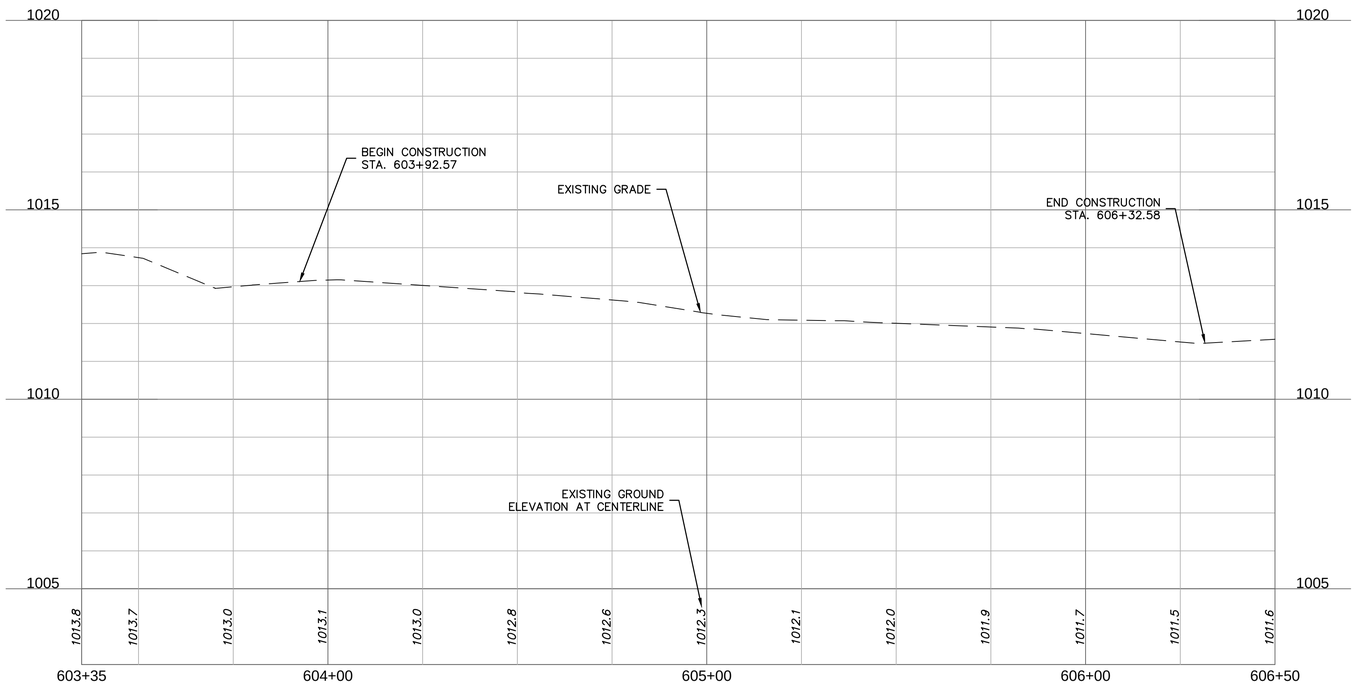


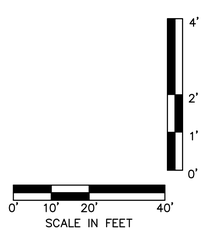


LEGEND

- FULL DEPTH PVMT REPAIR
- 2" ASPHALT OVERLAY (UNLESS OTHERWISE NOTED)
- CONCRETE DRIVE
- SIDEWALK RAMP
- SIDEWALK LANDING
- CONCRETE SIDEWALK
- 24" WIDE DETECTABLE WARNING DOME SURFACE

13TH STREET (603+35 - 606+50)





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PROFESSIONAL ENGINEER
5/14/2026

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REVISIONS

ROADWAY PLAN AND PROFILE
BID ALTERNATIVE #4

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

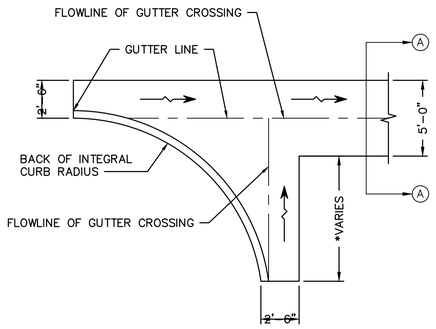
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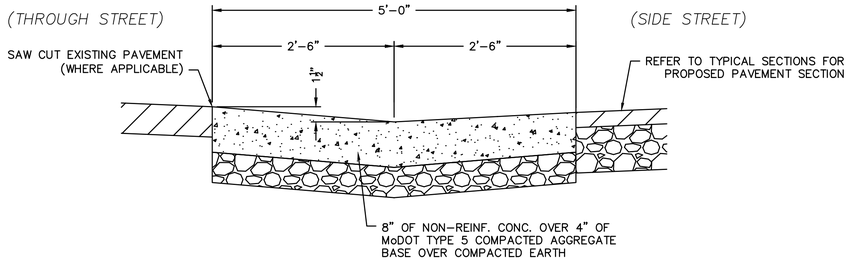
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*NOTE:
LENGTH OF MONOLITHIC CONCRETE GUTTER SHALL EXTEND TO THE CURB RETURN.

PLAN



SECTION A-A

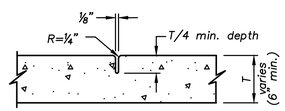
NOTE:
CURB ADJACENT TO SIDEWALK RAMP SHALL BE CONSTRUCTED MONOLITHIC TO THE CONCRETE GUTTER CROSSING. PAYMENT FOR CONCRETE GUTTER CROSSING SHALL BE MADE UNDER THE BID ITEM "CONCRETE PAVEMENT". ALL MONOLITHIC CURB & GUTTER AND AGGREGATE BASE SHALL BE CONSIDERED SUBSIDIARY TO THE BID ITEM "CONCRETE PAVEMENT".

CONCRETE GUTTER CROSSING
N.T.S.

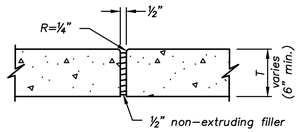
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CONCRETE JOINTING NOTES

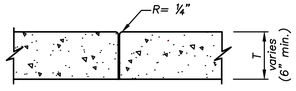
1. CONTRACTION JOINTS SHALL BE 1/4 OF SLAB THICKNESS. ALL CONTRACTION JOINTS SHALL BE SAWED.
2. NON-REINFORCED, DOWEL-JOINTED CONCRETE PAVEMENT JOINTS SHALL BE CONSTRUCTED PER MODOT STANDARD DETAIL 502.05s WITH A MINIMUM SPACING AS FOLLOWS:
   a. LONGITUDINAL CONSTRUCTION JOINTS SPACED AT INTERVALS NOT GREATER THAN 12 FEET, TOOLED TO 1/4 THE SLAB THICKNESS AND OF THE KEYED (TOUNGE AND GROOVE) TYPE.
   b. TRANSVERSE CONSTRUCTION JOINTS AT THE END OF EACH POUR AND WHEN PAVING OPERATIONS ARE SUSPENDED FOR 30 MINUTES OR MORE AND OF THE KEYED TYPE.
   c. TRANSVERSE CONSTRUCTION JOINTS SPACED AT INTERVALS NOT GREATER THAN 6 FEET FOR 5" PAVEMENT SHOULD BE TOOLED TO 1/4 OF THE SLAB THICKNESS.
   d. ALL EXPANSION JOINTS SHALL BE FILLED AND SEALED WITH A PLASTIC JOINT SEALANT MATERIAL ABUTTING EDGES TO BE THICKENED AS DESCRIBED IN "D".
   e. CONTRACTOR SHALL COORDINATE WITH THE CITY FOR INSPECTION AND APPROVAL OF JOINTING LAYOUT AND DOWEL LOCATIONS PRIOR TO PLACING CONCRETE PAVEMENT.
3. CONTRACTOR TO RESET FLUSH ALL MANHOLE COVERS, VALVE BOX LIDS, AND ANY OTHER LIKE ITEMS THAT ARE TO REMAIN IN THE PAVED AREAS.
4. ISOLATION JOINTS SHALL BE PLACED WHERE THE SIDEWALK ABUTS BUILDINGS, RETAINING WALLS, DRAINAGE STRUCTURES, BOLLARDS, LIGHT POLES, STAIRS AND OTHER FIXED STRUCTURES. ISOLATION JOINTS SHALL BE CONSTRUCTED WITH A 1/2" NON-EXTRUDING FILLER, CLOSED-CELL FOAM RUBBER OR A BITUMEN-TREATED FIBER-BOARD, AND WITH A THICKENED EDGE, INCREASED BY 20 PERCENT, TAPERED TO THE REGULAR THICKNESS IN 5 FEET.



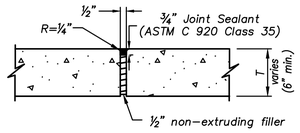
TYPE A
(Contraction)



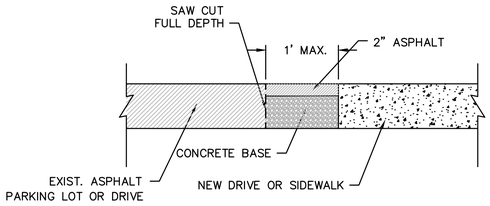
TYPE B
(Isolation)



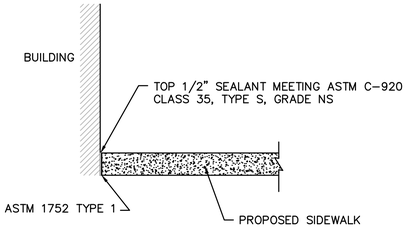
TYPE C
(Construction)



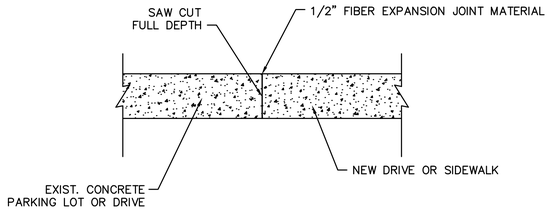
TYPE D
(Expansion)



SIDEWALK / DRIVEWAY CONNECTION
TO EXISTING ASPHALT

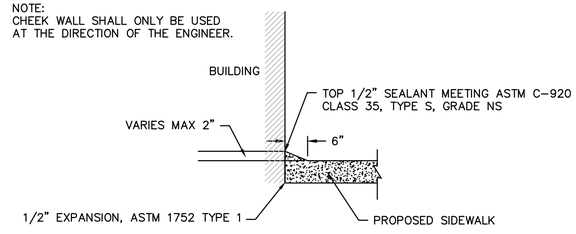


ISOLATION JOINT AT BUILDING



SIDEWALK / DRIVEWAY CONNECTION
TO EXISTING CONCRETE

NOTE:
CHEEK WALL SHALL ONLY BE USED AT THE DIRECTION OF THE ENGINEER.



ISOLATION JOINT AT BUILDING
WITH CHEEK WALL

1

SIDEWALK CONCRETE JOINT DETAILS
N.T.S.

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REVISIONS BY

STANDARD DETAILS

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

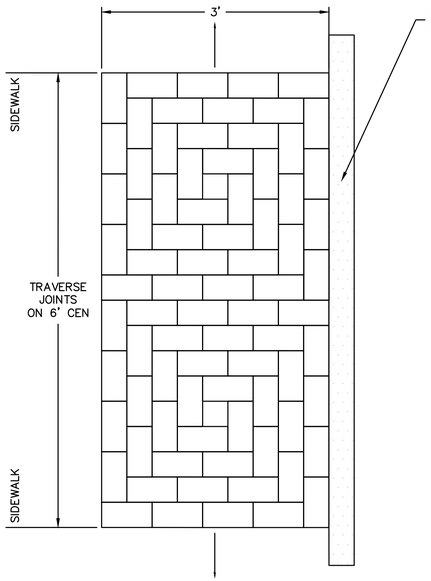
JOPLIN, MO

2025

drawn by: CTK/MJM
checked by: MJM
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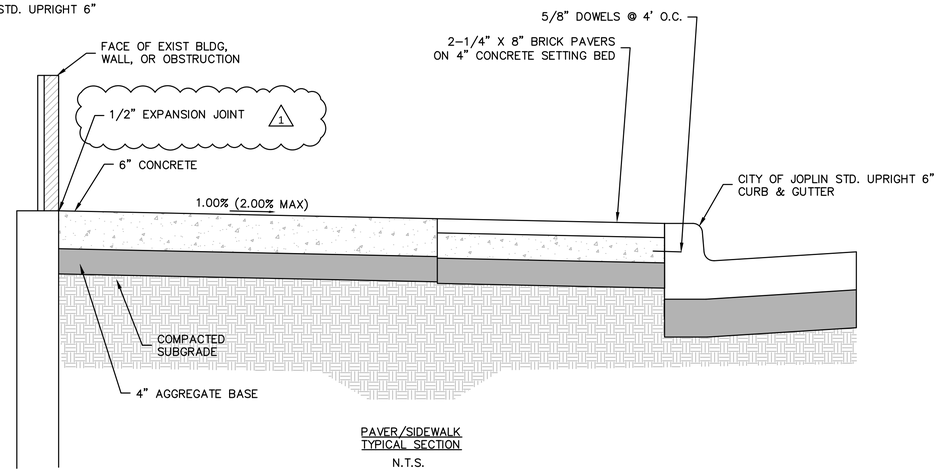
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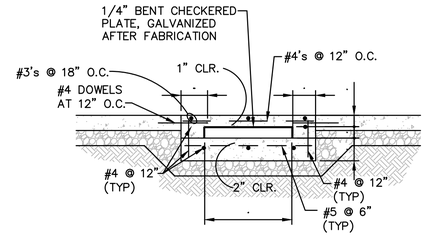
NOTE: BRICK MEASURES 4" BY 8"

PAVER BRICK PATTERN



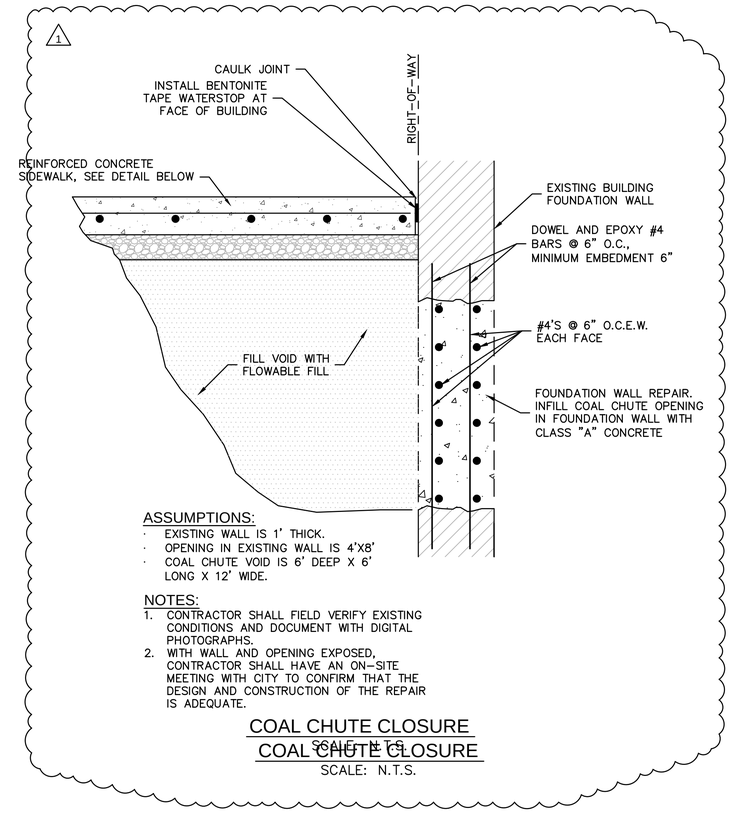
PAVER/SIDEWALK TYPICAL SECTION

N.T.S.



SIDEWALK STORM DRAIN ADJUSTMENT DETAIL

NOT TO SCALE



ASSUMPTIONS:

- EXISTING WALL IS 1' THICK.
- OPENING IN EXISTING WALL IS 4'X8'
- COAL CHUTE VOID IS 6' DEEP X 6' LONG X 12' WIDE.

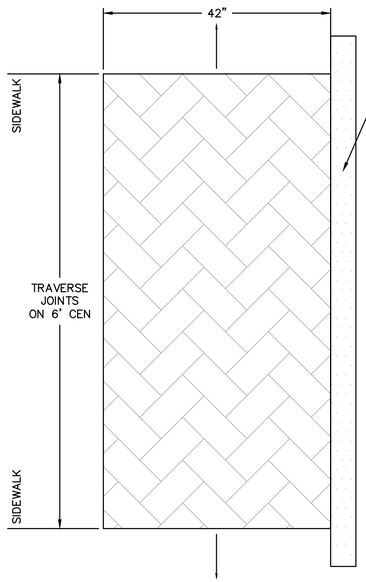
NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DOCUMENT WITH DIGITAL PHOTOGRAPHS.
2. WITH WALL AND OPENING EXPOSED, CONTRACTOR SHALL HAVE AN ON-SITE MEETING WITH CITY TO CONFIRM THAT THE DESIGN AND CONSTRUCTION OF THE REPAIR IS ADEQUATE.

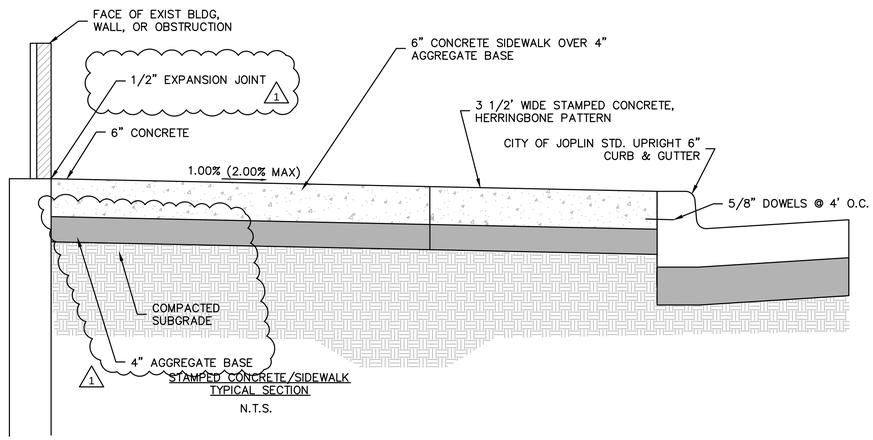
COAL CHUTE CLOSURE

COAL CHUTE CLOSURE

SCALE: N.T.S.



STAMPED CONCRETE PATTERN



STAMPED CONCRETE /SIDEWALK TYPICAL SECTION

N.T.S.

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PROFESSIONAL ENGINEER
5/14/2026

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1	5/13/2026	ADDENDUM #1 - COAL CHUTE CLOSURE DETAIL	

REVISIONS

STANDARD DETAILS

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

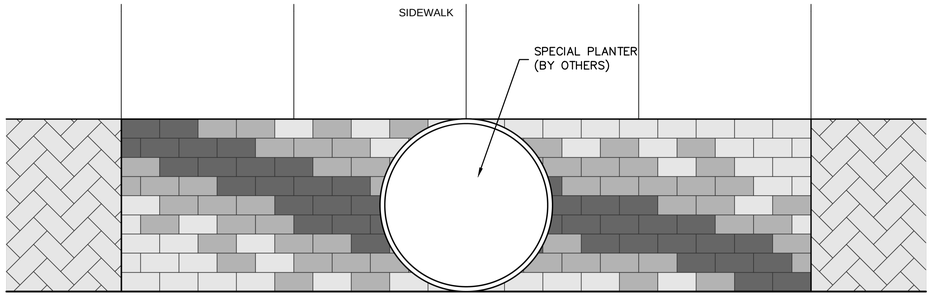
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JOPLIN, MO

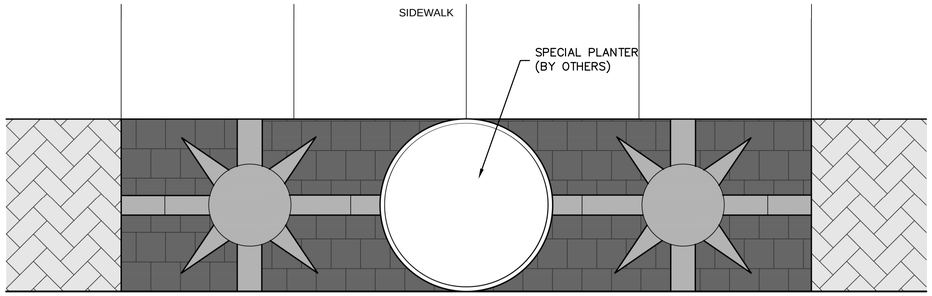
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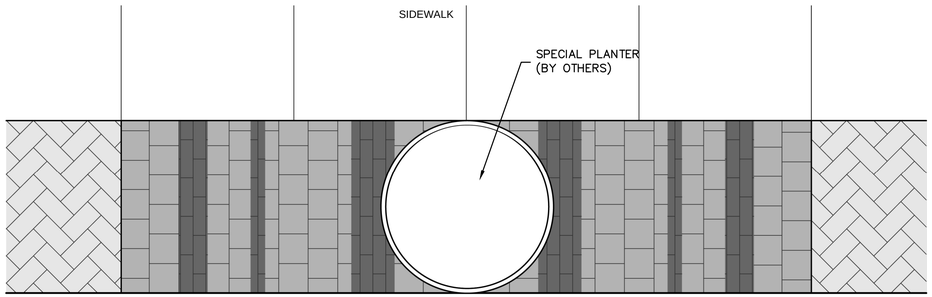
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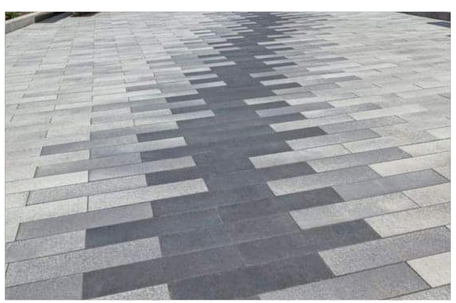
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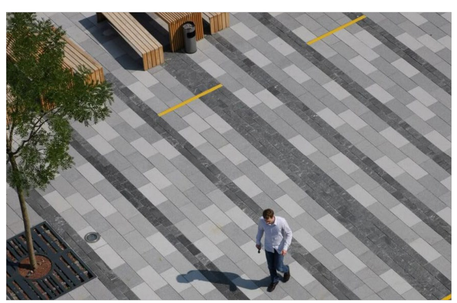


OPTION B



OPTION C





PRECEDENT IMAGES

MOSAIC PAVER LAYOUTS

1

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority # 001592
1027 S. Main Street, Suite 503 TEL 417.781.0643 www.olsson.com
Joplin, MO 64801

STATE OF MISSOURI
MICHAEL J. MAYFARTH
NUMBER PE-2023037181
PROFESSIONAL ENGINEER
5/14/2026

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	5/16/2026	ADDENDUM #1	

REVISIONS

STANDARD DETAILS
MOSAIC PAVER LAYOUTS & DECORATIVE PLANTER

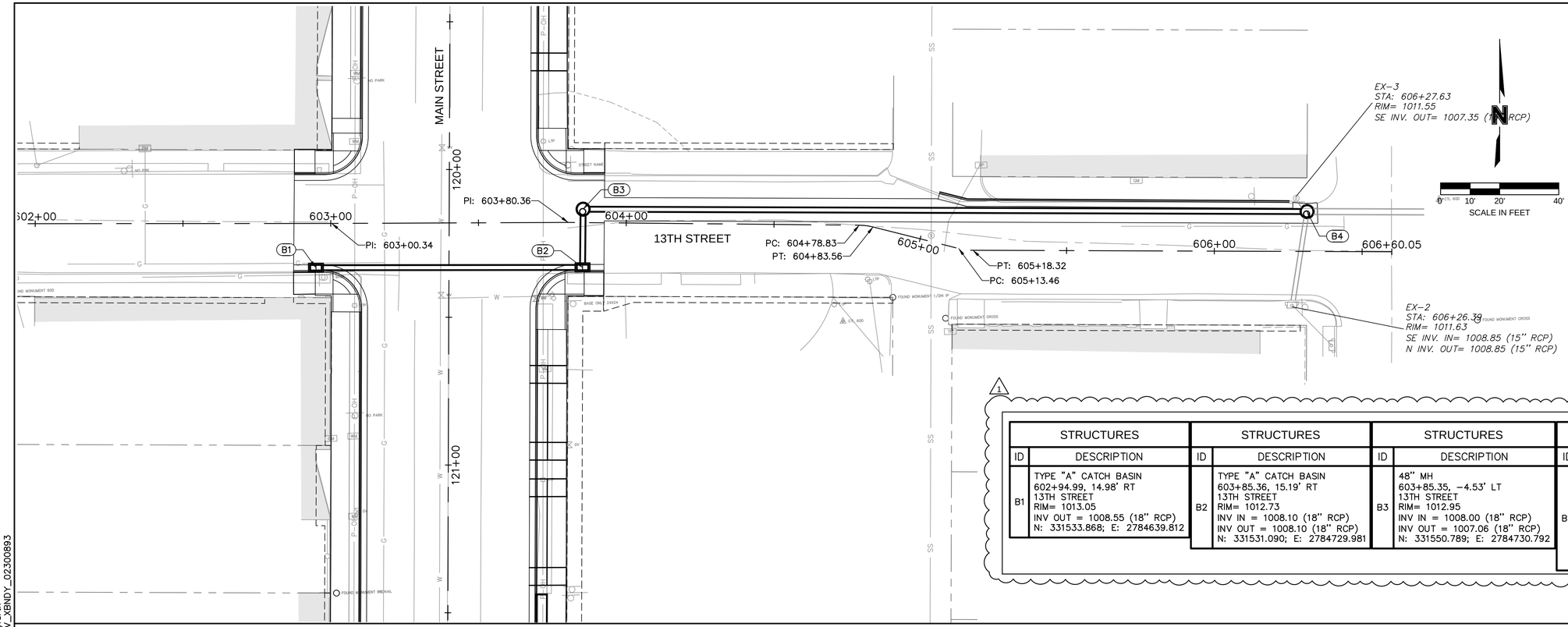
MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

JOPLIN, MO

2025

drawn by: CTK/MJM
checked by: MJM
approved by: JWP
QA/QC by: JWP
project no.: 023-00893
drawing no.:
date: 5.14.2026

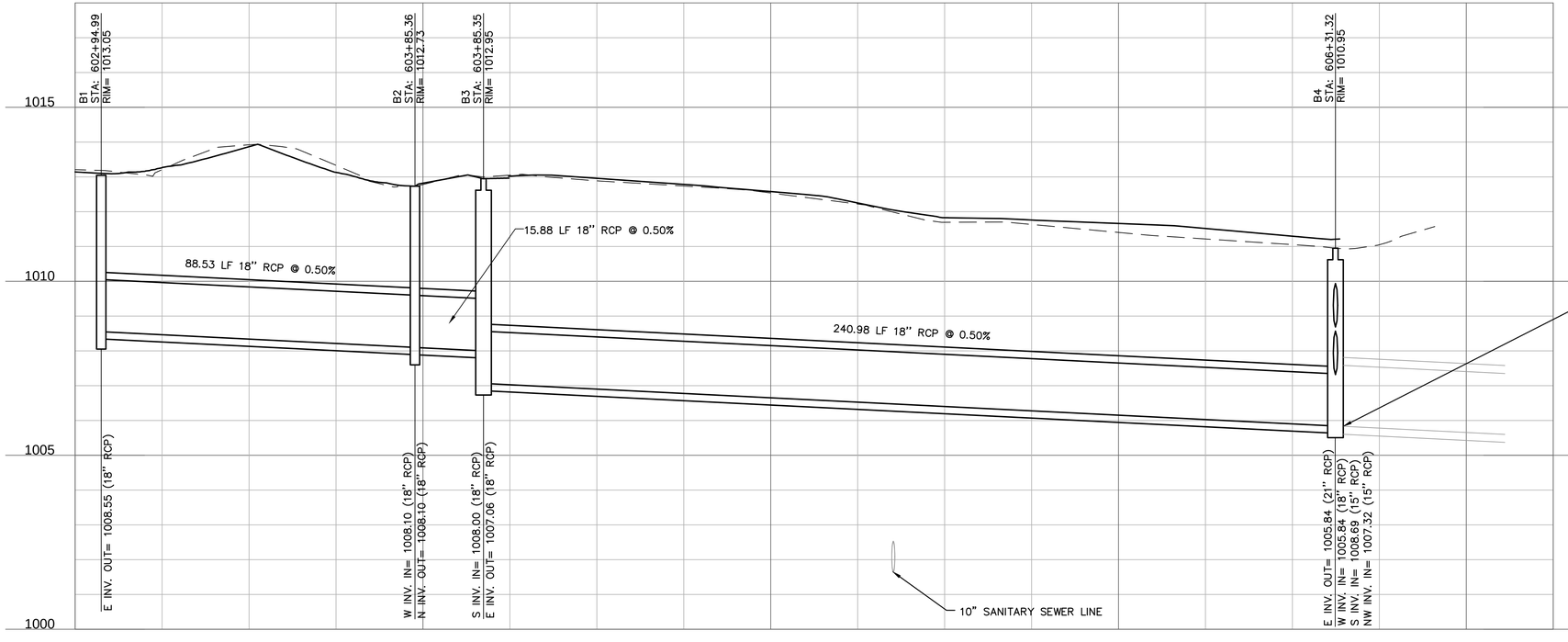
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DATE: May 14, 2026 3:26pm XREFS: T_PTBLK_02300893 T_PBASE_02300893 V_XTOPO_02300893_Combined



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STRUCTURES		STRUCTURES		STRUCTURES		STRUCTURES	
ID	DESCRIPTION	ID	DESCRIPTION	ID	DESCRIPTION	ID	DESCRIPTION
B1	TYPE "A" CATCH BASIN 602+94.99, 14.98' RT 13TH STREET RIM= 1013.05 INV OUT = 1008.55 (18" RCP) N: 331533.868; E: 2784639.812	B2	TYPE "A" CATCH BASIN 603+85.36, 15.19' RT 13TH STREET RIM= 1012.73 INV IN = 1008.10 (18" RCP) INV OUT = 1008.10 (18" RCP) N: 331531.090; E: 2784729.981	B3	48" MH 603+85.35, -4.53' LT 13TH STREET RIM= 1012.95 INV IN = 1008.00 (18" RCP) INV OUT = 1007.06 (18" RCP) N: 331550.789; E: 2784730.792	B4	48" MH 606+31.32, -13.50' LT 13TH STREET RIM= 1010.95 INV IN = 1005.84 (18" RCP) INV IN = 1008.69 (15" RCP) INV IN = 1007.32 (15" RCP) INV OUT = 1005.84 (21" RCP) N: 331542.198; E: 2784975.608

13TH & MAIN STORM LINE



NOTES:
RIM ELEVATIONS SHOWN ARE TO THE TOP OF THE CURB FOR INLETS.

UTILITY DEPTHS UNKNOWN. CONTRACTOR TO FIELD VERIFY. APPROXIMATE DEPTH PROVIDED.

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority # 001592
1027 S. Main Street, Suite 503
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
MICHAEL J. MAYFARTH
NUMBER PE-2023037181
5/14/2026
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	5/13/2026	ADDENDUM #1	

REVISIONS

STORM SEWER PLAN AND PROFILE

MAIN STREET STREETSCAPES
8TH ST TO 15TH ST

JOPLIN, MO

2025

drawn by: CTK/MJM
checked by: MJM
approved by: JWP
QA/QC by: JWP
project no.: 023-00893
drawing no.: T_STM01_02300893
date: 5.14.2026

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JOB SPECIAL PROVISION JSP-0400-04
SILVA CELL

400.1 Silva Cell

400.1.1 Description

Silva Cell is a proprietary modular suspended pavement system that uses soil volumes to support large tree growth and provide stormwater quality treatment through absorption, evapotranspiration, and interception. This bid item shall include all materials, labor, equipment, and all other appurtenant work to successfully install Silva Cell system for planting and paving, including Silva Cell assemblies and related accessories. Other materials necessary for completion of this bid item include, but are not limited to, geotextile, geogrid, aggregate, subbase material, backfill, and root barrier.

The term Silva Cell shall be used to refer to a single Silva Cell.

Silva Cells shall be modular, structural systems.

Each Silva Cell shall be structurally-independent from all adjacent Silva Cells for incorporating utilities and other site features as well as for future repairs.

Silva Cells shall be capable of supporting loads up to and including AASHTO H-20 (United States) when used in conjunction with approved pavement profiles. Silva Cells shall be open on all vertical faces and horizontal planes and shall have no interior walls or diaphragms.

Silva Cells shall be capable of providing a large, contiguous, continuous volume of planting soil that does not inhibit or prevent the following:

- Placement of planting soil
- Walk through compaction
- Compaction testing of planting soil, once in place
- Movement and growth of roots
- Movement of water within the provided soil volume, including lateral capillary movement
- Installation and maintenance of utilities placed within, adjacent to, or below the Silva Cell.

Silva Cells shall be able capable of being filled with a variety of soil types and soils that include peds 2 inches or larger in diameter as is appropriate for the application, location of the installation, and tree species.

400.1.2 Related Sections and Requirements

The following sections form a part of this specification to the extent referenced. The specifications are referred to within the text by the numeric designation only.

- Soil requirements are included in JSP-800 Stormwater Section 800.6.2.1 Bioretention Soil Mix
- JSP-800 Stormwater Section 800.5 PVC Underdrains
- JSP-800 Stormwater Section 800.9 Special Considerations for Green Infrastructure Earthwork

Related requirements

- Drawings and general provisions of the Contract, including General and Supplementary Conditions and Specification Sections, apply to this Section.
- City of Springfield General Conditions and Technical Specification for Public Improvements – Submittal Procedures: For administrative and procedural requirements for processing of submittals during the construction phase.
- City of Springfield General Conditions and Technical Specification for Public Improvements – Excavation and Embankment: For requirements for excavation and embankment.
- City of Springfield General Conditions and Technical Specification for Public Improvements – Closeout Procedures: For administrative and procedural requirements for completion of the Work.
- JSP 400 –Landscaping

400.1.3 Material

400.1.3.1 Manufacturer

400.1.3.1.1 Acceptable Manufacturers

DeepRoot Green Infrastructure, LLC
101 Montgomery Street, Suite 2850
San Francisco, CA, 94104

Phone: 415.781.9700
Toll Free: 800.458.7668
Fax: 415.781.0191
www.deeproot.com

400.1.3.1.2 Substitutions

Requests for substitutions may be submitted to the owner for approval. Substitutions must meet or exceed all the requirements of this specification and the product must be

equivalent in its design bearing capacity, cover requirements, and provided soil volume. Approval of substitutions will be at the sole discretion of the owner, and owner reserves the right to reject any product that it does not consider equivalent for any reason.

400.1.3.2 Silva Cell System (including deck, base, and posts)

Silva Cell System Components: Each "Silva Cell 3x Unit" soil cell module (hereafter Silva Cell or "cell") is composed of one base, 6 post assemblies, and one deck.

400.1.3.2.1 Silva Cell System

Components: One base, six 3x posts (a combination of six 1x posts and six 2x posts), and one deck.

Assembled Dimensions (Each Cell): 47.2 inches long by 23.6 inches wide by 43 inches high

400.1.3.2.2 Silva Cell Materials and Fabrication

Bases and Posts: Homopolymer polypropylene.

Decks: Fiberglass reinforced, chemically-coupled, impact modified polypropylene.

400.1.3.2.3 Manufacturer's Related Silva Cell Installation Accessories

Strongbacks: An accessory designed to stabilize the Silva Cell posts temporarily, during soil placement, and removed for reuse prior to placing decks.

Anchoring Pins: Threaded pins and crossbar for securing assembled Silva Cells to subbase.

400.1.3.3 Root Barrier

Recyclable, black, injection molded panels manufactured with a minimum 50 percent post-consumer recycled polypropylene plastic with UV inhibitors, and integrated zipper joining system which allows instant assembly by sliding one panel into another; for redirecting tree roots down and away from hardscapes.

Pre-approved products have been included. Substitutions

are allowed provided the product meets the specifications outlined below.

400.1.3.3.1 Panel Sizes

No. UB12-2: 24 inches long by 12 inches deep by 0.080 inches thick; for use with 1x systems and for pavement profiles less than 12 inches deep.

No. UB18-2: 24 inches long by 18 inches deep by 0.080 inches thick ; for use with 2x and 3x systems, and for pavement profiles 12 inches or more in depth.

400.1.3.3.2 Pre-approved Products

DeepRoot Tree Root Barrier (DeepRoot Green Infrastructure, LLC)

400.1.3.4 Geogrid

Net-shaped woven polyester fabric with PVC coating, uniaxial or biaxial geogrid, inert to biological degradation, resistant to naturally occurring chemicals, alkalis, and acids; used to provide a stabilizing force within soil structure as the fill interlocks with the grid.

Pre-approved products have been included. Substitutions are allowed provided the product meets the specifications outlined below.

400.1.3.4.1 Geogrid Specifications

- Tensile Strength At Ultimate (ASTM D6637): 1850 lbs/ft minimum
- Creep Reduced Strength (ASTM D5262): 1000 lbs/ft minimum
- Long Term Allowable Design Load (GRI GG-4): 950 lbs/ft minimum
- Grid Aperture Size (MD): 0.8 inch minimum
- Grid Aperture Size (CD): 1.28 inch maximum
- Roll size: 6-foot width is preferred, up to 18-foot.

400.1.3.4.2 Pre-approved Products

- Stratagrid SG 150; http://www.geogrid.com
- Miragrid 2XT; http://www.tencate.com
- Fortrac 35 Geogrid; http://www.hueskerinc.com
- SF 20 Biaxial Geogrid; http://www.synteen.com

400.1.3.5 Geotextile

Composed of high tenacity polypropylene yarns which are woven into a network such that the yarns retain their relative position and is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

Pre-approved products have been included. Substitutions are allowed provided the product meets the specifications outlined below.

400.1.3.5.1 Geotextile Specifications

- Grab tensile strength (ASTM D4632): 200 lbs minimum
- Elongation (ASTM D4632): 50 percent minimum
- Trapezoid tear strength (ASTM D4533): 80 lbs minimum
- Mullen burst strength (ASTM D3786): 350 psi Puncture strength (ASTM D4833): 110 lbs minimum
- CBR puncture strength (ASTM D6241): 500 lbs minimum
- Apparent opening size (ASTM D4751): 80 sieve maximum
- Flow rate (ASTM D4491): 90 gal/min/ft2 minimum
- UV Resistance (at 500 hours): 70 percent strength retained

400.1.3.5.2 Pre-approved Products

- ADS Geosynthetics 0801T (ADS Geosynthetics); http://www.ads-pipe.com
- Mirafi 180 N (TenCate Nicolon); Norcross, GA; http://www.tencate.com
- Geotex 801 (Propex Geosynthetics); Chattanooga, TN: http://www.geotextile.com

400.1.3.6 Plastic Cable Ties

A tensioning device or tool used to tie similar or different materials together with a specific degree of tension.

400.1.3.7 Distribution Pipes

Distribution Pipes shall be single wall, high-density corrugated polyethylene pipe. Pipe and fitting material shall be high density polyethylene conforming with the minimum requirements of cell classification 323410C or 333410C as defined and described in the latest version of ASTM D3350. Perforations shall be 3 slot style and

be spaced with 120 degree separation, rotated 60 degrees every other valley.

400.1.3.8 Aggregate Subbase (Below Silva Cell Base)

Aggregate shall conform to ASTM No. 57.

400.1.3.9 Aggregate Base Course (Above Silva Cell Deck)

Same as aggregate subbase specified above.

400.1.3.10 Backfill Material (Adjacent to Silva Cells)

Clean, compactable, coarse grained fill soil free of organic material, trash and other debris, and free of toxic material injurious to plant growth.

400.1.3.11 Planting Soil (Bioretention Soil Mix)

The bioretention soil mix filter bed thickness (df) shall be a minimum of 18 inches for pollutant removal and plant health in bioretention with a graded filter that contains an underdrain. A greater depth may be needed to accommodate trees.
The bioretention soil mix shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches excluding mulch. For best results, it should be free of noxious weed seeds. The bioretention soil mix shall meet the following specifications:

- Compost: 10 to 15 percent
- Topsoil: 85 to 90 percent (per JSP 400.1.2.1 except coarse sand is required to be a min of 35% and max of 60% in the grain size analysis)

A saturated hydraulic conductivity of k = 1 foot/day is recognized for a mix meeting these criteria.

A. Coarse Sand (Topsoil Amendment)

Coarse sand, [ASTM] C-33 Fine Aggregate, with a Fines Modulus Index of 2.8 and 3.2.
Sands shall be clean, sharp, natural sands free of limestone, shale and slate particles.
Sand pH shall be lower than 7.5.
Provide the following particle size distribution:

Sieve Size	Percent (%) Passing
3/8 inch	100
#4	95 to 100
#8	80 to 100

#16	50 to 85
#30	25 to 60
#50	5 to 30
#100	4 to 10
3200	2 to 4

B. Compost

Compost shall meet the requirements of the US Composting Council "Architecture/Design Specifications for Compost Use", section *Compost as a Landscape Backfill Mix Component*, with the following additional requirements:

- Compost feedstock shall be yard waste trimmings and/or source-separated municipal solid waste to produce fungi-dominated compost. Compost shall not be derived from biosolids or industrial residuals.
- Compost physical appearance: compost shall be dark brown approximately the color of a 70 percent dark chocolate bar or darker. Particles of compost when broken shall be the same color inside as outside.
- Compost odor: compost shall have a strong, sweet, aerobic odor indicating active biological activity. Compost with a sour anaerobic odor (indicating composting in excessive water) or an odor similar to denatured alcohol (indicating incomplete composting) shall be rejected.
- Compost testing and analysis: compost analysis shall be provided by the compost supplier. Before delivery of the compost, the supplier must provide the following documentation:
    - A statement that the compost meets federal and state health and safety regulations.
    - Compost testing methodologies and sampling procedures shall be as provided in Test methods for the Examination of Composting and Compost (TMECC), as published by the US Composting Council.

C. Topsoil (for Bioretention)

Topsoil shall meet the requirements of JSP 400.1.2.1 Topsoil.

400.1.4 Administrative Requirements

400.1.4.1 Preinstallation Conference

Prior to installation of the Silva Cell system and associated Work, meet with the Contractor, Silva Cell system installer and their field

supervisor, manufacturer's technical representative, the Engineer, the Owner at the Owner's discretion, and other entities concerned with the Silva Cell system performance.

Provide at least 72 hours advance notice to participants prior to convening preinstallation conference.

Introduce and provide a roster of individuals in attendance with contact information.

The preinstallation conference agenda will include, but is not limited to the review of:

- Required submittals both completed and yet to be completed.
- The sequence of installation and the construction schedule.
- Coordination with other trades.
- Details, materials and methods of installation.
    - Review requirements for substrate conditions, special details, if any, installation procedures.
    - Installation layout, procedures, means and methods.
- Mock-up requirements.

400.1.4.2 Sequencing and Scheduling

Prior to beginning Work of this Section, prepare a detailed schedule of the Work involved for coordination with other trades.

Schedule utility installations prior to beginning Work of this Section.

Where possible, schedule the installation of the Silva Cell system after the area is no longer required for use by other trades and Work. Where necessary to prevent damage, protect installed system if Work must occur over or adjacent to the installed Silva Cell system.

400.1.4.3 Submittals

400.1.4.3.1 Action Submittals

Submit these to the Engineer for review and acceptance not less than 45 days prior to start of installation of materials and products specified in this Section.

- Product Data: For each type of product, submit manufacturer's product literature with technical data sufficient to demonstrate that the product meets these specifications.

- Test and Evaluation Reports:
  - Submit results of compaction testing required by the Specifications for approval.
  - Include analysis of bulk materials including soils and aggregates, by a recognized laboratory that demonstrates that the materials meet the Specification requirements.
- Samples:
  - One full size sample of an assembled Silva Cell.
  - One 6-inch square piece of geogrid.
  - One 6-inch square piece of geotextile.
- Manufacturer's Report: Submit Silva Cell system manufacturer's letter of review and approval of the Project, including Drawings and Specifications, Addenda, Clarifications and Modifications, and for compliance with product installation requirements.
- Qualification Statements:
  - Manufacturer:
    - Submit list of completed projects demonstrating durability and longevity of in-place systems.
    - Include project name, location, and date of completion.

400.1.4.3.2 Closeout Submittals

Submit in accordance with City of Springfield General Conditions and Technical Specification for Public Improvements.

400.1.4.4 Quality Assurance

Comply with applicable requirements of the laws, codes, ordinances and regulations of Federal, State and Municipal authorities having jurisdiction. Obtain necessary permits/approvals from these authorities.

400.1.4.4.1 Manufacturer Qualifications

A manufacturer whose product is manufactured in an ISO/TS 16949 compliant and ISO 9001 - 2008 registered factory.

A manufacturer with not less than 100 Silva Cell systems in-place, each system in use for not less than 3 years, confirming durability and longevity of the system.

A manufacturer with documented written approval of their product for use as a stormwater treatment device by a minimum of 3 governmental jurisdictions.

A manufacturer with an established and demonstrated utility service and repair process, including written procedure and photographs demonstrating work.

400.1.4.4.2 Mock-Up

Prior to the installation of the Silva Cell system, construct a mock-up of the complete installation at the Project site in the presence of the Landscape Architect.

- Size and Extent: Minimum of 100 sq. ft. (10 sq. m.) in area and including the complete Silva Cell system installation with subbase, aggregate subbase, drainage installation, Silva Cell decks, posts, and bases, base course aggregate, geotextile, geogrid, backfill, planting soil, and necessary accessories.
- The mock-up area may remain as part of the installed Work at the end of the Project provided that it remains undamaged and meets the requirements of the Drawings and Specifications.

400.1.4.5 Delivery, Storage, and Handling

400.1.4.5.1 Silva Cell System

- Protect Silva Cell system components from damage during delivery, storage and handling.
- Store components on smooth surfaces, free from dirt, mud and debris. Store under tarp to protect from sunlight when time from delivery to installation exceeds one week.
- Perform handling with equipment appropriate to the size (height) of Silva Cells and site conditions; equipment may include, hand, handcart, forklifts, extension lifts, or small cranes, with care given to minimize damage to Silva Cell bases, posts, decks and adjacent assembled Silva Cells.

400.1.4.5.2 Packaged Materials

Deliver packaged materials in original, unopened containers indicating weight, certified analysis, name and address of manufacturer, and indication of conformance with State and

Federal laws, if applicable. Protect materials from deterioration during delivery and while on the Project site.

400.1.4.5.3 Bulk Materials

Do not deliver or place backfill, soils, or soil amendments in frozen, wet, or muddy conditions.

Provide protection including tarps, plastic and/or matting between bulk materials and finished surfaces sufficient to protect the finish material.

Bring planting soil to the site using equipment and methods that do not overly mix and further damage soil peds within the soil mix.

400.1.4.5.4 Erosion and Sediment Control

Provide erosion-control measures to prevent erosion or displacement of bulk materials and discharge of soil-bearing water runoff or airborne dust to adjacent properties, water conveyance systems, and walkways. Provide additional sediment control to retain excavated material, backfill, soil amendments and planting mix within the Project limits as needed.

400.1.4.6 Field Conditions

Existing Conditions: Do not proceed with Work when subgrades, soils and planting soils are in a wet, muddy or frozen condition.

400.1.4.7 Warranty

The Contractor shall warrant the Silva Cell system to be free of faults and defects in accordance with the General Conditions, except that the warranty shall be extended by manufacturer's written warranty against defects in materials and workmanship as follows:

- DeepRoot® warrants to the original purchaser of its Silva Cell™ product that such product will be free from defects in materials and workmanship, and perform to DeepRoot's written specifications for the warranted product, when installed and used as specifically provided in the product's installation guidelines for a period of 20 years from the date of purchase. This warranty does not cover wear from normal use, or damage caused by abuse, mishandling, alterations, improper installation and/or assembly, accident, misuse, or lack of reasonable care of the product. This warranty does not apply

to events and conditions beyond DeepRoot's control, such as ground subsidence or settlement, earthquakes and other natural events, acts of third parties, and/or Acts of God. If this warranty is breached, DeepRoot® will provide a replacement product. Incurred costs, such as labor for removal of the original product, installation of replacement product, and the cost of incidental or other materials or expenses are not covered under this warranty.

- Deeproot® makes no other warranties, express or implied, and specifically disclaims the warranty of merchantability or fitness for a particular purpose. Deeproot® shall not be liable either in tort or in contract for any direct, incidental or consequential damages, lost profits, lost revenues, loss of use, or any breach of any express or implied warranty.

400.1.5 Construction Requirements

400.1.5.1 Examination

Examine the conditions under which the Silva Cells are to be installed.

- Carefully check and verify dimensions, quantities, and grade elevations.
- Carefully examine the Drawings to become familiar with the existing underground conditions before digging. Verify the location of aboveground and underground utility lines, infrastructure, other improvements, and existing trees, shrubs, and plants to remain including their root system.
- Notify the Contractor and the Engineer in writing in the event of conflict between existing and new improvements, of discrepancies, and other conditions detrimental to proper and timely completion of the installation.
- Obtain written approval of changes to the Work prior to proceeding. Proceed with installation only after changes have been made and unsatisfactory conditions have been corrected.

400.1.5.2 Preparation

Take proper precautions as necessary to avoid damage to existing improvements and plantings.

Prior to the start of Work, layout and stake the limits of excavation and horizontal and vertical control points sufficient to install the complete Silva Cell system.

Coordinate installation with other trades that may impact the completion of the Work.

400.1.5.3 Temporary Protection

Protect open excavations and Silva Cell system from access and damage both when Work is in progress and following completion, with highly visible construction tape, fencing, or other means until related construction is complete.

Do not drive vehicles or operate equipment over the Silva Cell system until the final surface material has been installed.

400.1.5.4 Excavation

General: Excavate to the depths and shapes indicated on the Drawings. Provide smooth and level excavation base free of lumps and debris.

Confirm that the depth of the excavation is accurate and includes the full section of materials required to place the subbase aggregate, Silva Cell, and pavement profile as indicated on the Drawings.

Over-excavate beyond the perimeter of the Silva Cell to allow for:

- The extension of aggregate subbase beyond the Silva Cell layout as shown on the Drawings.
- Adequate space for proper compaction of backfill around the Silva Cell system.

If unsuitable subgrade soils are encountered, consult the Owner's geotechnical consultants for directions on how to proceed.

If conflicts arise during excavation, notify the Engineer in writing and make recommendations for action. Proceed with Work only when action is approved in writing.

400.1.5.5 Subgrade Compaction

Compact subgrade to a minimum of 95 percent of maximum dry density at optimum moisture content in accordance with ASTM D698, Standard Proctor Method, or as approved by the Owner’s geotechnical representative.

Do not exceed 7 percent slope for subgrade profile in any one direction. If the 7 percent slope is exceeded, contact manufacturer's representative for directions on how to proceed.

400.1.5.6 Installation of Geotextile Over Subgrade

Install geotextile over compacted subgrade.

- Lay geotextile flat with no folds or creases.
- Install the geotextile with a minimum joint overlap of 18 inches (450 mm).

400.1.5.7 Installation of Aggregate Subbase Below Silva Cell Bases

Install aggregate subbase to the depths indicated on the Drawings.

Extend subbase aggregate a minimum of 6 inches (150 mm) beyond the base of the Silva Cell layout.

Compact aggregate subbase to a minimum of 95 percent of maximum dry density at optimum moisture content in accordance with ASTM D698, Standard Proctor Method.

Do not exceed 7 percent slope on the surface of the subbase. Where proposed grades are greater than 7 percent, step the Silva Cells to maintain proper relation to the finished grade.

400.1.5.8 Installation of Silva Cell Base

Install the Silva Cell system in strict accordance with the manufacturer's instructions and as specified herein; where requirements conflict or are contradictory, follow the more stringent requirements.

Layout and Elevation Control:

- Provide layout and elevation control during installation of the Silva Cell system to ensure that layout and elevations are in accordance with the Drawings.

Establish the location of the tree openings in accordance with the Drawings. Once the trees are located, mark the inside dimensions of the tree openings on the prepared subbase.

Locate and mark other Project features located within the Silva Cell layout (e.g. light pole bases, utility pipes). Apply marking to identify the extent of the Silva Cell layout around these features. Follow the layout as shown on the Drawings to ensure proper spacing of the Silva Cell bases. Refer to the Drawings for offsets between these features and the Silva Cells.

Check each Silva Cell component for damage prior to placement.

Reject cracked or chipped units.
Place the Silva Cell bases on the compacted aggregate subbase. Start at the tree opening and place Silva Cell bases around the tree openings as shown on the Drawings.

Working from tree opening to tree opening, place Silva Cell bases to fill in the area between tree openings.

- Maintain spacing no less than 1 inch and no more than 4 inches apart.

Follow the Silva Cell layout plan as shown on the Drawings.

Install Silva Cell bases around, over, or under existing or proposed utility lines, as indicated on the Drawings.

Level each Silva Cell base as needed to provide full contact with subbase. Adjust subbase material, including larger pieces of aggregate, so each base sits solidly on the surface of the subbase. Silva Cell bases that rock or bend over any stone or other obstruction protruding above the surface of the subbase material are not allowed. Silva Cell bases which bend into dips in the subbase material are not allowed. The maximum tolerance for deviations in the plane of the subbase material under the bottom of the horizontal beams of each Silva Cell base is 1/4 inch in 4 feet.

Anchor Silva Cell base with 2 crossbar/pin assemblies per base.

- For applications where Silva Cells are installed over waterproofed structures, use wood blocking or similar spacing system consistent with requirements of the waterproofing system to maintain required spacing.

400.1.5.9 Installation of Silva Cell Posts

3x Silva Cell System:

- Attach 2x posts to the installed Silva Cell base. Each base will receive six 2x posts. Place the end of the post with tabs into the base. Rotate post clockwise to snap in place.
- Following the placement of backfill and planting soil within the 2x posts, add a 1x post extension as described herein. A 2x post, used in combination with a 1x post is considered a 3x post assembly.

400.1.5.10 Installation of Strongbacks, Geogrid, Backfill and Planting Soil

For Silva Cell systems that have a perforated drain line located inside or adjacent to the system, consult Drawings for layout and details.

Install strongbacks on top of the Silva Cell posts by snapping into place over installed posts prior to installing planting soil and backfill.

- Strongbacks are required only during the placement and compaction of the planting soil and backfill.
- Move strongbacks as the Work progresses across the installation.
- Remove strongbacks prior to the installation of the Silva Cell decks.

Install geogrid around the perimeter of the Silva Cell system where the compacted backfill and planting soil interface.

- Do not place geogrid between the edge of the Silva Cells and adjacent planting areas.
- Cut the geogrid to allow for a 6-inch overlap at the Silva Cell base and a 12-inch overlap at the Silva Cell deck.
- Provide a minimum 12-inch overlap between adjacent sheets of geogrid.
- Secure geogrid with cable ties below the top of the posts, along the post ridges.

Place the first lift of backfill material loosely around the perimeter of the Silva Cell system, between the geogrid and the sides of the excavation. Place backfill to approximately the midpoint of the Silva Cell post. Do not compact.

Place the first lift of planting soil in the Silva Cell system to approximately the midpoint of the Silva Cell post.

- Level the planting soil throughout the system.
- Walk-through the placed planting soil to remove air pockets and settle the soil. Do not compact greater than 80 percent of maximum dry density in accordance with ASTM D698, Standard Proctor Method.

- Check placed soil for compaction with a penetrometer or densitometer or similar.

Compact the first lift of backfill material, previously spread, to 95 percent of maximum dry density in accordance with ASTM D698, Standard Proctor Method or in accordance with Project Specifications for hardscape areas, whichever is greater.

Add and compact additional backfill material so that the final finished elevation is at approximately the same level of the placed planting soil within the Silva Cells.

- Maintain the geogrid between the Silva Cell system and the backfill material at all times.

Place the second lift of backfill material loosely around the perimeter of the Silva Cell system, between the geogrid and the sides of the excavation so that the material is 2 to 3 inches below the top of the posts. Do not compact.

Place the second lift of planting soil inside of the Silva Cell to the bottom of the strongbacks. Walk through.

Remove strongbacks, place one 1x posts into each of the previously-installed 2x posts. Rotate clockwise to snap in place, forming a 3x post assembly.

Immediately reinstall strongbacks on top of the post assembly.

Repeat process of alternately placing backfill and planting soil so that elevation of the compacted backfill and the walked-through planting soil are just below the level of the strongbacks.

400.1.5.11 Installation of Irrigation

Install irrigation in accordance with the Drawings and Specifications. Remove only the minimum number of strongbacks needed to accommodate the Work and reinstall them immediately upon completion to maintain alignment of posts.

400.1.5.12 Installation of Silva Cell Deck

Obtain final approval by the Engineer of planting soil installation prior to installation of the Silva Cell decks.

Remove strongbacks, level out the planting soil, and immediately install decks over the posts below. Place deck over the top of the

posts. Push decks down until the deck clips lock into the posts, snapping the deck into place.

Fold the 12 inches (300 mm) of geogrid onto the top of the decks.

400.1.5.13 Final Backfill Placement and Compaction

Place and compact final lift of backfill material to 95 percent of maximum dry density in accordance with ASTM D698, Standard Proctor Method, such that the backfill is flush with the top of the installed deck. Do not allow compacting equipment to come in contact with the decks.

400.1.5.14 Installation of Geotextile and Aggregate Base Course Over the Deck

Place geotextile over the top of the deck and extend to the edge of the excavation. Overlap joints a minimum of 18 inches. Leave enough slack in the geotextile for the aggregate base course to push the geotextile down in the gaps in between the decks.

Install the aggregate base course (including aggregate setting bed if installing unit pavers) over the geotextile immediately after completing the installation of the fabrics. Work the aggregate from one side of the layout to the other so that the fabric and aggregate conform to the Silva Cell deck contours.

Maintain equipment used to place aggregate base course completely outside the limits of the Silva Cell excavation area to prevent damage to the installed system.

For large or confined areas, where aggregate cannot easily be placed from the edges of the excavated area, obtain approval for the installation procedure and types of equipment to be used in the installation from the Silva Cell manufacturer.

Compact aggregate base course(s) to 95 percent of maximum dry density in accordance with ASTM D698, Standard Proctor Method. Utilize a vibration or plate compactor with a maximum weight of 800 lbs.

Do not drive vehicles or operate equipment over the completed aggregate base course.

400.1.5.15 Installation of Concrete Curbs at Tree Openings, Aggregate Subbase and Pavement Above the Silva Cell System

Place concrete curbs along planting areas and tree openings as shown on the Drawings to retain the aggregate base course from migrating into the planting soil.

When staking concrete forms (e.g. curbs around the tree openings), prevent stakes from penetrating the Silva Cell decks.

Turn down edge of concrete paving to the Silva Cell deck along the edges of tree openings or planting areas to retain the aggregate base course material.

When paving type is a unit paver or other flexible material, provide a concrete curb under the paving at the edge of the Silva Cell deck to retain the aggregate base course material at the tree opening.

Place paving material over Silva Cell system in accordance with the Drawings.

- The Silva Cell system does not fully meet loading strength until the final paving is installed. Do not operate construction equipment on top of the Silva Cell system until paving installation has been completed.

Use care when placing paving or other backfill on top of Silva Cell system to prevent damage to the Silva Cell system or its components.

400.1.5.16 Installation of Root Barriers

Install root barrier in accordance with manufacturer's installation instructions.

400.1.5.17 Installation of Planting Soils Within the Tree Planting Area

Remove rubble, debris, dust and silt from the top of the planting soil within the tree opening that may have accumulated after the initial installation of the planting soil within the Silva Cells.

Install additional planting soil within the tree openings, to the depths indicated on the Drawings.

- Use the same soil used within the Silva Cells for planting soil within the tree openings.

Compact planting soil under the tree root ball to between 85 and 90 percent of maximum dry density in accordance with ASTM D698, Standard Proctor Method, to prevent settlement of the root ball.

Place trees in accordance with the Drawings.

400.1.5.18 Protection

Keep construction traffic away from the limits of the Silva Cells until the final pavement profile is in place. The Silva Cell system does not fully meet loading strength until the final paving is installed.

- Do not operate equipment directly on top of the Silva Cell system until paving installation has been completed.
- Provide fencing and other barriers to prevent vehicles from entering into the Silva Cell area.

When the Silva Cell installation is completed and the permanent pavement is in place, limit traffic and construction related activities to only loads less than the design loads.

400.1.5.19 Clean Up

Perform clean up during installation and upon completion of the Work. Maintain the site free of soil, sediment, trash and debris. Remove excess soil materials, debris, and equipment from the site following completion of the Work of this Section.

Repair damage to adjacent materials and surfaces resulting from installation of this Work using mechanics skilled in remedial work of the construction type and trades affected.

400.1.6 Method of Measurement: Silva Cell shall be measured by Cubic Foot.

400.1.7 Basis of Payment

This bid item shall be paid at the contract cubic foot bid price and shall include, but is not limited to, the cost of furnishing all labor, equipment, tools, and materials; for excavation, aggregate bedding, backfill, and compaction; and for performance of all necessary work to install Silva Cell.

Payments will be made under:

Item JSP-400.6.7.1 Silva Cell – per CF

JOB SPECIAL PROVISION JSP-0400-05
MOSAIC BRICK PAVER

400.2 Mosaic Brick Paver

400.2.1 General

400.2.1.1 Summary

A. This Section includes the following:
B. Mosaic Brick pavers set on concrete base with a sand setting bed.

400.2.1.2 Submittals

A. Product Data: For each product indicated.
B. Samples: Showing the full range of colors, textures, and patterns available for each type of unit paver indicated.
   1. Include Samples of material for joints and accessories involving color selection.
C. Shop Drawings: Showing dimensions, colors, paver sizes, and layout.
D. Mock-up of all colors and patterns, 10’ x 10’.

400.2.1.3 Related Documents

Drawings and General Provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

400.2.1.4 Project Conditions

Cold-Weather Protection: Do not use frozen materials or build on frozen subgrade or setting beds.

400.2.2 Products

400.2.2.1 Manufacturers

A. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified. All paving stones shall be produced by a single source manufacturer. Installed per manufacturers recommendations and specifications.
   1. Concrete Pavers: as shown on the plans
      a. Concrete Paver #1: Techo-Bloc, Blue 60 mm, Smooth Texture, 13”x 6.5”, Beige Cream color, or

approved equal. Submit shop drawings and samples for review and approval by Landscape Architect. Install per manufacturers recommendations and specifications. Contractor shall provide up to two (2) mock-ups of different colors for review and approval. Contact Carla Schrader at Techo-Bloc (ph) 224.275.5657.

b. Concrete Paver #2: Techo-Bloc, Valet, Smooth Texture, 6.5”x 6.5”, Shale Grey color, or approved equal. Submit shop drawings and samples for review and approval by Landscape Architect. Install per manufacturers recommendations and specifications. Contractor shall provide up to two (2) mock-ups of different colors for review and approval. Contact Carla Schrader at Techo-Bloc (ph) 224.275.5657

c. Concrete Paver #3: Techo-Bloc, Valet, Smooth Texture, 6.5”x 6.5”, Champlain Gray color, or approved equal. Submit shop drawings and samples for review and approval by Landscape Architect. Install per manufacturers recommendations and specifications. Contractor shall provide up to two (2) mock-ups of different colors for review and approval. Contact Carla Schrader at Techo-Bloc (ph) 224.275.5657

400.2.2.2 Accessories

A. Cork Joint Filler: Preformed strips complying with ASTM D 1752, Type II.
B. Compressible Foam Filler: Preformed strips complying with ASTM D 1056, Grade 2A1.

400.2.2.3 Setting-Bed Materials - Mortar

A. As shown on plans
B. Per paver manufacturers recommendations.

400.2.2.4 Setting-Bed Materials - Sand

A. Graded Aggregate for Base: Aggregate shall be Type 2, Class B Aggregate Base as specified in the Standard Specifications.

B. Geotextile: Woven or nonwoven polyester or polypropylene geotextile, with a permeability rating 10 times greater than that of subgrade soil and an apparent opening size small enough to prevent passage of fines from leveling course into base course.
C. Concrete base: pedestrian pavement design
D. Sand Dry Setting Bed, Leveling Course:
    1. Sand for Leveling Course: Sound, sharp, washed sand complying with gradation requirements of ASTM C 33-03 for fine aggregate.
E. Sand for Joints: Sharp, washed sand with 100 percent passing No. 16 sieve.

400.2.2.5 Sealers and Joint Sand Stabilizers

A. Joint Sand Stabilizer: Joint sand shall be stabilized that meets the requirements of ASTM C150. Stabilizer shall be dry mixed and applied with the joint sand.
B. Joint and Paver Sealer: Surebond SB-1300-1370 sealer. Surebond, Inc., 2801 International Lane, Madison, WI 53704, 1-877-843-1818. Per paver recommendation and specifications.

400.2.3 Execution

400.2.3.1 Installation, General

A. Mix pavers from several pallets or cubes, as they are placed, to produce uniform blend of colors and textures.
B. Perimeter pavers can be field cut with motor-driven masonry saw to provide pattern indicated and to fit adjoining concrete work neatly. Interior paver pattern shall be established by the manufacturer and shall not be field cut. Use full units without cutting where possible.
C. Tolerances: Do not exceed 1/16-inch unit-to-unit offset from flush or 1/8 inch in 24 inches and 1/4 inch in 10 feet from level, or indicated slope.
D. Expansion and Control Joints: Provide joint filler as backing for sealant-filled joints where indicated. Install joint filler before setting pavers.

400.2.3.2 Mortar Setting-Bed Applications

Reference paver manufactures recommendations.

400.2.3.3 Sand Setting-Bed Applications

A. Place dry sand leveling course in concrete channel as

shown on the drawings and screed to a thickness of 1 to 1-1/2 inches, taking care that moisture content remains constant and density is loose and constant until pavers are set and compacted.

B. Treat leveling base with soil sterilizer to inhibit growth of grass and weeds.

C. Set pavers with a minimum joint width of 1/16 inch and a maximum of 1/8 inch, being careful not to disturb leveling base. If pavers have spacer bars, place pavers hand tight against spacer bars.

D. Vibrate pavers into leveling course with a low-amplitude plate vibrator capable of a 3500- to 5000-lbf compaction force at 80 to 90 Hz.

E. Spread dry sand and fill joints immediately after vibrating pavers into leveling course. Vibrate pavers and add sand until joints are completely filled, then remove excess sand. Leave a slight surplus of sand on the surface for joint filling.

F. Apply joint and paver sealer per manufactures recommendations.

400.2.4 Method of Measurement: "Mosaic Brick Pavers" shall not be measured for payment and shall be quantified by Lump Sum. No separate measurement shall be made for bituminous sand laying course, sealer, concrete base, aggregate subbase, subgrade preparation, labor, and related materials to provide a finished product as intended by the Contract Documents.

400.2.5 Basis of Payment

Item Mosaic Brick Paver – per LS

JOB SPECIAL PROVISION JSP-0400-06
BRICK PAVER

400.3 Brick Paver

400.3.1 General

400.3.1.1 Summary

C. This Section includes the following:
D. Brick pavers set on concrete base with a sand setting bed.

400.3.1.2 Submittals

E. Product Data: For each product indicated.
F. Samples: Showing the full range of colors, textures, and patterns available for each type of unit paver indicated.
   1. Include Samples of material for joints and accessories involving color selection.
G. Shop Drawings: Showing dimensions, colors, paver sizes, and layout.
H. Mock-up of selected color and pattern shown in plans, 3’ x 9’.

400.3.1.3 Related Documents

Drawings and General Provisions of the Contract, City of Joplin Standard Specifications and Standard Plans apply to this Section.

400.3.1.4 Project Conditions

Cold-Weather Protection: Do not use frozen materials or build on frozen subgrade or setting beds.

400.3.2 Products

400.3.2.1 Brick Pavers

B. Subject to compliance with requirements, provide products by the manufacturers specified. All paving stones shall be produced by a single source manufacturer. Installed per manufacturers recommendations and specifications. Brick pavers will be supplied by the contractor. Brick pavers supplied will be manufactured from extruded fireclay or shale and be fired to produce a dense paver with an absorption of less than 5% (in a 24 hour cold water absorption test), a maximum saturation of coefficient of 0.78 minimum. Average

compressive strength shall not be less than 10,000 p.s.i. The pavers must be capable of withstanding at least the equivalent of 50 cycles of freeze-thaw conditions. The permissible tolerance for individual pavers shall conform to ASTM Designation C-902-79A. Paver size to be utilized in brick strip in pedestrian areas shall be 4" wide, and 8" long. No pavers which are chipped, cracked or otherwise damaged are to be installed.

400.3.2.2 Accessories

C. Cork Joint Filler: Preformed strips complying with ASTM D 1752, Type II.
D. Compressible Foam Filler: Preformed strips complying with ASTM D 1056, Grade 2A1.

400.3.2.3 Setting-Bed Materials - Mortar

C. As shown on plans
D. Per paver manufacturers recommendations.

400.3.2.4 Setting-Bed Materials - Sand

F. Graded Aggregate for Base: Aggregate shall be Type 2, Class B Aggregate Base as specified in the Standard Specifications.
G. Geotextile: Woven or nonwoven polyester or polypropylene geotextile, with a permeability rating 10 times greater than that of subgrade soil and an apparent opening size small enough to prevent passage of fines from leveling course into base course.
H. Concrete base: pedestrian pavement design
I. Sand Dry Setting Bed, Leveling Course:
    1. Sand for Leveling Course: Sound, sharp, washed sand complying with gradation requirements of ASTM C 33-03 for fine aggregate.
J. Sand for Joints: Sharp, washed sand with 100 percent passing No. 16 sieve.

400.3.2.5 Sealers and Joint Sand Stabilizers

C. Joint Sand Stabilizer: Joint sand shall be stabilized that meets the requirements of ASTM C150. Stabilizer shall be dry mixed and applied with the joint sand.
D. Joint and Paver Sealer: Surebond SB-1300-1370 sealer. Surebond, Inc., 2801 International Lane, Madison, WI

53704, 1-877-843-1818. Per paver recommendation and specifications.

400.3.3 Execution

400.3.3.1 Installation, General

E. Mix pavers from several pallets or cubes, as they are placed, to produce uniform blend of colors and textures.

F. Perimeter pavers can be field cut with motor-driven masonry saw to provide pattern indicated and to fit adjoining concrete work neatly. Interior paver pattern shall be established by the manufacturer and shall not be field cut. Use full units without cutting where possible.

G. Tolerances: Do not exceed 1/16-inch unit-to-unit offset from flush or 1/8 inch in 24 inches and 1/4 inch in 10 feet from level, or indicated slope.

H. Expansion and Control Joints: Provide joint filler as backing for sealant-filled joints where indicated. Install joint filler before setting pavers.

400.3.3.2 Mortar Setting-Bed Applications

Reference paver manufactures recommendations.

400.3.3.3 Sand Setting-Bed Applications

G. Place dry sand leveling course in concrete channel as shown on the drawings and screed to a thickness of 1 to 1-1/2 inches, taking care that moisture content remains constant and density is loose and constant until pavers are set and compacted.

H. Treat leveling base with soil sterilizer to inhibit growth of grass and weeds.

I. Set pavers with a minimum joint width of 1/16 inch and a maximum of 1/8 inch, being careful not to disturb leveling base. If pavers have spacer bars, place pavers hand tight against spacer bars.

J. Vibrate pavers into leveling course with a low-amplitude plate vibrator capable of a 3500- to 5000-lbf compaction force at 80 to 90 Hz.

K. Spread dry sand and fill joints immediately after vibrating pavers into leveling course. Vibrate pavers and add sand until joints are completely filled, then remove excess sand. Leave a slight surplus of sand on the surface for joint filling.

L. Apply joint and paver sealer per manufactures recommendations.

400.3.4 Method of Measurement: "Brick Pavers" shall be measured by the square yard of the final exposed area of completed sidewalk. No separate measurement shall be made for sand setting-bed, sealer, concrete base, aggregate subbase, subgrade preparation, labor, and related materials to provide a finished product as intended by the Contract Documents.

400.3.5 Basis of Payment

Brick Paver – per SY

JOB SPECIAL PROVISION JSP-1100-02
CLEARING, GRUBBING & DEMOLITION

1.0 SCOPE

Clearing, Grubbing & Demolition shall be in accordance with Section 1100 of the current approved City of Joplin, Standard Specifications, except as modified by this Job Special Provision.

An existing building located at 10th ST & Main Street on the NW corner is to be demolished and removed. Contractor is responsible for all city permits, testing and disposal of all debris.

2.0 MEASUREMENT

No separate measurement will be made for Clearing, Grubbing & Demolition.

3.0 PAYMENT

Payment for “Clearing, Grubbing & Demolition” shall be at the contract lump sum price and shall include the cost of furnishing all labor, equipment, disposal fees, tools, and materials, and the performance of all work necessary to complete the project wide clearing, grubbing, demolition and removal of improvements.