

2025 RETAINING WALL AND LANDSLIDE REPORT



Department of Transportation and Engineering
Division of Engineering
Structures and Geotechnical Section

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Note: This report includes the summaries of the walls inspected in the 2025 calendar year. Due to ongoing updates to the wall inventory system, not all wall quantities, information and ratings may be accurate at the time of publication.

INTRODUCTION

Retaining walls are an essential part of Cincinnati's transportation network, protecting roadways, sidewalks and stairways from landslides and hillside slippage. Timely maintenance is important for the safety and welfare of the traveling public. The Department of Transportation and Engineering (DOTE) is the city agency responsible for inspecting, maintaining, and improving the transportation system within the City of Cincinnati. The Wall Stabilization & Landslide Correction Program is the specific program within DOTE charged with the responsibility of maintaining the retaining walls within this transportation system and stabilizing landslides within the public right-of-way.

RETAINING WALL DATABASE AND INSPECTION

The Retaining Wall Database (RWD), formerly known as WITS (Wall Inventory Tracking System) was created in 1991. The RWD was upgraded to a geodata system in 2015 and is now directly accessed through ArcGIS. A web supported viewing and reporting system of the retaining walls contained in the RWD is also included in DOTE's Asset Management Portal. Maintenance and updating of the database is highly dependent on assistance from personnel from Enterprise Technology Solutions (ETS).

Retaining walls within or adjacent to the right-of-way have been inventoried and are included in the Retaining Wall Database (RWD). There are a total of 7,302 retaining walls having a length of approximately 173 miles included in the RWD. DOTE is responsible for maintaining 1,603 walls having a total length of 53 miles. These counts and lengths of walls do not include walls constructed by DOTE after 2023, as we continue to update and make improvements to the RWD.

Wall Owner/Maintenance Responsibility	Wall Count	Total Length (Lin. Ft.)	Total Length (Miles)
Dept. of Transportation and Engineering	1,603	279,238	52.89
Other Departments	224	43,562	8.25
Maintenance Agreements	97	9,494	1.80
Unknown	40	7,638	1.45
Hamilton County	14	5,107	0.97
ODOT	185	53,649	10.16
Private	5,139	514,668	97.48
TOTALS:	7,302	913,356	172.98

DOTE personnel inspect DOTE walls and walls owned and maintained by other city departments. The city is divided into six inspection districts (see Inspection District Map in Section 5 of this report). Each district is inspected once every six years. In addition, all walls that are rated in poor or critical condition are inspected yearly regardless of the district in which they are located. Other inspections are performed if a wall is damaged in an automobile accident or if a complaint is received.

The objectives of the inspections are to:

1. Locate and determine the extent of any weakness or damage so that appropriate corrective actions can be taken to ensure public safety.

2. Provide a current information database on the condition of City-owned retaining walls within Cincinnati so that maintenance, repair, and replacement projects can be scheduled efficiently.

The goal of the Wall Stabilization and Landslide Correction Program with respect to retaining walls is to preserve the structural integrity of all walls maintained by DOTE. DOTE established the following performance measures to track progress toward accomplishing this objective.

1. DOTE personnel will annually inspect all City-owned retaining walls in one inspection district and all walls with a condition rating of between 3 and 4 (Poor) or greater than 4 (Critical). DOTE personnel will also inspect new, replaced, repaired, and damaged walls. They will maintain an inventory of all walls that are in or near public streets within the City of Cincinnati and annually submit a report summarizing the condition of City-owned walls.

DOTE personnel inspected a total of 290 walls having a total length of 9.78 miles in the 2025 inspection cycle. These walls were in the communities of:

*42 – Lower Price Hill
43 – East Price Hill
44 – West Price Hill
46 – Sedamsville
47 – Riverside
48 – Saylor Park*

The number in front of the neighborhood name references the neighborhood number listed on the Inspection Cycle Map in Section 5 of this report. Wall inspections are typically done in the first quarter of the year.

Section 4 of the report summarizes the results of the inspections completed in 2025.

2. Within the limits of available funding, retaining wall personnel will develop and manage a wall maintenance, repair, and replacement work program to maintain a Structural Condition Rating of 3 or less (Satisfactory to Excellent) for 80% or more of the walls maintained by DOTE.

At the present time, more than 94 percent of the walls by count and more than 93 percent of the 53 miles of walls maintained by DOTE have structural condition ratings less than 3, placing them in the category of "satisfactory" or better.

RETAINING WALL CONDITION SUMMARY

Tables and graphs summarizing the condition of DOTE maintained walls and other city-maintained walls are shown in Section 2 of this report. The rating of each wall is based on the structural condition rating which ranges from Excellent (0) to Critical (4). The structural condition ratings are defined in Section 2 of this report. Eighty-four (84) of the 1,603 walls (5%) maintained by DOTE have a Structural Rating of Poor (3-4). Seven (7)

of the DOTE-maintained walls (0.4%) have a Structural Rating of Critical (4 or higher). Tables of all DOTE walls and walls maintained by others with a Poor, or Critical condition rating are also listed in Section 2.

A list of the priority and the estimated costs to replace or repair DOTE maintained walls, bringing them to a condition of "satisfactory" or better, is shown on the Wall Repair Priority and Estimated Cost List in Section 3 of this report. The list identifies whether the cost to replace/repair is a capital or maintenance expense. The estimated costs are conceptual and are primarily based on the inspection reports and photographs. The costs are only intended to establish basic funding needs and are not considered to be Engineer's estimates. The priority for replacement/repair is based on the walls' impact on public safety, performance, the usage of the area it supports, likelihood of further deterioration if not repaired, and degree of consequences if left unrepaired.

A summary of the Wall Repair Priority & Estimated Cost Table is given below.

Note: Due to upgrades being made to the Retaining Wall Database system and ongoing reorganizing of repair priorities and efforts, this table and the data tables in Section 3 of this report have not been updated for the current year. The data presented is the same as the data from the 2024 report.

WALL REPAIR PRIORITY AND ESTIMATED FUNDING SUMMARY

Capital Cost

High Priority (5 walls)	\$460,000
Medium Priority (19 walls)	\$1,132,600
<u>Low Priority (33 walls)</u>	<u>\$2,960,880</u>
TOTAL (57 walls)	\$4,553,480

Maintenance Costs

High Priority (42 walls)	\$121,800
Medium Priority (91 walls)	\$323,000
<u>Low Priority (99 walls)</u>	<u>\$178,920</u>
TOTAL (232 walls)	\$623,720

The total estimated maintenance and capital construction cost to replace/repair the walls to bring all walls to a condition of Satisfactory or better is \$5,177,200. This estimated cost does not account for costs associated with design, construction management, real estate, or inflation. Not included in the High Priority Capital Cost portion of the summary are retaining walls that are in the 6-year plan: Sycamore Street Retaining Wall, Riverside Drive Retaining Wall at Friendship Park and Eleanore Place at Gage Stairway. The total construction cost of these three wall projects is estimated at \$2.4 million, which is partially funded by the federal PROTECT grant.

FUNDING

In 1987, the Smale Commission, which studied Cincinnati's infrastructure, put an emphasis on the need to stabilize a backlog of landslides and the need for the repair and replacement of retaining walls throughout the city. Annual Capital funding for the Wall Stabilization and Landslide Correction Program which began in 1989 has substantially

declined over the years from a high point of \$1.84 million in 1995 to a low of \$550,000 in Fiscal Year (FY) 2016. FY2026-FY2030 planned capital resource allocation averages nearly \$900,000 annually.

Maintenance Funds specifically for the maintenance of retaining walls were at an annual level of \$500,000 between 1989 and 1992 and \$200,000 between 1993 and 1995. Neither DOTE nor Public Services received maintenance funds between 1996 and 2020.

Operating Funds in an amount on the order of \$200,000 annually were added to the budget in 2021 for the maintenance of retaining walls. These funds are managed by the Wall Stabilization and Landslide Correction Program for minor to moderate repairs.

Major repairs or complete reconstruction of retaining walls are funded from the same Capital funds used for landslide stabilization projects. Most of the salaries of DOTE personnel within the program are funded directly from the program. Construction management and inspection services are also funded from the program.

As of October 3, 2025, the available balance in the Wall Stabilization and Landslide Correction Program is \$1,547,726.06, which includes the \$790,000 allocation for Fiscal Year 2026.

The Wall Stabilization & Landslide Correction Six-Year Plan included in Section 3 of the report demonstrates that the current level of funding is not sufficient to adequately address the maintenance and replacement of existing retaining walls and the stabilization of landslides which impact the roads. The total of existing funds and projected funding over the next five-year period for fiscal years 2025 to 2029 is \$6,309,726. Expenses in the six-year plan total \$20.3 million with most of the budget being used for the stabilization of landslides. As previously shown, the estimated conceptual construction cost to repair or replace structurally deficient retaining walls alone is on the order of \$5.2 million and this work is not included in the 6-year plan.

Outside Funding (Grants)

The Wall Stabilization and Landslide Correction Program is highly dependent on securing outside funding. Completing the projects proposed in the six-year program plan will rely on obtaining nearly \$14 million in outside funding from various sources, including annually administered SORTA Metro Transit Infrastructure (MTIF) grants and Ohio Public Works Commission (OPWC) State Capital Improvement Program (SCIP) grants.

An OPWC grant from the round of awards in 2023 will be used to cover a large portion a proposed landslide repair project to along Columbia Parkway, south of the Beechmont Avenue intersection.

A table showing the currently awarded grants is included below.

In 2024, the City was awarded a federal PROTECT grant through the USDOT and Federal Highway Administration (funded by the Bi-partisan Infrastructure Law) to assist in funding for 10 locations (8 projects).

Two of the applications that DOTE submitted in September 2025 would help fund the local match to the PROTECT grant for a wall repair on Riverside Drive and a landslide repair on River Road.

The six-year plan is dynamic and will be revised pending the availability of outside funding or if circumstances, such as prolonged rainfall, cause a change in priorities.

Retaining wall and landslide locations will continually be inspected and evaluated. The program will prioritize allocated funding to address the most critical locations given the constraints of the budget.

Grant Name*	Grant Application Year	Project	Grant Value	Approx. % of Project Cost	Anticipated Required Local (DOTE) Match
SCIP	2023 (Round 38)	Columbia Parkway, South of Beechmont	\$1,166,000	80	\$291,500
PROTECT	2023	Hillside Avenue Landslides	\$3,024,732	80	\$756,183
PROTECT	2023	Faraday Road Landslide	\$1,433,922	80	\$358,481
PROTECT	2023	Riverside Drive Retaining Wall at Friendship Park	\$1,762,023	80	\$440,506
PROTECT	2023	River Road Landslide, East of Southside	\$1,568,495	80	\$392,124
PROTECT	2023	Sycamore Street Retaining Wall	\$292,948	80	\$73,237
PROTECT	2023	Eleanore Place, Retaining Wall and Coy Street Landslide	\$1,321,390	80	\$330,348
PROTECT	2023	Columbia Parkway, South of Beechmont and Riverside Drive at Rookwood Overpass	\$676,314	80	\$525,387
SUM			\$11,245,824		\$3,167,766

* MTIF - Metro Transit Infrastructure Fund

SCIP - State Capital Improvement Program, administered by Ohio Public Works Commission

PROTECT - Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation Program, USDOT, Federal Highway Administration

PROJECTS COMPLETED – SEPTEMBER 2024 THRU SEPTEMBER 2025

Nine (9) retaining wall or landslide stabilization projects were completed between September 2024 and September 2025. Additionally, tree maintenance was contracted in 8 neighborhoods. These projects are summarized below.

Anderson Ferry Retaining Wall

Neighborhood: Riverside

Final Construction Cost: \$857,912

Design, Overhead and Construction Management Costs: \$243,338

Hillside movement had caused the retaining wall along the west side of Anderson Ferry Road, between Hillside Avenue and River Road to flex and the wall was being overtopped by soil. The sidewalk had buckled and was closed in February of 2020. The project has stabilized the slope with a tied-back soldier pile retaining wall constructed behind the existing wall. The wall was also extended 45 feet south from the existing wall to allow for the walk to be extended, closing a long-standing gap. The new walls allow stormwater infrastructure to properly collect water behind the wall to allow the sidewalk to be repaired and extended to River Road.

This project was requested by the Riverside Community and was funded by a combination of a Community Budget Request capital funding allocation (\$300,000), a Metro Transit Infrastructure Fund grant (MTIF, \$587,942) and Stormwater Management Utility (SMU, \$48,411). The Wall Stabilization and Landslide Correction Program funded the investigation, in-house design, real estate acquisition and construction management/testing.



Anderson Ferry Road, Before



Anderson Ferry, Completed

Art Museum Drive

Neighborhood: Mt. Adams (Eden Park)

Final Construction Cost: \$1,379,728

Design, Overhead and Construction Management Costs: \$182,391

Hillside movement impacted Art Museum Drive for a distance of approximately 662 feet from its intersection with Eden Park Drive. The retaining wall constructed in the 1930's was founded within the overburden soil and was failing, causing separation of the sidewalk from the curb, deterioration of the sidewalk, separation of the curb from the roadway and tension cracks within the pavement.

The stabilization project involved the installation of a drilled pier retaining wall along the downhill side of the existing retaining wall. Thirty-inch diameter piers were installed at eight (8) feet on center. Precast concrete panels and a wall cap were installed between and on top of the piers. The sidewalk was widened and a new vehicle barrier and pedestrian rail were installed on the wall. The existing cable post guardrail on the south side of Eden Park Drive was also replaced with steel-backed timber rail as part of this project.

DOTe applied for and was granted a Metro Transit Infrastructure Fund grant from SORTA in program year 2022. This project was funded in large part by this MTIF grant (\$1,089,072) with Cincinnati Parks (\$178,140) and the Wall Stabilization and Landslide Correction Program (\$112,516) funding the balance of construction costs. The Wall Stabilization and Landslide Correction Program funded the investigation, in-house design and construction management/testing (\$182,391).



Art Museum Drive, Before



Art Museum Drive, Completed

Beekman Street (@ 3090)

Neighborhood: North Fairmount

Approximate Construction Cost: \$126,806 (part of a \$15,303,105 project)

Investigation and In-House Design Costs: \$17,714

A private retaining wall collapse on the property at 3090 Beekman Street caused a landslide that extended up to the roadway, resulting in the destruction of the sidewalk and the realignment of curb. Pavement was being distressed and there was fear of distress to adjacent utilities. The Department of Community and Economic Development (DCED) had taken control of the property.

DOTe designed a soldier pile wall comprised of 12 piers with steel piles and pre-cast concrete lagging panels. DOTe was awarded OPWC SCIP funding for a much larger street improvement/pedestrian safety project that included this wall as it was needed to repair the sidewalk, curb and pavement in this area. The overall project funding sources, in conjunction with the SCIP grant, were able to cover the cost for the wall/landslide repair. The Wall Stabilization and Landslide Correction Program funded the investigation and in-house design (\$17,714).



Beekman Street, Before



Beekman Street, Completed (Roadway Work Ongoing)



Beekman Street, Before

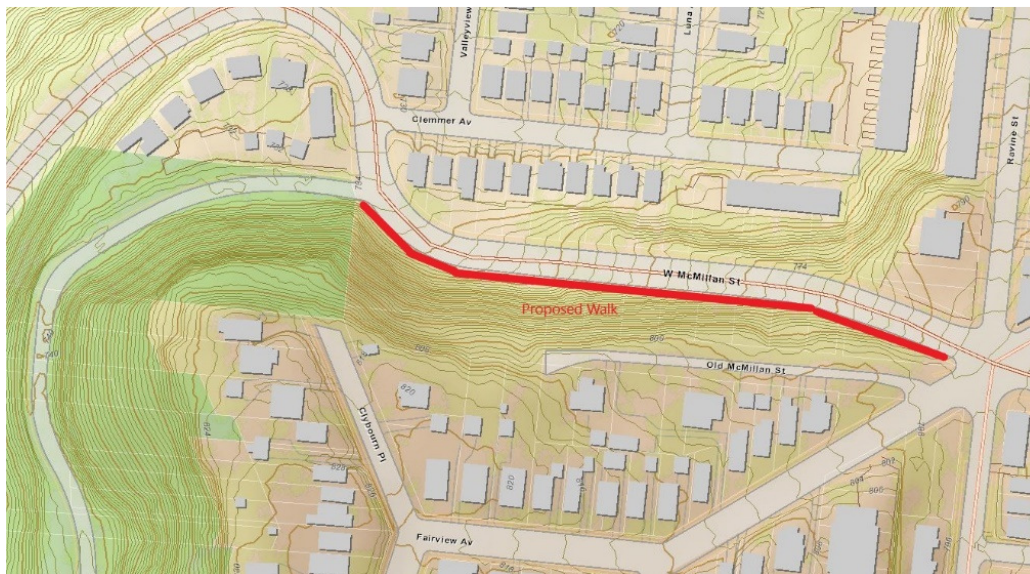


Beekman Street, Completed

McMillan Street Sidewalk Improvement

Neighborhood: CUF

Approximate Wall Construction Cost: \$232,700 (part of a \$543,221 project)



McMillan Street Sidewalk Improvement – Vicinity Map

This project was funded as a Capital Improvement Project to extend sidewalk along the south side of McMillan Street from Fairview Park Drive to Ravine Street. Installation of the sidewalk required construction of a retaining wall along approximately 700 of the 850 ft. of new walk. Project design was nearly complete in July of 2022 when significant movement of the landslide below Old McMillan Avenue required an Emergency Design/Build stabilization project. This stabilization delayed the completion of the McMillan Street Sidewalk to this year.



McMillan Sidewalk, Before



McMillan Sidewalk, Completed

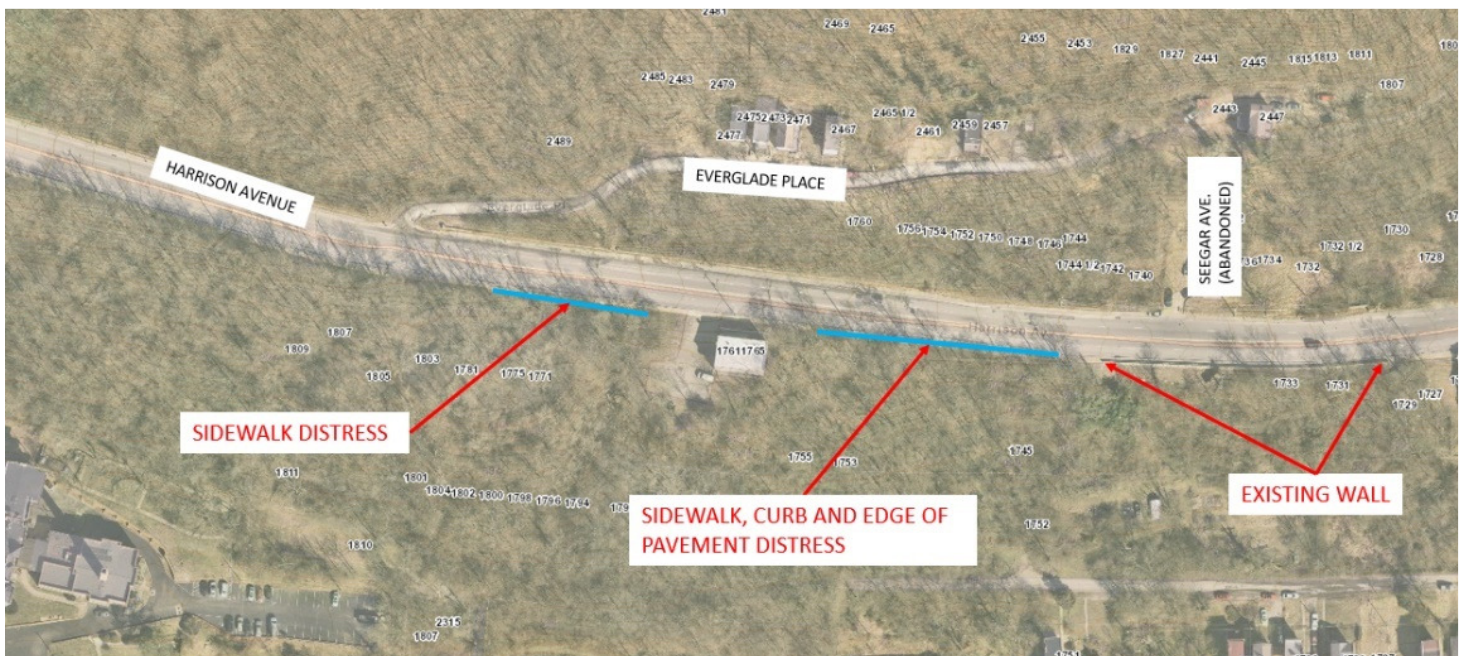
Harrison Avenue Landslide Correction (east of Everglade Place)

Neighborhood: South Fairmount

Approximate Construction Cost: \$400,864 (part of a \$7,600,000 project)

Private properties that were filled for apartment developments in the early to mid-1900's created an instability along the south side of Harrison Avenue, east of Everglade Place. The apartments were razed in the 1960's due to landslide damage. The landslides span east and west from a single remaining apartment complex at 1765 Harrison Avenue. Slope movement has resulted in the destruction of the sidewalk and the realignment of curb. Pavement was being distressed and there was fear of distress to adjacent utilities. A safety improvement project was planned in the area, requiring the sidewalk to be repaired and reopened. Two (2) drilled piers and plug walls 195 feet and 176 feet in length were designed in-house and constructed as part of the safety improvement project. The wall allows for reconstruction of the curb and walk.

The safety project funding sources (City capital budget, MTIF grant and ODOT safety improvement grant) were able to cover the cost for the wall/landslide repair.



Harrison Avenue – Wall Locations (in blue)



Harrison Avenue, Before



Harrison Avenue, Wall Complete, Roadway Work Ongoing

West Fork Road Landslide Correction (opposite 2037 to 2023)

Neighborhood: Westwood/Mt. Airy

Final Construction Cost: \$373,056

Investigation, Design, Overhead and Construction Management Costs: \$73,571

Slope movement began at the east end of two previous landslide stabilization projects along the north side of West Fork Road. This movement was first noticed in March 2025. DOTE applied for and received a grant for 90 percent of construction costs through the OPWC Emergency Program.

The project involved extending the existing drilled pier walls an additional 275 feet to the east and included some stormwater inlet and outfall reconstruction as well as new guardrail and pavement patching. The project was designed in-house by Wall Stabilization and Landslide Correction Program personnel and bids were secured using emergency purchasing procedures.

Construction began in late June, 2025 and required a full closure of West Fork Road. The project was substantially complete and the roadway was reopened in early August.

The construction was 90% funded with an OPWC Emergency Program grant allocation. The balance of construction costs were covered with Street Improvement capital funds. The Wall Stabilization and Landslide Correction Program funded the investigation, in-house design, and construction management/testing (\$73,571).



West Fork Road Landslide Correction, Before



West Fork Road Landslide Correction, Completed

Maryland Avenue Retaining Wall Repair (at Morrow Place)

Neighborhood: East Price Hill

Final Construction Cost: \$88,470

A section of modular retaining wall constructed in 2000 settled and translated (slid) downslope. This resulted in sidewalk settlement and loss of curb across from Summit Avenue.

DOTe Contracted for the removal and reconstruction of the eastern 114 feet of the wall, including the additional wall depth, new wall cap, reuse of railing, and replacement of walk and curb.



Maryland Avenue Wall Reconstruction – Before



Maryland Avenue Wall Reconstruction Completed

Eucliden Alley Retaining Wall Reconstruction

Neighborhood: Corryville

Construction Cost: \$73,853 (approx. – final invoice forthcoming)

In-House Design, Real Estate and Project Management Costs: \$53,541 (\$29,490 of which is real estate acquisition payments)

A 20-foot-long section of cantilevered concrete retaining wall from 1929 at the north end of the alley was at risk of collapse. A similar section to the south of this area was replaced with modular retaining wall units in 2007.

DOTe contracted for the removal and reconstruction of the northern 20 feet of this wall. During construction, it was noted that the 2007 repair was constructed with a batter (lean)

that matched the already leaning section being replaced. As a result, the project was expanded to include restacking of the wall blocks placed in 2007 to better align with the new project and future work that will be needed going further south. This future work is in the 6-year program plan.

The project coincided with the private property owner replacing portions of the private wall along Charlton Street, as seen in the post-construction photo below.



Eucledan Alley Wall Reconstruction – Before



Eucledan Alley Wall Reconstruction - Completed

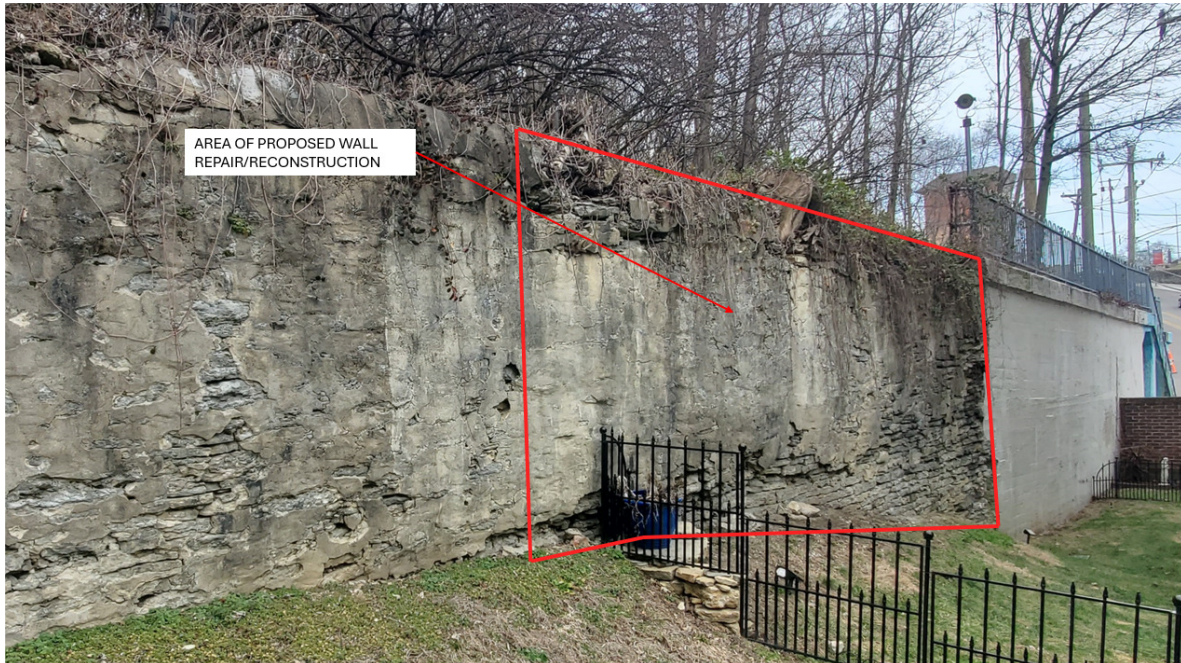
Sycamore Street Wall Reconstruction (1809 Sycamore)

Neighborhood: Mt. Auburn

Construction Cost: \$108,290 (approx. – final invoice forthcoming)

A 40-foot long section of a stone gravity wall located along the north side-yard of the property at 1809 Sycamore Street and presumed to date from the late 1800's/early 1900's was at risk of collapse. The risk of failure could have impacted the adjacent house.

DOT E contracted for the removal and reconstruction of 40 feet of this wall by restacking a similar gravity, mortared stone wall.



Sycamore Street Wall Reconstruction – Before



Sycamore Street Wall Reconstruction - Completed

Misc. Wall Tree Removal

Various Neighborhoods

Approximate Construction Cost: \$15,000

DOTe provided a delivery order under a current Citywide contract for "Emergent and Routine Arboricultural Maintenance" for removal of vegetation that is impacting retaining walls in various locations throughout the City. The Contractor (Tree Care, Inc.) completed work at 12 sites in 8 different neighborhoods.

PROJECTS CURRENTLY UNDER CONSTRUCTION (OR BEGINNING) IN 2025

Yoast Avenue Reconstruction

Neighborhood: North Fairmount

Approximate Wall Construction Cost: \$517,570 (part of a \$1,372,352 project)

This project involves the raising of a low section of Yoast Avenue to relieve frequent flooding. The project was designed by a consultant managed by Stormwater Management Utility (SMU) in conjunction with MSDGC. A major component of the project is a 330-foot-long prefabricated modular retaining wall (PMRW) that will support the new roadway grade. The wall reaches a maximum height of approximately 11 feet and incorporates a precast vehicle barrier into the wall system.

DOTe reviewed and provided input during the planning and design of the project for roadway items and is managing the construction phase. Personnel in the Wall Stabilization and Landslide Correction Program reviewed the planning and are reviewing the construction stages of the project. DOTe will assume maintenance responsibilities for the new roadway, wall and barrier. The project is funded by various infrastructure funds and programs managed by SMU and MSDGC.



Yoast Avenue Reconstruction – Before



Yoast Avenue Reconstruction – During Construction

Airport Road Improvements

Neighborhood: East End

Approximate Wall Construction Cost: \$140,918 (part of a \$1,448,280 project)

This project involves street improvements, which center around constructing a sidewalk along the west side of Airport Road. The project requires two (2) retaining walls, the larger of which is a 100-foot long cast-in-place wall along an embankment leading up to a building. The smaller wall will be a prefabricated modular retaining wall (PMRW). Personnel in the Wall Stabilization and Landslide Correction Program designed these walls in-house. The project is beginning construction and is funded by a combination of DOTE capital improvement programs.



Airport Road Improvements – Before



Airport Road Improvements – During Construction

SIGNIFICANT TROD REPAIRS/WORK September 2024- September 2025

DOTe works with the Department of Public Services (DPS), Transportation and Roadway Operations Division (TROD) to accomplish general wall maintenance and the cleanup of debris from landslide activity. This often includes minor concrete and railing repairs due to automobile accidents, vandalism or normal aging.

This year, most of the work coordinated with TROD involved stairs, which are not covered in this report.

One significant wall-related work order was completed via coordination with TROD this year.

Wall Cap Grout Filling

Neighborhoods: Various

Cost: \$20,000

This work order involved repairs to wall caps in 28 locations around the city. These repairs focused on a recurring condition where railing posts are installed and the grout surrounding the post settles. This creates a pocket for water and debris to accumulate. The water leads to rust that, if left unchecked, eventually destroys the post and loosens the railing, requiring premature replacement. The following locations/walls were addressed by TROD this year. This was funded by the operating funds managed by the Wall Stabilization and Landslide Correction Program.

Wall #	Street	Length	Area	Type	Comments	Coordinates	Address/Location
250-124	First Ave	90	450	PC	Grout railing post holes to prevent water retention and rust.	39.11689,-84.57886	1279 1st Ave
288-143A	Maryland Ave	282	3300	MS	Grout railing post hole recess's(collects water)	39.10935,-84.56005	Maryland & Chateau
288-143B	Maryland Ave	272	2000	MS	Grout railing post hole recess's(collects water), trim protruding incho.	39.10907,-84.55902	Maryland & Chateau
298-034	Kirby Ave.	145	250	PC	Replace missing railing section; grout rail post pockets; patch wall cap/sidewalk	39.16848,-84.54701	475' N of Bruce Ave; W side
298-057	Hamilton Ave.	103	400	PC	Grout rail posts recess to avoid moisture retention.	39.17166,-84.54382	1610 Frederick Ave
300-020	Hillcrest Ave.	132	2150	PC	Grout rail posts recess to avoid moisture retention.	39.19034,-84.54104	1219 Hillcrest Rd
328-028	Probasco St	141	1000	CC	Grout rail post pockets to prevent water from collecting/ rail is wobbly when pu	39.13458,-84.52665	2913 Marshall Ave
329-104	Klotter Ave.	43	300	CC	Grout rail post pockets.	39.12318,-84.53178	620 Klotter Ave
329-109A	Conroy St.	137	1100	G2	Grout railin post pockets to prevent rusting post and wall cracks/cap popouts. F	39.12298,-84.53014	548 Conroy St across st
329-109B	Conroy St.	275	3400	G2	Grout railing post pockets to prevent rusting post and wall cracks/cap popouts.	39.12286,-84.52921	522 Conroy St across st
329-109C	Conroy St.	234	1900	G2	Grout railing post pockets to prevent rusting posts and wall cracks/cap popouts	39.12280,-84.52879	508 Conroy St across st
329-110A	Conroy St.	75	700	G2	Grout railing post pockets to prevent rusting posts and wall cracks/cap popouts	39.12275,-84.53070	608 Conroy St across st
329-110B	Conroy St.	25	300	G2	Grout railing post pockets to prevent rusting posts and wall cracks/cap popouts	39.12271,-84.53048	604 Conroy St across st
329-110C	Conroy St.	44	350	G2	Grout railing post pockets to prevent rusting posts and wall cracks/cap popouts	39.12309,-84.53087	602 Conroy St across st
330-061	Clifton Ave West	68	300	G2	Reset fallen/missing stones in top course; grout rail pockets.	39.12042,-84.52013	20656 W Clifton Dr
330-078	Mulberry St.	180	700	PC	Patch cap, resecure and grout railing posts.	39.11756,-84.51510	93 Mulberry St
331-027	Mound St.	102	350	CC	Grout rail post pockets.	39.10727,-84.52356	1077 Mound St
332-002	Third st W.	116	2400	PM	Grout rail post pockets.	39.09744,-84.52020	400' W of Central Ave, S side
332-008	Third st W.	292	2300	CC	Re secure wobbly hand rail; grout rail post pockets.	39.09725,-84.52463	640 W 3rd St
332-009	Third st W.	254	4500	G2	Grout rail post pockets.	39.09739,-84.52051	230' E of Clay Wade Bailey
335-020	Butler st.	212	800	CC	Grout pocket post pockets to prevent post corrosion.	39.10266,-84.50224	408 Butler St
335-338	Hill St.	92	200	G5	Repair conc and reanchor railing post/ grout rail posts pockets.	39.10595,-84.49670	935 Hill St
375-073	Elmhurst Ave	32	260	G2	Replace missing post cap/ grout rail post pockets	39.13026,-84.46248	7 Elmhurst PL
421-001	Airport Rd	138	1000	OT	Grout railing post pockets.	39.10838,-84.43194	4105 Airport Rd
422-012	Eastern Ave	53	600	G2	Grout railing post pockets.	39.11341,-84.42223	4467 Eastern Ave
423-055	Alpine Ter.	14	45	CC	Fill recessed rail pockets with grout.	39.12832,-84.43108	825 Delta Ave
423-061B	Mt Lookout Squ	280	900	G3	Fill recessed rail pockets with grout.	39.12899,-84.43018	1018 Delta Ave
470-004	Beechmont Ave	177	1300	CC	Remove and repair delam @ rail post over walk; grout rail post pockets.	39.09701,-84.38712	2320 Beechmont

ADDITIONAL PROJECTS AND RESPONSIBILITIES

Engineers in the Wall Stabilization and Landslide Correction Program review Building Permit applications that are routed to them by the Plans Examiners in the Department of Buildings and Inspections (B&I). The Engineers also assist the inspectors in the Building Construction Inspection Section and the Property Maintenance Division. Expert testimony is provided by the Engineers in cases concerning hillside stability.

Development plans for coordinated site reviews having Geotechnical concerns are regularly reviewed by Wall Stabilization and Landslide Correction Program personnel. During the past two years, personnel have had significant involvement including developments known as Tusculum Ridge North and Tusculum Ridge South (eastern Avenue) and Torrence Station (Torrence Road at Riverside Drive).

Wall and Landslide Program personnel respond to Customer Service Requests (CSRs) for wall and landslide issues and respond to numerous requests from the public that are referred directly to them.

Areas that are known to be landslide-prone are reviewed after significant rain events. Slope monitoring equipment known as "inclinometers" are installed at various locations throughout the city. The inclinometers are read by our personnel every four to six months.

In addition to the program specific projects, the Engineers and Technicians in the Wall Stabilization and Landslide Correction Program also design walls and provide consulting services to the other DOTE sections and to other City Departments including Greater Cincinnati Water Works (GCWW), Parks, Buildings and Inspection, Community and Economic Development, Stormwater Management Utility and the Metropolitan Sewer District (MSD). Examples of work underway with other DOTE Sections and City Departments are listed below.

Wasson Way, Phases 7

This final phase (Phase 7) at the west terminus of the Wasson Way trail requires subgrade stabilization and at least three new retaining walls. Wall Stabilization and Landslide Correction Program staff worked with the Design Team from other DOTE sections to coordinate a Geotechnical Exploration for the project, refine the project alignment and design the required retaining walls. This project is scheduled for construction in 2026.

Red Bank Road Shared Use Path

Review of consultant scope of work for investigation and design of retaining walls near the intersection of Red Bank Road and Duck Creek Road. Due to project schedules and budget, Wall Stabilization and Landslide Correction Program staff will be providing the wall design documents for inclusion in the plan package.

Brighton Bridge Replacement

Wall Stabilization and Landslide Correction Program personnel have provided field support for the construction of this bridge, which includes deep foundations, approach walls and rehabilitation of a large gravity wall along the east side of Central Parkway.

Western Hills Viaduct Replacement

Wall Stabilization and Landslide Correction Program personnel assist with review of consultant-led Geotechnical investigation and development of demolition plans for nearby structures having buried tunnels and vaults.

Center Hill Landfill Repurposing

Wall Stabilization and Landslide Correction Program personnel continue to work with the City Manager's office, the Office of Environment and Sustainability and other DOTE personnel to facilitate a feasibility study for repurposing the closed City-owned landfill. This project involves considerable Geotechnical and Environment constraints. This study was completed in August 2024.

Carll Street Retaining Wall Replacement/Stabilization

Neighborhood: North Fairmount

Anticipated Construction Cost: \$134,881

In-House Design and Project Management Costs: \$5,000 (estimated, \$2,010 to date)

Wall Stabilization and Landslide Correction Program personnel have been working with the City Manager's office, the Department of Buildings and Inspections and Cincinnati Recreation Commission to stabilize and replace portions of a retaining wall built in 1929 that runs along the rear of the Carll Street Recreation Area and the North Fairmount Community Center. Portions of the cantilevered concrete wall will be rebuilt with prefabricated modular retaining wall (PMRW) blocks and the excavated soil from the wall construction will be placed as a buttress fill in front of remaining portions of the wall.

Program personnel have completed the design of the wall and have applied for building permits. The construction has been procured through emergency procurement procedures and is expected to begin in the fall of 2025. The project is being funded through various funds managed by the City Manager's Office as well as CRC funding for the portion of the work on their property. The design and project management is being funded by the Wall Stabilization and Landslide Correction Program.

FUTURE PROJECTS

Significant projects that are included in the 6-Year Plan are summarized below.

Columbia Parkway Landslide South of Beechmont Avenue (PROTECT)

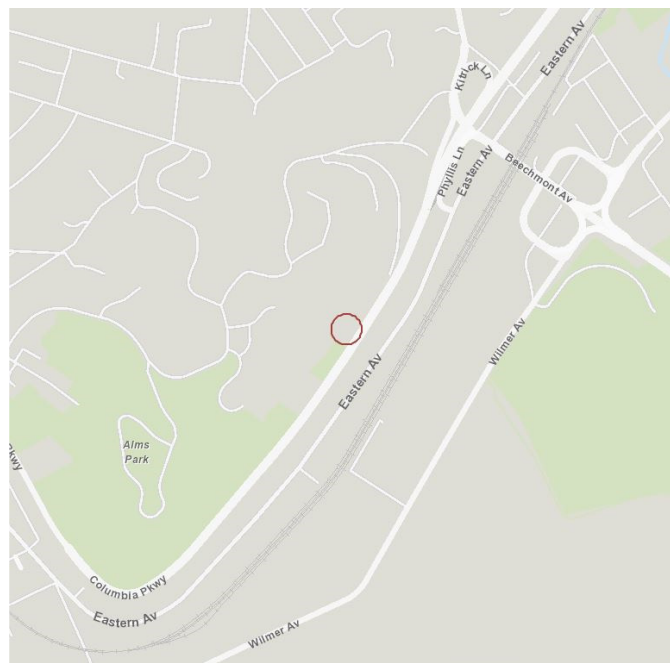
Neighborhood: Linwood

Estimated Construction Cost: \$1,444,000

Estimated Preconstruction and Construction Management Costs: \$200,000

Anticipated Construction Year: 2026

Public Services trimmed the vegetation along Columbia Parkway in the summer of 2020. The removal of the vegetation exposed the toe of a landslide on the hillside above the retaining wall between Beechmont Avenue and the curve in the parkway below Alms Park. Comparison of photographs of the area suggests that the slide occurred sometime after June of 2018.



Columbia Parkway Landslide, South of Beechmont, Area Map

A drone flight that included LIDAR to produce a topographic survey of the landslide and surrounding area was done in the spring of 2022. Landslide features were surveyed in early spring of 2023 and a test pit investigation was coordinated in spring of 2024. Although the slide mass is relatively dormant, corrective measures are necessary to remove the threat of rapid movement onto the pavement. Removal of the toe cannot take place until the slide mass is stabilized.

The landslide has a width as measured along the retaining wall of 250 feet. The elevation of the top of the eight-foot-high retaining wall is on the order of 595 feet. The head scarp of the landslide extends 150 feet in plan from the back of the wall to an elevation as high as 665 feet. Depth to bedrock is expected to be less than ten feet. There are two scarps within the slide mass in addition to the main head scarp. There is also a toe bulge within the slide mass in addition to the main toe bulge at the top of the wall. Many of the trees within the slide mass, which are more than likely Ash trees, are dead.

A soil nail and catchment approach like the stabilization method used to stabilize sections of Columbia Parkway west of Kemper Lane will be used to stabilize the landslide. The lower slide debris that rests directly above and on the retaining wall would be removed exposing the weathered bedrock surface. A 20-foot-wide catchment area will be placed just behind the existing wall. It is anticipated that an approximate 1.5H:1 cut will be initiated from the backside of the proposed catchment and extend through the bedrock and into the colluvium to its intersection with the existing ground surface. The colluvium and weathered bedrock exposed along the cut will be stabilized with a pattern of evenly spaced soil nails embedded sufficiently into the bedrock to derive the required resistance. The exposed surface in the cut will be covered with a turf reinforcement mat (TRM) followed by a high-tensile steel wire mesh anchored to the soil nails. The ground surface will be hydroseeded with a native wildflower and grass mixture.

Maintenance of traffic (MOT) will be a significant item. Inbound traffic will need to be diverted to the inbound lane. This requires removal of the existing center barrier for inbound traffic to enter and exit onto the outbound side of the barrier. This is the same MOT used on the ODOT repair of the Columbia Parkway bridges outbound of the landslide in CY 2022 and 2023. A construction ramp will be necessary to allow construction equipment onto the hillside above the existing retaining wall. Access to the landslide cannot be obtained outside of the landslide width in order not to destabilize the hillside.

This project is to be funded by both an OPWC-SCIP grant (2023) and the federal PROTECT grant (2024). The project is expected to be let as a design-build contract.



Columbia Parkway Landslide, South of Beechmont



Columbia Parkway Landslide, South of Beechmont

Riverside Drive Landslide at Rookwood Overpass

Neighborhood: East End

Estimated Construction Cost: \$561,000

Estimated Preconstruction and Construction Management Costs: \$97,892

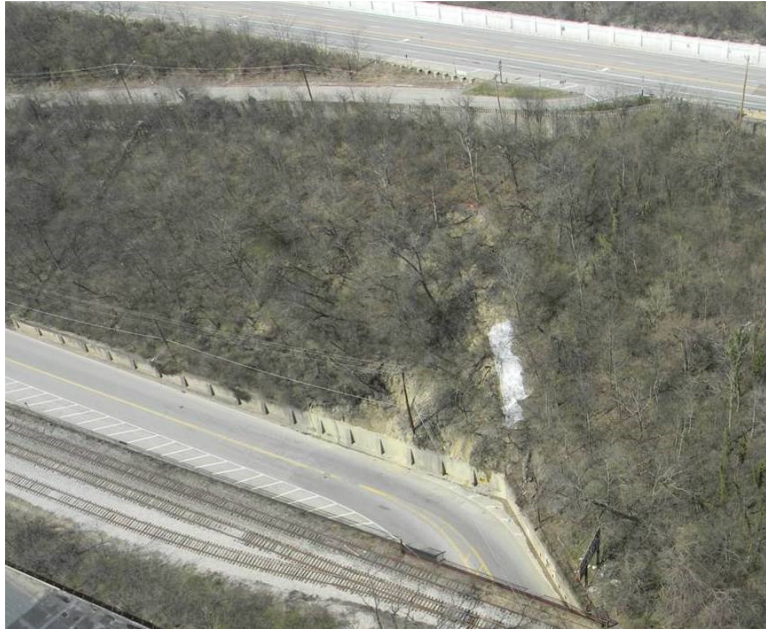
Anticipated Construction Year: 2026

A landslide occurs above the existing retaining wall on the north side of Riverside Drive, US Truck Route 50, immediately west of the Rookwood Railroad Overpass.

The elevation of the top of the existing 15-foot retaining wall is approximately El. 523. The active landslide scarp is 100 to 150 feet north of the wall, at El. 570 +/- . The slide is approximately 180 feet wide (east-west) and covers nearly 1.5 acres of hillside. Test pits performed in the area in 2012 revealed that the surface of the bedrock is 4 to 5 feet below existing grades (deeper at the toe, where bulges have formed).

(The property above the wall is owned by the Park Board. Note extent of head scarp. Plastic sheet left behind after test pits were dug in 2011 to prevent water from seeping along scarp line into the slide mass. Plastic has since deteriorated and no longer exists.)

Significant movement has not occurred since the spring seasonal rains of 2011 however the bike lane regularly has rocks and mud in it due to the slow advancement of the landslide. Removal of the toe cannot take place until the slide mass is stabilized. The threat of rapid movement will exist until the slide mass is stabilized. The pavement in the area often remains wet during the winter due to seepage out of the landslide bulges that rest on top of the wall. This water freezes before reaching inlets and causes hazardous icing conditions.



Riverside Drive at Rookwood Overpass Landslide

The stabilization project is intended to be let as design/build to allow contractors to utilize their most efficient construction concepts to achieve the goal of keeping debris out of the roadway. The work is anticipated to include the construction of a soldier pile or soil nail stabilization system located approximately 20 feet behind the top of the existing wall for a length of 180 feet. The 20-foot setback will serve as a catchment zone if the stabilization system is over-topped.

An application for a Transit Infrastructure Fund grant submitted to SORTA for Program Year 2023 was not awarded, but the project will be funded at 80% by the federal PROTECT grant (2024), with the Retaining Wall Stabilization and Landslide Correction Program providing the 20% local fund match. This will be a design-build project bundled with the Columbia Parkway project.



Riverside Drive at Rookwood Overpass Landslide

Riverside Drive Retaining Wall at Friendship Park

Neighborhood: East End

Estimated Construction Cost: \$1,565,217

Estimated Preconstruction and Construction Management Costs: \$637,312

Anticipated Construction Year: 2027

The retaining wall on the southeast side of Riverside Drive is a stacked stone wall having a height of 2 ft at the entrance to Friendship Park to as high as 11 feet at the northeastern end of the wall. The age of the wall is not known but is more than likely greater than 100 yrs. There used to be a brick guardrail along the length of the wall. The base of the brick guardrail was on top of the stone wall approximately 3 ft. below the grade of the pavement. The portion of the brick guardrail above the roadway surface was replaced in 1992 with a guardrail railing with steel post embedded into a concrete cap.

The concrete cap is broken in numerous places. Portion of the brick wall is in disrepair and nonexistent along a substantial length of the 1,275 ft. length of wall. The upper three feet of roadway is no longer supported by the retaining wall. The guardrail does not provide any vehicular safety nor does the guardrail provide any safety to cyclists.

The project will stabilize the stone wall where needed and replace the upper brick with a concrete moment slab. A combination traffic and bicycle railing will be attached to the moment slab.

Applications to the Ohio Public Works Commission (OPWC) for SCIP grants in fiscal year 2022 and 2023 (Rounds 37 and 38) were unsuccessful. This project was included as part of the awarded federal PROTECT grant (2024), which provides 80% of the expected funding needs. An application for an OPWC - SCIP grant in fiscal year 2025 (Round 37 and 40) was recently submitted to help fund the local (20%) match to the federal grant.



Riverside Drive Retaining Wall at Friendship Park



Riverside Drive Retaining Wall at Friendship Park



Riverside Drive Retaining Wall at Friendship Park



Riverside Drive Retaining Wall at Friendship Park

River Road (US 50) Landslide - East of Southside Avenue (Speedway Site)

Neighborhood: Sedamsville

Estimated Construction Cost: \$1,304,348

Estimated Preconstruction and Construction Management Costs: \$656,271

Anticipated Construction Year: 2027

A landslide located 300 feet east of the intersection of River Road and Southside Avenue extends into the eastbound travel lanes of River Road (US 50). A significant crack, with a dangerous set-down, has developed between the two eastbound lanes. The slide occurs between two retaining walls that support River Road, a private wall to the east and a public wall west of the slide. The length of the gap between the walls is on the order of 300 feet. This full gap will be stabilized.

The property on the south side of River Road is a Speedway Gas Station. DOTE worked with the gas station owner to complete test borings and install inclinometers to monitor movement. The repair type is likely to consist of a pier wall at the back of walk

This project is to be funded (80%) by the federal PROTECT grant (2024). An application for an OPWC - SCIP grant in fiscal year 2025 (Round 40) was recently submitted to help fund the local match to the federal grant. If not awarded, the Retaining Wall Stabilization and Landslide Correction Program will be providing the 20% local fund match.



River Road (US 50) Landslide - East of Southside



River Road (US 50) Landslide - East of Southside Avenue

Sycamore Street Retaining Wall

Neighborhood: Mt. Auburn

Estimated Construction Cost: \$209,598

Estimated Preconstruction and Construction Management Costs: \$156,587

Anticipated Construction Year: 2026/2027

The 15-foot-tall retaining wall at the bend in Sycamore Street below Dorchester Avenue supports a city parcel that was formerly the right-of-way of Edinburgh Street. The wall has begun to lean quite significantly and poses a threat of collapsing onto the sidewalk and roadway below.

DOTe has determined that the wall is not necessary since the Edinburgh roadway was abandoned. The leaning portion of the wall is to be removed and the slope behind will be graded. A small modular block wall will be used to facilitate the grading.

Plans are being developed by DOTE. The project is to be funded (80%) by the federal PROTECT grant (2024) with the Retaining Wall Stabilization and Landslide Correction Program providing the 20% local fund match.



Sycamore Street Retaining Wall



Sycamore Street Retaining Wall



WALL IS NEARLY 2
FEET OUT OF PLUMB

Sycamore Street Retaining Wall

Hillside Avenue Landslides (Multiple Locations)

Neighborhood: Riverside

Estimated Construction Cost: \$3,043,478

Estimated Preconstruction and Construction Management Costs: \$737,437

Anticipated Construction Year: 2026/2027

Hillside Avenue from the City limits, near Anderson Ferry Road to the east terminus at River Road has numerous areas of instability. Many areas have been repaired over the years, but areas between those sections continue to require pavement work to remain safe. Hillside movement within the areas is slow but causes continuous, compounded damage over time. Movement takes place at the soil-bedrock contact, which accelerates during periods of excessive prolonged rainfall.

The Riverside Community made a budget request that was awarded \$300,000 to initiate repairs. DOTE applied for and was awarded the federal PROTECT grant to expand the original scope of repairs. Six (6) areas between Anderson Ferry and Henrietta Street have been identified as priority and designs are currently being prepared by DOTE personnel.

The project is to be funded (80%) by the federal PROTECT grant (2024) with the community budget request (CBR) and Retaining Wall Stabilization and Landslide Correction Program providing the 20% local matching funds.



Hillside Avenue – Proposed Stabilization Areas



4291-4261 Hillside Avenue (Area 1)

Faraday Road Landslide

Neighborhood: South Cumminsville / Villages of Roll Hill

Estimated Construction Cost: \$1,304,348

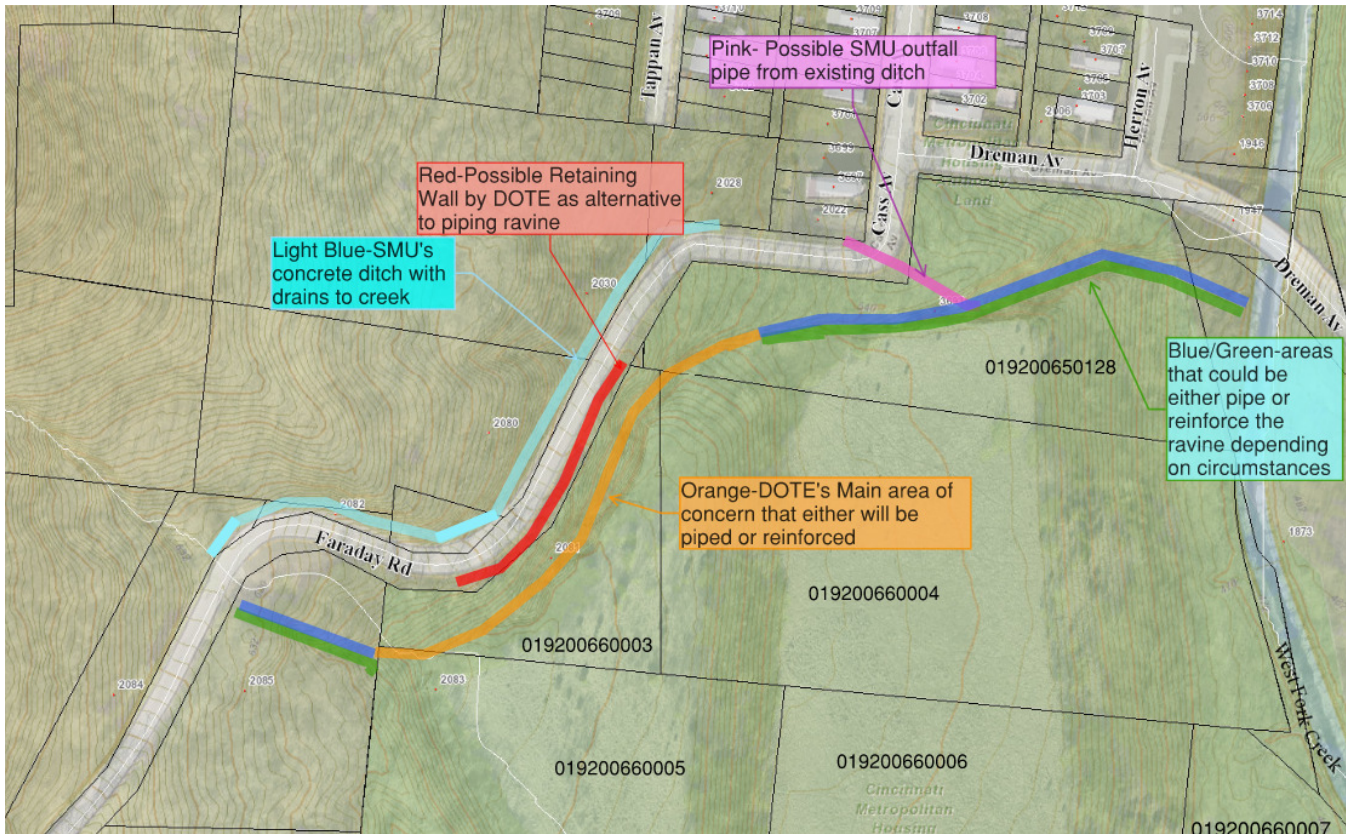
Estimated Preconstruction and Construction Management Costs: \$488,061

Anticipated Construction Year: 2027

A landslide is causing Faraday Road to slip toward an adjacent ravine. The total length of the movement is difficult to discern but appears to be 300 feet +/- and the upper limits of the slide (scarp) has resulted in a significant set-down in a sharp bend in the roadway. DOTE and Stormwater Management Utility (SMU) applied for state funding as a safety enhancement project as well as SCIP funding for an overall street improvement project for Faraday Road. The project was not awarded either of the grants.

DOTe initiated an investigation of the subsurface, including installation of an inclinometer to provide slope monitoring. The project is to be funded (80%) by the federal PROTECT grant (2024) with Stormwater Management Utility and Retaining Wall Stabilization and Landslide Correction Program funding the 20% local match.

The repair will consist of piping and filling 800 feet of the ravine along the east side of the road and will include an improved outfall to the West Fork Channel as well as a paved gutter on the west (upslope) side of Faraday Road to intercept surface water. The design is being completed by a consultant contracted through DOTE.



Faraday Road – Area of Work



Faraday Road - Scarp (set down) in Pavement (has since been patched)

Eleanor Place Retaining Wall and Gage Street Stairs

Neighborhood: Mt. Auburn

Estimated Construction Cost: \$652,174

Estimated Preconstruction and Construction Management Costs: \$173,695

Anticipated Construction Year: 2026/2027

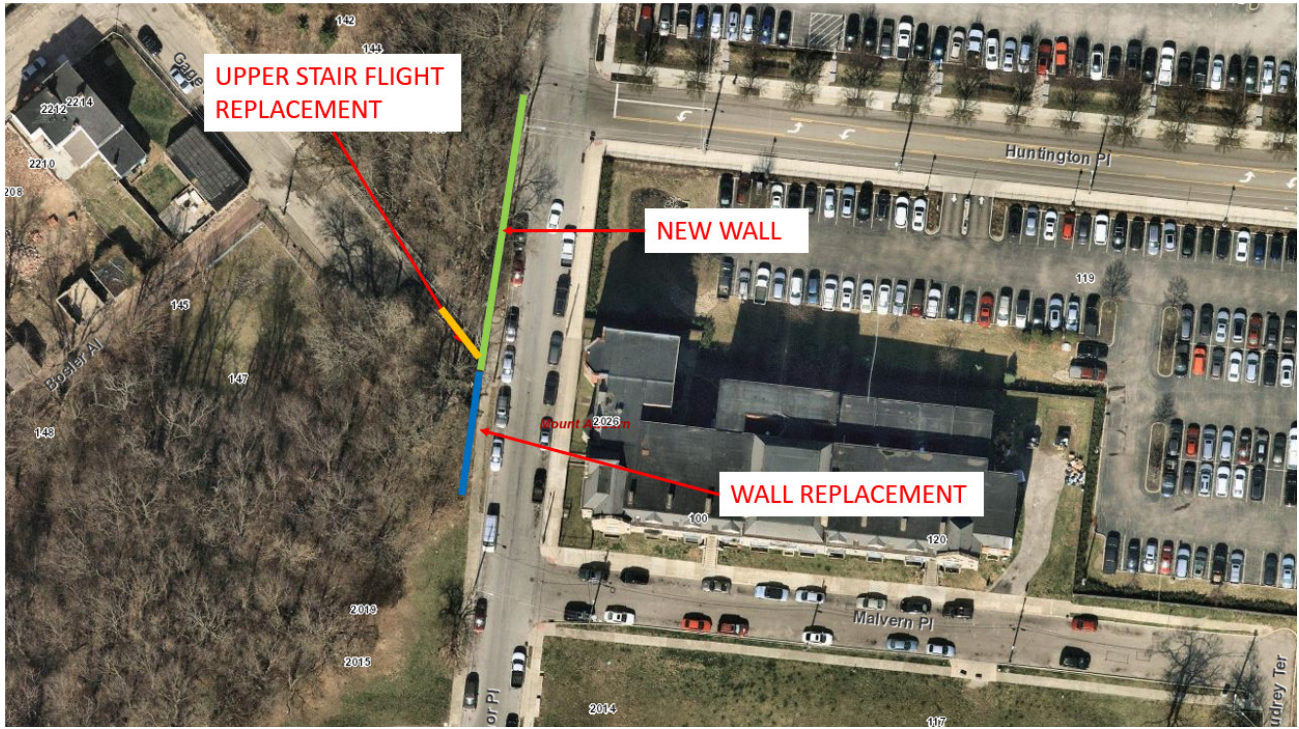
The retaining wall along the west side of Eleanor Place between Huntington Place and Malvern Place is failing and a portion has collapsed. The wall supports a structural sidewalk and serves as the upper landing for stairs that connect to Gage Street below. The failure is damaging the sidewalk and curb and the connection to the stairs. The upper flight of stairs is being pushed downslope.

The 8-foot+/- tall retaining wall, the sidewalk and the upper flight of stairs will need to be reconstructed in this area.

A buried drilled pier wall will also be added north of the stairs to remediate a slow-moving slide that has begun to impact the curb alignment.

The project extends a total of approximately 205 feet in length.

Plans are being developed by DOTE. The project is to be funded (80%) by the federal PROTECT grant (2024) with the Retaining Wall Stabilization and Landslide Correction Program providing the 20% local funding match.



Eleanor Place – Site Overview



Eleanor Place - Collapsed Wall Section



Eleanor Place - Upper Flight of Stairs (pushed by wall deflection)

Coy Street Landslide

Neighborhood: CUF

Estimated Construction Cost: \$652,174

Estimated Preconstruction and Construction Management Costs: \$173,695

Anticipated Construction Year: 2026/2027

A landslide extends into the west side of Coy Street for a length of approximately 250 feet. This has caused a crack and dangerous set-down of as much as 6 inches in the westernmost parking lane but is extending into the travel lane and toward underground utilities.

DOTE had borings drilled and is monitoring this area with an inclinometer. A buried drilled pier wall will be installed just west of the edge of pavement for a length of approximately 250 feet.

Plans are being developed by DOTE. The project is to be funded (80%) by the federal PROTECT grant (2024) with the Retaining Wall Stabilization and Landslide Correction Program providing the 20% local funding match.



Coy Street



Coy Street



Coy Street

SECTION 2

2025 Retaining Wall Rating Summary

List of Walls in Poor (3) and Critical (4) Condition

Structural Condition Rating Definitions

0 to 1 Excellent

No-to-very-low extent of very low distress. Defects are minor, are within the normal range for *newly constructed or fabricated* elements and may include those resulting from fabrication or construction. Ratings of 0-1 are only given to elements with very minor to no distress whatsoever –conditions typically seen only shortly after wall construction or substantial wall repairs.

1 to 2 Good

Low-to-moderate extent of low severity distress. Distress does not significantly compromise the element's function, nor is there significant severe distress to major structural components. Ratings of 1 to 2 indicate highly functioning wall elements that are only beginning to show the first signs of distress or weathering.

2 to 3 Satisfactory

High extent of low severity distress and/or low-to-medium extent of medium to high severity distress. Distress present does not compromise element function, but lack of treatment may lead to impaired function and/or elevated risk of element failure in the long term. Ratings of 2 to 3 indicate functioning wall elements with specific distresses that need to be mitigated to avoid significant repairs or element replacement in the longer term.

3 to 4 Poor

Medium-to-high extent of medium-to-high severity distress. Distress present threatens element function, and strength is obviously compromised and/or structural analysis is warranted. The element condition does not pose an immediate threat to wall stability. A rating of 3 to 4 indicates marginally functioning, severely distressed wall elements in jeopardy of failing without element repair or in need of repair to prevent further deterioration at an accelerated rate.

4 Critical

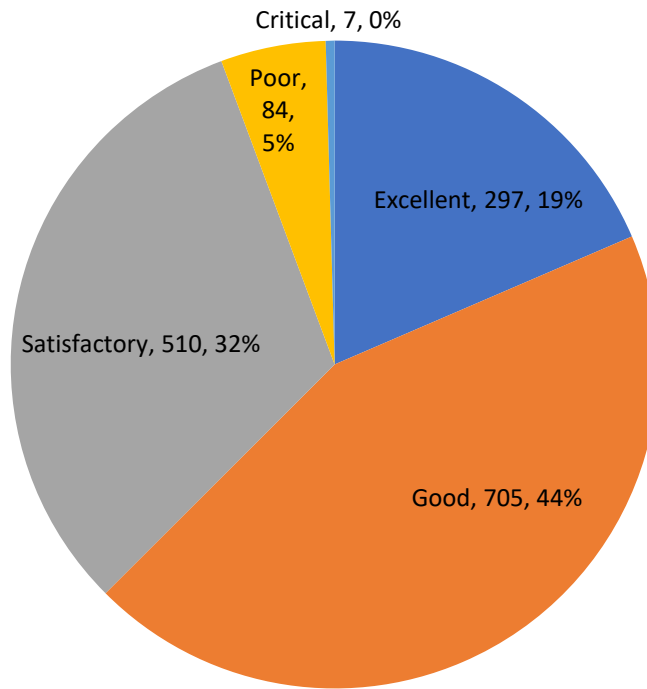
Medium-to-high extent of high severity distress. Element is no longer serving intended function. Element performance is threatening overall stability of the wall at the time of inspection. In practice, a rating of 4 indicates a wall that is no longer functioning as intended and is in danger of failing.

2025 Stuctural Rating Summary for Walls Maintained by DOTE

RATING	COUNT	PERCENT by COUNT	LENGTH (FEET)	PERCENT by LENGTH	AREA (SQ. FEET)	PERCENT by AREA
Excellent	297	18.53%	53,155	18.69%	296,882	14.21%
Good	705	43.98%	121,129	43.38%	936,127	44.82%
Satisfactory	510	31.82%	87,260	31.25%	717,973	34.38%
Poor	84	5.24%	16,173	5.79%	124,580	5.96%
Critical	7	0.44%	1,718	0.62%	14,315	0.69%
TOTALS	1,603	100%	279,238	100%	2,088,547	100%

52.89 Miles

2025 DOTE Maintained Walls

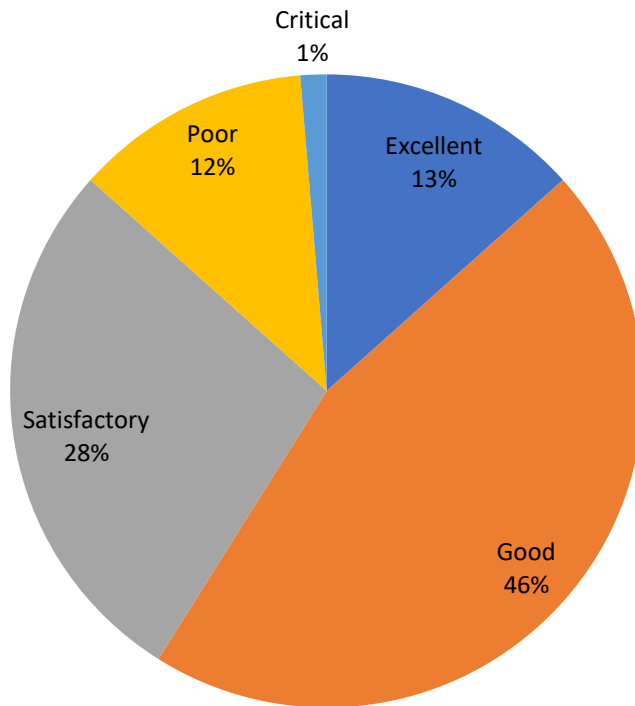


2025 Stuctural Rating Summary for City Walls NOT MAINTAINED by DOTE

RATING	COUNT	PERCENT BY COUNT	LENGTH (FEET)	PERCENT by LENGTH	AREA (SQ. FEET)	PERCENT by AREA
Excellent	30	13.39%	4,509	10.35%	34,957	11.14%
Good	102	45.54%	19,090	43.82%	146,640	46.73%
Satisfactory	62	27.68%	14,928	34.27%	106,415	33.91%
Poor	27	12.05%	4,799	11.02%	24,210	7.72%
Critical	3	1.34%	236	0.54%	1,550	0.49%
TOTALS	224	100%	43,562	100%	313,772	100%

8.25 Miles

2025 Other City (Non DOTE) Maintained Walls



DOTE Maintained Wall with Structural Rating of 3 (Poor Condition)

<u>Wall ID</u>	<u>Side</u>	<u>House Numbers</u>	<u>Street Name</u>	<u>Wall Length</u>	<u>Height (Max)</u>	<u>Wall Type</u>
153-009	E	6308 to 6308	Gracely Drive	50	4.1	Toe, Concrete
157-003A	S	5581 to 0	River Road	400	4	Cantilever, Concrete
157-003B	S	5617 to 5643	River Road	400	6	Cantilever, Concrete
198-007B	S	4487 to 4529	River Road	500	10	Cantilever, Concrete
198-007C	S	4531 to 4573	River Road	500	10	Cantilever, Concrete
201-017A	S	4319 to 4331	River Road	390	4.5	Cantilever, Concrete
201-017B	S	4277 to 4277	River Road	412	6.4	Cantilever, Concrete
201-019	N	4294 to 4302	River Road	227	5	Cantilever, Concrete
241-009	W	821 to 881	Nebraska Avenue	431	7.3	Cantilever, Concrete
244-008	S	3645 to 3645	Hillside Avenue	60	2.5	Gravity, Mortared Stone
244-016	N	4001 to 4003	River Road	75	2.8	Gravity, Concrete
244-026	N	614 to 614	Baurichter Street	105	4.1	Gravity, Concrete
244-073	W	3934 to 3936	Bowditch Street Steps	8	3	Gravity, Mortared Stone
248-011B	N	998 to 1004	Delhi Avenue	276	9	Toe, Concrete
250-059	N	3818 to 3820	Latham Avenue	115	9	Gravity, Dry Stone
251-028	S	2475 to 2481	Queen City Avenue	220	3	Precast Modular
252-021	N	2726 to 2729	Ruberg Avenue	49	3.7	Gravity, Concrete
281-002	W	4929 to 4929	Kirby Avenue	132	5.5	Gravity, Dry Stone
284-002A	E	2094 to 2156	Baltimore Avenue	433	12	Cantilever, Concrete
284-002B	E	2078 to 2092	Baltimore Avenue	433	11.5	Cantilever, Concrete
284-010B	S	3584 to 3588	Mchenry Avenue	130	6	Gravity, Concrete
285-021B	E	2004 to 2022	Baltimore Avenue	365	7.8	Gravity, Concrete
285-022	W	2035 to 2047	Baltimore Avenue	255	8.1	Gravity, Concrete
285-037	W	2079 to 2087	Baltimore Avenue	132	2.3	Cantilever, Concrete
286-008	W	2431 to 2437	Saffin Avenue	165	3	Gravity, Mortared Stone
286-122	S	2165 to 2166	Clara Street	28	3	Gravity, Dry Stone
287-001	W	1327 to 1403	Bowman Avenue	149	10.3	Gravity, Dry Stone
287-038	S	0 to 0	Sterrett Avenue	65	5.5	Gravity, Dry Stone
288-025A	W	0 to 0	Glenway Avenue	210	8.1	Gravity, Concrete
288-050	W	2417 to 2417	Glenway Avenue	35	11	Gravity, Concrete
288-080	S	2511 to 2513	Warsaw Avenue	58	4	Gravity, Concrete
288-107A	N	2630 to 2698	Maryland Avenue	378	7.3	Gravity, Dry Stone
288-107B	N	0 to 0	Maryland Avenue	183	7.5	Gravity, Dry Stone
294-011	E	2452 to 2470	Beekman Street	307	16	Gravity, Mortared Stone
294-085	S	0 to 0	Queen City Alley	25	2.3	Gravity, Concrete
295-029	S	1647 to 1729	Baltimore Avenue	633	10.5	Precast Modular
295-102	N	1630 to 1648	Baltimore Avenue	155	4	Pier, Cantilever
326-028	W	0 to 0	Clifton Avenue	115	1	Precast Modular
328-005	W	2895 to 2895	Mcmicken Avenue, West	264	13	Gravity, Concrete
329-001	E	0 to 0	Central Parkway	120	8.3	Gravity, Concrete
329-015B	N	512 to 590	Straight Street	245	10.5	Gravity, Dry Stone
329-144A	W	0 to 0	Hukill Alley	150	11	Gravity, Mortared Stone
329-146	S	537 to 539	Atlas Alley	53	3	Cantilever, Concrete
329-147	E	0 to 0	Freeman Avenue Steps	26	5	Gravity, Dry Stone

DOTE Maintained Wall with Structural Rating of 3 (Poor Condition)

<u>Wall ID</u>	<u>Side</u>	<u>House Numbers</u>	<u>Street Name</u>	<u>Wall Length</u>	<u>Height (Max)</u>	<u>Wall Type</u>
329-247	E	0 to 0	Clemmer Avenue Steps	48	5	Gravity, Block
330-053B	N	2148 to 2172	Central Avenue	350	13.5	Cantilever, Concrete
330-058	S	1 to 5	Peete Alley	72	8.5	Gravity, Concrete
330-071	N	0 to 0	Gage Street	161	6.6	Cantilever, Concrete
332-001	N	322 to 322	Third Street, West	38	18	Gravity, Mortared Stone
335-063	W	0 to 0	Carney Street	22	1.5	Cantilever, Concrete
335-066	W	0 to 0	Carney Street	83	12	Cantilever, Concrete
335-110	S	0 to 0	St Gregory Place	196	6	Gravity, Concrete
335-125	N	0 to 0	Wareham Drive	187	12.5	Gravity, Concrete
335-152	E	0 to 0	Celestial Steps	81	8	Gravity, Mortared Stone
335-165	N	0 to 0	Celestial Steps	41	11	Gravity, Dry Stone
335-217	S	325 to 353	Baum Street	255	20	Gravity, Dry Stone
336-095	E	0 to 0	Broadway Steps	80	5.5	Gravity, Mortared Stone
336-149	N	1815 to 1823	Sycamore Street	192	15.5	Gravity, Concrete
336-176	W	0 to 0	Audrey Terrace	64	8.3	Gravity, Mortared Stone
336-307	S	121 to 125	Dorchester Avenue	62	12	Gravity, Mortared Stone
336-404	N	0 to 0	Ringgold Street Steps	57	1.5	Gravity, Mortared Stone
337-192	N	0 to 0	Mcgregor Avenue	100	6	Gravity, Concrete
338-079	W	0 to 0	Alameda Place	97	5.5	Gravity, Concrete
339-065	S	511 to 517	Forest Avenue	84	1	Toe, Concrete
371-050A	E	1499 to 1525	Riverside Drive	460	11	Gravity, Mortared Stone
371-050B	S	1451 to 1497	Riverside Drive	460	9	Gravity, Mortared Stone
371-050C	S	1401 to 1449	Riverside Drive	460	7.5	Gravity, Mortared Stone
371-054	E	0 to 0	Kemper Lane	235	6.2	Gravity, Mortared Stone
371-074	S	0 to 0	Columbia Parkway	90	16	Cantilever, Concrete
372-005	W	1349 to 1351	Bains Street	135	12	Gravity, Mortared Stone
375-007	S	404 to 405	Torrence Court	60	4	Cantilever, Concrete
376-020	S	1845 to 1845	Duck Creek Road	35	1	Toe, Concrete
376-065	N	0 to 0	Duck Creek Road	81	4.1	Toe, Concrete
407-012	N	2718 to 2736	Gregson Place	185	7.8	Toe, Concrete
409-037	S	3101 to 3133	Walworth Avenue	385	15	Cantilever, Concrete
409-050	N	3000 to 3026	Columbia Parkway	460	12	Toe, Concrete
409-056	S	0 to 0	Columbia Parkway	185	7	Crib, Pre-Cast Concrete
409-071	E	268 to 270	Brown Street	50	2.8	Gravity, Concrete

Total Wall Length: 15,013.00

DOTE Maintained Wall with Structural Rating of 4 (Critical Condition)

<u>Wall ID</u>	<u>Side</u>	<u>House Numbers</u>	<u>Street Name</u>	<u>Wall Length</u>	<u>Height (Max)</u>	<u>Wall Type</u>
244-006A	S	3645 to 3645	Hillside Avenue	55	3	Gravity, Mortared Stone
244-006B	S	3645 to 3645	Hillside Avenue	41	3	Gravity, Dry Stone
287-005	E	1300 to 1302	Lockwood Avenue	70	11.5	Gravity, Mortared Stone
293-034	E	1350 to 1350	Ernst Street	20	2.4	Gravity, Concrete
294-062D	E	2624 to 2660	Cummins Street	480	15	Cantilever, Concrete
327-043	N	100 to 100	Glenmary Avenue	25	3.3	Cantilever, Concrete
329-133A	W	0 to 0	East Alley	310	10.5	Gravity, Mortared Stone
330-036	W	1776 to 1921	Central Parkway	492	5.3	Gravity, Concrete
371-055	E	0 to 0	Kemper Lane	321	13	Cantilever, Concrete
423-104	W	647 to 647	Delta Avenue	20	2	Gravity, Concrete

Total Wall Length: 1,834.00

City owned Walls Not Maintained by DOTE with Structural Rating of 3 (Poor Condition)

<u>Wall ID</u>	<u>Side</u>	<u>House Numbers</u>	<u>Street Name</u>	<u>Wall Length</u>	<u>Height (Max)</u>	<u>Wall Type</u>
115-011	S	6901 to 6941	River Road	300	3	Gravity, Dry Stone
283-001	W	0 to 0	Todd Avenue	45	6.5	Tee- Wall
286-150	N	1710 to 1710	Harrison Avenue	13	4	Gravity, Concrete
287-100	N	0 to 0	Lockwood Place Steps	40	13	Gravity, Mortared Stone
287-101	N	0 to 0	Lockwood Place Steps	50	6	Gravity, Mortared Stone
289-028	S	0 to 0	Pavillion Drive	339	4.8	Pier, Cantilever
297-099	N	4123 to 4125	Virginia Avenue	46	3	Gravity, Mortared Stone
327-003	N	500 to 502	Mcalpin Avenue	288	6	Gravity, Mortared Stone
329-129	E	2308 to 2346	Vine Street	179	6	Gravity, Concrete
329-131	N	6 to 26	Thill Street	281	6.5	Gravity, Concrete
330-237	S	6 to 12	Hust Alley	90	12	Cantilever, Concrete
332-010	S	401 to 409	Third Street, West	65	17	Gravity, Mortared Stone
335-211	W	1301 to 1301	Sycamore Street	316	3	Tee- Wall
335-349	N	0 to 0	Celestial Street Steps	150	4	Gravity, Mortared Stone
336-268	E	1799 to 1799	Art Museum Drive	648	3.5	Gravity, Concrete
336-309	E	0 to 0	Gilbert Avenue	580	3.5	Gravity, Dry Stone
336-310	N	0 to 0	Gilbert Avenue	290	5	Gravity, Dry Stone
336-376	E	2044 to 2056	Gilbert Avenue	164	3.5	Gravity, Dry Stone
337-311	E	2600 to 2600	Van Street Parking Lot	60	5	Toe, Concrete
339-079	S	0 to 0	Forest Avenue	131	3	Gravity, Mortared Stone
371-052	W	619 to 619	Kemper Lane	50	5.7	Gravity, Mortared Stone
371-088	E	0 to 0	Martin Drive	233	2.2	Gravity, Mortared Stone
372-008	N	0 to 0	Columbia Parkway	120	9	Gravity, Mortared Stone
375-118	S	2425 to 2445	Riverside Drive	124	3	Gravity, Mortared Stone
375-155	N	2342 to 2352	Gladstone Av (Private)	180	9	Gravity, Dry Stone
409-068	N	2998 to 2998	Riverside Drive	8	2	Gravity, Brice
409-069	N	3000 to 3000	Riverside Drive	9	2	Gravity, Brick

Total Wall Length: 4,799.00

City owned Walls Not Maintained by DOTE with Structural Rating of 4 (Critical Condition)

<u>Wall ID</u>	<u>Side</u>	<u>House Numbers</u>	<u>Street Name</u>	<u>Wall Length</u>	<u>Height (Max)</u>	<u>Wall Type</u>
281-023	W	5083 to 5087	Colerain Avenue	128	2	Gravity, Mortared Stone
288-130	W	611 to 615	Maryland Avenue	108	7.3	Gravity, Mortared Stone
330-152A	E	0 to 0	Elysian Place	36	7	Gravity, Mortared Stone
336-162	W	0 to 0	Eleanor Place	72	6.5	Gravity, Mortared Stone

Total Wall Length: 344.00

SECTION 3

Wall Repair Priority and Estimated Funding

Wall Stabilization & Landslide Correction Six-Year Plan

WALL REPAIR PRIORITY & ESTIMATED FUNDING

Wall #	Street	Length	Area	Type	Comments	Priority	Fund	Estimate	
285-022	Baltimore Av	255	1050	CC	repair deteriorated cap & railing	HIGH	capital	\$30,000	
286-088	Harrison Av	32	160	CC	replace delaminated wall cap & railing	HIGH	capital	\$30,000	
329-133A	East Alley	310	10.5		rebuild stone wall	HIGH	capital	\$80,000	
337-081B	Maplewood Av	79	400	G5	replace wall with modular wall	HIGH	capital	\$120,000	
409-056	Columbia Pkwy	318	4.7	G1	Crib Wall along road deteriorating	HIGH	capital	\$200,000	
						5 WALLS	HIGH	capital	\$460,000
157-003A	River Road	400	4	CC	Deteriorated/Cracks, Chip and Patch, Clear and Gub	MED	capital	\$6,000	
157-003B	River Road	400	6	CC	Deteriorated/Cracks, Chip and Patch, Clear and Gub	MED	capital	\$7,200	
198-007B	River Road	500	10	CC	Deteriorated/Cracks, Chip and Patch, Clear and Gub	MED	capital	\$7,200	
198-007C	River Road	500	10	CC	Deteriorated/Cracks, Chip and Patch, Clear and Gub	MED	capital	\$7,200	
241-009	Nebraska Av	431	2260	CC	deteriorated, cracks , chip and patch	MED	capital	\$48,000	
285-037	Baltimore Av	132	320	CC	replace wall cap & railing	MED	capital	\$36,000	
288-037					Patch delaminated wall areas.	MED	capital	\$100,000	
289-021	Elberon Avenue	422	3700	G5	Patch delaminated wall areas/ fix damaged GR.	MED	capital	\$100,000	
329-001	Central Parkway	120	8.3	CC	Remove and replace 30 ft± section	MED	capital	\$35,000	
329-126A	McMillan St	380	2200	CC	broken end & railing, patch and replace	MED	capital	\$91,200	
329-126B	McMillan St	152	1200	CC	broken cap, chip and patch	MED	capital	\$37,200	
329-129K	Vine St	179	950	G5	patch/repair wall cap	MED	capital	\$180,000	
330-036	Central Pkwy	492	1700	CC	tilted, deteriorated cap	MED	capital	\$48,000	
330-053B	Central Av	350	3700	CC	broken cap & spalled face, chip and patch	MED	capital	\$4,000	
336-149	Sycamore St	192	15	G2	Mortar Stone wall where it meets Concrete All	MED	capital	\$8,000	
337-047	McMillan St	110	500	G5	underpin wall	MED	capital	\$72,000	
371-074	Col. Pkwy	90	1400	CC	delaminated face, chip, patch and repaint	MED	capital	\$45,600	
375-007	Torrence Ct.				Replace Wall	MED	capital	\$150,000	
422-038B	Tusculum Ave	294	1500	CC		MED	capital	\$150,000	
						19 WALLS	MED	capital	\$1,132,600
244-006A	Hillside Av	55	150	G2	deteriorated, replace with modular	LOW	capital	\$26,400	
244-006B	Hillside Av	41	120	G2	deteriorated, replace with modular	LOW	capital	\$19,680	
244-008	Hillside Av	60	120	G2	moved and settled, replace with modular	LOW	capital	\$28,800	
244-026	Baurichter St	105	450	CC	cracked, leaning, replace with modular	LOW	capital	\$33,600	
248-011A	Delhi Av	198	750	CC	delaminated toewalk, chip and patch toe	LOW	capital	\$12,000	
248-011B	Delhi Av	276	2500	CC	delaminated toewalk, chip and patch toe	LOW	capital	\$12,000	
249-014	Olive Av	94	280	CC	leaning, replace with concrete	LOW	capital	\$12,000	
250-059	Latham Av	50	850	G2	stones missing, replace with modular	LOW	capital	\$18,000	
251-028	Queen City Av	220	800	PM	wrecked & salt damage, replace with modular	LOW	capital	\$48,000	
251-030B	Queen City Av	357	1900	PM	wrecked & salt damage, replace with modular	LOW	capital	\$102,000	
253-002	McHenry Av	146	720	CC	replace leaning panel	LOW	capital	\$6,000	
286-008	Saffin St	165	450	G2	deteriorated wall & steps, rebuild existing	LOW	capital	\$36,000	
286-122	Clara Street	28	3	G1	Failed wall, replace with modular	LOW	capital	\$30,000	
286-150	Harrison Av	13	65	CC	replace wall w/ modular	LOW	capital	\$12,000	
287-001	Bowman Av	149	1500	G2	broken cap & steps, replace cap mortar stone	LOW	capital	\$33,600	
287-005	Lockwood Av	70	900	G2	cracked corner, repair stone replace cap	LOW	capital	\$42,000	
287-022	Grand Av	80	325	TC	Toe removed, check tilt, will need replaced	LOW	capital	\$48,000	
287-038	Sterratt Avenue	65	6	G1	damaged wall, replace with modular	LOW	capital	\$36,000	
288-080	Warsaw	20	350	CC	leaning, replace with CIP	LOW	capital	\$21,600	
288-107A	Maryland Av	378	2700	G2	deteriorated & bulged, rebuild stone	LOW	capital	\$360,000	
288-107B	Maryland Av	183	1300	G2	deteriorated & bulged, rebuild stone	LOW	capital	\$180,000	
329-015B	Straight St	245	2400	G2	bulged & tilted, replace	LOW	capital	\$336,000	
335-110	St Gregory Pl	196	650	CC	delaminated upper part, repair cap	LOW	capital	\$24,000	
336-307	Dorchester St	62	750	G2	deteriorated cap, replace with modular	LOW	capital	\$42,000	
337-242	Presley Al	150	700	G2	bulged and moved, rebuild stone , railing	LOW	capital	\$48,000	
339-091	Rockdale Av	170	1600	CC	deteriorated concrete, replace with CIP	LOW	capital	\$180,000	
370-125	Wm H Taft Rd	32	125	G2	bulged under sidewalk, replace cap	LOW	capital	\$12,000	
371-054	Kemper Ln	235	1300	G2	cap partially missing, replace wall	LOW	capital	\$282,000	
371-055	Kemper Ln	321	3600	CC	top delaminated, replace wall	LOW	capital	\$385,200	
371-056	Kemper Ln	390	3400	CC	moved, replace wall	LOW	capital	\$468,000	
423-104	Delta Av	20	40	CC	damaged wall, replace with modular	LOW	capital	\$30,000	
452-001A	Kennedy Av	318	1900	G2	bulged, rebuild existing	LOW	capital	\$18,000	
452-001B	Kennedy Av	318	1900	G2	bulged & moved, rebuild existing	LOW	capital	\$18,000	
						33 WALLS	LOW	capital	\$2,960,880
201-017A	River Road	390	4.5	CC	Deteriorated/Cracks, Chip and Patch, Clear and Gub	HIGH	maint.	\$7,200	
248-015	Delhi Avenue	38	130	CC	Replace missing railing section @ SE.	HIGH	maint.	\$2,000	
253-031	Broadbeck Pl.	130	850	CC	Remortar stones on top.	HIGH	maint.	\$2,400	
253-033	Broadbeck Pl.	150	1350	CC	Remortar stones on top.	HIGH	maint.	\$3,600	
281-003	Kirby Ave	302	2800	G2	Wall has new driveway through midwall/ railing missing on half of wall.	HIGH	maint.	\$3,600	
281-005	Colerain Av	360	1700	PC	repair guardrail	HIGH	maint.	\$6,000	
281-029	Kirby Ave.	11	40	PM	Restack/replace missing blocks.	HIGH	maint.	\$1,200	
281-037	Kirby Ave.	12	40	PM	Restack/replace missing blocks.	HIGH	maint.	\$1,200	
288-078		165	1150	G2	Replace bent/loose railing panels.	HIGH	maint.	\$10,000	
289-005	Elberon Avenue	485	6100	G2	Patch delaminated area @ NW. 2'x6' PARKS	HIGH	maint.	\$5,000	
293-060D	Lehman Road	170	1700	PC	check out erosion of earth below wall panels where pea gravel is spilling out.	HIGH	maint.	\$5,000	
294-011	Beekman St	307	5600	G2	repair stone barrier	HIGH	maint.	\$4,800	
296-028	Blue Rock Av	296	1500	G5	replace missing blocks	HIGH	maint.	\$3,000	
298-034	Kirby Ave.	145	250	PC	Replace missing railing section; grout rail post pockets; patch wall cap/sidewalk	HIGH	maint.	\$3,600	
328-005	McMicken Avenue, West	264	3300	G5	Repair/replace 4 missing horiz rail sections.	HIGH	maint.	\$1,200	
329-105	Klotter Ave.	22	130	G2	Replace missing portion of railing.	HIGH	maint.	\$2,000	
330-029	Central Pkwy				Resecure loose rail @ S; Replace missing post caps.	HIGH	maint.	\$1,000	
330-058	Peete Alley	72	700	G5	Remove loose piece of wall dangling by rebar connection.	HIGH	maint.	\$500	
335-046	Old Locke St.	112	950	G2	Remove fallen wall cap block at S end.	HIGH	maint.	\$500	
335-063	Carney St.	22	50	CC	Corner of wall wrecked/holed. Reform corner of wall.	HIGH	maint.	\$600	
335-146	Elsinore Ave	116	600	PC	Grind down or fill remaining rail post stubs.	HIGH	maint.	\$1,500	
336-051	Decker Alley	101	900	G2	Patch 3' long section of crumbling wall cap.	HIGH	maint.	\$500	
336-266	Eden Park Dr	523	2200	G5	Replace cracked/delaminated wall panels.	HIGH	maint.	\$3,600	
337-112	Glencoe Pl	130	850	CC	Remove rebar hanging from wall cap.	HIGH	maint.	\$200	

SECTION 4

2025 Retaining Wall Inspection Summaries

TOTAL AVERAGES OF WALLS INSPECTED IN 2025 CYCLE

				2025 INSPECTION CYCLE					
Maintenance	Wall Count	Total Length (Lin. Ft.)	Total Exposed Area (Sq. Ft.)	Avg. Structural	Avg. Drainage	Ave. Cosmetic	Avg. Misc.	Avg. Overall	
Agreement	4	421.00	1,650.00	0.98	0.75	1.13	2.63	1.15	
Dept. of Neighborhood Services	1	15.00	50.00	0.08	1.33	1.50	1.00	1.28	
Health Department	2	260.00	750.00	0.19	0.33	1.00	0.29	0.31	
MSD	4	602.00	8,420.00	0.20	0.00	0.96	0.50	0.31	
Park Board	5	1,719.00	12,600.00	0.38	0.50	1.13	0.45	0.50	
Transportation & Engineering Dept.	274	48,629.00	345,788.00	0.43	0.59	1.01	0.93	0.61	
2025 TOTALS:	290	51,646	369,258	0.38	0.58	1.12	0.97	0.70	
		9.78 Miles							

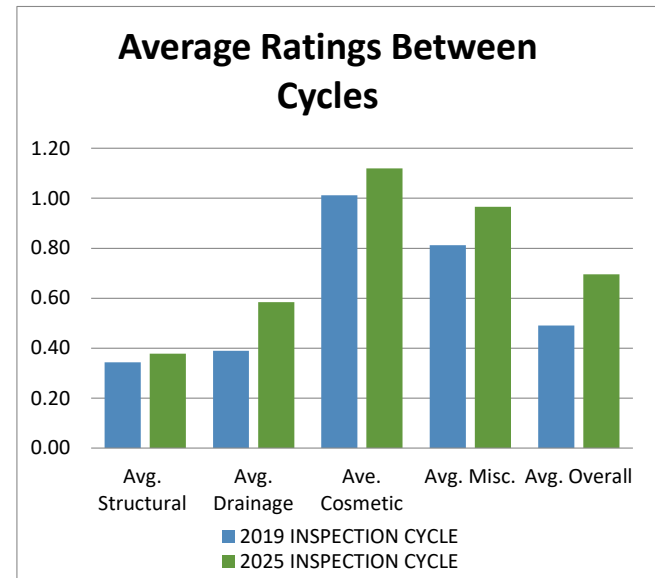
Neighborhoods Inspected:
 Lower Price Hill
 East Price Hill
 West Price Hill
 Sedamsville
 Riverside

				2019 INSPECTION CYCLE					
Maintenance	Wall Count	Total Length (Lin. Ft.)	Total Exposed Area (Sq. Ft.)	Avg. Structural	Avg. Drainage	Ave. Cosmetic	Avg. Misc.	Avg. Overall	
Agreement	4	421.00	1,650.00	0.94	0.75	1.13	2.54	1.16	
Dept. of Neighborhood Services	1	15.00	50.00	0.08	0.00	0.50	0.00	0.11	
Health Department	2	260.00	750.00	0.14	0.33	1.50	0.29	0.34	
MSD	5	615.00	8,485.00	0.19	0.20	0.73	0.40	0.29	
Park Board	5	1,719.00	12,600.00	0.36	0.67	1.20	0.83	0.55	
ODOT	1	108.00	750.00	3.09	3.00	2.00	4.00	3.06	
Transportation & Engineering Dept.	259	45,169.00	324,263.00	0.47	0.63	1.02	1.03	0.66	
2019 TOTALS:	277	48,307	348,548	0.34	0.39	1.01	0.81	0.49	
		9.15 Miles							

TOTAL AVERAGES OF WALLS INSPECTED IN 2025 CYCLE

Transportation & Engineering Owned Walls				
	0-1	1-2	2-3	3-4
Avg. Structural	257	16	1	0
<i>Avg. Structural</i>	<i>238</i>	<i>18</i>	<i>3</i>	<i>0</i>
Avg. Drainage	230	39	5	0
<i>Avg. Drainage</i>	<i>213</i>	<i>38</i>	<i>7</i>	<i>1</i>
Avg. Cosmetic	195	71	8	0
<i>Avg. Cosmetic</i>	<i>176</i>	<i>76</i>	<i>7</i>	<i>0</i>
Avg. Misc.	173	91	9	1
<i>Avg. Misc.</i>	<i>152</i>	<i>90</i>	<i>16</i>	<i>1</i>
Avg. Overall	244	30	0	0
<i>Avg. Overall</i>	<i>215</i>	<i>42</i>	<i>2</i>	<i>0</i>

2019 Averages are Italicized



Transportation and Engineering Maintained Walls - Changes from 2019 to 2025

Wall No	Community	Street	Wall Height	Wall Length	Wall Type	Avg Struct '19	Avg Struct '25
114-003	Sayler Park	Gracely Drive	6.5	35	Toe, Concrete	0.27	0.18
114-004	Sayler Park	Gracely Drive	6.5	50	Toe, Concrete	0.36	0.27
115-007	Sayler Park	River Road	2	332	Toe, Concrete	0.73	0.64
115-010A	Sayler Park	River Road	6	451	Toe, Concrete	0.55	0.45
115-027	Sayler Park	Monitor Avenue	2.8	44	Precast Modular	0.00	0.10
115-042	Sayler Park	Mackenzie Avenue	3	62	Gravity, Concrete	1.27	1.09
116-007	Sayler Park	Overcliff Road	3.4	324	Precast Modular	0.10	0.00
116-009	Sayler Park	Gracely Drive	2	55	Precast Modular	0.10	0.30
153-002	Sayler Park	River Road	5.7	162	Toe, Concrete	0.73	0.40
153-004	Sayler Park	River Road	6	231	Toe, Concrete	0.45	0.36
157-001	Riverside	River Road	2.2	61	Toe, Concrete	0.64	0.45
157-003A	Riverside	River Road	4	400	Cantilever, Concrete	1.00	0.90
157-003C	Riverside	River Road	4.5	440	Cantilever, Concrete	0.55	0.64
198-003A	Riverside	River Road	2.1	77	Toe, Concrete	0.30	0.36
198-003B	Riverside	River Road	2.1	10	Toe, Concrete	0.22	0.20
198-004	Riverside	River Road	1.6	36	Toe, Concrete	0.70	0.73
198-005	Riverside	River Road	1.9	44	Toe, Concrete	0.20	0.27
198-007A	Riverside	River Road	8	505	Cantilever, Concrete	0.60	0.55
198-007B	Riverside	River Road	10	500	Cantilever, Concrete	0.83	0.73
198-010	Riverside	Allenham Street	3.4	69	Precast Modular	0.00	0.10
201-003B	Riverside	Hillside Avenue	12	465	Pier, Cantilever	0.36	0.18
201-003D	Riverside	Hillside Avenue	5	465	Pier, Cantilever	0.18	0.09
201-006	Riverside	Anderson Ferry Road	2.8	73	Cantilever, Concrete	0.45	0.55
201-012A	Riverside	Anderson Ferry Road	3.1	162	Toe, Concrete	0.27	0.25
201-017A	Riverside	River Road	4.5	390	Cantilever, Concrete	0.82	0.91
201-017B	Riverside	River Road	6.4	412	Cantilever, Concrete	1.08	1.09
201-017C	Riverside	River Road	6.4	390	Cantilever, Concrete	0.73	0.82
240-015	West Price Hill	Glenway Avenue	2.5	80	Toe, Concrete	0.36	0.20
241-001	West Price Hill	Tuxworth Avenue	4	77	Gravity, Concrete	0.73	0.58
242-002	West Price Hill	Pedretti Avenue	10.1	118	Cantilever, Concrete	0.82	0.22
244-002	Riverside	River Road	7.8	112	Cantilever, Concrete	0.73	0.64
244-003	Riverside	River Road	4	52	Cantilever, Concrete	0.18	0.09
244-004	Riverside	River Road	3.6	114	Cantilever, Concrete	0.64	0.73
244-006A	Riverside	Hillside Avenue	3	55	Gravity, Mortared Stone	2.10	1.70
244-015	Riverside	River Road	6.5	127	Gravity, Concrete	0.36	0.27
244-042	Riverside	Hillside Avenue	5	427	Pier, Cantilever	0.09	0.18
244-066	Riverside	Bowditch Street Steps	2	15	Gravity, Mortared Stone	0.11	0.20
244-073	Riverside	Bowditch Street Steps	3	8	Gravity, Mortared Stone	0.70	0.40
247-021	Riverside	Leland Avenue	5	20	Gravity, Mortared Stone	0.50	0.11
248-011A	East Price Hill	Dehli Avenue	4	198	Toe, Concrete	0.27	0.45
249-015	East Price Hill	Enright Avenue	3	305	Precast Modular	0.09	0.18
249-037	East Price Hill	Enright Avenue	2.5	90	Precast Modular	0.09	0.27
250-009	West Price Hill	First Avenue	3.7	50	Gravity, Mortared Stone	0.50	0.40
250-027	West Price Hill	Rosemont Avenue	4.6	90	Gravity, Concrete	0.73	0.56
250-039	West Price Hill	Sunset Avenue	8	161	Cantilever, Concrete	0.36	0.45

Transportation and Engineering Maintained Walls - Changes from 2019 to 2025

Wall No	Community	Street	Wall Height	Wall Length	Wall Type	Avg Struct '19	Avg Struct '25
250-056	East Price Hill	Mayfield Avenue	5.3	145	Precast Modular	0.40	0.30
250-058	East Price Hill	Quebec Avenue	12.3	303	Cantilever, Concrete	0.73	0.60
250-063	West Price Hill	Liberty Street, West	2.2	57	Toe, Concrete	0.64	0.27
250-074	East Price Hill	Quebec Avenue	4	34	Gravity, Mortared Stone	0.50	0.33
251-006	West Price Hill	Wegman Avenue	2.9	109	Toe, Concrete	0.36	0.27
251-043	West Price Hill	Wyoming Avenue	5.5	167	Precast Modular	0.10	0.30
251-044	West Price Hill	Wyoming Avenue	3.5	116	Precast Modular	0.20	0.30
251-045	West Price Hill	Wyoming Avenue	3.6	130	Precast Modular	0.10	0.00
251-046	West Price Hill	Wyoming Avenue	2.2	42	Precast Modular	0.00	0.10
251-055	Westwood	Ridgetop Way	16.5	570	Precast Modular	0.10	0.00
286-122	South Fairmont	Clara Street	3	28	Gravity, Dry Stone	1.40	1.30
286-193A	South Fairmont	Queen City By-Pass	5.6	351	Pier, Cantilever	0.18	0.09
287-005	Lower Price Hill	Lockwood Avenue	11.5	70	Gravity, Mortared Stone	1.90	1.30
287-014	East Price Hill	Mickey Avenue	4.9	122	Toe, Concrete	0.45	0.55
287-023	East Price Hill	Grand Avenue	4.5	105	Toe, Concrete	0.18	0.09
287-055	East Price Hill	Lehman Road	2.8	39	Precast Modular	0.00	0.20
287-066	East Price Hill	Purcell Avenue	6	35	Gravity, Mortared Stone	0.30	0.40
288-017	Lower Price Hill	Warsaw Avenue	2.5	71	Cantilever, Concrete	0.36	0.55
288-020B	East Price Hill	Warsaw Avenue	8.6	273	Cantilever, Concrete	0.25	0.33
288-021	Lower Price Hill	Warsaw Avenue	6	80	Cantilever, Concrete	0.64	0.73
288-022	Lower Price Hill	Wilder Avenue	23.5	436	Gravity, Concrete	1.27	1.09
288-023	East Price Hill	Wilder Avenue	6.2	54	Gravity, Concrete	0.40	0.60
288-025B	Lower Price Hill	Glenway Avenue	8.3	350	Gravity, Concrete	0.55	0.50
288-039	Lower Price Hill	Wilder Avenue	9.4	249	Gravity, Concrete	0.90	0.20
288-050	East Price Hill	Glenway Avenue	11	35	Gravity, Concrete	0.60	0.50
288-051	East Price Hill	Glenway Avenue	11.9	75	Gravity, Mortared Stone	0.55	0.58
288-062	East Price Hill	Woodlawn Avenue	4.4	36	Gravity, Concrete	0.64	0.70
288-096	East Price Hill	Fairbanks Avenue	8	65	Cantilever, Concrete	0.00	0.09
288-107A	East Price Hill	Maryland Avenue	7.3	378	Gravity, Dry Stone	2.11	2.13
288-136	East Price Hill	Morrow Place	3.1	25	Precast Modular	0.30	0.13
288-139	Lower Price Hill	Warsaw Avenue	10	66	Cantilever, Concrete	0.18	0.27
288-140	Lower Price Hill	Warsaw Avenue	17	130	Pier, Tiedback	0.09	0.22
288-142	East Price Hill	Maryland Avenue	6.5	75	Gravity, Concrete	0.40	0.50
288-143B	East Price Hill	Maryland Avenue	11.5	272	Mechanically Stabilized	0.30	0.10
288-147	East Price Hill	Woodlawn Avenue	3.5	13	Gravity, Concrete	0.50	0.80
288-151	Lower Price Hill	St Michael Street	5	50	Gravity, Mortared Stone	0.70	0.20
288-183	Lower Price Hill	State Avenue	22.5	547	Pier, Tiedback	0.33	0.25
289-011	Lower Price Hill	River Road	9.5	320	Mechanically Stabilized	0.27	0.20
289-018A	Sedamsville	River Road	6.5	214	Gravity, Mortared Stone	0.64	0.73
289-018B	Sedamsville	River Road	9	360	Gravity, Mortared Stone	0.64	0.73
289-019	Sedamsville	River Road	14	206	Pier, Cantilever	0.00	0.09
289-022	East Price Hill	Elberon Avenue	8.8	210	Gravity, Mortared Stone	1.27	1.45
289-027A	Lower Price Hill	Elberon Avenue	4.8	460	Pier, Cantilever	0.55	0.45
289-027B	Lower Price Hill	Elberon Avenue	7.4	400	Pier, Cantilever	0.18	0.27
289-038	East Price Hill	Elberon Avenue	3.5	52	Cantilever, Concrete	0.45	0.55

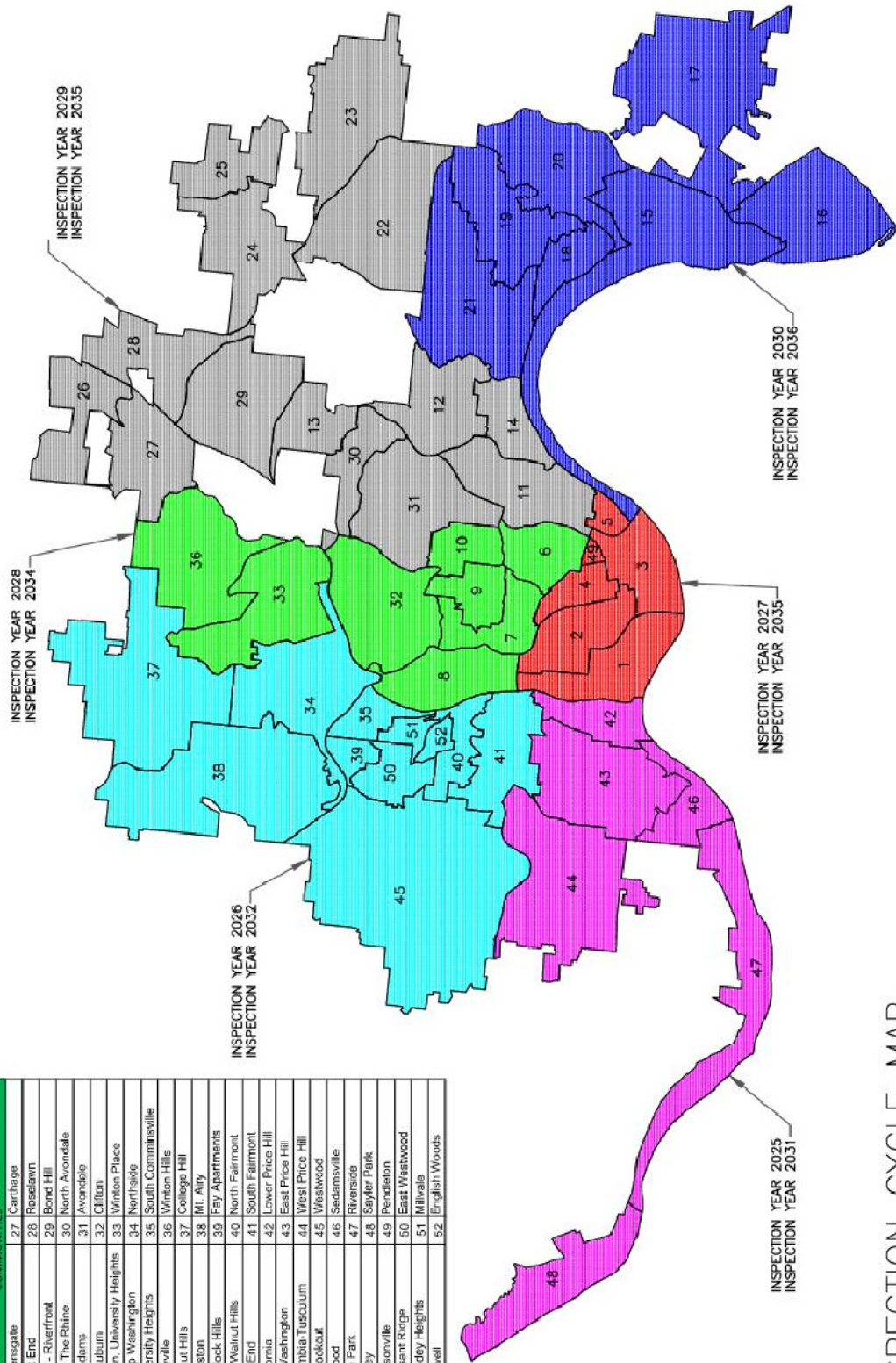
Transportation and Engineering Maintained Walls - Changes from 2019 to 2025

Wall No	Community	Street	Wall Height	Wall Length	Wall Type	Avg Struct '19	Avg Struct '25
289-083A	East Price Hill	Elberon Avenue	5.5	363	Gravity, Concrete	0.27	0.45
289-100	East Price Hill	Pica Street Steps	1.3	33	Gravity, Concrete	0.55	0.45
289-101	East Price Hill	Pica Street Steps	1.3	33	Gravity, Concrete	0.55	0.30
293-004	Lower Price Hill	State Avenue	6.4	370	Gravity, Concrete	0.55	0.64
293-019	Lower Price Hill	Liberty Street, West	5.9	11	Toe, Concrete	0.20	0.80
293-034	South Fairmont	Ernst Street	2.4	20	Gravity, Concrete	1.00	0.10
293-049	South Fairmont	Radcliff Drive	4.9	510	Gravity, Dry Stone	0.00	0.30
293-058	Lower Price Hill	Fitzpatrick Street	1	50	Gravity, Mortared Stone	0.90	1.20

SECTION 5

Inspection District Map

COMMUNITIES	
1	Queensgate
2	West End
3	CBD - Rivefront
4	Over The Rhine
5	Mt. Adams
6	Mt. Auburn
7	Clifton, University Heights
8	Camp Washington
9	University Heights
10	Cornville
11	Walnut Hills
12	Evansston
13	Paddock Hills
14	East Walnut Hills
15	East End
16	California
17	Mt. Washington
18	Columbia/Tusculum
19	Mt. Lookout
20	Linwood
21	Hyde Park
22	Oakley
23	Madisonville
24	Pleasant Ridge
25	Kenndey Heights
26	Hanwell
27	Carthage
28	Rozelawn
29	Bond Hill
30	North Avondale
31	Avondale
32	Clifton
33	Winton Place
34	Northside
35	South Commisville
36	Winton Hills
37	College Hill
38	Mt. Avy
39	Pay Apartments
40	North Fairmont
41	South Fairmont
42	Lower Price Hill
43	East Price Hill
44	West Price Hill
45	Westwood
46	Sedlamsville
47	Riverside
48	Saylor Park
49	Pendleton
50	East Westwood
51	Milivale
52	English Woods



INSPECTION CYCLE MAP

SECTION 6

Retaining Wall Inspection Form

RETAINING WALL INSPECTIONS



Wall Number: 330-145

Street: Zier Place

DIVISION			
Structure		RATING	COMMENTS
1	Cracking-----	0	
2	Bulging-----	0	
3	Sliding-----	0	
4	Tilt-----	0	
5	Settlement-----	0	
6	Delamination-----	NA	Stone
7	Joints-----	NA	
8	Wall Cap-----	3	Mostly Gone
9	Stone/Block-----	1	
10	Footing-----	0	Unable to Inspect
11	Landslide Damage-----	0	
12	Tree Damage-----	0	
		0.40	Average Structural Condition
Drainage			
13	Backdrains-----	NA	
14	Weep Holes-----	NA	
15	Ditch Behind Wall-----	NA	
16	Erosion-----	1	
17	Leakage-----	1	
		1.00	Average Drainage Condition
Cosmetic			
18	Discoloration-----	2	
19	Graffiti-----	0	
20	Gunite-----	NA	
21	Paint/Miracoat-----	NA	
		1.00	Average Cosmetic Condition
Miscellaneous			
22	Brush/Undergrowth-----	2	On Top
23	Railing/Fence-----	NA	
24	Curb-----	NA	
25	Sidewalk/Roadway-----	NA	
26	Steps-----	NA	Closed
		2.00	Average Miscellaneous Condition
General Condition			
27	Overall Wall Rating	0.67	
Community No.:		4	Community: Over the Rhine
Inspected By:		PAM	Inspection Date:
Last Overall Wall Rating:		0.67	Change in Rating: 0.00
Last Inspection Date:		12/14/1998	("+" = getting better / "-" = getting worse)
Retaining Wall Inspection Form (Excel) 2/1/2013			

RETAINING WALL INSPECTION FORM

The technician/inspector uses this form in the field to write down inspection data. A form is filled out for each wall that is inspected. As of 01/01/2011 only DOTE and other City department walls are inspected on an annual basis. Inspect walls that have Maintenance Code letters B, D, F, G, H, M, R, S, T, & W. At the top of the form, the technician/inspector fills out data that pertains to the community number that the wall is located in, the retaining wall number, the street the wall is located on, who inspected the wall and the date the wall was inspected.

The rest of the retaining wall inventory form is divided into five divisions and these are: Structural, Drainage, Cosmetic, Miscellaneous and General Condition. The Structural, Drainage, Cosmetic and Miscellaneous Divisions have various categories and each category is assigned a sequential number. There are 25 categories in all. Each category is rated from 0 to 4 and the rating system is shown below.

- 0 = No Problems
- 1 = Minor Problems
- 2 = Moderate Problems
- 3 = Severe Problems
- 4 = Critical Problems
- NA = Category Not Graded (Because It Is Non-Applicable)

Each division has three columns, one for category, one for rating and one for comments. The technician/inspector carefully examines the wall for each category, rates the category by consulting the attached guide and enters pertinent comments that relate to the category.

Each division has an average rating box at the bottom of the rating column. The average rating is the sum of all the ratings in that division. An NA rating is not included in the average rating. An example is shown below.

COSMETIC DIVISION

CATEGORY	RATING	COMMENTS
18. DISCOLORATION.....	2	rust from fence
19. GRAFFITI.....	3	patches from graffiti cover-up
20. GUNITE.....	NA	there is no gunite
21. PAINT/MIRACOAT.....	1	private paint job
TOTAL SUM OF CATERGORIES	6	

Sum of Ratings (6) divided by (Number of Categories (3)) = 2.0 Average Rating.

The General Condition Division has one line to list the overall wall rating. This is sum of all rated categories divided by the number of rated categories. Do not include NA categories. The computer inspection form includes a large Additional Comment box. Use this comment box to input information about repairs required including measurements and amounts.

STRUCTURAL DIVISION

The Structural Division is the most important because the categories impact the stability of the wall. The inspector should carefully inspect these categories, especially cracking, bulging, sliding, tilt, settlement and delaminations. Severe or critical problems in these categories should be addressed ASAP. Technician should maintain a spreadsheet of walls with severe and critical problems to coordinate maintenance with engineers, Public Service Department and contractors.

1. CRACKING

0 = None

1 = Minor; hairline

2 = Moderate; partial penetration, width < 1/8"

3 = Severe; deep cracks, width 1/8" or more, exposed rebar

4. = Critical: full or partial wall failure

Suggested Comments: numbers, locations, sizes, direction, causes and previous repairs

2. BULGING

0 = None

1 = Minor; pushed out 3" or less

2 = Moderate; pushed out 3" to -6"

3 = Severe; pushed out more than 6"

4 = Critical; wall failure due to collapsed bulge

Suggested Comments: numbers, locations, pushed out measurements, settlement above bulge, causes and previous repairs

3. SLIDING

0 = None

1 = Minor; offset 3" or less at joint

2 = Moderate; offset 3" to -6" at joint

3 = Severe; offset more than 6" at joint

4 = Critical; wall failure due to sliding

Suggested Comments: number, locations, offset measurements, damage to property supported by wall, causes and previous repairs

4. TILT

0 = None

1 = Minor; less than 1" per foot

2 = Moderate; 1" to 2" per foot

3 = Severe; more than 2" per foot

4 = Critical; wall failure due to tilting

Suggested Comments; numbers, location, tilt measurements, damage to property supported by wall, causes and previous repairs

5. SETTLEMENT

- 0 = None
- 1 = Minor; less than 3"
- 2 = Moderate; 3"+ to 6"
- 3 = Severe; more than 6"
- 4 = Critical; wall failure due to settlement

Suggested Comments: numbers, locations, measurements, causes and previous repairs

6. DELAMINATIONS

- 0 = None
- 1 = Light; sporadic small areas
- 2 = Moderate; sporadic medium areas
- 3 = Severe; exposed rebar
- 4 = Critical; wall failure due to delaminations

Suggested Comments: numbers, locations, sizes, causes and previous repairs

7. JOINTS

- 0 = None
- 1 = Minor; joint material missing or deteriorated
- 2 = Moderate; broken and less than 2" wide
- 3 = Severe; broken and 2" to 4" wide
- 4 = Critical; broken and wider than 4"

Suggested Comments: numbers, location, measurements, causes and previous repairs

8. WALL CAP

- 0 = None
- 1 = Minor; small cracks
- 2 = Moderate; cracks & delaminations
- 3 = Severe; cracks & delaminations with exposed rebar
- 4 = Critical; large sections of cap deteriorated or missing

Suggested Comments: numbers, location, measurements, causes and previous repairs

9. STONE OR BLOCK

- 0 = None
- 1 = Minor; isolated missing and or loose units
- 2 = Moderate; small areas of missing and loose units
- 3 = Severe; large areas of missing and loose units
- 4 = Critical; very large areas of missing and loose units

Suggested Comments: numbers, locations, measurements, causes and previous repairs

10. FOOTING

0 = None

1 = Minor; cracked

2 = Moderate; cracked and spalled

3 = Severe; cracked, spalled and broken

4 = Critical; cracked, spalled, broken and exposed rebar

Suggested Comments: numbers, locations, measurements, causes, previous repairs and for footers underground and unable to inspect write NA

11. LANDSLIDE DAMAGE

0 = None

1 = Minor; debris overtopping wall, but no damage to wall

2 = Moderate; minor damage to wall

3 = Severe; damage to wall requires repairs

4 = Critical; wall failure caused by landslide

Suggested Comments: locations, causes, property effected and previous repairs

12. TREE DAMAGE

0 = None

1 = Minor; light damage

2 = Moderate; cracking and movement

3 = Severe; damage to wall requires repairs

4 = Critical; wall failure caused by trees

Suggested Comments: numbers, location, damage and previous repairs

DRAINAGE DIVISION

13. UNDERDRAINS AND BACKDRAINS

0 = None

1 = Minor; pipe leaking onto sidewalk or roadway

2 = Moderate; partial blockage

3 = Severe: full blockage

4 = Critical: collapsed pipe

Suggested Comments: inspect outlet after heavy rain, inform Stormwater of problem, most pipes are underground and cannot be inspected, therefore the most common comment is NA

14. WEEP HOLES

0 = None

1 = Minor; some holes clogged and or buried

2 = Moderate; 1/3 of holes are clogged and or buried

3 = Severe; 2/3 of holes are clogged and or buried

4 = Critical; all holes are clogged and or buried

Suggested Comments: numbers, holes are weeping, roots in hole and debris in hole

15. DITCHES AND TRENCHES

0 = None

1 = Minor; ditch partially blocked

2 = Moderate; ditch fully blocked and or slightly settled

3 = Severe; ditch settled enough to impede flow of water

4 = Critical; ditch damaged and non-functional

Suggested Comments: clean ditch and or inlet, measurements, and inform Stormwater

16. EROSION

0 = None

1 = Minor; light overtopping or one end eroded

2 = Moderate; moderate overtopping and or both ends eroded

3 = Severe; heavy overtopping and erosion at ends which requires cleanup or slight undermining of wall

4 = Critical; wall undermined by erosion

Suggested Comments: description of erosion, causes and previous repairs

17. SEEPAGE

0 = None

1 = Minor; slight seepage through joints and or cracks

2 = Moderate; moderate seepage through joints and or cracks

3 = Severe; heavy seepage through joints and or cracks

4 = Critical; constant flow of water through joints and or cracks

Suggested Comments: numbers, locations, water ponding, slick surfaces, algae, possible spring or broken sewer pipe behind wall

COSMETIC DIVISION

18. DISCOLORATION

0 = None

1 = Minor; 25% or less

2 = Moderate; 25%+ to 50%

3 = Severe; 50%+ to 75%

4 = Critical; more than 75%

Suggested Comments: types, locations and causes

19. GRAFFITI

0 = None

1 = Minor; patches from previous cover-up

- 2 = Moderate; small amounts
- 3 = Severe; large amounts
- 4 = Critical; ugly surface due to repeated graffiti & cover-ups

Suggested Comments: notify graffiti removal and or notify Police gang unit

20. GUNITE

- 0 = None
- 1 = Minor; sporadic flaking
- 2 = Moderate; small portions fallen
- 3 = Severe; large amounts fallen
- 4 = Critical; mostly gone and non-functioning

Suggested Comments: numbers, locations and causes

21. PAINT OR MIRACOAT

- 0 = None
- 1 = Minor; sporadic flaking
- 2 = Moderate; small portions missing
- 3 = Severe; large portions missing
- 4 = Critical; mostly missing

Suggested Comments: numbers, location and causes

MISCELLANEOUS

22. BRUSH OR OVERGROWTH

- 0 = None
- 1 = Minor; landscaping
- 2 = Moderate; over hanging wall
- 3 = Severe; over hanging and in front of wall
- 4 = Critical; wall completely overgrown, inaccessible

SUGGESTED COMMENTS: location and notify Public Services

23. RAILING OR GUARDRAIL

- 0 = None
- 1 = Minor; light damage or rusted
- 2 = Moderate; moderate damage
- 3 = Severe; heavy damage or rusted through, requires repairs
- 4 = Critical; mostly wrecked and or missing, requires replacement

Suggested Comments: location, amount, notify Public Services and research Police Report

24. CURB

- 0 = None
- 1 = Minor; light deterioration or damage

- 2 = Moderate; moderate deterioration or damage
- 3 = Severe; heavy deterioration or damage, requires repairs
- 4 = Critical; mostly deteriorated, damaged or missing, requires replacement

Suggested Comments: location, amount, causes and notify proper agency

25. ROADWAY OR SIDEWALK

- 0 = None
- 1 = Minor; light cracking and or settlement
- 2 = Moderate; moderate cracking and or settlement
- 3 = Severe; heavy deterioration, requires repairs
- 4 = Critical; unusable, requires replacement

Suggested Comments: location, amount, causes and notify proper agency

26. STEPS

- 0 = None
- 1 = Minor; light deterioration
- 2 = Moderate; moderate deterioration
- 3 = Severe; heavy deterioration, requires repairs
- 4 = Critical; unusable, requires replacement

Suggested Comments: location, amount, causes and notify proper agency

GENERAL CONDITION

27. OVERALL WALL RATING

- 0 = Excellent Condition: No Problem
- 1 = Good Condition: Minor Movement, Cracking, settlement and Discoloration
- 2 = Fair Condition: Wall stable but Need Minor Repairs
- 3 = Poor Condition: Excessive deterioration, Major Rehab Work Required
- 4 = Wall Failure: Immediate Replacement Required

Suggested Comments: location, amount, causes and notify proper agency