

COUNCIL AGENDA ITEM COVER SHEET

Meeting Type: Council - Regular Meeting Date: October 17, 2024 Agenda Item Type: New Business

Staff Contact: Scott Langford

STAFF REPORT

AGENDA ITEM:

Consideration to Award Task Order 11: 2025 Asphalt Resurfacing, Project No: PW-2025-01 of the 2021 Transportation Engineering Services project to POND, Inc.

BACKGROUND:

This project is Task Order 11 of the 2021 Transportation Engineering Service Contract with POND, Incorporated. The project is part of the continued effort to improve and maintain the transportation infrastructure in the Town of Tyrone. The project scope includes resurfacing of Drumcliffe Road, Kylemore Court, Kylemore Pass, Yeats Court, Shamrock Industrial Blvd, Mallory Court, McCarthy Court, and Clover Lane. The project also includes replacing 4 culverts in the Carrowmore subdivision. The engineering design includes surveying and geotechnical services at a total not to exceed \$99,259.75. There is a chance that CSX coordination may be necessary. If that is the case, a contingency of \$16,259.50 has been added to the project.

FUNDING:

General Funds – Public Works General Fund (100-40-52.2205 & 100-40-52.2211), 2023 SPLOST, 2024 LMIG Supplemental, and 2025 LMIG.

STAFF RECOMMENDATION:

Staff recommends Awarding Task Order 11: 2025 Asphalt Resurfacing; Project No: PW-2025-01 to POND, Inc. for the fee not to exceed \$99,259.75 plus a contingency for CSX coordination, if needed, at \$16,259.50.

ATTACHMENTS:

See attached Task Order 11 Proposal.

PREVIOUS DISCUSSIONS:

None

Town of Tyrone Task Order

Project Number: PW-2025-01; 2025 Asphalt Resurface	cing
Task Order Number: 11	
Project Name: Town of Tyrone Transportation Engine	eering Services (2021)
Contractor: Pond and Company, Inc.	
In accordance with the contract documents for the particle of Tyrone, Georgia issues this Task Order.	roject listed above and as described herein, the
Task Order Description: Task Order Number 11 – 20. PW-2025-01	25 Asphalt Resurfacing. Tyrone Project number
Task Order Not -To-Exceed Fee: \$99,259.75 plus an a required)	dditional \$16,259.50 (if CSX coordination is
Town of Tyrone Task Order Manager: Scott Langford	, PE 770-487-4038 <u>slangford@tyrone.org</u>
Contractor: Signature: Richel Danymm	Signature:
Printed Name: <u>Richard Fangmann</u>	Name: Eric Dial
Title: Vice President	Title: Mayor
Date:	Date:





October 2, 2024

Mr. Scott Langford, PE
Town Engineer/Public Works Director
Town of Tyrone
950 Senoia Road
Suite A
Tyrone, GA 30290

Re:

Town of Tyrone - Professional Transportation Design Services Fee Proposal Task Order #11 – 2025 Roadway Resurfacing

Pond & Company (Pond) is pleased to submit this proposal for transportation engineering design services for the above project. The paragraphs below describe the professional services and fees to accomplish this work.

PROJECT UNDERSTANDING:

As part of the Town of Tyrone Transportation Engineering Services On-Call, Task Order #11 will consist of roadway resurfacing along several roadways/corridors within the town limits. These sections (showing approximate lengths and PCI ratings) are included below:

- Shamrock Industrial Blvd (3,406.5 LF PCI 65.7)
- Mallory Ct (708.5 LF PCI 71)
- McCarthy Ct (780 LF PCI N/A)
- Drum Cliff Ct (2,093.1 LF PCI 51.7)
- Kylemore Ct (162.7 LF PCI 66)
- Kylemoore Pass (967.1 LF PCI 57)
- Yeats Ct (766.8 LF PCI 53)
- Clover Ln (265 LF PCI 91)

The scope of work will also include minor intersection improvements to the intersection of Shamrock Industrial Boulevard at Rockwood Road to better accommodate large trucks. This includes larger radius returns and consideration of mountable curb and gutter and traffic hatching.

PROFESSIONAL SERVICES:

The work in this proposal will consist of developing preliminary through final construction plans. Pond, along with our subconsultants, will provide the design services necessary in completing the tasks as described herein for the Town or Tyrone.

Scope of Work

Task 1: Base Data Coordination/Development

Task 1A. Base Mapping Setup – Pond will utilize available GIS information and aerial imagery to prepare the base mapping. This includes parcel data, roadway data, utility data, and contour information. This information will be overlayed on high-resolution aerial imagery.





Task 1B. Survey – Survey services will be performed by a sub-consultant, Patterson and Dewar, and provided to Pond. The limits include approximately 80' W by 100' long, centered at the intersection of Shamrock Industrial Boulevard at Rockwood Road. Property research and resolution, property owner notification, and project control will also be performed as part of this task.

Task 1C. Geotechnical Services Allowance – Pond will utilize the geotechnical subconsultant, ECS, to complete asphalt pavement cores with soil test borings at various locations determined along the corridors listed above. Traffic control and utility locates are included.

The soil test borings are planned to a depth of 5 feet below existing ground surface. The purpose of the field exploration would be to provide information on the pavement and shallow subsurface soil conditions. Laboratory testing will be completed for all samples, along with a written report. When the field exploration has been completed, a written report outlining the findings and recommendations will be published. An electronic color PDF version of the report will be issued after completion. The report will describe the site conditions and subsurface data, as well as provide a limited engineering evaluation of the site relative to the proposed development. Some of the specific items addressed will include:

- Results of the exploration including boring logs, laboratory testing results, and photographs of the
 existing site conditions and pavement cores
- Pavement design recommendations
- Determination of potential poor-quality soil or fill material
- Site preparation and fill placement recommendations

Deliverables for Task 1:

Geotechnical Report

Task 2: Preliminary Design

Task 2A. Preliminary Design Plans – The Preliminary Plans deliverable will include roadway plans, typical sections, utility plans (as/if applicable), signing and marking plans, and erosion control plans (as/if applicable). The design will include a total of (4) culvert replacements along Kylemore Court and Drum Cliff Court. Pond will prepare the construction plans, prepared based on the topographic survey database. The design plans will be prepared conforming to AASHTO, Manual on Uniform Traffic Control Devices (MUTCD), Town of Tyrone/Fayette County, and Georgia Department of Transportation (GDOT) requirements and standards, as appropriate, using Microstation V8i software with InRoads.

Task 2B. Site Visit – Pond will complete a site visit to all locations identified to measure lane widths and note relevant items including cracked curb and gutter, manholes and valves, etc.

Task 2C. Cost Estimate – Pond will prepare an opinion of probable cost/cost estimate for the project including all resurfacing locations.

Task 2D. Town of Tyrone Review – Pond will submit the Preliminary Plans to the Town of Tyrone for comment/approval. This task includes (1) meeting with the town to discuss the plans. We will respond to (1) round of comments and incorporate appropriate comments into the plans (during Task 3).



Deliverables for Task 2:

- Preliminary Plans
- Cost Estimate

Task 3: Final Design

Task 3A. Final Design Plans – Based on all comments received from the Preliminary Plan submittal, we will further refine plans. These plans will include compiling a list of all Preliminary Plan comments received and our responses, prior to incorporating into Final Plans.

Task 3B. Cost Estimate – Pond will prepare an opinion of probable cost for the project including all resurfacing locations.

Task 3C. Town of Tyrone Review – Pond will submit the Final Plans to the Town of Tyrone for comment/approval. This task includes one meeting with the town to discuss the plans. We will respond to (1) round of comments and incorporate appropriate comments into the plans.

Deliverables for Task 3:

- Final Plans
- Cost Estimate

Task 4: Construction Bid and Construction Support

Task 4A. Respond to RFIs – During the bidding and construction process, we will respond in writing to the contractor's request for information.

Task 4B. Construction Observation/Punch List – Pond will provide personnel to perform (7) total visits to the site during construction to make sure that the construction is moving along as planned. These visits will be documented as written reports. This includes: (6) site visits during construction and (1) final inspection.

Task 5: Railroad Coordination and Plan Revisions (Contingent Service)

Task 5A. Railroad Coordination – During the preliminary design process, we will coordinate with CSXT Railroad and Georgia Department of Transportation – Division of Intermodal regarding the railroad crossings. This will include the portion of intersection improvements at Shamrock Industrial Boulevard at Rockwood Road within railroad right-of-way. The plans will be prepared to conform with the application sections of the Public Projects Manual. Additional survey for railroad at-grade crossing and/or along existing railroad line is excluded from this scope of work due to the intersection improvement not impacting railroad facilities in any way.

As part of this process, Pond will provide them with the plans at specified milestones for review and approval. From past experiences, the railroad entities typically require a Preliminary Engineering (PE)



3500 Parkway Lane, Suite 500 Peachtree Corners, GA 30092 T: 678.336.7740

Agreement to be in place prior to review. In the event additional fees are incurred from the railroad, these fees will be the responsibility of the Town of Tyrone.

Schedule

Pond has estimated that the design tasks above can be completed within (4) months from approved notice to proceed with this task order. Please note that these time frames are dependent on review times and exclude Railroad Coordination (*Task 5*). Should *Task 5* be approved, it is estimated to take another (4) months of design time. Task 4 will begin upon design completion and is estimated to take (4) months.

ASSUMPTIONS:

The design plans will be prepared as a locally funded project.

Services or tasks <u>not</u> specifically outlined above are excluded and would be considered additional services. Services not included in the scope:

- Full Design/Engineering Plans
- Topographic Survey (Beyond Task 1)
- Right-of-Way Plans
- GDOT Plan Development Process (PDP)
- Traffic Engineering Report/Analysis
- Staging Plans
- Subsurface Utility Engineering (SUE) Services
- Landscape/Hardscape Plans

- GDOT Concept Report
- Additional Meetings
- MS4 Analysis/Documentation
- Environmental Services
- Erosion Control Plans/Inspection
- Utility Coordination
- Railroad Fees

PROFESSIONAL FEES:

Pond proposes to accomplish *Task 1* through *Task 4* based on the contracted unit rates, not to exceed a total fee of \$99,259.75. The fees are summarized in the attached Man-Hour Fee Estimate.

*Should the Town of Tyrone decide to proceed with *Task 5* (Railroad Coordination), the associated fee would be an <u>additional</u> \$16,259.50.

If this fee and scope is acceptable, Pond & Company is available to begin work immediately. If you would like us to discuss or modify the scope, please contact myself or Zach Puckett, who will serve as the Project Manager. If you need any additional information, please feel free to contact me at (678) 336-7740.

Sincerely,

POND & COMPANY

Richard Fangmann, PE, PTOE

Vice-President

Zach Puckett, PE, IMSA II Project Manager

On-Call - Task Order #11 2025 Roadway Resurfacing Project Length 1.73 miles

SUMMARY BY PHASE

COST AMOUNT OF CONTRACT PROPOSAL

9/30/2024

	PHASE AMOUNTS
Phase 1 Base Data Coordination/Development	\$ 33,769.00
Phase 2 Preliminary Design	\$ 39,249.50
Phase 3 Final Design	\$ 12,061.00
Phase 4 Construction Bid and Construction Support	\$ 14,180.25
Phase 5 Railroad Coordination (If Required) * *Not reflected in total amount below	\$ 16,259.50
TOTAL DESIGN COST FOR ALL SEGMENTS	\$ 99,259.75



Phase 1 Summary

PROJECT: On-Call - Task Order #11 2025 Roadway Resurfacing

Phase 1

Base Data Coordination/Development

PERSONNEL	EST. HOURS	RATE/HR.		COST\$	TOTALS
PRINCIPAL	1	\$	220.00	\$ 220.00	
PROJECT MANAGER	15	\$	190.00	\$ 2,850.00	
SENIOR ENGINEER	16	\$	210.00	\$ 3,360.00	
MID LEVEL ENGINEER	42	\$	127.00	\$ 5,334.00	
SENIOR LANDSCAPE AR	0	\$	120.00	\$ -	
LANDSCAPE ARCHITEC1	0	\$	95.00	\$ -	
ADMINISTRATIVE	3	\$	75.00	\$ 225.00	

TOTAL DIRECT LABOR	77 Mar	nhours		\$ 11,989.00
DIRECT COSTS (SPECIFY):				
ITEM	UI	NIT COST	QUANTITY	TOTALS
Mileage	\$	0.67	0	\$ -
REPRODUCTION	\$	150.00	0	\$ -
MAIL & DELIVERY	\$	50.00	0	\$ -
TRAVEL	\$	-	0	\$ -
				\$ -
		Dir	ect Cost Total	\$ -
SUBCONSULTANTS (LIST):				
SUB CONSULTANT				TOTALS
Geotech-Soil Survey				\$ 14,300.00
Survey				\$ 7,480.00
		Subconsul	tant Sub Total	\$ 21,780.00
	CO	ST AMOUN	T FOR PHASE	\$ 33,769.00

Town of Tyrone Phase 1 Detail

PROJECT: On-Call - Task Order #11 2025 Roadway Resurfacing Phase 1 Base Data Coordination/Development

TASKS	Assumptions	No. of SHT	PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	MID LEVEL ENGINEER	SENIOR LANDSCAPE ARCHITECT	LANDSCAPE ARCHITECT	ACMINISTRATIVE	TOTAL	% OF TOTAL HOURS
Non-Drawing Tasks	Assumptions	0.11					ARCHITECT				1000
Project Management	Invoices, progress reports (assumed 1 month duration)		1	2					2	5	6.5%
Internal Coordination Meeting	filtronia manifera (III de la comedia de la	_	'	1	1	1			1	4	5.2%
Coordination with Subs	1 Internal meetings @ 1 hr per meeting		_	4	1	4			'	8	10.4%
		_		4		4				0	10.476
Drawing Tasks				8	45	37				60	77.9%
Base Mapping Development - GIS/Aerial			_	8	15	37				60	11.9%
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TOTALS		0		15	16	42	0	0	3	77	100.0%

Phase 2 Summary

PROJECT: On-Call - Task Order #11 2025 Roadway Resurfacing

Phase 2

Preliminary Design

PERSONNEL	EST. HOURS	R	ATE/HR.	COST\$	TOTALS
PRINCIPAL	2	\$	220.00	\$ 440.00	
PROJECT MANAGER	28	\$	190.00	\$ 5,320.00	
SENIOR ENGINEER	75	\$	210.00	\$ 15,750.00	
MID LEVEL ENGINEER	136	\$	127.00	\$ 17,272.00	
SENIOR LANDSCAPE AR	0	\$	120.00	\$ -	
LANDSCAPE ARCHITEC	0	\$	95.00	\$ -	
ADMINISTRATIVE	4	\$	75.00	\$ 300.00	

TOTAL DIRECT LABOR	245 M	anhours		\$ 39,082.00
DIRECT COSTS (SPECIFY):				
ITEM		UNIT COST	QUANTITY	TOTALS
Mileage	\$	0.67	250	\$ 167.50
REPRODUCTION	\$	150.00	0	\$ -
MAIL & DELIVERY	\$	50.00	0	\$ -
TRAVEL	\$	-	0	\$ -
				\$ -
		Di	rect Cost Total	\$ 167.50
SUBCONSULTANTS (LIST):				
SUB CONSULTANT				TOTALS
				\$ -
		Subconsu	Itant Sub Total	\$ (-
	С	OST AMOUN	IT FOR PHASE	\$ 39,249.50

Town of Tyrone Phase 2 Detail

PROJECT: On-Call - Task Order #11 2025 Roadway Resurfacing Phase 2 Preliminary Design

		No. of SHT	PRINCIPAL	PROJECT MANAGER	SENIOR ENGNEER	MD LEVEL ENGINEER	SENIOR LANDSCAPE	LANDSCAPE ARCHITECT	ADMINISTRATIVE	TOTAL	% OF TOTAL
TASKS	Assumptions	SHI	500,000,000,000	MANAGER	ENUNEER	ENGINEER	ARCHITECT	Adried			HOURS
Non-Drawing Tasks											
Project Management	Invoices, progress reports (assumed 2 month duration)		2	2					2	6	2.4%
Internal Coordination Meeting	2 internal meetings @ 1 hr per meeting			2	2	2			2	8	3.3%
Quality Control (assumes Preliminary Plan Review)				2	2	3				7	2.9%
Drawing Tasks											
Typical sections			-	2	5	9				16	6.5%
General notes				1	2	3				6	2.4%
Plan view	Includes roadway resurfacing and signing/pavement marking items; include Shamrock Industrial at Rockwood Intersection Improvements			8	52	98				158	64.5%
Cost Estimate				2	4	12				18	7.3%
Site Visit				8	8	8				24	9.8%
PFPR Meeting	Virtual			1		1				2	0.8%
		_	_	/-							_
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TOTALS		0	2	28	75	136	0	0	4	245	100.0%

Phase 3 Summary

PROJECT: On-Call - Task Order #11 2025 Roadway Resurfacing

Phase 3 Final Design

PERSONNEL	EST. HOURS	RATE/HR.		COST\$	TOTALS
PRINCIPAL	1	\$	220.00	\$ 220.00	
PROJECT MANAGER	14	\$	190.00	\$ 2,660.00	
SENIOR ENGINEER	17	\$	210.00	\$ 3,570.00	
MID LEVEL ENGINEER	43	\$	127.00	\$ 5,461.00	
SENIOR LANDSCAPE AR	0	\$	120.00	\$ -	
LANDSCAPE ARCHITEC1	0	\$	95.00	\$ -	
ADMINISTRATIVE	2	\$	75.00	\$ 150.00	

TOTAL DIRECT LABOR	77 Ma	nhours		\$ 12,061.00
DIRECT COSTS (SPECIFY):				
ITEM	U	NIT COST	QUANTITY	TOTALS
Mileage	\$	0.67	0	\$ -
REPRODUCTION	\$	150.00	0	\$ -
MAIL & DELIVERY	\$	50.00	0	\$ -
TRAVEL	\$	-	0	\$ 7-
				\$ -
		Dir	rect Cost Total	\$ -
SUBCONSULTANTS (LIST):				
SUB CONSULTANT				TOTALS
				\$ -
		Subconsul	tant Sub Total	\$ -
	CO	ST AMOUN	T FOR PHASE	\$ 12,061.00

Town of Tyrone Phase 3 Detail

PROJECT: On-Call - Task Order #11 2025 Roadway Resurfacing Phase 3

Final Design		No. of	PRINCIPAL	PROJECT	SENIOR	MIDLEVEL	SENIOR LANDSGAPE ARCHITECT	LANDSCAPE ARCHITECT	ACMINISTRATIVE	TOTAL	% OF TOTAL
TASKS	Assumptions	SHT	PRINCIPAL	MANAGER	ENGINEER	ENGNEER	ANCHITECT	ARCHITECT	AUMINISTRATIVE	IODE	HOURS
Non-Drawing Tasks											
Project Management	Invoices, progress reports (assumed 1 month duration)		1	1					1	3	3.9%
Internal Coordination Meeting	1 Internal meetings @ 1 hr per meeting			1	1	1			1	4	5.2%
Quality Control (assumes Final Plan Review)				2	4	3				9	11.7%
Drawing Tasks											
Respond to Preliminary Comments				1	1	2				4	5.2%
Address Preliminary Comments/Revisions											
General notes Comments/Revisions				1		1				2	2.6%
Typical section Comments/Revisions				1		3				4	5.2%
Pian view Comments/Revisions				4	10	28				42	54.5%
Cost Estimate				2	1	4				7	9.1%
				1	1	1				2	2.6%
FFPR Meeting	Virtual	_		1		1				2	2.6%
		_					-			_	\vdash
			-3-3								
										0.050	
			1								
OTALS		0	1	14	17	43	0	0	2	77	100.0%

Phase 4 Summary

PROJECT: On-Call - Task Order #11 2025 Roadway Resurfacing

Phase 4

Construction Bid and Construction Support

PERSONNEL	EST. HOURS	RATE/HR.		COST\$	TOTALS
PRINCIPAL	2	\$	220.00	\$ 440.00	
PROJECT MANAGER	37	\$	190.00	\$ 7,030.00	
SENIOR ENGINEER	5	\$	210.00	\$ 1,050.00	
MID LEVEL ENGINEER	37	\$	127.00	\$ 4,699.00	
SENIOR LANDSCAPE AR	0	\$	120.00	\$ -	
LANDSCAPE ARCHITEC1	0	\$	95.00	\$ -	
ADMINISTRATIVE	5	\$	75.00	\$ 375.00	

TOTAL DIRECT LABOR	86 Manhours			\$ 13,594.00
DIRECT COSTS (SPECIFY):				
ITEM	I	JNIT COST	QUANTITY	TOTALS
Mileage	\$	0.67	875	\$ 586.25
REPRODUCTION	\$	150.00	0	\$ -
MAIL & DELIVERY	\$	50.00	0	\$ -
TRAVEL	\$	_	0	\$ -
				\$ -
		Di	rect Cost Total	\$ 586.25
SUBCONSULTANTS (LIST):				
SUB CONSULTANT				TOTALS
				\$ -
		Subconsul	tant Sub Total	\$ -
	C	OST AMOUN	T FOR PHASE	\$ 14,180.25

Town of Tyrone Phase 4 Detail PROJECT: On-Call - Task Order #11 2025 Roadway Resurfacing Phase 4 Construction Bid and Construction Support No. of SHT PRINCIPAL PROJECT SENIOR ENGINEER MO LEVEL ENGINEER ACMINISTRATIVE TOTAL S OF TOTAL HOURS TASKS
Non-Drawing Tasks
Project Management
External Coordination Meeting Assumptions 11.6% Invoices, progress reports (assumed 4 month duration)
1 internal meetings @ 1 hr per meeting 10 Drawing Tasks
Respond to RFIs
Construction Observation/Punch List 16 24 27,9% 48 55.8% 4 32 Assumes (5) site visits and (1) final inspection

TOTALS

37

37

86 100.0%

Phase 5 Summary

PROJECT: On-Call - Task Order #11 2025 Roadway Resurfacing

Phase 5

Railroad Coordination (If Required)

PERSONNEL	EST. HOURS	PATE/HR		COST\$	TOTALS
PRINCIPAL	4	\$	220.00	\$ 880.00	
PROJECT MANAGER	20	\$	190.00	\$ 3,800.00	
SENIOR ENGINEER	29	\$	210.00	\$ 6,090.00	
MID LEVEL ENGINEER	36	\$	127.00	\$ 4,572.00	
SENIOR LANDSCAPE AR	0	\$	120.00	\$ -	
LANDSCAPE ARCHITECT	0	\$	95.00	\$ -	
ADMINISTRATIVE	10	\$	75.00	\$ 750.00	

TOTAL DIRECT LABOR	99 Mar	nhours		\$ 16,092.00
DIRECT COSTS (SPECIFY):				
ITEM	UI	NIT COST	QUANTITY	TOTALS
Mileage	\$	0.67	250	\$ 167.50
REPRODUCTION	\$	150.00	0	\$ -
MAIL & DELIVERY	\$	50.00	0	\$ -
TRAVEL	\$	-	0	\$ -
				\$ -
		Dir	rect Cost Total	\$ 167.50
SUBCONSULTANTS (LIST):				
SUB CONSULTANT				TOTALS
				\$ -
		Subconsul	tant Sub Total	\$ -
	CO	ST AMOUN	T FOR PHASE	\$ 16,259.50

Town of Tyrone Phase 5 Detail PROJECT: On-Call - Task Order #11 2025 Roadway Resurfacing Phase 5 Railroad Coordination (if Required) PROJECT SENOR MOLEVEL SENOR UNDSCAPE MANAGER ENGINEER ARCHTECT ACMINISTRATIVE No. of SHT TOTAL S OF TOTAL HOURS PRINCIPAL TASKS
Non-Drawing Tasks
Project Management
External Coordination Meeting Assumptions Invoices, progress reports (assumed 4 month duration)
4 internal meetings @ 1 hr per meeting 16.2% 16.2% 16 16 Drawing Tasks
Railroad Coordination and Revisions 32 10 25 67 67.7%

20 29

36

TOTALS

2025 Asphalt Resurfacing PW-2025-01

Task Order 11?

Area (Sqft) Paved Comments 26658.8 2010 Subtract 260 LF recently paved @ address 152 33799.5 2002		21963.5 2009	29614.0 2009 Road is missing surface course	20743.8 1993 25304.4	3904.8 1993	16012.8 1993 7197.6	16869.6 1993	
Width 28 35	32	31	32	2 2	24	24	22	90
Length 952.1 965.7	1488.7	708.5	780	942.9	162.7	667.2	766.8	265
<u>To</u> CLOVER LN MCCARTHY CT	MALLORY CT	CUL-DE-SAC	CUL-DE-SAC	YEATS CT STRANDHILL RD	CUL-DE-SAC	KYLEMORE CT CUL-DE-SAC	CUL-DE-SAC	END
Erom ROCKWOOD RD MALLORY CT	CLOVER LN	SHAMROCK INDUSTRIAL BLV	SHAMROCK INDUSTRIAL BLV	CASTLEWOOD RD YEATS CT	KYLEMORE PASS	STRANDHILL RD KYLEMORE CT	DRUM CLIFF CT	SHAMBOCK INDITETRIAL RIV
Road SHAMROCK INDUSTRIAL BLV SHAMROCK INDUSTRIAL BLV	SHAMROCK INDUSTRIAL BLV	MALLORY CT	McCARTHY (no surface couse)	DRUM CLIFF CT DRUM CLIFF CT	KYLEMORE CT	KYLEMORE PASS KYLEMORE PASS	YEATS CT	CLOVER LN

Culverts to be replaced

Kylemore Ct - 36" BCCMP 26 LF

215 Drumcliff Ct - 18" BCCMP 31 LF

155 Drumcliff Ct - 42" BCCMP 32 LF 100 Drumcliff Ct - 18" BCCMP 43 LF

There will not be culverts replaced in the industrial park.