

CITY COUNCIL CONFERENCE

**MUNICIPAL BUILDING CONFERENCE ROOM
201 WEST GRAY, NORMAN, OK**

DECEMBER 11, 2018

5:00 P.M.

1. **CHANGE ORDER NO. TWO TO CONTRACT K-1516-112: BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND RDNJ, L.L.C. D/B/A A-TECH DECREASING THE CONTRACT AMOUNT BY \$12,933.52 FOR A REVISED CONTRACT AMOUNT OF \$900,616.49 FOR THE URBAN CONCRETE REHABILITATION, FYE 2015 LOCATIONS, MAIN STREET: PARK DRIVE TO BERRY ROAD.**
2. **CHANGE ORDER NO. TWO TO CONTRACT K-1617-91: BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND RDNJ, L.L.C., D/B/A A-TECH PAVING, DECREASING THE CONTRACT AMOUNT BY \$41,435.67 FOR A REVISED CONTRACT AMOUNT OF \$561,869.15 FOR THE 2016 BOND ROAD RECONSTRUCTION; IOWA STREET, PHASE IC AND FINAL ACCEPTANCE OF THE PROJECT.**
3. **CHANGE ORDER NO. TWO TO CONTRACT K-1718-5: BY AND BETWEEN THE NORMAN UTILITIES AUTHORITY AND MCKEE UTILITY CONTRACTORS, INC., DECREASING THE CONTRACT AMOUNT BY \$23,273.16 FOR A REVISED CONTRACT PRICE OF \$1,178,292.84 ON THE CROSSROADS BOULEVARD AREA WATER LINE PROJECT AND FINAL ACCEPTANCE OF THE PROJECT.**
4. **DISCUSSION REGARDING THE CREATION OF A TREE ORDINANCE.**
5. **DISCUSSION REGARDING DIAPER CHANGING TABLES REQUIREMENTS FOR COMMERCIAL BUILDING PERMIT APPLICATIONS.**

ITEM 1

**CHANGE ORDER
K-1516-112**



City of Norman, OK

Municipal Building
Council Chambers
201 West Gray
Norman, OK 73069

Master

File Number: K-1516-112 CO#2

File ID: K-1516-112 CO#2	Type: Contract	Status: Consent Item
Version: 2	Reference: Item 10	In Control: City Council
Department: Public Works Department	Cost:	File Created: 11/15/2018
File Name: FYE 2015 Urban Concrete Pavement Rehabilitation Bond	Final Action:	

Title: CHANGE ORDER NO. TWO TO CONTRACT K-1516-112: BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND RDNJ, L.L.C. D/B/A A-TECH DECREASING THE CONTRACT AMOUNT BY \$12,933.52 FOR A REVISED CONTRACT AMOUNT OF \$900,616.49 FOR THE URBAN CONCRETE REHABILITATION, FYE 2015 LOCATIONS, MAIN STREET: PARK DRIVE TO BERRY ROAD.

Notes: ACTION NEEDED: Motion to approve or reject Change Order No. Two to Contract K-1516-112 decreasing the contract amount by \$12,933.52 for a revised contract amount of \$900,616.49; and, if approved, authorize the execution thereof, accept the project, aand direct final payment in the amount of \$26,021.67 to RDNJ, L.L.C., d/b/a A-Tech Paving.

ACTION TAKEN: _____

Agenda Date: 12/11/2018

Agenda Number: 10

Attachments: Text File, Change Order Two K-1516-112, Project Map, Pay App

Project Manager: Tony Mensah, Project Manager

Entered by: april.kerr@normanok.gov

Effective Date:

History of Legislative File

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
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Text of Legislative File K-1516-112 CO#2

Body

BACKGROUND: In the Norman General Obligation Bond Election of March 2010, voters approved the City's 5-year Street Maintenance Bond Program. This program includes four categories of street maintenance projects as follows:

- Urban Asphalt Street Maintenance
- Urban Concrete Street Maintenance
- Rural Road Maintenance
- Urban Street Reconstruction

All street maintenance bond projects were proposed to be completed in five years under the approved program budget of \$19,000,000. All of the projects on the original ballot were completed by 2018.

The last Urban Concrete Street Maintenance Project to be completed was located on Main Street between Park Drive and Berry Road. This project had been under construction since 2016. The project was constructed in phases to minimize the impact on local businesses in Downtown Norman and on Norman High School.

This project involved the removal and replacement of selected concrete panels in the driving surface, curb and gutter, and sidewalk ramps that had deteriorated to an unacceptable condition. Main Street also received new pavement striping throughout, upon completion of the concrete work. At least one lane of traffic on Main Street remained open in each direction throughout the construction project. Access to existing businesses was maintained during the project.

DISCUSSION: The bid opening was conducted on March 10, 2016. The City Council awarded the contract on April 26, 2016 in the amount of \$733,437 to A-Tech Paving of Edmond, Oklahoma. Construction began in May 2016.

On June 27, 2017, the City Council approved Change Order No. 1 to Contract K-1516-112 with RDNJ LLC, dba A-Tech Paving for the 2015 Urban Concrete Street Maintenance Bond Project in the amount of \$180,113 or 25 percent of the original contract amount to a total revised contract amount of \$913,550. The City Council also approved a re-allocation of \$180,113 from the 2010 Street Maintenance Bond Program account balance to the Urban Concrete Streets - Main Street Project (account 050-9393-431.61-01; project BP0242).

On October 8, 2018, RDNJ, LLC. dba A Tech Paving completed all the work under Contract K-1516-112 including Change Order No. 1. A final pay application of \$45,030.83 was submitted by the contractor on October 10, 2018. The total work completed amounted to \$900,616.49 leaving a balance of \$12,933.52.

RECOMMENDATION NO. 1: Staff recommends approval of Change Order No. 2 (final) decreasing the contract by \$12,933.52. If approved, the total contract amount with RDNJ, LLC. dba A-Tech Paving will decrease to \$900,616.49 from \$913,550, a decrease of 1.4%. Final acceptance and payment is in the amount of \$45,030.83 for Contract K-1516-112 with RDNJ, LLC. d/b/a A-Tech Paving. With the payment of the final pay request, Contract K-1516-112 is closed out.

CHANGE ORDER SUMMARY
CITY OF NORMAN
CLEVELAND COUNTY, OKLAHOMA

CHANGE ORDER NO.: 2 Date: November 27, 2018

CONTRACT NO.: K-1516-112

PROJECT: URBAN CONCRETE PAVEMENT REHABILITATION
PROJECTS-Main Street from Berry Road to Park Drive

PROJECTS NOS.: BP0242

CONTRACTOR: RDNJ LLC dba A-Tech Paving
PO Box 2865
Edmond, OK 73083

ORIGINAL CONTRACT AMOUNT: **\$ 733,437.00**

(Increase) change order No. 1: \$180,113.00


REVISED CONTRACT AMOUNT: **\$ 913,550.00**

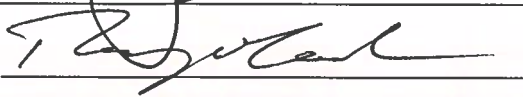
(Decrease) this change order (No. 2): (\$12,933.52)

DESCRIPTION	DECREASE	INCREASE
See attached reconciliation sheet	\$79,933.00	\$ 66,999.48

Note: This change order is based completely on the unit bid prices from the original contract.

NET CHANGE	(\$ 12,933.52)
REVISED CONTRACT AMOUNT	\$ 900,616.48

CONTRACTOR:  DATE: 11/20/18

PROJECT MGR.:  DATE: 11/27/2018

CITY ATTORNEY: _____ DATE: _____

ACCEPTED BY: _____ DATE: _____
(Mayor)

2010 Bond Concrete Rehabilitatin; Main St - Berry Rd/Park Dr

ITEM #	DESCRIPTION	Over	Under
1	Mobilization		
2	Traffic Control		
3	Undercut		\$ 400.00
4	Salvaqed Topsoil		\$ 200.00
5	Saw Cut Pavement Full Depth		\$ 5,595.00
6	Removal of Curb and Gutter		\$ 1,000.00
7	Remove Integral Curb with Slob		\$ 810.00
8	Removol Concrete Drive		\$ 100.00
9	Remove Concrete Pavement		\$ 5,779.28
10	Type A ODOT Agg		\$ 700.00
11	Compact Existina Subarade		\$ 948.00
12	Repair Inlet Box and Adjust to Grade		\$ 1,500.00
13	Install Reinforcement Steel		\$ 300.00
14	3/ 4 IN Joint Dowels 24IN Long 18IN c/c	\$ 14,156.45	
15	BIN Dowel Baskets	\$ 2,678.50	
16	9IN Rapid Set PC Concrete for Pavement		
17	3000 PSI High Early Concrete 9IN Pavement	\$ 40,166.63	
18	5IN Barrier Integral Curb		\$ 1,000.00
19	BIN Barrier Curb and Gutter		\$ 1,000.00
20	Integral Mountable Curb		\$ 120.00
21	5IN Barrier Curb and Gutter		\$ 1,000.00
22	BIN Somier Curb and Gutter	\$ 4,410.00	
23	Remove Sidewalk		\$ 400.00
24	3000 Concrete 4IN Sidewalk		\$ 1,300.00
25	3000 Concrete Sidewalk Romps		\$ 1,800.00
26	Detectable Warning Surface		\$ 140.00
27	Clean Topsoil		\$ 250.00

28	Heavy Duty L Frame (Bicycle Grate)		\$	700.00	
29	Slab Sod		\$	100.00	
30	Repair Existing		\$	150.00	
31	Repair Existing Sprinkler Line		\$	500.00	
32	Adjust Valve Box	\$	450.00		
33	Adjust Meter Box		\$	450.00	
34	Adjust Manhole Ring to Grade		\$	1,350.00	
35	4IN Centerline Striping (Double Yellow)		\$	400.00	
36	4IN Striping (Single)	\$	4,822.90		
37	6IN Lone Striping (Single White)		\$	3,575.00	
38	"Only" 8FT in Height FHWA Standard		\$	1,500.00	
39	Turn Arrow FHWA Standard		\$	620.00	
40	24IN Wide Line		\$	3,910.00	
41	Removal of Pavement Markings		\$	689.50	
42	Removal of Arrow and "Only" Pavement Marking	\$	315.00		
CHANGE ORDER #1					
2	Traffic Control				
9	Remove Concrete Pavement		\$	10,888.00	
14	3/4 IN Joint Dowels 24/N Lona 18/N c/c		\$	793.10	
15	BIN Dowel Baskets				
15	9/N Rapid Set PC Concrete for Pavement		\$	25,000.00	
17	3000 PSI High Early Concrete 9IN Pavement		\$	4,965.12	
		\$	66,999.48	\$	79,933.00
				\$	12,933.52

ITEM 2

**CHANGE ORDER
K-1617-91**



City of Norman, OK

Municipal Building
Council Chambers
201 West Gray
Norman, OK 73069

Master

File Number: K-1617-91 CO#2

File ID: K-1617-91 CO#2 **Type:** Contract **Status:** Consent Item

Version: 1 **Reference:** Item 12 **In Control:** City Council

Department: Public Works Department **Cost:** **File Created:** 10/08/2018

File Name: Change Order and Final Acceptance 2016 Bond Road Reconstruction; Iowa Street, Phase IC, **Final Action:**

Title: CHANGE ORDER NO. TWO TO CONTRACT K-1617-91: BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND RDNJ, L.L.C., D/B/A A-TECH PAVING, DECREASING THE CONTRACT AMOUNT BY \$41,435.67 FOR A REVISED CONTRACT AMOUNT OF \$561,869.15 FOR THE 2016 BOND ROAD RECONSTRUCTION; IOWA STREET, PHASE IC AND FINAL ACCEPTANCE OF THE PROJECT.

Notes: ACTION NEEDED: Motion to approve or reject Change Order No. Two to Contract K-1617-91 decreasing the contract amount by \$41,435.67 for a revised contract amount of \$561,869.15; and, if approved, authorize the execution thereof, accept the project, and direct final payment in the amount of \$26,021.67 to RDNJ, L.L.C., d/b/a A-Tech Paving.

ACTION TAKEN: _____

Agenda Date: 12/11/2018

Agenda Number: 12

Attachments: Pay App #12 Final K-1617-91, Change Order No 2
K-1617-91, 2010 Bond Reconstruction Map Iowa Street Phase I, II, & III

Project Manager: Tony Mensah, Street Supt

Entered by: april.kerr@normanok.gov

Effective Date:

History of Legislative File

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:

Text of Legislative File K-1617-91 CO#2

Body

BACKGROUND: In the Norman General Obligation Bond Election of March 2, 2010, voters approved a 5-year, 4-phase program of street maintenance on neighborhood streets. The 2016 Street Maintenance Bond Program includes four categories as follows:

- Urban Asphalt Street Maintenance
- Urban Concrete Street Maintenance
- Rural Road Maintenance
- Urban Street Reconstruction

The final two projects in the "Urban Street Reconstruction" category required outside engineering design services due to the complexity of the stormwater drainage improvements. Those two projects involved eleven (11) residential blocks of total street reconstruction on Dakota and Iowa Streets. The proposed projects were split into phases as follows:

- Phase I - Iowa Street- Berry Road to Pickard Avenue;
- Phase II - Dakota Street- Berry Road to Flood Avenue;
- Phase III - Dakota and Iowa Streets- Flood Avenue to University Boulevard

Each project was further divided into three (3) parts as follows:

- Part A: Service utilities - performed by City of Norman Utilities Department;
- Part B: Asphalt pavement & stormwater system - performed by City of Norman Public Works Department
- Part C: Concrete pavement, curb and gutter and driveways - performed by Contractor

It was anticipated that this approach would provide significant cost savings and expedite the project.

DISCUSSION: On March 31, 2016, a bid opening was held for these projects and only one bid was received. The Engineer's Estimate was \$3,053,824. A-Tech Paving submitted the sole bid of \$3,201,241, which was \$147,417 or 4.83% over the estimate. City staff recommended the bid be rejected and the project rebid.

The bid opening for Phase IC was conducted on February 23, 2017 and four (4) contractors submitted bids for concrete pavement, curb and gutter and driveways. A low bid in the amount of \$184,269 was submitted by RDNJ, LLC. dba A-Tech Paving of Edmond, OK. The bid was less than the engineer's estimate of \$279,288 by \$95,019.00 or 34%.

On March 28, 2017 City Council approved Contract K-1617-91 with RDNJ, LLC. dba A-Tech for Phase IC - Iowa Street: Berry Road to Pickard Avenue.

This improvement program involved the complete removal and replacement of the neighborhood concrete pavement, curb and gutter and driveways. The project location was funded in the Capital Fund, Bond Road Reconstruction, Construction (account 050-9385-431.61-01; project BP0239).

In an effort to expedite the construction of the remaining two phases of this project which were:

- Phase II C- Dakota Street- Berry Road to Flood Avenue, Curb, Gutter and Driveways
- Phase III C- Dakota and Iowa Streets- Flood Avenue to University Boulevard, Curb, Gutter and Driveways,

It was decided to amend the contract with RDNJ, LLC. dba A-Tech Paving of Edmond with Change Order No. 1. This change order was based on the prices bid for Phase I which were lower than engineer's estimate. This approach, in addition to the savings, reduced the time by eliminating the time required for advertising and the bid process.

The schedules to complete these projects were as follows:

- Phase II- Dakota Street- Berry Road to Flood Avenue by March of 2018;
- Phase III- Dakota and Iowa Streets- Flood Avenue to University Boulevard by January 2018

On August 8, 2017 City Council approved Change Order No.1 to Contract K-1617-91 with RDNJ, LLC. dba A Tech Paving in the amount of \$377,600.15, revising the contract to a new amount of \$561,869.15

On September 28, 2018 RDNJ LLC dba A Tech Paving, completed all of the work under Contract K-1617-91, including Change Order No. 1. A final pay application of \$26,021.67 was submitted by the contractor on September 30, 2018. The total work completed amounted to \$520,433.48 leaving a balance of \$41,435.67.

RECOMMENDATION 1: Staff recommends Change Order No. Two (final) decreasing the contract by \$41,435.67 be approved. If approved, the total contract amount with RDNJ, LLC. dba A-Tech Paving will decrease to \$520,433.48 from \$561,869.15, a decrease of 7.4%. It is further recommended that the project be accepted and final payment in the amount of \$26,021.67 be approved. With the payment of the final pay request the project is closed out.

CHANGE ORDER SUMMARY
CITY OF NORMAN
CLEVELAND COUNTY, OKLAHOMA

CHANGE ORDER NO.: 2 Date: November 27, 2018

CONTRACT NO.: K-1617-91

PROJECT: URBAN ROAD RECONSTRUCTION PROJECTS –Iowa Street Phase IC

PROJECTS NOS.: BP0245

CONTRACTOR: RDNJ LLC dba A-Tech Paving
PO Box 2865
Edmond, OK 73083

ORIGINAL CONTRACT AMOUNT: **\$ 184,269.00**

(Increase) change order No. 1: \$377,600.15

REVISED CONTRACT AMOUNT: **\$ 561,869.15.00**

(Decrease) this change order (No. 2): (\$41,435.67)

DESCRIPTION	DECREASE	INCREASE
See attached reconciliation sheet	\$57,757.90	\$ 16,322.23

Note: This change order is based completely on the unit bid prices from the original contract.

NET CHANGE	(\$ 41,435.67)
REVISED CONTRACT AMOUNT	\$ 520,433.48

CONTRACTOR: _____

DATE: 11/28/2018

PROJECT MGR.: _____

DATE: 11/27/2018

CITY ATTORNEY: _____

DATE: _____

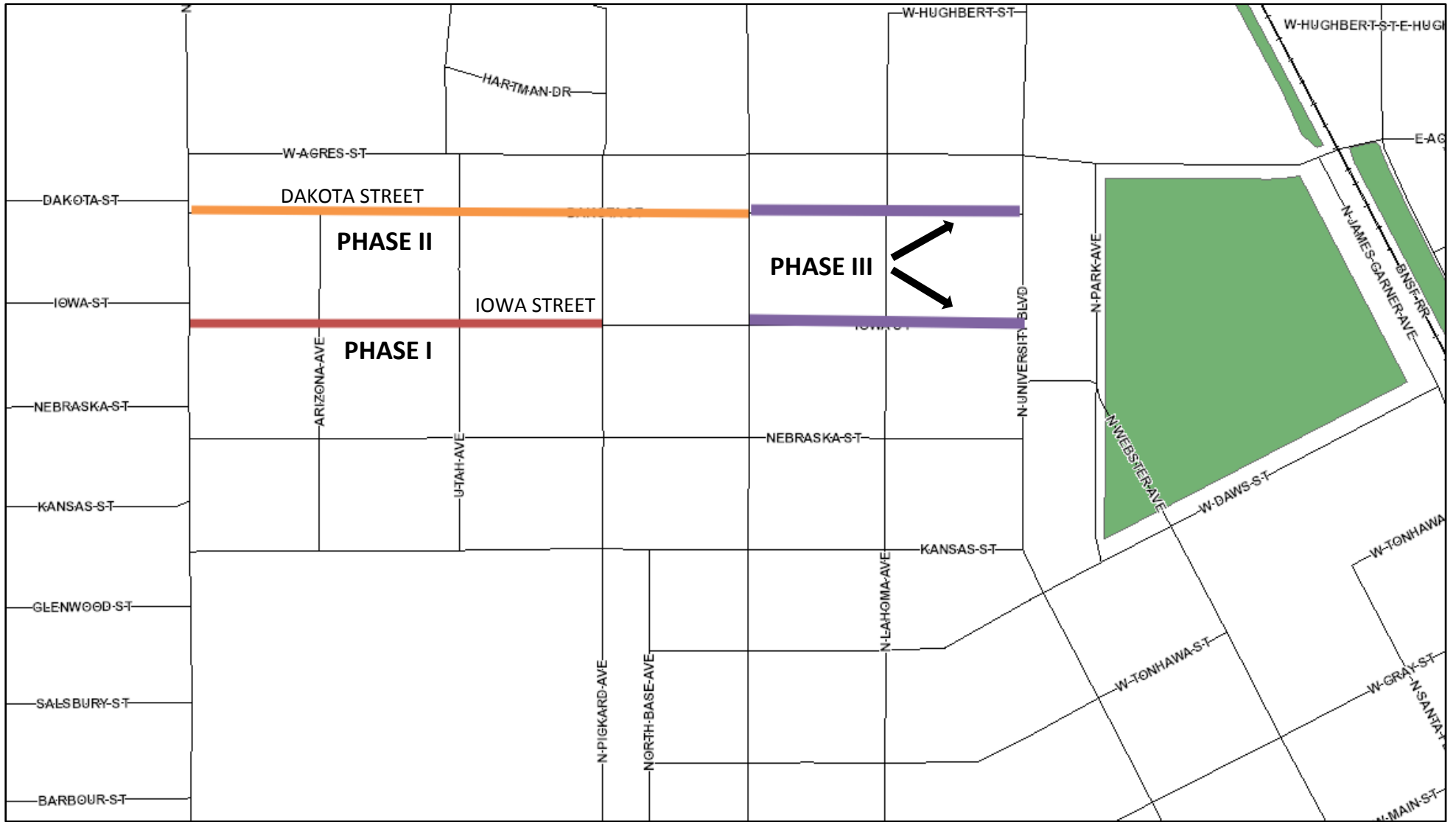
ACCEPTED BY: _____

DATE: _____

(Mayor)

2010 Bond Reconstruct - Iowa/Dakota

Item #	Description	Over	Under
1	Trame Bound Surface Course T"" E		\$ 6,000.00
2	Prime Coat		\$ 1,865.00
3	PC Concrete Pavement (Placement)	\$ 1,616.50	
4	Full Deoth P.C. Concrete Patchin (Placement)		\$ 992.00
5	P.C. Concrete: for Pavement		
6	Concrete Curb (6" Onrrier-Intel:1"31)		
7	Combined Curb & Gutter (6" Barrier)		
8	4" Concrete Sidewalk		
9	6" Concrete OrivC\vnr		
10	Tactile Warnin Device-New		
11	Mobilization		
Change Order #1			
1	Traffic Bound Surface Course Type E		\$ 4,400.00
2	PC Concrete Pavem nt (Placement)	\$ 1,351.50	
3	Full Depth P.C. Concrete Patching (Placement Only)		\$ 928.00
4	P.C. Concrete for Pavement	\$ 3,068.23	
5	Concrete Curb (6" Barrier-Integral)	\$ 78.00	
6	Combined Curb & Gutter (6" Barrier)		\$ 40,880.00
7	4" Concrete Sidewalk		\$ 2,572.90
8	6" Concrete Driveway	\$ 10,208.00	
9	Tactile Warning Device-New		\$ 120.00
10	Mobilization		
11	Construction Staking, Level II		
		\$ 16,322.23	\$ 57,757.90
			\$ 41,435.67



**2010 STREET MAINTENANCE
BOND RECONSTRUCTION PROJECTS
LOCATION MAP**

ITEM 3

**CHANGE ORDER
K-1718-5**



City of Norman, OK

Municipal Building
Council Chambers
201 West Gray
Norman, OK 73069

Master

File Number: K-1718-5 CO#2

File ID: K-1718-5 CO#2

Type: Contract

Status: Consent Item

Version: 1

Reference: Item 13

In Control: City Council

Department: Utilities Department

Cost:

File Created: 11/27/2018

File Name: Final change order for Crossroads Water Line

Final Action:

Title: CHANGE ORDER NO. TWO TO CONTRACT K-1718-5: BY AND BETWEEN THE NORMAN UTILITIES AUTHORITY AND MCKEE UTILITY CONTRACTORS, INC., DECREASING THE CONTRACT AMOUNT BY \$23,273.16 FOR A REVISED CONTRACT PRICE OF \$1,178,292.84 ON THE CROSSROADS BOULEVARD AREA WATER LINE PROJECT AND FINAL ACCEPTANCE OF THE PROJECT.

Notes: ACTION NEEDED: Acting as the Norman Utilities Authority, motion to approve or reject Change Order No. Two to Contract K-1718-5 with McKee Utility Contractors, Inc., decreasing the contract amount by \$23,273.16 for a revised contract amount of \$1,178,292.84; and if approved, authorize the execution thereof, accept the project, and direct final payment in the amount of \$59,608.64 to McKee Utility Contractors, Inc.

ACTION TAKEN: _____

Agenda Date: 12/11/2018

Agenda Number: 13

Attachments: Agenda - Crossroads - Map, Co #2 K-1718-5

Project Manager: Charlie Thomas, Capital Projects Engineer

Entered by: charlie.thomas@normanok.gov

Effective Date:

History of Legislative File

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
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Text of Legislative File K-1718-5 CO#2

Body

BACKGROUND: The Crossroads Boulevard Area Waterline project (WA0213) is located north of Robinson Street between I-35 and 36th Avenue NW, and along 24th Avenue NW from near Boardwalk to just north of Tee Circle. As shown on the attached map, a portion of the subdivision water lines were previously replaced by Water Line Maintenance crews. The project replaced almost 15,000 feet of ductile iron (D.I.) water line with six-inch (6") and eight-inch (8") polyvinyl chloride (PVC) pipe. The D.I. pipe was failing due to acidic clay soils, causing water outages, water loss and damage to driveways, streets, and yards.

On September 12, 2017, the Norman Utilities Authority (NUA) approved Contract K-1718-5 in the amount of \$1,184,999, with McKee Utility Contractors, Inc. (McKee) of Prague. The Notice to Proceed was issued effective September 25, 2017, and construction began the same date.

On September 11, 2018, former City Manager Steve Lewis approved Change Order No. 1, (CO1) increasing the contract amount by \$16,567 to \$1,201,566. CO1 provided a force majeure cost increase on PVC pipe resulting from Hurricane Harvey damage in the Houston, Texas area.

DISCUSSION: All work was complete July 13, 2018, and the contract is now satisfied. Proposed Final Change Order Number 2 (CO2) decreases the contract amount by \$23,273.16 to \$1,178,292.84. CO2 is the reconciliation of bid quantities to final quantities per Attachment No. 1 to proposed CO2. The major cost differences include:

- Eight inch (8") PVC Pipe: Deduct 706 feet for a decrease of \$20,396
- Street Pavement Replacement: Add 319 square yards (SY) for an increase of \$19,140
- Driveway Pavement Replacement: Deduct 472 SY for a decrease of \$23,600
- Concrete Curb & Gutter Replacement: Deduct 498 Linear Feet (LF) for a decrease of \$12,450

Also, due to the significant number of rain events during the project, McKee requested, and staff recommends approval of an 81 calendar day time extension for completion of the work.

RECOMMENDATION: Staff recommends the NUA approve Change Order No. 2 (Final) with McKee Utility Contractors, Inc. decreasing the contract amount by \$23,273.16 to \$1,178,292.84, authorize execution thereof, accept the Crossroads Boulevard Area Waterline project, and direct final payment in the amount of \$59,608.64.

CHANGE ORDER SUMMARY
 NORMAN UTILITIES AUTHORITY
 CLEVELAND COUNTY
 NORMAN, OKLAHOMA

DATE: November 26, 2018

CHANGE ORDER NO.: 2 (Final)

CONTRACT NO.: Contract K-1718-5

PROJECT: Crossroads Boulevard Area Waterline

CONTRACTOR: McKee Utility Contractors, Inc.
2319 W Main Street
Prague, OK 74864

	<u>Contract Time</u>	<u>Contract Amount</u>
ORIGINAL:	<u>210</u> calendar days	<u>\$1,184,999.00</u>
PREVIOUS CHANGE ORDERS:	<u>0</u> calendar days	<u>\$16,567.00</u>
THIS CHANGE ORDER:	<u>81</u> calendar days	<u>(\$23,273.16)</u>
REVISED AMOUNT:	<u>291</u> calendar days	<u>\$1,178,292.84</u>

ORIGINAL START DATE: September 25, 2017

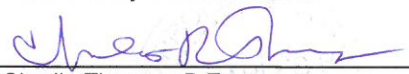
ORIGINAL COMPLETION DATE: April 23, 2018

PREVIOUS COMPLETION DATE: April 23, 2018

NEW COMPLETION DATE: July 13, 2018

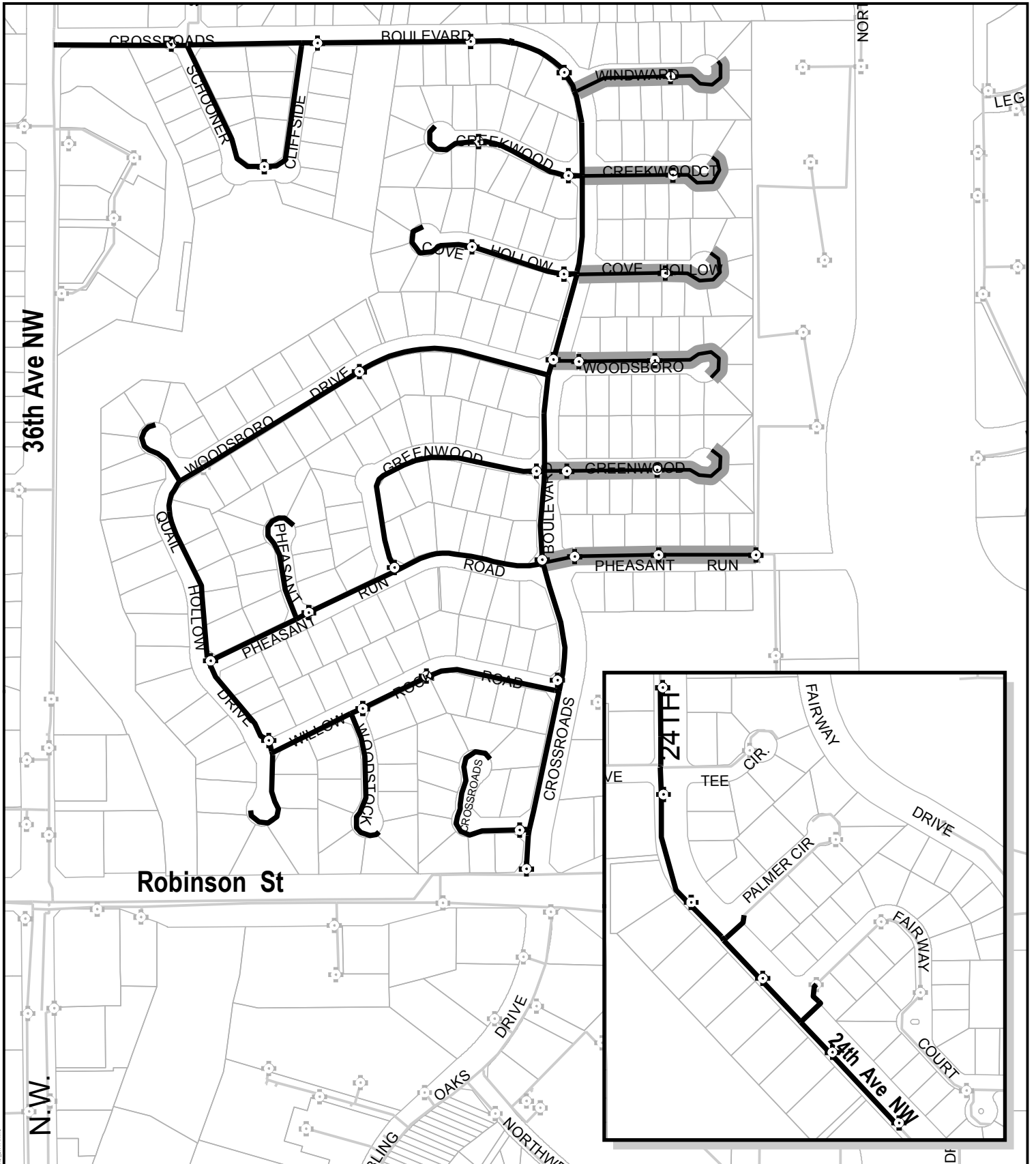
DESCRIPTION:	\$ Increase	\$ Decrease
Unit quantity reconciliation (Attached)		(\$23,273.16)

SUBMITTED BY
 CONTRACTOR:  Date: 11/30/18
 Tyler McKee, VP
 McKee Utility Contractors, Inc.

RECOMMENDED BY
 STAFF ENGINEER:  Date: 12/3/18
 Charlie Thomas, P.E.
 Capital Projects Engineer

APPROVED AS TO
 FORM AND LEGALITY: _____ Date: _____
 City Attorney

ACCEPTED BY
 NORMAN UTILITIES AUTHORITY: _____ Date: _____
 Lynne Miller, Chairman



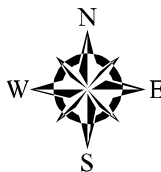
Crossroads Boulevard Project Waterlines

January 27, 2016

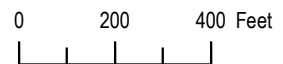


Map produced by the City of Norman
GIS Services Division

The City of Norman assumes no
responsibility for errors or omissions
in the information presented.



- Water Lines To Be Replaced
- Completed By Line Maintenance



ITEM 4

TREE ORDINANCE

BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF NORMAN
OKLAHOMA:

Whereas, in order to maintain and enhance a positive image and a livable city it is important to encourage the preservation of mature trees and to protect trees during construction, to contribute to the long-term viability of existing trees and to control the removal of trees when necessary:
and

Whereas, the City Council, Tree Board, and citizen groups recognized a need to establish regulations to protect healthy and significant trees and to incentivize replacement of trees when removed by necessity or choice, with regard to the rights of the property owners and occupants,

Whereas, the regulations are designed with the following objectives in mind: to eliminate unnecessary removal of healthy trees; to promote the preservation and conservation of trees throughout the City; to recognize the benefits of trees in the urban environment; to encourage the planting and preservation of quality trees that are native to or flourish in the region; to enhance the beauty and aesthetic of the City; to enhance property values and protect investment; to encourage the preservation of large or historic trees that cannot be quickly replaced;

Whereas, the regulations outlined below are intended to address those trees (“street trees”) living in the platted public right of way, meaning the area between the public sidewalk and the publicly dedicated street, the public easement, as well as those trees designated as historic according to the regulations as defined in Section 12 of this document;

Whereas, the regulations are intended to address platted and developed properties throughout the defined area;

Whereas, the regulations are not intended to and cannot supersede existing state laws or other existing city ordinances, utility easements, or restrictions previously attached to the land.

SECTION 1

‘Definitions’ The following terms, as used in this chapter, shall have the following meanings:

‘Alter’ means to cut, girdle, prune, destroy, remove or in any manner injure a large tree.

‘City’ means the City of Norman

‘City Council’ The City Council of the City of Norman.

‘Defined Area’ means area East of West 48th Street, south of Franklin Road, and west of East 36th Street continuing south to city limits.

‘Dangerous Tree’ means any tree, large shrub or part thereof, living or dead, which the Forester finds are in such a condition and is located in such a place as to constitute a danger to persons or property in the vicinity of the tree.

‘DBH’ means tree diameter at breast height, which is measured at 4.5 feet above the ground.

‘Dead Tree’ means any tree or branch which the Forester(s) have determined that no part of the tree or branch is living.

‘Forester’ means the Forester for the City of Norman and his or her designees; who is the sole representative for purposes of this ordinance

‘Diseased or infected tree’ means any tree or large shrub which is infected or infested with any tree or plant disease or insect, pest or larvae, which the Forester(s) finds that the uncontrolled presence of such disease or infestation constitutes a hazard to, or could result in damage to or destruction of other trees in the community.

‘Owner’ means the owner of the property.

‘Person’ means individuals, groups, organizations, associations, partnerships, firms, corporations, and limited liability companies.

‘Sidewalk’ means the portion of the publicly dedicated street between the public street curb line or the paved edge of the public street (if no curb) and the adjacent private platted property lines, intended for use by pedestrians.

‘Street’ means the entire area between private platted property lines which is the publicly dedicated and maintained as street surface, when any part of the area is open to use by the public for purposes of vehicular travel. Such term shall include all publicly dedicated highways,

avenues, boulevards, traffic ways, or any other public way for vehicular travel by whatever name.

‘Street Tree’ means a tree 6” DBH or more, which is between the publicly dedicated sidewalk and the publicly dedicated street surface or where there is no sidewalk, then within six (6) feet of the edge of the street surface.

SECTION 2

- a. The City Forester(s) and their designated representatives shall be responsible for the enforcement of all provisions of this Code.
- b. The Forester(s) is hereby authorized to make such investigations, to issue notices, orders and directions as are necessary for the enforcement of this chapter.

SECTION 3

Injuring trees-consent

- a. It shall be unlawful for any person to intentionally alter any street tree standing or growing, wholly or in part in or on any street right of way without the consent of the Forester
- b. The provisions of subsection (a) shall not apply to:
 1. The removal of branches which are less than four (4) inches in diameter which are required to be removed to maintain seven (7) feet of clearance above sidewalks and fourteen (14) feet of clearance above streets: and (Ordinance?)
 2. The removal of water sprouts and suckers

3. Circumstances where Street Trees may need to be removed or altered in order to comply with other sections of the city code, such as but not limited to:
requirements to create, develop, or maintain adequate site triangles for safe passage of vehicular traffic; location of curb cuts and street access points as may be required for safe distances between such access points along public streets; locations of storm water facilities and improvements as may be necessary for the adequate conveyance of storm water; locations of underground utilities in utility easements intended for such facilities; and all requirements of the City of Norman's engineering design guidelines; and
4. Circumstances where Street Trees may need to be removed or altered in order to comply with state regulations pertaining to rights of way and vegetation management found in 165:35-25 (21 Ok Reg 2093, Eff 7-1-04) and the National Electric Safety Code (NESC Code Rule 218 A1)
5. Unplatted and undeveloped properties.

SECTION 4

Applications for permissions to alter trees not specifically exempted in section 3(b:1-5).

- a. Any person desiring to alter any street tree, or any branch, root or part thereof, standing or growing, wholly or in part, in any publicly dedicated street or public right of way, not specifically exempted in Section 3(b:1-5), must first request permission from the Forester to do so. If alteration is deemed prudent, the Forester shall grant such permission. The Forester shall

determine if a Street Tree needs to be altered in order to eliminate damage to existing buildings, foundations, utilities, and pavement surfaces and shall grant permission where necessary.

b. Street trees: All street trees voluntarily removed without permission of the Forester(s) shall be fined fifty dollars (\$50.00) per inch DBH.

1. A person may plant a tree or trees, in excess of (1) one inch DBH, to reduce the fine. The fine reduction may exceed the price of the fine, but no refunds will be awarded.
 - a. 1 tree = \$200.00 credit
 - b. 2 trees = \$500.00 credit
 - c. 3 trees = \$900.00 credit
 - d. 4 trees = \$1400.00 credit
 - e. 5 trees = \$2000.00 credit
2. If no trees are replanted, the Forester(s) shall notify the owner of a fine of fifty (\$50.00) per inch DBH.
3. Fines associated with removed DBH will not exceed 40" or \$2000.00
4. All replacement trees shall be replanted within six (6) months. The Forester(s) shall approve the replacement trees and planting locations. Should the tree die within two (2) years, it must be replaced.
5. If the Forester(s) determines a tree is dangerous, diseased or infected and needs to be removed, or that alteration is necessary due to infringement on existing structures, utility lines, etc., no fine will be imposed in conjunction with this policy.

(c) All funds collected by the city in conjunction with section 4(b) of the policy shall be deposited into a special fund and utilized for the sole purpose to replant trees in the public right of way in the same vicinity as the trees that are removed.

(d) In the event of a storm, freeze, wind event, or other environmental event resulting in damage to trees, the property owner will be allowed to remove broken or damaged branches in the right of way without permission from the Forester. Disposal of debris generated by property owner will be the responsibility of the property owner. Permission from the Forester will be required for the removal of an entire tree.

SECTION 5

Tree Nuisances declared

- a. All dead or broken trees, or branches thereof, within the Defined Area of the City, which have become dangerous or which are likely to become dangerous to the public safety, or to persons or property within the vicinity of the tree are hereby declared to be and constitute a public nuisance.
- b. Dangerous trees within the Defined Area of the City are declared to be a public nuisance.

SECTION 6

Duty of owners of private premises to abate.

It shall be the duty of the owners of any private property, upon which any public nuisance is located, to cause the same to be promptly abated.

SECTION 7

Affixing, fastening, etc., notices, advertisements, placards, etc.

No person shall affix, fasten or attach any notice, advertisement, placard, wire, cable, or anything to a tree growing wholly or in part in or on any public street, public rights of way, or park, or public property without the consent of the Forester.

SECTION 8

Placing stones, concrete, etc., near a tree trunk.

It shall be unlawful for any person to place or maintain upon the ground within the public streets, public rights of way, public parks, or other property belonging to the City, any stone, concrete or other substance which shall impede the free passage of water and air to the roots of any growing tree therein, without leaving an open space of ground outside the trunk of such a tree in an area not less than 16 square feet without first having secured the consent of the Forester(s) to do so.

SECTION 9

Guards or devices to prevent injury required during erection or repair of buildings, etc.

During the activity of permitted construction or major renovation of any building in the City, which is involving the use of heavy equipment, heavy trucks, roll off dumpsters, or any other activity that could injure Street Trees, the owner shall place or cause to be placed such guards or devices around all Street Trees within the publicly dedicated rights of way, as shall be

necessary to prevent injury to such trees. The guards must be reasonably placed in order to prevent injury to the tree, no less than a 4 x 4 foot area around the tree.

SECTION 10

Abutting property on streets and avenues to keep pruned at minimum height.

It shall be the duty of all persons owning or controlling any real estate abutting or adjoining any publicly dedicated street to prune the trees on their premises so that the limbs and undergrowth shall not hang or extend down over the public sidewalk or public street abutting such property less than seven (7) feet from the level of the public sidewalk: or fourteen (14) feet from such public street.

SECTION 11

Penalties

Any owner violating any of the provisions of this chapter shall, upon conviction thereof, be punished by a fine of not more than five hundred dollars (\$500.00) per offense.

a. In addition to the penalty set forth above in section 4, the court may order the violator to perform the necessary labor to repair, remove, or replace street trees damaged by that person, or to pay any costs incurred by the Forester(s) related to repair or replacement of street trees damaged by that person.

SECTION 12

Historic Tree Designation

1. Owners may nominate trees on their own private property, outside of the public right-of-way, as historic trees, resulting in the protections outlined below:
2. A historic tree should include at least three of the following characteristics:
 1. Trees with trunk diameters equal to or in excess of 36" DBH,
 2. Excellent structure or unique structural character
 3. Excellent health
 4. High aesthetic appeal
 5. Good longevity
 6. Historical importance
2. To nominate a tree as historic, a person must complete the forms provided by the Forester(s) and provide rationale for the designation in line with the guidelines established above. After consideration and recommendation of the historic designation by the Forester(s), the designation shall proceed to the Tree Board for final approval.
3. Once a tree is deemed historic, all provisions outlined above, including the limitations on alteration outlined in Section 4 shall apply to the tree in perpetuity, regardless of its location.
4. Once deemed historic, the owner shall place deed restrictions upon the tree in conjunction with Section 4, so as to inform future owners of the status of the historic tree designation.

SECTION 13

Appeal from the denial of consent for the removal of a tree or imposition of fees by the Forester(s)

1. An owner who has been denied a consent to remove a tree may make application for relief from portions of this article to the City Manager or her designee. Such appeal must be made within thirty (30) working days from the date of the Forester(s) determination and only after all issues relevant to the permit process have been determined. Upon receipt of the appeal, the City Manager will then have up to ten working days to grant relief upon an adequate showing that undue hardship would be suffered if not granted.
2. After having been denied relief by the City Manager as provided in (a) above, the owner shall have the right of appeal to the Council of the City of Norman. Such appeal shall be taken by filing with the City Clerk within ten (10) working days after denial of relief by the City Manager a written statement setting forth fully the grounds for the appeal. After receipt of the written statement, the City Clerk shall schedule the appeal for hearing by the City Council on the next regular agenda. The owner shall be notified of the time of the hearing at least seven (7) days prior to such hearing. Proper mailing to the address shown on the application shall be adequate notification. The decision and order of the Council on such appeal shall be final and conclusive.

ITEM 5

DIAPER CHANGING TABLES



office memorandum

TO: Council Conference

FROM: Jane Hudson, Planning and Community Development
Amber Armstrong, CBO, CFM, Development Services

THROUGH: Mary Rupp, Interim City Manager

DATE: December 11, 2018

RE: Diaper Changing Table Requirements

BACKGROUND:

At the “City Council Retreat (Annual Planning Session)” in August of this year, City Council designated, as one of their priorities: requiring installation of diaper changing tables in both male and female public restrooms in new commercial developments and those commercial developments undergoing renovations of a designated dollar value/square feet. At the September 27, 2018 Community Planning and Transportation Committee meeting City Council reviewed the code amendment proposal presented by staff, recommended changes and directed staff to take this item forward to Council Conference for review.

HISTORY

In October of 2016, then President Barack Obama signed into law a bill requiring diaper changing stations in both male and female restrooms in publicly accessible federal buildings. The law is titled “Bathrooms Accessible in Every Situation Act or BABIES Act”. Although, even before the BABIES Act was enacted many municipalities/states had already started requiring businesses to install diaper changing tables and many retailers have been installing diaper changing tables for years without question. However, the issue is the location of the changing table.

Starting in the late 80’s and early 90’s there was a noticeable increase in the number of parents, both mothers and fathers, that began taking their children with them for their daily errands, family outings, dinners and a multitude of other outings. The increase in the number of children accompanying their parents pushed many businesses to look at how they could better serve their patrons, at that time the majority of parents toting the children along were the mothers. Today, there is an increase in the number of fathers caring for the children. An issue now at the forefront of this discussion of diaper changing tables is the location of the changing table; currently, the greater majority of changing tables are only installed in the women’s restroom and only in the handicap accessible stall of the women’s restroom. This is not to take away from the businesses that already provide the space to their patrons but additional effort should be directed at locating a changing table in areas accessible to both men and women and outside of the only handicap accessible restroom facility when possible. When the changing table is located in the accessible stall of the restroom the use of the stall can be limited to those

individuals that cannot utilize a standard restroom stall. Those individuals needing the accessible stall are required to wait for the parent/caregiver to finish changing the infant before they can utilize the restroom facilities. In many cases it is possible to install an accessible changing table in a restroom but not in the accessible restroom stall.

FINANCIAL IMPACT:

The average cost of a diaper changing table from an internet search is between \$150 and \$300. This does not include contractor's labor cost or any retrofitting of a facility to accommodate installation. A survey determined the average cost of installation for a diaper changing table could amount to \$1,200 - \$1,500, actual cost is dependent on scope of work, retrofitting the unit versus installation with new construction.

CURRENT CODE REQUIREMENTS:

In the City of Norman there are currently no requirements for businesses to provide adequate diaper changing tables. As outlined above it is typical for diaper changing tables to be located in the accessible stall of the women's restroom, leaving no adequate facilities for a father to change diapers or making those required by physical limitations to wait unnecessarily for use of the accessible stall. Staff researched several municipalities in Oklahoma and found no requirements of diaper changing tables. However, if a business does install a diaper changing table the requirements outlined in the ICC A117.1-2009 establish how a table shall be installed. (Refer to Exhibit B)

ESTABLISHING STANDARDS:

This memo focuses on both new construction and addition/alterations for possible requirements of diaper changing tables. First, a definition of a diaper changing table needs to be established.

To define diaper changing table staff reviewed several cities/federal documents and developed the following definition for Council's consideration:

DIAPER CHANGING TABLE. A safe, sanitary and permanently affixed station, deck table, surface or similar amenity specifically set aside for changing a diaper. The diaper changing table shall have safety straps or other appropriate restraint to secure a baby or young child age 3 1/2 or under. The diaper changing table shall meet ASTM F2285-04(2016) (Standard Consumer Safety Performance Specification for Diaper Changing Tables for Commercial Use) or shall be a permanently installed counter.

CODE AMENDMENTS:

The International Building Code (IBC) is for new construction, the International Existing Building Code (IEBC) is, as it sounds, for modification to existing buildings. Both the IBC and the IEBC Codes will have to be amended to establish requirements for installation of diaper changing tables.

Unlike the IBC for new construction, the IEBC distributes requirements through several chapters based on the scope of construction for the addition/remodel of the existing facility. Modification of the IEBC will require insertion of multiple sections throughout the code. Attached as Exhibit A are possible modifications to the IBC and the IEBC.

As proposed, if determined appropriate the following will apply:

- In existing buildings undergoing any level of alteration or change of occupancy, diaper changing tables will be required when 50% of the floor area of the restroom is altered. These requirements only apply to the specific restroom being altered. For example, if only the female restroom is altered, then the diaper changing table will only be required in that restroom.
- Alternatively, if the property owner constructs a unisex restroom facility, they may locate the diaper changing table in this room instead of altering existing restroom(s).
- Also, consideration is given to allow the diaper changing table in the handicap compartment only when the cost for modifications to install a fully compliant table would discourage any renovation to the restroom(s).
- When additions to existing buildings or tenant spaces contain a restroom, a diaper changing table will be required as is required for new construction.

**When existing diaper changing tables are already available to both male and female occupants in the building there are no further requirements.

CONCLUSION:

Staff is presenting this information for your review and discussion. Staff attached documents highlighting the possible code amendments.

The following attachments are included in this packet:

- Exhibit A – Code amendments: IBC & IEBC
- Exhibit B – ICC – A117.1 Commentary – Handicap Code Requirements

NEW CONSTRUCTION

International Building Code

UNCHANGED FROM 9/27/18

SECTION 202 DEFINITIONS

DIAPER CHANGING TABLE. A safe, sanitary and permanent affixed station, deck table, surface or similar amenity specifically set aside for changing a diaper. The diaper changing table shall have safety straps or other appropriate restraint to secure a baby or young child age 3 1/2 or under. The diaper changing table shall meet ASTM F2285-04(2016) (Standard Consumer Safety Performance Specification for Diaper Changing Tables for Commercial Use) or shall be a permanent installed counter.

SECTION 1211 DIAPER CHANGING TABLE

1211.1 Required. Customers, patrons and visitors shall be provided with *diaper changing tables* in buildings and tenant spaces intended for public utilization. Both male and female occupants shall have access to at least one *diaper changing table*. Installation of the *diaper changing table* shall comply with this section.

Exceptions:

1. Group F, H, I-3, and S occupancies that are not accessed by the public.
2. Group B occupancies less than 10,000 sq ft (928 m²).
3. Dwelling units or sleeping units in Group R-1, R-2, R-3, I-1 or I-2.
4. Group E and U occupancies.
5. A building or tenant space that restricts entrance due to age such as a nightclub, bar or liquor store.

1211.2 Access. The required *diaper changing table* shall be located on an accessible route and the path to such facility shall not exceed a distance of 500 feet (152 m) or require access through an adjacent tenant space.

1211.3 Location. The required *diaper changing table* shall be installed in accordance with Section 603.5 of ICC A117.1 and be located per Section 1211.3.1 or 1211.3.2.

1211.3.1 Diaper changing table located in toilet rooms. A *diaper changing table* shall not be located in the accessible toilet compartment. Where multiple single-user toilet rooms are clustered together, a *diaper changing table* shall be located in at least two single-user toilet rooms, one of which is accessible.

Exception: A *diaper changing table* installed in a single-user toilet room that is not required to be accessible shall not be required to comply with clear floor space or knee and toe clearance provisions of ICC A117.1.

1211.3.2 Diaper changing table located in other than toilet rooms. A *diaper changing table* shall not be located in kitchens, storage rooms, closets or spaces used for similar purposes. A lavatory or a permanent hand sanitizer dispenser shall be located in the same room as the *diaper changing table*.

1211.4 Signage. Rooms containing *diaper changing tables* shall be provided with signs readily visible and located near the entrance to the room. Signs shall comply with Section 703 of ICC A117.1.

EXISTING BUILDING

International Existing Building Code

MODIFIED 12/11/18

SECTION 202 DEFINITIONS

DIAPER CHANGING TABLE. A safe, sanitary and permanent affixed station, deck table, surface or similar amenity specifically set aside for changing a diaper. The diaper changing table shall have safety straps or other appropriate restraint to secure a baby or young child age 3 1/2 or under. The diaper changing table shall meet ASTM F2285-04(2016) (Standard Consumer Safety Performance Specification for Diaper Changing Tables for Commercial Use) or shall be a permanent installed counter.

TECHNICALLY INFEASIBLE. An *alteration* of a facility that has little likelihood of being accomplished because the existing structural conditions require the removal or *alteration* of a load-bearing member that is an essential part of the structural frame, or because other existing physical or site constraints prohibit modification or addition of elements, spaces or features which are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility.

CHAPTER 7 ALTERATIONS – LEVEL 1

702.6 Diaper changing table. Where the *work area* contains *alterations* to a toilet room in excess of 50 percent of the area of the toilet room, a *diaper changing table* shall be provided in accordance with Section 1211 of the *International Building Code*. Where the *alteration* affects only a male or female toilet room, the requirements of Section 1211 of the *International Building Code* shall apply to only that toilet room. A *diaper changing table* installed in accordance with Section 705.1.15 shall be deemed to comply with this section.

Exceptions:

1. No additional *diaper changing tables* are required where both male and female occupants have access to at least one *diaper changing table*.
2. The *diaper changing table* may be located in the accessible toilet compartment where it is technically infeasible to maintain compliance with *ICC A117.1*.

This section requires installation of diaper changing tables when construction in an existing building or tenant space affects 50% of a toilet room. When only one toilet room is altered (male or female), the diaper changing table shall be provided in that toilet room only. No diaper changing table is required if they are already provided for both male and female occupants. The second exception allows locating the diaper changing table in the handicap accessible toilet compartment only when placing the table would interfere with accessibility to the remainder of the fixtures and accessories in the toilet room.

705.1.15 Diaper changing table. Where it is technically infeasible to alter existing toilet rooms to install an accessible *diaper changing table* in accordance with Section 1211 of the *International Building Code*, a single room, available to male and female occupants, containing an accessible *diaper changing table* may be provided and located on the same level as the existing toilet rooms. This room may be an accessible family or assisted-use toilet room constructed in accordance with Section 1109.2.1 of the *International Building Code*, or any other room as allowed in Section 1211.3.2 of the *International Building Code*.

The cost of alterations to an existing building to install a diaper changing table, as is required for new construction, is expensive and is likely to prevent any construction at the facility. This

language does not require installation of a diaper changing table, but provides direction should an individual decide to install the device anyway.

CHAPTER 10 CHANGE OF OCCUPANCY

This chapter applies when a change in the use of the building or a portion of a building occurs. A change of occupancy shall include any change of occupancy classification, any change from one group to another group within an occupancy classification or any change in use within a group for a specific occupancy classification.

1012.1.5 Diaper changing table. *Diaper changing tables shall be provided in accordance with Section 702.6 in existing buildings or tenant spaces that undergo alterations in conjunction with a change of group or occupancy.*

This section is proposed in the chapter for change of occupancy where the use of a building is changing from one group to another. For example, a building which was used for an insurance office is remodeled and will now be used for a restaurant. That building is changing from a Group B to a Group A occupancy. This language requires installation of diaper changing tables only when the change of occupancy requires alterations the same as is required in any other existing building.

CHAPTER 11 ADDITIONS

This chapter applies when an extension or increase in floor area, number of stories, or height of a building or structure occurs.

SECTION 1107 OTHER REQUIREMENTS

1107.1 Diaper changing table. *Diaper changing tables shall be provided in accordance with Section 1211 of the International Building Code in any addition to a building or tenant space that contains a toilet room. Where alterations of the existing building or tenant space are performed in conjunction with the addition, diaper changing tables shall be provided in accordance with Section 702.6.*

Exception: *No additional diaper changing tables are required where both male and female occupants have access to at least one diaper changing table.*

This section is proposed in the chapter for additions where new floor area is increasing the overall size of a building or tenant space and a new toilet room is part of the addition or where remodeling an existing toilet room at the same time as the addition. This language requires installation of diaper changing tables as is required in any other existing building. If both male and female occupants have access to a diaper changing table in the existing building, no additional accommodations are required. If only one gender has access to a diaper changing table, then one will be required in the additional restroom available to the opposite gender.

Coat hooks must be located within reach ranges. Measurements are to be taken to the top of the shelf or coat hook. If a shelf is provided, it should be located within reach ranges and also so that it won't interfere with maneuvering within the space. The shelf considered for this requirement of 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum was a purse shelf that was intended for users in the stall (see Commentary Figure C603.4). A supply storage shelf within the room was not considered. Some facilities provide a shelf on the wall on top of the toilet paper dispenser for someone to be able to set small items adjacent for when they are needed close to hand. There are no specific provisions for child sizes because the expected reach ranges (see Table C308.1) are lower than that permitted for adults.

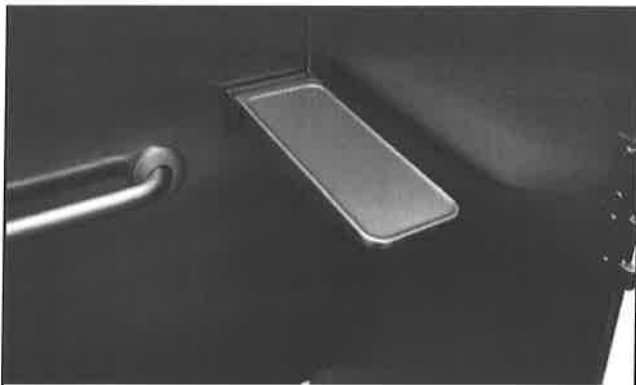


FIGURE C603.4
EXAMPLE OF PURSE SHELF

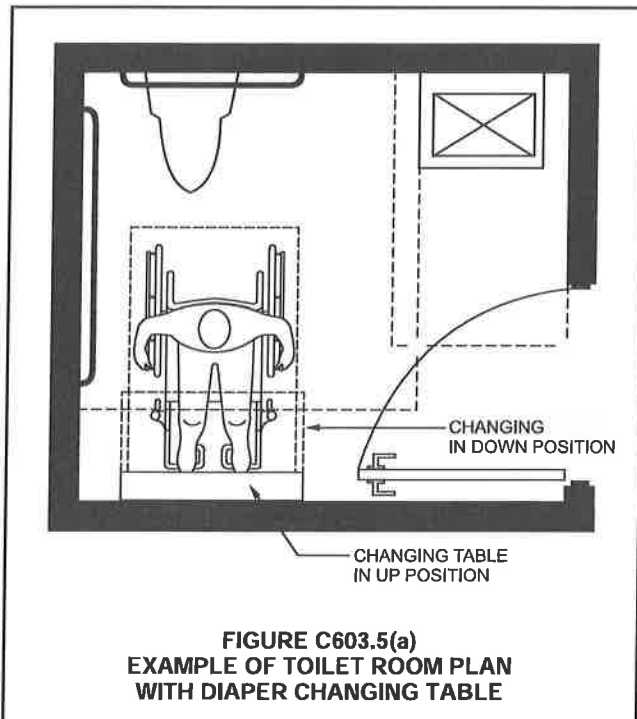


FIGURE C603.5(a)
EXAMPLE OF TOILET ROOM PLAN
WITH DIAPER CHANGING TABLE

603.5 Diaper Changing Tables. Diaper changing tables shall comply with Sections 309 and 902

❖ Diaper changing tables, when provided, must meet the criteria for reach range and work surfaces. Diaper changing tables can be fixed or the fold-up type [see Commentary Figure C603.5(b) and (c)]. The handle or strap to open the folded types must be within reach ranges. When the table is folded down or if the table is fixed, it must have knee and toe clearances and have the surface for changing the baby at 34 inches (865 mm) maximum above the floor.

When a folding diaper changing table is within an accessible single occupant bathroom or the accessible stall,



(b)



(c)

FIGURE C603.5(b) and (c)
DIAPER CHANGING STATION—
FOLDED AND UNFOLDED

when folded up, it should not overlap the clear floor space for any fixture (see Section 604.3.3). However, the diaper changing table can overlap the clearances when in the folded down position [see Commentary Figure C603.5(a)].

603.6 Operable Parts. Operable parts on towel dispensers and hand dryers serving accessible lavatories shall comply with Table 603.6.

❖ Towel dispensers or hand dryers associated with the accessible lavatory have requirements that are more restrictive than the typical obstructed reach range requirements in Sections 308.2.2 and 308.3.2. With the lavatory at 34 inches (865 mm) in height, the towel dispenser or hand dryer must be on a side wall where the maximum reach depth is 11 inches (280 mm). Towel dispensers or hand dryers in the room cannot be located on the back wall over the lavatory or counter unless there are others in the same room that are within reach, in accordance with Table 603.6. If the towel dispenser or hand dryer is located some-

where else in the room, the height can be higher, but the reach over an obstruction underneath is less. For example, a wall mounted towel dispenser can have the outlet at 48 inches (1220 mm), but the waste receptacle underneath cannot stick out more than 1/2 inch (13 mm) [see Commentary Figure C603.6(a)]. This is an aid to persons who are short of stature as well as children.

TABLE 603.6. See below.

❖ See Commentary Figure C603.6(b) for a graphic example of how to measure using the table requirements.

604 Water Closets and Toilet Compartments

❖ This section addresses water closets and toilet compartments.

- Sections 604.2 through 604.4 are the water closet requirements.
- Section 604.5 deals with grab bar orientation and length.
- Section 604.6 addresses flush controls.
- Section 604.7 contains technical criteria for toilet paper dispensers.
- The criteria for the coat hooks and shelves provided within stalls addressed in Section 604.8 are the same as required for within the toilet room specified in Section 603.4.
- Sections 604.9 and 604.10 have the technical criteria for accessible and ambulatory stalls. The criteria for these two types of stalls are different because they are intended for two different groups of mobility impairments.



FIGURE C603.6(a)
TOWEL DISPENSER

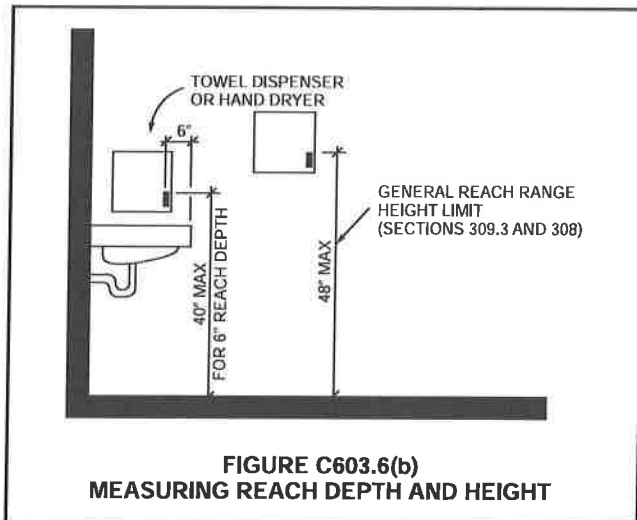


FIGURE C603.6(b)
MEASURING REACH DEPTH AND HEIGHT

TABLE 603.6
MAXIMUM REACH DEPTH AND HEIGHT

Maximum Reach Depth	0.5 inch (13 mm)	2 inches (51 mm)	5 inches (125 mm)	6 inches (150 mm)	9 inches (230 mm)	11 inches (280 mm)
Maximum Reach Height	48 inches (1220 mm)	46 inches (1170 mm)	42 inches (1065 mm)	40 inches (1015 mm)	36 inches (915 mm)	34 inches (865 mm)

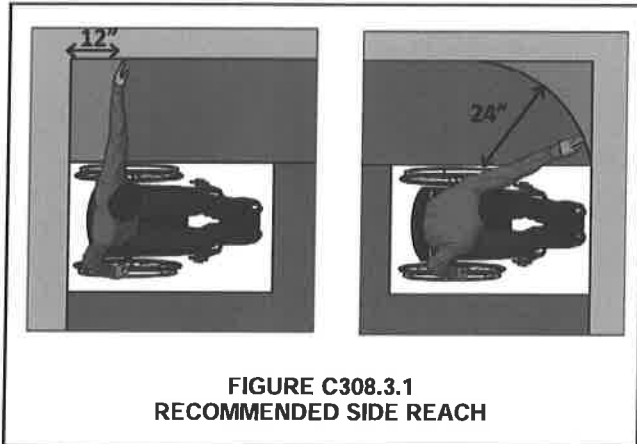


FIGURE C308.3.1
RECOMMENDED SIDE REACH

308.3.2 Obstructed High Reach. Where a clear floor space complying with Section 305 allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum above the floor and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum above the floor for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum above the floor for a reach depth of 24 inches (610 mm) maximum.

EXCEPTION: At washing machines and clothes dryers, the height of the obstruction shall be permitted to be 36 inches (915 mm) maximum above the floor.

❖ The maximum reach range is reduced when an obstruction prevents the person using a wheelchair from moving within 10 inches (255 mm) of the element. Note that the maximum projection of the obstruction is indicated as 24 inches (610 mm). This means that if the wheelchair cannot move to within at least 24 inches (610 mm) of the element, the element would not be considered reachable, and therefore, not accessible. See Figure 308.3.2 of the standard for details of this requirement.

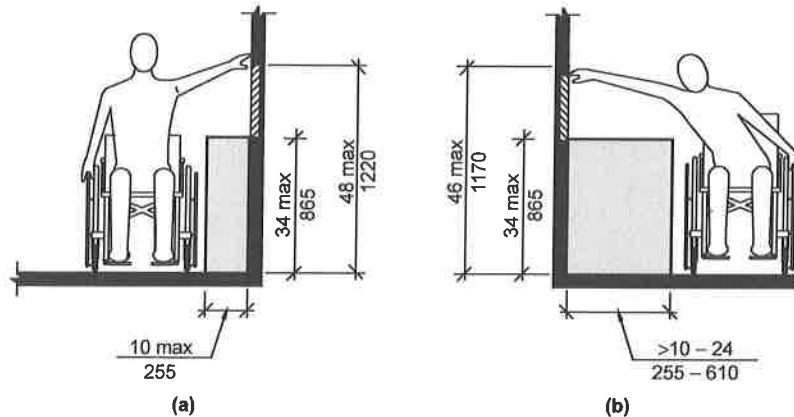


FIGURE 308.3.2
OBSTRUCTED HIGH SIDE REACH

The height of the obstruction is also limited. An obstruction that is higher would not permit the user to reach beyond that obstruction with his or her arm fully extended to the side. Because of this height limitation, most electrical receptacles and switches located on the wall behind and above kitchen counters [which are typically higher than 34 inches (865 mm)] would not be accessible. Options would be to locate the outlets or switches on the front surface of the cabinets, locate the outlets and switches over the accessible work surface or accessible sink location, or locate the switches on a side wall so that the reach over the counter is less than 10 inches (see Section 309 for additional discussions).

Washing machines and clothes dryers with rear panel controls typically have a deck height of 36 inches (915 mm). These standard machine heights are acknowledged and given an exception.

309 Operable Parts

❖ For buildings and spaces to be usable by all people, all of the components possible are required to be accessible. This includes the controls and operable parts of equipment and appliances intended for operation by the occupants in a space. If a standard control would be out of the reach range (e.g., exhaust hood over a cooktop, ceiling fan), a solution would be redundant controls at an accessible location.

309.1 General. Operable parts required to be accessible shall comply with Section 309.

❖ To make sure that the elements truly are accessible, other sections of the standard such as those for drinking fountains (Section 602.3), water closet flush controls (Section 604.6), lavatories and sinks (Section 606.4), and kitchen appliances (Section 804.6.2) will direct the user back to and required compliance with this section. Other examples of operable parts that are within the scope of this provision include light switches, dispenser controls, electrical appliance controls, electrical receptacles and communications system receptacles. While door hardware is considered an operable part, Section 404.2.6 does not reference Section 309. Door hardware requirements use a lot of the same lan-

guage for clear floor space, height and manipulation (i.e., not tight pinching, grasping, twisting of the wrist), but do not require 5 pounds (2.22 N) for hardware operation. Hardware force requirements are set in the IBC for some types of hardware (i.e., panic hardware) (see Section 404.2.8 for door opening force).

309.2 Clear Floor Space. A clear floor space complying with Section 305 shall be provided.

- ❖ Providing a place for persons using a wheelchair to position their chair in close proximity to controls is especially important for operable parts of equipment and appliances. Wall fixtures or equipment located in an alcove situation must also be considered.

309.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in Section 308.

- ❖ All of a control, receptacle or other operable parts are to be within the specified reach ranges. Electrical and communications receptacles on walls are required by Sections 308.2 and 308.3 to be at least 15 inches (380 mm) above the floor.

Specific requirements and/or exceptions in other parts of the standard, or scoping requirements from the model codes, may limit this requirement. For example, model codes exempt spaces that are accessed only by maintenance and service personnel; therefore, special equipment with operational needs that preclude installation within reach ranges may be exempted. One example is the controls on a furnace or boiler located in a basement furnace room for an office building.

A second example would be applicable to a dedicated outlet, such as the one for a refrigerator, that is located behind the appliance. Requirements in kitchens are for access to appliance controls. The refrigerator would have to be moved to have access to that outlet; therefore, the outlet for the refrigerator would not need to be within the normal reach ranges.

309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5.0 pounds (22.2 N) maximum.

EXCEPTION: Gas pump nozzles shall not be required to provide operable parts that have an activating force of 5.0 pounds (22.2 N) maximum.

- ❖ As with all types of hardware and other operating controls, limited hand dexterity must be considered in making spaces, facilities, equipment, appliances and other features accessible and usable. Controls and hardware that require grasping, pinching or twisting of the wrist, or excessive force, can make a feature of the building unusable.

One way to determine that no tight pinching or twisting would be needed is if something was useable with a closed fist, but this should not be the only determination. For example, a U-shaped handle where you can slip in curved fingers is considered accessible, but would not be openable with a closed fist. If there are buttons, they are raised or flush, and not recessed. Turning a control of handle less than 90 degrees (1.6 rad) is not typically considered "twisting of the wrist." Any shape of controls that turns that

allow for limited hand or finger dexterity provides better access, such as an x-shaped control rather than a smooth round control. Nonfixed portions, such as keys or access cards, are not required to comply with this section.

The exception for gas pump nozzles results from the concern that safety requirements to prevent the gas nozzles from spilling would not allow the nozzles to meet the 5-pounds-force requirements. The gas nozzle could still need to comply with the requirements for no tight grasping, pinching or twisting of the wrist to operate. The other operable parts for a gas pump must still comply with all requirements, including reach range (see Commentary Figure C309.4).



FIGURE C309.4
GAS PUMPS

Chapter 9. Built-in Furnishings and Equipment

❖ Chapter 9 contains the technical requirements for built-in furnishings and equipment that were not addressed in other chapters. Parts of this chapter are referenced from other chapters, similar to the building blocks in Chapter 3. For example, the work surface section is referenced for the work surfaces in kitchens.

- Section 901 is a general statement about the Chapter 9 criteria being applicable for the special types of elements addressed in this chapter where required by the authority having jurisdiction.
- Section 902 states criteria for fixed dining surfaces, such as bars, booths or banquette tables, or work surfaces, such as study carrels in libraries or check writing stations in banks.
- Section 903 contains technical criteria for benches required in spaces where persons may need to change their clothes, such as dressing rooms, fitting rooms or locker rooms.
- Section 904 addresses requirements for sales and service counters that are commonly found in grocery stores, banks or mercantile establishments.
- Section 905 provides technical criteria for storage facilities, such as pantries, supply closets or coat closets.

901 General

901.1 Scope. Built-in furnishings and equipment required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 9.

❖ Sections 902 through 905 contain the provisions necessary for accessibility to furnishings and equipment that are built into a building or structure as permanent elements. The elements included in this section are not intended to be a comprehensive list of everything that can be built into a building, but rather a listing of elements typically found in most building types. Elements that are not specifically described in this section, but are similar in nature and similar in use to the elements that are described in this section, must be made accessible to the extent possible for similar elements where specific detailed provisions are stated. Note that these provisions apply to these built-in furnishings and equipment when required by the scoping provisions (see Section 201).

902 Dining Surfaces and Work Surfaces

❖ The requirements in this section establish the necessary dimensions and clearances that must be maintained to provide access to built-in tables or counters that are used for dining surfaces and work surfaces.

Dining surfaces are tables or counters where people consume food or drink, such as fixed tables in restaurants, picnic tables in park shelters, or bars in nightclubs or ice cream parlors. Dining surfaces are typically provided with loose seats, booth seating or fixed stools, but they can also have adjacent standing space.

Work surfaces include tables and counters intended to be accessible surfaces where work can be performed, such as writing, filling out forms, operating a computer, preparing food, reading, personal grooming, etc. Examples include writing counters in banks, admission counters in hospitals, reading and writing surfaces in libraries and classrooms, student laboratory stations and baby changing stations. Counters at visitor areas in courthouses and correctional and detention facilities would be considered a work surface [see Commentary Figure C902(a) through (f)].

Seating, counters and work surfaces that must be accessible must be located on an accessible route.

902.1 General. Accessible dining surfaces and work surfaces shall comply with Section 902.

EXCEPTION: Dining surfaces and work surfaces primarily for children's use shall be permitted to comply with Section 902.5.

❖ Built-in work counters and surfaces are designed for a vast number of reasons, built to a wide variety of sizes and shapes, and use many of the available building materials. It is not always necessary for an entire counter or work surface to be accessible, but people with physical disabilities must have access to a portion of these building elements. This is also true for fixed tables with seating. Not only must a percentage of the tables be accessible, but if fixed seating is provided, a loose seat or open space for a wheelchair location must be available at those accessible tables.

The heights for adults are different than for children; therefore, an option that allows for accessible location when tables or work surfaces are designed for children is given in Section 902.4. Examples would be a reading counter in the children's section of a library or work counters or tables in a preschool or elementary classroom.



(a) FORM COUNTER



(b) LIBRARY CARRELS



(c) BOOTH SEATING



(d) PICNIC TABLE



(e) VISITOR WINDOW



(f) RESOURCE CENTER

FIGURE C902
EXAMPLES OF DINING AND WORK SURFACES

902.2 Clear Floor Space. A clear floor space complying with Section 305, positioned for a forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided.

EXCEPTIONS:

1. At drink surfaces 12 inches (305 mm) or less in depth, knee and toe space shall not be required to extend beneath the surface beyond the depth of the drink surface provided.
2. Dining surfaces that are 15 inches (380 mm) minimum and 24 inches (610 mm) maximum in height are permitted to have a clear floor space complying with Section 305 positioned for a parallel approach.

❖ In addition to providing counters or work surfaces at an accessible height (Section 902.3), a work surface or dining surface must be on an accessible route and have adequate clearances under that surface. Although some items in this standard have an option of a front approach or a parallel approach, a front approach is required at dining and work surfaces.

The 30-inch by 48-inch (760 by 1220 mm) clear floor or ground space (Section 305) is required at all accessible built-in furnishings to provide maneuvering space that will allow access to the seating spaces at counters and work surfaces. If the area under the work surface is confined in some way by items such as walls, a privacy shield, table

legs, etc., the provisions for alcoves are applicable. This could result in a minimum required width of 36 inches (915 mm).

The space for a person using a wheelchair is permitted to project under tables, counters and work surfaces to the extent described in Section 306. Clearances for a person's knees and toes are required. The arms on a wheelchair or the chest of the person using the wheelchair will limit the amount someone can move forward under a counter or table. If objects are located under the surface adjacent to the knee and toe space (e.g., cable tray, support), it is advisable to protect the person using the surface from injury by padding or rounding any sharp edges or locate these items as far past the knee and toe clearances as practical.

Although not required, design is improved if the clear floor space at accessible furnishings does not interfere with the path of travel for other people using aisles adjacent to accessible features so persons sitting in the wheelchair locations will not be continually jostled. For example, locate the wheelchair seating in a restaurant so that when a person is using that space, people moving to and from other tables or waiters and waitresses serving the tables can have a clear path past the person without bumping them, squeezing past or having to ask them to move.

The exceptions address types of dining and drinking surfaces where people use the surface just to set drinks or food down for convenience, not necessarily to eat at the surface as at a dining table. Examples of drink rails and side tables are illustrated in Commentary Figures C902.2(a) and (b).

902.3 Exposed Surfaces. There shall be no sharp or abrasive surfaces under the exposed portions of dining surfaces and work surfaces.

❖ Limitations to exposed surfaces are an issue of safety. When a person using a wheelchair moves under a surface, there should be no sharp objects that could cause bruises or cuts. This is especially important for persons using wheel-



FIGURE C902.2(a)
DRINK SURFACE
(Photo courtesy of Populous)



FIGURE C902.2(b)
LOW DINING SURFACE
(Photo courtesy of Populous)

chairs who have no pain sensation in their legs and do not realize when an injury has occurred.

902.4 Height. The tops of dining surfaces and work surfaces shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum in height above the floor.

❖ The height of any type of table top, counter, work surface or similar furnishing is determined by the intended use, as well as by the needs of the person using the wheelchair. These provisions apply to the specific furnishing and do not change because of the particular occupancy of the building.

Dining surfaces can be of a variety of configurations. When booths are installed for accessible seating, the accessible space can be either at the side or end of the table. Tables with booth seating on one side and loose chairs on the other side are called banquettes. If accessible seating is provided at a bar, the length of the accessible section should be a minimum of 60 inches (1525 mm) to better accommodate a companion at the same level.

Different types of work require different work surface heights for comfort and ease of use. Light detailed work, such as writing, requires a work surface close to elbow height for a standing person. Heavy manual work such as rolling dough requires a work surface height about 10 inches (255 mm) below elbow height for a standing person. The principle of a high work surface for light detailed work and a low work surface for heavy manual work also applies for seated persons; however, the limiting condition for seated manual work is knee clearance under the work surface.

Commentary Table C902.4 lists convenient work surface heights for seated persons. The great variety of heights for comfort and optimal performance indicates a need for alternatives or a compromise in height if both people who stand and people who sit are using the same counter area. Service counters serve as duty stations for employees who require knee clearances and may double as temporary work sur-

faces for persons using wheelchairs having a need to complete forms or work directly with personnel.

902.5 Dining Surfaces and Work Surfaces for Children's Use. Accessible dining surfaces and work surfaces primarily for children's use shall comply with Section 902.5.

EXCEPTION: Dining surfaces and work surfaces used primarily by children ages 5 and younger shall not be required to comply with Section 902.5 where a clear floor space complying with Section 305 is provided and is positioned for a parallel approach.

❖ When designing spaces where a high percentage of the users are children, such as schools, libraries, museums or community centers, a designer/owner may want to provide areas specifically sized for the comfort of children. If a designer/owner wants to provide an accessible dining or work surface specifically designed for the use of children from age 6 to 12 years, they must follow the provisions in the following sections. If the children using the surface are 5 years or younger, a counter of any height may be provided as long as a 30-inch by 48-inch (760 by 1220 mm) clear floor space is provided that allows for a side approach. Typically, with children of that age, the table height is lower than 26 inches (660 mm), which would not allow for normal knee and toe clearances.

902.5.1 Clear Floor Space. A clear floor space complying with Section 305, positioned for forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided.

EXCEPTION: A knee clearance of 24 inches (610 mm) minimum above the floor shall be permitted.

❖ This child provision allows for consideration of child appropriate sizes. The basic requirement is that a typical adult-sized clear floor space along with knee and toe clearances is provided at the accessible dining or work surface

TABLE C902.4—CONVENIENT HEIGHTS OF WORK SURFACES FOR SEATED PEOPLE^a

CONDITIONS OF USE	SHORT WOMEN		TALL MEN	
	inches	mm	inches	mm
Seated in a wheelchair				
Manual work				
Desk or removable armrests	26	660	30	760
Fixed, full-size armrests ^b	32 ^c	815	32 ^c	815
Light, detailed work				
Desk or removable armrests	29	735	34	865
Fixed, full-size armrests ^b	32 ^c	815	34	865
Seated in a 16-inch (405 mm) high chair				
Manual work	26	660	27	685
Light, detailed work	28	710	31	785

a. All dimensions are based on a work-surface thickness of 1 1/2 inches (38 mm) and a clearance of 1 1/2 inches (38 mm) between legs and the underside of a work surface.

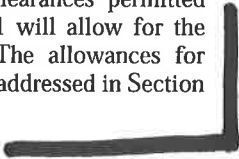
b. This type of wheelchair does not interfere with the positioning of a wheelchair under a work surface.

c. This dimension is limited by the height of the armrests; a lower height would be preferable. Some people in this group prefer lower work surfaces, which required positioning the wheelchair back from the edge of the counter.

(see Sections 902.2 and 902.4). The exception allows for the height required for the knee space to be reduced to 24 inches (610 mm) instead of the standard 27 inches (685 mm) minimum. This will in turn allow for the lower table/counter service height permitted in Section 902.5.2.

902.5.2 Height. The tops of tables and counters shall be 26 inches (660 mm) minimum and 30 inches (760 mm) maximum above the floor.

❖ This child provision allows for consideration of child appropriate sizes. The lower knee clearances permitted with the exception in Section 902.5.1 will allow for the lower table/counter surface height. The allowances for adult table/counter surface heights are addressed in Section 902.4.



903 Benches

❖ The section on benches is referenced in the requirements for saunas (Section 612.2), dressing, fitting and locker rooms (Section 803.4) and holding and housing cells (Section 806.2.2).

The scoping provisions in the applicable building code may require accessible benches at other locations.

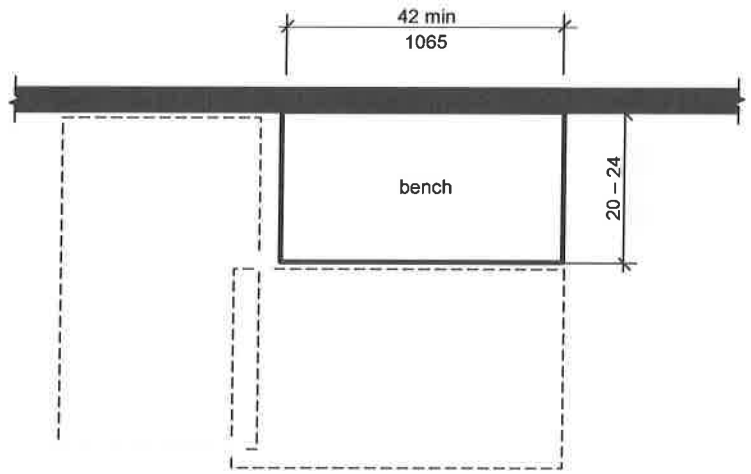
903.1 General. Accessible benches shall comply with Section 903.

❖ For dressing, fitting and locker rooms, the intent is that if a person using a wheelchair needs to transfer, or a person with mobility impairments or balance problems needs to sit down to change any item of clothing, that a seat is available. In a locker room, the bench must be located so that it does not require transfer to the bench to access the accessible lockers. At the same time, the bench is not required to have reach range to the lockers, but it is more user friendly if they are in proximity. Storage lockers for bags or purses provided for the public in a museum are not intended to allow for changing; therefore a bench is not required.

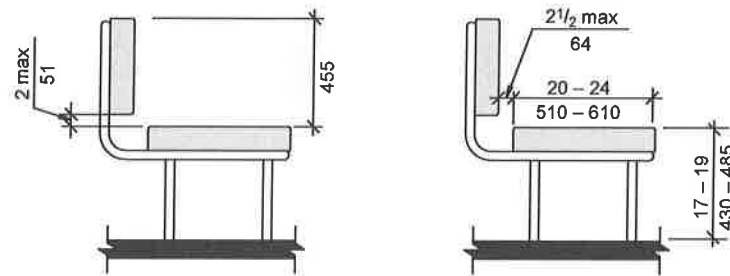
For security reasons in housing and holding cells sometimes the only seat provided is a bench seat. In an Accessible housing cell, a person may need to transfer to a bench for grooming activities.

903.2 Clear Floor Space. A clear floor space complying with Section 305, positioned for parallel approach to the bench seat, shall be provided.

❖ When considering the relationship of clear floor space to the bench, a primary consideration is transfer between a wheelchair and the bench. This can be accomplished by placing the wheelchair at the end of the bench, allowing



(a) Bench Size and Options for Clear Floor Space



(b) Bench Back Support and Seat Height

FIGURE 903
BENCHES