# **West Orange Library**

Improvement Study \_ 2015.12.08





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# **Executive Summary**

The Purpose of this study is to identify necessary library building improvements over the next five years. Our team, consisting of Arcari + Iovino Architects and Omdex Engineering, was engaged to perform the study. The report consists of this executive summary, a description, plan graphics, photo documentation of the existing building, a findings report including a matrix summarizing the improvements, an architectural summary, an engineering summary, and an Americans with Disabilities Act (ADA) survey for existing buildings.

The key items of the document are the Findings Report and Improvement Matrix, which succinctly identify the improvements along with their associated cost, category and recommended year of implementation. These improvements can range from carpet replacement to mechanical equipment repairs. The costs listed are preliminary in nature and can be used for budgetary purposes based on today's dollars. The improvement categories are broken down into Safety, Security, Accessibility, Energy and General.

Based on the conditions found and the importance of the improvement, we then identify the year within the five-year window when the improvement might occur. The findings represent our professional opinion but ultimately, as the building Owner, the Library/ Municipality must make the decision as to the improvements undertaken and their priority.

# **Project Approach**

The team began the investigation of the existing building by collecting existing blueprints of floor plans. With the plans in hand we visited the building to observe the conditions and to interview the director and support staff. Their firsthand knowledge of the recent repairs and current problems was a valuable resource for our findings. After our discussion we then walked the building and the exterior grounds.

We recorded our observations and took representative photographs as needed to document the future work areas. The architect also walked the building and site to identify Americans with Disabilities Act (ADA) compliance issues relative to 'existing buildings guidelines'; A checklist of the ADA observations is included in the report.

# Purpose of Improvement Study

Library services are important to the community. A safe, healthy and energy efficient environment is essential for providing those library services. The purpose of this study is to identify the Library's needed improvements over the next five years.

Quantifying these improvements and their values will help the Library Board properly plan the financing and scheduling of these projects.

## **Project Team**

The project team consists of Arcari + Iovino Architects, who were engaged to perform the study, as well as Omdex Engineering, a consultant of the architects. Both firms have worked together over the years on public library and municipal projects. The team leaders for this project are Anthony Iovino, AIA, PP and Brian W. Pasechnick, PE.

Arcari + Iovino Architects has completed hundreds of public library projects throughout New Jersey including design studies, needs assessments, renovations and new buildings. They are well versed in current library trends, applicable Building Codes, American with Disabilities Act (ADA) guidelines, and good construction practice.



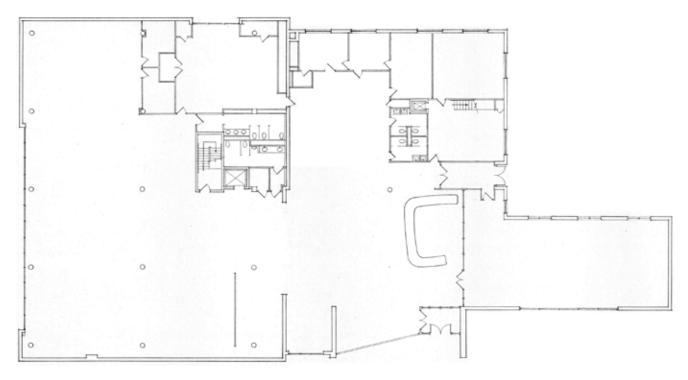
Date of Original Building: 1959

Date of Addition: 1978

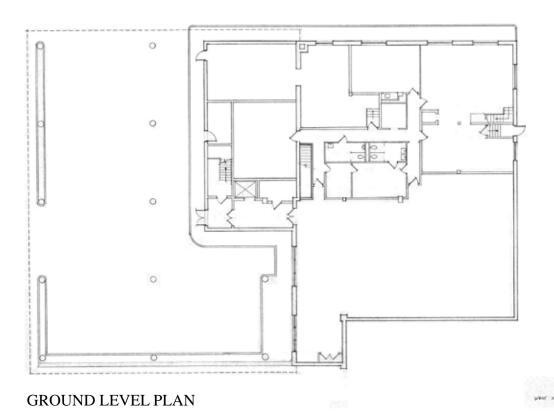
Size of Building: 22,400

Number of Stories: 2

Construction Type/ General Materials: NON-COMBUSTIBLE



#### SECOND LEVEL PLAN



West Orange Library Improvement Study

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### Introduction

Within the Findings Report we have broken up our assessment into five categories: Safety, Security, ADA, Energy, and General. Safety recommendations consist of eliminating existing hazards that may cause bodily harm such as tripping hazards. In terms of security, these items pertain to protecting the contents of the building from theft and/ or damage. Safety and Security recommendations usually are priorities, needing immediate attention, unless they deal with upgrading of systems. ADA recommendations are issues relevant to the Americans with Disabilities Act of 1990 and are usually a priority to address. Energy recommendations are based on the age and condition of the building systems and whether they are functioning efficiently or need upgrades. These systems may include HVAC, plumbing, electrical/ lighting, and fire alarms. General recommendations identify needed planned improvements dealing with library services and building aesthetics; This category may also include improvements that do not fall into the other categories.

# 5-YEAR IMPROVEMENT PLAN

							IMPROVEN	IMPROVEMENT YEAR AND VALUE	ND VALUE		
ITEM	РНОТО#	LOCATION	SAFET	ADA	CENEL ENEBC	year 1	year 2	year 3	year 4	year 5	ITEM TOTAL
Brick façade replacement at 1978 addition	A1/A2	exterior	×		×	\$350,000					\$350,000
Roof replacement and new coping at original building	A3/A4/A5	exterior			×			\$297,500			\$297,500
Chimney cap stone replacement and flashing	A6/A7	exterior			×	\$15,000					\$15,000
Trim trees overhanging the roof	A8/A9	exterior			×	\$1,500					\$1,500
Exterior hollow metal door painting	A10	exterior			×	\$1,500					\$1,500
Replace Mt. Pleasant Ave. entrance area soffits and lighting	A11/A12	exterior			×				\$20,000		\$20,000
Gaston Street parking lot-mill and repave, restripe, proper ADA signs and layout	A13/A14/A15	exterior	×	×	×				\$60,000		\$60,000
Side driveway and staff parking lot - seal coat and restripe	A16	exterior			×				\$25,000		\$25,000
Replace entrance exterior and vestibule doors (4 pairs)	A17/A18	exterior			×					\$60,000	\$60,000
Replace ceiling tiles at upper level adults area	A19/A20	upper level			×			\$30,000			\$30,000
Test flooring tiles and replace/cover at lower level storage/stack area	A21/A22	lower level	×		×		\$35,000				\$35,000
Replace ceiling at lower level storage/stack area	A23/A24	lower level			×			\$35,000			\$35,000
Paint walls and replace wall base at lower level storage/stack area	A5/A6	ower level			×				\$25,000		\$25,000
New kitchen counter, sink and appliances	A27	ower level		×	×		\$8,500				\$8,500
Modify public restrooms for ADA compliance	A28/A29/A30	upper level		×		\$60,000					\$60,000
New plumbing fixtures and accessories at all other restrooms	A31	throughout			×		\$50,000				\$50,000
Replace door knobs with lever handles	A32	throughout		×		\$22,500					\$22,500
Tripping hazard and ADA issue at entrance walk-off mat pockets - replace mats	A33	entrance door areas	×	×		\$2,000					\$2,000
Elevator signs at door jambs		both levels		×		\$500					\$500
Replace 4 rooftop HVAC units	E2	roof			×		\$150,000				\$150,000
New automatic temperature controls	E1	lower level			×		\$50,000				\$50,000
Replace non-working staff bathroom fan		roof			×	\$5,000					\$5,000
Replace non-working public bathroom fan		roof		^	×	\$5,000					\$5,000
Replace PRV (pressure reducing valve)	E3/E4	lower level			×	\$2,500					\$2,500
Replace water heater	E1	lower level		^	×		\$4,500				\$4,500
Replace 600 amp switch board with new panel	E9/E10	lower level	×		×	\$7,500					\$7,500
Replace lighting with new LED fixtures	E11/E12	throughout			×			\$150,000			\$150,000
Replace fire alarm and detection system	E13/E14	throughout	×			\$50,000					\$50,000
			Year	Year Sub-Total	al	\$523,000	\$298,000	\$512,500	\$130,000	\$60,000	\$1,523,500
			Profes	Professional Fees	ses	\$52,300	\$29,800	\$51,250	\$13,000	\$6,000	\$152,350
			Ye	Year Total		\$575,300	\$327,800	\$563,750	\$143,000	\$66,000	\$1,675,850

# NOTES

<sup>1.</sup> Projected values reflect 2015 dollars and do not represent inflation or escalation due to market conditions.

<sup>2.</sup> Professional fees are estimated at 10% value of the job and may be subject to change due to job specifics and job groupings.

# **Architectural Summary**

#### Site and Exterior Assessment

This portion of the assessment focuses upon the building's exterior elements and the property surrounding the library. In order to assess these areas, we walked the site as well as the roof to make observations of the conditions. Photographs of key areas are contained in this booklet for reference.

The most obvious issue to contend with is the brick façade failure at the 1978 addition. At the time of this writing the municipality had apparently contracted with a professional to design a replacement / repair of the façade. A new exterior cladding system of a thin-brick veneer or other lighter weight system is expected to be installed. The cost information shown on our matrix is derived from the apparent estimate of that project.

The building has two distinct areas of roofing which reflect the footprint of the original building and that of the addition. The addition's roof apparently had been replaced at the year 2000 per a capital improvement list we were issued. This roof appears to be in fair to good condition. Throughout the building interior below this section there are stained ceiling tiles that hint at previous leaks. When speaking with staff, these stains appear to be from former leaks that have been addressed.

There was no record or anecdotal evidence that the original building roof area (approx. 8,500sf) had been replaced in recent years. It is likely that the roof of the original building requires replacement. When replacing a roof, the Code dictates that there can only be two layers of roofing due to the concern of weight. We would anticipate that the replacement of this ballasted roof would be removed and replaced with new. As well a portion of the original building has a standing seam roof system that has obvious damage. This section, located over the street entrance, is in need of replacement.

The chimney at the south wall, where the original and addition structures meet, is in need of repair. Its cap stone is cracked and the roof flashing at the base of the chimney has openings in need of repair. As well the trees that overhang the roof should be trimmed to minimize leaves which collect on the roof and can block drains.

The windows and service doors appear to be in fair to good condition and can remain but the hollow metal service doors and frames require painting for protection. The main public entrance and vestibule doors appear to be original to the 1959 building and are in need of replacement. The entrance area and window wall along Mt. Pleasant Avenue has a painted soffit that requires repair or replacement. As well, new lighting should be installed at this soffit.

The parking lot along Gaston Street (approx. 11,400sf) serves the public and contains 32 spaces. This lot is in need of milling and a new top coat. The lot has numerous patches and surface deterioration. The parking space striping is faded and the assigned ADA/Barrier-Free parking spaces are improperly sized. The staff parking lot (approx. 4,600sf) has 9 spaces and is accessed via a driveway at the side of the building. The drive and the lot both require a seal coat to protect its condition and restriping afterwards. The parking area at the rear of the library is in good condition and is maintained by the municipality.

The sidewalks leading to the Mt. Pleasant Avenue public entrance are in good condition. The walk leading from the public parking area to the entrance doors serves as the Barrier-Free entrance and is in good condition. This report does not address the public sidewalks at the streets.

#### **Building Assessment**

The intent of the building assessment is to identify the deficiencies at the interior of the library building. The West Orange Library was originally constructed in 1959 as a two-story building. In 1978 it was added onto at both levels with the upper level extending over the lower to maintain parking. The building sits on a sloped site whereas the upper and lower levels both meet grade at their entrance points. The library is arranged with public spaces at the upper level and private/service spaces at the lower level.

As you enter the upper level, the entrance lobbies both have a walk-off mat set in a recessed pocket to catch snow and debris from shoes. These mats were replaced with a thin carpet that exposes the edge of the pocket. This edge is about 5/8 inch tall and poses a tripping hazard and is non-compliant with the ADA. A new mat of sufficient thickness should be installed to minimize the exposed edge.

Overall, the upper level is in good condition. As of this writing the library is considering a rearrangement of furniture and book stacks in response to changing library services. Improved lighting levels, as noted in the engineer's report, and this new arrangement of furniture would improve the feel of the open public space.

Throughout the Adult's Area the ceiling tiles are stained from former roof leaks and HVAC condensation issues. The entire ceiling of the Adult's Area, including the circulation desk zone, should be changed with new tiles. The suspension grid appears to be good condition and can remain.

Within the Children's Area the carpet is in need of replacement and is currently planned to be replaced thus it is not included in the cost matrix. The ceiling in the Children's Area also has some staining from active roof leaking. Those tiles can be replaced locally since they are limited in area.

The lower level contains mechanical/electrical rooms, storage spaces, book stacks, and staff offices. Except for the mechanical/electrical rooms, these spaces were constructed in 1959 and most contain the original finish materials. The staff offices have been carpeted

and upgraded at some point years ago and appear in good condition. The book stacks, corridors, locker rooms and restrooms all are in poor condition and in need of upgrades.

The book stacks and corridors have 9 inch floor tile which are potentially asbestos containing and should be tested given the age of the building. The ceilings throughout most of the lower level are comprised of 12 inch concealed spline tiles and are damaged in numerous areas. The lighting is very old and has missing lens covers and non-working fixtures. Walls throughout these areas are in need of patching, painting, and new wall base.

The staff lounge contains an original 'Dwyer' unit kitchen which is in need of replacement. A new counter, sink and refrigerator are necessary. The restrooms at the lower level are dated and in need of new fixtures for water conservation and general functionality. If the upper level public restrooms are made to be Barrier-Free then these rooms would only need to comply with the Code in as much as is readily achievable since there is an elevator and those rooms are only 1 floor above. Thus, any new fixtures, accessories, and modification should conform where possible.

#### ADA Assessment

The purpose of the ADA compliance review is to identify the general level of barrier-free access at the library and grounds. The ADA sets forth four priorities when evaluating the accessibility in buildings. These are as follows:

Priority 1: Accessible entrance into the facility

Priority 2: Access to goods and services

Priority 3: Access to rest-rooms

Priority 4: Any other measures necessary

The attached Checklist for Existing Facilities is being used with permission of the Disability and Business Technical Assistance Center. This checklist is a valuable visual tool for quantifying the status of the building's accessibility conditions.

A summary of the conditions found is as follows:

A majority of visitors arrive at the library by car. There is off-street parking with assigned Barrier-Free parking near to the accessible entrance. These spaces do not have the proper sized loading areas and should be restriped and signed when the parking lot is redone.

Approaching the building from this parking lot and other walkways is generally accessible. The original building entrances both appear to be compliant but the Mt. Pleasant Avenue street sidewalk is sloped due to the natural topography. As noted earlier, the walk-off mats are to be replaced to eliminate the exposed edge of the recessed pocket which poses a tripping hazard and is not compliant with the ADA.

Access to goods and services is provided by having proper aisle space, door maneuvering clearances, and proper door hardware. The library meets these criteria throughout most of the spaces. The aisles and maneuverability through fixed furniture appears acceptable but there are a number of doors that have knobs instead of levers. Levers are required since a twisting motion is difficult for persons with disabilities.

The doors within the public spaces which have signs should be ADA compliant. The accessible restrooms have proper signs but are installed too high and should be adjacent to the door. The signs simply need to be reset at 60 inches to their center above the floor and adjacent to the doors.

The ADA/Code requires a certain quantity of tables to have a minimum height and a minimum knee clearance. The tables within the adult space are compliant.

The service desks at Circulation, Reference, and the Children's areas all comply with the clearances and dimensions required. The Circulation desk has a side opening that complies with the clearances and dimensions but is used for a computer station. The computer should be repositioned to allow for patron interaction.

Access to the restrooms is another priority item per the ADA Guidelines. There are two public restrooms at the upper level which are in the 1978 addition. These two restrooms do not fully comply with the requirements and should be upgraded. In particular, the men's room entrance doors do not provide proper clearances and will require an automatic door operator to improve access. A compliant drinking fountain is located adjacent to the restrooms.

The elevator was also installed along with the 1978 addition and complies with the ADA/Code requirements. There is a requirement for tactile signage at the elevator door jambs of each floor and should be installed.

# **Engineering Summary**

#### **HVAC** Assessment:

**Existing Conditions** 

The current building consists of a 6,900 square foot basement and a 15,500 square foot first floor.

The original library was built in 1959. The original 5,300 square foot basement currently houses offices, locker rooms, and book stack storage space. The original 7,000 square foot first floor currently houses the Children's Area, Adult Area, Circulation Desk and offices.

In 1978, 1,600 square feet of incidental and mechanical space was added to the basement, along with an outdoor parking area under a new 8,500 square foot first floor addition, which currently houses the General Reading Area and a large meeting room.

The original building was heated with a 40 horsepower oil-fired boiler, which fed hot water to perimeter fin tube radiation and a 19,000 CFM air handling unit located in the basement. In 1978, a 12,000 CFM air handling unit was added to serve the new addition and the fin tube radiation piping was extended. In addition, air conditioning was provided to the air handling units via 54 ton and 30 ton air cooled condensing units located on the roof.

In 1978, four Carrier gas-fired heating/electric DX cooling package rooftop units were installed to replace the two split systems. In 2002, a 15 horsepower gas-fired boiler was installed to serve the existing perimeter fin tube radiation. RTU-1 is a 40 ton unit that serves both floors of the original building, except the Children's Area. RTU-2 is a 5-ton unit that serves the large meeting room in the 1978 addition. RTU-3 is a 30-ton unit that serves the rest of the 1978 addition. RTU-4 is a 7.5-ton unit that serves the Children's Area.

#### Observations and Recommendations:

The four rooftop units are 18 years old, operate on R-22 refrigerant, and have EER's of 8.2 to 8.6. The estimated service and economic life of a rooftop unit is 20 years. Production of R-22 was discontinued several years ago. Although still available, the cost of R-22 (which affects global warming) will increase. R-210A is the current refrigerant in use for rooftop units. EER's for currently manufactured rooftop units range from 10.0 to 12.0,

which is 20% to 50% more efficient than the existing units. PSE&G offers rebates, through the Smart Start Program, to customers replacing old units with higher efficiency units.

The hot water boiler and pumping system appear to be in good condition. The boiler is serviced once a year by Mike Boan, who starts the boiler and the four zone pumps in October. In the spring, the Library's maintenance person shuts them off. It appears that no one knows where the control valves are located, or if any of the existing controls are working. It is recommended that a new automatic temperature control and building automation system be installed to control both the hot water heating system and the proposed new rooftop units.

Toilets and locker rooms in the basement and toilets on the first floor of the original 1959 building are supposed to be exhausted by a 1,050 CFM roof exhaust fan marked E-2 on the original drawings. This fan is not operating and should be replaced and rewired.

Public toilets on the first floor of the 1978 building are supposed to be exhausted by a 1,000 CFM roof exhaust fan, also marked E-2 on the 1978 drawings. This fan is not operating and should be replaced and rewired.

#### Plumbing Assessment:

**Existing Conditions** 

The building domestic water service enters the building underground from north side of the building. The meter is located in the basement in a closet. It appears the there is a pressure reducing valve, indicating the street pressure is higher than minimum requirement as dictated by code. The minimum Code pressure is 80 PSI but industry standard is 60 PSI. Most new plumbing fixtures and equipment will operate under 60 psi. Water pressure over 60 PSI may have adverse effects on the newer equipment causing unforeseen failures. The gauge reading on the water service indicates the pressure is at 95 PSI after the pressure reducing valve. The service size and main water line appears to be 2". There are several gate valves on the service. The water is distributed throughout the building to all toilet rooms. Toilet rooms are the main use for water within the building.

The sanitary line exits below the basement level. From the existing site plan it is noted as a 4" line. Based on the vintage of the construction one can assume that the material is cast iron.

The roof is drained by a series of roof drains located on the various roof levels. While walking the roof, there was no significant ponding where as it had rained earlier in the day. The material of the roof drain piping is cast iron.

The building heating fuel is gas. The service enters the building in the basement mechanical room. The 4" main runs through the basement serving the boiler and then goes to the roof to serve the roof top HVAC units.

#### Observations and Recommendations:

The domestic water service seems to be in good working order; however the pressure of reading of 95 PSI is of some concern. We would recommend testing the water pressure to determine the gauge is working correctly, and if found to be working correctly to test the pressure reducing valve, (PRV) to ensure it is set properly. If all is working correctly we would recommend replacing the PRV with one that sets the water pressure to 65 PSI.

Being the water heater is approximately 20 years old we would recommend replacement with a new unit. Typically, the life expectancy for an electrically operated water heaters is 15-25 years.

The existing toilet room fixtures do not meet ADA. The height of the fixtures, specifically the water closets. It appears that some have been replaced. Any upgrades within the toilet rooms could potentially trigger fixture replacements. All new fixtures would be required to meet ADA. Also, new fixtures use less water which would result in a certain level of water conservation.

We could not tell if the roof drain piping was insulated or not. If not it would be a good idea to insulate these lines this would reduce internal condensation on the lines which usually result in drips which can ruin ceiling tiles and other finishes. Insulation of internal storm leader would also reduce the HVAC load in the building, though not significantly. Though not practical to work on, insulation of these lines could have long term benefits. Further investigation would be required to determine the accessibility and practicality of providing insulation.

#### Sprinkler:

Currently there are no sprinklers in the building. Current Codes would require a building of this size to be sprinklered. If there were to be any sizeable additions sprinklers might be required through-out the entire building.

#### **Existing Conditions:**

The existing electrical service in the building is rated at 120/208v 3 phase 4 wire with an ampacity of 1600amps. The service originates from an exterior utility owned pad mounted transformer. The transformer is located in the back of the building adjacent to the covered parking area. The service leaves the transformer and runs underground to the main electrical service switchboard. This switchboard and service was installed as part of the 1978 addition.

The original service, part of the 1959 addition was rated at 120/208volts 3 phase 4 wire with an ampacity of 600amps. When the 1978 addition was built and the new service was installed the original service was back fed from the 1978 service by means of a dedicated service switch. The service equipment has two service switches one rated at 600 amps and one rated at 1000amps. The 600amp switch feeds the 1959 portion of the library and the 1000amp switch service switches feed an individual distribution panel board which in turn feed the individual branch circuit panels and equipment loads. Located through-out the library are individual branch circuit panels these serve all the lighting and receptacle and other miscellaneous loads.

The existing lighting throughout the library consists of recessed and surface mounted fluorescent fixtures. Each fixture uses (4) T-12 40 watt lamps. This was the cutting edge technology when installed in 1978. Since then lighting has come a long way in both technology and energy conservation.

#### **Observations and Recommendations:**

Though the equipment is relatively old especially the 1959 electrical equipment, there have been no reported issues with it. However, there comes a point when replacement parts become unavailable and the equipment itself becomes obsolete. We would recommend replacement of the 1959 600amp switch board with new circuit breaker type panel.

We would recommend a plan to replace or retrofit all the lighting fixtures throughout the library with new LED driven fixtures. The energy use can be estimated to be halved as compared to the existing fluorescents. The energy saving could be significant. PSE&G offers rebates, through the Smart Start Program, to customers replacing old units with higher efficiency units.

# Fire Alarm Existing Conditions:

The existing fire alarm and detection system appears to have been installed in 1978 as part of the 1978 addition. The system consists of a main panel located in the basement mechanical room, pull stations, both smoke and heat detectors, and alarm horns. There were no visual devices present and thus no compliance with ADA. The system appears old and dated.

#### Observations and Recommendations:

The system is old and in need of replacement. We would recommend a full system replacement.



A1 \_Brick facade replacement at 1978 addition



A3 \_Roof replacement and new coping at original building



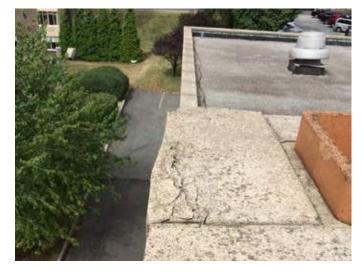
A5 \_Roof replacement and new coping at original building



A2 \_Brick facade replacement at 1978 addition



A4 \_Roof replacement and new coping at original building



A6 \_Chimney cap stone replacement and flashing



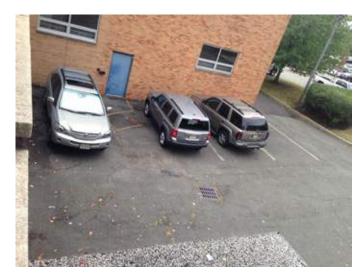
A7 \_Chimney cap stone replacement and flashing



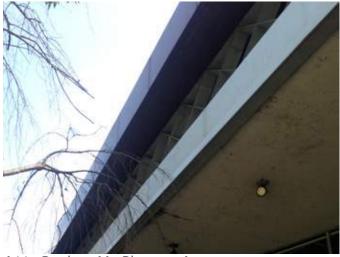
A8 \_Trim trees overhanging the roof



A9 \_Trim trees overhanging the roof



A10 \_Exterior hollow metal door painting



A11 \_Replace Mt. Pleasant Ave. entrance area soffits and lighting



A12 \_Replace Mt. Pleasant Ave. entrance area soffits and lighting



A13 \_Gaston Street parking lot - mill and repave, restripe, proper ADA signs and layout



A15 \_Gaston Street parking lot - mill and repave, restripe, proper ADA signs and layout



A17 \_Replace entrance exterior and vestibule doors (4 pairs)





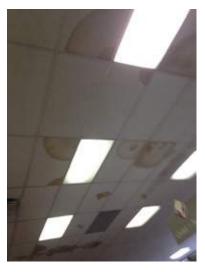
A14 \_Gaston Street parking lot - mill and repave, restripe, proper ADA signs and layout



A16 \_Side driveway and staff parking lot - seal coat and restripe



A18 \_Replace entrance exterior and vestibule doors (4 pairs)



A19 \_Replace ceiling tiles at upper level adults area



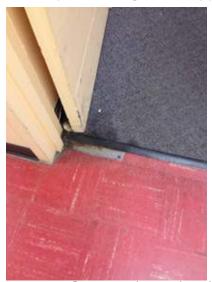
A21 \_Test flooring tiles and replace/cover at lower level storage/stack area



A23\_Replace ceiling at lower level storage/stack



A20\_Replace ceiling tiles at upper level adults area



A22\_Test flooring tiles and replace/cover at lower level storage/stack area



A24\_Replace ceiling at lower level storage/stack area



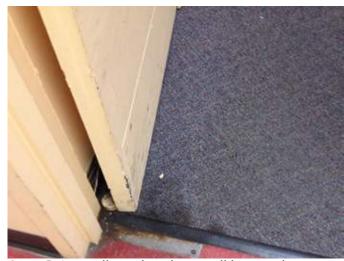
A25 \_Paint walls and replace wall base at lower level storage/stack area



A27 \_New kitchen counter, sink and appliances



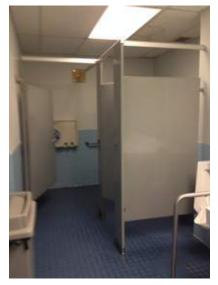
A29 \_Modify public restrooms for ADA compliance



A26 \_Paint walls and replace wall base at lower level storage/stack area



A28\_Modify public restrooms for ADA compliance



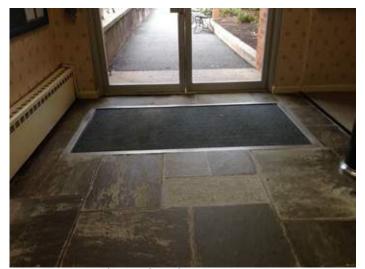
A30 \_Modify public restrooms for ADA compliance



A31\_New plumbing fixtures and accessories at all other restrooms



A32 \_Replace door knobs with lever handles



A33 \_Tripping hazard and ADA issue at entrance walk-off mat pockets-replace mats



E1 \_Existing Boiler in Basement



E3 \_Water Service , Meter and PRV



E5 \_Gas Service and Meter on Outside





E2 \_RTU's on Roof



E4 \_Water Pressure Gauge



E6 \_Typical Urinal



E7 \_Typical Water Closet



E9 \_Building Service Swichboard-1978



E11 \_Main Area Lighting



E8 \_Typical Lavatory



E10 \_Electrical Service-1959



E12 \_Back of House Lighting



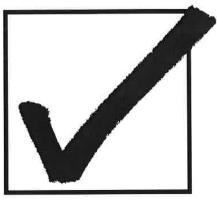
E13 \_Fire Alarm Panel



E14 \_Smoke Detector

# Checklist for Existing Facilities version 2.1







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# Checklist for Existing Facilities version 2.1

## Introduction

Title III of the Americans with Disabilities Act requires public accommodations to provide goods and services to people with disabilities on an equal basis with the rest of the general public. The goal is to afford every individual the opportunity to benefit from our country's businesses and services, and to afford our businesses and services the opportunity to benefit from the patronage of all Americans.

The regulations require that architectural and communication barriers that are structural must be removed in public areas of existing facilities when their removal is readily achievable-in other words, easily accomplished and able to be carried out without much difficulty or expense. Public accommodations that must meet the barrier removal requirement include a broad range of establishments (both for-profit and nonprofit)—such as hotels, restaurants, theaters, museums, retail stores, private schools, banks, doctors' offices, and other places that serve the public. People who own, lease, lease out, or operate places of public accommodation in existing buildings are responsible for complying with the barrier removal requirement.

The removal of barriers can often be achieved by making simple changes to the physical environment. However, the regulations do not define exactly how much effort and expense are required for a facility to meet its obligation. This judgment must be made on a case-by-case basis, taking into consideration such factors as the size, type, and overall financial resources of the facility, and the nature and cost of the access improvements needed. These factors are described in more detail in the ADA regulations issued by the Department of Justice.

The process of determining what changes are readily achievable is not a one-time effort; access should be re-evaluated annually. Barrier removal that might be difficult to carry out now may be readily achievable later. Tax incentives are available to help absorb costs over several years.

## Purpose of This Checklist

This checklist will help you identify accessibility problems and solutions in existing facilities in order to meet your obligations under the ADA. The goal of the survey process is to plan how to make an existing facility more usable for people with disabilities. The Department of Justice (DOJ) recommends the development of an Implementation Plan, specifying what improvements you will make to remove barriers and when each solution will be carried out: "...Such a plan...could serve as evidence of a good faith effort to comply...."

#### Technical Requirements

This checklist details some of the requirements found in the ADA Standards for Accessible Design (Standards). The ADA Accessibility Guidelines (ADAAG), when adopted by DOJ, became the Standards. The Standards are part of the Department of Justice Title III Regulations, 28 CFR Part 36 (Nondiscrimination on the basis of disability... Final Rule). Section 36.304 of this regulation, which covers barrier removal, should be reviewed before this survey is conducted.

However, keep in mind that full compliance with the Standards is required only for new construction and alterations. The requirements are presented here as a guide to help you determine what may be readily achievable barrier removal for existing facilities. The Standards should be followed for all barrier removal unless doing so is not readily achievable. If complying with the Standards is not readily achievable, you may undertake a modification that does not fully comply, as long as it poses no health or safety risk.

In addition to the technical specifications, each item has a scoping provision, which can be found under Section 4.1 in the Standards. This section clarifies when access is required and what the exceptions may be.

Each state has its own regulations regarding accessibility. To ensure compliance with all codes, know your state and local codes and use the more stringent technical requirement for every modification you make; that is, the requirement that provides greater access for individuals with disabilities. The barrier removal requirement for existing facilities is new under the ADA and supersedes less stringent local or state codes.

#### What This Checklist is Not

This checklist does not cover all of the requirements of the Standards; therefore, it is **not** for facilities undergoing new construction or alterations. In addition, it does not attempt to illustrate all possible barriers or propose all possible barrier removal solutions. The Standards should be consulted for guidance in situations not covered here.

The Title III regulation covers more than barrier removal, but this checklist does **not** cover Title III's requirements for nondiscriminatory policies and practices and for the provision of auxiliary communication aids and services. The communication features covered are those that are **structural** in nature.

#### **Priorities**

This checklist is based on the four priorities recommended by the Title III regulations for planning readily achievable barrier removal projects:

Priority 1: Accessible approach and entrance

Priority 2: Access to goods and services

Priority 3: Access to rest rooms

Priority 4: Any other measures necessary

Note that the references to ADAAG throughout the checklist refer to the Standards for Accessible Design.

#### How to Use This Checklist

- ✓ Get Organized: Establish a time frame for completing the survey. Determine how many copies of the checklist you will need to survey the whole facility. Decide who will conduct the survey. It is strongly recommended that you invite two or three additional people, including people with various disabilities and accessibility expertise, to assist in identifying barriers, developing solutions for removing these barriers, and setting priorities for implementing improvements.
- ✓ Obtain Floor Plans: It is very helpful to have the building floor plans with you while you survey. If plans are not available, use graph paper to sketch the layout of all interior and exterior spaces used by your organization. Make notes on the sketch or plan while you are surveying.
- ✓ Conduct the Survey: Bring copies of this checklist, a clipboard, a pencil or pen, and a flexible steel

tape measure. With three people surveying, one person numbers key items on the floor plan to match with the field notes, taken by a second person, while the third takes measurements. Be sure to record all dimensions! As a reminder, questions that require a dimension to be measured and recorded are marked with the ruler symbol. Think about each space from the perspective of people with physical, hearing, visual, and cognitive disabilities, noting areas that need improvement.

- ✓ Summarize Barriers and Solutions: List barriers found and ideas for their removal. Consider the solutions listed beside each question, and add your own ideas. Consult with building contractors and equipment suppliers to estimate the costs for making the proposed modifications.
- ✓ Make Decisions and Set Priorities: Review the summary with decision makers and advisors. Decide which solutions will best eliminate barriers at a reasonable cost. Prioritize the items you decide upon and make a timeline for carrying them out. Where the removal of barriers is not readily achievable, you must consider whether there are alternative methods for providing access that are readily achievable.
- ✓ Maintain Documentation: Keep your survey, notes, summary, record of work completed, and plans for alternative methods on file.
- ✓ Make Changes: Implement changes as planned. Always refer directly to the Standards and your state and local codes for complete technical requirements before making any access improvement. References to the applicable sections of the Standards are listed at the beginning of each group of questions. If you need help understanding the federal, state, or local requirements, contact your Disability and Business Technical Assistance Center.
- ✓ Follow Up: Review your Implementation Plan each year to re-evaluate whether more improvements have become readily achievable.

To obtain a copy of the Title III regulations and the Standards or other technical information, call the U.S. Dept. of Justice ADA Information Line at (800) 514-0301 Voice, (202) 514-0381 TDD, or (800) 514-0383 TDD. For questions about ADAAG, contact the Architectural and Transportation Barriers Compliance Board at (800) USA-ABLE.

	QUESTIONS		POSSIBLE SOLUTIONS
Priorit 1	Accessible Approach/Entrance People with disabilities should be able to arrive on the site, approach the building, and enter as freely as everyone else. At least one route of travel should be safe and accessible for everyone, including people with disabilities.		
	Route of Travel (ADAAG 4.3, 4.4, 4.5, 4.7) Is there a route of travel that does not require the use of stairs?	Yes No	<ul> <li>☐ Add a ramp if the route of travel is interrupted by stairs.</li> <li>☐ Add an alternative route on level ground.</li> </ul>
	Is the route of travel stable, firm and slip-resistant?		<ul> <li>□ Repair uneven paving.</li> <li>□ Fill small bumps and breaks with beveled patches.</li> <li>□ Replace gravel with hard top.</li> </ul>
(BEE	Is the route at least 36 inches wide?	<b>≥6-0</b> width	<ul> <li>□ Change or move landscaping, furnishings, or other features that narrow the route of travel.</li> <li>□ Widen route.</li> </ul>
	Can all objects protruding into the circulation paths be detected by a person with a visual disability using a cane?  In order to be detected using a cane, an object must be within 27 inches of the ground. Objects hanging or mounted overhead must be higher than 80 inches to provide clear head room. It is not necessary to remove objects that protrude less than 4 inches from the wall.	distance from wall/ height	<ul> <li>Move or remove protruding objects.</li> <li>Add a cane-detectable base that extends to the ground.</li> <li>Place a cane-detectable object on the ground underneath as a warning barrier.</li> </ul>
	Do curbs on the route have curb cuts at drives, parking, and drop-offs?		☐ Install curb cut. ☐ Add small ramp up to curb.
<u>E</u>	Ramps (ADAAG 4.8)  Are the slopes of ramps no greater than 1:12?  Slope is given as a ratio of the height to the length. 1:12 means for every 12 inches along the base of the ramp, the height increases one inch. For a 1:12 maximum slope, at least one foot of ramp length is needed for each inch of height.	Slope STREET DOOR WALKMAN -	<ul> <li>□ Lengthen ramp to decrease slope.</li> <li>□ Relocate ramp.</li> <li>□ If available space is limited, reconfigure ramp to include switchbacks.</li> </ul>

	QUESTIONS		POSSIBLE SOLUTIONS
	Ramps, continued  Do all ramps longer than 6 feet have railings on both sides?	Yes No	☐ Add railings.
HEE	Are railings sturdy, and between 34 and 38 inches high?	height	<ul><li>☐ Adjust height of railing if not between 30 and 38 inches.</li><li>☐ Secure handrails in fixtures.</li></ul>
	Is the width between railings or curbs at least 36 inches?	width	☐ Relocate the railings.☐ Widen the ramp.
	Are ramps non-slip?  Is there a 5-foot-long level landing at every 30-foot horizontal length of ramp, at the top and bottom of ramps and at switchbacks?	iength	☐ Add non-slip surface material.☐ Remodel or relocate ramp.
	Does the ramp rise no more than 30 inches between landings?	rise	☐ Remodel or relocate ramp.
	Parking and Drop-Off Areas (ADAAG 4.6) Are an adequate number of accessible parking spaces available (8 feet wide for car plus 5-foot access aisle)? For guidance in determining the appropriate number to designate, the table below gives the ADAAG requirements for new construction and alterations (for lots with more	number of accessible spaces	Reconfigure a reasonable number of spaces by repainting stripes.
(32)	than 100 spaces, refer to ADAAG):  Total spaces	of existing accessible spaces:	(DO NOT EXMA)
H	Are 8-foot-wide spaces, with minimum 8-foot-wide access aisles, and 98 inches of vertical clearance, available for lift-equipped vans?  At least one of every 8 accessible spaces must be van-accessible (with a minimum of one van-accessible space in all cases).	width/ vertical clearance	Reconfigure to provide van-accessible space(s).

QUESTIONS	A WELL	POSSIBLE SOLUTIONS
Parking and Drop-Off Areas, continued Are the access aisles part of the accessible route to the accessible entrance?  Are the accessible spaces closest to the accessible entrance?  Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading "Van Accessible" at van spaces?  Is there an enforcement procedure to ensure that accessible parking is used only by those who need it?	Yes No	<ul> <li>☐ Add curb ramps.</li> <li>☐ Reconstruct sidewalk.</li> <li>☐ Reconfigure spaces.</li> <li>☐ Add signs, placed so that they are not obstructed by cars.</li> <li>☐ Implement a policy to check periodically for violators and report them to the proper authorities.</li> </ul>
Entrance (ADAAG 4.13, 4.14, 4.5) If there are stairs at the main entrance, is there also a ramp or lift, or is there an alternative accessible entrance?  Do not use a service entrance as the accessible entrance unless there is no other option.  Do all inaccessible entrances have signs indicating the location of the nearest accessible entrance?  Can the alternate accessible entrance be used independently?  Does the entrance door have at least 32 inches clear opening (for a double door, at least one 32-inch leaf)?  Is there at least 18 inches of clear wall space on the pull side of the door, next to the handle?  A person using a wheelchair or crutches needs this space to get close enough to open the door.	clear space	<ul> <li>□ If it is not possible to make the main entrance accessible, create a dignified alternate accessible entrance. If parking is provided, make sure there is accessible parking near all accessible entrances.</li> <li>□ Install signs before inaccessible entrances so that people do not have to retrace the approach.</li> <li>□ Eliminate as much as possible the need for assistance—to answer a doorbell, to operate a lift, or to put down a temporary ramp, for example.</li> <li>□ Widen the door to 32 inches clear.</li> <li>□ If technically infeasible, widen to 31-3/8 inches minimum.</li> <li>□ Install offset (swing-clear) hinges.</li> <li>□ Remove or relocate furnishings, partitions, or other obstructions.</li> <li>□ Move door.</li> <li>□ Add power-assisted or automatic door opener.</li> </ul>

QUESTIONS	15 15	POSSIBLE SOLUTIONS
Entrance, continued  Is the threshold edge 1/4-inch high or less, or if beveled edge, no more than 3/4-inch high?	Yes No	<ul> <li>☐ If there is a single step with a rise of 6 inches or less, add a short ramp.</li> <li>☐ If there is a threshold greater than 3/4-inch high, remove it or modify it to be a ramp.</li> </ul>
If provided, are carpeting or mats a maximum of 1/2-inch high?	height	Replace or remove mats.  PECESS AT both Main DOORS  IS 12" VENTIGAL INSTALL THICKISK  MAT OR FILL RECESS.
Are edges securely installed to minimize tripping hazards?		☐ Secure carpeting or mats at edges.
Is the door handle no higher than 48 inches and operable with a closed fist?  The "closed fist" test for handles and	height	<ul> <li>□ Lower handle.</li> <li>□ Replace inaccessible knob with         <ul> <li>a lever or loop handle.</li> <li>□ Retrofit with an add-on lever</li></ul></li></ul>
controls: Try opening the door or operating the control using only one hand, held in a fist. If you can do it, so can a person who has limited use of his or her hands.  Can doors be opened without too much force (exterior doors reserved; maximum is 5 lbf for interior doors)?		<ul> <li>Adjust the door closers and oil the hinges.</li> <li>Install power-assisted or</li> </ul>
You can use an inexpensive force meter or a fish scale to measure the force required to open a door. Attach the hook end to the doorknob or handle. Pull on the ring end until the door opens, and read off the amount of force required. If you do not have a force meter or a fish scale, you will need to judge subjectively whether the door is easy enough to open.	force	automatic door openers.  ☐ Install lighter doors.
If the door has a closer, does it take at least 3 seconds to close?	seconds	☐ Adjust door closer.

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	QUESTIONS		POSSIBLE SOLUTIONS
Priority 2	Access to Goods and Services Ideally, the layout of the building should allow people with disabilities to obtain materials or services without assistance.	Yes No	
	Horizontal Circulation (ADAAG 4.3)  Does the accessible entrance provide direct access to the main floor, lobby, or elevator?		☐ Add ramps or lifts. ☐ Make another entrance accessible.
	Are all public spaces on an accessible route of travel?		<ul> <li>Provide access to all public spaces along an accessible route of travel.</li> </ul>
HEE	Is the accessible route to all public spaces at least 36 inches wide?	width	☐ Move furnishings such as tables, chairs, display racks, vending machines, and counters to make more room.
	Is there a 5-foot circle or a T-shaped space for a person using a wheelchair to reverse direction?	width	☐ Rearrange furnishings, displays, and equipment.
HH	Doors (ADAAG 4.13) Do doors into public spaces have at least a 32-inch clear opening?	clearopening	☐ Install offset (swing-clear) hinges.☐ Widen doors.
	On the pull side of doors, next to the handle, is there at least 18 inches of clear wall space so that a person using a wheelchair or crutches can get near to open the door?	clear space	<ul> <li>□ Reverse the door swing if it is safe to do so.</li> <li>□ Move or remove obstructing partitions.</li> </ul>
HEE	Can doors be opened without too much force (5 lbf maximum for interior doors)?	force	<ul> <li>□ Adjust or replace closers.</li> <li>□ Install lighter doors.</li> <li>□ Install power-assisted or automatic door openers.</li> </ul>
	Are door handles 48 inches high or less and operable with a closed fist?  KNOOS ARE LOCATED ON MOST INTERIOR ODERS.	height	☐ Lower handles.  Replace inaccessible knobs or latches with lever or loop handles.  ☐ Retrofit with add-on levers.  ☐ Install power-assisted or automatic door openers.
	Are all threshold edges 1/4-inch high or less, or if beveled edge, no more than 3/4-inch high?	height	<ul> <li>☐ If there is a threshold greater than 3/4-inch high, remove it or modify it to be a ramp.</li> <li>☐ If between 1/4- aand 3/4-inch high, add bevels to both sides.</li> </ul>

	QUESTIONS		POSSIBLE SOLUTIONS
	Rooms and Spaces (ADAAG 4.2, 4.4, 4.5) Are all aisles and pathways to materials and services at least 36 inches wide?	Yes No	☐ Rearrange furnishings and fixtures to clear aisles.
	Is there a 5-foot circle or T-shaped space for turning a wheelchair completely?	width	☐ Rearrange furnishings to clear more room.
	Is carpeting low-pile, tightly woven, and securely attached along edges?  In circulation paths through public areas, are		☐ Secure edges on all sides. ☐ Replace carpeting. ☐ Remove obstacles.
♡	all obstacles cane-detectable (located within 27 inches of the floor or higher than 80 inches, or protruding less than 4 inches from the wall)?	height/ protrusion	☐ Install furnishings, planters, or other cane-detectable barriers underneath.
	Emergency Egress (ADAAG 4.28) If emergency systems are provided, do they have both flashing lights and audible signals?		Install visible and audible alarms.  Provide portable devices.  Pour Stanions per computer.
	<b>Signage for Goods and Services (ADAAG 4.30)</b> Different requirements apply to different types of signs.		
<b>ELECTION</b>	If provided, do signs and room numbers designating permanent rooms and spaces where goods and services are provided comply with the appropriate requirements for such signage?		Provide signs that have raised letters, Grade II Braille, and that meet all other requirements for permanent room or space signage. (See ADAAG 4.1.3(16) and 4.30.)
	• Signs mounted with centerline 60 inches from floor.	height	
	•M ounted on wall adjacent to latch side of door, or as close as possible.		
	<ul> <li>Raised characters, sized between 5/8 and 2 inches high, with high contrast (for room numbers, rest rooms, exits).</li> </ul>	character height	
	Brailled text of the same information.		
	<ul> <li>If pictogram is used, it must be accompanied by raised characters and braille.</li> </ul>	Ц	

	QUESTIONS		POSSIBLE SOLUTIONS
	Directional and Informational Signage The following questions apply to directional and informational signs that fall under Priority 2.	Yes No	
EEEE.	If mounted above 80 inches, do they have letters at least 3 inches high, with high contrast, and non-glare finish?	letter height	☐ Review requirements and replace signs as needed, meeting the requirements for character size, contrast, and finish.
	Do directional and informational signs comply with legibility requirements? (Building directories or temporary signs need not comply.)		☐ Review requirements and replace signs as needed.
(Hell)	Controls (ADAAG 4.27) Are all controls that are available for use by the public (including electrical, mechanical, cabinet, game, and self-service controls) located at an accessible height?	height	☐ Relocate controls.
	Reach ranges: The maximum height for a side reach is 54 inches; for a forward reach, 48 inches. The minimum reachable height is 15 inches for a front approach and 9 inches for a side approach.		
	Are they operable with a closed fist?		☐ Replace controls.
ERET.	Seats, Tables, and Counters (ADAAG 4.2, 4.32, 7.2) Are the aisles between fixed seating (other than assembly area seating) at least 36 inches wide?	width	☐ Rearrange chairs or tables to provide 36-inch aisles.
	Are the spaces for wheelchair seating distributed throughout?		<ul> <li>□ Rearrange tables to allow room for wheelchairs in seating areas throughout the area.</li> <li>□ Remove some fixed seating.</li> </ul>
EEE,	Are the tops of tables or counters between 28 and 34 inches high?	29 % height	☐ Lower part or all of high surface. ☐ Provide auxiliary table or counter.
<b>ELECT</b>	Are knee spaces at accessible tables at least 27 inches high, 30 inches wide, and 19 inches deep?	27 height/ width/ depth	☐ Replace or raise tables.

QUESTIONS	POSSIBLE SOLUTIONS
Seats, Tables, and Counters, continued  At each type of cashier counter, is there a portion of the main counter that is no more than 36 inches high?  Set. CIRC. CHUDRANS COUNTERS height  Is there a portion of food-ordering counters that is no more than 36 inches high, or is there space at the side for passing items to customers who have difficulty reaching over a high counter?	<ul> <li>□ Provide a lower auxiliary counter or folding shelf.</li> <li>□ Arrange the counter and surrounding furnishings to create a space to hand items back and forth.</li> <li>□ Lower section of counter.</li> <li>□ Arrange the counter and surrounding furnishings to create a space to pass items.</li> </ul>
Vertical Circulation (ADAAG 4.1.3(5), 4.3) Are there ramps, lifts, or elevators to all public levels?	<ul> <li>☐ Install ramps or lifts.</li> <li>☐ Modify a service elevator.</li> <li>☐ Relocate goods or services to an accessible area.</li> </ul>
On each level, if there are stairs between the entrance and/or elevator and essential public areas, is there an accessible alternate route?	☐ Post clear signs directing people along an accessible route to ramps, lifts, or elevators.
Stairs (ADAAG 4.9) The following questions apply to stairs connecting levels not serviced by an elevator, ramp, or lift.  Do treads have a non-slip surface?	<ul><li>Add non-slip surface to treads.</li><li>Add or replace handrails if pos-</li></ul>
Do stairs have continuous rails on both sides, with extensions beyond the top and bottom stairs?	sible within existing floor plan.
Elevators (ADAAG 4.10)  Are there both visible and verbal or audible door opening/closing and floor indicators (one tone = up, two tones = down)?	☐ Install visible and verbal or audible signals.
Are the call buttons in the hallway no higher than 42 inches?	☐ Lower call buttons. ☐ Provide a permanently attached reach stick.
Do the controls inside the cab have raised and braille lettering?	☐ Install raised lettering and braille next to buttons.

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QUESTIONS		POSSIBLE SOLUTIONS
Elevators, continued Is there a sign on both door jambs at every floor identifying the floor in raised and braill letters?  If an emergency intercom is provided, is it usable without voice communication?  Is the emergency intercom identified by braille and raised letters?	Yes No	<ul> <li>✓ Install tactile signs to identify floor numbers, at a height of 60 inches from floor.</li> <li>☐ Modify communication system.</li> <li>☐ Add tactile identification.</li> </ul>
Lifts (ADAAG 4.2, 4.11) Can the lift be used without assistance? If no is a call button provided?  Is there at least 30 by 48 inches of clear space for a person in a wheelchair to approach to reach the controls and use the lift?  Are controls between 15 and 48 inches high (up to 54 inches if a side approach is possible)	clear space	<ul> <li>□ At each stopping level, post clear instructions for use of the lift.</li> <li>□ Provide a call button.</li> <li>□ Rearrange furnishings and equipment to clear more space.</li> <li>□ Move controls.</li> </ul>
Usability of Rest Rooms When rest rooms are open to the public, they should be accessible to people with disabilitie  Getting to the Rest Rooms (ADAAG 4.1)	height  res.	Men's Access New Compa
If rest rooms are available to the public, is at least one rest room (either one for each sex, or unisex) fully accessible?  Are there signs at inaccessible rest rooms that give directions to accessible ones?	at 🔲 🔲	Combine rest room.  Combine rest rooms to create one unisex accessible rest room.  Install accessible signs.
Doorways and Passages (ADAAG 4.2, 4.13, 4.1 Is there tactile signage identifying rest room:  Mount signs on the wall, on the latch side of the door, complying with the requirements for permanent signage. Avoid using ambiguous symbols in place of text to identify rest rooms.	REPOSÍTION	Add accessible signage, placed to the side of the door, 60 inches to centerline (not on the door itself).

QUESTIONS	POSSIBLE SOLUTIONS
Doorways and Passages, continued  Are pictograms or symbols used to identify rest rooms, and, if used, are raised characters and braille included below them?	Yes No  If symbols are used, add supplementary verbal signage with raised characters and braille below pictogram symbol.
ls the doorway at least 32 inches clear?	☐ Install offset (swing-clear) hinges. ☐ Widen the doorway.
Are doors equipped with accessible handles (operable with a closed fist), 48 inches high or less?	Lower handles.  Replace knobs or latches with lever or loop handles.  Add lever extensions.  Install power-assisted or automatic door openers.
Can doors be opened easily (5 lbf maximum force)?	Adjust or replace closers.  Install lighter doors.  Install power-assisted or automatic door openers.
Does the entry configuration provide adequate maneuvering space for a person using a wheelchair?	Clear width  Rearrange furnishings such as chairs and trash cans.  Remove inner door if there is a vestibule with two doors.
A person in a wheelchair needs 36 inches of clear width for forward movement, and a 5-foot diameter or T-shaped clear space to make turns. A minimum distance of 48 inches clear of the door swing is needed between the two doors of an entry vestibule.	Move or remove obstructing partitions.  • PLANTE PAREN ASSIST MAKE
Is there a 36-inch-wide path to all fixtures?	Remove obstructions.
Stalls (ADAAG 4.17) Is the stall door operable with a closed fist, inside and out?	☐ Replace inaccessible knobs with lever or loop handles. ☐ Add lever extensions.
Is there a wheelchair-accessible stall that has an area of at least 5 feet by 5 feet, clear of the door swing, OR is there a stall that is less accessible but that provides greater access than a typical stall (either 36 by 69 inches or 48 by 69 inches)?	☐ Move or remove partitions. ☐ Reverse the door swing if it is safe to do so.

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	QUESTIONS	Mary D	POSSIBLE SOLUTIONS
	Stalls, continued In the accessible stall, are there grab bars behind and on the side wall nearest to the toilet? Is the toilet seat 17 to 19 inches high?	Yes No	☐ Add grab bars. ☐ Add raised seat.
	Lavatories (ADAAG 4.19, 4.24) Does one lavatory have a 30-inch-wide by 48-inch-deep clear space in front?  A maximum of 19 inches of the required depth may be under the lavatory.	cicar space	<ul> <li>☐ Rearrange furnishings.</li> <li>☐ Replace lavatory.</li> <li>☐ Remove or alter cabinetry to provide space underneath.</li> <li>☐ Make sure hot pipes are covered.</li> <li>☐ Move a partition or wall.</li> </ul>
	Is the lavatory rim no higher than 34 inches?	31.5 height	☐ Adjust or replace lavatory.
	Is there at least 29 inches from the floor to the bottom of the lavatory apron (excluding pipes)?	26 height	Adjust or replace lavatory.
	Can the faucet be operated with one closed fist?  Are soap and other dispensers and hand dryers within reach ranges (see page 7) and usable with one closed fist?		<ul> <li>□ Replace with paddle handles.</li> <li>□ Lower dispensers.</li> <li>□ Replace with or provide additional accessible dispensers.</li> </ul>
	Is the mirror mounted with the bottom edge of the reflecting surface 40 inches high or lower?	height	☐ Lower or tilt down the mirror.☐ Add a larger mirror anywhere in the room.
riorit 4	Additional Access  Note that this priority is for items not required for basic access in the first three priorities.  When amenities such as drinking fountains and public telephones are provided, they should also be accessible to people with disabilities.		
	Drinking Fountains (ADAAG 4.15) Is there at least one fountain with clear floor space of at least 30 by 48 inches in front?	clear space	☐ Clear more room by rearrang- ing or removing furnishings.

	QUESTIONS	NAME OF TAXABLE	POSSIBLE SOLUTIONS
	Drinking Fountains, continued Is there one fountain with its spout no higher than 36 inches from the ground, and another with a standard height spout (or a single "hi-lo" fountain)?	Yes No	<ul> <li>□ Provide cup dispensers for fountains with spouts that are too high.</li> <li>□ Provide accessible cooler.</li> </ul>
Æ	Are controls mounted on the front or on the side near the front edge, and operable with one closed fist?  Is each water fountain cane-detectable (located		<ul><li>☐ Replace the controls.</li><li>☐ Place a planter or other canedetectable barrier on each</li></ul>
♥⁄	within 27 inches of the floor or protruding into the circulation space less than 4 inches from the wall?	height/ protrusion	side at floor level.
	<b>Telephones (ADAAG 4.31)</b> If pay or public use phones are provided, is there clear floor space of at least 30 by 48 inches in front of at least one?	clear space	<ul><li>☐ Move furnishings.</li><li>☐ Replace booth with open station.</li></ul>
	Is the highest operable part of the phone no higher than 48 inches (up to 54 inches if a side approach is possible)?	height	☐ Lower telephone.
	Does the phone protrude no more than 4 inches into the circulation space?	protrusion	☐ Place a cane-detectable barrier on each side at floor level.
	Does the phone have push-button controls?		☐ Contact phone company to install push-buttons.
	Is the phone hearing-aid compatible?		☐ Have phone replaced with a hearing-aid compatible one.
	Is the phone adapted with volume control?		☐ Have volume control added.
	Is the phone with volume control identified with appropriate signage?		☐ Add signage.
	If there are four or more public phones in the building, is one of the phones equipped with a text telephone (TT or TDD)?		<ul> <li>☐ Install a text telephone.</li> <li>☐ Have a portable TT available.</li> <li>☐ Provide a shelf and outlet next to phone.</li> </ul>
	Is the location of the text telephone identified by accessible signage bearing the International TDD Symbol?		☐ Add signage.



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