

Closer Look @ DLZ Alternate Approach

1/11/2023

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Motivation For A Closer Look

- Community desire for more detailed information on road projects (CCMG Project Discussions)
- Community desire to continue looking for cost reduction opportunities (2023 Budget Meetings)
- Cost saving opportunity presented by DLZ (November 2022 Council Meeting) Mill & Resurface vs. Reconstruction
- Advantages provided by the CCMG 75/25 cost share program

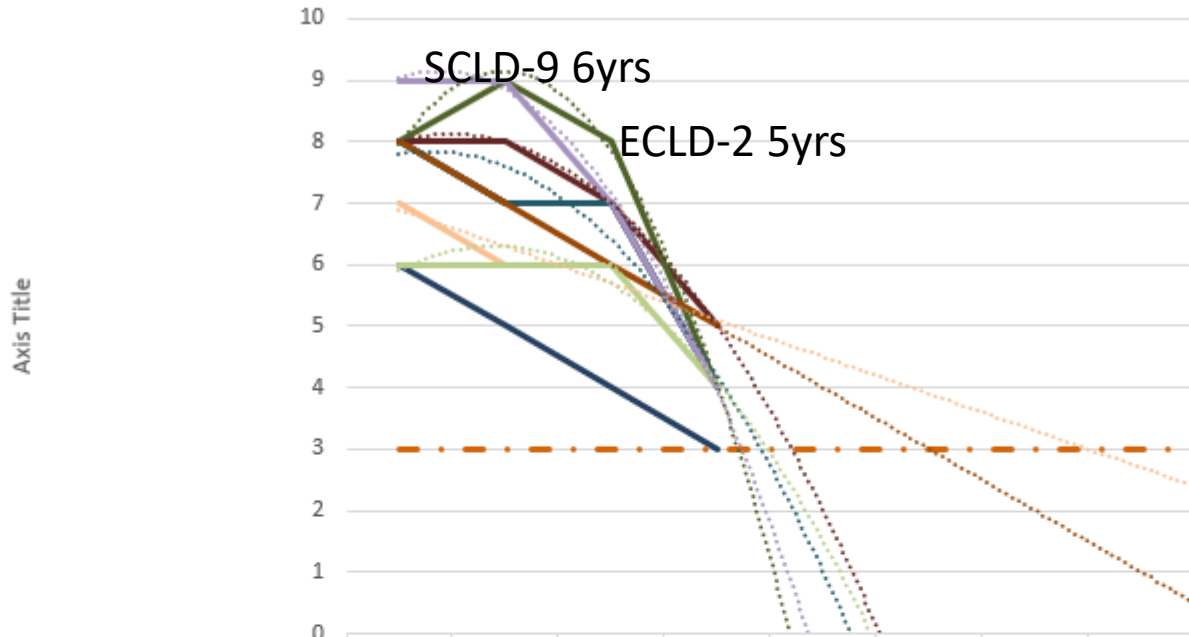
DLZ Findings & Suggested Alternate Approach

- Town of Clear Lake (TOCL) roads have a 50% lifespan (8-10 years) resulting in significantly higher maintenance cost as compared to an average road lifespan of 15-20 years
 - Current approach (mill & resurface a road segment) 7-year lifespan \$690K over 17 years
 - Alternate approach (Increase lifespan of road segment by correcting causes for reduced lifespan) 20-year lifespan \$510K over 17 years
- DLZ has investigated and identified the primary causes for TOCL roads reduced lifespan
 - Inadequate drainage
 - Inadequate asphalt and subgrade structure for weight of vehicle traffic
 - Inadequate routine maintenance

Community Crossings Municipal Grant (CCMG) Program- “No Indication It Will Go Away”

- Governor Pence Administration initiated the CCMG program in 2016 and administered out of the Indiana Department of Transportation (INDOT)
 - INDOT person currently responsible for CCMG is Kathy Eaton-McKalip
 - Dan Avery (Director of Northeastern Indiana Regional Coordinating Council (NIRCC)), which administers the Federal Aid funding for road projects through INDOT confirmed the TOCL is not eligible for federal aid
- CCMG funding comes from the State of Indiana, there is no federal contribution
 - \$15.00 charge as a portion of the annual Indiana registration fee for cars, \$150.00 for electric vehicles, and more for trucks
 - Funding is subject to the Indiana legislature continuation of program
 - Kathy Eaton-McKalip does not foresee any indication the CCMG would go away
- CCMG provides financial assistance to small local Indiana governments that do not qualify for Federal road grants
 - 650 units of local government qualify but only 25% apply for CCMG annually
- CCMG road projects are not held to INDOT standards however using engineering basis and test data for the proposed project is viewed favorably
 - Kathy cited as an example the recent road borings performed on the TOCL roads mentioned in the application

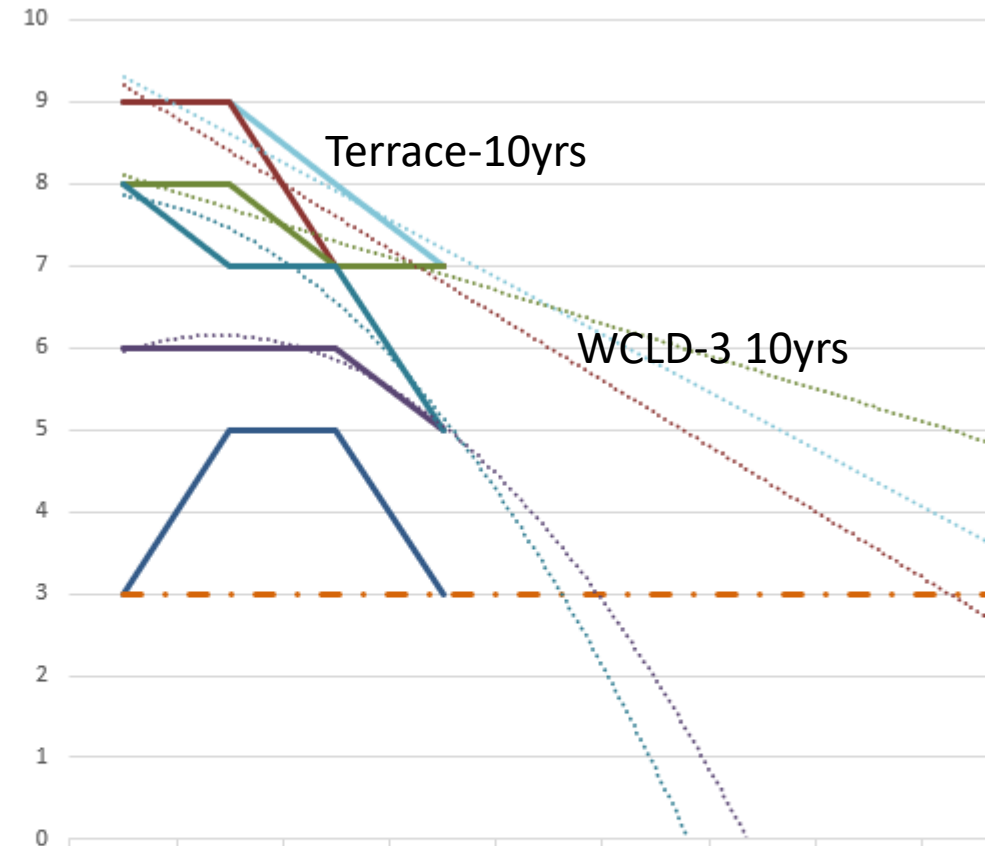
Projected Road Lifespan Using PASER



	2017 Rating	2018 Rating	2021 Rating	2022 Rating	2023	2024	2025	2026
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Rieke Drive	7	6	6	5				
Sand Point Road	6	5	4	3				
South Clear Lake Drive-1	8	8	7	5				
South Clear Lake Drive-2	8	9	8	4				
South Clear Lake Drive-3	8	7	7	4				
South Clear Lake Drive-4	8	7	7	4				
South Clear Lake Drive-5	8	7	6	5				
South Clear Lake Drive-8	6	6	6	4				
South Clear Lake Drive-9	9	9	7	4				
PASR - Poor Condition	3	3	3	3	3	3	3	3

Axis Title

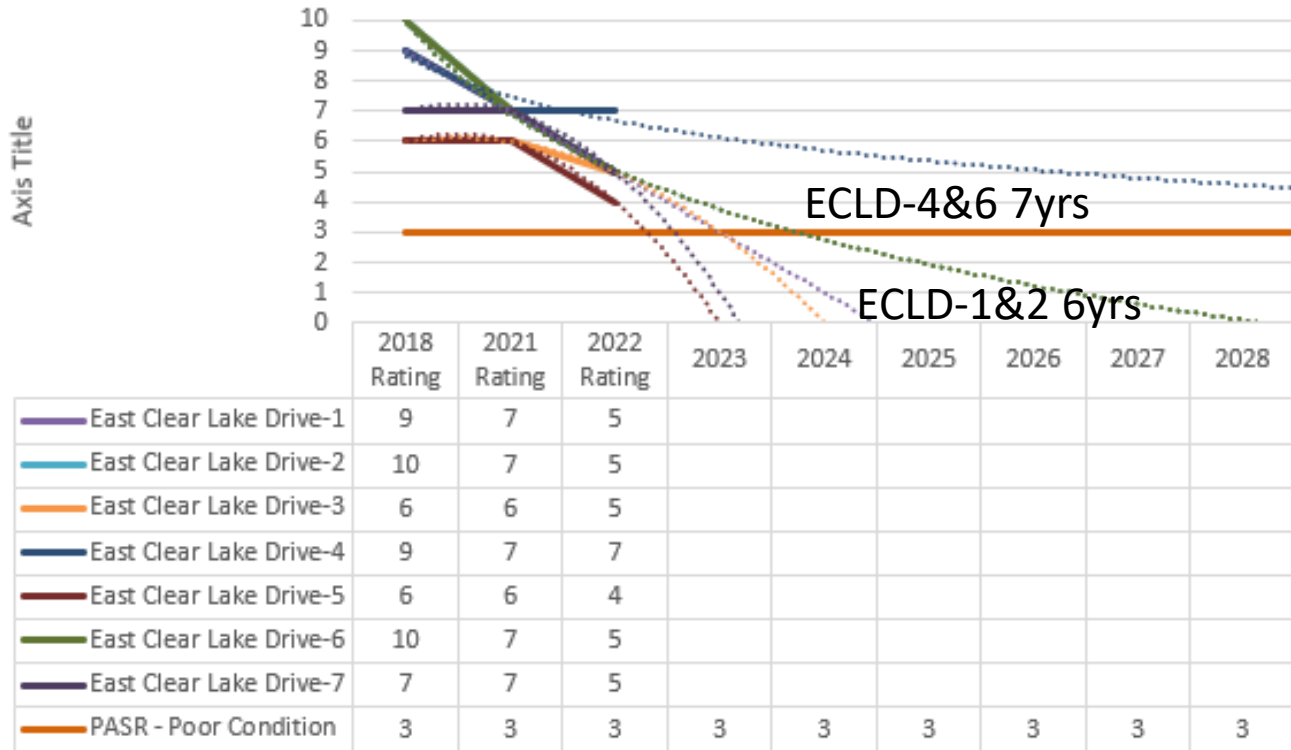


	2017 Rating	2018 Rating	2021 Rating	2022 Rating	2023	2024	2025	2026	2027
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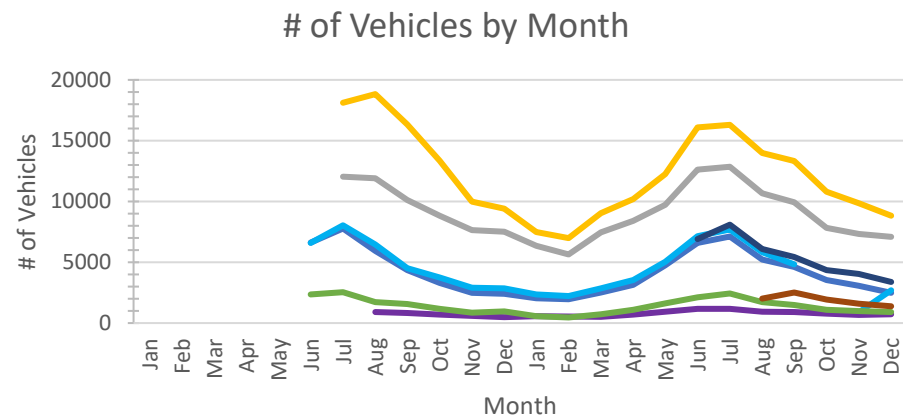
Terrace Drive	9	9	8	7					
West Clear Lake Drive-2	3	5	5	3					
West Clear Lake Drive-3	9	9	7	7					
West Clear Lake Drive-4	8	8	7	7					
West Clear Lake Drive-5	6	6	6	5					
West Clear Lake Drive-6	8	7	7	5					
PASR - Poor Condition	3	3	3	3	3	3	3	3	3

2027

Projected Road Lifespan Using PASER

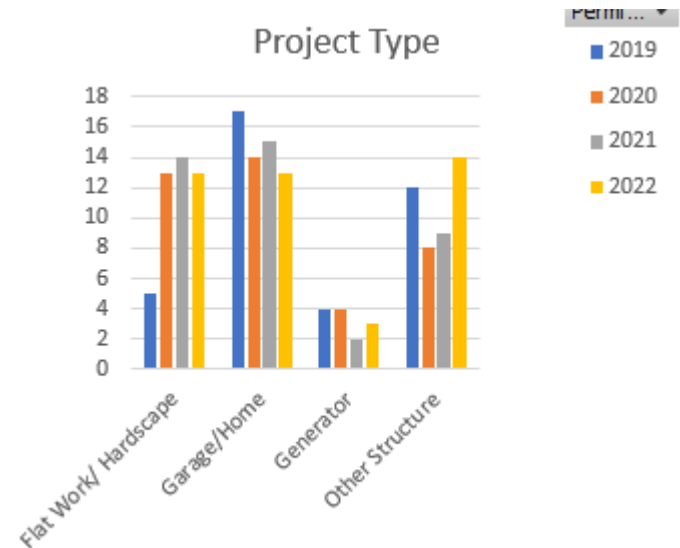
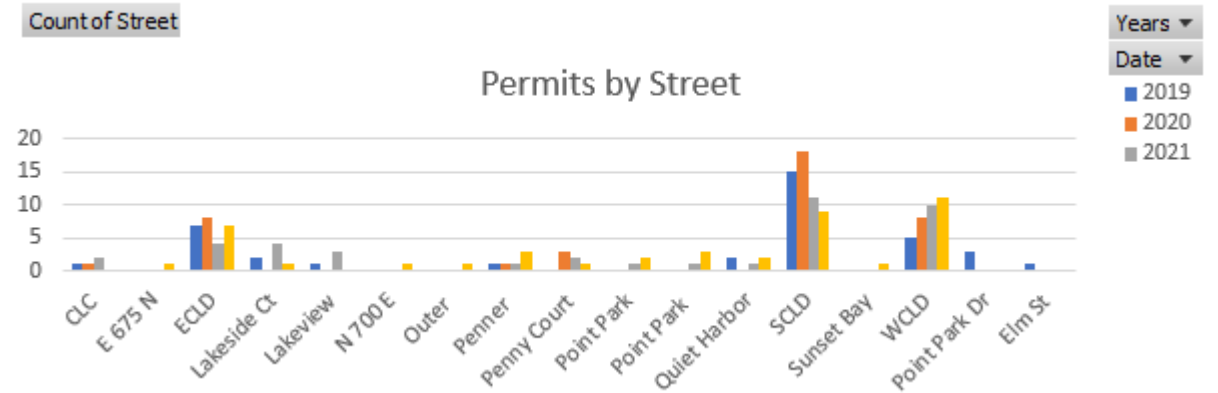


Lifespan Showing Correlation To Construction



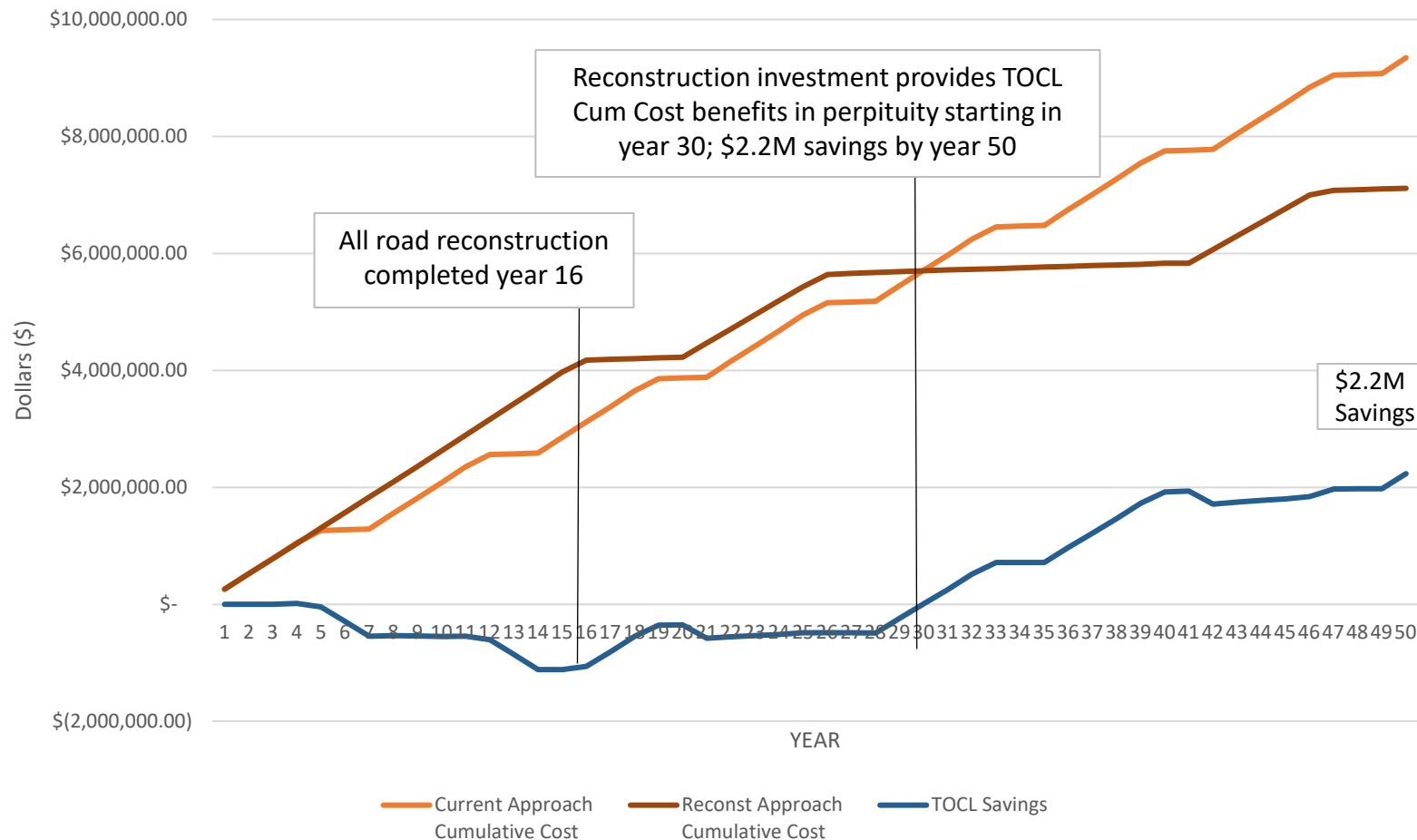
- ECLD_SB
- ECLD_NB
- Lakeview_WB
- Lakeview_EB
- Penner Dr
- SCLD_EB
- Outer Dr
- WCLD

ECLD_SB	4201
ECLD_NB	4452
Lakeview_WB	9105
Lakeview_EB	12286
Penner Dr	768
SCLD_EB	1384
Outer Dr	5467
WCLD	1878



Business Case: DLZ Alternate Approach Provides TOCL Significant Long-Term Savings

**TOCL Road Maintenance Approach Cum Cost Comparison
Current (Mill & Resurface 7-Yr Lifespan) vs. Reconstruction (20-Yr Lifespan)**



Recommendations Based On Closer Look

- Form a committee to create a road policy for consideration by Council by July 2023
- Suggested Committee products
 - Vision and Mission statement for TOCL roads
 - Develop road policy considering at a minimum
 - Input from Subject Matter Experts (SME), Superintendent, Community, Legal, Clerk Treasurer, Zoning, others as necessary
 - Vision and Mission statements
 - Overall construction and maintenance cost
 - Sustainability assessment
 - Recurring revenue applicable for its roads
 - UDO stormwater management requirements
 - CCMG requirements
 - Governing requirements for structural, drainage and maintenance of roads
 - History of road maintenance/replacement cost, miles, dates, locations, PASER data,
 - Develop subordinate processes to support road policy (ex. Developing the 5,10 and 15-year plan, Selecting the right drainage approach, Performance measurement against plan (Metric examples: PASR, Lifespan, Implementation schedule, cost, others?))
- In parallel, include Road Maintenance into the Comprehensive Plan survey
- Next step, assign a committee chair and members from council to begin detail planning

Back-up Information

Business Case: Alternate Approach Reduces TOCL Road Maintenance Cost

- Analysis assumptions
 - Current approach (mill & resurface a road segment) 7-year lifespan ~\$690K
 - Alternate approach (Reconstruct road increasing lifespan of road segment) 20-year lifespan ~\$510K
 - TOCL road segments total 9.9 miles (per 2022 pavement inventory)
 - TOCL tax base will support an annual investment of \$260K
 - All road projects will be executed under the CCMG program (75-25 Cost Share with INDOT)
 - 2022 Application included 3 projects totaling .803 miles of road with an estimated cost of \$1,335K (\$333K TOCL, \$1002 INDOT)
- Alternate approach delivers long term savings over current approach
 - \$8K Year 30
 - \$1.9M Year 40
 - \$2.2M Year 50
 - \$4.2M Year 60
 - \$4.4M Year 70
 - \$6.4M Year 80
 - \$6.9M Year 90
 - \$8.6M Year 100
- All TOCL road segments will be completed in ~16 years

Alternate Approach: Governing Requirements

- Drainage
 - Provide adequate drainage for 100-year storm event
 - Adequate drainage
 - Prevent road stormwater drainage from crossing over Right-of-Way (ROW) onto adjacent properties
 - Ensure subsurface water has a means of drainage such that it does not collect within the road's structural cross-sectional layers in a damaging manner
- Road structural components shall have a Design Limit Load (DLL) based on Indiana Size and Weight Laws under Title 9 Article 20 (Maximum allowed gross weight is 80,000 lbs.)
 - Examples of reoccurring traffic on TOCL roads supports DLL
 - Construction vehicles (Cement Truck, Dump Truck, Equipment Trailer)
 - Fully loaded truck has a gross weight of ~66,000 lbs.
 - Sanitation vehicles
 - Fully loaded truck has a gross weight of ~51,000 lbs.
- If requirements cannot be achieved, then special traffic rules will be considered to prevent premature damage to road segment