

**BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTICE OF MEETING**

TO: THE BOARD OF DIRECTORS OF BELVEDERE MUNICIPAL UTILITY DISTRICT
AND TO ALL OTHER INTERESTED PERSONS:

Notice is hereby given pursuant to V.T.C.A., Government Code Chapter 551, that the Board of Directors of Belvedere Municipal Utility District will hold a regular meeting, open to the public, on Tuesday, January 17, 2023 at 6:00 p.m., within the boundaries of the District, at the Belvedere Amenity Center, 17400 Flagler Drive, Austin, Texas, for the following purposes:

Meeting materials are available at www.belvederemud.org.

1. Call meeting to order and establish a quorum.
2. Discuss, consider, and take action to accept resignation of Director Golde.
3. Discuss, consider, and take action to appoint new director.
4. Discuss, consider, and take action concerning qualifying newly appointed director.
5. Discuss, consider, and take action concerning election of new officers.
6. Receive public comments.
7. Discuss, consider, and take action to approved audit for period ending September 30, 2022.
8. Discuss, consider, and take action to approve the minutes of the September 20, 2022 regular meeting.
9. Discuss, consider, and take action as necessary concerning report from the District's Bookkeeper and Finance Committee, including:
 - a. Payment and ratification of invoices;
 - b. Coordination on bookkeeping matters;
 - c. TexPool investments;
 - d. Reimbursement of costs to Belvedere HOA pursuant to the Joint Use and Maintenance Agreement; and
10. Discuss, consider, and take action regarding report from the District liaison to the HOA and from the HOA liaison to the District.
11. Discuss, consider, and take action regarding the appointment of a District liaison to the HOA to address drainage issues.
12. Discuss, consider, and take action as necessary concerning residential playground safety audit.
13. Discuss, consider, and take action as necessary concerning management of the District's website.
14. Discuss, consider, and take action regarding improvement, maintenance, and repair of existing and future assets owned or maintained by the District, including:
 - a. Report from the District's Engineer;

- b. Drainage Facilities; and
 - c. Trail maintenance.
15. Receive legislative update.
 16. Discuss, consider, and take action on future meeting schedule.
 17. Adjournment.

The District may meet in executive session on any item listed above as provided by the Open Meetings Act, Tex. Gov't Code §§ 551.071, 551.072, 551.073, 551.074, or 551.075.

EXECUTED this the 13th day of January, 2023.





 Attorney for the District

 Belvedere Municipal Utility District is committed to compliance with the Americans with Disabilities Act. Reasonable modifications and equal access to communications will be provided upon request. Please call David Klein at Lloyd Gosselink, Attorney for the District, at (512) 322-5818, for information.

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Peter W. Golde
8301 Bellancia Dr.
Austin, TX 78738

January 13, 2023

Belvedere Municipal Utility District Board and General Counsel

After more than eight years' service on the Belvedere Municipal Utility District Board I feel it is time that I step down and allow for a new Belvedere resident to contribute to the Board's mission.

Accordingly, I plan to resign from the Belvedere Municipal Utility District at the Board's next meeting on January 17, 2023.

It has truly been a pleasure to serve with the other Board members and consultants over the years.

Thank You

Peter W. Golde

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BELVEDERE MUNICIPAL UTILITY DISTRICT

**FINANCIAL STATEMENTS,
SUPPLEMENTAL INFORMATION
AND
INDEPENDENT AUDITOR'S REPORT**

**FOR THE YEAR ENDED
SEPTEMBER 30, 2022**

DRAFT

WEST, DAVIS & COMPANY, LLP
Certified Public Accountants
Austin, Texas

BELVEDERE MUNICIPAL UTILITY DISTRICT
Annual Financial Report
For the Year Ended September 30, 2022

ANNUAL FILING AFFIDAVIT

THE STATE OF TEXAS }

COUNTY OF TRAVIS }

I, James Koerner, President of the Belvedere Municipal Utility District hereby swear, or affirm, that the district named above has reviewed and approved at a meeting of the Board of Directors of the District on the 17th day of January 2023, its annual audit report for the fiscal year ended September 30, 2022, and that copies of the annual report have been filed in the district office, located at 816 Congress, Suite 1900, Austin, Texas.

The annual filing affidavit and the attached copy of the annual audit report are being submitted to the Texas Commission on Environmental Quality in satisfaction of all annual filing requirements within Section 49.194 of the Texas Water Code.

Date: January 17, 2023

By: _____

Sworn to and subscribed to before me this 17th day of January 2023.

Notary: _____

(Seal)

My Commission expires on: _____, _____, Notary Public in and for the State of Texas.

BELVEDERE MUNICIPAL UTILITY DISTRICT
 Annual Financial Report
 For the Year Ended September 30, 2022

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FINANCIAL SECTION

DRAFT

Independent Auditor's Report

Board of Directors
Belvedere Municipal Utility District
Austin, Texas

We have audited the accompanying financial statements of the governmental activities and each major fund of Belvedere Municipal Utility District (the District) as of and for the year ended September 30, 2022, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Opinions

In our opinion the financial statements referred to above present fairly, in all material respects, the financial position of the governmental activities and each major fund of the District as of September 30, 2022, and the changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the District and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the District's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the District's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the budgetary comparison information be presented to supplement the basic financial statements. Such information is the responsibility of management

and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the District's basic financial statements. The Texas Commission on Environmental Quality required supplemental schedules are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Texas Commission on Environmental Quality required supplemental schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the property tax assessed value information but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Austin, Texas
December 31, 2022

BELVEDERE MUNICIPAL UTILITY DISTRICT

Management Discussion and Analysis For the Year Ended September 30, 2022

In accordance with Governmental Accounting Standards Board Statement 34 ("GASB 34"), the management of Belvedere Municipal Utility District (the "District") offers the following discussion and analysis to provide an overview of the District's financial activities for the year ended September 30, 2022. Since this information is designed to focus on current year's activities, resulting changes, and currently known facts, it should be read in conjunction with the District's financial statements that follow.

FINANCIAL HIGHLIGHTS

- **General Fund:** The unassigned fund balance at the end of the year was \$462 thousand, which was an increase of \$431 thousand from the end of the previous year end. Revenue decreased from \$235 thousand in the previous fiscal year to \$224 thousand in the current fiscal year primarily due to lower property tax rates.
- **Debt Service Fund:** The fund balance restricted for debt service increased from \$231 thousand at the end of the previous fiscal year to \$236 thousand at the end of the current fiscal year which was consistent with designated debt service property tax collections necessary to cover principal and interest payments due on bonds payable. Tax revenue increased from \$444 thousand to \$458 thousand over the previous fiscal year and debt service payments increased from the prior year. The District made bond principal payments of \$285 thousand and bond interest payments of \$170 thousand during the fiscal year.
- **Capital Projects Fund:** The fund balance decreased from \$4 to \$0 at the end of the year. This decrease was due to the District electing to close the capital projects fund cash account.
- **Governmental Activities:** On a Government-wide basis for governmental activities, the District had revenues in excess of expenses of approximately \$128 thousand. Net position increased from \$372 thousand to \$500 thousand. This increase is primarily due to bond principal payments not being expensed on the full accrual basis of accounting used in the statement of activities presentation.

OVERVIEW OF THE DISTRICT

Belvedere Municipal Utility District (the District), a political subdivision of the State of Texas, was created by an order of the Texas Commission on Environmental Quality (TCEQ) on November 30, 2005 under Article XVI Section 59 of the Texas Constitution and operates pursuant to Chapters 49 and 54 of the Texas Water Code, as amended, and other general statutes of Texas applicable to municipal utility districts. The District was created and organized for the purpose of constructing water and drainage facilities and providing water services to residential and commercial establishments within the District and solid waste collection services. The District is also authorized to provide recreational facilities. The District is located entirely within Travis County.

BELVEDERE MUNICIPAL UTILITY DISTRICT

Management Discussion and Analysis For the Year Ended September 30, 2022

USING THIS ANNUAL REPORT

The District's reporting is comprised of five parts:

- Management's Discussion and Analysis (this section)
- Basic Financial Statements
 - Statement of Net Position and Reconciliation to Governmental Funds Balance Sheet
 - Statement of Activities and Reconciliation to Statement of Revenues, Expenditures, and Changes in Fund Balances of Governmental Funds
- Notes to the Financial Statements
- Required Supplementary Information
- Texas Supplementary Information (required by the Texas Commission on Environmental Quality)

The Government-wide statements are reported using the flow of economic resources measurement focus and the full accrual basis of accounting. The Governmental Fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting.

For purposes of GASB 34, the District is considered a special purpose government. This allows the District to present the newly required fund and government-wide statements in a single schedule. The requirement for fund financial statements that are prepared on the modified accrual basis of accounting is met with the "Governmental Funds Total" column. An adjustment column includes those entries needed to convert to the full accrual basis government-wide statements. Government-wide statements are comprised of the Statement of Net Position and the Statement of Activities.

OVERVIEW OF THE BASIC FINANCIAL STATEMENTS

The Statement of Net Position and Governmental Funds Balance Sheet includes a column (titled "Governmental Funds Total") that represents a balance sheet prepared using the modified accrual basis of accounting. The adjustments column converts those balances to a balance sheet that more closely reflects a private-sector business. Over time, increases or decreases in the District's net assets will indicate financial health.

The Statement of Activities and Governmental Funds Revenues, Expenditures, and Changes in Fund Balances includes a column (titled "Governmental Funds Total") that derives the change in fund balances resulting from current year revenues, expenditures, and other financing sources or uses. These amounts are prepared using the modified accrual basis of accounting. The adjustments column converts those activities to full accrual, a basis that more closely represents the income statement of a private-sector business.

BELVEDERE MUNICIPAL UTILITY DISTRICT

**Management Discussion and Analysis
For the Year Ended September 30, 2022**

The Notes to the Financial Statements provide additional information that is essential to a full understanding of the information presented in the *Statement of Net Position and Governmental Funds Balance Sheet* and the *Statement of Activities and Governmental Funds Revenues, Expenditures, and Changes in Fund Balances*.

The Required Supplementary Information presents a comparison statement between the District's adopted budget and its actual results.

FINANCIAL ANALYSIS OF THE DISTRICT AS A WHOLE

Summary Statement of Net Position

	Governmental Activities		Increase (Decrease)
	(in thousands)		
	September 2022	September 2021	
Current and Other Assets	\$ 760	\$ 772	\$ (12)
Capital and Non-Current Assets	4,547	4,654	(107)
Total Assets	5,307	5,426	(119)
Current Liabilities	392	334	58
Long-Term Liabilities	4,415	4,720	(305)
Total Liabilities	4,807	5,054	(247)
Net Investment in Capital Assets	(200)	(379)	179
Restricted	236	236	-
Unrestricted	464	515	(51)
Total Net Position	\$ 500	\$ 372	\$ 128

The District's total assets were approximately \$5.31 million as of September 30, 2022. Of this amount, approximately \$759 thousand is accounted for by cash and short-term investments. The District had outstanding liabilities of approximately \$4.8 million. The District's unrestricted net assets, which can be used to finance day to day operations, totaled \$464 thousand.

BELVEDERE MUNICIPAL UTILITY DISTRICT

**Management Discussion and Analysis
For the Year Ended September 30, 2022**

Summary Statement of Activities

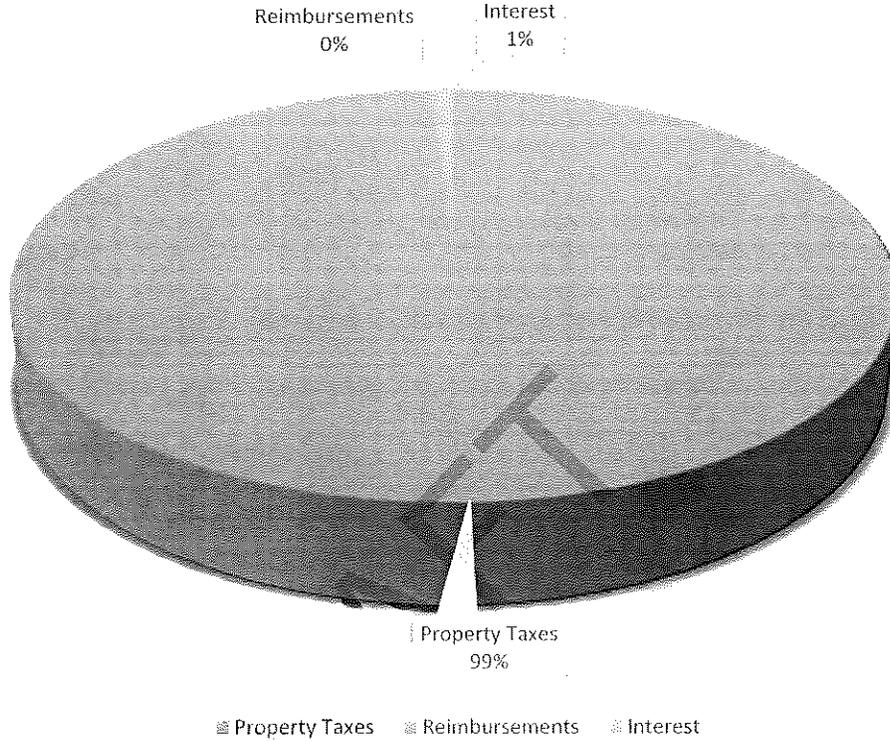
	Governmental Activities (in thousands)		Increase (Decrease)
	2022	2021	
Property Taxes	\$ 669	\$ 643	\$ 26
Reimbursements	2	19	(17)
Interest	5	3	2
Total Revenues	676	665	11
Solid Waste Disposal	51	47	4
Operations and Maintenance	109	116	(7)
Other	112	106	6
Debt Service	169	176	(7)
Depreciation	107	107	-
Total Expenses	548	552	(4)
Other Financing Sources (Uses)	-	-	-
Change in Net Assets	128	113	15
Beginning Net Assets	372	259	113
Ending Net Assets	\$ 500	\$ 372	\$ 128

Revenue was approximately \$676 thousand for the year ended September 30, 2022. Expenses and Other Financing Uses were approximately \$548 thousand for the year ended September 30, 2022. Net position increased about \$128 thousand primarily due to to bond principal payments not being expensed on the full accrual basis of accounting used in the statement of activities presentation. The following charts summarize the sources of revenue and areas of expenses.

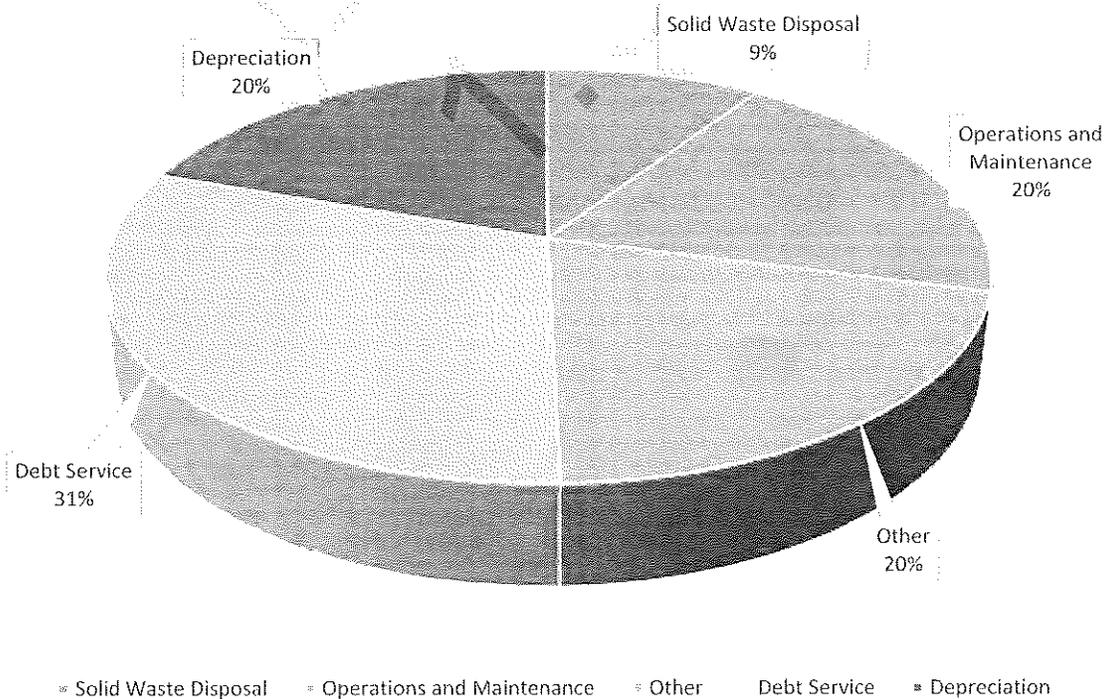
BELVEDERE MUNICIPAL UTILITY DISTRICT

**Management Discussion and Analysis
For the Year Ended September 30, 2022**

Revenues-Fiscal Year 2022



Expenses - Fiscal Year 2022



BELVEDERE MUNICIPAL UTILITY DISTRICT

**Management Discussion and Analysis
For the Year Ended September 30, 2022**

FINANCIAL ANALYSIS OF THE DISTRICT'S FUND LEVEL STATEMENTS

In comparison to the Government-wide statements, the Fund-level statements focus on the key funds of the District. The District uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements.

The District reports the following types of Governmental funds: General Fund, Debt Service Fund and Capital Projects Fund. The focus of the District's Governmental funds is to provide information on near-term inflows, outflows, and available resources. Such information is useful in assessing the District's financing requirements. In particular, unassigned fund balance may serve as a useful measure of a government's net resources available at the end of the fiscal year.

Summary Balance Sheet

	Governmental Funds (in thousands)		Increase (Decrease)
	September 2022	September 2021	
Cash and Investments	\$ 758	\$ 763	\$ (5)
Accounts Receivable	-	8	(8)
Prepaid Expenses	2	1	1
Total Assets	760	772	(12)
Accounts Payable	60	21	39
Deferred Inflow-Property Taxes	-	8	(8)
Total Liabilities	60	29	31
Nonspendable	2	1	1
Restricted for Debt Service	236	231	5
Restricted for Capital Projects	-	-	-
Assigned for Reserve	-	480	(480)
Unassigned	462	31	431
Total Fund Balances	700	743	(43)
Total Liabilities and Fund Balances	\$ 760	\$ 772	\$ (12)

BELVEDERE MUNICIPAL UTILITY DISTRICT

Management Discussion and Analysis For the Year Ended September 30, 2022

The General Operating Fund, which pays for daily operating expenses, has an unassigned balance of \$462 thousand at the end of the current fiscal year. This is an increase of \$431 thousand from the prior fiscal year.

The Debt Service Fund increased by \$5 thousand during the current fiscal year. This fund collected \$458 thousand in property taxes and remitted bond principal of \$285 thousand and bond interest of \$170 thousand during the year.

The Capital Projects Fund decreased to \$ -0- during the current fiscal year due to the District electing to close the capital projects fund cash account.

BUDGETARY HIGHLIGHTS

The Board of Directors adopted the fiscal year 2022 annual budget for the General Fund on September 20, 2021. The budget included revenues of \$209 thousand and expenditures of \$270 thousand. Actual revenue amounted to \$224 thousand and actual expenditures amounted to \$272 thousand. More detailed information about the District's budgetary comparison is presented in the Required Supplementary Information section.

CAPITAL ASSETS

The District has invested \$5.3 million in infrastructure. A summary of these assets is listed below:

Summary of Capital Assets

	Governmental Activities (in thousands)		Increase (Decrease)
	September 2022	September 2021	
Drainage System	\$ 2,274	\$ 2,274	\$ -
Water System	2,150	2,150	-
Amenity Center	914	914	-
Accumulated Depreciation	(791)	(684)	(107)
Total Capital Assets (Net)	\$ 4,547	\$ 4,654	\$ (107)

BELVEDERE MUNICIPAL UTILITY DISTRICT

Management Discussion and Analysis For the Year Ended September 30, 2022

LONG TERM DEBT

The District has issued \$6.490 million in unlimited tax bonds and used the proceeds to acquire water, drainage and amenity facilities. Bonded indebtedness of the District at year end was \$4.72 million. More detailed information about the District's long-term debt is presented in the Notes to the Basic Financial Statements.

ECONOMIC FACTORS

The taxable assessed value of property within the District as of January 1, 2022 has been fixed by the Travis County Appraisal District at \$320 million. The tax rates adopted by the District on September 20, 2022 for the coming fiscal year are \$0.0775 for maintenance and operations and \$0.145 for debt service. The District expects this to produce \$712 thousand in total property tax revenue for next year. The adopted budget for fiscal year 2023 projects a decrease of approximately \$17 thousand to the operating fund balance.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the District's finances and to demonstrate the District's accountability for the funds it receives. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the District in care of Lloyd Gosselink Rochelle and Townsend, PC, 816 Congress Avenue, Suite 1900, Austin, Texas 78701.

BASIC FINANCIAL STATEMENTS

BELVEDERE MUNICIPAL UTILITY DISTRICT

**STATEMENT OF NET POSITION
AND GOVERNMENTAL FUNDS BALANCE SHEET
SEPTEMBER 30, 2022**

	<u>GENERAL</u>	<u>DEBT SERVICE</u>	<u>CAPITAL PROJECTS</u>	<u>TOTAL</u>	<u>ADJUST- MENTS</u>	<u>STATEMENT OF NET POSITION</u>
ASSETS						
Cash	\$ 22,265	\$ 57,783	\$ -	\$ 80,048	\$ -	\$ 80,048
Investments	502,473	176,017	-	678,490	-	678,490
Taxes Receivable	-	-	-	-	-	-
Due from Other Fund	-	2,195	-	2,195	(2,195)	-
Prepaid Expenses	1,935	-	-	1,935	-	1,935
Drainage System (net of depreciation)	-	-	-	-	1,850,468	1,850,468
Water System (net of depreciation)	-	-	-	-	1,849,405	1,849,405
Amenity Center (net of depreciation)	-	-	-	-	847,155	847,155
Total Assets	\$ 526,673	\$ 235,995	\$ -	\$ 762,668	\$ 4,544,833	\$ 5,307,501
LIABILITIES						
Accounts Payable	\$ 60,376	\$ -	\$ -	\$ 60,376	\$ 26,770	\$ 87,146
Due to Other Fund	2,195	-	-	2,195	(2,195)	-
Bonds Payable in less than one year	-	-	-	-	305,000	305,000
Bonds Payable in more than one year	-	-	-	-	4,415,000	4,415,000
Total Liabilities	62,571	-	-	62,571	4,744,575	4,807,146
DEFERRED INFLOWS OF RESOURCES						
Property Taxes	-	-	-	-	-	-
Total Deferred Inflows	-	-	-	-	-	-
FUND EQUITY						
Nonspendable	1,935	-	-	1,935	(1,935)	-
Restricted for Debt Service	-	235,995	-	235,995	(235,995)	-
Investment in General Fixed Assets	-	-	-	-	-	-
Assigned for Reserve	-	-	-	-	-	-
Unassigned	462,167	-	-	462,167	(462,167)	-
Total Fund Equity	464,102	235,995	-	700,097	(700,097)	-
Total Liabilities, Fund Equity & Deferred Inflows of Resources	\$ 526,673	\$ 235,995	\$ -	\$ 762,668		
NET POSITION						
Net Investment in Capital Assets					(199,742)	(199,742)
Restricted for Debt Service					235,995	235,995
Unrestricted					464,102	464,102
Total Net Position					\$ 500,355	\$ 500,355

The notes to financial statements are an integral part of this statement.

BELVEDERE MUNICIPAL UTILITY DISTRICT

**STATEMENT OF ACTIVITIES AND GOVERNMENTAL FUNDS
REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
FOR THE YEAR ENDED SEPTEMBER 30, 2022**

	<u>GENERAL</u>	<u>DEBT SERVICE</u>	<u>CAPITAL PROJECTS</u>	<u>TOTAL</u>	<u>ADJUST- MENTS</u>	<u>STATEMENT OF ACTIVITIES</u>
<u>REVENUES</u>						
Property Taxes	\$ 218,489	\$ 458,163	\$ -	\$ 676,652	\$ (7,760)	\$ 668,892
Reimbursements	1,961	-	-	1,961	-	1,961
Interest	3,433	1,679	1	5,113	-	5,113
TOTAL REVENUES	223,883	459,842	1	683,726	(7,760)	675,966
<u>EXPENDITURES</u>						
Current:						
Solid Waste Disposal	50,794	-	-	50,794	-	50,794
Repairs and Maintenance	22,613	-	-	22,613	-	22,613
Amenity Center Operations	86,859	-	-	86,859	-	86,859
Accounting Fees	14,400	-	-	14,400	-	14,400
Audit Fees	7,500	-	-	7,500	-	7,500
Engineering Fees	35,787	-	-	35,787	-	35,787
Legal Fees	46,103	-	-	46,103	-	46,103
Tax Assessor/Collector	4,395	-	-	4,395	-	4,395
Director Salaries and Payroll Taxes	-	-	-	-	-	-
Insurance	2,708	-	-	2,708	-	2,708
Legal Notices	897	-	-	897	-	897
Miscellaneous	-	-	5	5	-	5
Depreciation & Amortization	-	-	-	-	106,763	106,763
Debt Service:						
Fiscal Agent's Fees	-	1,326	-	1,326	-	1,326
Interest	-	168,644	-	168,644	(1,339)	167,305
Principal	-	285,000	-	285,000	(285,000)	-
Capital Expenditures	-	-	-	-	-	-
TOTAL EXPENDITURES	272,056	454,970	5	727,031	(179,576)	547,455
<u>OTHER FINANCING SOURCES (USES)</u>						
Transfer (to) from Other Funds	-	-	-	-	-	-
NET OTHER SOURCES (USES)	-	-	-	-	-	-
Excess (Deficit) of Revenues and Other Financing Sources over Expenditures	(48,173)	4,872	(4)	(43,305)	43,305	-
Change in Net Position					128,511	128,511
Fund Balance/Net Position - Beginning	512,275	231,123	4	743,402	(371,558)	371,844
Fund Balance/Net Position - Ending	\$ 464,102	\$ 235,995	\$ -	\$ 700,097	\$ (199,742)	\$ 500,355

The notes to financial statements are an integral part of this statement.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

1. Summary of Significant Accounting Policies

The basic financial statements of Belvedere Municipal Utility District (the District) have been prepared in conformity with accounting principles applicable to governmental units which are generally accepted in the United States of America. The Governmental Accounting Standards Board (“GASB”) is the accepted standard setting body for establishing governmental accounting and financial reporting principles. The more significant of the accounting policies are described below.

Belvedere Municipal Utility District (the District), a political subdivision of the State of Texas, was created by an order of the Texas Commission on Environmental Quality (TCEQ) on November 30, 2005 under Article XVI Section 59 of the Texas Constitution and operates pursuant to Chapters 49 and 54 of the Texas Water Code, as amended, and other general statutes of Texas applicable to municipal utility districts. The District is subject to the continuing supervisory jurisdiction of the TCEQ.

The District is empowered, among other things, to finance, purchase, construct, operate and maintain all works, improvements, facilities and plants necessary for the supply and distribution of water and the control and diversion of storm water. The District may issue bonds and other forms of indebtedness to purchase or construct such facilities. The District may also provide solid waste collection and disposal services. The District is also empowered to establish, operate and maintain fire-fighting facilities, independently or with one or more conservation and reclamation districts, after approval by the TCEQ and the voters of the District. Additionally, the District may, subject to certain limitations, develop and finance recreational facilities.

The District is located approximately 23 miles west of downtown Austin on Hamilton Pool Road, just west of State Highway 71. The District lies wholly outside the extraterritorial jurisdiction of any city, town, or village of the State of Texas. Development of land within the District began in October 2005. The District has been developed for single family residential use. Hamilton Bee Cave, L.P. (Developer) has financed the design and construction of water and drainage facilities on land within the District. The District and Developer entered into an agreement whereby the District agreed to reimburse the Developer for its costs for the construction of facilities to the extent allowed by TCEQ. As of March 15, 2016, the District has reimbursed the Developer for all facilities constructed by the Developer and the Developer has transferred and conveyed the facilities to the District. On May 13, 2006, the District held a bond election whereby voters authorized the Board of Directors of the District to issue up to \$6,700,000 in unlimited tax bonds for water and drainage facilities and up to \$1,220,000 in unlimited tax bonds for recreational facilities.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

1. Summary of Significant Accounting Policies (continued)

These financial statements report the financial activity of Belvedere Municipal Utility District. The reporting entity of the District encompasses those activities and functions over which the District's elected officials exercise significant oversight or control. The District is governed by a five member Board of Directors (the Board) that has been elected by District residents. The funds and account groups presented in this report are within the oversight responsibility of the Board, in accordance with Governmental Accounting Standards Board (GASB) Codification of Governmental Accounting and Financial Reporting Standards Part II, Financial Reporting. There are no component units of the District, nor is the District a component unit of any other entity.

A. Basis of Presentation, Basis of Accounting

In accordance with GASB Statement No. 34, the District has elected to combine their Government-wide and Governmental Fund Financial Statements into one set of financial statements with a reconciliation of the individual line items in a separate column on the financial statements.

Government-wide Financial Statements:

The **Statement of Net Position** and the **Statement of Activities** include the financial activities of the overall government. Governmental activities are generally financed through property taxes.

The **Statement of Activities** presents a comparison between direct expenses and program revenues for each function of the District's governmental activities. Direct expenses are those that are specifically associated with a program or function and, therefore, are clearly identifiable to a particular function.

Fund Financial Statements:

The governmental fund financial statement columns are labeled **Government Funds Balance Sheet** and **Governmental Funds Revenue, Expenditures and Changes in Fund Balance**. In the fund financial statements, the accounts of the District are organized on the basis of funds, each of which is considered a separate accounting entity. The emphasis of fund financial statements is on major governmental funds, each displayed in a separate column. The District reports the following major governmental funds:

General Fund: This is the District's primary operating fund. It accounts for all financial resources of the District except those required to be accounted for in another fund.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

1. Summary of Significant Accounting Policies (continued)

Debt Service Fund: The Debt Service Fund is used to account for the accumulation of financial resources for, and the payment of, general long term debt principal and interest.

Capital Projects Fund: The Capital Projects Fund is used to account for the acquisition or construction of major capital facilities. Principal sources of revenue are municipal long-term debt proceeds and interest income.

B. Measurement Focus, Basis of Accounting

The Government-wide financial statements are reported using the flow of economic resources measurement focus and the accrual basis of accounting. Revenue is recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recognized as revenue in the year for which they are levied.

Governmental Fund Financial Statements: Governmental funds are reported using the current financial resources management focus and the modified accrual basis of accounting. Under this method, revenues are recognized when measurable and available. The District does not consider revenues collected after its year end to be available in the current period. Revenues from local sources consist primarily of property taxes. Miscellaneous revenues are recorded as revenues when received in cash because they are generally not measurable until actually received. Investment earnings are recorded as earned, since they are both measurable and available. Expenditures are recorded when the related fund liability is incurred, except for principal and interest on long term debt, which is recognized as an expenditure to the extent that it has matured. General capital asset acquisitions are reported as expenditures in major governmental funds. Proceeds of general long term debt are reported as other financing sources.

C. Fund Balances

The District has adopted GASB Statement No. 54 Fund Balance Reporting and Governmental Fund Type Definitions which establishes fund balance classifications that comprise a hierarchy based primarily on the extent to which a government is bound to observe constraints imposed upon the use of the resources reported in governmental funds.

Those fund balance classifications are described below.

Nonspendable – Amounts that cannot be spent because they are either not in a spendable form or are legally or contractually required to be maintained intact.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

1. Summary of Significant Accounting Policies (continued)

Restricted – Amounts that can be spent only for specific purposes because of constraints imposed by external providers, or imposed by constitutional provisions or enabling legislation.

Committed – Amounts that can only be used for specific purposes pursuant to approval by formal action by the Board.

Assigned – For the General Fund, amounts that are appropriated by the Board or Board designee, if any, that are to be used for specific purposes. For all other governmental funds, any remaining positive amounts not previously classified as nonspendable, restricted or committed.

Unassigned – Amounts that are available for any purpose; these amounts can be reported only in the District's General Fund.

Fund balance of the District may be committed for a specific purpose by formal action of the Board, the District's highest level of decision-making authority. Commitments may be established, modified, or rescinded only through a resolution approved by the Board. The Board has not delegated the authority to assign fund balance.

D. Budget

The Board adopted an annual budget for the General Fund on the basis consistent with generally accepted accounting principles. The District's Board of Directors utilizes the budget as a management tool for planning and cost control purposes. All annual appropriations lapse at fiscal year end.

E. Pensions

The District has not established a pension plan.

F. Cash and Cash Equivalents

These include cash on deposit as well as investments with maturities of three months or less at the time of purchase.

G. Prepaid Items

Certain payments to vendors reflect costs applicable to future periods and are recorded as prepaid assets in both the government-wide and fund financial statements. Prepaid assets are charged to expenditures when consumed.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

1. Summary of Significant Accounting Policies (continued)

H. Capital Assets

Capital assets, which include Easements, Water Distribution System, Water Quality Ponds and Organizational Costs are reported in the Government-wide column in the Statement of Net Assets. Capital assets are defined by the District as assets with an initial, individual cost of at least \$1,000. Public domain (“infrastructure”) capital assets including water, and drainage systems, are capitalized as acquired. Items purchased or acquired are reported at historical cost or estimated historical cost. Contributed fixed assets are recorded as capital assets at estimated fair value at the time received. Capital assets are depreciated using the straight line method over their estimated useful lives of 50 years.

I. Interfund Transactions

Transfers from one fund to another fund are reported as interfund receivable and payables if there is intent to repay that amount and if the debtor fund has the ability to repay the advance on a timely basis. Operating transfers represent legally authorized transfers from the fund receiving resources to the fund through which the resources are to be expended.

J. Long-Term Debt

Unlimited tax bonds, which have been issued to acquire capital assets, are to be repaid from tax revenues of the District. In the Government-wide financial statements, long-term debt and other long-term obligations are reported as liabilities in the applicable governmental activities. Bond premiums and discounts are deferred and amortized over the life of the bonds. Bonds payable are reported net of the applicable bond premium or discount. Bond issuance costs are expensed as incurred.

In the fund financial statement, governmental fund types recognize bond premiums and discounts, as well as bond issuance costs, during the current period. The face amount of debt issued is reported as other financing sources. Premiums and discounts on debt issuances are reported as other financing sources and uses. Issuance costs, whether or not withheld from the actual debt proceeds received, are reported as expenditures.

K. Deferred Outflows and Inflows of Resources

GASB Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*, provides guidance for reporting the financial statement elements of deferred outflows of resources, which represent the consumption of the District’s net position that is applicable to a future reporting period, and deferred inflows of resources, which represent the District’s acquisition of net position applicable to a future reporting period. GASB Statement No. 63 became effective for fiscal

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

1. Summary of Significant Accounting Policies (continued)

years beginning after December 15, 2011 and has been implemented in the financial statements.

GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*, establishes accounting and financial reporting standards that reclassify, as deferred outflows of resources or deferred inflows of resources, certain items that were previously reported as assets and liabilities and recognizes, as outflows of resources or inflows of resources, certain items that were previously reported as assets and liabilities. GASB Statement No. 65 is effective for fiscal years beginning after December 15, 2012 and has been implemented in these financial statements.

2. Cash and Investments

The investment policies of the District are governed by State statute and an adopted District Investment Policy that includes depository contract provisions and custodial contract provisions. Major provisions of the District's Investment Policy include: depositories must be FDIC-insured Texas banking institutions; depositories must fully insure or collateralize all demand and time deposits; securities collateralizing time deposits are held by independent third party trustees.

Cash – At year end, deposits were held by the District's depository bank in accounts that were secured at the balance sheet date by Federal Deposit Insurance Corporation (FDIC) coverage or by pledged collateral held by the District's agent bank in the District's name.

Investments - The District is required by Government Code Chapter 2256, The Public Funds Investment Act, to adopt, implement, and publicize an investment policy. That policy must be written; primarily emphasize safety of principal and liquidity; address investment diversification, yield, and maturity and the quality and capability of investment management; and include a list of the types of authorized investments in which the investing entity's funds may be invested; and the maximum allowable stated maturity of any individual investment owned by the entity.

The Public Funds Investment Act ("Act") requires an annual audit of investment practices. Audit procedures in this area conducted as part of the audit of the general purpose financial statements disclosed that in the areas of investment practices, management reports and establishment of appropriate policies, the District adhered to the requirement of the Act. Additionally, investment practices of the District were in accordance with local policies.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

2. Cash and Investments (continued)

The Act determines the types of investments which are allowable for the District. These include, with certain restriction, (1) obligations of the US Treasury, certain US Agencies, and the State of Texas, (2) certificates of deposit, (3) certain municipal securities, (4) money market savings accounts, (5) repurchase agreements, (6) banker’s acceptances, (7) mutual funds, (8) investment pools, (9) guaranteed investment contracts, and (10) commercial paper.

The District categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The District’s investments at year end are shown below.

<u>Investment</u>	<u>Fair Value</u>			<u>Fair Value</u>
	<u>Level</u>	<u>Rating</u>	<u>Maturity</u>	
TexPool	N/A	AAAm	1 day average	\$678,490

Analysis of Specific Cash and Investment Risks – GASB Statement No. 40 requires a determination as to whether the District was exposed to the following specific investment risks at year end and, if so, the reporting of certain related disclosures.

Credit Risk – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The ratings of securities by nationally recognized rating agencies are designed to give an indication of credit risk. At year end, the District was not significantly exposed to credit risk.

Custodial Credit Risk – Deposits are exposed to custodial credit risk if they are not covered by depository insurance and the deposits are uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging financial institution’s trust department or agent but not in the District’s name.

Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the government, and are held by either the counterpart or the counterpart’s trust department or agent but not in the District’s name. At year end, the District was not exposed to custodial credit risk.

Concentration of Credit Risk – This risk is the risk of loss attributed to the magnitude of a government’s investment in a single issuer. At year end, the District was not exposed to concentration of credit risk.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

2. Cash and Investments (continued)

Interest Rate Risk – This is the risk that changes in interest rates will adversely affect the fair value of an investment. At year end, the District was not exposed to interest rate risk.

Foreign Currency Risk – This is the risk that exchange rates will adversely affect the fair value of an investment. At year end, the District was not exposed to foreign currency risk.

Investment Accounting Policy – The District’s general policy is to report money market investments and short-term participating interest-earning investment contracts at amortized cost and to report nonparticipating interest-earning investment contracts using a cost-based measure. However, if the fair value of an investment is significantly affected by the impairment of the credit standing of the issuer or by other factors, it is reported at fair value. All other investments are reported at fair value unless a legal contract exists which guarantees a higher value. The term “short-term” refers to investments which have a remaining term of one year or less at time of purchase. The term “nonparticipating” means that the investment’s value does not vary with market interest rate changes. Nonnegotiable certificates of deposit are examples of nonparticipating interest-earning investment contracts.

Public Funds Investment Pools – Public funds investment pools in Texas (“Pools”) are established under the authority of the Interlocal Cooperation Act, Chapter 79 of the Texas Government Code, and are subject to the provisions of the Public Funds Investment Act (the “Act”), Chapter 2256 of the Texas Government Code. In addition to other provisions of the Act designed to promote liquidity and safety of principal, the Act requires Pools to: 1) have an advisory board composed of participants in the Pool and other person who do not have a business relationship with the Pool and are qualified to advise the Pool; 2) maintain a continuous rating of no lower than AAA or AAA-m or an equivalent rating by at least on nationally recognized rating service; and 3) maintain the market value of its underlying investment portfolio with one half of one percent of the value of its shares.

The District’s investments in Pools are reported at an amount determined by the fair value per share of the Pool’s underling portfolio, unless the Pool is 2a7-like, in which case they are reported at share value. A 2a7-like Pool is one which is not registered with the Securities and Exchange Commission (“SEC”) as an investment company, but nevertheless has a policy that it will, and does, operate in a manner consistent with the SEC’s Rule 2a7 of the Investment Company Act of 1940.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

2. Cash and Investments (continued)

TexPool – The District invests in the Texas Local Government Investment Pool (TexPool), which is a local government investment pool that was established in conformity with the Interlocal Cooperation Act, Chapter 791 of the Texas Government Code, and operates under the Public Funds Investment Act, Chapter 2256 of the Texas Government Code. The State Comptroller of Public Accounts oversees TexPool. Federated Investors, Inc. is the administrator and investment manager of TexPool under a contract with the State Comptroller. In accordance with the Public Funds Investment Act, the State Comptroller has appointed the TexPool Investment Advisory Board to advise with respect to TexPool. The board is composed equally of participants in TexPool Portfolios and other persons who do not have a business relationship with TexPool Portfolios and are qualified to advise in respect to TexPool Portfolios. The Advisory Board members review the investment policy and management fee structure. TexPool is rated AAAM by Standard & Poor's and operates in a manner consistent with the SEC's Rule 2a7 of the Investment Company Act of 1940. All investments are stated at amortized cost, which usually approximates the market value of the securities. The stated objective of TexPool is to maintain a stable average \$1.00 per unit net asset value; however, the \$1.00 net asset value is not guaranteed or insured. The financial statements can be obtained from the Texas Trust Safekeeping Trust Company website at www.ttstc.org.

3. Property Taxes

Property taxes are considered available when collected within the current period or expected to be collected soon enough thereafter to be used to pay liabilities of the current period. The District levies its taxes on October 1 in conformity with Subtitle E, Texas Property Tax Code. Taxes are due upon receipt of the tax bill and are past due and subject to interest if not paid by February 1 of the year following the October 1 levy date. The assessed value of the property tax roll on January 1, 2021, upon which the levy for the 2021-22 fiscal year was based, was \$252,706,306. Taxes are delinquent if not paid by June 30. Delinquent taxes are subject to both penalty and interest charges plus delinquent collection fees for attorney costs.

The tax rates assessed for the year ended September 30, 2022, to finance General Fund operations and the payment of principal and interest on general obligation long-term debt were \$0.085 and \$0.18 per \$100 valuation, respectively, for a total of \$0.265 per \$ 100 valuation.

Current tax collections for the year ended September 30, 2022 were 100% of the year end adjusted tax levy. Delinquent taxes are prorated between maintenance and debt service based on rates adopted for the year of the levy. The District is prohibited from writing off real property taxes without specific statutory authority from the Texas Legislature. As of September 30, 2022, property taxes receivable, totaled \$ -0- and \$ -0- for the General and Debt Service Funds, respectively.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

4. Capital Assets

In February, 2010, October, 2011, and March, 2016, the District acquired \$4,009,347 of Water Distribution Facilities and Drainage Facilities serving the District's residents. Under an Amended and Restated Water Facilities Lease and Services Agreement between the District and the West Travis County Public Utility Agency (the PUA), all of the District's internal Water Distribution Facilities are leased to the PUA in exchange for the PUA's agreement to provide retail water service to the District's residents. The PUA is responsible for their operation and maintenance.

During previous years, the District acquired an amenity center that serves the District's residents. During the current fiscal year, the District had no capitalized additions.

These facilities are being depreciated over 50 years using the straight-line method. Depreciation and amortization in the amount of \$106,763 has been charged to system operations for the year for these assets. A summary of changes in capital assets follows:

	Balance			Balance
<u>Capital Assets:</u>	<u>9/30/2021</u>	<u>Additions</u>	<u>Deletions</u>	<u>9/30/2022</u>
Drainage System	\$ 2,274,396	\$ -	\$ -	\$ 2,274,396
Water System	2,150,469	-	-	2,150,469
Amenity Center	913,306	-	-	913,306
Total	<u>5,338,171</u>	<u>-</u>	<u>-</u>	<u>5,338,171</u>
<u>Accumulated Depreciation:</u>				
Drainage System	(378,441)	(45,488)	-	(423,929)
Water System	(258,054)	(43,009)	-	(301,063)
Amenity Center	(47,885)	(18,266)	-	(66,151)
Total	<u>(684,380)</u>	<u>(106,763)</u>	<u>-</u>	<u>(791,143)</u>
Total Capital Assets (Net)	<u>\$ 4,653,791</u>	<u>\$(106,763)</u>	<u>\$ -</u>	<u>\$ 4,547,028</u>

5. Bonds

At an election held within the District on May 13, 2006, voters authorized a total of \$7,920,000 unlimited tax bonds for the purpose of purchasing, constructing, acquiring, owning, improving, extending, maintaining, repairing, or operating a waterworks system, a drainage and storm water system and recreational facilities for the District. The District's bonds are collateralized by the levy of an annual ad valorem tax against all taxable property within the District. The District has no direct borrowings or direct placement debt.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

5. Bonds (continued)

In February 2010, the District issued \$2,350,000 of these bonds dated January 15, 2010. The bonds mature serially on August 1, in each year 2013 through 2030, in principal amounts set forth on the following page. Bonds maturing on or after August 1, 2021, are subject to redemption, in whole or in part, on August 1, 2019, or on any date thereafter, at a price equal to the principal amount thereof plus accrued interest thereon to the date fixed for redemption. Bonds maturing in the years 2022, 2024, 2026 and 2030 are also subject to mandatory sinking fund redemption.

In October 2011, the District issued \$1,920,000 of these bonds dated October 1, 2011. The bonds mature serially on August 1, in each year 2014 through 2036, in principal amounts set forth on the following page. Bonds maturing on or after August 1, 2021, are subject to redemption, in whole or in part, on August 1, 2021, or on any date thereafter, at a price equal to the principal amount thereof plus accrued interest thereon to the date fixed for redemption. Bonds maturing in the years 2021, 2022, 2024, 2026, 2028, 2031 and 2036 are also subject to mandatory sinking fund redemption.

In March 2016, the District issued \$1,000,000 of these bonds dated February 15, 2016. The bonds mature serially on August 1, in each year 2019 through 2039, in principal amounts set forth on the following page. Bonds maturing on or after August 1, 2024, are subject to redemption, in whole or in part, on August 1, 2023, or on any date thereafter, at a price equal to the principal amount thereof plus accrued interest thereon to the date fixed for redemption. Bonds maturing in the years 2026, 2029, 2033, 2035, 2037, and 2039 are also subject to mandatory sinking fund redemption.

In August 2016, the District issued \$3,570,000 of Unlimited Tax Refunding Bonds dated August 15, 2016. The bonds mature serially on August 1, in each year 2017 through 2036, in principal amounts set forth on the following page. Bonds maturing on or after August 1, 2027, are subject to redemption, in whole or in part, on August 1, 2026, or on any date thereafter, at a price equal to the principal amount thereof plus accrued interest thereon to the date fixed for redemption. Bonds maturing in the years 2033, and 2036 are also subject to mandatory sinking fund redemption.

In February 2019, the District issued \$1,220,000 of these bonds dated February 27, 2019. The bonds mature serially on August 1, in each year 2019 through 2039, in principal amounts set forth on the following page. Bonds maturing on or after August 1, 2026, are subject to redemption, in whole or in part, on August 1, 2025, or on any date thereafter, at a price equal to the principal amount thereof plus accrued interest thereon to the date fixed for redemption. Bonds maturing in the years 2028, 2030, 2032, 2034, 2036, and 2038 are also subject to mandatory sinking fund redemption.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

5. Bonds (continued)

These bonds are described as follows:

<u>Issue</u>	<u>Original Issue Amount</u>	<u>Installments (In Thousands)</u>	<u>Final Maturity</u>	<u>Interest Rates</u>	<u>Outstanding</u>
Series 2010	\$2,350,000	\$65 to 225	2030	4.00–5.70%	\$ -0-
Series 2011	\$1,920,000	\$40 to 145	2036	4.25–5.00%	\$ -0-
Series 2016	\$1,000,000	\$25 to 145	2039	2.00–3.50%	\$ 860,000
Series 2016R	\$3,570,000	\$45 to 360	2036	2.00–4.00%	\$2,870,000
Series 2019	\$1,220,000	\$40 to 160	2038	2.00–3.25%	\$ 990,000

The change in bonds is as follows:

<u>Bonds:</u>	<u>Balance 9/30/2021</u>	<u>Additions</u>	<u>Deletions</u>	<u>Balance 9/30/2022</u>
Unlimited Tax Bonds, Series 2016	\$890,000	\$ -	\$ (30,000)	\$ 860,000
Unlimited Tax Bonds, Series 2016R	3,080,000	-	(210,000)	2,870,000
Unlimited Tax Bonds, Series 2018	1,035,000	-	(45,000)	990,000
Total Bond Indebtedness	\$5,005,000	\$ -	\$(285,000)	\$ 4,720,000

Redemption

Series 2010 Bonds maturing on or after August 1, 2021, are subject to redemption, in whole or in part, on August 1, 2019, or on any date thereafter at a price equal to the principal amount thereof plus unpaid accrued interest from the most recent interest payment date to the date fixed for redemption. Additionally, term bonds maturing on in the years 2022, 2024, 2026 and 2030 are subject to mandatory sinking fund redemption.

Series 2011 Bonds maturing on or after August 1, 2021, are subject to redemption, in whole or in part, on August 1, 2021, or on any date thereafter at a price equal to the principal amount thereof plus unpaid accrued interest from the most recent interest payment date to the date fixed for redemption. Additionally, term bonds maturing on in the years 2021, 2022, 2024, 2026, 2028, 2031 and 2036 are subject to mandatory sinking fund redemption.

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

5. Bonds (continued)

Series 2016 Bonds maturing on or after August 1, 2024, are subject to redemption, in whole or in part, on August 1, 2023, or on any date thereafter, at a price equal to the principal amount thereof plus unpaid accrued interest from the most recent interest payment date to the date fixed for redemption. Additionally, term bonds maturing in the years 2026, 2029, 2033, 2035, 2037 and 2039 are also subject to mandatory sinking fund redemption.

Series 2016R Bonds maturing on or after August 1, 2027, are subject to redemption, in whole or in part, on August 1, 2026, or on any date thereafter, at a price equal to the principal amount thereof plus unpaid accrued interest from the most recent interest payment date to the date fixed for redemption. Additionally, term bonds maturing in the years 2033 and 2036 are also subject to mandatory sinking fund redemption.

Series 2019 Bonds maturing on or after August 1, 2026, are subject to redemption, in whole or in part, on August 1, 2025, or on any date thereafter, at a price equal to the principal amount thereof plus unpaid accrued interest from the most recent interest payment date to the date fixed for redemption. Additionally, term bonds maturing in the years 2028, 2030, 2032, 2034, 2036 and 2038 are also subject to mandatory sinking fund redemption.

Debt Service Requirements

Debt service requirements on long-term debt as of the end of the year are as follows:

<u>Ending September 30,</u>	<u>Principal</u>	<u>Interest</u>	<u>Totals</u>
2023	\$ 305,000	\$ 160,619	\$ 465,619
2024	320,000	151,819	471,819
2025	340,000	140,175	480,175
2026	355,000	127,731	482,731
2027	370,000	114,781	484,781
2028-2032	1,675,000	362,930	2,037,930
2033-2037	1,130,000	137,371	1,267,371
2038-2042	225,000	10,300	235,300
Totals	\$ 4,720,000	\$ 1,205,726	\$ 5,925,726

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

5. Bonds (continued)

Advance Refunding of Debt

GASB Statement No. 7, *Advance Refundings Resulting in Defeasance of Debt*, provides that refunded Debt and assets placed in escrow for the payment of related debt service be excluded from the financial statements. As of September 30, 2022, outstanding balances of bond issues that have been refunded and defeased in-substance by placing existing assets and the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments are as follows:

<u>Bond Issue</u>	<u>Amount</u>
Series 2010	\$1,420,000
Series 2011	\$1,445,000

6. Risk Management

The District is exposed to various risks of loss related to torts, theft, damage or destruction of assets, errors and omissions, and natural disasters. During the year, the District obtained liability coverage.

7. Contingencies

In the opinion of the District, no significant contingencies or reportable litigation exist as of the end of the current fiscal year.

8. Estimates

The preparation of financial statements in accordance with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates.

9. Subsequent Events

The District has evaluated subsequent events as of December 31, 2022, the date the financial statements were available to be issued.

**BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022**

10. Reconciliation of Government-wide and Fund Financial Statements

Adjustments to convert the Governmental Funds Balance Sheet to the Statement of Net Assets are as follows:

Governmental Funds Total Fund Balances	\$ 700,097
Capital assets used in governmental activities are not financial resources and, therefore, are not reported in the funds	4,547,028
Long-term liabilities (bonds payable) are not due and payable in the current period and, therefore, are not reported in the funds	(4,720,000)
Interest is accrued on outstanding debt in the government-wide statements, whereas in the governmental funds, an interest expenditure is reported when made and not accrued in the funds	(26,770)
Deferred tax revenue is not available to pay for current period expenditures and, therefore, is deferred in the funds	<hr style="width: 100%; border: 0.5px solid black;"/> -
Total Net Assets	<u><u>\$ 500,355</u></u>

BELVEDERE MUNICIPAL UTILITY DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2022

10. Reconciliation of Government-wide and Fund Financial Statements (continued)

Amounts reported for governmental activities in the Statement of Activities are different from the Governmental Funds Statement of Revenues, Expenditures and Changes in Fund Balance as follows:

Governmental Funds Excess of Revenues over Expenditures	\$ (43,305)
Revenues in the Statement of Activities that do not provide current financial resources are not reported as revenues in the funds	
Change in Deferred Tax Revenue	(7,760)
Governmental funds report capital outlays as expenditures however, in the Statement of Activities, the cost of those assets is allocated over their estimated useful lives as depreciation expense	
Capital Outlay	-
Depreciation Expense	(106,763)
Governmental funds report principal payments as expenditures however, in the Statement of Activities, these payments are not reported as operating expenses	
Bond Principal	285,000
Governmental funds do not report the change in accrued interest as an expenditure, however, in the Statement of Activities, this change in the amount accrued is reported as an expense	
Accrued Interest	1,339
Bond Proceeds are reported as other financing sources in the governmental funds and thus contribute to the change in fund balance. In the Statement of Net Position, however, issuing debt increases long-term liabilities and does not affect the Statement of Net Position	
Bond Proceeds	-
Change in Net Assets	<u>\$ 128,511</u>

REQUIRED SUPPLEMENTARY INFORMATION



BELVEDERE MUNICIPAL UTILITY DISTRICT

**COMBINED STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND
BALANCES - GENERAL FUND
BUDGET AND ACTUAL
FOR THE YEAR ENDED SEPTEMBER 30, 2022**

	<u>ORIGINAL BUDGET</u>	<u>AMENDED BUDGET</u>	<u>ACTUAL</u>	<u>FAVORABLE (UNFAVORABLE)</u>
REVENUES				
Property Taxes	\$ 207,918	\$ 217,451	\$ 218,489	\$ 1,038
Reimbursements	-	-	1,961	1,961
Interest	1,000	2,000	3,433	1,433
TOTAL REVENUES	208,918	219,451	223,883	4,432
EXPENDITURES				
Current:				
Solid Waste Disposal	50,000	50,794	50,794	-
Landscaping	-	-	-	-
Maintenance	26,000	26,000	22,613	(3,387)
Amenity Center	85,000	85,000	86,859	1,859
Accounting Fees	14,400	14,400	14,400	-
Audit Fees	7,500	7,500	7,500	-
Engineering Fees	31,000	31,000	35,787	4,787
Legal Fees	45,000	45,000	46,103	1,103
Tax Assessor/Collector	5,000	5,000	4,395	(605)
Director Salaries and Payroll Taxes	-	-	-	-
Insurance	4,000	4,000	2,708	(1,292)
Legal Notices	2,000	2,000	897	(1,103)
Bank Charges and Other	800	800	-	(800)
Debt Service:				
Fiscal Agent's Fees	-	-	-	-
Interest	-	-	-	-
Principal	-	-	-	-
Capital Expenditures	-	-	-	-
TOTAL EXPENDITURES	270,700	271,494	272,056	562
Excess (Deficit) of Revenues Over Expenditures	(61,782)	(52,043)	(48,173)	3,870
Transfers (to) from Other Funds	-	-	-	-
Fund Balance - Beginning of Year	512,275	512,275	512,275	-
Fund Balance - End of Year	<u>\$ 450,493</u>	<u>\$ 460,232</u>	<u>\$ 464,102</u>	<u>\$ 3,870</u>

See accompanying independent auditor's report

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTARY INFORMATION



**BELVEDERE MUNICIPAL UTILITY DISTRICT
INDEX OF SUPPLEMENTAL SCHEDULES REQUIRED
BY THE TEXAS WATER COMMISSION
FOR THE YEAR ENDED SEPTEMBER 30, 2022**

(Schedules included are checked; explanatory notes are provided for omitted schedules).

- [√] Schedule of Services and Rates
- [√] Schedule of General Fund Expenditures
- [√] Temporary Investments
- [√] Analysis of Taxes Levied and Receivable
- [√] General Long Term Debt Service Requirements by Years
- [√] Analysis of Changes in General Long Term Debt
- [√] Comparative Schedule of Revenues and Expenditures - General Fund
- [√] Comparative Schedule of Revenues and Expenditures – Debt Service Fund
- [√] Board Members, Key Personnel, and Consultants

See accompanying independent auditor's report

**BELVEDERE MUNICIPAL UTILITY DISTRICT
SERVICES AND RATES
SEPTEMBER 30, 2022**

1. Services Provided by the District:

Drainage
Solid Waste Disposal

2. Retail Rates Based on 5/8" Meter

	Minimum	Minimum	Flat	Rate per first	Rate per add'l
	Charge	Usage	Rate	1000 Gallons	1000 Gallons
			Y/N	Over Minimum	Over Minimum
Water:	\$ N/A	N/A	N/A	\$ N/A	\$ N/A
Wastewater:	\$ N/A	N/A	N/A	\$ N/A	\$ N/A
Surcharge:	-0-				

Total water and wastewater charges per 10,000 gallons usage: \$ N/A

3. Retail Service Provided: Number of retail water and/or wastewater connections.

	Active	Active	Inactive
	Connections	EFSC	Connections
			(EFSC)
Single Family & Total	N/A	N/A	N/A

4. Total Water Consumption During the Fiscal Year:

Gallons pumped into system: N/A
Gallons billed to customers: N/A

5. Standby Fees: The District does not assess standby fees.

6. Anticipated sources of funds to be used for debt service payments: Ad Valorem taxes

7. Location of District:

The District is located entirely within Travis County.
The District is not located within any city.
The District is not located within any city ETJ.
The general membership of the Board is not appointed by an office outside the District.

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT
SCHEDULE OF GENERAL FUND EXPENDITURES
YEAR ENDED SEPTEMBER 30, 2022

Current:

Purchased Services for Resale

Water	\$	-
Wastewater		-
Connection Fees		-
		-

Professional Fees

Audit		7,500
Engineering		35,787
Legal		46,103
		89,390

Contracted Services

Accounting		14,400
Tax Appraisal/Collection		4,395
		18,795

Utilities

Solid Waste Disposal		50,794
		50,794

Administrative

Insurance		2,708
Legal Notices		897
Miscellaneous		-
		3,605

Maintenance

Amenity Center Maintenance		22,613
Amenity Center Operations		86,859
		109,472

Capital Expenditures

TOTAL EXPENDITURES

		-
		\$ 272,056

Number of persons employed by the District: -0-

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**TEMPORARY INVESTMENTS
SEPTEMBER 30, 2022**

Funds	Identification or Certificate Number	Interest Rate	Maturity Date	Balance at End of Year	Accrued Interest Receivable at End of Year
<u>GENERAL FUND</u>					
State Investment Pool	***0002	2.85%	N/A	502,473	-
Total				<u>502,473</u>	<u>-</u>
<u>DEBT SERVICE FUND</u>					
State Investment Pool	***0001	2.85%	N/A	\$ 176,017	\$ -
Total				<u>176,017</u>	<u>-</u>
TOTALS - ALL FUNDS				<u>\$ 678,490</u>	<u>\$ -</u>

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT
ANALYSIS OF TAXES LEVIED AND RECEIVABLE
YEAR ENDED SEPTEMBER 30, 2022

	MAINTENANCE TAXES	DEBT SERVICE TAXES
Taxes Receivable, Beginning of Year	\$ 2,692	\$ 5,067
2021 Original Levy	214,800	454,871
Adjustments	(2,170)	(4,595)
Add: Penalty & Interest	3,167	2,820
Total to be accounted for	218,489	458,163
Tax collections:		
Current year	215,417	452,511
Prior years	3,072	5,652
Total Collections	218,489	458,163
Taxes Receivable, End of Year	\$ -	\$ -

	2021	2020	2019	2018	2017
Property Valuations:					
Land & Improvements	252,706,306	217,593,475	207,053,470	203,075,961	196,617,202
Tax Rates Per \$100 Valuation:					
Debt Service tax rates	\$ 0.1800	\$ 0.2000	\$ 0.2000	\$ 0.2000	\$ 0.2000
Maintenance tax rates	0.0850	0.0950	0.1200	0.1500	0.1700
Totals	\$ 0.2650	\$ 0.3200	\$ 0.3500	\$ 0.3700	\$ 0.3895
Original Tax Levy	\$ 669,672	\$ 641,901	\$ 662,571	\$ 710,766	\$ 727,484

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**GENERAL LONG TERM DEBT SERVICE REQUIREMENTS-BY YEARS
YEAR ENDED SEPTEMBER 30, 2022**

DUE DURING FISCAL YEARS ENDING	ANNUAL REQUIREMENTS FOR SERIES 2016		
	TOTAL PRINCIPAL DUE	TOTAL INTEREST DUE	TOTAL PRINCIPAL AND INTEREST DUE
2023	\$ 35,000	\$ 24,588	\$ 59,588
2024	35,000	23,888	58,888
2025	35,000	23,144	58,144
2026	40,000	22,400	62,400
2027	40,000	21,550	61,550
2028	40,000	20,550	60,550
2029	45,000	19,550	64,550
2030	45,000	18,425	63,425
2031	50,000	17,075	67,075
2032	50,000	15,575	65,575
2033	55,000	14,075	69,075
2034	55,000	12,425	67,425
2035	60,000	10,775	70,775
2036	65,000	8,975	73,975
2037	65,000	7,025	72,025
2038	70,000	5,075	75,075
2039	75,000	2,625	77,625
2040	-	-	-
	<u>\$ 860,000</u>	<u>\$ 267,720</u>	<u>\$ 1,127,720</u>

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**GENERAL LONG TERM DEBT SERVICE REQUIREMENTS-BY YEARS
YEAR ENDED SEPTEMBER 30, 2022**

DUE DURING FISCAL YEARS ENDING	ANNUAL REQUIREMENTS FOR SERIES 2016R		
	TOTAL PRINCIPAL DUE	TOTAL INTEREST DUE	TOTAL PRINCIPAL AND INTEREST DUE
2023	\$ 225,000	\$ 105,750	\$ 330,750
2024	235,000	99,000	334,000
2025	255,000	89,600	344,600
2026	265,000	79,400	344,400
2027	275,000	68,800	343,800
2028	290,000	57,800	347,800
2029	315,000	46,200	361,200
2030	330,000	33,600	363,600
2031	105,000	20,400	125,400
2032	105,000	17,250	122,250
2033	110,000	14,109	124,109
2034	115,000	10,800	125,800
2035	120,000	7,350	127,350
2036	125,000	3,750	128,750
2037	-	-	-
2038	-	-	-
2039	-	-	-
2040	-	-	-
	<u>\$ 2,870,000</u>	<u>\$ 653,809</u>	<u>\$ 3,523,809</u>

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**GENERAL LONG TERM DEBT SERVICE REQUIREMENTS-BY YEARS
YEAR ENDED SEPTEMBER 30, 2022**

DUE DURING FISCAL YEARS ENDING	ANNUAL REQUIREMENTS FOR SERIES 2018		
	TOTAL PRINCIPAL DUE	TOTAL INTEREST DUE	TOTAL PRINCIPAL AND INTEREST DUE
2023	\$ 45,000	\$ 30,281	\$ 75,281
2024	50,000	28,931	78,931
2025	50,000	27,431	77,431
2026	50,000	25,931	75,931
2027	55,000	24,431	79,431
2028	55,000	22,781	77,781
2029	60,000	21,131	81,131
2030	60,000	19,331	79,331
2031	60,000	17,531	77,531
2032	65,000	15,731	80,731
2033	65,000	13,781	78,781
2034	70,000	11,831	81,831
2035	70,000	9,731	79,731
2036	75,000	7,544	82,544
2037	80,000	5,200	85,200
2038	80,000	2,600	82,600
2039	-	-	-
2040	-	-	-
	<u>\$ 990,000</u>	<u>\$ 284,197</u>	<u>\$ 1,274,197</u>

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**GENERAL LONG TERM DEBT SERVICE REQUIREMENTS-BY YEARS
YEAR ENDED SEPTEMBER 30, 2022**

DUE DURING FISCAL YEARS ENDING	ANNUAL REQUIREMENTS FOR ALL SERIES		
	TOTAL PRINCIPAL DUE	TOTAL INTEREST DUE	TOTAL PRINCIPAL AND INTEREST DUE
2023	\$ 305,000	\$ 160,619	\$ 465,619
2024	320,000	151,819	471,819
2025	340,000	140,175	480,175
2026	355,000	127,731	482,731
2027	370,000	114,781	484,781
2028	385,000	101,131	486,131
2029	420,000	86,881	506,881
2030	435,000	71,356	506,356
2031	215,000	55,006	270,006
2032	220,000	48,556	268,556
2033	230,000	41,965	271,965
2034	240,000	35,056	275,056
2035	250,000	27,856	277,856
2036	265,000	20,269	285,269
2037	145,000	12,225	157,225
2038	150,000	7,675	157,675
2039	75,000	2,625	77,625
2040	-	-	-
	<u>\$ 4,720,000</u>	<u>\$ 1,205,726</u>	<u>\$ 5,925,726</u>

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**ANALYSIS OF CHANGES IN GENERAL LONG TERM DEBT
YEAR ENDED SEPTEMBER 30, 2022**

	<u>SERIES 2011</u>	<u>SERIES 2016</u>	<u>SERIES 2016R</u>	<u>SERIES 2018</u>	<u>TOTALS</u>
Interest Rate	4.25 - 5.00%	2.00 - 3.50%	2.00 - 3.00%	2.00 - 3.25%	
Dates Interest Payable	2/1 : 8/1	2/1 : 8/1	2/1 : 8/1	2/1 : 8/1	
Maturity Dates	8/1/14 to 8/1/36	8/1/18 to 8/1/39	8/1/17 to 8/1/36	8/1/17 to 8/1/38	
Bonds Outstanding-Beginning	\$ -	\$ 890,000	\$ 3,080,000	\$ 1,035,000	\$ 5,005,000
Bonds Sold During the Year	-	-	-	-	-
Bonds Defeased During the Year	-	-	-	-	-
Retirements During the Year	-	(30,000)	(210,000)	(45,000)	(285,000)
Bonds Outstanding-Ending	<u>\$ -</u>	<u>\$ 860,000</u>	<u>\$ 2,870,000</u>	<u>\$ 990,000</u>	<u>\$ 4,720,000</u>
Interest Paid During the Year	\$ -	\$ 25,188	\$ 112,050	\$ 31,406	\$ 168,644
Accrued Interest Purchased	-	-	-	-	-
Change in Accrued Interest Payable	-	(100)	(1,050)	(188)	(1,338)
Interest on Financial Statements	<u>\$ -</u>	<u>\$ 25,088</u>	<u>\$ 111,000</u>	<u>\$ 31,218</u>	<u>\$ 167,306</u>
Paying Agent	Wells Fargo	BOKF	BOKF	BOKF	
Bond Authority:	<u>Tax Bonds</u>	<u>Other Bonds</u>	<u>Other Bonds</u>	<u>Refunding Bonds</u>	
Amount Authorized By Voters	\$ 7,920,000	\$ -	\$ -	\$ -	
Amount Issued	\$ 6,490,000	\$ -	\$ -	\$ 3,570,000	
Remaining To Be Issued	\$ 1,430,000	\$ -	\$ -	\$ -	
Debt Service Fund Cash and Temporary Investments balances as of September 30, 2022					<u>\$ 233,800</u>
Average annual debt service payment (principal & interest) for remaining term of all debt					<u>\$ 348,572</u>

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**COMPARATIVE SCHEDULE OF REVENUES AND EXPENDITURES - GENERAL FUND
FOR THE FIVE YEARS ENDED SEPTEMBER 30, 2022**

	AMOUNTS				
	2022	2021	2020	2019	2018
REVENUES					
Property Taxes	\$ 218,489	\$ 214,743	\$ 247,567	\$ 303,226	\$ 335,297
Reimbursements	1,961	18,824	-	-	-
Interest	3,433	1,700	6,942	11,335	3,771
TOTAL REVENUES	223,883	235,267	254,509	314,561	339,068
EXPENDITURES					
Current:					
Solid Waste Disposal	50,794	47,335	44,760	43,384	39,797
Repairs and Maintenance	22,613	19,633	22,777	-	30,094
Amenity Center Operations	86,859	95,996	61,693	33,277	-
Accounting Fees	14,400	14,400	14,400	14,400	14,400
Audit Fees	7,500	7,500	7,500	7,500	7,500
Engineering Fees	35,787	26,133	61,606	17,018	37,478
Legal Fees	46,103	50,990	74,983	62,880	75,765
Tax Assessor/Collector	4,395	2,983	3,313	3,537	3,798
Director Salaries and Tax	-	-	-	-	-
Insurance	2,708	2,669	3,022	2,566	1,902
Legal Notices	897	285	985	628	314
Bank Charges and Other	-	-	-	18	-
Fiscal Agent Fees	-	-	-	-	-
Capital Expenditures	-	238,840	-	-	-
TOTAL EXPENDITURES	272,056	506,764	295,039	185,208	211,048
OTHER FINANCING SOURCES (USES)					
Other	-	31,368	-	-	61,000
Excess (Deficit) of Revenues over Expenditures	<u>\$ (48,173)</u>	<u>\$ (240,129)</u>	<u>\$ (40,530)</u>	<u>\$ 129,353</u>	<u>\$ 189,020</u>

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**COMPARATIVE SCHEDULE OF REVENUES AND EXPENDITURES - GENERAL FUND
FOR THE FIVE YEARS ENDED SEPTEMBER 30, 2022**

	PERCENT OF REVENUES				
	2022	2021	2020	2019	2018
REVENUES					
Property Taxes	98%	91%	97%	96%	99%
Reimbursements	1%	8%	0%	0%	0%
Interest	2%	1%	3%	4%	1%
TOTAL REVENUES	100%	100%	100%	100%	100%
EXPENDITURES					
Current:					
Solid Waste Disposal	23%	20%	18%	14%	12%
Repairs and Maintenance	10%	8%	9%	0%	9%
Amenity Center Operations	39%	41%	24%	11%	0%
Accounting Fees	6%	6%	6%	5%	4%
Audit Fees	3%	3%	3%	2%	2%
Engineering Fees	16%	11%	24%	5%	11%
Legal Fees	21%	22%	29%	20%	22%
Tax Assessor/Collector	2%	1%	1%	1%	1%
Director Salaries and Tax	0%	0%	0%	0%	0%
Insurance	1%	1%	1%	1%	1%
Legal Notices	0%	0%	0%	0%	0%
Bank Charges and Other	0%	0%	0%	0%	0%
Fiscal Agent Fees	0%	0%	0%	0%	0%
Capital Expenditures	0%	102%	0%	0%	0%
TOTAL EXPENDITURES	122%	215%	116%	59%	62%
OTHER FINANCING SOURCES (USES)					
Other	0%	13%	0%	0%	18%
Excess (Deficit) of Revenues over Expenditures	<u>-22%</u>	<u>-102%</u>	<u>-16%</u>	<u>41%</u>	<u>56%</u>

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**COMPARATIVE SCHEDULE OF REVENUES AND EXPENDITURES - DEBT SERVICE FUND
FOR THE FIVE YEARS ENDED SEPTEMBER 30, 2022**

	AMOUNTS				
	2022	2021	2020	2019	2018
REVENUES					
Property Taxes	\$ 458,163	\$ 443,633	\$ 414,456	\$ 403,748	\$ 393,626
Interest	1,679	884	3,540	5,742	2,880
TOTAL REVENUES	459,842	444,517	417,996	409,490	396,506
EXPENDITURES					
Debt Service					
Fiscal Agent Fees	1,326	1,854	1,749	2,267	1,317
Interest	168,644	175,694	182,444	188,681	177,491
Principal	285,000	275,000	270,000	250,000	270,000
TOTAL EXPENDITURES	454,970	452,548	454,193	440,948	448,808
OTHER FINANCING SOURCES					
Bond Proceeds	-	-	-	-	-
Excess (Deficit) of Revenues over Expenditures	<u>\$ 4,872</u>	<u>\$ (8,031)</u>	<u>\$ (36,197)</u>	<u>\$ (31,458)</u>	<u>\$ (52,302)</u>

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**COMPARATIVE SCHEDULE OF REVENUES AND EXPENDITURES - DEBT SERVICE FUND
FOR THE FIVE YEARS ENDED SEPTEMBER 30, 2022**

	PERCENT OF REVENUES				
	2022	2021	2020	2019	2018
REVENUES					
Property Taxes	100%	100%	99%	99%	99%
Interest	0%	0%	1%	1%	1%
TOTAL REVENUES	100%	100%	100%	100%	100%
EXPENDITURES					
Debt Service					
Fiscal Agent Fees	0%	0%	0%	1%	0%
Interest	37%	40%	44%	46%	45%
Principal	62%	62%	65%	61%	68%
TOTAL EXPENDITURES	99%	102%	109%	108%	113%
OTHER FINANCING SOURCES					
Bond Proceeds	0%	0%	0%	0%	0%
Excess (Deficit) of Revenues over Expenditures	<u>1%</u>	<u>-2%</u>	<u>-9%</u>	<u>-8%</u>	<u>-13%</u>

See accompanying independent auditor's report

BELVEDERE MUNICIPAL UTILITY DISTRICT

**BOARD MEMBERS, KEY PERSONNEL, AND CONSULTANTS
YEAR ENDED SEPTEMBER 30, 2022**

DISTRICT MAILING ADDRESS: c/o Lloyd Gosselink Rochelle & Townsend 816 Congress Av #1900 Austin TX 78701

DISTRICT BUSINESS TELEPHONE NUMBER: (512) 322-5800

LIMITS ON FEES OF OFFICE THAT A DIRECTOR MAY RECEIVE DURING A FISCAL YEAR: \$7,200

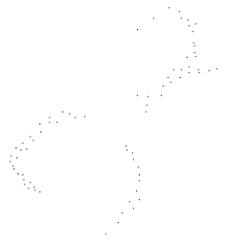
<u>NAMES</u>	<u>TERM OF OFFICE</u>	<u>SALARY FYE 9/30/22</u>	<u>REIMBURSEMENTS FYE 9/30/22</u>	<u>TITLE AT YEAR END</u>
<u>DIRECTORS</u>				
James Koerner	Elected 5/22-5/26	\$ -	\$ -	President
Ronald Ubertini	Elected 5/20-5/24	-	-	Vice-President
Kim Clifford	Elected 5/20-5/24	-	-	Secretary
Peter Golde	Elected 5/22-5/26	-	-	Asst Sec
Keri Parker	Appointed 5/22-5/26	-	-	Asst Sec
Payments to Retiring Directors		-	-	
		<u>\$ -</u>	<u>\$ -</u>	

CONSULTANTS

Lloyd Gosselink Rochelle & Townsend, PC	\$ 46,103	\$ -	Attorney
Quiddity	\$ 35,787	\$ -	Engineer
West Davis and Company, LLP	\$ 7,500	\$ -	Auditor
Montoya & Monzingo	\$ 14,400	\$ -	Accountant
Travis County Tax Collector	\$ 4,395	\$ -	Tax Collector

See accompanying independent auditor's report

OTHER INFORMATION



BELVEDERE MUNICIPAL UTILITY DISTRICT

**PRINCIPAL TAXPAYERS
SEPTEMBER 30, 2022**

<u>Taxpayer</u>	<u>Taxable Assessed Value</u>	<u>% of 2022 Certified Taxable Assessed Value</u>
Individual	\$ 3,233,531	1.01%
Individual	3,192,119	1.00%
Individual	3,008,056	0.94%
Individual	2,974,438	0.93%
Individual	2,906,000	0.91%
Individual	2,852,308	0.89%
Individual	2,813,847	0.88%
Individual	2,742,881	0.86%
Individual	2,721,916	0.85%
Individual	2,705,916	0.85%
Total	\$ 29,151,012	9.10%

**ASSESSED VALUE BY CLASSIFICATION
SEPTEMBER 30, 2022**

<u>Type of Property</u>	<u>2022 Taxable Assessed Value</u>
Land	\$ 68,186,711
Improvements	352,623,827
Personal Property	92,579
Less: Homestead Cap	(98,965,459)
Total Assessed Valuation	<u>321,937,658</u>
Exemptions	1,756,547
Total Taxable Appraised Valuation	<u>\$ 320,181,111</u>

See accompanying independent auditor's report

8

MINUTES OF MEETING
OF
BOARD OF DIRECTORS

THE STATE OF TEXAS	§
	§
COUNTY OF TRAVIS	§
	§
BELVEDERE MUNICIPAL UTILITY DISTRICT	§

On September 20, 2022, the Board of Directors (“Board”) of Belvedere Municipal Utility District (the “District”) held a regular meeting within the boundaries of the District at the Belvedere Amenity Center, 17400 Flagler Drive, Austin, Texas. A copy of the notice of meeting along with associated certificates of posting are attached hereto as **Exhibit “A”**.

The roll was called of the members of the Board, to-wit:

James Koerner	President
Kim Clifford	Secretary
Ronald Ubertini	Vice President
Peter Golde	Assistant Secretary
Keri Parker	Assistant Secretary

All of the Directors were present, thus constituting a quorum of the Board. All Directors who attended voted on all matters that came before the Board. Also attending were Cathy Mitchell and Odalys Johnson with Quiddity; Jeff Monzingo, CPA with Montoya & Monzingo, LLP; Frankie Bates with Texas Disposal Systems; David Klein, attorney, and Fred Castro, Paralegal with Lloyd Gosselink Rochelle & Townsend, P.C. (“Lloyd Gosselink”); Mark Greene with the Belvedere Homeowners Association (“HOA”); and Vito Sciaraffia, a District resident.

1. Call meeting to order and establish a quorum. Director Koerner called the meeting to order at 6:00 p.m. He announced that a quorum of the Board was in attendance.
2. Conduct a public hearing at 6:00 p.m., regarding a proposal to set a 2022 tax rate. At 6:01 p.m., Director Clifford moved to open the public hearing on a proposal to set a tax rate. Director Ubertini seconded the motion and the motion passed unanimously, 5-0. The Board then commenced the public hearing. No member of the public was present to speak on this item, so the Board then moved on to Items 3 and 4 while leaving the public hearing open so that any late-arriving member of the public would have the opportunity to participate in the hearing.

After completing Items 3 and 4, the Board returned to this Item. No other member of the public arrived or provided comments regarding the proposed 2022 tax rate. At 6:12 p.m., Director Ubertini moved to close the public hearing on a proposal to set a tax rate. Director Clifford seconded the motion and the motion passed unanimously, 5-0. The Board then moved on to Item 5.

3. Receive public comments. No members of the public provided public comments.

4. Discuss, consider, and take action as necessary concerning the adoption of a budget for the 2022-2023 fiscal year. Director Koerner introduced this Item. Mr. Monzingo presented a proposed budget for the 2022-2023 fiscal year to the Board. A copy of such proposed budget is attached hereto as **Exhibit B**. Mr. Monzingo noted that the proposed budget was based upon the District Financial Advisor's recommendation that the Board set its debt service tax rate at \$0.1450 per \$100 of assessed valuation and its operations and maintenance tax rate at \$0.0775 per \$100 of assessed valuation. He noted that the assessed valuations were based upon the District's Certification of 2022 Appraised Values from the Travis Central Appraisal District. Director Clifford moved to approve the District's operating budget for the period of October 1, 2022, through September 30, 2023, as presented. Director Ubertini seconded the motion and the motion passed unanimously, 5-0. The Board then returned to Item 2.
5. Discuss, consider, and take action as necessary to adopt a 2022 tax rate. After returning to and completing Item 2, Director Koerner then introduced this Item. Director Ubertini moved to adopt (1) a debt service tax rate of \$0.1450 per one hundred dollars (\$100) of assessed valuation, and a maintenance and operations tax rate of \$0.0775 per one hundred dollars (\$100) of assessed valuation, for a total 2022 tax rate of \$0.2225 per one hundred dollars (\$100) of assessed valuation, and (2) the Order Setting 2022 Debt Service Tax Rate and Operations and Maintenance Tax Rate, attached hereto as **Exhibit C**. Director Ubertini seconded the motion and the motion passed unanimously, 5-0. Director Koerner stated this would be the eighth consecutive year that the Board had reduced the District's overall tax rate.
6. Discuss, consider, and take action as necessary concerning amendments to the budget for 2021-2022 fiscal year. Director Koerner introduced this Item. Mr. Monzingo proposed that the Board amend the District's current budget by (1) increasing the budgeted revenue amount for the Maintenance Taxes and Interest Income, and (2) amending budgeted amounts for two expenditure categories: Solid Waste Disposal, Engineering Fees – Drainage, and Trail Maintenance. Director Clifford moved to adopt the resolution amending the District's 2021-2022 budget, as proposed by Mr. Monzingo, a copy of which is attached hereto as **Exhibit D**. Director Ubertini seconded the motion and the motion passed unanimously, 5-0.
7. Discuss, consider, and take action as necessary to adopt an amended District Information Form and Notice to Purchaser. Director Koerner introduced this Item. Mr. Klein presented the proposed amended District Information Form and Notice to Purchaser, a copy of which is attached hereto as **Exhibit E**. He stated that the District needs to update its Form and Notice and record it in the real property records of Travis County when the District's information reflected in the prior version of the Form changes; and he added that the newly approved 2022 tax rate necessitates updating and rerecording the Form and Notice. Director Clifford moved to adopt and amended District Information Form and Notice to Purchaser, as presented and requested that (i) the updated District Information Form and Notice to Purchaser be posted to the District's website and (ii) several other documents on the website that were identified as missing or in need of updating be addressed. Director Ubertini seconded the motion and the motion passed unanimously, 5-0.
8. Discuss, consider, and take action to approve the minutes of June 21, 2022, and August 16, 2022 regular meetings. Director Koerner introduced this item. Director Golde moved to

approve the minutes of the June 21, 2022 and August 16, 2022 regular meetings, as presented, and provided as **Exhibit F**. Director Ubertini seconded the motion and the motion passed unanimously, 5-0.

9. Discuss, consider, and take action as necessary concerning report from the District's Bookkeeper and Finance Committee, including:
 - a. Payment and ratification of invoices;
 - b. Coordination on bookkeeping matters;
 - c. TexPool investments; and
 - d. Reimbursement of costs to Belvedere HOA pursuant to the Joint Use and Maintenance Agreement.

Director Koerner introduced this Item. Mr. Monzingo presented his Bookkeeper's Report which consisted of a list of invoices, and other bookkeeping matters, attached hereto as **Exhibit G**. He stated that the Bookkeeper's Report included a list of invoices paid since the Board's last meeting and requested that the Board ratify the payment of these invoices. Mr. Monzingo stated that he had met with the District's Finance Subcommittee to review his report and list of invoices and stood for questions. Director Ubertini moved to ratify the payment of the invoices paid since the Board's last meeting on August 16, 2022, to approve the payment of current invoices, and transfers, as noted on **Exhibit G**. Director Clifford seconded the motion and the motion passed unanimously, 5-0.

Next, Director Koerner stated that the Board had created a reserve fund of \$480,000 to fund the District's operations in the event District revenues fell short of projections. Mr. Monzingo stated that the District's Audit Report refers to this amount as the District's Assigned Fund Balance. Director Koerner added that the District's Finance Subcommittee (the "Subcommittee") considered this issue and that it wished to discuss the issue with the full Board. He added that it was the Subcommittee's view that such a dedicated reserve fund could become cumbersome should the District need to reallocate funds from this reserve account to pay for expenditures that are not related to operations. Director Ubertini stated that the Board's purpose for creating a reserve fund was to establish an account that could fund the District's operations in the event that District revenues fell short. He stated that it was his view that as long as the District had sufficient unassigned cash reserves available, such reserves could be accessed to offset any revenue shortfalls or unexpected expenditures. Director Ubertini stated that the Belvedere Reserve Study prepared by Reserve Advisors, presented to the Board at its prior regular meeting, recommended that the District set aside \$57,000.00 for future repairs and improvements to the District's recreational facilities. He stated that the District's Finance Subcommittee questioned whether this \$57,000.00 should be included in the District's existing reserve fund balance or whether the District should establish a separate reserve account for future repairs and improvements to the District's recreational facilities. Director Ubertini said that the Subcommittee ultimately recommended that the Board remove any specific designation on the use of these reserve funds with the understanding that a specific reserve fund balance be maintained on an annual basis. Director Clifford expressed concern with this approach, noting that future Boards might be confused about how the reserve fund is to be used. She added that the designation of assigned bookkeeping entries to create formal separate

accounts for reserves might be more appropriate. Discussion ensued. Director Ubertini moved to remove the existing fixed reserve fund of \$480,000 and establish an annual reserve fund target range of an amount equal to 1 to 2 years' worth of operating expenses and an additional \$57,000.00 that could be used for future repairs and improvements to the District's recreational facilities, as outlined in the Belvedere Reserve Study. Director Parker seconded the motion and the motion passed, 4-1, with Directors Koerner, Golde, Ubertini, and Parker voting in favor and Director Clifford voting against.

10. Discuss, consider, and take action regarding First Amendment to Contract for Municipal Solid Waste Collection and Disposal Services between the District and TDS. Director Koerner introduced this item. He stated that Mr. Bates with TDS was present to address questions related to the District's negotiation of the First Amendment to Contract for Municipal Solid Waste Collection and Disposal Services with TDS. Discussion ensued, noting that the amendments contemplated the following changes: the implementation of fees for the disposal of mattresses and box springs and the acceleration of the 1/1/24 residential rates to 1/1/23 in consideration for extending the contract term for an additional 5 years. A copy of the First Amendment that was presented to the Board is provided as **Exhibit H**. Director Clifford moved to approve the First Amendment to Contract for Municipal Solid Waste Collection and Disposal Services with TDS, as presented. Director Parker seconded the motion and the motion passed unanimously, 5-0.
11. Discuss, consider, and take action regarding the report from the District liaison to the HOA and from the HOA liaison to the District. Mr. Koerner stated that he wished to express his appreciation for the work done by representatives of the HOA and Megan Maedgen in negotiating an amended agreement with Sunscape for landscape maintenance. Mr. Greene updated the Board on the following matters: (1) drainage issues along Flagler, Springdale Ridge Cove, Lakewood Ridge Cove and a missing culvert at a lot on Verde Mesa; (2) a cost estimate for professional inspection of the playscape of \$1,700.00 as requested by Director Clifford; and (3) the status of mulch replacement within common areas. Director Koerner requested that Mr. Greene provide the Board with a copy of the proposal obtained by the HOA for inspection of the playscape for consideration at the Board's next meeting. Mr. Greene stated that the HOA would postpone the inspection of the playscape until action is taken by the Board.
12. Discuss, consider, and take action regarding the improvement, maintenance, and repair of existing and future assets owned or maintained by the District, including:
 - a. Report from the District's Engineer;
 - b. Amenity Center Lot project, including warranty claim;
 - c. Drainage Facilities; and
 - d. Trail maintenance.

Ms. Mitchell made her presentation to the Board, attached hereto as **Exhibit I**. She stated she had observed the effects of a recent rainfall event on the requested modifications to the berm/ditch at Flagler Drive, and she suggested that additional investigation into improvement alternatives was in order. Ms. Mitchell added that a proposal for the Board's consideration would be prepared regarding this issue, and she initially estimated that this

work could be approximately \$10,000.00. Director Clifford moved to authorize Ms. Mitchell to prepare drainage improvement alternatives as referenced above in an amount not to exceed \$10,000.00. Director Golde seconded the motion and the motion passed unanimously, 5-0.

Director Clifford advised the Board that the temporary culvert that had been authorized at 18225 Flagler had been removed and remediation of the vegetation had been initiated. Director Clifford stated that currently she was the sole member of the District's Engineering Subcommittee and suggested that at least one additional individual be appointed to this Subcommittee. Mr. Sciaraffia volunteered to serve. It was the consensus of the Board that Mr. Sciaraffia should join the District's Engineering Subcommittee.

Next, Ms. Mitchell stated that the HOA had identified areas of cracking on the masonry sections of the trails and that those areas needed repair. She noted that she would ask Sunscape to provide a proposal for this work and provide that to the Board for consideration at a future meeting. Last, Ms. Mitchell reported that, in accordance with the terms of its contract with the District, her firm intended starting October 1, 2022, to implement, an increase in rates for engineering services to the District, as reflected in Exhibit J attached hereto.

13. Discuss, consider, and take action regarding the annual review of the District's Investment Policy. Director Koerner introduced this item. Mr. Klein presented this Item and provided the Board with the resolution attached hereto as **Exhibit K**. Mr. Klein noted that the District is required to review the District's Investment Policy on an annual basis and to take action either to make amendments or memorialize that no amendments are necessary. He noted that he and Mr. Monzingo, the District's Investment Officer, had both reviewed the District's Investment Policy in light of applicable laws and had no recommended changes. He added that the proposed resolution memorializes that no edits to the Investment Policy were necessary. Director Clifford moved to approve the resolution making no amendments to the District's Investment Policy, as presented. Director Golde seconded the motion and the motion passed unanimously, 5-0.
14. Discuss, consider, and take action on the future meeting schedule. The Board discussed that the next meeting would be on January 17, 2023.
15. Adjournment. Director Clifford moved to adjourn the meeting. Director Parker seconded the motion and the motion passed unanimously, 5-0. The meeting adjourned at 7:47 p.m. until further call.

PASSED, APPROVED, AND ADOPTED this 17th day of January 2023.

[DISTRICT SEAL]

Kim Clifford, Secretary

9

Belvedere MUD Board Meeting

January 17, 2023

Financial Information

Schedule of Cash Activity

**BELVEDERE MUD
SCHEDULE OF CASH ACTIVITY
GENERAL FUND
MEETING DATE: JANUARY 17, 2023**

GENERAL FUND CHECKING ACCOUNT BALANCE **\$ 274,108.65**

Revenue:

Deposit Date	Description	Amount
	Total Deposits:	\$ -
Expenses paid since last meeting on 9/20/22		\$ -
10/6/2022	EFT Spectrum Business Amenity Center Operations	\$ 106.54
10/14/2022	EFT AT & T Amenity Center Operations	\$ 137.94
10/14/2022	1396 A.T. Services Amenity Center Operations	\$ 736.10
10/14/2022	1397 TX Disposal System Waste Disposal	\$ 13,004.33
10/18/2022	EFT PEC Amenity Center Operations	\$ 280.08
11/2/2022	1398 Belvedere HOA Amenity Center Operations	\$ 20,582.41
11/2/2022	1399 Manuela's Cleaning Amenity Center Operations	\$ 1,035.00
11/6/2022	1400 Sunscape Landscaping Trail Maintenance	\$ 3,952.93
11/6/2022	EFT Spectrum Business Amenity Center Operations	\$ 106.54
11/13/2022	EFT AT & T Amenity Center Operations	\$ 136.55
11/16/2022	1401 Manuela's Cleaning Amenity Center Operations	\$ 460.00
11/28/2022	EFT PEC Amenity Center Operations	\$ 323.83
12/8/2022	1402 Sunscape Landscaping Trail Maintenance	\$ 11,628.47
12/8/2022	EFT Spectrum Business Amenity Center Operations	\$ 106.54
12/14/2022	EFT AT & T Amenity Center Operations	\$ 136.55
12/18/2022	EFT PEC Amenity Center Operations	\$ 240.65
12/23/2022	1403 Travis Central Appraisal Appraisal Fees	\$ 754.29
1/13/2022	EFT AT & T Amenity Center Operations	\$ 136.55
	Total Expenditures:	\$ 53,865.30
	Cash Balance Before Expenditures	\$ 220,243.35

Expenditures:

Check Number	Description	Amount
1404	Montoya & Monzingo LLP Accounting Fees	\$ 4,800.00
1405	Lloyd Gosselink Legal Fees	\$ 15,981.71
1406	Void	\$ -
1407	Manuela's Cleaning Services Amenity Center Operations	\$ 460.00
1408	West Davis & Company Audit Fees	\$ 7,500.00
1409	Texas Disposal Systems Waste Disposal	\$ 14,218.04
1410	Quiddity Engineering Fees	\$ 21,591.25
Transfer	Belvedere - Debt Service Property Taxes	\$ 2,196.26
Transfer	Belvedere - Debt Service Property Taxes	\$ 4,173.88
Transfer	Belvedere - Debt Service Property Taxes	\$ 136,040.49
	Total Expenditures:	\$ (206,961.63)

ENDING BALANCE - GENERAL FUND CHECKING AS OF JANUARY 17, 2023	\$ 13,281.72
CASH BALANCE - GENERAL FUND - MONEY MARKET ACCOUNT - UNRESERVED	\$ 5,287.38
CASH BALANCE - GENERAL FUND - TEXPOOL	\$ 462,097.38
TOTAL GENERAL FUND OPERATING CASH	\$ 480,666.48

The operating reserves are one to two times operating budget including \$57,000 for future repairs.

DEBT SERVICE

CASH BALANCE - DEBT SERVICE FUND - MONEY MARKET				\$	57,916.94
	Transfer from Operating Checking	Property Taxes	\$	2,196.26	
	Transfer from Operating Checking	Property Taxes	\$	4,173.88	
	Transfer from Operating Checking	Property Taxes	\$	136,040.49	
		Total Deposits:			\$ 142,410.63
Expenditures					
Wire	BOK Financial	BELV316UT	\$	12,493.75	
Wire	BOK Financial	BELV916UTR	\$	53,075.00	
Wire	BOK Financial	BELV218UTP	\$	15,340.63	
					\$ 80,909.38
ENDING CASH BALANCE - DEBT SERVICE FUND - MONEY MARKET				\$	119,418.19
CASH BALANCE - DEBT SERVICE - TEXPOOL				\$	176,455.85
TOTAL CASH BALANCE - DEBT SERVICE				\$	295,874.04

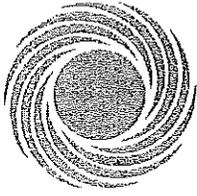
Budget vs Actual

Belvedere Municipal Utility District
Statement of Revenues and Expenditures Budget vs. Actual
For the Year to Date Ended January 17, 2023
Unaudited

	Year to Date Actual	Year to Date Budget	Year to Date Variance Favorable (Unfavorable)	2023 Annual Budget	2023 Annual Variance Favorable (Unfavorable)
<u>Revenues</u>					
Maintenance Taxes	\$ 74,937	\$ 61,101	\$ 13,836	\$ 244,405	\$ (169,468)
Interest Income	1,268	1,500	(232)	6,000	(4,732)
Total Revenues	76,205	62,601	13,604	250,405	(174,200)
<u>Expenditures</u>					
Solid Waste Disposal	27,222	27,500	278	55,000	27,778
Legal Fees	1,161	10,000	8,839	40,000	38,839
Audit Fees	7,500	7,500	-	7,500	-
Accounting Fees	4,800	4,800	-	14,400	9,600
Engineering Fees	12,899	7,500	(5,399)	30,000	17,101
Amenity Center Operations	2,337	21,250	18,913	85,000	82,663
Drainage and Trail Maintenance	1,022	5,750	4,728	23,000	21,978
Insurance	1,935	1,000	(935)	4,000	2,065
Tax Appraisal and Collection Fees	754	1,500	746	6,000	5,246
Bank Charges	10	50	40	200	190
Other Fees	-	25	25	100	100
Newspaper notices	-	500	500	2,000	2,000
Website	-	125	125	500	500
Total Expenditures	59,640	87,500	27,860	267,700	207,560
Projected Excess Revenue Over Expenditures	\$ 16,565	\$ (24,899)	\$ 41,464	\$ (17,295)	\$ 33,860

Sunscape Landscaping

Invoices pending review of contract



SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 16417
Invoice Date: 11/01/2022

BILL TO **PROPERTY ADDRESS**

Belvedere Municipal Utility District
C/O Montoya, Monzingo @ Blakeslee, LLP
P.O. Box 2029
Pflugerville, TX 78691

Belvedere Municipal Utility District
17400 Flagler Drive
Austin, TX 78738

Phone: 512-251-5668 x25

INVOICE **TERMS** **ACCOUNT MANAGER**

11/01/2022 Due on Receipt Kirk Knussmann

DESCRIPTION **PRICE**

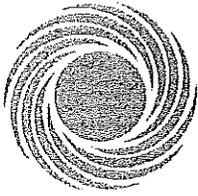
#23747 - Trail Maintenance Contract November 2022 \$4,030.92

Subtotal: \$4,030.92
Sales Tax (.00%) \$0.00
INVOICE TOTAL: \$4,030.92
Pay This Amount: \$4,030.92

Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!



SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 16181
Invoice Date: 12/01/2022

BILL TO **PROPERTY ADDRESS**

Belvedere Municipal Utility District
C/O Montoya, Monzingo @ Blakeslee, LLP
P.O. Box 2029
Pflugerville, TX 78691

Belvedere Municipal Utility District
17400 Flagler Drive
Austin, TX 78738

Phone: 512-251-5668 x25

INVOICE **TERMS** **ACCOUNT MANAGER**

12/01/2022 Due on Receipt Kirk Knussmann

DESCRIPTION **PRICE**

#23747 - Trail Maintenance Contract December 2022 \$4,030.92

Subtotal: \$4,030.92
Sales Tax (.00%) \$0.00
INVOICE TOTAL: \$4,030.92
Pay This Amount: \$4,030.92

Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!

ABC Bank Statements

**TexPool Statements
(Jeff will bring to meeting)**



Date 12/30/22 Page 2
 Primary Account XXXXXXXXXXXXX4251

Belvedere Municipal Utility District
 General Funds
 PO Box 2029
 Pflugerville TX 78691

Business Checking Public Funds XXXXXXXXXXXXX4251 (Continued)

Deposits and Other Credits

Date	Description	Amount
12/15	Funds xfer per Michele Posey	11,628.00
12/16	PPD F746000192	3,886.53
	CONS PAY PT CLEARING	
12/19	PPD F746000192	703.72
	CONS PAY PT CLEARING	
12/20	PPD F746000192	14,731.80
	CONS PAY PT CLEARING	
12/21	PPD F746000192	3,393.03
	CONS PAY PT CLEARING	
12/27	PPD F746000192	95,915.13
	CONS PAY PT CLEARING	
12/28	PPD F746000192	9,101.81
	CONS PAY PT CLEARING	
12/29	PPD F746000192	21,462.91
	CONS PAY PT CLEARING	
12/30	PPD F746000192	20,916.12
	CONS PAY PT CLEARING	

Debits

Date	Description	Amount
12/08	PPD 0000358635	106.54-
	SPECTRUM SPECTRUM	
12/15	PPD 9864031004	136.55-
	Payment ATT	
12/19	CCD 2740828412	240.65-
	ELEC_BILL Pedernales_Elec	
	3001549599	

Checks

Date	Check No.	Amount	Date	Check No.	Amount
12/05	1399	1,035.00	12/27	1401	460.00
12/19	1400	3,952.93			



Belvedere Municipal Utility District
General Funds
PO Box 2029
Pflugerville TX 78691

Business Checking Public Funds XXXXXXXXXXXX4251 (Continued)

Daily Balance Information

Date	Balance	Date	Balance	Date	Balance
12/01	18,182.67	12/13	49,294.16	12/21	85,690.14
12/05	21,513.75	12/14	50,791.02	12/27	181,145.27
12/06	24,824.97	12/15	67,168.64	12/28	190,247.08
12/08	35,790.08	12/16	71,055.17	12/29	211,709.99
12/09	36,383.94	12/19	67,565.31	12/30	232,626.11
12/12	40,958.03	12/20	82,297.11		

End Of Statement

Belvedere Municipal Utility District
Reconciliation Detail
Checking Account - ABC Bank, Period Ending 12/31/2022

Type	Date	Num	Name	Clr	Amount	Balance
Beginning Balance						18,182.67
Cleared Transactions						
Checks and Payments - 6 items						
Check	10/31/2022	1400	Sunscape Landscap...	X	-3,952.93	-3,952.93
Check	11/14/2022	1399	Manuela's Cleaning ...	X	-1,035.00	-4,987.93
Check	12/08/2022	EFT	Spectrum Business	X	-106.54	-5,094.47
Check	12/14/2022	1401	Manuela's Cleaning ...	X	-460.00	-5,554.47
Check	12/14/2022	EFT	AT & T	X	-136.55	-5,691.02
Check	12/18/2022	EFT	Pedernales Electric ...	X	-240.65	-5,931.67
Total Checks and Payments					-5,931.67	-5,931.67
Deposits and Credits - 17 items						
Deposit	12/05/2022			X	4,366.08	4,366.08
Deposit	12/06/2022			X	3,311.22	7,677.30
Deposit	12/08/2022			X	11,071.65	18,748.95
Transfer	12/08/2022			X	11,628.00	30,376.95
Deposit	12/09/2022			X	593.86	30,970.81
Deposit	12/12/2022			X	4,574.09	35,544.90
Deposit	12/13/2022			X	8,336.13	43,881.03
Deposit	12/14/2022			X	1,496.86	45,377.89
Deposit	12/15/2022			X	4,886.17	50,264.06
Deposit	12/16/2022			X	3,886.53	54,150.59
Deposit	12/19/2022			X	703.72	54,854.31
Deposit	12/20/2022			X	14,731.80	69,586.11
Deposit	12/21/2022			X	3,393.03	72,979.14
Deposit	12/27/2022			X	95,915.13	168,894.27
Deposit	12/28/2022			X	9,101.81	177,996.08
Deposit	12/29/2022			X	21,462.91	199,458.99
Deposit	12/30/2022			X	20,916.12	220,375.11
Total Deposits and Credits					220,375.11	220,375.11
Total Cleared Transactions					214,443.44	214,443.44
Cleared Balance					214,443.44	232,626.11
Uncleared Transactions						
Checks and Payments - 3 Items						
Check	11/18/2022	EFT	Pedernales Electric ...		-245.56	-245.56
Check	12/08/2022	1402	Sunscape Landscap...		-11,628.47	-11,874.03
Check	12/23/2022	1403	Travis Central Appra...		-754.29	-12,628.32
Total Checks and Payments					-12,628.32	-12,628.32
Total Uncleared Transactions					-12,628.32	-12,628.32
Register Balance as of 12/31/2022					201,815.12	219,997.79
Ending Balance					201,815.12	219,997.79



Drawer 9
Wolfforth, Texas 79382-0009

www.theabcbank.com

3454623
Belvedere Municipal Utility District
Operating Money Market
PO Box 2029
Pflugerville TX 78691

Date 12/30/22 Page 1
Primary Account XXXXXXXXXXXXX5091



* Please help us keep your contact information updated. In the event of fraud or other related issues, it is important for us to be able to contact you. *

Checking Account

Account Title: Belvedere Municipal Utility District
Operating Money Market

Money Market Public Fund		Enclosures/Images	0
Account Number	XXXXXXXXXXXX5091	Statement Dates	12/01/22 thru 12/31/22
Previous Balance	5,285.96	Days in the Statement Period	31
1 Deposits/Credits	11,628.00	Average Ledger Balance	7,907.76
2 Checks/Debits	11,633.00	Average Collected	7,907.76
Service Charge Amount	.00	Interest Earned	6.42
Interest Paid	6.42	Annual Percentage Yield Earned	0.96%
Current Balance	5,287.38	2022 Interest Paid	712.27

Deposits and Other Credits

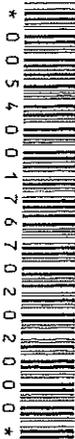
Date	Description	Amount
12/08	Wire Transfer Credit	11,628.00
12/31	Interest Deposit	6.42

Debits

Date	Description	Amount
12/08	Wire Transfer Fee	5.00-
12/15	Funds xfer per Michele Posey	11,628.00-

Daily Balance Information

Date	Balance	Date	Balance
12/01	5,285.96	12/15	5,280.96
12/08	16,908.96	12/31	5,287.38





Date 12/30/22 Page 2
Primary Account XXXXXXXXXXXXX5091

Belvedere Municipal Utility District
Operating Money Market
PO Box 2029
Pflugerville TX 78691

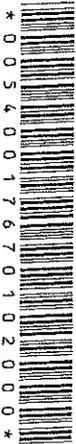
Money Market Public Fund

XXXXXXXXXXXX5091 (Continued)

INTEREST RATE SUMMARY

Date	Rate
11/30	0.900000%
12/15	1.000000%
12/23	1.100000%

End of Statement



Belvedere Municipal Utility District
Reconciliation Detail
Money Market - ABC Bank, Period Ending 12/31/2022

Type	Date	Num	Name	Clr	Amount	Balance
Beginning Balance						5,285.96
Cleared Transactions						
Checks and Payments - 2 items						
Transfer	12/08/2022			X	-11,628.00	-11,628.00
Check	12/08/2022	EFT	American Bank of C...	X	-5.00	-11,633.00
Total Checks and Payments					-11,633.00	-11,633.00
Deposits and Credits - 2 items						
Transfer	12/08/2022			X	11,628.00	11,628.00
Deposit	12/31/2022			X	6.42	11,634.42
Total Deposits and Credits					11,634.42	11,634.42
Total Cleared Transactions					1.42	1.42
Cleared Balance					1.42	5,287.38
Register Balance as of 12/31/2022					1.42	5,287.38
Ending Balance					1.42	5,287.38

Belvedere MUD-Debt Service Fund
Reconciliation Detail
MUD Debt Service Fund, Period Ending 12/31/2022

Type	Date	Num	Name	Clr	Amount	Balance
Beginning Balance						57,861.22
Cleared Transactions						
Deposits and Credits - 1 item						
Deposit	12/31/2022			X	55.72	55.72
Total Deposits and Credits					55.72	55.72
Total Cleared Transactions					55.72	55.72
Cleared Balance					55.72	57,916.94
Register Balance as of 12/31/2022					55.72	57,916.94
Ending Balance					55.72	57,916.94

Financial Statements

Belvedere Municipal Utility District
Balance Sheet
As of January 17, 2023

	<u>Jan 17, 23</u>
ASSETS	
Current Assets	
Checking/Savings	
Checking Account - ABC Bank	13,281.72
Money Market - ABC Bank	5,287.38
TexPool	<u>462,097.38</u>
Total Checking/Savings	480,666.48
Accounts Receivable	
Taxes Receivable	<u>160,294.87</u>
Total Accounts Receivable	<u>160,294.87</u>
Total Current Assets	<u>640,961.35</u>
TOTAL ASSETS	<u><u>640,961.35</u></u>
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Other Current Liabilities	
Deferred Revenue	<u>160,294.87</u>
Total Other Current Liabilities	<u>160,294.87</u>
Total Current Liabilities	<u>160,294.87</u>
Total Liabilities	160,294.87
Equity	
Unassigned	464,101.33
Net Income	<u>16,565.15</u>
Total Equity	<u>480,666.48</u>
TOTAL LIABILITIES & EQUITY	<u><u>640,961.35</u></u>

Belvedere Municipal Utility District
Profit & Loss
October 1, 2022 through January 17, 2023

	Oct 1, '22 - Jan 17, 23
Ordinary Income/Expense	
Income	
Interest Income	1,267.88
Income	
Property Taxes	74,937.35
Total Income	74,937.35
Total Income	76,205.23
Expense	
Amenity Center Operations	2,336.56
Trail Repairs	
Trail General Maintenance	1,021.97
Total Trail Repairs	1,021.97
Audit Fees	7,500.00
Bank Service Charges	10.00
Bookkeeping Fees	4,800.00
Engineering	
District Engineering	12,898.75
Total Engineering	12,898.75
Insurance	
Liability Insurance	1,935.10
Total Insurance	1,935.10
Legal Fees	1,161.04
Collection and Appraisal Fees	754.29
Waste Disposal	27,222.37
Total Expense	59,640.08
Net Ordinary Income	16,565.15
Net Income	16,565.15

Belvedere MUD-Debt Service Fund
Balance Sheet
As of January 17, 2023

	<u>Jan 17, 23</u>
ASSETS	
Current Assets	
Checking/Savings	
MUD Debt Service Fund	119,418.19
TexPool	176,455.85
Total Checking/Savings	<u>295,874.04</u>
Accounts Receivable	
Taxes Receivable	299,925.61
Total Accounts Receivable	<u>299,925.61</u>
Total Current Assets	<u>595,799.65</u>
TOTAL ASSETS	<u><u>595,799.65</u></u>
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Other Current Liabilities	
Deferred Revenue	299,925.61
Total Other Current Liabilities	<u>299,925.61</u>
Total Current Liabilities	<u>299,925.61</u>
Total Liabilities	299,925.61
Equity	
Restricted	235,996.25
Net Income	59,877.79
Total Equity	<u>295,874.04</u>
TOTAL LIABILITIES & EQUITY	<u><u>595,799.65</u></u>

Belvedere MUD-Debt Service Fund
Profit & Loss
October 1, 2022 through January 17, 2023

	<u>Oct 1, '22 - Jan 17, 23</u>
Ordinary Income/Expense	
Income	
Tax Revenue	140,214.37
Total Income	<u>140,214.37</u>
Expense	
Bond Principal	0.00
Interest Expense	80,309.38
Paying Agent Fee	600.00
Total Expense	<u>80,909.38</u>
Net Ordinary Income	59,304.99
Other Income/Expense	
Other Income	
Interest Income	572.80
Total Other Income	<u>572.80</u>
Net Other Income	<u>572.80</u>
Net Income	<u><u>59,877.79</u></u>

Current Invoices for Approval

Montoya & Monzingo, LLP

P.O. Box 2029
Pflugerville, TX 78691
(512) 251-5668

Invoice

Date	Invoice #
10/3/2022	24939

Bill To
Belvedere MUD P.O. Box 2029 Pflugerville, TX 78691

Description	Amount
October 2022 accounting services.	1,200.00
Thank you for your business.	Total \$1,200.00

Rec'd 10/3/22

Montoya & Monzingo, LLP

P.O. Box 2029
Pflugerville, TX 78691
(512) 251-5668

Invoice

Date	Invoice #
11/2/2022	30007

Bill To
Belvedere MUD P.O. Box 2029 Pflugerville, TX 78691

Description	Amount
November 2022 accounting services.	1,200.00
Thank you for your business.	Total \$1,200.00

Rec'd 11/2/22

Montoya & Monzingo, LLP

P.O. Box 2029
Pflugerville, TX 78691
(512) 251-5668

Invoice

Date	Invoice #
12/7/2022	30026

Bill To
Belvedere MUD P.O. Box 2029 Pflugerville, TX 78691

Description	Amount
December 2022 accounting services.	1,200.00
Thank you for your business.	Total \$1,200.00

Rec'd 12/7/22

Montoya & Monzingo, LLP

P.O. Box 2029
Pflugerville, TX 78691
(512) 251-5668

Invoice

Date	Invoice #
1/5/2023	30040

Bill To
Belvedere MUD P.O. Box 2029 Pflugerville, TX 78691

Description	Amount
January 2023 accounting services.	1,200.00
Thank you for your business.	Total \$1,200.00

Rec'd 1/5/23



Manuela's Cleaning Services

Residential/Commercial Cleaning

11122 West Cave Blvd
Dripping Springs, Texas 78620
Phone: 512-203-2228

Belvedere

Invoice 123

Send payment to:

For:

Manuela's Cleaning Services
11122 West Cave Blvd
Dripping Springs, TX 78620

Belvedere Amenity Center
Payment is due upon receipt
of this invoice

DESCRIPTION

The following cleaning services were performed at the Amenity Center (MUD) on the following dates:

Dec 4

Dec 11

Dec 18

Dec 26

Labor -4 Days @ 115.00

Totals: \$ 460.00

Please make payments to Manuela's Cleaning Services and mail to the address above. If you have any questions concerning this invoice, contact Manuela Bigley @ 512-203-2228, or e-mail at mlbigley1@yahoo.com. Thank you for your prompt payment.

Rec'd 1/11/23

WEST, DAVIS & COMPANY

A LIMITED LIABILITY PARTNERSHIP

Belvedere Municipal Utility District
c/o Jeff Monzingo
via Email
jeff@jeffmcpa.com

December 31, 2022

Professional services involved with
preparation of Audited Financial Statements
for the year ended September 30, 2022

\$ 7,500.00

Thank you!

Recd 1/17/23



TEXAS DISPOSAL SYSTEMS, INC.

PO BOX 674090 • DALLAS, TX 75267-4090
1 (800) 375-8375 PHONE • (512) 421-1344 FAX
www.texasdisposal.com

INVOICE

ACCOUNT #:	1 -0114386 3
ACCOUNT NAME:	BELVEDERE MUD
INVOICE DATE:	01/01/2023
INVOICE #:	7016844
PAY THIS AMOUNT:	14,218.04
SERVICE LOCATION:	VARIOUS RESIDENTIAL

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
1/01/23	** Sub Acct: 1 - 6836 BARNES 8509 SPRINGDALE RIDGE DR 96G TRASH@CURB+3 BAGS Total	1.00	74.13	74.13
	** Sub Acct: 1 - 7595 HARGROVE 8100 BELLANCIA DR 96G TRASH@CURB+3 BAGS Total	1.00	74.13	74.13
	** Sub Acct: 1 - 8065 ATCHLEY 8817 BELLANCIA DR 96G TRASH@CURB+3 BAGS Total	1.00	74.13	74.13
	** Sub Acct: 1 - 9881 NUGENT 8401 LAKEWOOD RIDGE CV 96G TRASH@CURB+3 BAGS Total	1.00	74.13	74.13
	** Sub Acct: 1 - 13827 COLEY, JAMIE 8324 VERDE MESA CV 96G TRASH@CURB+3 BAGS Total	1.00	74.13	74.13
	** Sub Acct: 1 - 14993 SCHICKEL/SARKODI 8508 ROLLINS DR 96G TRASH@CURB+3 BAGS Total	1.00	74.13	74.13
	** Sub Acct: 1 - 15794 GOFORTH			

IMPORTANT MESSAGE:

PAYMENT DUE UPON RECEIPT

Rec'd 1/7/23

PLEASE REMIT BOTTOM PORTION WITH YOUR PAYMENT



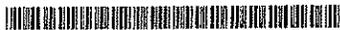
TEXAS DISPOSAL SYSTEMS, INC.

PO BOX 674090
DALLAS, TX 75267-4090

41599-4FDK

PAGE: 1 of 14

RETURN SERVICE REQUESTED



Please check if address is incorrect and indicate change on reverse side.



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|||||
BELVEDERE MUD
JEFF MONZINGO
P.O. BOX 2029
PFLUGERVILLE, TX 78691-2029

INVOICE DATE	INVOICE #	DUE DATE
01/01/2023	7016844	UPON RECEIPT
ACCT. #	AMOUNT DUE	
1 -0114386 3	14,218.04	

Pay bill online @ texasdisposal.com. 655898D (PC2)
41599-4FDK*TIC14848100025

0101143863701684400014218043

TEXAS DISPOSAL SYSTEMS, INC.
PO BOX 674090
DALLAS, TX 75267-4090



SERVICE LOCATION BELVEDERE MUD VARIOUS RESIDENTIAL
AUSTIN TX 78738

JEFF MONZINGO

TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	2 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	8325 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 16317 EVANS			
	18309 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114414 MENAKOFF			
	7900 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114415 KOERNER			
	7824 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114416 SCHNEEBERGER			
	7816 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114417 BLOSSER			
	7808 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114418 SIMPSON			
	7732 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	2.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114419 MARSHALL			
	7709 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114420 FOSSUM			
	18032 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114421 BRANDT			
	18000 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114422 DATTA			
	18033 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114423 ROTH			
	17929 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	2.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114424 TOSCHIK			
	18128 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114425 TRICKETT			
	8017 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 114646 BELVEDERE AMENIT			
	17400 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	2.00		74.13
	96G RES TRASH XTRA CART	1.00		16.89



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TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	3 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	Total			91.02
	** Sub Acct: 1 - 114849 HOLM 7716 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 115034 MILLER 7901 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 117497 DINGER 18041 GLENVILLE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 117762 BRADSHAW 7825 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 117860 KOESTER 17945 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 118368 KUCHLER 7817 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 120319 RIEGER 8000 CARLTON RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 121009 FALDYN 18025 GLENVILLE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 121996 KAPOOR 7800 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 122287 POLON 8133 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 123909 SHULTZ 8016 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 124090 UBERTINI 8401 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 124149 ARNOLD 18109 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 124668 CROCKETT 8001 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 124718 WILES 18432 FLAGLER DR			

TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	4 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 125352 ROBERTS			
	8025 CARLTON RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 125687 BECKER			
	7717 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 125826 KELLY			
	8041 CARLTON RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 126478 PALMER			
	17937 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 126666 RUNKLE			
	7708 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 127961 GUZIEJKA			
	18016 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 128525 WEST			
	18200 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 128597 HARRIMAN			
	17736 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 128625 O'BRIEN			
	18308 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 135928 WALDRIP			
	8416 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 136483 LINDEN			
	17813 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 136802 DAVIS			
	8408 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 138176 RENNELL			
	18425 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 139416 JARVIS			
	17737 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 140184 PERRY			



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TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	6 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	** Sub Acct: 1 - 148645 BILBERY 18209 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 148734 HOOVER 8809 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 149206 BAKSI 17217 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 150155 SCHWAMB 8601 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 152178 GOLDE 8301 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 152188 DUCHALA 7724 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 152605 SARTAIN 8300 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 152967 DOLCH 18416 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 152990 VILLAREAL 8301 VERDE MESA CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 153797 KEIPER 17113 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 154017 NIEVES 18225 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 154025 BUTLER 8617 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 154422 NORRIS 8701 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 154825 BIRDWELL 17201 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 154883 VOLESKO, JUSTYN 8109 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13



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TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	7 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	Total			74.13
	** Sub Acct: 1 - 155125 PRESTI 17600 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 155644 MASON 17801 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 156612 AUGUSTINE 8724 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 157108 ABDALLAH 8201 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 157135 DAVEY 8808 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 157312 JONES 8524 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 157647 SNODGRASS 18045 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 157803 GREENE 17100 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 157903 RUDY 7619 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 158456 DUNCAN 17117 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 158457 GLASSMAN 8517 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 159588 WARREN 17212 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 160500 VEDROS 8101 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS	2.00		74.13
	Total			74.13
	** Sub Acct: 1 - 161437 ZIMMERMAN 8716 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 161438 WILLIAMS 8125 MAGNOLIA RIDGE CV			



TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	8 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 161439 DE ROSA 8300 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 162027 DONOVAN 8616 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 164736 POTTS 8024 CARLTON RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 164738 ATKINS 8308 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 164739 FREZON 8324 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 165327 YOUNG 18325 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	2.00		74.13
	Total			74.13
	** Sub Acct: 1 - 166651 TRAWICK 8000 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 167567 GUERRERO 18216 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 172769 DECARDENAS 8117 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 174625 LAOSA 8317 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 175287 GOLDE 8217 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 175927 BLACK 8321 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 175934 NEALON 18217 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 175961 CASSARA 8312 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 177001 BRYSON			



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TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	9 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	17108 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 177431 KATHY 8313 LAKEWOOD RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 177433 RODRIGUEZ 8717 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 177783 CHRISTIAN 17612 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 179123 BALDWIN 8101 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 179509 SHVETZ 8100 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 180872 LOEPER 8501 ROLLINS DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 182870 HUMPHRIES 8800 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 182871 BELISLE 8517 ROLLINS DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 182872 FORD 8404 LAKEWOOD RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 183091 GLASS 8304 LAKEWOOD RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 184705 DULTON, JAMES 17837 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 184707 SALVAGGIO 17800 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 184709 GREENBERG 17713 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 184711 MILLER 8400 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	



TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	10 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	** Sub Acct: 1 - 184712 CARMEN 8600 BELLANCIA DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 184713 SCIARAFFIA 8312 VERDE MESA CV 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 184785 BEASELY 17700 FLAGLER DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 184786 CHRISTIAN 17724 FLAGLER DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 185163 POULIN 8700 BELLANCIA DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 185754 SORRENTINO 8509 ROLLINS DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 186369 LEONARD 17204 FLAGLER DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 187509 BLANTON CLIFFORD 8309 BELLANCIA DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 188883 SCRANAGE 8609 ROLLINS DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 188889 SETH 8516 BELLANCIA DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 189075 HUFF 7700 LYNCHBURG DR 96G TRASH@CURB+3 BAGS			
	Total	2.00		74.13
	** Sub Acct: 1 - 189077 MICKLE 8116 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 195982 DANIEL 8317 LAKEWOOD RIDGE CV 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 195983 OBRIEN 17500 FLAGLER DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13
	** Sub Acct: 1 - 196521 ALAGNA 18401 FLAGLER DR 96G TRASH@CURB+3 BAGS			
	Total	1.00		74.13



TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	11 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	Total			74.13
	** Sub Acct: 1 - 196989 LAWSON 8320 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 197499 HARWELL 8309 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 198517 SANDERS 8316 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 198654 ZERBY 8801 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 198783 TURLINGTON 17525 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 198785 BENNETT 18009 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 199798 MCNIVEN 8508 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 202639 RIVERS, DAVID 17912 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 207424 VOGT 8609 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 207834 SOUTH 8500 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 209764 SALOMON 8400 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	2.00		74.13
	Total			74.13
	** Sub Acct: 1 - 210006 CRANE 8040 CARLTON RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 212414 LOERCH 8508 SPRINGDALE RIDGE DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 216417 MORELAND 17112 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total			74.13
	** Sub Acct: 1 - 217885 RITCHER 8600 ROLLINS DR			



TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	12 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	96G TRASH@CURB+3 BAGS	2.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 221576 MCLAUGHLIN			
	17513 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 222200 ALTMAN			
	8309 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 224902 HUDLER			
	8608 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 228357 TURNER			
	8413 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 228358 PETRO			
	17613 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 228771 LUNDERSTEDT			
	18001 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	2.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 229947 AUGUSTINE			
	17824 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 232343 FRIED			
	17601 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 237748 MAJOR			
	8709 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 237989 COZART			
	18024 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 240979 EICHLER			
	18008 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 243661 LEE			
	8313 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 243973 SPENCER			
	18409 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 244163 POLK			
	8516 ROLLINS DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 245981 GRAFT			



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TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	13 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	18017 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 246735 ALLISON			
	8321 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 252761 JAMESON			
	7909 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 253598 BERGER			
	7908 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 257247 JEFFERS			
	18224 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	2.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 257664 HILTON			
	8308 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 258469 ROGERS			
	8601 ROLLINS DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 261884 KREISEL			
	18333 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 268254 DALL			
	8117 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 269762 ROBERTS			
	8116 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 270369 HARVEY			
	8816 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 270370 FABRE			
	8609 SPRINGDALE RIDGE DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 272354 GARDNER			
	17913 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	2.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 273994 LUCAS			
	8617 SPRINGDALE RIDGE DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 275808 JONES			
	8516 SPRINGDALE RIDGE DR			
	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	



TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	01/01/2023	7016844	14 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	** Sub Acct: 1 - 280598 BEARD 8616 SPRINGDALE RIDGE DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 288630 MILKIEWICZ 8601 SPRINGDALE RIDGE DR 96G TRASH@CURB+3 BAGS	1.00		23.29
9/30/22	96G TRASH@CURB+3 BAGS	1.00		23.29
10/31/22	96G TRASH@CURB+3 BAGS	1.00		23.29
11/30/22	96G TRASH@CURB+3 BAGS	1.00		23.29
	Total		69.87	
	** Sub Acct: 1 - 290021 STARR 17208 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
1/01/23	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 292099 HALL 8608 SPRINGDALE RIDGE DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 292118 SMITH 18433 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 293380 SAUNDERS 8124 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 293382 CANAHUATE 8308 VERDA MESA CV 96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		74.13	
	** Sub Acct: 1 - 293775 KAUACHI 17104 FLAGLER DR START SERVICE 12/01-01/01 96G TRASH@CURB+3 BAGS	1.00		23.29
11/21/22	96G TRASH@CURB+3 BAGS	1.00		23.29
1/01/23	96G TRASH@CURB+3 BAGS	1.00		74.13
	Total		97.42	
	** Sub Acct: 1 - 293776 DO NOT USE- DUPL 8308 VERDA MESA CV START SERVICE 12/01-01/01 96G TRASH@CURB+3 BAGS	1.00		23.29
11/21/22	96G TRASH@CURB+3 BAGS	1.00		23.29
	Total		23.29	
Total Invoice:			14,218.04	14,218.04





Invoice Total \$8,692.50

October 6, 2022
 Project No: 16654-0900-22
 Invoice No: 00348142

Belvedere Municipal Utility District
 Jeff Monzingo
 c/o Montoya & Monzingo
 203 N. Railroad Avenue
 Pflugerville, TX 78660

PLEASE NOTE OUR REMIT INFO

REMIT ADDRESS:	ACH INFORMATION:
Quiddity Engineering, LLC	Trust Bank
P.O. Box 95562	Account #: 1440017655101
Grapevine, TX 76099-9708	Routing #: 111017694

Please send remittance advice to:
 AccountsReceivable@Quiddity.com
Payment Terms: Due upon Receipt

Project 16654-0900-22 2022 General Consult (Belvedere MUD)
 Services include preparation for and attendance at September meeting; follow up with contractor on Amenity Center 1-yr. punchlist; site visits to observe Flagler ditch and Mesa Verde ditch; analysis of drainage areas on Mesa Verde, and design of driveway culverts; review of rain event documentation on Flagler, discussion with Director Clifford, and preparation of scope of work for assessment; and review of trail repair proposals.

Professional Services from August 27, 2022 to September 30, 2022

Task	001	District Operations			
			Hours	Rate	Amount
		Professional Engineer III	33.25	195.00	6,483.75
		Totals	33.25		6,483.75
		Total Labor			6,483.75

Task	002	Drainage and Trail Consultation			
			Hours	Rate	Amount
		Professional Engineer III	.75	195.00	146.25
		Professional Engineer I	.75	150.00	112.50
		Design Engineer II	15.00	130.00	1,950.00
		Totals	16.50		2,208.75
		Total Labor			2,208.75

TOTAL THIS INVOICE \$8,692.50

*Eng. Fees - Reg. = 6483.75
 Eng Fees - Drainage = 2208.75*

Recd 10/7/22



QUIDDITY

Invoice Total \$5,622.50

November 14, 2022
Project No: 16654-0005-00
Invoice No: 00350803

Jeff Monzingo
Belvedere Municipal Utility District
Jeff Monzingo
c/o Montoya & Monzingo
203 N. Railroad Avenue
Pflugerville, TX 78660

PLEASE NOTE OUR REMIT INFO

REMIT ADDRESS: Quiddity Engineering, LLC P.O. Box 95562 Grapevine, TX 76099-9708	ACH INFORMATION: Trust Bank Account #: 1440017655101 Routing #: 111017694
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Please send remittance advice to:
AccountsReceivable@Quiddity.com
Payment Terms: Due upon Receipt

Project 16654-0005-00 Belvedere Flagler Ditch Analysis

Professional Services from October 1, 2022 to October 28, 2022

Task	100	Capacity Analysis			
			Hours	Rate	Amount
		Professional Engineer III	2.00	225.00	450.00
		Professional Engineer I	.50	170.00	85.00
		Design Engineer II	27.50	145.00	3,987.50
		Totals	30.00		4,522.50
		Total Labor			4,522.50

Task	500	Surveying Services			
			Hours	Rate	Amount
		2-Person Field Crew	5.00	195.00	975.00
		Project Surveyor II	1.00	125.00	125.00
		Totals	6.00		1,100.00
		Total Labor			1,100.00

TOTAL THIS INVOICE \$5,622.50



QUIDDITY

Invoice Total \$3,143.75

November 14, 2022
Project No: 16654-0900-22
Invoice No: 00350804

Belvedere Municipal Utility District
Jeff Monzingo
c/o Montoya & Monzingo
203 N. Railroad Avenue
Pflugerville, TX 78660

PLEASE NOTE OUR REMIT INFO

REMIT ADDRESS:	ACH INFORMATION:
Quiddity Engineering, LLC	Trust Bank
P.O. Box 95562	Account #: 1440017655101
Grapevine, TX 76099-9708	Routing #: 11017694

Please send remittance advice to:
AccountsReceivable@Quiddity.com

Payment Terms: Due upon Receipt

Project 16654-0900-22 2022 General Consult (Belvedere MUD)
Services include evaluation of Verde Mesa drainage issues and culvert sizing; discussions regarding 1-year Amenity Center punchlist; review of Sunscape invoices and coordination with Bookkeeper for payment.

Professional Services from October 1, 2022 to October 28, 2022

Task 001 District Operations

	Hours	Rate	Amount
Professional Engineer III	10.75	225.00	2,418.75
Design Engineer II	5.00	145.00	725.00
Totals	15.75		3,143.75
Total Labor			3,143.75

TOTAL THIS INVOICE \$3,143.75

Outstanding Invoices

Number	Date	Balance
00348142	10/6/2022	8,692.50
Total		8,692.50



QUIDDITY

Invoice Total \$2,308.75

December 8, 2022
Project No: 16654-0005-00
Invoice No: 00352079

Jeff Monzingo
Belvedere Municipal Utility District
Jeff Monzingo
c/o Montoya & Monzingo
203 N. Railroad Avenue
Pflugerville, TX 78660

PLEASE NOTE OUR REMIT INFO

REMIT ADDRESS:	ACH INFORMATION:
Quiddity Engineering, LLC	Truist Bank
P.O. Box 95562	Account #: 1440017655101
Grapevine, TX 76099-9708	Routing #: 11017694

Please send remittance advice to:
AccountsReivable@Quiddity.com
Payment Terms: Due upon Receipt

Project 16654-0005-00 Belvedere Flagler Ditch Analysis

Professional Services from October 29, 2022 to November 25, 2022

Task 100 Capacity Analysis

	Hours	Rate	Amount
Professional Engineer III	.25	225.00	56.25
Professional Engineer I	.50	170.00	85.00
Design Engineer II	14.00	145.00	2,030.00
Totals	14.75		2,171.25
Total Labor			2,171.25

Task 500 Surveying Services

	Hours	Rate	Amount
Survey Technician II	1.25	110.00	137.50
Totals	1.25		137.50
Total Labor			137.50

TOTAL THIS INVOICE \$2,308.75

Outstanding Invoices

Number	Date	Balance
00350803	11/14/2022	5,622.50
Total		5,622.50



QUIDDITY

Invoice Total \$1,823.75

December 8, 2022
Project No: 16654-0900-22
Invoice No: 00352078

Belvedere Municipal Utility District
Jeff Monzingo
c/o Montoya & Monzingo
203 N. Railroad Avenue
Pflugerville, TX 78660

PLEASE NOTE OUR REMIT INFO

REMIT ADDRESS:	ACH INFORMATION:
Quiddity Engineering, LLC	Truist Bank
P.O. Box 95562	Account #: 1440017655101
Grapevine, TX 76099-9708	Routing #: 11017694

Please send remittance advice to:
AccountsReceivable@Quiddity.com
Payment Terms: Due upon Receipt

Project 16654-0900-22 2022 General Consult (Belvedere MUD)
Services include preparation for and attendance at meeting regarding 1-year Amenity Center punchlist; review of Sunscape invoices and coordination with Bookkeeper for payment.

Professional Services from October 29, 2022 to November 25, 2022

Task	001	District Operations			
			Hours	Rate	Amount
		Professional Engineer III	8.00	225.00	1,800.00
		Admin II	.25	95.00	23.75
		Totals	8.25		1,823.75
		Total Labor			1,823.75
				TOTAL THIS INVOICE	\$1,823.75

Outstanding Invoices

Number	Date	Balance
00348142	10/6/2022	8,692.50
00350804	11/14/2022	3,143.75
Total		11,836.25



BOK FINANCIAL® 5956 Sherry Lane, Suite 900, Dallas, TX 75225
 Services provided by BOKF, NA

Corporate Trust Account Invoice Summary

Name of Issue:

Belvedere Municipal Utility District Unlimited Tax Bonds,
 Series 2016 \$1,000,000

Belvedere MUD
 c/o Montoya & Monzingo, LLP
 P.O. Box 2029
 Pflugerville TX 78691

Ref. Number : BELV316UT

For questions contact: Anthony Orozco 972-892-9973

DUE DATE 2/1/2023

	Principal Outstanding	\$860,000.00
Debt Service	Principal Due	\$0.00
	Interest Due	\$12,293.75
	Total Debt Service Due :	\$12,293.75 ✓
	Semi Annual Paying Agent Fee :	\$200.00
	TOTAL AMOUNT DUE:	\$12,493.75

Wire payments must be received 1 business day prior to Due Date
Check & ACH Payments must be received 5 business days prior to the Due Date

IF REMITTING CHECK PAYMENT, PLEASE RETURN THE BOTTOM SECTION AND RETAIN TOP PORTION FOR YOUR RECORDS.

Name of Issue:

Belvedere Municipal Utility District Unlimited Tax
 Bonds, Series 2016 \$1,000,000

DUE DATE 2/1/2023	
Reference Number:	BELV316UT
Net Amount Due:	\$12,493.75
Current Debt Service:	\$12,293.75
Paying Agent Fee:	\$200.00
Amount Enclosed:	

Please use BOK Financial's Standing Debt Service Payment Instructions for the payment. If you need a copy, please reach out to either Anthony Orozco (aorozco@bokf.com/972-892-9973) or Nicholas Deskin (ndeskin@bokf.com/214-987-8833).



BOK FINANCIAL® 5956 Sherry Lane, Suite 900, Dallas, TX 75225

Services provided by BOKF, NA

Corporate Trust Account Invoice Summary

Name of Issue:

Belvedere Municipal Utility District Unlimited Tax
Refunding Bonds, Series 2016 \$3,570,000

Belvedere MUD
c/o Montoya & Monzingo, LLP
P.O. Box 2029
Pflugerville TX 78691

Ref. Number : BELV916UTR

For questions contact: Anthony Orozco 972-892-9973

DUE DATE 2/1/2023

Debt Service	Principal Outstanding	\$2,870,000.00
	Principal Due	\$0.00
	Interest Due	\$52,875.00
	Total Debt Service Due :	\$52,875.00 ✓
	Semi Annual Paying Agent Fee :	\$200.00
	TOTAL AMOUNT DUE:	\$53,075.00

Wire payments must be received 1 business day prior to Due Date
Check & ACH Payments must be received 5 business days prior to the Due Date

IF REMITTING CHECK PAYMENT, PLEASE RETURN THE BOTTOM SECTION AND RETAIN TOP PORTION FOR YOUR RECORDS.

DUE DATE 2/1/2023

Name of Issue:

Belvedere Municipal Utility District Unlimited Tax
Refunding Bonds, Series 2016 \$3,570,000

Reference Number:	BELV916UTR
Net Amount Due:	\$53,075.00
Current Debt Service:	\$52,875.00
Paying Agent Fee:	\$200.00
Amount Enclosed:	

Please use BOK Financial's Standing Debt Service Payment Instructions for the payment. If you need a copy, please reach out to either Anthony Orozco (aorozco@bokf.com/972-892-9973) or Nicholas Deskin (ndeskin@bokf.com/214-987-8833).



BOK FINANCIAL® 5956 Sherry Lane, Suite 900, Dallas, TX 75225
 Services provided by BOKF, NA

Corporate Trust Account Invoice Summary

Name of Issue:

Belvedere Municipal Utility District Unlimited Tax Park
 Bonds, Series 2018

Belvedere MUD
 c/o Montoya & Monzingo, LLP
 P.O. Box 2029
 Pflugerville TX 78691

Ref. Number : BELV218UTP

For questions contact: Anthony Orozco 972-892-9973

DUE DATE 2/1/2023

	Principal Outstanding	\$990,000.00
Debt Service	Principal Due	\$0.00
	Interest Due	\$15,140.63
	Total Debt Service Due :	\$15,140.63 ✓
	Semi Annual Paying Agent Fee :	\$200.00
	TOTAL AMOUNT DUE:	\$15,340.63

Wire payments must be received 1 business day prior to Due Date
Check & ACH Payments must be received 5 business days prior to the Due Date

IF REMITTING CHECK PAYMENT, PLEASE RETURN THE BOTTOM SECTION AND RETAIN TOP PORTION FOR YOUR RECORDS.

Name of Issue:

Belvedere Municipal Utility District Unlimited Tax
 Park Bonds, Series 2018

<i>DUE DATE 2/1/2023</i>	
Reference Number:	BELV218UTP
Net Amount Due:	\$15,340.63
Current Debt Service:	\$15,140.63
Paying Agent Fee:	\$200.00
Amount Enclosed:	

Please use BOK Financial's Standing Debt Service Payment Instructions for the payment. If you need a copy, please reach out to either Anthony Orozco (aorozco@bokf.com/972-892-9973) or Nicholas Deskin (ndeskin@bokf.com/214-987-8833).

Invoices Paid Between Board Meetings



September 19, 2022
 Invoice Number: 0023313091922
 Account Number: 8260 16 101 0023313
 Security Code: 4931
 Service At: 17400 FLAGLER DR
 AUSTIN TX 78738-7663

Auto Pay Notice

NEWS AND INFORMATION

Contact Us
 Visit us at SpectrumBusiness.net
 Or, call us at 1-866-519-1263

NEW! We just increased our starting speeds to 300 Mbps. Call 1-866-634-1154 to find out how your business can benefit from faster internet speeds for the same great price!

Call 1-877-787-1657 to get the best mobile service at the best price for your business. Ask how you can save up to 60% on two mobile lines!



Summary *Service from 09/19/22 through 10/18/22 details on following pages*

Previous Balance	106.54
Payments Received -Thank You!	-106.54
Remaining Balance	\$0.00
Spectrum Business™ TV	84.98
Other Charges	21.00
Taxes, Fees and Charges	0.56
Current Charges	\$106.54
<i>YOUR AUTO PAY WILL BE PROCESSED 10/06/22</i>	
Total Due by Auto Pay	\$106.54

*Rec'd 9/21/22
 Paid EFT 10/6/22*

Thank you for choosing Spectrum Business.
 We appreciate your prompt payment and value you as a customer.

Auto Pay. Thank you for signing up for auto pay. Please note your payment may be drafted and posted to your Spectrum Business account the day after your transaction is scheduled to be processed by your bank.



4145 S. FALKENBURG RD RIVERVIEW FL 33578-8652
 8260 1600 NO RP 19 09202022 NNNNNNNN 01 987630

BELVEDERE HOA
 PO BOX 2029
 PFLUGERVILLE TX 78691-2029

September 19, 2022

BELVEDERE HOA

Invoice Number: 0023313091922
 Account Number: 8260 16 101 0023313
 Service At: 17400 FLAGLER DR
 AUSTIN TX 78738-7663

Total Due by Auto Pay \$106.54

CHARTER COMMUNICATIONS
 PO BOX 60074
 CITY OF INDUSTRY CA 91716-0074

826016101002331300106542



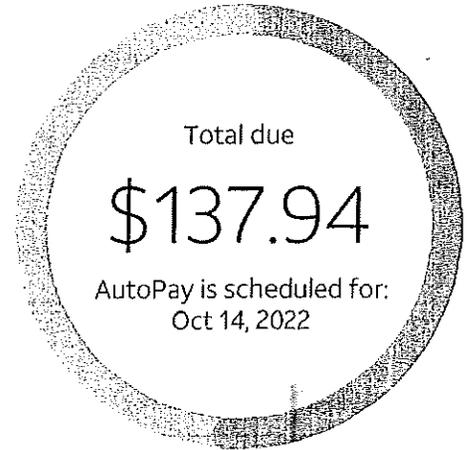
BELVEDERE MUD
 PO BOX 2029
 PFLUGERVILLE TX 78691-2029

Page: 1 of 3
 Issue Date: Sep 22, 2022
 Account Number: 312935378

We've updated your Service Agreement terms, including the arbitration clause, effective 2/1/22. By continuing to use our services, you agree. (See att.com/CSA and end of bill).

Want to stop receiving paper bills and enjoy the convenience of paperless billing? Enroll at att.com/paperless

Managing your AT&T bills, products, and services on the go? It's a snap with myAT&T. Go to att.com/myatt to sign in or sign up.



Account summary

Our last bill	\$137.94
Payment, Sep 14 - Thank you!	-\$137.94
Remaining balance	\$0.00

Service summary

Internet	<i>Page 2</i>	\$69.89
Phone	<i>Page 2</i>	\$68.05
Total services		\$137.94

Total due **\$137.94**

AutoPay is scheduled to debit your bank account on Oct 14, 2022

*Paid EFT 10/14/22
 Rec'd 10/12/22*

Ways to pay and manage your account:



Ordering, billing or support
800.321.2000
 TTY: 800.651.5111

Services, LLC
 P.O. Box 700
 Spicewood, Tx 78669

Invoice

Date	Invoice #
9/29/2022	5058

Email- mark@atserviceshvac.com

Bill To

Belvedere
 17400 Flagler Dr.
 Austin, Tx 78738

TACLA00040532E

P.O. No.	Terms	Project
	Net 30	

Quantity	Description	Rate	Amount
2	8-11-22- Reported AC condensate leak. Found the drain pan had a crack and leaking water. Dried off pan and put JB Weld Epoxy on it. Reference work order 506. Ordered a new pan after a return trip due to pan still leaking.	95.00	190.00T
4	8-26-22- Pumped down system and removed evaporator coil from unit. Replaced the drain pan and re-installed coil back into unit. Evacuated system and started up. Checked freon levels and condensate drainage. Reference work order 491.	95.00	380.00T
1	TRANE- Drain Pan	166.10	166.10T
		Sales Tax (0.0%)	\$0.00
		Total	\$736.10

TEXAS DISPOSAL SYSTEMS, INC.

PO BOX 674090 • DALLAS, TX 75267-4090
 1 (800) 375-8375 PHONE • (512) 421-1344 FAX
 www.texasdisposal.com

ACCOUNT #:	1 -0114386 3
ACCOUNT NAME:	BELVEDERE MUD
INVOICE DATE:	10/01/2022
INVOICE #:	6855953
PAY THIS AMOUNT:	13,004.33
SERVICE LOCATION:	VARIOUS RESIDENTIAL

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
10/01/22	** Sub Acct: 1 - 6836 BARNES 8509 SPRINGDALE RIDGE DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			
	** Sub Acct: 1 - 7595 HARGROVE 8100 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			
	** Sub Acct: 1 - 8065 ATCHLEY 8817 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			
	** Sub Acct: 1 - 9881 NUGENT 8401 LAKEWOOD RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			
	** Sub Acct: 1 - 13827 COLEY, JAMIE 8324 VERDE MESA CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			
	** Sub Acct: 1 - 14993 SCHICKEL/SARKODI 8508 ROLLINS DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			
	** Sub Acct: 1 - 15794 GOFORTH			69.87
	Total			

IMPORTANT MESSAGE:

PAYMENT DUE UPON RECEIPT

Rec'd 10/11/22

	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 114422 DATTA 18033 GLENVILLE CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 114423 ROTH 17929 FLAGLER DR 96G TRASH@CURB+3 BAGS	2.00		69.87
	Total			69.87
	** Sub Acct: 1 - 114424 TOSCHIK 18128 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 114425 KAISAR 8017 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	96G RES TRASH XTRA CART	1.00		15.90
	Total			85.77
	** Sub Acct: 1 - 114646 BELVEDERE AMENIT 17400 FLAGLER DR 96G TRASH@CURB+3 BAGS	2.00		69.87

648374 (PCO)

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TEXAS DISPOSAL SYSTEMS

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	10/01/2022	6855953	2 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	8325 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 16317 EVANS			
	18309 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114414 MENAKOFF			
	7900 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114415 KOERNER			
	7824 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114416 SCHNEEBERGER			
	7816 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114417 BLOSSER			
	7808 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114418 SIMPSON			
	7732 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	2.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114419 MARSHALL			
	7709 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114420 FOSSUM			
	18032 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114421 BRANDT			
	18000 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114422 DATTA			
	18033 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114423 ROTH			
	17929 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	2.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114424 TOSCHIK			
	18128 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 114425 KAISAR			
	8017 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	96G RES TRASH XTRA CART	1.00		15.90
	Total		85.77	
	** Sub Acct: 1 - 114646 BELVEDERE AMENIT			
	17400 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	2.00		69.87

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TEXAS DISPOSAL SYSTEMS

A 1
DATE

ACCOUNT #	INVOICE DATE	INVOICE #	3 of 1
1 -0114386 3	10/01/2022	6855953	

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	96G RES TRASH XTRA CART	1.00		15.90
	Total		85.77	
	** Sub Acct: 1 - 114849 HOLM			
	7716 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 115034 MILLER			
	7901 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	2.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 117497 DINGER			
	18041 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 117762 BRADSHAW			
	7825 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 117860 KOESTER			
	17945 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 118368 KUCHLER			
	7817 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 120319 RIEGER			
	8000 CARLTON RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 121009 FALDYN			
	18025 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 121996 KAPOOR			
	7800 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 122287 POLON			
	8133 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 123909 SHULTZ			
	8016 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 124090 UBERTINI			
	8401 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 124149 ARNOLD			
	18109 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 124668 CROCKETT			
	8001 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 124718 WILES			



TEXAS DISPOSAL SYSTEMS

15.00
 TOTAL AMOUNT
 3 OF 14

ACCOUNT #	INVOICE DATE	INVOICE #	PAGE
1 -0114386 3	10/01/2022	6855953	4 of 14

DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	18432 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 125352 ROBERTS			
	8025 CARLTON RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 125687 BECKER			
	7717 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 125826 KELLY			
	8041 CARLTON RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 126478 PALMER			
	17937 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 126666 RUNKLE			
	7708 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 127961 GUZIEJKA			
	18016 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 128525 WEST			
	18200 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 128597 HARRIMAN			
	17736 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 128625 O'BRIEN			
	18308 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 135928 WALDRIP			
	8416 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 136483 LINDEN			
	17813 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 136802 DAVIS			
	8408 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 138176 RENNELL			
	18425 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 139416 JARVIS			
	17737 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87



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TEXAS DISPOSAL SYSTEMS

4
1
DATE

ACCOUNT # 1 -0114386 3	INVOICE DATE 10/01/2022	INVOICE # 6855953	5 of 1
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DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	** Sub Acct: 1 - 140184 PERRY 7809 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 140185 MILLSAP, PAUL 8305 VERDE MESA CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 141679 RACHAL 18317 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 142850 WILSON 18417 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 143066 HAMMOND 17901 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 144327 RUSSELL 18441 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 145046 SMITH 18301 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 145047 HUNTOON 18449 FLAGLER DR 96G TRASH@CURB+3 BAGS	2.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 145098 ADAY 17701 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 145134 KELLY 18029 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 145712 SKUTTA 18201 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 145784 LUECHENOFF 17725 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 146541 WHITE 18208 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 146898 CRANE 8317 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 148421 LILLY 8200 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87



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DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	Total			69.87
	** Sub Acct: 1 - 148645 BILBERY 18209 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 148734 HOOVER 8809 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 149206 BAKSI 17217 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 150155 SCHWAMB 8601 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 152178 GOLDE 8301 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 152188 DUCHALA 7724 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 152605 SARTAIN 8300 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 152967 DOLCH 18416 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 152990 VILLAREAL 8301 VERDE MESA CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 153797 KEIPER 17113 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 154017 NIEVES 18225 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 154025 BUTLER 8617 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 154422 NORRIS 8701 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 154825 BIRDWELL 17201 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 154883 VOLESKO.JUSTYN 8109 BELLANCIA DR			



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DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 155125 PRESTI 17600 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 155644 MASON 17801 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 156612 AUGUSTINE 8724 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 157108 ABDALLAH 8201 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 157135 DAVEY 8808 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 157312 JONES 8524 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 157647 SNODGRASS 18045 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 157803 GREENE 17100 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 157903 RUDY 7619 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 158456 DUNCAN 17117 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 158457 GLASSMAN 8517 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 159588 WARREN 17212 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 160500 VEDROS 8101 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	2.00		69.87
	Total			69.87
	** Sub Acct: 1 - 161437 ZIMMERMAN 8716 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 161438 WILLIAMS			



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DATE	DESCRIPTION	QTY	RATE	TOTAL AMOUNT
	8125 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 161439 DE ROSA			
	8300 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 162027 DONOVAN			
	8616 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 164736 POTTS			
	8024 CARLTON RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 164738 ATKINS			
	8308 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 164739 FREZON			
	8324 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 165327 YOUNG			
	18325 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	2.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 166651 TRAWICK			
	8000 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 167567 GUERRERO			
	18216 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 172769 DECARDENAS			
	8117 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 174625 LAOSA			
	8317 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 175287 GOLDE			
	8217 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 175927 BLACK			
	8321 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 175934 NEALON			
	18217 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 175961 CASSARA			
	8312 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	



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DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	** Sub Acct: 1 - 177001 BRYSON 17108 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 177431 KATHY 8313 LAKEWOOD RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 177433 RODRIGUEZ 8717 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 177783 CHRISTIAN 17612 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 179123 BALDWIN 8101 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 179509 SHVETZ 8100 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 180872 LOEPER 8501 ROLLINS DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 182870 HUMPHRIES 8800 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 182871 BELISLE 8517 ROLLINS DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 182872 FORD 8404 LAKEWOOD RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 183091 GLASS 8304 LAKEWOOD RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 184705 DULTON, JAMES 17837 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 184707 SALVAGGIO 17800 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 184709 GREENBERG 17713 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 184711 MILLER 8400 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87

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DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	Total			69.87
	** Sub Acct: 1 - 184712 CARMEN			
	8600 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 184713 SCIARAFFIA			
	8312 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 184785 BEASELY			
	17700 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 184786 CHRISTIAN			
	17724 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 185163 POULIN			
	8700 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 185754 SORRENTINO			
	8509 ROLLINS DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 186369 LEONARD			
	17204 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 187509 BLANTON CLIFFORD			
	8309 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 188883 SCRANAGE			
	8609 ROLLINS DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 188889 SETH			
	8516 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 189075 HUFF			
	7700 LYNCHBURG DR			
	96G TRASH@CURB+3 BAGS	2.00		69.87
	Total			69.87
	** Sub Acct: 1 - 189077 MICKLE			
	8116 MAGNOLIA RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 195982 DANIEL			
	8317 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 195983 OBRIEN			
	17500 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 196521 ALAGNA			
	18401 FLAGLER DR			



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DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 196989 LAWSON			
	8320 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 197499 HARWELL			
	8309 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 198517 SANDERS			
	8316 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 198654 ZERBY			
	8801 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 198783 TURLINGTON			
	17525 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 198785 BENNETT			
	18009 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 199798 MCNIVEN			
	8508 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 202639 RIVERS, DAVID			
	17912 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 207424 VOGT			
	8609 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 207834 SOUTH			
	8500 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 209764 SALOMON			
	8400 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	2.00		69.87
	Total			69.87
	** Sub Acct: 1 - 210006 CRANE			
	8040 CARLTON RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 212414 LOERCH			
	8508 SPRINGDALE RIDGE DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 216417 MORELAND			
	17112 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 217885 RITCHER			



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DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	8600 ROLLINS DR			
	96G TRASH@CURB+3 BAGS	2.00		69.87
	Total			69.87
	** Sub Acct: 1 - 221576 MCLAUGHLIN			
	17513 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 222200 ALTMAN			
	8309 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 224902 HUDLER			
	8608 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 228357 TURNER			
	8413 LAKEWOOD RIDGE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 228358 PETRO			
	17613 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 228771 LUNDERSTEDT			
	18001 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	2.00		69.87
	Total			69.87
	** Sub Acct: 1 - 229947 AUGUSTINE			
	17824 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 232343 FRIED			
	17601 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 237748 MAJOR			
	8709 BELLANCIA DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 237989 COZART			
	18024 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 240979 EICHLER			
	18008 GLENVILLE CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 243661 LEE			
	8313 VERDE MESA CV			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 243973 SPENCER			
	18409 FLAGLER DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 244163 POLK			
	8516 ROLLINS DR			
	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87



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DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	** Sub Acct: 1 - 245981 GRAFT 18017 GLENVILLE CV 96G TRASH@CURB+3 BAGS	1.00		69.8
	Total		69.87	
	** Sub Acct: 1 - 246735 ALLISON 8321 LAKEWOOD RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		69.8
	Total		69.87	
	** Sub Acct: 1 - 252761 JAMESON 7909 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		69.8
	Total		69.87	
	** Sub Acct: 1 - 253598 BERGER 7908 LYNCHBURG DR 96G TRASH@CURB+3 BAGS	1.00		69.8
	Total		69.87	
	** Sub Acct: 1 - 257247 JEFFERS 18224 FLAGLER DR 96G TRASH@CURB+3 BAGS	2.00		69.8
	Total		69.87	
	** Sub Acct: 1 - 257664 HILTON 8308 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 258469 ROGERS 8601 ROLLINS DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 261884 KREISEL 18333 FLAGLER DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 268254 DALL 8117 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 269762 ROBERTS 8116 MAGNOLIA RIDGE CV 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 270369 HARVEY 8816 BELLANCIA DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 270370 FABRE 8609 SPRINGDALE RIDGE DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 272354 GARDNER 17913 FLAGLER DR 96G TRASH@CURB+3 BAGS	2.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 273994 LUCAS 8617 SPRINGDALE RIDGE DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total		69.87	
	** Sub Acct: 1 - 275808 JONES 8516 SPRINGDALE RIDGE 96G TRASH@CURB+3 BAGS	1.00		69.87

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DATE	DESCRIPTION	QTY.	RATE	TOTAL AMOUNT
	Total			69.87
	** Sub Acct: 1 - 280598 BEARD 8616 SPRINGDALE RIDGE DR 96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	** Sub Acct: 1 - 288630 MILKIEWICZ 8601 SPRINGDALE RIDG DR			
7/31/22	96G TRASH@CURB+3 BAGS	1.00		23.29
8/31/22	96G TRASH@CURB+3 BAGS	1.00		23.29
	Total			46.58
	** Sub Acct: 1 - 290021 STARR 17208 FLAGLER DR			
10/01/22	96G TRASH@CURB+3 BAGS	1.00		69.87
	Total			69.87
	Total Invoice:			13,004.33



000433
0109

www.texasdisposal.com





Questions? Call 888-554-4732
 Monday through Friday, 8 a.m. – 5:30 p.m.
 Report an outage: 888-883-3379
 pec.coop Se habla Español

Member-owned since 1938
 Not-for-profit

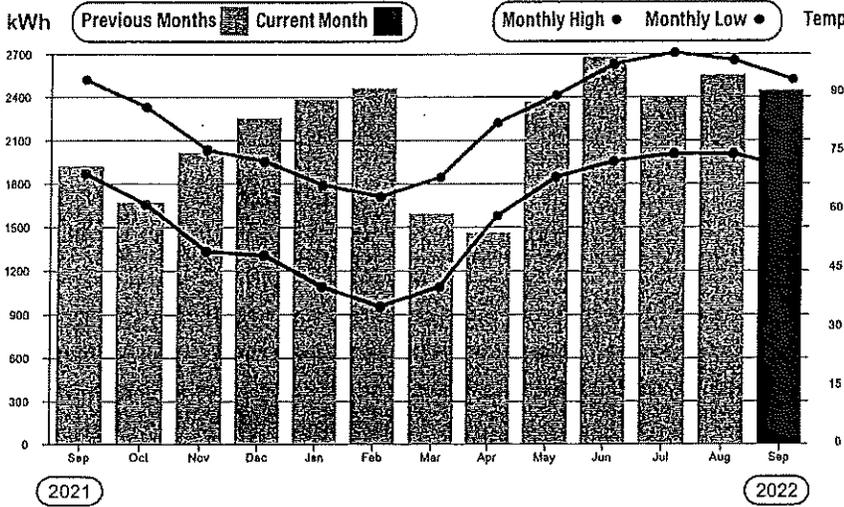


Account #: 3000095631
 Member Name: BELVEDERE HOMEOWNERS ASSOCIATION
 Director District: 5
 Bill Date: 09/29/2022

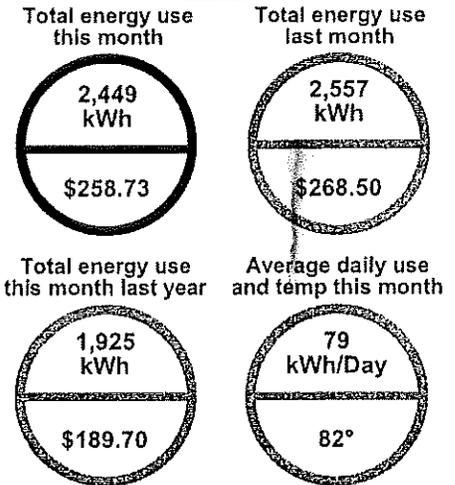
Service Address: 17400 FLAGLER DRIVE

This bill does not reflect payments after 09/29/2022.
 Charge detail found on the back of this page.

Monthly energy use



Energy comparison



IMPORTANT MEMBER INFORMATION

Hop on the energy-savings bus with back-to-school savings ideas from PEC mascot Wattson Raccoon. Teach your kids to conserve with our helpful tips at pec.coop/kids.

Paid EFT 10/18/22

KEEP THIS STATEMENT FOR YOUR RECORDS
 PLEASE DETACH AND RETURN BOTTOM PORTION WITH YOUR PAYMENT - WHEN PAYING IN PERSON BRING ENTIRE STATEMENT



Pedernales Electric Cooperative
 PO Box 1 • Johnson City, TX 78636

Bill Date: 09/29/2022
 Account #: 3000095631
 AutoPay Amount - DO NOT PAY: \$280.08
 Bank Draft on 10/18/2022

- Check this box to opt in to PEC Power of Change!
- One time donation Recurring donation _____



Mail payment to:

Pedernales Electric Cooperative, Inc.
 PO Box 1 Johnson City, TX 78636-0001

BELVEDERE HOMEOWNERS ASSOCIATION
 PO BOX 2029
 PFLUGERVILLE TX 78691-2029

4 672



460763000095631000028008000030595092920228

Michele Email

From: jeff@jeffmcpa.com
Sent: Monday, October 24, 2022 10:27 AM
To: 'Michele Email'
Subject: FW: Q3 MUD Expenses
Attachments: SEPTEMBER MUD Invoices.pdf; AUGUST MUD Invoices.pdf; JULY MUD Invoices.pdf; MUD EXPENSE TRACKER- 2021.1.xlsx

This has been approved to pay. Make sure you adjust it down to \$20,582.41 per Ron.

Jeff Monzingo, CPA
Montoya & Monzingo, LLP
P.O. Box 2029
Pflugerville, TX 78691

512-251-5668 ext 27

From: Ron Ubertini <Ron.Ubertini@wilsonart.com>
Sent: Friday, October 21, 2022 8:19 AM
To: jeff (jeff@jeffmcpa.com) <jeff@jeffmcpa.com>
Cc: jimkoerner@ymail.com
Subject: FW: Q3 MUD Expenses

Paul ch# 1398 11/2/22

Jeff,

Attached invoices (with 1 exception) are approved to pay to the HOA. Jim and I do not approve one August expense for printer ink cartridge for \$132.05. So the new amount should be \$20,582.41 (20,714.46-132.05).

Thank you.

From: Megan Maedgen <Megan.Maedgen@fsresidential.com>
Sent: Wednesday, October 19, 2022 2:05 PM
To: Ron Ubertini <Ron.Ubertini@wilsonart.com>
Subject: Q3 MUD Expenses

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Ron,

I have attached the invoices for the MUD expenses along with expense tracker.

The total amount due : \$20714.46.

July: \$4,771.63
August: \$11,583.33
September: \$4359.50

Vendor	Date	Amount Paid
SUNSCA0001 SUNSCAPE LANDSCAPING LLC - August irrigation repairs	09/02/2022	67.06
SUNSCA0001 SUNSCAPE LANDSCAPING LLC - September landscape Services	09/02/2022	3,369.29
STEPHE0016 Stephens Enterprises - 8.14-8.27	09/06/2022	196.00
ABCHOM0001 ABC HOME and COMMERCIAL SERVICES - rodent mgmt	09/12/2022	97.43
ABCHOM0001 ABC HOME and COMMERCIAL SERVICES - Quarterly pest control	09/13/2022	231.66
STEPHE0016 Stephens Enterprises - 8.28-9.10	09/20/2022	196.00
SUNSCA0001 SUNSCAPE LANDSCAPING LLC - 9.13 Irrigation repair	09/27/2022	97.95
09.15.2022 - Lowe's	09/30/2022	96.34
09.15.2022 - Lowe's	09/30/2022	7.77

4,359.50

September	\$	4,359.50
August	\$	11,583.33
July	\$	4,771.63
	\$	<u>20,714.46</u>



Account Number
10511046
Invoice Date
6/27/2022
Invoice Number
667169954-6
P.O.

Service Location:
Belvedere HOA
17400 Flagler Dr
Austin, TX 78738-7663
Belvedere HOA

Bill To:
BELVEDERE HOA C/O FIRSTSERVICE RESIDENTIAL
NBELZ
PO BOX 32562
CHARLOTTE, NC 28203

Services Provided

Service	Price
Rodent/Wildlife Management - Every-Other	\$90.00
Tax	\$7.43
Balance	\$97.43

Rodent Management Program Provides for ongoing control of rodents in the structure and coverage includes the physical control, trapping, and removal of animals. Sealing all ac lines holes, plumbing lines holes, vents, ridge cap, eaves, soffit vents and metal joints.

Please return this portion with your payment

Remit To
ABC Home & Commercial Services
ATTN: AUSTIN
9475 E Hwy 290
Austin, TX 78724
512-837-9500

www.abchomeandcommercial.com/austin
austin@goanteater.com

Account Number
10511046

Invoice Number
667169954-6

Amount Paid: _____ Check No.: _____

Credit Card No.: _____ CSV Code: _____

Expiration: _____

Signature: _____





SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 14377
Invoice Date: 07/01/2022

BILL TO **PROPERTY ADDRESS**

Belvedere HOA AAM-372
C/O FirstService Residential - AUSTIN
7 Lakeway Centre Court
Austin, TX 78734

Belvedere HOA AAM-372
17400 Flagler Drive
Austin, TX 78738

Phone:512.620.7092

INVOICE **TERMS** **ACCOUNT MANAGER**

07/01/2022 Due on Receipt Larry Hernandez

DESCRIPTION **PRICE**

#20509 - Landscape Maintenance Contract July 2022	Subtotal:	\$5,470.81
	Sales Tax (8.25%)	\$430.12
	INVOICE TOTAL:	\$5,900.93
	Pay This Amount:	\$5,900.93

Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!



HOME & COMMERCIAL SERVICES
Specialists for your environment

Bill To:
 BELVEDERE HOA C/O FIRSTSERVICE RESIDENTIAL
 NBELZ
 PO BOX 32562
 CHARLOTTE, NC 28203

Account Number
 10511046
Invoice Date
 12/30/2021
Invoice Number
 667169954-3
 P.O.

Service Location:
 Belvedere HOA
 17400 Flagler Dr
 Austin, TX 78738-7663
 Belvedere HOA

Services Provided

Service	Price
Rodent/Wildlife Management - Every-Other	\$90.00
Tax	\$7.43
Balance	\$97.43

Rodent Management Program Provides for ongoing control of rodents in the structure and coverage includes the physical control, trapping, and removal of animals. Sealing all ac lines holes, plumbing lines holes, vents, ridge cap, eaves, soffit vents and metal joints.

Please return this portion with your payment

Remit To
 ABC Home & Commercial Services
 ATTN: AUSTIN
 9475 E Hwy 290
 Austin, TX 78724
 512-837-9500

www.abchomeandcommercial.com/austin
austin@goanteater.com

Account Number
 10511046

Invoice Number
 667169954-3

Amount Paid: _____

Check No.: _____

Credit Card No.: _____

CSV Code: _____

Expiration: _____

Signature: _____



STEPHEN'S Enterprises

11122 West Cave Blvd
Dripping Springs, Texas 78620
Phone: 512-203-2227

Belvedere
July 3, 2022

INVOICE 384

Send payment to:
Stephen's Enterprises
11122 West Cave Blvd
Dripping Springs, TX 78620

For:
Belvedere Homeowner Association
Maintenance
Payment is due upon receipt of this
invoice

DESCRIPTION

The following services were completed from June 19 – July 2

Periodic trash pick-up on Hamilton pool Rd, Streets (HOA)	4hrs
Community, Trails (MUD)	4hrs
Trash (MUD)	3hrs
Turn on to pond (HOA)	1hrs
Remove signs @ Flagger and Springdale (HOA) 3 @ 90.00	270.00
Pull and reset stop sign (HOA)	150.00
Walk greenbelt for trash and misc. items (HOA)	2hrs
Wipe down bollards in parking lot (HOA)	1hrs
Hang speed limit signs (HOA)	1hrs

(MUD)Labor – 7 @ \$28.00 (Trash ,Trails) \$196.00

Total (MUD) \$196.00

Post/signs install/removal \$420.00

(HOA) labor – 9 @ \$28.00 \$252.00

Total (HOA) \$868.00

GRAND TOTAL \$860.00

Please make checks payable to Stephen's Enterprises and mail to the address above.
If you have any questions concerning this invoice, contact Stephen Bigley at 512-203-2227, or e-mail at stephen.bigley@rocketmail.com. Thank you for your prompt payment.



Garcia Services, LLC
4514 Cottonwood St.
Austin, TX 78744 US
(512) 589-2417
garciaservices.jg@gmail.com
www.garciaservicesatx.com

Invoice 5897

BILL TO
Megan Maedgen
Belvedere HOA
17400 Flagler Drive
Austin, TX 78738

DATE
05/27/2022

PLEASE PAY
\$800.00

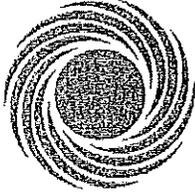
DUE DATE
06/11/2022

DATE	ACTIVITY	AMOUNT
05/27/2022	Septic Services Septic Tank Cleaning	800.00

Thank you for choosing Garcia Services, customer satisfaction is our top priority. We are here for you.

TOTAL DUE \$800.00

THANK YOU.



SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 14582
Invoice Date: 06/30/2022

BILL TO **PROPERTY ADDRESS**

Belvedere HOA AAM-372
C/O FirstService Residential - AUSTIN
7 Lakeway Centre Court
Austin, TX 78734

Belvedere HOA AAM-372
17400 Flagler Drive
Austin, TX 78738

Phone: 512.620.7092

INVOICE **TERMS** **ACCOUNT MANAGER**

06/30/2022 Due on Receipt Larry Hernandez

DESCRIPTION **PRICE**

#23216 - Irrigation Repair T&M Investigate a possible mainline break at front entrance.

Subtotal: \$463.47
Sales Tax (8.25%) \$0.55
INVOICE TOTAL: \$464.02
Pay This Amount: \$464.02

TIME

Labor - 06/24/22 (5.22 x \$87.500)
TIME TOTAL \$456.75

MATERIAL

1" Fitting (Material) (2.00 x \$3.360)
MATERIAL TOTAL \$6.72



Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!



SUNSCAPE

LANDSCAPING

INVOICE

Invoice: 14606
Invoice Date: 06/30/2022

BILL TO

Belvedere HOA AAM-372
C/O FirstService Residential - AUSTIN
7 Lakeway Centre Court
Austin, TX 78734

PROPERTY ADDRESS

Belvedere HOA AAM-372
17400 Flagler Drive
Austin, TX 78738

Phone: 512.620.7092

INVOICE TERMS ACCOUNT MANAGER

06/30/2022 Due on Receipt Larry Hernandez

DESCRIPTION PRICE

#23286 - Irrigation Repair T&M. See June Irrigation walkthrough

Subtotal: \$403.23

Sales Tax (8.25%) \$1.36

INVOICE TOTAL: \$404.59

Pay This Amount: \$404.59

TIME

Labor - 06/29/22 (4.42 x \$87.500)

TIME TOTAL \$386.75

MATERIAL

Drip Fitting (Material) (8.00 x \$2.060)

MATERIAL TOTAL \$16.48



Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!

STEPHEN'S Enterprises

11122 West Cave Blvd
Dripping Springs, Texas 78620
Phone: 512-203-2227

Belvedere
July 18, 2022

INVOICE 385

Send payment to:
Stephen's Enterprises
11122 West Cave Blvd
Dripping Springs, TX 78620

For:
Belvedere Homeowner Association
Maintenance
Payment is due upon receipt of this
invoice

DESCRIPTION

The following services were completed from July 3 – July 16

Periodic trash pick-up on Hamilton pool Rd, Streets (HOA)	4hrs
Community, Trails (MUD)	4hrs
Trash (MUD)	3hrs
Wipe down bollards in parking lot (HOA)	1hrs

(MUD)Labor – 7 @ \$28.00 (Trash , Trails)	<u>\$196.00</u>
Total (MUD)	\$196.00

(HOA) labor – 5 @ \$28.00	<u>\$140.00</u>
Total (HOA)	\$ 140.00

GRAND TOTAL \$336.00

Please make checks payable to Stephen's Enterprises and mail to the address above. If you have any questions concerning this invoice, contact Stephen Bigley at 512-203-2227, or e-mail at stephen.bigley@rocketmail.com. Thank you for your prompt payment.



CertaPro Painters of Austin
12444 Research Blvd.
Austin, TX 78759
(512) 323-9502
austinoa@certapro.com
<http://austin.certapro.com>

INVOICE

BILL TO

First Service
17400 Flagler Drive
Austin, TX 78738

INVOICE # 15479**DATE 07/28/2022****TERMS Net 30****P.O. NUMBER**

C5920

SALES REP

FR

ACTIVITY	AMOUNT
Comm. Paint Belvedere (Door)	699.08T

Thank you for your business!

SUBTOTAL	699.08
TAX	57.67
TOTAL	756.75
BALANCE DUE	\$756.75



SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 14793
Invoice Date: 08/01/2022

BILL TO **PROPERTY ADDRESS**

Belvedere HOA AAM-372
C/O FirstService Residential - AUSTIN
7 Lakeway Centre Court
Austin, TX 78734

Belvedere HOA AAM-372
17400 Flagler Drive
Austin, TX 78738

Phone:512.620.7092

INVOICE **TERMS** **ACCOUNT MANAGER**

08/01/2022 Due on Receipt Sedona Knopf

DESCRIPTION **PRICE**

#23313 - Landscape Maintenance Contract August 2022	Subtotal:	\$5,470.81
	Sales Tax (8.25%)	\$430.12
	INVOICE TOTAL:	\$5,900.93
	Pay This Amount:	\$5,900.93

Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!



1045-9557-0801-2209 1800 404

1	BTY-12DR SAS WHITE	T	20.98
2	COTTONELLE ULTRA CLEAN 24 T		20.98
3	HCF SPRING 32PK OSL WATER F		4.18

***** Sale Subtotal*** 46.14
 Sales Tax 3.46
 ***** Total Sale*** 49.60
 *** VISA EPS 49.60

ITEMS PURCHASED: 3

We're Hiring!
Text CAREERS to 81931

* Message and data rates may apply.
Message frequency may vary. Text STOP
to cancel.

US DEBIT

*****3771

Chip Read USD\$ 49.60
 Appr No : 511847 Ref No : 238294
 Mode: Issuer
 AID : A000000980840
 TVR : 800088000
 IAD : 06011203A0A000
 TSI : 6800 ARC : 00

RECEIPT EXPIRES ON 10-30-22



1045 9557 0801 2209 1800 404

HEB Food-Drugs #21/404
 12400 Hwy. 71, Austin, TX 78738
 Phone: (512) 263-0528
 Pharmacy: (512) 263-0561
 Store Hours: 6 A.M. to 11 P.M.
 Your Cashier: SELF CHECKOUT 681
 459557 08-01-22 9:18A 681/80/00404

STEPHEN'S Enterprises

11122 West Cave Blvd
Dripping Springs, Texas 78620
Phone: 512-203-2227

Belvedere
July 31, 2022

INVOICE 386

Send payment to:
Stephen's Enterprises
11122 West Cave Blvd
Dripping Springs, TX 78620

For:
Belvedere Homeowner Association
Maintenance
Payment is due upon receipt of this
invoice

DESCRIPTION

The following services were completed from July 17 – July 30

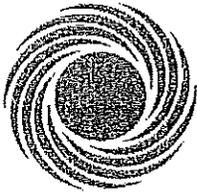
Periodic trash pick-up on Hamilton pool Rd, Streets (HOA)	4hrs
Community, Trails (MUD)	4hrs
Trash (MUD)	3hrs
Wipe down bollards in parking lot (HOA)	1hrs

(MUD)Labor – 7 @ \$28.00 (Trash , Trails)	<u>\$196.00</u>
Total (MUD)	\$196.00

(HOA) labor – 5 @ \$28.00	<u>\$140.00</u>
Total (HOA)	\$ 140.00

GRAND TOTAL \$336.00

Please make checks payable to Stephen's Enterprises and mail to the address above. If you have any questions concerning this invoice, contact Stephen Bigley at 512-203-2227, or e-mail at stephen.bigley@rocketmail.com. Thank you for your prompt payment.



SUNSCAPE

LANDSCAPING

INVOICE

Invoice: 14836
Invoice Date: 07/31/2022

BILL TO

Belvedere HOA AAM-372
C/O FirstService Residential - AUSTIN
7 Lakeway Centre Court
Austin, TX 78734

PROPERTY ADDRESS

Belvedere HOA AAM-372
17400 Flagler Drive
Austin, TX 78738

Phone: 512.620.7092

INVOICE

07/31/2022

TERMS

Due on Receipt

ACCOUNT MANAGER

Sedona Knopf

DESCRIPTION

#22913 - Mulch Application

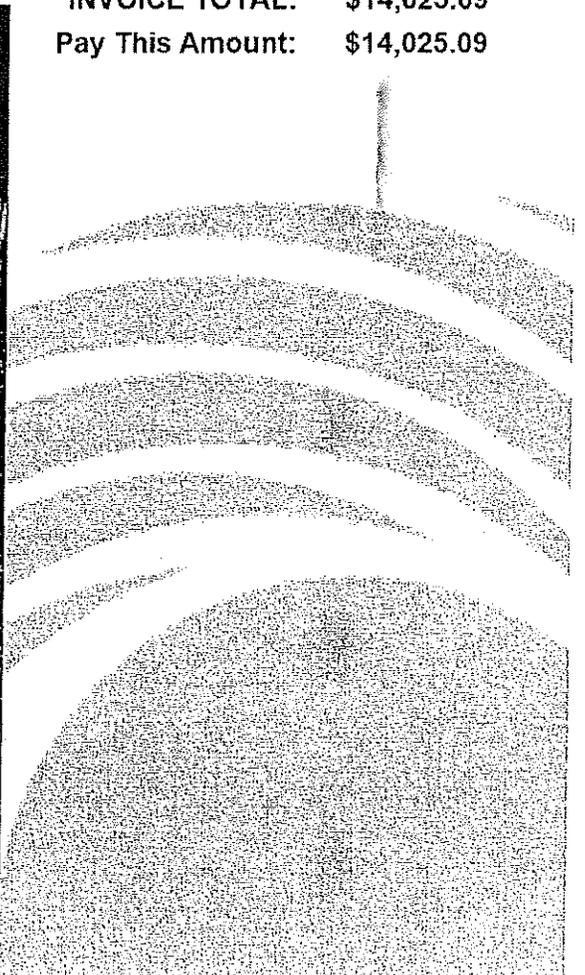
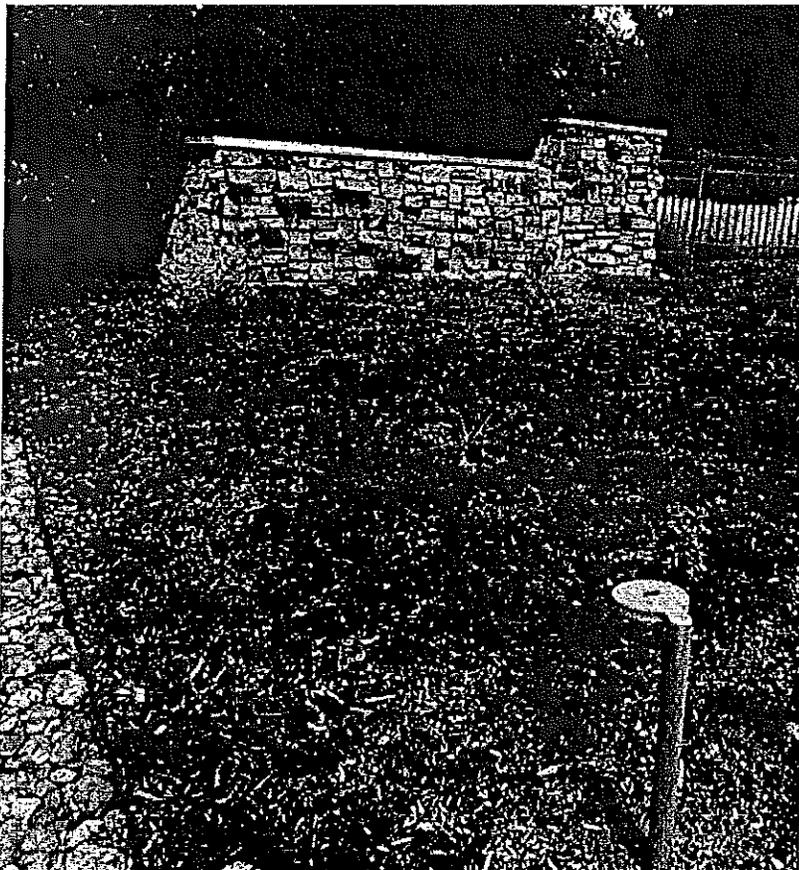
PRICE

Subtotal: \$12,956.20

Sales Tax (8.25%) \$1,068.89

INVOICE TOTAL: \$14,025.09

Pay This Amount: \$14,025.09





SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 14841
Invoice Date: 07/31/2022

BILL TO **PROPERTY ADDRESS**

Belvedere HOA AAM-372
C/O FirstService Residential - AUSTIN
7 Lakeway Centre Court
Austin, TX 78734

Belvedere HOA AAM-372
17400 Flagler Drive
Austin, TX 78738

Phone: 512.620.7092

INVOICE **TERMS** **ACCOUNT MANAGER**

07/31/2022 Due on Receipt Sedona Knopf

DESCRIPTION **PRICE**

#23540 - Irrigation Repair T&M. Check on bubbler zone, Run a system check.	Subtotal:	\$282.37
	Sales Tax (8.25%)	\$0.92
	INVOICE TOTAL:	\$283.29
	Pay This Amount:	\$283.29

TIME

Labor - 07/19/22 (3.10 x \$87.500)	
TIME TOTAL	\$271.25

MATERIAL

Drip Fitting (Material) (4.00 x \$2.060)	
Drip Tubing (Material) (4.00 x \$0.720)	
MATERIAL TOTAL	\$11.12



Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping - PO Box 423 - Pflugerville, TX 78660

Thank you for your business!!

STEPHEN'S BIG ENTERPRISES

11122 West Cave Blvd
Dripping Springs, Texas 78620
Phone: 512-203-2227

Belvedere
Aug 15, 2022

INVOICE 387

Send payment to:
Stephen's Enterprises
11122 West Cave Blvd
Dripping Springs, TX 78620

For:
Belvedere Homeowner Association
Maintenance
Payment is due upon receipt of this
invoice

DESCRIPTION

The following services were completed from July 31 – Aug 13

Periodic trash pick-up on Hamilton pool Rd, Streets (HOA)	4hrs
Community, Trails (MUD)	4hrs
Trash (MUD)	3hrs
Wipe down bollards in parking lot (HOA)	1hrs
Change A/c filter and smoke detector battery (HOA)	1hrs
Put up No outlet signs (HOA)	1hrs

(MUD)Labor – 7 @ \$28.00 (Trash ,Trails)	<u>\$196.00</u>
Total (MUD)	\$196.00
(HOA) labor – 7 @ \$28.00	<u>\$196.00</u>
Total (HOA)	\$196.00
GRAND TOTAL	\$392.00

Please make checks payable to Stephen's Enterprises and mail to the address above. If you have any questions concerning this invoice, contact Stephen Bigley at 512-203-2227, or e-mail at stephen.bigley@rocketmail.com. Thank you for your prompt payment.



LOWE'S HOME CENTERS, LLC
 12611 SUITE 100 SHOPS PARK
 BEE CAVE, TX 78738 (512) 634-4432

SALE

SALES# FSTLANE4 13 TRANS# 7622207 08-04-22

2581.J2 5X8 PREMIER-ESTATE RUG P2 129.00
 233986 HM 24-IN X 2-IN SILVER RE 7.96
 2 0 3.98

SUBTOTAL: 136.96
 TAX: 11.30
 INVOICE 07606 TOTAL: 148.26
 VISA: 148.26

VISA: XXXXXXXXXXXX3771 AMOUNT: 148.26 AUTHCD: 641009
 CHIP REFID: 18480704178 08/04/22 09:09:29

APL: US DEBIT TVR: 8080888000
 AID: A000000080840 TSI: 6800
 STORE: 1948 TERMINAL: 07 08/04/22 09:10:07

11 OF ITEMS PURCHASED: 3
 EXCLUDES FEES, SERVICES AND SPECIAL ORDER ITEMS



THANK YOU FOR SHOPPING LOWE'S.
 FOR DETAILS ON OUR RETURN POLICY, VISIT
 LOWES.COM/RETURNS
 A WRITTEN COPY OF THE RETURN POLICY IS AVAILABLE
 AT OUR CUSTOMER SERVICE DESK

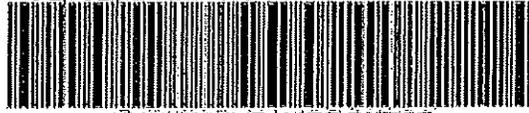
STORE MANAGER: MOE IDELBI

LOWE'S PRICE PROMISE
 FOR MORE DETAILS, VISIT LOWES.COM/PRICEPROMISE

 * SHARE YOUR FEEDBACK *
 * ENTER FOR A CHANCE TO BE *
 * ONE OF FIVE \$500 WINNERS DRAWN MONTHLY *
 * ENTRE EN EL SORTEO MENSUAL *
 * PARA SER UNO DE LOS CINCO GANADORES DE \$500! *
 *
 * ENTER BY COMPLETING A SHORT SURVEY *
 * WITHIN ONE WEEK AT: www.lowes.com/survey *
 * YOUR ID 8076067 194882 164602 *
 *
 * NO PURCHASE NECESSARY TO ENTER OR WIN. *
 * VOID WHERE PROHIBITED. MUST BE 18 OR OLDER TO ENTER. *
 * OFFICIAL RULES & WINNERS AT: www.lowes.com/survey *
 *
 * STORE: 1948 TERMINAL: 07 08/04/22 09:10:07 *

Office DEPOT OfficeMax

BEE CAVE - (512) 263-7199
08/02/2022 12:37 PM



EVPVT95XPAXQ56Y66R

SALE 6750-1-1204-1029296-22.7.2
434207 INK, 951CMY/950 121.99 SS
Subtotal: 121.99
Local Sales and Use T 10.06
Total: 132.05
Visa 3771: 132.05

AUTH CODE 230888
TDS Chip Read
AID A0000000980840 US DEBIT
TVR 8000088000
CVS No Signature Required

MEGAN MOSLEY 19****330
Get 2% back in rewards on your
favorite supplies & more - including
furniture and technology. Plus,
next-day rewards on select offers,
rewards for recycling and more
Visit officedepot.com/rewards

Shop online at www.officedepot.com

WE WANT TO HEAR FROM YOU!
Visit survey.officedepot.com
and enter the survey code below:
16A1 A91Y NT4A
or scan the below QR code





SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 15014
Invoice Date: 08/31/2022

BILL TO **PROPERTY ADDRESS**

Belvedere HOA AAM-372
C/O FirstService Residential - AUSTIN
7 Lakeway Centre Court
Austin, TX 78734

Belvedere HOA AAM-372
17400 Flagler Drive
Austin, TX 78738

Phone: 512.620.7092

INVOICE **TERMS** **ACCOUNT MANAGER**

08/31/2022 Due on Receipt Sedona Knopf

DESCRIPTION **PRICE**

#23830 - Irrigation Repair T&M. See August irrigation report	Subtotal:	\$132.29
	Sales Tax (8.25%)	\$1.82
	INVOICE TOTAL:	\$134.11
	Pay This Amount:	\$134.11

TIME

Labor - 08/17/22 (1.16 x \$95.000)		
TIME TOTAL		\$110.20

MATERIAL

Irrigation Nozzle (Material) (4.00 x \$3.070)		
Drip Fitting (Material) (4.00 x \$2.451)		
MATERIAL TOTAL		\$22.08



Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!



SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 15134
Invoice Date: 09/01/2022

BILL TO **PROPERTY ADDRESS**

Belvedere HOA AAM-372
C/O FirstService Residential - AUSTIN
7 Lakeway Centre Court
Austin, TX 78734

Belvedere HOA AAM-372
17400 Flagler Drive
Austin, TX 78738

Phone: 512.620.7092

INVOICE **TERMS** **ACCOUNT MANAGER**

09/01/2022 Due on Receipt Sedona Knopf

DESCRIPTION **PRICE**

#23927 - Landscape Maintenance Contract September 2022 \$6,017.91
Fuel Surcharge \$228.68

Subtotal: \$6,246.59
Sales Tax (8.25%) \$492.00
INVOICE TOTAL: \$6,738.59
Pay This Amount: \$6,738.59

Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!

STEPHEN'S Enterprises

11122 West Cave Blvd
Dripping Springs, Texas 78620
Phone: 512-203-2227

Belvedere
Aug 28, 2022

INVOICE 388

Send payment to:
Stephen's Enterprises
11122 West Cave Blvd
Dripping Springs, TX 78620

For:
Belvedere Homeowner Association
Maintenance
Payment is due upon receipt of this
invoice

DESCRIPTION

The following services were completed from Aug 14 – Aug 27

Periodic trash pick-up on Hamilton pool Rd, Streets (HOA)	4hrs
Community, Trails (MUD)	4hrs
Trash (MUD)	3hrs
Wipe down bollards in parking lot (HOA)	1hrs
Install new pole/sign No Outlet	\$90.00

(MUD)Labor – 7 @ \$28.00 (Trash ,Trails)	\$196.00
Total (MUD)	\$196.00

Install new pole	\$90.00
(HOA) labor – 5 @ \$28.00	\$140.00
Total (HOA)	\$168.00

GRAND TOTAL \$429.00

Please make checks payable to Stephen's Enterprises and mail to the address above. If you have any questions concerning this invoice, contact Stephen Bigley at 512-203-2227, or e-mail at stephen.bigley@rocketmail.com. Thank you for your prompt payment.



Account Number
10511046
Invoice Date
8/30/2022
Invoice Number
667574294-1
P.O.

Bill To:
BELVEDERE HOA C/O FIRSTSERVICE RESIDENTIAL
NBELZ
PO BOX 32562
CHARLOTTE, NC 28203

Service Location:
Belvedere HOA
17400 Flagler Dr
Austin, TX 78738-7663
Belvedere HOA

Services Provided

Service	Price
Rodent/Wildlife Management - Every-Other	\$90.00
Tax	\$7.43
Balance	\$97.43

Rodent Management Program Provides for ongoing control of rodents in the structure and coverage includes the physical control, trapping, and removal of animals. Sealing all ac lines holes, plumbing lines holes, vents, ridge cap, eaves, soffit vents and metal joints.

Please return this portion with your payment

Remit To
ABC Home & Commercial Services
ATTN: AUSTIN
9475 E Hwy 290
Austin, TX 78724
512-837-9500

www.abchomeandcommercial.com/austin
austin@goanteater.com

Account Number
10511046

Invoice Number
667574294-1

Amount Paid: _____ Check No.: _____

Credit Card No.: _____ CSV Code: _____

Expiration: _____

Signature: _____





Account Number
10511046
Invoice Date
8/29/2022
Invoice Number
667574297-1
P.O.

Service Location:
Belvedere HOA
17400 Flagler Dr
Austin, TX 78738-7663
Belvedere HOA

Bill To:
BELVEDERE HOA C/O FIRSTSERVICE RESIDENTIAL
NBELZ
PO BOX 32562
CHARLOTTE, NC 28203

Services Provided

Service	Price
Commercial Pest Control - Quarterly	\$214.00
Tax	\$17.66
Balance	\$231.66

Quarterly General Pest Control INCLUDES 8 RBS

Please return this portion with your payment

Remit To
ABC Home & Commercial Services
ATTN: AUSTIN
9475 E Hwy 290
Austin, TX 78724
512-837-9500

www.abchomeandcommercial.com/austin
austin@goanteater.com

Account Number
10511046

Invoice Number
667574297-1

Amount Paid: _____ Check No.: _____

Credit Card No.: _____ CSV Code: _____

Expiration: _____

Signature: _____



STEPHEN'S HO Enterprises

11122 West Cave Blvd
Dripping Springs, Texas 78620
Phone: 512-203-2227

Belvedere
Sept 11, 2022

INVOICE 390

Send payment to:
Stephen's Enterprises
11122 West Cave Blvd
Dripping Springs, TX 78620

For:
Belvedere Homeowner Association
Maintenance
Payment is due upon receipt of this
invoice

DESCRIPTION

The following services were completed from Aug 28 – Sept 10

Periodic trash pick-up on Hamilton pool Rd, Streets (HOA)	4hrs
Community, Trails (MUD)	4hrs
Trash (MUD)	3hrs
Wipe down bollards in parking lot (HOA)	1hrs
Power wash pool area and front porch (HOA)	5hrs

(MUD)Labor – 7 @ \$28.00 (Trash ,Trails)	<u>\$196.00</u>
Total (MUD)	\$196.00

Power wash rental	\$ 60.00
(HOA) labor – 10 @ \$28.00	<u>\$280.00</u>
Total (HOA)	\$340.00

GRAND TOTAL \$536.00

Please make checks payable to Stephen's Enterprises and mail to the address above. If you have any questions concerning this invoice, contact Stephen Bigley at 512-203-2227, or e-mail at stephen.bigley@rocketmail.com. Thank you for your prompt payment.



SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 15308
Invoice Date: 09/26/2022

BILL TO **PROPERTY ADDRESS**

Belvedere HOA AAM-372
C/O FirstService Residential - AUSTIN
7 Lakeway Centre Court
Austin, TX 78734

Belvedere HOA AAM-372
17400 Flagler Drive
Austin, TX 78738

Phone: 512.620.7092

INVOICE **TERMS** **ACCOUNT MANAGER**

09/26/2022 Due on Receipt Sedona Knopf

DESCRIPTION **PRICE**

#24108 - Irrigation Repair T&M. Fix broken bubblers by pond	Subtotal:	\$195.31
	Sales Tax (8.25%)	\$0.59
	INVOICE TOTAL:	\$195.90
	Pay This Amount:	\$195.90

TIME

Labor - 09/13/22 (1.98 x \$95.00)
TIME TOTAL \$188.10

MATERIAL

1/2" Fitting (Material) (3.00 x \$2.023)
1/4 Rainbird Barb Connector (Material) (3.00 x \$0.381)
MATERIAL TOTAL \$7.20



Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!

Megan Maedgen

From: Lowe's Home Improvement <do-not-reply@notifications.lowes.com>
Sent: Wednesday, September 7, 2022 4:08 PM
To: Megan Maedgen
Subject: Thanks for Your Order! #898827544

You don't often get email from do-not-reply@notifications.lowes.com. Learn why this is important



We Received Your Order

We'll email you any updates to your order, including information on shipping, delivery or store pickup.

Someone else picking up your order?
Add an alternate pickup person.

CHECK ORDER STATUS

Order # 898827544

Invoice # 74844

Store Pickup



LOWE'S OF BEE CAVE, TX #1948

12611 SUITE 100 SHOPS PKWY
BEE CAVE, TX 78738
(512) 634-4432

Pickup Item(s)

20-volt Max 80-CFM 130-MPH Handheld Cordless Electric Leaf Blower 1.5 Ah (Battery & Charger included)	QTY
	1

Item #: 1048727 | Model #: LSW221

Unit Price \$89.00 | Subtotal \$89.00

Estimated Pickup Date: Tuesday, September 13, 2022



Need help with your in-store pickup?

Give LOWE'S OF BEE CAVE, TX a call at (512) 634-4432

Order Info

Sold To

Mark Greene
(512) 750-8160
megan.maedgen@fsresidential.com

Order #	898827544
Invoice #	74844
Order Date	09/07/2022
Total Savings	\$0.00
Subtotal	\$89.00
Shipping/Delivery	\$0.00
Total Tax	\$7.34
Order Total	\$96.34
Payment	VISA ending in 3771 \$96.34

For more information on when you'll be charged, view our billing policy.

YOU MIGHT ALSO LIKE



★★★★☆201

20-ft Spool 0.065-in Spooled Trimmer Line

Shop Now



★★★★☆15

40-Volt Max 20-in Push Cordless Electric Lawn Mower 2 Ah (Battery and Charger Included)



★★★★☆250

3.6-Volt 6-in Single Cordless Electric Hedge Trimmer (Battery & Charger Included)

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1000 Lowes Boulevard, Mooresville, NC 28117

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LOVE'S HOME CENTERS, LLC
12611 SUITE 100 SHOPS PKWY
BEE CAVE, TX 78738 (512) 634-4432

- SALE -

SALES#: S1946JCS 1639191 TRANS#: 16179692 09-14-22

220796 HH KEY ID TAGS WITH HOLDR 7.18

SUBTOTAL: 7.18
TAX: 0.59
INVOICE 16684 TOTAL: 7.77
VISA: 7.77

VISA:XXXXXXXXXX3771 AMOUNT:7.77 AUTHCD:161289
CHITP REFID:194816176430 09/14/22 13:21:30
CUSTOMER CODE: n

APL: US DEBIT TR: 8060080000
AID: 8060080980840 TSI: 6800

STORE: 1940 TERMINAL: 16 09/14/22 13:21:49

OF ITEMS PURCHASED: 1
EXCLUDES FEES, SERVICES AND SPECIAL ORDER ITEMS



THANK YOU FOR SHOPPING LOVE'S.

FOR DETAILS ON OUR RETURN POLICY, VISIT
LOVES.COM/RETURNS
A WRITTEN COPY OF THE RETURN POLICY IS AVAILABLE
AT OUR CUSTOMER SERVICE DESK

STORE MANAGER: JUSTIN ONTIVEROS

LOVE'S PRICE PROMISE
FOR MORE DETAILS, VISIT LOVES.COM/PRICEPROMISE

* SHARE YOUR FEEDBACK! *
* ENTER FOR A CHANCE TO BE *
* ONE OF FIVE \$500 WINNERS DRAWN MONTHLY! *
* ENTRE EN EL SORTEO MENSUAL *
* PARA SER UNO DE LOS CINCO GANADORES DE \$500! *
* *
* ENTER BY COMPLETING A SHORT SURVEY *
* WITHIN ONE WEEK AT: www.loves.com/survey *
* Y O U R I D N 166847 194852 573887 *
* *
* NO PURCHASE NECESSARY TO ENTER OR WIN. *
* VOID WHERE PROHIBITED. MUST BE 18 OR OLDER TO ENTER. *
* OFFICIAL RULES & WINNERS AT: www.loves.com/survey *

STORE: 1940 TERMINAL: 16 09/14/22 13:21:49



Manuela's Cleaning Services

Residential/Commercial Cleaning

11122 West Cave Blvd
Dripping Springs, Texas 78620
Phone: 512-203-2228

Belvedere

Invoice 120

Send payment to:

For:

Manuela's Cleaning Services
11122 West Cave Blvd
Dripping Springs, TX 78620

Belvedere Amenity Center
Payment is due upon receipt
of this invoice

DESCRIPTION

The following cleaning services were performed at the Amenity Center (MUD) on the following dates:

Sept 3

Sept 10

Sept 17

Sept 24

*Paid acct # 1399
11/14/22*

Labor -4 Days @ 115.00

Totals: \$ 460.00

Please make payments to Manuela's Cleaning Services and mail to the address above. If you have any questions concerning this invoice, contact Manuela Bigley @ 512-203-2228, or e-mail at mlbigley1@yahoo.com. Thank you for your prompt payment.



Manuela's Cleaning Services

Residential/Commercial Cleaning

11122 West Cave Blvd
Dripping Springs, Texas 78620
Phone: 512-203-2228

Belvedere

Invoice 121

Send payment to:

For:

Manuela's Cleaning Services
11122 West Cave Blvd
Dripping Springs, TX 78620

Belvedere Amenity Center
Payment is due upon receipt
of this invoice

DESCRIPTION

The following cleaning services were performed at the Amenity Center (MUD) on the following dates:

Oct 1

Oct 8

Oct 15

Oct 22

Oct 29

*Paul alt #1399
11/14/22*

Labor -5 Days @ 115.00

Totals: \$ 575.00

Please make payments to Manuela's Cleaning Services and mail to the address above. If you have any questions concerning this invoice, contact Manuela Bigley @ 512-203-2228, or e-mail at mbigley1@yahoo.com. Thank you for your prompt payment.



SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 14405
Invoice Date: 07/01/2022

BILL TO

Belvedere Municipal Utility District
C/O Montoya & Monzingo, LLP
P.O. Box 2029
Pflugerville, TX 78691

PROPERTY ADDRESS

Belvedere Municipal Utility District
17400 Flagler Drive
Austin, TX 78738

Phone: 512-251-5668

INVOICE

07/01/2022

TERMS

Due on Receipt

ACCOUNT MANAGER

Greg Alford

DESCRIPTION

#21556 - Trail Maintenance Contract July 2022

PRICE

Subtotal:	\$894.86
Sales Tax (.00%)	\$0.00
INVOICE TOTAL:	\$894.86
Pay This Amount:	\$894.86

*Paid check #1400 10/31/22
Rec'd 11/21/22*

Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!



SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 14683
Invoice Date: 08/01/2022

BILL TO

Belvedere Municipal Utility District
C/O Montoya & Monzingo, LLP
P.O. Box 2029
Pflugerville, TX 78691

Phone: 512-251-5668

PROPERTY ADDRESS

Belvedere Municipal Utility District
17400 Flagler Drive
Austin, TX 78738

INVOICE

08/01/2022

TERMS

Due on Receipt

ACCOUNT MANAGER

Greg Alford

DESCRIPTION

#23450 - Trail Maintenance Contract August 2022

PRICE

Subtotal: \$975.30

Sales Tax (.00%) \$0.00

INVOICE TOTAL: \$975.30

Pay This Amount: \$975.30

Fuel Surcharge

Subtotal: \$975.30

Sales Tax (.00%) \$0.00

INVOICE TOTAL: \$975.30

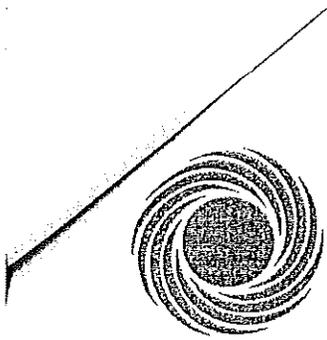
Pay This Amount: \$975.30

*Paid check 14683 10/21/22
Rec'd 11/21/22*

Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!



SUNSCAPE

LANDSCAPING

INVOICE

Invoice: 15107
Invoice Date: 09/01/2022

BILL TO

Belvedere Municipal Utility District
C/O Montoya & Monzingo, LLP
P.O. Box 2029
Pflugerville, TX 78691

PROPERTY ADDRESS

Belvedere Municipal Utility District
17400 Flagler Drive
Austin, TX 78738

Phone: 512-251-5668

INVOICE	TERMS	ACCOUNT MANAGER
---------	-------	-----------------

09/01/2022	Due on Receipt	Greg Alford
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DESCRIPTION	PRICE
-------------	-------

#23747 - Trail Maintenance Contract September 2022	\$1,021.97
Fuel Surcharge	\$38.83

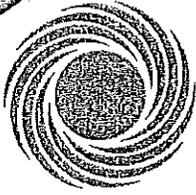
Subtotal: \$1,060.80
Sales Tax (.00%) \$0.00
INVOICE TOTAL: \$1,060.80
Pay This Amount: \$1,060.80

*Paid check 1400 10/31/22
Rec'd 11/21/22*

Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!



SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 15406
Invoice Date: 10/01/2022

BILL TO **PROPERTY ADDRESS**

Belvedere Municipal Utility District
C/O Montoya & Monzingo, LLP
P.O. Box 2029
Pflugerville, TX 78691

Belvedere Municipal Utility District
17400 Flagler Drive
Austin, TX 78738

Phone: 512-251-5668

INVOICE	TERMS	ACCOUNT MANAGER
10/01/2022	Due on Receipt	Greg Alford

DESCRIPTION	PRICE
#23747 - Trail Maintenance Contract October 2022	\$1,021.97

As of 12/1/2022, per the request of Belvedere MUD and Belvedere HOA, the full amount invoiced to MUD and HOA was split 50/50 between MUD and HOA.

Belvedere MUD is paying \$2,497.97 per month for services performed at Belvedere HOA.

Subtotal: \$1,021.97
Sales Tax (.00%) \$0.00
INVOICE TOTAL: \$1,021.97
Pay This Amount: \$1,021.97

Handwritten: Paid ck # 14100 10/31/22
Rec'd 11/2/22

Please use the new remittance address listed below when submitting payment:

Sunscape Landscaping • PO Box 423 • Pflugerville, TX 78660

Thank you for your business!!



October 19, 2022
 Invoice Number: 0023313101922
 Account Number: 8260 16 101 0023313
 Security Code: 4931
 Service At: 17400 FLAGLER DR
 AUSTIN TX 78738-7663

Auto Pay Notice

Contact Us
 Visit us at SpectrumBusiness.net
 Or, call us at 1-866-519-1263

NEWS AND INFORMATION

NEW! We just increased our starting speeds to 300 Mbps. Call 1-866-634-1154 to find out how your business can benefit from faster internet speeds for the same great price!

Call 1-877-787-1657 to get the best mobile service at the best price for your business. Ask how you can save up to 60% on two mobile lines!



Summary *Service from 10/19/22 through 11/18/22 details on following pages*

Previous Balance	106.54
Payments Received -Thank You!	-106.54
Remaining Balance	\$0.00
Spectrum Business™ TV	84.98
Other Charges	21.00
Taxes, Fees and Charges	0.56
Current Charges	\$106.54
<i>YOUR AUTO PAY WILL BE PROCESSED 11/06/22</i>	
Total Due by Auto Pay	\$106.54

Thank you for choosing Spectrum Business.
 We appreciate your prompt payment and value you as a customer.

Auto Pay. Thank you for signing up for auto pay. Please note your payment may be drafted and posted to your Spectrum Business account the day after your transaction is scheduled to be processed by your bank.

*Rec'd 10/21/22
 Paid EFT 11/6/22*



4145 S. FALKENBURG RD RIVERVIEW FL 33578-8652
 8260 1600 NO RP 19 10202022 NNNNNNNN 01 987852

BELVEDERE HOA
 PO BOX 2029
 PFLUGERVILLE TX 78691-2029

October 19, 2022

BELVEDERE HOA

Invoice Number: 0023313101922
 Account Number: 8260 16 101 0023313
 Service At: 17400 FLAGLER DR
 AUSTIN TX 78738-7663

Total Due by Auto Pay \$106.54

CHARTER COMMUNICATIONS
 PO BOX 60074
 CITY OF INDUSTRY CA 91716-0074

826016101002331300106542



BELVEDERE MUD
PO BOX 2029
PFLUGERVILLE TX 78691-2029

Page: 1 of 3
Issue Date: Oct 22, 2022
Account Number: 312935378

We've updated your Service Agreement terms, including the arbitration clause, effective 12/1/22. By continuing to use our services, you agree. (See att.com/CSA and end of bill).

Want to stop receiving paper bills and enjoy the convenience of paperless billing? Enroll at att.com/paperless

Managing your AT&T bills, products, and services on the go? It's a snap with myAT&T. Go to att.com/myatt to sign in or sign up.



Account summary

Your last bill	\$137.94
Payment, Oct 14 - Thank you!	-\$137.94
Remaining balance	\$0.00

Service summary

Internet <i>Page 2</i>	\$69.89
Phone <i>Page 2</i>	\$66.66
Total services	\$136.55

Total due \$136.55
AutoPay is scheduled to debit your bank account on Nov 13, 2022

*Rec'd 10/21/22
Paid EFT 11/13/22*

Ways to pay and manage your account:

myAT&T app
iPhone and Android

att.com/pay

Ordering, billing or support
800.321.2000
TTY: 800.651.5111



BELVEDERE MUD
PO BOX 2029
PFLUGERVILLE TX 78691-2029

AutoPay of \$136.55 is scheduled for
Nov 13, 2022
Account number: 312935378

AT&T
PO BOX 5014
CAROL STREAM, IL 60197-5014

410040330003129353780000000013794000000013655000007



Manuela's Cleaning Services
Residential/Commercial Cleaning

11122 West Cave Blvd
Dripping Springs, Texas 78620
Phone: 512-203-2228

Belvedere

Invoice 122

Send payment to:

For:

Manuela's Cleaning Services
11122 West Cave Blvd
Dripping Springs, TX 78620

Belvedere Amenity Center
Payment is due upon receipt
of this invoice

DESCRIPTION

The following cleaning services were performed at the Amenity Center (MUD) on the following dates:

Nov 5

Nov 12

Nov 19

Nov 26

Labor -4 Days @ 115.00

Totals: \$ 460.00

Please make payments to Manuela's Cleaning Services and mail to the address above. If you have any questions concerning this invoice, contact Manuela Bigley @ 512-203-2228, or e-mail at mlbigley1@yahoo.com. Thank you for your prompt payment.

Rec'd 12/7/22
Paid ck #1401 12/14/22

NNNN



Questions? Call 888-554-4732
Monday through Friday, 8 a.m. - 5:30 p.m.
Report an outage: 888-883-3379
pec.coop Se habla Español

Member-owned since 1938
Not-for-profit

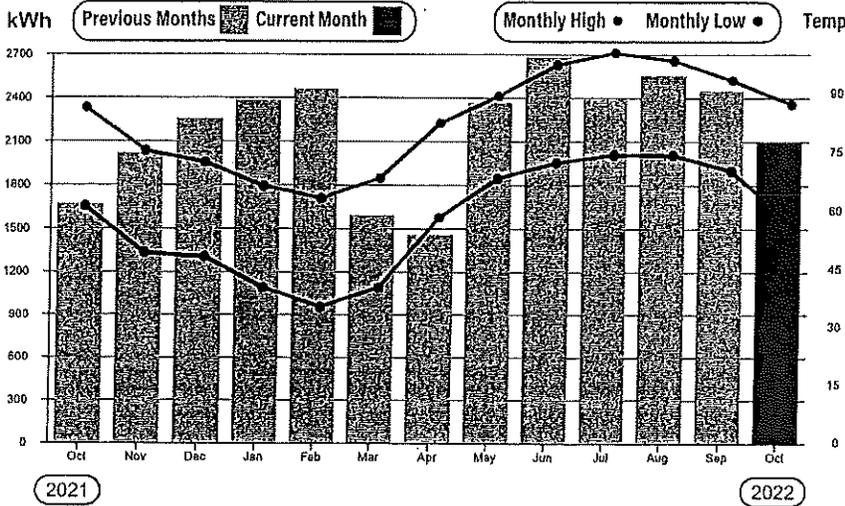
AUTOPAY AMOUNT
\$245.56
 Paid By Bank Draft
 11/18/2022

Account #: 3000095631
Member Name: BELVEDERE HOMEOWNERS ASSOCIATION
Director District: 5
Bill Date: 10/28/2022

Service Address: 17400 FLAGLER DRIVE

This bill does not reflect payments after 10/28/2022.
Charge detail found on the back of this page.

Monthly energy use



Energy comparison

Total energy use this month 2,096 kWh \$226.84	Total energy use last month 2,449 kWh \$258.73
Total energy use this month last year 1,672 kWh \$183.02	Average daily use and temp this month 70 kWh/Day 72°

IMPORTANT MEMBER INFORMATION

The Transmission Cost of Service (TCOS) Pass-Through Charge, which is reevaluated twice per year, will remain unchanged this period. It recovers transmission access charges set by the Public Utility Commission of Texas and is passed through directly to members. Learn more at pec.coop/TCOS.

Paid EFT 11/19/22

KEEP THIS STATEMENT FOR YOUR RECORDS
PLEASE DETACH AND RETURN BOTTOM PORTION WITH YOUR PAYMENT - WHEN PAYING IN PERSON BRING ENTIRE STATEMENT



Pedernales Electric Cooperative
PO Box 1 • Johnson City, TX 78636

Bill Date: 10/28/2022
Account #: 3000095631
AutoPay Amount - DO NOT PAY: \$245.56
Bank Draft on 11/18/2022

Check this box to opt in to PEC Power of Change!

One time donation Recurring donation

Kiosk barcode



Mail payment to:

Pedernales Electric Cooperative, Inc.
PO Box 1
Johnson City, TX 78636-0001

BELVEDERE HOMEOWNERS ASSOCIATION
PO BOX 2029
PFLUGERVILLE TX 78691-2029

4 692



460763000095631000024556000026824102820220



SUNSCAPE
LANDSCAPING

INVOICE

Invoice: 14463
Invoice Date: 06/30/2022

BILL TO **PROPERTY ADDRESS**

Belvedere Municipal Utility District
C/O Montoya & Monzingo, LLP
P.O. Box 2029
Pflugerville, TX 78691

Belvedere Municipal Utility District
17400 Flagler Drive
Austin, TX 78738

Phone: 512-251-5668

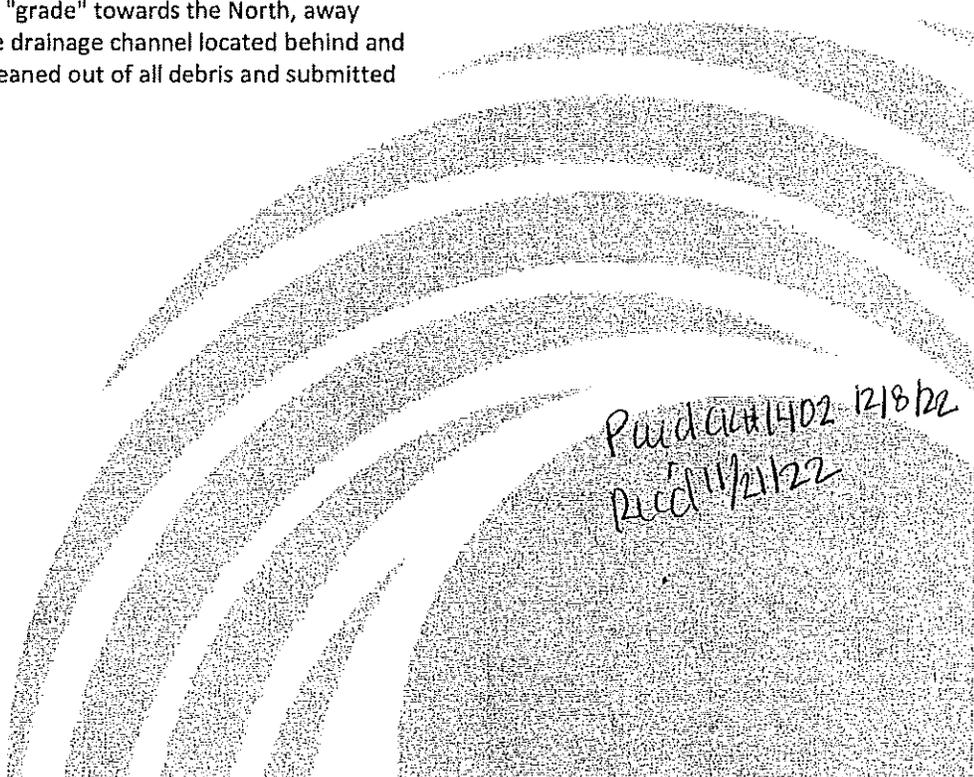
INVOICE **TERMS** **ACCOUNT MANAGER**

06/30/2022 Due on Receipt Greg Alford

DESCRIPTION **PRICE**

#21852 - Service Road Repair / Belvedere MUD	Subtotal:	\$11,628.47
	Sales Tax (.00%)	\$0.00
	INVOICE TOTAL:	\$11,628.47
	Pay This Amount:	\$11,628.47

SunScape Landscaping proposes to install a swale along the south side of the service road. The swale will run the full length of the road, from Lakewood Ridge down to the exiting/existing culvert by the pool fence. Erosion fabric will be laid before the Blackstar Gravel is placed to create the swale. In addition; concrete catch swells will be constructed on the playground side to help push the flow through 8" corrugated galvanized drain pipe under the road to the drainage channel. Upon completion, the road will be scraped with the a slight "grade" towards the North, away from the playground. In addition; the drainage channel located behind and to the side of the pool area will be cleaned out of all debris and submitted buildup.



*Paid with 1402 12/8/22
Rec'd 11/21/22*



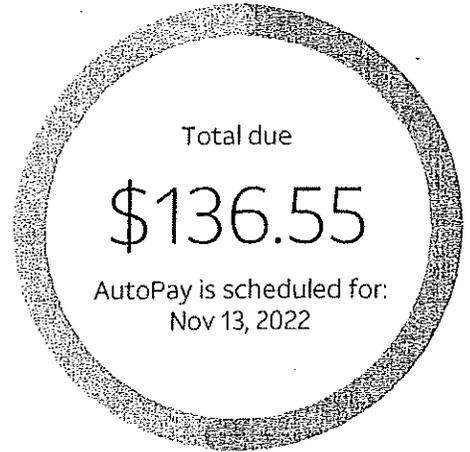
BELVEDERE MUD
 PO BOX 2029
 PFLUGERVILLE TX 78691-2029

Page: 1 of 3
 Issue Date: Oct 22, 2022
 Account Number: 312935378

We've updated your Service Agreement terms, including the arbitration clause, effective 12/1/22. By continuing to use our services, you agree. (See att.com/CSA and end of bill).

Want to stop receiving paper bills and enjoy the convenience of paperless billing? Enroll at att.com/paperless

Managing your AT&T bills, products, and services on the go? It's a snap with myAT&T. Go to att.com/myatt to sign in or sign up.



Account summary

Your last bill	\$137.94
Payment, Oct 14 - Thank you!	-\$137.94
Remaining balance	\$0.00

Service summary

Internet	<i>Page 2</i>	\$69.89
Phone	<i>Page 2</i>	\$66.66
Total services		\$136.55

*Rec'd 10/31/22
 Paid EFT 11/13/22*

Total due **\$136.55**

AutoPay is scheduled to debit your bank account on Nov 13, 2022

Ways to pay and manage your account:

myAT&T app
 iPhone and Android

att.com/pay

Ordering, billing or support
800.321.2000
 TTY: 800.651.5111



Questions? Call 888-554-4732
 Monday through Friday, 8 a.m. – 5:30 p.m.
 Report an outage: 888-883-3379
 pec.coop Se habla Español

Member-owned since 1938
 nonprofit

Account #: 3001549599
 Member Name: BELVEDERE MUD
 Director District: 5
 Bill Date: 11/29/2022

AUTOPAY AMOUNT

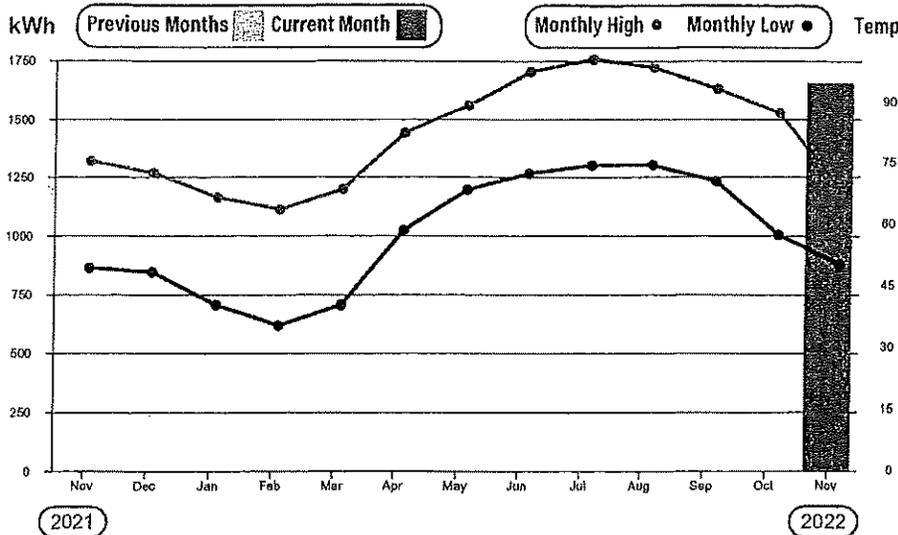
\$240.65

Paid By Bank Draft
 12/18/2022

Service Address: 17400 FLAGLER DRIVE

This bill does not reflect payments after 11/29/2022.
 Charge detail found on the back of this page.

Monthly energy use



Energy comparison

Total energy use this month 1,659 kWh \$176.12	Total energy use last month 0 kWh \$.00
Total energy use this month last year 0 kWh \$.00	Average daily use and temp this month 79 kWh/Day 59°

IMPORTANT MEMBER INFORMATION

Pay your bill your way! PEC offers a variety of payment options to meet the needs of any member. You can even save every month with paperless, automatic payments. Learn more at pec.coop/pay.

*Paid EFT 12/18/22
 Rec'd 12/7/22*

KEEP THIS STATEMENT FOR YOUR RECORDS
 PLEASE DETACH AND RETURN BOTTOM PORTION WITH YOUR PAYMENT - WHEN PAYING IN PERSON BRING ENTIRE STATEMENT



Pedernales Electric Cooperative
 PO Box 1 • Johnson City, TX 78636

Bill Date: 11/29/2022
 Account #: 3001549599
 AutoPay Amount - DO NOT PAY: \$240.65
 Bank Draft on 12/18/2022

Check this box to opt in to PEC Power of Change!

One time donation Recurring donation _____



Mail payment to:
 Pedernales Electric Cooperative, Inc.
 PO Box 1 18
 Johnson City, TX 78636-0001

7735 1 AB 0.491
 BELVEDERE MUD
 PO BOX 2029
 PFLUGERVILLE TX 78691-2029

5 7735
 C-29



460763001549599000024065000025826112920225

TRAVIS CENTRAL APPRAISAL DISTRICT

850 E. Anderson Lane
 P.O. Box 149012
 Austin, TX 78714

	Invoice Date	Invoice Number
Invoice	12/14/2022	8014

Belvedere MUD
 P.O. Box 2029
 Pflugerville, TX 78691

Jurisdiction ID: 1K

You may remit via ACH to Wells Fargo Bank, N.A.,
 account #7556188477, ABA #111900659. Please send
 ACH remittance information to Lmann@tcadcentral.org.

To submit via wire, please contact the Finance
 Department.

Invoice Date	Charge Code	Description	Amount
12/1/2022	Appraisal Revenue	Appraisal Fees	\$754.29

Due Date: 1/13/2023

Total:

\$754.29

8014

12/14/2022

Invoice Date	Charge Code	Description	Amount
12/1/2022	Appraisal Revenue	Appraisal Fees	\$754.29

1K

Belvedere MUD

Total Due:

\$754.29

Due Date:

1/13/2023

Amount Remitted:

Please remit payment at your earliest convenience. Should you have
 any questions, please contact Leana H. Mann at (512)834-9317 Ext.
 405 or by e-mail at Lmann@tcadcentral.org.

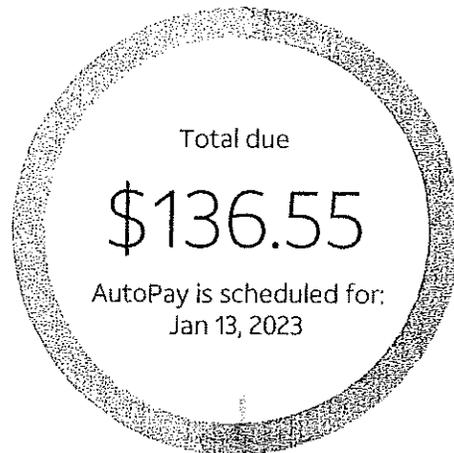


BELVEDERE MUD
PO BOX 2029
PFLUGERVILLE TX 78691-2029

Page: 1 of 3
Issue Date: Dec 22, 2022
Account Number: 312935378

Want to stop receiving paper bills and enjoy the convenience of paperless billing? Enroll at att.com/paperless

Managing your AT&T bills, products, and services on the go? It's a snap with myAT&T. Go to att.com/myatt to sign in or sign up.



Account summary

Your last bill	\$136.55
Payment, Dec 14 - Thank you!	-\$136.55
Remaining balance	\$0.00

Service summary

Internet	Page 2	\$69.89
Phone	Page 2	\$66.66
Total services		\$136.55

Rec'd 12/20/22
Paid EFT 1/13/23

Total due \$136.55

AutoPay is scheduled to debit your bank account on Jan 13, 2023

Ways to pay and manage your account:



Property Tax Statement

TXDIST1A	RECEIVABLE BALANCE 'R' REPORT	TXADJ	TAX ADJ	BASE TAX COLLECTED	NET BASE TAX COLLECTED	PERCENT COLLECTED	ENDING TAX BALANCE	P & I COLLECTED	P & I REVERSALS	LRP OTHER PENALTY COLLECTED	TOTAL DISTRIBUTED
UIK	-- BELVEDERE MUD										
2006	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2007	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2008	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2009	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2010	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2011	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2012	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2013	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2014	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2015	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2016	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2017	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2018	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2019	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2020	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2021	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.60	.00	.00	.00	.00	.00	.60	.00	.00	.00	.60

2022	715052.57	2464.02-	252368.67	252368.67	35.42	460219.88	.00	.00	.00	.00	252368.67
ENTITY											
TOTAL	715053.17	2464.02-	252368.67	252368.67	35.42	460220.48	.00	.00	.00	.00	252368.67

Outstanding property tax receivable

Debt Service

Operating

2016 = .31
 2022 = 299,925.30
299,925.61

2016 = .29
 2022 = 160,294.58
160,294.87

Current tax rate
 Operating: .0775
 Debt Service: .1415
total: .2225

12

Proposal for First Service Residential TX Playground Safety Audit

August 26, 2022

MEGAN MAEDGEN, CMCA, Belvedere General Manager
17400 Flagler Drive | Austin, TX 78738
Direct 512.264.0560 Email megan.maedgen@fsresidential.com www.fsresidential.com

Good afternoon Megan,

Thank you for your request of services PlaySafe, LLC can provide. The following is a partial list of services we can provide and the associated costs. We look forward to working with you on your efforts.

Playground Safety Audit

PlaySafe, LLC will conduct an inventory and audit of the playground equipment, surfacing, and installation of that equipment at: 17400 Flagler Drive, Austin TX 78738. ASTM/CPSC requirements that would require the disassembling or alternating of the equipment/footings (for example Structural Integrity and Stability and Swing Impact Testing) are not tested. A team of National Parks and Recreation Certified Playground Safety Inspectors will conduct the audit. We will produce an inventory of the equipment and conduct an audit of the equipment to determine compliance with the ASTM F1487-21, the ADA, & CPSC 325 (excluding preschool). PlaySafe, LLC has purchased, and our staff has trained with, an ASTM F1292/F3313 Standards Committee approved Free Fall Surface Testing System. This testing system enables PlaySafe, LLC to examine your surfacing on site to detect whether it complies with the ASTM F1292/F3313.

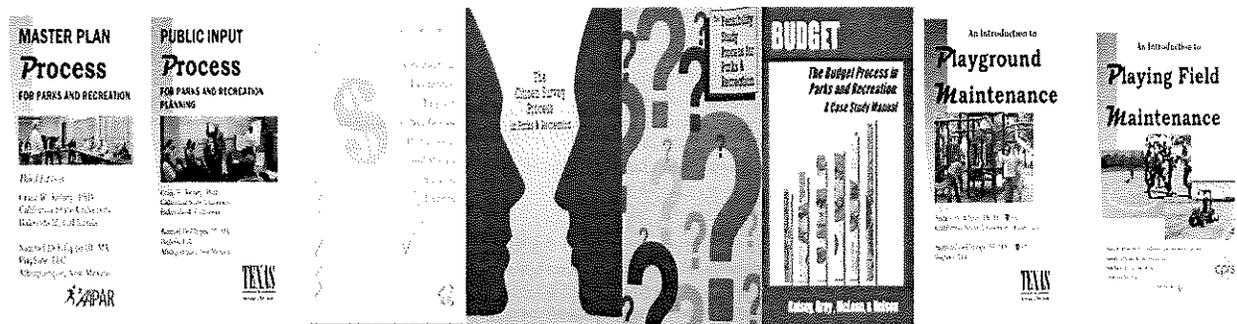
Cost: \$1700. Please add an additional \$85.00 if using a credit card.

PlaySafe, LLC staff members have dedicated our professional and personal lives to enhancing the lives of children. We have presented a unique and thorough auditing program proposal that has worked for communities (such as: Phoenix AZ, Dallas TX, and San Francisco CA) and school districts (for example: El Paso TX ISD, Los Angeles CA, Albuquerque NM, and Broward County FL) for over 25 years. All audits will be conducted by a team of inspectors (we have 4 CPSI Inspectors). Our promise to you is that we will dedicate all of our resources to complete your safety audits on time and in detail! PlaySafe, LLC has been inspecting playgrounds since 1997 (25 years). PlaySafe, LLC staff have been playground inspectors for the following amount of time; Butch DeFillippo (28 years), Chris Orlando (19 years), Dr. Nancy White (17 years), & Cherie DeFillippo (16 years).

Sincerely,

Sam DeFillippo

Sam "Butch" DeFillippo, MA, CPRP, NRPA Certified Playground Safety Inspector (CPSI),
Managing Partner



Examples of the books written by PlaySafe, LLC staff on issues such as Master Plans, Economic Impact Studies, Feasibility Study Process, & Citizen Surveys for the National Recreation & Parks Association, the American Association of Leisure & Recreation, & the American Alliance for Health, Physical Education, Recreation & Dance

General Information:

PlaySafe, LLC payment terms are 30 days or a 1.5-% late fee will be charged. If there are any additional costs for business for a project, it will be necessary to add them to this quote. Pricing is available for calendar year 2022/2023.

PlaySafe, LLC has Professional Liability, Worker’s Compensation, General Liability, and Auto Liability Insurances.

We have attached copies of our inspection document for review purposes only. Please understand that they are copyrighted and permission has not been provided for their use.

Names and qualifications of PlaySafe, LLC team members that can be assigned to this project:

Sam (Butch) DeFillippo: Managing Partner/Inspector



Butch has 35+ years of experience in the parks and recreation field. He holds both a BA and MA degree in Parks and Recreation Administration. He has qualified for the following certifications: NRPA Certified Playground Safety Inspector (CPSI), National Recreation and Parks Association Certified Parks and Recreation Professional (CPRP), Stranco Public Pool Operator Certification, TRIAX 2000/2010 Surface Impact Tester (ASTM F1292/F3313 compliant), and a NPCAI Recreation Installation Specialist. He serves as a legal expert witness, an advisor to numerous national organizations and committees, a consultant to hundreds of government agencies, non-profit organizations and to the private sector. Butch is quoted frequently in the profession’s national publications.

Cherie DeFillippo: Business Manager/Managing Member/Inspector



Cherie has a Bachelor of Arts in Community Health and has an extensive background working in the recreation field. Cherie has worked for City Parks and Recreation Departments, Paradise Hills Country Club, and local childcare facilities. Cherie has more than 30 years working with children and as the owner of her own business has successfully managed an office for 20 years. Cherie is a NRPA Certified Playground Safety Inspector and she passed the training program for the TRIAX 2000/2010 Surface Impact Tester in compliance with the ASTM F1292/F3313, and a NPCAI Recreation Installation Specialist.

Chris Orlando: Production Coordinator/Inspector



Chris has 28+ years' experience in parks and recreation and government agency work. He is trained in the parks and recreation field and is certified as a NRPA Playground Safety Inspector (CPSI) as well as TRIAX 2000/2010 Surface Impact Tester (ASTM F1292/F3313 compliant). He is an expert on parks, recreation, sport, aquatic and facility computer simulations and design work and provides PlaySafe, LLC with final product documents, reports, concept plans and design elements and is a NPCAI Recreation Installation Specialist

Dr. Nancy White: Special Projects-Planning Services/Inspector



Nancy has 35+ years' experience in the parks and recreation field. She holds a BA, MA and PhD degrees in Parks and Recreation as well as a MPA degree in Public Administration. She is a National Recreation and Parks Association Certified Parks and Recreation Professional (CPRP). Dr. White is an expert on risk management prevention in the parks and recreation field as well as in aquatics. She is a consultant from PlaySafe, LLC to hundreds of agencies and is sought after as a frequent presenter of workshops in the parks and recreation risk management field. Dr. White is a NRPA Certified Playground Safety Inspector and has passed the training program for the TRIAX 2000/2010 Surface Impact Tester in compliance with the ASTM F1292/F3313.

Jimmy DeFillippo: Inspector

Jim worked as a municipal Deputy Chief, Fire Station Captain, Emergency Medical Services Division Captain, Captain of EMS Training, Fire Fighter/Paramedic, and Fire Fighter/EMT for over 19 years. Jim has passed the training program for the TRIAX 2000/2010 Surface Impact Tester in compliance with the ASTM F1292/F3313

S. Christopher DeFillippo Esq.: Inspector

Chris has a Juris Doctor degree and a B.A in Politics and Government and has coached youth sports, Chris has passed the training program for the TRIAX 2000/2010 Surface Impact Tester in compliance with the ASTM F1292/F3313.

Terry Boning Inspector

Terry is a retired Elementary Physical Education Teacher with more than 25 years working for public schools. Terry has a Bachelor of Science in Physical Education and Health. He worked for a city Parks and Recreation Department for several years (two of them as the director of the summer recreation program a middle school) and was the director of a country club swimming pool. Terry has passed the training program for the TRIAX 2000/2010 Surface Impact Tester in compliance with the ASTM F1292/F3313.

Dr. Craig Kelsey: Team Leader-Planning Services/Inspector

Craig has 40+ years experience in the parks and recreation planning field. He holds a BS, MS and PhD degrees in Parks, Recreation and Environmental planning. He has been the lead on hundreds of parks and recreation planning studies for PlaySafe, LLC and is noted for his development of the Q-SORT focus group citizen involvement model and the ENVIROPLAN community planning approach. Dr. Kelsey is the author of professional research and application articles found in the professional literature as well as textbooks used both by planning specialists and university courses. He is the author of *The Parks and Recreation Master Plan Process*, the most quoted text in the field. Dr. Kelsey has passed the training program for the TRIAX 2000/2010 Surface Impact Tester in compliance with the ASTM F1292/F3313.

Mary Boning Inspector

Mary earned her Bachelor of Science in Nursing and Master of Arts in Adult Education. Mary worked in the health care industry for over 38 years. Mary has been a nurse, coordinated education programs, and the director of hospital departments. Mary has passed the training program for the TRIAX 2000/2010 Surface Impact Tester in compliance with the ASTM F1292/F3313.

Brian Cox: CAD Drafter/Inspector

Brian is the CAD and 3D graphic artist for PlaySafe, LLC. He holds a BA degree in Architecture and is an expert in AutoCAD, 3D Studio, VIZ and other architecture, design and simulation programs. He is TRIAX 2000/2010 Surface Impact Tester trained (ASTM F1292/F3313 complaint) and assists Chris with parks, recreation, sport, aquatic and facility computer simulations and design work.

Dr. Todd Seilder: Special Projects-Planning Services

Todd has 20+ years experience in the sports management and planning field. He holds a BS, MS and PhD in Physical Education and Sports Administration. He is the Past President of the Sport and Recreation Law Association (SRLA) and has also served as its Executive Director. Dr. Seilder is an expert on risk management, injury prevention, legal issues and sport and recreation facility planning and management. He is the co author of the most widely used text in the physical education and sport facility planning field. With PlaySafe, LLC he is a widely sought-after workshop presenter and planning consultant.

Clientele

PlaySafe, LLC has conducted services for the following agencies. Please feel free to contact any of our clients:

Attorneys

*Davis W. Smith Attorney at Law TX*Tribler, Orpett & Meyer P.C IL*Ferguson Firm Attorneys at Law TX*Eaton, Martinez & Hart Attorneys at Law NM* Plattner Verderame, PC AZ* Zachar Law Firm AZ* Narvaez Law Firm NM* Mickey Barnett Law Offices NM* Robert G. Marcotte - Attorney at Law NM* Matthew L Riggs, At Law AZ* Breyer Law Offices AZ* Low, Ball & Lynch CA* Thomas, Thomas, & Hafer PA*The Law Office of Frederick W Nessler IL* Davis Rothwell Earle & Xóchihua WA*Kip and Christian PC UT*Hogan & Chapman, P.L. FL* Hinshaw & Clubertson, LLP MA*

Cities, Counties, Other Government Agencies

*City of New Orleans LA*County of Los Angeles CA*City of Bakersfield CA*City of Gallup NM*City of Phoenix AZ*City of Dallas TX*City of Plano TX*Town of San Anselmo CA*City of Flagstaff AZ*San Bernardino County CA*Wheaton Park District IL*City of Cupertino CA*City of Springfield IL*City of Burbank, CA* Incline Village General Improvement District NV*City of Peoria AZ*City of Loma Linda CA*Walla Walla County Department of Community Health*City of San Diego CA*Bernalillo County NM*Bolingbrook Park District IL*City of Clovis NM*Metro Parks Tacoma WA*City of Rio Rancho NM*Cooperative Educational Services NM*Village of Corrales NM*City of Agoura Hill CA*City of Bell Gardens CA*Pima County AZ*Fairplex County Los Angeles CA*Winnetka Park District IL*City of Glendora CA*City of Indio CA*Jurupa Area Recreation and Park District CA*City of Ankeny IA*City of Ojai CA*City of Foley AL*City of San Fernando CA*City of San Gabriel CA*City of South El Monte CA*City of Temecula CA*City of Temple City CA*City of Westlake Village CA*Civil Service Commission Pueblo CO*County of San Bernardino CA*City of Santa Fe NM*Gurnee Park District IL*City of Santa Clarita CA*

Playground Equipment and Surfacing Representatives and Companies

*Triple M AZ, NM, CA, CO*Miracle Playgrounds AZ CA*Churchich Recreation LLC, CO, NM*Play! NM*Exerplay Incorporated AZ, CA, NM TX*PlayWell TX, NM*GameTime AL*Pyramide USA, Inc MD*Detailed Play Systems NJ*Brewer's Ledge, Inc MA*Great Western WY*Recreation Consultants of Texas TX*Robertson Industries Inc AZ, CA, NM*Child Safe Products, Inc, AZ, FL, NY*Cre8ate Play CA MN, NJ, NM, PA, TX*Carpathian Industries NJ*IPEMA PA*Superior GA*Pebble-Flex, LLC NJ*PlayMart INC Playgrounds KY*Little Tikes Commercial MO*The Fibar Group, LLC NY*

Military Facilities

Fort Bliss TX* Fort Hood, TX*White Sands Missile Range NM*Kirtland Air Force Base NM*Red River Army Depot TX* Camp Pendleton CA*Harlingen Air Force Base TX

Homeowners Associations/Property Management

Ascot Home Owners Association CA*Carden Arbor View Schools CA*Assistance League of Antelope Valley CA*Compass Management Group CA*Coyote Creek Home Owners Association CA*Expressions Home Owners Association CA*Fairway Crest Home Owners Association CA*Concord Capital Assets CA*New Horizons Home Owner's Association CA*Santa Elena Home Owners Association CA*Santa Teresa Home Owners Association CA*Summerfield Home Owners Association CA*Harvard Square Maintenance Association CA*Terraces Home Owners Association CA*Village Grove Home Owners Association CA*Vintage Hills PCA CA*Vistara Home Owners Association CA*Condominium Management Services CA*New Horizons Homeowners Association CA*Keystone Pacific Property Management Incorporated CA*Glendora Springs Home Owners Association CA*Home Garden Home Owners Association CA*Mountain View Park Home Owners Association CA*Warren Properties NM* Fairway Crest Home Owners Association CA* Warren Properties NM*Walters Management Company*Carmel Mountain Ranch HOA*Zia Apartment Management NM*Sunrise Apartments NM

Schools/Childcares

Los Angeles Unified School District CA*El Paso Independent School District TX*Chicago Public Schools IL*Campbell Hall School CA*Garland Independent School District TX*Chadwick School CA*Chapter One/Kid's Corner CA*Crane School CA*Fresno Christian Schools CA*Alamogordo Public Schools NM*Good Samaritan Hospital CA*Bernalillo Public Schools NM*Santa Fe Public Schools NM*La Mesa United Methodist Children Center CA*Montessori Center School of Santa Barbara CA*San Francisco School CA*St. David's Private School CA*Holy Ghost Catholic School NM* North Side Christian Early Childhood Development Center CA*Pacifica Co-Op Nursery School CA*Peninsula Heritage Preschool CA*Grace Baptist Church CA*St. Peters Episcopal Church & Preschool CA* Los Lunas Public Schools NM*Trinity Lutheran Preschool and Church CA*Sonshe Factory CA*Clovis Municipal Schools NM*Pilgrim Children Center CA*Frisco Independent School District TX*McKinney Independent School District TX*Valley Beth Shalom Nursery School CA*Fullerton School District CA*Santa Fe Kids Company CA*Kids Town CA*NW YMCA Pima County AZ*Montessori Academy CA*The Broadoaks Children's School of Whittier College CA*Alamogordo Public Schools, NM*St. Luke Lutheran Preschool & Kindergarten NM*Auraria Higher Education Center Early Learning Center CO*Mesilla Valley Christian Schools NM*LA Mission College Child Development Center CA*Dallas Independent School District TX*Catholic Charities of the Archdiocese of Newark NJ*Socorro Independent School District TX New Mexico School for the Visually Handicapped*University of New Mexico*Nova Southeastern University FL*USAA AZ CO FL TX

Installation Companies

Jon Del Construction CA*Geoscene Construction Incorporated CA*Castello Incorporated CA*Henneberger Construction TX*Hansen & Prezzano Builders, LLC NM, CA*Banes General Contractors TX*West Point Contractors AZ* Gordon Construction NM* Silverton Construction TX* NLR Builders TX*The Sambrano Corp TX* Centex Homes CA*Doose Landscape Inc CA*GN Construction TX*Court Concepts Inc CA* The Hilltop NM*Highland Enterprises NM*Baca Trees NM*Southwest Parks & Playgrounds TX*DanTex Construction TX*Southwest Growth TX*Canaday & Company CA*Smith & Butler Construction Inc CA* FT James Construction TX*Jan Car Construction TX*Blair Hall Company TX*Hunt Building Company CA, TX*Longford Group, Inc., NV, NM

Other Agencies

Fuller Theological Seminary CA*Presbyterian Ear Institute NM*Portuguese Bend Beach Club CA*El Paso Rehabilitation Center TX*Chapman Companies NM*New Mexico Department of Energy*Eldorado Community Improvement Association NM*City of La Palma CA*MBA Interior Architecture NM*California Joint Powers Insurance Authority*Facility Management NM*Stagecoach Stop RV Park NM*National Recreation and Park Association Western Service Center CO*Barnabas, Kane & Associates Landscape Architects, AZ*Tierra Verde Industries CA*McGann & Associates Inc AZ*Darla Schleyer Interiors NM*City of West Hollywood CA*Desert Recreation District CA*Amazement Square Children's Museum, VA*Indian Health Services NM, AZ, MT, OR, OK*San Francisco Giants*San Diego Zoo CA*Chicago Park District IL*Tacoma Parks WA*McDonalds IL*U.S. Consumer Products Commission



PlaySafe, LLC is the 1st Associate Member of IPEMA

The following chart is intended to be a brief summary of PlaySafe, LLC staff's experience in the parks, recreation, and education planning field.

PROJECT	AGENCY
Parks and Recreation Master Plan	City of Gallup, NM
Parks and Recreation Master Plan	Beaumont-Cherry Valley Recreation and Park District, CA
Summer Camp/Recreation Program Marketing Study	Belvedere-Tiburon Recreation Department, CA
Parks and Recreation Master Plan	Cathedral City, CA
Parks and Recreation Master Plan	Town of San Anselmo, CA
Parks and Recreation Master Plan	City of North Logan, UT
System Wide Park Plan	City of Bakersfield, CA
Athletics Planning Study	City of Plano, TX
System Wide Park Plan	Coachella Valley Rec & Park Dist., CA
Parks and Recreation Master Plan	City of South Jordan, UT
Parks and Recreation Master Plan	City of Clovis, NM
Parks and Recreation Master Plan	City of Bakersfield, CA
National Study of the Commercial Playground Industry	UBS Capital New York, NY
Parks and Recreation Master Plan	City of Coachella, CA
Parks and Recreation Master Plan	Cache County, UT
Parks and Recreation Master Plan	City of Foley, AL
Senior Games Economic Impact Study	Palm Desert, CA
Elementary School Physical Education Curriculum Development Study	Santa Fe Public Schools, NM
Survey of Community Residents	City of Rio Rancho, NM
Parks and Recreation Master Plan	Coachella Valley Recreation & Park District, CA
Economic Impact Study	International Balloon Fiesta
Parks and Recreation Master Plan	City of Santa Fe, NM
Assessment of Citizen Perspectives	State of New Mexico
Regional Softball Economic Impact Study	City of Clinton, UT
Parks and Recreation Master Plan	City of Rio Rancho, NM
SCORP	State of New Mexico
Parks and Recreation Master Plan	Bernalillo County, NM

PROJECT	AGENCY
Private Sector Recreation Study	State of New Mexico
Parks and Recreation Master Plan	City of Hyrum, UT
Economic Impact Study Junior Olympics	City of Mission Viejo, CA
Parks and Recreation Master Plan	City of Smithfield, UT
Parks and Recreation Master Plan	City of Logan, UT
Economic Impact Study Master's Swimming	City of Mission Viejo, CA
Parks and Recreation Master Plan	City of Ogden, UT
Economic Impact Study	New Mexico State Fair
Parks and Recreation Master Plan	City of Moab, UT

Awards and Accomplishments

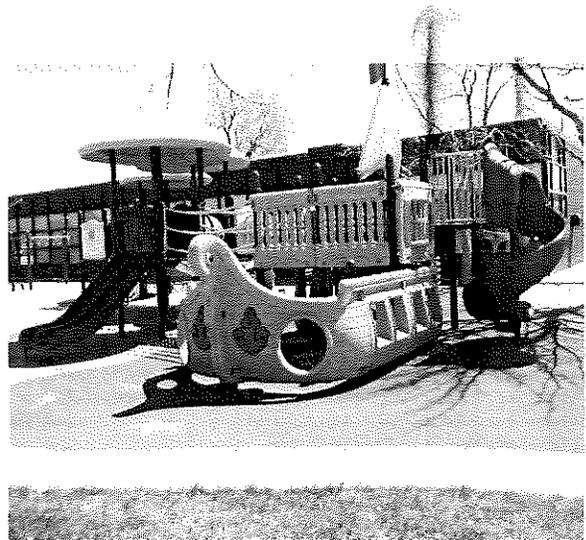
During their professional careers, PlaySafe, LLC staff members have been awarded or have achieved numerous accomplishments. They include (but are not limited to):

- Presenting at hundreds of national (for example; National Recreation and Parks Association Congress, NRPA - National Executive Development School), regional (such as; NRPA Southwest and Midwest), and state conferences (such as; American Society of Safety Engineers Annual Health & Safety, New Mexico Recreation & Park Association, California Park & Recreation Society, Cooperative Educational Services and Business Community Representatives, Arizona Parks and Recreation Association, California Joint Powers Insurance Authority, New Mexico Association of Health, PE, Recreation and Dance, Texas Recreation and Parks Society, Utah Recreation and Park Association, Texas Parks & Wildlife Associations, Texas Head Start Association)
- Member and Chair of the NRPA Certified Playground Safety Inspector Exam Review Committee, Members of: NRPA Advisory Board, National Executive Development School Advisory Board, National Risk Management & Safety School Planning Committee, and CPSI Playground Maintenance Service Course's Curriculum Task Force, Member of the International Playground Equipment Manufacturer Association Safety School
- Contributing as an interviewee for the Center for Injury Research and Policy at John Hopkins
- Contributed as a Stakeholder Reviewer for the National Resource Center for Health and Safety in Child Care, Performance Standards: Guidelines for Out-of-Home Child Care Programs
- State Certification Board Members and Chair
- Member of the Synthetic Turf Council Education Committee
- Dean of California State Bakersfield, Full Professorships at the University of New Mexico, Utah State, University of South Dakota, California State Universities; Bakersfield, Fresno and Northridge, Director of Parks and Recreation Department
- Winners of national and state awards (NRPA - PIN Department Program Brochure Recognition, NMRPA - Park/Trail/Bike Paths Design Award, Outstanding Grounds Maintenance Award Winner, Recipient of the Duke Jory Scholarship Outstanding Program Award Winner Youth Basketball, recipient of the Outstanding Young Professional Award)
- As volunteers worked with youth and adults as baseball, football, soccer and swimming coaches, Head Evaluator of the New Mexico Special Olympics State Games, Regional Chair of the Utah State Games and leaders in the boy scouts and car clubs
- Professional coaches
- Authors of frequent university text books, articles and papers

We at PlaySafe, LLC Really Care! If you have any questions or if you would like additional information, please call me at 505.250.5689.

Equipment Example Provided Below

Site: Your School
City/State: Your Town / TX
Manufacturer: Little Tikes
Audited by: (PlaySafe) C. DeFillippo & Dr. N. White
Height: 60"
Materials: Metal and Plastic
Surfacing: Unitary
Date of Audit: 1/1/22
Age of Intended Users: 5-12



Name of Structure: Composite

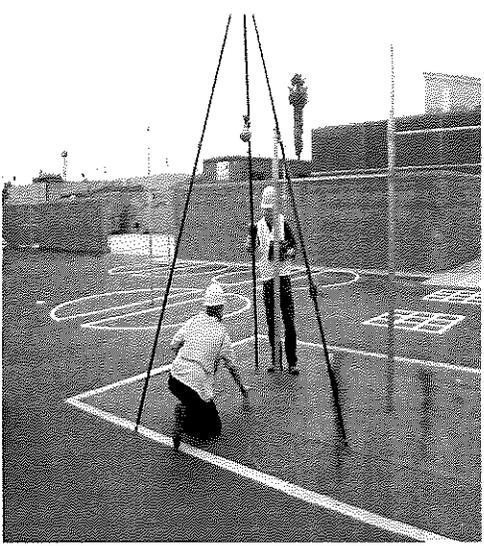
Recommended Action #s: 1=Remove 2=Modify 3=Meet with manufacturer 4=Increase use zone 5=Install border material 6=Add/loosen surfacing 7=Maintain 8=Relocate 9=Repair or replace with correct materials
10=Special Instructions (See attached)

Structure	What does not meet requirements	Guideline #	Action # (1-9)
Composite	Surfacing is unitary and sand	ASTM: 13.2 CPSC: 4.5	7
	Use zone to wall is 69", to concrete is 71.5" and should be 72" or greater for stationary equipment	ASTM: 9.2.1 CPSC: 5.1.1	4/8
	Entanglement: Bolts on both ends of blue climber projects upward on a horizontal plane	ASTM: 6.4.2 CPSC: 9.4	1/2/9
	Protrusion: Legs of ships sale panel are protrusions	ASTM: 6.3 CPSC: 9.2	1/9

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Surfacing Example Provided Below

Requesting Agency: Happy Land Address: 123 John Lane, Sunny, TX Phone #: 555.865.3900	
Test Site Address: Green Center 456 Happy Lane	
Audited by: B. Cox and T. Boning	
Type of equipment: Chin-up-bars	
Type of surfacing: Unitary	
Drop Height: 81"	
Air Temperature: 42 degrees	
Date of Audit / Time of Audit: 1/4/22/ 9:21 am	
Date of Report: 1/6/22	
Condition of Surfacing: Good/New	

DROP AREA	Drop #1 <small>G Force / HIC/ Velocity</small>	Drop #2 <small>G Force / HIC/ Velocity</small>	Drop #3 <small>G Force / HIC/ Velocity</small>	Average <small>G Force / HIC</small>	Surfacing Temp.	Depth of Material <small>Before / After</small>	Does Surfacing Conform ?
A	54 / 195 / 23.2	57 / 208 / 23.1	64 / 238 / 23.2	60.5 / 223	40 degrees	Unknown	YES
B	51 / 172 / 23.2	54 / 185 / 23.2	56 / 188 / 23.0	55 / 186.5	40 degrees	Unknown	YES
C	54 / 184 / 23.2	58 / 195 / 23.2	61 / 210 / 23.2	59.5 / 202.5	38 degrees	Unknown	YES

PASS

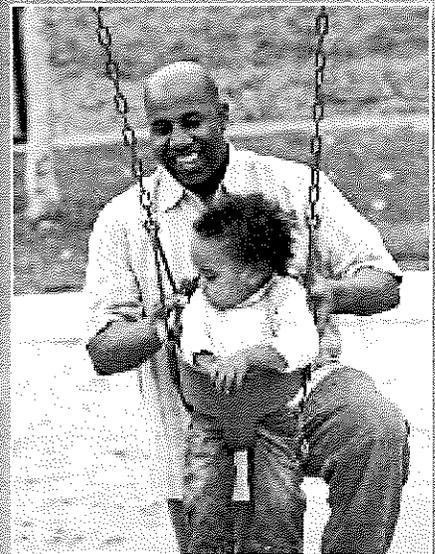
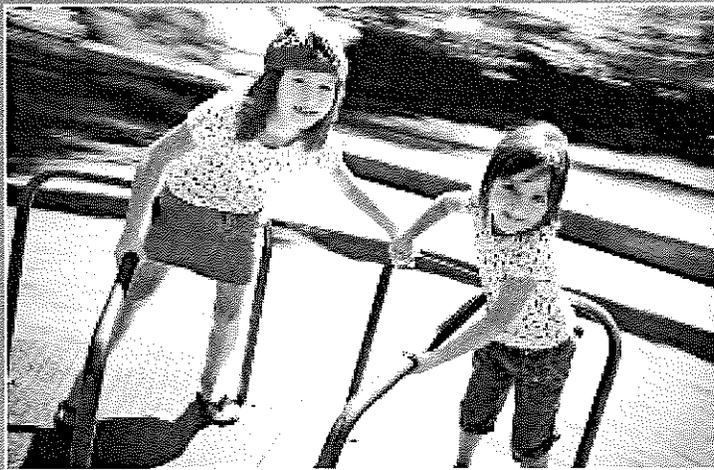
FAIL

The staff of PlaySafe, LLC tested the surfacing at the above mention playground using the Triax 2010 (Manufactured by Playground Clearing House, USA, Inc – Calibrated 1/3/22). This triaxial accelerometer measures impact in 3 dimensions and processes it into G force and HIC (Head Injury Criteria). These 2 measurements are the methods that the Consumer Product Safety Commission and ASTM International use to evaluate the surfacing under and around playground equipment. This system was formally approved in December 2018 by the ASTM F3313 Committee. Please read the CPSC and ASTM documents related to playground safety for more information. Specifically, read ASTM F3313, ASTM F1292, ASTM F1487, and the CPSC Handbook for Public Playground Safety 325. *The results reported herein reflect the performance of the tested playground surface at the time of testing and at the temperature(s) and ambient conditions reported. Performance will vary with temperature, moisture content, and other factors.*

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Public Playground Safety Handbook



U.S. Consumer Product Safety Commission
Saving Lives and Keeping Families Safe



U.S. CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

December 29, 2015

The U.S. Consumer Product Safety Commission's ("CPSC" or "Commission") *Public Playground Safety Handbook* was first published in 1981 under the name *A Handbook for Public Playground Safety*. The recommendations in the *Handbook* are focused on playground-related *injuries* and mechanical mechanisms of injury; falls from playground equipment have remained the largest single hazard pattern associated with playground use. Since the first edition, the Commission has included recommendations that playgrounds not be installed over concrete, asphalt, or paved surfaces to address serious head injuries due to falls from the equipment. Additionally, the Commission has made suggestions for commonly used loose-fill and unitary surfacing materials (*e.g.*, wood mulch, pea gravel, sand, gym mats, and shredded/recycled rubber mulch) that provide head impact attenuation and can mitigate the hazard presented by falls from playground equipment. Maintaining the focus on falls, the *Handbook's* surfacing recommendations are based on the surfacing material's energy absorbing effectiveness.

During the past 35 years, innovations in technology have led to new playground equipment and surfacing practices. Voluntary standards for equipment and impact attenuation for protective surfacing have evolved. The 2010 edition of the *Handbook*, the most recent version, still discusses common materials, but also covers new surfacing systems that are specifically designed and tested to comply with ASTM F1292, the voluntary standard for measuring impact attenuation of surfacing. Maintaining that focus, Section 2.4 of the *Handbook* identifies shredded/recycled rubber mulch as an "Appropriate Surfacing" product, given that this product can meet the impact attenuation requirements of ASTM F1292, as long as minimum depths of the material are maintained, as specified in Table 2 of Section 2.5. This notation is solely focused on the impact attenuation to minimize serious head injuries, and not on other aspects that may pose other risks, such as chemical exposure or ingestion.

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1. INTRODUCTION

In recent years, it is estimated that there were more than 200,000 injuries annually on public playgrounds across the country that required emergency room treatment. By following the recommended guidelines in this handbook, you and your community can create a safer playground environment for all children and contribute to the reduction of playground-related deaths and injuries.

1.1 Scope

This handbook presents safety information for public playground equipment in the form of guidelines. Publication of this handbook is expected to promote greater safety awareness among those who purchase, install, and maintain public playground equipment. Because many factors may affect playground safety, the U.S. Consumer Product Safety Commission (CPSC) staff believes that guidelines, rather than a mandatory rule, are appropriate. These guidelines are not being issued as the sole method to minimize injuries associated with playground equipment. However, the Commission believes that the recommendations in this handbook along with the technical information in the ASTM standards for public playgrounds will contribute to greater playground safety.

Some states and local jurisdictions may require compliance with this handbook and/or ASTM voluntary standards. Additionally, risk managers, insurance companies, or others may require compliance at a particular site; check with state/local jurisdictions and insurance companies for specific requirements.

1.2 Intended Audience

This handbook is intended for use by childcare personnel, school officials, parks and recreation personnel, equipment purchasers and installers, playground designers, and any other members of the general public (e.g., parents and school groups) concerned with public playground safety and interested in evaluating their respective playgrounds. Due to the wide range of possible users, some information provided may be more appropriate for certain users than others. The voluntary standards listed in 1.4.1 contain more technical requirements than this handbook and are primarily intended for use by equipment manufacturers, architects, designers, and any others requiring more technical information.

1.3 What is a Public Playground?

“Public” playground equipment refers to equipment for use by children ages 6 months through 12 years in the playground areas of:

- Commercial (non-residential) child care facilities
- Institutions
- Multiple family dwellings, such as apartment and condominium buildings
- Parks, such as city, state, and community maintained parks
- Restaurants
- Resorts and recreational developments
- Schools
- Other areas of public use

These guidelines are not intended for amusement park equipment, sports or fitness equipment normally intended for users over the age of 12 years, soft contained play equipment, constant air inflatable play devices for home use, art and museum sculptures (not otherwise designed, intended and installed as playground equipment), equipment found in water play facilities, or home playground equipment. Equipment components intended solely for children with disabilities and modified to accommodate such users also are not covered by these guidelines. Child care facilities, especially indoor, should refer to ASTM F2373 — *Standard Consumer Safety Performance Specification for Public Use Play Equipment for Children 6 Months Through 23 Months*, for more guidance on areas unique to their facilities.

1.4 Public Playground Safety Voluntary Standards and CPSC Handbook History

- 1981 – First CPSC *Handbook for Public Playground Safety* was published, a two-volume set.
- 1991 – *Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment*, ASTM F1292, was first published.
- 1991 – Two-volume set was replaced by a single-volume handbook, which contained recommendations based on a COMSIS Corporation report to the CPSC (*Development of Human Factors Criteria for Playground Equipment Safety*).

- 1993 – First version of voluntary standard for public playground equipment, ASTM F1487 — *Standard Consumer Safety Performance Specification for Playground Equipment for Public Use*, was published (revisions occur every 3 to 4 years).
- 1994 – Minor revisions to the *Handbook*.
- 1997 – *Handbook* was updated based on (1) staff review of ASTM F1487, (2) playground safety roundtable meeting held October 1996, and (3) public comment received to a May 1997 CPSC staff request.
- 2005 – First version of voluntary standard for playground equipment intended for children under two years old, ASTM F2373 — *Standard Consumer Safety Performance Specification for Public Use Play Equipment for Children 6 Months Through 23 Months*, was published.
- 2008 – *Handbook* was updated based on comments received from members of the ASTM F15 Playground Committees in response to a CPSC staff request for suggested revisions. Significant revisions are listed below.

1.4.1 ASTM playground standards

Below is a list of ASTM technical performance standards that relate to playgrounds.

- **F1487** *Standard Consumer Safety Performance Specification for Playground Equipment for Public Use*.
- **F2373** *Standard Consumer Safety Performance Specification for Public Use Play Equipment for Children 6 Months through 23 Months*.
- **F1292** *Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment*.
- **F2075** *Standard Specification for Engineered Wood Fiber for Use as a Playground Safety Surface Under and Around Playground Equipment*.
- **F2223** *Standard Guide for ASTM Standards on Playground Surfacing*.
- **F2479** *Standard Guide for Specification, Purchase, Installation and Maintenance of Poured-In-Place Playground Surfacing*.
- **F1951** *Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment*.
- **F1816** *Standard Safety Specification for Drawstrings on Children's Upper Outerwear*.
- **F2049** *Standard Guide for Fences/Barriers for Public, Commercial, and Multi-Family Residential Use Outdoor Play Areas*.
- **F1148** *Standard Consumer Safety Performance Specification for Home Playground Equipment*.
- **F1918** *Standard Safety Performance Specification for Soft Contained Play Equipment*.

1.5 Significant Revisions for 2008

1.5.1 Equipment guidelines

- Age ranges expanded to include children as young as 6 months based on ASTM F2373
- Guidelines for track rides and log rolls added
- Exit zone requirements for slides harmonized with ASTM F1487

1.5.2 Surfacing guidelines

- Critical height table revised
- Suggestions for surfacing over asphalt added

1.5.3 General guidelines

- Suggestions on sun exposure added

1.5.4 Other revisions

- Editorial changes to make the *Handbook* easier to understand and use

1.6 Background

The safety of each individual piece of playground equipment as well as the layout of the entire play area should be considered when designing or evaluating a playground for safety. Since falls are a very common playground hazard pattern, the installation and maintenance of protective surfacing under and around all equipment is crucial to protect children from severe head injuries.

Because all playgrounds present some challenge and because children can be expected to use equipment in unintended and unanticipated ways, adult supervision is highly recommended. The handbook provides some guidance on supervisory practices that adults should follow. Appropriate equipment design, layout, and maintenance, as discussed in this

handbook, are also essential for increasing public playground safety.

A playground should allow children to develop gradually and test their skills by providing a series of graduated challenges. The challenges presented should be appropriate for age-related abilities and should be ones that children can perceive and choose to undertake. Toddlers, preschool- and school-age children differ dramatically, not only in physical size and ability, but also in their intellectual and social skills. Therefore, age-appropriate playground designs should accommodate these differences with regard to the type, scale, and the layout of equipment. Recommendations throughout this handbook address the different needs of toddlers, preschool-age, and school-age children; “toddlers” refers to children ages 6 months through 2 years of age, “preschool-age” refers to children 2 through 5 years, and “school-age” refers to children 5 through 12 years. The overlap between these groups is anticipated in terms of playground equipment use and provides for a margin of safety.

Playground designers, installers and operators should be aware that the Americans with Disabilities Act of 1990 (ADA) is a comprehensive civil rights law which prohibits discrimination on the basis of disability. Titles II and III of the ADA require, among other things, that newly constructed and altered State and local government facilities, places of public accommodation, and commercial facilities be readily accessible to and usable by individuals with disabilities. Recreation facilities, including play areas, are among the types of facilities covered by titles II and III of the ADA.

The Architectural and Transportation Barriers Compliance Boards – also referred to as the “Access Board” – has developed accessibility guidelines for newly constructed and altered play areas that were published October 2000. The play area guidelines are a supplement to the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Once these guidelines are adopted as enforceable standards by the Department of Justice, all newly constructed and altered play areas covered by the ADA will be required to comply. These guidelines also apply to play areas covered by the Architectural Barriers Act (ABA).

Copies of the play area accessibility guidelines and further technical assistance can be obtained from the U.S. Access Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004-1111; 800-872-2253, 800-993-2822 (TTY), www.access-board.gov.

1.7 Playground Injuries

The U. S. Consumer Product Safety Commission has long recognized the potential hazards that exist with the use of playground equipment, with over 200,000 estimated emergency room-treated injuries annually. The most recent study of 2,691 playground equipment-related incidents reported to the CPSC from 2001-2008 indicated that falls are the most common hazard pattern (44% of injuries) followed by equipment-related hazards, such as breakage, tip over, design, and assembly (23%).¹ Other hazard patterns involved entrapment and colliding other children or stationary equipment. Playground-related deaths reported to the Commission involved entanglement of ropes, leashes, or clothing; falls; and impact from equipment tip over or structural failure.

The recommendations in this handbook have been developed to address the hazards that resulted in playground-related injuries and deaths. The recommendations include those that address:

- The potential for falls from and impact with equipment
- The need for impact attenuating protective surfacing under and around equipment
- Openings with the potential for head entrapment
- The scale of equipment and other design features related to user age and layout of equipment on a playground
- Installation and maintenance procedures
- General hazards presented by protrusions, sharp edges, and crush or shear points

1.8 Definitions

Barrier — An enclosing device around an elevated platform that is intended to prevent both inadvertent and deliberate attempts to pass through the device.

Composite Structure — Two or more play structures attached or functionally linked, to create one integral unit that provides more than one play activity.

Critical Height — The fall height below which a life-threatening head injury would not be expected to occur.

¹O'Brien, Craig W.; Injuries and Investigated Deaths Associated with Playground Equipment, 2001–2008. U.S. Consumer Product Safety Commission: Washington DC, October, 2009.

Designated Play Surface — Any elevated surface for standing, walking, crawling, sitting or climbing, or a flat surface greater than 2 inches wide by 2 inches long having an angle less than 30° from horizontal.

Embankment Slide — A slide that follows the contour of the ground and at no point is the bottom of the chute greater than 12 inches above the surrounding ground.

Entanglement — A condition in which the user's clothes or something around the user's neck becomes caught or entwined on a component of playground equipment.

Entrapment — Any condition that impedes withdrawal of a body or body part that has penetrated an opening.

Fall Height — The vertical distance between the highest designated play surface on a piece of equipment and the protective surfacing beneath it.

Footing — A means for anchoring playground equipment to the ground.

Full Bucket Seat Swing — A swing generally appropriate for children under 4 years of age that provides support on all sides and between the legs of the occupant and cannot be entered or exited without adult assistance.

Geotextile (filter) Cloth — A fabric that retains its relative structure during handling, placement, and long-term service to enhance water movement, retard soil movement, and to add reinforcement and separation between the soil and the surfacing and/or sub-base.

Guardrail — An enclosing device around an elevated platform that is intended to prevent inadvertent falls from the elevated surface.

Infill — Material(s) used in a protective barrier or between decks to prevent a user from passing through the barrier (e.g., vertical bars, lattice, solid panel, etc.).

Loose-Fill Surfacing Material — A material used for protective surfacing in the use zone that consists of loose particles such as sand, gravel, engineered wood fibers, or shredded rubber.

Preschool-Age Children — Children 2 years of age through 5 years of age.

Projection — Anything that extends outward from a surface of the playground equipment and must be tested to determine whether it is a protrusion or entanglement hazard, or both.

Protective Barrier — See Barrier.

Protective Surfacing — Shock absorbing (i.e., impact attenuating) surfacing material in the use zone that conforms to the recommendations in §2.4 of this handbook.

Protrusion — A projection which, when tested, is found to be a hazard having the potential to cause bodily injury to a user who impacts it.

Roller Slide — A slide that has a chute consisting of a series of individual rollers over which the user travels.

School-Age Children — Children 5 years of age through 12 years of age.

Slide Chute — The inclined sliding surface of a slide.

Stationary Play Equipment — Any play structure that has a fixed base and does not move.

Supervisor — Any person tasked with watching children on a playground. Supervisors may be paid professionals (e.g., childcare, elementary school or park and recreation personnel), paid seasonal workers (e.g., college or high school students), volunteers (e.g., PTA members), or unpaid caregivers (e.g., parents) of the children playing in the playground.

Toddlers — Children 6 months through 23 months of age.

Tube Slide — A slide in which the chute consists of a totally enclosed tube or tunnel.

Unitary Surfacing Material — A manufactured material used for protective surfacing in the use zone that may be rubber tiles, mats, or a combination of energy absorbing materials held in place by a binder that may be poured in place at the playground site and cures to form a unitary shock absorbing surface.

Upper Body Equipment — Equipment designed to support a child by the hands only (e.g., horizontal ladder, overhead swinging rings).

Use Zone — The surface under and around a piece of equipment onto which a child falling from or exiting from the equipment would be expected to land. These areas are also designated for unrestricted circulation around the equipment.

2. GENERAL PLAYGROUND CONSIDERATIONS

2.1 Selecting a Site

The following factors are important when selecting a site for a new playground:

Site Factor	Questions to Ask	If yes, then...Mitigation
Travel patterns of children to and from the playground	Are there hazards in the way?	Clear hazards.
Nearby accessible hazards such as roads with traffic, lakes, ponds, streams, drop-offs/cliffs, etc.	Could a child inadvertently run into a nearby hazard? Could younger children easily wander off toward the hazard?	Provide a method to contain children within the playground. For example, a dense hedge or a fence. The method should allow for observation by supervisors. If fences are used, they should conform to local building codes and/or ASTM F-2049.
Sun exposure	Is sun exposure sufficient to heat exposed bare metal slides, platforms, steps, & surfacing enough to burn children?	Bare metal slides, platforms, and steps should be shaded or located out of direct sun. Provide warnings that equipment and surfacing exposed to intense sun can burn.
	Will children be exposed to the sun during the most intense part of the day?	Consider shading the playground or providing shaded areas nearby.
Slope and drainage	Will loose fill materials wash away during periods of heavy rain?	Consider proper drainage re-grading to prevent wash outs.

2.1.1 Shading considerations

According to the American Academy of Dermatology, research indicates that one in five Americans will develop some form of skin cancer during their lifetime, and five or more sunburns double the risk of developing skin cancer. Utilizing existing shade (e.g., trees), designing play structures as a means for providing shading (e.g., elevated platforms with shaded space below), or creating more shade (e.g., man-made structures) are potential ways to design a playground to help protect children's skin from the sun. When trees are used for shade, additional maintenance issues arise, such as the need for cleaning up debris and trimming limbs.

2.2 Playground Layout

There are several key factors to keep in mind when laying out a playground:

- Accessibility
- Age separation
- Conflicting activities
- Sight lines
- Signage and/or labeling
- Supervision

2.2.1 Accessibility

Special consideration should be given to providing accessible surfaces in a play area that meets the *ASTM Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment*, ASTM F1951.

Equipment selection and location along with the type of protective surfacing are key components to ensuring the opportunity for children with disabilities to play on the playground.

2.2.2 Age separation

For playgrounds intended to serve children of all ages, the layout of pathways and the landscaping of the playground should show the distinct areas for the different age groups. The areas should be separated at least by a buffer zone, which could be an area with shrubs or benches. This separation and buffer zone will reduce the chance of injury from older, more active children running through areas filled with younger children with generally slower movement and reaction times.

2.2.3 Age group

In areas where access to the playground is unlimited or enforced only by signage, the playground designer should recognize that since child development is fluid, parents and caregivers may select a playground slightly above or slightly below their child's abilities, especially for children at or near a cut-off age (e.g., 2-years old and 5-years old). This could be for ease of supervising multiple children, misperceptions about the hazards a playground may pose to children of a different age, advanced development of a child, or other reasons. For this reason, there is an overlap at age 5. Developmentally a similar overlap also exists around age 2; however, due to the differences in ASTM standards and entrapment testing tools, this overlap is not reflected in the handbook. Playgrounds used primarily by children under the supervision of paid, trained professionals (e.g., child-care centers and schools) may wish to consider separating playgrounds by the facility's age groupings. For example, a child-care facility may wish to limit a playground to toddlers under 2 exclusively and can draw information from this guide and ASTM F2373. A school, on the other hand, may have no children under 4 attending, and can likewise plan appropriately. Those who inspect playgrounds should use the intended age group of the playground.

2.2.4 Conflicting activities

The play area should be organized into different sections to prevent injuries caused by conflicting activities and children running between activities. Active, physical activities should be separate from more passive or quiet activities. Areas for playground equipment, open fields, and sand boxes should be located in different sections of the playground. In addition, popular, heavy-use pieces of equipment or activities should be dispersed to avoid crowding in any one area.

Different types of equipment have different use zones that must be maintained. The following are general recommendations for locating equipment within the playground site. Specific use zones for equipment are given in §5.3.

- Moving equipment, such as swings and merry-go-rounds, should be located toward a corner, side, or edge of the play area while ensuring that the appropriate use zones around the equipment are maintained.
- Slide exits should be located in an uncongested area of the playground.
- Composite play structures have become increasingly popular on public playgrounds. Adjacent components on composite structures should be complementary. For example, an access component should not be located in a slide exit zone.

2.2.5 Sight lines

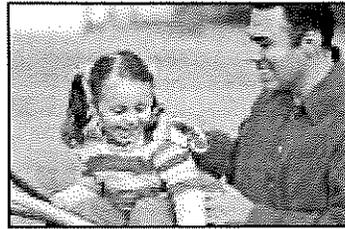
Playgrounds that are designed, installed, and maintained in accordance with safety guidelines and standards can still present hazards to children. Playgrounds should be laid out to allow parents or caregivers to keep track of children as they move throughout the playground environment. Visual barriers should be minimized as much as possible. For example, in a park situation, playground equipment should be as visible as possible from park benches. In playgrounds with areas for different ages, the older children's area should be visible from the younger children's area to ensure that caregivers of multiple children can see older children while they are engaged in interactive play with younger ones.

2.2.6 Signage and/or labeling

Although the intended user group should be obvious from the design and scale of equipment, signs and/or labels posted in the playground area or on the equipment should give some guidance to supervisors as to the age appropriateness of the equipment.

2.2.7 Supervision

The quality of the supervision depends on the quality of the supervisor's knowledge of safe play behavior. Playground designers should be



aware of the type of supervision most likely for their given playground. Depending on the location and nature of the playground, the supervisors may be paid professionals (e.g., childcare, elementary school or park and recreation personnel), paid seasonal workers (e.g., college or high school students), volunteers (e.g., PTA members), or unpaid caregivers (e.g., parents) of the children playing in the playground.

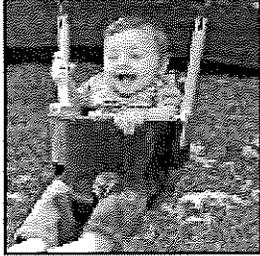
Parents and playground supervisors should be aware that not all playground equipment is appropriate for all children who may use the playground. Supervisors should look for posted

signs indicating the appropriate age of the users and direct children to equipment appropriate for their age. Supervisors may also use the information in Table 1 to determine the suitability of the equipment for the children they are supervising. Toddlers and preschool-age children require more attentive supervision than older children; however, one should not rely on supervision alone to prevent injuries.

Supervisors should understand the basics of playground safety such as:

- Checking for broken equipment and making sure children don't play on it.
- Checking for and removing unsafe modifications, especially ropes tied to equipment, before letting children play.
- Checking for properly maintained protective surfacing.
- Making sure children are wearing foot wear.

TABLE 1. EXAMPLES OF AGE APPROPRIATE EQUIPMENT

 <p>Toddler — Ages 6-23 months</p> <ul style="list-style-type: none"> • Climbing equipment under 32" high • Ramps • Single file step ladders • Slides* • Spiral slides less than 360° • Spring rockers • Stairways • Swings with full bucket seats 	 <p>Preschool — Ages 2-5 years</p> <ul style="list-style-type: none"> • Certain climbers** • Horizontal ladders less than or equal to 60" high for ages 4 and 5 • Merry-go-rounds • Ramps • Rung ladders • Single file step ladders • Slides* • Spiral slides up to 360° • Spring rockers • Stairways • Swings – belt, full bucket seats (2-4 years) & rotating tire 	 <p>Grade School — Ages 5-12 years</p> <ul style="list-style-type: none"> • Arch climbers • Chain or cable walks • Free standing climbing events with flexible parts • Fulcrum seesaws • Ladders – Horizontal, Rung, & Step • Overhead rings*** • Merry-go-rounds • Ramps • Ring treks • Slides* • Spiral slides more than one 360° turn • Stairways • Swings – belt & rotating tire • Track rides • Vertical sliding poles
<p>* See §5.3.6</p>	<p>** See §5.3.2</p>	<p>*** See §5.3.2.5</p>

- Watching and stopping dangerous horseplay, such as children throwing protective surfacing materials, jumping from heights, etc.
- Watching for and stopping children from wandering away from the play area.

2.3 Selecting Equipment

When selecting playground equipment, it is important to know the age range of the children who will be using the playground. Children at different ages and stages of development have different needs and abilities. Playgrounds should be designed to stimulate children and encourage them to develop new skills, but should be in scale with their sizes, abilities, and developmental levels. Consideration should also be given to providing play equipment that is accessible to children with disabilities and encourages integration within the playground.

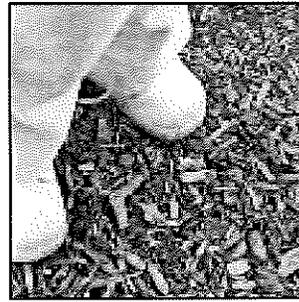
Table 1 shows the appropriate age range for various pieces of playground equipment. This is not an all-comprehensive list and, therefore, should not limit inclusion of current or newly designed equipment that is not specifically mentioned. For equipment listed in more than one group, there may be some modifications or restrictions based on age, so consult the specific recommendations in §5.3.

2.3.1 Equipment not recommended

Some playground equipment is not recommended for use on public playgrounds, including:

- Trampolines
- Swinging gates
- Giant strides
- Climbing ropes that are not secured at both ends.
- Heavy metal swings (e.g., animal figures) – These are not recommended because their heavy rigid metal framework presents a risk of impact injury.
- Multiple occupancy swings – With the exception of tire swings, swings that are intended for more than one user are not recommended because their greater mass, as compared to single occupancy swings, presents a risk of impact injury.
- Rope swings – Free-swinging ropes that may fray or otherwise form a loop are not recommended because they present a potential strangulation hazard.

- Swinging dual exercise rings and trapeze bars – These are rings and trapeze bars on long chains that are generally considered to be items of athletic equipment and are not recommended for public playgrounds. *NOTE: The recommendation against the use of exercise rings does not apply to overhead hanging rings such as those used in a ring trek or ring ladder (see Figure 7).*



2.4 Surfacing

The surfacing under and around playground equipment is one of the most important factors in reducing the likelihood of life-threatening head injuries. A fall onto a shock absorbing surface is less likely to cause a

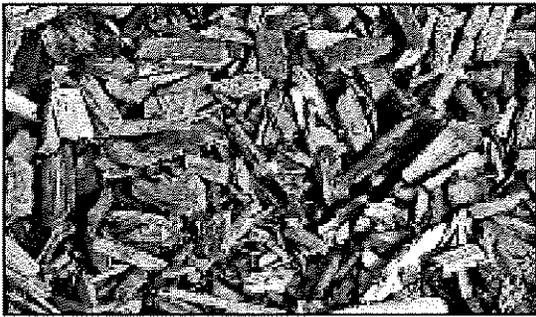
serious head injury than a fall onto a hard surface. However, some injuries from falls, including broken limbs, may occur no matter what playground surfacing material is used.

The most widely used test method for evaluating the shock absorbing properties of a playground surfacing material is to drop an instrumented metal headform onto a sample of the material and record the acceleration/time pulse during the impact. Field and laboratory test methods are described in ASTM F1292 *Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment*.

Testing using the methods described in ASTM F1292 will provide a “critical height” rating of the surface. This height can be considered as an approximation of the fall height below which a life-threatening head injury would not be expected to occur. Manufacturers and installers of playground protective surfacing should provide the critical height rating of their materials. This rating should be greater than or equal to the fall height of the highest piece of equipment on the playground. The fall height of a piece of equipment is the distance between the highest designated play surface on a piece of equipment and the protective surface beneath it. Details for determining the highest designated play surface and fall height on some types of equipment are included in §5 Parts of the Playground.

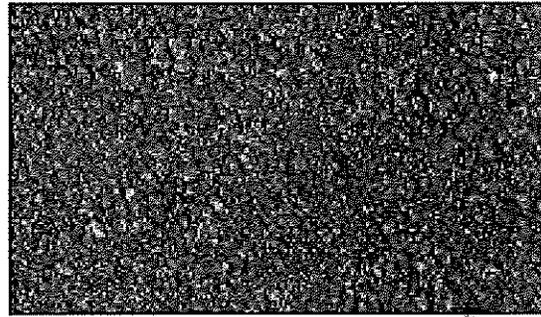
2.4.1 Equipment not covered by protective surfacing recommendations

The recommendations for protective surfacing do not apply to equipment that requires a child to be standing or sitting at ground level. Examples of such equipment are:



Appropriate Surfacing

- Any material tested to ASTM F1292, including unitary surfaces, engineered wood fiber, etc.
- Pea gravel
- Sand
- Shredded/recycled rubber mulch
- Wood mulch (not CCA-treated)
- Wood chips



Inappropriate Surfacing

- Asphalt
- Carpet not tested to ASTM F1292
- Concrete
- Dirt
- Grass
- CCA treated wood mulch

- Sand boxes
- Activity walls at ground level
- Play houses
- Any other equipment that children use when their feet remain in contact with the ground surface

2.4.2 Selecting a surfacing material

There are two options available for surfacing public playgrounds: unitary and loose-fill materials. A playground should never be installed without protective surfacing of some type. Concrete, asphalt, or other hard surfaces should never be directly under playground equipment. Grass and dirt are not considered protective surfacing because wear and environmental factors can reduce their shock absorbing effectiveness. Carpeting and mats are also not appropriate unless they are tested to and comply with ASTM F1292. Loose-fill should be avoided for playgrounds intended for toddlers.

2.4.2.1 Unitary surfacing materials

Unitary materials are generally rubber mats and tiles or a combination of energy-absorbing materials held in place by a

binder that may be poured in place at the playground site and then cured to form a unitary shock absorbing surface. Unitary materials are available from a number of different manufacturers, many of whom have a range of materials with differing shock absorbing properties. New surfacing materials, such as bonded wood fiber and combinations of loose-fill and unitary, are being developed that may also be tested to ASTM F1292 and fall into the unitary materials category. When deciding on the best surfacing materials keep in mind that some dark colored surfacing materials exposed to the intense sun have caused blistering on bare feet. Check with the manufacturer if light colored materials are available or provide shading to reduce direct sun exposure.

Persons wishing to install a unitary material as a playground surface should request ASTM F1292 test data from the manufacturer identifying the critical height rating of the desired surface. In addition, site requirements should be obtained from the manufacturer because some unitary materials require installation over a hard surface while others do not. Manufacturer's instructions should be followed closely, as some unitary systems require professional installation. Testing should be conducted in accordance with the ASTM F1292 standard.

2.4.2.2 Loose-fill surfacing materials

Engineered wood fiber (EWF) is a wood product that may look similar in appearance to landscaping mulch, but EWF products are designed specifically for use as a playground safety surface under and around playground equipment. EWF products should meet the specifications in ASTM F2075: *Standard Specification for Engineered Wood Fiber* and be tested to and comply with ASTM F1292.

There are also rubber mulch products that are designed specifically for use as playground surfacing. Make sure they have been tested to and comply with ASTM F1292.

When installing these products, tips 1-9 listed below should be followed. Each manufacturer of engineered wood fiber and rubber mulch should provide maintenance requirements for and test data on:

- Critical height based on ASTM F1292 impact attenuation testing.
- Minimum fill-depth data.
- Toxicity.
- ADA/ABA accessibility guidelines for firmness and stability based on ASTM F1951.

Other loose-fill materials are generally landscaping-type materials that can be layered to a certain depth and resist compacting. Some examples include wood mulch, wood chips, sand, pea gravel, and shredded/recycled rubber mulch.

Important tips when considering loose-fill materials:

1. Loose-fill materials will compress at least 25% over time due to use and weathering. This must be considered when planning the playground. For example, if the playground will require 9 inches of wood chips, then the initial fill level should be 12 inches. See Table 2 below.
2. Loose-fill surfacing requires frequent maintenance to ensure surfacing levels never drop below the minimum depth. Areas under swings and at slide exits are more susceptible to displacement; special attention must be paid to maintenance in these areas. Additionally, wear mats can be installed in these areas to reduce displacement.
3. The perimeter of the playground should provide a method of containing the loose-fill materials.
4. Consider marking equipment supports with a minimum fill level to aid in maintaining the original depth of material.

5. Good drainage is essential to maintaining loose-fill surfacing. Standing water with surfacing material reduces effectiveness and leads to material compaction and decomposition.
6. Critical height may be reduced during winter in areas where the ground freezes.
7. Never use less than 9 inches of loose-fill material except for shredded/recycled rubber (6 inches recommended). Shallower depths are too easily displaced and compacted.
8. Some loose-fill materials may not meet ADA/ABA accessibility guidelines. For more information, contact the Access Board (see §1.6) or refer to ASTM F1951.
9. Wood mulch containing chromated copper arsenate (CCA)-treated wood products should not be used; mulch where the CCA-content is unknown should be avoided (see §2.5.5.1).

Table 2 shows the minimum required depths of loose-fill material needed based on material type and fall height. The depths shown assume the materials have been compressed due to use and weathering and are properly maintained to the given level.

2.4.2.3 Installing loose-fill over hard surface

CPSC staff strongly recommends against installing playgrounds over hard surfaces, such as asphalt, concrete, or hard packed earth, unless the installation adds the following layers of protection. Immediately over the hard surface there should be a 3- to 6-inch base layer of loose-fill (e.g., gravel for drainage). The next layer should be a Geotextile cloth. On top of that should be a loose-fill layer meeting the specifications addressed in §2.4.2.2 and Table 2. Embedded in the loose-fill layer should be impact attenuating mats under high traffic areas, such as under swings, at slide exits, and other places where displacement is likely. Figure 1 provides a visual representation of this information. Older playgrounds that still exist on hard surfacing should be modified to provide appropriate surfacing.

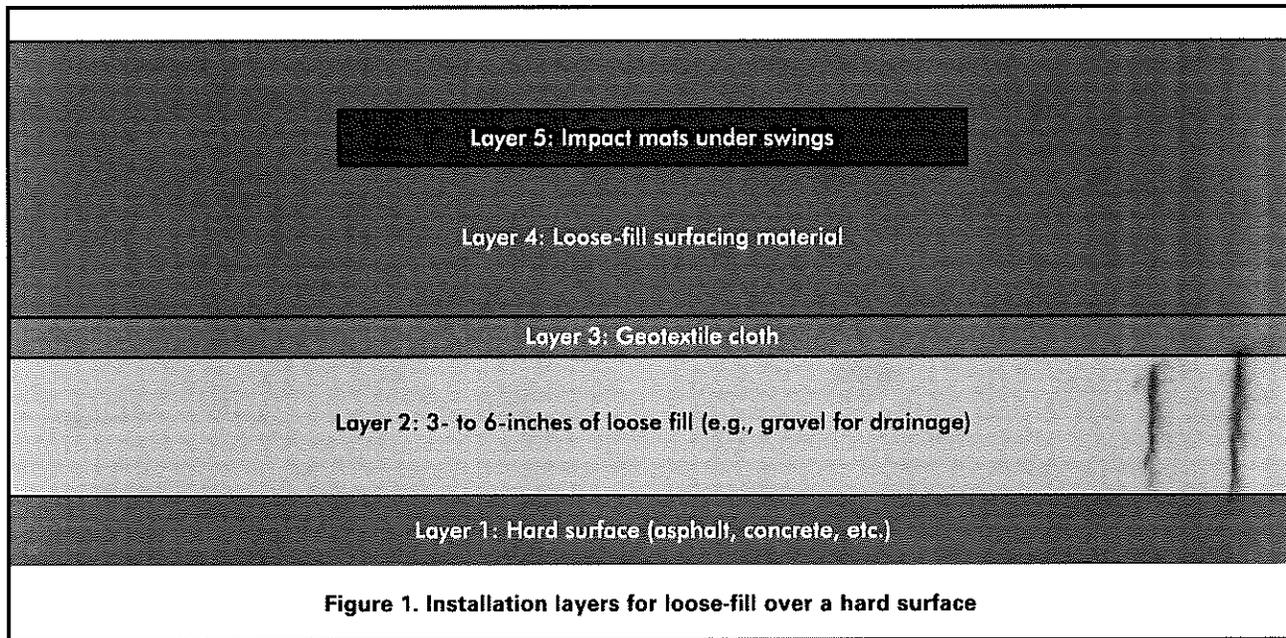
2.5 Equipment Materials

2.5.1 Durability and finish

- Use equipment that is manufactured and constructed only of materials that have a demonstrated record of durability in a playground or similar setting.

Table 2. Minimum compressed loose-fill surfacing depths				
Inches	Of	(Loose-Fill Material)	Protects to	Fall Height (feet)
6*		Shredded/recycled rubber		10
9		Sand		4
9		Pea Gravel		5
9		Wood mulch (non-CCA)		7
9		Wood chips		10

* Shredded/recycled rubber loose-fill surfacing does not compress in the same manner as other loose-fill materials. However, care should be taken to maintain a constant depth as displacement may still occur.



- Finishes, treatments, and preservatives should be selected carefully so that they do not present a health hazard to users.

2.5.2 Hardware

When installed and maintained in accordance with the manufacturer’s instructions:

- All fasteners, connectors, and covering devices should not loosen or be removable without the use of tools.

- All fasteners, connectors, and covering devices that are exposed to the user should be smooth and should not be likely to cause laceration, penetration, or present a clothing entanglement hazard (see also §3.2 and Appendix B).
- Lock washers, self-locking nuts, or other locking means should be provided for all nuts and bolts to protect them from detachment.
- Hardware in moving joints should also be secured against unintentional or unauthorized loosening.

- All fasteners should be corrosion resistant and be selected to minimize corrosion of the materials they connect. This is particularly important when using wood treated with ACQ/CBA/CA-B² as the chemicals in the wood preservative corrode certain metals faster than others.
- Bearings or bushings used in moving joints should be easy to lubricate or be self-lubricating.
- All hooks, such as S-hooks and C-hooks, should be closed (see also §5.3.8.1). A hook is considered closed if there is no gap or space greater than 0.04 inches, about the thickness of a dime.

2.5.3 Metals

- Avoid using bare metal for platforms, slides, or steps. When exposed to direct sunlight they may reach temperatures high enough to cause serious contact burn injuries in a matter of seconds. Use other materials that may reduce the surface temperature, such as but not limited to wood, plastic, or coated metal (see also Slides in §5.3.6).
- If bare or painted metal surfaces are used on platforms, steps, and slide beds, they should be oriented so that the surface is not exposed to direct sun year round.

2.5.4 Paints and finishes

- Metals not inherently corrosion resistant should be painted, galvanized, or otherwise treated to prevent rust.
- The manufacturer should ensure that the users cannot ingest, inhale, or absorb potentially hazardous amounts of preservative chemicals or other treatments applied to the equipment as a result of contact with playground equipment.
- All paints and other similar finishes must meet the current CPSC regulation for lead in paint.
- Painted surfaces should be maintained to prevent corrosion and deterioration.
- Paint and other finishes should be maintained to prevent rusting of exposed metals and to minimize children playing with peeling paint and paint flakes.

- Older playgrounds with lead based paints should be identified and a strategy to control lead paint exposure should be developed. Playground managers should consult the October 1996 report, CPSC Staff Recommendations for Identifying and Controlling Lead Paint on Public Playground Equipment, while ensuring that all paints and other similar finishes meet the current CPSC regulation.³

2.5.5 Wood

- Wood should be either naturally rot- and insect-resistant (e.g., cedar or redwood) or should be treated to avoid such deterioration.
- Creosote-treated wood (e.g., railroad ties, telephone poles, etc) and coatings that contain pesticides should not be used.

2.5.5.1 Pressure-treated wood

A significant amount of older playground wood was pressure-treated with chemicals to prevent damage from insects and fungi. Chromated copper arsenate (CCA) was a chemical used for decades in structures (including playgrounds). Since December 31, 2003, CCA-treated wood is no longer processed for use in playground applications. Other rot- and insect-resistant pressure treatments are available that do not contain arsenic; however, when using any of the new treated wood products, be sure to use hardware that is compatible with the wood treatment chemicals. These chemicals are known to corrode certain materials faster than others.

Existing playgrounds with CCA-treated wood

Various groups have made suggestions concerning the application of surface coatings to CCA-treated wood (e.g., stains and sealants) to reduce a child's potential exposure to arsenic from the wood surface. Data from CPSC staff and EPA studies suggest that regular (at least once a year) use of an oil- or water-based, penetrating sealant or stain can reduce arsenic migration from CCA-treated wood. Installers, builders, and consumers who perform woodworking operations, such as sanding, sawing, or sawdust disposal, on pressure-treated wood should read the consumer information sheet available at the point of sale. This sheet contains important health precautions and disposal information.

² Ammoniacal copper quat (ACQ), copper boron azole (CBA), copper azole type B (CA-B), etc.

³ CPSC Staff Recommendations for Identifying and Controlling Lead Paint on Public Playground Equipment; U.S. Consumer Product Safety Commission: Washington, DC, October 1996.

When selecting wood products and finishes for public playgrounds, CPSC staff recommends:

- Avoid “film-forming” or non-penetrating stains (latex semi-transparent, latex opaque and oil-based opaque stains) on outdoor surfaces because peeling and flaking may occur later, which will ultimately have an impact on durability as well as exposure to the preservatives in the wood.
- Creosote, pentachlorophenol, and tributyl tin oxide are too toxic or irritating and should not be used as preservatives for playground equipment wood.
- Pesticide-containing finishes should not be used.
- CCA-treated wood should not be used as playground mulch.

2.6 Assembly and Installation

- Strictly follow *all* instructions from the manufacturer when assembling and installing equipment.
- After assembly and before its first use, equipment should be thoroughly inspected by a person qualified to inspect playgrounds for safety.
- The manufacturer’s assembly and installation instructions, and all other materials collected concerning the equipment, should be kept in a permanent file.
- Secure anchoring is a key factor to stable installation, and the anchoring process should be completed in *strict* accordance with the manufacturer’s specifications.

3. PLAYGROUND HAZARDS

This section provides a broad overview of general hazards that should be avoided on playgrounds. It is intended to raise awareness of the risks posed by each of these hazards. Many of these hazards have technical specifications and tests for compliance with ASTM F1487 and F2373. Some of these tests are also detailed in Appendix B.

3.1 Crush and Shearing Points

Anything that could crush or shear limbs should not be accessible to children on a playground. Crush and shear points can be caused by parts moving relative to each other or to a fixed part during a normal use cycle, such as a seesaw.

To determine if there is a possible crush or shear point, consider:

- The likelihood a child could get a body part inside the point, and
- The closing force around the point.

Potential crush/shear hazards specific to certain pieces of equipment are identified in §5.3 Major Types of Playground Equipment.

3.2 Entanglement and Impalement

Projections on playground equipment should not be able to entangle children's clothing nor should they be large enough to impale. To avoid this risk:

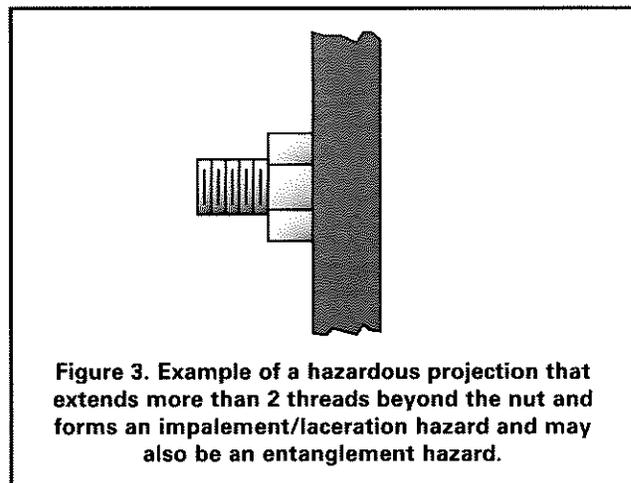
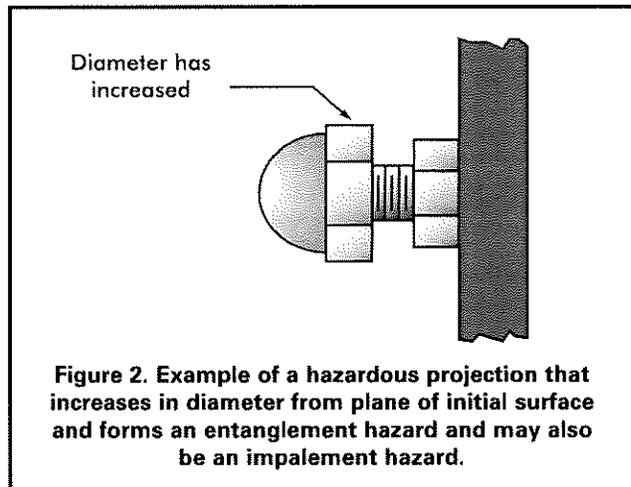
- The diameter of a projection should not increase in the direction away from the surrounding surface toward the exposed end (see Figure 2).
- Bolts should not expose more than two threads beyond the end of the nut (see Figure 3).
- All hooks, such as S-hooks and C-hooks, should be closed (see also §5.3.8.1). A hook is considered closed if there is no gap or space greater than 0.04 inches, about the thickness of a dime.
 - Any connecting device containing an in-fill that completely fills the interior space preventing entry of clothing items into the interior of the device is exempt from this requirement.

- Swings and slides have additional recommendations for projections detailed in §5.3.
- See Appendix B for testing recommendations.

3.2.1 Strings and ropes

Drawstrings on the hoods of jackets, sweatshirts, and other upper body clothing can become entangled in playground equipment, and can cause death by strangulation. To avoid this risk:

- Children should not wear jewelry, jackets or sweatshirts with drawstring hoods, mittens connected by strings through the arms, or other upper body clothing with drawstrings.
- Remove any ropes, dog leashes, or similar objects that have been attached to playground equipment. Children can become entangled in them and strangle to death.



- Avoid equipment with ropes that are not secured at both ends.
- The following label, or a similar sign or label, can be placed on or near slides or other equipment where potential entanglements may occur.



3.3 Entrapment

3.3.1 Head entrapment

Head entrapment is a serious concern on playgrounds, since it could lead to strangulation and death. A child's head may become entrapped if the child enters an opening either feet first or head first. Head entrapment by head-first entry generally occurs when children place their heads through an

opening in one orientation, turn their heads to a different orientation, then are unable to get themselves out. Head entrapment by feet first entry involves children who generally sit or lie down and slide their feet into an opening that is large enough to permit their bodies to go through but is not large enough to permit their heads to go through. A part or a group of parts should not form openings that could trap a child's head. Also, children should not wear their bicycle helmets while on playground equipment. There have been recent head entrapment incidents in which children wearing their bicycle helmets became entrapped in spaces that would not normally be considered a head entrapment.

Certain openings could present an entrapment hazard if the distance between any interior opposing surfaces is greater than 3.5 inches and less than 9 inches. These spaces should be tested as recommended in Appendix B. When one dimension of an opening is within this range, all dimensions of the opening should be considered together to evaluate the possibility of entrapment. Even openings that are low enough for children's feet to touch the ground can present a risk of strangulation for an entrapped child. (See Figure 4). Younger children may not have the necessary intellectual ability or motor skills to reverse the process that caused their heads to become trapped, especially if they become scared or panicked.

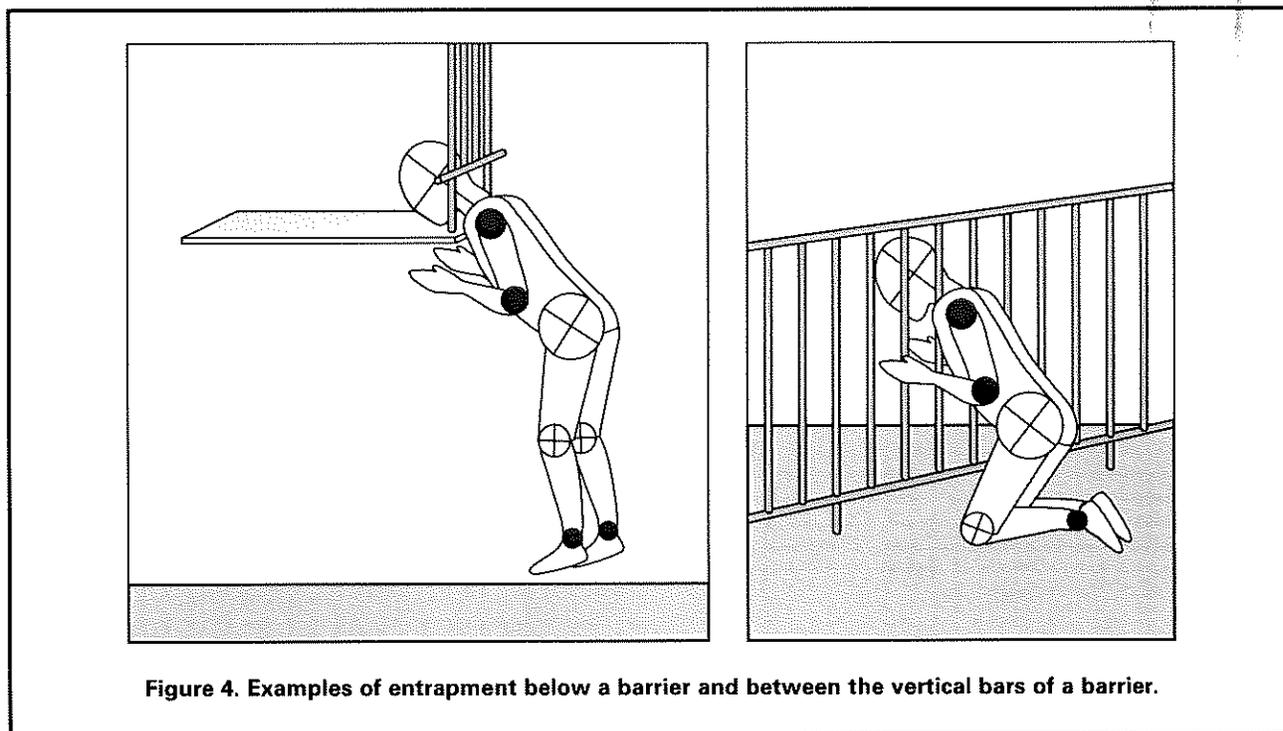


Figure 4. Examples of entrapment below a barrier and between the vertical bars of a barrier.

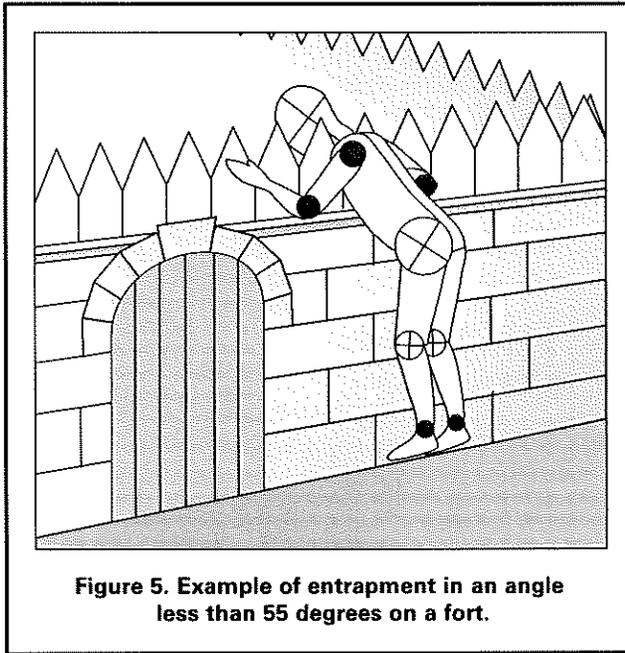


Figure 5. Example of entrapment in an angle less than 55 degrees on a fort.

3.3.2 Partially bound openings and angles

Children can become entrapped by partially bound openings, such as those formed by two or more playground parts.

- Angles formed by two accessible adjacent parts should be greater than 55 degrees unless the lowest leg is horizontal or below horizontal.
- Use the partially-bound opening test in Appendix B to identify hazardous angles and other partially-bound openings.

3.4 Sharp Points, Corners, and Edges

Sharp points, corners, or edges on any part of the playground or playground equipment may cut or puncture a child's skin. Sharp edges can cause serious lacerations if protective measures are not taken. To avoid the risk of injury from sharp points, corners and edges:

- Exposed open ends of all tubing not resting on the ground or otherwise covered should be covered by caps or plugs that cannot be removed without the use of tools.
- Wood parts should be smooth and free from splinters.
- All corners, metal and wood, should be rounded.
- All metal edges should be rolled or have rounded capping.

- There should be no sharp edges on slides. Pay special attention to metal edges of slides along the sides and at the exit (see also §5.3.6.4).
- If steel-belted radials are used as playground equipment, they should be closely examined regularly to ensure that there are no exposed steel belts/wires.
- Conduct frequent inspections to help prevent injuries caused by splintered wood, sharp points, corners, or edges that may develop as a result of wear and tear on the equipment.

3.5 Suspended Hazards

Children using a playground may be injured if they run into or trip over suspended components (such as cables, wires, ropes, or other flexible parts) connected from one piece of the playground equipment to another or hanging to the ground. These suspended components can become hazards when they are within 45 degrees of horizontal and are less than 7 feet above the protective surfacing. To avoid a suspended hazard, suspended components:

- Should be located away from high traffic areas.
- Should either be brightly colored or contrast with the surrounding equipment and surfacing.
- Should not be able to be looped back on themselves or other ropes, cables, or chains to create a circle with a 5 inch or greater perimeter.
- Should be fastened at both ends unless they are 7 inches or less long or attached to a swing seat.

These recommendations do not apply to swings, climbing nets, or if the suspended component is more than 7 feet above the protective surfacing and is a minimum of one inch at its widest cross-section dimension.

3.6 Tripping Hazards

Play areas should be free of tripping hazards (i.e., sudden change in elevations) to children who are using a playground. Two common causes of tripping are anchoring devices for playground equipment and containment walls for loose-fill surfacing materials.

- All anchoring devices for playground equipment, such as concrete footings or horizontal bars at the bottom of flexible climbers, should be installed below ground level

and beneath the base of the protective surfacing material. This will also prevent children from sustaining additional injuries from impact if they fall on exposed footings.

- Contrasting the color of the surfacing with the equipment color can contribute to better visibility.
- Surfacing containment walls should be highly visible.
- Any change of elevation should be obvious.
- Contrasting the color of the containment barrier with the surfacing color can contribute to better visibility.
- Steel-belted radials should be closely examined regularly to ensure that there are no exposed steel belts/wires.
- Care should be taken so that the tire does not collect water and debris; for example, providing drainage holes on the underside of the tire would reduce water collection.
- Recycled tire rubber mulch products should be inspected before installation to ensure that all metal has been removed.

In some situations, plastic materials can be used as an alternative to simulate actual automobile tires.

3.7 Used Tires

Used automobile and truck tires are often recycled as playground equipment, such as tire swings or flexible climbers, or as a safety product such as cushioning under a seesaw or shredded as protective surfacing. When recycling tires for playground use:

4. MAINTAINING A PLAYGROUND

Inadequate maintenance of equipment has resulted in injuries on playgrounds. Because the safety of playground equipment and its suitability for use depend on good inspection and maintenance, the manufacturer’s maintenance instructions and recommended inspection schedules should be strictly followed. If manufacturer’s recommendations are not available, a maintenance schedule should be developed based on actual or anticipated playground use. Frequently used playgrounds will require more frequent inspections and maintenance.

4.1 Maintenance Inspections

A comprehensive maintenance program should be developed for each playground. All playground areas and equipment should be inspected for excessive wear, deterioration, and any potential hazards, such as those shown in Table 3. One possible procedure is the use of checklists. Some manufacturers supply checklists for general or detailed inspections with their maintenance instructions. These can be used to ensure that inspections are in compliance with the manufacturer’s specifications. If manufacturer-provided inspection guidelines are not available, a general checklist that may be used as a guide for frequent routine inspections of public playgrounds is included at Appendix A. This is intended to address only general maintenance concerns. Detailed inspections should give special attention to moving parts and other parts that can be expected to wear. Maintenance inspections should be carried out in a systematic manner by personnel familiar with the playground, such as maintenance workers, playground supervisors, etc.

4.2 Repairs

Inspections alone do not constitute a comprehensive maintenance program. Any problems found during the inspection should be noted and fixed as soon as possible.

- All repairs and replacements of equipment parts should be completed following the manufacturer’s instructions.
- User modifications, such as loose-ended ropes tied to elevated parts, should be removed immediately.
- For each piece of equipment, the frequency of thorough

Table 3. Routine inspection and maintenance issues

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Broken equipment such as loose bolts, missing end caps, cracks, etc. |
| <input type="checkbox"/> | Broken glass & other trash |
| <input type="checkbox"/> | Cracks in plastics |
| <input type="checkbox"/> | Loose anchoring |
| <input type="checkbox"/> | Hazardous or dangerous debris |
| <input type="checkbox"/> | Insect damage |
| <input type="checkbox"/> | Problems with surfacing |
| <input type="checkbox"/> | Displaced loose-fill surfacing (see Section 4.3) |
| <input type="checkbox"/> | Holes, flakes, and/or buckling of unitary surfacing |
| <input type="checkbox"/> | User modifications (such as ropes tied to parts or equipment rearranged) |
| <input type="checkbox"/> | Vandalism |
| <input type="checkbox"/> | Worn, loose, damaged, or missing parts |
| <input type="checkbox"/> | Wood splitting |
| <input type="checkbox"/> | Rusted or corroded metals |
| <input type="checkbox"/> | Rot |

inspections will depend on the type and age of equipment, the amount of use, and the local climate.

- Consult the manufacturer for maintenance schedules for each piece of equipment. Based on these schedules, a maintenance schedule for the entire playground can be created. This routine maintenance schedule should not replace regular inspections.

4.3 Maintaining Loose-Fill Surfacing

Loose-fill surfacing materials require special maintenance. High-use public playgrounds, such as child care centers and schools, should be checked frequently to ensure surfacing has not displaced significantly, particularly in areas of the playground most subject to displacement (e.g., under swings and slide exits). This can be facilitated by marking ideal surfacing depths on equipment posts. Displaced loose-fill

surfacing should be raked back into proper place so that a constant depth is maintained throughout the playground. Impact attenuating mats placed in high traffic areas, such as under swings and at slide exits, can significantly reduce displacement. They should be installed below or level with surfacing so as not to be a tripping hazard.

The following are key points to look for during regular checks of surfacing:

- Areas under swings and at slide exits. Activity in these areas tends to displace surfacing quickly. Rake loose-fill back into place.
- Pooling water on mulch surfacing. For example, wet mulch compacts faster than dry, fluffy mulch. If puddles are noticed regularly, consider addressing larger drainage issues.
- Frozen surfacing. Most loose-fill surfacing that freezes

solid no longer functions as protective surfacing. Even if the first few inches may be loose, the base layer may be frozen and the impact attenuation of the surfacing may be significantly reduced. It is recommended that children not play on the equipment under these conditions.

4.4 Recordkeeping

Records of all maintenance inspections and repairs should be retained, including the manufacturer's maintenance instructions and any checklists used. When any inspection is performed, the person performing it should sign and date the form used. A record of any accident and injury reported to have occurred on the playground should also be retained. This will help identify potential hazards or dangerous design features that should be corrected.



5. PARTS OF THE PLAYGROUND

5.1 Platforms, Guardrails and Protective Barriers

5.1.1 Platforms

- Platforms should be generally flat (i.e., within $\pm 2^\circ$ of horizontal).
- Openings in platforms should be provided to allow for drainage.
- Platforms should minimize the collection of debris.
- Platforms intended for toddlers should be no more than 32 inches from the ground.

5.1.2 Stepped platforms

On some composite structures, platforms are layered or tiered so that a child may access the higher platform without steps or ladders. Unless there is an alternate means of access/egress, the maximum difference in height between stepped platforms should be:

- Toddlers: 7 inches.
- Preschool-age: 12 inches.
- School-age: 18 inches.

An access component (such as a rung) is needed if the difference in height is more than 12 inches for preschool-age and 18 inches for school-age children.

The space between the stepped platforms should follow the recommendations to minimize entrapment hazards in enclosed openings:

- Toddlers: if the space is less than 7 inches, infill should be used to reduce the space to less than 3.0 inches.
- Preschool-age: if the space exceeds 9 inches and the height of the lower platform above the protective surfacing exceeds 30 inches, infill should be used to reduce the space to less than 3.5 inches.
- School-age: if the space exceeds 9 inches and the height of the lower platform above the protective surfacing exceeds 48 inches, infill should be used to reduce the space to less than 3.5 inches.

5.1.2.1 Fall height

- The fall height of a platform is the distance between the top of the platform and the protective surfacing beneath it.

5.1.3 Guardrails and protective barriers

Guardrails and protective barriers are used to minimize the likelihood of accidental falls from elevated platforms. Protective barriers provide greater protection than guardrails and should be designed to discourage children from climbing over or through the barrier. Guardrails and barriers should:

- Completely surround any elevated platform.
- Except for entrance and exit openings, the maximum clearance opening without a top horizontal guardrail should be 15 inches.
- Prevent unintentional falls from the platform.
- Prevent the possibility of entrapment.
- Facilitate supervision.

For example:

- Guardrails may have a horizontal top rail with infill consisting of vertical bars having openings that are greater than 9 inches. These openings do not present an entrapment hazard but do not prevent a child from climbing through the openings.
- A barrier should minimize the likelihood of passage of a child during deliberate attempts to defeat the barrier. Any openings between uprights or between the platform surface and lower edge of a protective barrier should prevent passage of the small torso template (see test in B.2.5).

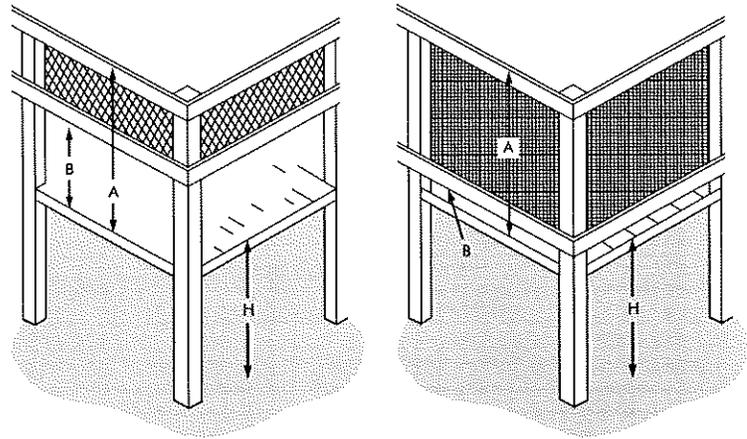
Guardrails or protective barriers should be provided on elevated platforms, walkways, landings, stairways, and transitional surfaces. In general, the younger the child, the less coordination and balance they have, therefore the more vulnerable they are to unintentional falls. Toddlers are the most vulnerable, and equipment intended for this age should use barriers on all elevated walking surfaces above 18 inches. Physical skills develop further in preschool-age children and then more with school-age children; therefore, minimum elevation recommendations for guardrails and barriers increase with each age group.

Guardrails and barriers should be high enough to prevent the tallest children from falling over the top. For guardrails, the lower edge should be low enough so that the smallest children cannot walk under it. Barriers should be low enough to prevent the smallest child from getting under the barrier in any way. This is generally done by designing the barrier so that the small torso probe (see test methods in Appendix B) cannot pass under or through the barrier. Vertical infill for protective barriers may be preferable for younger children because the vertical components can be grasped at whatever height a child chooses as a handhold.

Guardrail and barrier recommendations are shown in Table 4. However, the recommendations do not apply if the guardrail or barrier would interfere with the intended use of the equipment, such as:

- Climbing equipment
- Platforms layered so that the fall height is:
 - Toddlers: 7 inches or less.
 - Preschool-age: 20 inches or less.
 - School-age: 30 inches or less.

Table 4. Guardrails and Barriers



	Guardrail	Barrier
Protects against accidental falls from platform	Yes	Yes
Discourages climbing over	No	Yes
Protects against climbing through	No	Yes
Toddlers		
A Top edge distance from platform	Not recommended	A = 24" or higher
B Bottom edge distance from platform	Not recommended	B < 3"
H Recommended when platform fall height is:	Not recommended	H = 18" or higher
Preschool-age		
A Top edge distance from platform	A = 29" or higher	A = 29" or higher
B Bottom edge distance from platform	9" < B ≤ 23"	B < 3.5"
H Recommended when platform fall height is:	20" < H ≤ 30"	H > 30"
School-age		
A Top edge distance from platform	A = 38" or higher	A = 38" or higher
B Bottom edge distance from platform	9" < B ≤ 28"	B < 3.5"
H Recommended when platform fall height is:	30" < H ≤ 48"	H > 48"

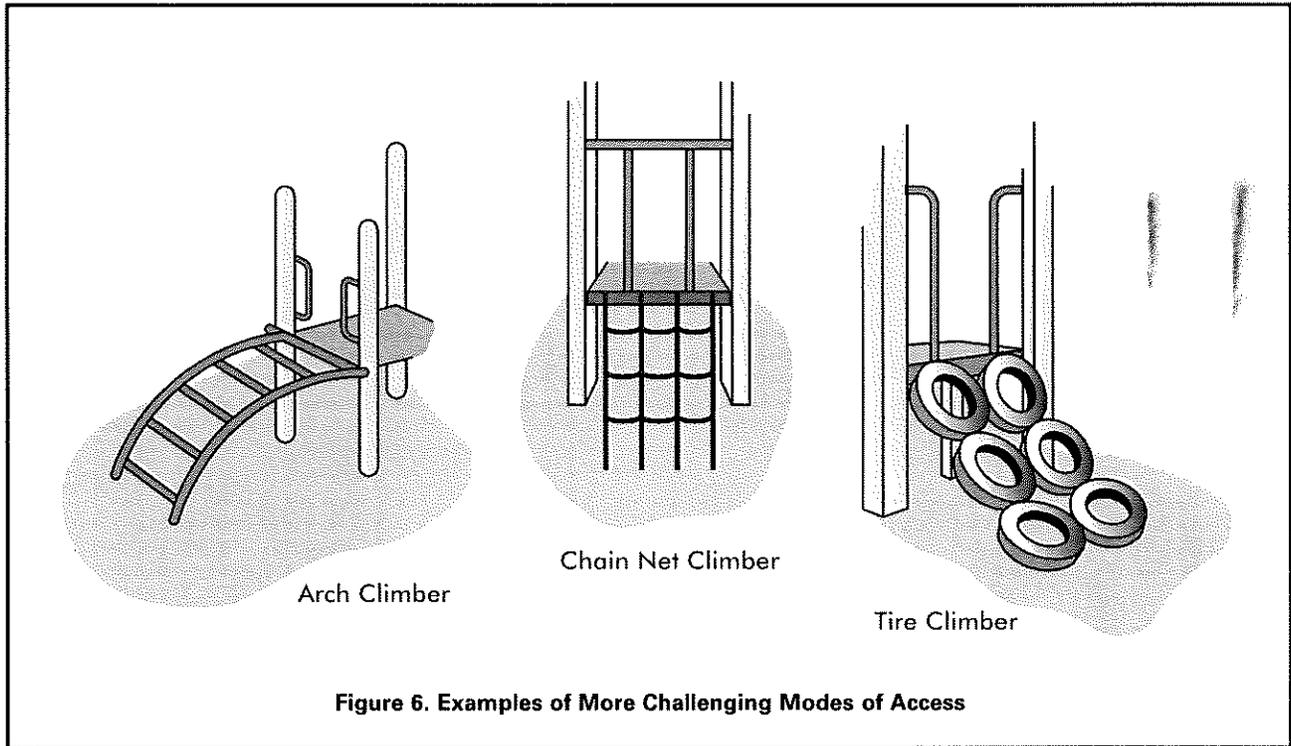


Figure 6. Examples of More Challenging Modes of Access

5.2 Access Methods to Play Equipment

Access to playground equipment can take many forms, such as conventional ramps, stairways with steps, and ladders with steps or rungs. Access may also be by means of climbing components, such as arch climbers, climbing nets, and tire climbers (see Figure 6).

As children develop, they gain better balance and coordination, so it is important to pick appropriate access methods based on the age group. Table 5 shows the most common methods of access and the youngest appropriate age group.

Access to platforms over 6 feet high (except for free-standing slides) should provide an intermediate standing surface so that the child can pause and make a decision to keep going up or find another way down. Children generally master access before egress, that is, they can go up before they can get back down a difficult component. Therefore, if there are more difficult access methods, it is important to have easier components for egress.

Method of Access	Challenge Level	Appropriate for
Ramps	Easiest	Toddlers +
Straight stairways	Easy	Toddlers +
Spiral stairways	Moderate	Toddlers* +
Step ladders	Moderate	15 months* +
Rung ladders	Moderate	Preschool* +
Arch climbers	Difficult	Preschool* +
Flexible climbers (nets, tires)	Difficult	Preschool* +
* only if an easy egress method is also provided		

5.2.1 Ramps, stairways, rung ladders, and step ladders

Ramps, stairways, rung ladders, and step ladders each have different recommendations for slope and tread dimension, but the steps or rungs always should be evenly spaced - even the spacing between the top step or rung and the surface of the platform. Table 6 contains recommended dimensions for: access slope; tread or rung width; tread depth; rung diameter; and vertical rise for rung ladders, step ladders, and stairways. Table 6 also contains slope and width recommendations for ramps. However, these recommendations are not intended to address ramps designed for access by wheelchairs.

- Openings between steps or rungs and between the top step or rung and underside of a platform should prevent entrapment.

- When risers are closed, treads on stairways and ladders should prevent the accumulation of sand, water, or other materials on or between steps.
- Climbing equipment should allow children to descend as easily as they ascend. One way of implementing this recommendation is to provide an easier, alternate means of descent, such as another mode of egress, a platform, or another piece of equipment. For example, a stairway can be added to provide a less challenging mode of descent than a vertical rung ladder or flexible climbing device (see Table 5).
- For toddlers and preschool-age children, offering an easy way out is particularly important since their ability to descend climbing components develops later than their ability to climb up the same components.

Table 6. Recommended dimensions for access ladders, stairs, and ramps*			
AGE OF INTENDED USER			
Type of Access	Toddler	Preschool-age	School-age
<i>Ramps (not intended to meet ADA/ABA specifications)</i>			
Slope (vertical:horizontal)	< 1:8	≤ 1:8	≤ 1:8
Width (single)	≥ 19"	≥ 12"	≥ 16"
Width (double)	≥ 30"	≥ 30"	≥ 36"
<i>Stairways</i>			
Slope	≤ 35°	< 50°	< 50°
Tread width (single)	12-21"	≥ 12"	≥ 16"
Tread width (double)	≥ 30"	≥ 30"	≥ 36"
Tread depth (open riser)	Not appropriate	≥ 7"	≥ 8"
Tread depth (closed riser)	≥ 8"	≥ 7"	≥ 8"
Vertical rise	≤ 7"	≤ 9"	≤ 12"
<i>Step ladders</i>			
Slope	35≤65°	50-75°	50-75°
Tread width (single)	12-21"	12-21"	≥ 16"
Tread width (double)	Not appropriate	Not appropriate	≥ 36"
Tread depth (open riser)	Not appropriate	≥ 7"	≥ 3"
Tread depth (closed riser)	8"	≥ 7"	≥ 6"
Vertical rise	> 5" and ≤ 7"	≤ 9"	≤ 12"
<i>Rung ladders</i>			
Slope	Not appropriate	75-90°	75-90°
Rung width	Not appropriate	≥ 12"	≥ 16"
Vertical rise	Not appropriate	≤ 12"	≤ 12"
Rung diameter	Not appropriate	0.95-1.55"	0.95-1.55"
* entrapment recommendations apply to all openings in access components			

5.2.2 Rungs and other hand gripping components

Unlike steps of stairways and step ladders that are primarily for foot support, rungs can be used for both foot and hand support.

- Rungs with round shapes are easiest for children to grip.
- All hand grips should be secured in a manner that prevents them from turning.
- Toddlers:
 - Handrails or other means of hand support should have a diameter or maximum cross-section between 0.60 and 1.20 inches.
 - A diameter or maximum cross-section of 0.90 inches is preferred to achieve maximal grip strength and benefit the weakest children.
- Preschool- and school-age:
 - Rungs, handrails, climbing bars, or other means of hand support intended for holding should have a diameter or maximum cross-section between 0.95 and 1.55 inches.
 - A diameter or maximum cross-section of 1.25 inches is preferred to achieve maximal grip strength and benefit the weakest children.

5.2.3 Handrails

Handrails on stairways and step ladders are intended to provide hand support and to steady the user. Continuous handrails extending over the full length of the access should be provided on both sides of all stairways and step ladders, regardless of the height of the access. Rung ladders do not require handrails since rungs or side supports provide hand support on these more steeply inclined accesses.

5.2.3.1 Handrail height

Handrails should be available for use at the appropriate height, beginning with the first step. The vertical distance between the top front edge of a step or ramp surface and the top surface of the handrail above it should be as follows:

- Toddlers: between 15 and 20 inches.
- Preschool-age: between 22 and 26 inches.
- School-age: between 22 and 38 inches.

5.2.4 Transition from access to platform

Handrails or handholds are recommended at all transition points (the point where the child must move from the access component to the play structure platform).

- The handhold should provide support from the access component until the child has fully achieved the desired posture on the platform.
- Any opening between a handrail and an adjacent vertical structure (e.g., vertical support post for a platform or vertical slat of a protective barrier) should not pose an entrapment hazard.
- Access methods that do not have handrails, such as rung ladders, flexible climbers, arch climbers, and tire climbers, should provide hand supports for the transition between the top of the access and the platform.

5.3 Major Types of Playground Equipment

5.3.1 Balance beams

- Balance beams should be no higher than:
- Toddlers: not recommended.
- Preschool-age: 12 inches.
- School-age: 16 inches.



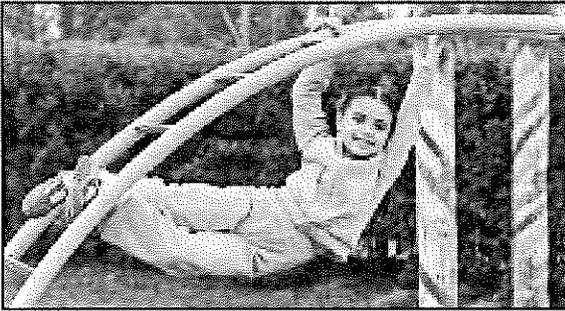
5.3.1.1 Fall height

The fall height of a balance beam is the distance between the top of the walking surface and the protective surfacing beneath it.

5.3.2 Climbing and upper body equipment

Climbing equipment is generally designed to present a greater degree of physical challenge than other equipment on public playgrounds. This type of equipment requires the use of the hands to navigate up or across the equipment. "Climbers" refers to a wide variety of equipment, such as but not limited to:

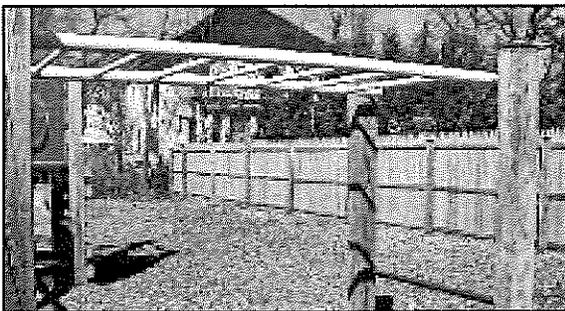
- Arch climbers
- Dome climbers
- Flexible climbers (usually chain or net)
- Parallel bars
- Sliding poles



Simple Arch Climber



Geodesic Dome Climber



Overhead Horizontal Ladder



Overhead Loop Ladder

Figure 7. Examples of climbers

- Spiral climbers
- Upper body equipment (horizontal overhead ladders, overhead rings, track ride).

School-age children tend to use climbing and upper body equipment more frequently and more proficiently than preschool children. Young preschool children may have difficulty using some climbers because they have not yet developed some of the physical skills necessary for certain climbing activities (balance, coordination, and upper body strength). Older preschool children (i.e., 4- and 5-year-olds) are beginning to use flexible climbers, arch climbers, and upper body devices.

5.3.2.1 Design considerations

5.3.2.1.1 Layout of climbing components

When climbing components are part of a composite structure, their level of challenge and method of use should be compatible with the traffic flow from nearby components. Upper body devices should be placed so that the swinging movement generated by children on this equipment cannot interfere with the movement of children on adjacent structures, particularly children descending on slides. The design of adjacent play structures should not facilitate climbing to the top support bars of upper body equipment.

5.3.2.1.2 Fall Height

Climbers:

- Unless otherwise specified in this section, the fall height for climbers is the distance between the highest part of the climbing component and the protective surfacing beneath it.
- If the climber is part of a composite structure, the fall height is the distance between the highest part of the climber intended for foot support and the protective surfacing beneath it.
 - Toddlers: The maximum fall height for free standing and composite climbing structures should be 32 inches.

Upper Body Equipment:

- The fall height of upper body equipment is the distance between the highest part of the equipment and the protective surface below.

5.3.2.1.3 Climbing rungs

Some of the access methods discussed in §5.2 are also considered climbing devices; therefore, the recommendations for the size of climbing rungs are similar.

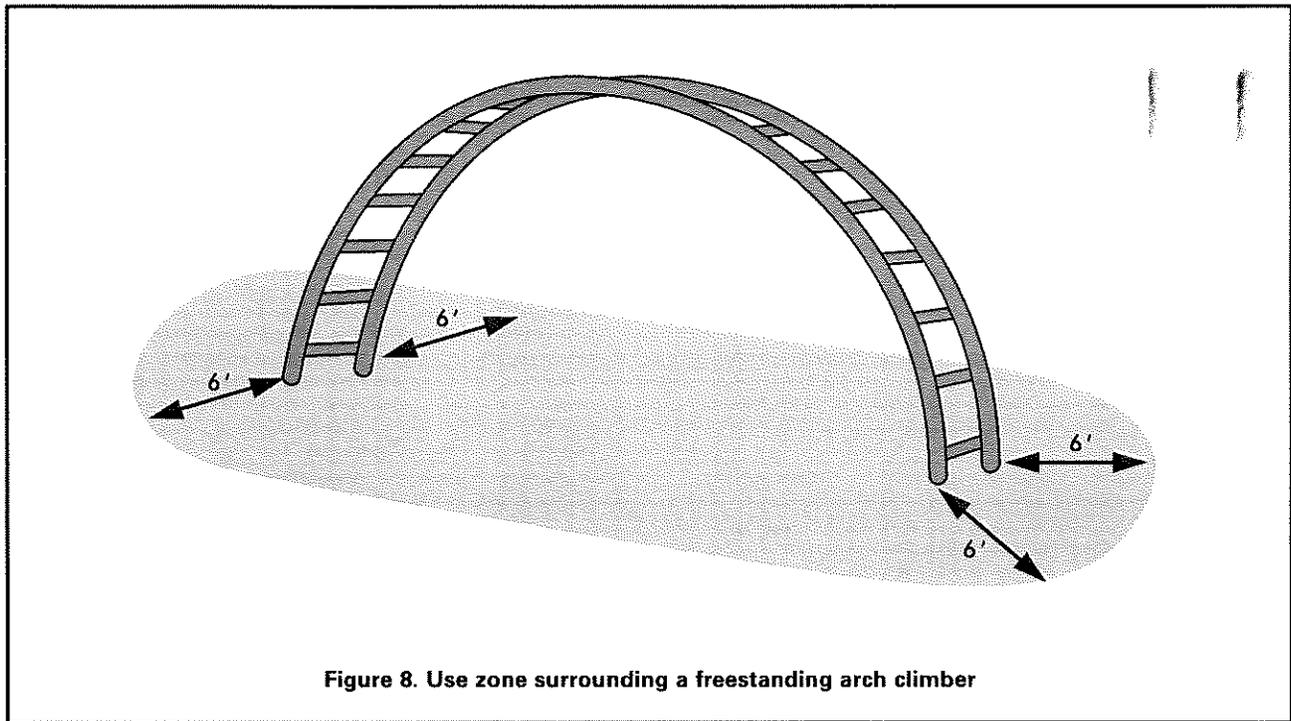


Figure 8. Use zone surrounding a freestanding arch climber

- Rungs should be generally round.
- All rungs should be secured in a manner that prevents them from turning.
- Climbing rungs should follow the same diameter recommendations as in §5.2.2.

5.3.2.1.4 Use zone

- The use zone should extend a minimum of 6 feet in all directions from the perimeter of the stand alone climber. See Figure 8.
- The use zone of a climber may overlap with neighboring equipment if the other piece of equipment allows overlapping use zones and
 - There is at least 6 feet between equipment when adjacent designated play surfaces are no more than 30 inches high; or
 - There is at least 9 feet between equipment when adjacent designated play surfaces are more than 30 inches high.

5.3.2.1.5 Other considerations

- Climbers should not have climbing bars or other rigid structural components in the interior of the climber onto

which a child may fall from a height of greater than 18 inches. See Figure 9 for an example of a climber that **DOES NOT** follow this consideration.



Figure 9: Climber with rigid structural components that DOES NOT meet 5.3.2.1.5

5.3.2.2 Arch climbers

Arch climbers consist of rungs attached to convex side supports. They may be free standing (Figure 10) or be provided as a more challenging means of access to other equipment (Figure 11).

- Arch climbers should not be used as the sole means of access to other equipment for preschoolers.
- Free standing arch climbers are not recommended for toddlers or preschool-age children.
- The rung diameter and spacing of rungs on arch climbers should follow the recommendations for rung ladders in Table 6.

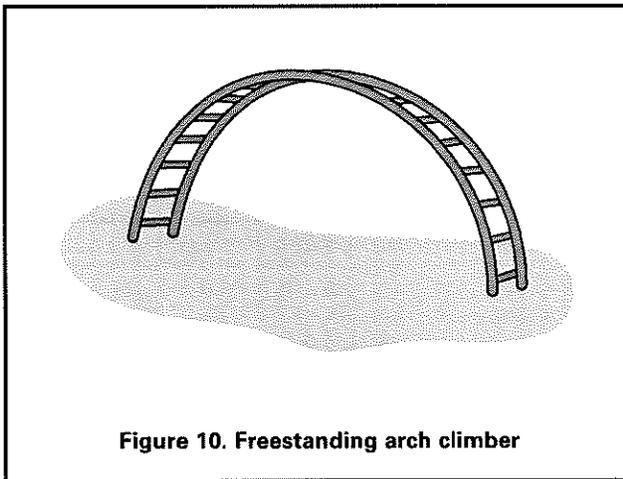


Figure 10. Freestanding arch climber

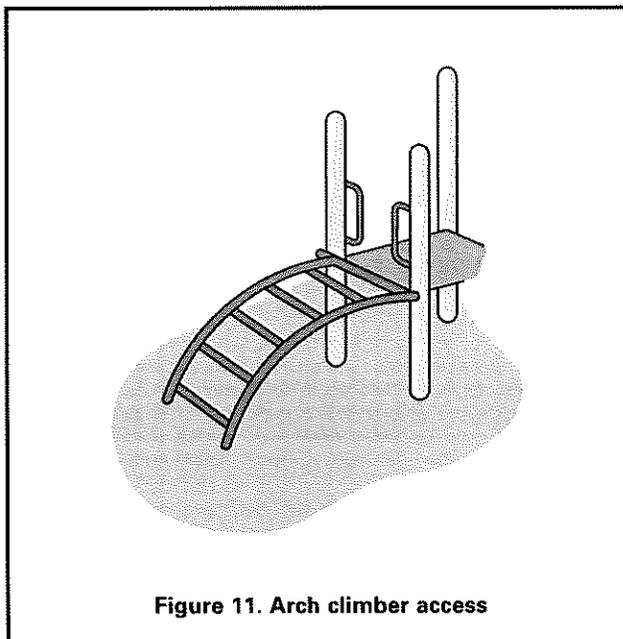


Figure 11. Arch climber access

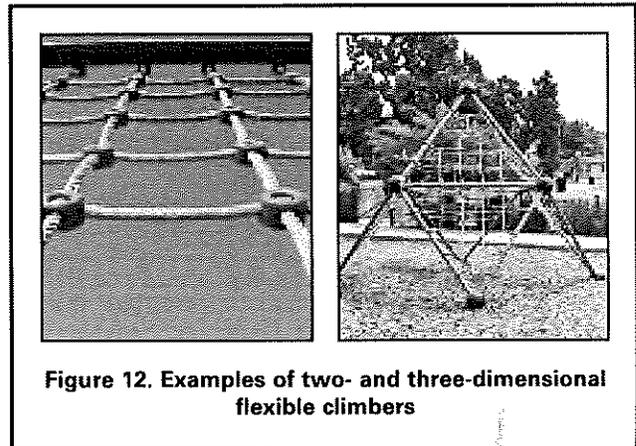


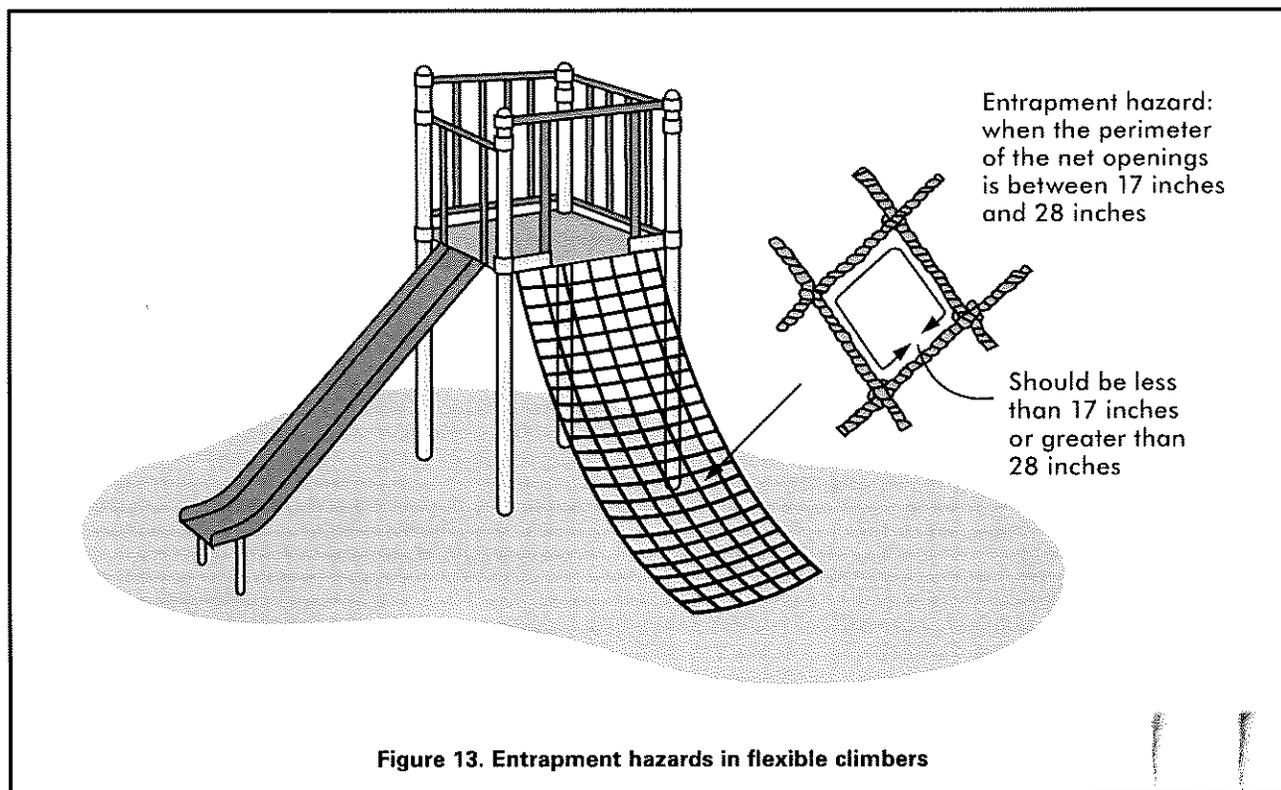
Figure 12. Examples of two- and three-dimensional flexible climbers

5.3.2.3 Flexible climbers

Flexible climbers use a grid of ropes, chains, cables, or tires for climbing. Since the flexible parts do not provide a steady means of support, flexible climbers require more advanced balance abilities than rigid climbers.

Rope, chain, and cable generally form a net-like structure that may be either two or three dimensional. See Figure 12. Tire climbers may have the tires secured tread-to-tread to form a sloping grid, or the tires may be suspended individually by chains or other means.

- Flexible climbers that provide access to platforms should be securely anchored at both ends.
- When connected to the ground, the anchoring devices should be installed below ground level and beneath the base of the protective surfacing material.
- Connections between ropes, cables, chains, or between tires should be securely fixed.
- Flexible climbers are not recommended as the sole means of access to equipment intended for toddlers and preschool-age children.
- Free-standing flexible climbers are not recommended on playgrounds intended for toddlers and preschool children.
- Spacing between the horizontal and vertical components of a climbing grid should not form entrapment hazards.
- The perimeter of any opening in a net structure should be less than 17 inches or greater than 28 inches (see Figure 13).



5.3.2.4 Horizontal (overhead) ladders

Horizontal (overhead) ladders are a type of climber designed to build upper body strength. They are designed to allow children to move across the ladder from end to end using only their hands.

Four-year-olds are generally the youngest children able to use upper body devices like these; therefore, horizontal ladders should not be used on playgrounds intended for toddlers and 3-year-olds. The recommendations below are designed to accommodate children ages 4 through 12 years.

- The first handhold on either end of upper body equipment should not be placed directly above the platform or climbing rung used for mount or dismount. This minimizes the risk of children impacting rigid access structures if they fall from the first handhold during mount or dismount.
- The horizontal distance out to the first handhold should be:
 - No greater than 10 inches but not directly above the platform when access is from a platform.
 - At least 8 inches but no greater than 10 inches when access is from climbing rungs.
- The space between adjacent rungs of overhead ladders should be greater than 9 inches to prevent entrapment.
- Horizontal ladders intended for preschool-age children should have rungs that are parallel to one another and evenly spaced.
- The maximum height of a horizontal ladder (i.e., measured from the center of the grasping device to the top of the protective surfacing below) should be:
 - Preschool-age (4 and 5 years): no more than 60 inches.
 - School-age: no more than 84 inches.
- The center-to-center spacing of horizontal ladder rungs should be as follows:
 - Preschool-age (4 and 5 years): no more than 12 inches.
 - School-age: no more than 15 inches.
- The maximum height of the take-off/landing platform above the protective surfacing should be:
 - Preschool-age (4 and 5 years): no more than 18 inches.
 - School-age: no more than 36 inches.

5.3.2.5 Overhead rings

Overhead rings are similar to horizontal ladders in terms of the complexity of use. Therefore, overhead rings should not be used on playgrounds intended for toddlers and 3-year-olds. The recommendations below are designed to accommodate children 4 through 12 years of age.

Overhead rings differ from horizontal ladders because, during use, the gripped ring swings through an arc and reduces the distance to the gripping surface of the next ring; therefore, the spacing distance recommendations for horizontal ladders do not apply.

- The first handhold on either end of upper body equipment should not be placed directly above the platform or climbing rung used for mount or dismount. This minimizes the risk of children hitting rigid access structures if they fall from the first handhold during mount or dismount.
- The horizontal distance out to the first handhold should be:
 - No greater than 10 inches but not directly above the platform when access is from a platform.
 - At least 8 inches but no greater than 10 inches when access is from climbing rungs.
- The maximum height of overhead rings measured from the center of the grasping device to the protective surfacing should be:
 - Preschool-age (4 and 5 years): 60 inches.
 - School-age: 84 inches.
- If overhead swinging rings are suspended by chains, the maximum length of the chains should be 7 inches.
- The maximum height of the take-off/landing platform above the protective surfacing should be:
 - Preschool-age (4 and 5 years): no more than 18 inches.
 - School-age: no more than 36 inches.

5.3.2.6 Sliding poles

Vertical sliding poles are more challenging than some other types of climbing equipment. They require upper body strength and coordination to successfully slide down the pole. Unlike other egress methods, there is no reverse or stop, so a child cannot change his or her mind. Children who start a sliding pole must have the strength to slide the whole way or they will fall.

- Sliding poles are not recommended for toddlers or preschool-age children since they generally don't have the upper body and/or hand strength to slide.

- Sliding poles should be continuous with no protruding welds or seams along the sliding surface.
- The pole should not change direction along the sliding portion.
- The horizontal distance between a sliding pole and any structure used for access to the sliding pole should be between 18 inches and 20 inches.
- The pole should extend at least 60 inches above the level of the platform or structure used for access to the sliding pole.
- The diameter of sliding poles should be no greater than 1.9 inches.
- Sliding poles and their access structures should be located so that traffic from other events will not interfere with the users during descent.
- Upper access should be on one level only.
- The upper access area through the guardrail or barrier should be 15 inches wide at most.

5.3.2.6.1 Fall height

- For sliding poles accessed from platforms, the fall height is the distance between the platform and the protective surfacing beneath it.
- For sliding poles not accessed from platforms, the fall height is the distance between a point 60 inches below the highest point of the pole and the protective surfacing beneath it.
- The top of the sliding pole's support structure should not be a designated play surface.

5.3.2.7 Track rides

Track rides are a form of upper body equipment where the child holds on to a handle or other device that slides along a track above his or her head. The child then lifts his or her feet and is carried along the length of the track. Track rides require significant upper body strength and the judgment to know when it is safe to let go. These are skills not developed until children are at least school-age; therefore, CPSC staff recommends:

- Track rides should not be used on playgrounds for toddlers and preschool-age children.
- Track rides should not have any obstacles along the path of the ride, including anything that would interfere in the take-off or landing areas.

- Two track rides next to each other should be at least 4 feet apart.
- The handle should be between 64 inches and 78 inches from the surfacing and follow the gripping recommendations in §5.2.2.
- Nothing should ever be tied or attached to any moving part of a track ride.
- Rolling parts should be enclosed to prevent crush hazards.

5.3.2.7.1 Fall height

- The fall height of track ride equipment is the distance between the maximum height of the equipment and the protective surface beneath it.
- Equipment support posts with no designated play surfaces are exempt from this requirement.

5.3.3 Log rolls

Log rolls help older children master balance skills and increase strength. Children must balance on top of the log as they spin it with their feet. See Figure 14.

- Log rolls are not recommended for toddlers and preschool-age children. These children generally do not possess the balance, coordination, and strength to use a log roll safely.
- Log rolls should have handholds to assist with balance.
- The handholds should follow the guidelines in §5.2.2.
- The highest point of the rolling log should be a maximum of 18 inches above the protective surface below.
- When not part of a composite structure, the use zone may overlap with neighboring equipment if the other piece of equipment allows overlapping use zones (see §5.3.9) and
 - There is at least 6 feet between equipment when adjacent designated play surfaces are no more than 30 inches high; or
 - There is at least 9 feet between equipment when adjacent designated play surfaces are more than 30 inches high.

5.3.3.1.1 Fall height

The fall height of a log roll is the distance between the highest portion of the rolling log and the protective surfacing beneath it.

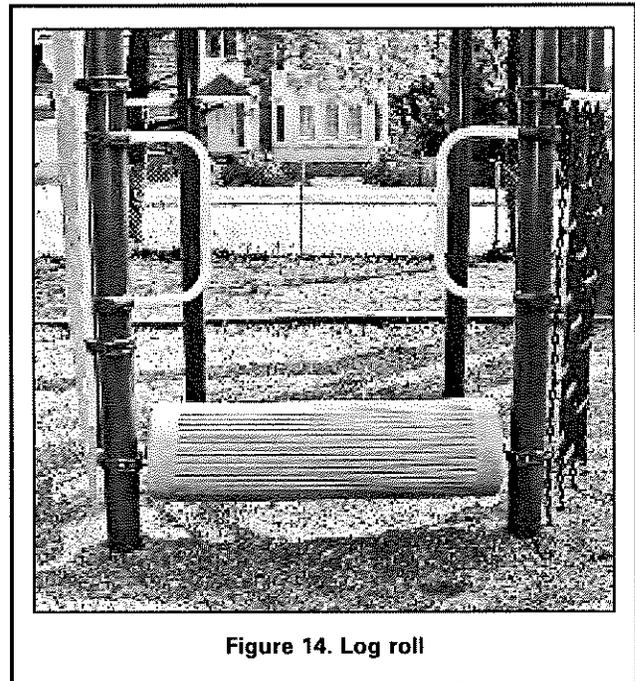


Figure 14. Log roll

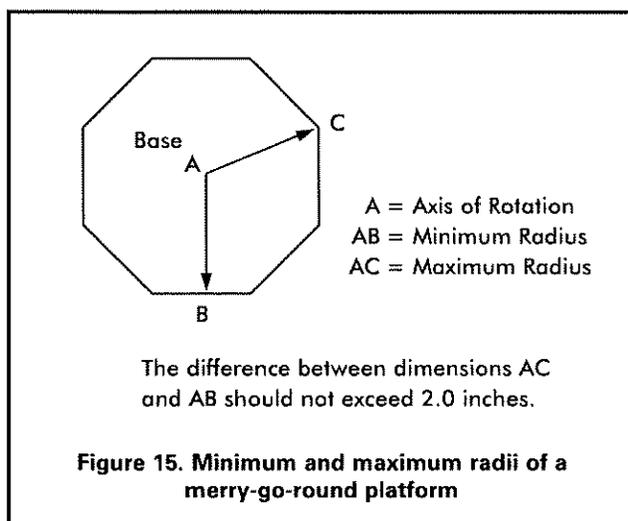
5.3.4 Merry-go-rounds

Merry-go-rounds are the most common rotating equipment found on public playgrounds. Children usually sit or stand on the platform while other children or adults push the merry-go-round to make it rotate. In addition, children often get on and off the merry-go-round while it is in motion. Merry-go-rounds may present a physical hazard to preschool-age children who have little or no control over such products once they are in motion. Therefore, children in this age group should always be supervised when using merry-go-rounds.

The following recommendations apply when the merry-go-round is at least 20 inches in diameter.

- Merry-go-rounds should not be used on playgrounds intended for toddlers.
- The standing/sitting surface of the platform should have a maximum height of:
 - Preschool: 14 inches above the protective surface.
 - School-age: 18 inches above the protective surface.
- The rotating platform should be continuous and approximately circular.
- The surface of the platform should not have any openings between the axis and the periphery that permit a rod having a diameter of 5/16 inch to penetrate completely through the surface.

- The difference between the minimum and maximum radii of a non-circular platform should not exceed 2.0 inches (Figure 15).



- The underside of the perimeter of the platform should be no less than 9 inches above the level of the protective surfacing beneath it.
- There should not be any accessible shearing or crushing mechanisms in the undercarriage of the equipment.
- Children should be provided with a secure means of holding on. Where handgrips are provided, they should conform to the general recommendations for hand gripping components in §5.2.2.
- No components of the apparatus, including handgrips, should extend beyond the perimeter of the platform.
- The rotating platform of a merry-go-round should not have any sharp edges.
- A means should be provided to limit the peripheral speed of rotation to a maximum of 13 ft/sec.
- Merry-go-round platforms should not have any up and down (oscillatory) motion.

5.3.4.1 Use zone

- The use zone should extend a minimum of 6 feet beyond the perimeter of the platform.
- The use zone may not overlap other use zones, unless the rotating equipment is less than 20 inches in diameter and the adjacent equipment allows overlap.

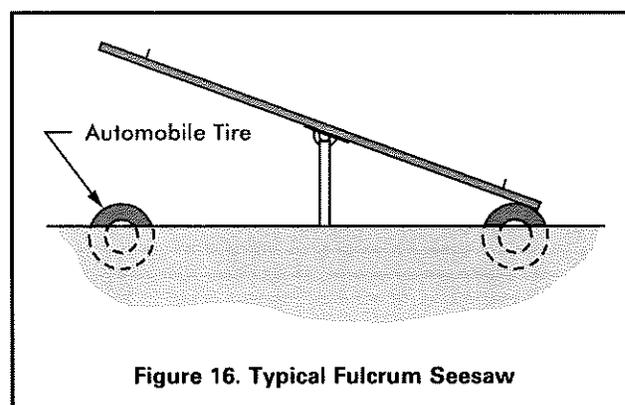
5.3.4.2 Fall height

The fall height for a merry-go-round is the distance between the perimeter of the platform where a child could sit or stand and the protective surfacing beneath it.

5.3.5 Seesaws

5.3.5.1 Fulcrum seesaws

The typical seesaw (also known as a “teeter totter”) consists of a board or pole with a seat at each end supported at the center by a fulcrum. See Figure 16. Because of the complex way children are required to cooperate and combine their actions, fulcrum seesaws are not recommended for toddlers or preschool-age children.



- The fulcrum should not present a crush hazard.
- Partial car tires, or some other shock-absorbing material, should be embedded in the ground underneath the seats, or secured on the underside of the seats. This will help prevent limbs from being crushed between the seat and the ground, as well as cushion the impact.
- The maximum attainable angle between a line connecting the seats and the horizontal is 25°.
- There should not be any footrests.

5.3.5.2 Spring-centered seesaws

Preschool-age children are capable of using spring-centered seesaws because the centering device prevents abrupt contact with the ground if one child dismounts suddenly. Spring-centered seesaws also have the advantage of not requiring two children to coordinate their actions in order to play safely. Spring-centered seesaws should follow the recommendations for spring rockers including the use of footrests (§5.3.7).

5.3.5.3 Use zone for fulcrum and spring-centered seesaws

- The use zone should extend a minimum of 6 feet from each outside edge of the seesaw.
- The use zone may overlap with neighboring equipment if the other piece of equipment allows overlapping use zones and
 - There is at least 6 feet between equipment when adjacent designated play surfaces are no more than 30 inches high; or
 - There is at least 9 feet between equipment when adjacent designated play surfaces are more than 30 inches high.

5.3.5.4 Handholds

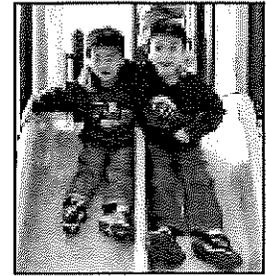
- Handholds should be provided at each seating position for gripping with both hands and should not turn when grasped.
- Handholds should not protrude beyond the sides of the seat.

5.3.5.5 Fall height

The fall height for a seesaw is the distance between the highest point any part of the seesaw can reach and the protective surfacing beneath it.

5.3.6 Slides

Children can be expected to descend slide chutes in many different positions, rather than always sitting and facing forward as they slide. These other positions should be discouraged at all times to minimize injuries.



Slides may provide a straight, wavy, or spiral descent either by means of a tube or an open slide chute. They may be either free-standing (Figure 17), part of a composite structure, or built on the grade of a natural or man-made slope (embankment slide). Regardless of the type of slide, avoid using bare metals on the platforms, chutes, and steps. When exposed to direct sunlight the bare metal may reach temperatures high enough to cause serious contact burn injuries in a matter of seconds. Provide shade for bare metal slides or use other materials that may reduce the surface temperature such as, but not limited to, plastic or coated metal.

5.3.6.1 Slide access

Access to a stand-alone slide generally is by means of a ladder with rungs, steps, or a stairway with steps. Slides may also be part of a composite play structure, so children will gain access from other parts of the structure. Embankment slides use the ground for access.

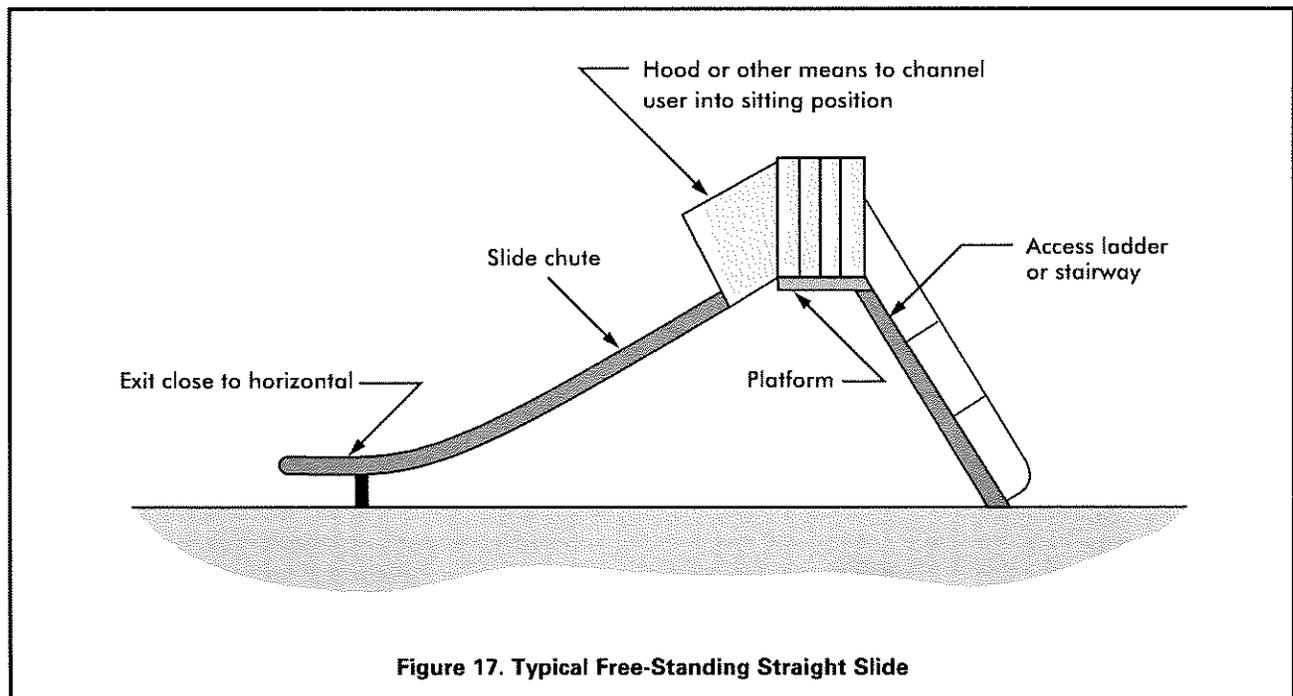


Figure 17. Typical Free-Standing Straight Slide

5.3.6.2 Slide platform

All slides should be provided with a platform with sufficient length to facilitate the transition from standing to sitting at the top of the inclined sliding surface. Embankment slides are exempt from platform requirements because they are on ground level; however, they should not have any spaces or gaps as noted below.

The platform should:

- Be at least 19 inches deep for toddlers.
- Be at least 14 inches deep for preschool-age and school-age children.
- Be horizontal.
- Be at least as wide as the slide chute.
- Be surrounded by guardrails or barriers.
- Conform to the same recommendations as general platforms given in §5.1.1.
- Not have any spaces or gaps that could trap strings, clothing, body parts, etc. between the platform and the start of the slide chute.
- Provide handholds to facilitate the transition from standing to sitting and decrease the risk of falls (except tube slides where the tube perimeter provides hand support). These should extend high enough to provide hand support for the largest child in a standing position, and low enough to provide hand support for the smallest child in a sitting position.
- Provide a means to channel a user into a sitting position at the entrance to the chute, such as a guardrail, hood, or other device that discourages climbing.

5.3.6.3 Slide chutes

5.3.6.3.1 Embankment slides

- The slide chute of an embankment slide should have a maximum height of 12 inches above the underlying ground surface. This design basically eliminates the hazard of falls from elevated heights.
- Embankment slides should follow all of the recommendations given for straight slides where applicable (e.g., side height, slope, use zone at exit, etc.).
- There should be some means provided at the slide chute entrance to minimize the use of embankment slides by children on skates, skateboards, or bicycles.

5.3.6.3.2 Roller slides

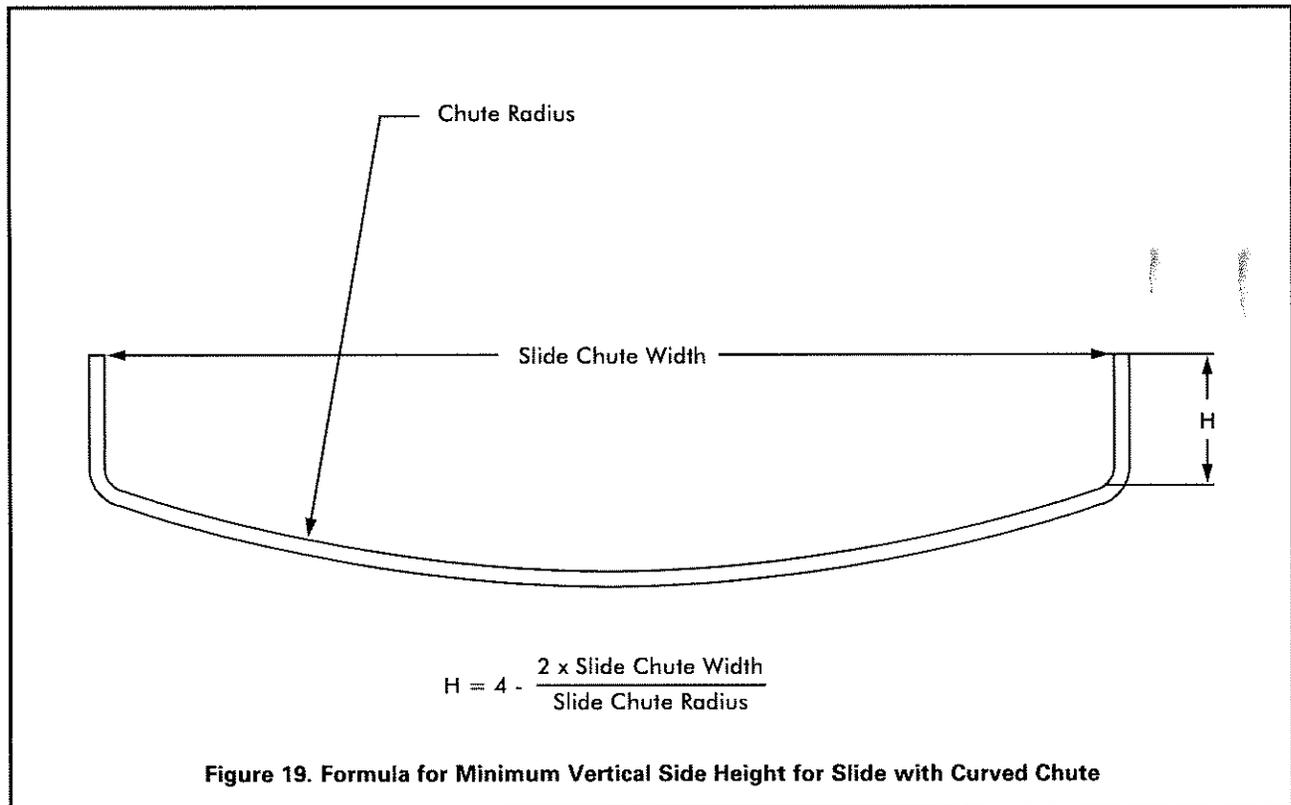
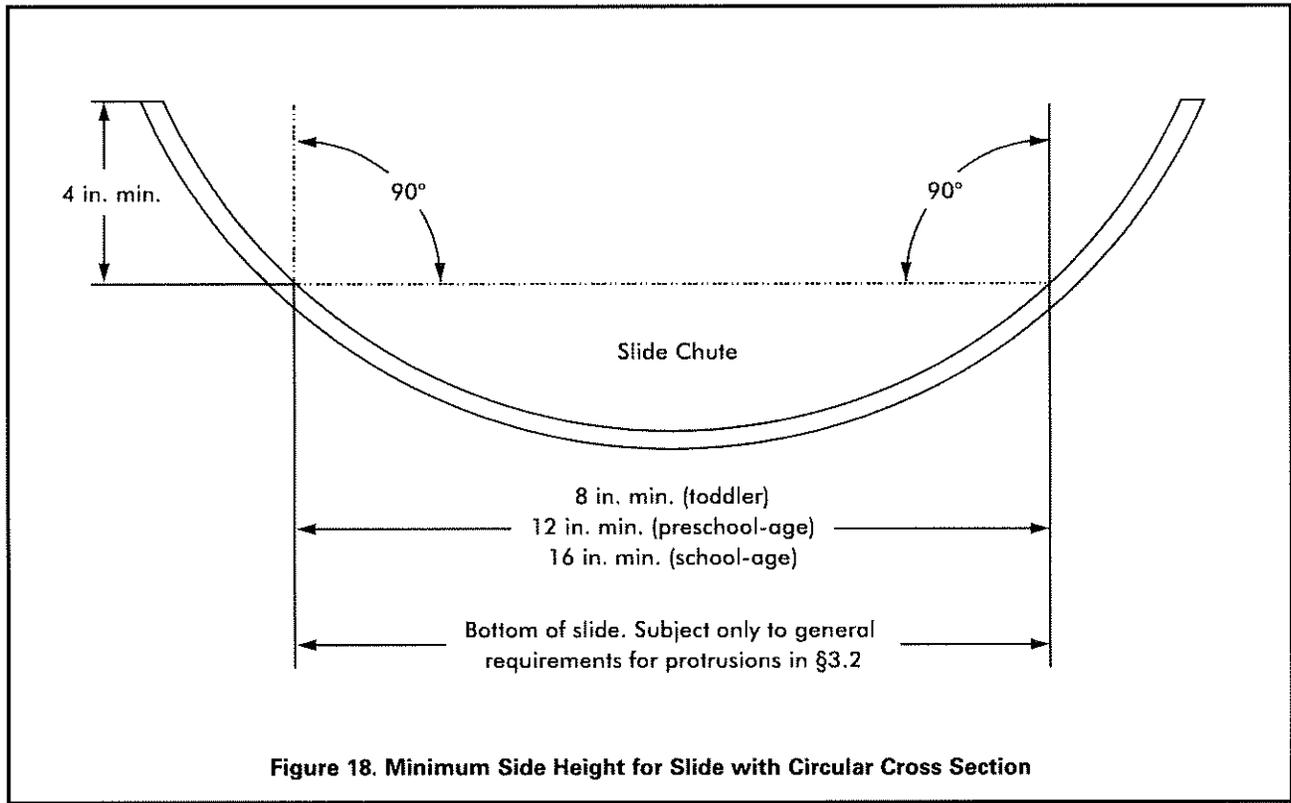
- Roller slides should meet applicable recommendations for other slides (e.g., side height, slope, use zone at exit, etc.).
- The space between adjacent rollers and between the ends of the rollers and the stationary structure should be less than 3/16 inch.
- Frequent inspections are recommended to insure that there are no missing rollers or broken bearings and that the rollers roll.

5.3.6.3.3 Spiral slides

- Spiral slides should follow the recommendations for straight slides where applicable (e.g., side height, slope, use zone at exit, etc.).
- Special attention should be given to design features which may present problems unique to spiral slides, such as lateral discharge of the user.
- Toddlers and preschool-age children have less ability to maintain balance and postural control, so only short spiral slides (one 360° turn or less) are recommended for these age groups.

5.3.6.3.4 Straight slides

- Flat open chutes should have sides at least 4 inches high extending along both sides of the chute for the entire length of the inclined sliding surface.
- The sides should be an integral part of the chute, without any gaps between the sides and the sliding surface. (This does not apply to roller slides).
- Slides may have an open chute with a circular, semicircular or curved cross section provided that:
 - A. The vertical height of the sides is no less than 4 inches when measured at right angles to a horizontal line that is 8 inches long when the slide is intended for toddlers, 12 inches long when the slide is intended for preschool-age children, and 16 inches long when the slide is intended for school-age children (Figure 18); or
 - B. For any age group, the vertical height of the sides is no less than 4 inches minus two times the width of the slide chute divided by the radius of the slide chute curvature (Figure 19).



- For toddlers:
 - The average incline of a slide chute should be no more than 24° (that is, the height to horizontal length ratio shown in Figure 20 does not exceed 0.445).
 - No section of the slide chute should have a slope greater than 30°.
 - The slide chute should be between 8 and 12 inches wide.
- For preschool- and school-age children:
 - The average incline of a slide chute should be no more than 30° (that is, the height to horizontal length ratio shown in Figure 20 does not exceed 0.577).
 - No section of the slide chute should have a slope greater than 50°.

5.3.6.3.5 Tube slides

- Tube slides should meet all the applicable recommendations for other slides (e.g., side height, slope, use zone at exit, etc.).
- Means, such as barriers or textured surfaces, should be provided to prevent sliding or climbing on the top (outside) of the tube.
- The minimum internal diameter of the tube should be no less than 23 inches.
- Supervisors should be aware of children using tube slides since the children are not always visible.

5.3.6.4 Chute exit region

All slides should have an exit region to help children maintain their balance and facilitate a smooth transition from sitting to standing when exiting. The chute exit region should:

- Be between 0 and -4° as measured from a plane parallel to the ground.
- Have edges that are rounded or curved to prevent lacerations or other injuries that could result from impact with a sharp or straight edge.
- For toddlers the chute exit region should:
 - Be between 7 and 10 inches long if any portion of the chute exceeds a 24° slope.
 - Be no more than 6 inches above the protective surfacing.
 - Have a transition from the sliding portion to the exit region with a radius of curvature of at least 18 inches.
- For preschool- and school-age the chute exit region should:
 - Be at least 11 inches long.
 - Be no more than 11 inches above the protective surfacing if the slide is no greater than 4 feet high.
 - Be at least 7 inches but not more than 15 inches above the protective surfacing if the slide is over 4 feet high.

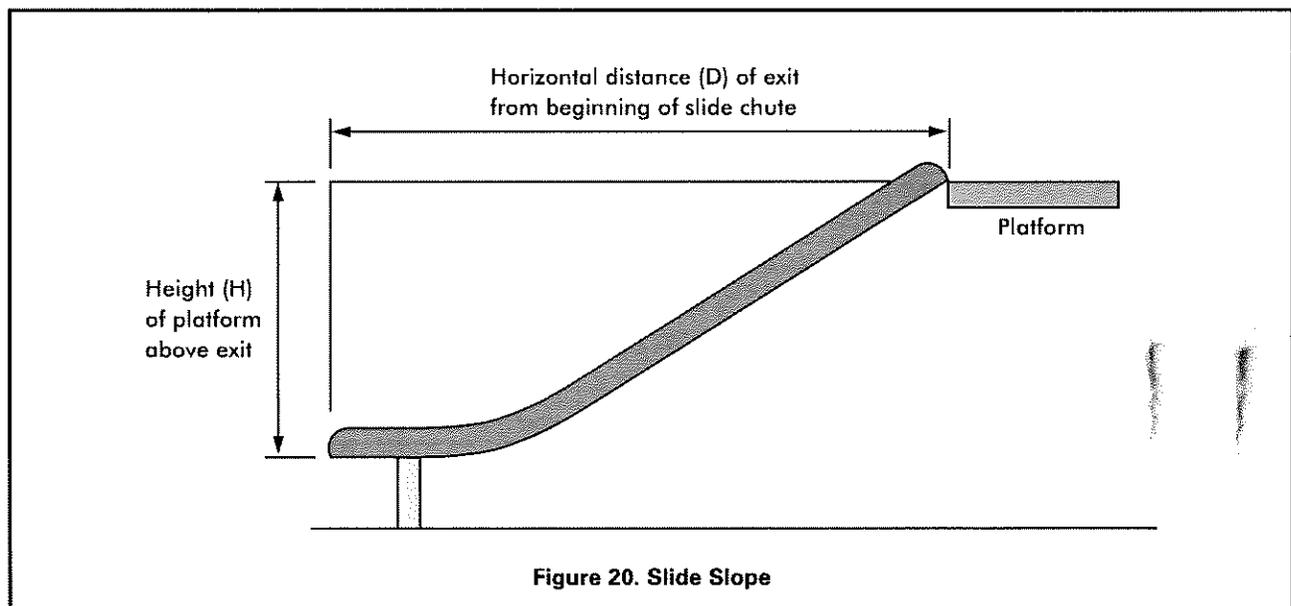


Figure 20. Slide Slope

5.3.6.5 Slide use zone

Toddlers:

- In a limited access environment
 - The use zone should be at least 3 feet around the perimeter of the slide.
 - The area at the end of the slide should not overlap with the use zone for any other equipment.
- In public areas with unlimited access
 - For a stand-alone slide, the use zone should be at least 6 feet around the perimeter.
 - For slides that are part of a composite structure, the minimum use zone between the access components and the side of the slide chute should be 3 feet.
 - The use zone at the end of the slide should be at least 6 feet from the end of the slide and not overlap with the use zone for any other equipment.

Preschool- and school-age (see Figure 21):

- The use zone in front of the access and to the sides of a slide should extend a minimum of 6 feet from the perimeter of the equipment. This recommendation does not apply to embankment slides or slides that are part of a composite structure (see §5.3.9).
- The use zone in front of the exit of a slide should never overlap the use zone of any other equipment; however, two or more slide use zones may overlap if their sliding paths are parallel.
- For slides less than or equal to 6 feet high, the use zone in front of the exit should be at least 6 feet.
- For slides greater than 6 feet high, the use zone in front of the exit should be at least as long as the slide is high up to a maximum of 8 feet.

5.3.6.6 Fall height

The fall height for slides is the distance between the transition platform and the protective surfacing beneath it.

5.3.6.7 Entanglement hazard

Children have suffered serious injuries and died by getting parts of their clothing tangled on protrusions or gaps on slides.

To reduce the chance of clothing entanglement:

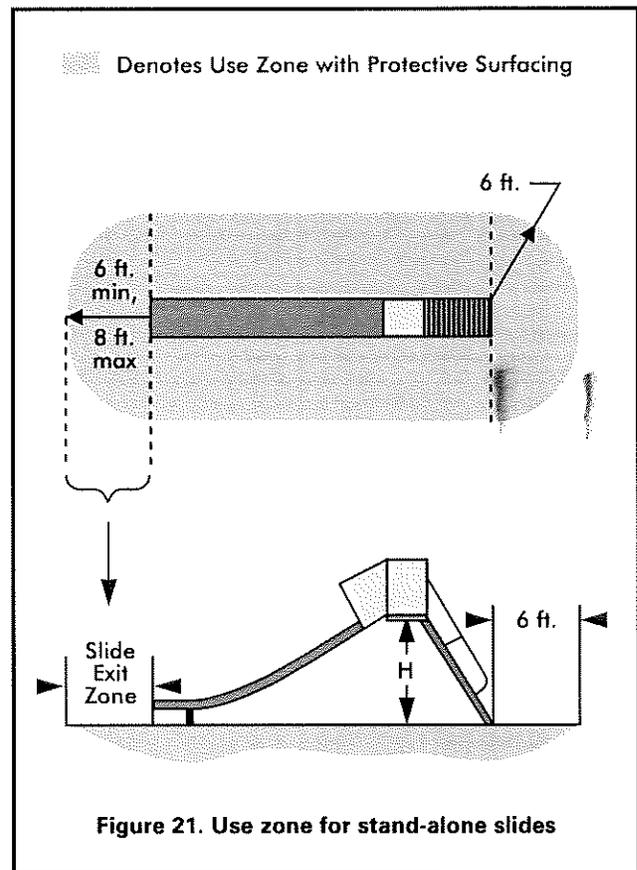


Figure 21. Use zone for stand-alone slides

- Projections up to 3 inches in diameter should not stick up more than 1/8 inch from the slide.
- There should be no gaps at the tops of slides where the slide chute connects with the platform that can entangle clothing or strings.
- See Appendix B for full recommendations and details of the protrusion test procedure.

5.3.6.8 Other sliding equipment

Equipment where it is foreseeable that a primary use of the component is sliding should follow the same guidelines for entanglement that are in 5.3.6.7.

5.3.7 Spring rockers

Toddlers and preschool-age children enjoy the bouncing and rocking activities presented by spring rockers, and they are the primary users of rocking equipment. See Figure 22. Older children may not find it challenging enough.

- Seat design should not allow the rocker to be used by more than the intended number of users.

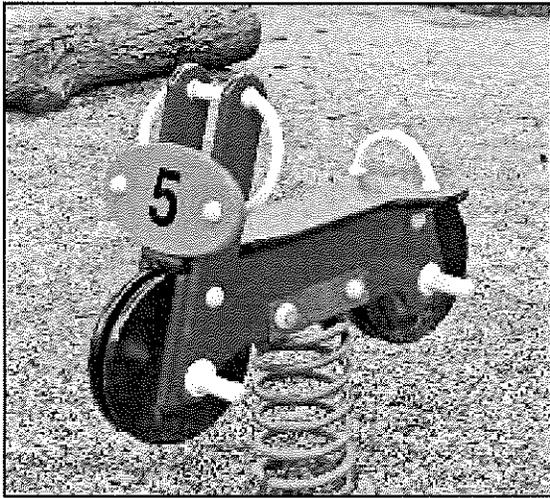


Figure 22. Example of spring rocker

- For toddlers:
 - The seat should be between 12 and 16 inches high.
 - Spring rockers with opposing seats intended for more than one child should have at least 37 inches between the seat centers.
- For preschoolers:
 - The seat should be between 14 and 28 inches high.
- Each seating position should be equipped with handgrips and footrests. The diameter of handgrips should follow the recommendations for hand gripping components in §5.2.2.
- The springs of rocking equipment should minimize the possibility of children crushing their hands or their feet between coils or between the spring and a part of the rocker.
- The use zone should extend a minimum of 6 feet from the “at rest” perimeter of the equipment.
- The use zone may overlap with neighboring equipment if the other piece of equipment allows overlapping use zones and
 - There is at least 6 feet between equipment when adjacent designated play surfaces are no more than 30 inches high; or
 - There is at least 9 feet between equipment when adjacent designated play surfaces are more than 30 inches high; and
 - The spring rocker is designed to be used from a seated position.

5.3.7.1 Fall height

The fall height of spring rockers is the distance between either (1) the highest designated playing surface or (2) the seat, whichever is higher, and the protective surfacing beneath it.

5.3.8 Swings

Children of all ages generally enjoy the sensations created while swinging. Mostly they sit on the swings; however, it is common to see children jumping off swings. Younger children also tend to swing on their stomachs, and older children may stand on the seats. To prevent injuries, these behaviors should be discouraged.

Swings may be divided into two distinct types:

- Single axis: Sometimes called a to-fro swing. A single-axis swing is intended to swing back and forth in a single plane and generally consists of a seat supported by at least two suspending members, each of which is connected to a separate pivot on an overhead structure.
- Multi-axis: A multi-axis swing consists of a seat (generally a tire) suspended from a single pivot that permits it to swing in any direction.

5.3.8.1 General swing recommendations

- Hardware used to secure the suspending elements to the swing seat and to the supporting structure should not be removable without the use of tools.
- S-hooks are often part of a swing’s suspension system, either attaching the suspending elements to the overhead support bar or to the swing seat. Open S-hooks can catch a child’s clothing and present a strangulation hazard. S-hooks should be pinched closed. An S-hook is considered closed if there is no gap or space greater than 0.04 inches (about the thickness of a dime).
- Swings should be suspended from support structures that discourage climbing.
- A-frame support structures should not have horizontal cross-bars.

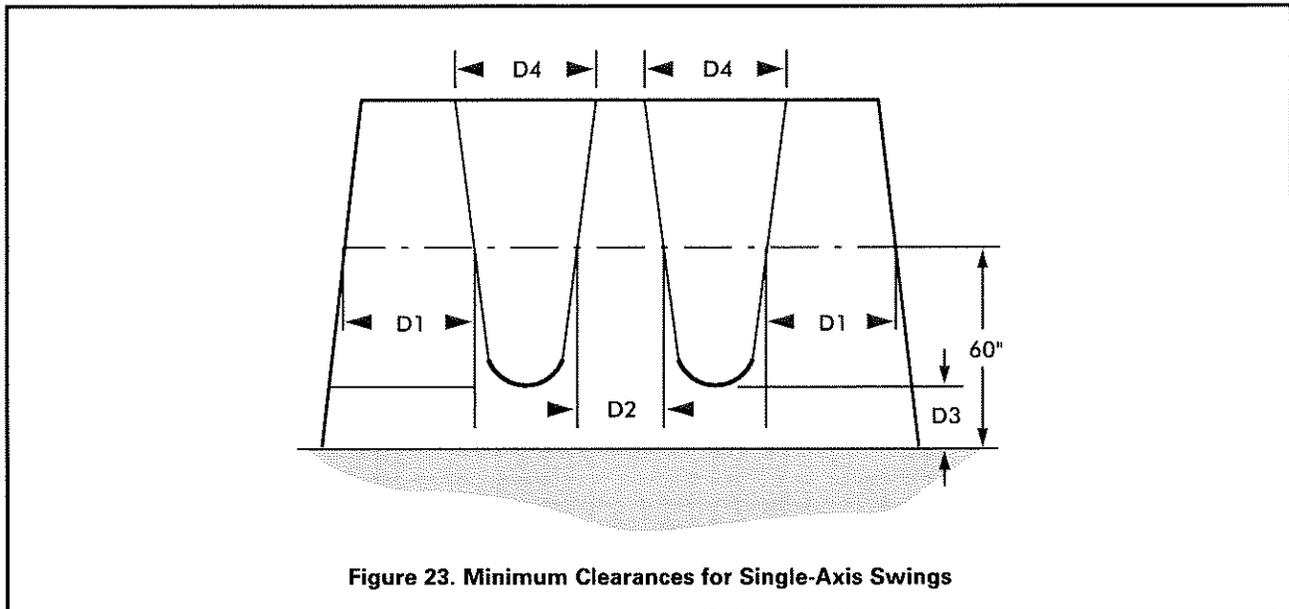


Figure 23. Minimum Clearances for Single-Axis Swings

Table 7. Minimum clearance dimensions for swings				
Reason	Dimension	Toddler Full bucket	Preschool-age Belt	School-age Belt
Minimizes collisions between a swing and the supporting structure	D1	20 inches	30 inches	30 inches
Minimizes collisions between swings	D2	20 inches	24 inches	24 inches
Allows access	D3	24 inches	12 inches	12 inches
Reduces side-to-side motion	D4	20 inches	20 inches	20 inches

- Fiber ropes are not recommended as a means of suspending swings since they may degrade over time.
- Swing structures should be located away from other equipment or activities to help prevent young children from inadvertently running into the path of moving swings. Additional protection can be provided by means of a low blockade such as a fence or hedge around the perimeter of the swing area. The blockade should not be an obstacle within the use zone of a swing structure or hamper supervision by blocking visibility.

5.3.8.2 Fall height

The fall height for swings is the vertical distance between the pivot point and the protective surfacing beneath it.

5.3.8.3 Single-axis swings

5.3.8.3.1 Belt seats used without adult assistance

- The use zone to the front and rear of single-axis swings should never overlap the use zone of another piece of equipment.
- To minimize the likelihood of children being struck by a moving swing, it is recommended that no more than two single-axis swings be hung in each bay of the supporting structure.

- Swings should not be attached to composite structures.
- Swing seats should be designed to accommodate no more than one user at any time.
- Lightweight rubber or plastic swing seats are recommended to help reduce the severity of impact injuries. Wood or metal swing seats should be avoided.
- Edges of seats should have smoothly finished or rounded edges and should conform to the protrusion recommendations in 5.3.8.5.
- If loose-fill material is used as a protective surfacing, the height recommendations should be determined after the material has been compressed.

5.3.8.3.2 Full bucket seat swings

Full bucket seat swings are similar to single-axis swings since they move in a to-fro direction. However, full bucket seat swings are intended for children under 4 years of age to use with adult assistance.

- The seats and suspension systems of these swings, including the related hardware, should follow all of the criteria for conventional single axis swings.
- Full bucket seats are recommended to provide support on all sides of a child and between the legs of the occupant (see Figure 24).



Figure 24. Example of full bucket seat swings

- The full bucket seat materials should not present a strangulation hazard, such as might be presented with a rope or chain used as part of the seat.
- Openings in swing seats should conform to the entrapment criteria in §3.3.
- Full bucket seat swings should be suspended from structures that are separate from those for other swings, or at least suspended from a separate bay of the same structure.
- Full bucket seat swings should not allow the child to enter and exit alone.
- Pivot points should be more than 47 inches but no more than 96 inches above the protective surfacing.

5.3.8.3.3 Use zone for single-axis swings – belt and full bucket

The use zone in front of and behind the swing should be greater than to the sides of such a swing since children may deliberately attempt to exit from a single-axis swing while it is in motion. See Figure 25.

- The use zone for a belt swing should extend to the front and rear of a single-axis swing a minimum distance of twice the vertical distance from the pivot point and the top of the protective surface beneath it.
- The use zone for a full bucket swing should extend to the front and rear a minimum of twice the vertical distance from the top of the occupant's sitting surface to the pivot point.
- The use zone in front of and behind swings should never overlap with any other use zone.
- The use zone to the sides of a single-axis swing should extend a minimum of 6 feet from the perimeter of the swing. This 6-foot zone may overlap that of an adjacent swing structure or other playground equipment structure.

5.3.8.4 Multi-axis (tire) swings

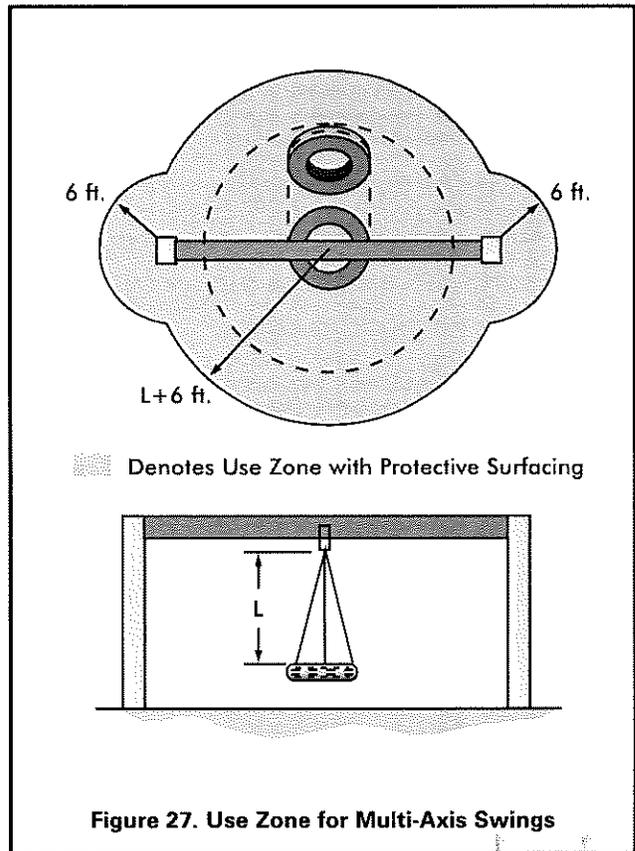
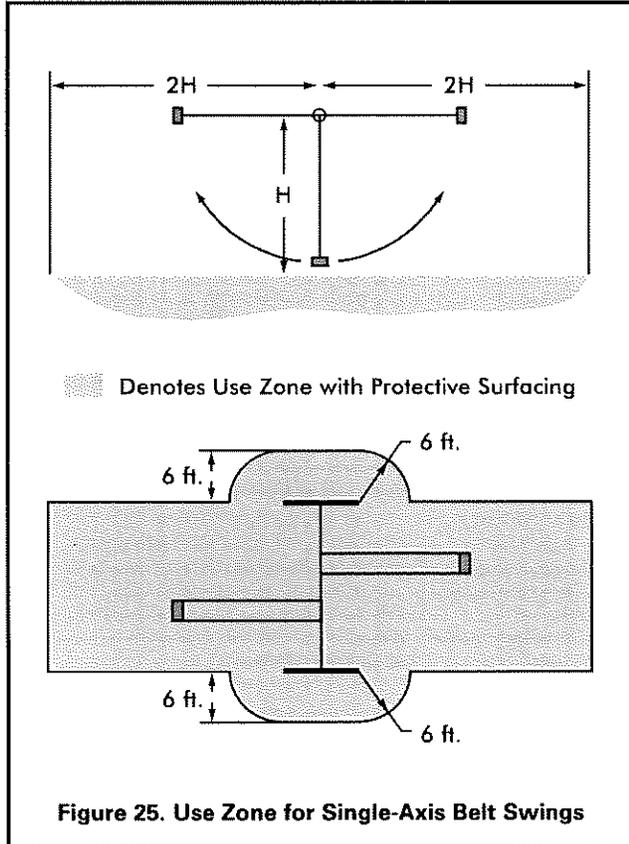
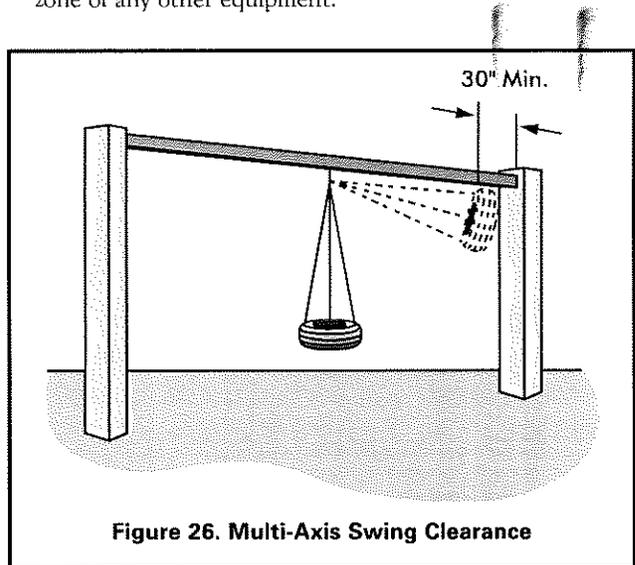
Tire swings are usually suspended in a horizontal orientation using three suspension chains or cables connected to a single swivel mechanism that permits both rotation and swinging motion in any axis.

- A multi-axis tire swing should not be suspended from a structure having other swings in the same bay.
- Attaching multi-axis swings to composite structures is not recommended.

- To minimize the hazard of impact, heavy truck tires should be avoided. Further, if steel-belted radials are used, they should be closely examined to ensure that there are no exposed steel belts or wires that could be a potential protrusion or laceration hazard. Plastic materials can be used as an alternative to simulate actual automobile tires. Drainage holes should be provided in the underside of the tire.
- Pay special attention to maintenance of the hanger mechanism because the likelihood of failure is higher for tire swings due to the added stress of rotational movement and multiple occupants.
- The hanger mechanisms for multi-axis tire swings should not have any accessible crush points.
- The minimum clearance between the seating surface of a tire swing and the uprights of the supporting structure should be 30 inches when the tire is in a position closest to the support structure (Figure 26).
- The minimum clearance between the bottom of the seat and the protective surface should not be less than 12 inches.

5.3.8.4.1 Multi-axis swing use zones

- The use zone should extend in any direction from a point directly beneath the pivot point for a minimum distance of 6 feet plus the length of the suspending members (see Figure 27). This use zone should never overlap the use zone of any other equipment.



- The use zone should extend a minimum of 6 feet from the perimeter of the supporting structure. This 6-foot zone may overlap that of an adjacent swing structure or other playground equipment structure.

5.3.8.5 Protrusions on suspended members of swing assemblies

Protrusions on swings are extremely hazardous because of the potential for impact incidents. Nothing, including bolts or other parts, on the front, back, or underside of a swing should stick out more than 1/8 of an inch. See test procedures in Appendix B.

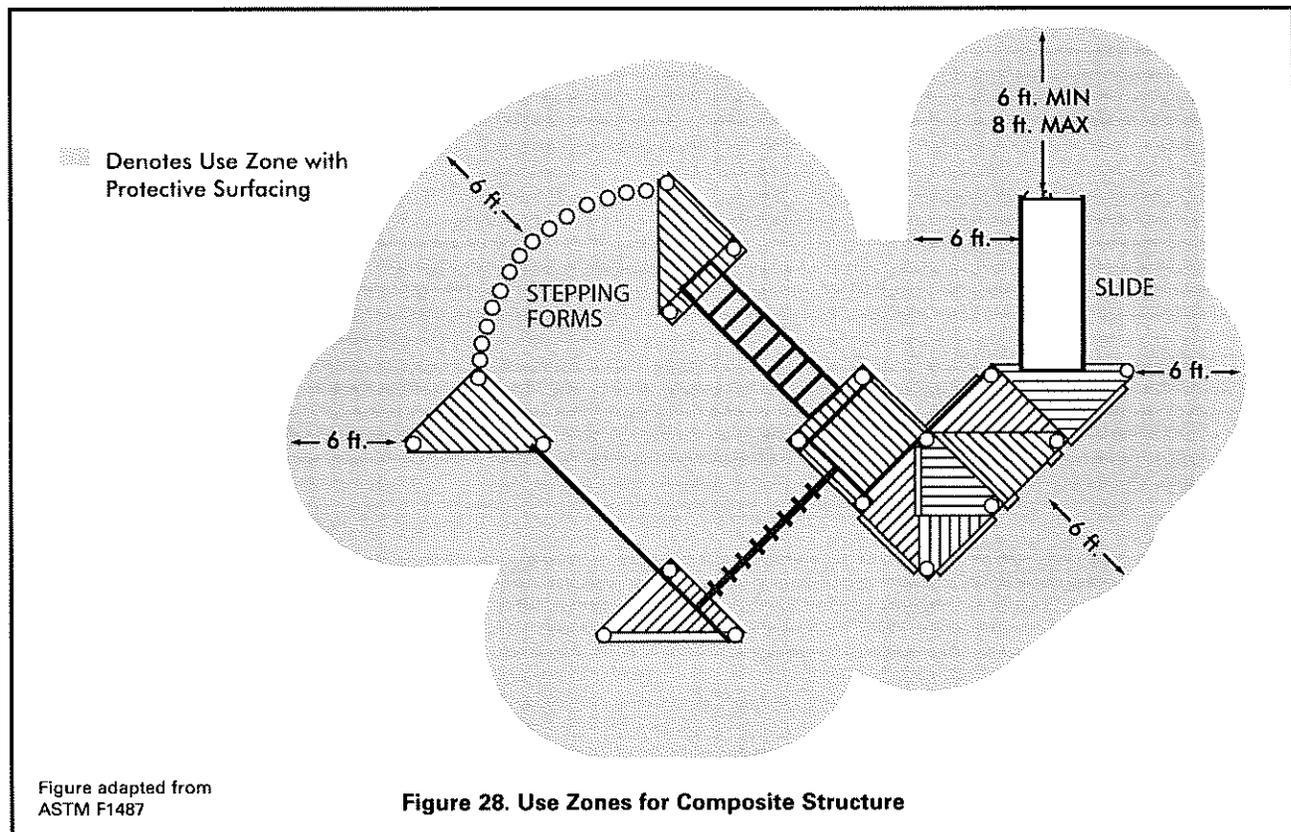
5.3.9 Fall height and use zones for composite structure

When two or more complementary play components are linked together in a composite structure (e.g., combination climber, slide, and horizontal ladder), the use zone should extend a minimum of 6 feet from the external perimeter of the structure (see Figure 28). Where slides are attached to a platform higher than 6 feet from the protective surfacing, the use zone may need to extend further in front of the slide (see §5.3.6.5).

5.3.10 Fall height and use zones not specified elsewhere

Most playground equipment belongs in one of the categories listed above. If it does not, the following general recommendations should be applied:

- The fall height of a piece of playground equipment is the distance between the highest designated playing surface and the protective surface beneath it.
- The use zone should extend a minimum of 6 feet in all directions from the perimeter of the equipment.
- The use zones of two stationary pieces of playground equipment that are positioned adjacent to one another may overlap if the adjacent designated play surfaces of each structure are no more than 30 inches above the protective surface and the equipment is at least 6 feet apart.
- If adjacent designated play surfaces on either structure exceed a height of 30 inches, the minimum distance between the structures should be 9 feet.
- Use zones should be free of obstacles.



APPENDIX A: SUGGESTED GENERAL MAINTENANCE CHECKLISTS

Surfacing (§2.4)

- Adequate protective surfacing under and around the equipment.
 - Install/replace surfacing
- Surfacing materials have not deteriorated.
 - Replace surfacing
 - Other maintenance: _____
- Loose-fill surfacing materials have no foreign objects or debris.
 - Remove trash and debris
- Loose-fill surfacing materials are not compacted.
 - Rake and fluff surfacing
- Loose-fill surfacing materials have not been displaced under heavy use areas such as under swings or at slide exits.
 - Rake and fluff surfacing

Drainage (§2.4)

- The entire play area has satisfactory drainage, especially in heavy use areas such as under swings and at slide exits.
 - Improve drainage
 - Other maintenance: _____

General Hazards

- There are no sharp points, corners or edges on the equipment (§3.4).
- There are no missing or damaged protective caps or plugs (§3.4).
- There are no hazardous protrusions (§3.2 and Appendix B).
- There are no potential clothing entanglement hazards, such as open S-hooks or protruding bolts (§2.5.2, §3.2, §5.3.8.1 and Appendix B).
- There are no crush and shearing points on exposed moving parts (§3.1).
- There are no trip hazards, such as exposed footings or anchoring devices and rocks, roots, or any other obstacles in a use zone (§3.6).

NOTES:

DATE OF INSPECTION:

Security of Hardware (§2.5)

- There are no loose fastening devices or worn connections.
 - Replace fasteners
 - Other maintenance: _____
- Moving parts, such as swing hangers, merry-go-round bearings, and track rides, are not worn.
 - Replace part
 - Other maintenance: _____

Durability of Equipment (§2.5)

- There are no rust, rot, cracks, or splinters on any equipment (check carefully where it comes in contact with the ground).
- There are no broken or missing components on the equipment (e.g., handrails, guardrails, protective barriers, steps, or rungs).
- There are no damaged fences, benches, or signs on the playground.
- All equipment is securely anchored.

Leaded Paint (§2.5.4)

- Paint (especially lead paint) is not peeling, cracking, chipping, or chalking.
- There are no areas of visible leaded paint chips or accumulation of lead dust.
 - Mitigate lead paint hazards

General Upkeep of Playgrounds (§4)

- There are no user modifications to the equipment, such as strings and ropes tied to equipment, swings looped over top rails, etc.
 - Remove string or rope
 - Correct other modification
- The entire playground is free from debris or litter such as tree branches, soda cans, bottles, glass, etc.
 - Clean playground
- There are no missing trash receptacles.
 - Replace trash receptacle
- Trash receptacles are not full.
 - Empty trash

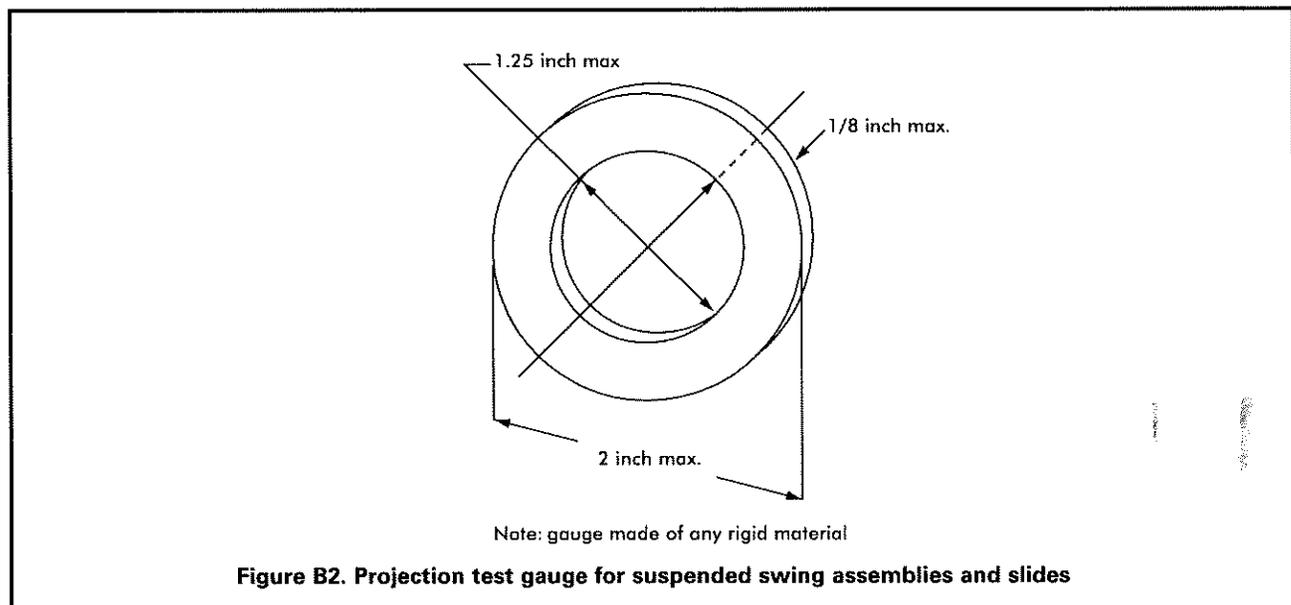
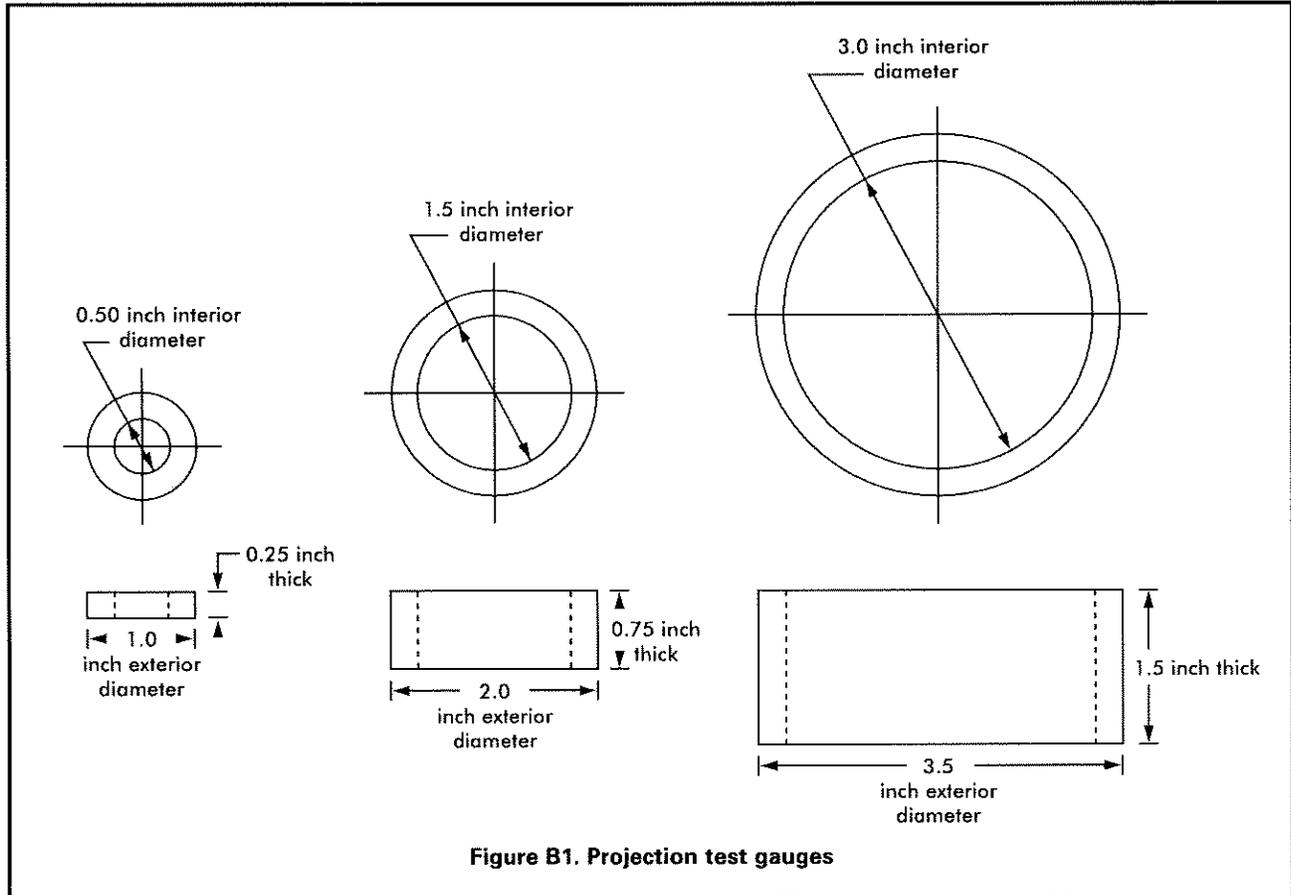
INSPECTION BY:

Routine Inspection and Maintenance Issues

- Broken equipment such as loose bolts, missing end caps, cracks, etc.
- Broken glass & other trash
- Cracks in plastics
- Loose anchoring
- Hazardous or dangerous debris
- Insect damage
- Problems with surfacing
- Displaced loose-fill surfacing (see Section 4.3)
- Holes, flakes, and/or buckling of unitary surfacing
- User modifications (such as ropes tied to parts or equipment rearranged)
- Vandalism
- Worn, loose, damaged, or missing parts
- Wood splitting
- Rusted or corroded metals
- Rot

APPENDIX B: PLAYGROUND TESTING

B.1 Templates, Gauges, and Testing Tools



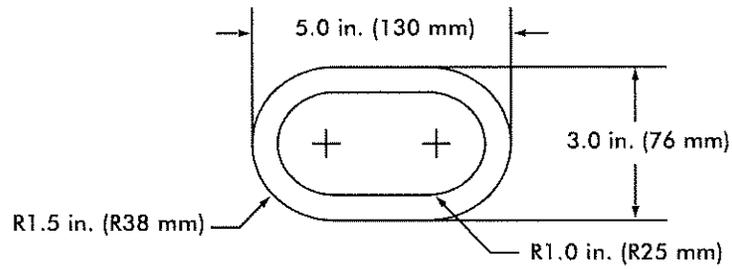


Figure B3. Toddler small torso template

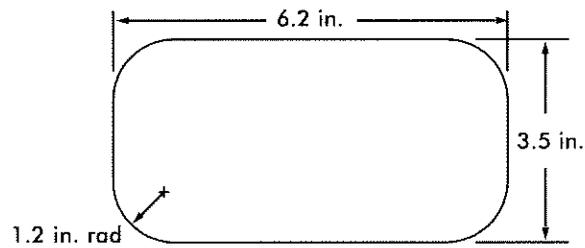


Figure B4. Preschool- and school-age small torso template

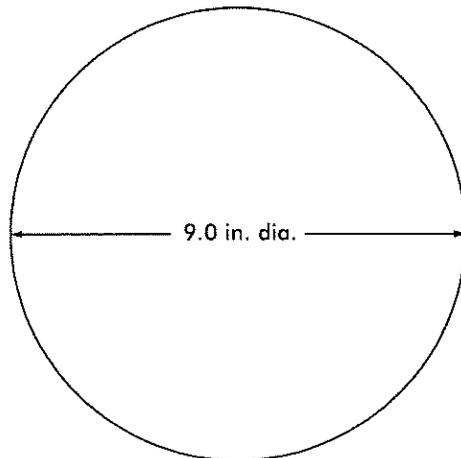
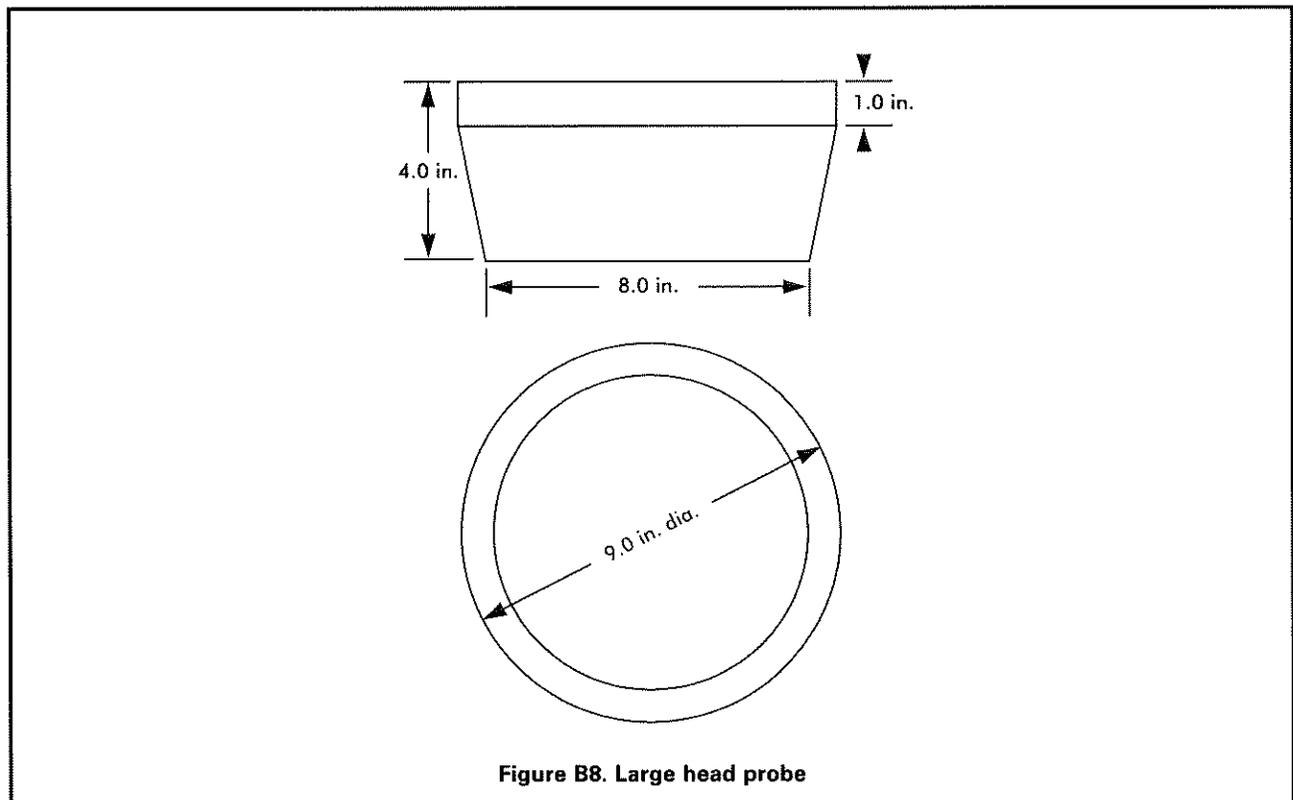
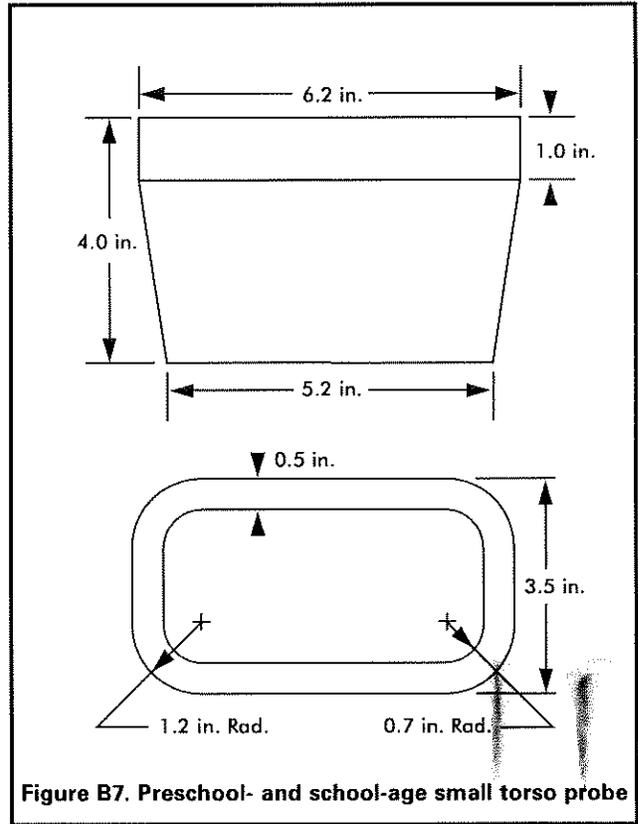
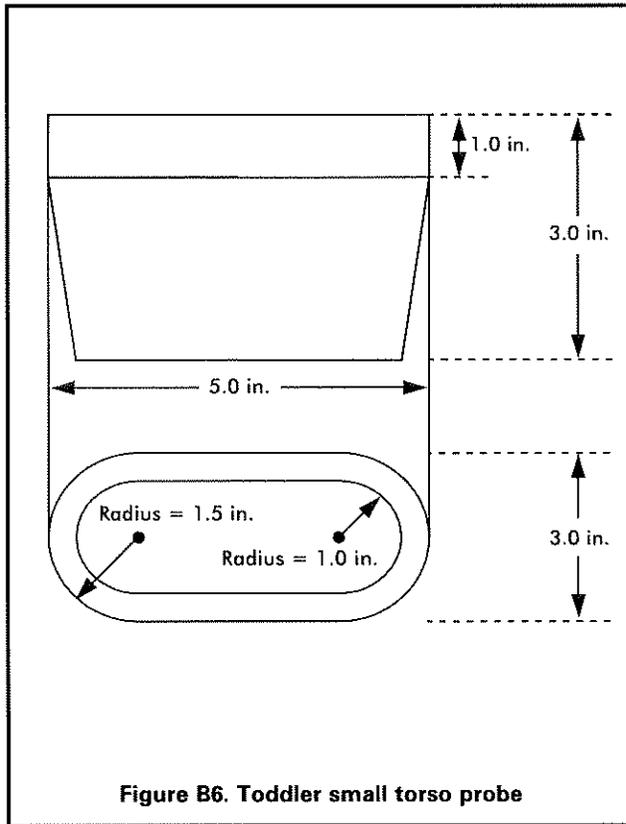


Figure B5. Large head template



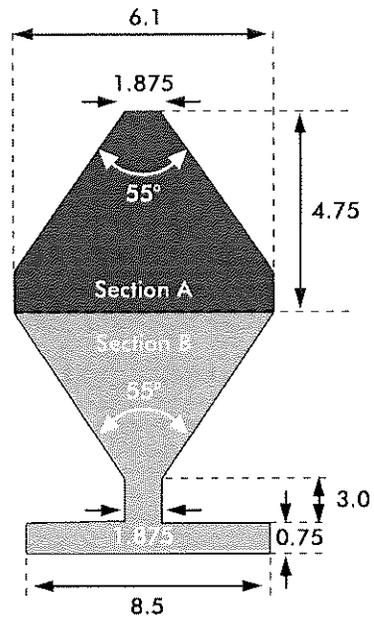


Figure B9. Preschool/School-age partially bound probe (dimensions in inches, template is 0.75 inches thick)

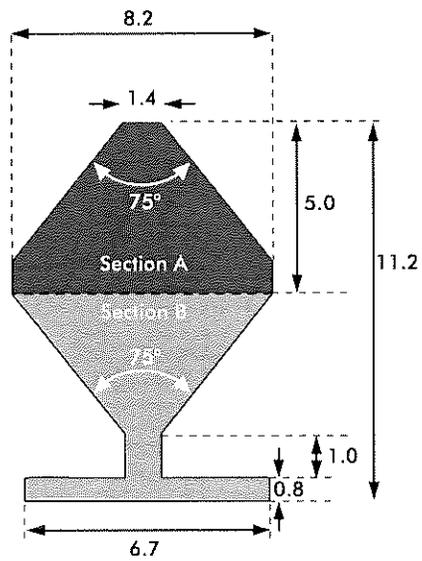


Figure B10. Toddler partially bound probe (dimensions in inches, template is 0.60 inches thick)

APPENDIX B: PLAYGROUND TESTING

B.2 Test Methods

B.2.1 Determining whether a projection is a protrusion

B.2.1.1 Test procedure

Step 1: Successively place each projection test gauge (see Figure B1) over any projection

Step 2: Visually determine if the projection penetrates through the hole and beyond the face of the gauge (see Figure B11 below).

Pass: A projection that does not extend beyond the face of the gauge passes.

Fail: A projection that extends beyond the face of any one of the gauges is considered a hazardous protrusion and should be eliminated.

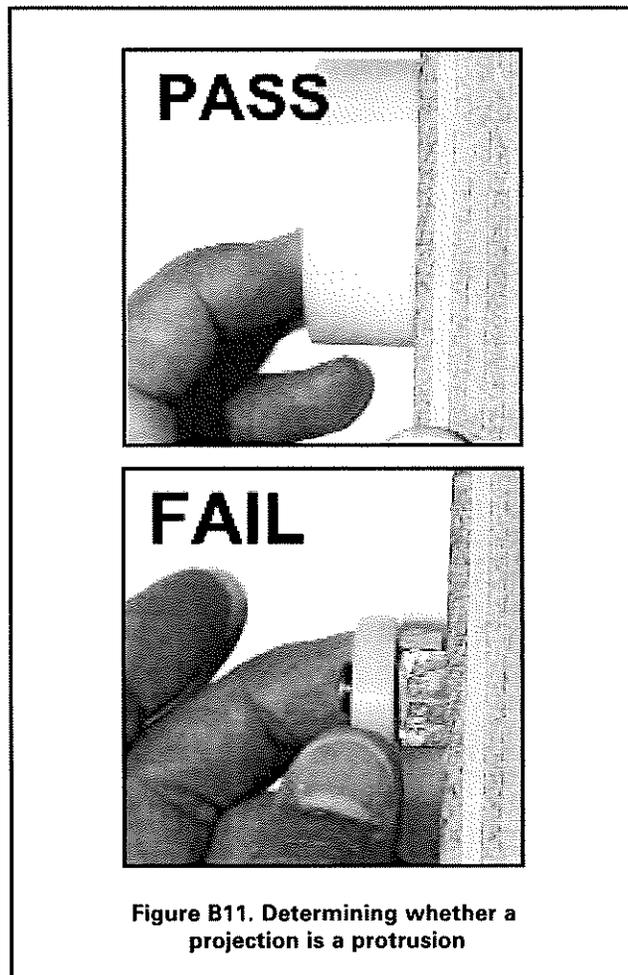


Figure B11. Determining whether a projection is a protrusion

B.2.2 Projections on suspended members of swing assemblies

Given the potential for impact incidents, projections on swings can be extremely hazardous. A special test gauge (see Figure B2) and procedure are recommended. When tested, no bolts or components in the potential impact region on suspended members should extend through the hole beyond the face of the gauge.

B.2.2.1 Test procedure

Step 1: Hold the gauge (Figure B2) vertically with the axis through the hole parallel to the swing's path of travel.

Step 2: Place the gauge over any projections that are exposed during the swing's path of travel.

Step 3: Visually determine if the projection penetrates through the hole and beyond the face of the gauge.

Pass: A projection that does not extend beyond the face of the gauge passes.

Fail: A projection that extends beyond the face of the gauge is considered a hazardous protrusion and should be eliminated.

B.2.3 Projections on slides

To minimize the likelihood of clothing entanglement on slides, projections that (1) fit within any one of the three gauges shown in Figure B1 and (2) have a major axis that projects away from the slide bed should not have projections greater than 1/8 inch perpendicular to the plane of the surrounding surface (Figure B12).

B.2.3.1 Test procedure

Step 1: Identify all projections within the shaded area shown in Figure B13.

Step 2: Determine which, if any, fit inside the projection test gauges (Figure B1).

Step 3: Place the swing and slide projection gauge (Figure B2) next to the projection to check the height of the projection.

Step 4: Visually determine if the projection extends beyond the face of the slide projection gauge.

Pass: A projection that does not extend beyond the face of the gauge passes.

Fail: A projection that extends beyond the face of the gauge is considered a hazardous protrusion and should be eliminated.

NOTE: This test procedure is not applicable to the underside of a slide chute. For a slide chute with a circular cross section, the portion of the underside not subject to this projection recommendation is shown in Figure 18. The general recommendations for projections in §B.2.1 are applicable to the underside of the slide.

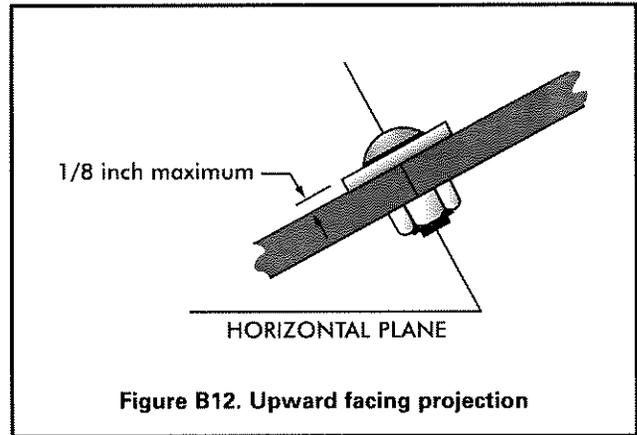


Figure B12. Upward facing projection

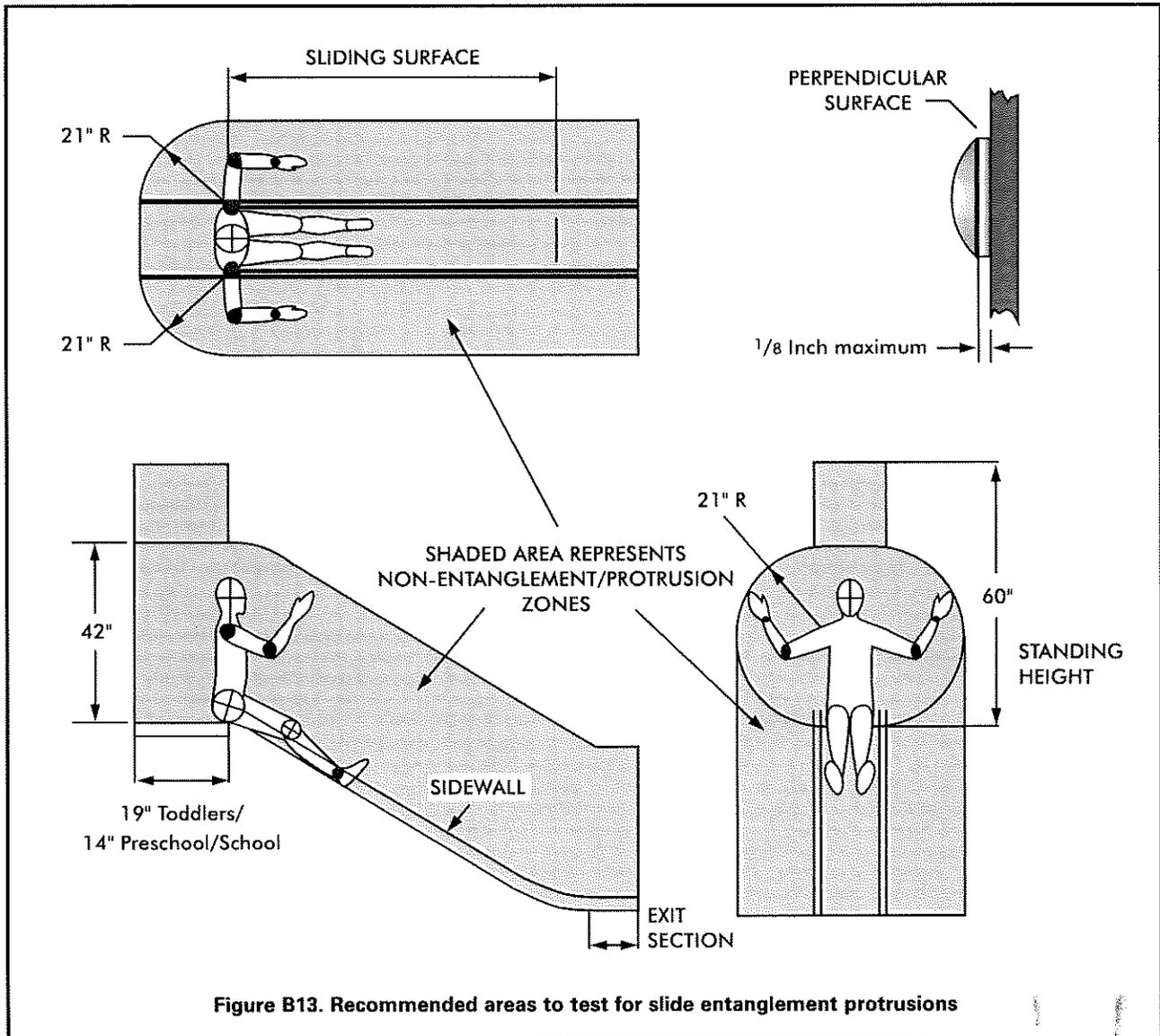
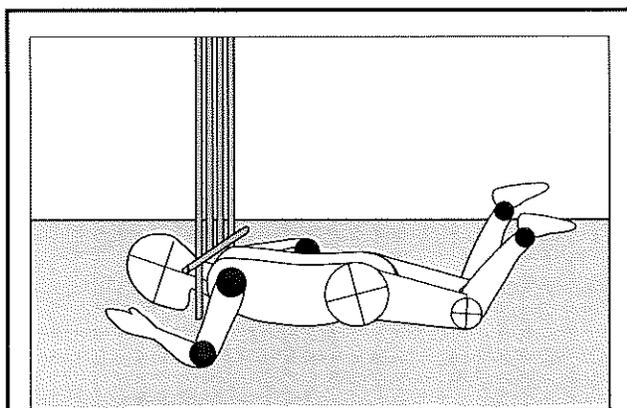
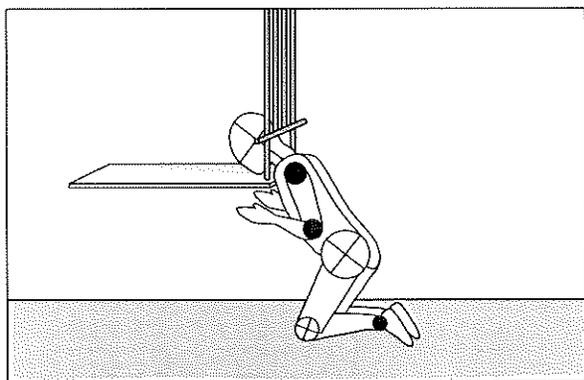


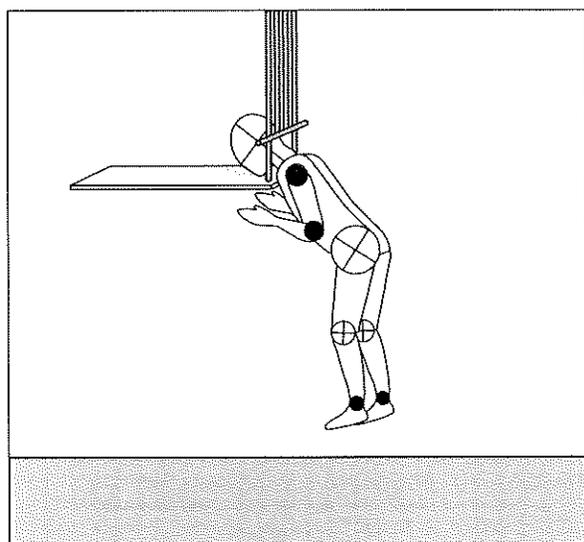
Figure B13. Recommended areas to test for slide entanglement protrusions



Ground-bounded: Not subject to entrapment recommendations.



Low entrapment



High entrapment

Figure B14. Examples of completely bounded openings

B.2.4 Entrapment

B.2.4.1 General

Any completely-bounded opening (Figure B14) that is not bounded by the ground may be a potential head entrapment hazard. Even those openings which are low enough to permit a child's feet to touch the ground present a risk of strangulation to an entrapped child, because younger children may not have the necessary intellectual ability and motor skills to withdraw their heads, especially if scared or panicked. An opening may present an entrapment hazard if the distance between any interior opposing surfaces is greater than 3.5 inches and less than 9 inches. If one dimension of an opening is within this potentially hazardous range, all dimensions of the opening should be considered together to fully evaluate the possibility of entrapment. The most appropriate method to determine whether an opening is hazardous is to test it using the following fixtures, methods, and performance criteria.

These recommendations apply to all playground equipment, i.e., toddler, preschool-age, and school-age children. Fixed equipment as well as moving equipment (in its stationary position) should be tested for entrapment hazards. There are two special cases for which separate procedures are given: (1) completely-bounded openings where depth of penetration is a critical issue (see Figure B15) and (2) openings formed by flexible climbing components.

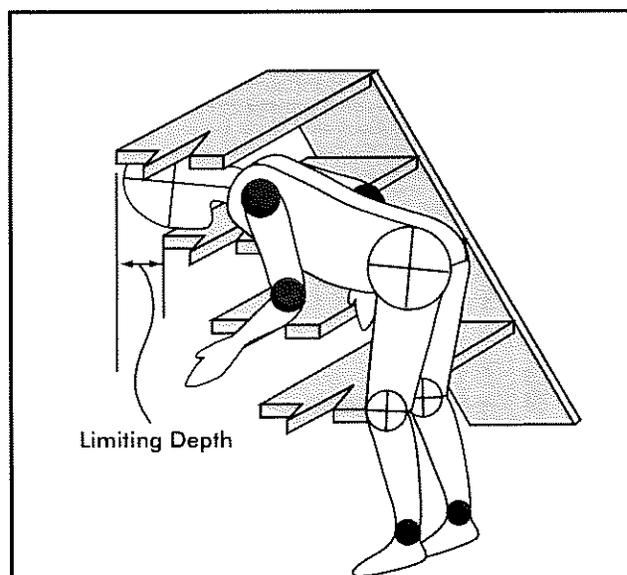


Figure B15. Completely bounded opening with limited depth

B.2.5 Test fixtures

Two templates are required to determine if completely bounded openings in rigid structures present an entrapment hazard. These templates can easily be fabricated from cardboard, plywood, or sheet metal.

B.2.5.1 Small torso template

The dimensions (see Figure B3 and Figure B4) of this template are based on the size of the torso of the smallest user at risk (5th percentile 6-month-old child for Figure B3 and 2-year-old child for Figure B4). If an opening is too small to admit the template, it is also too small to permit feet first entry by a child. Because children's heads are larger than their torsos, an opening that does not admit the small torso template will also prevent head first entry into an opening by a child.

B.2.5.2 Large head template

The dimensions (see Figure B5) of this template are based on the largest dimension on the head of the largest child at risk (95th percentile 5-year-old child). If an opening is large enough to permit free passage of the template, it is large enough to permit free passage of the head of the largest child at risk in any orientation. Openings large enough to permit free passage of the large head template will not entrap the chest of the largest child at risk.

B.2.5.3 Completely bounded openings with unlimited depth

B.2.5.3.1 Test procedure

Step 1: Select the appropriate small torso template based on the intended users of the playground (Figure B3 for toddler playgrounds, Figure B4 for preschool- and school-age playgrounds).

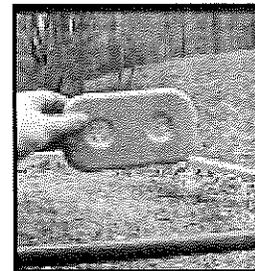
Step 2: Identify all completely bounded openings.

Step 3: Attempt to place the small torso template in the opening with the plane of the template parallel to the plane of the opening. While keeping it parallel to the plane of the opening, the template should be rotated to its most adverse orientation (i.e., major axis of template oriented parallel to the major axis of the opening.)

Step 4: Determine if the small torso template can freely pass through the opening.

No: **Pass.** Stop

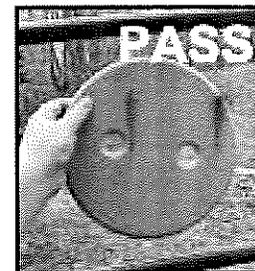
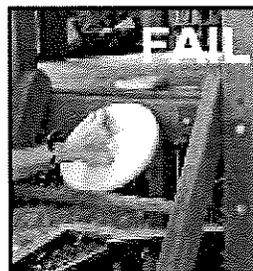
Yes: Continue



Step 5: Place the large head template in the opening, again with the plane of the template parallel to the plane of the opening, and try to insert it through the opening.

Pass: The large head template can be freely inserted through the opening

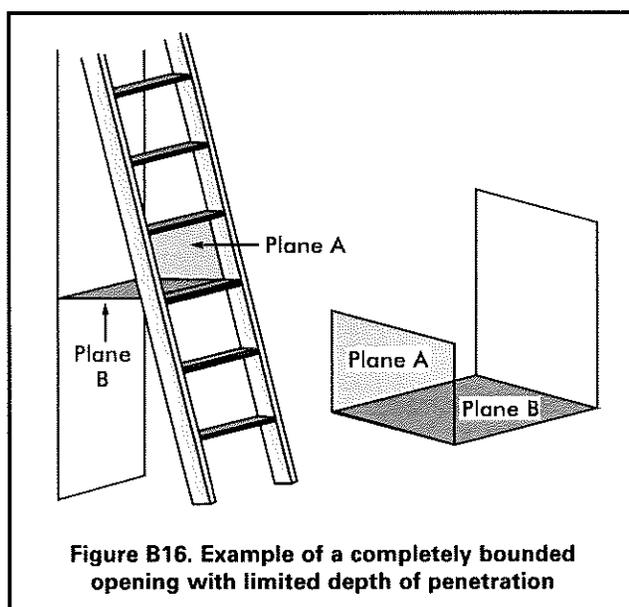
Fail: The opening admits the small torso template but does not admit the large head template.



B.2.5.4 Completely bounded openings with limited depth of penetration

The configuration of some openings may be such that the depth of penetration is a critical issue for determining the entrapment potential. For example, consider a vertical wall or some other barrier behind a step ladder. The entrapment potential depends not only on the dimensions of the opening between adjacent steps but also on the horizontal space between the lower boundary of the opening and the barrier. A child may enter the opening between adjacent steps feet first and may proceed to pass through the space between the rear of the lower step and the barrier and become entrapped when the child's head is unable to pass through either of these two openings. In effect, there are openings in two different planes, and each has the potential for head entrapment and should be tested.

Figure B16 illustrates these two planes for a step ladder as well as for a generic opening. Plane A is the plane of the completely bounded opening in question, and Plane B is the plane of the opening encompassing the horizontal space between the lower boundary of the opening in Plane A and the barrier that should also be tested for entrapment hazards.



B.2.5.4.1 Test procedure

Step 1: Select the appropriate small torso template based on the intended users of the playground (Figure B3 for toddler playgrounds, Figure B4 for preschool-age and school-age playgrounds).

Step 2: Identify all completely bounded openings with limited depth of penetration.

Step 3: Place the small torso template in the opening in Plane A with its plane parallel to Plane A; rotate the template to its most adverse orientation with respect to the opening while keeping it parallel to Plane A.

Step 4: Determine if the opening in Plane A admits the small torso template in any orientation when rotated about its own axis.

No: Pass. The opening is small enough to prevent either head first or feet first entry by the smallest user at risk and is not an entrapment hazard.

Yes: Continue.

Step 5: Place the small torso template in the opening in Plane B with its plane parallel to Plane B; rotate the template to its most adverse orientation with respect to the opening while keeping it parallel to Plane B.

Step 6: Determine if the opening in Plane B admits the small torso template.

No: Pass. The depth of penetration into the opening in Plane A is insufficient to result in entrapment of the smallest user at risk.

Yes: Continue.

Step 7: Place the large head template (Figure B5) in the opening in Plane A with its plane parallel to Plane A. Determine if the opening in Plane A admits the large head template.

No: Fail. A child, whose torso can enter the opening in Plane A as well as the opening in Plane B, may become entrapped by the head in the opening in Plane A.

Yes: Continue.

Step 8: With the plane of the large head template parallel to the opening in Plane B, determine if the opening in Plane B admits the large head template.

No: Fail. The largest user at risk cannot exit the opening in Plane B.

Yes: Pass. The openings in Plane A and Plane B do not pose an entrapment risk.

B.2.5.5 Flexible openings

Climbing components such as flexible nets are also a special case for the entrapment tests because the size and shape of openings on this equipment can be altered when force is applied, either intentionally or simply when a child climbs on or falls through the openings. Children are then potentially at risk of entrapment in these distorted openings.

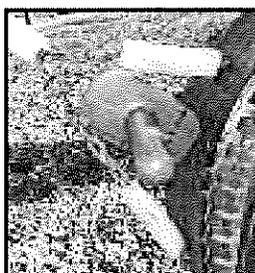
The procedure for determining conformance to the entrapment recommendations for flexible openings requires two three-dimensional test probes which are illustrated in Figure B6, Figure B7, and Figure B8 are applied to an opening in a flexible component with a force of up to 50 pounds.

B.2.5.5.1 Test procedure

- Step 1: Select the appropriate small torso template based on the intended users of the playground (Figure B3 for toddler playgrounds, Figure B4 for preschool-age and school-age playgrounds).
- Step 2: Identify all completely bounded openings with flexible sides.
- Step 3: Place the small torso probes (Figures B6 and B7) in the opening, tapered end first, with the plane of its base parallel to the plane of the opening.
- Step 4: Rotate the probe to its most adverse orientation (major axis of probe parallel to major axis of opening) while keeping the base parallel to the plane of the opening.
- Step 5: Determine if the probe can be pushed or pulled completely through the opening by a force no greater than 30 pounds on toddler playgrounds or 50 pounds on preschool-age and school-age playgrounds.

No: Pass. Stop

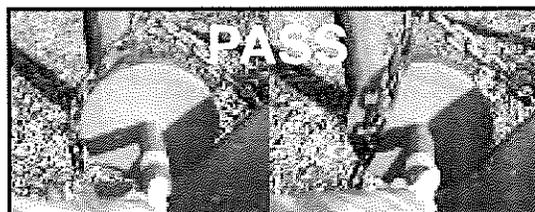
Yes: Continue.



Step 6: Place the large head probe (Figure B8) in the opening with the plane of its base parallel to the plane of the opening.

Step 7: Determine if the large head probe can be pushed or pulled completely through the opening by a force no greater than 30 pounds on toddler playgrounds or 50 pounds on preschool-age and school-age playgrounds.

Yes: Pass. Stop.



No: Fail.



B.2.5.6 Partially bound openings

A partially bound opening is any opening which has at least one side or portion open, such as a U- or V-shaped opening. These openings can still pose an entrapment hazard by allowing the neck to enter but not allowing the head to slip out. A partially bound opening can be any part of the playground equipment where a child could get his or her neck caught, so it includes not only two- or three-sided openings, but also areas of large openings (large enough for the head template to enter) that have the characteristics that can entrap a child's neck. Several examples outlines of this situation are shown in the figures below. Openings that have an outline similar to these figures are often found when two parts of a playground meet, for example, the top of a slide and the side of a guardrail.

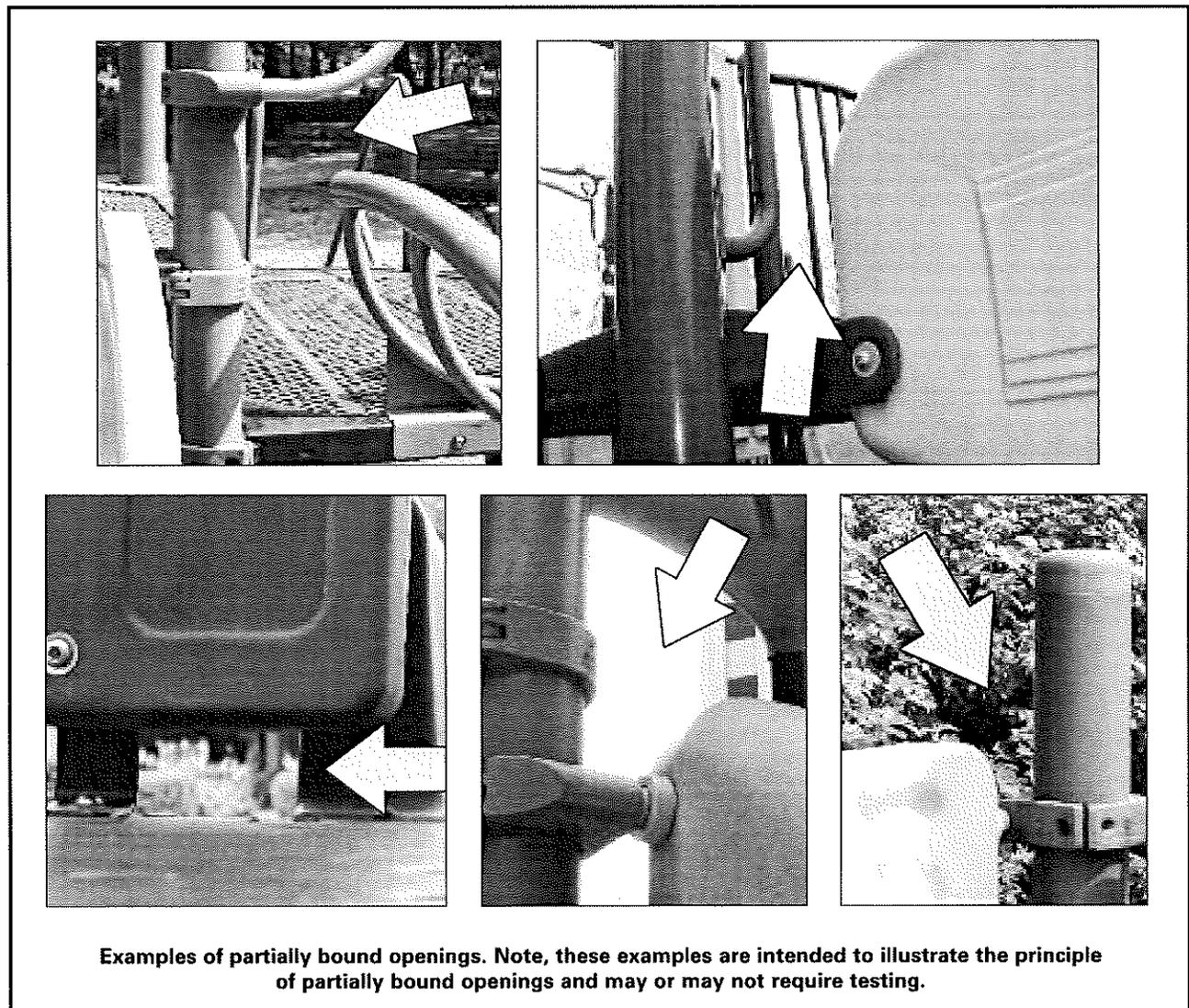
Identifying partially bound openings varies depending on the age range of the playground. Openings that should be tested include any opening where:

For toddlers:

- The perimeter of the opening is not closed
- The lowest leg of the opening is tilted upward (i.e. above horizontal) or 45 degrees below horizontal.

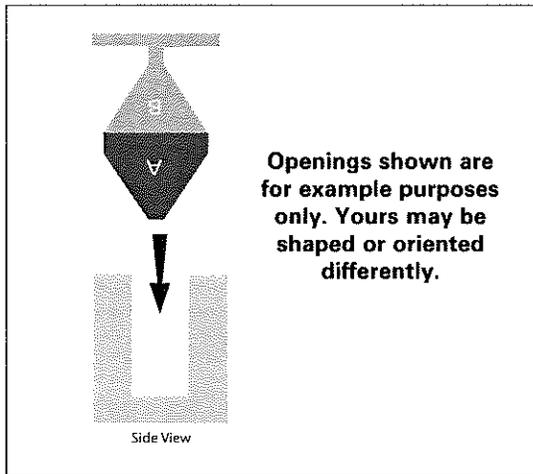
For preschool- and school-age:

- The perimeter of the opening is not closed
- The lowest leg of the opening is tilted upward (i.e. above horizontal)



B.2.5.6.1 Test procedure

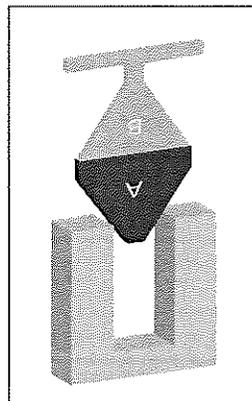
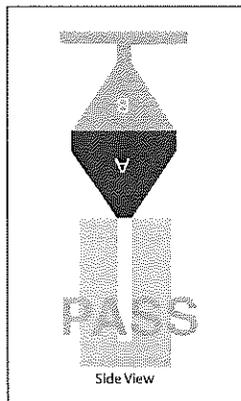
- Step 1: Select the appropriate Partially Bound Template based on the intended users of the playground (Figure B10 for toddler playgrounds, Figure B9 for preschool and school-age playground).
- Step 2: Identify partially bound openings.
- Step 3: Align the template so that the face of the template is parallel to the plane of the opening and the narrow tip of the A section is pointing toward the opening.



- Step 4: Insert the A portion of the template into the opening following the centerline of the opening.
- Step 5: Once inserted as far as possible, determine if there is simultaneous contact between the sides of the opening and both of the top corners at the narrow tip of section A.

Yes: Pass. Stop

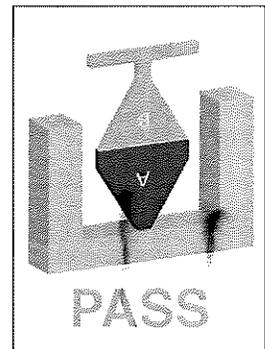
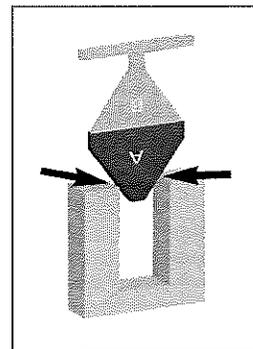
No: continue



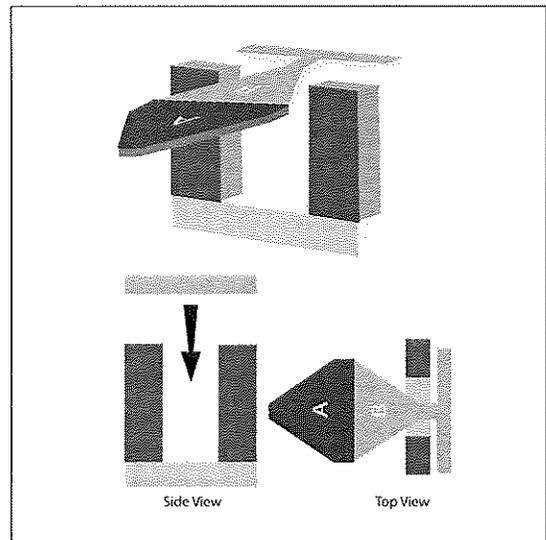
- Step 6: While still inserted as far as possible, determine if there is simultaneous contact between both of the angled sides of section A and the sides of the opening.

Yes: Note the points on the sides of opening where contact was made and continue

No: Pass. The narrow tip should be resting on the lower boundary of the opening with no contact with the sides of the opening. Stop



- Step 7: Remove the template and turn the template so that the face of the template is perpendicular to the opening.
- Step 8: Following the plane of the opening, insert the B portion of the template into the opening so that the narrow part of the B portion is between the sides of the opening.

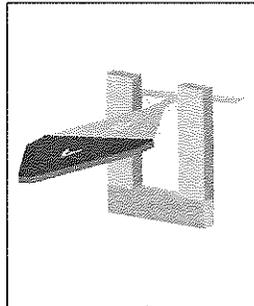
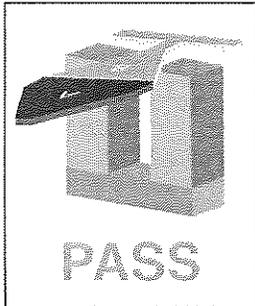


Step 9: Once inserted as far as possible, determine if the B portion is completely past the points where contact was made on the sides of the opening with the A portion.

No: Pass. Stop

Yes: Toddlers:
Fail. Stop

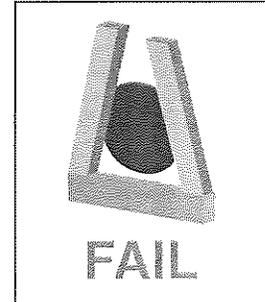
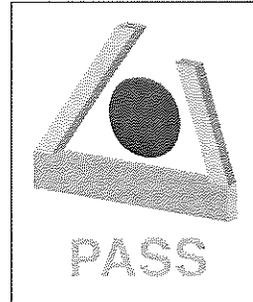
Preschool and
School-age:
Continue



Step 11: Determine if the Large Head Template passes freely through the larger opening.

Yes: Pass

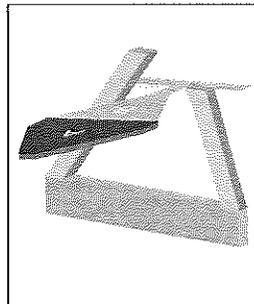
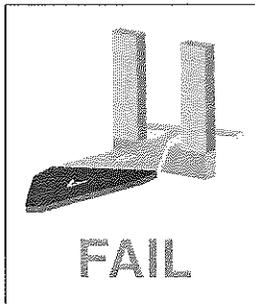
No: Fail



Step 10: Determine if the B portion can reach a point where the opening increases in size.

No: Fail. Stop

Yes: continue



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ACCESSIBLE PLAY AREAS

A Summary of Accessibility Guidelines for Play Areas



U.S. Access Board
Summary of Accessibility Guidelines
for Play Areas

INTRODUCTION

The Americans with Disabilities Act (ADA) is a comprehensive civil rights law that prohibits discrimination on the basis of disability. The ADA requires that newly constructed and altered State and local government facilities, places of public accommodation, and commercial facilities be readily accessible to, and usable by, individuals with disabilities. Recreational facilities, including play areas, are among the facilities required to comply with the ADA.

The Architectural and Transportation Barriers Compliance Board - often referred to as the "Access Board" - has developed accessibility guidelines for newly constructed and altered play areas. The play area guidelines are a supplement to the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Once these guidelines are adopted as enforceable standards by the Department of Justice, all newly constructed and altered play areas covered by the ADA will be required to comply. These guidelines also apply to play areas covered by the Architectural Barriers Act (ABA).

Summary

This guide is intended to help designers and operators in using the accessibility guidelines for play areas. These guidelines establish minimum accessibility requirements for newly constructed and altered play areas. This guide is not a collection of playground designs. Rather, it provides specifications for elements within a play area to create a general level of usability for children with disabilities. Emphasis is placed on ensuring that children with disabilities are generally able to access the diversity of components provided in a play area. Designers and operators are encouraged to exceed the guidelines where possible to provide increased accessibility and opportunities. Incorporating accessibility into the design of a play area should begin early in the planning process with consideration to layout, circulation paths, and the selection of play components.

The play area guidelines were developed with significant public input and carefully considered the balancing of costs, safety, and accessibility. The Access Board sponsored a Regulatory Negotiation Committee to develop proposed guidelines. The public was given an opportunity to comment on the proposed guidelines and the Access Board made changes to the proposed guidelines based on the public comments. The Regulatory Negotiation Committee represented the following groups and associations:

American Society of Landscape Architects	National Easter Seal Society
ASTM Public Playground Committee	National League of Cities
ASTM Soft Contained Play Committee	National Parent-Teacher Association
ASTM Playground Surfacing Systems Committee	National Recreation and Park Association
International Play Equipment Manufacturers Association	Spina Bifida Association of America
National Association of Counties	TASH
National Association of Elementary School Principals	United Cerebral Palsy Association
National Child Care Association	U.S. Access Board
National Council on Independent Living	

This guide is designed to assist in using the play area accessibility guidelines and is divided into the following sections:

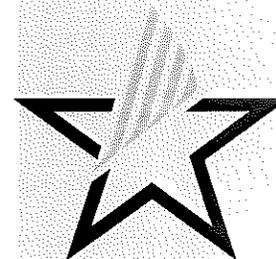
- Where Do the Play Area Guidelines Apply?
- What is a Play Component?
- How Many Play Components Must Be on an Accessible Route?
- What Are the Requirements for Accessible Routes?
- What Other Accessibility Requirements Apply to Play Components?
- Soft Contained Play Structures

Copies of the play area accessibility guidelines and further technical assistance can be obtained from the U.S. Access Board, 1331 F Street, Suite 1000 NW, Washington, DC 20004-1111; 800-872-2253, 800-993-2822 (TTY); www.access-board.gov. Alternate formats of this document are also available upon request.



U.S. Access Board
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Play Area Terms

Many terms are used throughout this guide to describe the play area guidelines. Familiarity with these terms is important when applying the guidelines. Other definitions are provided in ADA/ABA.

ABA - Architectural Barriers Act

Access Board – An independent Federal agency that develops accessibility guidelines under the ADA and other laws. The Access Board is also known as the Architectural and Transportation Barriers Compliance Board.

Accessible – Describes a site, building, facility, or portion thereof that complies with the play area guidelines.

Accessible Route – A continuous unobstructed path connecting all accessible elements and spaces of a building or facility. Inside the boundary of the play area, accessible routes may include platforms, ramps, elevators, lifts. Outside the boundary of the play area, accessible routes may also include parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps, and lifts.

ADA – Americans with Disabilities Act.

Alteration – An alteration is a change to a building or facility that affects or could affect the usability of the building or facility or part thereof. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways, changes or rearrangement of structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance is not an alteration unless it affects the usability of the facility (*see section on alterations for more details*).

Amusement Attraction – Any facility, or portion of a facility, located within an amusement park or theme park, that provides amusement without the use of an amusement device. Examples include, but are not limited to, fun houses, barrels, and other attractions without seats.

ASTM – American Society for Testing and Materials.

Berm – A sloped surface at ground level designed to ascend or descend in elevation.

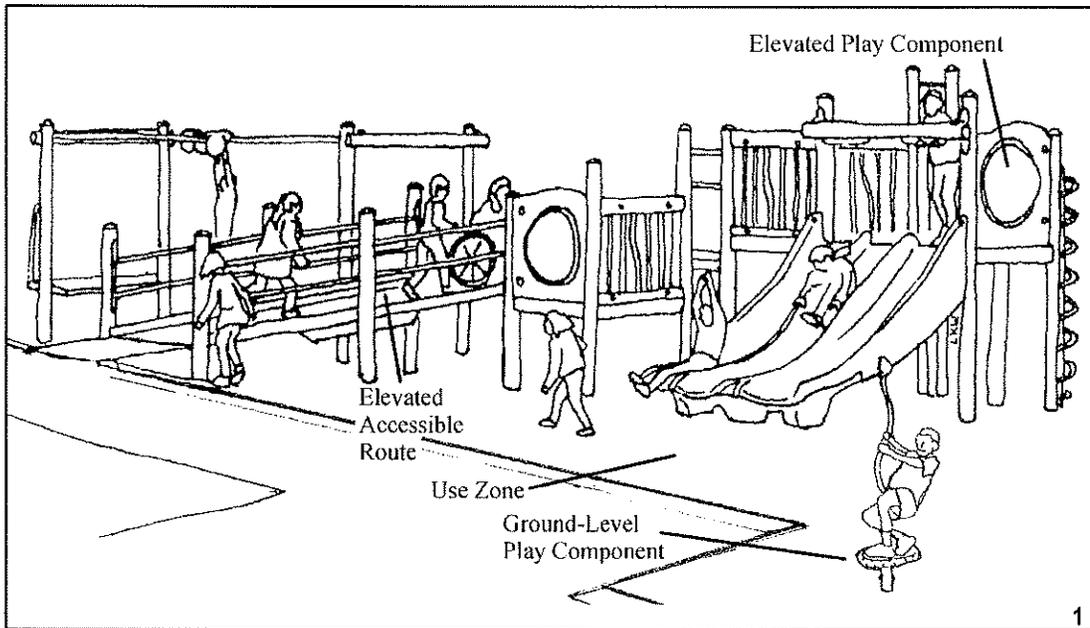
Clear – Unobstructed.

Composite Play Structure – Two or more play structures attached or functionally linked, to create one integral unit that provides more than one play activity (*ASTM F 1487-01*).

Cross Slope – The slope that is perpendicular to the direction of travel (*see running slope*).

Elevated Play Component – A play component that is approached above or below grade and that is part of a composite play structure consisting of two or more play components attached or functionally linked to create an integrated unit providing more than one play activity.





Facility – All or any portion of buildings, structures, site improvements, elements and pedestrian routes or vehicle ways located on a site.

Ground Level Play Component – A play component that is approached and exited at the ground level.

Play Area – A portion of a site containing play components designed and constructed for children.

Play Component – An element intended to generate specific opportunities for play, socialization, or learning. Play components may be manufactured or natural, and may be stand alone or part of a composite play structure.

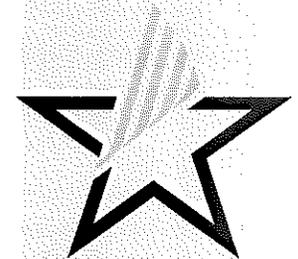
Ramp – A walking surface that has a running slope of greater than 1:20.

Running Slope – The slope that is parallel to the direction of travel (*see cross slope*).

Site – A parcel of land bounded by a property line or a designated portion of a public right-of-way.

Soft Contained Play Structure – A play structure made up of one or more components where the user enters a fully enclosed play environment that utilizes pliable materials (e.g., plastic, netting, fabric).

Use Zone – The ground level area beneath and immediately adjacent to a play structure or piece of equipment that is designated by ASTM F 1487 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use for unrestricted circulation. This is the play surface upon which it is predicted a user would land when falling from or exiting the equipment.



New Construction

The play area guidelines in this guide apply to all newly designed or constructed play areas for children ages 2 and older.

This includes play areas located in a variety of settings: parks, schools, childcare facilities, shopping centers, and public gathering areas. Owners or operators of newly constructed play areas are responsible for complying with these guidelines.

The play area guidelines do not apply to:

- Family childcare facilities where the proprietor resides
- Amusement attractions
- Religious entities



This large play area designed for the same age group is part of a public park system. The total of all the play components in this play area - which includes multiple composite structures - must be counted when applying the play area guidelines.

Alterations

The play area guidelines also apply to existing play areas where alterations occur. Further information regarding the application of the play area guidelines to altered play areas can be found on page 39.

Equivalent Facilitation

Designs that result in products or technologies as alternatives to those prescribed, provided substantially equivalent or greater accessibility and usability.

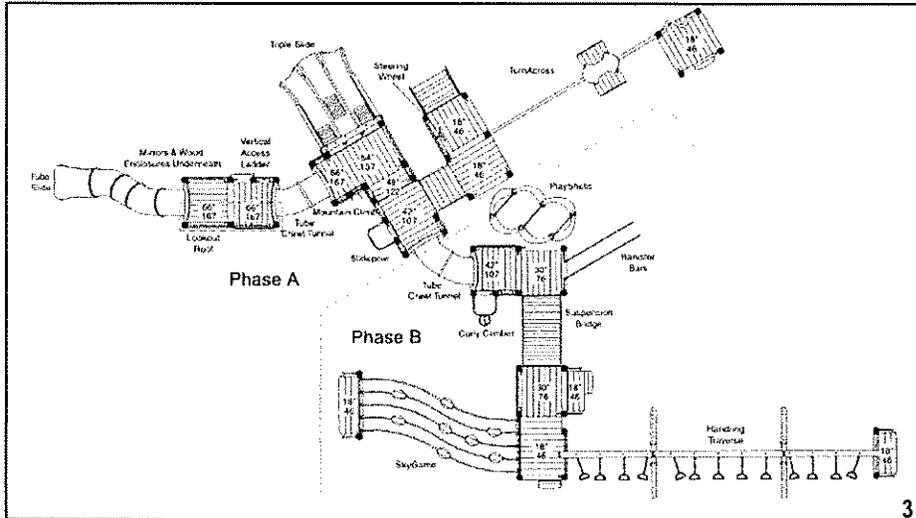
Equivalent facilitation is the concept of utilizing innovative solutions and new technology, design, or materials in order to satisfy the guidelines. These alternative solutions provide equal access and take advantage of new developments, but may differ technically from specific guidelines.



Phasing in Play Areas

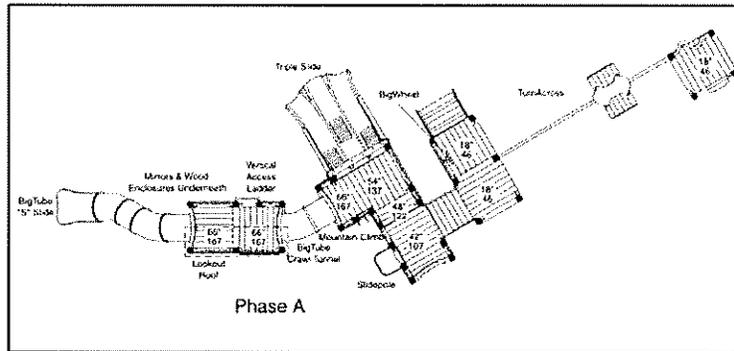
When play areas are constructed in phases, they must continue to meet the play area guidelines throughout construction. The initial phase area must meet the guidelines, and then at each successive phase the whole play area must be reassessed to assure compliance.

“Phased designs” are play areas developed to be installed in different stages, allowing the play area to grow in a planned manner while accommodating budgets, fund raising, or community approval processes.

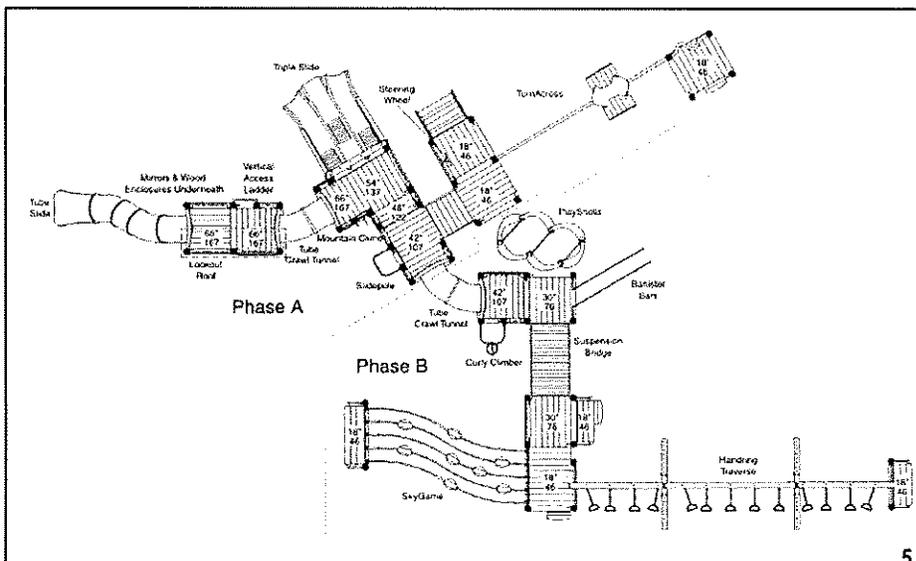


This play area will be installed in two phases. As each phase is completed, the entire play area must be reevaluated for compliance.

Prior to phase one, the first structure is evaluated for compliance, since the guidelines are based on a minimum number of play components required to be on an accessible route.



At the onset of phase two, the play area is reevaluated in its entirety.



WHERE DO THE PLAY AREA GUIDELINES APPLY?

Play Areas Separated by Age

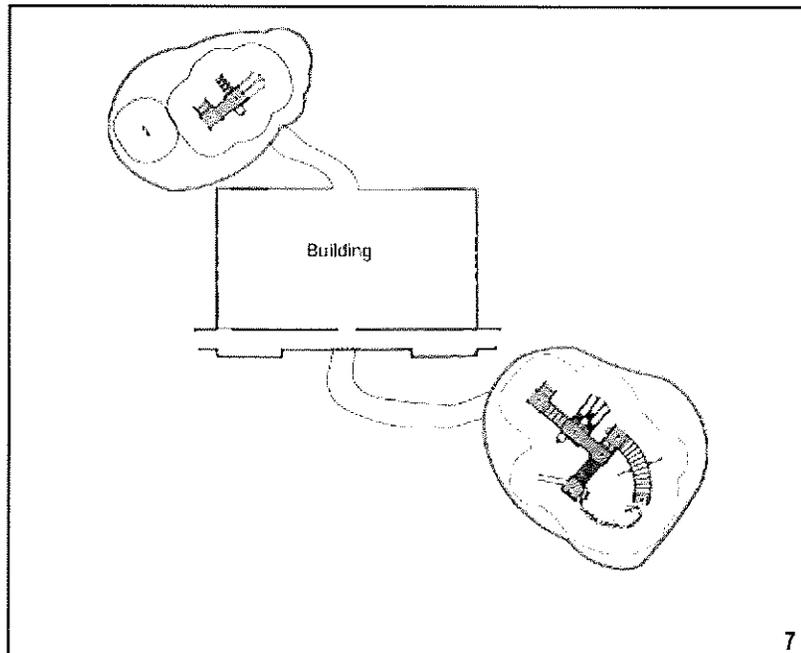
To reduce the risk of injury, safety guidelines recommend separate play areas for different age groups. In applying the guidelines, play areas designed for different age groups should be considered separately.

A play area designed for 2 to 5 year-olds is considered separate from one for 5 to 12 year-olds. Therefore, compliance with the guidelines must be considered for each individual play area.

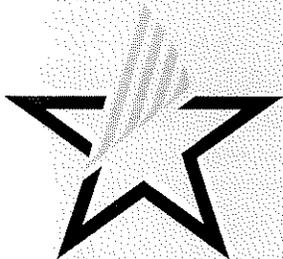


This dual play area designed for 2 to 5 year-olds and 5 to 12 year-olds shares resilient surfacing. Each section must be evaluated separately.

Geographically Separated Play Areas



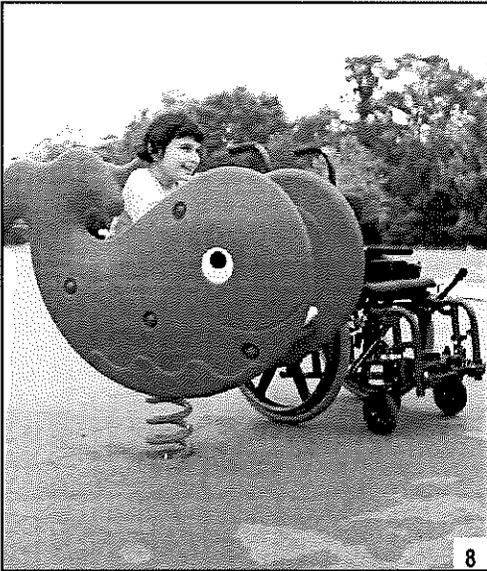
Large geographical spaces may contain several play areas within one park setting. Where play areas are geographically separated on a site, they are considered separate play areas. The accessibility guidelines apply to each play area.



Play Components

A play component is an element designed to generate specific opportunities for play, socialization, and learning. Play components may be manufactured or natural, and may be stand alone or part of a composite play structure. Swings, spring riders, water tables, playhouses, slides, and climbers are among the many different play components.

For the purpose of these guidelines, ramps, transfer systems, steps, decks, and roofs are not considered play components. These elements are generally used to link other elements on a composite play structure. Although socialization and pretend play can occur on these elements, they are not primarily intended for play.



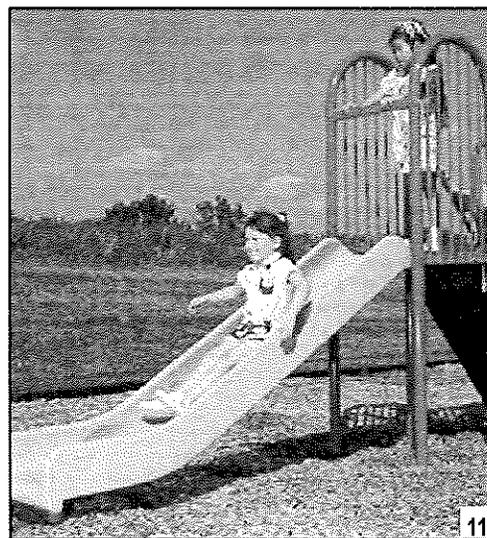
Spring rider



Climber



Swing



Slide



WHERE DO THE PLAY AREA GUIDELINES APPLY?

When applying the play area guidelines, it is important to identify the different play experiences play components can provide.

Different “Types”

At least one of each type of play component provided at ground level in a play area must be on an accessible route.

Different “types” of play components are based on the general experience provided by the play component. Different types include, but are not limited to, experiences such as rocking, swinging, climbing, spinning, and sliding.

“Rocking” is an example of horizontal movement that can be backwards, forwards, sideways or even circular in nature.

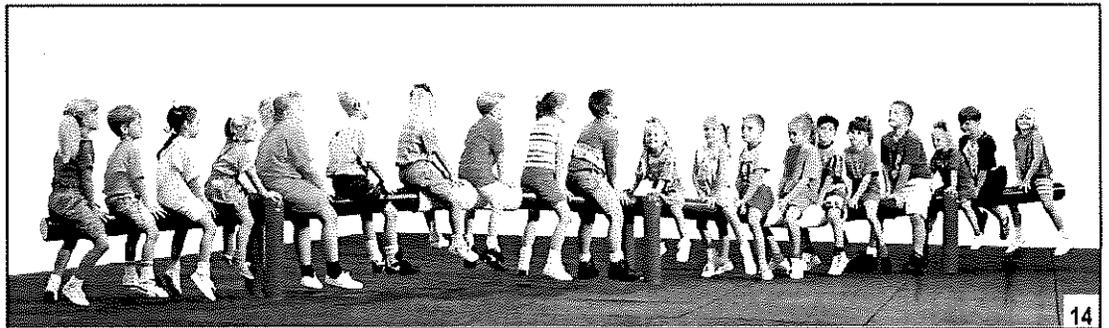
“Sliding” is an example of rapid descent that utilizes the force of gravity.



A Swinging Type



A Rocking Type

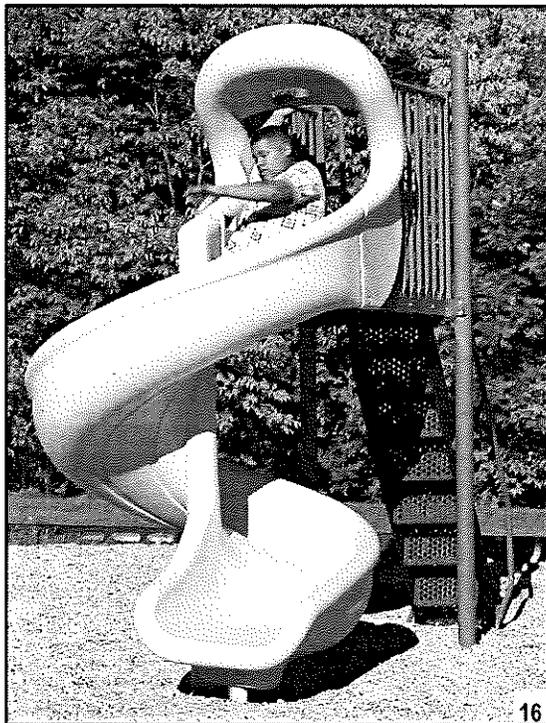


This single play component provides one type of play experience for multiple individuals.



WHAT IS A PLAY COMPONENT?

The number of individuals who can play on a play component at once does not determine the quantity of play components provided in a play area. A play component can hold many children but is considered one type of play experience - or one play component - in the play area.



Examples of Sliding Types

While a spiral slide provides a slightly different experience from a straight slide, the primary experience - a sense of rapid descent or sliding - is common to both activities. Therefore, a spiral slide and a straight slide are considered one “type” of play experience.



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WHAT IS A PLAY COMPONENT?

Elevated Play Components

An elevated play component is a play component that is approached above or below grade and is part of a composite play structure. Play components that are attached to a composite play structure and that can be approached from a platform or deck area are considered elevated play components.



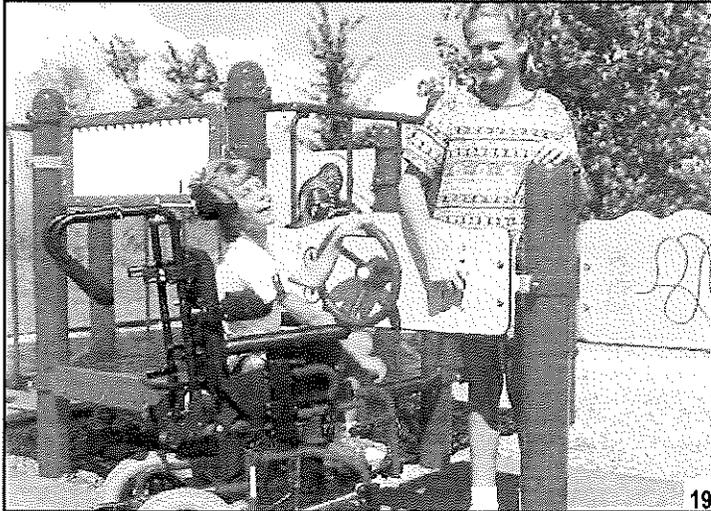
This climber is considered an elevated component, since it can be approached or exited from the ground level or above grade from a platform or deck on a composite play structure.



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Ground-Level Play Components

Ground-level play components are items that can be approached and exited at ground level. For example, a child approaches a spring rider at ground level via the accessible route. The child may ride then exit directly back onto the accessible route. The activity is considered ground level because the child approaches and exits it from the ground-level route.



Ground-level play components may be part of a composite structure.



Ground-level components may also be free-standing in a play area.

When more than one ground-level play component is required on an accessible route, the play components must be integrated. Designers should consider the optimal layout of ground-level play components to foster interaction and socialization among all children. Grouping all ground-level play components accessed by children with disabilities in one location does not constitute integration.

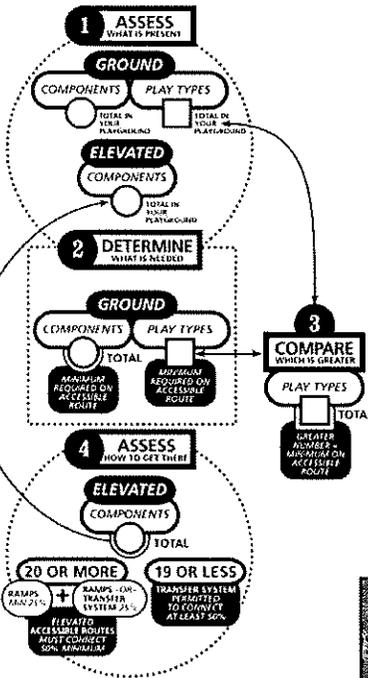
“Ground-level components” are approached and exited at ground level.

Ground-level play components may include items such as swings, spring riders, and panels.

Freestanding slides are considered ground-level components for the purpose of these guidelines. An accessible route must connect to the ladder or steps, and to the exit of the slide. While this solution does not provide access for all children, it gives many individuals the opportunity to access play components.



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Ground-Level Play Components

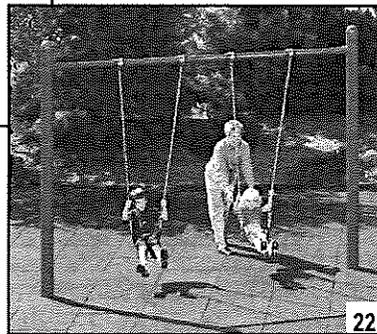
There are two requirements addressing how many ground-level play components must be on an accessible route:

- One of Each Type
- Ground-Level Requirements based on the number of Elevated Play Components

One of Each Type

At least one of each type of ground-level play component that is present in the play area must be on an accessible route.

As an example, this play area includes a composite play structure, two spring riders and a swing set (see inset). To meet the requirement, an accessible route must connect to at least one spring rider and one swing for one of each type of ground-level play experiences which are present in the play area.



The above step-by-step guide is intended to assist when applying the play area guidelines. A detailed description is provided on page 17.

A “ground-level play component” is a play component that is approached and exited at the ground level.



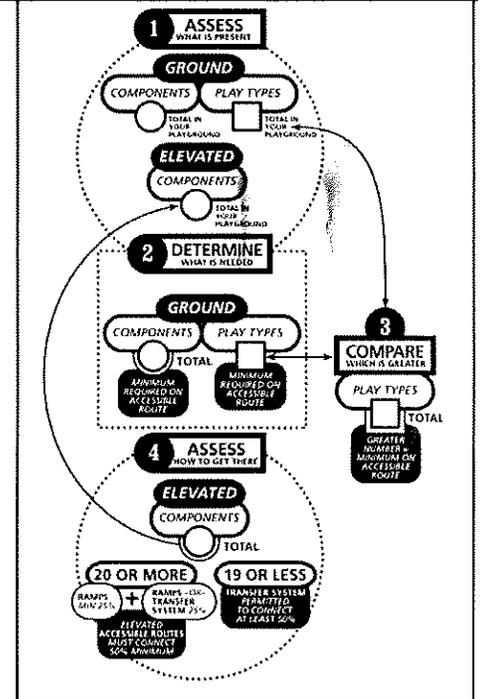
HOW MANY PLAY COMPONENTS MUST BE ON AN ACCESSIBLE ROUTE?

Ground Level Requirements Based on Elevated Play Components

The number and variety of ground-level play components required to be on an accessible route is also determined by the number of elevated components provided in the play area.

The intent of this requirement is to provide a variety of experiences for individuals who choose to remain with their mobility aids, or choose not to transfer to elevated play components.

Number of elevated play components provided	Minimum number of ground-level play components required to be on accessible route	Minimum number of different types of ground-level play components required to be on accessible route
1	Not applicable	Not applicable
2 to 4	1	1
5 to 7	2	2
8 to 10	3	3
11 to 13	4	3
14 to 16	5	3
17 to 19	6	3
20 to 22	7	4
23 to 25	8	4
More than 25	8 plus 1 for each additional 3 over 25, or fraction thereof	5



If ramps provide access to at least 50 percent of the elevated play components - which must include at least three different play types - then additional ground-level components are not required.

In the play area shown on page 14, the composite structure has four elevated play components (bubble panel, slide, steering wheel, and tic-tac-toe panel). According to the table, a minimum of one ground level play component must be provided, and a minimum of one different type. The spring rider or swing can be used to meet the “one of each type” requirement and can also be used to meet the minimum number determined by Table 240.2.1.2.

Elevated Play Components

At least 50 percent of the elevated play components must be on an accessible route.



24

Play areas with 20 or more elevated components must use ramps to connect a minimum of 25 percent of those components. A transfer system or ramps may connect the other elevated play components required on an accessible route.



25

Play areas with less than 20 elevated play components may use a transfer system instead of ramps to connect at least 50 percent of the elevated components.

1 ASSESS
WHAT IS PRESENT

GROUND

COMPONENTS TOTAL IN YOUR PLAYGROUND
PLAY TYPES TOTAL IN YOUR PLAYGROUND

ELEVATED COMPONENTS

TOTAL IN YOUR PLAYGROUND

2 DETERMINE
WHAT IS NEEDED

GROUND

COMPONENTS TOTAL
PLAY TYPES TOTAL

ELEVATED COMPONENTS

TOTAL
MINIMUM REQUIRED ON ACCESSIBLE ROUTE

3 COMPARE
WHICH IS GREATER

PLAY TYPES

TOTAL
GREATER NUMBER OF MINIMUM ON ACCESSIBLE ROUTE

4 ASSESS
HOW TO GET THERE

ELEVATED COMPONENTS

TOTAL

20 OR MORE

RAMPS ARE REQUIRED TO CONNECT AT LEAST 25% MINIMUM

19 OR LESS

TRANSFER SYSTEM PERMITTED TO CONNECT AT LEAST 50% MINIMUM

The above step-by-step guide is intended to assist when applying the play area guidelines. A detailed description is provided on page 17.

An "elevated play component" is a play component reached from above or below grade, and is part of a composite play structure.



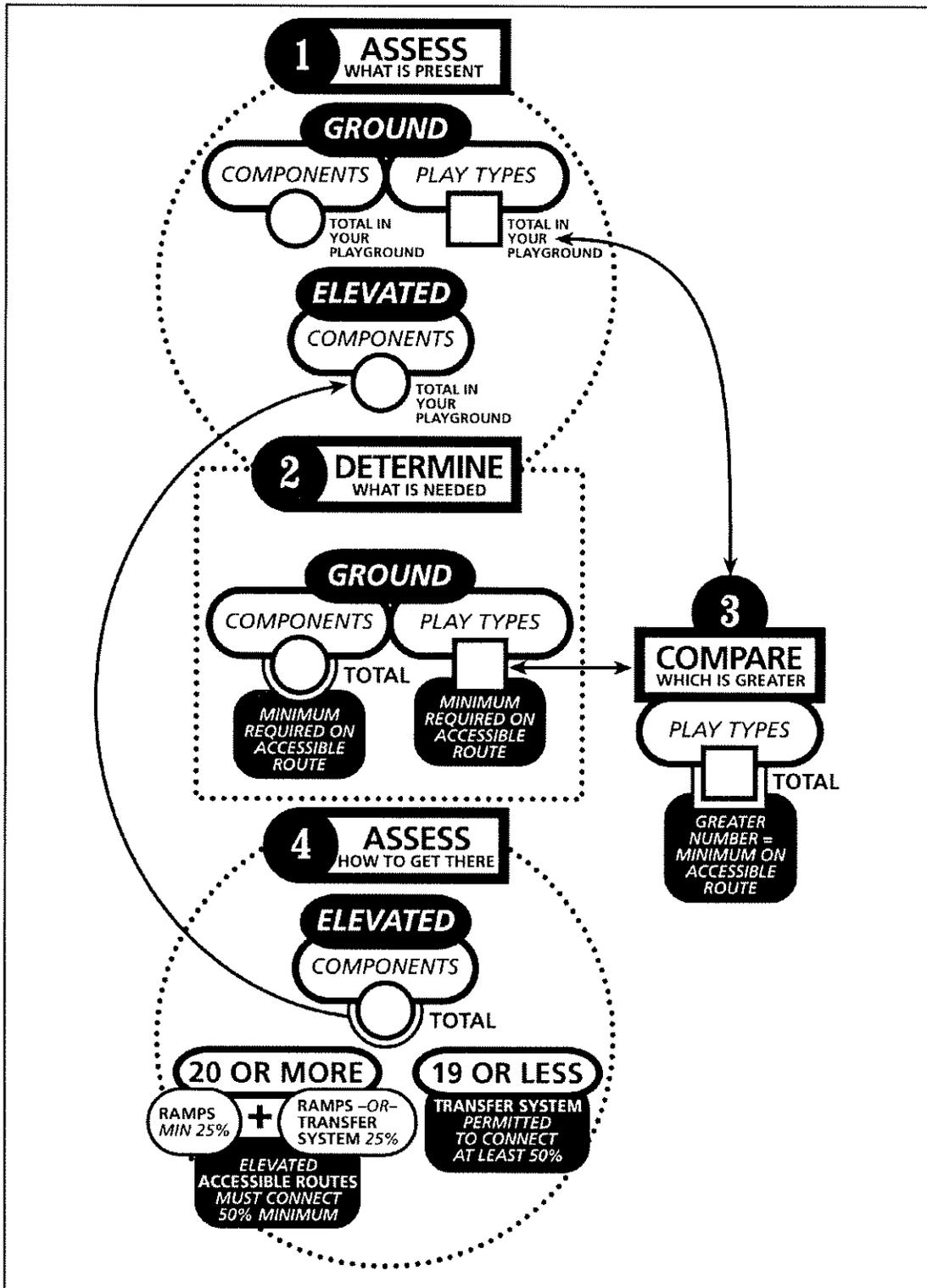
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STEP-BY-STEP GUIDE ON APPLYING GUIDELINES

Step-by-Step Guide

The following step-by-step guide has been provided to assist in evaluating a play area for meeting the minimum requirements of these guidelines. The guide has been arranged in four steps and provides spaces to fill in numeric values of play components for evaluating a specific play area design.

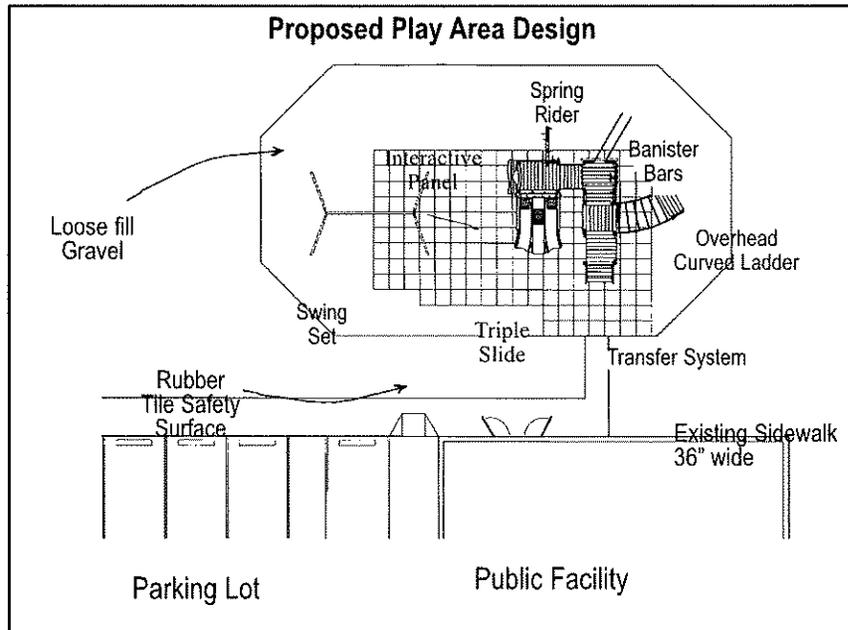
The step-by-step guide is used throughout the remainder of this guide as a key, shown in the upper corner of each new section where it applies.



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PLAY AREA EVALUATION EXAMPLE

The example below illustrates a proposed design for a new play area. Each section illustrated in the flow chart provides guidelines for the following design tasks:



- Determining the number of play components
- Assessing the variety of play types
- Determining how many play components must be on an accessible route
- Determining when ramps are required and when transfer systems are permitted

Refer to this example while reviewing the concepts explained in this guide, to review how accessibility guidelines are applied to play area designs.

Total # of elevated components
 1 Triple Slide
 1 Interactive Panel
 1 Overhead Curved Ladder
 + 1 Banister Bars
 4 total

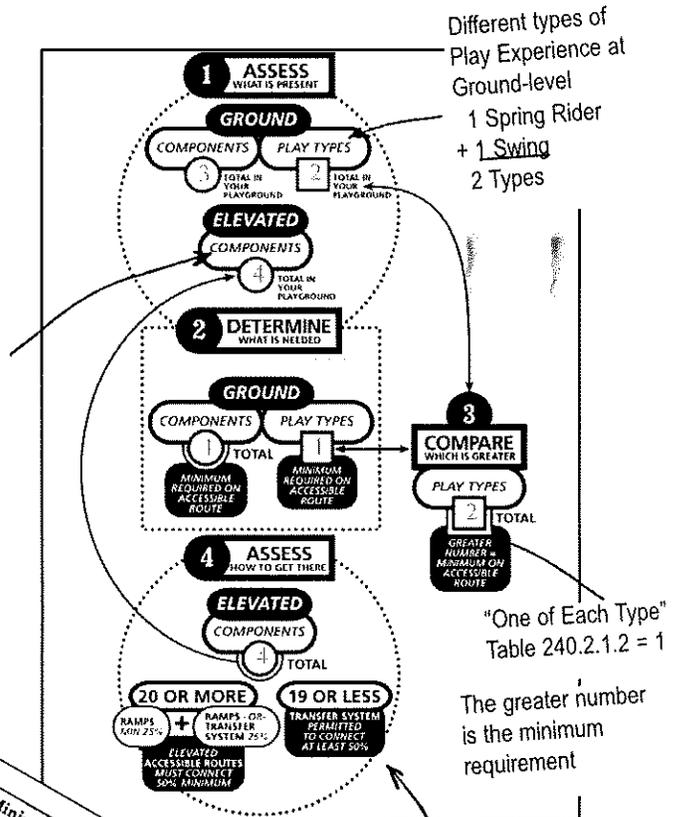


Table 240.2.1.2

Number of elevated play components provided	Minimum number of ground-level play components required to be on accessible route	Minimum number of different types of ground-level play components required to be on accessible route
1	1	Not applicable
2 to 4	2	Not applicable
5 to 7	3	Not applicable
8 to 10	4	Not applicable
11 to 13	5	1
14 to 16	6	2
17 to 19	7	3
20 to 22	8	4



50% of 4 elevated components = 2 elevated components

WHAT ARE THE REQUIREMENTS FOR ACCESSIBLE ROUTES?

ADAAG chapter 4 addresses accessible routes that connect the play area to the school, parking lot, or facility that it serves. Operators or owners of play areas are subject to all the other requirements of the ADA, including the obligation to provide individuals with disabilities an equal opportunity to enjoy the play area provided by that facility.

This section describes the various features of accessible routes within a play area, including location, clear width, slope, and accessible surfaces.

Accessible Routes

An accessible route is a pathway specifically designed to provide access for individuals with disabilities, including those using wheelchairs or mobility devices.



Accessible routes inside the boundaries of play areas are addressed in the play area guidelines. Technical provisions address the width, slope, and surface of both ground-level and elevated accessible routes.

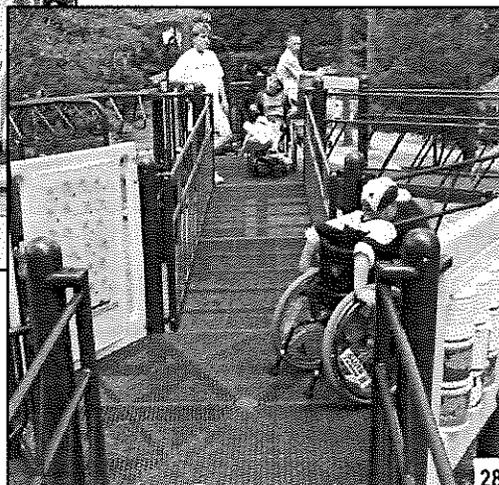
There are two types of accessible routes:

- Ground-level
- Elevated



This ground-level route connects ground components and the transfer system which connects elevated components.

This elevated route connects elevated play components on a composite structure.



The accessible route must connect all entry and exit points of accessible play components.

Clear floor space required at play components and maneuvering space can overlap the accessible route.

Incorporating additional circulation space around high-use play components creates extra room for movement and accessibility for everyone using the play area.



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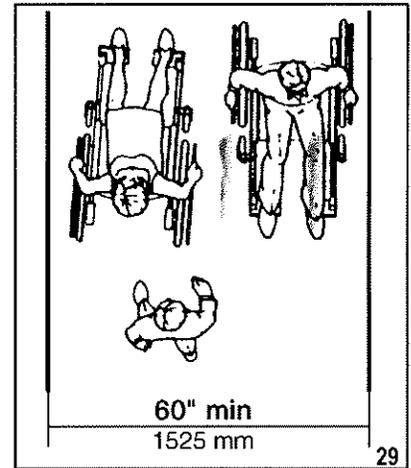
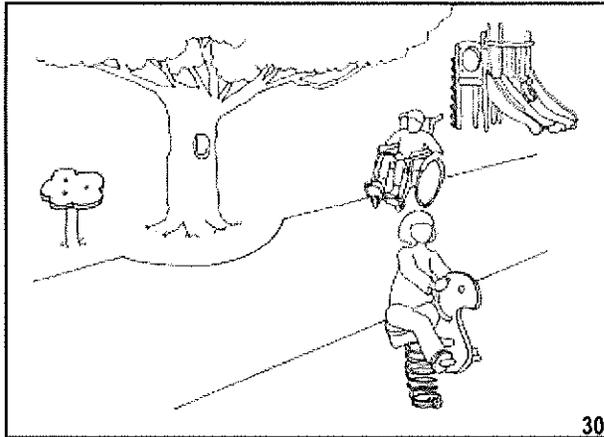
Ground-Level Accessible Routes

The 80-inch vertical clearance applies to ground-level routes only, and not elevated routes. This allows features like protective roofs and sun shelters to be present.

A ground-level accessible route connects play components at ground level.

- 60 inches (1525 mm) minimum clear width
- 1:16 maximum slope

The route may narrow down to 36 inches (915 mm) for a distance of 60 inches (1525 mm). This permits flexibility to work around site design features like existing equipment or trees.



The required 60-inch width enables two wheelchairs to pass each other or to change direction.

Smaller play areas - those that are less than 1,000 square feet (304.8 square meters) - may have ground-level accessible routes that are 44 inches (1120 mm) clear width. A wheelchair turning space must be provided where the route exceeds 30 feet (9.14 mm) in length.

At ground level, objects may not protrude into the 60-inch wide space of an accessible route up to or below the height of 80 inches (2030 mm), measured above the accessible route surface. The 80-inch clearance applies only to the 60-inch accessible route, and is not required for the entire play area.

The play area provides a fun accessible roadway theme. The protective shelters for the benches have been set outside the boundary of the route providing the 80 inches of clearance required on the route.



WHAT ARE THE REQUIREMENTS FOR ACCESSIBLE ROUTES?

Ground-Level Accessible Routes

Maximum Slope at Ground Level

The maximum allowable slope for a ground-level accessible route is 1:16.

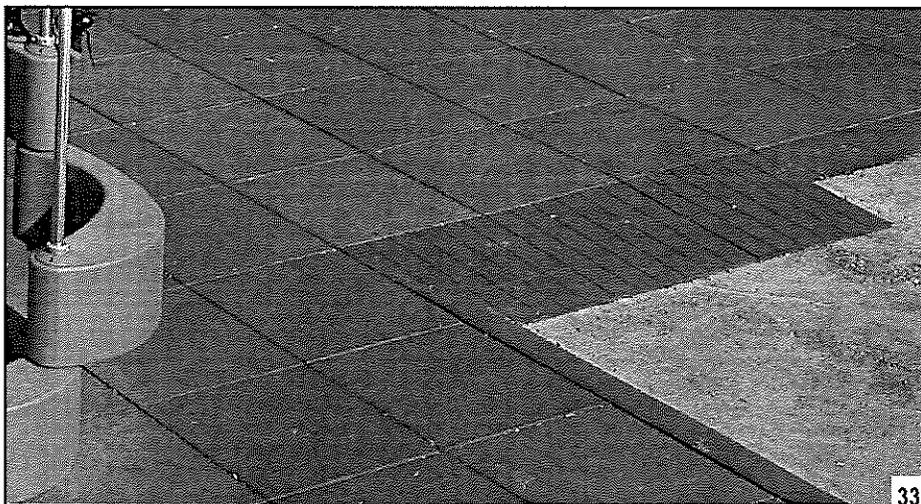
Berms are sometimes used to provide access to elevated play areas. A berm may be a natural sloped surface that is present in a hilly play area site, or a ground-level route built with slopes.

Designers are encouraged to consider edge protection and handrails on berms where there may be a drop-off. Remember the maximum slope of this “ground-level accessible route” is 1:16.

However, handrails are not required on ground-level accessible routes. This is permitted since the handrails may become a safety hazard in the “use zone.”



This play area provides a bermed accessible route.



To accommodate a height change along the perimeter of a play area - like these rubber safety tiles placed on an asphalt surface - an allowable 1:12 slope is utilized for the transition at the boundary of the play area.



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Accessible Ground Surfaces

The "use zone" is a ground level area beneath and immediately adjacent to a play structure or piece of equipment that is designated for unrestricted circulation around the equipment. It is predicted that a user would fall and land or exit the equipment on the surface of the use zone.

The American Society for Testing and Materials (ASTM) has established safety standards for play areas, including resilient surfaces. For further information or to purchase these standards, contact ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, www.astm.org.

Ground surfaces along accessible routes, clear floor or ground spaces, and maneuvering spaces, must comply with the American Society for Testing and Materials (ASTM) F 1951-99 *Standard Specification for Determination of Accessibility to Surface Systems Under and Around Playground Equipment*.

This standard assesses the accessibility of a surface by measuring the work an individual must exert to propel a wheelchair across the surface. The standard includes tests of effort for both straight-ahead and turning movements, using a force wheel on a rehabilitation wheelchair as the measuring device. To meet the standard, the force required must be less than that which is required to propel the wheelchair up a ramp with a slope of 1:14.

When selecting ground surfaces, operators should request information about compliance with the ASTM F 1292-04 standard.



Accessible surfaces can include impact-attenuating tiles made of recycled rubber and engineered wood fiber that meet the ASTM requirements for accessibility and safety. The design can be created so safety is not compromised for individuals using the play area where both standards are applied.

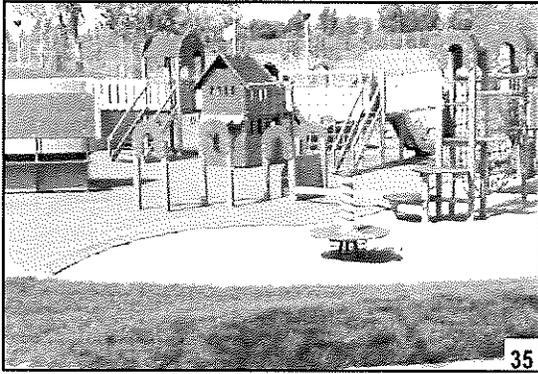
Accessible Surfaces Located In The Use Zone

If located within the use zone, accessible ground surfaces must also be impact attenuating and meet ASTM F 1292-04 *Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment*.

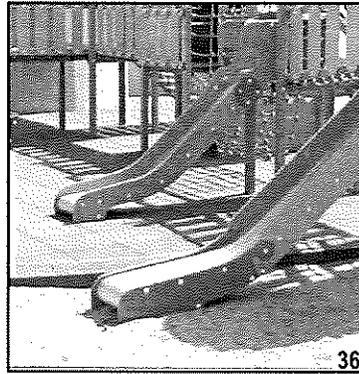


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WHAT ARE THE REQUIREMENTS FOR ACCESSIBLE ROUTES?



Accessible and non-accessible surfaces can be combined to provide variety and excitement in the play area.



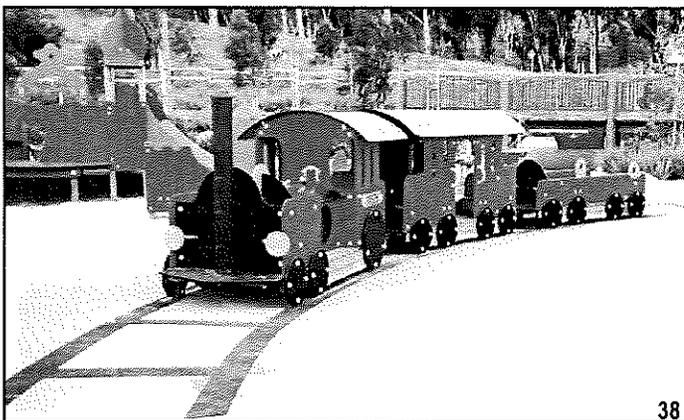
At the time of this publication, rubber surfacing and some engineered wood fiber products meet the ASTM F 1951-99 standard. The fact that a specific product meets the ASTM 1951-99 standard does not necessarily mean that all other similar products will meet the standard.

Operators interested in selecting surfaces to comply with the play area guidelines, should consult individual product manufacturers to determine compliance with ASTM F 1951-99.



Rubber surfacing tiles facilitate access in this play area.

Ground surfaces must be inspected and maintained regularly and frequently to ensure continued compliance with the ASTM F 1292-04 standard. The frequency of maintenance and inspection of resilient surfacing depends on the amount of use and the type of surfacing installed.



Accessible surfacing can be designed to complement the theme of the play area, while providing full access and visually integrating the surface into the overall design. Individuals of all abilities will enjoy the added benefits of an imaginative design.

Engineered wood fiber surfaces will require frequent maintenance to comply with the ASTM F 1292-04 standard because of surface displacement due to user activity or other factors.

Designers and operators are likely to choose materials that best serve the needs of each play area. The type of material selected will affect the frequency and cost of maintenance.



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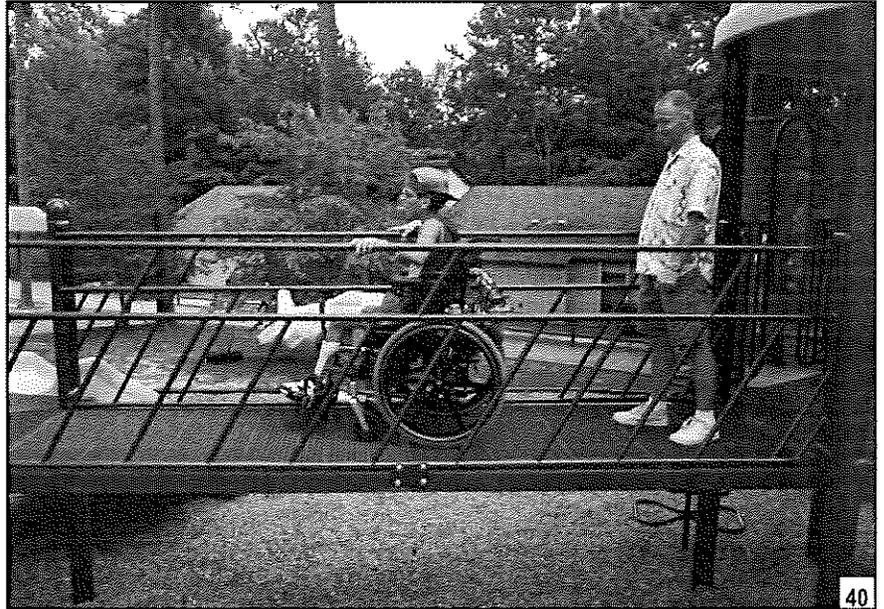
Elevated Accessible Routes

“Ramps” serve as a continuation of the accessible route from the ground allowing individuals who use mobility devices to access elevated components. The guidelines require that play areas containing 20 or more elevated play components provide ramp access to at least 25 percent of those elevated components.

An elevated accessible route is the path used for connecting elevated play components.

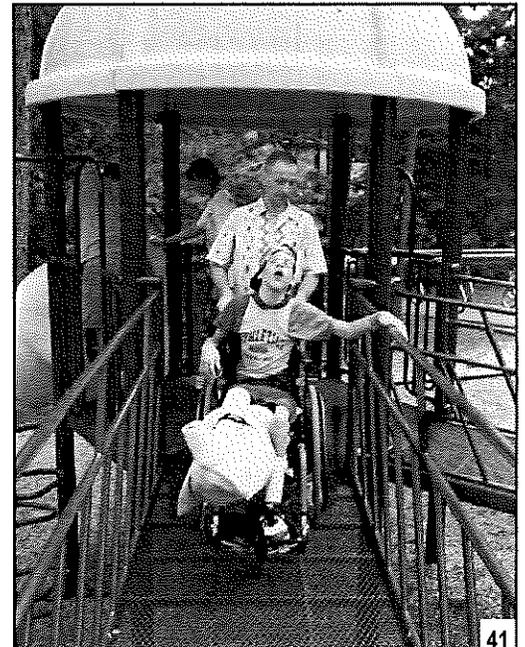
Elevated accessible routes must connect the entry and exit points of at least 50 percent of the elevated play components provided in the play area.

Two common methods for providing access to elevated play components are ramps and transfer systems. Ramps are the preferred method since not all children who use wheelchairs or other mobility devices may be able to use - or may choose not to use - transfer systems.

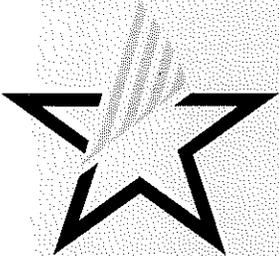


This photo illustrates an elevated accessible route:

- 36-inch (915 mm) clear width
- 32-inch (815 mm) narrowed width permitted for 24-inch (610 mm) length to accommodate features in the composite structure
- 12-inch (305 mm) rise maximum per ramp run
- Top of handrail gripping surfaces shall be 20 inches (510 mm) minimum to 28 inches (710 mm) maximum above the ramp surface



The 80-inch vertical clearance height does not apply to elevated accessible routes. This allows for the use of features such as roofs and sun shelters.



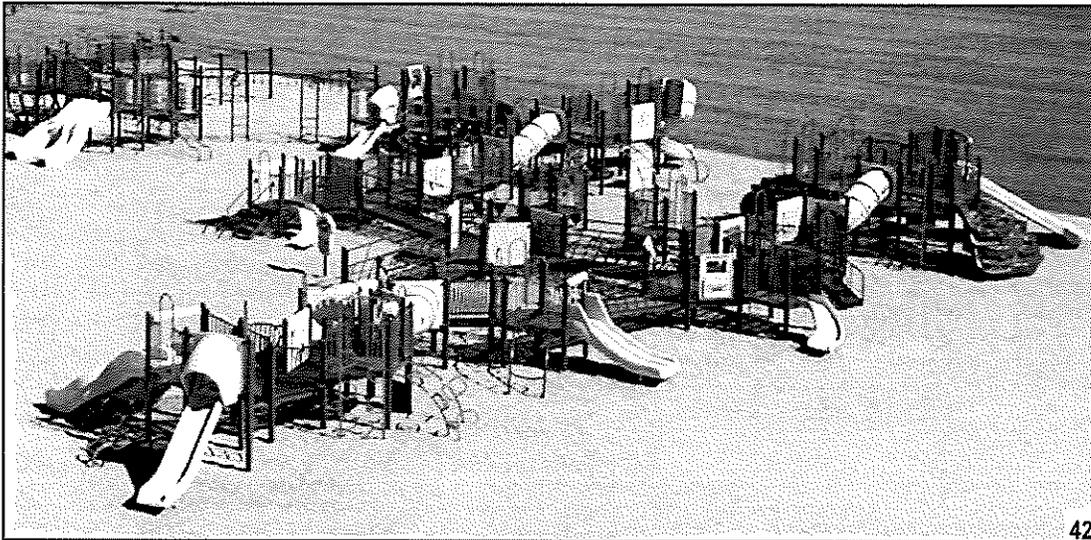
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WHAT ARE THE REQUIREMENTS FOR ACCESSIBLE ROUTES?

When Ramps Are Required

Ramps are required on composite structures with 20 or more elevated play components and must connect to at least 25% of the elevated play components.

Ramps allow individuals who use wheelchairs and mobility devices to access elevated play components in composite play structures without transferring.



This play area has more than 20 play components and provides ramp access to elevated play components. The ramp system, consisting of ramp runs and landings, must connect to at least 25 percent of the elevated play components. The balance of the elevated play components required to be on an accessible route may be connected by the ramp system, or by a transfer system.

Rise of a ramp is the amount of vertical distance the inclined or slanted surface ascends or descends. A ramp **run** is a length of a continuous sloped surface that is ascending or descending. For example, to reach a 12-inch high deck or platform, a designer could use a 12-foot ramp with the maximum 1:12 slope, or a 14-foot ramp with a less steeper 1:14 slope.

Platform lifts, also known as "wheelchair lifts," may be considered for providing access to elevated play components when appropriate.

Where applicable, platform lifts complying with ADA/ABA Accessibility Guidelines chapter 4 and applicable state and local codes are permitted as a part of an accessible route. Because lifts must be independently operable, owners and operators should carefully consider the appropriateness of their use in unsupervised settings.



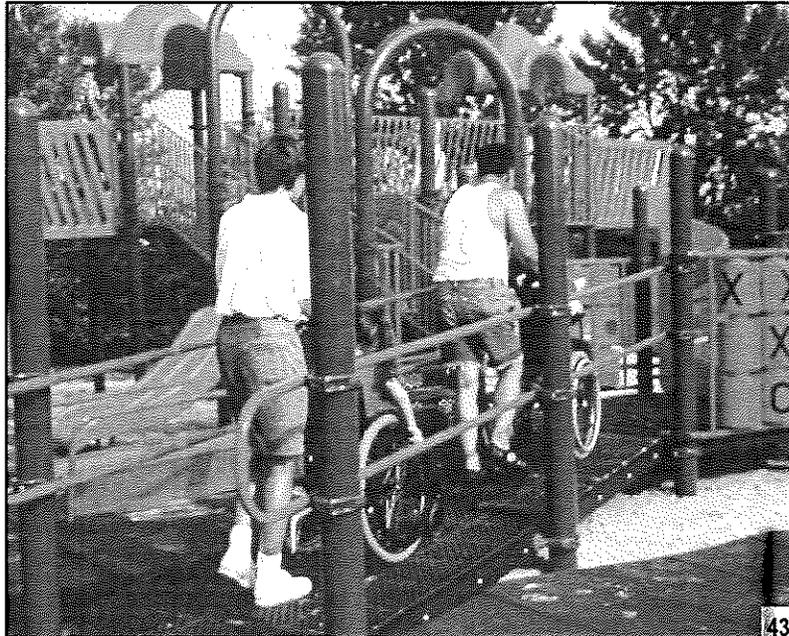
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“Ramps” are sloped surfaces that provide individuals who use mobility devices with access to elevated components.

Ramps

For each elevated ramp run:

- 12-inch (305 mm) maximum rise
- 1:12 maximum slope
- 36-inch (915 mm) minimum clear width



Landings

Landings are the level surfaces at the top and bottom of each ramp run.

- Must be as wide as the ramp they connect to
- A minimum length of 60-inches (1525 mm)
- If ramps change direction, the minimum landing size must be 60 inches (1525 mm) wide to accommodate a turn

Maneuvering Space Where Ramps are Provided

At least one maneuvering space must be provided on the same level as the play component. The space must have a slope no steeper than 1:48 in all directions (see page 34 for further details).

ADA/ABA Accessibility Guidelines addresses additional requirements for ramps and landings including edge protection, cross slope, surfaces, and outdoor conditions.



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WHAT ARE THE REQUIREMENTS FOR ACCESSIBLE ROUTES?

Handrails

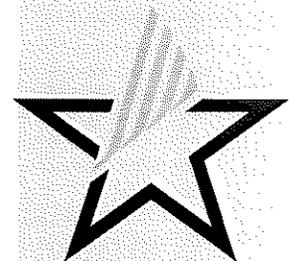
Handrails are required on both sides of ramps connecting elevated play components. Handrails must comply with the following:

- Clearance between handrail gripping surfaces and adjacent surfaces and shall not be 1 1/2 inches (38mm) minimum.
- Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1 1/2 inches (38mm) minimum below the bottom of the handrail gripping surface.



In this case, additional handrails have been provided.

Handrails are required to comply with ADA/ABA 505. However, extensions on handrails in the play area are not required. This is to prevent children running into protruding rails in the play area.



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WHAT ARE THE REQUIREMENTS FOR ACCESSIBLE ROUTES?

When Transfer Systems Are Used

A "transfer system" is an alternative to a ramp system in play areas where there are less than 20 total elevated play components.

The transfer system must connect to the ground-level accessible route and provide access to at least 50 percent of the elevated play components.

A transfer system provides access to elevated play components within a composite system by connecting different levels with transfer platforms and steps.

A transfer system provides access to elevated play components without the use of a wheelchair or mobility device. At least 50% of the elevated play components can be connected by a transfer system in play areas with less than 20 elevated components. In play areas with 20 or more elevated play components, transfer systems may be used to connect up to 25% of the elevated play components and the rest of the elevated play components required to be on an accessible route must be connected by a ramp.



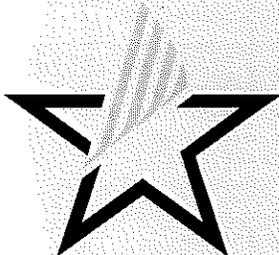
A transfer system typically consists of a transfer platform, transfer steps, and transfer supports.

Where a transfer system is provided, a combination of transfer platforms and transfer steps provide a continuous accessible route to elevated play components. A transfer system provides individuals the space necessary to physically transfer up or down in a composite play structure. Where provided, a 24-inch (610 mm) minimum width is necessary for individuals moving around a structure.



Playful features can be part of the transfer system, providing interactive experiences from both an elevated or ground level approach.

Consider the distance someone must travel to reach play components accessed by transfer systems. On page 31, the illustration shows a transfer system placed directly next to the slide. Access to this type of elevated play component has been carefully designed to minimize the distance someone must transfer to reach it.

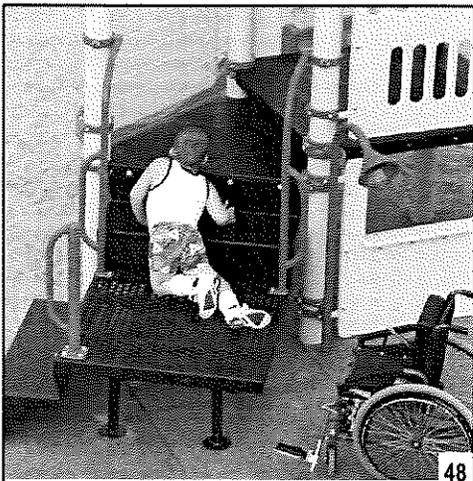


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WHAT ARE THE REQUIREMENTS FOR ACCESSIBLE ROUTES?

Transfer Platforms

A transfer platform is a platform or landing that an individual who uses a wheelchair or mobility device can use to lift or *transfer* onto the play structure and leave the wheelchair or mobility device behind at ground-level.



- 11 inches (280 mm) to 18 inches (455 mm) height of top surface
- Minimum 24 inches (610 mm) wide
- Minimum 14 inches (355 mm) deep
- Unobstructed side

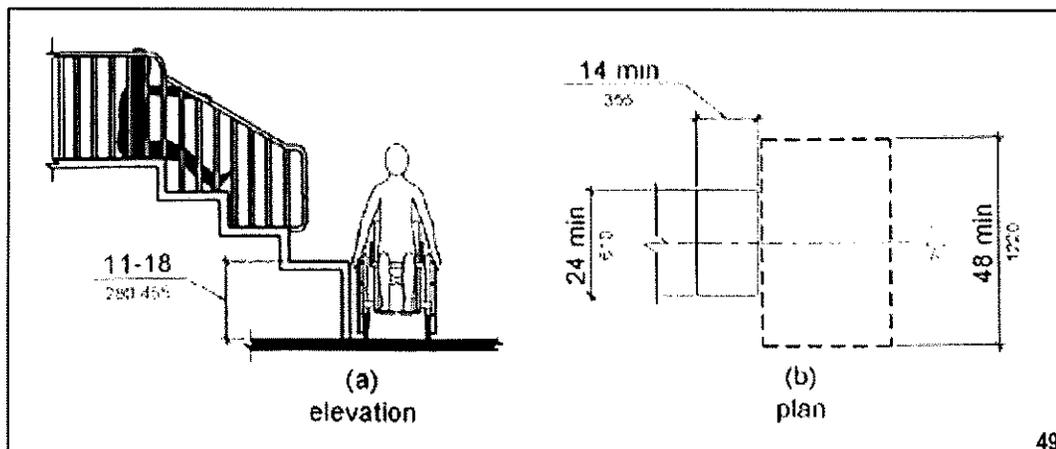
Adding a transfer step that leads to the ground's surface increases access for children exiting components at the ground level.

Transfer steps in a play area are not required to satisfy the general ADAAG stair requirements.

Maneuvering space and clear space is not required on elevated structures or at elevated play components reached by a transfer system.

Clear floor or ground space - used for parking wheelchair or mobility devices (commonly called "wheelchair parking") - is required at the transfer platform.

The 48-inch long side (1200 mm) of the "wheelchair parking" space must be parallel to the 24-inch (610 mm) side of the transfer platform.

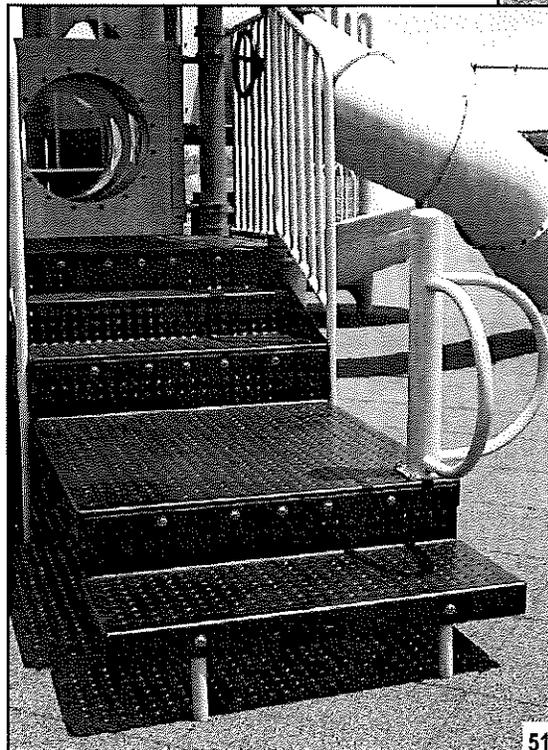


U.S. Access Board
A Summary of Accessibility
Guidelines for Play Areas

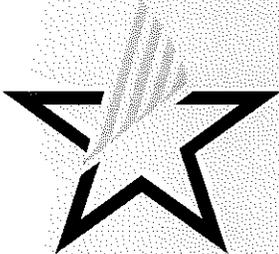
Transfer Steps

Transfer steps are level surfaces in a composite structure that can be used for transferring from different levels to access play components.

- Minimum 24 inches (610 mm) wide
- Minimum 14 inches (355 mm) deep
- 8 inches (205 mm) maximum height



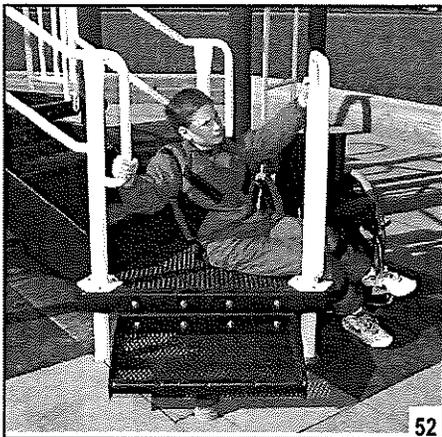
Play areas intended for smaller children should provide steps at smaller height increments. This will accommodate smaller sized children who must lift or “bump” up each step.



WHAT ARE THE REQUIREMENTS FOR ACCESSIBLE ROUTES?

Transfer Supports

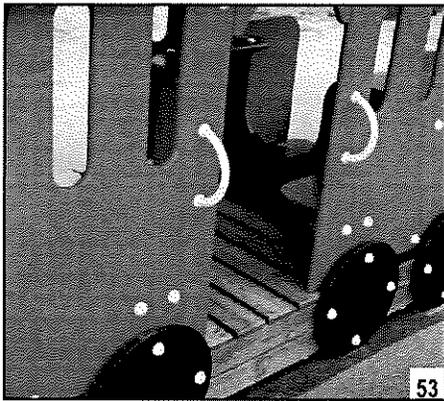
Transfer supports must be provided on transfer platforms and transfer steps at each level where transferring is the intended method of access.



Materials in a variety of different shapes and sizes are used to manufacture transfer supports including metal, plastic, and rope.

A means of support is required when transferring into the entry or seat of a play component.

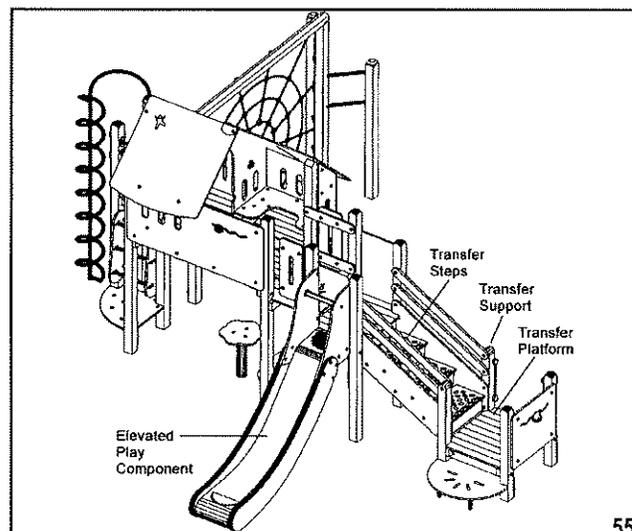
Transfer supports assist individuals with transferring and general mobility. They include handrails, handgrips, or custom designed handholds.



Aesthetically pleasing cut-out shapes and other design enhancements can provide hand supports for transferring.

Consideration must be given to the distance between the transfer system and the elevated play components it is intended to facilitate. Designers should minimize the distance between the point where a child transfers from a wheelchair or mobility device and the elevated play destination.

This transfer system provides access to exciting elevated play experiences like sliding while minimizing the distance individuals must traverse.



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Connected Elevated Components

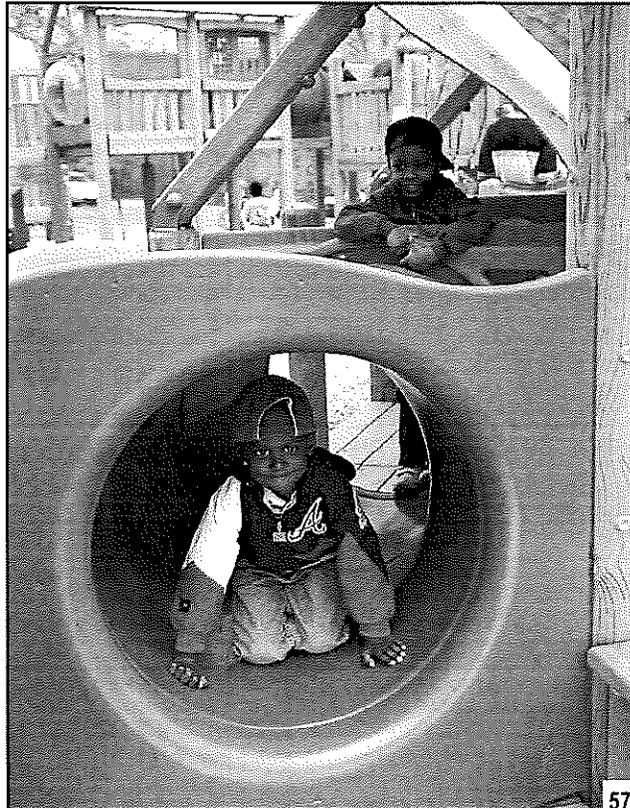
Elevated play components that are connected to other play components count toward fulfilling the requirement for the number of elevated components on an accessible route where transfer systems are used.

When transfer systems are used, an elevated play component may connect to other elevated play components, providing an innovative, accessible route.

A crawl tube is an elevated play component in this composite structure. Going through the tunnel provides access to additional activities on the other side.



Consideration should be given to how a play component is utilized when it is selected to connect to other elevated play events. When a transfer system is provided, children move through a play component like this crawling tube, using their own strength without a mobility device.



Providing variety and excitement through elevated play spaces benefits all children. Tunnels and tubes make "getting there" an activity in itself.



WHAT OTHER ACCESSIBILITY REQUIREMENTS APPLY TO PLAY COMPONENTS?

The play area guidelines address accessible routes connecting play components along with certain spaces that are crucial to making a play area usable for children with disabilities. The other requirements for play components are provided to promote general usability, with application to a variety of play components. Additional features will assist in making play components more accessible to more children. Designers are encouraged to consider components with back support, increased space for maneuvering adjacent to the play component, and other features that promote independent use.

Clear Floor or Ground Space

Clear floor space - also known as ground space - provides unobstructed room to accommodate a single stationary wheelchair and its occupant at a play component on an accessible route.

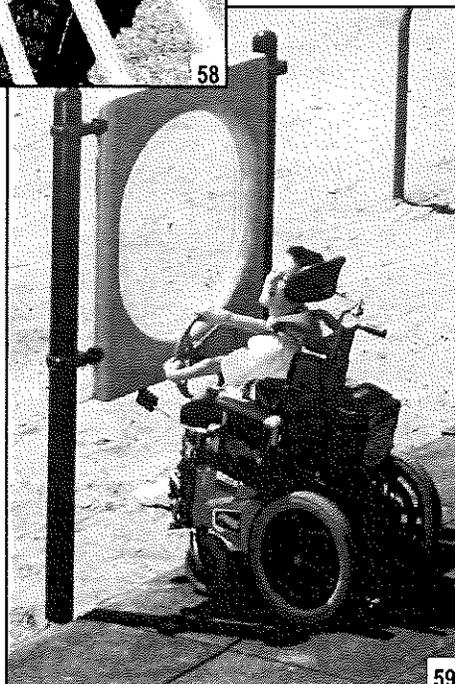
- 30-inch (760 mm) by 48-inch (1220 mm) minimum area
- May overlap accessible routes and maneuvering spaces
- Slope not steeper than 1:48 in all directions



The clear floor space is permitted to overlap onto the landing area to provide access to this elevated window activity.

Play components come in a variety of shapes and sizes facilitating a broad range of experiences. A specific location for clear floor or ground space has not been designated. Each play component is unique and the spaces must be placed in the best location for the situation.

This interactive play component has a clear ground space that allows front or side reach interaction.



Elevated play components accessed by transfer systems do not require maneuvering or clear floor spaces, since mobility devices are left at ground level.

Clear floor or ground space is also sometimes called "wheelchair parking space."

The minimum clear floor or ground space on a composite structure may be positioned for a forward or parallel approach. It may overlap accessible routes and maneuvering spaces.

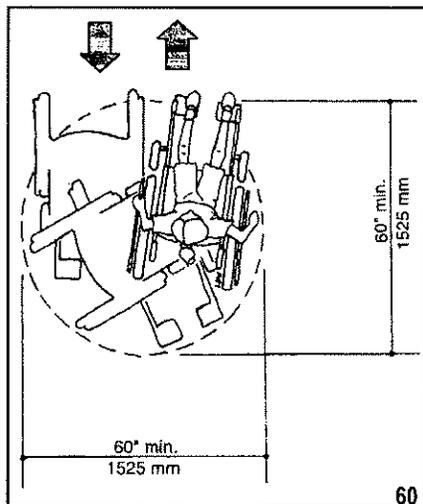


U.S. Access Board
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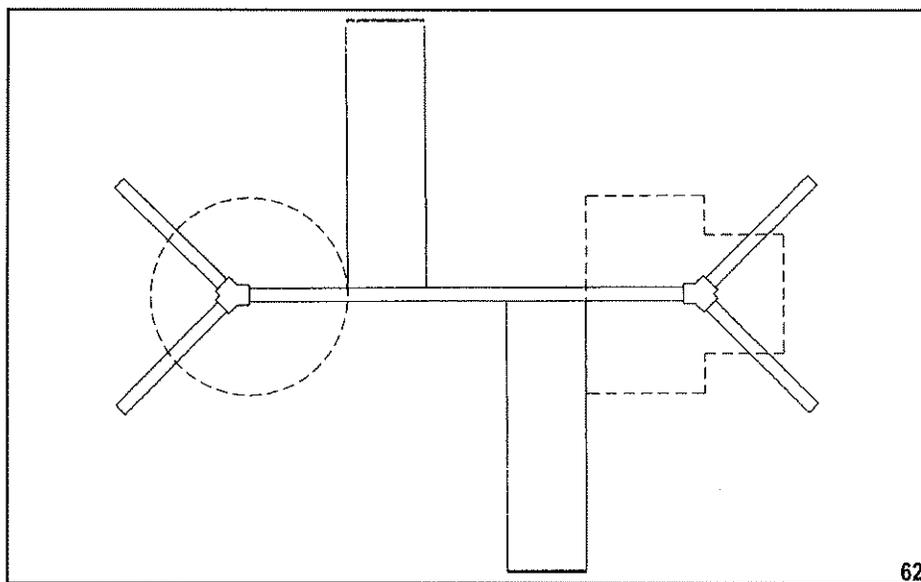
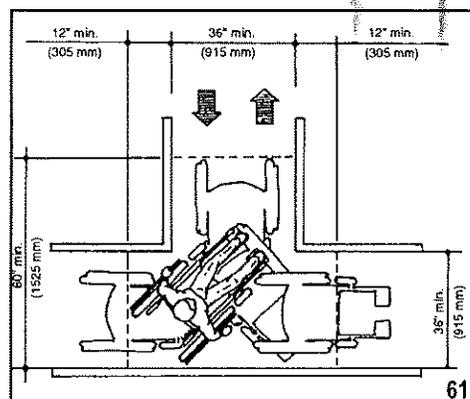
Maneuvering Space

Maneuvering space is defined as the space required for a wheelchair to make a 180-degree turn. At least one maneuvering space must be provided on the same level as elevated play components.

When providing access to ground level and elevated play components by ramps, space allowances to accommodate wheelchairs and mobility devices are required.

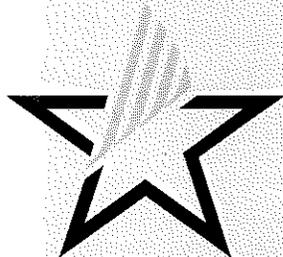


- A 60-inch (1525 mm) turning circle permits individuals with mobility devices to turn around
- A 60-inch (1525 mm) T-Shaped turn allows an individual to change directions by making a series of multi-point turns
- Slope not steeper than 1:48 in all directions



Maneuvering space is required for swings and must be located adjacent to the swing. This illustration shows options for either a 60-inch turning circle or a T-shaped turn. While this illustration shows the maneuvering space to the side of the swing, the space may be located behind or in front of the swing as long as it is immediately adjacent to the swing.

Objects are not permitted to protrude into ground level maneuvering spaces at or below 80 inches (2030 mm) above the ground or floor surface.

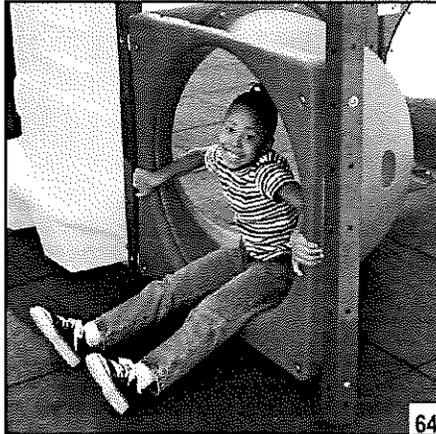


WHAT OTHER ACCESSIBILITY REQUIREMENTS APPLY TO PLAY COMPONENTS?

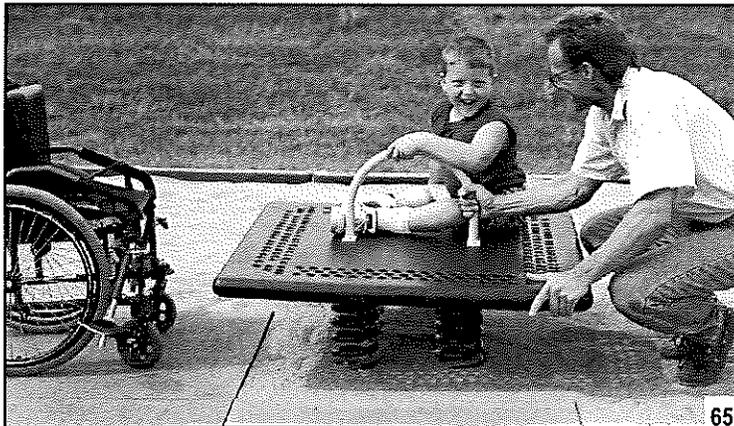
Entry Points and Seats

Entry points and seats are features of play components where individuals would transfer, sit, or gain access. When play components are located on an accessible route, the height required to transfer directly to the entry point or seat of a play component has a minimum of 11 inches (280 mm) and a maximum of 24 inches (610 mm). A mid-level height of 18 inches (455 mm) is recommended.

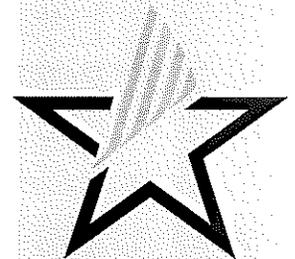
The height of the entry point of a slide is not specified.



Examples of entry points and seats include swing seats, spring rocker seats, and crawl-tube openings.



Consider design features like open sides, back supports, and hand supports to help facilitate easy transfer and access.



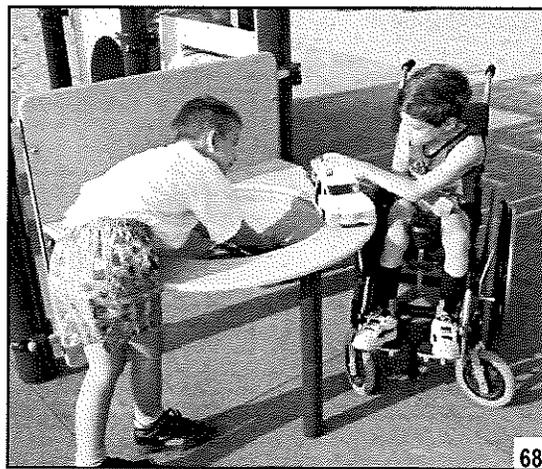
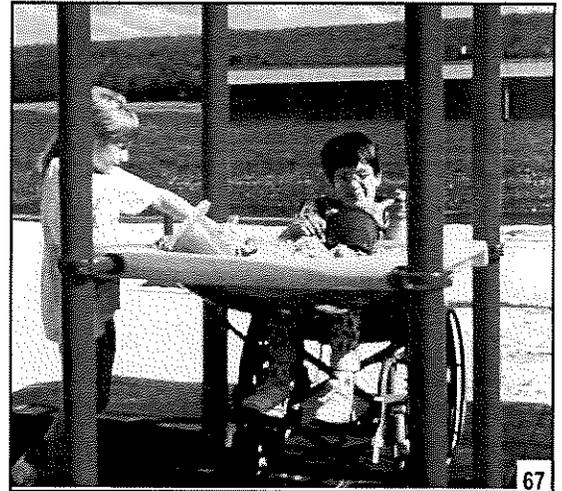
U.S. Access Board
A Summary of Accessibility
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Play Tables

Play tables may be located at a ground or elevated level in a composite play structure. Consider the route, clear floor space and maneuvering spaces for tables intended to be accessible to individuals who use wheelchairs.

Play tables are surfaces, boards, slabs, or counters that are created for play. This includes tables designed for sand and water play, gathering areas, and other activities. Where play tables are located on an accessible route, the wheelchair knee clearance minimums are:

- 24 inches (610 mm) high minimum
- 30 inches (760 mm) wide minimum
- 17 inches (430 mm) deep minimum



Play tables designed primarily for children under 5-years-old, may provide a parallel approach instead of knee clearance if the rim is a maximum of 31 inches (785 mm) high.



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The edge of this elevated sand table has been designed to provide access by providing a generous opening. The tops of rims, curbs, or other obstructions that would prevent access to a table surface should be 31 inches (785 mm) maximum in height.



WHAT OTHER ACCESSIBILITY REQUIREMENTS APPLY TO PLAY COMPONENTS?

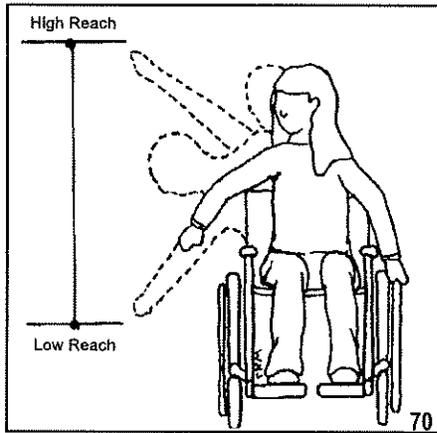
Reach Ranges (Advisory)

The play area guidelines include advisory information on recommended reach ranges.

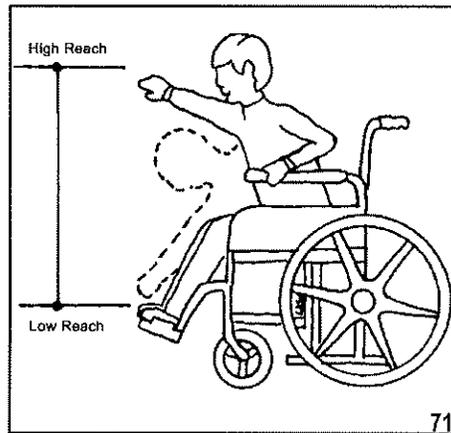
Reach ranges are the recommended designated regions of space that a person seated in a wheelchair can reasonably extend their arm or hand to touch, manipulate, move, or interact with an object or play component.

Reach ranges should be considered when providing play components with manipulative or interactive features for children who use wheelchairs. Recommended forward or side reach ranges are:

- 20 to 36 inches for 3 to 4 year-olds
- 18 to 40 inches for 5 to 8 year-olds
- 16 to 44 inches for 9 to 12 year-olds



Side Reach



Forward Reach

The reach ranges appropriate for use by children who use wheelchairs to access play components are intended for ground-level components, and elevated components accessed by ramps. Reach ranges are not appropriate for play components reached by transfer systems.



Appropriate reach range heights will vary depending on how the play component is accessed. This interactive panel is mounted at a height appropriate for a child who uses a wheelchair.



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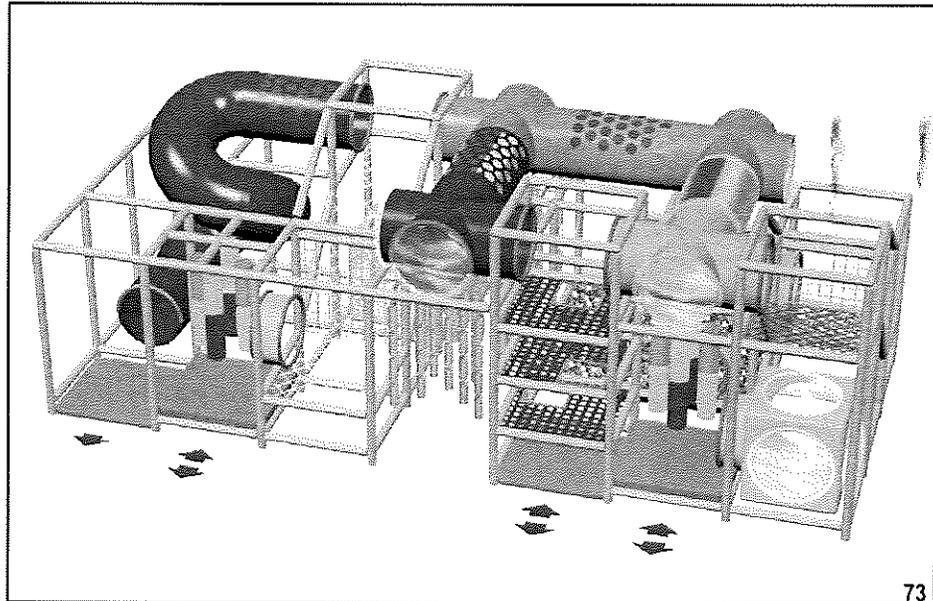
The reach ranges in this guide are recommendations that should be considered when designing play components with manipulative features intended for use by individuals who use wheelchairs.

SOFT CONTAINED PLAY STRUCTURES

"Soft contained play equipment" is a play structure made of one or more components, on which an individual enters a fully enclosed play environment that uses pliable materials such as plastic, soft padding, and fabric.

Soft contained play structures must provide at least one entry point on an accessible route when three or fewer entry points are provided.

If four or more entry points are provided, at least two entry points must be located on an accessible route.



Soft contained play environments typically have limited entrance and exit locations, with play components integrated into the system design.



Transfer systems or platform lifts can serve as a part of an accessible route connecting entry points on soft-contained play structures.



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The play area guidelines apply to alterations made to existing play areas that affect, or could affect, the usability of the play area. Examples include removing a climbing play component and replacing it with a spring rocker, or changing the ground surfacing.

Alterations provide an opportunity to improve access to existing play areas. Where play components are altered and the ground surface is not, the ground surface does not have to comply with the ASTM F 1951-99 standard for accessible surfaces unless the cost of providing an accessible surface is less than 20 percent of the cost of the alterations to the play components.

If the entire ground surface of an existing play area is replaced, the new ground surface must provide an accessible route to connect the required number and types of play components. The requirements for accessible routes are explained on page 19.



This play area was altered by adding two spring rockers. The seat of at least one spring rocker is between 11 inches (280mm) and 24 inches (610mm) maximum, and clear floor or ground space and maneuvering space is provided. If the ground surface is replaced in the future, an accessible route would have to be provided to the spring rocker.

Normal maintenance activities such as replacing worn ropes or topping off ground surfaces are not considered alterations.

If play components are relocated in an existing play area to create safe use zones, the guidelines do not apply, provided that the ground surface is not changed or extended for more than one use zone.

Replacing the entire ground surface does not require the addition of more play components.



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ACKNOWLEDGEMENTS

The Access Board would like to thank the following manufacturers for their generous assistance and for supplying appropriate photographs or illustrations: Bob Leathers, Columbia Cascade, GameTime, KOMPAN, Landscape Structures, Little Tikes, Miracle, Olympic Recreation, Playworld Systems, and Recreation Creations.

The numerical listing below shows the source of each photo or illustration.

Top Cover Photo - KOMPAN	38. KOMPAN
Bottom Cover Photo - Miracle	39. KOMPAN
1. KOMPAN	40. GameTime
2. Little Tikes	41. GameTime
3. KOMPAN	42. GameTime
4. KOMPAN	43. Playworld Systems
5. KOMPAN	44. Landscape Structures
6. Little Tikes	45. Miracle
7. KOMPAN	46. Landscape Structures
8. Little Tikes	47. Little Tikes
9. KOMPAN	48. Landscape Structures
10. KOMPAN	49. KOMPAN
11. Landscape Structures	50. Game Time
12. Miracle	51. Recreation Creations
13. KOMPAN	52. Miracle
14. Little Tikes	53. KOMPAN
15. GameTime	54. Playworld Systems
16. Playworld Systems	55. KOMPAN
17. GameTime	56. KOMPAN
18. Little Tikes	57. KOMPAN
19. Landscape Structures	58. Olympic Recreation
20. Miracle	59. Playworld Systems
21. Recreation Creations	60. KOMPAN
22. Miracle	61. KOMPAN
23. Miracle	62. Access Board
24. Landscape Structures	63. Playworld Systems
25. Miracle	64. Little Tikes
26. Columbia Cascade	65. Landscape Structures
27. Playworld Systems	66. GameTime
28. GameTime	67. Playworld Systems
29. KOMPAN	68. Landscape Structures
30. Elizabeth Garufi	69. Bob Leathers
31. Little Tikes	70. KOMPAN
32. Playworld Systems	71. KOMPAN
33. KOMPAN	72. Miracle
34. Columbia Cascade	73. GameTime
35. KOMPAN	74. Access Board
36. KOMPAN	75. Miracle
37. Little Tikes	



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14



January 11, 2023

Board of Directors
Belvedere Municipal Utility District
c/o Lloyd Gosselink Rochelle & Townsend, P.C.
816 Congress Ave., Suite 1900
Austin, TX 78701

Re: Monthly Status Report
Belvedere MUD Regular Board Meeting of January 17, 2023

Dear Directors:

The following is a brief summary that describes our activities since the last meeting:

1. Drainage Facilities

- a. Flagler Ditch – Quiddity completed the Flagler Ditch analysis. A Technical Memorandum summarizing the findings is included for your review.
- b. Verde Mesa Culverts – Quiddity engineering performed an analysis to corroborate the driveway culvert sizes LJA Engineering provided for the homes 8304 and 8308 Verde Mesa. Based on the analysis and field visits, Quiddity provided the following via email to the HOA and the MUD's engineering subcommittee:

Recommendations:

- Install 2-24" RCP culverts or a 4'x2' box at the 8304 and 8308 Verde Mesa driveways instead of the single 24" pipes recommended in the LJA report.
- Extend a defined ditch from 8304 to 8300 to capture and convey off-site runoff preventing it from spilling over the cul-de-sac taking into consideration the existing hydrant and other utilities.
- Grade the driveway and front yard of 8304 such that runoff is directed to the ditch and not across the cul-de-sac.
- Construct a 1' deep triangular ditch with 4:1 side slopes south of the vegetated filter strip between 8304 and 8308 Verde Mesa to intercept off-site runoff.

Observations:

- Runoff appears to overtop the 2-24" CMPs at 8312 Verde Mesa in storm events higher than the 25-year.
- The temporary driveway culvert at 8304 is crushed and obstructed causing runoff to back up and spill over the shallow ditch and across the cul-de-sac.

The HOA shared this information with the home builders and owners at 8304 and 8308 Verde Mesa and requested the up-sized culverts. The home builder at 8304 Verde Mesa asked for the District's



QUIDDITY

Board of Directors
Belvedere MUD
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assistance in paying for at least half of the culvert cost citing the previous guidance provided by Belvedere and delayed notice about the change in culvert size. The email with the home builder's request and the invoice for the total cost of installing the up-sized culverts is included for your review.

BOARD ACTION: Consider partial reimbursement of the culvert installation cost at 8304 Verde Mesa.

2. Trail Facilities

- a. Maintenance – Revised proposals to address the areas of severe cracking on the masonry sections of the trails identified by the HOA were requested. These proposals will be presented at the meeting for your review and approval.

BOARD ACTION: Consider approval of the proposals for trail repairs.

- b. Amenity Center Lot Improvements – Fazzone is still hesitant to replace the plants that were listed in the 1-year inspection, because they were not notified of any issues prior to the inspection, and differences between the plants listed in the 1-yr inspection versus the 3/25/2021 inspection. We coordinated an in person meeting with them, the HOA and the landscapers on November 2nd, but no one from Fazzone attended even though they scheduled the meeting and confirmed their attendance. We recommend discussing requesting the surety company's help to enforce the Performance Bond.

Should you have any questions or need additional information, please notify us.

Sincerely,

Odalys C. Johnson, P.E.

OCJ/ocj

\\jonescarter.corp\cfs\Projects\16654\16654-0900-23 2023 General Consultation (Belvedere MUD\Meeting Files\Status Reports\Status Report for Belvedere 20230117.docx



3100 Alvin Devane Blvd Suite 150
Austin, Texas 78741-7425
Tel: 512.441.9493
Fax: 512.445.2286
www.quiddity.com

January 11, 2023

Belvedere Municipal Utility District
17400 Flagler Drive
Austin, Texas 78738

Re: Flagler Ditch Capacity Analysis
Travis County, Texas

Belvedere MUD:

This technical letter is a summary of the channel improvements study for the Belvedere community in southwest Austin, Texas. Quiddity has performed a drainage evaluation of the channel between Verde Mesa Cove and Rollins Drive. A hydraulic analysis was conducted using the City of Austin (COA) drainage criteria, and it was determined that the existing channel does not satisfy the COA 25-year storm capacity requirement. Thus, this analysis provides a list of improvements to attempt to mitigate flooding.

Drainage Analysis

Area of Interest

The area of interest for this drainage evaluation is the channel along Flagler Drive between Verde Mesa Cove and a detention pond just east of 17212 Flagler Drive [see *Exhibit 2 – Hydraulic Layout*]. The site consists of large developed residential lots and steep, rolling terrain. There are currently 4 crossings throughout the channel and an existing berm placed along 17208 Flagler Drive. The dimensions and geometry of each crossing were acquired from field survey.

Existing Conditions

The channel is a 4' trapezoidal ditch with 4:1 side slopes that tie into the existing terrain within the current private street, drainage, and public utility easement. The channel contains large rubble and ranges in depth between 0.5'-2'. The existing berm along 17208 Flagler Drive helps contain flow within the channel but spills onto the property of 17212 Flagler Drive once the berm terminates. The undersized crossings impede the channel's ability to detain flow as overtopping occurs at each structure. The span of the ditch along 17212 Flagler Drive is also vastly under capacity with a shallow depth as low as 0.5'.

The total existing drainage to the channel was split into three subbasins: DA-01, DA-02, and DA-03. Runoff flows south from a hilltop at 8309 Bellancia Drive to the existing pond [see *Exhibit 1 – Hydrology Layout*]. Flow that exceeds the channel's capacity will overtop the banks and drain northeast towards the pond. See Table 1 below for the acreage and impervious percentage for each subbasin.



Belvedere MUD

Page 3

January 11, 2023

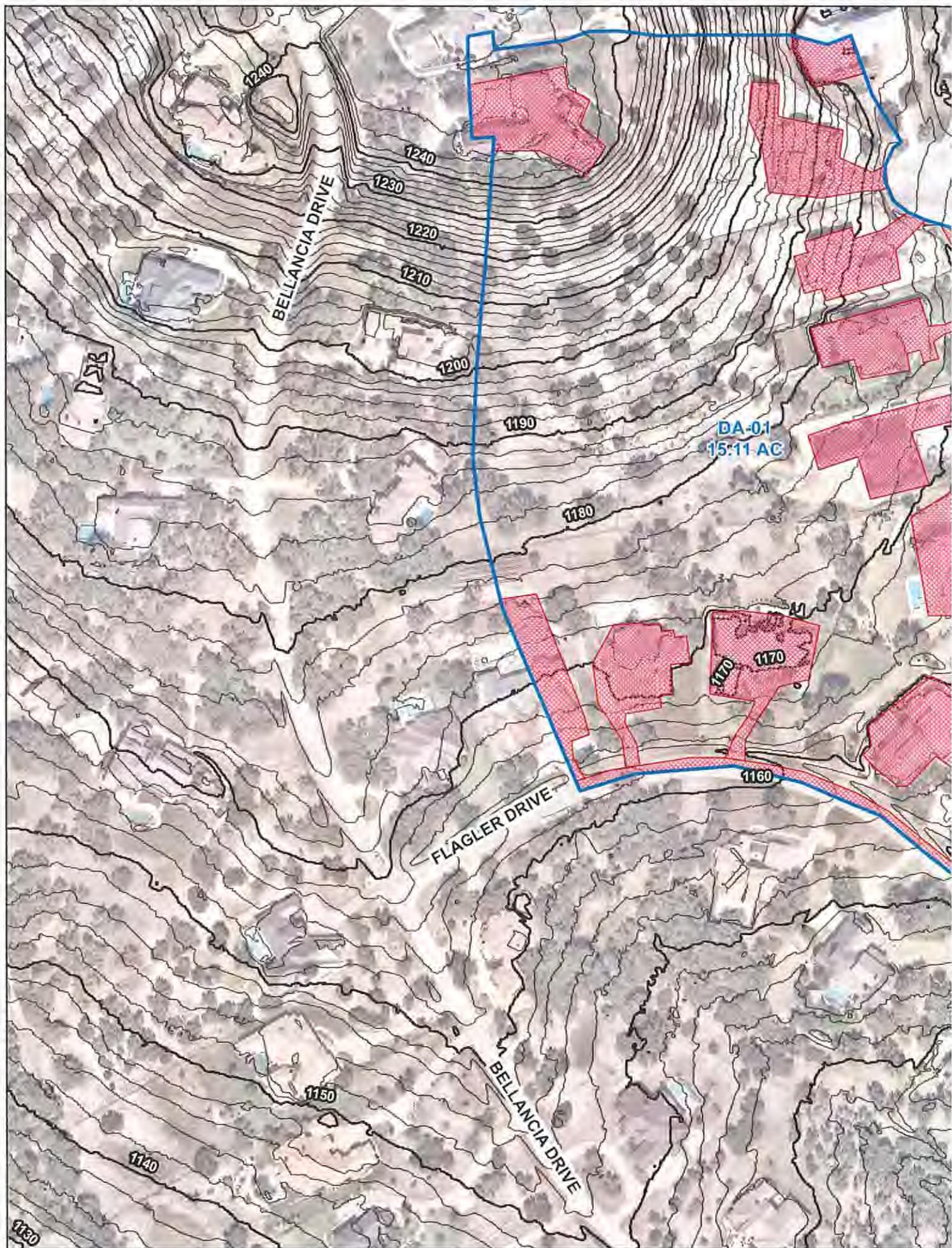
Proposed Conditions

Two proposed HEC-RAS models were evaluated in this study: one with improvements solely to the channel, and one with improvements to both the channel and crossings. Both models were unable to detain runoff within the channel using the current easement limits, as noted in *Exhibit 2*.

The improvements to the channel include replacing the grass ditch and rubble with a fully lined channel with maximum side slopes of 3:1. The proposed channel starts as a 4' wide trapezoidal ditch at the Verde Mesa Cove intersection, transitions to a 6' wide ditch once reaching 17212 Flagler Drive, and transitions to an 8' ditch after crossing the sidewalk bridge until reaching the outfall structure near the pond [see *Exhibit 2 – Hydraulic Layout*]. The proposed model also includes extending the 2' berm from 17208 Flagler Drive down to 17212 Flagler Drive, terminating at the sidewalk bridge.

The manning's value of the channel was set to 0.013 in the HEC-RAS models to reflect the lining, and flows for each storm event were input at XS 802, 567, and 308 [see *Exhibit 2 – Hydraulic Layout*]. Improvements to the crossings included an increase in the height of each structure. The proposed geometry and width of each crossing remain unchanged from existing conditions. The crossings could not be widened as this would cause the side slopes near the driveways to be steeper than 3:1.

A third model including the berm extension without lining the channel was evaluated. The manning's value of the channel in this model was set to 0.05 to reflect the large rubble. The capacity of the channel, however, was found to be identical to that of the proposed model with lining (29 CFS).

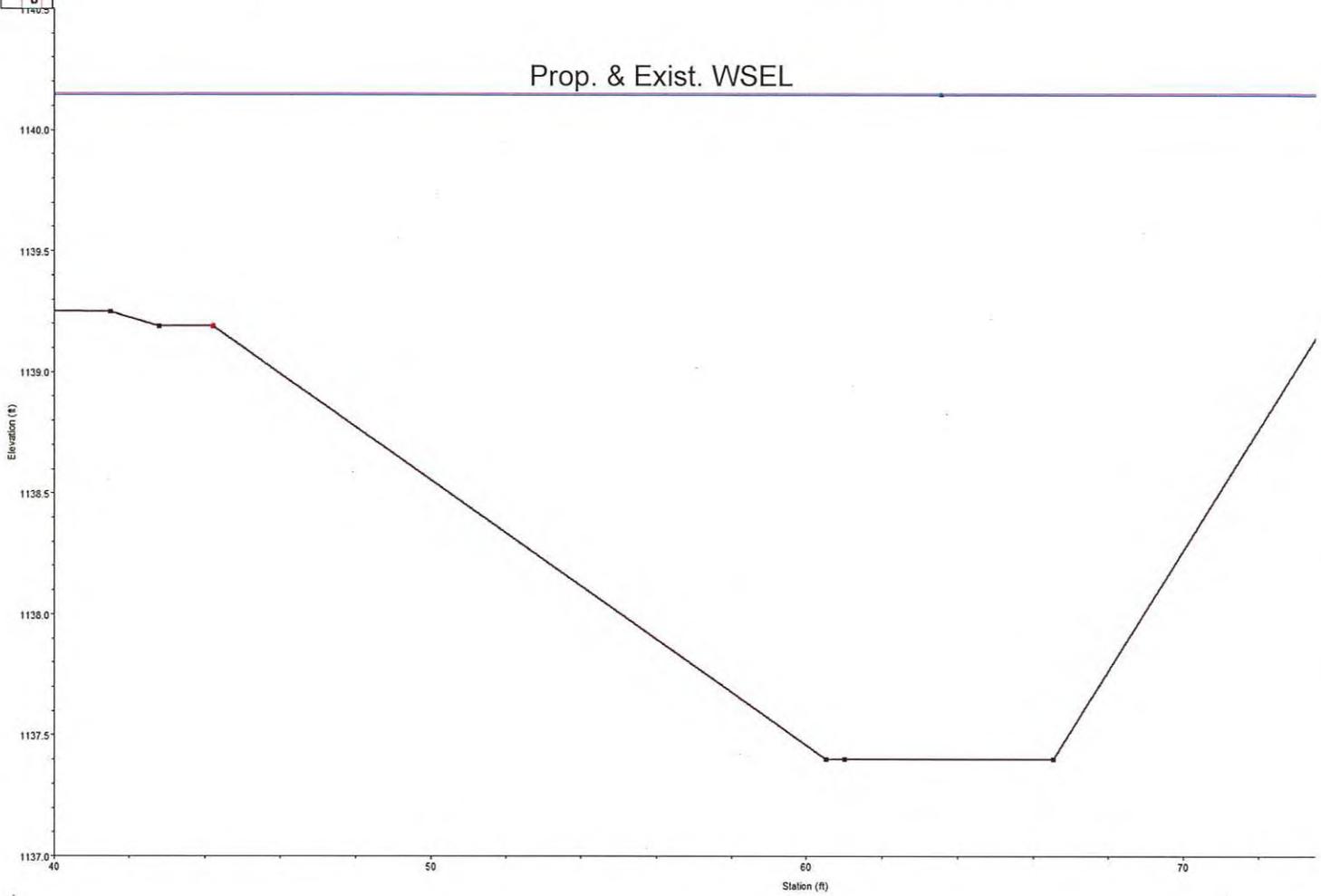


XS: 556

Flagler Ditch Plan: 1) Prop RR JMB Cul 2) Exist
RS = 556

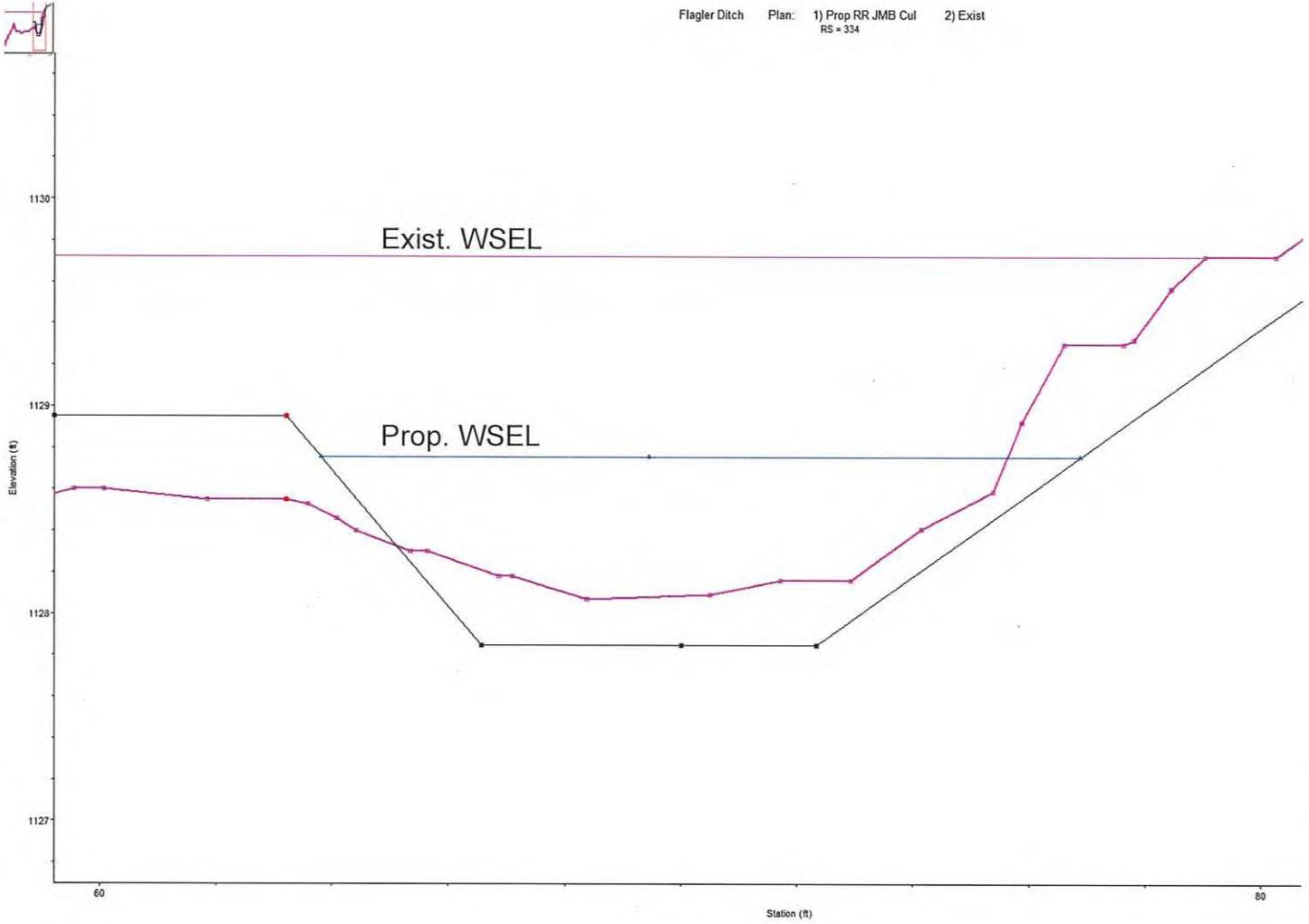


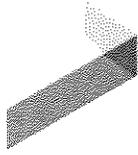
Prop. & Exist. WSEL



XS: 334

Flagler Ditch Plan: 1) Prop RR JMB Cul 2) Exist
RS = 334





FirstService
RESIDENTIAL

MEGAN MAEDGEN, CMCA
Belvedere General Manager

17400 Flagler Drive | Austin, TX 78738
Direct 512.264.0560
Email megan.maedgen@fsresidential.com
www.fsresidential.com

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From: Sean Canahuate <sean.canahuate@gmail.com>
Sent: Thursday, October 6, 2022 1:36 PM
To: Megan Maedgen <Megan.Maedgen@fsresidential.com>
Cc: Capital Hills Development Corporation <capitalhills@gmail.com>; Julie Micon <juliemicon@gmail.com>
Subject: 8308 Verde Mesa - Culvert Cost Reimbursement

Hi Megan - thanks for the time this afternoon. We'll go ahead and install the double 24" culvert.

As discussed, we'd like to request the MUD to help pay for this and we think half of the cost is fair considering the guidance provided by Belvedere called for one 24" culvert, not two.

Unfortunately, we had already installed a single culvert that was too small and now will have to absorb the cost of removing that as well as pay \$6k for the double 24" setup.

See attached invoice. We would like the MUD to pay for half of the cost (basically pay for one of the two culvert pipes) considering the very late notice on needing to install double 24" culverts. Please let us know.

Thanks,
Sean

Sean C. Canahuate
(703) 656-6239
sean.canahuate@gmail.com

DSS ATX
 297 Vesper
 Canyon Lake, TX 78133
 +1 5129617851
 mrood@dssatx.com



ADDRESS
 Capital Hills Development
 Corporation
 8033 Navajo Pass
 Leander TX 78641

Estimate 1801

DATE 10/05/2022

EXPIRATION DATE 11/04/2022

DATE	ACTIVITY	QTY	RATE	AMOUNT
	8308 Verde Mesa			
	Mobilization Mobilization of mini excavator and skidsteer if needed.	2	225.00	450.00
	Driveway Excavation Excavate for new culvert to be installed. Cut bar ditch per recommendations on outflow side 1' deep triangulated ditch with 4:1 slopes between 8304 and 8308 Verde Mesa. Purchase delivery and install (2) 20' x 24" round corrugated culverts with cut 90 degree ends for treatment. The 90 degree cuts should shorten the top of pipe to 16' +/-.	1	5,229.56	5,229.56
	Haul Off Haul off contingency of excavation spoils per load	1	323.00	323.00
	Caveats Haul off of corrugated culvert not included in this proposal.	1	0.00	0.00
TOTAL				\$6,002.56

Accepted By

Accepted Date

ACH instructions:
 American Bank
 Routing: 114903284
 Acct #:1021006968