



LEWISVILLE

Deep Roots. Broad Wings. Bright Future.

# SCREENING WALL UPDATE

CITY COUNCIL WORKSHOP – SEPTEMBER 10, 2018

# HISTORY OF PUBLIC SCREENING WALLS

- Design and requirements have varied throughout the years
  - 1970's – 1980's – less sustainable and less expensive designs were used by developers
    - Were not required
    - Were inconsistent as to whether public or privately maintained
    - Construction materials used varied
    - No maintenance fees required
  - December 15, 1989 - General Development Ordinance Adopted – only addressed screening walls between zoning uses

# HISTORY OF PUBLIC SCREENING WALLS

- January 22, 1994 – Public masonry screening walls required for residential subdivisions on thoroughfares
  - Masonry also required for outside storage
  - Developer pays a 15% maintenance fee (15% of total cost of wall construction)
- July 1996 – Added live screening between commercial uses and public parks (maintained by private property owner)
- June 4, 2003 – Increased maintenance fee to 20%

# HISTORY OF PUBLIC SCREENING WALLS

- 2004 – 2010 – City implemented Corridor Beautification on certain thoroughfares
  - City installed living screens along Bellaire Boulevard, Valley Parkway and Garden Ridge
  - Screening wall maintenance repair fees paid by developers began to decline due to residential build-out
- 2010 Council Retreat – considered using wood versus masonry on FM 407, Orchard Valley Estates and Hebron Parkway (Council elected to utilize masonry with the exception of Hebron Parkway – wall was removed at this location)
  - FM 407 – Cedar board on board fencing \$68,544 vs matching brick \$281,000
  - Orchard Valley Estates - Cedar board on board fencing \$68,460 vs matching brick \$286,000

# HISTORY OF PUBLIC SCREENING WALLS

- January 3, 2011 – Neighborhood Preservation Committee recommended the use of masonry for replacement of screening walls with the exception of industrial and commercial areas where wood could be utilized (Council elected to not utilize wood)
- 2011 – Present
  - Funding was allocated annually for screening wall maintenance and repair (approximately \$300,000 per year)

# PUBLIC SCREENING WALLS CURRENT REQUIREMENTS

- Single Family Developments
  - Screened where adjacent to thoroughfares
  - Masonry wall constructed of brick, stone, decorative block not less than 6 feet in height
  - Where siding on a thoroughfare, combination of masonry and wrought iron design may be constructed (only 40% can be non-masonry)
  - 4-foot screening wall easements provided where located outside of the right-of-way
  - Designed by professional engineer in compliance with current standard details of the City
  - 20% maintenance fee is required

# GENERAL DEVELOPMENT MAINTENANCE REQUIREMENTS

- Required screening walls for multi-family, commercial, and industrial uses shall be maintained in good condition by the property owner.
- Required screening walls for single family residential subdivisions shall be maintained by the City when within the right-of-way or a wall maintenance easement. At the time of initial development, the developer shall pay twenty (20) percent of the total cost of initial construction, to be placed in the City's screening wall maintenance account for future repair and upkeep of the screening walls within the City.
- The current estimate to build standard thin masonry walls is \$140 per linear foot, to include design, but not removal.

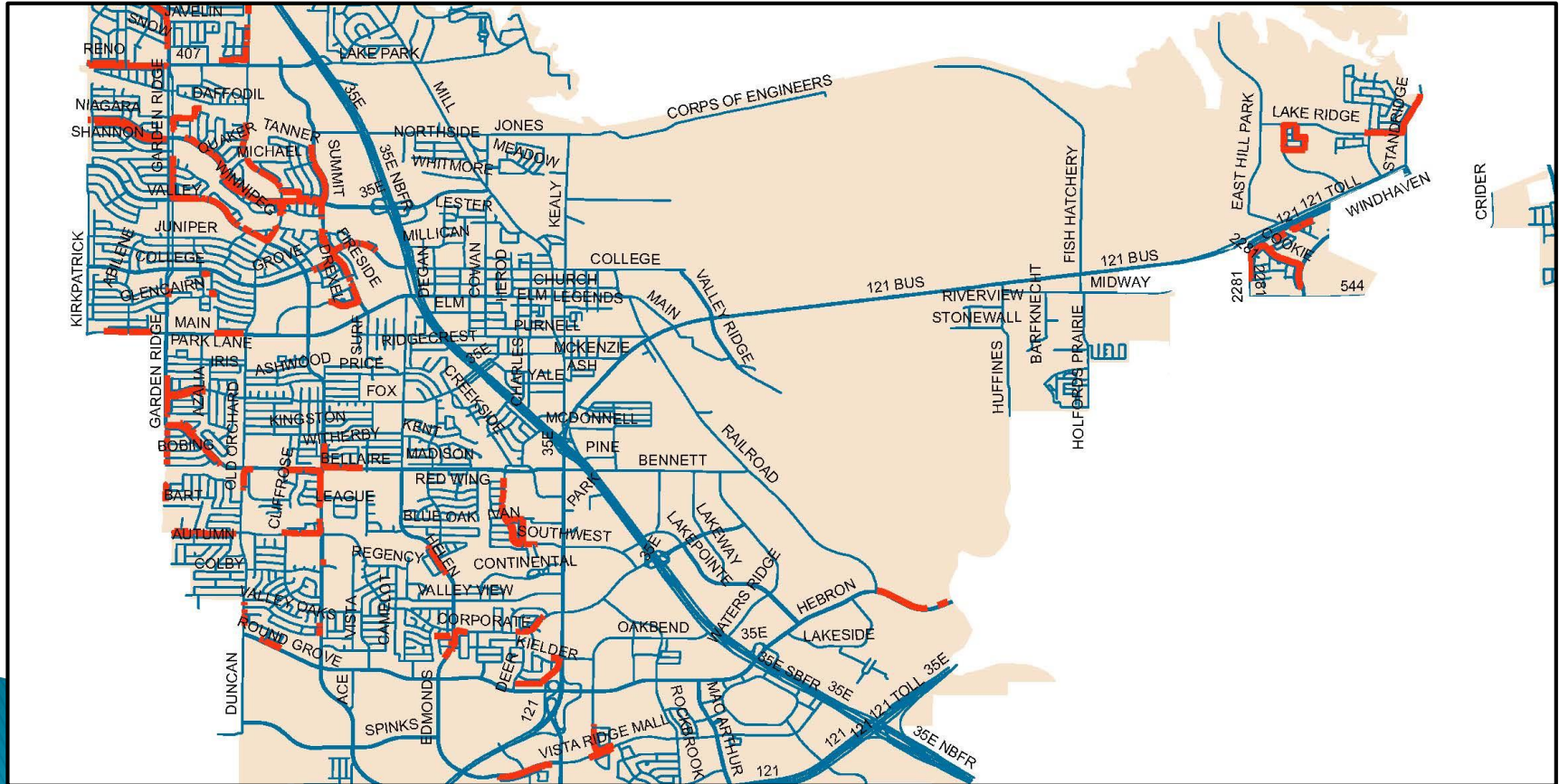
# SCREENING WALL SURVEY

- A screening wall survey was conducted of fifteen (15) surrounding cities. Questions included:
  - 1) Does your city/town maintain subdivision screening walls along right-of-ways?
    - We received ten (10) responses.
    - Carrollton, Garland, Richardson, and Plano responded “yes.”
    - Allen, Coppell, Irving, Flower Mound, Grand Prairie, and McKinney all responded “no.”
  - 2) If so, is developer contribution required? (Please include the percentage or dollar amount.)
    - Only Plano requires a developer contribution of \$10.00 per LF.

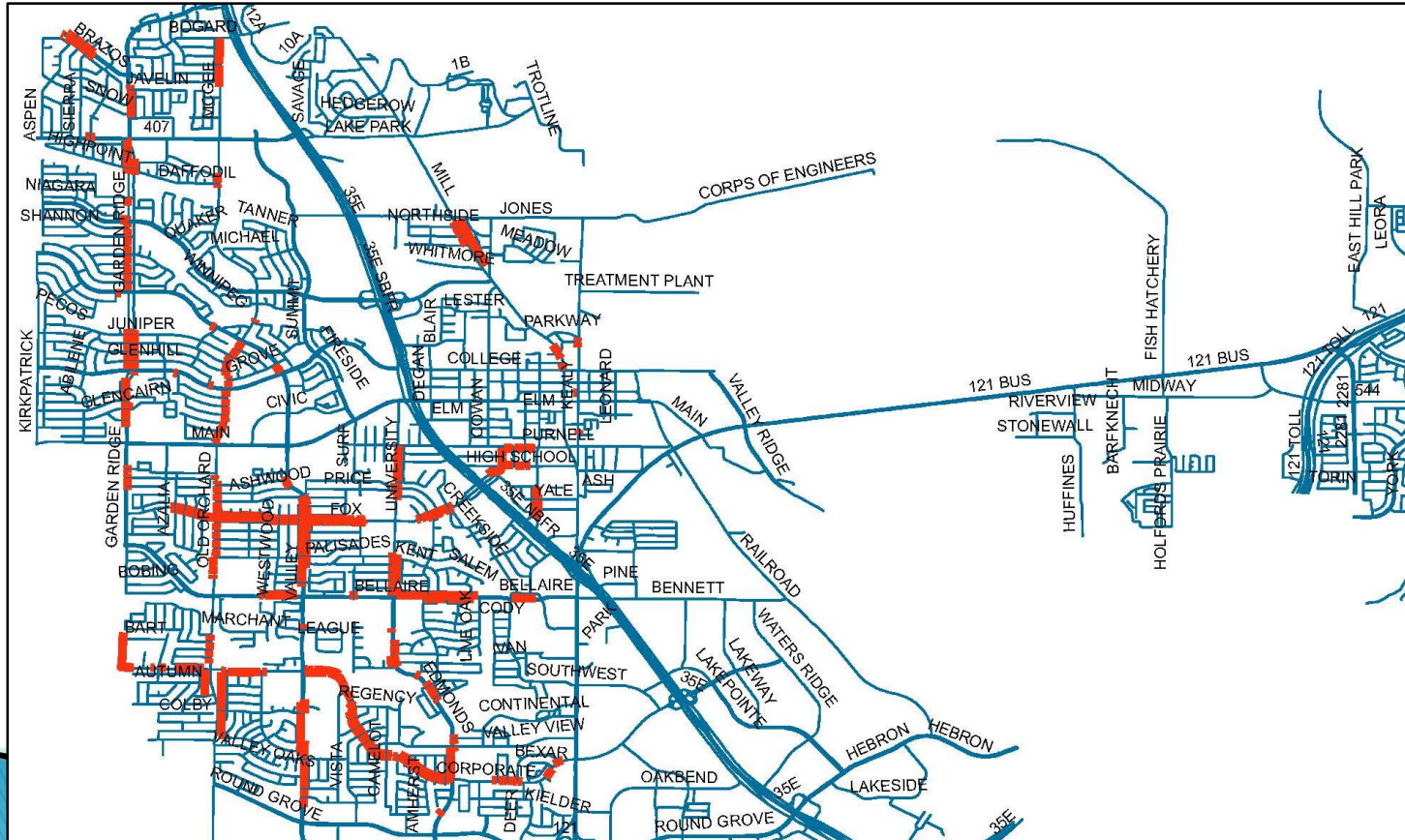


# SCREENING WALL LOCATIONS

The City of Lewisville currently maintains 58 screening walls throughout the city.



# ADDITIONAL SCREENING WALL LOCATIONS (PER CURRENT ORDINANCES)



# CONDITION RATING FOR SCREENING WALLS

- In FY 11-12, a formula was developed to rate screening walls based on actual conditions. Each wall segment starts with 100 points, then points are deducted for each damaged panel and/or column, pier issues, and/or wire corrosion.
- Screening walls are surveyed annually in early spring to determine the condition rating. City staff are trained in the skills needed to conduct these condition surveys. Staff walk each wall from the beginning to end collecting the needed information which is recorded on a spread sheet formulated to determine the current condition rating. Subdivisions with multiple wall segments are combined for an overall average condition rating.
- Ratings may vary year to year due to weather conditions and continued deterioration.

# SCREENING WALL MAINTENANCE

- \$300,000 is allocated annually to fund screening wall repairs.
- The affected portion of the screening wall, such as the skirt, column, cap, panel, beam, or pier is removed and replaced using annual maintenance contracts.
- If an entire subdivision requires repair or replacement, an action step may be requested the next fiscal year for funds specifically for that repair.



# TYPICAL MAINTENANCE/REPAIR ISSUES

Cracked columns and panel misalignment due to ground movement can threaten the structural integrity of the wall. These would result in a standard point deduction in their condition rating.



Orchard Valley Estates on McGee Ln.



DFW Screening Wall on Hebron Pkwy.

# TYPICAL MAINTENANCE/REPAIR ISSUES

Missing bricks receive a standard point deduction in condition rating.



Highpoint on FM 407



# TYPICAL MAINTENANCE/REPAIR ISSUES

Vehicle accidents are also responsible for the destruction of screening walls, and receive a standard point deduction in their condition rating. Repairs costs are recovered by the Risk Manager with assistance from the Police Department and transferred into the screening wall fund.



Kings Grant on Lake Ridge



Lewisville Valley 1 on FM 1171 west of Old Orchard

# TYPICAL MAINTENANCE/REPAIR ISSUES

Corrosion of the reinforcing wire can lead to mortar joint issues, and also receive multiple point deductions in condition rating.



DFW Screening Wall on Hebron Pkwy



Valley Oaks on Valley Pkwy



# TYPICAL MAINTENANCE/REPAIR ISSUES

Another maintenance issue is matching existing brick colors.  
(Due to discontinued brick color, different pit, or another location in the pit.)



Autumn Breeze and Garden Ridge



Linlee and Bellaire

# TYPICAL MAINTENANCE/REPAIR ISSUES

Working with contractors, we determined there were certain brick colors that would be around for a long period of time. Care was taken to incorporate these colors within existing walls.



Garden Ridge south of Bellaire,  
brick color: Colonial Frost/Essix



Old Orchard south of Bellaire, brick color:  
Magnum Light Flashed Heritage Tumbled

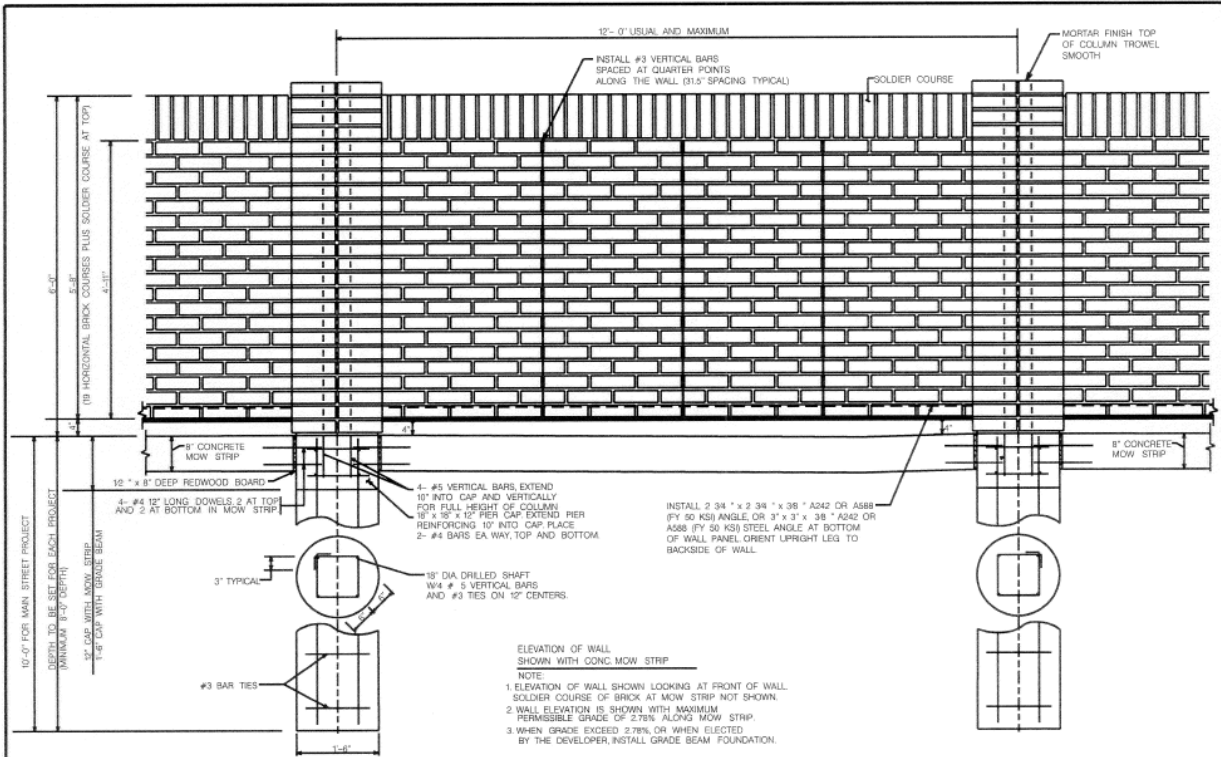


# WIRE CORROSION

The City's Standard Details were re-evaluated in 2013 due to the widespread problem of wire corrosion.

Once affected with this issue, the entire panel may deteriorate quickly.

Additional points are taken from the wall's condition rating specifically for wire corrosion.



NOTE:  
ANY SCREENING WALL REQUIRED BY THE GENERAL DEVELOPMENT ORDINANCE SHALL BE CONSTRUCTED AND ACCEPTED PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS THE COST OF THE SCREENING WALL CANNOT BE ESCROWED UNDER THE PERFORMANCE ESCROW POLICY AS PART OF THE PUBLIC IMPROVEMENTS.

## ELEVATION

NOTE:  
DETAIL SUBJECT TO CHANGE PER DIRECTION OF CITY OF LEWISVILLE ENGINEERING DIVISION.



Standard Details  
Standard Thin Wall  
Screening Wall

### Revisions:

No.	Description	Date

Department of  
Community  
Development

Office No. 972-219-3490  
Fax No. 972-219-3497  
www.cityoflewisville.com

Date: 2-27-13

Sheet: 6.1

# CONDITION RATINGS BY SUBDIVISION

SUBDIVISION	MATERIAL	LINEAR FT	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
Bellaire Addition	Masonry	530D	N/A	B	A	A	C	F	
Brittain Estates Addition	Masonry	396A	A	A	A	A	A	B	
Brookside Addition	Masonry	352N/A	N/A	N/A	N/A	N/A	A	A	
Carrington Village Addition	Masonry	2,386B	A	N/A	A	A	B	B	
Chase Oaks	Masonry	2,499A	N/A	N/A	A	A	A	B	
Creek Haven Addition	Wood/Masonry	1,983B	A	N/A	A	A	A	A	
Creekview Village	Masonry	585A	A	N/A	A	A	A	A	
Crescent Estates	Masonry	N/A	N/A	N/A	N/A	N/A	N/A	A	
Diamond Hill Estates	Masonry	1,943D	F	A	A	A	A	A	
Fox Creek Estates	Masonry/Metal	2,562B	N/A	A	A	A	D	D	
Garden Oak Estates	Masonry	2,577B	N/A	B	A	B	D	F	
Glenwood Addition	Masonry/Metal	890B	N/A	B	A	A	A	D	
Hedrick Estates	Masonry	1,130D	N/A	B	A	A	A	A	
Hidden Cove Estates	Masonry	2,342A	N/A	N/A	A	A	A	A	
Highland Lakes	Masonry	1,664A	N/A	N/A	A	A	A	B	
The Highlands - FM407	Masonry	1,147B	N/A	C	A	A	A	A	
The Highlands - Garden Ridge	Masonry	2,632A	N/A	N/A	A	A	B	C	
Highpoint	Masonry	2,450C	N/A	B	A	A	A	F	
Highpoint Oaks	Masonry	N/A	N/A	N/A	N/A	N/A	N/A	A	
Hills of Vista Ridge North	Masonry	N/A	N/A	N/A	N/A	N/A	N/A	A	
Hills of Vista Ridge S	Masonry	N/A	N/A	N/A	N/A	N/A	N/A	A	
Holly Lane Addition	Wood	232N/A	N/A	D	B	A	D	D	
King's Grant	Masonry	1,715N/A	N/A	N/A	N/A	A	A	A	
Lakeridge Townhomes	Masonry	3,467A	N/A	N/A	A	A	A	C	
Lewisville Valley 1	Masonry	966C	N/A	D	A	A	A	A	
Lewisville Valley 4	Stamped Concrete	1,549B	N/A	N/A	A	A	A	B	
Lewisville Valley 6	Masonry	2,444A	N/A	N/A	A	A	A	A	
Massey Addition	Masonry	3,310B	A	A	A	A	A	A	
Meadow Lake	Wood	1,239B	N/A	N/A	A	A	A	A	
Meridian Addition	Masonry	107A	N/A	N/A	A	A	A	A	
Orchard Valley Estates	Masonry	5,850C	N/A	N/A	C	D	F	C	
Park Ridge Estates	Masonry	5,850B	N/A	A	A	A	A	D	
Park Valley Addition	Masonry	2,154A	N/A	N/A	A	A	A	D	
Pasquinellis Heritage Hills	Masonry	1,194A	A	N/A	A	A	A	A	
Pebble Ridge Estates	Masonry	1,955B	N/A	N/A	C	C	D	F	
The Reserve at Timbercreek	Masonry	4,368B	N/A	B	A	A	A	C	
Ridgeview Estates	Masonry	952B	B	N/A	B	B	B	D	
Samuel Place	Masonry	279A	A	N/A	A	A	A	C	
Southridge Addition	Masonry	2,292C	N/A	B	B	C	D	D	
The Summit	Masonry	600C	N/A	D	D	D	D	F	
Summit Ridge	Masonry/Metal	2,411B	N/A	D	D	C	B	F	
Timber Creek Park Estates	Masonry	1,243B	N/A	D	A	A	A	A	
University Park	Masonry	1,814B	N/A	B	B	B	C	D	
Valley Oaks Addition	Masonry	563A	N/A	N/A	A	A	B	F	
Valley Ridge Estates	Masonry	2,472B	A	A	A	A	A	D	
Verona	Masonry	N/A	N/A	N/A	N/A	N/A	N/A	A	
Vista Oaks	Masonry	2,273B	N/A	N/A	B	A	B	F	
Water Oak Estates Ph 3	Masonry	1,794C	N/A	D	B	C	D	F	
Wentworth Villas Addition	Masonry	1,398A	A	A	A	A	A	B	
Whispering Oaks Estates	Masonry	3,722B	N/A	B	A	B	B	D	
Windhaven Crossing Phase A-1	Masonry	N/A	N/A	N/A	N/A	N/A	N/A	A	
Windhaven Crossing Phase B-1	Masonry	N/A	N/A	N/A	N/A	N/A	N/A	A	
Wyndale Meadows	Masonry	N/A	N/A	N/A	N/A	N/A	N/A	A	

SUBDIVISION	MATERIAL	LINEAR FT	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
Highpoint	Masonry	2,450	C	N/A	B	A	A	A	F
Vista Oaks	Masonry	2,273	B	N/A	N/A	B	A	B	F

- “N/A” ratings indicate the wall either did not exist at the time of inspection or it was not inspected that year.
- The Highpoint and Vista Oaks subdivisions are good examples of how drastically a condition rating can change when a screening wall is affected by extensive wire corrosion.
- Other variations in scores are related to a combination of maintenance related repairs including accelerated wire corrosion issues.

# FIVE YEAR PLAN FOR REPAIR

- A five year plan is developed during the budget process each year based on the \$300,000 funded for repairs.
- This plan is based on location, condition, customer requests, and estimated cost for repair.
- Screening walls listed for repair in the current fiscal year are placed on a repair schedule. As they are completed, the actual cost and completion date are recorded.
- Residents are notified in advance of scheduled repairs. If a screening wall serves as their fence, a temporary fence is installed during non-working hours until repairs are completed.

# REPAIR SCHEDULE

SUBDIVISION	STATUS	PROPOSED DATE	PROPOSED AMOUNT	ACTUAL DATE	INVOICED AMOUNT
Waters Oaks Estates	Completed	10/11/2017	\$4,960.00	12/14/2017	\$4,960.00
Bellaire Addition	Completed	10/11/2017	\$857.00	11/20/2017	\$857.00
Creekhaven Addition	Completed	10/11/2017	\$684.00	11/20/2017	\$684.00
Timber Creek Park Estates	Completed	12/1/2017	\$450.00	12/26/2017	\$450.00
Fox Creek Estates	Completed	12/1/2017	\$8,650.00	12/21/2017	\$8,650.00
Bellaire Addition	Completed	12/1/2017	\$2,360.00	12/21/2017	\$2,360.00
Highpoint	Completed	12/1/2017	\$855.00	1/22/2018	\$855.00
Pebble Ridge Estates	Completed	12/5/2017	\$725.00	2/28/2018	\$725.00
Vista Oaks Ph 1	Completed	12/5/2017	\$2,000.00	2/28/2018	\$2,000.00
Orchard Valley Ph 2	Completed	12/19/2017	\$184,000.00	2/28/2018	\$184,000.00
Orchard Valley Ph 2	Completed	2/21/2018	\$5,600.00	2/28/2018	\$5,600.00
Carrington Village Addition Ph 1	Completed	3/1/2018	\$940.50	3/15/2018	\$940.50
Summit Ridge Estates	Completed	3/8/2018	\$4,271.00	3/26/2018	\$4,271.00
The Summit Ph3	Completed	3/19/2018	\$70,275.00	4/17/2018	\$70,275.00
Whispering Oaks Estates	Completed	5/16/2018	\$2,700.00	6/13/2018	\$2,700.00
Grand Theatre Pavers	Completed	6/20/2018	\$700.00	6/29/2018	\$700.00
Summit Ridge Estates Ph 2	Completed	7/26/2018	\$2,200.00	8/2/2018	\$2,200.00
Southridge Ph 1	In Progress	08/19/2018	\$1,100.00		

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# FIVE YEAR PLAN

SUBDIVISION	MATERIAL	TOTAL EST. REPAIR	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	LINEAR FT	% REPAIRED
Bellaire Addition	Masonry	\$95,000.00				\$50,000.00	\$45,000.00	530	100%
Brittain Estates Addition	Masonry	\$400.00	\$400.00					396	0.5%
Carrington Village Addition	Masonry	\$1,710.00	\$1,710.00					2,386	0.4%
Creek Haven Addition	Wood/Masonry	\$8,250.00	\$8,250.00					1,983	11%
Diamond Hill Estates	Masonry	\$600.00	\$600.00					1,943	0.2%
Fox Creek Estates	Masonry/Metal	\$7,290.00	\$7,290.00					2,562	1.5%
Garden Oak Estates	Masonry	\$80,000.00		\$50,000.00	\$30,000.00			2,577	17%
Glenwood Addition	Masonry/Metal	\$35,350.00	\$350.00			\$25,000.00	\$15,000.00	890	21%
Hedrick Estates	Masonry	\$400.00	\$400.00					1,130	0.2%
Highland Lakes	Masonry	\$6,775.00	\$6,775.00					1,664	2%
Highpoint	Masonry	\$5,200.00	\$5,200.00					2,450	1%
Holly Lane Addition	Wood	\$7,000.00		\$7,000.00				232	100%
Lakeridge Townhomes	Masonry	\$4,000.00	\$4,000.00					3,467	1%
Massey Addition	Masonry	\$3,400.00	\$3,400.00					3,310	1%
Meadow Lake	Wood	\$10,500.00	\$10,500.00					1,239	22%
Orchard Valley Estates	Masonry	\$125,000.00	\$125,000.00					5,850	12%
Park Valley Addition	Masonry	\$1,990.00	\$1,990.00					2,154	0.5%
Pebble Ridge Estates	Masonry	\$371,000.00		\$92,000.00	\$174,000.00	\$105,000.00		1,955	100%
The Reserve at Timbercreek	Masonry	\$22,000.00	\$15,000.00	\$7,000.00				4,368	3%
Ridgeview Estates	Masonry	\$117,000.00	\$12,000.00				\$115,000.00	952	66%
Southridge Addition	Masonry	\$220,000.00				\$100,000.00	\$120,000.00	2,292	52%
Summit Ridge	Masonry/Metal	\$35,000.00		\$25,000.00	\$10,000.00			2,411	8%
University Park	Masonry	\$35,000.00		\$35,000.00				1,814	10%
Valley Oaks Addition	Masonry	\$15,000.00				\$10,000.00	\$5,000.00	563	14%
Valley Ridge Estates	Masonry	\$10,000.00				\$10,000.00		2,472	2%
Water Oak Estates Ph 3	Masonry	\$230,000.00	\$95,000.00	\$70,000.00	\$65,000.00			1,794	69%
Wentworth Villas Addition	Masonry	\$5,000.00		\$4,000.00	\$1,000.00			1,398	2%
Whispering Oaks Estates	Masonry	\$30,000.00		\$8,000.00	\$22,000.00			3,722	4%
	<b>TOTAL</b>	<b>\$1,489,865.00</b>	<b>\$297,865.00</b>	<b>\$298,000.00</b>	<b>\$302,000.00</b>	<b>\$300,000.00</b>	<b>\$300,000.00</b>	<b>58,504</b>	



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# SCREENING WALL UPDATE

- Questions?