

August 6, 2024

Mr. Jerry Schuber  
Director, Solid Waste and Recycling  
City of Broken Arrow  
220 S. First Street  
Broken Arrow, OK 74012

**Re: Proposal – Transfer Station Feasibility Study**

Burns & McDonnell is pleased to offer our services to the City of Broken Arrow (City) to develop a Transfer Station Feasibility Study (Study) to evaluate the impacts associated with the development and implementation of a new transfer station. This letter provides our project understanding, scope of work, schedule, fee and conditions.

## Project Understanding

As the fourth largest municipality in the state of Oklahoma, the City provides numerous solid waste and recycling services to approximately 112,000 residents over 55 square miles. The City desires to operate a transfer station that will benefit not only the City, but also the surrounding communities by accepting multiple material streams in addition to optimizing the current operations. A key benefit of a transfer station would be to reduce fuel consumption/emissions and to enhance the viability of diverting more recyclable and green waste material from disposal. This Study is the first step in the City's overall solid waste management planning initiative.

## Scope of Work

### Phase 1 | Project Initiation and Management

#### Task 1A: Initial Data Request & Review

Following receipt of the Notice to Proceed, Burns & McDonnell will provide the City with a detailed preliminary data request that will encompass data needs for completing the Study. The data request will itemize our needs for understanding the operational and financial considerations that must be addressed.

This task also includes the organization and preliminary analysis of data received. We recognize that the City may not have all information requested readily available or may track information differently than requested. We will work with the appointed Project Manager to arrive at reasonable substitutes for the key data, if needed.

## Task 1B: Kick-off Meeting & Project Management

Prior to commencing the study, members of the Project Team will conduct a kick-off conference call and then an on-site kick-off meeting with key City staff. The purpose of the initial conference call will be to plan for the kick-off meeting and site visit. At the kick-off meeting we will discuss the project work plan, key issues to be addressed, and confirm the timing associated with the various project tasks.

We will discuss our initial data request (as previously described) that we will have provided to City staff 7 to 14 days prior to the kick-off meeting. Burns & McDonnell will provide the agenda and handout materials at least two days in advance.

During the meeting, we will also identify primary contacts for our Project Team and the City and establish a protocol for the exchange of information and the resolution of issues that arise during the normal course of this engagement.



*The kick-off meeting will provide a forum for establishing clear communication for the project.*

### Task 1 Deliverable(s)

- ▶ Preliminary data request
- ▶ Electronic copies of the kick-off meeting agenda, handouts, and follow-up summary
- ▶ Participation of Burns & McDonnell project manager and key staff in kick-off conference call and on-site kick-off meeting

## Phase 2 | Transfer Station Feasibility Assessment

### Task 2A: Develop Capital Costs and Operating Costs for Transfer Station

We will develop planning-level infrastructure, construction, and operational costs for a transfer station. Key aspects of the analysis will include the following:

- ▶ **Planning Level Evaluation of Capital Costs:** Since this is an initial planning-level feasibility study, Burns & McDonnell will utilize publicly available data from other transfer station capital projects to provide the basis for the potential capital costs for the transfer station. We will provide the City with an understanding of the costs of the building (and site work) on a square-foot basis. We will assume the City will not need to purchase property or that the City will provide an estimate for the property acquisition.
- ▶ **Planning Level Evaluation of the Operational and Hauling Requirements:** We will evaluate the operational requirements of a City-owned transfer station. At a minimum, the planning level cost analysis will include estimated costs for the following:
  - Staffing (including number of staff by position and salary levels)
  - Utilities
  - Rolling stock and equipment maintenance

- Building and site maintenance
- Rolling stock fuel
- Insurance
- Administration
- Contingency

The outcome of this task will include a planning level capital and O&M cost estimate for a City-owned and operated transfer station.

## **Task 2C: Evaluate Impact on Collection Operations for Current and Transfer Station System**

One of the key components to determining the financial feasibility will depend on how collection costs will change based on the location of the future disposal facility (e.g., transfer station to disposal facility or direct haul to disposal facility). To calculate these costs, there is a fundamental need to understand collection efficiencies for residential operations. We will gain this understanding by reviewing routing data (e.g., current route sizes, overtime, and interviewing key staff. We will obtain an understanding of the following key metrics:

- ▶ Amount of time spent off-route (tasks such as pre- and post-trip inspections, breaks, and breakdowns)
- ▶ Amount of time spent on route (collecting set-outs)
- ▶ Amount of time spent on disposal trips (includes travel time to and from, waiting time, and unloading)
- ▶ Average number of disposal trips per route
- ▶ Average route size

Once we understand these aspects of the current collection system, we will be able to evaluate how collection efficiencies and costs will change based on different disposal locations. We will complete this task using Burns & McDonnell's proprietary collection efficiency model. For example, we will evaluate how the number of routes (and costs) would change based on the location of a transfer station. Our analysis will also account for the impact of a transfer station on the number of routes required to separately collect yard waste for diversion purposes. Burns & McDonnell and the City will discuss alternative yard waste collection methods during the kick-off meeting (e.g., once a week collection using biodegradable bags) and the City will select one preferred method to be evaluated.

## **Task 2E: Compare Economic Feasibility and Diversion Impacts of Each Alternative**

To analyze costs associated with each of the disposal alternatives, the Project Team will develop a financial model that will summarize the cost per ton for each alternative in a format similar to the table shown below. Based on projections of the type and amount of waste to be handled by the City, the model will project total collection/transfer/disposal costs for each alternative on a per ton and annual basis. The analysis will include the amortization of any capital required for construction of a new transfer station.

| Potential Scenarios | Direct Costs |          |                  | Total |
|---------------------|--------------|----------|------------------|-------|
|                     | Collection   | Disposal | Transfer Station |       |
| Status Quo          |              |          | N/A              |       |
| Transfer Station    |              |          |                  |       |

The model will allow the City to see the impact of changes in basic assumptions, such as the amount of waste or fuel prices, on total disposal costs and costs per ton for each alternative.

We will also provide the City with an understanding of the opportunities and impacts of diverting more green waste and recycling from disposal, based on the use of a transfer station.

**Task 2 Deliverable(s)**

- ▶ Planning-level capital and operating budgets
- ▶ Operational requirements for collection scenarios (status quo and transfer station)
- ▶ Financial comparison of scenarios

## Phase 3 | Report Preparation and Presentation

### Task 3A: Draft Report

Upon completion of the analyses outlined above, Burns & McDonnell will develop a Draft Report outlining recommendations and conclusions. Burns & McDonnell is committed to making sure the City thoroughly understands the recommendations in the Draft Report and will provide sufficient time for the City’s concerns and/or questions to be addressed. Burns & McDonnell will have a conference call with City staff to discuss the report. Burns & McDonnell requests that written comments be provided as one submittal from City staff to facilitate consensus regarding staff comments.

### Task 3B: Final Report

Upon receipt of City staff recommendations and comments, Burns & McDonnell will make appropriate changes and provide the City with a Final Report. We will issue the Final Report within three weeks of receiving comments from the City.

### Task 3C: City Council Presentation (Optional)

If requested by the City, Burns & McDonnell will develop a PowerPoint presentation that summarizes the recommendations and key findings of the study. Burns & McDonnell will attend and present findings and recommendations from the report at a City Council meeting or workshop. Burns & McDonnell will support the presentation of results and recommendations of the Study. One PowerPoint presentation and handouts will be developed for use by the City to communicate the analysis, key findings, and rate recommendations. This task is not presently included in our proposed budget.

**Phase 4 Deliverables**

- ▶ Electronic version of the Draft Report
- ▶ One conference call to discuss the Draft Report
- ▶ Electronic version of the Final Report

- ▶ PowerPoint presentation and participation in City Council Meeting or workshop (optional)

## Schedule

Developing a feasibility study typically requires a schedule of approximately four to six months. Once we receive a Notice to Proceed (NTP) from the City, we will develop a detailed project schedule.

## Conditions

For this assignment, Burns & McDonnell notes that our proposal is based on the understanding that:

- ▶ Our project schedule is dependent on the timely provision of requested data and review of draft documents provided to the City.
- ▶ Burns & McDonnell will exercise reasonable skill, care, and diligence in the performance of its services and will carry out its responsibilities in accordance with customarily accepted professional practices. If Burns & McDonnell fails to meet the foregoing standard, Burns & McDonnell will perform at its own cost, the professional services necessary to correct errors and omissions reported in writing within one year from the completion of Burns & McDonnell's services. No warranty, express or implied, is included as part of the services to be provided.
- ▶ Estimates and projections prepared by Burns & McDonnell relating to construction costs and schedules, operation and maintenance costs, inflation, equipment characteristics and performance, and operating results are based on Burns & McDonnell's experience, qualifications, and judgment as a design and consulting professional. Since Burns & McDonnell has no control over weather, cost and availability of labor, material and equipment, labor productivity, construction contractors' procedures and methods, unavoidable delays, construction contractors' methods of determining prices, economic conditions, competitive bidding or market conditions, and other factors affecting such cost opinions or projections, Burns & McDonnell does not guarantee that actual rates, costs, performance, schedules, and related items will not vary from cost estimates and projections prepared by Consultant.
- ▶ In no event will Burns & McDonnell be liable for any special, indirect, or consequential damages including, without limitation, damages or losses in the nature of increased Project costs, loss of revenue or profit, lost production, claims by customers of the City, and/or governmental fines or penalties. Aggregate liability for all damages connected with its services for the Project not excluded by the preceding subparagraph, whether or not covered by Burns & McDonnell's insurance, will not exceed \$100,000.

# Fee

The following table provides an outline of the services to be provided and includes the fee, inclusive of professional fees and out of pocket expenses. Our fee for the Transfer Station Feasibility Study totals \$49,600. We will invoice the City on a lump sum, percent complete basis.

| TASK  | FEE             |
|---|-----------------|
| <b>Phase 1   Project Initiation and Management</b>  |                 |
| Task 1A: Initial Data Request & Review  | \$2,700         |
| Task 1B: Kick-off Meeting & Project Management  | \$5,200         |
| <b>Phase 2   Transfer Station Feasibility Assessment</b>                                  |                 |
| Task 2A: Develop Capital Costs and Operating Costs for Transfer Station                   | \$16,500        |
| Task 2B: Evaluate Impact on Collection Operations for Current and Transfer Station System | \$10,300        |
| Task 2C: Compare Economic Feasibility and Diversion Impacts of Each Alternative           | \$4,100         |
| <b>Phase 4   Report Preparation and Presentation</b>                                      |                 |
| Task 4A: Draft Report   | \$5,400         |
| Task 4B: Final Report   | \$2,900         |
| Task 4C: City Council Presentation (Optional)   | \$2,500         |
| <b>TOTAL</b>  | <b>\$49,600</b> |

# Conclusion

We look forward to collaborating with Broken Arrow to offer innovative resource recovery solutions. Please contact Scott Pasternak at (512) 872-7141 or spasternak@burnsmcd.com should you have questions regarding our proposal.

Sincerely,



Scott Pasternak  
Department Manager



Jake Merriman  
Regional Environmental Service Manager