TENTATIVE AGENDA AND MEETING NOTICE

WATAUGA COUNTY BOARD OF COMMISSIONERS

Tuesday, October 6, 2026 at 5:30 PM

Watauga County Administration Building, Commissioners' Board Room

TIME	#	TOPIC	PRESENTER	PAGE
5:30	1	**Call Regular Meeting to Order**		
	2	**Approval of Minutes** • September 15, 2026, Regular Meeting • September 15, 2026, Closed Session		3
	3	**Approval of the October 6, 2026, Agenda**		13
5:35	4	**Public Comment** • Limited to a maximum of one hour, with time adjusted based on the number of speakers.	**Braxton Eggers** Chairman	14
5:40	5	**Watauga County Public Library Interior Improvements**	**Mr. John Arnaud** Architect	15
5:45	6	**Sanitation Equipment Repair Request**	**Chris Marriott** Operations Services Director	27
5:50	7	**2027 General Reappraisal Schedule of Values**	**Tyler Rash** Tax Administrator	33
5:55	8	**Miscellaneous Administrative Matters** A. Change Order Requests #28 and #29 for Emergency Services Facility B. Department of Social Services Out-of-State Travel Request C. Fire Tower Road Radio Building Easement D. IAED Annual Renewal for Emergency Services E. Unit Surplus for Emergency Services F. Innovation Drive Parcel Offers and Agreement G. Recommended Contract Award for Employee Medical and Dental Insurance H. Sheriff's Office Retirement Award Request I. Wildcat Communications Tower Site Lease Agreement J. Appointment of the Watauga County Finance Director K. Boards and Commissions L. Announcements	**Deron Geouque** County Manager	514 523 534 541 544 546 558 563 565 574 575 582
6:00	9	**Commissioners' Comments**	**Braxton Eggers** Chairman	583
6:05	10	**Break**		583

TIME	#	TOPIC	PRESENTER	PAGE
6:10	**11**	**Closed Session** • Attorney-Client Matters per G. S. § 143-318.11(a)(3)		**583**
6:15	**12**	**Adjourn**		

A G E N D A I T E M 2 :

APPROVAL OF MINUTES

- September 15, 2026, Regular Meeting
- September 15, 2026, Closed Session

MEETING MINUTES

WATAUGA COUNTY BOARD OF COMMISSIONERS

Tuesday, September 15, 2026

The Watauga County Board of Commissioners held a regular meeting on Tuesday, September 15, 2026, at 5:30 p.m. in the Commissioners' Board Room located in the Watauga County Administration Building in Boone, North Carolina.

1. CALL REGULAR MEETING TO ORDER

Chairman Eggers called the meeting to order at 5:30 p.m. The following were present:

PRESENT: Braxton Eggers, Chairman
Todd Castle, Vice-Chairman
Emily Greene, Commissioner
Ronnie Marsh, Commissioner
Nathan Miller, County Attorney
Deron Geouque, County Manager
Madison Mathis, Clerk to the Board

[Clerk's Note: Commissioner Hodges was not in attendance due to a prior engagement.]

Commissioner Marsh offered the prayer and Chairman Eggers led the Pledge of Allegiance.

2. APPROVAL OF MINUTES

Chairman Eggers presented the September 1, 2026, regular and closed session meeting minutes.

Chairman Eggers requested a correction to the regular meeting minutes under Miscellaneous Administrative Matters: Item C, noting that he voted against Change Order Request #9 for Valle Crucis School.

Commissioner Marsh, seconded by Vice-Chairman Castle, moved to approve the September 1, 2026, regular meeting minutes as amended.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

Commissioner Marsh, seconded by Vice-Chairman Castle, moved to approve the September 1, 2026, closed session minutes as presented.

DRAFT

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

3. APPROVAL OF AGENDA

Chairman Eggers called for additions or corrections to the September 15, 2026, agenda.

Commissioner Greene, seconded by Commissioner Marsh, moved to approve the September 15, 2026, agenda as presented.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

4. PUBLIC COMMENT

No one signed up to speak during public comment at this time.

5. PUBLIC HEARING TO ALLOW CITIZEN COMMENT ON THE WATAUGA COUNTY COMMUNITY DEVELOPMENT BLOCK GRANT DISASTER RECOVERY – COMMUNITY INFRASTRUCTURE PROGRAM APPLICATION

Chairman Eggers stated that a public hearing was scheduled to allow citizen comment on Watauga County's proposed application for the Renew NC Community Infrastructure Program, a Community Development Block Grant Disaster Recovery (CDBG-DR) program. The proposed application would assist Watauga Emergency Services with improving communication effectiveness and redundancy. The public hearing was being held as part of the CDBG-DR grant application process, following the Board's adoption of the required resolution affirming the County's intent to apply for funding.

Commissioner Marsh, seconded by Vice-Chairman Castle, moved to open the public hearing at 5:33 p.m.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

No one signed up to speak.

DRAFT

Commissioner Greene, seconded by Commissioner Marsh, moved to close the public hearing at 5:33 p.m.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

6. PUBLIC HEARING TO ALLOW CITIZEN COMMENT ON THE PROPOSED WATAUGA COUNTY AMBULANCE FRANCHISE ORDINANCE

Chairman Eggers stated that a public hearing was scheduled to allow citizen comment on the proposed Watauga County Ambulance Franchise Ordinance. The proposed ordinance would establish requirements for the granting of ambulance service franchises within Watauga County, including application requirements, operational standards, vehicle and equipment requirements, reporting requirements, enforcement provisions, and continuation of the EMS Advisory Committee. The proposed ordinance reflected the transition from a private provider to a County-operated EMS system. The EMS Advisory Committee had been encouraged to review the proposed ordinance and recommend any changes it deemed appropriate; no additional changes were recommended.

Vice-Chairman Castle, seconded by Commissioner Greene, moved to open the public hearing at 5:34 p.m.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

No one signed up to speak.

Commissioner Marsh, seconded by Commissioner Greene, moved to close the public hearing at 5:34 p.m.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

Commissioner Marsh, seconded by Vice-Chairman Castle, moved to adopt the Watauga County Ambulance Franchise Ordinance as presented.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

DRAFT

7. PUBLIC HEARING TO ALLOW CITIZEN COMMENT ON PROPOSED AMENDMENTS TO CHAPTER 11 OF THE WATAUGA COUNTY CODE OF ORDINANCES

Chairman Eggers stated that a public hearing was scheduled to allow citizen comment on proposed amendments to Chapter 11 of the Watauga County Code of Ordinances regarding the installation and maintenance of electronic access gates for gated communities. The proposed amendments addressed emergency access provisions, including radio transceiver gate activation for public safety agencies, fail-open and manual override requirements, dual key lock boxes, gate identification placards, and maintenance and inspection standards. The proposed amendments had been reviewed by the Watauga County Planning Board and were recommended for consideration by the Board of Commissioners.

Commissioner Marsh, seconded by Commissioner Greene, moved to open the public hearing at 5:36 p.m.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

No one signed up to speak.

Commissioner Greene, seconded by Vice-Chairman Castle, moved to close the public hearing at 5:37 p.m.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

Commissioner Marsh, seconded by Commissioner Greene, moved to adopt the proposed amendments to Chapter 11 of the Watauga County Code of Ordinances as presented.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

8. BOONE GORGE PARK ON THE MIDDLE FORK GREENWAY CHANGE ORDER #1 REQUEST

Carrie Caviness, Senior Engineer with Destination by Design, presented Change Order #1 for the Boone Gorge Park project on the Middle Fork Greenway. The project was approximately 80% complete, with construction expected to be completed by the end of October, weather permitting. The contract with MBI to construct Boone Gorge Park was $3,823,590.24. Change Order #1 included items totaling $243,636.45. The Middle Fork Greenway had sufficient funds available to cover the full cost of the change order.

DRAFT

Attorney Miller asked whether the pavilion was included in the original bid package. Ms. Caviness confirmed that it was included and had been incorporated back into the original unit price.

Vice-Chairman Castle, seconded by Commissioner Greene, moved to approve Change Order #1 with MBI in the amount of $243,636.45.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

9. BID AWARD REQUEST FOR 2026 CUSTODIAL SERVICES

Mr. Robert Marsh, Maintenance Director, requested approval to award a contract for weekend custodial services at the Watauga County Recreation Center, County Parks, outdoor restrooms, and Emergency Services Facility. Following two rounds of bidding, ServiceMaster Clean submitted the only bid of $100,620 for the Recreation Center and County Parks and agreed to provide cleaning services at the Emergency Services Facility for an additional $49,440, for a total contract amount of $150,060. The FY 2026-27 Maintenance budget required an $8,781 transfer from the Administrative Contingency Fund to cover the contract, with a budget amendment to be presented at a future meeting. Services were scheduled to begin November 1, 2026.

During discussion, Commissioner Marsh asked whether County staff currently performed cleaning services at the Recreation Center on weekends. Mr. Robert Marsh confirmed that County staff performed the interior cleaning and could be reassigned to weekdays. Commissioner Greene asked about the strategy and schedule for cleaning the parks. Mr. Marsh explained the cleaning services would be performed according to established needs and schedules. Vice-Chairman Castle asked about the size of the cleaning crew and whether hiring a County employee rather than contracting for the services had been considered. Mr. Marsh explained that hiring a full-time custodian with benefits would be more costly. He also noted that Parks and Recreation Director Scott Carter had contacted the Watauga County Board of Education, which provided a favorable reference for ServiceMaster Clean.

Commissioner Marsh asked whether the contract would be reviewed by County Attorney Miller. Mr. Marsh confirmed that the contract would be provided to Attorney Miller for review. Commissioners requested that the performance of the contracted services be reviewed after three to six months due to the cost of the contract.

Commissioner Greene, seconded by Commissioner Marsh, moved to award the contract to ServiceMaster Clean for $150,060 and approve the $8,781 Administrative Budget Amendment, contingent upon review and approval of the contract by Attorney Miller.

VOTE: Aye – 4
Nay – 0

DRAFT

Absent – 1 (Hodges)

10. EMERGENCY SERVICES MATTERS

A. *Recorder Maintenance Contract Renewal*

Mr. Will Holt, Emergency Services Director, requested approval to renew the maintenance contract with Carolina Recording Systems for recorders at the primary and back-up PSAPs. The renewal is for $30,530.50, and Emergency Telephone System Fund (ETSF) funds are available for this purpose.

Vice-Chairman Castle asked about the storage of recordings. Mr. Holt provided information regarding the storage period and explained that the retention was at the request of the Sheriff's Office and for other related purposes.

Commissioner Marsh, seconded by Vice-Chairman Castle, moved to approve the renewal of the recorder maintenance contract with Carolina Recording Systems in the amount of $30,530.50.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

B. *LEPC Bylaws Update*

Mr. Will Holt, Emergency Services Director, requested approval of the 2026 update to the Local Emergency Planning Committee (LEPC) bylaws. The updates were requested by North Carolina Emergency Management to better align the bylaws with federal requirements and had been approved by the LEPC at its April 14, 2026 meeting.

Commissioner Marsh asked whether the State had approved the updated bylaws. Mr. Holt confirmed that the bylaws had been approved.

Commissioner Greene, seconded by Vice-Chairman Castle, moved to approve the 2026 LEPC bylaws.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

DRAFT

11. TAX MATTERS

A. *Monthly Collections Report*

Mr. Tyler Rash, Tax Administrator, presented the Monthly Collections Report for August 2026, and was present for questions and discussion.

The report was for information only; therefore, no action was required.

B. *Refunds and Releases*

Mr. Tyler Rash, Tax Administrator, presented the Refunds and Releases for August 2026, and was present for questions and discussion.

Commissioner Marsh, seconded by Commissioner Greene, moved to accept the August 2026 Refunds and Releases Report.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

12. MISCELLANEOUS ADMINISTRATIVE MATTERS

A. *Boards and Commissions*

The Board considered appointments to the Watauga County Library Board, Valle Crucis Historic Preservation Commission, and Department of Social Services Board. The Library Board unanimously recommended the appointment of Ms. Cindy Lege to a new term ending in August 2030. Alyson Browett and Heidi Tester requested reappointment to the Valle Crucis Historic Preservation Commission for three-year terms and expressed their willingness to continue serving. The Department of Social Services Advisory Board recommended the reappointment of Ms. Annette Ward to a new term ending August 30, 2030. Ms. Ward previously served in an interim appointment to fill a vacancy.

Chairman Eggers recommended waiving the second reading.

Commissioner Greene, seconded by Vice-Chairman Castle, moved to appoint Ms. Cindy Lege to the Watauga County Library Board; reappointed Alyson Browett and Heidi Tester to the Valle Crucis Historic Preservation Commission; and reappointed Ms. Annette Ward to the Department of Social Services Board.

DRAFT

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

B. Announcements

County Manager Geouque announced that the High Country Council of Governments would hold its 51st Annual Banquet on Friday, October 16, 2026, at the Appalachian State University Grandview Ballroom. RSVPs were required by September 30, 2026.

13. COMMISSIONERS' COMMENTS

- **Commissioner Marsh** - stated that Ms. Jennifer Triplett was attempting to attend the meeting to provide public comment. As she had missed the designated Public Comment period, Commissioner Marsh stated that she planned to provide the Commissioners with written comments at the conclusion of the meeting. Attorney Miller confirmed that Ms. Triplett could provide the written comments to the Board. Commissioner Marsh also encouraged the public to drive by Old Cove Creek Park to see the progress being made on the project.

PUBLIC COMMENT

Chairman Eggers allowed Ms. Jennifer Triplett to address the Board. Ms. Triplett expressed concerns regarding traffic and roadway safety near Angler Park and encouraged the Board to consider landowner rights when making decisions related to the property.

14. BREAK

15. CLOSED SESSION

At 6:17 p.m., Commissioner Marsh, seconded by Commissioner Greene, moved to enter into Closed Session pursuant to G.S. § 143-318.11(a)(3) to discuss matters protected by attorney–client privilege.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

At 9:30 p.m., Commissioner Marsh, seconded by Vice-Chairman Castle, moved to resume the open meeting.

VOTE: Aye – 4

DRAFT

Nay – 0
Absent – 1 (Hodges)

16. ADJOURN

At 9:31 p.m., Chairman Eggers, seconded by Commissioner Greene, moved to adjourn the meeting.

VOTE: Aye – 4
Nay – 0
Absent – 1 (Hodges)

Braxton Eggers, Chairman

ATTEST: Madison Mathis, Clerk to the Board

DRAFT

A G E N D A I T E M 3 :

APPROVAL OF OCTOBER 6, 2026, AGENDA

A G E N D A I T E M 4 :

PUBLIC COMMENT

Manager's Comments:

Public Comment is limited to a maximum of one hour, with time adjusted based on the number of speakers.

A G E N D A I T E M 5 :

WATAUGA COUNTY PUBLIC LIBRARY INTERIOR IMPROVEMENTS

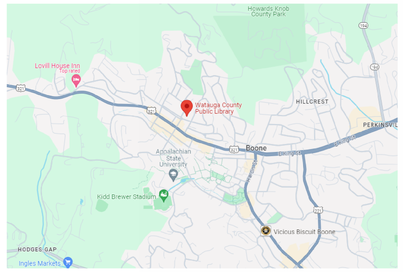
Manager's Comments:

John Arnaud, Architect PLLC will present an update on the Watauga County Public Library interior improvements, including review drawings and architectural site plan information.

Board action is requested to move forward with the renovation design as presented.

WATAUGA COUNTY PUBLIC LIBRARY
INTERIOR IMPROVEMENTS

140 QUEEN STREET
BOONE, NC 28607



2 PROJECT VICINITY MAP

PROJECT INFORMATION

OWNER: WATAUGA COUNTY PUBLIC LIBRARY
140 QUEEN STREET
BOONE, NC 28607

GENERAL CONTRACTOR: ENTITY
ADDRESS
CITY
PHONE

ARCHITECT: JOHN ARNAUD ARCHITECT PLLC
PO BOX 1504
BLOWING ROCK, NC 28605
(828) 434-3354

CONDITIONED SPACE LEGEND

	EXISTING			COMPLETED		
	CONDITIONED	UNCONDITIONED	TOTAL	CONDITIONED	UNCONDITIONED	TOTAL
GROUND FLOOR	16,659 SF	0 SF	16,659 SF	NO CHANGE	NO CHANGE	NO CHANGE
TOTAL	16,659 SF	0 SF	16,659 SF	NO CHANGE	NO CHANGE	NO CHANGE

SHEET INDEX

#	SHEET NAME	ISSUED	REVISION	REVISION DATE
A00	PROJECT INFO. + SITE PLAN	09/11/2026		
A11	DEMO PLAN	09/11/2026		
A12	FLOOR PLANS	09/11/2026		
A13	DEMO RCP, POWER, + LIGHTING PLAN	09/11/2026		
A14	REFLECTED CEILING PLAN	09/11/2026		
A15	FURNITURE PLAN	09/11/2026		
A20	INTERIOR ELEVATIONS	09/11/2026		
A40	ENLARGED CIRCULATION DESK DRAWINGS	09/11/2026		
A41	ENLARGED ADULT SERVICE DESK DRAWINGS	09/11/2026		
A42	ENLARGED STORY STACK DRAWINGS	09/11/2026		
A43	ENLARGED YOUTH SERVICE DESK DRAWINGS	09/11/2026		

ARCHITECTURAL SITE PLAN NOTES

1. ALL PROPOSED WORK IS INTERIOR. BUILDING OCCUPANCY, PARKING, ZONING AND EXTERIOR APPEARANCE ARE TO REMAIN UNCHANGED.
2. THE PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
3. PROPERTY LINE, SETBACKS, AND LOCATION OF STRUCTURE ARE APPROXIMATE AND BASED ON WATAUGA COUNTY GIS. VERIFY EXISTING CONDITIONS AND DIMENSIONS IN FIELD AT START OF CONSTRUCTION. NOTIFY ARCHITECT OF DISCREPANCIES.

ZONING KEY

ADDRESS:		140 QUEEN STREET BOONE, NC 28607
PARCEL ID:		2900896655000
ZONING:		B - 1 DI (DOWNTOWN INTERFACE)
SETBACKS:		
	FRONT:	15 FEET
	SIDE:	EXISTING
	REAR:	EXISTING
OVERLAY DISTRICT:		URBAN STANDARDS OVERLAY
PARKING REQ. :		EXISTING
FLOODPLAIN:		N/A
WATERSHED:		N/A

ARCHITECTURAL SITE PLAN LEGEND

NORTH ARROW
TRUE NORTH
PROJECT NORTH

EXISTING TREE

0' - 0" SPOT ELEVATION

PROPERTY LINE

Ref 1 EXTERIOR ELEVATION

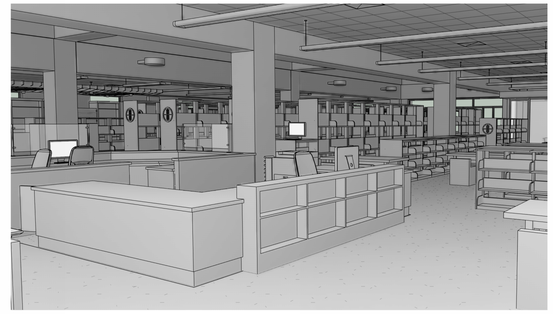
SETBACK

EXISTING PARKING LOT LIGHTING

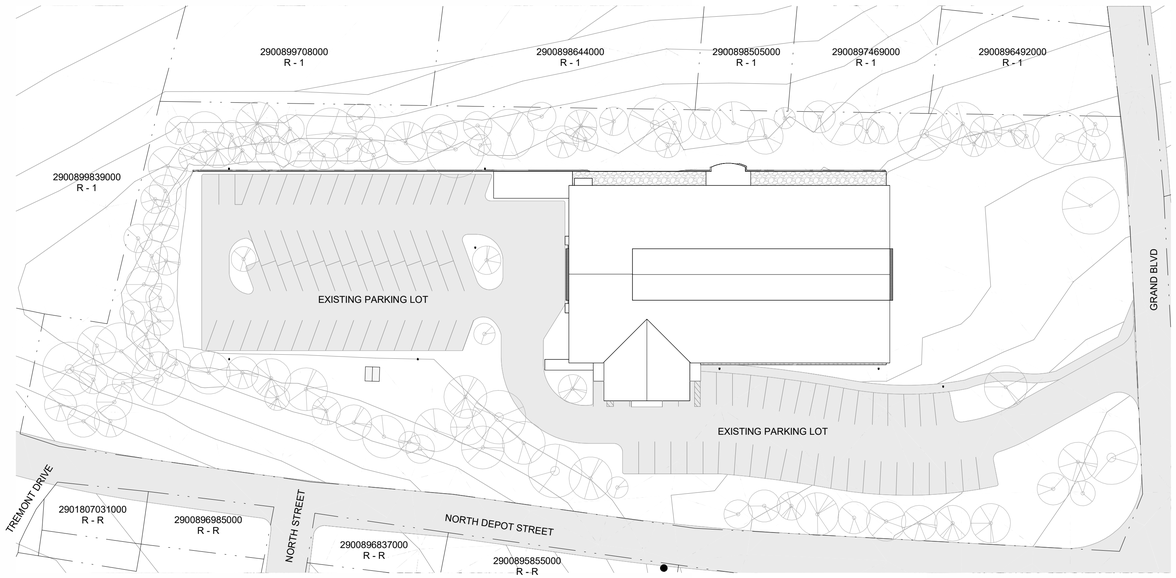
3 YOUTH STORY STACKS

4 MEETING ROOM

5 YOUTH SERVICES DESK



6 ADULT SERVICES



1 ARCHITECTURAL SITE PLAN
1" = 40'-0"

0' 20' 40' 80'

NOT FOR CONSTRUCTION

WATAUGA COUNTY LIBRARY
INTERIOR IMPROVEMENTS
140 QUEEN STREET
BOONE, NC 28607

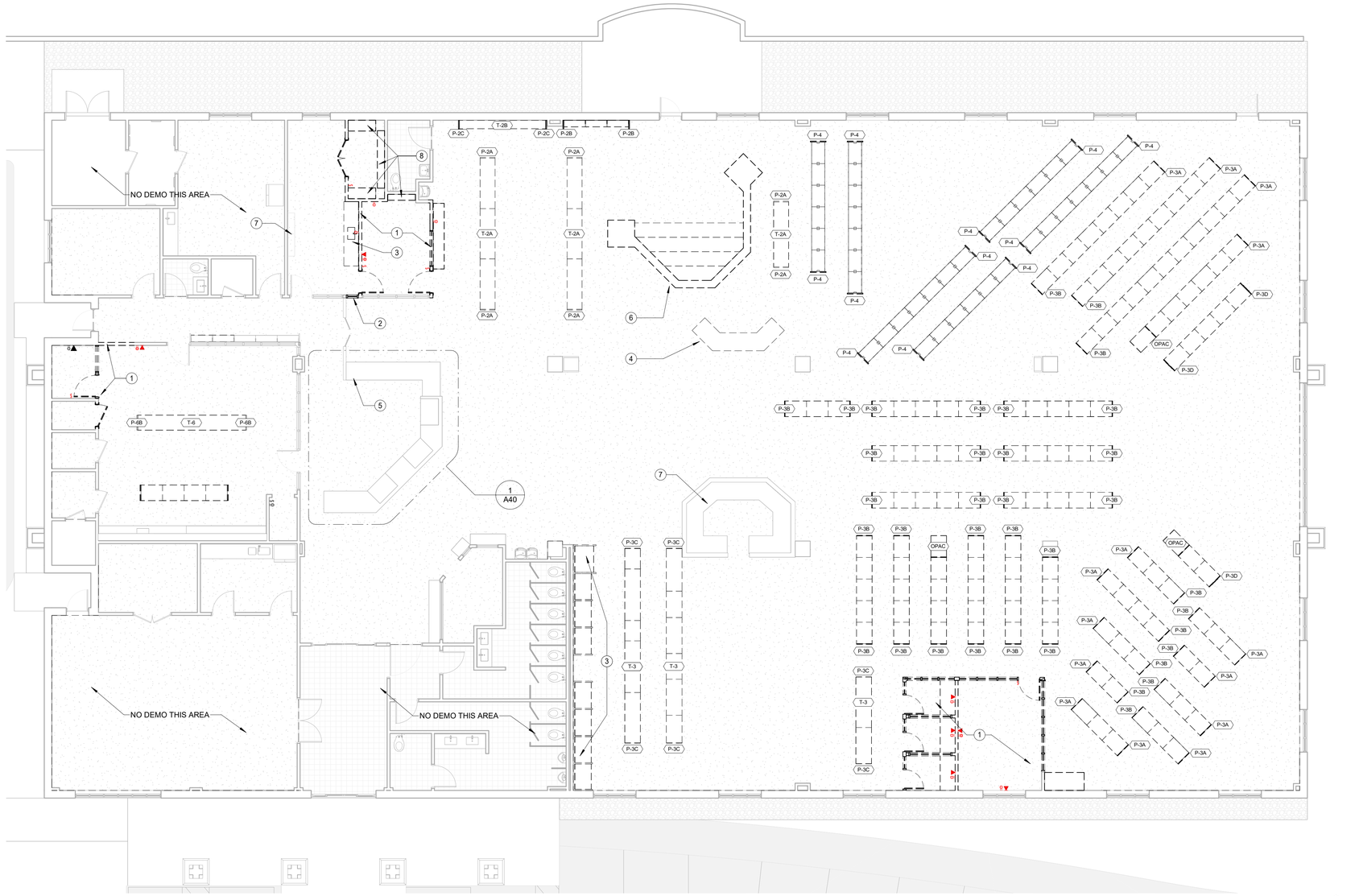
John Arnaud
Architect
Blowing Rock, NC
828.434.3354
johnarnaudarch.com
jarnaudarch@gmail.com

REVISIONS:

A00
PROJECT INFO. + SITE PLAN

DESIGN DRAWINGS

09/11/2026



1 DEMO PLAN
1/8" = 1'-0"

0' 4' 8' 16'

LEGEND

- ASSEMBLY TO DEMOLISH
- ASSEMBLY TO REMAIN
- CENTER LINE
- KITCHEN — ROOM TAG
- NORTH ARROW — TRUE NORTH / PROJECT NORTH
- 0' - 0" — SPOT ELEVATION
- (RED) EXISTING DEVICES DO BE MODIFIED IN DEMO/NEW WORK

GENERAL NOTES

1. THE GENERAL CONTRACTOR SHALL MEET ALL APPLICABLE BUILDING CODES, PERFORM ALL WORK IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, AND PROVIDE COMPLETE SYSTEMS.
2. VERIFY EXISTING CONDITIONS AND DIMENSIONS IN FIELD AT START OF CONSTRUCTION. COORDINATE EXTENT OF DEMOLITION WITH DIMENSIONS AND CONFIGURATION SHOWN ON NEW WORK DRAWINGS. NOTIFY ARCHITECT OF DISCREPANCIES.
3. ALL DIMENSIONS ARE FROM FINISHED FACE OF EXISTING WALLS AND FACE OF FRAMING AT NEW WALLS, UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWINGS, FOLLOW WRITTEN DIMENSION ONLY.
4. MAJOR ELEMENTS TO BE REMOVED ARE SHOWN ON DRAWINGS. CONTRACTOR SHALL SURVEY SITE TO VERIFY COMPLETE SCOPE OF WORK.
5. BEFORE BEGINNING DEMOLITION CONTRACTOR SHALL ENSURE ALL SYSTEMS ARE MADE SAFE FOR DEMOLITION.
6. ALL ABANDONED OPENINGS IN EXISTING ASSEMBLIES SHALL BE CLOSED/FILLED TO MATCH ADJACENT CONSTRUCTION, MATERIAL, AND RATING AS ADJACENT ASSEMBLY.
7. ALL NOTES TO 'REMOVE' OR 'DEMO' SHALL MEAN COMPLETELY REMOVED OR DEMOLISHED.

SHEET KEYNOTES

#	DESCRIPTION
1	DEMO WALLS, DOORS, AND HOLOW METAL FRAMES AS SHOWN.
2	DEMO HOLLOW METAL FRAME.
3	DEMO EXISTING CABINETS, SHELVING, FIXTURES, AND APPLIANCES.
4	DEMO EXISTING SERVICE DESK.
5	PREPARE EXISTING SERVICE DESK FOR MODIFICATION. SEE ENLARGED CASEWORK DRAWINGS.
6	DEMO EXISTING WOOD FRAME 'BLUE CASTLE'.
7	EXISTING SHELVING, CASEWORK, OR EQUIPMENT TO REMAIN.
8	REMOVE EXISTING SHELVING UNIT, PROTECT AND STORE FOR RELOCATION IN NEW WORK.

NOT FOR CONSTRUCTION

WATAUGA COUNTY LIBRARY
INTERIOR IMPROVEMENTS
140 QUEEN STREET
BOONE, NC 28607

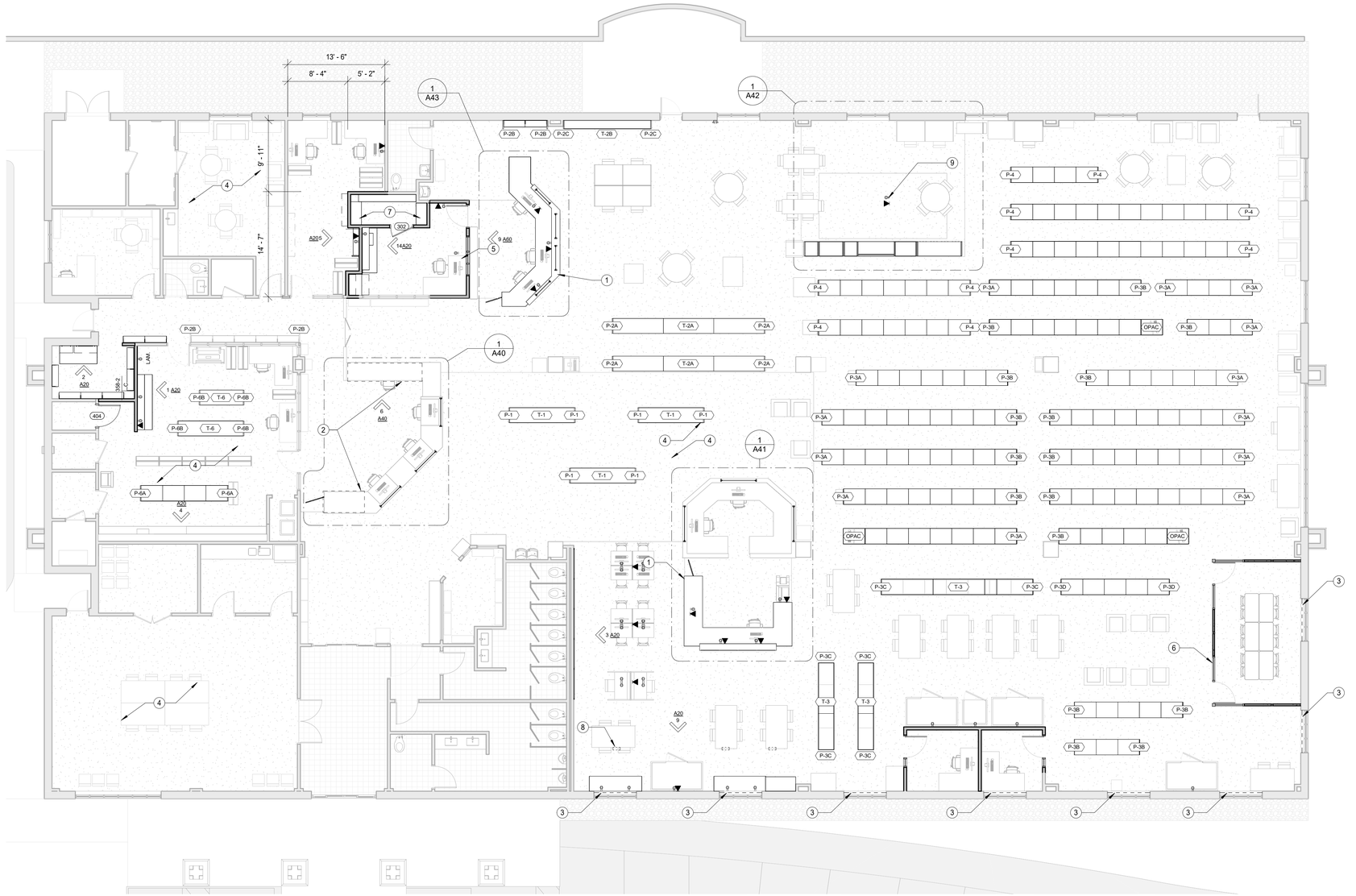
John Arnaud
Architect
Blowing Rock, NC
828.414.3354
john@jarnaudarch.com
jarnaudarch.com

REVISIONS:

A11
DEMO PLAN

DESIGN DRAWINGS

09/11/2026



1 NEW FLOOR PLAN
1/8" = 1'-0"

0' 4' 8' 16'

LEGEND

2x4-2	PARTITION TAG	KITCHEN	ROOM TAG	CENTER LINE	(BLACK) LOCATION OF NEW DEVICE
101	DOOR TAG	WD-1	FINISH TAG	NORTH ARROW / TRUE NORTH / PROJECT NORTH	(RED) DEVICE REMOVED IN DEMOLITION

FINISH SCHEDULE

MARK	DESCRIPTION	FINISH	NOTES
ACT	ACOUSTIC CEILING TILE	2'x2' ACOUSTIC CEILING TILE	TO MATCH EXISTING
CPT	CARPET	MODULAR CARPET TILE	FINISH TBD
CT	COUNTER TOP	1 1/4" SOLID SURFACE TOP	SOLID SURFACE FINISH TO MATCH EXISTING
GWB	5/8" GYPSUM WALLBOARD	PAINTED	COLOR TO MATCH EXISTING
GZ	GLAZING		
PL	PLASTIC LAMINATE	FROM MANUFACTURER STANDARD	FINISH TBD
UP	UPHOLSTERY		
WV	WOOD VENEER	OAK	VENEER FINISH TO MATCH EXISTING
SW	SLAT WALL	HPL	FINISH TBD
TR	WOOD TRIM	OAK	TO MATCH EXISTING OAK VENEER AND DOORS

NOTES: MATERIALS ARE SPECIFIED AS BASIS OF DESIGN.

GENERAL NOTES

1. THE GENERAL CONTRACTOR SHALL MEET ALL APPLICABLE BUILDING CODES AND PERFORM ALL WORK IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND BEST PRACTICES.
2. VERIFY EXISTING CONDITIONS AND DIMENSIONS IN FIELD AT START OF CONSTRUCTION. NOTIFY ARCHITECT OF DISCREPANCIES.
3. DESIGN DEVELOPMENT DIMENSIONS REFLECT CLEAR OPENING OF SPACES. DO NOT SCALE DRAWINGS, FOLLOW WRITTEN DIMENSION ONLY.
4. ELECTRICAL, MECHANICAL, AND PLUMBING SYSTEM LAYOUTS SHOWN ARE BASIS OF DESIGN, ENGINEERED SYSTEMS AND SPECIFICATION WILL BE PROVIDED WITH CONSTRUCTION DOCUMENTS.
5. FINISHED TRANSITION BETWEEN NEW AND EXISTING WORK SHOULD BE INDISTINGUISHABLE.
6. PROVIDE ALL ACCESS PANELS WHERE SYSTEMS ACCESS IS REQUIRED PER CODE OR BY EQUIPMENT MANUFACTURER'S RECOMMENDATION. SUBMIT PROPOSED LOCATIONS OF ACCESS/EQUIPMENT NOT SHOWN ON DRAWINGS FOR ARCHITECTS APPROVAL.
7. PROVIDE FIRE RATED WOOD BLOCKING, AS REQUIRED BY CODE, IN PARTITIONS WHERE FINISHES, FIXTURES, ACCESSORIES, AND EQUIPMENT ARE TO BE ATTACHED TO OR RECESSED WITHIN THE WALL.
8. PROPOSED FURNITURE SIZE AND LAYOUT SHOWS A CONFIGURATION THAT MEETS ACCESSIBILITY STANDARDS PER ICC A117.1-2017. ALTERNATE FURNITURE SIZE AND CONFIGURATIONS SHOULD BE EVALUATED TO CONFIRM ACCESSIBILITY STANDARDS ARE MET AS REQUIRED.

SHEET KEYNOTES

#	DESCRIPTION
1	NEW SERVICE DESK AS SHOWN.
2	MODIFY EXISTING SERVICE DESK AS SHOWN.
3	LOCATION OF MANUAL ROLLER WINDOW SHADE WITH DUAL SHADE.
4	NEW FLOORING THROUGHOUT.
5	RELOCATED SALVAGED HOLLOW METAL FRAME, DOOR, AND GLAZING.
6	DEMOUNTABLE MODULAR WALL SYSTEM.
7	RELOCATE EXISTING SHELVES. MODIFY TO BE APPROX 10" SHORTER THAN CURRENT CONFIGURAITON.
8	NEW OVERHEAD POWER REEL, TYP.
9	POWER AND DATA CONNECTION IN NEW CEILING ABOVE.

NOT FOR CONSTRUCTION

WATAUGA COUNTY LIBRARY
INTERIOR IMPROVEMENTS
140 QUEEN STREET
BOONE, NC 28607

John Arnaud
Architect
Blowing Rock, NC
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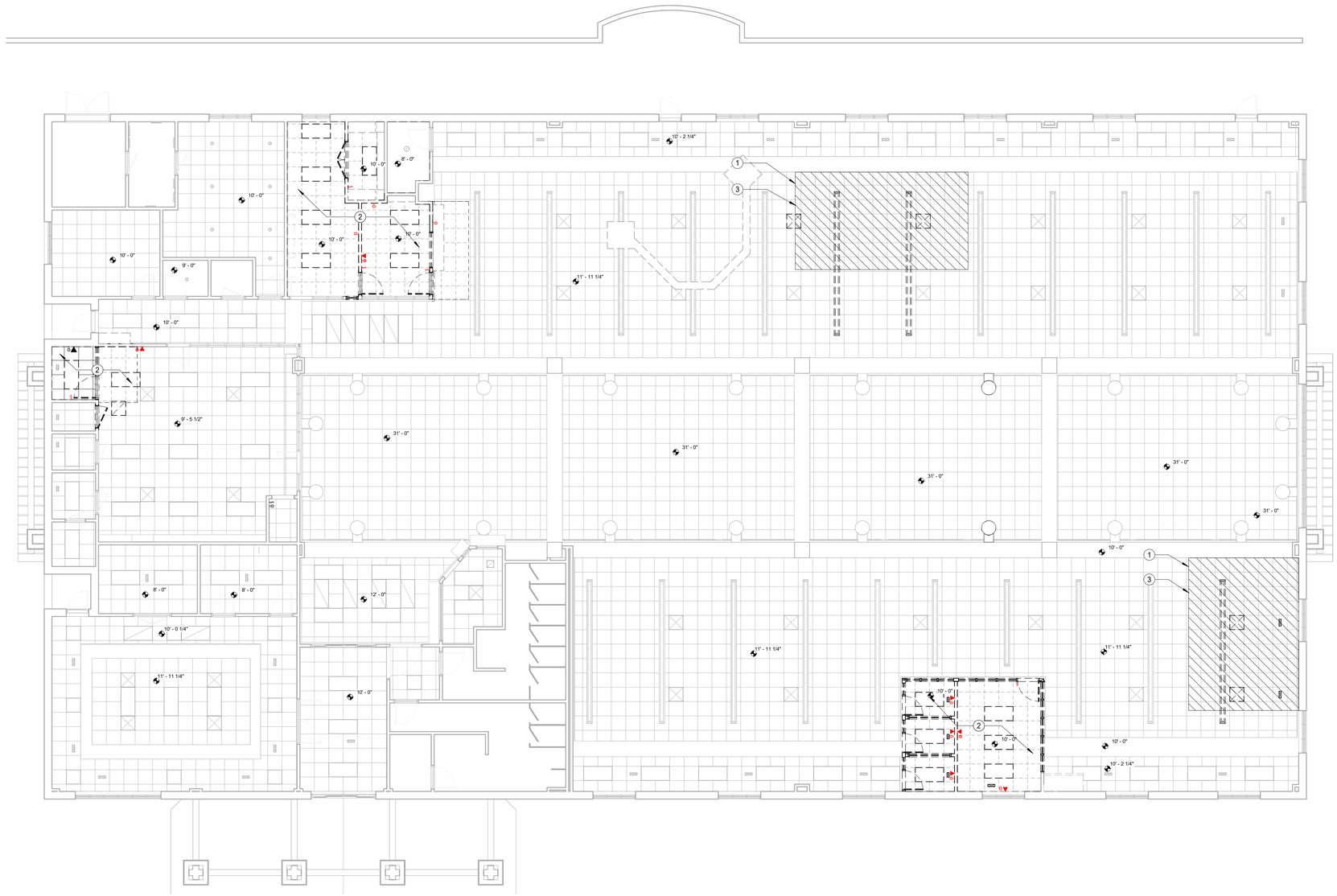
REVISIONS:

A12
FLOOR PLANS

DESIGN DRAWINGS

09/11/2026



1 DEMO REFLECTED CEILING, POWER, + LIGHTING PLAN
1/8" = 1'-0"

0' 4' 8' 16'

SHEET KEYNOTES

#	DESCRIPTION
1	EXTENTS OF NEW CLOUD CEILING BELOW EXISTING CEILING LEVEL. PERFORM DEMO ONLY AS REQUIRED TO CREATE ACCESS FOR LIGHTING AND HVAC MODIFICATIONS AND TO CREATE ACCESS FOR ATTACHMENT TO STRUCTURE ABOVE. AT COMPLETION OF NEW WORK EXISTING CEILING SHOULD BE MADE SECURE AND PRESENTABLE. NEW CLOUD CEILINGS, TRIM, AND BAFFLES SHOULD CONCEAL ATTACHMENTS AND SYSTEM CONNECTIONS THAT EXTEND BELOW EXISTING CEILING.
2	REMOVE EXISTING CEILING, PREP AREA FOR NEW. SALVAGE LIGHT FIXTURES FOR REUSE.
3	PREP DEVICES AND DISTRIBUTION FOR RELOCATION INTO NEW CEILING CONFIGURATION.

LEGEND

	ASSEMBLY TO DEMOLISH	$	SWITCH		CAN/PUCK LIGHT	$	(RED) EXISTING DEVICES DO BE MODIFIED IN DEMO/NEW WORK
	ASSEMBLY TO REMAIN		DUPLEX RECEPTACLE		CEILING MOUNTED FIXTURE		
			QUAD RECEPTACLE		WALL MOUNTED LIGHT	KITCHEN	ROOM TAG
0' - 0"	SPOT ELEVATION		EXHAUST FAN		SURFACE MOUNTED LINEAR FIXTURE		NORTH ARROW
℄	CENTER LINE				SUSPENDED LINEAR FIXTURE		TRUE NORTH PROJECT NORTH

GENERAL NOTES

1. THE GENERAL CONTRACTOR SHALL MEET ALL APPLICABLE BUILDING CODES, PERFORM ALL WORK IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, AND PROVIDE COMPLETE SYSTEMS.
2. VERIFY EXISTING CONDITIONS AND DIMENSIONS IN FIELD AT START OF CONSTRUCTION. COORDINATE EXTENT OF DEMOLITION WITH DIMENSIONS AND CONFIGURATION SHOWN ON NEW WORK DRAWINGS. NOTIFY ARCHITECT OF DISCREPANCIES.
3. ALL DIMENSIONS ARE FROM FINISHED FACE OF EXISTING WALLS AND FACE OF FRAMING AT NEW WALLS, UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWINGS, FOLLOW WRITTEN DIMENSION ONLY.
4. MAJOR ELEMENTS TO BE REMOVED ARE SHOWN ON DRAWINGS. CONTRACTOR SHALL SURVEY SITE TO VERIFY COMPLETE SCOPE OF WORK.
5. BEFORE BEGINNING DEMOLITION CONTRACTOR SHALL ENSURE ALL SYSTEMS ARE MADE SAFE FOR DEMOLITION.
6. ALL ABANDONED OPENINGS IN EXISTING ASSEMBLIES SHALL BE CLOSED/FILLED TO MATCH ADJACENT CONSTRUCTION, MATERIAL, AND RATING AS ADJACENT ASSEMBLY.
7. NEW MASONRY OPENINGS SHALL BE CUT CLEAN AND PLUMB. CUTS SHALL BE MADE ALONG EXISTING HEADER AND BED JOINTS, OR FLUSH TO THE PLANE OF EXISTING OPENINGS TO BE ENLARGED.
8. ALL NOTES TO 'REMOVE' OR 'DEMO' SHALL MEAN COMPLETELY REMOVED OR DEMOLISHED. PLUMBING AND PIPING SHALL BE REMOVED COMPLETELY AND CAPPED OR SEALED WITHIN WALLS, ABOVE CEILING, OR BELOW SUBFLOOR WHERE REMOVAL IS NOT POSSIBLE.

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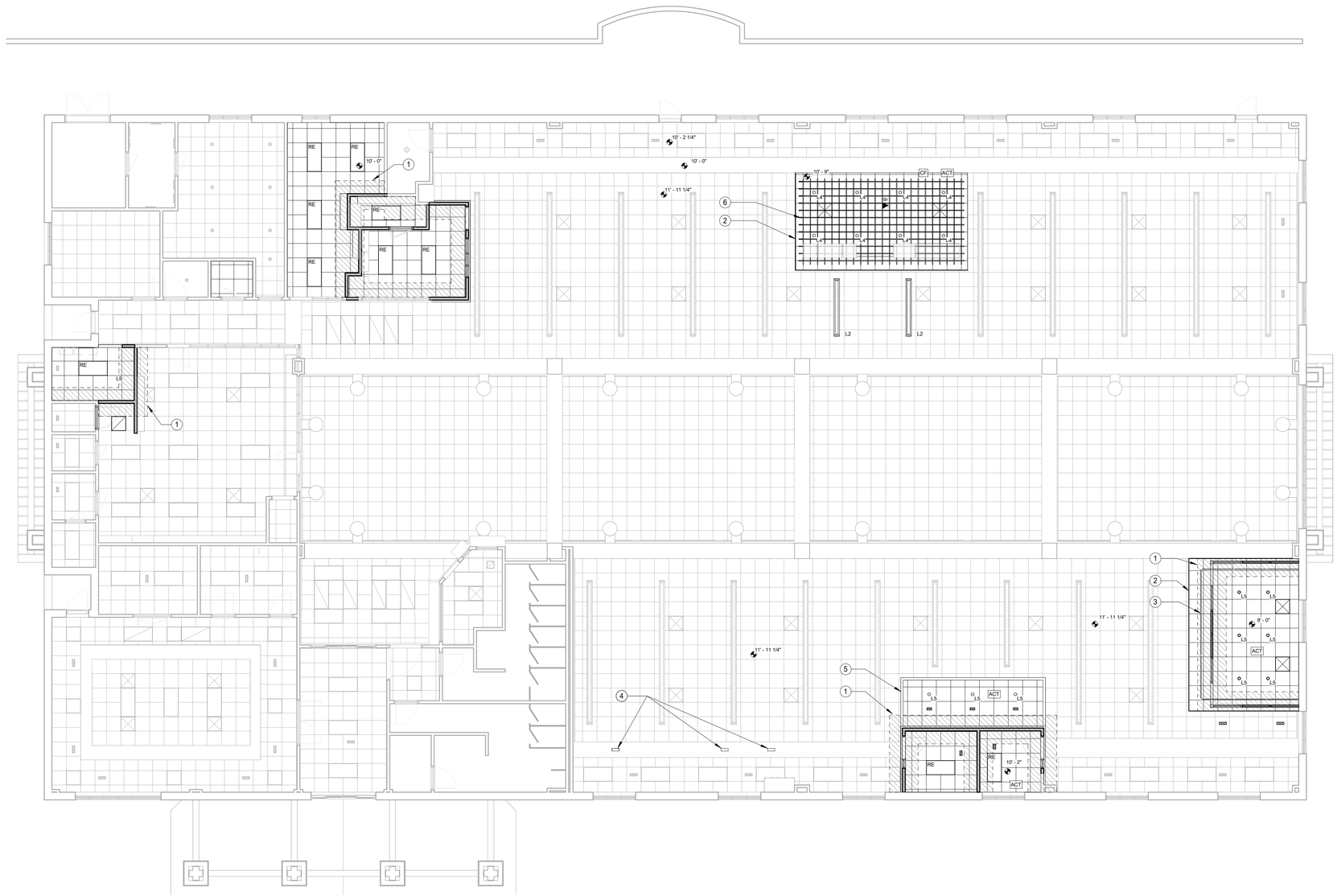
REVISIONS:

A13
DEMO RCP, POWER, + LIGHTING PLAN

DESIGN DRAWINGS

09/11/2026



1 REFLECTED CEILING, POWER, + LIGHTING PLAN
1/8" = 1'-0"

0' 4' 8' 16'

LEGEND

CENTER LINE	SWITCH	CAN/PUCK LIGHT	(SOLID BLACK) EXISTING DEVICES AND CIRCUITING TO REMAIN
0' - 0" SPOT ELEVATION	DUPLEX RECEPTACLE	CEILING MOUNTED FIXTURE	(DASHED BLACK) DEMO EXISTING DEVICES AND CIRCUITING
9" / 1'-0" SLOPE ARROW	QUAD RECEPTACLE	WALL MOUNTED LIGHT	NORTH ARROW
	KITCHEN ROOM TAG	SURFACE MOUNTED LAY-IN FIXTURE	TRUE NORTH
		SUSPENDED LINEAR FIXTURE	PROJECT NORTH

FINISH SCHEDULE

MARK	DESCRIPTION	FINISH	NOTES
ACT	ACOUSTIC CEILING TILE	2'x2' ACOUSTIC CEILING TILE	TO MATCH EXISTING
CPT	CARPET	MODULAR CARPET TILE	FINISH TBD
CT	COUNTER TOP	1 1/4" SOLID SURFACE TOP	SOLID SURFACE FINISH TO MATCH EXISTING
GWB	5/8" GYPSUM WALLBOARD	PAINTED	COLOR TO MATCH EXISTING
GZ	GLAZING		
PL	PLASTIC LAMINATE	FROM MANUFACTURER STANDARD	FINISH TBD
UP	UPHOLSTERY		
WV	WOOD VENEER	OAK	VENEER FINISH TO MATCH EXISTING
SW	SLAT WALL	HPL	FINISH TBD
TR	WOOD TRIM	OAK	TO MATCH EXISTING OAK VENEER AND DOORS

NOTES: MATERIALS ARE SPECIFIED AS BASIS OF DESIGN.

LIGHT FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	NOTES
L1	LITECONTROL	SAE105-P-LPA-S-144-C1	12' LINEAR PENDENT	MATCH TO OR SALVAGE AND RECONFIGURE EXISTING
L2				
L3				
L4	TUBO	P350-LC25	5" PENDENT	
L5	WAC LIGHTING	HR-LED87-30-WT	~3" RECESSED BUTTON LIGHT	
RE	EXISTING	N/A	RELOCATE EXISTING	

NOTES: FIXTURES SPECIFIED AS BASIS OF DESIGN. LIGHT FIXTURE CONTACT: KEVIN MESSICK - TEAM LIGHTING - 336.403.9910

SHEET KEYNOTES

#	DESCRIPTION
1	PROVIDE SOUND BATT INSULATION OVER CEILING 2' PAST WALLS.
2	SUSPENDED ACT WITH 12" PERIMETER TRIM.
3	16" LINEAR ACOUSTIC BAFFLES SUSPENDED ABOVE CLOUD CEILING, BELOW EXISTING CEILING.
4	POWER CORD REEL, CEILING MOUNTED.
5	TERMINATE EXISTING WALLS TO CREATE SOFFIT. SUSPEND FROM STRUCTURE ABOVE AS REQ.
6	ARMSTRONG FELTWORKS BLADES, OR SIMILAR, TYP.

GENERAL NOTES

1. THE GENERAL CONTRACTOR SHALL MEET ALL APPLICABLE BUILDING CODES AND PERFORM ALL WORK IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND BEST PRACTICES.
2. 5/8" GYPSUM WALL BOARD ON ALL CEILINGS.
3. VERIFY EXISTING CONDITIONS AND DIMENSIONS IN FIELD AT START OF CONSTRUCTION. NOTIFY ARCHITECT OF DISCREPANCIES.
4. ELECTRICAL, MECHANICAL, AND PLUMBING PERFORMED BY LICENSED TRADE CONTRACTORS. PERMIT WORK AS REQUIRED.
5. ELECTRICAL, MECHANICAL, AND PLUMBING SYSTEM LAYOUTS SHOWN ARE BASIS OF DESIGN, ENGINEERED SYSTEMS AND SPECIFICATION WILL BE PROVIDED WITH CONSTRUCTION DOCUMENTS.
6. PROVIDE ALL ACCESS PANELS WHERE SYSTEMS ACCESS IS REQUIRED PER CODE OR BY EQUIPMENT MANUFACTURER'S RECOMMENDATION. SUBMIT PROPOSED LOCATIONS OF ACCESS/EQUIPMENT NOT SHOWN ON DRAWINGS FOR ARCHITECTS APPROVAL.
7. WHERE CEILING TILE LAYOUT LEAVES TILES NARROWER THAN 6" CUT OVERSIZE TILE FROM 2'x4' TILE OF SAME FINISH TO ELIMINATE NARROW TILE.
8. CENTER ALL FIXTURES IN ACT CEILING WITHIN FULL TILE.
9. FINISHED TRANSITION BETWEEN NEW AND OLD WORK SHOULD BE INDISTINGUISHABLE.

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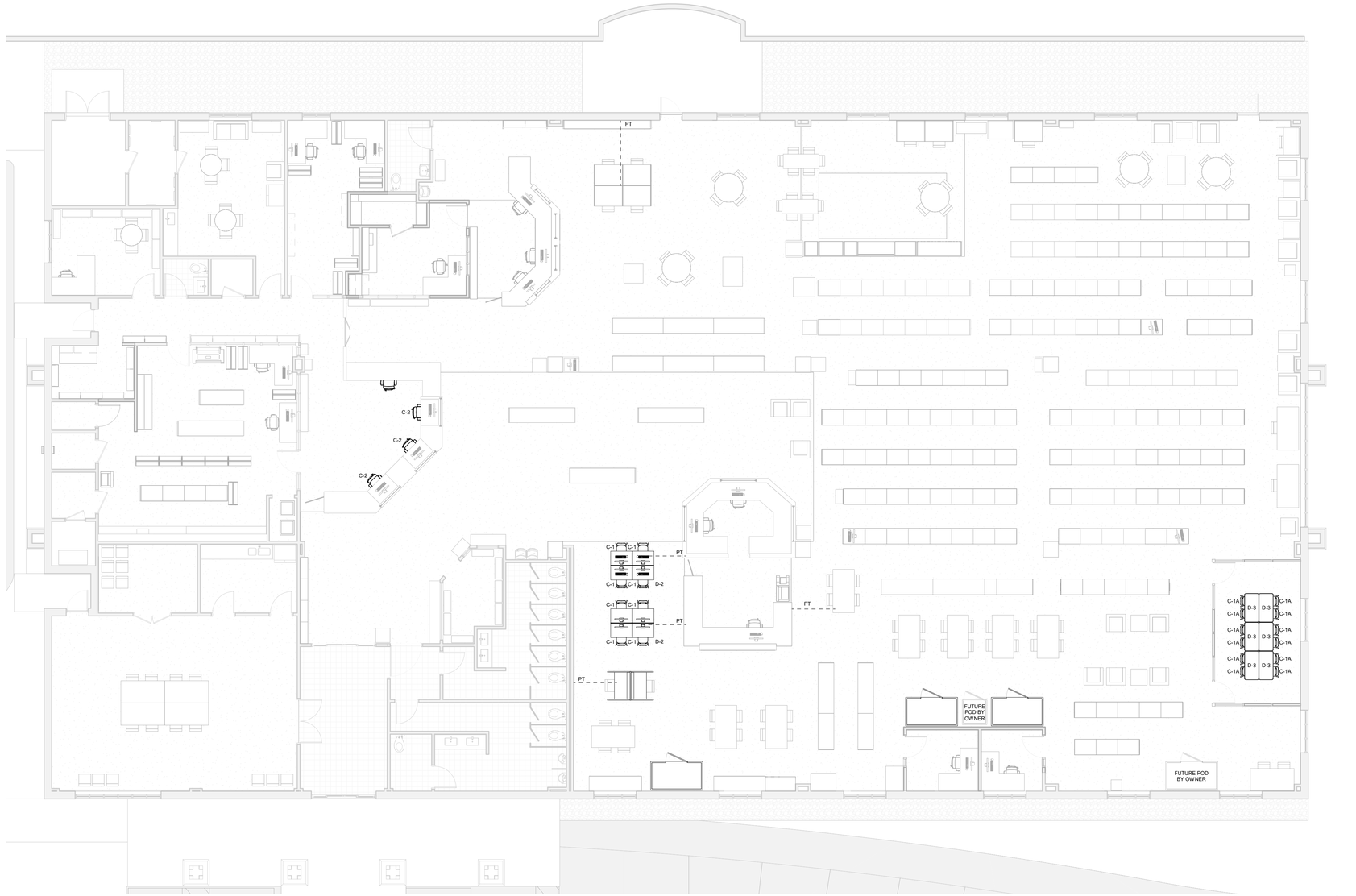
REVISIONS:

A14
REFLECTED CEILING PLAN

DESIGN DRAWINGS

09/11/2026



1 FURNITURE PLAN
1/8" = 1'-0"

0' 4' 8' 16'

GENERAL NOTES

1. FURNITURE NOTES

LEGEND

F-1	FURNISHING TAG	IU-4	EQUIPMENT TAG	KITCHEN 101	ROOM TAG
101	DOOR TAG	WD-1	FINISH TAG		NORTH ARROW TRUE NORTH PROJECT NORTH

FURNITURE SCHEDULE

MARK	TYPE	BASIS OF DESIGN	MODEL	LOCATION	COUNT
C-1	DESK CHAIR	SMITH SYSTEM		COMPUTER WORKSTATIONS	12
C-1A	STACKING CHAIR	SMITH SYSTEM		MEETING ROOMS	12
C-2	DESK CHAIR	OM		SERVICE DESKS	25
D-2	2 SEAT DOUBLE-SIDED COMPUTER RESOURCE STATION	KI - CONNECTION ZONE		RESOURCE DESKS	3
D-3	FOLDING RECTANGLE TABLE	SMITH SYSTEM		MEETING ROOMS	6
PT	UNDER FLOORING POWER RACEWAY	CONNECTRAC		WORK STATIONS	5
W-1	MODULAR WALL SYSTEM	KI		MEETING ROOMS	1

NOTE: AS NEEDED.

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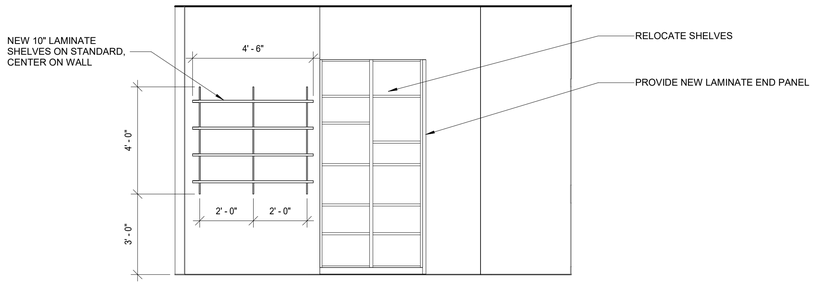
REVISIONS:

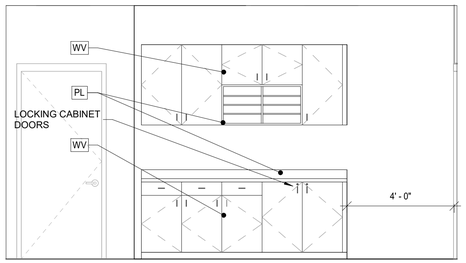
A15
FURNITURE PLAN

DESIGN DRAWINGS

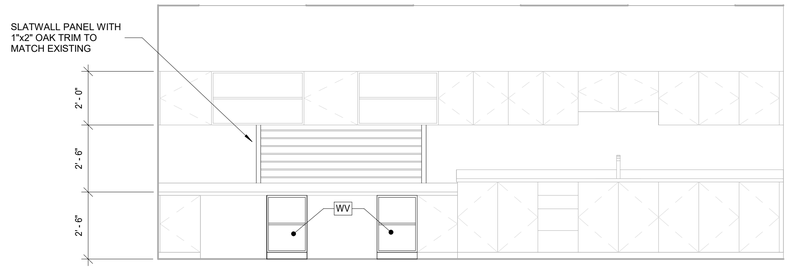
09/11/2026



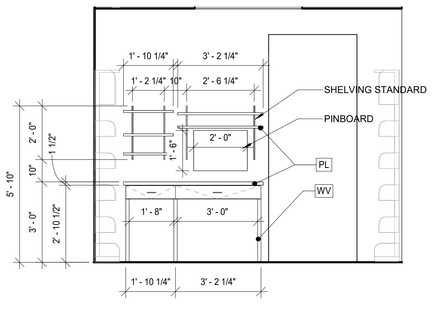
5 TECH SERVICE STORAGE WALL
3/8" = 1'-0"



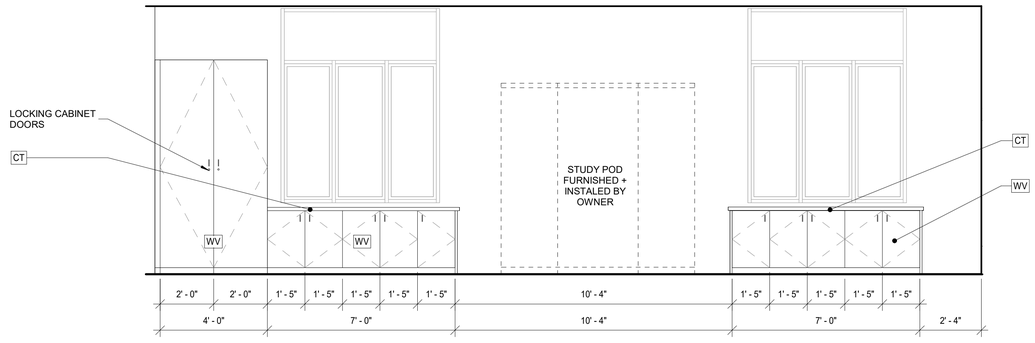
1 WORKROOM NORTH
3/8" = 1'-0"



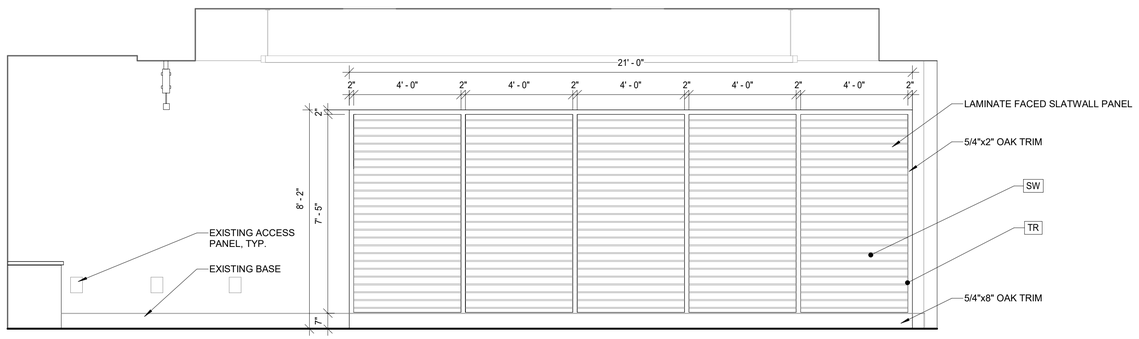
4 WORKROOM SOUTH
3/8" = 1'-0"



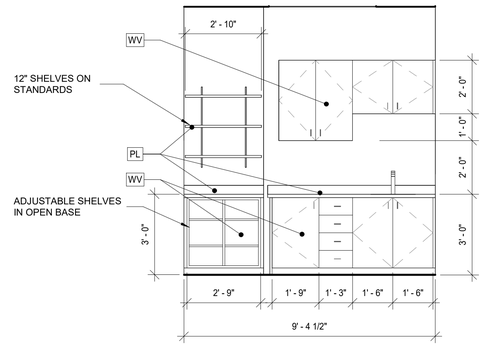
2 SORTING COUNTER
3/8" = 1'-0"



9 MAKERSPACE SOUTH
3/8" = 1'-0"



3 ADULY SERVICE MEDIA WALL
3/8" = 1'-0"



14 YOUTH SERVICE WORKROOM
3/8" = 1'-0"

GENERAL NOTES

1. VERIFY EXISTING CONDITIONS AND DIMENSIONS IN FIELD AT START OF CONSTRUCTION. NOTIFY ARCHITECT OF DISCREPANCIES.
2. ALL INTERIOR ELEVATION DIMENSIONS ARE FROM FINISHED FACE, UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWINGS, FOLLOW WRITTEN DIMENSION ONLY.
3. FINISHED TRANSITION BETWEEN NEW AND OLD WORK SHOULD BE INDISTINGUISHABLE.
4. CASEWORK FILLER STRIPS ARE NOT DIMENSIONED. PROVIDED FILLERS, PANELS, AND SCRIBE AS REQUIRED.
5. ASSUME HANDLES AND PULLS AT ALL DOORS AND DRAWERS.

FINISH SCHEDULE

MARK	DESCRIPTION	FINISH	NOTES
ACT	ACOUSTIC CEILING TILE	2'x2' ACOUSTIC CEILING TILE	TO MATCH EXISTING
CPT	CARPET	MODULAR CARPET TILE	FINISH TBD
CT	COUNTER TOP	1 1/4" SOLID SURFACE TOP	SOLID SURFACE FINISH TO MATCH EXISTING
GWB	5/8" GYPSUM WALLBOARD	PAINTED	COLOR TO MATCH EXISTING
GZ	GLAZING		
PL	PLASTIC LAMINATE	FROM MANUFACTURER STANDARD	FINISH TBD
UP	UPHOLSTERY		
WV	WOOD VENEER	OAK	VENEER FINISH TO MATCH EXISTING
SW	SLAT WALL	HPL	FINISH TBD
TR	WOOD TRIM	OAK	TO MATCH EXISTING OAK VENEER AND DOORS

NOTES: MATERIALS ARE SPECIFIED AS BASIS OF DESIGN.

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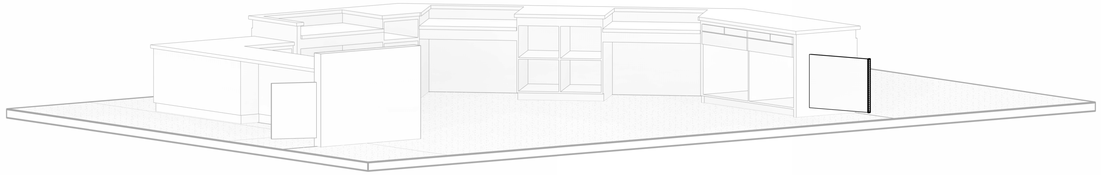
REVISIONS:

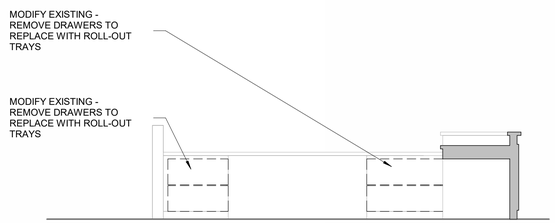
A20
INTERIOR ELEVATIONS

DESIGN DRAWINGS

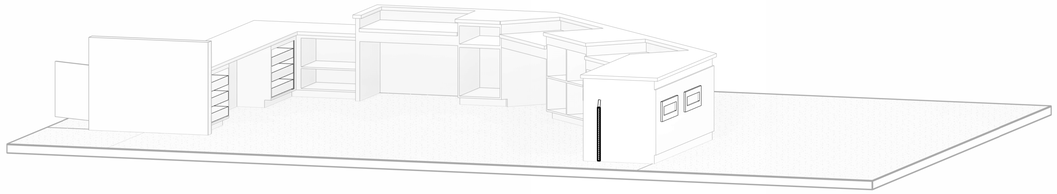
09/11/2026
22



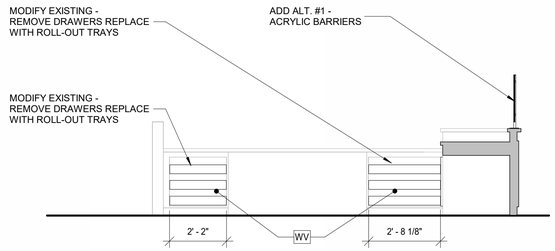
2 CIRCULATION DESK 3D FRONT



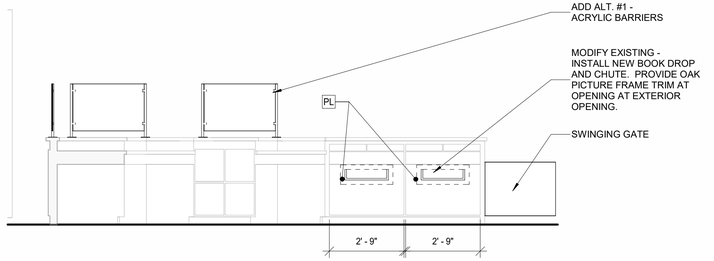
6 CIR DESK NORTH - EXISTING
3/8" = 1'-0"



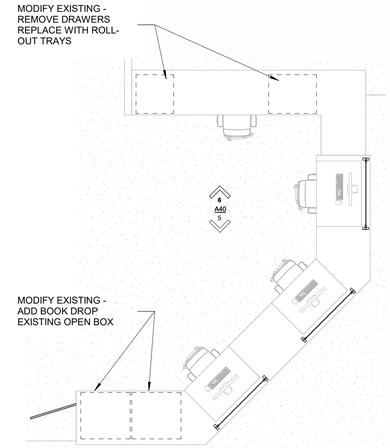
3 CIRCULATION DESK 3D BACK



4 CIR DESK NORTH
3/8" = 1'-0"



5 CIR DESK SOUTH
3/8" = 1'-0"



1 CIRCULATION AND WORKROOM
1/4" = 1'-0"

FINISH SCHEDULE

MARK	DESCRIPTION	FINISH	NOTES
ACT	ACOUSTIC CEILING TILE	2'x2' ACOUSTIC CEILING TILE	TO MATCH EXISTING
CPT	CARPET	MODULAR CARPET TILE	FINISH TBD
CT	COUNTER TOP	1 1/4" SOLID SURFACE TOP	SOLID SURFACE FINISH TO MATCH EXISTING
GWB	5/8" GYPSUM WALLBOARD	PAINTED	COLOR TO MATCH EXISTING
GZ	GLAZING		
PL	PLASTIC LAMINATE	FROM MANUFACTURER STANDARD	FINISH TBD
UP	UPHOLSTERY		
WV	WOOD VENEER	OAK	VENEER FINISH TO MATCH EXISTING
SW	SLAT WALL	HPL	FINISH TBD
TR	WOOD TRIM	OAK	TO MATCH EXISTING OAK VENEER AND DOORS

NOTES: MATERIALS ARE SPECIFIED AS BASIS OF DESIGN.

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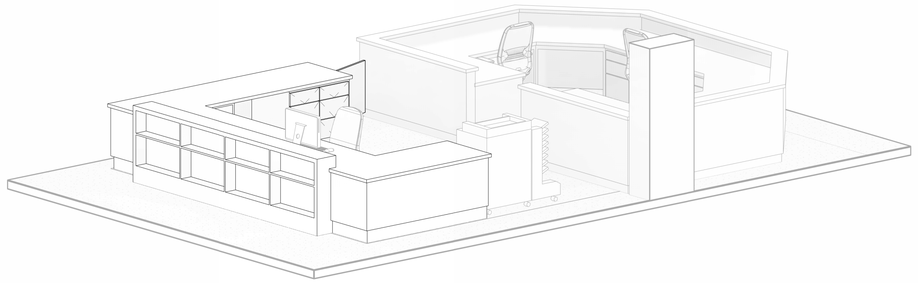
REVISIONS:

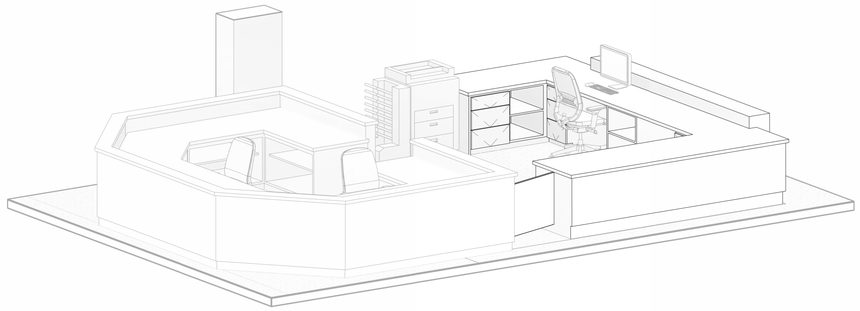
A40
ENLARGED CIRCULATION DESK DRAWINGS

DESIGN DRAWINGS

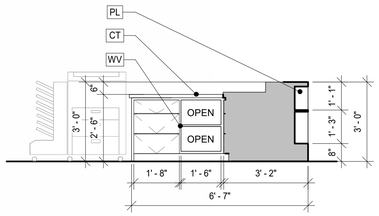
09/11/2026



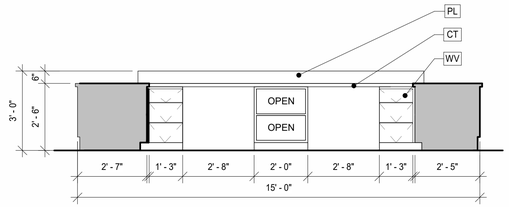
2 ADULT SERVICE DESK 3D SOUTH



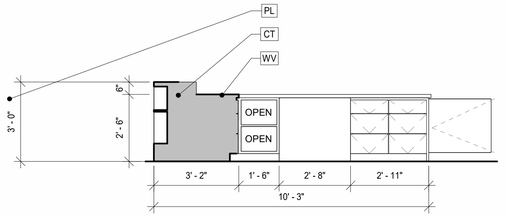
3 ADULT SERVICE DESK 3D NORTH



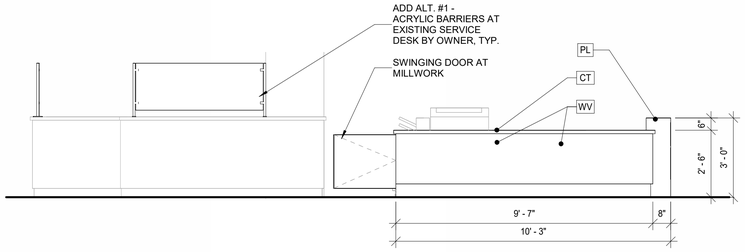
4 ADULT SERVICE DESK SOUTH
3/8" = 1'-0"



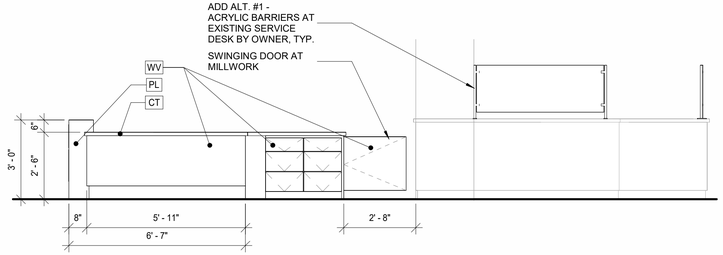
5 ADULT SERVICE DESK WEST
3/8" = 1'-0"



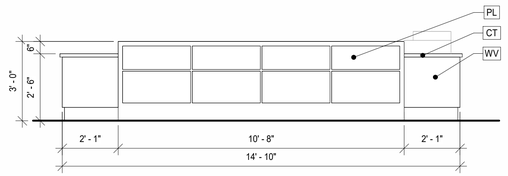
6 ADULT SERVICE DESK NORTH
3/8" = 1'-0"



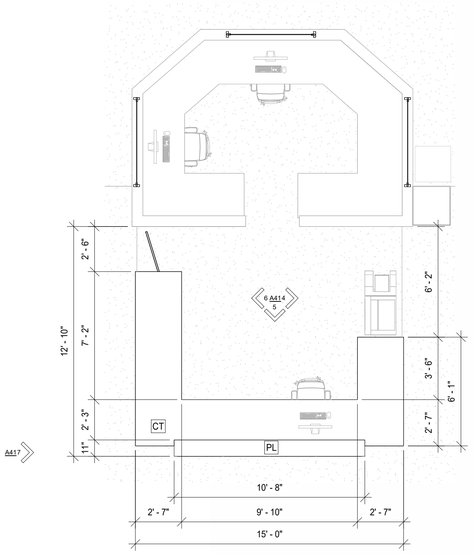
7 ADULT SERVICE DESK PATRON SIDE NORTH
3/8" = 1'-0"



8 ADULT SERVICE DESK PATRON SIDE SOUTH
3/8" = 1'-0"



9 ADULT SERVICE DESK WEST PATRON
3/8" = 1'-0"



1 ADULT SERVICES DESK
1/4" = 1'-0"

FINISH SCHEDULE

MARK	DESCRIPTION	FINISH	NOTES
ACT	ACOUSTIC CEILING TILE	2'x2' ACOUSTIC CEILING TILE	TO MATCH EXISTING
CPT	CARPET	MODULAR CARPET TILE	FINISH TBD
CT	COUNTER TOP	1 1/4" SOLID SURFACE TOP	SOLID SURFACE FINISH TO MATCH EXISTING
GWB	5/8" GYPSUM WALLBOARD	PAINTED	COLOR TO MATCH EXISTING
GZ	GLAZING		
PL	PLASTIC LAMINATE	FROM MANUFACTURER STANDARD	FINISH TBD
UP	UPHOLSTERY		
WV	WOOD VENEER	OAK	VENEER FINISH TO MATCH EXISTING
SW	SLAT WALL	HPL	FINISH TBD
TR	WOOD TRIM	OAK	TO MATCH EXISTING OAK VENEER AND DOORS

NOTES: MATERIALS ARE SPECIFIED AS BASIS OF DESIGN.

NOT FOR CONSTRUCTION

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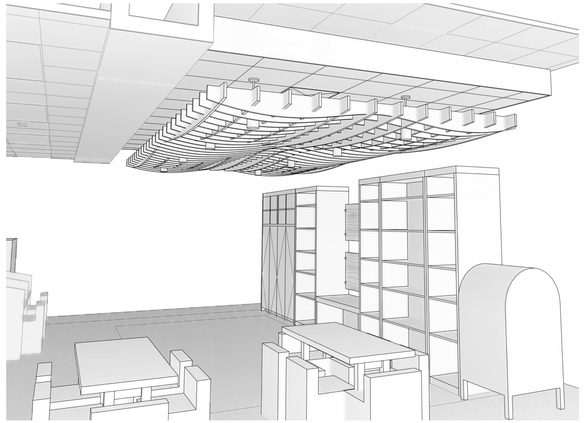
REVISIONS:

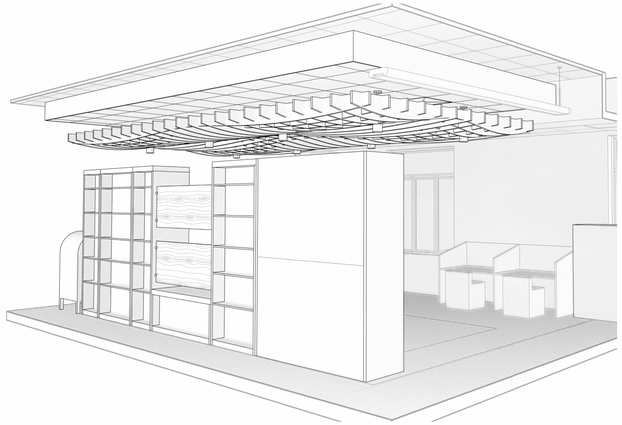
A41
ENLARGED ADULT SERVICE DESK DRAWINGS

DESIGN DRAWINGS

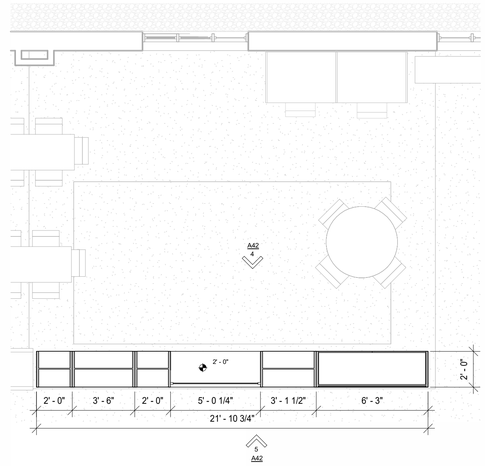
09/11/2026
24



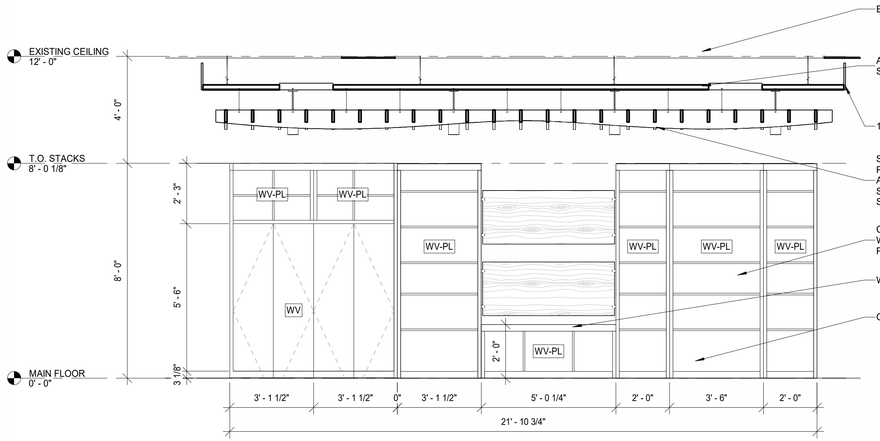
2 STORY STACKS 3D NORTH



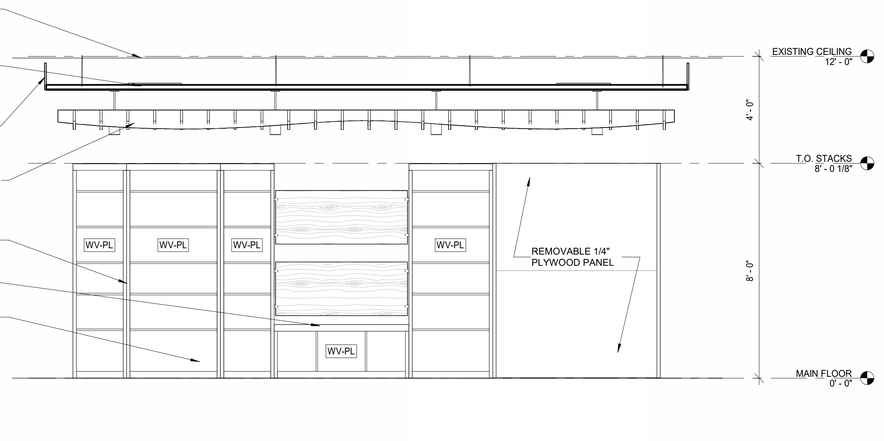
3 STORY STACKS 3D SOUTH



1 STORY STACKS @ YOUTH SERVICE PLAN
1/4" = 1'-0"



4 STORY STACK EAST
3/8" = 1'-0"



5 STORY STACK WEST
3/8" = 1'-0"

FINISH SCHEDULE

MARK	DESCRIPTION	FINISH	NOTES
ACT	ACOUSTIC CEILING TILE	2'x2' ACOUSTIC CEILING TILE	TO MATCH EXISTING
CPT	CARPET	MODULAR CARPET TILE	FINISH TBD
CT	COUNTER TOP	1 1/4" SOLID SURFACE TOP	SOLID SURFACE FINISH TO MATCH EXISTING
GWB	5/8" GYPSUM WALLBOARD	PAINTED	COLOR TO MATCH EXISTING
GZ	GLAZING		
PL	PLASTIC LAMINATE	FROM MANUFACTURER STANDARD	FINISH TBD
UP	UPHOLSTERY		
WV	WOOD VENEER	OAK	VENEER FINISH TO MATCH EXISTING
SW	SLAT WALL	HPL	FINISH TBD
TR	WOOD TRIM	OAK	TO MATCH EXISTING OAK VENEER AND DOORS

NOTES: MATERIALS ARE SPECIFIED AS BASIS OF DESIGN.

NOT FOR CONSTRUCTION

WATAUGA COUNTY LIBRARY
INTERIOR IMPROVEMENTS
140 QUEEN STREET
BOONE, NC 28607

John Arnaud
Architect
Blowing Rock, NC
828.414.3314
john@jarnaudarch.com
jarnaudarch.com

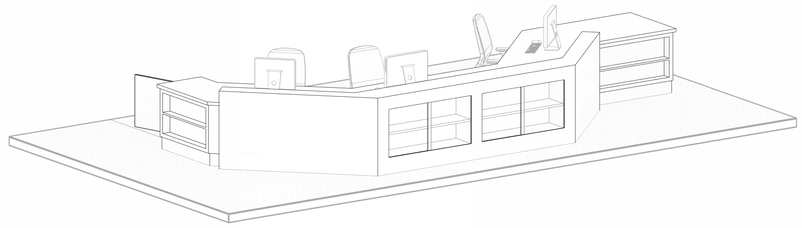
REVISIONS:

A42
ENLARGED STORY STACK DRAWINGS

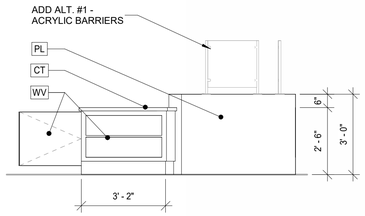
DESIGN DRAWINGS

09/11/2026

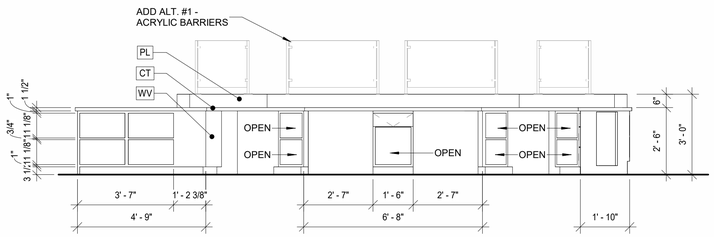
2 YOUTH SERVICE DESK 3D NORTH



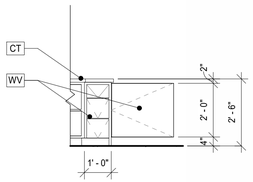
3 YOUTH SERVICE DESK 3D SOUTH



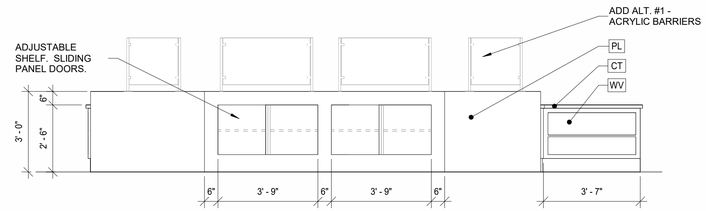
4 YOUTH SERVICE DESK PATRON WEST
3/8" = 1'-0"



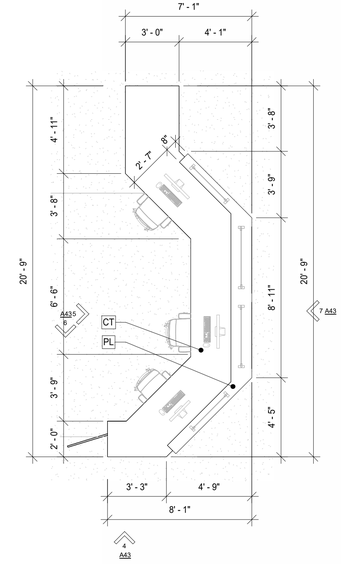
5 YOUTH SERVICE DESK SOUTH
3/8" = 1'-0"



6 YOUTH SERVICE DESK WEST
3/8" = 1'-0"



7 YOUTH SERVICE DESK PATRON SOUTH
3/8" = 1'-0"



1 YOUTH SERVICE DESK
1/4" = 1'-0"

FINISH SCHEDULE

MARK	DESCRIPTION	FINISH	NOTES
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john@jarnaudarch.com

REVISIONS:

A43
ENLARGED YOUTH SERVICE DESK DRAWINGS

DESIGN DRAWINGS

09/11/2026

A G E N D A I T E M 6 :

SANITATION EQUIPMENT REPAIR REQUEST

Manager's Comments:

Chris Marriott, Operations Services Director, will request approval to increase the repair authorization for the 2019 Peterbilt Front-Load Garbage Truck from $9,516.50 to $21,666.50 due to additional repairs identified during the repair process. The truck is utilized by the Sanitation Department to service County container sites and other County properties. Funding is available in the FY 2026-27 Maintenance & Repair-Vehicles budget.

Board action is requested to approve the revised repair cost of $21,666.50 with TLG Peterbilt of Glade Spring, Virginia.

WATAUGA COUNTY

SANITATION DEPARTMENT

336 Landfill Road – Boone, NC 28607 – (828) 264-5305
TDD 1-800-735-2962 – Voice 1-800-735-8262 – FAX (828) 264-3230

September 28, 2026

To: Deron Geouque, County Manager

From: Chris Marriott, Operations Services Director

Subject: Sanitation Equipment Repair Request

Please see attached quote, for the repair of a 2019 Peterbilt Front-Load Garbage Truck for the Watauga County Sanitation Department. The garbage truck is utilized by the department to service the County's Container Sites and other County properties. This truck is essential for the operation of the Department.

Upon this truck being reported by the operators that it was not functioning properly, it was evaluated by Department Staff for the needed repairs. Staff determined that the needed repairs would be too time consuming for and internal repair and may also need specialized equipment. The vehicle was taken to TLG Peterbilt in Glade Spring, Virginia for evaluation and repairs.

Initially, it was determined that the truck needed knuckle assemblies and kingpin replacement as well as new brakes. This estimate concurred with the Department's evaluation of the truck. An estimate of $9,516.50 from TLG Peterbilt for the repairs was sent to the Department on September 14, 2026. The Department requested a Purchase Order for this amount. The Purchase order was issued September 21, 2026.

TLG Peterbilt began working on the truck after being provided with the Purchase Order (0227140). During the work process, TLG Peterbilt discovered that there was much more extensive damage to the vehicle and that repairs would be an additional expense. TLG determined that the vehicle needed a full axle replacement in addition to the knuckles and kingpins. A new estimate for repairs was sent to the Department on September 23, 2026. The updated cost for repairs of the 2019 Peterbilt Front Load Garbage Truck is $21,666.50.

Staff requests Board of Commissioner's approval to spend $21,666.50 for the repair of the Department's 2019 Peterbilt garbage truck with the repairs to be completed by TLG Peterbilt of Glade Spring, Virginia.

The repair of this equipment can be covered in the existing FY27 Operating Budget for the Department. There is appropriate funding available in Maintenance & Repair-Vehicles [667420-435300].

Please let me know if you have any questions or concerns. Thank you in advance for your consideration.

ESTIMATE VERSION 2 - POSTED TO FLEET
Updated at: 2026-09-23 15:27:55 -0400

TLG Peterbilt - Glade Spring

33392 Lee Highway Glade Spring, Virginia 24340
Phone: (276) 429-4400

Case Number: 21208073
Repair Order Number: 500089GA
Purchase Order Number: N/A
Service Advisor: Creasy, Jonathan - Case Date 2026-09-14 15:05:14 -0400
ETR: 10/1/2026 at 12:00 pm EDT

Customer: Watauga County

Unit Number: 06086

Address: 336 LANDFILL ROAD BOONE, NC 28607
Phone: (828) 264-5305
Fax: N/A
Customer Number: G40161

Asset: 2019 Peterbilt 520
Serial Number: KF106086
VIN: 3BPDL70X1KF106086
Engine: ISX12

Engine Hours: 8246
Odometer: 107890 Miles
Warranty Start: 04/18/2019 12:00:00
In Service: 7 Years 5 Months

1 Steering System - Repair

Complaint: CUSTOMER STATES REPLACE KINGPINS AND DRIVER FRONT SPINDLE

		Quantity	Price	Totals
Labor:			$185.00	$0.00
Operation Total:				**$0.00**

2 Peterbilt Platinum Courtesy Inspection

Complaint: Peterbilt Platinum Courtesy Inspection

		Quantity	Price	Totals
Labor:			$185.00	$0.00
Operation Total:				**$0.00**

3 Front Axle - Non Driven - Repair

Complaint: STEER AXLE REPLACEMENT

		Quantity	Price	Totals
Labor:			$185.00	$1,850.00
Parts:	NUT-M16X2	2.0	$7.29	$14.58
	KIT-KINGPIN, 20K SVCE	1.0	$2,261.28	$2,261.28
	KIT-KNUCKLE ASSEMBLY 20K SERVICE	1.0	$4,560.03	$4,560.03
	KIT-KNUCKLE ASSEMBLY 20K SERVICE	1.0	$4,543.04	$4,543.04
	ROD-TIE, ASSY 20K	1.0	$825.39	$825.39
	SLEEVE-SPEED SENSOR	2.0	$28.39	$56.78
	BEAM-AXLE, WIDE	1.0	$5,137.46	$5,137.46
	PIN-COTTER EXT PRONG SQ CUT 1/8 X 1.5"	2.0	$0.10	$0.20
	BOLT-STEERING STOP	2.0	$4.27	$8.54
	KIT-SHOE LINING	1.0	$303.30	$303.30
	KIT-SHOE LINING	1.0	$303.30	$303.30
	OIL-HUB 32 OZ BOTTLE (12)	2.0	$10.63	$21.26

	DRUM-BRAKE, 16.5X6	2.0	$294.84	$589.68
	Parts Total			$18,624.84
Operation Total:				**$20,474.84**

Parts	$18,624.84
Labor	$1,850.00
Shop Supplies	$194.25
Taxes	$997.41
Total	**$21,666.50**

It is agreed and understood that the above is an estimate only based on visual inspection. Estimate is only good for 90 days. The total estimate figure is subject to change or adjustment due to parts, price changes, or incorrect part numbers, and labor is subject to adjustment for any hidden damage or open items. Air freight will be paid by the customer.

All sales and repairs are cash unless prior arrangements have been made by the credit department. Payment is due and payable five working days after completion of the job.

100626 BOC Meeting

Purchase Order

Fiscal Year 2027

THIS NUMBER MUST APPEAR ON ALL INVOICES, PACKAGES AND SHIPPING PAPERS.

Purchase Order Number **02027140**

Purchase Order Date **09/21/2026**

Department **LANDFILL OPERATIONS**

Bill To
WATAUGA COUNTY LANDFILL
336 LANDFILL ROAD
BOONE, NC 28607

Ship To
WATAUGA COUNTY LANDFILL
336 LANDFILL ROAD
BOONE, NC 28607

Delivery must be made within doors of specified destination.

Vendor
TLG PETERBILT
28604 NETWORK PLACE
CHICAGO, IL 60673-1286

VENDOR PHONE NUMBER	VENDOR FAX NUMBER	VENDOR NUMBER	REQUISITION NUMBER	DELIVERY REFERENCE
		28925	2027140	

NOTES

REPLACE KINGPINS & SPINDLE ON 2019 PETERBILT 520

The Above Purchase Order Number Must Appear On All Correspondence - Packing Sheets And Bills Of Lading

By acceptance of this purchase order, vendors affirm they are not listed and will not utilize a subcontractor pursuant to N.C.G.S. 143-6A-4, Iran Divestment Act Cerification.

SALES TAX NOT INCLUDED.

ITEM #	DESCRIPTION		QUANTITY	UOM	UNIT PRICE	EXTENDED PRICE
1	REPLACE KINGPINS & SPINDLE ON 2019 PETERBILT 520		1.0000	EACH	$9,107.3500	$9,107.35
	GL #: 667420 - 435300	$9,107.35				

Purchase Order Total **$9,107.35**

RETURN WITH VOUCHER

Updated at: 2026-09-14 15:12:30 -0400

TLG Peterbilt - Glade Spring

33392 Lee Highway Glade Spring, Virginia 24340
Phone: (276) 429-4400

Case Number: 21208073
Repair Order Number: N/A
Purchase Order Number: N/A
Service Advisor: Creasy, Jonathan - Case Date 2026-09-14 15:05:14 -0400

Customer: Watauga County

Address: 336 LANDFILL ROAD BOONE, NC 28607
Phone: (828) 264-5305
Fax: N/A
Customer Number: G40161

Unit Number: 06086

Asset: 2019 Peterbilt 520
Serial Number: KF106086
VIN: 3BPDL70X1KF106086
Engine: ISX12

Engine Hours: 8246
Odometer: N/A Miles
Warranty Start: 04/18/2019 12:00:00
In Service: 7 Years 5 Months

1 Steering System - Repair

Complaint: CUSTOMER STATES REPLACE KINGPINS AND DRIVER FRONT SPINDLE

		Quantity	Price	Totals
Labor:			$185.00	$1,387.50
Parts:	DRUM-BRAKE	1.0	$127.33	$127.33
	REMAN SHOE KIT	1.0	$68.92	$113.92
	REMAN SHOE KIT	1.0	$66.55	$119.05
	REMAN SHOE KIT	1.0	$64.47	$114.47
	REMAN SHOE KIT	1.0	$64.69	$94.69
	DISC BRAKE PAD	1.0	$183.39	$183.39
	KIT-KINGPIN, 20K SVCE	1.0	$2,261.28	$2,261.28
	KIT-KNUCKLE ASSEMBLY 20K SERVICE	1.0	$4,560.03	$4,560.03
	Parts Total			$7,574.16
Operation Total:				**$8,961.66**

Parts	$7,396.66
Labor	$1,387.50
Shop Supplies	$145.69
Taxes	$409.15
Core	$177.50
Total	**$9,516.50**

It is agreed and understood that the above is an estimate only based on visual inspection. Estimate is only good for 90 days. The total estimate figure is subject to change or adjustment due to parts, price changes, or incorrect part numbers, and labor is subject to adjustment for any hidden damage or open items. Air freight will be paid by the customer.

All sales and repairs are cash unless prior arrangements have been made by the credit department. Payment is due and payable five working days after completion of the job.

A G E N D A I T E M 7 :

2027 GENERAL REAPPRAISAL SCHEDULE OF VALUES

Manager's Comments:

Tyler Rash, Tax Administrator, will present the proposed 2027 General Reappraisal Schedule of Values, Standards, and Rules, along with the 2027 Reappraisal Summary and Use Value Manual. Pursuant to N.C. General Statute 105-317, the proposed schedules, standards, and rules must be made available for public inspection and considered at a public hearing prior to adoption. Staff proposes the following timeline, which provides for the required notice, public hearing, and adoption process:

- **October 14, 2026:** Publish public hearing notice
- **October 20, 2026:** Hold public hearing
- **November 17, 2026:** Board adopts final Schedule of Values
- **Following adoption:** Publish notice of adoption once a week for four successive weeks

The proposed timeline provides the required period between the public hearing and adoption, with the November 17 meeting occurring 28 days after the October 20 public hearing.

Board action is requested to schedule the public hearing for October 20, 2026, and authorize publication of the required notices.

WATAUGA COUNTY TAX ADMINISTRATION

Courthouse, Suite 21 – 842 West King Street – Boone, NC 28607
(828) 265-8021 – FAX (828) 264-3230

MEMORANDUM

TO: Deron Geouque, County Manager

FROM: Tyler Rash, Tax Administrator

SUBJECT: 2027 General Reappraisal Schedule of Values

DATE: 9/30/26

Per North Carolina General Statute 105-317 (c) (1), the Tax Administrator "must submit schedules, standards, and rules to the board of county commissioners not less than 21 days before the meeting at which they will be considered by the board. On the same day that they are submitted to the board for its consideration, the assessor shall file a copy of the proposed schedules, standards, and rules in his office where they shall remain available for public inspection." The proposed schedule of values, standards, and rules will be available in the tax office.

NCGS 105-317 (c) (2) states, "upon receipt of the proposed schedules, standards, and rules, the board of commissioners shall publish a statement in a newspaper having general circulation in the county stating:

a. That the proposed schedules, standards, and rules to be used in appraising real property in the county have been submitted to the board of county commissioners and are available for public inspection in the assessor's office; and
b. The time and place of a public hearing on the proposed schedules, standards, and rules that shall be held by the board of county commissioners at least seven days before adopting the final schedules, standards, and rules."

I propose the Board have the public hearing October 20th, 2026, and publish the proper advertisements of the public inspection and public hearing times in the Watauga Democrat.

2027 REAPPRAISAL

Summary Presentation to Board of Commissioners

Presented by:
Joshua Kleene, Vincent Valuations LLC

October 6th, 2026

General Information

Reappraisal is required at least every eight years (NC GS 105-286).

The process resets all real property tax values to current market value, as of January 1 of the reappraisal year. This reappraisal cycle is based on an effective date of January 1, 2027

Reappraisal distributes the overall property tax burden equitably across the county based on current market value for future tax billing

Property tax values generally do not change from year to year until the next reappraisal. Exceptions include new constructions, parcel splits/combines and permitted changes.

There are currently over 49,000 parcels of real property in Watauga County

Reappraisal Objective

Appraise all real property in the county at 100% of its current fair market value, as defined by statute

G.S. 105-283: “All property, real and personal, shall as far as practicable be appraised or valued at its true value in money.”

True value in money is “the price estimated in terms of money at which the property would change hands between a willing and financially able buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of all the uses to which the property is adapted and for which it is capable of being used.”

Market Value

Over time, most properties change in value. This often occurs at different rates based on location and property characteristics.

The **Tax Department does not create market value.** Rather, we analyze market sales to determine market patterns and trends in different locations. Market value is set by the choices of buyers and sellers in the marketplace.

Countywide reappraisal studies these sales to update rates for all building and structure types, land codes and market factors for individual neighborhoods and rural regions. This allows for fair and equitable valuation for all owners based on their specific property and location in the current market climate.

Reappraisal Process

- Data Collection/Field Work
- Neighborhood Delineation
- Sales Analysis
- Land Valuation
- Building Valuation
- Value Review
- Appeals

2027 Reappraisal

Watauga County

Spring 2023 to Spring 2026

Data Collection

Door to door field work

Staff will visit each property in the county to review current physical characteristics

Spring 2026 to January 2027

Value Modeling

Neighborhood Delineation

Sales Analysis

Building valuation modeling to mimic the local sales market

Spring 2026 to January 2027

Value Review

Review each parcel one at a time for final value

Development/ presentation of the Schedule of Values to the Board and the general public

March 2027

Mail Value Notices

Mail change of value notices to each property owner. Billing will be calculated using this value from Summer 2027 until the next reappraisal

Spring 2027 to Summer 2027

Appeals

Taxpayers have the right to appeal the values of their property to the Board of Equalization and Review per NCGS 105-322 (g)(2)

What Is Being Presented Tonight

100626 BCC Meeting

Per NCGS 105-317(c), to submit the proposed Schedule of Values for True Value and for Present-Use Value to the Board of Commissioners for consideration and to make them available for public inspection.

The Schedule of Values documents the guidelines, methods and procedures used by the Assessor to value real property at market value or at present-use value as appropriate.

These Schedules of Values will become effective January 1, 2027 and will remain in effect until the County's next Reappraisal.

We are requesting that the Board of Commissioners schedule a Public Hearing on the Schedules of Values for October 20th, 2026.

Where The County's Values Come From

Properties and sales are analyzed to determine current property conditions, market areas and typical sale prices.

Some variations cannot be determined from the property's exterior, such as:

-Whether a bonus room or basement is finished or unfinished

-Cathedral ceilings or other floor plan variations affecting the size of a second floor

-An unusual floor plan or atypical feature

The challenge is to develop tables which correlate the county's physical property data to market sales to help predict values for all properties, including those that did not sell

Why We Do It This Way

We are responsible for appraising almost 50,000 individual properties all at one time. This is referred to as *mass appraisal*.

Most major taxing jurisdictions across the county have the same sort of challenge

There is no practical way to appraise a large number of properties using the same methods employed by single property fee appraisers

Industry-standard methods have been developed for mass appraisal to produce property values that are reasonable and reliable

Unlike single property appraisals, mass appraisal includes an appeals process to help address valuation issues, which can result from limited information, inaccurate data or even difference of opinion

How Do We Know It's Right?

Mass appraisal techniques include statistical tools used to help measure the accuracy of an appraisal

We use a sales ratio as a common measure of how closely assessed values match up with current sales prices to generate a value model

The basic sales ratio formula is:

Assessed Value ÷ Sale Price

A meaningful sales ratio requires considering multiple sales at typical market values. The sale of any one singular property or sales under non-typical conditions (foreclosures, auctions, short sales, multiple parcels selling on a single deed, etc.) could produce misleading results

Different Areas, Different Changes

In broad terms, we have seen evidence that market values around the county have changed in different ways since the 2022 reappraisal

Most areas of the county have seen a noticeable increase in value during this reappraisal cycle, while other areas have remained relatively flatter

Some areas or types of improvements have seen significant change in market values and others have remained steadier by comparison

The following are individual examples of these changes across the county. These sales do not necessarily reflect market changes for the assessed values of all properties in that area

Meat Camp Fire District

Year Built: 2013

2022 Assessed Value: $1,348,600

Sale Date: 08/19/2026

Sale Price: $2,195,000

Market Increase of 63%

Meat Camp Fire District

Year Built: 1967

2022 Assessed Value: $345,100

Sale Date: 06/30/2026

Sale Price: $360,000

Market Increase of 4%

Deep Gap Fire District

Year Built: 1973

2022 Assessed Value: $199,100

Sale Date: 08/31/2026

Sale Price: $350,000

Market Increase of 76%

Deep Gap Fire District

- Year Built: 1979
- 2022 Assessed Value: $281,400
- Sale Date: 08/27/2026
- Sale Price: $463,000
- Market Increase of 64.5%

Boone Fire District

- Year Built: 2024
- 2022 Assessed Value: $213,500
- Sale Date: 09/03/2026
- Sale Price: $430,000
- Market Increase of 101%

Boone Fire District

- Year Built: 1969
- 2022 Assessed Value: $285,400
- Sale Date: 08/28/2026
- Sale Price: $490,000
- Market Increase of 72%

Blowing Rock Fire District

- Year Built: 2023
- 2022 Assessed Value: $555,100
- Sale Date: 09/03/2026
- Sale Price: $1,475,000
- Market Increase of 166%

Blowing Rock Fire District

- Year Built: 2024
- 2022 Assessed Value: $1,320,500
- Sale Date: 08/26/2026
- Sale Price: $2,700,000
- Market Increase of 104%

Beech Mountain Fire District

- Year Built: 2024
- 2022 Assessed Value: $1,320,500
- Sale Date: 08/26/2026
- Sale Price: $2,700,000
- Market Increase of 104%

Beech Mountain Fire District

- Year Built: 2024
- 2022 Assessed Value: $911,900
- Sale Date: 08/14/2026
- Sale Price: $1,625,000
- Market Increase of 78%

Next Steps

- October 6, 2026– Present the Schedule of Values
- October 20, 2026 – Public Hearing
- November 17, 2026 – Possible vote to adopt the Schedule of Values
- January 1, 2027 – Effective date of countywide reappraisal
- March 2027 – Mail notices to taxpayers. Appeals window to open.

Questions?

Watauga County Tax Office

Tyler Rash, Tax Administrator
Joshua Kleene, Vincent Valuations LLC
842 W. King St. Ste 21, Boone, NC 28607
828-265-8021

Watauga County Schedule of Values 2027

Schedule of rules, standards, and values to be used in appraising property in Watauga County for the reappraisal effective January 1, 2027.

WATAUGA COUNTY
BOARD OF COMMISSIONERS

Braxton Eggers, Chairman
Todd Castle, Vice Chairman
Emily Greene
Tim Hodges
Ronnie Marsh

Approved

_____
Date

WATAUGA COUNTY BOARD OF COMMISSIONERS

Signed_____
Chairman, Board of Commissioners

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APPRAISAL THEORY

An appraisal, in itself, is nothing more than an opinion of value. This does not imply, however, that one opinion is necessarily as good as another; there are valid and accurate appraisals, and there are invalid and inaccurate appraisals. The validity of an appraisal can be measured against the supporting evidence from which it was derived, and its accuracy against that very thing it is supposed to predict - the actual behavior of the market. Each is fully contingent upon the ability of the appraiser to record adequate data and to interpret that data into an indication of value.

Appraising real property, like the solving of any problem, is an exercise in reasoning. It is a discipline, and like any discipline, it is founded on fundamental economic and social principles. From these principles evolve certain premises which, when applied to the valuation of property, serve to explain the reaction of the market. This section concerns itself with those concepts and principles basic to the property valuation process. One cannot overstate the necessity of having a workable understanding of them.

BUNDLE OF RIGHTS

Real estate and real property are often used interchangeably. Generally speaking, real estate pertains to the real or fixed improvements to the land such as structures and other appurtenances, whereas real property encompasses all the interests, benefits, and rights enjoyed by the ownership of the real estate.
Real property ownership involves the Bundle of Rights Theory that asserts that the owner has the right to enter it, use it, sell it, lease it, or give it away, as he/she chooses. These rights are guaranteed by law, but they are subject to certain governmental and private restrictions.

Governmental restrictions are found in its power to:

- Tax Property
- Take property by condemnation for the benefit of the public, providing that just compensation is made to the owner (Eminent Domain)
- Police property by enforcing any regulations deemed necessary to promote the safety, health, morals and general welfare of the public
- Provide for the reversion of ownership to the state in cases where a competent heir to the property cannot be ascertained (Escheat)

Private restrictions imposed upon property are often in the form of agreements incorporated into the deed. The deed also spells out precisely which rights of the total bundle of rights the buyer is acquiring. Since value is related to each of these rights, the appraiser should know precisely which rights are involved in his/her appraisal.

Appraisals for Ad Valorem tax purposes generally assume the property is owned in the “Fee Simple”, meaning that the total bundle of rights is considered to be intact.

THE NATURE AND MEANING OF VALUE

An appraisal is an opinion or estimate of value. The concept of value is basic to the appraisal process and calls for a thorough understanding. The American Institute of Real Estate Appraisers' Appraisal Terminology Handbook, 1981 edition, offers the following definitions of values:

- "The measure of value is the amount (for example, of money) which the potential purchaser probably will pay for possession of the thing desired."
- "The ratio of exchange of one commodity for another, for example, one bushel of wheat in terms of a given number of bushels of corn; thus, the value of one thing may be expressed in terms of another thing. Money is the common denominator by which value is measured."
- "It is the power of acquiring commodities in exchange, generally with a comparison of utilities – the utility of the commodity parted with (money) and that of the commodity acquired in the exchange (property)."
- "Value depends upon the relation of an object to unsatisfied needs; that is, supply and demand."
- Value is the present worth of future benefits arising out of ownership to typical users and investors.

With these definitions, one can see that value is not an intrinsic characteristic of the commodity itself. On the contrary, value is determined by people; it is created by desire, modified by varying degrees of desire and reduced by lack of desire. Throughout the definitions a relationship between the purchaser and the commodity (property) is implied; this relationship is "value". A purchaser desires a property because it is a useful commodity in that it has utility. Utility is a prerequisite to value, but utility standing alone does not sufficiently cause value. If a great supply of a useful commodity exists, as for example air, needs would be automatically satisfied, desire would not be aroused, and therefore value would not be created. Therefore, besides having utility, in order to effectively arouse desire, the commodity must also be scarce.

One additional factor is necessary to complete the value equation - the ability to become a buyer. A translation must be made of desire into a unit of exchange; a buyer must have purchasing power. The relationship is now complete - the commodity has utility and is relatively scarce, it arouses desire, and the buyer is able to satisfy that desire by trading for it - value is created. The question is how much value, and herein lies the job of the appraiser.

Numerous definitions of value have been offered, some simple and some complex. It would seem though that any valid definition of value would necessarily embody the elements of utility, desire, scarcity, and purchasing power. Furthermore, the concept of value very rarely stands alone. Instead, it is generally prefixed by a descriptive term that serves to relate it to a specific appraisal purpose or activity such as "loan value". Since appraisals are made for a variety of reasons, it is important for the appraiser to clarify the specific purpose for the appraisal and the type of value that he/she seeks to estimate.

For Ad Valorem Tax purposes, the value sought is generally market value. The descriptive term "market" indicates the activity of buyers and sellers. MARKET VALUE is the justifiable price, or that price which an informed and intelligent buyer, fully aware of the existence of competing properties, and not being compelled to act, would be justified in paying for a particular property.

VALUE IN USE AS OPPOSED TO VALUE IN EXCHANGE

We have stated that there are a number of qualifying distinctions made in reference to the meaning of value. One of the most common and probably the most important relative to the purpose of this manual is the distinction between value in use and value in exchange. We have defined market value as a justifiable price that buyers, in general, will pay in the market. The question arises then as to the value of property that, by nature of its special and highly unique design, is useful to the present owner, but relatively less useful to buyers in the market. One can readily see that such a property's utility value may differ greatly from its potential sales price. It is even possible that no market for such a property exists. Such a property is said to have value in use that refers to the actual value of a commodity to a specific person, as opposed to value in exchange which aligns itself with market value, referring to the dollar value of a commodity to buyers in general.

THE PRINCIPLE OF SUPPLY AND DEMAND

Among the forces, which constantly operate to influence supply and demand, are population growth, new techniques in transportation, purchasing power, price levels, wage rates, taxation, governmental controls, and scarcity. A sudden population growth in an area would create an increase in demand for housing. If the demand increased at a higher rate than the supply, there could soon be a scarcity of housing. If the demand was backed up by purchasing power, rentals and sale prices would tend to increase and ultimately reach a level which would tend to stimulate more builders to compete for the potential profits and thus serve to increase the supply toward the level of demand. As the supply increases demand would begin to taper off; this would cause rentals and sale prices to level off. When builders, due to increases in labor and material rates, are no longer able to build cheaply enough to meet the new level of prices and rents; competition would tend to taper off and supply would level off. The cycle is then complete.

Balance occurs when reasonable competition serves to coordinate supply with demand. When competition continues unchecked to produce a volume that exceeds the demand, the net returns to investors are no longer adequate to pay all the costs of ownership, resulting in loss rather than profit and consequently, a decline in values.

A community may well support two shopping centers, but the addition of a third shopping center may increase the supply to excess. If this occurs, one of two effects occurs; either the net dollar return to all the shopping centers will be reduced below that level necessary to support the investment, or one of the shopping centers will flourish at the others' expense.

THE PRINCIPLE OF HIGHEST AND BEST USE

The highest and best use for a property is that use which will produce the highest net return to the land over a given period within the limits of those uses which are economically feasible, probable and legally permissible.

On a community-wide basis, the major determining factor in highest and best use is the maximum quantity of land that can be devoted to a specific use and still yield a satisfactory return. Once a suitable basic use has been chosen for a specific property, each increment of capital investment to the existing or planned improvement will increase the net return to the land only up to a certain point; after this point is reached, the net return to the land begins to diminish. This is the point at which the land is at its highest and best use

For example, in planning a high-rise office building, each additional upper floor represents an extra capital expenditure that must yield a certain return to the investor. This return will be dependent upon the levels of economic rent that the market will bear at the time. An optimum number of floors can be calculated above which the income yield requirements of additional expenditures will no longer be satisfactorily met. This, notwithstanding the possibility of other more particular considerations, should determine the number of stories of the building.

Detailed analysis of this type is rarely thrust upon the property tax appraiser. Generally, the tax appraiser will find the most prudent course of action to consider the present use and follow development rather than anticipate it.

THE PRINCIPLE OF CHANGE

The impact of change on the value of real property manifests itself in the life cycle of a neighborhood. The cycle is characterized by three stages of evolution: the development and growth evidenced by improving values; the leveling off stage evidenced by static values; and finally, the stage of infiltration and decay evidenced by declining values.

The highest and best use today is not necessarily the highest and best use tomorrow. The highest and best use of the land often lies in a succession of uses. A declining single-family residential neighborhood may be ripe for multi-family, commercial, or industrial development. Whether it is or not depends upon the relationship of present or anticipated future demand with existing supply.

In estimating value, the appraiser is obligated to reasonably anticipate the future benefits, as well as the present benefits derived from ownership and to evaluate the property in light of the quality, quantity, and duration of these benefits based on actual data as opposed to speculative or potential benefits that may or may not occur.

THE PRINCIPLE OF SUBSTITUTION

People in the marketplace create value. It is the function of translating demand into a commodity of exchange. When the benefits and advantages derived from two properties are equal, the lowest priced property receives the greatest demand, and rightfully so. The informed buyer is not justified in paying anything more for a property than it would cost to acquire an equally desirable property. That is to say that the value of a property is established as that amount for which equally desirable comparable properties are bought and sold in the market. Herein lies an approach to value and the basis of the valuation process.

TRADITIONAL APPROACHES TO VALUE

In the preceding paragraphs, it has been stated that value is an elusive item that occurs in many different forms, and that the forces and influences which combine to create, sustain, or destroy value are numerous and varied. It is the appraiser's function to: (this is to be done for each property appraised)

- Define the type of value sought
- To compile and to analyze all related data
- Give due consideration to all the factors which may influence the value
- Translate the data into a final opinion or estimate of value.

The processing of this data into a conclusion of value generally takes the form of three recognized approaches to value: Cost approach, Market Data Approach and Income Approach. Underlying each of the approaches is the principle that the justifiable price of a property is no more than the cost of acquiring and/or reproducing an equally desirable substitute property. The use of one or all three approaches in the valuation of property is determined by the quantity, quality and accuracy of the data available to the appraiser.

The *COST APPROACH* involves making an estimate of the depreciated cost of reproducing or replacing the building and site improvements. *Reproduction Cost* refers to the cost at a given point in time of reproducing a replica property, whereas *Replacement* Cost refers to the cost of producing improvements of equal utility. Depreciation is deducted from this cost new for loss in value caused by physical deterioration, functional or economic obsolescence. The estimated value of the land is then added to this depreciated cost, resulting in an indication of value derived by this approach to value.

The significance of the Cost Approach lies in its extent of application: It is the one approach that can be used on all types of construction. It is a starting point for appraisers and therefore, it is a very effective "yardstick" in any equalization program for Ad Valorem taxes. Its widest application is in the appraisal of properties where the lack of adequate market and income data preclude the reasonable application of the other traditional approaches.

The *MARKET DATA APPROACH* involves the compiling of sales and offerings of properties that are comparable to the property being appraised. These are then adjusted for any dissimilarity; and a value range obtained by comparison of said properties. The approach is reliable to the extent that the properties are comparable, and the appraiser's judgment of proper adjustments is sound. The procedure for using this approach is essentially the same for all types of properties where the only difference being the elements of comparison.

The significance of this approach lies in its ability to produce estimates of value that directly reflect the attitude of the market. Its application is contingent upon the availability of comparable sales and therefore, finds its widest range in the appraisal of vacant land and residential properties.

The *INCOME APPROACH* measures the present worth of the future benefits of a property by the capitalization of the net income stream over the remaining economic life of the property. The approach involves making an estimate of the 'effective gross income' of a property. This is derived by deducting the appropriate vacancy and collection losses from its estimated economic rent, as evidenced by the yield of comparable properties. Next the applicable operating expenses: the cost of taxes, insurance and reserve allowances for replacements are deducted; resulting in an estimate of net income which may then be capitalized into an indication of value.

This approach obviously has its basic application in the appraisal of properties universally bought and sold on their ability to generate and maintain a stream of income for their owners. The effectiveness of the approach lies in the appraiser's ability to relate to the changing economic environment and to analyze income and yield in terms of their relative quality and durability.

PROPERTY VALUATION TECHNIQUES

APPLYING THE COST APPROACH

If the highest and best use of a property is its present use, a valid indication of value may be derived by estimating the value of the land, and adding the land value to the depreciated value of the structures on the land; the resulting equation being:

Estimated Land Value
\+ Estimated Replacement Cost New of Structures
\- Estimated Depreciation
= Indication of Property Value

Since estimating the land value is covered in a separate section, this section will address itself to the two remaining elements: Replacement Cost and Depreciation.

REPLACEMENT COST

Replacement Cost is the current cost of producing an improvement of equal utility to the subject property; it may or may not be the cost of reproducing a replica property. The distinction being drawn is one between *Replacement Cost,* which refers to a substitute property of equal utility, as opposed to *Reproduction Cost,* which refers to a substitute replica property. In a particular situation the two concepts may be interchangeable, but they are not necessarily so. They both, however, have application in the Cost Approach to value, the difference being reconciled in the consideration of depreciation allowances.

In actual practice, outside of a few historic type communities in this country, developers and builders, for obvious economic reasons, replace buildings not reproduce them. It logically follows that if an appraiser’s job is to measure the actions of knowledgeable people in the marketplace, the use of property replacement costs should provide an accurate point of beginning in the valuation of most improvements.

The replacement cost includes the total cost of construction incurred by the builder whether preliminary to, during the course of, or after completion of the construction of a particular building. Among these are material, labor, all subcontracts, builders' overhead and profit, architectural and engineering fees, consultation fees, survey and permit fees, legal fees, taxes, insurance, and the cost of interim financing.

ESTIMATING REPLACEMENT COST

There are various methods that may be employed to estimate replacement cost new. The methods widely used in the appraisal field are the *quantity-survey method*, *the unit-in-place/component part-in-place method* and *the model method*.

The *Quantity-Survey Method* involves a detailed itemized estimate of the quantities of various materials used, labor/equipment requirements, architect/engineering fees, contractors overhead/profit and other related costs. This method is primarily employed by contractors and cost estimators for bidding and budgetary purposes. It is much too laborious and costly to be effective in everyday appraisal work, especially in the mass appraisal field. This method, however, does have its place in that it is used to develop certain unit-in-place costs that can be more readily applied to estimating for appraisal purposes.

The *Unit-in-Place Method* is employed by establishing in-place cost estimates (including material, labor, overhead and profit) for various structural components. The prices established for the specified components are related to their most common units of measurement such as cost per yard of excavation, cost per lineal foot of footings, and cost per square foot of floor covering.

The unit prices can then be multiplied by the respective quantities of each as they are found in the composition of the subject building to derive the whole dollar component cost, the sum of which is equal to the estimated cost of the entire building, providing of course, that due consideration is given to all other indirect costs which may be applicable. The components part-in-place method of using basic units can also be extended to establish prices for larger components in-place such as complete structural floors (including the finish flooring, subfloor joists and framing) which are likely to occur repeatedly in a number of buildings.

The *Model Method* is still a further extension, in that unit-in-place costs are used to develop base unit square foot or cubic foots costs for total specified representative structures in place, which may then serve as “models” to derive the base unit cost of comparable structures to be appraised. The base unit cost of the model method is most representative of the subject building where it is applied, and appropriate tables of additions and deductions are used to adjust the base cost to account for any significant variations between it and the model.

Developed and applied properly, these pricing techniques will assist the appraiser in arriving at a valid and accurate estimate of replacement cost new as of a given time. That cost generally represents the upper limit of value of a structure. The difference between its replacement cost new and its present value is depreciation. The final step in completing the Cost Approach then is to estimate the amount of Depreciation and deduct said amount from the replacement cost new.

DEPRECIATION

Simply stated, depreciation can be defined as "a loss in value from all causes." As applied to real estate, it represents the loss in value between market value and the sum of the replacement cost new of the improvements plus the land value as of a given time. The causes for the loss in value may be divided into three broad classifications: Physical Deterioration, Functional Obsolescence and Economic Obsolescence.

Physical Deterioration pertains to the wearing out of the various building components, referring to both short-life and long-life terms, through the action of the elements, age and use. The condition may be considered either "curable" or "incurable", depending upon whether it may or may not be practical and economically feasible to cure the deficiency by repair and replacement

Functional Obsolescence is a condition caused by either inadequacies or over-adequacies in design, style, composition or arrangement inherent to the structure itself which tends to lessen its usefulness. Like physical deterioration, the condition may be considered either curable or incurable. Some of the more common examples of this obsolescence are excessive wall and ceiling heights, excessive structural construction, surplus capacity, ineffective layouts and inadequate building services.

Economic Obsolescence is a condition caused by factors extraneous to the property itself, such as changes in population characteristics and economic trends, encroachment of inharmonious land uses, excessive taxes, and governmental restrictions. The condition is generally incurable in that the causes lie outside the property owner′s realm of control.

ESTIMATING DEPRECIATION

An estimate of depreciation represents an opinion of the appraiser as to the degree that the present and future appeal of a property has been diminished by deterioration and obsolescence. Of the three estimates necessary to the cost approach, it is the one most difficult to make. The accuracy of the estimate will be a product of the appraiser's experience in recognizing the symptoms of deterioration and obsolescence and the ability to exercise sound judgment in equating all observations to the proper monetary allowance to be deducted from the replacement cost new. There are several acceptable methods that may be employed:

Physical deterioration and/or functional obsolescence can be measured by observing and comparing the physical condition and/or functional deficiencies of the subject property as of a given time with either an actual or hypothetical, comparable, new and properly planned structure.

Curable physical deterioration and functional obsolescence can be measured by estimating the cost of restoring each item of depreciation to a physical condition as good as new, or estimating the cost of eliminating the functional deficiency.

Functional and economic obsolescence can be measured by capitalizing the estimated loss in rental due to the structural deficiency, or lack of market demand.

Total accrued depreciation may be estimated by first estimating the total useful life of a structure and then translating its present condition, desirability, and usefulness into an effective age (rather than an actual age) that would represent that portion of its total life (percentage) which has been used up.

Total accrued depreciation may also be estimated by deriving the amount of depreciation recognized by purchasers as evidenced in the prices paid for property in the market place; the loss of value being the difference between the cost of replacing the structure now and its actual selling price (total property selling price less the estimated value of the land).

APPLYING THE MARKET DATA APPROACH

An indication of the value of a property can be derived by analyzing the selling prices of comparable properties. The use of this technique, often referred to as the "comparison approach" or "comparable sales approach", involves the selection of a sufficient number of valid comparable sales and the adjustment of each sale to the subject property to account in time, location, site and structural characteristics.

SELECTING VALID COMPARABLES

Since market value has been defined as the price which an informed and intelligent buyer, fully aware of the existence of competing properties and not being compelled to act is justified in paying for a particular property, it follows that if market value is to be derived from analyzing comparable sales must represent valid "arm's length" transactions. Due consideration must be given to the conditions and circumstances of each sale before selecting the sales for analysis. Some examples of sales that do not normally reflect valid market conditions are as follows:

- Sales in connection with foreclosures, bankruptcies, condemnations and other legal action
- Sales to or by federal, state, or county and local governmental agencies
- Sales to or by religious, charitable or benevolent tax-exempt agencies
- Sales involving family transfers, or "love and affection"
- Sales involving intra-corporate affiliations
- Sales involving cemetery lots
- Sales involving mineral or timber rights, and access or drainage rights
- Sales involving the transfer of part interests

In addition to selecting valid market transactions, it is equally important to select properties that are truly comparable to the property under appraisement. For instance, sales involving both real property and personal property or chattels may not be used unless the sale can be adjusted to reflect only the real property transaction, nor can sales of non-operating or deficient industrial plants be validly compared with operating plants. The comparable and subject properties must exhibit the same use, and the site and structural characteristics must exhibit an acceptable degree of comparability.

PROCESSING COMPARABLE SALES

All comparable sales must be adjusted to the subject property to account for variations in time and location. The other major elements of comparison will differ depending upon the type of property being appraised. In selecting these elements, the appraiser must consider the same factors that influence the prospective buyers of particular types of properties.

The typical homebuyer is interested in the property's capacity to provide the family with a place to live. A primary concern is with the living area, utility area, number of rooms, number of baths, age, structural quality/condition, the presence of a modern kitchen and recreational conveniences of the house. Equally important is the location and neighborhood; including the proximity to and the quality of schools, public transportation and recreational and shopping facilities.

In addition to the residential amenities, the buyer of agricultural property is primarily interested in the productive capacity of the land, the accessibility to the marketplace and the condition/functional utility of the farm buildings and structures on the land.

The typical buyer of commercial properties, including warehouses and certain light industrial plants, is primarily concerned with its capability to produce revenue. Of special interest will be the age, design and structural quality and condition of the improvements, the parking facilities, and the location relative to transportation, labor markets and trade centers.

In applying the market data approach to commercial/industrial property, the appraiser will generally find it difficult to locate a sufficient number of comparable sales, especially of properties that are truly comparable in their entirety. It will, therefore, generally be necessary to select smaller units of comparisons such as price per square foot, per unit, per room etc. In doing so, great care must be exercised in selecting a unit of comparison that represents a logical common denominator for the properties being compared. A unit of comparison that is commonly used and proven to be fairly effective is the Gross Rent Multiplier, generally referred to as G.R.M, which is derived by dividing the gross annual income into the sales price. Using such units of comparison enables the appraiser to compare two properties that are similar in use and structural features but differ significantly in size and other characteristics.

Having selected the major factors of comparison, it remains for the appraiser to adjust each of the factors to the subject property. In comparing the site, adjustments for size, location, accessibility and site improvements must be made. In comparing the structures, adjustments for size, quality, design, condition and significant structural and mechanical components also must be made. The adjusted selling prices of the comparable properties will establish a range in value in which the value of the subject property will fall. Further analysis of the factors should enable the appraiser to narrow the range down to the value level that is most applicable to the subject property.

APPLYING THE INCOME APPROACH

INTRODUCTION

The justified price paid for income producing property is no more than the amount of investment required to produce a comparably desirable return; and since the market can be analyzed in order to determine the net return actually anticipated by investors, it follows that the value of income producing property can be derived from the income which it is capable of producing. What is involved is an estimate of income through the collection and analysis of available economic data, the development of a property capitalization rate and the processing of the net income into an indication of value by employing one or more of the acceptable capitalization methods and techniques.

THE PRINCIPLES OF CAPITALIZATION

Capitalization is the process for converting the net income produced by property into an indication of value. Through the years of appraisal history, a number of procedures have been recognized and employed by appraisal authorities in determining the value of real estate by the income approach. Although present-day practice recommends only certain methods, we will at least touch on the other approaches to value- even though they may not be accepted in today's appraisal scene because they do not accurately reflect the current market conditions.

EXPLORING THE RENTAL MARKET

The starting point for the appraiser is an investigation of current economic rent in a specific area in order to establish a sound basis for estimating the gross income that should be returned from competitive properties. The appraiser must make a distinction between economic rent; the rent which property is normally expected to produce on the open market, as opposed to control rent or the rent which property is actually realizing at the time of the appraisal due to lease terms established sometime in the past.

The first step then is to obtain specific income and expense data on properties that best specify normal market activity. The data is necessary to develop local guidelines for establishing the economic rent and related expenses for various types of properties.

The next step is to similarly collect income and expense data on individual properties and to evaluate the data against the established guidelines.

The collection of income and expense data (I & E) is an essential phase in the valuation of commercial properties. The appraiser is primarily concerned with the potential earning power of the property. The objective is to estimate its expected net income. Income and Expense Statements of past years are valuable only to the extent that they serve this end. The statements must not only be complete and accurate, but must also stand the test of market validity. Consideration of the following factors should assist the appraiser in evaluating I & E data in order to arrive at an accurate and realistic estimate of net income.

QUESTIONS RELATING TO INCOME DATA

A. Was the reported income produced entirely by the subject property? Very often the rental will include an amount attributable to one or more additional parcels of real estate. In this case, it would be necessary to obtain the proper allocations of rent.

B. Was the income attributable to the subject property as it physically existed at the time of the appraisal, or did the appraisal include the value of leasehold improvements and remodeling for which the tenant paid in addition to rent? If so, it may be necessary to adjust the income to reflect economic rent.

C. Does the reported income represent a full year's return? It is often advisable to obtain both monthly and annual amounts as a crosscheck.

D. Does the income reflect current economic rent? Is either part or all of the income predicted on old leases? If so, what are the provisions for renewal options and rates?

E. Does the reported income reflect 100% occupancy? What percentage of occupancy does it reflect? Is this percentage typical of this type of property or is it due to special non-recurring causes?

F. Does the income include rentals for all marketable space? Does it include an allowance for space, if any, which is either owner or manager occupied? Is the allowance realistic?

G. Is the income attributable directly to the real estate and conventional amenities? Is some of the income derived from furnishings and appliances? If so, it will be necessary to adjust the income or make provisions for reserves to eventually replace them, whichever local custom dictates.

H. In many properties, an actual rental does not exist because the real estate is owner occupied. In this event it is necessary to obtain other information to provide a basis to estimate economic rent. The information required pertains to the business operation using property. Proper analysis of the annual operating statements of the business, including gross sales or receipts, can provide an accurate estimate of economic rent. Information requirements for a few of the more common property uses are as follows:

1. Retail Stores – The annual net gross sales. (Gross sales less returned merchandise)
2. Hotels and Motels -- The annual operating statement of the business. If retail or office space is leased in these properties, obtain the actual rent paid.
3. Theaters – The annual gross receipts (including admission and concessions) and seating capacity
4. Automobile Parking – The annual gross receipts.

ANALYSIS OF EXPENSE DATA

The appraiser must consider only those expenses that are applicable to the cost of ownership; that is, those expenses that are normally owner incurred. Any portion of the expenses incurred directly or indirectly by the tenant should not be considered. Each expense item must stand the test of both legitimacy and accuracy. How do they compare the established guidelines and norms? Are they consistent with the expenses incurred by comparable properties?

Management – refers to the cost of administration. These changes should realistically reflect what a real estate management company would actually charge to manage the property. If no management fee is shown on the statement, a proper allowance must be made by the appraiser. On the other hand, if excessive management charges are reported, as is often the case, the appraiser must disregard the reported charges and use an amount that he/she deems appropriate and consistent with comparable type properties. The cost of management creates a relationship with the risk of ownership and will generally range between 4% and 10% of the gross income.

General – expenses may include such items as the cost of services and supplies not charged to a particular category. Unemployment and F.I.C.A taxes, workmen's compensation and other employee insurance plans are usually legitimate deductions when employees are a part of the building operation.

Reimbursed Expenses – is the "catch-all" category for incidentals. This item should reflect a very nominal percentage of the income. If the expenses reported seem to be excessive, the appraiser must examine the figures carefully in order to determine if they are legitimate expenses, and if so, to allocate them to their proper category.

Miscellaneous Expenses – are legitimate charges for such items as general housekeeping/maid service and include the total cost of labor and related supplies. All or a portion of the cleaning services may be provided by outside firms working on a "contract" basis. Cleaning expenses vary considerably and are particularly significant in operations such as offices and hotels. "Rule of thumb" norms for various operations are made available through national management associations. The appraiser should have little difficulty in establishing local guidelines.

Utilities – are generally legitimate expenses and if reported accurately, need very little reconstruction by the appraiser, other than to determine if the charges are consistent with comparable properties. Local utility companies can provide the appraiser with definite guidelines.

Heat and Air Conditioning – costs are often reported separately and in addition to utilities. The expenses would include the cost of fuel other than the above-mentioned utilities. They may include, especially in large installations, the cost of related supplies, inspection fees and maintenance charges. These are generally legitimate costs and the same precautions prescribed for "utilities" are in order.

Elevator expenses - including the cost of repairs and services, are legitimate deductions, and are generally handled through service contracts. These fees can generally be regarded as fairly stable annual recurring expenses.

Decorating and minor alterations - are necessary to maintain the income stream of many commercial properties. In this respect they are legitimate expenses. However, careful scrutiny of these figures is required. Owners tend to include the cost of major alterations and remodeling which are, in fact, capital expenditures, and as such are not legitimate operating expenses.

Repairs and Maintenance - expenses reported for any given year may not necessarily be a true indication of the average or typical annual expense for these items. For example, a statement could reflect a substantial expenditure for a specific year (possibly because the roof was replaced and/or several items of deferred maintenance were corrected); yet the statement for the following year may indicate that repairs and maintenance charges were practically nonexistent. It is necessary for the appraiser to either obtain complete economic history on each property in order to make a proper judgment as to the average annual expense for these items, or include a proper allowance based on norms for the type and age of the improvements to cover annual expenses. Since it is neither possible nor practical to obtain enough economic history on every property, the latter method is generally used and the amounts reported for repairs and maintenance are then estimated by the appraiser.

Insurance - Caution must be used in accepting insurance expense figures. Cost shown may be for more than one year, or maybe for blanket policies including more than one building. It is generally more effective for the appraiser to establish his own guidelines for insurance. He must also be careful to include only items applicable to the real estate. Fire extended coverage and owner's liability are the main insurance expense items. Separate coverages on special component parts of the buildings, such as elevators and plate glass, are also legitimate expenses.

Real Estate Taxes - In making appraisals for tax purposes, the appraiser must exclude the actual amount reported for real estate taxes. Since future taxes will be based on his appraised value, the appraiser must express the taxes as a factor of the estimated value. This can be done by including an additional percentage in the capitalization rate to account for real estate taxes.

Depreciation - The figure shown for depreciation on an operating statement is a "bookkeeping figure" which the owner uses for Internal Revenue purposes and should not be considered in the income approach. This reflects a tax advantage that *is* one of the benefits of ownership.

Interest - Although interest is considered a legitimate expense, it is always included in the Capitalization Rate. Most property is appraised as if it were "free and clear"; however, the appraiser does consider the interest of a current mortgage in the Capitalization Rate build-up.

Land Rate – When appraising for real estate tax purposes, only the sum of the leasehold and the leased fee is usually considered. Land rent is not deducted as an expense. Considered separately, rent from a ground lease would be an expense to the leasehold interest and an income to the leased fee. However, if land were rented from another property to supply additional parking for example, that land rent would be an allowable expense.

It is obvious that there is some expense items encountered on operating statements that the appraiser should not consider as allowable. This is because he is interested in legitimate cash expenses only. Income statements are usually designed for income tax purposes where credit can be taken for borrowing costs and theoretical depreciation losses.

It is virtually impossible and certainly not always practical to obtain a complete economic history on every commercial property being appraised. On many properties, however, detailed economic information can be obtained through the use of Income and Expense forms. One must realistically recognize the fact that the data obtainable on some properties is definitely limited.

In most cases, the gross income and a list of the services and amenities furnished can be obtained during the data gathering operation. However, in order to ensure a sound appraisal, it may be necessary to estimate the fixed and operating expenses. This is best accomplished by setting guidelines for expenses, based on a percent of Effective Gross Income or a cost per square foot of leasable area. These percentages or costs will vary depending on the services supplied and the type of property.

CAPITALIZATION METHODS

The most prominent methods of capitalization are Direct, Straight Line, Sinking Fund, and Annuity. Each of these is a valid method for capitalizing income into an indication of value. The basis for their validity lies in the action of the market, which indicates that the value of income producing property can be derived by equating the net income with the net return anticipated by informed investors. This can be expressed in terms of a simple equation:

$$\text{Value} = \frac{\text{Net income}}{\text{Capitalization rate}}$$

The *Straight Line/Sinking Fund* methods are both actual forms of Straight Capitalization, with one using Straight Line recapture and the other using Sinking Fund recapture. Both methods follow the same basic principles as Direct Capitalization, differing only in that they provide for separate capitalization rates for land and buildings; the building rate differing from the land rate in that it includes an allowance for recapture.

Straight Line Capitalization allows for "recapture" based on remaining economic life of the building implying that at the end of the period of time, there would be a zero-improvement value. There are three fallacies in this thinking. First, the potential buyer (investor) has no intention of holding the property that long. The average investment period might average ten years. Second, the investor anticipates that at the end of that period he/she will get all his/her money back or will make a profit. Lastly, is the depreciation allowance possible in connection with federal income taxes.

Depreciation allowances begin to 'run out' between seven and ten years, so the advantages of owning the property are reduced considerably. A prudent owner may choose to sell the property at this point and reinvest in another so that he/she may begin the depreciation cycle again and continue to take full advantage of the favorable tax laws.

For these reasons, the Straight-Line Capitalization Method does not usually follow what the market indicates.

Straight Line recapture calls for the return of investment capital in equal increments or percentage allowances spread over the estimated remaining economic life of the building. *Sinking Fund* recapture calls for the return of invested capital in one lump sum at the termination of the estimated remaining economic life of the building. This is accomplished by providing for the annual return of a sufficient amount needed to invest and annually re invest in "safe" interest bearing account, such as government bonds or certificates of deposit, which will ultimately yield the entire capital investment during the course of the building's economic life.

Annual Capitalization lends itself to the valuation of long-term leases. In this method, the appraiser determines, by the use of annuity tables, the present value of the right to receive a certain specified income over stipulated duration of the lease. In addition to the value of the income stream, the appraiser must also consider the value that the property will have once it reverts back to the towner at the termination of the lease. This reversion is valued by discounting its anticipated value against its present-day worth. The total property value then is the sum of the capitalized income stream plus the present worth of the reversion value.

CURRENT TECHNIQUES

There are two methods, however, that do lend themselves to an accurate measure of market value based on potential income. These are Direct Capitalization, using the Direct Comparison Method of Rate Selection and Mortgage Equity Capitalization.

DIRECT CAPITALIZATION

In Direct Capitalization, the appraiser determines a single "overall" capitalization rate. This is done by analyzing actual market sales of similar types of properties. He/She develops the net income of each property and divides the net income by the sales price to arrive at an overall rate to provide an indication of value.

MORTGAGE EQUITY CAPITALIZATION

Mortgage Equity Capitalization is a form of direct capitalization with the major difference in the two approaches being the development of the overall rate.

In this method, equity yields and mortgage terms are considered influencing factors in construction of the interest rate. In addition, a plus or minus adjustment is required to compensate for anticipated depreciation or appreciation. This adjustment can be related to the recapture provisions used in other capitalization methods and techniques.

RESIDUAL TECHNIQUES

It can readily be seen that any one of the factors of the Capitalization Equation (Value = Net Income divided by Capitalization Rate) can be determined if the other two factors are known. Furthermore, since the value of property is the sum of the land value plus the building value, it holds that either of these can be determined if the other is known. The uses of these mathematical formulas in capitalizing income into an indication of value are referred to as the residual techniques, or more specifically, the property residual, the building residual, and the land residual techniques.

The *Property Residual Technique* is an application of Direct Capitalization. In this technique, the total net income is divided by an overall capitalization rate (which provides for the return on the total investment) to arrive at an indicated value for the property. This technique has received more popular support in recent years because it closely reflects the market. With this technique, the capitalization rate may be developed by either ‘direct comparison" in the market or by the Mortgage Equity Method.

The *Building Residual Technique* requires the value of the land to be a known factor. The amount of net income required to earn an appropriate rate of return on the land investment is deducted from the total net income. The remainder of the net income (residual) is divided by the building capitalization rate (which is composed of a percentage for the return on the investment, plus a percentage for the recapture of the investment) to arrive at an indicated value for the building.

The *Land Residual Technique* requires the value of the building to be a known factor. The amount of net income required to provide both a proper return on and the recapture of the investment is deducted from the total net income. The remainder of the net income (residual) is then divided by the land capitalization rate (which is composed of a percentage for the return on the investment) to arrive at an indicated value for the land.

MORTGAGE EQUITY METHOD EXAMPLE

For purposes of illustration, assume an investment financed with a 70% loan at 14.0% interest. The term of the mortgage is 20 years, paid off in level monthly payments. The total annual cost for principal and interest on such a loan can be determined by referring to the mortgage equity tables. Select the Constant Annual percent for an interest rate of 14.0% and a term of 20 years. Note that the constant is 14.92% of the amount borrowed, or .92% more than the interest rate alone.

Assume that the equity investor will not be satisfied with less than an 18% yield. The income necessary to satisfy both Lender and Equity can now be shown. The product of the percent portion and the rate equal the weighted rate. The total of each weighted rate equals the weighted average.

	PORTION	RATE		WEIGHTED RATE
Mortgage loan (principal and interest)	70%	.1492	=	.1044
Equity (down payment)	30%	.18	=	.0540
Weighted Average	100%			100%

Note that the "constant annual percent" is used for the rate of the loan.

Since there is a gain in equity's position through the years by the loan being paid off little by little, it is necessary to calculate the credit for "Equity Build-Up". Assume that the investor plans to hold the property for ten years. Since the mortgage is for 20 years, only a portion of the principal will be paid off and this amount must be discounted, as it won't be received for ten years. From the Table of Loan Balance and Debt Reduction, at the end of ten years for a 20-year mortgage at 14%, the figure is .199108. Consulting the sinking fund tables indicates that the discount factor for 18% and 10 years is .0425.

The credit for Equity Build-Up can now be deducted from the basic rate, thus;

.199108 (% of loan paid in 10 yrs.)	x	70% (loan rate)	x	.0425 (sinking fund 18% for 10 yrs.)	= .0059
Resulting Net Rate					= .1525

LAND VALUATION TECHNIQUES

In making appraisals for Ad Valorem Tax Purposes, it is generally necessary to estimate separate values for the land and the improvements on the land. In actuality, the two are not separated and the final estimate of the property as a single unit must be given prime consideration. However, in arriving at that final estimate of value, aside from the requirements for property tax appraisals, there are certain other reasons for making a separate estimate of value of the land.

A. An estimate of land value is required in the application of the Cost Approach
B. An estimate of land value is required to be deducted from the total property selling price in order to derive indications of depreciation through market-data analysis. (Depreciation being equal to the difference between the replacement cost new of a structure and the actual price paid in the marketplace for the structure.)
C. As land is not a depreciable item; a separate estimate of land value is required for bookkeeping and accounting purposes; likewise, the total capitalization rate applicable to land will differ from the rate applicable to the improvements on the land.
D. Since land may or may not be used to its highest potential, the value of the land may be completely independent of the existing improvements on the land.
E. Real Estate is valued in terms of its highest and best use of the land (or site) if vacant, and available for use, may be different from the highest and best use of the improved property. This will be true when the improvement is not an appropriate use and yet makes a contribution to total property value in excess of the value of the site. Highest and Best Use (Highest and Most Profitable Use; Optimum Use) is the reasonable and probable use which will support the highest present value as of the date of the appraisal. Alternatively, it is the most profitable likely use to which a property can be put. It may be measured in terms of the present worth of the highest net return that the property can be expected to produce over a stipulated long run period of time. (**American Institute of Real Estate Appraisers' Appraisal Terminology Handbook, 1981 edition.)**

As appraisers' opinions are based on data derived from the market, it is necessary to study and adapt, if possible, procedures used by those closest to everyday transactions.

COMPARABLE SALES METHOD

The most frequently used method in estimating the value of land is the comparable sales method in which land values are derived from analyzing the selling prices of similar sites. This method is in essence the application of the market data approach to value and all the considerations pertaining thereto are equally applicable here.

The appraiser must select comparable and valid market transactions, and must weigh and give due consideration to all the factors significant to value, adjusting each to the subject property. The comparable sites must be used in the same way as is the subject property, and subjected to the same zoning regulations and restrictions. It is also preferable, whenever possible, to select comparables from the same or a similar neighborhood.

The major adjustments will be to account for variations in time, location, and physical characteristics to include size, shape, topography, landscaping, access, as well as other factors that may significantly influence the selling price, such as the productivity of farmland.

Although it is always preferable to use sales of unimproved lots for comparables, it is not always possible to do so. Older neighborhoods are not likely to yield a sufficient number of representative sales of unimproved lots to permit a valid analysis. In such cases, in order to arrive at an estimate of land values using the comparable sales approach, it is necessary to consider improved property sales and to estimate the portion of the selling price applicable to the structure. The procedure would be to estimate the replacement cost of the buildings as of the date of sale, estimate the accrued depreciation and deduct that amount from the replacement cost resulting in the estimated selling price of the buildings, which can be deducted from the total selling price of the property to derive the portion of the selling price which can be allocated to the land. The equation is as follows:

Selling Price of Property

\- Estimated Depreciated Value of Buildings

= Indication of Land Value

In some of these older neighborhoods, vacant lots will exist often as a result of fire or normal deterioration. Since the desirability as a new building site is restricted, value is generally determined by adjoining property owners who have a desire for additional land area.

In order to apply the comparable sales method, it is first necessary to establish a common unit of comparison. The units generally used in the valuation of land are price per front foot, price per square foot, price per acre, price per apartment unit, and price per motel unit. The selection of any one particular unit depends upon the type of property being appraised, frontage being commonly used for platted, uniform type residential lots, and square footage and acreage for larger, unplatted tracts, as well as irregularly shaped lots lacking in uniformity. Use of square footage is especially desirable in Central Business Districts where the entire lot maintains the same level of value: depth factor adjustments have a tendency to distort this concept. Commercial arteries are also best valued on a square foot basis.

The utility of a site will vary with the frontage, width, depth, and overall area. Similarly, the unit land values should be adjusted to account for differences in size and shape between the comparables and the subject property. Since such an adjustment is generally necessary for each lot, it is beneficial that the appraiser adopt and/or develop standardized procedures for adjusting the lot size and the unit values to account for the variations. It is not uncommon for all lots within a development to market at the same price. Should data indicate this, it is necessary to make alterations or adjustments to maintain this value level. In some cases, a "site value" concept has advantages. Some of the techniques commonly employed are as follows:

Stand lot sizing techniques provide for the adjustment of the frontage, width, and depth of irregular shaped lots to make the units of measurement more comparable with uniform rectangular lots.

Standard Depth Tables provide for the adjustment of front foot unit values to account for variations in depth from a predetermined norm.

Frontage Tables provide for the adjustment of front footage unit values to account for variations in the relative utility value of excessive or insufficient frontage as compared to a predetermined norm.

Acreage or Square Footage Tables provide for the adjustment of unit values to account for variations in the relative utility value of excessive or insufficient land sizes.

During the process of adjusting the comparable sales to account for variations between them and the subject property, the appraiser must exercise great care to include all significant factors and to properly consider the impacts of each of the factors upon the total value. If done properly, the adjusted selling prices of the comparable properties will establish a range in value in which the value of the subject property will fall. Further analysis of the factors should enable the appraiser to narrow the range down to the value level that is most applicable to the subject property.

THE LAND RESIDUAL TECHNIQUE

In the absence of sufficient market data, income-producing land may be valued by determining the portion of the net income attributable to the land and capitalizing the net income into an indication of value. The procedure is as follows:

1. Determine the highest and best use of the land, which may be either its present use or hypothetical use.
2. Estimate the net income that the property can be expected to yield.
3. Estimate the replacement cost new of the improvements.
4. If the case involves the present use, estimate the proper allowance for depreciation, and deduct that amount from the replacement cost new of the improvements to arrive at an estimate of their depreciated value.
5. Develop appropriate capitalization rates.
6. Calculate the income requirements of the improvements, and deduct the amount from the total net income to derive that portion of the income that can be said to be attributable to the land.
7. Capitalize the residual income attributable to the land to an indication of value.

RATIO METHOD

A technique useful for establishing broad indications of land values is a “typical" allocation or ratio method. In this technique, the ratio of the land value to the total value of improved properties is observed in situations where there is good market and/or cost evidence to support both the land values and total values. This market abstract ratio is then applied to similar properties where the total values are known, but the allocation of values between land and improvements are not known. The ratio is usually expressed as a percentage that represents the portion of the total improved value that is land value, or as a formula:

$$\frac{\text{Total Land Value}}{\text{Total Property Value}} \quad \boxed{\text{X } 100\% = \% \text{ Land Is of Total Property}}$$

This technique can be used on most types of improved properties, with important exceptions being farms and recreational facilities, provided that the necessary market and/or cost information is available. In actual practice, available market information limits this technique primarily to residential properties, and to a much lesser extent, commercial and industrial properties such as apartments, offices, shopping centers, and warehouses.

The ratio technique cannot give exact indications of land values. It is nevertheless useful, especially when used in conjunction with other techniques of estimating land values because it provides an indication of the reasonableness of the final estimate of land value.

The ratio should be extracted from available market information and applied to closely similar properties. It should be noted that any factor that affects values may also affect the ratio of values. Zoning is particularly important because it may require more or less improvements be made to the land, or may require a larger or smaller minimum size. This tends to have a bearing on the land values, and so it may also influence the ratio of values considerably from community to community.

The following is a fictional example of a residential land valuation situation:

Market information derived from an active new subdivision

Typical Lot Sale Price (most lots equivalent)					$22,500
Improved Lot Sales (range)					$100,000 to $150,000
Indicated Ratio	$22,500 / 150,000	to	22,500 / 100,00	X 100%	15% to 22.5%

Similar subdivision, but 100% developed

Typical Lot Sale Price (most lots equivalent)	Unavailable
Improved Lot Sales (range)	$100,000 to $150,000
Broadcast Indicated Range of Lot Values (15% x $100,000 to 22.5% x $150,000)	$15,000 to $33,750
Narrowest Indicated Range of Lot Values (22.5% x $100,000 to 15% x $150,000)	$22,500 to $22,500

If both lots and improvements vary considerably, the broadest range is most appropriate. If most lots vary little and are judged equivalent, but the improvements vary somewhat, the narrowest range is appropriate. Most subdivisions exhibit a combination of the two ranges, showing a narrow typical range, but a wider actual range of land values.

MASS APPRAISING

In preceding sections, we have outlined the fundamental concepts, principles, and valuation techniques underlying the Appraisal Process. We will now approach the problem at hand; the revaluation of certain specified real property within a total taxing jurisdiction, be it an entire county or any subdivision thereof; and to structure a systematic mass appraisal program to affect the appraisal of said properties in such a way as to yield valid, accurate and equitable property valuations at a reasonable cost dictated by budgetary limitations and within a time span total compatible with assessing administration's needs.

The key elements of the program are validity, accuracy, equity, economy, and efficiency. To be effective, the program must:

1. Incorporate the application of proven and professionally acceptable techniques and procedures;

2. Provide for the compilation of complete and accurate data and the processing of that data into an indication of value approximating the prices actually being paid in the marketplace;

3. Provide the necessary standardizations measures and quality controls essential to promoting and maintaining uniformity throughout the jurisdiction;

4. Provide the appropriate production controls necessary to execute each phase of the operation in accordance with a carefully planned budget and work schedule; and -

5. Provide techniques especially designed to streamline each phase of the operation, eliminating superfluous functions, and reducing the complexities inherent in the Appraisal Process to more simplified but equally effective procedures.

In summary, the objective of an individual appraisal is to arrive at an opinion of value, the key elements being the validity of the approach and the accuracy of the estimate. The objective of a mass appraisal for tax purposes is essentially the same. However, in addition to being valid and accurate, the value of each property must be equitable to that of each other's property. These valid, accurate, and equitable valuations must be generated as economically and efficiently as possible.

OVERVIEW

The job of the appraiser is to arrive at a reasonable estimate of value. To accomplish this, the coordination of approaches to valuation of the various classes of property must be made so that they are related to another in such a way as to reflect the motives of the prospective purchasers of each type of property.

A prospective purchaser of a residential property is primarily interested in its capacity to render service to the family as a place to live. Its location, size, quality, design, age, condition, desirability and usefulness are the primary factors to be considered in making a selection. By relying heavily upon powers of observation and inherent intelligence, knowing what could be afforded and simply comparing what is available, one property will eventually stand out to be more appealing than another. So, it is likewise the job of the appraisers to evaluate the relative degree of appeal of one property to another for tax purposes.

The prospective purchaser of agricultural property will be motivated somewhat differently. The primary interest will be in the productive capabilities of the land. It is reasonable to assume that the purchaser will be familiar, at least in a general way, with the productive capacity of the farm. It might be expected that the prudent investor will have compared one farm's capabilities against another. Accordingly, the appraiser for local tax equalization purposes must rely heavily upon prices being paid for comparable farmland in the community.

The prospective purchaser of commercial property is primarily interested in the potential net return and tax shelter the property will provide. That price which is justified to pay for the property is a measure of the prospects for a net return from the investment. Real estate, as an investment then, must not only compete with other real estate, but also with stocks, bonds, annuities, and other similar investment areas. The commercial appraiser must explore the rental market and compare the income-producing capabilities of one property to another,

The prospective purchaser of industrial property is primarily interested in the overall utility value of the property. Of course, in evaluating the overall utility, individual consideration must be given to the land and each improvement thereon. Industrial buildings are generally of special purpose design, and as such, cannot readily be divorced from the operation for which they were built. As long as the operation remains effective, the building will hold its value; if the operation becomes obsolete, the building likewise becomes obsolete. The upper limit of its value is its replacement cost new, and its present-day value is some measure of its present-day usefulness in relation to the purpose for which it was originally designed.

Any effective approach to valuations for tax purposes must be patterned in such a way as to reflect the "modus operandi" of buyers in the marketplace. As indicated above, the motives influencing prospective buyers tend to differ depending upon the type of property involved. It follows that the appraiser's approach to value must differ accordingly.

The residential appraiser must rely heavily upon the market data approach to value; analyzing the selling prices of comparable properties and considering the very same factors of location, size, quality, design, age, condition, desirability, and usefulness that were considered by the buyer.

The farm appraiser must likewise rely primarily upon the market data approach to value, but in addition to analyzing the selling prices of comparable properties; an effective analysis of the farm's productive potential must also be made. Rural dwellings are similar to urban dwellings in that their primary purpose is to provide a family with a home; as such, the appraiser should value them in the same manner as the valuation of any other residence. The approach to farm buildings, however, must be somewhat different. Here, the primary objective is to arrive at that value which the building's presence adds to the productivity of the land, the degree of utility or usefulness. In determining the productive capabilities of the land, it will be necessary to divide the land into various classes according to specific types and uses, such as tillable, pasture, woodland and wasteland; to compute the acreage of each class; and to value each class individually. Due consideration must be given to soil types and their fertility, making every effort to utilize all soil and land maps available through agriculture extension services and state universities. Similarity, equal consideration must be given to all other factors affecting the value of the property, such as its location relative to the marketplace, its relative accessibility, the topography of the land, the shape and size of the fields, the extent and condition of the fences, drainage, water supply, etc.

The commercial appraiser will find that since commercial property is not bought and sold as frequently as residential property, the sales market cannot be readily established. By relying heavily on the income approach to value, the net economic rent, which the property is capable of yielding, can be determined, and the amount of investment required to affect that net return at a rate commensurate with that normally expected by investors, can also be determined. This can only be achieved through a comprehensive study of the income-producing capabilities of comparable properties and an analysis of present-day investment practices.

The industrial appraiser will not be able to rely on the market data approach because of the absence of comparable sales, each sale generally reflecting different circumstances and conditions. Also, it is not possible to rely upon the income approach; again, due to the absence of comparable investments and because of the inability to accurately determine the contribution of each unit of production to the overall income produced. Therefore, by relying heavily on the cost approach to value, a determination must be made of the upper limit or replacement cost new of each improvement and the subsequent loss of value resulting overall from physical, function and economic factors.

The fact that there are different approaches to value, some of which are more applicable to one class of property than to another, does not, by any means, preclude equalization between classes. Remember that the objective in each approach is to arrive at a price that an informed and intelligent person, fully aware of the existence of competing properties and not being compelled to act, is justified in paying for any one particular property. Underlying and fundamental to each of the approaches is the comparison process. Regardless of where the principal criteria are actual selling prices, income-producing capabilities or function usefulness, like properties must be treat alike. The primary objection is equalization. The various approach to value, although valid in themselves, must nevertheless be coordinated one to the other in such a way as to produce values that are not only valid and accurate but are also equitable. The same "yardstick" of values must be applied to all properties and must be applied by systematic and uniform procedures.

It is obvious that sales on all properties are not required to effectively apply the market data approach. The same is true regarding any other approach. What is needed is a comprehensive record of all the significant physical and economic characteristics of each property in order to compare the properties of "unknown" values with the properties of "known" values. All significant differences between properties must in some measure, either positively or negatively, be reflected in the final estimate of value.

Each property must be given individual treatment, but the treatment must be uniform and standardized, and essentially no different than that given to any other property. All the factors affecting value must be analyzed and evaluated for each and every property within the entire political unit. It is only by doing this that equalization between properties and between classes of properties can be ultimately affected.

All this, at best, is an oversimplification of the equalization process underlying the entire Mass Appraisal Program. The program itself consists of various operational phases, and its success depends primarily upon the systematic coordination of collecting and recording data, analyzing the data, and processing the data to an indication of value.

DATA INVENTORY

Basic to the appraisal is the collecting and recording of pertinent data. The data will consist of general supporting data, referring to the data required to develop the elements essential to the valuation process; neighborhood data, referring to information regarding pre-delineated neighborhood units; and specific property data, referring to the data compiled for each parcel of property to be processed into an indication of value by the cost, market and/or income approach.

The data must be comprehensive enough to allow for the adequate consideration of all factors that significantly affect property values. In keeping with the economics of a mass appraisal program, it is costly and impractical to collect, maintain, and process data of no or marginal contribution to the desired objectives. The axiom "too much data is better than insufficient data" does not apply. What does apply is the proper amount of data, no more or no less, which is necessary to provide the database required to generate the desired output.

General Supporting Data The appraisal staff will be primarily concerned with cost, sales and income data but they will also find it necessary to research and compile general socioeconomic information pertaining to the entire political unit under appraisement. The information will serve to assist the staff during the analytical phase of the operation and should include, but not necessarily be limited to, population trends, prevailing geographical factors, primary transportation facilities, primary income sources, unemployment and income levels, institutional influences, the annual volume of new construction and ownership transfers, availability of vacant land, construction labor and material costs, preponderance of residential rentals, and the amount of residential vacancies.

Cost data must be sufficient to develop or select and validate the pricing schedules and cost tables required to compute the replacement cost new of improvements needed to apply the cost approach to value.

All data pertaining to the cost of total buildings in place should include the parcel identification number, property address, date of completion, construction cost, name of builder, source of information, structural characteristics, and other information pertinent to analysis.

Cost information may be recorded on the same form (unassigned property record card) used to record specific property data.

The principal sources for obtaining cost data are builders and developers, and it *is* generally advisable to collect cost data in conjunction with new construction pick-ups.

Sales data must be sufficient to provide a representative sampling of comparable sales needed to apply the market data approach, to derive unit land values and depreciation indicators needed to apply the cost approach, and to derive gross rent multipliers and elements of the capitalization rate needed to apply the income approach.

All sales data should include the parcel identification number, property classification code, month and year of sale, selling price, source of information, i.e., buyer, seller, agent, or fee, and a reliable judgment as to whether or not the sale is representative of a true arm's length transaction.

Sales data should be recorded on the same form (assigned property record card) used to record specific property data, and verified during the property listing phase.

The principal source for obtaining sales data is the County Recorder's Office and the real estate transfer returns. Other sources may include developers, realtors, lending institutions, and individual owners during the listing phase of the operation.

Income and expense data must be sufficient to derive capitalization rates and accurate estimates of net income needed to apply the income approach. Income and expense data should include both general data regarding existing financial attitudes and practices, and specific data regarding the actual incomes and expenses realized by specific properties.

The general data should include such information as equity return expectations, gross rentals, vacancy and operating cost expectations and trends, prevailing property management costs, and prevailing mortgage costs.

Specific data should include the parcel identification number, property address (or building ID), source of information, the amount of equity, the mortgage and lease terms, and an itemized account of the annual gross income, vacancy loss, and operating expenses for the most recent two-year period.

The general data should be documented in conjunction with the development of capitalization procedural guidelines. The specific data, since it is often considered confidential and not subject to public access, should be recorded on special forms, designed in such a way as to accommodate the property owner or agent thereof in submitting the required information. The forms should also have space reserved for the appraiser's analysis and calculations.

The principal sources for obtaining the general financial data are investors, lending institutions, and property managers. The primary sources for obtaining specific data are the individual property owners and/or tenants during the listing phase of the operation.

Neighborhood data At the earliest feasible time during the data inventory phase of the operation, and after a thorough consideration of the living environment and economic characteristics of the overall county, or any political sub-division thereof, the appraisal staff should delineate the larger jurisdictions into smaller "neighborhood units," each exhibiting a high degree of homogeneity in residential amenities, land use, economic trends, and housing characteristics such as structural quality, age, and condition. The neighborhood delineations should be outlined on an index (or comparable) map and each assigned an arbitrary Neighborhood Identification Code, which when combined with the parcel identification numbering system, will serve to uniquely identify it from other neighborhoods.

Neighborhood data must be comprehensive enough to permit the adequate consideration of value-influencing factors to determine the variations in selling prices and income yields attributable to benefits arising from the location of one specific property as compared to another. The data should include the taxing district, the school district, the neighborhood identification code, special reasons for delineation (other than obvious physical and economic boundaries), and various neighborhood characteristics such as the type (urban, suburban, etc.), the predominant class (residential, commercial, etc.), the trend (whether it is declining, improving, or relatively stable), its accessibility to the central business district, shopping centers, interstate highways and primary transportation terminals, its housing characteristics, the estimated range of selling prices for residentially -improved properties, and a rating of its relative durability.

All neighborhood data should be recorded on a specially designed form during the delineation phase.

Specific property data must be comprehensive enough to provide the data base needed to process each parcel of property to an indication of value, to generate the tax roll and related tax roll requirements, to generate other specified output, and to provide the assessing officials with a permanent record to facilitate maintenance functions and to administer taxpayer assistance and grievance proceedings.

The data should include the parcel identification number, ownership and mailing address, legal description, property address, property classification code, local zoning code, neighborhood identification code, site characteristics, and structural characteristics.

All the data should be recorded on a single, specially designed property record card customized to meet individual assessing needs. Each card should be designed and formatted in such a way as to accommodate the listing of information and to facilitate data processing. In addition to the property data items noted above, space must be provided for a building sketch, land and building computations, summarizations, and memoranda. In keeping with the economy and efficiency of a mass appraisal program, the card should be formatted to minimize writing by including a sufficient amount of site and structural descriptive data that can be checked and/or circled. The descriptive data should be comprehensive enough to be suitable for listing any type of land and improvement data regardless of class, with the possible exception of large industrial, institutional, and utility complexes that require lengthy descriptions. In, it will generally be necessary to use a specially-designed supplemental property record document, keyed and indexed to the corresponding property record card. The property record card should be made a permanent part of the assessing system, and used not only in conjunction with the revaluation, but also to update the property records for subsequent assessments.

The specific property data should be compiled from existing assessing records and field inspections. The parcel identification number, ownership, mailing address, and legal description may be obtained from existing tax rolls. Property classification codes may also be obtained from existing tax rolls (whenever available) and verified in the field. Local zoning codes may be obtained from existing zoning maps. Neighborhood identification codes may be obtained from the neighborhood delineation maps. Lot sizes and acreage may be obtained from existing tax maps. The property address, and the site and structural characteristics may be obtained by making a physical inspection of each property.

In transferring lot sizes from the tax maps to the property record cards, the personnel performing the tasks must be specially trained in the use of standardized lot sizing techniques and depth tables, which are necessary to adjust irregular shaped lots and abnormal depths to account for variations from predetermined norms. In regard to acreage, the total acreage may be transferred, but the acreage breakdowns required to affect the valuation of agricultural, commercial, and industrial properties must be obtained in the field from the property owner and verified by personal observation and aerial photographs, if available.

Field inspections must be conducted by qualified listers under the close supervision of the appraisal staff. During this phase of the operation, the lister must visit each property and make personal contact with the occupant. In the course of the inspection, the following procedures must be adhered to:

- Identification of the property
- Verification of the ownership (recording any transfers which may have occurred)
- Recording the property address.
- Verification of the property classification and zoning codes.
- Interviewing the occupant of the building and recording all pertinent economic data.
- Inspection of the interior of the building and recording of all pertinent physical data.
- Measuring and inspecting the exterior of the building, as well as all the other improvements on the property, recording the story height, and the dimensions and/or size of each.
- Recording a sketch of the principal building(s), consisting of a plan view showing the main portion of the structure along with any significant attached exterior features, such as porches, etc. All components must be identified and the exterior dimensions show for each.
- Selection of and recording the property quality grade of the improvement.
- Selection of and recording the proper replacement costs or replacement cost adjustments for all field priced items.
- Reviewing the property record card for completeness and accuracy.
-

After the field inspection is completed, the property record cards must be submitted to clerical personnel to review the cards for completeness, calculate the areas and make any necessary mathematical extensions.

Complete and accurate data are essential to the program. Definite standardized data collection and recording procedures must be followed if these objectives are to be met.

PROCESSING THE DATA

This phase of the operation involves the analysis of data compiled during the data inventory phase and the processing of that data to an indication of value through the use of the cost, market and income approaches to value.

During the analytical phase, it will be necessary to analyze cost, market, and income data in order to provide a basis for validating the appropriate cost schedules and tables required to compute the replacement cost new of all buildings and structures; for establishing comparative unit land values for each class of property; for establishing the appropriate depreciation tables and guidelines for each class of property; and for developing gross rent multipliers, economic rent and operating expense norms, capitalization rate tables and other related standards and norms required to effect the mass appraisal of all the property within an entire political unit on an equitable basis.

After establishing the appropriate stands and norms, it remains to analyze the specific data compiled for each property by giving due consideration to the factors influencing the value of that particular property as compared to another and then to process the data into an indication of value by employing the techniques described in the section of the manual dealing with the application of the traditional approaches to value.

Any, or all three of the approaches, if applied properly, should lead to an indication of market value; of primary concern is applying the approaches on an equitable basis. This will require the coordinated effort of a number of individual appraisers, each appraiser acting as a member of a team, with the team effort directed toward a valid, accurate and equitable appraisal of each property within the political unit. Each property must be physically reviewed, during which time the following procedures must be adhered to:

- Verification of the accuracy of each of the characteristics recorded on the property record card.
- Certification that the proper schedules and cost tables were used in computing the replacement cost of each building and structure.
- Determination of the proper quality grade and design factor to be applied to each building to account for variations from the base specifications
- Making a judgement of the overall condition, desirability, and usefulness of each improvement in order to arrive at a sound allowance for deprecation.
- Capitalization of net income capabilities into an indication of value in order to determine the loss of value attributable to functional and economic obsolescence.
- Addition of the depreciated value of all improvements to the land value and reviewing the total property value in relation to the value of comparable sales.
- Determination that the total property value established can be correlated to actual sales of comparable properties.

At the completion of the review phase, the property record cards must be, once again, submitted to clerical personnel for final mathematical calculations and extensions, and a final check for completeness and accuracy.

Once the final values have been established for each property, the entire program should be evaluated in terms of its primary objectives; do the values approximate a satisfactory level of market value, and what's more important, are the values equitable? Satisfactory answers to these questions can best be obtained through a statistical analysis of recent sales in an appraisal-to-sale ratio study, if sufficient sales are available.

To perform the study, it is necessary to take a representative sample of recent valid sales and compute the appraisal-to-sale ratio for each of the sales. If the sample is representative, the computed median appraisal-to-sale ratio will give an indication of how close the appraisals within each district approximate the market value. This provides, of course, that the sales included represent true market transactions. It is then necessary to determine the deviation of each individual appraisal-to-sale ratio from the median ratio, and to compute either the average or the standard deviation, which will give an indication of the degree of equity within each individual district. What remains then is to compare the statistical measures across property classes in order to determine those areas, if any, which need to be further investigated, revising the appraisal, if necessary, to attain a satisfactory level of value and equity throughout the entire jurisdiction.

The techniques and procedures set forth herein, if applied skillfully, should yield highly accurate and equitable property valuations, and should provide a sound property tax base. It should be noted, however, that no program, regardless of how skillfully administered, can ever be expected to be error-free. The appraisal must be fine-tuned, and this can best be done by giving the taxpayer an opportunity to question the value placed upon his property and to produce evidence that the value is inaccurate or inequitable.

During this time, the significant errors will be brought to light, and taking the proper corrective action will serve to further the objectives of the program. What's important in the final analysis is to use all these measures as well as any other resources available to achieve the highest degree of accuracy and equity possible.

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INSTRUCTIONS FOR MAKING CHANGES TO THE PROPERTY RECORD CARD

The Watauga County property record card to be used during the reappraisal project is a computer-generated document on which the property characteristic data have been pre-printed. This information was converted from the existing Watauga County Files; The data may or may not be correct. It is the reviewer's responsibility to verify all existing data and to complete all data that is not listed.

The following procedures are to be followed when the data is correct, when changes need to be made, and/or when information needs to be added:

- If pre-printed data is correct, go on to the next field required. No notation is required.

- If the pre-printed data is incorrect, draw a line through the data and write the correct data in the shaded maintenance area or available space adjacent to the old data.

- If a required field is blank, enter the correct data on the property record card in the appropriate maintenance area, or available space.

ADMINISTRATIVE DATA

This data is for identification and locational purposes. The majority of it comes from the administrative file. (The reviewer cannot maintain it.) Suspected errors should be reported to your supervisor.

PIN NUMBER – The parcel number consists of identification numbers of the following components:

MAP NUMBER - A four-digit numeric code denoting the tax map in which the parcel is located.

QUADRANT - A two-digit number used to denote the division of properties generally defined on an individual tax map.

PARCEL NUMBER - The four-digit number denoting the specific parcel of land. The trailing three digits are used to identify buildings on leased land or condominiums.

ACCOUNT NUMBER - Used to identify a specific parcel.

MAP-SHEET - The numeric code that identifies the location of the parcel on the county index map.

SPECIAL DISTRICT – Three-character codes which identify the city and fire district in which the parcel is located.

PARCEL CLASS - Two-character code that denotes the use and taxable status of the parcel.

TOWNSHIP - Two-digit code denoting the township in which the parcel is located:

01-	Bald Mountain	09-	Laurel Creek
02-	Beaverdam	10-	Meat Camp
03-	Blowing Rock	11-	New River
04-	Blue Ridge	12-	North Fork
05-	Boone	13-	Shawneehaw
06-	Brushy Fork	14-	Stoney Fork
07-	Cove Creek	15-	Watauga
08-	Elk		

ASSESSED ACREAGE - This field contains the assessed acreage of the parcel.

PROPERTY ADDRESS - This field contains the pre-printed street address of the property.

PROPERTY DESCRIPTION - This field contains the legal description of the property that is generally obtained from existing records.

OWNERSHIP AND MAILING ADDRESS - The names of the property owners and the mailing address to which the tax bills are forwarded. This information is obtained from existing county records.

DEED INFORMATION follows ownership and mailing address. This consists of the date of the last transfer of the property and the price.

SALES DATA- Contains information recorded in the current sales file.

PARCEL SUMMARY DATA

ZONING - The zoning has been verified and entered by the county mapping department. Any suspected errors should be brought to the attention of your supervisor. Not all parcels will have a zoning code.

MULTI - This field is used to identify those parcels that have split zoning.

NEIGHBORHOOD - the senior appraisal staff has delineated Neighborhoods. A neighborhood can be defined as a geographic area exhibiting a high degree of homogeneity in residential amenities, land use, economic trends, and housing characteristics such as structural quality, age, and condition. It is the reviewer's responsibility to verify that the neighborhood number on each parcel appears correct. The land value is assigned to each parcel through the neighborhood code.

LAND USE - Space is provided to enter a three-digit code denoting the present use of each parcel of land. A land use code must be entered on all data collection forms. In the case of multiple land uses on the same parcel, enter the land use code that you consider to be the primary use of the parcel.

RESIDENTIAL LAND USE CODES

R00	Vacant Residential Land	R06	Condominium (Common Element)
R01	Single Family Residence	R07	Condominium
R02	Duplex	R08	Manufactured Home
R03	Triplex	R09	Auxiliary Improvement
R05	Mixed Residential/Commercial Use	R99	Residential Under Construction

RESIDENTIAL LAND USE CODES

Only use the following codes for residential properties:

CODE	DESCRIPTION	EXAMPLE
R00	VACANT PARCEL	Use for all residential parcels with no improvements listed on the PRC. If there is anything listed on the PRC then do not use this code (This includes MS1's)
R01	RESIDENTIAL 1 FAMILY	Parcels with the presence of a single-family home.
R02	RESIDENTIAL 2 FAMILY	Parcels with the presence of a duplex.
R03	RESIDENTIAL 3 FAMILY	Parcels with the presence of a triplex.
R06	CONDOMINIUM COMMON AREA	Parcels which carry the common area associated with condo complexes.
R07	CONDOMINIUM	Parcels which have a condominium listed.
R08	MANUFACTURED HOME	Parcels with a real property manufactured home listed (single or double wide.)
R09	AUXILIARY IMP.	Parcels with only non-living structures – barn, garages, P.P. mobile homes.
R99	RESIDENTIAL UNDER CONSTRUCTION	Parcels with incomplete dwellings. This code will flag these for future review.

NOTE: Use the Land Use Code that represents the primary use of the parcel. Typically, R01 will take priority. For example a single-family house with a mobile home on the property will be coded R01.

ASCS NUMBER - Not used at this time.

ROUTING NUMBER - Not used at this time.

UTILITIES - Refers to services that are available to the property. These can be private or public. Seven alternatives are available, and up to three codes may be entered left justified. Enter the numeric code(s) that are most representative of the subject property.

1. ALL PUBLIC to indicate all public utilities, including water, sewer, gas and electric, are available.
2. PUBLIC WATER to indicate public water is available to the property.
3. PUBLIC SEWER to indicate public sewer is available to the property.
4. PRIVATE WELL to indicate that the only water available to the property is a private well.
5. SEPTIC to indicate only private sewer (septic tank) is available to the property.
6. GAS to indicate that natural gas is available to the property.
7. NONE to indicate that no utilities are readily available at this time.

TOPOGRAPHY - Refers to the topographical features of the subject property. Seven alternatives are provided, and up to two codes may be entered. Enter the numeric code which is most representative of the subject property. Only one code may be entered for this following group:

1. LEVEL to indicate the subject property is level to the access street.
2. ABOVE STREET to indicate the property is above the street level.
3. BELOW STREET to indicate that the property is below street level.

Of the following group, only one code may be entered:

4. ROLLING to indicate the property is comprised of many small hills.
5. STEEP to indicate the property has excessive grade as compared to access roadway.
6. LOW to indicate the property has a low terrain.
7. SWAMPY to indicate wet spongy land, marsh or bog.

LOCATION - Refers to the neighborhood type that the subject property is located within. Nine alternatives are provided. Enter the numeric code that is most representative of the subject property. Only one code may be entered. Normally only Neighborhood or Spot (Res Area) will apply to dwellings in a basically residential area.

1. CENTRAL BUSINESS DISTRICT to indicate the core area in the center of a city in which is concentrated the major retail, services and governmental activities of the city.
2. PERIMETER CENTRAL BUSINESS DISTRICT to indicate the outer boundaries of Central Business District.
3. BUSINESS CLUSTER to indicate a cluster or number of commercial properties grouped together.
4. MAJOR STRIP to indicate the type of dense commercial development that occurs along major thoroughfares.
5. SECONDARY STRIP to indicate row or strip type commercial development bordering secondary arteries.
6. NEIGHBORHOOD OR SPOT to indicate-
    a. For Commercial properties - individual or scattered commercial establishments located in basically residential areas.
    b. Dwelling located in a primarily residential area.
7. COMMERCIAL/INDUSTRIAL PARK to indicate a controlled park-like development designed to accommodate specific light industrial and mercantile properties and containing the required utilities, streets, and other appurtenances
8. INDUSTRIAL SITE to indicate land or land and improvement adaptable for industrial use and not located in an established industrial park.
9. APARTMENT/CONDOMINIUM COMPLEX to indicate the property is an apartment or condominium complex site.

Note: For all Residential properties enter code 6.

For all Condominiums enter code 9

LANDSCAPE - Not used at this time.

ROAD/ACCESS - Refers to the primary fronting street or the street providing the most immediate access to the subject property, and the features that exist at the property. Seven alternatives are provided, and up to two codes may be entered. Left justified, enter the numeric code(s) that are most representative of the subject property. One entry must be made from the following codes.

1. PAVED ROAD to indicate concrete, blacktop, or a comparable surface.
2. SEMI-IMPROVED to indicate a gravel or comparable semi-improved street.
3. DIRT ROAD to indicate an existing street or road that has no surface improvements in evidence.
4. PRIVATE ROAD to indicate access by a privately owned and maintained road.
5. LANDLOCKED/NONE to indicate a property without access to any type of street or road.
6. SIDEWALK to indicate the presence of a paved sidewalk available for public use.
7. ALLEY to indicate the presence of an alley available for public use.
8. RAILROAD to indicate the presence of a railroad.
9. RIVER/WATERWAY to indicate the presence of a river/waterway.

FRONTING - Refers to the type of primary fronting street and a descriptive feature of that street. Nine alternatives are provided. Enter the code in the space provided which is most representative of the subject property. Code 9 should only be entered for dwellings or scattered commercial property located on a primarily residential street.

1. CENTRAL BUSINESS DISTRICT to indicate a major artery located within the Central Business District or core area.
2. MAJOR STRIP to indicate a highly traveled major artery not located within the Central Business District.
3. SECONDARY ARTERY to indicate moderately traveled secondary arteries typically found in mixed residential and commercial neighborhoods
4. SECONDARY STREET to indicate lightly traveled streets in outlying areas.
5. FRONTAGE ROAD to indicate a local street paralleling a limited access highway.
6. PRIVATE ROAD to indicate a privately owned road constructed to service the subject property
7. WATERFRONT to indicate that the property fronts on a body of water.
8. WATERVIEW to indicate that the property has water view access.
9. RESIDENTIAL to indicate the property is a dwelling located on a primarily residential street.

PARKING - Refers to the type of parking available to the subject property. Enter the numeric code that is most representative.

0. NONE to indicate no parking is available.
1. OFF STREET to indicate that off street parking is available.
2. ON STREET to indicate that on street parking is available.
3. ON AND OFF STREET to indicate that both on and off-street parking facilities are available.
4. PARKING DECK to indicate that the primary source of parking is a parking deck or garage.

VIEW - Refers to the type of view available to the subject property. Enter the numeric code that is most representative.

V0. NO VIEW to indicate the property has no recognized scenic or panoramic view influence. The surrounding landscape may be visible; however, the property does not possess a view considered to

contribute to measurable market value.
V1. PARTIAL/OBSTRUCTED VIEW to indicate a limited, partial, or substantially obstructed scenic view. The view may be restricted by vegetation, terrain, structures, or other physical features and generally provides only intermittent or narrow visibility of the scenic feature.
V2. GOOD VIEW to indicate clearly identifiable scenic view of good quality that is readily visible from the property but may have moderate limitations in width, distance, orientation, vegetation, terrain, or other obstructions. The view provides a recognizable positive market influence but is not considered exceptional.
V3. VERY GOOD VIEW to indicate prominent and substantially unobstructed scenic views with greater breadth, depth, or overall visual quality than a Good View. Minor obstructions may exist but do not significantly detract from the view. The view represents a significant positive market influence.
V4. EXCELLENT VIEW to indicate an exceptional, expansive, and predominantly unobstructed scenic or panoramic view. The view typically possesses superior breadth, depth, orientation, or visual quality and represents a strong positive market influence relative to properties with lesser views.
V5. SUPERIOR/PANORAMIC VIEW to indicate the highest level of view influence, characterized by an exceptional, expansive panoramic view with little to no meaningful obstruction. The view is typically visible across a broad field of vision, may encompass multiple prominent scenic features or long-range vistas, and represents a superior market influence compared with other view classifications.

AMENITIES - Not used at this time.

NUMBER OF LAND SEGMENTS- This field is automatically updated by the computer system. There is no need to maintain this field.

NUMBER OF BUILDINGS - This field is automatically updated by the computer system. There is no need to maintain this field

VISITATION DATA - Space is provided to enter the data for three calls to the property.

DATE - Enter two numeric characters each for the month, day, and the last two digits of the year.

IDENTIFICATION – Three-character positions are provided to enter the initials of the person making the call at the property. An entry must be made on each review document.

SOURCE CODE - Enter the code pertaining to who provided the interior information about the property.

A – Appraiser	O – Owner
C – Contractor	R – Relative
E – Estimate	T – Tenant
M – Mailer	X – Other

VISITATION CODE - Enter the code denoting if contact was made or not and the current status of the parcel.

0: Vacant/OBY	4: Review
1: Inspection and Measure	6: Owner Refused
2: Measure Only/No One Home	7: Split/Merge
3: Estimate	8: Revaluation

BUILDING DATA
The following fields are automatically updated by the computer system. There is no need to maintain these fields.

1. CARD NUMBER
2. BUILDING NUMBER
3. NUMBER OF SECTION

VALUATION METHOD - This code describes which cost method is used to value the building. Valid entries are RES - Residential, COM - Commercial, and FV - Fair Value. For residential review purposes this code should always be RES. Report any discrepancies to your supervisor.

DESCRIPTION/REMARKS - Record any pertinent information about this building in this area. Be brief.

PHYSICAL % - This field contains the physical percent good that is a result of the CDU factor (condition/desirability/usefulness) that is applied in the Main Area Data. It cannot be changed in this field. This will be discussed in detail later.

COMMON INTEREST - This field pertains to the percentage of common interest owned by an individual condominium unit. At the present there are no plans to use this field.

LIVING UNITS- Three Character positions are provided to denote the number of living units present in the subject dwelling. A living unit is defined as any room or group of rooms designed as the living quarters of one family or household, equipped with cooking and toilet facilities and having an independent entrance from a public hall or from the outside. For the purpose of residential review, up to three (3) living units may be recorded.

Note: A single-family residence contains one living unit, and the correct entry would be "1".

Note: If the parcel is vacant or contains only auxiliary improvements, simply leave the entry blank.

IDENTICAL UNITS - This field is used when there are two or three identical houses on the same parcel. In the case of two identical houses enter "2" in this field and delete card 2 which previously contained the second house. Enter "1" if there are no identical houses.

PERCENT COMPLETE - This field is provided for valuing a new building based on its percentage of completion. This cannot be used for new construction that is an addition only. Remember that the revaluation value is effective January 1, 2027. If you feel that the house will be complete by this date then enter 100% in this field. However, all houses encountered that are less than 100% complete should have a code of R99 entered in the Land Use field.

MAIN AREA DATA

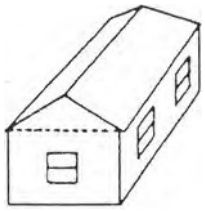
NUMBER OF STORIES - Refers to the actual story height of the dwelling. Enter the number that is most representative of its story height.

1.0	To indicate One Story
1.2	To indicate One and a Quarter Story
1.5	To indicate One and One-Half Story
1.7	To indicate One and Three-Quarter Story
2.0	To indicate Two Story
2.5	To indicate Two and One-Half Story
3.0	To indicate Three Story
3.5	To indicate Three Story and One-Half Story
4.0	To indicate Four Story

Note: Refer to the story height illustrations on the following page.

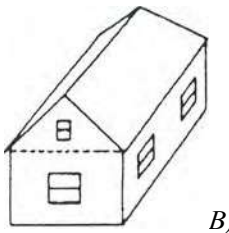
EXTERIOR WALLS - Enter the numeric code that is most representative of the exterior walls of the dwelling.

1. To indicate Wood Frame (hardboard, solid board, shingles, and plywood.)
2. To indicate Concrete Block or Structural Clay Tile.
3. To indicate Stucco (frame or concrete block) or Permastone/Formstone.
4. To indicate Aluminum/Vinyl/Steel Siding or Sandwich Panels.
5. To indicate any type of Log construction.
6. To indicate Asbestos Shingle or Plank.
7. To indicate Brick (solid masonry, brick on block, or veneer).
8. To indicate Stone (solid masonry, or cut stone veneer).
9. To indicate Masonry and Frame (primarily used for two story dwellings in which the first story is masonry and the second story is wood frame).



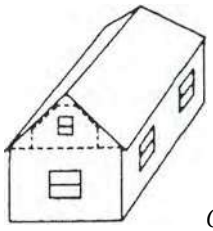
A) 1 Story

All rooms are on one floor and are below the square of house at the eave line. This design usually has a low pitch roof with a slope of about 1/6.



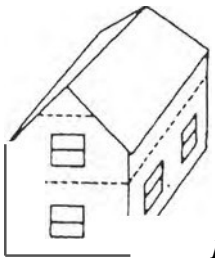
B) 1 Story and Attic

Same basic design as 1 Story, except the pitch of the roof is usually greater, with a slope of about 1/4 or 1/3. This design has a permanent stairway to a usable, floored attic area. There are usually windows at each end of the attic.



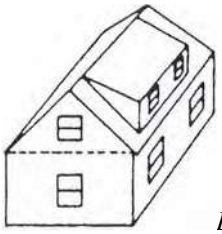
C) 1 Story and Finished Attic

Same basic design as 1 Story and Attic, except the attic interior is finished and is usually divided into rooms. The attic floor area is approximately 55% of the first-floor area.



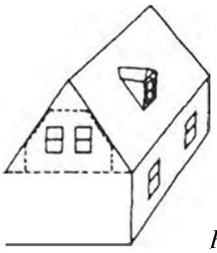
D) 1.5 Story

The second-floor area of this design is equal to the area of the first floor; however, the wall height of the second floor is approximately one-half of the first floor - with the balance of wall height as sloping ceiling.



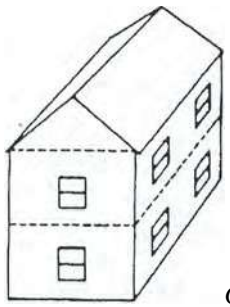
E) 1.5 Story

This design is similar to 1 Story and Finished Attic, except that the roof pitch is greater - with a slope of about 1/3 or 1/2 - and there is a large dormer on one side of the roof and possibly one *or* two small dormers on the opposite side of the roof. Area of the finished second floor is approximately 75% of the first-floor area.



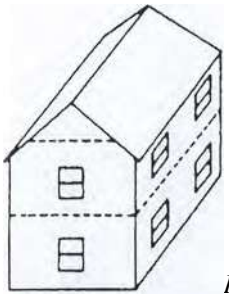
F) 1.5 Story

This design has a high pitch roof with a slope of about 5/8 or 3/4, and small dormers on one or both sides of the roof. The area of the finished second floor is approximately 75% of the first-floor area.



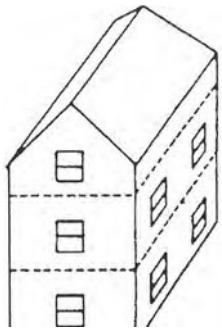
G) 2 Story

This is a typical two-story dwelling, with the second-floor area equal to the first-floor area.



H) 2 Story

Similar to the 2 Story in example G, except that the second-floor side walls are less than full height. Consequently, part of the second-floor ceiling follows the slope of the roof.



I) 2.5 Story

This design has two full stories and a half story similar to example *D.* A two and one-half story dwelling may be similar in design to examples *E* or *F.*

STYLE - Enter the numeric code that is most representative of the style of the dwelling.

01- Bi-Level

Age	Approx. 1940- Present
Story Height	1 Story
Other Characteristics	At entry you must either go up or down steps. Finished area in the basement will be "Finished Basement Living Area"

02 – Ranch

Age	Approx. 1945- Present
Story Height	1 Story
Other Characteristics	Living area on one level

03- Split-Level

Age	Approx. 1940- Present
Story Height	1 Story
Other Characteristics	Typically has 3 levels of living area. Lower level will be "Finished Basement Living Area"

04- Manufactured Home

*Use when the dwelling listed is a real property mobile home or double-wide

05- Log Home

Age	Any
Story Height	Any
Other Characteristics	Any type of Log Construction

06 – Colonial

Age	1820-1920
Story Height	1 ½ - 3 Stories
Other Characteristics	Typically, Pre-Civil War and must be a replica to be in this style when built

07 - Chalet

Age	Any
Story Height	Any
Other Characteristics	Cottages or House of Swiss style construction. Usually, summer homes found in resort areas.

08 - Contemporary

Age	1980 – Present
Story Height	Usually, 1 story with finished area on second level or full 2 story
Other Characteristics	Modern construction style with above average number of cuts and with a more complicated shape than Ranch or Conventional dwellings.

09 - Modular

Age	1970- Present
Story Height	1 Story
Other Characteristics	Similar in design to Ranch style but not stick built. Pre-manufactured sections and put together at site.

10 - Townhouse

Age	1960 – Present
Story Height	Any
Other Characteristics	A living unit connected to others but in which the site under the unit is owned solely by the individual.

11 – Cabin

Age	Any
Story Height	Any
Other Characteristics	Usually, a small dwelling used as a weekend retreat

12 – Conventional

Age	Any
Story Height	1-3 Stories
Other Characteristics	Dwellings that incorporate elements of other styles but not enough to be replicas. This category includes Bungalow style homes.

13 - Condominium

Age	1960- Present
Story Height	1-2 Stories
Other Characteristics	Living Area owned by the unit owner with everything else owned in common by all unit owners.

14 – Other

*To indicate a style not represented above.

71 – Condominium Interior

Age	1960- Present
Story Height	1-2 Stories
Other Characteristics	Living Area owned by the unit owner with everything else owned in common by all unit owners.

72 – Condominium Corner

Age	1960- Present
Story Height	1-2 Stories
Other Characteristics	Living Area owned by the unit owner with everything else owned in common by all unit owners.

73 – Condominium Upper Level

Age	1960- Present
Story Height	1-2 Stories
Other Characteristics	Living Area owned by the unit owner with everything else owned in common by all unit owners.

73 – Condominium Penthouse

Age	1960- Present
Story Height	1-2 Stories
Other Characteristics	Living Area owned by the unit owner with everything else owned in common by all unit owners.

YEAR BUILT - Refers to the original date of construction. If the exact date cannot be ascertained, make the best estimate possible based on known construction dates in the immediate area.

EFFECTIVE YEAR BUILT - Refers to the estimated age of the dwelling due to remodeling and renovating that has taken place. Do not enter the date of remodeling in this field. For example, a house originally built in 1920 was renovated in 1980. Upon inspection of the property, I have estimated the effective year built to be 1960. Do not enter 1980 unless the house is in all ways identical to a 1980 built house.

FOUNDATION - Refers to the basement foundation wall that is most representative. Enter the numeric code.

1 – None	To indicate the dwelling is built on a concrete slab
2 – Pier	To indicate the dwelling is built on piers or posts
3 – Continuous Wall	To indicate a continuous wall foundation as in the crawl spaces and basements.

BASEMENT TYPE - Refers to the presence and approximate size of a basement under the main part of the dwelling. Four alternatives are provided. Enter the numeric code that is most representative.

1 – None	To indicate slab or pier construction; no basement
2 – Crawl	To indicate crawl space to ¼ basement area
3 – Part	To indicate more than a ¼ basement, but less than a ¾ basement
4 – Full	To indicate ¾ to full basement

HEAT RATING - Refers to the presence of and type of heating system. Four alternatives are provided. Enter the type code that is most representative of the subject property.

1 – None	To indicate that the subject property does not have a heating system/warranting a full deduction from the base price for "no heating" Also included in this category are space heaters, wood or coal burning fireplace inserts and unit heaters that are not attached to the dwelling.
2 – Non-Central	To indicate that the subject property has a heating system that is considered non-central for the area being heated. Examples of Non-Central systems include electric baseboard heaters, wall furnaces, and certain floor furnaces.
3 – Central	To indicate that the subject dwelling has a central system. Typically, a forced hot air system
4 – Central/Air Conditioning	To indicate that in addition to a central heating system, the dwelling has either (separate or combined) a central cooling system. If a cooling system as described exists in the dwelling, enter only this code. This code implies that a central heating system exists.

Note- Floor furnaces in dwellings less than 600 SFLA should be considered "central". Floor furnaces in dwellings with over 600 SFLA should be considered "non-central", as they become inadequate and inefficient to heat the required area.

HEATING FUEL TYPE - Refers to the type of fuel used to power the heating system. Six alternatives are provided:

1	To indicate GAS
2	To indicate ELECTRIC
3	To indicate OIL
4	To indicate COAL (WOOD)
5	To indicate SOLAR
6	To indicate NONE

HEATING SYSTEM TYPE – Refers to the actual type of heating system. Six alternatives are provided:

1 – WARM AIR	To indicate the presence of a forced warm air system. This system the furnace has a fan or blower that pushes the warmed air through relatively small ducts.
2 – ELECTRIC	To indicate the presence of an electric heating system. This system is characterized by electric resistance elements that convert electricity into heat.
3 – HOT WATER	To indicate the presence of a hot water system. This system water is heated in a boiler of cast iron or steel. It is then pumped through small tubes into various heat radiating devices.
4 – HEAT PUMP	To indicate a reverse cycle refrigeration used for heating and cooling
5 – SOLAR	To indicate a solar heating system
6 – NONE	To indicate no central heating system exists.

Note: See summary of heating systems and appropriate entries below.

The following is a summary of the most typical heating systems and the appropriate entries in fields HEAT RATING, HEATING FUEL TYPE, and HEATING SYSTEM TYPES.

FIELD:		HEAT RATING	HEATING FUEL TYPE	HEATING SYSTEM TYPE
Forced Hot Air	=	CENTRAL	GAS/ELEC	WARM AIR
Forced Hot Air/AC	=	CENTRAL/AC	GAS/ELEC	WARM AIR
Elec. Ceiling/Floor Radiant	=	CENTRAL	ELEC	ELEC
Wood/Log Furnace (with ducts)	=	CENTRAL	COAL (WOOD)	WARM AIR
Hot Water Radiators	=	CENTRAL	GAS OR AS INDICATED	HOT WATER
Steam Heat	=	CENTRAL	GAS OR AS INDICATED	HOT WATER
Gravity Furnace	=	CENTRAL	GAS OR AS INDICATED	WARM AIR
Solar	=	CENTRAL	SOLAR	SOLAR
Heat Pump	=	CENTRAL/AC	ELEC	ELEC
Elec. Baseboard Heat	=	CENTRAL	ELEC	ELEC
Wall/Floor Furnace	=	CENTRAL	GAS OR AS INDICATED	WARM AIR
Wood/Coal Stove	=	NON-CENTRAL	COAL (WOOD)	WARM AIR
Space Heaters	=	NONE	GAS OR AS INDICATED	NONE
Fireplace Insert	=	NONE	COAL (WOOD)	NONE

NUMBER OF ROOMS - Enter the total number of separate rooms. This will include the kitchen, a separate dining room, family room, living room and bedrooms. This entry will not include bathrooms, hallways, foyers, walk-in-closets, pantries, utility or laundry rooms, dining areas, or basement rec rooms.

NUMBER OF BEDROOMS - Enter the total number of separate rooms designed for use as bedrooms. This will include bedrooms converted into dens, offices, dressing rooms; children's play room or nurseries. It will also include garages or porches converted into bedrooms, and basement and attic bedrooms.

FAMILY ROOMS - Enter the number of informal living rooms. The quality of finish must be consistent with the general finish of the dwelling and will therefore exclude basement Rec Rooms.

FULL BATHS - Enter the number of three-fixture bathrooms that include a toilet, lavatory, and bathtub or shower stall (a bathtub with a shower outlet is considered one fixture).

HALF BATHS - Enter the number of two-fixture toilet rooms that include a toilet and lavatory.

ADDITIONAL FIXTURES - Enter individual fixtures that do not fall into the previously named categories ... i.e., utility/laundry sinks, extra bath sink or shower, or wet bar.

Note: A kitchen sink and hot water heater are to be shown in "ADDITIONAL FIXTURES", if present.

ATTIC TYPE - Refers to the presence of a finished living area attic and the extent of the finish. "Attic" as defined by this appraisal system, as any upper floor area that is not large enough in size to be considered a half story. This includes upper floors in contemporary style houses.

1 – NONE	To indicate no attic. This is the only valid entry for dwelling that have been classified as 1.5 or 2.5 stories in the Number of Stories field.
2 – UNFINISHED	To indicate an unfinished attic; having a subfloor and stairs only, but that does have the potential to be finished off.
3 – PART FINISHED	To indicate either an undivided (one room) fully finished attic or a divided (two room) attic with one-half finished and the balance unfinished. Any dwelling that has a finished upper floor consisting of up to 30% of the main floor area will have a code 3. This code can mean that there is either an attic that is part finished or a part attic that is full finished
4 – FULL FINISHED	To indicate that there is a fully finished attic. Area is 30% to 48% of the main floor area.
5 – FULL FINISHED WITH WALL HEIGHT	To indicate a divided full finished attic. Floor area is between 50% and 60% of the main floor area.

Note: Code type 5 should be entered when the existing wall height is not enough to be considered a 1.5 or 2.5 story dwelling.

INTERIOR CONDITION - Not used at this time.

AREA - Enter the First Floor Main Area in this field. This does not include any attached additions, upper floors, or basement area.

GRADE FACTOR - Space is provided to enter the quality grade of the subject dwelling. Valid grades and proper application are covered in the QUALITY GRADES section.

DESIGN FACTOR - The first position is provided to enter a reason code denoting the purpose of the design factor. Follow this by a plus or minus symbol and two numeric characters denoting a percentage to be added to or deducted from the accumulated total value of the dwelling (after applying the grade factor) for design factors not previously considered. Leaving the field blank or striking through the whole entry may indicate zero percent.

The current valid codes are as listed:

1 – MARKET/COST	To be used to arrive at the market value of a specific property.
2 – OTHER	To indicate a design factor needed for a reason other those currently defined.
3 – EXCESSIVE FOUNDATION	To indicate above average cost went into building the subject property due to topography of the site. For example, a ranch style house with a full basement over a 12-foot crawl space. The cost tables cannot account for the extra foundation wall cost; therefore, it must be recognized with this design factor.
4 – NEIGHBORHOOD (NBRHD)	To be applied to all homes in a specific neighborhood.

Note: Guidelines for proper design factor percentages will be given in the field.

CDU – Enter the composite rating of the overall condition, desirability and usefulness of the dwelling with these listed codes below:

EX: Excellent	Indicates perfect condition: very attractive and highly desirable relative to surrounding properties.
VG: Very Good	Indicated slight evidence of deterioration; still attractive and quite desirable relative to surrounding properties.
GD: Good	Indicates minor deterioration visible; slightly less attractive and desirable, but useful relative to surrounding properties.
AV: Average	Indicates normal “wear and tear” is apparent; average attractiveness and desirability relative to surrounding properties.
FR: Fair	Indicates marked deterioration, but quite usable; rather unattractive and undesirable relative to surrounding properties.
PR: Poor	Indicates definite deterioration is obvious; definitely undesirable and barely usable relative to surrounding properties.
VP: Very Poor	Indicates condition approaches unsoundness; extremely undesirable and barely usable.
UN: Unsound	Indicates the dwelling is definitely unsound and practically unfit for use.

PERCENT PHYSICAL - Usage of this field has not been defined.

BASEMENT GARAGE - Indicates the presence of a garage in the basement level of a dwelling. A character position is provided to enter the car capacity of the basement garage (1-3).

FINISHED BASEMENT LIVING AREA - Indicates the presence of an area of the basement that is finished with a quality of materials and workmanship consistent with the main living area of the dwelling. Enter the square foot area in the space provided.

RECREATION ROOM AREA - Indicates the presence of a basement room not considered part of the normal living area of the dwelling. The interior finish exhibits a quality of material inconsistent and generally inferior to the main living area of the dwelling. Enter the square foot area in the space provided.

MASONRY FIREPLACE - Indicates the presence of masonry wood burning fireplaces. Space is provided to enter the number of chimneys or stacks.

OPENINGS - Enter the number of fireplace openings in the dwelling. This field is required when data is entered in the MASONRY FIREPLACE field.

PREFABRICATED FIREPLACE - Indicates the presence of a prefabricated metal fireplace.

LAND SUMMARY DATA

VALUATION METHOD - Refers to the method by which the land is valued. There are four categories of land entries - LOTS, SQUARE FEET, ACREAGE, and GROSS.

SEGMENT - Refers to the segment number. The computer automatically maintains this.

TYPE - Each Valuation Method is comprised of a number of coded, land type descriptions such as Primary Res. Site, Secondary Site, etc.

Note: See EXPLANATION OF LAND SEGMENT TYPES on following page.

Note: The LOT and SQUARE FEET valuation methods will not be used on typical residential land.

OTHER OUTBUILDING AND YARD IMPROVEMENTS

This section provides guidelines for collecting and recording additional structural characteristics affecting property value.

BUILDING - This field contains the number of the building on the specified line entry. The primary dwelling will always be building number 1, while the outbuilding numbers will begin after all dwellings have been numbered.

VALUATION METHOD - Space is provided to enter the valuation method that will be used to calculate the value of the outbuilding.

- OBY -To use a system generated value based on the data supplied
- FV -To enter an override value. A system-generated value will not be generated.

BUILDING USE - Space is provided to enter a three-character code describing the item being listed, i.e., RGI - Detached Frame Garage

GRADE - A character position is provided to enter one alpha character denoting the quality grade of the item. Valid grades are A, B, C, D, or E. If a quality grade is not applicable to the item, leave the position blank.

CONDITION - A character position is provided to enter one alpha character denoting the overall condition of the item. Enter "E" for excellent, "G" for good, "A" for average, "F" for fair, "P" for poor, and "U" for unsound.

PHYSICAL PERCENT - This field will contain the percent good of the item. It is system-generated based on the Condition that was entered. When entering a new outbuilding, do not enter anything in this field.

AREA - Enter the area of the item in square feet. WIDTH and LENGTH can also be used. It is not necessary to use both methods.

NUMBER - Refers to the number or quantity of totally identical structures being listed.

YEAR - Refers to the year the item was constructed. Enter the entire year, i.e., 1984. Many of the converted outbuildings will only have the last two digits of the year entered. The depreciation on these will not be correct. Change the year built to four digits and manually reprice the item using your outbuilding depreciation tables.

PERCENT COMPLETE - Enter the percentage of completion of the item is less than 100%. Leave this field blank on buildings that are 100% complete.

ADJUSTMENTS - Refers to an addition or deduction to modify the cost component from the base specifications. Modification codes are identified by one alpha character and one numeric character and should only be utilized for the specific structure(s) intended. Up to four adjustment codes may be entered. Separate them with a slash (/). Example: B1/B3/B4.

RATE - Refers to the system-generated rate that was used to price the building. This field cannot be changed.

VALUE - The final value of the item. This field can only be changed if the Valuation Method is FV, in this case enter the desired value.

OPERATING STATEMENT (I&E)

The Operating Statement (I&E) is designed to collect and analyze income and expense information on income producing properties. With this information, the appraiser is able to estimate value through capitalization of income. The Operating Statement is divided into four major categories: Market Data, Cost Data, Remodeling Data, and Income and Expense Data. The Income and Expense area of the statement is divided into four specialized areas: Apartments, Hotel/Motel, General Commercial (retail, warehousing, industry), and Office Buildings. The purpose of the specific income and expense areas is to allow the property owner/manager space to enter applicable income, expense, and amenity data.

MARKET DATA

Space is provided to enter any sales information for both vacant and improved parcels. In addition, space is provided to enter the value of any personal property, inventories, or licenses that may have been included in the purchase price. Also, space is provided to enter the percent of mortgage, mortgage term, and interest rate.

COST DATA

Space is provided to enter any construction cost information that is available concerning the subject property. When possible, sizes of additions, paving, etc., should be entered under the comments area.

REMODELING DATA

Space is provided to enter the cost and a description of significant remodeling that has been associated with the building, the year of the remodeling, and whether the cost was attributable to the owner or a tenant.

APARTMENTS - OPERATING STATEMENT

Space is provided to enter a detailed current quoted rent per month by unit type. In instances where rents are computed on a square foot basis, space is provided to note the total apartment complex rentable area.

Project amenities and unit built-ins should be noted as to what is included/available in the apartment complex. The owner expense statement includes areas to enter what is paid by the owner and the costs associated for a two-year period. The occupancy percentage should be entered in the space provided. Space is also provided to enter the number of parking spaces available and the monthly rental charge, if applicable.

HOTEL AND MOTEL - OPERATING STATEMENT

This area of the operating statement is designed to enter the income, expense, and amenities associated with the hotel and motel operations. Space is provided to list the number and type of room availability together with services and amenities per room. Income should be listed by rental type and amount per unit. Restaurant and lounge incomes should also be listed. Actual expense amounts should be obtained if possible and entered in the appropriate spaces.

GENERAL RETAIL, WAREHOUSING, INDUSTRIAL, OTHER

This area is designed to enter income and expense amounts on general retail (retail sales), small industrial, and warehouse type facilities. Space is provided to enter the tenants, floor level, lease term, and floor area of the lease. Expenses are broken down into the general areas of insurance, taxes, maintenance, and utilities. Actual expense should be entered when available.

OFFICE BUILDING -OPERATING STATEMENT

This area of the operating statement is to enter the applicable income and expense information for office buildings. Space is provided to enter the buildings total gross area, net rentable area, and lease terms, i.e., on a total gross or net rentable area. The amount of retail area should be entered together with the current occupancy rate. The income statement is designed to quote rent per square foot, based on floor level and whether escalation of rental clause is included. The expense area is broken down into three major categories: insurance and taxes, building maintenance, and utilities. Actual expense should be entered by category if available.

ESTIMATING REPLACEMENT COST NEW

The informed buyer is not justified in paying anything more for a property than what it would cost him to acquire an equally desirable substitute property. Likewise, the upper limit of value of most improvements is the cost of reproducing an equally desirable substitute improvement. It follows, then, that a uniform starting point for an Equalization Program is to determine the Replacement Cost New of each and every improvement.

REPLACEMENT COST

Replacement Cost is the current cost of producing an improvement of equal utility to the subject property; it may or may not be the cost of reproducing a replica property. The distinction being drawn is one between Replacement Cost, which refers to a substitute property of equal utility, as opposed to Reproduction Cost, which refers to a substitute replica property. The Replacement Cost of an improvement includes the total cost of construction incurred by the builder, whether preliminary to, during the course of, or after completion of its construction. Among these are materials, labor, all sub-contracts, builder's overhead and profit, architectural and engineering fees, consultation fees, survey and permit fees, legal fees, taxes, insurance and the cost of interim financing.

PRICING SCHEDULES

Pricing schedules and related cost tables are included in this manual to assist the appraiser in arriving at an accurate estimate of Replacement Cost New. They have been developed by applying unit-in-place costs to the construction of specified hypothetical or model buildings. Application of the schedules involves the selection of the model that most nearly resembles the subject building and adjusting its price to compensate for all significant variations. Pricing schedules are included for various types of Residential, Agricultural, Institutional, Commercial and Industrial structures. Cost adjustments for the variations that are most frequently encountered in a particular type building are included. Adjustments for other variations may be made by using either the Other Feature Cost Tables or other appropriate schedules.

SELECTING THE PROPER QUALITY GRADE

The quality of materials and workmanship is the one most significant variable to be considered in estimating the replacement cost of a structure. Two buildings may be built from the same general plan, each offering exactly the same facilities and with the same specific features, but with widely different costs due entirely to the quality of materials and workmanship used in their construction. For instance, the cost of a dwelling constructed of high- quality materials and with the best of workmanship throughout can be more than twice that of one built from the same floor plan, but with inferior materials and workmanship.

The schedules included in this manual have been developed to provide the appraiser with a range of grades comprehensive enough to distinguish all significant variations in the quality of materials and workmanship which may be encountered; the basic specifications for each grade as to the type of facility furnished remain relatively consistent throughout, and the primary criterion for establishing the grade being the overall quality of materials and workmanship. The majority of buildings erected fall within a definite class of construction, involving the use of average quality of materials with average quality of workmanship. This type of construction being the most common, it can readily be distinguished by the layman as well as the professional appraiser. Consequently, better or inferior quality of construction can be comparatively observed. The quality grading system and pricing schedules in this manual are keyed to this obvious condition; the basic grade being representative of that cost of construction using average quality of materials with average quality workmanship. The principal Quality Grade classifications are as follows:

Grade AAA	Superior Quality
Grade AA	Excellent Quality
Grade A	Very Good Quality
Grade B	Good Quality
Grade C	Average Quality
Grade D	Fair Quality
Grade E	Poor Quality

The seven grades listed above will cover the entire range of construction quality, from the poorest quality to the finest quality.

APPLYING THE PROPER GRADE FACTOR

Grading would be a relatively simple process if all buildings were built to conform to the quality grade specifications outlined above. The fact is, however, that this ideal condition does not exist. It is not unusual for any conventional building to be built incorporating construction qualities that fall between the established grade levels. The grading system in this manual has been designed in such a way as to provide the appraiser with a method for accounting for such variations by establishing intermediate grades.

If the Subject building is judged to be of a better or inferior quality than the actual grade levels, a grade factor of plus (+) or minus (-) should be applied, i.e., C+ would be better than a straight "C" Grade, B- poorer than a straight "B" Grade, etc.

There is rarely a clear-cut designation of a specific grade factor. The appraiser will generally select a range, such as C+ to B-, and then weigh the various quality factors exhibited in the construction in order to select the proper factor.

Following the above procedures results in the full range of Quality Grade Factors. Examples of these factors are listed below.

AAA (+)	350%	A	160%	C (-)	95%
AAA	300%	A (-)	150%	D (+)	90%
AAA (-)	250%	B (+)	140%	D	85%
AA (+)	225%	B	130%	D (-)	75%
AA	200%	B (-)	120%	E (+)	65%
AA (-)	185%	C (+)	110%	E	55%
A (+)	175%	C	100%	E (-)	40%

QUALITY GRADE OR CLASS

The quality grade of materials and workmanship is the one most significant variable to be considered in estimating the replacement cost of a structure. Two buildings may be built from the same general plan, each offering exactly the same facilities and with the same specific features, but with widely different cost due entirely to the quality of materials and workmanship used in their construction. For instance, the cost of a dwelling constructed of high-quality materials and with the best of workmanship throughout can be more than twice that of one built from the same floor plan but with inferior materials and workmanship prevailing.

The following schedule has been developed to distinguish between variations in cost. This schedule represents the full range of conventional dwelling construction. The basic specifications for each grade, as to type of facilities furnished is relatively constant; that is, each has a specific type of heating system, one bathroom, kitchen unit, full unfinished basement, and other typical living facilities, but with variable quality of materials and workmanship prevailing.

The general quality specifications for each grade are as follows:

AAA Grade	Buildings generally having an exceptional architectural style and design, constructed with the finest quality materials and custom workmanship. Superior quality interior finish, built-in features, deluxe heating system, plumbing and lighting fixtures.
AA Grade	Buildings generally having an outstanding architectural style and design, constructed with the finest quality materials and workmanship. Excellent quality interior finish, built-in features, deluxe heating system, plumbing and lighting fixtures.
A Grade	Architecturally attractive buildings constructed with excellent quality materials and workmanship throughout. Very good quality interior finish and built-in features. Deluxe heating system and very good grade plumbing and lighting fixtures
B Grade	Buildings constructed with good quality materials and above average workmanship throughout. Moderate architectural treatment. Good quality interior finish and built-in features. Good grade heating, plumbing and lighting fixtures.
C Grade	Buildings constructed with average quality materials and workmanship throughout, conforming with the base specifications used to develop the pricing schedule. Minimal architectural treatment. Average quality interior finish and built-in features. Standard grade heating, plumbing and lighting fixtures.
D Grade	Buildings constructed with economy quality materials and fair workmanship throughout. Void of architectural treatment. Fair quality interior finish and built-in features. Low grade heating, plumbing and lighting fixtures.
E Grade	Buildings constructed with a very cheap grade of materials, usually “culls” and “seconds” and very poor-quality workmanship resulting from unskilled, inexperienced, “do-it-yourself” type labor. Low grade heating, plumbing and lighting fixtures.

In order to facilitate using this grading system, and again to promote and maintain uniformity in approach, the value relationship of grade to grade as just described has been incorporated into the development of the base specifications relating to each schedule used in the manual.

Note: The appraiser must exercise extreme caution not to confuse the concepts "quality" and "condition" when selecting the proper grade. This is especially applicable to older buildings, wherein a deteriorated condition can have a noticeable effect on their physical appearance. A building will always retain its initial grade of construction, regardless of its existing deteriorated condition. The Quality Grade ultimately selected must reflect that original built-in quality, and the selection of that grade cannot be influenced in any way by the physical condition of the building.

APPLYING THE PROPER COST AND DESIGN FACTOR

Architectural fees, material quantities, labor efficiency, and other factors influencing total construction costs may vary considerably from one building to another, depending upon its particular design. Two dwellings, for instance, showing no marked difference in size and quality may still show a measurable difference in cost, attributable primarily to a difference in design.

In computing the replacement cost of any building, therefore, it is necessary to adjust the cost to account for any features varying significantly from the base specifications from which the pricing schedules were developed.

The pricing schedules included in this manual, unless otherwise specified, have been developed to reflect perimeter-to-area wall ratios of rectangular shaped buildings, uniform eave lines and roof slopes, overhangs, ceiling heights, and other architectural features most typical of conventional designs.

The adjustment for variations in design must be made by applying a Cost and Design Factor denoting a percentage adjustment of the sub-total replacement cost, i.e., applying a +5% to indicate a 5% increase in the replacement cost, apply a +10% to indicate a 10% increase, etc.

The Cost and Design Factors applicable to dwellings will normally range from 0 to 25%. However, the Cost and Design Factors applicable to special architectural designs may range considerably higher. The selection of the proper Cost and Design Factor is largely a product of the experience and sound judgment of the appraiser, who must have the ability to analyze various construction components and determine the influence of each upon the overall cost.

PRICING SCHEDULES AND COST TABLES

The Pricing Schedules and Cost Tables in this manual are provided to assist the appraiser in arriving at accurate and uniform valuations. Used properly, they should prove to be an invaluable tool. Quality valuations, however, are not the product of schedules and tables themselves, but rather of the appraiser's ability to use them effectively. In order to bring this about, a thorough understanding of the make-up and the capabilities and limitations of each schedule is essential. The appraiser must know the specifications from which the base prices were derived, the composition of the prices, and the proper techniques and procedures for applying the prices. What's more important, the appraiser must be able to exercise good common sense and sound judgment in selecting and using them.

It should also be noted that the schedules and tables in the manual have been developed primarily for mass appraisal and tax equalization purposes. They have, therefore, been designed to provide the appraiser with an uncomplicated, fast, and effective method of arriving at an accurate estimate of replacement costs. In order to maintain simplicity in the schedules, techniques, and procedures, it is often necessary to make certain compromises from a strict technical and engineering point of view. Extensive effort has been made in developing the schedules to minimize these compromises and limit them to variables that have minimal influence on the final value of the building. The schedules have been designed to reflect actual building costs and practices. Field tests have proven them to be both accurate and reliable, and when applied properly, highly effective in arriving at realistic replacement costs.

RESIDENTIAL COST SCHEDULES

The Cost Approach to value lends itself best to property valuation for tax purposes for two principal reasons listed below:

1. Appraisals for Ad Valorem purposes require separate land value estimates.

2. The Cost Approach can be applied to all classes of property.

The use of one approach to the exclusion of others is contrary to the appraisal process. The approach outlined in this manual includes cost schedules which have been developed and are supported through analysis and incorporation of economic factors indicated by all three approaches to value; Cost, Income and Market.

The following cost schedules are based on a model. One story, frame or equal residence, constructed using typical components, average quality workmanship and materials, consisting of one thousand (1,000) square feet, one full bath, central heating system and full unfinished basement.

All adjustments from base specifications are included in the following schedules.

DWELLING PRICING SCHEDULE

The Dwelling Pricing Schedule is to be used for computing the replacement cost new of all single-family dwellings, and certain multi-family dwellings not exceeding four living units. "C" Grade base prices are provided for 1story, 1 ¼ story, 1 ½ story, 1 ¾ story, 2 story, 2 ¼ story, 2 ½ story, 2 ¾ story, and 3 story dwellings of frame and masonry exterior wall construction, along with tables of base price adjustments, additions, and other features.

GENERAL APPLICATION

The general application of the pricing schedule is to select the base price that is most representative of the subject dwelling, and to adjust that base price to account for any variations between the subject dwelling and the model. The procedure is as follows:

1. To calculate the proper base price on the basis of exterior wall construction, story height, and ground floor area of the main portion of the dwelling. The following formula applies:

    a. Base Area of Subject X .00065 + .35 = Area Factor
    Example: Base Rate for 1,500 sq.ft. = 1,500 X .00065 +.35 = 1.325

    b. Base Price X Area Factor = Base Replacement Cost
    Example: $295,000 X 1.325 = $390,875

2. Make the necessary base price adjustments to account for the following variations from the base specifications:

    a. Basement- The base price includes a full basement. A deduction must be made if the dwelling has no basement, or only a part basement. The deduction for “no basement” will differ depending upon whether the dwelling is built on a slab or over a crawl space.
    b. Heating and Air Conditioning- The base price includes a central heating system. A deduction must be made for “no heating” and an addition must be made for central air conditioning.
    c. Plumbing- The base price includes a three-fixture bathroom, a kitchen sink and a water heater. An addition or deduction must be made for variations in the number of plumbing fixtures.
    d. Attic- The base price does not include an attic. An addition must be made for unfinished, partially finished, fully finished or fully finished with extra wall height attics.

Note: Adjustments for Basement, Heating, Air Conditioning, and Attics are given in whole dollar values for sizes at 100 square foot intervals. The following applies:

1. Adjustments are to be priced to the nearest 10 square feet. Interpolate when necessary.
2. Adjustments for plumbing are given in points per fixture. Each point is equivalent to a value of $3,400. Value is not tracked until after 5 fixtures.
3. Adjustments are to be priced to the nearest $10.
4. Add the price for all additions, i.e., features added to the dwelling, such as overhangs, living area additions, porches, attached garages, etc. Price all exterior features to the nearest ten square feet shown on the schedule and interpolate. The following applies:

    a. Overhangs refer to a portion of the living area, either at the first floor or at the upper floor level, which extends (overhangs) beyond the area designated as the "base ground floor area" and does not have a floor below it. Overhangs are priced using the first floor living area addition price. ***Note**: All overhang areas should be tied together and one price applied to the total overhang area.
    b. Additions refer to a portion of the living area, other than overhangs, which extends beyond and is not included in the area described as the "base ground floor area". For example, the portion of the upper floor of a two-story dwelling which extends over an attached garage or porch, or the portion of the first floor which has no upper floor over it. Living area additions also include those living areas that have been subsequently added to the dwelling, but are not included in the "base ground floor area"
    c. Attached Garages refer to garages attached to, but not included in the area designated as the "base ground floor area"
    d. Bays refer to a projection, rather than an addition, of the living area of the dwelling, normally including a window or group of windows not included in the area designated as the "base ground floor area." Bays are priced using the first floor living area addition price.
    e. Stoops and Terraces refer to masonry floor construction of fill, elevated above grade level and including a continuous foundation, steps and railing.
    f. Patios refer to outside masonry floor construction at grade level. They may or may not be covered. ***Note**: Covered patios should be priced as canopies over patios and not as open porches; patios significantly elevated above grade level are considered and priced as terraces.

5. Compute the price of other specified features from the other feature-pricing table.
6. Sub-total the prices arrived at in Steps 1, 2, 3, 4 and 5, and apply the proper quality grade factor.

Apply the proper cost and/or design factor to the sub-total arrived at in Step 6 to arrive at the replacement cost new of the dwelling.

*Refer to the section on "estimating replacement cost new" for an explanation of the application of grade, cost, and design factors.

Note: The pricing schedules are computer generated utilizing mathematical formulas to generate costs. It is possible to note slightly different replacement cost new when comparing the usage of computer-generated costs against the dwelling pricing schedules appearing in this manual. This is caused by the intricate rounding procedures of the computer and should not be considered an error in the printed schedules or the computer-generated value.

Basement and attic adjustments are calculated using the same area factor as the base house.

BASE PRICE FOR

SINGLE FAMILY RESIDENCE

<table>
<tr><th>WALL HEIGHT</th><th>BASE PRICE</th><th>BASE SPECIFICATIONS</th></tr>
<tr><td>10</td><td>$295.00 A SF AT 1,000 SQUARE FEET</td><td>ONE STORY:
FIRST FLOOR AREA 1,000 SQUARE FEET</td></tr>
<tr><td colspan="2" rowspan="3">REMARKS/ADDITIONAL FEATURES:

ADD FOR
FIREPLACES/GARAGES/
PORCHES/ FINISHED
BASEMENT AREAS/ADDITIONS
ADDITIONAL PLUMBING
ADD FOR COOLING SYSTEM</td><td>FOUNDATIONS/BASEMENT:
FULL UNFINISHED BASEMENT</td></tr>
<tr><td>EXTERIOR WALLS:
VINYL SIDING OR EQUAL</td></tr>
<tr><td>PLUMBING:
5 PLUMBING FIXTURES</td></tr>
</table>

MANUFACTURED HOME CLASSIFICATION STANDARDS

SINGLEWIDE MANUFACTURED and MULTI-MANUFACTURED HOMES:

1. Manufactured homes shall be classified as real property when they meet all of the following requirements. A manufactured home that does not meet all of these requirements shall be classified as tangible personal property:

2. The manufactured home is a residential structure.

3. The moving hitch, wheels, and axles have been removed.

4. The manufactured home is placed upon a permanent foundation.

5. The manufactured home is located either:
    a. on land owned by the owner of the manufactured home; or
    b. on land in which the owner of the manufactured home has a leasehold interest pursuant to a lease with a primary term of at least twenty (20) years, and the lease expressly provides for disposition of the manufactured home upon termination of the lease.

    Manufactured homes meeting all of the above requirements shall be appraised as real property. Manufactured homes failing to meet one or more of these requirements shall be appraised as tangible personal property.

6. Determine whether the home is real or personal property.
    a) If Real: Collect listing data on blank PRC and make note to remove MS1.
    b) If Personal: Complete the manufactured home data collection form.

REAL PROPERTY MANUFACTURED HOMES PRICING GUIDELINES

All Multi-Sectional Manufactured Homes are to be treated as Real Property and will be listed on the Property Record Card in the same manner as a single-family dwelling.

The Replacement Cost New for typical Manufactured Multi-Sectional homes has been determined on average to be 60% to 75% of the Base Residential Cost Schedules. This is considered in the application of the Quality Grade Factor.

Manufactured Homes Quality Grade Factors

MA	.95	MC	.65	ME	.25
MA (+)	1.00	MC (+)	.70	ME (+)	.30
MA (-)	.9	MC (-)	.60	ME (-)	.10
MB	.80	MD	.45		
MB (+)	.85	MD (+)	.50		
MB (-)	.75	MD (-)	.40		

The Residential Depreciation Table is based on average rates of depreciation for typical single- family homes. For Manufactured Homes the following CDU guidelines will apply:

MANUFACTURED HOMES – APPLICATION OF CDU FACTORS	
Physical Condition of MH	**CDU Rating**
Excellent	EX-Excellent
Very Good	VG-Very Good
Good	GD-Good
Average	AV-Average
Fair	FR-Fair
Poor	PR-Poor
Very Poor	VP-Very Poor
Unsound	UN-Unsound

Note: The above guidelines will also apply to Singlewide Manufactured Homes that, due to substantial additions and remodeling, are considered real property. However, because of the varied degrees of remodeling, the appraiser will need to determine the proper Grade and CDU on an individual basis.

NEW CONSTRUCTION

PERCENTAGE OF COMPLETION GUIDE

This guide is to be used in estimating the percentage of completion of both residential and commercial buildings under construction.

PERCENT COMPLETION GUIDE

FOUNDATION ONLY.....10%

SUBFLOORING.....8%

EXTERIOR WALL SHELL.....8%

INTERIOR WALL PARTITIONS.....4%

ROOF.....8%

EXTERIOR WALL.....3%

ROUGH PLUMBING.....5%

ROUGH ELECTRIC.....4%

INSULATION TACKED IN.....2%

HEAT ROUGHED IN.....4%

HEAT FINISHED.....4%

INTERIOR SHEETROCKED.....9%

INTERIOR FINISHED.....11%

ELECTRICAL FINISHED.....2%

PLUMBING FINISHED.....5%

KITCHEN INSTALLED.....8%

MISC.....5%

OTHER BUILDING AND YARD ITEMS

The Other Building and Yard Item pricing schedules are provided to calculate the replacement cost new of a variety of types of structures typically associated with residential property.

Base prices and adjustments are provided for swimming pools, attached garages, detached garages, greenhouses, carports, canopies, utility buildings, tennis courts, boat houses, and boat docks. Each structure has been assigned a unique Structure Type Code to be utilized on Computer-Assisted Mass Appraisal (CAMA) programs.

Depreciation allowances, where applicable, are included on the appropriate schedule. Additional tables can be found in the Depreciation Schedules and Tables section of the Manual.

AGRICULTURAL BUILDINGS

This section of the Manual was developed to be used as a guide for estimating the replacement cost of new agricultural buildings. The Cost Schedules included contain base specifications and prices for normal "C" Grade average construction with additions and deductions to account for variations from the base specifications. These schedules are designed for either manual or computer application through the use of Structure Type Codes and Modifications. Specific instruction on the structure type code use and application can be found in the Data Inventory section of the Manual.

All rates and pricing schedules can be found in section 16, 17, & 18 of this manual.

COMMERCIAL PRICING SCHEDULE

EXEMPT INSTITUTIONAL BUILDINGS

This section of the Manual includes basic procedures and applications to be utilized to determine the Replacement Cost New for a variety of institutional type structures. Prices are provided based on the Structure Type and exterior wall material.

BASE SPECIFICATIONS

Base prices assume normal construction, mechanical and other features such as plumbing, heating, air conditioning, interior finish, framing, elevators etc. according to the designed building structure type.

SCHEDULE APPLICATION

Select the structure type which is most representative of the subject building. Establish the Quality Grade of the building, which is contingent upon the exterior wall material of the structure type. Determine the total square feet of floor area and multiply the cost per square foot by the total area to establish the replacement cost. Note: separate prices are provided for finished or unfinished basements.

PERCENT (%) GOOD GUIDELINES

Physical deterioration of institutional buildings should be based on the effective age and condition. Structures of this type normally have an expected life, which is longer than other types of similar structures. Actual age and life expectancy can be extended through continued maintenance and renovation. When establishing the percent (%) good, the adjustment should be based on anticipated additional life as compared to normal life guidelines.

COMMERCIAL INDUSTRIAL SCHEDULES

Commercial and Industrial pricing schedules are provided for a variety of buildings based on the use of the property. The General Commercial Schedule is to be used as a guide for computing the replacement cost of mercantile type buildings, offices, and similar type structures. The Hotel/Motel/Apartment Schedule is to be used to compute the replacement cost of commercial living accommodations and associated support structures. The Industrial Schedule is to be used for computing the replacement cost of manufacturing and warehouse storage type structures.

The general application of all the schedules is essentially the same; selecting the base price (per square foot) which is most representative of the subject building and adjusting the base price to account for any significant variation.

SCHEDULE FORMAT-BASE PRICES

The schedules designate base prices by use type for a series of perimeter-area ratios and wall types. "C" Grade base prices are provided for various finish types at different floor levels with specified floor-to-floor heights, for fire resistant construction with brick (or equal), frame (or equal), and metal superstructure walls and reinforced concrete basement walls.

Pricing adjustments for variations in both wall height and construction type, i.e., wood joist or reinforced concrete, together with prices for the various exterior walls are included. This makes it possible to select the proper base price which is representative of the actual 'floor-to-floor heights' of the subject buildings for either wood joist, fire resistant, or fireproof construction.

The base prices are determined by selecting the appropriate square foot price for fire resistant steel frame construction by exterior wall type and use, adjusting it for variations in wall height, and making the proper deduction or addition for wood joist or fireproof construction, if necessary.

The base prices for the various floor levels have been developed as independent components. This makes the schedules applicable to both one story and multi-story buildings, and permits the separate pricing of individual floors and the combining or "stacking" of prices to account for a variety of use combinations, which is typically found in commercial type buildings.

The base prices for each floor level use type include the exterior walls with normal openings, interior finish, mechanical features, and other features for that particular floor. In addition to this, each respective floor level includes the following features:

First Floor: Site preparation and normal foundation construction for a building at grade level, normal parapets and coping, ground floor slab including base and cement finish, normal roof construction consisting of insulation, decking, framing, and utility service.

Basement: Excavation and backfill and structural floor (for first floor) construction consisting of sub floor and framing.

Note: The cost of the basement exterior wall construction and spread footings exclude an allowance for the normal foundation construction included with the first floor.

Upper Floors: Structural floor construction consisting of sub-floor and framing for each respective floor.

Normal partitions, plumbing, and lighting are included for each floor level based on use type. Adjustments may be made by floor level for the various base price components if the component is greater or less than what is considered normal for the use type.

Example: For general retail, normal is considered a cross partition (separating the sales area from the stock area) and partitions for two toilet rooms. If the store would be divided into several sales areas, an addition for excessive partitions would be applicable. Stairways (with enclosures in the finished use types) are included in the basement and upper floor prices.

CONSTRUCTION TYPES

Wood joist construction refers to non-fireproof structural floor and roof components consisting of wood sub-flooring and decking on wood joists, rafters, or purlins, and supported by either load bearing walls, timber, or steel framing.

Fire-resistant construction refers to fire resistive structural floor and roof components consisting of formed concrete on steel framing; or light concrete, metal deck, flexi core, gypsum, and similar materials on steel joists and steel framing.

Fire-proof construction refers to fire proof structural floor and roof components consisting of either formed or precast reinforced concrete on either reinforced concrete, or fire proof structural steel framing. In a fireproof structural steel building, the fireproofing may be masonry, poured concrete, plaster, sprayed asbestos, or any similar material, which yields a high fire-resistant rating.

QUALITY GRADE SPECIFICATIONS

The base prices are for normal "C" Grade buildings erected with average quality materials and workmanship. A Table of Quality Factors is provided to adjust the "C" Grade prices in order to account for variations in construction quality.

AAA Grade	Buildings generally having an exceptional architectural style and design, constructed with the finest quality materials and custom workmanship. Superior quality interior finish, built-in features, deluxe heating system, plumbing and lighting fixtures.
AA Grade	Buildings generally have an outstanding architectural style and design, constructed with the finest quality materials and workmanship. Excellent quality interior finish, built-in features, deluxe heating system, plumbing and lighting fixtures.
A Grade	Architecturally attractive buildings are constructed with excellent quality materials and workmanship throughout. Very good quality interior finish and built-in features. Deluxe heating system and very good grade plumbing and lighting fixtures
B Grade	Buildings constructed with good quality materials and above average workmanship throughout. Moderate architectural treatment. Good quality interior finish and built-in features. Good grade heating, plumbing and lighting fixtures.
C Grade	Buildings constructed with average quality materials and workmanship throughout, conforming with the base specifications used to develop the pricing schedule. Minimal architectural treatment. Average quality interior finish and built-in features. Standard grade heating, plumbing and lighting fixtures.
D Grade	Buildings constructed with economy quality materials and fair workmanship throughout. Void of architectural treatment. Fair quality interior finish and built-in features. Low grade heating, plumbing and lighting fixtures.
E Grade	Buildings constructed with a very cheap grade of materials, usually “culls” and “seconds” and very poor-quality workmanship resulting from unskilled, inexperienced, “do-it-yourself” type labor. Low grade heating, plumbing and lighting fixtures.

Note: The quality factor selected is to represent a composite judgment of the overall grade. Generally, the quality of materials and workmanship is consistent throughout the construction of a specific building. However, since this is not always the case, it is necessary to weigh the quality of each major component in order to arrive at the proper "overall" quality grade. Particular consideration must be given to special features, such as elevators and banking features, since variations for quality are already considered in the respective pricing tables. Equal

consideration must also be given to those "additions" which are constructed of materials and workmanship inconsistent with the quality of the main building.

QUALITY GRADE FACTORS

AAA (+)	(+) 3.50	A (+)	(+) 1.75	C (+)	(+) 1.10	E (+)	(+) .65
AAA	3.00	A	1.60	C	1.00	E	.55
AAA (-)	(-) 2.50	A (-)	(-) 1.50	C (-)	(-) .95	E (-)	(-) .40
AA (+)	(+) 2.25	B (+)	(+) 1.40	D (+)	(+) .90		
AA	2.00	B	1.30	D	.85		
AA (-)	(-) 1.85	B (-)	(-) 1.20	D (-)	(-) .75		

GENERAL APPLICATION

The schedules can be effectively applied to either a total building or a portion of the building.

i.e., floor section; as long as the size, construction, and quality are consistent.

It is not uncommon for the first floor of a commercial building to be of a higher quality construction than the upper floors. This situation is especially likely to occur in older buildings where it is often not economically feasible to renovate and modernize the upper floors comparable to the first floor. It is also common for the first floor or lower floor to be larger in area than the upper floors. In either case, it may be advisable to compute the replacement cost of individual floors or groups of floors separately. The individual replacement cost can then be totaled to arrive at a single replacement cost or treated separately, depending upon which procedure would best facilitate the application of depreciation.

The general pricing procedure is as follows:

1. Determine the use type by floor level
2. Determine the perimeter-area ratio (Perimeter – Area X 100)
3. Select the proper base price for each floor level (adjusted for wall height and/or construction type variations)
4. Sub-total the selected base prices.
5. Make necessary square foot adjustments for variations (air conditioning, plumbing, special use, etc.) to the base prices.
6. Sub-total the square foot price and multiply by the square foot area.
7. Add the cost of "special features" and additions to arrive at the total "C" Grade Replacement Cost.

Note: The addition for "special features" and exterior features or additions of the building, which are not included in the base square foot area or price, should be added in total. Additions can be priced utilizing the same schedule being

8. Apply the proper Quality Grade Factor to arrive at the Replacement Cost.
9. Add in total any "flat items" grade factor.

SPECIAL APPLICATION

Although the General Commercial and Industrial schedules have been designed to be used primarily for computing the replacement cost of mercantile type buildings, offices, commercial apartments, warehouses, and manufacturing facilities, the schedules can also be effectively adapted to the pricing of other special purpose buildings. In order to maintain uniformity of the approach in pricing special purpose buildings, specific instructions and procedures have been developed and included in the schedules.

COMMERCIAL INDUSTRIAL BUILDING DATA
There are four distinct divisions of the form to be completed:

- General Building Data
- Interior/Exterior Data
- Building Other Features – Attached Improvements
- Yard Improvements – Secondary Buildings

A building is broken down into sections. Building sections are separate due to differing story height, or due to major differences in type and quality of construction. A section can share a common wall or part of a common wall with another section or several sections, but otherwise could stand alone as a separate building.

Building sections are broken down into interior/exterior lines. An interior/exterior line is defined as that portion of a building section having all identical characteristics (except From-To) found in the interior/exterior data category of the data collection form. In other words, an interior/exterior section line consists of those stories in a building section having the following identical characteristics:

Dimensions (width x length square feet)

Perimeter

Use Type Code

Wall Height

Exterior Wall Material

Construction Type

Interior Finish Percent

Partitions

Heating System Type

Air Conditioning Type

Plumbing

Physical Condition

Functional Utility

% Rent Area

(600) **GENERAL BUILDING DATA**
The information for the general building data portion of the main area must be completed for every building structure type described. Every sub-field is a required entry if a building is listed in field 611-618.

BUILDING-Space is provided to enter a two-digit number denoting the "building number" to be described. Building numbers should begin with 01 and a sequential order followed. Both character positions must be filled in. Use leading zeros if necessary.

YEAR BUILT- Space is provided to enter the year in which the building structure type was completed.

Note: If the owner or tenant does not know the actual year, enter your best estimate possible based on known years of similar properties in the immediate locality. A year built MUST be entered for each structure type.

NUMBER OF UNITS- Space is provided to enter a three- digit number denoting a distinctive type of measurable unit utilized to describe certain structure type codes. All character positions must be filled in. Use leading zeros if necessary. The following list are structure type codes and the types of units to be described.

Structure Type Code	Structure Type	Measurable Units
211	Apartment, Garden	Number of Living Units
212	Apartment, High Rise	Number of Living Units
314	Hotel/Motel, High Rise	Number of Rooms
315	Hotel/Motel, Low Rise	Number of Rooms
316	Nursing Home	Number of Beds
318	Boarding/Rooming House	Number of Rooms
336	Car Wash-Manual	Number of Bays
337	Car Wash-Automatic	Number of Bays
338	Parking Garage/Deck	Number of Cars
363	Legitimate Theatre	Number of Seats
364	Motion Picture Theatre	Number of Seats
365	Cinema/Theatre	Number of Seats
381	Bowling Alley	Number of Alleys
385	Tennis Club-Indoor	Number of Courts
386	Racquet Club-Indoor	Number of Courts
395	Trucking Terminals	Number of Bays
396	Mini Warehouse	Number of Rental Units
640	Hospital	Number of Beds

STRUCTURE TYPE CODES – Space is provided to enter the three-digit numeric structure type code that denotes the purpose of construction. See the following page for three-digit numeric codes that should be utilized.

Note: When a building section has been constructed for multiple purposes of use, the predominant structure type code should be chosen.

GRADE- Do not enter anything for this item, unless specifically instructed by your supervisor. This may be the case with service stations and fast-food franchises.

NUMBER OF IDENTICAL UNITS - Space is provided to enter the total number of identical building and structure type units. Enter 01-99.

STRUCTURE TYPE CODES

STRUCTURE TYPE RESIDENTIAL	CODE	STRUCTURE TYPE COMMERCIAL	CODE
Living Oriented		Service Station (Full Service)	333
Residential, One Family	101	Service Station (Full Service)	334
Residential, Two Family	102	Truck Stop	335
Residential, Three Family	103	Car Wash (Manual)	336
Residential, Four Family	104	Car Wash (Automatic)	337
Mixed	105	Parking Garage/Deck	338
Residential/Commercial		**Miscellaneous**	
(Built as Residential)			
Condominium (common element)	106	Super Regional Shopping Mall	340
Condominium (fee simple)	107	Regional Shopping Mall	341
Apartments		Community Shopping Center	342
Residential Structure on Apartment Value Land	201	Neighborhood Shopping Center	343
Apartment, Garden (3 story & under)	211	Strip Shopping Center	344
Apartment, High Rise	212	Discount Department Store	345
Commercial		Department Store	346
Residential Structure on Commercial Value Land	301	Supermarket	347
Hotel/Motel, High Rise	314	Convenience Food Market	348
Hotel/Motel, Low Rise	315	Medical Office Building	349
Nursing Home	316	Bank	351
Boarding/Rooming House	318	Savings Institution	352
Mixed	319	Office Building, Low Rise (1-4 Stories)	353
Residential/Commercial		Office Building, High Rise	354
(Built as Commercial)		(5 Stories and Up)	
Food and Beverages		Office Condominium	355

Restaurant	321
Food Stand	323
Fast Food	325
Bar/Lounge	327
Night Club/Dinner Theatre	328
Automotive Oriented	
Kwik Lube	330
Auto Dealer, Full Service	331
Auto Service, Garage	332
Kwik-Lube	339
Miscellaneous continued	
Hanger	368
Day Care Center	369
Greenhouse/Florist	370
Multi-Purpose	
Downtown Row Type	371
Retail-Single Occupancy	373
Retail-Multi Occupancy	374
Retail-Drive Up	375
Sport and Health	
Bowling Alley	381
Skating Rink	382
Health Spa	383
Swimming- Indoor Pool	384
Tennis Club- Indoor	385
Racquet Club- Indoor	386
Country Club	387
Club House	388
Country Club with Golf Course	389
Retail Condominium	356
Funeral Home	361
Veterinary Clinic	362
Legitimate Theatre	363
Motion Picture Theatre	364
Cinema/Theatre	365
Radio, TV or Motion Picture Studio	366
Social/Fraternity Hall	367
Industrial & Special Purpose Buildings	
Recreational/Health	610
Library	611
School	612
College/University	613
Religious	620
Auditorium	630
Hospital	640
Police or Fire Station	660
Correctional	670
Cultural Facility	680
Rail/Bus/Air Terminal	690
Communication	
Telephone Equipment Building	710
Telephone Service Garage	715
Radio/TV Transmitter Building	720

STRUCTURE TYPE CODES (Continued)

STRUCTURE TYPE	CODE
RESIDENTIAL	
Miscellaneous Storage	
Cold Storage Facility	391
Lumber Storage	392
Truck Terminal	395
Mini Warehouse	396
Office/Warehouse	397
Warehouse	398
Warehouse, Prefab	399
Industrial	
Manufacturing/Processing	401
Research & Development	405

(611.828) **INTERIOR / EXTERIOR DATA**
In describing the various portions of a building section, the concept of interior/exterior lines should be used. For example, a portion of a building section several stories high is considered to be an interior/exterior line if all of the following variables have the same content.

Dimensions (width x length or square feet)	Partitions
Perimeter	Heating System Type
Use Type	Air Conditioning Type
Wall Height	Plumbing
Exterior Wall Material	Physical Condition
Construction Type	Functional Utility
Interior Finish Percent	% Rent Area

SECTION NUMBER – Space is provided to enter a one-digit number denoting the "section number" of the building being described. Section numbers should begin with 1 and a sequential order followed.

LEVELS (From) - Space is provided to enter a two-digit alpha/numeric code. This field may be used in conjunction with the next field for interior/exterior lines consisting of several stories.

Enter	B1	to indicate first basement.
Enter	B2	to indicate sub-basement.
Enter	B3	to indicate sub-sub-basement (up to B5 available)
Enter	C1	to indicate first crawl space.
Enter	M1	to indicate first mezzanine (balcony).
Enter	M2	to indicate second mezzanine (balcony).
Enter	M3	to indicate third mezzanine (balcony.) (up to M9 available)
Enter	A1	to indicate attic.
Enter	P1	to indicate penthouse. (up to P3 available).
Enter	E1	to indicate enclosure. (up to E9 available).
Enter	01-01	to indicate first story.
Enter	02-75	to indicate second through seventy-fifth story.

LEVELS (To) – Space is provided to enter a two-digit alpha/numeric code which is to be used in conjunction with the 'From' entry. The same two-digit alpha/numeric codes apply for both the 'From' and 'To' fields.

Note 1:	When making entries to for "From" to "To" fields, do not mix codes
Note 2:	The numeric characters used with crawl space, mezzanines, attics, penthouses, and enclosures are for identification; not to indicate the floor or level where each item is located. For instance, if two enclosures were to be designated E1 to E1 and E2 to E2. Renumbering should begin when going to another floor.
Note 3:	Mezzanine and enclosure listings should follow the listing of the floor they are found on. That is, if there is a mezzanine located on the first floor of a building, all the basic description of that for floor should be followed (underneath) by the mezzanine description
Note 4:	Attic levels should follow the next highest floor level
Note 5:	Penthouses should follow the top floor
Note 6:	The first floor must always be entered as a separate line entry (01 to 01)

DIMENSIONS

SIZE- Enter either the dimensions (width and length) or square foot area of the level being described. To enter the dimensions, character positions are provided for eight characters; three (3) numeric characters denoting the width, one (1) multiplication (x) symbol, and four (4) numeric characters denoting the length. The multiplication symbol must always be entered in the fourth character position from the left (within the two vertical hash marks). All character positions must be filled in. Use leading zeros if necessary.

To enter the square foot area; character positions are provided to enter eight numeric characters (up to 99,999,999 square feet). Utilize the character positions to the right. Leading zeros are not necessary.

Note: Do not enter the total square footage area for all stories of the interior/exterior line. 75% of the first-floor area used for XYZ-story buildings and 50% for attics.

PERIMETER – Space is provided to enter the effective perimeter of the interior/exterior line of the building section being described. Enter the sum of all exterior wall measurements around the base of the interior/exterior line to the nearest foot. Utilize the character positions to the right. Note: When a common wall separates two sections, take the wall with that section which corresponds to the height of the wall. If both sections are the same height, take the wall with either one of the two sections, but not both. When an open area separates two sections, do not use this open area in calculating the effective perimeter.

When a common wall separates the building from an adjacent parcel under different ownership, take the length of the common wall times (x) 60% for both parcels to calculate effective perimeter. Use 75% of the first-floor perimeter for 11/2 story buildings and 50% of the first-floor perimeter for 2 story buildings.

USE TYPE-Space is provided to enter a three-digit numeric code denoting the current use of the interior/exterior.

Note: The current use may differ from the structure type.

The following three-digit codes should be utilized:

011	Apartment	053	Office Building
012	Hotel	054	Nursing Home
021	Motel	055	School
023	Dormitory	056	Hospital
025	Dwelling Conversion-Office	057	Library
026	Dwelling Conversion- Sales	058	Funeral Home
027	Dwelling	061	Auditorium/Theater Cinema
031	Restaurant	062	Religious Institution
032	Department Store	063	Social/Fraternal Hall
033	Discount Store/Market	064	Service Station with Bays
034	Retail Store	070	Service Station-Conversion
035	Tavern/Bar	071	Retail
036	Bar/Lounge	072	Service Station-Conversion Storage
037	Cafeteria	073	Service Station without Bays
038	Convenience Store	074	Car Wash-Manual
039	Mall Shops	075	Car Wash-Automatic
		076	Kwik Lube
041	Mini Warehouse	081	Multi-Use - Apartment
042	Hanger	082	Multi-Use – Office
043	Manufacturing	083	Multi-Use – Sales
044	Light Manufacturing	084	Multi-Use – Storage
045	Warehouse	085	Enclosure
046	Auto Showroom/Office	086	Support Area
047	Auto Parts/Service	088	Restroom/Locker Room Facility
048	Tennis Club	090	Parking Garage
049	Racquetball Court	091	Unfinished Residential Basement
050	Skating Rink (Ice or Roller)	095	Covered Mall
051	Bank/Savings Institution	100	Fast Food

052	Medical Center	990	Parking, Upper Deck

Note: Use type for crawl space will always be given as “000-None”

WALL HEIGHT – Space is provided to enter a two-digit number denoting the height of an interior/exterior line story to the nearest foot. Both character positions must be filled in. Use leading zeros if necessary. The measurement should be made from floor to floor and NOT from floor to ceiling.

Note: Parapets should not be included in this measurement

Note: Gable type roofs should be measured to the eaves. Other roof types, such as shed or saw-tooth should be averaged to compute the wall height to the roofline.

EXTERIOR WALL MATERIAL – Space is provided to enter a two-digit number code denoting the exterior wall material of an interior/exterior line. Enter 00-16.

Enter	00	**NONE** to indicate the absence of exterior wall material
Enter	01	**BRICK OR STONE** to indicate a brick or stone veneer
Enter	02	**FRAME** to indicate an exterior wall of wood, aluminum siding, composition siding, or shingles on sheathing.
Enter	03	**CONCRETE BLOCK** to indicate a masonry wall consisting of concrete compressed into the shape of a block and allowed to harden.
Enter	04	**BRICK/CONCRETE BLOCK** to indicate that at least one-third of the exterior walls are of a brick or concrete block material and the rest of the exterior walls are of the other material.
Enter	05	**TILE** to indicate a hard earthenware block which has been hard burned and molded. Such as terra cotta
Enter	06	**MASONRY & FRAME** indicates that at least one-third of the exterior walls are of a frame or masonry (brick or stone) material and the rest of the exterior walls are of the other material.
Enter	07	**METAL, LIGHT** to indicate walls constructed of metal panels on wood or steel frame
Enter	08	**METAL, SANDWICH** to indicate walls constructed of a core of insulation covered on both sides of metal panels.
Enter	09	**CONCRETE LOAD BEARING** to indicate a concrete wall which supports a part of the building, usually a floor or roof
Enter	10	**CONCRETE NON-LOAD BEARING** to indicate a concrete curtain wall, which does not support the roof or floor
Enter	11	**GLASS** to indicate walls of non-supporting glass panels set in metal frame
Enter	12	**GLASS & MASONRY** to indicate walls of non-supporting glass set in brick or concrete backup
Enter	13	**ENCLOSURE** to indicate a wool stud or concrete block office or sales enclosure wall in the interior of a building
Enter	14	**CONCRETE TILT-UP** to indicate concrete wall sections that are cast horizontally and tilted or lifted into position
Enter	15	**SOLAR GLASS** to indicate a high-quality tinted heat absorbent glass set in metal frame
Enter	16	**ASBESTOS CORRUGATED RIGID** to indicate a rigid corrugated asbestos sheet on wood or steel frame
Enter	17	**NATIVE STONE** to indicate a locally quarried stone used as a load-bearing wall. The stone can be irregular-shaped rubble or cut blocks set in place with mortar

Note: Exterior wall material for basement, crawl space, and/or entries with use code of 090 will always be entered as code 00-None, except when use code 090 is a basement; then code 09 must be entered. Exterior wall material for enclosures should always be entered as Code 13-Enclosure. Exterior wall material for mezzanines must be entered either as Code 00-None or Code 13-Enclosure

CONSTRUCTION TYPE – Space is provided to enter a one-digit numeric code denoting the type of construction of an interior/exterior line.

Enter 1 **WOOD FRAME/JOIST/BEAM** to indicate construction, which incorporates wood, stud balloon or platform framing or wood post and beam framing (mill construction) This category also includes masonry structures, which incorporate wood joist or plank floor systems, or wood joist/truss or rafter roof systems.

Enter 2 **FIRE RESISTANT** to indicate buildings with exposed structural steel or reinforced concrete columns and beams. Multi-story structures will have steel floor joists with concrete planks or a reinforced concrete floor system. Exterior walls will typically be masonry or metal and glass panels.

Enter 3 **FIREPROOF** to indicate typically high-rise buildings with fabricated heavy, structural steel columns and beam framing which has been enveloped in a fire-proof material such a concrete or gypsum. Floors will be reinforced concrete or pre-cast concrete plank on steel joists protected by a gypsum-vermiculite plaster on metal lath ceiling. Exterior walls will be masonry or metal and glass panels.

Enter 4 **PRE-ENGINEERED STEEL** to indicate building framed with prefabricated steel members. The structure will incorporate metal beams, girders columns and purlins, or light gauge steel joists manufactured from cold formed shapes of sheet or strip steel. Multi-story buildings may have floors of wood, steel or concrete. Exterior walls will typically be pre-finished metal siding or sandwich panels.

Note: For crawl spaces always enter construction type 1 and make no further entries on that line. All other construction types must have all spaces entered, with zeros if necessary and applicable Physical Condition and Function Utility. Mezzanines and all use type 990 entries require construction type 0.

INTERIOR FINISH % PERCENT -Space is provided to enter the extent of interior finish expressed in a percent. Consideration should be given to the floors, ceilings and walls. All character positions must be filled in. Use leading zeros if necessary.

Note: Consideration should be given to the structure type code previously entered.

For example: you would not expect to find the same extent of interior finish in a warehouse that you would find in a professional building.

Note: As described earlier, the building is detailed by sections; each section has been assigned a use type or has been described in terms of the section's original construction use intention. Since the cost figures to be used to cost out the section and specific use type are a cost that is applicable to the specific type of section or structure under appraisal, the interior should be judged from that standpoint.

An example of this would be: (on the following page)…

An office building section is described as having a use type of "general office." When this type of use is recorded for this section, the interior is assumed to be completely finished. For mass appraisal it is not necessary to detail the office section's specific types of finish. The costing tables for general office use type already have finished interior built into their pricing rates. The data collector is really trying to determine if the complete section described, as general office is 100% finished. If the reviewer finds the area is not to be considered 100% finished, the property record card should denote what percent is finished.

Another example would be a warehouse. The property record card has been appropriately marked to indicate that the section is for warehouse use. Since warehouse interior walls are normally unfinished, or just painted, the costing tables for this use type would automatically reflect minor interior finish. Therefore, for a use type describing a warehouse, the data collector would record the interior as being 100% finished.

Costing tables are established to appropriately consider the normal state of interior finish for each use type. Data collectors should consider each use type to have 100% finished interior, even in the case of a warehouse, unless it is discovered that the percent of finish is not 100%.

PARTITIONS – Space is provided to enter a one-digit numeric code denoting the extent or partitioning of walls within the interior/exterior building line.

Enter 0 **NONE** to indicate that there are no partitions at all.

Enter 1 **BELOW NORMAL** to indicate that only a few partitions have been constructed and that most similar structures have a few more partitions than the subject structure.

Enter 2 **NORMAL** to indicate that the subject structure has about the same extent of partitioning that is found in similar structures.

Enter 3 **ABOVE NORMAL** to indicate that the subject structure has rather extensive partitioning when compared to similar structures used for the same purpose.

Note: The extent at partitioning should always be compared to what could be considered normal for structures having the same use. The use type code should be considered; for example: a structure that was built as a hotel but is now used as offices will probably have more extensive partitions (3-ABOVE NORMAL) than a structure built as an office and used as an office building.

Note: Partitions should be recorded based on whether the amount of partitioning is normal or not normal for the particular section use type. In the event partitioning for a particular use type is considered above or below normal, the data collector records the difference by use of a code symbol indicating the above or below status. The pricing tables are set up to appropriately cost out normal, below normal, above normal or none for each use type. Normal partitions for a retail store would be one partition separating the sales area from the storage area and one small office. In the event that there were more partitions, the data collector would record “above normal.”

HEATING SYSTEM TYPE – Space is provided to enter a one-digit numeric code denoting the predominant heating system type utilized within the interior/exterior line.

Enter 0 to indicate NONE
Enter 1 to indicate HOT AIR, either forced or gravity
Enter 2 to indicate HOT WATER or STEAM, both single and dual circulation
Enter 3 to indicate UNIT HEATERS, SPACE HEATERS
Enter 4 to indicate ELECTRIC either baseboard, floor or ceiling
Enter 5 to indicate the presence of a HEAT PUMP
Enter 6 to indicate SOLAR

AIR CONDITIONING TYPE – Space is provided to enter a one-digit numeric code denoting the type of air conditioning existent within the interior/exterior line.

Enter 0 to indicate NONE
Enter 1 to indicate CENTRAL
Enter 2 to indicate UNIT (Real Property)
Note: Window air conditioners are not considered real property and should be considered as 0-NONE.

PLUMBING/WATER – Space is provided to enter a one-digit numeric code denoting the extent and adequacy of the plumbing and piping system within the interior/exterior lines.

Enter 0 to indicate NONE
Enter 1 to indicate BELOW NORMAL
Enter 2 to indicate NORMAL
Enter 3 to indicate ABOVE NORMAL

Note: Consideration must be given to the structural use. For example: motels naturally have more extensive plumbing systems than retail stores.

SQUARE FOOT RATE – Do not utilize this entry. It is for manual pricing purposes only.

PHYSICAL CONDITION - Space is provided to enter a one-digit numeric code denoting the physical condition of the interior/exterior line in relation to its age of completion. Consideration should include foundation, frame, exterior walls, roof, heating, air conditioning, lighting and electrical systems, plumbing, internal walls and floor finish.

Enter 1	**POOR** to indicate that the interior/exterior line is structurally unsound. Major structural elements require replacement. The interior is in a dilapidated condition and does not appear suitable for use.
Enter 2	**FAIR** to indicate that the interior/exterior line shows marked wear and deterioration, but the property is usable for commercial or industrial purposes. It could be characterized as needing work.
Enter 3	**NORMAL** to indicate that the interior/exterior line shows only minor signs of physical deterioration due to “wear and tear”. There are a few indications deferred maintenance and no significant repairs or replacements are necessary
Enter 4	**GOOD** to indicate the interior/exterior line is in new or “like new” condition. There are no deficiencies in material or construction and no signs of deferred maintenance
Enter 5	**RENOVATED** to indicate that a major renovation or rehabilitation of the interior/exterior line has taken place. The effective age of the interior/exterior line has been altered to that of a much newer building in good condition. The amount of work done to enhance the appearance and structural soundness of the interior/exterior line is far in excess of that required for normal maintenance.

FUNCTIONAL UTILITY FACTOR – Space is provided to enter a one-digit numeric code denoting the functional utility of the interior/exterior line. Functional utility may be defined as the ability of the interior/exterior line to perform the function for which it is intended. It is the combined effect on marketability of the condition, utility and desirability of the property. Consideration should be given to architecture, design and layout, sizes and types of rooms, and performance standards. Enter 0-4 from the list below:

BASEMENT

Enter 0 **None** to indicate that the basement had very little possibility of being utilized to any great degree. May be low posted and/or dirt floor. May be wet.

Enter 1 **Poor** to indicate that the basement is capable of being only partially utilized due to height, size, ingress and egress, etc. Has no elevator service.

Enter 2 **Fair** to indicate that the basement may be capable of being utilized for dead storage, etc., but lacks good elevator services, although it may have old cable-controlled type.

Enter 3 **Normal** to indicate that the basement is capable of being fully utilized with good movement of materials to first floor level by elevator or other mechanical means.

Enter 4 **Good** to indicate that an exceptional utilization of entire basement area is possible. May house all or part sales, secondary office space, lounge, function rooms, kitchen, etc. Must be served by modern elevator.

FIRST FLOOR

Enter 0 **None** to indicate that no possible present or future usefulness exists.

Enter 1 **Poor** to indicate that the first-floor exhibits very little possible utility at present or in the future due to shape, layout, size, construction, etc.

Enter 2 **Fair** to indicate that there may be excessive wasted space due to shape and size. Headroom and/or bay size is less than adequate. Problems exist with ingress or egress.

Enter 3 **Normal** to indicate that the first-floor layout provides for nearly full utilization of space. There is sufficient headroom and bay size to fulfill the function for which it is intended.

Note: Most first floor areas will fall into this classification.

Enter 4 Good to indicate that the first floor has exceptional utilization due to layout, ingress and egress. There is little or no wasted floor area and a maximum of net useable space exists

SECOND FLOOR
Enter 0 **None** to indicate that the second floor has no present or future utilization.

Enter 1 **Poor** to indicate that the second floor has a low percentage of net useable to gross floor area. The plumbing and lighting are obsolete. It may have small bays or be low posted. The overall layout is poor, and no elevator service exists. There is no off-street parking available in the immediate area.

Enter 2 **Fair** to indicate that the second floor has excessive hallways, stairwells, elevator shafts, etc., which results in a lower percentage of net useable space. There may be an older type manually operated elevator or none at all. There is still proper ingress and egress but little off-street parking is available in the area.

Enter 3 **Normal** to indicate that the second-floor layout provides for nearly full utilization of space with normal hall and stairwell areas. A self-service elevator is available. There is adequate off-street parking available in the immediate area.

Enter 4 **Good** to indicate that the second floor has exceptional utilization. There is little to no wasted floor area. A modern self-service elevator is available. There is more than adequate off-street parking available in the immediate area.

ABOVE SECOND FLOOR
Use the same guidelines as SECOND FLOOR except to consider that on buildings with no elevator, the higher you go, the less desirable the space becomes. It would be highly unlikely, in any building, to progress upward floor by floor and have the functional utility increase. For example: If the second floor were classified as Fair, it would not be likely for the third floor to be Normal.

Note: Economic obsolescence is addressed during valuation review.

The following entries are used for manual pricing only:

AGE FACTOR

UNADJUSTED REPLACEMENT COST NEW % (PERCENT GOOD)

UNADJUSTED REPLACEMENT COST NEW LESS DEPRECIATION

SUBTOTAL

COUNTY INDEX

GRADE FACTOR

(601.608) **BUILDING OTHER FEATURES – ATTACHED IMPROVEMENTS**
There are numerous types of building, other features and attached improvements that may be encountered on commercial and industrial properties. The most common of these have been coded and included on the data collection form. The inclusion of all possible items is considered impractical, however, the ability to collect data on uncoded items has been provided for. In this situation the data collector should enter the structure code MSI (miscellaneous structure) and enter a flat dollar amount in the measurement 1 column.

LINE NUMBER-Space is provided to enter a one-digit number (1 to 8) denoting the "interior/ exterior line number" of the building section in which the building other feature or attached improvement being described is located. The interior/exterior line number equates to the following preprinted data processing field codes.*Note: It* is extremely important to enter the correct interior/exterior line number in which the building other feature or attached improvement is located because the other feature or attached improvement will be depreciated in the same manner as the interior/exterior line.

For the following buildings with other features or attached improvements, the interior/exterior line number should always correspond with the first floor of the building section:

Elevator, electric freight

Elevator, electric passenger

Elevator, hydraulic freight

Elevator, hydraulic passenger

Escalator

Store Front, wood frame

Store Front, average metal

Store Front, elaborate

STRUCTURE CODE – Space is provided to enter a three-digit alpha/numeric structure code denoting the type of building other feature or attached improvement being described.

FLAT VALUE (+/-) - Space is provided to enter a plus (+) or minus (-) sign to denote the addition or deduction of a flat dollar amount that would then be entered in the Measurement l column. If the flat value field is not utilized, this entry must be left blank. Consult your supervisor for instructions on possible uses of this field.

MEASUREMENT 1/MEASUREMENT 2 – Space is provided to enter the appropriate measurement of the structure code being described. Utilize the character positions to the right.

NUMBER IDENTICAL UNITS – Space is provided to enter the total number of identical building other features or attached improvement units. Utilize the character positions to the right.

COST/PERCENT (%) GOOD – Used for manual pricing purposes only.

BUILDING OTHER FEATURES – ATTACHED IMPROVEMENTS CHART

The following is a detailed chart listing all possible building other features and attached improvements. The chart also relates corresponding structure codes, necessary field entries (yes), and appropriate measurement units including the correct fields in which to enter them.

DESCRIPTION	LINE NUMBER	STRUCTURE CODE	FLAT VALUE (+/-)	MEASUREMENT 1	MEASUREMENT 2	NUMBER IDENTICAL UNITS
Enclosed Entry	Yes	EEL	-	Width	Length	Yes
2 Fireplace, 1 Opening	Yes	F11	-	-	-	Each
2 Fireplace, 2 Openings	Yes	F12	-	-	-	Each
2 Fireplace, 3 Openings	Yes	F13	-	-	-	Each
Garage, 1 Story, Attached Frame	Yes	RG1	-	Width	Length	Yes
Garage, 1Story, Attached Masonry	Yes	RG2	-	Width	Length	Yes
Greenhouse, Economy	Yes	GH1	-	Width	Length	Yes
Greenhouse, Average	Yes	GH2	-	Width	Length	Yes
Greenhouse, Good	Yes	GH3	-	Width	Length	Yes
Loading Dock, Steel or Concrete	Yes	LD1	-	Width	Length	Yes
Loading Dock, Wood	Yes	LD2	-	Width	Length	Yes
Loading Dock, Interior	Yes	LD3	-	Width	Length	Yes
Truck and Train Wells	Yes	LD4	-	Width	Length	Yes
Dock Levelers	Yes	LD5	-	Width	Length	Yes
High Rise Apartments and Hotels	Yes	OA1	-	Width	Length	Yes
Garden Apts., Motels, and Dwellings	Yes	OA2	-	Width	Length	Yes
Stores and Restaurants	Yes	OA3	-	Width	Length	Yes
Industrial and Warehouses	Yes	OA4	-	Width	Length	Yes
Banks and Offices (low rise)	Yes	OA5	-	Width	Length	Yes

BUILDING OTHER FEATURES- ATTACHED IMPROVEMENTS CHART CONTINUED

DESCRIPTION	LINE NUMBER	STRUCTURE CODE	FLAT VALUE (+/-)	MEASUREMENT 1	MEASUREMENT 2	NUMBER IDENTICAL UNITS
Theater and Auditoriums	Yes	OA6	-	Width	Length	Yes
Light and Metal Buildings	Yes	OA7	-	Width	Length	Yes
High Rise Office Buildings	Yes	OA8	-	Width	Length	Yes
Overhead Doors	Yes	OD1	-	Width	Length	Yes
Overhead Doors, Rolling Steel	Yes	OD2	-	Width	Length	Yes
Overhead Doors, Motor Operated, Wood or Metal	Yes	OD3	-	Width	Length	Yes
Overhead Doors, Motor Operated, Rolling Steel	Yes	OD4	-	Width	Length	Yes
Patio, Concrete	Yes	LP3	-	Width	Length	Yes
Patio, Asphalt	Yes	LP4	-	Width	Length	Yes
Patio, Flagstone, Sand Base	Yes	LP5	-	Width	Length	Yes
Patio, Flagstone, Concrete Base	Yes	LP6	-	Width	Length	Yes
Patio, Brick	Yes	LP7	-	Width	Length	Yes
Indoor Pool	Yes	SC2	-	Width	Length	Yes
Porch, Open	Yes	RP1	-	Width	Length	Yes
Porch, Enclosed	Yes	RP2	-	Width	Length	Yes
Porch, Open Upper Deck	Yes	RP3	-	Width	Length	Yes
Porch, Enclosed Upper	Yes	RP4	-	Width	Length	Yes
Porch, Covered	Yes	RP5	-	Width	Length	Yes
Porch, Screened	Yes	RP6	-	Width	Length	Yes
Porch, Covered Upper	Yes	RP7	-	Width	Length	Yes
Porch, Screened Upper	Yes	RP8	-	Width	Length	Yes

Fireplaces are to be collected only on apartment structure

BUILDING OTHER FEATURES- ATTACHED IMPROVEMENTS CHART CONTINUED

DESCRIPTION	LINE NUMBER	STRUCTURE CODE	FLAT VALUE (+/-)	MEASUREMENT 1	MEASUREMENT 2	NUMBER IDENTICAL UNITS
Aerial Walkway	Yes	AE1	-	Width	Length	Yes
Atrium (Cover only)	Yes	AT1	-	Width	Length	Yes
Atrium (Walls)	Yes	AT2	-	Width	Length	Yes
Balcony	Yes	BA1	-	Width	Length	Yes
Bank Canopy, Drive In	Yes	BC1	-	Width	Length	Yes
Bank Vault (Money)	Yes	BE1	-	Floor Width	Floor Length	Yes
Bank Vault (Record Storage)	Yes	BE2	-	Floor Width	Floor Length	Yes
Bank Vault Door (Circular Money) (PP)	Yes	BE3	-	-	-	Yes
Bank Vault Door (Rectangular Money) (PP)	Yes	BE4	-	-	-	Yes
Bank Vault Door (Record Storage) (PP)	Yes	BE5	-	-	-	Yes
Bank Night Deposit Chute (PP)	Yes	BE6	-	-	-	Yes
Bank Drive-In Window (PP)	Yes	BE7	-	-	-	Yes
Bank Service Window (PP)	Yes	BE8	-	-	-	Yes
Bank Drive-In Teller Booths (PP)	Yes	BE9	-	Floor Width	Floor Length	Yes
Bank Pneumatic Tube (PP)	Yes	BE0	-	-	-	Yes
Basement Top	Yes	BT1	-	Width	Length	Yes
Cooler-Chiller	Yes	CF1	-	SF Surface Area	1	Yes
Cooler-Freezer	Yes	CF2	-	SF Surface Area	1	Yes
Cooler-Sharp Freeze	Yes	CF3	-	SF Surface Area	1	Yes
Canopy (only)	Yes	CP5	-	Width	Length	Yes
Canopy, Roof/Slab	Yes	CP6	-	Width	Length	Yes
Canopy, Gas Economy	Yes	CP7	-	Width	Length	Yes

DESCRIPTION	LINE NUMBER	STRUCTURE CODE	FLAT VALUE (+/-)	MEASUREMENT 1	MEASUREMENT 2	NUMBER IDENTICAL UNITS
Canopy, Gas Average	Yes	CP8	-	Width	Length	Yes
Canopy, Gas Good	Yes	CP9	-	Width	Length	Yes
Computer Floor	Yes	CR1	-	Width	Length	Yes
Computer Room Air Control	Yes	CR2	-	Width	Length	Yes
Computer Fire Suppression System	Yes	Cr3	-	Width	Length	Yes
Carport	Yes	RC1	-	Width	Length	Yes
Covered Mall	Yes	CM1	-	Width	Length	Yes
Crane-ways	Yes	CW1	-	Width	Length	Yes
Dock Level Floors	Yes	DL1	-	Width	Length	Yes
Elevator, Electric Freight	Yes	EL1	-	See Elevator Examples	Yes	
Elevator, Electric Passenger	Yes	EL2	-		Yes	
Elevator, Hydraulic Freight	Yes	EL3	-			Yes
Elevator, Hydraulic Passenger	Yes	El4	-			Yes
Elevator, (stair width 32")	Yes	EL5	-	Ft. of Rise	1	Yes
Elevator, (stair width 48")	Yes	EL6	-	Ft. of Rise	1	

Note: If a non-rectangular shape is encountered in a building other feature or attached improvement which requires width and length, it is permissible to enter the square foot area in Measurement 1 and a right justified "1" in Measurement 2.

Dock level floors should not exist for collection purposes if there is a basement under the structure being described

BUILDING OTHER FEATURES- ATTACHED IMPROVEMENTS CHART CONTINUED

DESCRIPTION	LINE NUMBER	STRUCTURE CODE	FLAT VALUE (+/-)	MEASUREMENT 1	MEASUREMENT 2	NUMBER IDENTICAL UNITS
Roof, Monitor	1st Floor	MR1	-	Lineal Ft.	Height	Yes
Roof, High Bay	1st Floor	MR2	-	Lineal Ft.	Height	Yes
Store Front, Wood Frame	Yes	SF1	-	Length	1	Yes
Store Front, Average Metal Frame	Yes	SF2	-	Length	1	Yes
Store Front Elaborate	Yes	SF3	-	Length	1	Yes
Indoor Ice Skating Rink	Yes	SK1	-	Width	Length	Yes
Tunnel	Yes	TU1	-	Width	Length	Yes
Utility Building, Frame	Yes	RS1	-	Width	Length	Yes
Utility Building, Metal	Yes	RS2	-	Width	Length	Yes
Utility Building, Brick or Stone	Yes	RS3	-	Width	Lengthy	Yes
Miscellaneous	Yes	MS1	Yes	Value	1	Yes
Sprinkler System (Wet Pipe)	Yes	SS1	-	Sq. Ft.	1	Yes
Sprinkler System (Dry Pipe)	Yes	SS2	-	Sq. Ft.	1	Yes
Air Conditioning (Central)	Yes	AC1	-	Sq. Ft.	1	Yes
Air Conditioning (Unit)	Yes	AC2	-	Sq. Ft.	1	Yes

Note: If a non-rectangular shape is encountered in a building other feature or attached improvement which requires width and length, it is permissible to enter the square foot area in Measurement 1 and a right justified "1" in Measurement 2.

AC1	**AIR CONDITIONING-CENTRAL**	Used to identify central air condition in detached secondary structures.
AC2	**AIR CONDITIONING-UNIT**	Used to identify unit air conditioning in detached secondary structures.
SS1	**SPRINKLER SYSTEM-WET PIPE**	Automatic sprinklers attached to a piping system containing water and connected to a water supply so that water discharges immediately from sprinklers opened by a fire. Includes limited water supply systems. Used to identify wet pipe sprinkler system in detached secondary structures.
SS2	**SPRINKLER SYSTEM-DRY PIPE**	Automatic sprinklers attached to a piping system containing air under pressure. The sprinklers, opened by a fire, releases the air from the piping system allowing water to flow into the piping and out the opened sprinklers. Includes Pre-Action, Deluge and Fire-cycle systems. Used to identify dry pipe sprinkler systems in detached secondary structures.

(609) BUILDING NAME – Space is provided to enter the name of the main structure being described for the building.

(800) TOTAL OTHER IMPROVEMENTS
This section of the data collection form may be utilized in numerous ways. Since it is not expected that every parcel should be appraised by computer-assisted techniques, it is necessary to allow for the value of manually appraised properties to be integrated into the system. This is done by use of the TOTAL OTHER IMPROVEMENTS category. This category may also be utilized to add or deduct a flat dollar amount from the overall improvement value of the parcel.

DESCRIPTION - Space is provided to enter up to twenty characters to describe the manually appraised property or to explain the reason for an addition or deduction of a flat dollar amount.

(+/-) - Space is provided to enter a plus (+) or minus (-) sign to denote the addition or deduction of value.

VALUE - Space is provided to enter a dollar value amount up to $999,999,999. Utilize the character positions to the right. Omit leading zeros

(701-706) **YARD IMPROVEMENTS AND/OR SECONDARY BUILDINGS**
Up to six segments of yard improvements/secondary buildings per parcel may be entered. There are numerous types of yard improvements or secondary buildings that may be encountered on commercial and industrial properties. The most common of these have been coded and included on the data collection form. The inclusion of all possible items is considered impractical; however, the ability to collect data on un-coded items has been provided for. See chart entry MS1.

STRUCTURE CODE -Space is provided to enter a three-digit alpha/numeric structure code denoting the type of yard improvement or secondary building being described.

FLAT VALUE (+ / -) -Space is provided to enter a plus (+) or minus (-) sign to denote the addition or deduction of a flat dollar amount that would then be entered in the Dimensions column. If the flat value field is not utilized this entry must be left blank. Consult your supervisor for instructions on possible uses of this field.

DIMENSIONS - Size - Enter either the dimensions (width and length or square foot area or the item being described.

To enter the dimensions, character positions are provided to enter eight characters; three numeric characters denoting the width, one multiplication (x) symbol and four numeric characters denoting the length. The multiplication symbol must always be entered in the fourth character position from the left (within the two vertical hash marks). All character positions must be filled in. Use leading zeros if necessary.

To enter the square foot area of the item, character positions are provided to enter eight numeric characters (up to 99,999.999 square feet). Utilize the character positions to the right. Leading zeros are not necessary.

NUMBER IDENTICAL UNITS - Space is provided to enter the total number of identical yard improvements or secondary buildings. Both character positions must be filled in. Use leading zeros if necessary.

Note: When activating the Flat Value (*+ I -)* column for any entry, the amount entered in the Dimensions area will be used as the RCNLD for that line entry (times the Number of Identical Units). The Year Built, Physical Condition and Functional Utility must be entered, but are used as descriptive data only.

PHYSICAL CONDITION – Space is provided to enter a one-digit numeric code denoting the physical condition of the yard improvement or secondary building being described.

Enter 1	**POOR** to indicate that the yard improvement or secondary building is in a dilapidated condition. It could be characterized as "beyond repair"
Enter 2	**FAIR** to indicate that the yard improvement or secondary building shows signs deferred maintenance. The improvement needs work but does contribute to commercial or industrial operation.
Enter 3	**NORMAL** to indicate that the yard improvement or secondary building shows only minor signs or physical deterioration due to "wear and tear". There are a few indications of deferred maintenance.
Enter 4	**GOOD** to indicate that the yard improvement or secondary building shows no signs of deferred maintenance. It could be characterized as in new or "like new" condition
Enter 5	**RENOVATED** to indicate that the yard improvements or secondary buildings have undergone major renovation or rehabilitation. Despite the actual age of improvement, the effective age has been altered to a much newer improvement in good condition. The amount of work done to enhance the appearance and structural soundness of the interior/exterior line is far in excess of that required for normal maintenance.

Note: Deferred maintenance may be defined as desirable repairs and rehabilitation that will require immediate expenditure. It does not necessarily imply inadequate prior maintenance.

FUNCTIONAL UTILITY – Space is provided to enter a one-digit numeric code denoting the functional utility of the yard improvement or secondary building. Functional utility may be defined as the ability of the improvement to assist the property to perform the function for which it is intended. Consideration should be given to design, size and performance standards.

Enter	0	**NONE** to indicate that the yard improvement or secondary building adds nothing to the ability of the property to perform the function for which it is intended. It can in no way be considered serviceable.
Enter	1	**POOR** to indicate that the yard improvement or secondary building adds little to the ability of the property to perform its intended function. Major renovation is necessary to allow the improvement to make an adequate contribution to service.
Enter	2	**FAIR** to indicate that the yard improvement or secondary building adds to the ability of the property to perform the function for which it is intended but the effect is minimal.
Enter	3	**NORMAL** to indicate that the yard improvement or secondary building adds an adequate amount to the ability of the property to perform the function for which it is intended.
Enter	4	**GOOD** to indicate that no functional deficiencies exist for the yard improvement or secondary building and that the improvement is well suited to aid the ability of the property to perform the function of which it is intended.

YEAR BUILT OR INSTALLED – Space is provided to enter the date in which the yard improvement or secondary building was constructed or installed. For example: 1976, enter 76.

% (PERCENT GOOD) – Optional entry. Space is provided to enter the appraiser's judgment of remaining percent good for the yard improvement or secondary building being described. Percent good and depreciation are complements of each other. Therefore, an improvement, which is estimated to have 35% depreciation as of a given time, is said to be 65% (condition) good. In this way, the calculated Percent Good can be overridden by entering the appraiser's estimate of the percent good. However, the year built, physical condition, and functional utility factors must still be entered.

Note: The purpose of this entry is for override use only.

REPLACEMENT COST NEW – Do not utilize this entry. It is for manual pricing purposes only.

REPLACEMENT COST NEW LESS DEPRECIATION – Do no utilize this entry. It is for manual pricing purposes only.

YARD IMPROVEMENT /SECONDARY BUILDING DETAILED CHART

The following is a detailed chart listing all possible yard improvement and secondary buildings. The chart also related corresponding structure codes, necessary field entries (yes), and appropriate measurement units, including the correct fields in which to enter them.

STRUCTURE DESCRIPTION	STR. CODE	FLAT VALUE (+/-)	DIMENSIONS	NUMBER IDENTICAL UNITS	COND.	FUNCTUTILITY	YEAR BUILT
Bank, Canopy	BC1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Bank Drive-In Teller Booth	BE9	-	SF or Dimensions	Yes	Yes	Yes	Yes
Boat Dock, Wood Timber	BD1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Boat House, open	BH1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Boat House, Enclosed	Bh2	-	SF or Dimensions	Yes	Yes	Yes	Yes
Boat Slip, Economy	BS1	-		Yes	Yes	Yes	Yes
Boat Slip, Average	BS2	-	-	Yes	Yes	Yes	Yes
Boat Slip, Good	BS3	-	-	Yes	Yes	Yes	Yes
Bulkhead	BK1	-	Lineal feet	Yes	Yes	Yes	Yes
Canopy Only	CP5	-	SF or Dimensions	Yes	Yes	Yes	Yes
Canopy, Roof/Slab	CP6	-	SF or Dimensions	Yes	Yes	Yes	Yes
Canopy, Gas Economy	CP7	-	SF or Dimensions	Yes	Yes	Yes	Yes
Canopy, Gas Average	CP8	-	SF or Dimensions	Yes	Yes	Yes	Yes
Canopy, Gas Good	CP9	-	SF or Dimensions	Yes	Yes	Yes	Yes
Carport	RC1	-	SF or Dimensions	Yes	Yes	Yes	Yes

YARD IMPROVEMENT/SECONDARY BUILDING DETAILED CHART (CONTINUED)

STRUCTURE DESCRIPTION	STR. CODE	FLAT VALUE (+/-)	DIMENSIONS	NUMBER IDENTICAL UNITS	COND.	FUNCT. UTILITY	YEAR BUILT
Drive-In Theater Screen	DT1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Fence, Chain Link	FN1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Fence, Picket	FN2	-	SF or Dimensions	Yes	Yes	Yes	Yes
Fence, Privacy	FN3	-	SF or Dimensions	Yes	Yes	Yes	Yes
Fence, Post and Rail	FN4	-	SF or Dimensions	Yes	Yes	Yes	Yes
Fence, Basket-weave	FN5	-	SF or Dimensions	Yes	Yes	Yes	Yes
Fence, Brick/Stone Wall	FN6	-	SF or Dimensions	Yes	Yes	Yes	Yes
Garage, Res. Detached Frame	RG4	-	SF or Dimensions	Yes	Yes	Yes	Yes
Garage, Res. Detached Masonry	RG5	-	SF or Dimensions	Yes	Yes	Yes	Yes
Greenhouse, Economy	GH1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Greenhouse, Average	GH2	-	SF or Dimensions	Yes	Yes	Yes	Yes
Greenhouse, Good	GH3	-	SF or Dimensions	Yes	Yes	Yes	Yes
Kiosk (ATM etc.)	KF1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Light, Mercury Wall Mounted Flood (PP)	LT1	-	-	Yes	Yes	Yes	Yes
Light, Incandescent Wall Mounted Flood (PP)	LT2	-	-	Yes	Yes	Yes	Yes
Light, Fluorescent Pole & Bracket (PP)	LT3	-	-	Yes	Yes	Yes	Yes
Light, Incandescent Pole & Bracket (PP)	LT4	-	-	Yes	Yes	Yes	Yes
Light Mercury Pole & Bracket (PP)	LT5	-	-	Yes	Yes	Yes	Yes

YARD IMPROVEMENTS/SECONDARY BUILDINGS DETAILED CHART (CONTINUED)

STRUCTURE DESCRIPTION	STR. CODE	FLAT VALUE (+/-)	DIMENSIONS	NUMBER IDENTICAL UNITS	COND.	FUNCT. UTILITY	YEAR BUILT
Paving, Asphalt Parking	PA1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Paving, Service Station	PA2	-	SF or Dimensions	Yes	Yes	Yes	Yes
Paving, Concrete Parking-Average	PC1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Paving, Concrete, Heavy Duty	PC2	-	SF or Dimensions	Yes	Yes	Yes	Yes
Paving, Concrete Mat/Slab	PC3	-	SF or Dimensions	Yes	Yes	Yes	Yes
Plumbing Fixture	PB1	-	-	Yes	Yes	Yes	Yes
Railroad Siding (Spurs)	RR1	-	Lineal Fee	Yes	Yes	Yes	Yes
Restroom Structure (Frame or CB)	TR1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Restroom Structure (Brick or Stone)	TR2	-	SF or Dimensions	Yes	Yes	Yes	Yes
Service Station Attendant's Booth Steel/Glass on Masonry	GS3	-	SF or Dimensions	Yes	Yes	Yes	Yes
Service Station Attendant's Booth Stucco/Glass on Frame	GS4	-	SF or Dimensions	Yes	Yes	Yes	Yes
Shed, Machinery	SH1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Shed, Aluminum	SH2	-	SF or Dimension	Yes	Yes	Yes	Yes
Shed, Finished Metal	SH3	-	SF or Dimension	Yes	Yes	Yes	Yes
Shed, Quonset	SH4	-	SF or Dimension	Yes	Yes	Yes	Yes
Lumber Shed, Fr., 2 Sides Open	SH5	-	SF or Dimension	Yes	Yes	Yes	Yes
Lumber Shed, Fr., 4 Sides Open	SH6	-	SF or Dimension	Yes	Yes	Yes	Yes

YARD IMPROVEMENTS/SECONDARY BUILDINGS DETAILED CHART (CONTINUED)

STRUCTURE DESCRIPTION	STR. CODE	FLAT VALUE (+/-)	DIMENSIONS	NUMBER IDENTICAL UNITS	COND.	FUNCT. UTILITY	YEAR BUILT
Skating Rink, Outdoor	SK2	-	SF or Dimensions	Yes	Yes	Yes	Yes
Swimming Pool Commercial	SC1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Tennis Court, Asphalt	TC1	-	-	Yes	Yes	Yes	Yes
Tennis Court, Concrete	TC2	-	-	Yes	Yes	Yes	Yes
Tennis Court, Clay	TC3	-	-	Yes	Yes	Yes	Yes
Truck Scales (Drive On)	TS1	-	Capacity (Tons)	Yes	Yes	Yes	Yes
Utility Building, Frame	RS1	-	SF or Dimensions	Yes	Yes	Yes	Yes
Utility Building, Metal	RS2	-	SF or Dimension	Yes	Yes	Yes	Yes
Utility Building, Brick or Stone	RS3	-	SF or Dimension	Yes	Yes	Yes	Yes
Miscellaneous Structure	MS1	Yes	Value Rt. Justified	Yes	Yes	Yes	Yes
Air Conditioning (Central)	AC1	-	Square Feet	Yes	Yes	Yes	Yes
Air Conditioning (Unit)	AC2	-	Square Feet	Yes	Yes	Yes	Yes
Sprinkler System (Wet Pipe)	SS1	-	Square Feet	Yes	Yes	Yes	Yes
Sprinkler System (Dry Pipe)	SS2	-	Square Feet	Yes	Yes	Yes	Yes

YARD IMPROVEMENTS/SECONDARY BUILDING CODES

BC1	**Bank Canopy, Drive-In**	Freestanding, open, roofed shelter covering access to drive-in window or teller booth
BE9	**Bank Drive-In Teller Booth**	Freestanding teller booth
BD1	**Boat Dock, Wood Timber**	Light construction including fenders and railing
BH1	**Boathouse, Open**	No walls, wood frame
BH2	**Boathouse, Enclosed**	Wood frame, wood or metal siding
BS1	**Boat Slip, Economy**	Small berths, no utilities, 2” treated wood
BS2	**Boat Slip, Average**	Marine plywood, fiberglass or metal decking
BS3	**Boat Slip, Good**	Includes storage box, lockers, good utilities
BK1	**Bulkhead**	A retaining wall. Typically erected along the water behind which solid fill is usually placed.
CP5	**Canopy Only**	Wood frame or light metal open roofed shelter
CP6	**Canopy, Roof/Slab**	Wood frame or light metal open roofed shelter with concrete slab
CP7	**Canopy, Service Station-Economy**	Low-cost wood or light steel frame roofed shelter
CP8	**Canopy, Service Station-Average**	Average quality wood or steel frame roofed shelter
CP9	**Canopy, Service Station-Good**	Good quality wood or steel frame roofed shelter
RC1	**Carport**	Used to identify freestanding residential (dwelling and apartment) carports
DT1	**Drive-In Theater Screen**	Costs include wood frame on timbers, concrete footings or low-cost steel frame
FN1	**Fence, Chain Link**	Galvanized or aluminized steel. 2” mesh
FN2	**Fence, Picket**	Softwood
FN3	**Fence, Stockade**	Pole wood
FN4	**Fence, Post & Rail**	36” two rail, 48” three rail, or 54” four rail
FN5	**Fence, Basket Weave**	Also, solid board horizontal or vertical fencing

YARD IMPROVEMENTS/SECONDARY BUILDING CODES (CONTINUED)

FN6	**Fence, Brick/Stone Wall**	Also, pre-cast concrete posts and solid panels.
RG4	**Garage – Detached Frame**	Residential type, average quality
RG5	**Garage – Detached Masonry**	Residential type, average quality
GH1	**Greenhouse, Economy**	Low-cost commercial quality, wood or pipe frame, fiberglass covering. Includes lighting and water service, no floor. 5,000+ square feet
GH2	**Greenhouse, Average**	Average commercial quality, steel frame, fiberglass covering. Includes lighting and water service, no floor. 5,000+ square feet
GH3	**Greenhouse, Good**	Good commercial quality, aluminum or galvanized steel frame, fiberglass covering. Includes lighting and water service, no floor. 5,000+ square feet
KF1	**Kiosk**	A small structure used as a retail or refreshment stand.
LT1	**Lights, Mercury Wall Mounted Flood**	Mercury vapor or sodium vapor wall mounted floodlight, 400-1000 wall fixture.
LT2	**Lights, Incandescent Wall Mounted Flood**	Incandescent or quartz iodine wall mounted floodlight. 500-1500 watt with enameled reflector.
LT3	**Lights, Fluorescent, Pole and Bracket**	Pole height 12 – 16 feet
LT4	**Lights, Incandescent, Pole and Bracket**	Pole height 10 – 16 feet. 500 – 1500 watt with enameled reflector
LT5	**Lights, Mercury, Pole and Bracket**	Mercury vapor or sodium vapor. Pole height 12 – 16 feet. 400 watts.
PA1	**Paving, Asphalt Parking**	3-4” bituminous paving on a 6” gravel base
PA2	**Paving, Service Station**	4-6” bituminous paving on a 6” gravel base
PC1	**Paving, Concrete Paving-Average**	4-5” concrete on a compacted gravel base
PC2	**Paving, Concrete, Heavy Duty**	5-6” industrial slab on a compacted gravel base
PC3	**Paving, Mat/Slab**	Heavy industrial concrete slab, 4-6” reinforced on a compacted gravel base
PB1	**Plumbing Fixture**	Sink, shower, toilet, urinal etc. found in detached structure
RR1	**Railroad Siding-Spurs**	90–130-pound weight railroad spur. Includes rails, ties and ballast

YARD IMPROVEMENTS/SECONDARY BUILDING CODES (CONTINUED)

TR1	**Restroom Structure-Frame or Concrete Block**	Detached restroom facility. Includes heating (Add for plumbing fixtures)
TR2	**Restroom Structure- Brick or Stone**	Detached restroom facility. Includes heating (Add for plumbing fixtures)
GS3	**Service Station Attendant's Booth – Steel/Glass on Masonry**	Cost includes heating and electrical, no plumbing
GS4	**Service Station Attendant's Booth – Stucco/Glass on Wood Frame**	Cost includes heating and electrical, no plumbing
SH1	**Shed, Machinery – Frame**	Wood Frame, wood or sheet metal siding
SH2	**Shed, Machinery – Aluminum**	Metal frame, aluminum siding
SH3	**Shed, Machinery – Finished Metal**	Metal frame, wood or sheet metal siding
SH4	**Shed, Quonset**	Wood or metal frame, galvanized siding. Includes concrete floor and minimum electrical.
SH5	**Lumber Shed, Frame, 2 sides open**	Wood frame, wood or sheet metal siding
SH6	**Lumber Shed, Frame, 4 sides open**	Wood frame, wood or sheet metal siding
SK2	**Skating Rink, Outdoor**	Concrete slab with curbing, side boards and freezing (piping) system
SC1	**Swimming Pool, Commercial**	Poured concrete with tiling. Costs include chlorinators, filters, beater, diving board, ladders and coping
TC1	**Tennis Court, Asphalt**	Regulation size 60x120. Does not include fencing or lighting
TC2	**Tennis Court, Concrete**	Regulation size 60x120. Does not include fencing or lighting
TC3	**Tennis Court, Clay**	Regulation size 60x120. Does not include fencing or lighting.
TS1	**Truck Scales – Drive On**	Reinforced concrete foundation, pit and platform, structural steel and beam. Minimum 15-ton capacity
RS1	**Utility Building, Frame**	Wood frame, residential type
RS2	**Utility Building, Metal**	Light metal frame, residential type
RS3	**Utility Building, Brick or Stone**	Frame with masonry veneer, residential type
MS1	**Miscellaneous Structure**	Used to cost miscellaneous yard improvements not otherwise specifically identified.

MULTI-FAMILY APARTMENTS

An apartment is a residential living unit with the same living accommodations normally found in a single-family residence. An apartment house is a multi-family residence containing four or more residential living units, and generally providing each unit with a number of common facilities, services and amenities. Two or more apartment buildings operating as a single unit are generally referred to as an apartment complex.

The increased development of multi-family residential housing units since the 1950's has brought the development of both apartment complexes and "high-rise" apartment buildings. Each of these offers complete living accommodation with all the modern conveniences and amenities. In addition, they generally provide a variety of recreational facilities and services for their occupants.

VALUATION

As with other types of property, the replacement cost method of valuation is a starting point for the appraiser. There are two types of apartment buildings that must be considered: 1) the walk-up or garden apartment normally found in apartment complexes; and 2) the high-rise or elevator building.

Apartment units found in a given apartment building or complex building vary in size and arrangement. There may be one room efficiency units consisting of a bedroom and kitchenette; two room studio units consisting of a bedroom and living room/den and kitchenette combination; and conventional units consisting of a kitchen, dining area, living room and one or more bedrooms. Each apartment unit has one or more bathrooms, and conventional units often have a separate dining room, den, or family room.

One of the most significant variables in determining the replacement cost of an apartment building is the average size of the individual units' The pricing schedule provided in this section is designed to account for this variation.

BASE PRICES – GARDEN APARTMENTS

Base square foot prices have been developed for typical average "C" Grade quality construction apartment units, based on average unit sizes at various floor levels for Wood Joist construction. Adjustments are provided for Fire Resistant and Reinforced Concrete, together with Brick (or equal) and Frame/Concrete Block exterior walls.

The foundation, roof, and normal built-ins are included with the first-floor prices, thus making the schedule applicable to both one story and multi-story buildings.

APPLICATION
Application of the pricing schedule involves the selection of the appropriate base price per floor based on the average unit sizes. Adjustments to the base price for air conditioning (based on unit size) and type of construction should be made to account for any variations between the subject building and the model building.

SPECIAL APPLICATION
The Apartment Pricing Schedule is designed for garden/walk-up apartment buildings of five or more units. Two, three, and four family residences should be priced by using the Residential Dwelling Schedule (included in the Residential section of the manual) and applying a Cost and Design Factor to account for the additional cost of the multifamily construction and features.

High-rise apartment buildings should be priced from the Commercial Schedules (found in the Commercial section of the manual) and adjusted as applicable for special features and variances.

QUALITY FACTOR
The schedule prices are for average "C" Grade construction quality, erected with average materials and workmanship. A table of Quality Factors is provided to adjust the "C" Grade prices in order to account for variations in construction quality.

INCOME APPROACH
Apartment buildings, regardless of the type, are built, bought, and sold as investment or income producing property. The appraisal of apartments utilizing the Capitalization or Income Approach to value follows the same procedures discussed in the Property Valuation section of the manual.

The basic procedure is:

1. Collection of the income generated - including monthly rents for the units, parking, and other receipts, such as laundry facilities.
2. The collection of the expenses associated with the management and maintenance of the property.
3. The capitalization of the net income into an indication of value.
4. A special section is provided on the use of the economic data form to record all necessary income and expense data.

PERCENT (%) GOOD GUIDELINES
Physical deterioration of the structure should be based on age and condition of the property. Guidelines for normal life estimates are found in the Percent Good section of the manual. Functional and Economic Depreciation allowances must be derived from the income and expense of each apartment project as it relates to other properties of similar utility and condition, and should be expressed as percent (%) good.

FRANCHISE FOOD RESTAURANTS

Franchise Food restaurants have become commonplace beginning in the 1950's. The buildings, though they offer similar accommodations, are highly distinctive in architectural style and design. Each operation is readily identifiable with a particular design and motif, and relies heavily on the appearance or "eye appeal" of its buildings to attract, maintain and promote business. The wide range of styles and designs has a direct influence on the replacement costs of the buildings. The size and quality of materials and workmanship alone are not the prime determining factors. Two restaurants showing no marked difference in size and construction quality may still show a considerable difference in cost due to the difference in design and decor! The replacement cost schedule provided is based upon specifications of size, quality, and design. The schedule is to be used as a guide for estimating replacement costs of franchise food restaurants. The proper use of the schedule, along with experience and sound judgment, should enable the appraiser to establish a reasonable estimate of replacement cost.

BASE SPECIFICATIONS

The Cost Schedule assumes a basic layout which includes a serving area, food preparation area, a small office area, an employee dressing area, two toilet rooms, and depending upon size, a dining area. General construction features include masonry foundation walls on spread footings; 4" reinforced concrete floor slab on a granular base; roof and exterior wall construction, interior finish, and building equipment and fixtures commensurate with the grade; stud and masonry partitioning; unfinished floor and painted masonry or dry wall interior finish in storage areas and mechanical rooms; utility service, heating, fluorescent lighting fixtures in the preparation and office areas, plumbing fixtures and drains.

QUALITY GRADE SPECIFICATIONS

AA and A Grade	A unique design featuring elaborate architecture especially in the roof and exterior walls, built of high-quality material and workmanship. A-Frame, Mansard, Gambrel, or Multi-Pitch type roofs with extensive overhangs, and copper, porcelain enamel shingles, wood shakes, slate, or comparable high-quality roofing on insulated wood or steel decking and framing, with laminated wood frame or steel frame supporting beams and columns often exposed to project architectural effects. Walls consist of a combination of face brick or ceramic glazed brick, decorative stone or wood and plate glass. High-quality interior finish of ceramic or quarry tile flooring, exposed stone and brick or high-grade wood or porcelain enamel paneling and ceramic tile wall finish, porcelain enamel or acoustical tile ceilings, often open to the rood slope; combined heating and air conditioning system, high grade ornamental lighting fixtures in the dining and service areas; good quality plumbing fixtures for typical toilet room facilities.
B Grade	Conventional design featuring custom architectural styling, built of good quality materials and workmanship. Mansard, Gambrel or Double-Pitch roofs with liberal overhangs, composition tar and gravel, stone chip, or asphalt shingle roofing on insulated wood or steel decking and framing; face brick, ceramic tile and plate glass exterior walls with moderate architectural treatment; good quality interior finish of ceramic or quarry tile flooring, exposed brick or wood paneling and ceramic wall finish; acoustical tile or drywall ceiling; combined heating and air conditioning system, ornamental lighting fixtures in the dining and serving areas, and good quality plumbing fixtures for typical toilet room facilities.
C Grade	Conventional design features moderate architectural styling, built of good quality workmanship and materials. Double-Pitch type roofs with normal overhangs, composition tar and gravel or asphalt shingle roofing on insulated wood or steel decking and framing; face brick, wood, or painted concrete block and plate glass exterior walls; good quality interior finish of quarry or vinyl asbestos tile flooring, wood paneling or drywall and part ceramic tile wall finish; drywall or acoustical tile ceiling; combined heating and air conditioning system; fluorescent lighting fixtures in the dining area, and good quality plumbing fixtures for typical toilet room facilities.
D Grade	A simple conventional design void of architectural styling, built of average quality materials and workmanship. Flat or Single-Pitch roof with normal overhangs, composition roofing on insulated wood decking and framing; painted concrete block or wood exterior walls with a minimal amount of plate glass; average quality interior finish consisting of asphalt or vinyl asbestos tile flooring; painted concrete block, drywall or paneled wall finish and drywall ceiling; forced-air heating, wall unit air conditioning, fluorescent lighting fixtures, fair quality plumbing fixtures for typical toilet room facilities.

E Grade	Simple design void of architectural styling, built of fair quality materials and workmanship. Single-Pitch roof with normal overhangs, and composition roofing on wood decking and framing; painted concrete block or wood exterior walls with a minimal amount of plate glass; low-quality interior finish consisting of asphalt tile flooring and painted concrete block and drywall; unit heaters, no air conditioning, fluorescent lighting fixtures, and fair quality plumbing fixtures for typical toilet room facilities

SCHEDULE APPLICATION

Base prices are included for Average "C" Grade construction for four typical exterior wall types. Select the base price based upon the structure size and exterior wall construction, and make adjustments for attached improvements, air conditioning and sprinkler systems as required. Apply the proper quality Grade factor to establish the replacement cost new. A table of typical quality grades by Franchise Food type is included as a guide to assist the appraiser in the Quality Grade Factor selection.

PERCENT (%) GOOD GUIDELINES

Franchise Food restaurants are special purpose buildings which are not readily adaptable to other uses. They go out of style both functionally and economically at a much faster rate than they deteriorate physically. The business is highly competitive and relies heavily on-site location and the physical appearance of its buildings. In order to keep abreast of competition, owners must frequently renovate the structures. Changing consumer habits, traffic patterns, and competitions are but a few of the factors that influence the life span of buildings and must therefore be considered in the evaluation process. A % Good Table that reflects the relatively short life of this type of building is included to be used as a guide to estimate the value remaining.

GASOLINE SERVICE STATIONS

Modern Service Stations can be divided into two distinct service and structure categories: Full Service with maintenance facilities and Self Service with gasoline sales only. With the advent of self-service gasoline sales, many previously full-service stations have converted to a self-service type, even though the station was originally constructed for full service with maintenance. The schedule provided allows for either type of station.

BASE SPECIFICATIONS

The base specification allows for a small sales and office area, two toilet rooms and one or more service bays (full-service only). The general construction features include a masonry foundation wall on spread footings; reinforced concrete floor slab; roof and exterior wall construction including doors, plate glass sales front, interior finish, and budding equipment and fixtures commensurate with the budding type; masonry partitions, unfinished in storage and service bay areas, when applicable; utility service, heating, fluorescent lighting, plumbing fixtures for two toilet rooms, hose bibs and a floor drain.

QUALITY GRADE SPECIFICATIONS

AA and A Grade	High-quality materials and workmanship. Masonry walls with face brick or enamel brick exterior or insulated sandwich-type porcelain steel exterior walls; hip, double-pitch, or flat type roof with asphalt shingle or composition roofing on insulated wood or steel decking and framing; finished sales and office area with good quality walls, and ceiling; ceramic, quarry, or comparable high-quality tile flooring; finished ceiling in services bays; ceramic tile toilet rooms.
B Grade	Good quality materials and workmanship. Masonry walls with face brick or equal or sandwich-type porcelain enamel steel exterior walls; flat or double-pitch type roof with composition or asphalt single roofing on insulated wood or steel decking and framing; finished sales and office area with good quality walls, ceiling, and asphalt tile flooring; ceramic tile rooms.
C Grade	Average quality materials and workmanship. Masonry walls of common brick, painted concrete block, wood, or equal exterior walls; flat type roof with composition roofing on insulated wood or steel decking and framing; finished ceiling and asphalt tile in sales and office area; ceramic tile toilet rooms.
D Grade	Fair quality material and workmanship. Substandard masonry or equal exterior walls; flat or single-pitch type roof with composition roofing on wood decking and framing; unfinished interior.
E Grade	Cheap quality material with low-quality workmanship. Cheap frame or masonry walls, single-pitch roof with roll roofing on wood decking and framing; unfinished interior.

SCHEDULE APPLICATIONS

"C " Grade base prices are provided for various exterior wall and service types based on area. Select the proper base price and adjust for variations and exterior features. Apply the proper quality grade factor to establish the proper replacement cost.

PERCENT (%) GOOD GUIDELINES

Service Stations are special purpose buildings whose life is dependent not only upon the quality and durability of its construction components as it is upon extraneous economic factors. The buildings tend to go out of style both economically and functionally at a much faster rate than they deteriorate physically. Competition changes in automotive design, and changes in traffic patterns are but a few factors causing obsolescence. The percent good table provided is intended to be used as a guide by the appraiser to establish the remaining value of the building.

MOBILE HOME PARKS

The pricing schedule included in this section is provided as a guide to assist the appraiser in arriving at a reasonable and equitable estimate of the cost of developing a variety of commercial mobile home and trailer parks. Typical site-costs are given for five Grades of parks; the general specifications are as follows:

AA and A Grade	Excellent quality and excellently planned mobile home parks designed to accommodate the largest tractor-drawn or on-site erected mobile homes, and to provide the user with the utmost in residential amenities, including spacious lots with extensive and attractive landscaping, ample off-street parking, and a wide variety of recreational facilities. Site areas will generally range from 4,500 to 5,500 sq.ft.
B Grade	Good quality and well-planned mobile home parks designed to accommodate the larger tractor-drawn mobile homes with room to spare for lawns and gardens, and featuring attractive landscaping, off-street parking, and complete recreational facilities. Site areas will generally range from 3,500 to 4,500 sq.ft.
C Grade	Average quality and well-planned mobile home parks designed to accommodate mobile homes up to 55’ to 60’ long, and to provide the user with adequate utility services and facilities, but rather limited recreational facilities and other such amenities. Site areas will generally range from 2,500 to 3,500 sq.ft.
D Grade	Fair quality and minimally planned trader parks intended primarily for semi-permanent occupancy, built to accommodate car-drawn trailers up to 40’ to 45’ long, and offering only minimal utility and recreational facilities. Site areas will generally range from 1,750 to 2,500 sq.ft.
E Grade	Cheap quality trailer parks designed to accommodate transient-type trailers, and to provide the user with the minimum required facilities. Site areas will generally range from 1,000 to 1,750 sq.ft.

Application of the pricing schedule involves determining the Grade which is the most representative of the subject property, selecting the corresponding base site-cost, and adjusting the base site-cost to account for any variations between the subject property and the model specifications.

BASE COST COMPONENTS

The costs per site have been developed to include the cost of normal basic on-site improvements and do not include the cost of the land, service and recreational buildings, or major recreational structures, such as swimming pools. The base components are as follows:

Engineering: Includes the design plans and specifications of the park (exclusive of buildings), engineering and surveying fees, and public fees and permits.

Grading: Includes the normal grading involved in leveling the site for drainage and roughing out roads, but does not include any abnormal site preparation, such as the excavation and terracing required for hillside sites.

Street Paving: Includes base preparation and paving.

Patios and Walks: Includes all flat work other than street paving.

Sewer: Includes all on-site lines, but does not include hook up charges, sewage disposal systems, or any off-site connections to trunk lines.

Water: Includes on-site mains and site services, but does not include wells, pumps, or any off-site connections to source lines.

Electrical: Includes on-site conduit, electrical and telephone wiring, site outlets, and street and common area lighting commensurate with the Grade, but does not include the cost of any off-site connections.

Gas: Includes on-site piping, and site and building connections, but does not include any off-site mains.

Other Features: Includes the cost of average entrance ornamentation, landscaping, and common area development commensurate with the park Grade. (Note: Outdoor recreational facilities, such as swimming pools, tennis courts, etc. are not included and should be computed separately.)

BASE COST ADJUSTMENTS

Many mobile homes and trailer parks are apt to possess some features which are typical of one Grade and some features which are typical of another. For example, an A Grade Park may exhibit B Grade "other features" such as entrance decor, landscaping, and recreational facilities; or similarly, a park may be C Grade in all respects except for good quality streets. In such cases, the appraiser must analyze each park in terms of its individual components in order to determine the contribution of each component to the overall cost per site. In order to facilitate this, the specifications and corresponding costs for each component are detailed, thus enabling the appraiser to adjust the base cost either upward or downward to account for any significant variations.

PERCENT (%) GOOD GUIDELINES

Mobile home parks generally can be expected to have a life expectancy of from 10 to 30 years, depending on the quality of the park. The components of a mobile home park, as described above, are subject to the same depreciating forces as are any other real estate improvements. Physical deterioration itself is difficult to observe, but is generally directly related to the functional and economic depreciation of the park. In a going and profitable park, the actual rate of physical deterioration is arrested somewhat by regular and normal

maintenance. A park that is normally maintained will have components replaced or renewed as they age. As a park goes out of style functionally and economically, maintenance becomes more and more of a cost burden to the owner and is consequently reduced or curtailed completely, allowing the process of deterioration to accelerate.

The percent good table is used only as a guide to assist the appraiser in arriving at a reasonable estimate of normal accrued depreciation; due consideration must also be given to any abnormal factors causing further loss of value.

MOBILE HOME PARKS APPLICATION OF PRICING SCHEDULE

Site sizes and construction components may or may not be uniform throughout the park. Various portions of the park may have been developed in different years, and designed to accommodate different types of mobile home units. In such cases, it may be necessary to sectionalize the park and to price each section as a separate unit. The procedure listed below would be equally applicable to an entire park or any section thereof.

1. Identify the park (or section thereof) by name, and record the following data on the property record card (preferably in the top portion of the sketch area):

    a) Entire "improved" land area. Do not include unimproved areas held in reserve for future expansion. (Make an additional note on reserve land area if any)
    b) Total number of spaces.
    c) Year of completion. (If developed in phases, describe the number of spaces completed each year)
    d) Compute the average site size by dividing the total improved land area by the number of sites. If individual sites vary significantly in size, make a note of this and if possible, estimate the range of site sizes within the computed average site size.
    e) Width and composition of streets, extent of patios and walls, utilities available to sites.

2. Analyze the various construction components of the subject property, giving special consideration to: the extent of planning, whether or not abnormal grading was required, the extent and quality of the streets, curbing, patios and walks, the quality of utility installation: minimum or good code, the use of private sewage treatment facilities, the source of water: public or private, the electrical service to each site, availability of hydrants and gas at each site, whether electrical conduits and other transmission lines were installed above or below ground, the extent and quality of entrance decor, landscaping, and recreational facilities, and any other characteristics essential to establishing the proper grade level of the park.

3. Determine the quality Grade of the park by comparing its components, as analyzed above, with the given specifications for each Grade and select the corresponding base cost per site.

In many instances, a park will exhibit a composite quality which falls somewhere between two grades. In such cases, it is necessary to interpolate between the corresponding base site costs.

4. Note (on the property record card, along with the data recorded in Step No. l) any significant variations between the construction components of the subject property and the base specifications for the selected Grade.

5. Adjust the base cost to account for significant variations between the construction components of the subject property and the base specifications for the selected Grade, as considered in Step No. 4.

Step #5 is only necessary if the adjustment is not adequately accounted for by "intermediate grading" as described in Step No. 3.

6. Multiply the average replacement cost per site, as derived in Step No. 5, by the total number of sites to arrive at the total replacement cost.

7. Determine the effective age based on the condition, desirability and usefulness of the park relative to its actual (or average) age. Determine the proper percent good allowance based on the effective age and apply it to the total replacement cost derived in Step No. 6 to arrive at a depreciated value of the park.

8. Sketch, list and compute by using the appropriate pricing schedule. The replacement cost and depreciated value of improvements not included in the base site costs. This will include all permanent buildings and recreational facilities, such as swimming pools, tennis courts, etc.

See pricing example on the following page.

MOBILE HOME PARKS

The average quality mobile home park is designed to provide the user with adequate utility services and facilities. Recreational amenities are limited or nonexistent with streets and landscaping of minimal planning and construction.

Normal on-site improvements include low-cost concrete or asphalt pads and walks, and enough grading to allow adequate site preparation, drainage, and leveling, minimal on-site electrical service, on-site well and septic service on-site and public or private water and sewer systems.

The value attributed to land, and the cost of any supportive structures, are not included in the base cost site.

Any variation in overall quality from average should be reflected by the appropriate quality grade adjustment.

REPLACEMENT COST PER SITE	
MH 2	$15,750
MH 3	$11,875
MH 4	$8,750
MH 5	$4,750
MH 6 (RV)	$2,375

Rural Mobile Home Sites (MS 1) @ $4,900 each.

GOLF COURSES

Golf courses are designed and built in a variety of types and sizes. The pricing schedules in this section are provided as a guide to assist the appraiser in arriving at a reasonable and equitable estimate of the cost of developing the various types of courses.

REGULATION COURSES

A regulation golf course usually consists of 18 holes of varied length. There are generally four short holes, 130 to 200 yards (par 3); ten average holes 350 to 400 yards (par 4); and four long holes 450 to 550 yards (par 5). Average costs per hole are given for five grades of courses; the general specifications are as follows:

AA/A Grade - Excellent course design for professional play; rolling terrain; well, landscaped with wide tree lined fairways and large, excellent quality greens and tees; numerous natural and man-made hazards; generally, 7,200 yards long with a par 72 rating.

B Grade - Excellent course design for championship play; rolling terrain; well, landscaped with wide fairways and large, very good quality greens and tees; many natural and man-made hazards; generally, 6,900 yards long with a par 72 rating.

C Grade - Good course design for private club membership; rolling terrain; well, landscaped with wide fairways and large, good quality greens and tees; natural and some man-made hazards; generally, 6,500 yards long with a par 70 rating.

D Grade - Average course design for municipal or general public play; flat terrain; landscaped fairways; average size and quality greens and tees; some natural and few, if any, man made hazards; generally, 6,000 yards long with a par 67 to 70 rating.

E Grade - Simply developed course often referred to as a "cow-pasture course"; flat terrain; very little landscaping; small greens and tees; few natural hazards; generally, 5,400 yards long with a par 64 to 67 rating.

BASE PRICE COMPONENTS

The costs per hole have been developed to include the cost of normal on-course improvements and do not include the cost of land, clubhouse, or any recreational facilities.

The base price components are as follows:

Grading and Clearing: Includes the removal of brush and trees from the fairways, greens, or tees; landscaping and the seeding of grass.

Sprinkler System: Includes the water source, pumps, piping, and sprinkler heads.

Greens: Includes the building, seeding and care of the greens until the opening of the course.

Tees: Includes the building and care of the trees until the opening of the course.

Bunkers: Includes the building and care of the bunkers until the opening of the course.

Service and Cart Roads: Include base preparation, paving, and bridges over hazards.

Architect's Fees: Includes all plans and supervision during construction.

OTHER COURSES

Miniature Course	The entire course is comprised of a putting surface that has various obstacles and hazards placed between the tee and the cup.
Pitch/Putt Course	The course has greens, bunkers, tees, fairways and very little, if any, rough area separating the holes. The holes are usually 60 to 120 yards long and the course often has lighting for night play.
Par 3 Course	The course is the same as a regulation course, but on a smaller scale with all the holes rated per 81 to 160 yards long. The course may have lighting for night play.
Executive Course	Also called a par 60 course; the course is the same as a regulation course, but on a smaller scale with holes 200 to 300 yards long. The holes are mostly par 3 with some par 4 and par 5 ratings
Driving Range	Consists of a piece of land usually 10 to 15 acres with elevated tees along one side used for practice of hitting tee shots on regulation courses.
Practice Putting Greens	Consists of a large green with numerous cups used for putting practice.

PERCENT (%) GOOD GUIDELINES

The components of a golf course, as described above, are subject to the same depreciating forces as are any other real estate improvement. Physical deterioration itself is difficult to observe, but is generally directly related to the functional and economic depreciation of the course. In a going and profitable course, the actual rate of physical depreciation is arrested by regular maintenance. However, if maintenance is lax, the course will deteriorate quickly. The rate of accrued depreciation then could be said to be primarily a function of the overall condition, desirability, and usefulness of the course. A normal percent good table, based upon the factors related to the actual age of the course, is included in this section. The table is provided only as a guide to assist the appraiser in arriving at a reasonable estimate of normal accrued depreciation; due consideration must be given to any abnormal factors causing further depreciation.

GOLF COURSE PRICING

EXCELLENT - REPLACEMENT COST $225,000 PER HOLE.
Championship Course; 18 holes located on 160 to 200 acres, 6,900 to 7,200 yards long, rated par 72, rolling terrain. Costs include automatic sprinkler system on greens and fairways, greens are 8,000 to 10,000 square foot top quality construction with drainage tile, tees are 2,100 to 2,400 square feet with 3 tee locations, 3 to 4 bunkers per hole, good quality cart paths.

VERY GOOD - REPLACEMENT COST $187,500 PER HOLE.
Championship Course; 18 holes located on 160 to 200 acres, 6,900 to 7,200 yards long, rated par 72, rolling terrain. Costs include automatic sprinkler system on greens and fairways, greens are 8,000 to 10,000 square foot top quality construction with drainage tile, tees are 2,100 to 2,400 square feet with 3 tee locations, 3 to 4 bunkers per hole, good quality cart paths.

GOOD - REPLACEMENT COST $150,000 PER HOLE.
Private Club Course; 18 holes located on 130 to 175 acres, 6,500 to 6,900 yards long, rated par 70 to 72, rolling terrain. Costs include automatic sprinkler system on greens and fairways, greens are 5,000 to 8,000 square foot good quality construction with drainage tile, tees are 1,800 to 2,100 square feet with 2 to 3 locations, 2 to 3 bunkers per hole, good quality cart paths.

AVERAGE - REPLACEMENT COST $120,000 PER HOLE.
Public or Semi-Private Course; 18 holes located on 100 to 125 acres, 5,500 to 6,500 yards long, rated par 68 to 72, gently rolling or flat terrain. Costs include automatic sprinkler system on greens manual system on fairways, greens are 3,000 to 5,000 square foot average quality with minimal drainage tile, tees are 1,500 to 1,800 square feet with 2 locations, 2 bunkers per hole, average quality cart paths.

FAIR - REPLACEMENT COST $97,500 PER HOLE.
Public Course; 9 to 18 holes located on 75 to 100 acres, up to 5,400 yards long, rated par 34 to 70, flat terrain, automatic or manual sprinkler system on greens manual on fairways, greens are 2,000 to 3,000 square feet with 1 or 2 locations, average of 1 or less bunkers per hole, fair quality cart paths.

PAR 3 - REPLACEMENT COST $60,000 PER HOLE.
Executive Course; 9 to 18 holes located on 25 to 50 acres, 1,800 to 2,500 yards long, par 27 to 54, flat or gently rolling terrain, manual sprinkler system on greens and fairways, greens are 1,000 to 1,500 square foot fair quality construction with natural drainage, tees are 500 to 1000 square feet with 1 location, minimal number of bunkers, no cart paths.

GOLF COURSES GENERAL APPLICATION

The primary variables in golf courses are size, layout, sprinkler system, greens, tee fairways, and bunkers. Costs of courses may vary from $15,000 per hole for a course with minimal improvements to $100,000 per hole for the best championship courses. The costs given are for average courses in each quality grade. Included in the cost per hole is normal clearing and grading, complete sprinkler systems, landscaping, greens, tees, bunkers, service and cart roads, and architect's fees. Costs do not include buildings, swimming pools, parking areas, or any other off-course improvements. Listed on the following page is the procedure to be used for the appraisal of golf courses.

1. Identify the course by name and record the following data on the property record card (preferably in the top portion of the sketch area).
    a. The type of course (regulation size, pitch and putt, miniature, etc.).
    b. The year of completion (if developed in phases, describe the number of holes completed each year).
    c. The number of holes and the amount of land used for the course.
    d. The course length and par.
    e. The terrain and topographical features.
    f. The average size of the greens, tees, and the number of bunkers.
    g. The type of sprinkler system.
2. Analyze the various components of the subject property, giving special consideration to: the extent of planning, the natural contour of the land, clearing and grading of fairways, greens, and tees, the extent and quality of the sprinkler system, whether it is automatic, manual, covers the entire course or only the tees and greens, the average green and tee size, the average number of bunkers per hole, the quality of cart and service roads, any other characteristics essential to establishing the proper grade level of the course.
3. Determine the Quality Grade of the course by comparing its components, as analyzed above, with the given specifications for each grade and select the corresponding base cost per hole.

In many instances, the course will exhibit a composite quality which falls somewhere between two grades. In such cases it is necessary to interpolate between the base whole costs.

*Note (on the property record card, along with the data recorded in Step #1) any significant variations between the construction components of the subject property and the base specifications for the selected Grade.

4. Adjust the base cost to account for significant variations between the construction components of the subject property and the base specifications for the selected Grade, as considered in Step #3.

   This step is only necessary if the adjustment is not adequately accounted for by "intermediate grading", as described in Step #3.

5. Multiply the average replacement cost per hole, as derived in Step #4, by the total number of holes to arrive at the total replacement cost of the course.

6. Determine the proper depreciation allowance based upon the condition, desirability, and usefulness of the course relative to its age, and apply it to the total replacement cost as derived in Step #5, to arrive at the depreciated value of the course.

7. Sketch, list, and compute by using the appropriate pricing schedule, the replacement cost and depreciated value of all improvements not included in the base cost.

See pricing example on following page.

GOLF COURSE PRICING EXAMPLE

"High Country Golf Course" – an 18-hole regulation size course, 6,500 yards long, par 72, located on 150 acres of rolling terrain. The course is 10 years old and has 10,000 square foot greens, (3) 2,500 square foot tee locations for each hole, and (3) bunkers per hole. Fairways and greens have automatic sprinkler systems.

This course is judged to be a Good Quality Course with very good greens and tees, good overall condition, desirability and utility. Land value is estimated at $5,000 per acre.

Base Cost Per Hole Good Quality	$	150,000
Quality Factor +0%	+	0
Replacement Cost Per Hole	$	150,000
Number of Holes	X	18
Total Replacement Cost	$	2,700,000
Less Depreciation -10%	-	270,000
Total Value of Course Improvements	$	2,430,000
Land Value (150 acres $5,000)	$	750,000
Total Value	$	3,180,000
Value Per Hole (Rounded)	$	176,700

ELEVATORS

This pricing schedule is to be used as a guide to assist the appraiser in arriving at a cost new for a variety of elevators and escalators. Base costs, including the elevator shaft, are provided for passenger and freight elevators, escalators, and speed ramps, with adjustments to account for variations to the base costs and base specifications.

BASE SPECIFICATIONS AND DEFINITIONS

Fully Automatic Push Button Control - With fully automatic control, the elevator cab responds to the first button that is pressed, either on the landing or in the cab, and completes the operation or travel corresponding to this button. When the cycle is complete, the cab will again respond to the first button that is pressed.

Single Button Group Control Operation: Similar to the Fully Automatic, however, while in operation the cab will respond to all call buttons on the "up"" cycle and on the "down" cycle, providing the button is pressed in sufficient time for the cab to intercept the call.

Selective - Collective Control Operation: While in operation, the cab will respond to all "up" buttons on the up trip and all "down" buttons on the down trip. The cab will numerically respond to buttons - whether pressed in the cab or on the landings. The cab will continue up and down operations until all request calls are cleared.

Hydraulic Elevators: Have a minimum travel height of 50 feet. Hydraulic elevators are much slower than electric and have a maximum speed of 150 feet per minute. They do not require a machinery room or machinery penthouse.

ELECTRIC ELEVATORS – TYPE OF TRAVEL

Single Speed Motor: Cab starts and stops abruptly. The nameplate on the motor will indicate a single RPM rating. (Example: RPM 1800)

Two Speed Motor: Cab has a change of speed from low to high on start and from high to low on stop. The nameplate on the motor will indicate a double RPM rating. (Example: RPM 1200, 1400)

Variable Voltage Motor: The speed of the cab is gradually increased after the start, and gradually reduced before the stop. Variable Voltage requires a DC motor generator set and a DC motor.

High Speed Gearless Motor: The operation is similar to Variable Voltage, however, due to the length of travel (normally found in high-rise buildings), the cost is considerably greater.

BASE PRICES

Base prices are for Fully Automatic Pushbutton Control Elevators. The cost for all doors, both on the cab and on the shaft, are included in the prices. The cab cost included is for an average quality finish, standard for the capacity and the rate of travel of the unit. The costs for machinery room or penthouse are not included in the base prices and should be considered in the cost of the building proper

SCHEDULE APPLICATION
Select the proper base price based upon the capacity, speed in feet per minute, and type or control of the unit. Additional costs should be added based on the number of stops; and adjustments for hydraulic, automatic group control, or manual operation should be applied.

PERCENT (%) **GOOD GUIDELINES**
The allowances for the elevator or similar unit should be applied in conjunction with the overall condition and utility of the structure, and expressed as percent (%) good.

ELEVATORS

ELECTRIC FREIGHT/STRUCTURE CODE EL1						
SPEED (feet per minute)	CAPACITY (pounds)					
	1,500	2,000	2,500	3,000	3,500	4,000
UP TO 99 FPM	39,310	39,840	40,360	40,890	41,400	41,930
100–149 FPM	46,260	47,250	48,230	49,210	50,200	51,190
150–199 FPM	-	50,960	52,160	53,380	54,600	55,810
200–249 FPM	-	54,660	56,100	57,550	58,990	60,440
250–299 FPM	-	58,360	60,040	61,720	63,390	65,070
300–349 FPM	-	62,070	63,980	65,890	67,790	69,700
350+ FPM	-	65,770	67,910	70,050	72,190	74,320
PLUS COST PER STOP $7,560						

ELECTRIC PASSENGER/STRUCTURE CODE EL2						
SPEED (feet per minute)	CAPACITY (pounds)					
	1,500	2,000	2,500	3,000	3,500	4,000
UP TO 99 FPM	31,350	36,880	42,410	47,940	53,480	59,010
100–149 FPM	41,190	46,710	52,250	57,780	63,320	68,850
150–199 FPM	46,110	51,640	57,170	62,710	68,230	73,760
200–249 FPM	51,030	56,550	62,090	67,620	73,150	78,690
250–349 FPM	55,940	61,480	67,010	72,540	78,070	83,600
350+ FPM	65,780	71,320	76,850	82,380	87,910	93,440
PLUS COST PER STOP $3,550						

ELEVATORS (CONTINUED)

HYDRAULIC FREIGHT/STRUCTURE CODE EL3						
SPEED (feet per minute)	CAPACITY (pounds)					
	1,500	2,000	2,500	3,000	3,500	4,000
UP TO 49 FPM	8,360	9,710	11,070	12,420	13,780	15,120
50–99 FPM	14,350	15,860	17,370	18,870	20,380	21,880
100–149 FPM	20,350	22,010	23,670	25,330	26,990	28,640
150–199 FPM	26,330	28,150	29,970	31,770	33,590	35,410
200+ FPM	32,330	34,290	36,260	38,230	40,190	42,160
PLUS COST PER STOP $8,250						

HYDRAULIC PASSENGER/STRUCTURE CODE EL4						
SPEED (feet per minute)	CAPACITY (pounds)					
	1,500	2,000	2,500	3,000	3,500	4,000
UP TO 49 FPM	11,060	13,510	15,970	18,430	20,880	23,340
50–74 FPM	17,360	20,280	23,190	26,110	29,030	31,950
75–99 FPM	20,510	23,660	26,810	29,960	33,110	36,260
100–124 FPM	23,660	27,040	30,420	33,800	37,180	40,550
125–149 FPM	26,810	30,420	34,030	37,640	41,240	44,860
150–200 FPM	29,960	33,800	37,640	41,480	45,320	49,160
PLUS COST PER STOP $7,000						

ESCALATORS/STRUCTURE CODES EL5 AND EL6			
CODE	DESCRIPTION	BASE RATE	PLUS COST PER FOOT
EL5	32 IN WIDE	$76,650	$1,350
EL6	ESCALATOR 48 IN WIDE	$80,850	$1,700

PERCENT GOOD SCHEDULES AND TABLES

It is often advisable to develop schedules and tables to be used as a guide for the appraiser to determine value. The use of such tables is especially applicable in mass appraisals for tax equalization purposes where it is essential to establish and maintain uniformity. Percent Good tables, however, based on actual age alone are impractical. Remodeling, for instance, has the effect of prolonging the remaining life of a building, thus making its effective age considerably different than its actual age. Consideration must be given to all the factors operating to influence the overall condition, desirability, and degree of usefulness of each structure.

DWELLING PERCENT GOOD

CDU RATING SYSTEM

As houses grow older, they wear out; they become less desirable, less useful. This universal decline in value is called depreciation, and appraisers are required to determine the degree of this loss in each property they examine. If all houses deteriorated at the same rate, this decline in value would be a simple function of the age of the structure - a certain percentage per year. However, houses depreciate at varying rates depending on the number of variables.

Every building is acted upon by two value reducing forces. One tends to shorten its physical life; the other shortens its economic life. Both forces act concurrently, overlap, and affect each other. A new house, or any type of structure for that matter, has its greatest value at the moment of completion. Life expectancy - both physical and economic - is longest on the day the key is handed over by the builder. The building is then most desirable and most useful. The future benefits that the occupant may expect to enjoy are at the maximum. From that day forward, however, decay and wear and tear act to lessen the value of the structure by curtailing its remaining capacity for use.

At the same time the house is "wearing out", it is also "going out of style". It is becoming less desirable. It is progressively becoming less useful, both from the effect of forces within the property (obsolescence), and outside of it as well (encroachment of undesirable influences such as less desirable property uses).

Neither physical decline nor functional losses are constant in their action. Deterioration is a relatively steady process offset periodically by maintenance. Worn-out elements of the building are repaired or replaced at intervals, depending upon the policy of the owner. Cheaper houses generally deteriorate faster than better ones. Obsolescence and encroachment may come slowly, or happen almost overnight. The forces which cause both deterioration and functional/economic depreciation may act and often do act simultaneously, but they are not necessarily related. A house may decline in physical condition, and yet throughout its entire life remain relatively functional.

Obviously enough, the age of a house remains an important factor in estimating accrued depreciation. A certain number of houses will receive "normal" maintenance and will experience "average" economic loss due to obsolescence and functional depreciation. These buildings will depreciate at an average rate, as they grow older.

Other houses will lose value at lesser or more rapid rates. CDU Ratings provide a logical reasoning process, by means of which normal age depreciation may be modified according to the appraiser's best determination of the relative loss of value in a structure, as compared with the average loss that might be expected. Thus, the age of a dwelling is an unreliable indicator of the degree of depreciation from its cost new. For houses depreciate not merely because they grow older - but because they wear out and become less desirable and less useful from a variety of causes.

To assist the appraiser in establishing the "CDU Ratings" of buildings, several simple classifications have been established. These classifications or ratings are entirely natural, and will fit the normal impressions of the appraiser as he/she examines a building.

The following is a table of CDU Ratings, with their accompanying definitions of the observed physical condition of the building, and its degree of desirability and usefulness for its age and for its type.

CDU RATING GUIDE

CDU RATING OF DWELLING	DEFINITION
Excellent	Building is in perfect condition; very attractive and highly desirable.
Very Good	Slight evidence of deterioration; still attractive and quite desirable.
Good	Minor deterioration visible; slightly less attractive and desirable, but useful.
Average	Normal wear and tear is apparent, average attractiveness and desirability.
Fair	Marked deterioration – but quite usable; rather unattractive and undesirable.
Poor	Definite deterioration is obvious; definitely undesirable, and barely usable.
Very Poor	Condition approaches unsoundness; extremely undesirable and barely usable.
Unsound	Building is definitely unsound and practically unfit for sale.

Age is reflected as an index of normal depreciation and obsolescence in a structure that may be expected over the years. *Condition* represents a variable measure of the effects of maintenance and remodeling on a building. *Desirability* is a measure of the degree of appeal a particular building may have to prospective purchasers. *Usefulness* is a measure of the utility value of the structure for the purpose for which it may be used.

Percent Good is defined as the resultant estimate of diminishing value of improvement after subtracting the amount of estimated depreciation from the Replacement Cost New. For example, a structure that is estimated to be 45 percent depreciated as of a given time has a percent good of 55. Therefore, depreciation and percent good are complements of each other.

Once the CDU Rating of a building has been established through consideration of its condition, desirability, and usefulness for its age and its type, reference to the Basic Percent Good Table will indicate the appropriate value percent remaining for a structure possessing these qualities, in the degree observed and noted by the appraiser.

The degree of deterioration and obsolescence, or loss of value from all causes, both within and without the property, is automatically considered. This is accomplished by means of a simple rating of the capabilities and qualities of the structure, in precisely the same terms as would a prospective purchaser. Sound valuation theory presupposes the existence of a prospective buyer with intelligence enough to compare the advantages and disadvantages of competing properties and to rate the property he/she is examining according to its relative degree of desirability and usefulness.

APPLYING THE CDU SYSTEM

To apply the CDU System, the appraiser rates each house according to his/her composite impression of its relative *condition, desirability, and usefulness* – for its *age* and *type*. The following four actual cases illustrate this convenient and practical method of determining percent good in homes.

Case One: A fifteen-year-old single-family residence situated in an attractive residential suburb of a typical American community. Grade "B" with two baths. Minor deterioration is visible; slightly less attractive and desirable than new, but useful. A qualified observer would rate this house above average on the CDU Rating System. Accordingly, our appraiser has assigned it a CDU Rating of "Good". Referring to the table, we find 89% Good would be appropriate.

Case Two: A one-story frame house seven years old. Grade "C" or average quality construction; three bedrooms, one and one-half baths. Structure shows normal wear and tear and has average attractiveness and desirability. The appraiser's impression is, *"for a seven-year-old Grade* "C" *house, this would be rated as Average."* From the table we find 94% Good is indicated.

Case Three: This century-old colonial style frame house is located in a New England seaport community; erected 1858. Grade "B" or good quality construction. Building has been extremely well maintained and completely modernized with central heating, electric lighting, and plumbing added. The structure is in good physical condition in spite of its age. Building is architecturally attractive and quite desirable. The appraiser's impression is, *"for a very old house of Grade "B" quality, this is an "Excellent one."* From the table 90% Good is indicated.

Case Four: A twenty-four-year-old single-family residence of Grade "C" quality; one story and basement, frame construction; three bedrooms with bath. Structure has had normal maintenance and is average in physical condition. Within the past two years, an elevated six-lane expressway passing over the adjoining lot has been erected. This encroachment has seriously detracted from the attractiveness and desirability of the property. Accordingly, the appraiser has assigned a CDU Rating of "Very Poor". From the table 65% Good is indicated.

COMMERCIAL INDUSTRIAL COMMON CAUSES OF OBSOLESCENCE

In the final analysis, an estimate of depreciation or value loss represents an opinion of the appraiser as to the degree that the present and future appeal of a property has been diminished by deterioration and obsolescence. The accuracy of the estimate will be a product of the appraiser's experience in recognizing the symptoms of deterioration and obsolescence and his ability to exercise sound judgment in equating his observations to the proper monetary allowance to be deducted from the replacement cost new. The following tables have been provided as guidelines to assist the appraiser in arriving at the resultant estimate of the diminishing value of improvements after subtracting all forms of depreciation. Following is a listing of some of the most common sources of functional and economic obsolescence that should further assist him/her in arriving at a reasonable estimate of obsolescence.

Common Causes of Functional Obsolescence

- Poor ratio of land area to building area.
- Inadequate parking, and/or truck and railroad loading and unloading facilities.
- An appearance unattractive and inconsistent with present use and surrounding properties.
- Poor proportion of office, rental or manufacturing and warehouse space.
- Inadequate or unsuited utility space.
- Limited use and excessive material and product handling costs caused by irregular and inefficient floor plans, varying floor elevations, inadequate clearance, and cut up interiors with small bays and an excessive number of walls, posts and columns.
- Multi-story design when single story would be more efficient and economical.
- Excessive or deficient floor load capacity.
- Insufficient and inadequate elevator service.
- High maintenance costs resulting from mixed building constructions and/or the use of obsolete building materials.
- Effects of corrosion created by manufacturing, processing, or storing of chemicals, etc.
- Foundational and structural failures due to poor soil conditions, poor design, excessive loading, poor maintenance, excessive vibration of building and process equipment.
- Inadequate power distribution, heating, ventilation, air conditioning or lighting systems.

Common Causes of Economic Obsolescence

- Zoning laws and other governmental regulations that affect the usage and operation of the property.
- Building code requirements that set current acceptable construction standards.
- Market acceptability of the product or services for which the property was constructed or is currently used.
- Profitability of the operation of the property and the justifiable investment that the business would support.
- Termination of the need for the property due to actual or probable changes in economic or social condition

COMMERCIAL/INDUSTRIAL – ECONOMIC LIFE GUIDELINES

Economic life is an estimate of the normal life expectancy of a component. The following are some suggested guidelines for the average expected life of various commercial/industrial buildings and yard improvements.

BUILDINGS	WOOD JOIST	FIRE RESISTANT	FIRE PROOF
Apartment	50	50	50
Apartment (High Rise)	---	40	50
Automobile Agency	33 1/3	40	40
Bowling Alley	30	40	40
Car Wash (Conventional)	30	40	40
Car Wash (Manual)	20	20	---
Fast Food Restaurants	20	20	20
Grain Elevators	---	---	60
Hotel	30	40	50
Industrial	33 1/3	40	50
Medical Center	40	50	50
Motel	30	33 1/3	40
Nursing Home	33 1/3	40	50
Office (Conventional)	40	40	60
Office (Institutional)	---	50	60
Pre-Engineered Buildings (Heavy)	---	40	---
Pre-Engineered Buildings (Medium)	---	35	---
Pre-Engineered Buildings (Light)	30	30	---
Service Station	20	20	---
Shopping Center	33 1/3	40	50
Store	30	40	50
Theater	30	40	50
Truck Terminal	33 1/3	40	40
Warehouse	30	40	40
YARD IMPROVEMENTS			
Asphalt Paving			12
Concrete Paving			20
Reinforced Concrete Platforms			35
Wood & Timber Platforms			25
Chain Link Fence			20
Masonry Fence			35
Wood Fence			15
Masonry Stacks			40
RR Siding			35
Steel Incinerators (Lined)			15
Concrete Reservoirs			30

OTHER BUILDINGS AND YARD ITEMS

PERCENT GOOD GUIDELINES

The appraisal of other buildings and yard improvements for both residential and agricultural properties is a difficult task. Other buildings and yard improvements are rarely purchased or sold separately from the balance of the property. The cost of construction of a swimming pool, which is built for the convenience and comfort of a property owner, will rarely add an equivalent amount to the market value of the property. The cost of construction of a farm outbuilding that can be justified by its contribution to the farming operation will again seldom add an equivalent amount to the market value of the property.

In effect, other buildings and yard improvements have value in direct proportion to their degree of utility or usefulness. This is an extension of the principle of contribution, which affirms that the value of any factor in production is dependent upon the amount that it contributes to the overall net return, irrespective of the cost of its construction. Any effective approach to the valuation of other buildings and yard improvements must reflect the action of investors. Informed farm owners and operators would not invest in buildings that could not pay for themselves by either maintaining or adding to the required level of productivity. Homeowners would not invest in swimming pools, detached garages, etc., which would not supply the degree of comfort and/or convenience they desire.

The physical condition of an outbuilding or yard improvement bears a direct relationship on the desirability and usefulness of that improvement. It is, therefore, possible to apply the CDU system previously explained to generate a percent good estimate for different types of improvements of varying ages, based on condition, desirability, and usefulness.

The CDU Rating System has been modified to assist the appraiser in developing applicable depreciation guidelines based upon the condition, desirability and usefulness of various outbuildings and yard improvements.

For the appraisal of other buildings and yard improvements, the term CDU Rating is modified to become Condition Rating. The term Condition Rating will still give the same consideration to all the factors that influence the overall condition, desirability, and degree of usefulness of each structure. The eight CDU Ratings have been modified to become six Condition Ratings. These ratings are again intended to fit the normal impressions of an appraiser as he examines improvement. Condition Ratings, with their accompanying definitions, are as follows:

CONDITION RATING OF IMPROVEMENTS	DEFINITION
Excellent	Improvement is in “like new” condition; very useful and highly desirable.
Good	Minor deterioration visible; slightly less desirable, but useful.
Average	Normal wear and tear is apparent; average usefulness and desirability.
Fair	Marked deterioration – but usable; rather undesirable.
Poor	Definite deterioration is obvious; definitely undesirable, and barely usable.
Unsound	Building is definitely unsound and practically unfit for use.

PERCENT GOOD TABLES FOR RESIDENTIAL AND COMMERCIAL

Please see Section 18 for Residential and Commercial Percent Good/Depreciation Tables

LAND TABLES AND SEGMENT TYPES

Land values across Watauga County are as varied as the topography. It was necessary to use a wide range of values to cover all of the different possible values.

Specific land rates are based on typical rates for that class of property and land type within a certain neighborhood or area. Base rates are set to account for the majority of land types found in a neighborhood or area.

Each tract is then analyzed and broken down into land segment types, if necessary. On the following two pages are the Land Tables and an Explanation of the Land Segment Types available for use within the CAMA system.

LAND TABLES

ACREAGE

TYPE A1	500 - 500,000	RESIDENTIAL PRIMARY SITE
TYPE A2	500 - 20,000	MIXED
TYPE A3	500 - 20,000	OPEN
TYPE A4	500 - 20,000	WOODLAND
TYPE A5	100- 1,500	WASTELAND
TYPE A6	500 - 1,000,000	COMMERCIAL (PRIMARY)
TYPE A7	250 - 375,000	SECONDARY ACREAGE
TYPE A8	100 - 100,000	RESIDUAL
TYPE A9	500 - 500,000	RESORT/OTHER
TYPE A0	500 - 100,000	UNDEVELOPED

GROSS

TYPE G1	100 – 100,000	IRREGULAR
TYPE G2	100 – 100,000	SITE
TYPE G3	100 – 100,000	RESIDUAL
TYPE G4	100 – 100,000	RESORT/OTHER
TYPE G0	100 – 100,000	COMMON ELEMENT

NOTE: Property used in connection with condominium or subdivision common areas may have a zero-land value because its value is assessed to the condominium or property owners who have usage of these areas.

SQUARE FOOTAGE

TYPE S1	.05 - 50.00	PRIMARY
TYPE S2	.05 - 40.00	SECONDARY
TYPE S3	.05 -20.00	RESIDUAL
TYPE S4	.05 - 50.00	RESORT/OTHER
TYPE S5	.05 -40.00	APARTMENT
TYPE S6	.05 - 30.00	UNDEVELOPED

APARTMENTS/CONDOMINIUM

TYPICALLY VALUED USING A SQUARE FOOT OR GROSS MODEL

EXPLANATION OF LAND SEGMENT TYPE

ACREAGE		
A1	RESIDENTIAL PRIMARY SITE	Acreage allocation for a dwelling site.
A2	MIXED	Land Mixture
A3	OPEN	Pasture or open land.
A4	WOODLAND	Highest and best use is forestland.
A5	WASTELAND	Acreage not suitable for building sites, agricultural or forestland use. Normally restricted to swampland, ravines, etc.
A6	COMMERCIAL PRIMARY SITE	Lot improved with a major structure. Normally the typical or zoned base lot size for the neighborhood. ONLY USED FOR COMMERCIAL LAND.
A7	SECONDARY ACREAGE	Urban or suburban residential land.
A8	RESIDUAL ACREAGE	Typically land leftover after the 1-acre primary site, which has utility primarily as an enhancement of the primary site.
A9	RESORT SITE	Similar to Residential Primary Site above, but in subdivisions which have planned amenities, such as ski slopes, golf, resort, etc.
A0	UNDEVELOPED ACREAGE	Acreage considered available for development. This segment type is also used for tracts considered prime development property or "Road Only" subdivisions.
SQUARE FOOTAGE		
S1	PRIMARY SITE	Lot or tract improved with a major structure, such as an office building, warehouse, store, etc.
S2	SECONDARY SITE	Generally, a tract which has some degree of site preparation, normally devoted to some secondary improvement. Example: Outdoor lumber storage area for building supply center.
S3	RESIDUAL LAND	Defined as that portion of the site considered excess land with nominal utility or utilization.
S4	RESORT SITE	Commercial Resort Land
S5	APARTMENT SITE	Property that is zoned for multi-family use or is improved with apartment buildings or units.
S6	UNDEVELOPED LAND	Defined as that area reserved for expansion and/or sale, but at present unused, lacks site preparation and utility installations.
GROSS		
G0	COMMON ELEMENT	Used for allocating the allowance of common area on condominiums.
G1	IRREGULAR	Lots with irregular shape or size.
G2	SITE VALUE	Used in areas where lots sell primarily as building sites. Size is typically not a factor in determining value.
G3	RESIDUAL LAND VALUE	Used for parcels with nominal value.
G4	RESORT SITE	Same as site value but used in resort areas.

LAND VALUATION GUIDELINES

1. Rural - Remote or sparsely developed areas of the county where much of the land is being actively farmed or lying idle. Turnover is infrequent and development is generally limited to major highway intersections and rural hamlet communities. Public water may or may not be available. The majority of homes and businesses in rural areas are served by individual wells and septic systems.

2. Suburban - Areas in the county in which development is occurring or has reached equilibrium stage. Includes typical subdivisions and concentrated communities surrounding cities and towns. Pockets of commercial and industrial properties are prevalent. Public water is normally available and, in some cases sanitary sewer services exist.

3. Urban - Areas within or immediately surrounding cities or towns with a high density of housing, commercial and industrial properties. Land is almost always bought and sold with the intent to develop. Turnover is frequent and development is rapid. Public water and sewer are readily available.

4. Resort - Areas which either adjoin or have ready access to Resort Communities. This land is almost always bought and sold with the intent to develop for resort or recreation purposes. Demand is high for both primary residences and second homes, turnover is frequent and development is rapid. Values vary based on location, amenities, view, and access to recreation areas, public water may or may not be available and in some cases sanitary sewer services exist.

ADJUSTMENTS TO NEIGHBORHOOD BASE RATES

The following adjustments will be available to the reviewer. These will be applied during the data collection/review phase on an individual parcel basis.

INFLUENCE FACTORS

It is significant to point out that assigned land rates are based on typical or normal conditions for that class of property and land type within a specific neighborhood area. It is likely that some number of specific parcels, within a neighborhood, will have unique factors affecting the value of that parcel. These factors, or "Land Influences" may affect the value of a specific parcel beneficially or detrimentally, i.e., plus or minus compared to the norm for the neighborhood. Proper appraisal practice indicates that a land rate adjustment or "Influence Factor" should be applied by the review appraiser to properly reflect the unique considerations for a parcel with significant physical or economic characteristics, deviating from normal conditions reflected by the neighborhood base land rates. Attached is a list of the Influence Factors that we will use, along with a description of each type, and guidelines for applying plus and minus factors.

LAND INFLUENCE FACTORS

GENERAL:

The technique of land pricing, as described in other sections of this manual, provides for the development of unit land rates for all classes of real property within a given area or neighborhood. These land rates are developed from verified, recent sales and are expected to reflect market value for various prevalent land types as of the effective valuation date for each given area.

Land rates will be developed for parcels in the following Categories:

Lot/Gross

Square Foot

Acreage

It is significant to point out that assigned land rates are based on typical or normal conditions for that class of property and land type within a specific neighborhood or area. It is likely that some number of specific parcels, within a neighborhood, will have unique factors affecting the value of that land parcel. These land influence factors may affect the value of a parcel positively or negatively compared with the neighborhood norm.

Proper appraisal practice indicates that a land rate adjustment or "Land Influence Factor" should be applied by the review appraiser to properly reflect the unique considerations for a parcel with significant physical or economic characteristics, deviating from the normal conditions reflected by the neighborhood land rates.

The primary goal of a Revaluation Program is equalization; it is strongly recommended that users of this manual exercise proper judgement and caution in the application of land influence factors.

TOPOGRAPHY:
This category allows the reviewer's judgment of the degree of difficulty due to poor topography in erecting a suitable improvement on the subject parcel.

Normally if a suitable improvement is present on the subject lot, the topography problem has been corrected. Therefore, an improved lot normally should have no allowance for topography. However, a topography influence may need to be applied in significant cases of unimproved lots or tracts where poor topography represents an actual detriment to the presumed utilization of the parcel.

Topography factors include; irregular land contour, poor drainage, potential subsidence, sub-surface rock ledge, potential erosion, and flood plain areas.

The following is presented as topography factor guide:

TOPOGRAPHY INFLUENCE FACTOR GUIDE

	CONDITION	FACTOR
Normal	Problem corrected or not significant	None
Slight	Problem is a moderate handicap to full utilization of the lot but is correctable. The lot is buildable, but less desirable than typical lots in the area due to topography problem.	(-10%) - (-25%)
Severe	Problem is significant but correctable in that it prevents the development of the lot until the topography problem is corrected.	(-25%) - (-75%)
Very Poor	The topography problem is so severe it is not economically feasible to develop the lot.	(-75%) - (-90%)

RESTRICTION:
A negative land influence adjustment for restrictions is applicable for cases where the property is subject to a legal or physical restriction to its utilization. Typical examples would include:

Lot cannot pass percolation test for septic system. Utility easements, as power lines and sewer lines. Zoning or deed restrictions limit the utilization to a less than normal use for typical lots in the neighborhood. Physical Barriers such as bridges, highway medians, fences, or abutments. Conservation Easements.

The following is presented as a land influence factor guide for restrictions:

	CONDITION	FACTOR
Normal	No significant restriction exists.	None
Minor	A restriction of moderate significance, legal or physical, exists which causes the property to be less desirable than similar lots in the area which are not subject to this restriction but does not prevent utilization of the property for the presumed use.	(-10%) - (-25%)
Major	A restriction of major significance, legal or physical, exists which causes property to be restricted to a less than full utilization compared to similar lots in the area, which are not subject to this restriction.	(-25%) - (-75%)
Severe	A restriction of very severe impact, legal or physical, exists which causes the property to be rendered virtually un-buildable or unusable for any significant utilization compared to similar lots in the area which are not subject to this restriction.	(-75%) - (-90%)

An example would be a lot rendered not accessible by a highway right-of-way.

ECONOMIC MIS-IMPROVEMENT:
This category is reserved as a reviewer's judgment of the comparative loss of value due to the presence of a structure, which represents an economic mis-improvement to the land (either under-improvement or over-improvement). In essence, this judgment expresses the appraiser's opinion that the existing structure represents an encumbrance to the full utilization of the land.

The application of a mis-improvement factor for Residential/Agricultural property is possible but very rare. Most instances occur in commercial or industrial situations where market evidence indicates a different economic utilization of the land than the current utilization. It is important to recognize in the application of economic mis-improvement factors that the land is presumed to be valued on the basis of typical "highest and best" utilization and the existing structure is non-contributory to this most economical utilization. Obviously, vacant tracts are not encumbered by any structure; therefore, vacant tracts are not subject to economic mis-improvement factors. Further, the appraiser should recognize that the economic mis-improvement condition is "curable": i.e., if the structure is removed, the previously applied economic mis-improvement factor is normally no longer applicable.

Typical examples include:

Dwellings in areas converting to commercial development, or gross under-improvement, as an old warehouse located in an area where market evidence indicates modern office complex development.

Following is an Economic Mis-Improvement Factor Guide:

	CONDITION	FACTOR
Normal	The property is unimproved (No major structures present) or the existing structure is consistent with the economical utilization of the land.	None
Minor	The land is encumbered with a structure that represents economic mis-improvement, and the structure has an assigned value of 25% to 50% of the land value at highest and best use.	(-25%) - (-50%)
Major	The land is encumbered with a structure that represents economic mis-improvement, and the structure has an assigned value of 50% or more of the land value at the highest and best use.	(-50%) - (-75%)

SHAPE OR SIZE:
Shape or size factor is normally a negative adjustment to account for loss of value to a parcel due to highly irregular shape or insufficient size for the presumed utilization of the parcel.

Shape or size factor is a review judgment and may apply to all land types. The basis for any factor is a negative adjustment reducing the subject lot value to the amount and degree of land utility applicable for the presumed utilization.

The following is presented as a shape/size factor guide:

	CONDITION	FACTOR
Normal	Shape or size is no significant detriment to the presumed utilization of the parcel.	None
Minor	The lot is buildable and/or economically usable for the presumed utilization, but irregular shape or insufficient size precludes full utilization of the parcel.	(-10%) - (-25%)
Major	Irregular shape or insufficient size represents a significant handicap to the presumed utilization and/or development of the land category is restricted to a significant under improvement or underutilization of the parcel.	(-25%) - (-75%)
Un-Buildable	The shape or size problem is so severe that it renders the land category unusable and/or unbuildable for the presumed utilization	(-75%) - (-90%)

A typical example would be an undersized lot subject to minimum zoning restrictions that effectively prevent any economical utilization.

CORNER AND/OR ALLEY INFLUENCE:

This category is reserved for the recognition of the enhancement in land value attributable to the potential utilization of a corner lot, over and above the value of an otherwise comparable inside lot. The enhancement due to the presence of a rear or side alley is normally common to all lots in a given area or block. Therefore, recommended procedure for enhancement due to alley influence, if any, is to consider this factor in the land rate itself.

The amount of enhancement, if any, to a corner lot must be based on the individual merits of each corner location.

Normally, corner influence is not applicable to Residential/Agricultural property. Corner influence factors should be applied to only those cases of commercial or industrial property where the corner is an actual enhancement to the land.

Following is presented as a guide for Corner Influence Factors:

	CONDITION	FACTOR
Normal	The presence of a corner or alley has no significant enhancement effect to the property. Example: the side street has restricted access as a dead-end street.	None
Minor	The lot value is moderately enhanced by the presence of corner or alley exposure. Example: Intersection of two secondary streets or a major arterial street and a secondary street.	(+10%) - (+25%)
Major	The lot value is significantly enhanced by the presence of corner or alley exposure. Example: The intersection of two major arterial streets.	(+25%) - (+100%)

VIEW INFLUENCE:
This factor is normally a positive adjustment for lots or parcels where the land value is significantly enhanced by the presence of a scenic or long-range view when compared to similar lots in the area where no significant view is present. This factor also applies to golf course lots.

It is highly recommended that the appraiser exercise due caution in the application of view influence. It is useful to remember that while the subject may have an appealing view, if this condition is common to most parcels in the area, then comparatively there is probably no real view enhancement. The appraiser should also consider the permanency of the view, i.e., the probability of potential obstruction.

The following is a View Influence Factor Guide:

	CONDITION	FACTOR
Normal	The view is considered common to the area, and market evidence indicates no actual value enhancement exists.	None
Minor	The subject property has a moderate enhancement due to an appealing view, and market evidence: Indicates value enhancement exists.	(+10%) - (+25%)
Major	The subject property has a significant enhancement due to an appealing view. Further, the view enhancement is not common to similar lots in the area and there is little or no potential for obstruction of the view by other structures.	(+25%) - (+100%)

INGRESS/EGRESS:
Base land rates include consideration for normal or easy entrance and exit to all properties in a given area or neighborhood.

The following is an Ingress/Egress Factor Guide:

	CONDITION	FACTOR
Normal	Property has ready entrance and exit with little or no restriction. May have multiple entrances.	None
Minor	Entrance to property may be limited by having a single entrance/exit located near an obstruction.	(-10%) - (-25%)
Major	Entrance may be limited by a median strip or barricade that limits ingress/egress to traffic on one side of a street or highway.	(-25%) - (-100%)

CONSERVATION EASEMENTS

A private encumbrance that limits a property's development through a legal waiver of all or part of the property's bundle of rights. Usually done for care and protection of natural resources.

The following is presented as a guide for adjusting Conservation Easements:

Property Rights Given in Easement	Factor
Right to Subdivide	30%
Right to Sell	25%
Limited Market	20%
Right to Build	20%
Right to Recreation	15%
Right to Harvest Timber	10%

(a) Chapter 121, Section 41 "Uniform Conservation and Historic Preservation Act" (1979, c. 747, S.9)

BASE RATE LAND VALUATION TECHNIQUE

The Base Rate Land Valuation Technique allows the appraiser to establish land rates using either a price per acre, price per square foot or price per lot for each parcel located within an individual neighborhood unit. This method also allows the appraiser to develop base land sizes for each land segment type within the neighborhood.

Incremental/Decremental Rates are developed as a percentage of the Base Land Rates to allow for size adjustments for those parcels that are either smaller or larger than the indicated base sizes established for the neighborhood.

EXAMPLE 1:

Neighborhood 0710 Western Watauga

Land Type	Base Size (Acreage)	Base Rate (Per Acre)	Decrement Rate	Increment Rate
A1 Primary Site	1.00	15000	.65	1.00
A2 Mixed	20.00	4000	.95	0.95

Subject parcel consists of 21 acres, including: an improved one (1) acre primary site, and twenty (20) acres of mixed acreage. The base rate valuation technique will value the parcel in the following manner:

1 acre Primary @ $15,000 per acre	$15,000
20 acres Mixed Land @ $4,000 per acre	$80,000
TOTAL APPRAISED VALUE OF LAND	**$95,000**

EXAMPLE 2:
Neighborhood 0511 University Village

Land Type	Base Size (Acreage)	Base Rate (Per Acre)	Decrement Rate	Increment Rate
A1	1.00	50,000	.65	1.00
A8	3.00	10,000	1.00	1.00

Subject parcel consists of an improved lot containing .75 acres. The base rate valuation technique will value the parcel in the following manner:

Base Size (-) Subject Size = Residual Size
(1.00acre) (.75 acres) (.25 acres)

Residual Size (x) Residual Rate = Residual Value
(.25 acres) ($3,200/acre) ($800)

Base Rate (-) Residual Value = Appraised Value
($50,000/acre) ($800) ($49,200)

Appraised Value (/) Subject Size = Effective Rate/Acre
($49,200) (.75 acres) ($65,600)

Subject Site (x) Effective Rate/Acre = Appraised Value
(.75 acres) ($65,600) ($49,200)

TOTAL APPRAISED VALUE OF SUBJECT LAND
$49,200

PRESENT USE-VALUE SCHEDULES

2027 REAPPRAISAL

WATAUGA COUNTY, NORTH CAROLINA

In order to comply with the procedures of North Carolina General Statutes 105-317 (c) "1" and "2" and 105-277.6, Watauga County is required to develop and adopt a land use schedule of values for agriculture, horticulture and forest lands. The purpose of this schedule is to provide a uniform method of valuation based on the present value in use for qualifying lands.

The 2027 schedule has considered available pertinent production statistics for Watauga County. The North Carolina Use Value Manual for Agricultural, Horticultural, and Forest Land prepared by the North Carolina Use Advisory Board has been used extensively to develop the schedule. The following schedule of values is recommended as the standard for present use taxation for the 2027 Watauga County, North Carolina Reappraisal.

SOIL	USE	INFO 1	INFO 2	RATE
LUAA	A	P	3	835.00
LUAF	A	P	4	545.00
LUFA	F	P	3	120.00
LUFE	F	P	1	445.00
LUHA	H	P	3	1,120.00
LUHG	H	P	2	1,705.00

STANDARD ON

Mass Appraisal of Real Property

A criterion for measuring fairness, quality, equity and accuracy

(Revised 2025)

IAAO
INTERNATIONAL ASSOCIATION of ASSESSING OFFICERS
Valuing the World

STANDARD MASS APPRAISAL OF REAL PROPERTY

Revised 2025

International Association of Assessing Officers

IAAO assessment standards represent a consensus in the assessing profession and have been adopted by the Board of Directors of IAAO. The objective of IAAO standards is to provide a systematic means for assessing officers to improve and standardize the operation of their offices. IAAO standards are advisory in nature and the use of, or compliance with, such standards is voluntary. If any portion of these standards is found to conflict with national, state, or provincial laws, such laws shall govern. Ethical and/or professional requirements within the jurisdiction may also take precedence over technical standards. – February 2022

About IAAO

The International Association of Assessing Officers, formerly the National Association of Assessing Officers, was founded for the purpose of establishing standards for assessment personnel. IAAO is a professional membership organization of government assessment officials and others interested in the administration of the property tax. Over the years IAAO members have developed assessment practice and administration standards and many of these standards have been adopted by state and international oversight agencies, and some have been incorporated into legislation.

IAAO continues at the forefront of assessment in North America and has been expanding its reach to the global community for the last five decades. Because standards form the rules by which North American assessors perform their duties, they may not be directly applicable to an overseas audience. The standards have been updated to also present the broad principles upon which the rules are based. IAAO believes those principles may be adapted to many differing statutory and regulatory scenarios worldwide.

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At the time of the 2023 revision (approved in 2025), the Research and Standards Committee was comprised of Margaret Cusack, FIAAO (Chair), Douglas P. Warr, AAS, Vice Chair, Augie Aguilar, Melissa L. Baer, CAE, Benjamin P.P. Bervoets, Alan S. Dornfest, AAS, FIAAO, Luc Hermans, Marco Kuijper, Carmela Quintos, Ph.D., Michael Safarty, Kauser Taslim, James Russell Thimgan, Errol E. Williams, PhD, Tyler Masterson, Joshua Ernest Myers, Carol A. Neihardt, Patrick Santoso, and Shannon M. Hiss, RES, IAAO Staff Liaison.

Revision notes

This standard is a partial update with revisions only to Section 3 and replaces the 2018 rewrite of the standard, which replaced the April 2013 *Standard on Mass Appraisal of Real Property*. The 2013 *Standard on Mass Appraisal of Real Property* was a partial revision that replaced the 2012 standard, which replaced the 2002 standard. The 2002 standard combined and replaced the 1983 *Standard on the Application of the Three Approaches to Value in Mass Appraisal*, the 1984 *Standard on Mass Appraisal*, and the 1988 *Standard on Urban Land Valuation*.

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STANDARD ON MASS APPRAISAL OF REAL PROPERTY

1. SCOPE

This standard defines requirements for the mass appraisal of real property. The primary focus is on mass appraisal for ad valorem tax purposes. However, the principles defined here should also be relevant to mass appraisal systems (also referred to as computer assisted mass appraisal, CAMA systems), and/or automated valuation models used for other purposes, such as mortgage portfolio management. The standard primarily addresses the needs of the assessor, assessment oversight agencies, and taxpayers.

This standard addresses mass appraisal procedures by which the fee simple interest in property can be appraised at market value, including mass appraisal application of the three traditional approaches to value (cost, sales comparison, and income). Single-property appraisals, partial interest appraisals, and appraisals made on an other-than-market-value basis are outside the scope of this standard. Nor does this standard provide guidance on determining assessed values that differ from market value because of statutory constraints such as use value, classification, or assessment increase limitations.

Mass appraisal requires complete and accurate data, effective valuation models, and proper management of resources. Section 2 introduces mass appraisal. Section 3 focuses on the collection and maintenance of property data. Section 4 summarizes the primary considerations in valuation methods, including the role of the three approaches to value in the mass appraisal of various types of property. Section 5 addresses model testing and quality assurance. Section 6 discusses certain managerial considerations: staff levels, data processing support, contracting for reappraisals, benefit-cost issues, and space requirements. Section 7 discusses reference materials.

2. INTRODUCTION

Market value for assessment purposes is generally determined through the application of mass appraisal techniques. Mass appraisal is the process of valuing a group of properties as of a given date and using common data, standardized methods, and statistical testing. To determine a parcel's value, assessing officers must rely upon valuation equations, tables, and schedules developed through mathematical analysis of market data. Values for individual parcels should not be based solely on the sale price of a property; rather, valuation schedules and models should be consistently applied to property data that are correct, complete, and up to date.

Properly administered, the development, construction, and use of a CAMA system results in a valuation system characterized by accuracy, uniformity, equity, reliability, and low per-parcel costs. Except for unique properties, individual analyses and appraisals of properties are not practical for ad valorem tax purposes.

3. COLLECTING AND MAINTAINING PROPERTY DATA

The accuracy of values depends first and foremost on the completeness and accuracy of property characteristics and market data. Assessors will want to ensure that their mass appraisal systems provide for the collection and maintenance of relevant land, improvement, and location features. These data must also be accurately and consistently collected. The mass appraisal system must also provide for the storage and processing of relevant sales, cost, and income and expense data.

3.1 OVERVIEW

Uniform and accurate valuation of property requires correct, complete, and up-to-date property data. Assessing offices must establish effective procedures for collecting and maintaining property data (i.e., property ownership, location, size, use, physical characteristics, sales price, rents, costs, and operating expenses). Such data are also used for performance audits, defense of appeals, public relations, and management information. The following sections recommend procedures for collecting these data.

3.2 GEOGRAPHIC DATA

Assessors should maintain accurate, up-to-date cadastral maps (also known as assessment maps, tax maps, parcel boundary maps, and property ownership maps) covering the entire jurisdiction with a unique identification number for each parcel. Such cadastral maps allow assessing officers to identify and locate all parcels, both in the field and in the office.

Maps become especially valuable in the mass appraisal process when a geographic information system (GIS) is used. A GIS permits graphic displays of sale prices, assessed values, inspection dates, work assignments, land uses, and much more. In addition, a GIS permits high-level analysis of nearby sales, neighborhoods, and market trends; when linked to a mass appraisal system, the results can be very useful. For additional information on cadastral maps, parcel identification systems, and GIS, see *Standard on Manual Cadastral Maps and Parcel Identifiers* (IAAO 2016b), *Standard on Digital Cadastral Maps and Parcel Identifiers* (IAAO 2015), *Procedures and Standards for a Multipurpose Cadastre* (National Research Council 1983), and *GIS Guidelines for Assessors* (URISA and IAAO 1999).

3.3 PROPERTY CHARACTERISTICS DATA

The assessor should collect and maintain property characteristics data sufficient for classification, valuation, and other purposes. Accurate valuation of real property by any method requires descriptions of land and building characteristics.

3.3.1 Selection of Property Characteristics Data

Property characteristics to be collected and maintained should be based on the following:

- Factors that influence the market in the locale in question
- Requirements of the valuation methods that will be employed
- Requirements of classification and property tax policy
- Requirements of other governmental and private users
- Marginal benefits and costs of collecting and maintaining each property characteristic

Determining what data on property characteristics to collect and maintain for a mass appraisal system is a crucial decision with long-term consequences. A pilot program is one means of evaluating the benefits and costs of collecting and maintaining a particular set of property characteristics (Gloudemans and Almy 2011, 46–49). In addition, much can be learned from studying the data used in successful mass appraisals in other jurisdictions. Data collection and maintenance are usually the costliest aspects of a mass appraisal. Collecting data that are of little importance in the assessment process should be avoided unless another governmental or private need is clearly demonstrated.

The quantity and quality of existing data should be reviewed. If the data are sparse and unreliable, a major recanvass will be necessary. Data that have been confirmed to be reliable should be used whenever possible. New valuation programs or enhancements requiring major recanvass activity or conversions to new coding formats should be viewed with suspicion when the existing database already contains most major property characteristics and is of generally good quality.

The following property characteristics are usually important in predicting residential property values:

Improvement Data

- Living area
- Construction quality or key components thereof (foundation, exterior wall type, and the like)
- Effective age or condition
- Building design or style
- Secondary areas including basements, garages, covered porches, and balconies
- Building features such as bathrooms and central air-conditioning
- Significant detached structures including guest houses, boat houses, and barns

Land Data

- Lot size
- Available utilities (sewer, water, electricity)

Location Data

- Market area
- Submarket area or neighborhood
- Site amenities, especially view and golf course or water frontage
- External nuisances, (e.g., heavy traffic, airport noise, or proximity to commercial uses)

For a discussion of property characteristics important for various commercial property types see *Fundamentals of Mass Appraisal* (Gloudemans and Almy 2011,Chapter 9).

3.3.2 Data Collection

Collecting property characteristics data is a critical and expensive phase of reappraisal. A successful data collection program requires clear and standard coding and careful monitoring through a quality control program. The development and use of a data collection manual is essential to achieving accurate and consistent data collection. The data collection program should result in complete and accurate data.

3.3.2.1 Initial Data Collection

An inspection is necessary to obtain initial property characteristics data. This inspection can be performed either by appraisers, specially trained data collectors, and/or collected using technology such as remote sensing. In a joint approach, experienced appraisers make key subjective decisions, such as the assignment of construction quality class or grade, and data collectors gather all other details. Depending on the type of property, local (market) conditions and other resources available, a physical inspection including an interior inspection might be necessary. Measurement is an important part of data collection. Depending on the availability and reliability of data, different techniques and methods for measuring can be applied. To ensure data quality, a sample should be verified using a secondary inspection method.

3.3.2.2 Data Collection Format

Data should be collected in a prescribed format designed to facilitate both the collecting of data in the field and the entry of the data into the computer system.

A logical arrangement of the collection format makes data collection easier. For example, all items requiring an interior inspection should be grouped together. The coding of data should be as objective as possible, with measurements, counts, and check-off items used in preference to items requiring subjective evaluations (such as “number of plumbing fixtures” versus “adequacy of plumbing: poor, average, good”). With respect to check-off items, the available codes should be exhaustive and mutually exclusive, so that exactly one code logically pertains to each observable variation of a building feature (such as structure or roof type). The data collection format should promote consistency among data collectors, be clear and easy to use, and be adaptable to virtually all types of construction. Specialized data collection formats may be necessary to collect information on agricultural property, timberland, commercial and industrial parcels, and other property types.

3.3.2.3 Data Collection Manuals

A clear, thorough, and precise data collection manual is essential and should be developed, updated, and maintained. The written manual should explain how to collect and record each data item. Pictures, examples, and illustrations are particularly helpful. The manual should be simple yet complete. Data collection staff should be trained in the use of the manual and related updates to maintain consistency. The manual should include guidelines for personal conduct during field inspections, and if interior data are required, the manual should outline procedures to be followed when the property owner has denied access or when entry might be risky. Local, regional, state, or national legislation regarding property owners' rights and obligations regarding trespassing and/or to permit access to property should be addressed in the manual.

3.3.2.4 Data Accuracy Standards

The following standards of accuracy for data collection are recommended.

- Continuous or area measurement data, such as living area and exterior wall height, should be accurate within 1 foot (rounded to the nearest foot) or 30 centimeters of the true dimensions or within 5 percent of the area. If areas, dimensions, or volumes must be estimated, the property record should note the instances in which quantities are estimated.
- For each objective, categorical, or binary data field to be collected or verified, at least 95 percent of the coded entries should be accurate. Objective, categorical, or binary data characteristics include such attributes as exterior wall material, number of full bathrooms, and waterfront view. As an example, if a data collector captures 10 objective, categorical, or binary data items for 100 properties, at least 950 of the 1,000 total entries should be correct.
- For each subjective categorical data field collected or verified, data should be coded correctly at least 90 percent of the time. Subjective categorical data characteristics include data items such as quality grade, physical condition, and architectural style.

Regardless of specific accuracy requirements, consistent measurement is important. Standards including national, local and regional practices exist to support consistent measurement. The standard of measurement should be documented as part of the process. (*American Institute of Architects* 1995; *Marshall & Swift Valuation Service* 2017; *International Property Measurement Standards Coalition n.d.; Building Owners and Managers Association International* 2017).

3.3.2.5 Data Collection Quality Control

A quality control program is necessary to ensure that data accuracy standards are achieved and maintained. The IAAO Standard on Data Quality provides guidelines and best practices for this task. Independent quality control inspections should occur immediately after the data collection phase begins and may be performed by jurisdiction staff, project consultants, auditing firms, or oversight agencies. The inspections should review random samples of finished work for completeness and accuracy and keep tabulations of items coded correctly or incorrectly, so that statistical tests can be used to determine whether accuracy standards have been achieved. Stratification by geographic area, property type, or individual data collector can help detect patterns of data error. Data that fail to meet quality control standards should be recollected.

The accuracy of subjective data should be judged primarily by conformity with written specifications and examples in the data collection manual. The data reviewer should substantiate subjective data corrections with pictures or field notes.

3.3.3 Data Entry

To avoid duplication of effort, the data collection form should be able to serve as the data entry form. Data entry should be routinely audited to ensure accuracy.

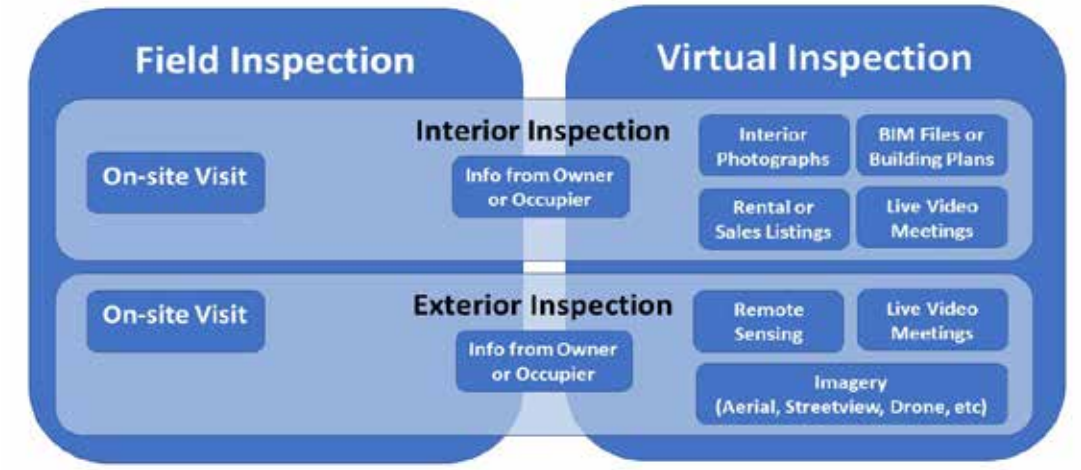
Data entry accuracy should be as close to 100 percent as possible and should be supported by a full set of range and consistency edits. These are error or warning messages generated in response to invalid or unusual data items. Examples of data errors include missing data codes and invalid characters. Warning messages should also be generated when data values exceed normal ranges (e.g., more than eight rooms in a 1,200-square-foot residence). The warnings should appear as the data are entered. When feasible, action on the warnings should take place during data entry. Field data entry devices provide the ability to edit data as it is entered and also eliminate data transcription errors.

3.3.4 Maintaining Property Characteristics Data

Inspections are a fundamental part of the assessment process. As detailed in the *Standard on Data Quality* (IAAO 2021), maintaining high quality data is fundamental to upholding fairness and equity in the assessment process. Each assessor's office, knowing its available resources, parcel counts, development patterns, and specific statutory requirements, should establish methodologies for completing inspections so that property data can be reviewed and updated to account for any changes on a regular basis.

There are many ways inspections can be initiated, including by building permits, appeals, property owner requests, or systematic regular reviews initiated by the assessor's office. Inspections can be conducted in-person (on-site) or virtually at a desktop utilizing various technologies. Additionally, depending on the nature of the inspection, it can be external (reviewing characteristics from outside) or include an interior review of the property. Many inspections will use a combination of inspection types to complete a property record.

The image below shows the different types of property inspections as well as common methods and techniques for inspections and how these are related.



3.3.5 Considerations for Minimum Imagery

Inspections conducted virtually at a desktop require quality imagery in order to provide effective information about the property. Any imagery utilized for inspection purposes should include the following:

- Current high-resolution street-view images (at a sub-inch pixel resolution that enables quality grade and physical condition to be verified)
- Orthophoto images (minimum 6-inch pixel resolution in urban/suburban and 12-inch resolution in rural areas, updated every 2 years in rapid-growth areas or 6–10 years in slow-growth areas)
- Low-level oblique images capable of being used for measurement verification (four cardinal directions, minimum 6-inch pixel resolution in urban/suburban and 12-inch pixel resolution in rural areas, updated every 2 years in rapid- growth areas or 6–10 years in slow-growth areas)

These imagery tool sets may incorporate change detection techniques that compare building dimension data (footprints) in the CAMA system to georeferenced imagery or remote sensing data from sources (such as LiDAR [light detection and ranging]) and identify potential CAMA sketch discrepancies for further investigation.

Assessment jurisdictions and oversight agencies must ensure that images meet expected quality standards. Standards required for vendor-supplied images should be spelled out in the Request for Proposal (RFP) and contract for services, and images should be checked for compliance with specified requirements. For general guidance on preparing RFPs and contracting for vendor-supplied services, see *Standard on Contracting for Assessment Services* (IAAO 2019).

In addition, appraisers should visit assigned areas on an annual basis to observe changes in neighborhood condition, trends, and property characteristics. An on-site physical review is recommended when significant construction changes are detected, a property is sold, or an area is affected by catastrophic damage. Building permits should be regularly monitored and properties that have significant change should be inspected when work is complete.

3.3.6 Considerations for Establishing a Property Inspection Plan

- Building permits from local jurisdiction(s) covered by the assessor's office can be a good indicator of changes occurring on property through new construction, remodeling, demolition, and destruction. Ideally, strictly enforced local ordinances will exist and require building permits for all significant construction activity, and the assessor's office will receive copies of the permits. This process allows the assessor to quickly identify properties whose characteristics are likely to change and conduct inspections in a timely manner.
- In instances where building permits are underutilized it is necessary to establish other methods of identifying property changes. Periodic inspections can help find changes not indicated by building permits. Technology such as change detection in aerial imagery can identify changes in property between two points in time.
- Other processes that can initiate inspections include canvass projects, appeals, property owner requests, and certain exemption applications.
- In some instances, property owner cooperation via a self-reporting process can be productive. In this case, each property owner receives a copy of the assessor's records for their property to review for additions or corrections. Web based outreach programs can enhance owner participation.

- Multiple listing sources and other third-party vendors often contain valuable information which can be used to validate property records. With the advancement of many real estate websites and vendors using data aggregation to collect large amounts of data, these tools can provide additional information about properties.
- Recent imagery (aerials, streetview, etc.) can provide valuable information without needing to physically inspect a property. It is helpful to have imagery gathered on an annual basis, although this may vary based on community growth and office budgets.
- A regular cycle for periodic inspection of properties should be established and in statute see *Standard on Property Tax Policy* (IAAO 2020, 13-14) for further discussion. A periodic inspection aims to ensure there is a regular review of property data and can comprise of field or virtual inspections. Maintaining current, high-level data is a necessity. If a property is not inspected through any of the above-mentioned processes, a periodic inspection is warranted. Property characteristics should be verified at least every 4 to 6 years; this may be adjusted provided quality thresholds such as ratio study standards or other compliance metrics are met.
- In instances where the last inspection date is unknown or does not exist, a regular cycle for periodic inspection can be established to prioritize areas of known data quality issues or areas that are not meeting certain quality thresholds.
- A property inspection plan should detail what types of inspections should be completed and for what purpose. In some cases, a field inspection is necessary to collect the detailed information required to update a parcel record. In other cases, a combination of imagery and other technology may provide a complete picture to update a property record.
- Property inspection plans should detail when to use interior and exterior inspections. Both are useful in inspecting properties, but each has challenges which must be considered. Interior inspections allow for the capture of interior information not visible from the exterior of the property but require the cooperation of the property owner and occupants in order to complete either in-person or virtually through video calls. As a result, there can be challenges with equity and data quality if only certain properties are accessible for interior inspections. Exterior inspections allow for the capture of all information which can be discerned from the outside of the property either through field inspections or desktop review but misses the capture of interior information which may be useful in discerning the difference in value between otherwise identical properties. The use of inspection types should be clearly defined by the property inspection plan to guide uniform use across the jurisdiction.

3.4 SALE DATA

States and provinces should seek mandatory disclosure laws to ensure comprehensiveness of sale data files. Regardless of the availability of such statutes, a file of sale data must be maintained, and sales must be properly reviewed and validated. Sale data are required in all applications of the sales comparison approach, in the development of land values and market-based depreciation schedules in the cost approach, and in the derivation of capitalization rates or discount rates in the income approach. Refer to *Mass Appraisal of Real Property* (Gloudemans 1999, chapter 2) or *Fundamentals of Mass Appraisal* (Gloudemans and Almy 2011 chapter 2) for guidelines on the acquisition and processing of sale data.

3.5 INCOME AND EXPENSE DATA

Income and expense data must be collected for income-producing property and reviewed by qualified appraisers to ensure their accuracy and usability for valuation analysis (see Section 4.4.). Refer to *Mass Appraisal of Real Property* (Gloudemans 1999, chapter 2) or *Fundamentals of Mass Appraisal* (Gloudemans and Almy 2011, chapter 2) for guidelines addressing the collection and processing of income and expense data.

3.6 COST AND DEPRECIATION DATA

Current cost and depreciation data adjusted to the local market are required for the cost approach (see Section 4.2). Cost and depreciation manuals and schedules can be purchased from commercial services or created in-house. Refer to *Mass Appraisal of Real Property* (Gloudemans 1999, chapter 4) or *Fundamentals of Mass Appraisal* (Gloudemans and Almy 2011, 180–193) for guidelines on creating manuals and schedules.

4. VALUATION

Mass appraisal analysis begins with assigning properties to use classes or strata based on highest and best use, which normally equates to current use. Some statutes require that property be valued for ad valorem tax purposes at current use regardless of highest and best use. Zoning and other land use controls normally dictate highest and best use of vacant land. In the absence of such restrictions, the assessor must determine the highest and best use of the land by analyzing the four components—legally permissible, physically possible, appropriately supported, and financially feasible—thereby resulting in the highest value. Special attention may be required for properties in transition, interim or nonconforming uses, multiple uses, and excess land.

4.1 VALUATION MODELS

Any appraisal, whether single-property appraisal or mass appraisal, uses a model, that is, a representation in words or an equation of the relationship between value and variables representing factors of supply and demand. Mass appraisal models attempt to represent the market for a specific type of property in a specified area. Mass appraisers must first specify the model, that is, identify the supply and demand factors and property features that influence value, for example, square feet of living area. Then they must calibrate the model, that is, determine the adjustments or coefficients that best represent the value contribution of the variables chosen, for example, the dollar amount the marketplaces on each square foot of living area. Careful and extensive market analysis is required for both specification and calibration of a model that estimates values accurately. Mass appraisal models apply to all three approaches to value: the cost approach, the sales comparison approach, and the income approach.

Valuation models are developed for defined property groups. For residential properties, geographic stratification is ap- propriate when the value of property attributes varies significantly among areas and each area is large enough to provide adequate sales. It is particularly effective when housing types and styles are relatively uniform within areas. Separate models are developed for each market area (also known as economic or model areas). Subareas or neighborhoods can serve as variables in the models and can also be used in land value tables and selection of comparable sales. Refer to *Mass Appraisal of Real Property* (Gloudemans 1999, 118–120) or *Fundamentals of Mass Appraisa*l (Gloudemans and Almy 2011, 139–143) for guidelines on stratification. Smaller jurisdictions may find it sufficient to develop a single residential model.

Commercial and income-producing properties should be stratified by property type. In general, separate models should be developed for apartment, warehouse/industrial, office, and retail properties. Large jurisdictions may be able to stratify apartment properties further by type or area or to develop multiple models for other income properties with adequate data.

4.2 THE COST APPROACH

The cost approach is applicable to virtually all improved parcels and, if used properly, can produce accurate valuations. The cost approach is more reliable for newer structures of standard materials, design, and workmanship. It produces an estimate of the value of the fee simple interest in a property.

Reliable cost data are imperative in any successful application of the cost approach. The data must be complete, typical, and current. Current construction costs should be based on the cost of replacing a structure with one of equal utility, using current materials, design, and building standards. In addition to specific property types, cost models should include the cost of individual construction components and building items in order to adjust for features that differ from base specifications. These costs should be incorporated into a construction cost manual and related computer software. The software can perform the valuation function, and the manual, in addition to providing documentation, can be used when nonautomated calculations are required.

Construction cost schedules can be developed in-house, based on a systematic study of local construction costs, obtained from firms specializing in such information, or custom-generated by a contractor. Cost schedules should be verified for accuracy by applying them to recently constructed improvements of known cost. Construction costs also should be updated before each assessment cycle.

The most difficult aspects of the cost approach are estimates of land value and accrued depreciation. These estimates must be based on non-cost data (primarily sales) and can involve considerable subjectivity. Land values used in the cost approach must be current and consistent. Often, they must be extracted from sales of improved property because sales of vacant land are scarce. Section 4.5 provides standards for land valuation in mass appraisal.

Depreciation schedules can be extracted from sales data in several ways. Refer to *Mass Appraisal of Real Property* (Gloudemans 1999, chapter 4) or *Fundamentals of Mass Appraisal* (Gloudemans and Almy 2011, 189–192) for additional information.

4.3 THE SALES COMPARISON APPROACH

The sales comparison approach estimates the value of a subject property by statistically analyzing the sale prices of similar properties. This approach is usually the preferred approach for estimating values for residential and other property types with adequate sales.

Applications of the sales comparison approach include direct market models and comparable sales algorithms refer to *Mass Appraisal of Real Property* (Gloudemans 1999, chapters 3 and 4), *Fundamentals of Mass Appraisal* (Gloudemans and Almy 2011, chapters 4 and 6), and the *Standard on Automated Valuation Models (AVMs)* (IAAO 2018) for additional guidance. Comparable sales algorithms are most akin to single-property appraisal applications of the sales comparison approach. They have the advantages of being familiar and easily explained and can compensate for less well-specified or calibrated models, be- cause the models are used only to make adjustments to the selected comparables. They can be problematic if the selected comparables are not well validated or representative of market value. Because they predict market value directly, direct market models depend more heavily on careful model specification and calibration. Their advantages include efficiency and consistency, because the same model is directly applied against all properties in the model area.

Users of comparable sales algorithms should be aware that sales ratio statistics will be biased if sales used in the ratio study are used as comparables for themselves in model development. This problem can be avoided by (1) not using sales as comparables for themselves in modeling or (2) using holdout or later sales in ratio studies.

4.4 THE INCOME APPROACH

In general, for income-producing properties, the income approach is the preferred valuation approach when reliable income and expense data are available, along with well-supported income multipliers, overall rates, and required rates of return on investment. Successful application of the income approach requires the collection, maintenance, and careful analysis of income and expense data.

Mass appraisal applications of the income approach begin with collecting and processing income and expense data. These data should be expressed on an appropriate per-unit basis, such as per square foot or per apartment unit. Appraisers should then compute normal or typical gross incomes, vacancy rates, net incomes, and expense ratios for various homogeneous strata of properties. These figures can be used to judge the reasonableness of reported data for individual parcels and to estimate income and expense figures for parcels with unreported data. Actual or reported figures can be used as long as they reflect typical figures (or typical figures can be used for all properties).

Alternatively, models for estimating gross or net income and expense ratios can be developed by using actual income and expense data from a sample of properties and calibrated by using multiple regression analysis. For an introduction to income modeling, see *Mass Appraisal of Real Property* (Gloudemans 1999, chapter 3) or *Fundamentals of Mass Appraisal* (Gloudemans and Almy 2011, chapter 9). The developed income figures can be capitalized into estimates of value in a number of ways. The most direct method involves the application of gross income multipliers, which express the ratio of market value to gross income. At a more refined level, net income multipliers or their reciprocals, overall capitalization rates, can be developed and applied. Provided there are adequate sales, these multipliers and rates should be extracted from a comparison of actual or estimated incomes with sale prices (older income and sales data should be adjusted to the valuation date as appropriate). Income multipliers and overall rates developed in this manner tend to provide reliable, consistent, and readily supported valuations when good sales and income data are available. When adequate sales are not available, relevant publications and local market participants can be consulted.

4.5 LAND VALUATION

State or local laws may require the value of an improved parcel to be separated into land and improvement components. When the sales comparison or income approach is used, an independent estimate of land value can be made and subtracted from the total property value to obtain a residual improvement value. Some computerized valuation techniques provide a separation of total value into land and building components.

Land values should be reviewed annually. At least once every 4 to 6 years the properties should be physically inspected and revalued. The sales comparison approach is the primary approach to land valuation and is always preferred when sufficient sales are available. In the absence of adequate sales, other techniques that can be used in land appraisal include allocation, abstraction, anticipated use, capitalization of ground rents, and land residual capitalization. See *Mass Appraisal of Real Property* (Gloudemans 1999, chapter 3) or *Fundamentals of Mass Appraisal* (Gloudemans and Almy 2011, 178–180) for additional information.

4.6 CONSIDERATIONS BY PROPERTY TYPE

The appropriateness of each valuation approach varies with the type of property under consideration. *Table 1* ranks the relative usefulness of the three approaches in the mass appraisal of major types of properties. The table assumes that there are no major statutory barriers to using all three approaches or to obtaining cost, sales, and income data. Although relying only on the single best approach for a given type of property can have advantages in terms of efficiency and consistency, the use of two or more approaches provides helpful cross-checks and flexibility and can thus produce greater accuracy, particularly for less typical properties.

TABLE 1. Rank of typical usefulness of the three approaches to value in the mass appraisal of major types of property

Type of Property	Cost Approach	Sales Comparison Approach	Income Approach
Single-family residential	2	1	3
Multifamily residential	3	1,2	1,2
Commercial	3	2	1
Industrial	1,2	3	1,2
Nonagricultural land	-	1	2
Agricultural land [a]	-	2	1
Special-purpose [b]	1	2,3	2,3

[a] *Includes farm, ranch, and forest properties.* [b] *Includes institutional, governmental, and recreation properties.*

4.6.1 Single-Family Residential Property

The sales comparison approach is the best approach for single-family residential property, including condominiums. Automated versions of this approach are highly efficient and generally accurate for the majority of these properties. The cost approach is a good supplemental approach and should serve as the primary approach when the sales data available are inadequate. The income approach is usually inappropriate for mass appraisal of single-family residential properties, because most of these properties are not rented.

4.6.2 Manufactured Housing

Manufactured or mobile homes can be valued in a number of ways depending on the local market and ownership status. Often mobile homes are purchased separately and situated on a rented space in a mobile home park. In this case the best strategy is to model the mobile homes separately from the land. At other times mobile homes are situated on individual lots and bought and sold similar to stick-built homes. Particularly in rural areas they may be intermixed with stick-built homes. In these cases, they can be modeled in a manner similar to that for other residential properties and included in the same models, as long as the model includes variables to distinguish them and recognize any relevant differences from other homes (e.g., mobile homes may appreciate at a rate different from that for stick-built homes).

4.6.3 Multifamily Residential Property

The sales comparison and income approaches are preferred in valuing multifamily residential property when sufficient sales and income data are available. Multiple regression analysis (MRA) and related techniques have been successfully used in valuing this property type. Where adequate sales are available, direct sales models can be used. MRA also can be used to calibrate different portions of the income approach, including the estimation of market rents and development of income multipliers or capitalization rates. As with other residential property, the cost approach is useful in providing supplemental valuations and can serve as the primary approach when good sales and income data are not available.

4.6.4 Commercial and Industrial Property

The income approach is the most appropriate method in valuing commercial and industrial property if sufficient income data are available. Direct sales comparison models can be equally effective in large jurisdictions with sufficient sales. When a sufficient supply of sales data and income data is not available, the cost approach should be applied. However, values generated should be checked against available sales data. Cost factors, land values, and depreciation schedules must be kept current through periodic review.

4.6.5 Nonagricultural Land

The sales comparison approach is preferred for valuing nonagricultural land. Application of the sales comparison approach to vacant land involves the collection of sales data, the posting of sales data on maps, the calculation of standard unit values (such as value per square foot, per front foot, or per parcel) by area and type of land use, and the development of land valuation maps or computer-generated tables in which the pattern of values is displayed. When vacant land sales are not available or are few, additional benchmarks can be obtained by subtracting the replacement cost new less depreciation of improvements from the sale prices of improved parcels. The success of this technique requires reliable cost data and tends to work best for relatively new improvements, for which depreciation is minimal.

Another approach is a *hybrid* model decomposable into land and building values. Although these models can be calibrated from improved sales alone, separation of value between land and buildings is more reliable when both vacant and improved sales are available.

4.6.6 Agricultural Property

If adequate sales data are available and agricultural property is to be appraised at market value, the sales comparison approach is preferred. However, most states and provinces provide for the valuation of agricultural land at use value, making the sales comparison approach inappropriate for land for which market value exceeds use value. Thus, it is often imperative to obtain good income data and to use the income approach for agricultural land. Land rents are often available, sometimes permitting the development and application of overall capitalization rates. Many states and provinces have soil maps that assign land to different productivity classes for which typical rents can be developed. Cost tables can be used to value agricultural buildings.

4.6.7 Special-Purpose Property

The cost approach tends to be most appropriate in the appraisal of special-purpose properties, because of the distinctive nature of such properties and the general absence of adequate sales or income data.

4.7 Value Reconciliation

When more than one approach or model is used for a given property group, the appraiser must determine which to use or emphasize. Often this can be done by comparing ratio study statistics. Although there are advantages to being consistent, sometimes an alternative approach or method is more reliable for special situations and atypical properties. Mass appraisal systems should allow users to document the approach or method being used for each property.

4.8 FREQUENCY OF REAPPRAISALS

The *Standard on Property Tax Policy* (IAAO 2020) states that current market value implies annual assessment of all property. Annual assessment does not necessarily mean, however, that each property must be re-examined each year. Instead, models can be recalibrated, or market adjustment factors derived from ratio studies or other market analyses applied based on criteria such as property type, location, size, and age.

Analysis of ratio study data can suggest groups or strata of properties in greatest need of physical review. In general, market adjustments can be highly effective in maintaining equity when appraisals are uniform within strata and recalibration can provide even greater accuracy. However, only physical reviews can correct data errors and, as stated in previous sections of this Standard, property characteristics data should be reviewed and updated at least every 4 to 6 years. This can be accomplished in at least three ways:

- Reinspecting all property at periodic intervals (i.e., every 4 to 6 years)
- Reinspecting properties on a cyclical basis (e.g., one-fourth or one-sixth each year)
- Reinspecting properties on a priority basis as indicated by ratio studies or other considerations while still ensuring that all properties are examined at least every sixth year

5. MODEL TESTING, QUALITY ASSURANCE, AND VALUE DEFENSE

Mass appraisal allows for model testing and quality assurance measures that provide feedback on the reliability of valuation models and the overall accuracy of estimated values. Modelers and assessors must be familiar with these diagnostics so they can evaluate valuation performance properly and make improvements where needed.

5.1 MODEL DIAGNOSTICS

Modeling software contains various statistical measures that provide feedback on model performance and accuracy. MRA software contains multiple sets of diagnostic tools, some of which relate to the overall predictive accuracy of the model and some of which relate to the relative importance and statistical reliability of individual variables in the model. Modelers must understand these measures and ensure that final models not only make appraisal sense but also are statistically sound.

5.2 SALES RATIO ANALYSES

Regardless of how values were generated, sales ratio studies provide objective, bottom-line indicators of assessment performance. The IAAO literature contains extensive discussions of this important topic, and the *Standard on Ratio Studies* (IAAO 2013) provides guidance for conducting a proper study. It also presents standards for key ratio statistics relating to the two primary aspects of assessment performance: level and uniformity. The following discussion summarizes these standards and describes how the assessor can use sales ratio metrics to help ensure accurate, uniform values.

5.2.1 Assessment Level

Assessment level relates to the overall or general level of assessment of a jurisdiction and various property classes, strata, and groups within the jurisdiction. Each group must be assessed at market value as required by professional standards and applicable statutes, rules, and related requirements. The three common measures of central tendency in ratio studies are the median, mean, and weighted mean. The *Standard on Ratio Studies* (IAAO 2013) stipulates that the median ratio should be between 0.90 and 1.10 and provides criteria for determining whether it can be concluded that the standard has not been achieved for a property group. Current, up-to-date valuation models, schedules, and tables help ensure that assessment levels meet required standards, and values can be statistically adjusted between full reappraisals or model recalibrations to ensure compliance.

5.2.2 Assessment Uniformity

Assessment uniformity relates to the consistency and equity of values. Uniformity has several aspects, the first of which relates to consistency in assessment levels between property groups. It is important to ensure, for example, that residential and commercial properties are appraised at similar percentages of market value (regardless of the legal assessment ratios that may then be applied) and that residential assessment levels are consistent among neighborhoods, construction classes, age groups, and size groups. Consistency among property groups can be evaluated by comparing measures of central tendency calculated for each group.

Various graphs can also be used for this purpose. The *Standard on Ratio Studies* (IAAO 2013) stipulates that the level of appraisal for each major group of properties should be within 5 percent of the overall level for the jurisdiction and provides criteria for determining whether it can be concluded from ratio data that the standard has not been met.

Another aspect of uniformity relates to the consistency of assessment levels within property groups. There are several such measures, the preeminent of which is the coefficient of dispersion (COD), which represents the average percentage deviation from the median ratio. The lower the COD, the more uniform the ratios within the property group. In addition, uniformity can be viewed spatially by plotting sales ratios on thematic maps.

The *Standard on Ratio Studies* (IAAO 2013) provides the following standards for the COD:

- *Single-family homes and condominiums:* CODs of 5 to 10 for newer or fairly similar residences and 5 to 15 for older or more heterogeneous areas
- *Income-producing properties:* CODs of 5 to 15 in larger, urban areas and 5 to 20 in other areas
- *Vacant land:* CODs of 5 to 20 in urban areas and 5 to 25 in rural or seasonal recreation areas
- *Rural residential, seasonal, and manufactured homes:* CODs of 5 to 20

The entire appraisal staff must be aware of and monitor compliance with these standards and take corrective action where necessary. Poor uniformity within a property group is usually indicative of data problems or deficient valuation procedures or tables and cannot be corrected by application of market adjustment factors.

A final aspect of assessment uniformity relates to equity between low- and high-value properties. Although there are statistical subtleties that can bias evaluation of price-related uniformity, the IAAO literature (see *Fundamentals of Mass Appraisal* [Gloudemans and Almy 2011, 385–392 and Appendix B] and the *Standard on Ratio Studies* [IAAO 2013]) provides guidance and relevant measures, namely, the price-related differential (PRD) and coefficient of price- related bias (PRB).

The PRD provides a simple gauge of price-related bias. The *Standard on Ratio Studies* (IAAO 2013) calls for PRDs of 0.98 to 1.03. PRDs below 0.98 tend to indicate assessment progressivity, the condition in which assessment ratios increase with price. PRDs above 1.03 tend to indicate assessment regressivity, in which assessment ratios decline with price. The PRB indicates the percentage by which assessment ratios change whenever values double or are halved. For example, a PRB of –0.03 would mean that assessment levels fall by 3 percent when value doubles. The *Standard on Ratio Studies* (IAAO 2013) calls for PRBs of –0.05 to +0.05 and regards PRBs outside the range of –0.10 to +0.10 as unacceptable.

Because price is observable only for sale properties, there is no easy correction for the PRB, which is usually due to problems in valuation models and schedules. Sometimes other ratio study diagnostics will provide clues. For example, high ratios for lower construction classes may indicate that base rates should be reduced for those classes, which should in turn improve assessment ratios for low-value properties.

5.3 HOLDOUT SAMPLES

Holdout samples are validated sales that are not used in valuation but instead are used to test valuation performance. Holdout samples should be randomly selected with a view to obtaining an adequate sample while ensuring that the number of sales available for valuation will provide reliable results for the range of properties that must be valued (holdout samples of 10 to 20 percent are typical). If too few sales are available, later sales can be validated and used for the same purpose. For a method of using sales both to develop and test valuation models, see "The Use of Cross-validation in CAMA Modeling to Get the Most Out of Sales" (Jensen 2011).

Since they were not used in valuation, holdout samples can provide more objective measures of valuation performance. This can be particularly important when values are not based on a common algorithm as cost and MRA models are. Manually assigning land values, for example, might produce sales ratio statistics that appear excellent but are not representative of broader performance for both sold and unsold properties. Comparable sales models that value a sold property using the sale of a property as a comparable for itself can produce quite different results when tested on a holdout group.

When a new valuation approach or technique is used for the first time, holdout sales can be helpful in validating use of the new method. In general, however, holdout samples are unnecessary as long as valuation models are based on common algorithms and schedules and the value assigned to a sale property is not a function of its price. Properly validated later sales can provide follow-up performance indicators without compromising the number of sales available for valuation.

5.4 DOCUMENTATION

Valuation procedures and models should be documented. Appraisal staff should have at least a general understanding of how the models work and the various rates and adjustments made by the models. Cost manuals should be current and contain the rates and adjustments used to value improvements by the cost approach. Similarly, land values should be supported by tables of rates and adjustments for features such as water frontage, traffic, and other relevant influences. MRA models and other sales comparison algorithms should document final equations and should be reproducible, so that rerunning the model produces the same value. Schedules of rental rates, vacancy rates, expense ratios, income multipliers, and capitalization rates should document how values based on the income approach were derived.

It can be particularly helpful to prepare a manual, booklet, or report for each major property type that provides a narrative summary of the valuation approach and methodology and contains at least the more common rates and adjustments. Examples of how values were computed for sample properties can be particularly helpful. The manuals serve as a resource for current staff and can be helpful in training new staff or explaining the valuation process to other interested parties. Once prepared, the documents should be updated when valuation schedules change or methods and calculation procedures are revised.

5.5 VALUE DEFENSE

The assessment office staff must have confidence in the appraisals and be able to explain and defend them. This confidence begins with application of reliable appraisal techniques, generation of appropriate valuation reports, and review of preliminary values. It may be helpful to have reports that list each parcel, its characteristics, and its calculated value. Parcels with unusual characteristics, extreme values, or extreme changes in values should be identified for subsequent individual review. Equally important, summary reports should show average values, value changes, and ratio study statistics for various strata of properties. These should be reviewed to ensure the overall consistency of values for various types of property and various locations. Refer to the *Uniform Standards of Professional Appraisal Practice*, Standard 5-6, for the requirements of mass appraisal development and reporting (The Appraisal Foundation 2024, 35-44).

The staff should also be prepared to support individual valuations as required, preferably through comparable sales. At a minimum, staff should be able to produce a property record and explain the basic approach (cost, sales comparison, or income) used to estimate the value of the property. A property owner should never be told simply that "the computer" or "the system" produced the appraisal. In general, the staff should tailor the explanation to the taxpayer's knowledge and expertise. Equations converted to tabular form can be used to explain the basis for valuation. In all cases, the assessment office staff should be able to produce sales or appraisals of similar properties in order to support (or at least explain) the valuation of the property in question. Comparable sales can be obtained from reports that list sales by such features as type of property, area, size, and age. Alternatively, interactive programs can be obtained or developed that identify and display the most comparable properties.

Assessors should notify property owners of their valuations in sufficient time for property owners to discuss their appraisals with the assessor and appeal the value if they choose to do so, see the *Standard on Communications and Outreach* (IAAO 2023). Statutes should provide for a formal appeals process beyond the assessor's level, see the *Standard on Assessment Appeal* (IAAO 2016a).

6. MANAGERIAL AND SPACE CONSIDERATIONS

6.1 OVERVIEW

Mass appraisal requires staff, technical, and other resources. This section discusses certain key managerial and facilities considerations.

6.2 STAFFING AND SPACE

A successful in-house appraisal program requires trained staff and adequate facilities in which to work and meet with the public.

6.2.1 Staffing

Staff should comprise persons skilled in general administration, supervision, appraisal, mapping, data processing, and clerical functions. Typical staffing sizes and patterns for jurisdictions of various sizes are illustrated in *Fundamentals of Mass Appraisal* (Gloudemans and Almy 2011, 22–25). Staffing needs can vary significantly based on factors such as frequency of reassessments.

6.2.2 Space Considerations

The following minimum space standards are suggested for managerial, supervisory, and support staff:

- *Chief assessing officer* (e.g., Assessor, director)—a private office, enclosed by walls or windows extending to the ceiling, of 200 square feet (18 to 19 square meters)
- *Management position* (e.g., chief deputy assessor, head of a division in a large jurisdiction, and so on)—a private office, enclosed by walls or windows extending to the ceiling, of 170 square feet (15 to 16 square meters)
- *Supervisory position* (head of a section, unit, or team of appraisers, mappers, analysts, technicians, or clerks)—a private office or partitioned space of 150 square feet (14 square meters)
- *Appraisers and technical staff*—private offices or at least partitioned, quiet work areas of 50 to 100 square feet (5 to 10 square meters), not including aisle and file space, with a desk and chair
- *Support staff*—adequate workspace, open or partitioned, to promote intended work functions

In addition, there should be adequate space for:

- File storage and access
- Training and meetings
- Mapping and drafting
- Public service areas
- Printing and photocopy equipment
- Library facilities

6.3 DATA PROCESSING SUPPORT

Mass appraisal requires considerable data processing support.

6.3.1 Hardware

The hardware should be powerful enough to support applications of the cost, sales comparison, and income approaches, as well as data maintenance and other routine operations. Data downloading, mass calculations, GIS applications, and Web support tend to be the most computer-intensive operations. Processing speed and efficiency requirements should be established before hardware acquisition. Computer equipment can be purchased, leased, rented, or shared with other jurisdictions. If the purchase option is chosen, the equipment should be easy to upgrade to take advantage of technological developments without purchasing an entirely new system.

6.3.2 Software

Mass appraisal software can be developed internally, adapted from software developed by other public agencies, or purchased (in whole or in part) from private vendors. (Inevitably there will be some tailoring needed to adapt externally developed software to the requirements of the user's environment.) Each alternative has advantages and disadvantages. The software should be designed so that it can be easily modified; it should also be well documented, at both the appraiser/user and programmer levels.

Mass appraisal software works in conjunction with various general-purpose software, typically including word processing, spreadsheet, statistical, and GIS programs. These programs and applications must be able to share data and work together cohesively.

Security measures should exist to prevent unauthorized use and to provide backup in the event of accidental loss or destruction of data.

6.3.2.1 Custom Software

Custom software is designed to perform specific tasks, identified by the jurisdiction, and can be specifically tailored to the user's requirements. The data screens and processing logic can often be customized to reflect actual or desired practices, and the prompts and help information can be tailored to reflect local terminology and convention.

After completing the purchase or license requirements, the jurisdiction should retain access to the program source code, so other programmers are able to modify the program to reflect changing requirements.

The major disadvantages of custom software are the time and expense of writing, testing, and updating. Particular attention must be paid to ensuring that user requirements are clearly conveyed to programmers and reflected in the end product, which should not be accepted until proper testing has been completed. Future modifications to programs, even those of a minor nature, can involve system administrator approval and can be a time-consuming, costly, and rigorous job. See the *Standard on Contracting for Assessment Services* (IAAO 2019).

6.3.2.2 Generic Software

An alternative to custom software is generic software, of which there are two major types: vertical software, which is written for a specific industry, and horizontal software, which is written for particular applications regardless of industry. Examples of the latter include database, spreadsheet, word processing, and statistical software. Although the actual instruction code within these programs cannot be modified, they typically permit the user to create a variety of customized templates, files, and documents that can be processed. These are often referred to as commercial off-the-shelf software (COTS) packages.

Generic vertical software usually requires modification to fit a jurisdiction's specific needs. In considering generic soft- ware, the assessor should determine:

- System requirements
- The extent to which the software meets the agency's needs
- A timetable for implementation
- How modifications will be accomplished
- The level of vendor support
- Whether the source code can be obtained

(See the *Standard on Contracting for Assessment Services* [IAAO 2019].)

Horizontal generic software is more flexible, permitting the user to define file structures, relational table layout, input and output procedures, including form or format, and reports. Assessment offices with expertise in such software (which does not imply a knowledge of programming) can adapt it for:

- Property (data) file maintenance
- Market research and analysis
- Valuation modeling and processing
- Many other aspects of assessment operations

Horizontal generic software is inexpensive and flexible. However, it requires considerable customization to adapt it to local requirements. Provisions should be made for a sustainable process that is not overly dependent on a single person or resource.

6.4 CONTRACTING FOR APPRAISAL SERVICES

Reappraisal contracts can include mapping, data collection, data processing, and other services, as well as valuation. They offer the potential of acquiring professional skills and resources quickly. These skills and resources often are not available internally. Contracting for these services not only can allow the jurisdiction to maintain a modest staff and to budget for reappraisal on a periodic basis, but also makes the assessor less likely to develop in-house expertise. See the *Standard on Contracting for Assessment Services* (IAAO 2019).

6.5 BENEFIT-COST CONSIDERATIONS

6.5.1 Overview

The object of mass appraisal is to produce equitable valuations at low costs. Improvements in equity often require increased expenditures.

Benefit-cost analysis in mass appraisal involves two major issues: **policy** and **administration**.

6.5.2 Policy Issues

An assessment jurisdiction requires a certain expenditure level simply to inventory, list, and value properties. Beyond that point, additional expenditures make possible rapid improvements in equity initially, but marginal improvements in equity diminish as expenditures increase. At a minimum, jurisdictions should budget to meet statutory requirements and the performance standards contained in the *Standard on Ratio Studies* (IAAO 2013) and summarized in Section 5.2 of this Standard.

6.5.3 Administrative Issues

Maximizing equity per dollar of expenditure is the primary responsibility of assessment administration. To maximize productivity, the assessor and managerial staff must effectively plan, budget, organize, and control operations and provide leadership. This must be accomplished within the office's legal, fiscal, economic, and social environment and constraints (Eckert, Gloudemans, and Kenyon 1990, chapter 16).

7. REFERENCE MATERIALS

Reference materials are needed in an assessment office to promote compliance with laws and regulations, uniformity in operations and procedures, and adherence to generally accepted assessment principles and practices.

7.1 STANDARDS OF PRACTICE

The standards of practice may incorporate or be contained in laws, regulations, policy memoranda, procedural manuals, appraisal manuals and schedules, standard treatises on property appraisal and taxation. Written standards of practice should address areas such as personal conduct, collection of property data, coding of information for data processing. The amount of detail will vary with the nature of the operation and the size of the office.

7.2 PROFESSIONAL LIBRARY

Every assessment office should have access to a comprehensive professional library that contains the information staff needs. A resource library may be digital or physical and should include the following:

- Property tax laws and regulations
- IAAO standards
- Historical resources
- Current periodicals
- Manuals and schedules
- Equipment manuals and software documentation

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1. ASSESSMENT STANDARDS OF THE INTERNATIONAL ASSOCIATION OF ASSESSING OFFICERS

Guide to Assessment Standards

Standard on Assessment Appeal

Standard on Automated Valuation Models

Standard on Contracting for Assessment Services

Standard on Digital Cadastral Maps and Parcel Identifiers

Standard on Manual Cadastral Maps and Parcel Identifiers

Standard on Mass Appraisal of Real Property

Standard on Oversight Agency Responsibilities

Standard on Professional Development

Standard on Property Tax Policy

Standard on Public Relations

Standard on Ratio Studies

Standard on Valuation of Personal Property

Standard on Valuation of Property Affected by Environmental Contamination

Standard on Verification and Adjustment of Sales

To download the current approved version of any of the standards listed above, go to: IAAO Technical Standards

IAAO TECHNICAL STANDARDS

International Association of Assessing Officers (IAAO) maintains technical standards that reflect the official position of IAAO on various topics related to property tax administration, property tax policy, and valuation of property including mass appraisal and related disciplines. These standards are adopted by the IAAO Executive Board.

IAAO assessment standards represent a consensus in the assessing profession. The objective of the IAAO standards is to provide a systematic means by which assessing officers can improve and standardize the operation of their offices. The IAAO standards are advisory in nature and the use of, or compliance with, these standards is purely voluntary.

IAAO technical standards are intended to guide property tax assessment officials, tax policy analysts, and administrators. Similar issues arise in any nation's property tax systems. IAAO standards can provide guidance internationally. However, certain sections of these standards apply primarily to the United States and Canada.

COMPLETE LIST OF IAAO TECHNICAL STANDARDS

Standard on Assessment Appeal
Standard on Automated Valuation Models (AVMs)
Standard on Communications and Outreach
Standard on Contracting for Assessment Services
Standard on Digital Cadastral Maps and Parcel Identifiers
Standard on Manual Cadastral Maps and Parcel Identifiers
Standard on Mass Appraisal of Real Property
Standard on Oversight Agency Responsibilities
Standard on Professional Development
Standard on Property Tax Policy
Standard on Ratio Studies
Standard on Valuation of Personal Property
Standard on the Valuation of Properties Affected by Environmental Contamination
Standard on Verification and Adjustment of Sales

INCOME MODEL APPROACH

The Income Approach includes models for the following property groups:

Apartments	Mini Storage
Hotels	Service Shop/Service Garage
Retail Shops/Grocery Stores	Franchise Drug Store
Discount Stores	Franchise Restaurant
Office	Franchise Retail
Convenience Stores	Medical Office
Restaurants	Motels
Manufacturing/Warehouse	Nursing Home
NNN Models	Office/Warehouse
Mobile Home Parks	Shopping Center/Mall

Income and Expense Models are developed for each property group to cover the range of properties located within Watauga County.

Economic Income is developed on a gross square foot or unit basis. Potential Gross Income is adjusted for occupancy loss to produce an Effective Gross Income. Income and Occupancy factors may be adjusted for exceptional properties on an individual basis.

Expenses for management and marketing, maintenance, utilities and other operating expenses are specified as a percentage of Effective Gross Income. Expenses are deducted from Effective Gross Income to generate a Net Income, which is then capitalized using a band of investment technique.

Income Models include associated capitalization parameters:

a) Typical financing percentage rates and terms
b) Cash on cash requirements

These capitalization parameters may be adjusted for lower or higher risk properties through an override of the Indicated Model Rates. Capitalization Rates are computed including an effective tax rate and applied to the Net Income to generate an indicated value.

INCOME & EXPENSE CALCULATIONS

SUBJECT: PIZZA RESTAURANT

3,600 SQUARE FOOT RESTAURANT, BUILT IN 1978

CONTRACT RENT: $3,000 PER MONTH ($10.00 PER SQUARE FOOT PER YEAR)

INCOME VERIFIED THROUGH AGENT OF PROPERTY OWNER

****

CONTRACT RENT = $3,000/MONTH X 12 MONTHS	$36,000
LESS VACANCY	(-) $1,080
EFFECTIVE GROSS INCOME	$34,920
MANAGEMENT EXPENSE	(-) $1,746
INCOME AFTER MANAGEMENT EXPENSE	$33,174
OPERATION EXPENSES (-25%)	(-) $8,294
NET OPERATING INCOME	$24,880
CAPITALIZED @ 10% (NET INCOME DIVIDED BY .1000)	
INDICATED VALUE (ROUNDED)	$248,800

NEIGHBORHOOD DELINEATION

Purpose

Neighborhood Delineation is a study of forces from outside which could be considered to have an effect on property value; and also, conclusions on the typical housing, economic, social and demographic characteristics of the geographic area considered a homogeneous neighborhood. A "neighborhood" for analysis purposes is defined as the largest geographic grouping of properties where the significant economic forces of those properties are generally uniform.

The Neighborhood Data Form serves three (3) main functions:

1. To provide an opinion of the typical structure, economic factors and conditions within an area considered a neighborhood. Appraisers use this information to provide a benchmark to compare each property within the neighborhood with each other.
2. To provide a general geographic area to use as a statistical base for sales comparison, both during the 2027 Reappraisal and years later to measure change and update values accordingly.
3. Provide a basis to allow development of computer assisted land price tables (CALP)

Significant Characteristics Considered:

1. Physical Boundaries
    a) Natural - as rivers, mountains, woods, streams, etc.
    b) Manmade – as roads, highways, railroads, streets, corporation boundaries, etc.

2. Housing Characteristics – such as type, quality, age and condition
3. Occupancy – as % of home owner-occupied or tenant-occupied, and % of vacant structures
4. Predominant land use and anticipated changes
5. Typical land size and land valuation
6. Neighborhood life cycle
7. Estimates of market value ranges

INSTRUCTIONS FOR NEIGHBORHOOD DELINEATION FIELD ANALYSIS

Step 1 - Produce large-scale maps for the county, which ideally show all streets, roads and significant physical features as rivers, lakes, railroads, etc.

Step 2 - Establish preliminary neighborhood boundaries on base maps using known physical and governmental features as boundaries. A general rule would be to consider all physical separation points as, rivers, arterial streets, corporation lines, lakes, commercial-industrial areas, highways, etc., as a definite neighborhood boundary.

Step 3 - Assemble and analyze supplementary material for the community as available and useful.

Examples would include:

- Listing of established subdivisions
- Zoning maps and zoning restrictions
- Planning Department maps- (master development plans)
- Census Tract Statistics
- School District Maps
- Redevelopment planning maps and studies
- Current and planned utility maps (sewer, public water)
- Soil maps, topographic maps, etc.
- Real estate sales data from multiple listing service and internal sales verification letters.
- Industrial plant listing, employment base summaries.

Step 4 - Begin the field inspection process by conducting a thorough, street-by-street visual inspection throughout the county. Based on physical observation and data collected and analyzed to date, establish individual neighborhood boundaries, recognizing the specific delineation points where the properties begin to represent significant physical and economic changes from adjacent areas.

Step 5 – After establishing boundaries of each neighborhood;

a) Fill out the neighborhood data form and assign an identification number.
b) Post the established neighborhood boundaries and identification numbers to a master map.

Step 6 - Establish final boundaries and permanent neighborhood numbers and post both to the Project Master Map and Individual Field Maps used for field appraisal.

Step 7 - Determine through manual or computerized analysis the comparability of all neighborhoods. The theory here is, even though various neighborhoods may be physically separated, if the predominant value analysis characteristics such as value range, housing characteristics, neighborhood type, etc., are similar, then it is desirable to group similar neighborhoods and thereby create a larger sales database for comparable property value analysis.

SUMMARY - Keep in mind during the neighborhood analysis process, our primary purpose is to use the neighborhoods established to develop a statistical measuring base for pooling and analyzing sales data, and subsequently use this data to determine market value for individual properties via the comparable market data approach.

NEIGHBORHOOD DATA FORM INSTRUCTIONS

NEIGHBORHOOD ID: Enter four (4) numeric characters to the left of the vertical hash mark ranging from 0001 to 9999 to denote specific neighborhood number. A character position to the right of the vertical hash is provided to enter an alpha character (A to Z) to denote the creation of a sub-neighborhood.

IDENTIFICATION AND REFERENCE

11. AREA NAME: Space up to 30 characters is provided to enter a descriptive name that the neighborhood is commonly known as:

Examples: Perkinsville, Sampson, Meat Camp, and Downtown

BOUNDARIES

21, 23, 25, 27 - NORTH, EAST, SOUTH, AND WEST-Space up to 27 characters on each line is provided to enter the boundaries of the neighborhood. Boundaries may be streets, roads, lakes, town lines, or in short, any natural or manmade boundaries.

Examples: County Line, Highway 421, Watauga River, etc.

22, 24, 26, 28 – BOUNDARY CODES - Space up to 3 characters is provided to enter the reason WHY that boundary was selected as a delineation point.

DELINEATION CODES 1 through 5 are provided on the form.

Examples: Field analysis has revealed that the north boundary should be Lake Norman because it is a physical barrier to extension, development or influence from outside forces to this neighborhood. Enter "1". If Lake Norman was considered both a physical and a land use change point, both code "1" and code "4" could be entered. A maximum of three (3) codes may be entered for each boundary.

Codes 1 through 4 are used in a vast majority of the cases.

5. Other (Explained)

Most boundaries are for reasons that will be covered by codes 1-4. There are cases when the standard lot size makes a distinct change to the point that a new neighborhood or sub-neighborhood must be identified as such.

Important Note: The fact that an area is perceived to have a higher percentage of occupants of a single race, creed, color, religion or place of employment than the surrounding areas is not a legitimate reason to create a neighborhood boundary based on socioeconomic compatibility. This is both artificial in nature and discriminatory in fact.

CHARACTERISTICS

Characteristics generally refer to the residential development status of the neighborhood. One choice is required for each item, 31 through 38, entry is made by circling the appropriate code number for each item.

31. TYPE

1. Urban - Neighborhood is a built-up area normally within the town limits of Boone, Blowing Rock, Beech Mountain, and Seven Devils.
2. Suburban - normally a built-up area located outside the city limits but within normal driving and shopping distance to the urban areas. Could be incorporated or the extra-territorial jurisdiction of an urban area or unincorporated. Example: Foscoe.
3. Subdivision - normally a subdivided and platted area of modern dwellings having highly homogeneous housing characteristics (i.e., similar type, age group, style, quality, value range, etc.), located beyond normal daily commuting distance to the urban center for work or shopping. Normally is not incorporated. Example: Kellwood
4. Rural - generally considered to be an area of relatively sparse population, open space normally devoted to farm and/or recreational land use. Always unincorporated. Example: Sugar Grove
5. Rural Hamlet - normally a small village or town located within a rural area and relatively remote from the urbanized areas of the community. Normally it is an unincorporated district. Example: Deep Gap.
6. Transitional – an area that borders a developed area and provides a buffer zone between developed areas such as urban or suburban and a rural area. Example: Valle Crucis.

32. PREDOMINANT LAND USE - One choice is required. Circle the code that most accurately describes the CURRENT predominant land use. These choices are:

1. Residential
2. Agricultural
3. Commercial
4. Industrial
5. Other (recreational, governmental, educational, etc.)

33. NEIGHBORHOOD LIFE CYCLE – As mentioned above, neighborhood analysis presumes that all neighborhoods have a life cycle consisting of:

1. Inception and growth – usually rapid.
2. Relative equilibrium – Rather slow and almost imperceptible change cycle of the mature neighborhood.
3. Decline- The point of marked decay and disintegration normally associated with almost blighted neighborhoods.

Circle the code that accurately describes the current stage of neighborhood life cycle.

34. DEMAND/SUPPLY - Circle the code that most accurately describes the availability of properties for sale within the subject neighborhood. The choices are:

1. Shortage: More buyers are available than there are properties for sale.
2. In Balance: Availability approximately equal to buyer demand.
3. Over Supply: More properties available for sale than buyers and representing a temporary or relatively permanent stagnant market condition.

35. DENSITY – Circle the code that most accurately describes the degree of present population and improvement density. Select from:

1. Low – as in rural, recreational, open space land use.
2. Medium – as in areas of single-family development in the range of 50% to 75% peak development.
3. High – as in highly urbanized, virtually 100% developed neighborhoods.

36. RATE OF TURNOVER - Refers to the number of properties currently bought and sold within the subject neighborhood. Circle one of the following:

1. Low – Usually less than 5% annually of the residential properties in the neighborhood.
2. Medium – Approximately 5% to 10% annually of the residential properties in the neighborhood.
3. High – Significantly more than 10% annually of the residential properties in the neighborhood.

37. TYPICAL LOT SIZE - Refers to the typical lot size for properties located in the neighborhood, expressed as SF (square feet) or AC (acres).

PREDOMINANT IMPROVEMENT TYPE

38. TYPICAL CDU - Indicates the combined condition, desirability and utility factor of a majority of residences in the neighborhood or the normalized neighborhood CDU factor. Circle the most appropriate normalized neighborhood entry.

39. TYPICAL GRADE - Indicates the construction quality of the majority of the residences in the neighborhood, or the normalized quality grade of the neighborhood. Circle the most appropriate entry.

40. TYPE GRADE ADJUSTMENT – Indicates a factor, either plus or minus, that should be applied to the grade selected in 07 to further classify the majority of residences in the neighborhood. 0 indicates that no grade adjustment is necessary.

Circle the most appropriate code.

41. TYPICAL AGE GROUP – Indicates the average age expressed in years of the majority of residences in the neighborhood.

Circle the most appropriate code.

42. TYPE – Indicates the most typical residential use in the neighborhood.

Circle the most appropriate code.

PREDOMINANT OCCUPANCY

This section deals with an estimate of the current utilization of the typical structures within the neighborhood.

43. OWNER – Enter (from 000% to 100%) the estimate of the current utilization of the typical structures within the neighborhood.

44. TENANT – Enter (from 000% to 100%) the estimated number of tenant-occupied homes in the neighborhood.

45. VACANCY – Enter (from 000% to 100%) the estimated number of currently unoccupied homes in the neighborhood.

Note: Seasonal residences normally occupied at some time during the year should not be considered Vacant.

TYPICAL PROPERTY FACTORS

46. UTILITIES – Used to indicate what utilities are available to the majority of properties in the neighborhood.

Circle the appropriate code(s).

47. STREET OR ROAD – Indicates the predominant road type in the neighborhood.

Circle the appropriate code.

ESTIMATED MARKET VALUE FOR RESIDENTIAL IMPROVED PROPERTY

(This activity is to be performed during Phase 2 by Appraisers)

This section represents an estimate by the field analyst of the current market value of the typical residential property within the neighborhood. Generally, it can be said that an area can be considered highly homogeneous if at least 75% of the residential property in the neighborhood falls within the minimum/maximum value range and the value range does not exceed a 25% range from the median value.

Example: Minimum – 25,000
Maximum – 35,000
Median – 32,000

48. MINIMUM – Enter, right justified, in $100 multiples, the estimated minimum residential market value for the typical residential property in the neighborhood, after adjusting utilized valid market sales with a time index.

49. MAXIMUM – Enter, right justified, in $100 multiples, the estimated maximum residential market value for the typical residential property in the neighborhood, after adjusting utilized market sales with a time index.

50. MEDIAN – Enter, right justified, in $100 multiples, the estimated median residential market value for the typical residential property in the neighborhood, after adjusting utilized valid market sales with a time index. The median is defined as a measure of central tendency equal to the point in a distribution above which 50% of the values fall and below which 50% of the values fall.

51. NOTES – Thirty Character positions are provided to enter any data that is considered significant enough to possibly alter future neighborhood groupings or market value ranges.

Example: Corridor of planned highway dissects neighborhood.

STANDARD REVIEW PROCEDURES

Remember our primary concern is to have equalization and consistency for all properties.

Appraisal Date: Target date is January 1, 2027

All sales data, building ages, depreciation, etc. is to be measured from January 1, 2027.

Maps – All field maps are to be kept up to date by the reviewer, including street prices, land influences, acreage rates, corner influences, etc. No land models are to be changed without consulting your supervisor.

New Construction Encountered on Review – It is the responsibility of the reviewer to measure and list all residential new construction encountered during the review phase. If the improvement cannot be finalized because construction is incomplete, the reviewer is responsible to:

1. Measure and list what is there at the time.
2. Complete the property record card as far as possible including class, land, value, depreciation, etc. Make sure the land use is R99 (construction in progress).
3. Enter a note in the remarks describing the status of the new construction.

Examples:

a) "Dwelling under construction as of 10/01/26. 50% complete"
b) "Dwelling under construction as of 10/01/26. Foundation only."
c) "20 x 16 addition under construction as of 10/01/26"

Demolished or Razed Building Encountered on Review
Procedure:

1. Delete building sketch and all main dwelling information on card.
2. Change land use code from Improved to Vacant
3. Put proper note in remarks. Example: "Dwelling razed as of 10/01/26"

Commercial/Industrial Parcels – It is the reviewer's responsibility to look at and verify that any parcel not reviewed because it is coded commercial or industrial really fits the definition and is not simply a house similar to the last 50 reviewed by the reviewer, but with a beauty shop in the basement. Don't interpret this instruction to mean the residential reviewer should attempt to review legitimate commercial or industrial parcels, vacant or improved.

Error – As a result of several clerical operations, we may have a list of errors, omissions, inaccuracies, etc. which need to be corrected. It will be the responsibility of each reviewer to correct and complete any card with errors.

*This may be as simple as completing the property factor checklist or as major as re-measuring and re-listing the property. *

Record Keeping – One of the objectives of the project is to keep paperwork and accounting to a bare minimum. The records you will maintain are important and mandatory for a successful operation; unless directed otherwise by future policy change, the reviewer is responsible for the following:

1. Individual Production Record – To be maintained on a daily basis.
2. Sales Analysis Sheets – To be maintained, completed and turned in by map number. Completed packs will not be accepted without a completed sales analysis.
3. Production Control Form – To be maintained on an ongoing basis per your detailed instructions.

   Main elements: Cards not listed or reviewed
   Reviewers' number and date completed
   Total Parcel Count

Dwelling in Commercial Area – Do not review those parcels affected by a commercial or industrial land value influence. The main indicator for these should be the land pricing instructions. If the reviewer has entered a residential street price you are to review all parcels on the block except individual commercial or industrial parcels. This usually will be a spot zoning or non-conforming zoning situation. In most of the situations the commercial reviewer will establish a land value based on commercial use and zoning and will treat the dwelling as an economic mis-improvement to the land. As a sidelight, remember that for a multiple sequence of cards on one parcel, no cards are considered reviewed if all cards in the sequence including the land value are not completed. If you had a gas station and a dwelling on the same parcel, leave all cards alone and indicate all cards not reviewed.

SPECIFIC REVIEW PROCEDURES

1. Take the following materials to the field
    a) Full size map
    b) Property cards
    c) Neighborhood maps/land pricing sheets
    d) Sales printout
    e) Sales analysis sheets
2. Familiarize yourself with the review area.
3. Review all sales within your map and complete the sales analysis sheet
4. Property location – Check property location and provide 911 address if missing or incorrect.
5. Change land use codes to reflect the actual use of property

	Improved	Vacant
Residential=R	R01-R99	R00
Commercial=C	C01-C99	C00
Industrial=I	I01-I99	I00
Exempt=E	E01-E99	E00
Apartment=A	A01-A99	A00
Commercial Under Construction=N98		

*Example: If a property is a former residence used for commercial purpose, the land use code should begin with C.

6. Area – Check for proper neighborhood code, change if not correct. If you feel there should be major neighborhood changes, consult your supervisor.
7. Parcel Number – Make sure that you are reviewing the proper dwelling or lot by comparing the parcel ID on the card with the parcel ID on the map.
8. Land Data – Check for accuracy of lot size or land breakdown and correct if necessary. Check for influence factors (i.e., topography or size) and adjust if necessary. Check unit price to be sure that all parcels in the neighborhood group are being priced consistently. Do not attempt to change the land rates until you consult your supervisor.
9. Listing Data – Review all dwelling and other buildings for accuracy and adequacy of data. Make necessary corrections to sketches or characteristics.
10. Grade – Assign a quality grade to the structure based on project standards.
11. Year Built - Confirm or correct actual year built and/or effective year built
12. Depreciation – Assign the appropriate CDU rating based on the dwelling's condition, desirability, and utility. Verify the resulting depreciation against the applicable age and percent-good schedule.
13. Parcel Summary – Check indicated value and enter estimated value based on changes you make to records.
14. Mapping problems – Complete mapping problem forms, including a detailed description of problems.

WEIGHTS AND MEASURES

Tables of Weights and Measures and Other Information That May Be Helpful to the Assessor/Appraiser.

Metric Measure		
Millimeter	=	0.001 meter
Centimeter	=	0.01 meter
Decimeter	=	0.1 meter
Meter	=	39.3701 inches
Kilometer	=	1000 meters
Kilometer	=	.62137 miles
Meter	=	1.0935 yards
Meter	=	3.2807 feet
1 Foot	=	0.30480 meter
1 Foot	=	30.48 centimeters
1 Inch	=	2.54 centimeters
Linear Measure		
1 Foot	=	12 inches
1 Yard	=	3 feet = 36 inches
1 Rod	=	5½ yards = 16½ feet
1 Furlong	=	40 rods = 220 yards = 660 feet
1 Mile	=	8 furlongs = 320 rods = 1,760 yards = 5,280 feet
Surveyor's Linear Measure		
1 Link	=	7.92 inches
1 Rod	=	25 links
1 Chain	=	4 rods = 100 links = 66 feet
1 Furlong	=	10 chains
1 Mile	=	8 furlongs = 80 chains
Square Measure		
1 Square Foot	=	144 square inches
1 Square Yard	=	9 square feet = 1,296 square inches
1 Square Rod	=	1 pole/perch = 30¼ square yards = 272¼ square feet
1 Rood	=	40 square rods
1 Acre	=	160 square rods = 4,840 square yards = 43,560 square ft
1 Square Mile	=	640 acres
Surveyor's Square Measure		
1 Square Rod	=	625 square links
1 Square Chain	=	16 square rods
1 Acre	=	10 square chains
1 Square Mile	=	640 acres
Cubic Measure		
1 Cubic Foot	=	1,728 cubic inches = 7.481 gallons
1 Cubic Yard	=	27 cubic feet
1 Cord Foot	=	16 cubic feet
1 Cord of Wood	=	8 cord feet = 128 cubic feet
1 Perch of Masonry	=	24¾ cubic feet
1 Bushel	=	1.2445 cubic feet

Angles And Arcs Measure		
1 Minute	=	60 seconds
1 Degree	=	60 minutes
1 Right Angle	=	90 degrees = 1 quadrant
1 Circumference	=	360 degrees = 4 quadrants
Board Measure		
1 Board Foot	=	Length in feet x width in feet x thickness in inches

Measurement In General Use		
1 Link	=	7.92 inches
1 foot	=	12 inches
1 yard	=	3 feet or 36 inches
1 rod	=	16½ feet = 5½ yards = 25 links
1 surveyor's chain	=	66 feet = 4 rods = 100 links
1 furlong	=	660 feet = 40 rods
1 mile	=	8 furlongs = 320 rods = 80 chains = 5,280 feet
1 square rod	=	272¼ square feet = 30¼ square yards
1 acre contains	=	43,560 square feet
1 acre contains	=	160 square rods
1 span	=	9 inches
1 hand	=	(horse measurement) 4 inches
1 knot	=	1 nautical mile = 6,076 feet
1 fathom	=	(nautical) 6 feet
1 stone	=	14 pounds
1 square acre	=	Approximately 208.7 feet on each side
1 acre	=	Approx. 8 rods by 20 rods, or any two combinations of rods whose product is 160

SIMPLE FORMULA CONVERTING SQUARE FEET TO ACRES

Multiply by 23 and point off 6 places. (This method is not exact but is useful for rough calculations)

Example: 1500 feet x 2050 feet = 3,075,000 square feet x 23 = 70.73 acres

BOARD MEASURE

Multiply thickness in inches by width in inches, divide product by 12 and multiply result by the length in feet.

The result is board measuring content.

Conversion factors for converting lineal feet of lumber into board feet.

Example: 50 pieces, 2 inches x 10 inches x 20 feet long
50 x 20 feet = 1000 lineal feet
2 inches x 10 inches = 20 square inches divided by 12 =
1.667 board feet x 1000 lineal feet equals 1,667 board feet

Table for the Conversion of Lineal Feet Into Board Feet

2 inches x 4 inches	(1 lineal foot)	.667 board feet
3 inches x 4 inches	(1 lineal foot)	1.000 board feet
2 inches x 6 inches	(1 lineal foot)	1.000 board feet
2 inches x 8 inches	(1 lineal foot)	1.333 board feet
2 inches x 10 inches	(1 lineal foot)	1.667 board feet
2 inches x 12 inches	(1 lineal foot)	2.000 board feet
2 inches x 14 inches	(1 lineal foot)	2.333 board feet
2 inches x 16 inches	(1 lineal foot)	2.667 board feet
3 inches x 6 inches	(1 lineal foot)	1.500 board feet
4 inches x 6 inches	(1 lineal foot)	2.000 board feet
4 inches x 8 inches	(1 lineal foot)	2.667 board feet
4 inches x 10 inches	(1 lineal foot)	3.333 board feet
4 inches x 12 inches	(1 lineal foot)	4.000 board feet
6 inches x 6 inches	(1 lineal foot)	3.000 board feet
6 inches x 8 inches	(1 lineal foot)	4.000 board feet
10 inches x 12 inches	(1 lineal foot)	10.000 board feet
12 inches x 12 inches	(1 lineal foot)	12.000 board feet

PRINCIPLES

PLANE FIGURE –A plane surface bounded by either straight or curved lines and having no thickness.

SOLID – A body, such as a barrel, building, etc.

SQUARE MEASURE – Area calculation requiring only two dimensions, length and width.

CUBIC MEASURE – Cubic or cubage means volume and gives size in terms of its bulk.

Calculation requires 3 dimensions, length x width x depth or height or thickness.

MEASURES AND THEIR EQUIVALENTS

A gallon of water (U.S. Standard) weighs 8 1/3 pounds and contains 231 cubic inches.

A cubic foot of water contains 7½ gallons, 1,728 cubic inches and weighs 62½ pounds.

Doubling the diameter of a pipe increases its capacity four times.

To find the pressure in pounds per square inch of a column of water, multiply the height of the column in feet by .434.

To find the capacity of tanks any size, given the dimensions of a cylinder in inches, to find its capacity in U.S. gallons: square the diameter, multiply by the length and by .0034 (Note: See table of tank capacities.)

Rectangular tanks multiply the length by the width by the depth (All in inches) and divide the result by 231. The answer is the capacity in gallons.

31½ gallons equals one barrel.

B.T.U. (British Thermal Unit) is the amount of the heat required to raise one pound of water one degree Fahrenheit.

A ton of refrigeration is measured by the displacement of the amount of heat required to melt a ton of ice in 24 hours. One motor horsepower of an electrically powered unit is normally required to produce one ton of refrigeration. 12,000 B.T.U. equals one ton.

Kilowatts multiplied by 1.3405 equal horsepower.

WEIGHTS & MEASURES

1 cubic inch of Cast Iron weighs	0.26 pounds
1 cubic inch Wrought Iron weighs	0.28 pounds
1 cubic inch Water weighs	0.036 pounds
1 cubic foot of Water weighs	62.4 pounds
1 United States gallon weighs	8.33 pounds
1 Imperial gallon weighs	10.00 pounds
1 United States gallon equals	231.01 cubic inches
1 Imperial gallon equals	277.274 cubic inches
1 cubic foot of Water equals	7.48 U.S. gallons
1 gallon of water weighs	8.34 pounds
1 gallon equals	.1337 cubic feet
1 gallon equals	.1074 bushels
1 cubic foot equals	.8032 bushels
1 barrel (oil) equals	42 gallons
1 barrel (water) equals	31.5 gallons

Pressure in pounds per square inch of column of water equals .434 times the height of the column in feet.

AREAS

Square foot area of surface equals square of one side multiplied by factors shown.

Regular Shaped	Number of Sides	Factor
Equilateral Triangle	3	.433
Pentagon	5	1.721
Hexagon	6	2.598
Heptagon	7	3.634
Octagon	8	4.828
Nonagon	9	6.182
Decagon	10	7.694
Undecagon	11	9.366
Dodecagon	12	11.196

TABLES – For Use in Area and Content Capacity Computations

Capacity of Circular Tanks – Per Foot of Height in Gallons & Bushels

Diameter in Feet	Circum.	Square Foot Area	Gallons	Bushels	Barrels (Oil) (Oil-42 gals. Ea.)
3	9.42	7.07	53	6	1.26
4	12.57	12.57	94	10	2.24
5	15.71	19.63	147	16	3.5
6	18.85	28.27	212	23	5.0
7	21.99	38.48	288	31	6.8
8	25.13	50.27	376	42	9.0
9	28.27	63.62	477	51	11.3
10	31.42	78.54	587	63	14.0
11	34.56	95.03	711	76	16.9
12	37.69	113.10	846	91	20.2
13	40.84	132.73	993	107	23.7
14	43.98	153.94	1,151	124	27.4
15	47.12	176.72	1,322	142	31.5
16	50.26	201.06	1,504	162	35.8
17	53.41	226.98	1,698	182	40.4
18	56.55	254.47	1,903	204	45.3
19	59.69	283.53	2,121	228	50.5
20	62.83	314.16	2,350	252	56.0
21	65.97	346.36	2,591	278	61.7
22	69.12	380.13	2,843	305	67.7
23	72.26	415.48	3,108	334	74.0
24	75.40	452.39	3,384	364	80.6
25	78.54	490.87	3,672	394	87.4
26	81.68	530.93	3,971	427	94.6
27	84.82	572.56	4,283	460	102.0
28	87.97	615.75	4,606	495	109.7
29	91.11	660.52	4,941	531	117.6
30	94.25	706.86	5,287	568	125.8
31	97.39	754.77	5,646	606	134.4
32	100.53	804.25	6,016	646	143.2
33	103.67	855.30	6,398	687	152.3
34	106.81	907.92	6,791	730	161.6
35	109.96	962.11	7,197	773	171.3
36	113.10	1,017.88	7,614	818	181.3
37	116.24	1,075.21	8,043	864	191.5
38	119.38	1,134.11	8,483	911	202.0
39	122.52	1,194.59	8,936	960	212.7
40	125.66	1,256.64	9,400	1,010	223.8

To find the capacity in barrels (oil) = Diameter squared x height x 0.14.

To find the capacity in gallons = Diameter squared x 5.8748 x height

(Diameter & height in feet).

AREAS AND MEASUREMENTS

To find the circumference of a circle, multiply the diameter by 3.1416.

To find the diameter, multiply circumference by 0.3183 or divide circumference by 3.1416.

To find the radius, multiply circumference by 0.15915.

To find the side of an inscribed square, multiply the diameter by 0.7071 or multiply the circumference by 0.2551.

To find the side of an equal square, multiply the diameter by 0.8863 or multiply the circumference by 0.2821.

Square: A side multiplied by 1.4142 equals the diameter of its circumscribing circle.

A side multiplied by 4.443 equals the circumference of its circumscribing circle.

A side multiplied by 1.126 equals the diameter of an equal circle.

A side multiplied by 3.547 equals circumference of an equal circle.

To find the area of a circle, multiply the circumference by one-quarter of the diameter or multiply the square of the diameter by 0.7854 or multiply the square of the circumference by 0.07958 or multiply the square of one-half of the diameter by 3.1416.

To find the surface of a sphere or globe, multiply the diameter by the circumference or multiply the square of the diameter by 3.1416 or multiply four times the square of the radius by 3.1416.

To find tank capacities, diameter squared x .0034 = gallons per inch of height – Base 42 gallons per barrel.

To find area of a triangle – multiply base by ½ perpendicular height.

To find area of an ellipse – product of both diameters x .7854.

To find area of a parallelogram – base x altitude.

To find cu. inches in a ball – multiply cube of diameter by .5236.

To find cubic contents of a cone – multiply area of base by one-third the altitude.

Area of rectangle equals length multiplied by width.

Surface of frustum of cone or pyramid equals sum of circumference of both ends x ½ slant height plus area both ends.

Contents of frustum of cone or pyramid: Multiply the areas of the two ends and take the square root. Add that result to the two end areas, then multiply the sum by one-third of the altitude.

CONVERSION TABLES

To convert bushels to tons, multiply number of bushels by 60 and divide the product by 2000 (average maximum weight of commodities 60 pounds per bushel.)

To convert gallons to bushels, divide gallons by 9.35. Answer in bushels.

To convert cubic measure into bushels, multiply by 0.8035.

To find capacity of cylindrical tanks standing on end: To find the capacity in cubic feet of a round tank or cistern, multiply the square of the average diameter by the depth and multiply the product by .785.

GENERAL CLASSIFICATION OF REAL AND PERSONAL PROPERTY

REAL	PERSONAL	DESCRIPTION
XX		Air Conditioning – Building
	XX	Air Conditioning - Manufacturing/Product
	XX	Air Conditioning – Window Units
	XX	Airplanes
	XX	Alarm Systems (Security or Fire) & Wiring
	XX	Asphalt Plants
	XX	ATM – All Equip. & Self-Standing Booths
XX		Auto Exhaust Systems for Building
	XX	Auto Exhaust Systems for Equipment
	XX	Awnings
	XX	Balers (Paper, Cardboard, Etc.)
	XX	Bank Teller Counters – Service Area & Related
	XX	Bank Teller Lockers – Movable or Built-In
	XX	Bar And Bar Equipment – Movable or Built-In
XX		Barns
	XX	Billboards
	XX	Boats and Motors – All
XX		Boiler – For Service of Building
	XX	Boiler – Primarily for Process
	XX	Bowling Alley Lanes
	XX	Broadcasting Equipment
	XX	C-I-P Equipment
	XX	Cabinets
	XX	Cable TV Distribution Systems
	XX	Cable TV Equipment & Wiring
	XX	Cable TV Subscriber Connections
	XX	Camera Equipment
	XX	Canopies – Fabric, Vinyl, Plastic
XX		Canopies – General
XX		Canopy Lighting
	XX	Car Wash – All Equipment, Filters, & Tanks
XX		Carpet – Installed
	XX	Catwalks
	XX	Cement Plants
	XX	Chairs – All Types
	XX	Closed Circuit TV
	XX	Cold Storage – Equipment, Rooms, Partitions
	XX	Compressed Air or Gas Systems (Other Than Bldg. Heat)
	XX	Computer Room A/C
	XX	Computer Room Raised Floor
	XX	Computer Scanning Equipment
	XX	Computers And Data Lines
	XX	Concrete Plants
	XX	Construction And Grading Equipment
	XX	Control Systems – Building and Equipment
	XX	Conveyor & Material Handling Systems
	XX	Coolers – Walk-In or Self-Standing
XX		Cooling Towers – Primary Use for Building

REAL	PERSONAL	DESCRIPTION
	XX	Cooling Towers – Primary Use in Manufacturing
	XX	Counters/Reception Desks – Movable or Built-In
	XX	Dairy Processing Plants – All Process Items, Bins, Tanks
	XX	Dance Floors
	XX	Data Processing Equipment – All Items
	XX	Deli Equipment
	XX	Desk - All
	XX	Diagnostic Center Equipment – All Items
	XX	Display Cases – Movable or Built-In
	XX	Dock Levelers
	XX	Drapes & Curtains, Blinds, Etc.,
	XX	Drinking Fountains
	XX	Drive-Thru Windows – All
	XX	Drying Systems – Process or Product
	XX	Dumpsters
	XX	Dust Catchers, Control Systems, etc.
	XX	Electronic Control Systems
XX		Elevators
XX		Escalators
	XX	Farm Equipment – All
	XX	Fencing – Inside
XX		Fencing – Outside
	XX	Flagpole
	XX	Foundations For Machinery and Equip.
	XX	Freight Charges
	XX	Fuels – Not for Sale (List as Supplies)
	XX	Furnaces – Steel Mill Process, etc.
	XX	Furniture And Fixtures
XX		Gazebos
XX		Golf Course and Improvements (Drainage/Irrigation)
	XX	Grain Bins
	XX	Greenhouse Benches, Heating Systems, etc.
XX		Greenhouses – Structure If Perm. Affixed
	XX	Heating Systems, Process
	XX	Hoppers – Metal Bin Type
	XX	Hospital Systems, Equipment & Piping
	XX	Hot Air Balloons
	XX	Hotel/Motel Television & Wiring
	XX	Humidifiers – Process
	XX	Incinerators – Equipment And/or Movable
	XX	Industrial Piping – Process
	XX	Installation Cost
	XX	Irrigation Equipment
	XX	Kiln Heating System
	XX	Kilns – Metal Tunnel or Movable
	XX	Laboratory Equipment
XX		Lagoons/Settling Ponds
	XX	Laundry Bins
	XX	Law & Professional Libraries
	XX	Leased Equipment – Lessor or Lessee Possession
XX	XX	Leasehold Improvements (List in Detail Yearly)
	XX	Lifts – Other Than Elevator

REAL	PERSONAL	DESCRIPTION
	XX	Lighting – Portable, Movable, Special
XX		Lighting – Yard Lighting
	XX	Machinery And Equipment
	XX	Medical Equipment
	XX	Milk Handling – Milking, Cooling, Piping, Storage
XX		Mineral Rights
	XX	Mirrors (Other Than Bathroom)
	XX	Monitoring Systems Building or Equipment
	XX	Newspaper Stands
	XX	Night Depository
	XX	Office Equipment - All
	XX	Office Supplies (List as Supplies)
	XX	Oil Company Equipment – Pumps, Supplies, etc.
	XX	Ovens – Processing/Manufacturing
	XX	Overhead Conveyor System
	XX	Package And Labeling Equipment
	XX	Paging Systems
	XX	Paint Spray Booths
		Painting – No Added Value
	XX	Partitions
XX		Paving
	XX	Piping Systems – Process Piping
	XX	Playground Equipment – All
	XX	Pneumatic Tube Systems
	XX	Portable Buildings
	XX	Power Generator Systems (Auxiliary, Emergency, Etc.)
	XX	Power Transformers – Equipment
	XX	Public Address Systems (Intercom, Music, Etc.)
XX		Railroad Sidings (Other Than Railroad-Owned)
	XX	Refrigeration Systems – Compressors, etc.
XX		Repairs – Building
	XX	Repairs – Equipment (50% Cost)
	XX	Restaurant Furniture (Incl. Attached Floor or Bldg.)
	XX	Restaurant/Kitchen Equip. Vent Hoods, Sinks, Etc. (Commercial)
	XX	Returnable Containers
	XX	Roll-Up Doors (Inside Wall)
XX		Roll-Up Doors (Outside Wall)
XX		Roofing
	XX	Room Dividers/Partitions – Movable or Built-In
	XX	Rooms Self-Contained or Special Purpose (Walls, Ceiling, Floor)
	XX	Safes Wall or Self-Standing
	XX	Sales/Use Tax
	XX	Satellite Dishes (All Wiring & Installation to TV & Equip.)
XX		Scales Houses (Unless Movable)
	XX	Scales
	XX	Security Systems
XX	XX	Service Stations Equipment – Pumps, Tanks, Lifts, & Related
	XX	Sewer Systems
	XX	Shelving
	XX	Signs All Types Including Attached to Building
XX		Sinks – Bathroom
XX	XX	Sinks – Kitchen Area

REAL	PERSONAL	DESCRIPTION
	XX	Software – Capitalized
	XX	Sound Systems & Projection Equipment
	XX	Spare Parts – List as Supplies
	XX	Speakers – Built-In or Freestanding
	XX	Spray Booths
	XX	Sprinkler System – Attached to Product Storage Racks
XX		Sprinkler System – Building
	XX	Supplies (Office & Other)
XX		Swimming Pools
	XX	Tanks (All-Above & Below Ground)
	XX	Telephone Systems & Wiring – Private
	XX	Theatre Screens – Indoor
XX		Theatre Screens – Outdoor
	XX	Theatre Seats
	XX	Tooling, Dies, Molds
	XX	Towers – Microwave, Equipment, Wiring, & Foundation
	XX	Towers – TV, Radio, CATV, Two-Way Radio, Wiring & Foundation
	XX	Transportation Cost – All
XX		Tunnels – Unless Part of Process System
	XX	Upgrades To Equipment
	XX	Vacuum System, Process
XX		Vault
	XX	Vault Door, Inner Gates, Vents, & Equip.
	XX	Vending Machines
	XX	Vent Fans
XX		Ventilation Systems – General Building
	XX	Ventilation Systems – Needed for Manufacturing, Process
	XX	Video Tapes/Movies/Reel Movies
XX		Wall Covering
	XX	Walls – Partition, Movable, & Room Dividers
	XX	Water Coolers – All
	XX	Water Lines – For Process Above or Below Ground
XX		Water System – Residential or General Building
	XX	Water Tanks & System – For Process Equipment
	XX	Whirlpool/Jacuzzi/Hot Tubs
	XX	Wiring – Power Wiring for Machinery and Equip.

TERMS AND DEFINITIONS

ARCHITECTURAL TERMS

Apartment hotel a building designed for non-transient use, divided into dwelling units similar to an apartment house, but having such apartment hotel accommodations as room furnishings, lounges, public dining room, maid service, etc.

Apartment house a multi-family residence containing three or more non-transient residential living units and generally providing them with a number of common facilities and services.

Attic an unfinished or semi-finished portion of a building lying between the highest finished story and the roof and wholly within the roof framing.

Basement a building story which is wholly or partly below the grade level.

Bay (1) a horizontal area division of a building usually defined as the space between columns or division walls. (2) an internal recess formed by causing a wall to project beyond its general line.

Bay window a window, or group of continuous windows, projecting from the wall of a building.

Beam a long structural load-bearing member which is placed horizontally or nearly so and which is supported at both ends or, infrequently, at intervals along its length.

Beam, spandrel a wall beam supporting the wall, above, as well as the floor.

Building any structure partially or wholly above the ground that is designed to afford shelter to persons, animals, or goods. See also construction.

Building fireproof a building in which all parts carrying loads or resisting stresses and all exterior and interior walls, floors, and staircases are made of incombustible materials, and in which all metallic structural members are encased in materials which remain rigid at the highest probable temperature in case its contents are burned, or which provide ample insulation from such a temperature.

Building, loft a building having three or more stories with few or no interior bearing walls and designed for storage, wholesaling, or light industrial purposes.

Building, Single-purpose a building designed for a specific purpose, which cannot be used for another purpose without substantial alterations; e.g., a theater or church.

Bungalow a one-story dwelling unit which is somewhat more pretentious than a cottage.

Column a structurally isolated vertical member which is at least 8 to 10 times as long as its least lateral dimension and which is designed to carry loads. Compare *pier*.

Conduit a tube, pipe, or small artificial tunnel used to enclose wires or pipes or to convey water or other fluids.

Construction, brick	a type of construction in which the exterior walls are bearing walls (q.v.) made of solid brick or brick and tile masonry.
Construction, brick veneer	a type of construction in which the exterior walls are one-layer brick curtain walls backed by a wood frame.
Construction, fireproof	*see fireproof building.*
Construction, mill	a type of construction in which the exterior walls are substantial masonry bearing walls, in which the structural members are of heavy timber, and which is further characterized by an open design and by other safeguards against fire hazards. Sometimes called "slow-burning construction."
Construction, reinforced concrete	a type of construction in which the principal structural members, such as the floors, columns, beams, etc., are made of concrete poured around isolated steel bars or steel meshwork in such manner that the two materials act together in resisting forces.
Construction, steel frame	a type of construction in which there is a framework of steel structural members for the support of all loads and the resistance of all stresses.
Construction, wood frame	a type of construction in which there is a framework of wooden structural members for the support of all loads and the resistance of all stresses. Loosely called "frame construction."
Coping	a special capping at the top of a wall, serving principally as a watershed.
Cornice	a projecting element at the top of a wall, serving principally as a decoration or as part of the coping (q.v.).
Cottage	a one-story or two-story dwelling unit of small size and humble character.
Course	a uniform horizontal layer of brick, stone, terra cotta, shingles, or some other structural material extending continuously around a building or along a wall.
Court	an open space bordered on two or more sides by the walls of a single building, or of two or more buildings, and by a lot line or a yard on any side not so bordered.
Dormer	(1) a relatively small structure projecting from a sloping roof. (2) a window set upright in the face of such a structure.
Dwelling	any building or portion thereof designed or occupied in whole or in part as a place of residence.
Dwelling, attached	a multi-family dwelling in which the dwelling units are separated vertically by means of common or party walls. See *terrace.*

Dwelling, double a two-family dwelling in which the dwelling units are separated vertically, by means of a common or party wall. Synonymous with "semi-detached dwelling."

Dwelling, duplex a two-family dwelling in which the two dwelling units are separated horizontally with a private street entrance for each; i.e., a two-family flat.

Dwelling, Multi-family a building designed as a place of residence for more than two families or households; e.g., an apartment house or tenement.

Dwelling, row any one of a series of similar single family, two family, or multi- family dwellings having one or more contiguous common or party walls. Compare *terrace; dwelling, double.*

Dwelling unit any room or group of rooms designed as the living quarters of one family or household, equipped with cooking and toilet facilities, and having an independent entrance from a public hall or from the outside.

Eaves portion of a sloping roof which projects beyond the outside walls of a building.

Elevation a drawing which represents a projection of any one of the vertical sides or vertical cross-sections of a building or of any other object. Compare plan.

Facade the face of a building.

Firewall a wall of fire-resisting material erected between two parts of a building to prevent the spread of fire from one part to the other.

Flashing small metal strips used to prevent leaking of roofs around chimneys, dormers, hips, and valleys.

Flat (1) any one floor of a building two or more stories high, each floor of which constitutes a single dwelling unit and has a private street entrance. (2) the building containing two or more such floors. Compare *dwelling, duplex.*

Footing a spreading base to a wall, column, or other supporting member, which serves to widen the ground area to which structural loads are transmitted.

Foundation the structural members below grade level, or below the first tier of beams above grade level, which transmit the load of a superstructure to the ground.

Gable (1) the triangular portion of a wall between the slopes of a double- sloping (i.e., gable) roof. (2) the whole of the wall containing such a triangular portion. (3) a portion of a building extending from the remainder of the building and covered with a gable roof.

Girder a large or principal beam (q.v.) used to support concentrated loads at isolated points along its length. (Girders usually support the beams and structure above).

Header (1) a structural member which is laid perpendicularly to a parallel series of similar members and against which the latter members abut. (2) a brick or other piece of masonry which is laid in a wall in such manner that its longest dimension extends along the thickness of the wall. Contrast *stretcher.*

Hip	(1) a sloping line along which two roof surfaces meet to form an external angle of more than 180 degrees. (2) a hip rafter (q.v.) Compare *ridge; valley.*
Hotel	a building designed for transient or semi-transient residential use, divided into furnished single rooms and suites, and having such accommodations as lounges, public dining rooms and maid service, etc.
Hotel, apartment	see *apartment hotel.*
Joist	one of a series of small parallel beams laid on edge and used to support floor and ceiling loads, and usually supported in turn by larger beams and girders.
Lintel	a beam over a wall opening, such as a door or windows, designed to carry the load of the wall over such opening.
Loft	an unpartitioned or relatively unpartitioned upper story of a building, designed for storage, wholesaling, or light manufacturing. See also *loft building.*
Louver (or louvre)	a ventilator containing slats which are placed lengthwise across the ventilator opening, each slat being slanted in such manner as to overlap the next lower slat and to permit ventilation but exclude rain.
Marquee	a flat roof-like structure which shelters a doorway, which has no floor beneath it, and which is usually supported wholly from the walls of the building.
Mezzanine	a low story formed by placing a floor between what would ordinarily be the floor and ceiling of a high story, *Note:* the mezzanine floor frequently has a smaller area than other floors and, if present at all, is usually between the first and second stories.
Millwork	all of the wooden portions of a building, whether frame construction or otherwise, which are customarily purchased in finished form from a planing mill, such as doors, windows, trim, balusters, etc.
Overhang	a finished portion of a building having full story height that extends beyond the foundation wall line if part of the ground story, or beyond the exterior walls of the ground story if part of any higher story.
Overhead Structure	similar to overhang above ground story, such as O.H. Bridge or passage, O.H. walk, O.H. Addition.
Partition	see *wall, partition.*
Pier	(1) a thick, solid mass of masonry which is fully or partially isolated from a structural standpoint and which is designed to transmit vertical loads to the earth. (2) a structure projecting from land into water for use in loading and unloading vessels. Compare column.
Pilaster	a flat-faced pillar projecting somewhat from, but engaged in, the wall of a building and used for decorative purposes or to help support truss and girder loads or both.
Pile	a heavy timber, metallic, or masonry pillar forced into the earth to form a foundation member.

Pitch the slope of any structural member, such as a roof or rafter, usually expressed as a simple fraction representing the rise per lateral foot.

Plan a drawing representing a projection of any one of the floors or horizontal cross- sections of a building or of the horizontal plane of any other object or area. Compare elevation.

Purlin a beam running along the underside of a sloping roof surface and at right angles to the rafters, used to support the common rafters, and usually supported in turn by larger structural members, such as trusses or girders (usually run along length of building).

Rafter a structural member placed, as a rule, in a sloping position and used as the supporting element for the structural material forming the plane of the roof. See also purlin.

Rafter, hip a rafter placed in an inclined position to support the edges of two sloping roof surfaces that meet to form an external angle of more than 180 degrees.

Rafter, valley a rafter placed in an inclined position to support the edges of two sloping roof surfaces that meet to form an external angle of less than 180 degrees.

Ramp an inclined walk or passage connecting two different floor levels and used in lieu of steps.

Residence see *dwelling.*

Ridge a horizontal line along which the upper edges of two roof surfaces meet to form an external angle of more than 180 degrees. Compare *hip; valley.*

Rise (1) in general, any vertical distance. (2) specifically, the rise of a roof being the distance between the top of an exterior wall and the peak of the roof; the rise of a stair being the distance from tread to tread.

Roof the top portion of a structure. Types of roofs include double pitch, flat, gable, gambrel, hip, lean-to, single pitch.

Roof, curb (or curbed) a roof with a ridge at the center and a double slope on each of its two sides.

Roof, flat a roof that is flat or sloped only enough to provide proper drainage.

Roof, gable a double-sloped roof having a cross section similar in general to the shape of the inverted letter "V".

Roof, gambrel a ridged roof with two slopes on each side, the lower having a steeper pitch.

Roof, hip (or hipped) (1) in general, any roof having one or more hips (q.v.) (2) usually, a roof with four sloping sides meeting along four hips or along four hips and a ridge. Compare *roof, pyramid.*

Roof, lean-to (1) a roof having a single sloping side which is supported at the upper edge by the wall of an attached building or of a larger and higher portion of the same building (preferred). (2) any roof with a single slope. Compare *roof, flat,*

Roof, mansard	a special type of curb roof (q.v.) in which the pitch of the upper part of each of the four equally sloping sides is small or negligible and that of the lower part is very great; a series of dormers projects from the lower part.
Roof,monitor	a type of gable roof commonly found on industrial buildings - having a small raised portion along the ridge, with openings for the admission of light and air.
Roof, pyramid	a hip roof having four sloping triangular sides, usually of equal pitch,meeting together at the peak.
Roof, ridged	a roof having one or more ridges (q.v.).
Roof, sawtooth	a roof with a series of parallel sloping surfaces interspersed between a series of vertical surfaces which rise from the lower edges of such sloping surfaces and which contain windows for the admission of light and air.
Roof, single pitch	any roof with a single slope, other than a lean-to roof.
Sash	the wooden or metal framework in which the glass of a door or window is set.
Sheathing	the covering, usually of rough lumber, placed immediately over studding or rafters.
Sill	(1) the lower horizontal part of a door-case (the threshold) or of a window. (2) the lowest horizontal structural member of a frame building, upon which the superstructure is supported.
Sleeper	a structural member laid horizontally on the ground or upon a masonry base as a support to a floor or other superstructures.
Specifications	a detailed description of the dimensions, materials, quantities, structural procedures, etc. applicable to a projected or completed piece of construction.
Story	that portion of a building enclosed by a floor, a ceiling, and the exterior walls.
Story, ground	the first story lying wholly above the ground level. Synonymous with "first story."
Story, half (or one-half)	(1) for buildings with a mansard or gambrel roof, a finished portion of a building which lies above the wall plate or cornice and which has a usable floor area substantially less than that of the next lower story. (2) for all other buildings, a finished portion of a building which is above one or more full stories, which is wholly or partly within the roof frame and which has one or more exterior walls substantially lower than the full height of the story.
Story, one	a building having no finished story above the ground story.

Stretcher	a brick or other piece of masonry which is laid lengthwise in a wall. Contrast header.
Strut	any structural member, which holds apart two **or** more other members by counteracting a pressure, which tends to bring them together. Contrast tie.
Stud	one of a series of small slender structural members placed vertically and used as the supporting element of exterior or interior walls. (Plural: studs or studding)
Subfloor	the flooring laid directly on top of the floor joists, but beneath the finish floor.
Tenement	a building, usually of obsolete nature, designed primarily for non-transient residential use and divided into three or more dwelling units having common stairs, halls, and street entrances, and sometimes-common bath and toilet rooms. Compare *apartment house, flat, terrace.*
Terrace	(1) an unroofed level area covered with grass or masonry or both raised above the surrounding ground level, and having a vertical or sloping front. (2) a multi- family dwelling in which the dwelling units are separated vertically by means of common or party walls. Compare *dwelling, row; dwelling, double.*
Terra cotta	a hard-baked ceramic clay molded into decorative tiles, bricks, etc., and used particularly for facing and trim on buildings.
Tie	any structural member, which binds together two or more members by counteracting a stress that tends to draw them apart. Contrast *strut.*
Trim	(1) the wooden portions of a plastered room, such as the doors, windows, wainscoting, and molding, or the corresponding portions of a room finished otherwise than with plaster. (2) the contrasting elements on the exterior of a building that serve no structural purpose, but are intended to enhance its appearance, e.g., the cornice. (3) occasionally, the hardware of a house, such as locks, hinges, doorknobs, etc.
Truss	a combination of structural pieces fastened together into a rigid open member that is supported at both ends and upon which loads are superimposed. Compare *girder.*
Valley	a sloping line along which two roof surfaces meet to form an external angle of less than 180 degrees. Compare *hip; ridge.*
Veneer	a thin ornamental or protective facing that does not add appreciably to the strength of the body to which it is attached.
Wainscot (or wainscoting)	(1) a wooden facing on the lower portion of a contrasting interior wall. (2) by extension, a facing of marble tile, or the like, on the lower portion of interior walls.
Wall	a vertical structure serving to enclose, support, divide; such as one of the vertical enclosing sides of a building or room.

Wall, bearing	a wall designed primarily to withstand vertical pressure in addition to its own weight.
Wall, common	a wall owned by one or two parties and jointly used by both, one or both of whom is entitled to such use under the provisions of ownership.
Wall, curtain	a non-bearing wall which is supported by columns, beams, or other structural members, and whose primary function is to enclose space.
Wall, fire	*See firewall.*
Wall, partition	an interior bearing or non-bearing wall which separates portions of a story. Synonymous *with partition.*
Wall, party	a wall jointly used by two parties under easement agreement and erected at or upon a line separating two parcels of land held under different ownership.
Wall, retaining	a wall designed primarily to withstand lateral pressures of earth or other filling or backing deposited behind it after construction.
Window, bay	see *bay window.*
Window, dormer	see dormer.
Wing	a subordinate part of a building extending from the main part, or any one of two or more substantially co-ordinate parts of a building which extend out from one or more common junctions.

DATA PROCESSING TERMS

BAUD	unit of signaling speed equal to the number of discrete conditions or signal events per second.
Binary	a characteristic or property involving a selection, choice, or condition in which there are two possibilities, such as the number representation with a radix of two.
Bit	the smallest unit of digital information, having a value of either 0 or 1.
Block	a group of machine words considered or transported as a unit. In flowcharts, each block represents a logical unit of programming.
Byte	a sequence of adjacent binary digits operated upon as a unit; a unit of computer storage capacity equal to eight binary bits.
Calculator	a keyboard machine for the automatic performance of arithmetic operations.
CAMA	Computer-Assisted Mass Appraisa1 - Utilizing data processing to compare parcels, calculate values, and maintain property characteristics to increase efficiency and accuracy in the appraisal process.
Column binary	pertaining to the binary representation of data on punched cards in which adjacent positions in a column correspond to adjacent bits of data; each column in a 12-row card may be used to represent 12 consecutive bits of a 36-bit word.
Computer	a computational device distinguished by its high speed, programmable operation, and large memory.
Computer program	a series of instructions, in a form acceptable to the computer, prepared so as to achieve a certain result.
CPU	Central Processing Unit - The heart of the computing system, which contains the arithmetic, logical and control circuits necessary for the interpretation, execution of a program and controls the functioning of the entire system.
CRT	see *video display terminal.*
Datab a se	a minimally redundant stored collection of data. A collection of data maintained by a computer.
Datab a se Management	A combination of hardware and software that controls and processes all requests for data in data bases.
Data element	the smallest unit of data stored on some medium to which a reference or none may be assigned.
Data entry	the process of placing information into machine-readable form.

Data path	the input-processing-output flow followed by data (often repeatedly) during normal computer operations.
Data processing	performing operations on machine-readable data, either with or without the use of a computer.
Data structure	the particular form in which data are to be treated by the computer program: whether as whole numbers, decimal fractions, or alphabetic characters, and whether as single pieces of information or as related sets or arrays of data.
Data verification	checking the accuracy of data that has been placed into a data processing system.
Direct access	an addressing scheme or random access storage medium that permits direct addressing of data locations.
Disk file	a means for storing data on a magnetic disk or platter.
Encode	to apply a set of rules specifying the manner in which data may be represented such that a subsequent decoding is possible.
Feedback	the process of returning portions of the output of a machine, process, or system for use as input in a further operation.
Flowchart	a graphical representation of the definition, analysis, or solution of a problem using symbols to represent operations, data flow, and equipment.
Hard copy	output that appears on paper.
Hardware	the physical equipment in a data processing system.
Indexed sequential	a file in which records are organized sequentially with indexes that permit quick access to individual records as well as rapid sequential processing.
Kilobytes	(kilo = 1000, bytes = characters) byte: A form of saying a character - numerical, letter, or symbol, in machine-readable form. Data processing personnel measure the size of records by bytes, instead of number of characters. Exactly, a kilobyte (KB or K) has 1,024 "characters".
Library	a collection of standard proven computer routines, usually kept on a library tape or random access file, by which problems or portions of problems may be solved.
Master file	a file of records containing a cumulative history or the results of accumulation; updated in each file processing cycle, and carried forward to the next cycle.
Megabyte	(< 1 million bytes) This unit is quite large and is usually used to measure the volume of a file, a disc, etc.
Memory	the part of the computer that stores the program, holds intermediate results, and various constant data. Same as *storage,*

Modem	a contraction of "Modulator Demodulator." Its function is to interface with data processing devices and convert data to a form compatible for sending and receiving on transmission facilities.
MRA	Multivariate Regression Analysis - Also called the least squares method, is a mathematical method for producing a model for a dependent variable as a linear function of independent factors. As an example - the predicted sales price (dependent variable) is a function of independent factors such as Square Feet, Style, Neighborhood, etc.
Multiplexor	a computer hardware device used as a screening agent to the main computer. It polls all the messages from all terminals and transmits one by one to the main computer. It also dispatches "messages" to receiving ends ... it can be compared to the secretary of a big boss!
Multiprocessing	systems software that enables several CPUs to be connected together to provide faster, more reliable computing.
Multiprogramming	systems software that enables the computer to run several programs simultaneously.
On-line	peripheral equipment or devices in direct communication with the central processing unit, and from which information reflecting current activity is introduced into the data processing system as soon as it occurs.
Operating system	the systems software that manages all other software in the computer (also known as an executive or monitor).
Operator's instructions	these are sets of operation instructions, which tell the operator what to do to get the jobs done on the computer. The instructions are designed for two types of operators: 1. Computer operators - run the computer, execute a job, mount a tape, etc. 2. Use operators - run different applications such as payroll, CAMA. The instructions tell them how to add a new record, delete a word, on a terminal or using cards.
Output	information that has been processed by the computer.
Peripheral equipment	units that work in conjunction with the computer, but are not part of the computer itself, such as tape reader, card reader, magnetic tape feed, high-speed printer, typewriter, etc.
Printer	hardware for outputting on paper.
Program	the instructions that enable a computer to process data.
Programming Language	a system for coding instructions for computer processing.
Punched cards	a storage medium similar to index cards.

Random access	for device or media, the accessing of data by address rather than by sequence.
Record	a collection of related items of data treated as a unit.
Sequence	an arrangement of items of data according to a specified set of rules.
Sequential processing	the procedure of processing data records in the same order that they occur.
Sequential storage	storing of data in sequential order.
Software	the programs and routines used to extend the capabilities of computers, such as compilers, assemblers, routines, and subroutines. Also, all documents associated with a computer, e.g., manuals, circuit diagrams.
Source	that which provides information to be entered into the computer.
Source document	a form containing raw data for entry into the computer.
Source file	a computer program in high-level language code.
Standard deviation	a statistical measure of the variation of a characteristic about its average value. Standard deviation is the square root of the variance of a characteristic about its average observed value. Variance is the sum of the squared deviations of each observed value from the average, divided by one less than the number of observations. For normally distributed observations, approximately 70% of the observations will fall within one standard deviation of the mean or average value.
Storage	the retention of information in the computer system.
Summary report	output that displays only the end product of processing in a concise format.
System software	computer software that provides overall housekeeping functions for the computer.
Systems design	the development of a computer system (hardware and software) to suit a particular application, by using the program development cycle.
Terminal	a device in a system or communication network at which point data can either enter or leave the system.
Transaction file	a file containing transient data to be processed in combination with a master file.
Turn-around document	a document or form prepared as output at one stage of the data processing cycle, and sent to a customer or other user with the intention of having it returned and used as input at a later stage.
Unit record	a record in which all data concerning each item in a transaction is punched into one card.

Variable	a quantity that, when identified by a symbolic name, can assume any of a given set of values.
Verify	to confirm that entered, imported, or transferred data are accurate and complete.
Video display terminal	hardware for output on a television-style picture tube (cathode-ray tube or CRT).
Word	a set of characters that occupies one storage location and is treated by the computer circuits as a unit and transported as such.

REAL ESTATE APPRAISAL TERMS

Abstract a computer-printed report of appraised and/or assessed values for each parcel of real property in a given taxing district; generally sequenced geographically.

Accrued depreciation *see depreciation.*

Actual age the number of years elapsed since the original construction, as of the effective valuation date. Compare with *effective age.*

Ad valorem tax in reference to property, a tax based upon the value of the property.

Aesthetic value a value, intangible in nature, which is attributable to the pleasing appearance of a property.

Agricultural property land and improvements devoted to or best adaptable for the production of crops, fruits, and timber, and the raising of livestock.

Air rights Alley influence the right to the use of a certain specified space within the boundaries of a parcel of land and above a specified elevation.

the enhancement to the value of a property rising out of the presence of an abutting alley; most generally applicable to commercial properties.

Amenities Appraisal in reference to property, the intangible benefits arising out of ownership; *amenity value* refers to the enhancement of value attributable to such amenities.

Appraisal schedules an estimate, usually in written form, of the value of a specifically described property as of a specified date; may be used synonymously with *valuation or appraised value.*

any standardized schedules and tables used in conjunction with a revaluation program, such as replacement cost pricing schedules, depreciation tables, land depth tables, etc.

Appraised value *see appraisal.*

Appraiser one who estimates value. More specifically, one who possesses the expertise to execute or direct the execution of an appraisal.

Assessed value *see assessment.*

Assessing the act of valuing a property for the purpose of establishing a tax base.

Assessment the value of taxable property to which the tax rate is to be applied in order to compute the amount of taxes; may be used synonymously with *assessed value, taxable value,* and *tax base.*

Assessment district an assessor's jurisdiction; it may or may not be an entire tax district.

Assessment period	the period of time during which the assessment of all properties within a given assessment district must be completed; the period between tax lien dates.
Assessment ratio	the ratio of assessed value to a particular standard of value, generally the appraised value. A percentage to be applied to the appraised value in order to derive the assessed value.
Assessment roll	the official listing of all properties within a given taxing jurisdiction by ownership, description, and location showing the corresponding assessed values for each; also referred to as *tax list, tax book, tax duplicate,* and *tax roll.*
Assessor	the administrator charged with the assessment of property for ad valorem taxes; his precise duties differ from state to state depending upon state statutes.
Average deviation	in a distribution of values, the average amount of deviation of all the values from the mean value, equal to the total amount of deviation from the mean divided by the number of deviations. As applied to an assessment-to-sale ratio distribution, the average amount which all the ratios within the distribution deviate from the mean ratio.
Base price	a value or unit rate established for a certain specified model, and subject to adjustments to account for variations between that particular model and the subject property under appraisement.
Blighted area	a declining area characterized by marked structural deterioration and/or environmental deficiencies.
Board of Equalization	A county board responsible for reviewing property assessments, hearing taxpayer appeals, and equalizing valuations within its jurisdiction.
Building residual technique	a building valuation technique which requires the value of the land to be a known factor; the value of the buildings can then be indicated by capitalizing the residual net income remaining after deducting the portion attributable to the land.
Capitalization	a mathematical procedure for converting the net income which a property is capable of producing into an indication of its current value. See income *approach.*
CDU rating	a composite rating of the overall condition, desirability, and usefulness of a structure as developed by the Cole-Layer-Trumble Company and used nationally as a simple, direct, and uniform method of estimating accrued depreciation.

Central business district	the center of a city - in which the primary commercial, governmental, and recreational activities are concentrated.
Certified assessment Evaluator	a professional designation (C.A.E.) conferred upon qualifying assessors by the International Association of Assessing Officers (IAAO).
Classified property tax	an ad valorem property tax under which the assessment ratio varies for different property classes.
Component part-in -place method	the application of the unit- in-place method to unit groupings or construction components. See *unit-in-place method.*
Corner influence	the enhancement to the value of a property due to its corner location; most generally applicable to commercial properties.
Cost approach	one of the three traditional approaches to determination of the value of a property; arrived at by estimating the value of the land, the replacement or reproduction cost new of the improvement, and the amount of accrued depreciation to the improvement. The estimated land value is then added to the estimated depreciated value of the improvements to arrive at the estimated property value. Also referred to as the "cost-to- market approach" to indicate that the value estimates are derived from market data abstraction and analysis.
Cost factor	a factor or multiplier applied to a replacement or reproduction cost to account for variations in location and time, as well as for other elements of construction costs not otherwise considered.
Cubic content	the cubic volume of a building within the outer surface of the exterior walls and roof and the upper surface of the lowest floor.
Deed	a written instrument, which conveys an interest in real property. A *quitclaim deed* conveys the interest described therein without warranty of title. A *trust deed* conveys interest described therein to a trustee. A *warranty deed* conveys the interest described therein with the provisions that the freehold is guaranteed by the grantor, his heirs, or successors.
Depreciation	loss in value from all causes; may be further classified as *physical,* referring to the loss of value caused by physical deterioration; *functional,* referring to the loss of value caused by obsolescence inherent in the property itself; and *economic*, referring to the loss of value caused by factors extraneous to the property. *Accrued* depreciation refers to the actual depreciation existing in a particular property as of a specified date. *Normal* depreciation refers to that amount of accrued depreciation one would normally expect to find in buildings of certain construction, design, quality, and age.

Depreciation allowance	a loss of value expressed in terms of a percentage of replacement or reproduction cost new.
Depth factor	a factor or multiplier applied to a unit land value to adjust the value in order to account for variations in depth from an adopted standard depth.
Depth table	a table of depth factors.
Design factor	a factor or multiplier applied to a computed replacement cost as an adjustment to account for cost variations attributable to the particular design of the subject property which were not accounted for in the particular pricing schedule used.
Deterioration	impairment of structural condition evidenced by the wear and tear caused by physical use and the action of the elements, also referred to as *physical depreciation.*
Economic depreciation	*See depreciation.*
Economic life	the life expectancy of a property during which it can be expected to be profitably utilized.
Economic obsolescence	obsolescence caused by factors extraneous to the property. Also referred to as *economic depreciation.*
Economic rent	the rent that a property can be expected to bring in the open market as opposed to contract rent or the rent the property is actually realizing at a given time.
Effective age	an age assigned to a structure based upon its condition as of the effective valuation date; it may be greater or less than the structure's actual age. Compare with *actual age.*
Effective depth	in reference to property valuation that depth, expressed in feet, upon which the selection of the depth factor is based.
Effective frontage	in reference to property valuation, that total frontage, expressed in lineal feet, to which the unit land value is applied, it may or may not be the same as the actual frontage.
Effective gross income	the estimated gross income of a property less an appropriate allowance for vacancies and credit losses.
Effective valuation Date	in reference to a revaluation program, the date as of which the value estimate is applicable.
Encroachment	the displacement of an existing use by another use.

Environmental deficiency	a neighborhood condition such as adverse land uses, congestion, poorly designed streets, etc., operating to cause economic obsolescence and, when coupled with excessive structural deterioration, blight.
Equalization Program	a mass appraisal (or reappraisal) of all property within a given taxing jurisdiction with the goal of equalizing values in order to assure that each taxpayer is bearing only his fair share of the tax load; may be used synonymously with a *revaluation program.*
Equity	in reference to property taxes, a condition in which the tax load is distributed fairly or *equitably;* opposite of *inequity* that refers to a condition characterized by an unfair or unequitable distribution of the tax burden. *Inequity* is a natural product of changing economic conditions, which can only be effectively cured by periodic equalization programs. In reference to value, it is that value of the property remaining after deducting all liens and charges against it.
Excessive frontage	frontage, which because of the particular utility of the lot does not serve to add value to the lot.
Exempt property	see *tax exemption.*
Fee appraisal	see *mass appraisal.*
Field crew	the total professional staff assigned to a specific appraisal project, including listers, reviewers, staff appraisers, and clerical and administrative supporting personnel.
Functional depreciation	*see depreciation.*
Functional Obsolescence	obsolescence caused by factors inherent in the property itself. Also referred to as *functional depreciation.*
Functional utility	the composite effect of a property's usefulness and desirability upon its marketability.
Grade	the classification of an improvement based upon certain construction specifications, and quality of materials and workmanship.
Grade factor	a factor or multiplier applied to a base grade level for the purpose of interpolating between grades or establishing an intermediate grade.
Grantee	a person to whom property is transferred and property rights are granted by deed, trust instrument, or other similar documents. Compare with *grantor.*
Grantor	a person who transfers property or grants property rights by deed, trust instrument, or other similar documents. Compare with *grantee.*

Gross area	the total floor area of a building measured from the exterior of the walls.
Gross income	the scheduled annual income produced by the operation of a business or by the property itself.
Gross income Multiplier	a multiplier representing the relationship between the gross income of a property and its estimated value.
Gross sales	the total amount of invoiced sales before making any deductions for returns, allowances, etc.
Ground lease	a document entitling the lessee certain specified rights relating to the use of the land.
Ground rent	net rent from a ground lease; that portion of the total rent which is attributable to the land only.
Improved land	land developed for use by the erection of buildings and other improvements.
Income approach	one of the three traditional approaches to determination of value; measures the present worth of the future benefits of a property by the capitalization of its net income stream over its remaining economic life. The approach involves making an estimate of the potential net income the property may be expected to yield, and capitalizing that income into an indication of value.
Income property	a property primarily used to produce a monetary income.
Industrial park	a subdivision designed and developed to accommodate specific types of industry .
Industrial property	land, improvements, and/or machinery used or adaptable for use in the production of goods either for materials, or by changing other materials and products . .i.e. assembling, processing and manufacturing...as well as the supporting auxiliary facilities thereof.
Inequity	see *equity.*
Influence factor	a factor serving to either deva lue or enhance the value of a particular parcel of land, or portions thereof, relative to the norm for which the base unit values were established; generally expressed in terms of a percentage adjustment.
Institutional Property	land and improvements used in conjunction with providing public services and generally owned and operated by the government or other nonprofit organizations ... hospitals, schools, prisons, etc. Such property is generally held exempt from paying property taxes.
Interest rate	the rate of return from an investment.
Land classification	the classification of land based upon its capabilities for use; and/or production.

Land contract	a purchase contract wherein the grantee takes possession of the property with the grantor retaining the deed to the property until the terms of the contract are met as specified.
Land residual technique	a land valuation technique which requires the value of the buildings to be known; the value of the land can then be indicated by capitalizing the residual net income remaining after deducting the portion attributable to the building(s).
Landscaping	natural features such as lawns, shrubs and trees added to a plot of ground or modified in such a way as to make it more attractive.
Land use restrictions	legal restrictions regulating the use to which land may be put.
Land value maps	a map used in conjunction with mass appraising; generally drawn at a small scale, and showing comparative unit land values on a block to block basis.
Lease **Lessee** **Lessor**	a written contract by which one party (lessor) gives to another party (lessee) the possession and use of a specified property, for a specified time, and under specified terms and conditions.
Leasehold	a property held under the terms of a lease.
Leasehold Improvements	additions, renovations, and similar improvements made to a leased property by the lessee.
Leasehold Value	the value of a leasehold, the difference between the contract rent and the currently established economic or market rent.
Legal description	a description of a parcel of land that serves to identify the parcel in a manner sanctioned by law.
Lister	a field inspector or data collector whose principal duty is to collect and record property data (not an appraiser).
Market data Approach	one of the three traditional approaches to determination of the value of a property; arrived at by compiling data on recently sold property which are comparable to the subject property and adjusting their selling prices to account for variations in time, location, and property characteristics between the comparables and the subject property.
Market value	the price an informed and intelligent buyer, fully aware of the existence of competing properties, and not compelled to act, would be justified in paying for a particular property.

Mass appraisal appraisal of property on a mass scale - such as an entire community, generally for ad valorem tax purposes, using standardized appraisal techniques and procedures to accomplish uniform equitable valuation with a minimum of detail, within a limited time period, and at a limited cost ... as opposed to a *fee appraisal* which is generally used to refer to a rather extensive, detailed appraisal of a single property or singularly used properties for a specified purpose.

MAI Designation A professional real property appraisal designation conferred by the Appraisal Institute upon qualified appraisers who satisfy its education, experience, examination, and ethical requirements.

Mineral rights the right to extract subterranean deposits such as oil, gas, coal, and minerals, as specified in the grant.

Minimum rental that portion of the rent in a percentage lease which is fixed.

Model method a method of computing the replacement or the reproduction cost of an improvement by applying the cost of a specified model and adjusting the cost to account for specified variations between the subject improvement and the model.

Modernization the corrective action taken to update a property so that it may conform with current standards.

Mortgage
Mortgagee
Mortgagor a legal document by which the owner of a property (mortgagor) pledges the property to a creditor (mortgagee) as security for the payment of a debt.

Neighborhood a geographical area exhibiting a high degree of homogeneity in residential amenities, land use, economic and social trends, and housing characteristics.

Neighborhood trend three stages in the life cycle of a neighborhood: the *improving stage* characterized by development and growth, the *static stage* characterized by a leveling off of values, and the *declining stage* characterized by infiltration and decay.

Net income the income remaining from the effective gross income after deducting all operating expenses related to the cost of ownership.

Net lease a lease wherein the lessee assumes to pay all applicable operating expenses related to the cost of ownership; also referred to as *net net,* or *net net net lease.*

Net gross sales less returns and allowances.

Net sales area the actual floor area used for merchandising, excluding storage rooms, utility and equipment rooms, etc.

Non-conforming use a use which, because of modified or new zoning ordinances, no longer conforms to current use regulations, but which is nevertheless upheld to be legal so long as certain conditions are adhered to.

Observed depreciation	that loss in value which is discernible through physical observation by comparing the subject property with a comparable property either new or capable of rendering maximum utility.
Obsolescence	a diminishing of a property's desirability and usefulness brought about by either functional inadequacies and over-adequacies inherent in the property itself, or adverse economic factors external to the property. Refer to *functional depreciation and economic depreciation.*
Operating expenses	the fixed expenses, operating costs, and reserves for replacements which are required to produce net income before depreciation, and which are to be deducted from effective gross income in order to arrive at net income.
Overage income	rental received in addition to the minimum contract rental, based upon a specified percentage of a tenant's business receipts.
Overall rate	a capitalization rate representing the relationship of the net income (before recapture) of a property to its value as a single rate; it necessarily contains, in their proper proportions, the elements of both the land and the building capitalization rates.
Over assessed	a condition wherein a property is assessed proportionately higher than comparable properties.
Parcel	piece of land held in one ownership.
Percentage lease	a type of lease in which the rental is stipulated to be a percentage of the tenant's gross or net sales, whichever is specified.
Permanent parcel number	an identification number which is assigned to a parcel of land to uniquely identify that parcel from any other parcel *within* a given taxing jurisdiction.
Personal property	property, which is not permanently affixed to or a part of the real estate, as specified by state statutes.
Physical depreciation	*see depreciation.*
Preferential assessment	an assessing system which provides preferential treatment in the form of reduced rates to a particular class or property; such as a system providing for farm properties to be assessed in accordance to their value in use as opposed to their value in the open market.
Property class	a division of like properties generally defined by statutes and generally based upon their present use. The basis for establishing assessment ratios in a classified property assessment system. See classified property tax.
Property inspection	a physical inspection of property for the purpose of collecting and/or reviewing property data.

Property record card	a document specially designed to record and process specified property data; may serve as a source document, a processing form, and/or a permanent property record.
Public utility property	properties devoted to the production of commodities or services for public consumption under the control of governmental agencies such as the Public Utility Commission.
Quantity survey Method	a method of computing the replacement or the reproduction cost of an improvement by applying unit costs to the actual or estimated material and labor quantities and adding an allowance for overhead, profit, and all other indirect construction costs.
Real estate	the physical land and appurtenances affixed thereto; often used synonymously with *real property.*
Real property	all the interests, benefits, and rights enjoyed by the ownership of the real estate.
Reassessment	the revaluation of all properties within a given jurisdiction for the purpose of establishing a new tax base.
Rent	the amount paid for the use of a capital good. See *economic rent.*
Replacement cost	the current cost of constructing an improvement of equivalent utility to the subject property. Compare with *reproduction cost.*
Reproduction cost	the current cost of reproducing a replica property. Compare with *replacement cost.*
Reserve for replacements	a reserve established to cover renewals and replacements of fixed assets.
Residential property	vacant or improved land devoted to or available for use primarily as a place to live.
Revaluation program	see *equalization program.*
Sales ratio study	a statistical analysis of the distribution of assessment or appraisal-to-sale ratios of a sample of recent sales, made for the purpose of drawing inferences regarding the entire population of parcels from which the sample was abstracted.
Salvage value	the price one would be justified in paying for an item of property to be removed from the premises and used elsewhere.
Site development costs	all costs incurred in the preparation of a site for use.
Soil productivity	the capacity of a soil to produce crops.
Sound value	the depreciated value of an improvement.

Sound value estimate	an estimate of the depreciated value of an improvement made directly by comparing it to improvements of comparable condition, desirability, and usefulness without first estimating its replacement cost new.
Standard depth	that lot depth selected as the norm against which other lots are to be compared; generally, the most typical depth.
Sublease	see *lease;* the lessee in a prior lease simply becomes a lessor in a sublease.
Tax bill	an itemized statement showing the amount of taxes owed for certain property described therein and forwardable to the party(s) legally liable for payment thereof.
Tax book	*see assessment roll.*
Tax district	a political subdivision over which a governmental unit has authority to levy a tax.
Tax duplicate	see *assessment roll.*
Tax exemption	either total or partial freedom from tax; total exemption such as that granted to governmental, educational, charitable, religious, and similar nonprofit organizations, and partial exemption such as that granted on homesteads, etc.
Tax levy	in reference to property taxes, the total revenue that is to be realized by the tax.
Tax list	*see assessment roll.*
Tax mapping	the creation of accurate representations of property boundary lines at appropriate scales to provide a graphic inventory of parcels for use in accounting, appraising and assessing; such maps show dimensions and the relative size and location of each tract with respect to other tracts.
Tax notice	a written notification to a property owner of the assessed value of certain properties described therein; often mandated by law to be given to each property owner following a revaluation.
Tax rate	the rate - generally expressed in dollars per hundred or dollars per thousand (mills) - which is to be applied against the tax base (assessed value) to compute the amount of taxes. The tax rate is derived by dividing the total amount of the tax levy by the total assessed value of the taxing district.
Tax roll	see a*ssessment roll.*
Tillable land	land suitable for growing annual crops.
Underassessed	a condition wherein a property is assessed proportionately lower than comparable properties.
Uniformity	as applied to assessing, a condition wherein all properties are assessed at the same ratio to market value, or other standard of value depending upon the particular assessing practices followed.

Unimproved land vacant land; a parcel for which there is no improvement value.

Unit cost or price the price or cost of one item of a quantity of similar items.

Unit-in-place method a method of computing the replacement or reproduction cost of an improvement by applying established unit-in-place rates, developed to include the cost of materials, equipment, labor, overhead and profit, to the various construction units.

Use density the number of buildings in a particular use per unit of area, such as a density of so many apartment units per acre.

Use value the actual value of a commodity to a specific owner, as opposed to its value in exchange or market value.

Vacancy an unrented unit of rental property.

Vacant land unimproved land; a parcel for which there is no improvement value.

Valuation *see appraisal.*

View the scene as viewed from a property.

Water frontage land abutting on a body of water.

Woodland land that is fairly densely covered with trees.

Zoning regulations governmental restrictions relating to the use of land.

STATISTICAL TERMS

Aggregate ratio	as applied to real estate, the ratio of the total assessed value to the total selling price.
Average deviation	in a distribution of values, the average amount of deviation of all the values from the mean value equal to the total amount of deviation from the mean divided by the number of deviations.
Cells	the basic units making up a stratified sample; each sale representing a distinct group within the total universe.
Coefficient	a value prefixed as a multiplier to a variable or an unknown quantity.
Coefficient of dispersion	as applied to an assessment-to-sale ratio distribution, a measure of dispersion in a given distribution equal to the average deviation of the ratios from the mean ratio divided by the mean ratio.
Frequency distribution	a display of the frequency with which each value in a given distribution occurs, or in *a grouped frequency distribution,* a display of the frequency with which the values within various intervals, or value groupings, occur.
Mean	a measure of central tendency equal to the sum of the values divided by the number. Also referred to as *arithmetic average or arithmetic mean.*
Median	a measure of central tendency equal to that point in a distribution above which 50% of the values fall and below which 50% of the values fall. The 50th percentile. The 2nd quartile.
Mode	a measure of central tendency equal to that value occurring most frequently in a given distribution. In a grouped frequency distribution, the mode is equal to the mid-point of the interval with the greatest frequency.
Normal distribution	a distribution in which all the values are distributed symmetrically about the mean value, with 68.26% of the values falling between +/- 1 standard deviation, 95.44% between +/- 2 standard deviations, and 99.74% between +/- 3 standard deviations.
Percentile rank	the relative position of a value in a distribution of values expressed in percentage terms; for instance, as applied to an assessment-to-sale ratio distribution, a ratio with a percentile rank of 83 would indicate that 83% of the ratios were lower and 17% of the ratios were higher than that particular ratio.
Precision	as applied to real estate, it refers to the consistency or dispersion among repeated measurements or appraisal ratios.
Price related differential	as applied to real estate, an analytical measure of the vertical uniformity of values in a given distribution calculated by dividing the mean ratio by the aggregate

ratio; a ratio of more than 1 being generally indicative of the relative undervaluation of high-priced properties as compared to the less valuable properties, whereas a ratio of less than 1 would indicate the converse relationship.

Quartile positions dividing a distribution into four equal groups at the 25th, 50th, and 75th percentiles.

Regression analysis a statistical technique for making statements as to the degree of linear association between a criterion (dependent) variable and one or more predictor (independent) variables; a simple linear regression having one independent variable, and multiple linear regression having more than one independent variable.

Range the difference between the highest and the lowest value in a distribution.

Ratio a fixed relationship between two similar things expressed in terms of the number of times the first contains the second; the quotient of one quantity divided by another quantity of the same type, generally expressed as a fraction.

Sample as applied to real estate, a set of parcels taken from a given universe which is used to make inferences about values for the universe.

A probability sample is a sample in which each parcel in the universe is given an equal chance of being included. Also referred to as random *sample.*

A non-probability sample is a sample in which each parcel in the universe being chosen by other criteria is not given an equal chance of being included. Essentially all assessment-to-sale ratio studies are non-probability samples.

Sample size as applied to real estate, the number of parcels needed from a universe to achieve a desired level of precision, given the total number of parcels in the universe and the standard deviation thereof.

Standard deviation a measure of dispersion, variability or scatter of values in a given distribution equal to the square root of the arithmetic mean of the squares of the deviations from the mean.

Standard error of the mean a measure of the statistical variability of the mean equal to the standard deviation of the distribution divided by the square root of the sample size.

Stratified sampling the selection of sample parcels from distinct groups within the total universe based upon the known sizes and characteristics of these distinct groups.

Universe as applied to real estate, all the parcels of a given type in the group under study, i.e., all the parcels of a given neighborhood, district, etc. Also referred to *as population.*

ALTERNATIVE METHODS

In the event the information set forth in these Schedule of Values, Standards and Rules is insufficient to determine a property's true value as defined by The Machinery Act, N.C.G.S. 105-271 et. seq., the Assessor shall use his or her best professional judgment and methodologies and best practices of the IAAO to appraise real property at its true value and at its present-use value in accordance with The Machinery Act for the 2027 general reappraisal.

RESIDENTIAL TABLES

COST FACTOR TABLES						
#	Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
1	27	1	AIRCODE	4	CENTRAL A/C	1
2	27	1	AREA	COEFF	AREA FACTOR=AREA*COEF1+CONST	0.00065
3	27	1	AREA	CONST	AREA FACTOR=AREA*COEFF+CONST	0.35
4	27	1	AREA	SQRT	SQRT FACTOR	0
5	27	1	ATTIC	1	NONE	0
6	27	1	ATTIC	2	UNFINISHED	15290
7	27	1	ATTIC	3	PART FINISHED	32100
8	27	1	ATTIC	4	FULL FINISHED	53510
9	27	1	ATTIC	5	FIN W/ WALL HGT	71090
10	27	1	ATTICSF	1	NO ATTIC	0
11	27	1	ATTICSF	2	NO ATTIC SF	0
12	27	1	ATTICSF	3	20% ATTIC SFLA	0.2
13	27	1	ATTICSF	4	40% ATTIC SFLA	0.4
14	27	1	ATTICSF	5	45% ATTIC SFLA	0.45
15	27	1	BGAR	0	NO BASEMENT GARAGE	0
16	27	1	BGAR	1	1 CAR BASEMENT GARAGE	5100
17	27	1	BGAR	2	2 CAR BASEMENT GARAGE	7640
18	27	1	BGAR	3	3 CAR BASEMENT GARAGE	10190
19	27	1	BGAR	4	4 CAR BASEMENT GARAGE	12740
20	27	1	BGAR	5	5 CAR BASEMENT GARAGE	13720
21	27	1	BGAR	6	6 CAR BASEMENT GARAGE	14700
22	27	1	BSMT	1	NONE	-40770
23	27	1	BSMT	2	CRAWL	-31850
24	27	1	BSMT	3	PART	-12740
25	27	1	BSMT	4	FULL	0
26	27	1	COMAREA	A	ATTIC AREA ADJ	0
27	27	1	COMLVL	C	CRAWL SPACE ADJ	0
28	27	1	COMLVL	E	ENCLOSURE ADJ	0
29	27	1	COST	BASE	BASE COST VALUE	295000
30	27	1	COST	VALYR	VALUATION YEAR	2027
31	27	1	EXTWALL	1	WOOD FRAME	0
32	27	1	EXTWALL	2	BLOCK	0

COST FACTOR TABLES						
#	Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
33	27	1	EXTWALL	3	STUCCO	1
34	27	1	EXTWALL	4	ALUM/VINYL/STEEL	0
35	27	1	EXTWALL	5	LOG	1
36	27	1	EXTWALL	6	ASBESTOS	0
37	27	1	EXTWALL	7	BRICK	1
38	27	1	EXTWALL	8	STONE	1
39	27	1	EXTWALL	9	MASONRY/FRAME	0.67
40	27	1	FUEL	1	GAS	1
41	27	1	FUEL	2	ELECTRIC	1
42	27	1	FUEL	3	OIL	1
43	27	1	FUEL	4	COAL	1
44	27	1	FUEL	5	SOLAR	1
45	27	1	FUEL	6	NONE	1
46	27	1	GRADE	3A+	EXCEPTIONAL AAA+	3.5
47	27	1	GRADE	3A-	EXCEPTIONAL AAA-	2.5
48	27	1	GRADE	A	HIGH QUALITY A	1.6
49	27	1	GRADE	A+	HIGH QUALITY A+	1.75
50	27	1	GRADE	A-	HIGH QUALITY A-	1.5
51	27	1	GRADE	AA	EXCEPTIONAL AA	2
52	27	1	GRADE	AA+	EXCEPTIONAL AA+	2.25
53	27	1	GRADE	AA-	EXCEPTIONAL AA-	1.85
54	27	1	GRADE	AAA	EXCEPTIONAL AAA	3
55	27	1	GRADE	B	GOOD B	1.3
56	27	1	GRADE	B+	GOOD B+	1.4
57	27	1	GRADE	B-	GOOD B-	1.2
58	27	1	GRADE	C	GRADE C	1
59	27	1	GRADE	C+	AVERAGE C+	1.1
60	27	1	GRADE	C-	AVERAGE C-	0.95
61	27	1	GRADE	D	BELOW AVERAGE D	0.85
62	27	1	GRADE	D+	BELOW AVERAGE D+	0.9
63	27	1	GRADE	D-	BELOW AVERAGE D-	0.75
64	27	1	GRADE	E	POOR	0.55
65	27	1	GRADE	E+	POOR E+	0.65
66	27	1	GRADE	E-	POOR E-	0.4
67	27	1	GRADE	MA	MA	0.95

COST FACTOR TABLES						
#	Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
68	27	1	GRADE	MA+	MA+	1
69	27	1	GRADE	MA-	MA-	0.9
70	27	1	GRADE	MB	MB	0.8
71	27	1	GRADE	MB+	MB+	0.85
72	27	1	GRADE	MB-	MB-	0.75
73	27	1	GRADE	MC	MC	0.65
74	27	1	GRADE	MC+	MC+	0.7
75	27	1	GRADE	MC-	MC-	0.6
76	27	1	GRADE	MD	MD	0.45
77	27	1	GRADE	MD+	MD+	0.5
78	27	1	GRADE	MD-	MD-	0.4
79	27	1	GRADE	ME	ME	0.25
80	27	1	GRADE	ME+	ME+	0.3
81	27	1	GRADE	ME-	ME-	0.1
82	27	1	HEAT	1	NO HEAT, NO AC	-10700
83	27	1	HEAT	2	NON-CENTRAL	-5100
84	27	1	HEAT	3	CENTRAL	0
85	27	1	HEAT	4	CENTRAL A/C	10190
86	27	1	HEATCODE	1	HEAT ADJ	0
87	27	1	HEATCODE	2	HEAT ADJ	0
88	27	1	HEATCODE	3	HEAT ADJ	0
89	27	1	HEATCODE	4	HEAT ADJ	1
90	27	1	HEATSYS	1	CENTRAL HEAT / AC	1
91	27	1	LEVEL	COM	COMM LEVEL	100
92	27	1	LEVEL	OBY	OBY LEVEL	100
93	27	1	LEVEL	RES	RES LEVEL	100
94	27	1	MISC	CC	CATHEDRAL CEILING	0
95	27	1	MISC	EF	2 STORY FOYER	0
96	27	1	MISC	EL	ELEVATOR, RES	38220
97	27	1	MISC	HA	HABITAT	25480
98	27	1	MISC	J1	JACUZZI-SMALL	7640
99	27	1	MISC	J2	JACUZZI-LARGE	12740
100	27	1	MISC	SA	SAUNA	12740
101	27	1	MISC	SC	SECURITY	0
102	27	1	OTH-FEAT	BLIV	FIN-BASEMENT LIVING AREA	90

COST FACTOR TABLES						
#	Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
103	27	1	OTH-FEAT	BLIVA	FIN-BASEMENT LIVING AREA	100
104	27	1	OTH-FEAT	BREC	FIN-BASEMENT REC ROOM	60
105	27	1	OTH-FEAT	BRECA	FIN-BASEMENT REC ROOM	70
106	27	1	OTH-FEAT	FBPCT	FIN BSMT SFLA %	1
107	27	1	OTH-FEAT	METFP	METAL FIREPLACES	4800
108	27	1	OTH-FEAT	TRIMB	BRICK TRIM	20
109	27	1	OTH-FEAT	TRIMS	STONE TRIM	20
110	27	1	OTH-FEAT	UFPCT	UNFINISHED SFLA %	1
111	27	1	OTH-FEAT	UNFIN	UNFINISHED AREA	-40
112	27	1	OTH-FEAT	WBFP1	WBFP-ONE STACK, ONE OPENING	8100
113	27	1	OTH-FEAT	WBFP2	ADDITIONAL OPENINGS	4050
114	27	1	OTH-FEAT	WHEAT	CENTRAL WOOD HEATING	0
115	27	1	PLUMB	ADDFX	BASE # FIXTURES	0
116	27	1	PLUMB	COUNT	NORMAL # FIXTURES	5
117	27	1	PLUMB	FIXT	PRICE PER PLUMBING FIXTURE	3400
118	27	1	REVEDIT	BLDG	REVIEWERS BLDG %	99
119	27	1	REVEDIT	LAND	REVIEWERS LAND %	99
120	27	1	ROUND	APRTT	ROUND APR TOTALS	-2
121	27	1	SH-BRICK	10	1 STORY MASONRY	0.06
122	27	1	SH-BRICK	12	1.2 ST MASONRY	0.062
123	27	1	SH-BRICK	15	1 1/2 STORY MASONRY	0.065
124	27	1	SH-BRICK	17	1.7 ST MASONRY	0.067
125	27	1	SH-BRICK	20	2 STORY MASONRY	0.07
126	27	1	SH-BRICK	22	2 STORY MASONRY	0.072
127	27	1	SH-BRICK	25	2 1/2 STORY MASONRY	0.075
128	27	1	SH-BRICK	27	2 1/2 STORY MASONRY	0.077
129	27	1	SH-BRICK	30	3 STORY MASONRY	0.08
130	27	1	SH-BRICK	35	3 1/2 STORY MASONRY	0.085
131	27	1	SH-BRICK	40	4 STORY MASONRY	0.09
132	27	1	SH-FACT	10	1 STORY	1
133	27	1	SH-FACT	12	1.2 STORY	1.175
134	27	1	SH-FACT	15	1.5 STORY	1.35
135	27	1	SH-FACT	17	1.7 STORY	1.5
136	27	1	SH-FACT	20	2 STORY	1.65
137	27	1	SH-FACT	22	2.2 STORY	1.825

COST FACTOR TABLES						
#	Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
138	27	1	SH-FACT	25	2.5 STORY	2
139	27	1	SH-FACT	27	2.7 STORY	2.15
140	27	1	SH-FACT	30	3 STORY	2.3
141	27	1	SH-FACT	35	3 1/2 STORY	2.65
142	27	1	SH-FACT	40	4 STORY	2.95
143	27	1	STDFIX	2	# ADD FIXTURES	
144	27	1	STORYSF	1	1 STORY SFLA FACT	1
145	27	1	STORYSF	1.2	1.2 STORY SFLA FACT	1.2
146	27	1	STORYSF	1.5	1.5 STORY SFLA FACTOR	1.5
147	27	1	STORYSF	1.7	1.7 STORY SFLA FACTOR	1.7
148	27	1	STORYSF	2	2 STORY SFLA FACT	2
149	27	1	STORYSF	2.2	2.2 STORY SFLA FACT	2.2
150	27	1	STORYSF	2.5	2.5 STORY SFLA FACTOR	2.5
151	27	1	STORYSF	2.7	2.7 STORY SFLA FACTOR	2.7
152	27	1	STORYSF	3	3 STORY SFLA FACT	3
153	27	1	STORYSF	3.5	3.5 STORY SFLA FACTOR	3.5
154	27	1	STORYSF	4	4 STORY SFLA FACT	4
155	27	2	AIRCODE	4	CENTRAL AC	1
156	27	2	AREA	COEFF	AREA FACTOR=AREA*COEF1+CONST	0.00065
157	27	2	AREA	CONST	AREA FACTOR=AREA*COEFF+CONST	0.35
158	27	2	AREA	SQRT	SQRT FACTOR	0
159	27	2	ATTIC	1	NONE	
160	27	2	ATTIC	2	UNFIN	6000
161	27	2	ATTIC	3	PT-FIN	12600
162	27	2	ATTIC	4	FULL-FIN	21000
163	27	2	ATTIC	5	FF-WALL HGT FINISHED	27900
164	27	2	ATTICSF	1	NO ATTIC	
165	27	2	ATTICSF	2	NO ATTIC SF	0
166	27	2	ATTICSF	3	20% ATTIC SFLA	0.2
167	27	2	ATTICSF	4	40% ATTIC SFLA	0.4
168	27	2	ATTICSF	5	55% ATTIC SFLA	0.55
169	27	2	BGAR	0	NO BASEMENT GARAGE	0
170	27	2	BGAR	1	1 CAR BASEMENT GARAGE	2000
171	27	2	BGAR	2	2 CAR BASEMENT GARAGE	3000

COST FACTOR TABLES						
#	Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
172	27	2	BGAR	3	3 CAR BASEMENT GARAGE	4000
173	27	2	BGAR	4	4 CAR BASEMENT GARAGE	5000
174	27	2	BGAR	5	5 CAR BASEMENT GARAGE	5000
175	27	2	BGAR	6	6 CAR BASEMENT GARAGE	5000
176	27	2	BSMT	1	NONE	-16000
177	27	2	BSMT	2	CRAWL	-12500
178	27	2	BSMT	3	PART	-5000
179	27	2	BSMT	4	FULL	0
180	27	2	COMAREA	A	ATTIC AREA ADJ	0.4
181	27	2	COMLVL	C	CRAWL SPACE ADJ	0.2
182	27	2	COMLVL	E	ENCLOSURE ADJ	0
183	27	2	COST	BASE	BASE COST VALUE	140000
184	27	2	COST	VALYR	VALUATION YEAR	2022
185	27	2	EXTWALL	9	MASONRY/FRAME	1
186	27	2	FUEL	1	GAS	1
187	27	2	FUEL	2	ELECTRIC	1
188	27	2	FUEL	3	OIL	1
189	27	2	FUEL	4	COAL	1
190	27	2	FUEL	5	SOLAR	1
191	27	2	FUEL	6	NONE	1
192	27	2	GRADE	3A+	EXCEPTIONAL AAA+	3.5
193	27	2	GRADE	3A-	EXCEPTIONAL AAA-	2.5
194	27	2	GRADE	A	HIGH QUALITY A	1.6
195	27	2	GRADE	A+	HIGH QUALITY A+	1.75
196	27	2	GRADE	A-	HIGH QUALITY A-	1.5
197	27	2	GRADE	AA	EXCEPTIONAL AA	2
198	27	2	GRADE	AA+	EXCEPTIONAL AA+	2.25
199	27	2	GRADE	AA-	EXCEPTIONAL AA-	1.85
200	27	2	GRADE	AAA	EXCEPTIONAL AAA	3
201	27	2	GRADE	B	GOOD B	1.3
202	27	2	GRADE	B+	GOOD B+	1.4
203	27	2	GRADE	B-	GOOD B-	1.2
204	27	2	GRADE	C	AVERAGE	1
205	27	2	GRADE	C+	AVERAGE C+	1.1
206	27	2	GRADE	C-	AVERAGE C-	0.95

COST FACTOR TABLES						
#	Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
207	27	2	GRADE	D	BELOW AVERAGE D	0.85
208	27	2	GRADE	D+	BELOW AVERAGE D+	0.9
209	27	2	GRADE	D-	BELOW AVERAGE D-	0.75
210	27	2	GRADE	E	POOR	0.55
211	27	2	GRADE	E+	POOR E+	0.65
212	27	2	GRADE	E-	POOR E-	0.4
213	27	2	GRADE	MA	MA	0.9
214	27	2	GRADE	MA+	MA+	1
215	27	2	GRADE	MA-	MA-	0.85
216	27	2	GRADE	MB	MB	0.75
217	27	2	GRADE	MB+	MB+	0.8
218	27	2	GRADE	MB-	MB-	0.7
219	27	2	GRADE	MC	MC	0.65
220	27	2	GRADE	MC+	MC+	0.7
221	27	2	GRADE	MC-	MC-	0.6
222	27	2	GRADE	MD	MD	0.45
223	27	2	GRADE	MD+	MD+	0.5
224	27	2	GRADE	MD-	MD-	0.4
225	27	2	GRADE	ME	ME	0.25
226	27	2	GRADE	ME+	ME+	0.3
227	27	2	GRADE	ME-	ME-	0.1
228	27	2	HEAT	1	NO HEAT, NO AC	-4200
229	27	2	HEAT	2	NON-CENTRAL	-2000
230	27	2	HEAT	3	CENTRAL	0
231	27	2	HEAT	4	CENTRAL A/C	4000
232	27	2	HEATCODE	2	HEAT ADJ	1
233	27	2	HEATCODE	3	HEAT ADJ	1
234	27	2	HEATSYS	1	CENTRAL HEAT / AC	1
235	27	2	LEVEL	COM	COMM LEVEL	100
236	27	2	LEVEL	OBY	OBY LEVEL	100
237	27	2	LEVEL	RES	RES LEVEL	100
238	27	2	MISC	CC	CATHEDRAL CEILING	
239	27	2	MISC	EF	2 STORY FOYER	
240	27	2	MISC	EL	ELEVATOR, RES	15000
241	27	2	MISC	HA	HABITAT	10000

COST FACTOR TABLES						
#	Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
242	27	2	MISC	J1	JACUZZI-SMALL	3000
243	27	2	MISC	J2	JACUZZI-LARGE	5000
244	27	2	MISC	SA	SAUNA	5000
245	27	2	MISC	SC	SECURITY	0
246	27	2	OTH-FEAT	BLIV	FIN-BASEMENT LIVING AREA	36
247	27	2	OTH-FEAT	BLIVA	FIN-BASEMENT LIVING AREA	39.6
248	27	2	OTH-FEAT	BREC	FIN-BASEMENT REC ROOM	22
249	27	2	OTH-FEAT	BRECA	FIN-BASEMENT REC ROOM	25.6
250	27	2	OTH-FEAT	FBPCT	FIN BSMT SFLA %	1
251	27	2	OTH-FEAT	METFP	METAL FIREPLACES	3000
252	27	2	OTH-FEAT	TRIMB	BRICK TRIM	7.3
253	27	2	OTH-FEAT	TRIMS	STONE TRIM	7.3
254	27	2	OTH-FEAT	UNFIN	UNFINISHED AREA	-15
255	27	2	OTH-FEAT	WBFP1	WBFP-ONE STACK, ONE OPENING	5000
256	27	2	OTH-FEAT	WBFP2	ADDITIONAL OPENINGS	2500
257	27	2	OTH-FEAT	WHEAT	CENTRAL WOOD HEATING	
258	27	2	PLUMB	ADDFX	BASE # FIXTURES	0
259	27	2	PLUMB	COUNT	NORMAL # FIXTURES	5
260	27	2	PLUMB	FIXT	PRICE PER PLUMBING FIXTURE	1200
261	27	2	REVEDIT	BLDG	REVIEWERS BLDG %	99
262	27	2	REVEDIT	LAND	REVIEWERS LAND %	99
263	27	2	ROUND	APRTT	ROUND APR TOTALS	-2
264	27	2	SH-BRICK	10	1 STORY MASONRY	0.03
265	27	2	SH-BRICK	12	1.2 ST MASONRY	0.032
266	27	2	SH-BRICK	15	1 1/2 STORY MASONRY	0.035
267	27	2	SH-BRICK	17	1.7 ST MASONRY	0.037
268	27	2	SH-BRICK	20	2 STORY MASONRY	0.04
269	27	2	SH-BRICK	22	2 STORY MASONRY	0.042
270	27	2	SH-BRICK	25	2 1/2 STORY MASONRY	0.045
271	27	2	SH-BRICK	27	2 1/2 STORY MASONRY	0.047
272	27	2	SH-BRICK	30	3 STORY MASONRY	0.05
273	27	2	SH-BRICK	35	3 1/2 STORY MASONRY	0.055
274	27	2	SH-BRICK	40	4 STORY MASONRY	0.06
275	27	2	SH-FACT	10	1 STORY	1
276	27	2	SH-FACT	12	1.2 STORY	1.175

COST FACTOR TABLES						
#	Version	Model	Factor Name	Variable Costed	Description	Rate for Valuation
277	27	2	SH-FACT	15	1.5 STORY	1.35
278	27	2	SH-FACT	17	1.7 STORY	1.5
279	27	2	SH-FACT	20	2 STORY	1.65
280	27	2	SH-FACT	22	2.2 STORY	1.825
281	27	2	SH-FACT	25	2.5 STORY	2
282	27	2	SH-FACT	27	2.7 STORY	2.15
283	27	2	SH-FACT	30	3 STORY	2.3
284	27	2	SH-FACT	35	3 1/2 STORY	2.65
285	27	2	SH-FACT	40	4 STORY	2.95
286	27	2	STDFIX	2	# ADD FIXTURES	
287	27	2	STORYSF	1	1 STORY SFLA FACT	1
288	27	2	STORYSF	1.2	1.3 STORY SFLA FACT	1.2
289	27	2	STORYSF	1.5	HALF STORY SFLA FACTOR	1.5
290	27	2	STORYSF	1.7	HALF STORY SFLA FACTOR	1.7
291	27	2	STORYSF	2	2 STORY SFLA FACT	2
292	27	2	STORYSF	2.2	2 STORY SFLA FACT	2.2
293	27	2	STORYSF	2.5	HALF STORY SFLA FACTOR	2.5
294	27	2	STORYSF	2.7	HALF STORY SFLA FACTOR	2.7
295	27	2	STORYSF	3	3 STORY SFLA FACT	3
296	27	2	STORYSF	3.5	HALF STORY SFLA FACTOR	3.5
297	27	2	STORYSF	4	4 STORY SFLA FACT	4

ADDITION FACTORS																			
#	Version	Addn Code	Flr Adj	Low	1st	2nd	3rd	Ac Adj	1st Const	1st Rate	1st Sqrt	Up Co nst	Up Rate	Up Sqrt	Part Sfla	Area %	Model	Description	Short Desc
1	27	10	Y	Y	Y	Y	Y	3.6		127.12			82.63		1	100	1	1 STORY FRAME	RES
2	27	10F	Y	Y	Y	Y	Y			127.12			82.63		1	100	1	1 STORY FRAME	RES
3	27	10U	Y	Y	Y	Y	Y	3.6		82.6			53.69		1	100	1	1 STORY FRAME	RES
4	27	11	Y	Y	Y	Y	Y			36.6			23.79		0	0	1	OPEN FRAME PORCH	OFP
5	27	11F	N	Y	Y	Y	Y			36.6			23.79		0	0	1	OPEN FRAME PORCH	OFP
6	27	11U	N	Y	Y	Y	Y			36.6			23.79		0	0	1	OPEN FRAME PORCH	OFP
7	27	12	Y	Y	Y	Y	Y	3.6		68.9			44.79		1	100	1	ENCLOSED FRAME PORCH	EFP
8	27	13	Y	Y	Y	Y	Y			53.14			34.52		0	0	1	FRAME GARAGE	FGAR
9	27	13D	Y	Y	Y	Y	Y			49.95			32.79		0	0	1	DETACHED GARAGE	DGAR
10	27	14	Y	Y	Y	Y	Y			31.54			20.5		0	0	1	FRAME UTILITY BUILDING	F UTIL
11	27	15	Y	Y	Y	Y	Y	3.6		86.99			56.54		1	100	1	FRAME BAY WINDOW	F BAY
12	27	16	N	Y	Y	Y	Y	3.6		66.64			43.32		1	100	1	FRAME OVERHANG	F OVER
13	27	17	Y	N	Y	Y	Y	1.8		41.34			26.87		0.5	50	1	1/2 STORY FRAME	F HALF
14	27	18	Y	N	Y	Y	Y			24.34			15.82		0	0	1	ATTIC (UNFINISHED)	ATT UNFIN
15	27	19	Y	N	Y	Y	Y	1.44		36.5			23.73		0.4	40	1	ATTIC (FINISHED)	ATT FIN
16	27	20	Y	Y	Y	Y	Y	3.6		132.6			86.19		1	100	1	1 STORY MASONRY	1S MASONRY
17	27	21	Y	Y	Y	Y	Y			39.76			25.84		0	0	1	OPEN MASONRY PORCH	OMP
18	27	21S	Y	Y	Y	Y	Y			25.9			16.83		0	0	1	OPEN MASONRY PORCH	OMP

ADDITION FACTORS																		
#	Version	Addn Code	Flr Adj	Low	1st	2nd	3rd	Ac Adj	1st Const	1st Rate	1st Sqrt	Up Co nst	Up Rate	Up Sqrt	Part Sfla	Area %	Model	Description	Short Desc
19	27	22	Y	Y	Y	Y	Y	3.6		71.88			46.72		1	100	1	ENCLOSED MASONRY PORCH	EMP
20	27	23	Y	Y	Y	Y	Y			57.08			37.1		0	0	1	MASONRY GARAGE	M GAR
21	27	23D	Y	Y	Y	Y	Y			53.65			35.25		0	0	1	DETACHED MASONRY GARAGE	DET M GAR
22	27	24	Y	Y	Y	Y	Y			33.92			22.04		0	0	1	MASONRY UTILITY BUILDING	M UTILITY
23	27	25	N	Y	Y	Y	Y	0.07		89.96			58.48		1	2	1	MASONRY BAY WINDOW	M BAY
24	27	26	N	Y	Y	Y	Y	3.6		69.62			45.25		1	100	1	MASONRY OVERHANG	M OVER
25	27	27	Y	N	Y	Y	Y	1.8		44.46			28.9		0.5	50	1	MASONRY 1/2 STORY	M HALF
26	27	30	Y	Y	Y	Y	Y			27.49			17.87		0	0	1	CARPORT	CARPORT
27	27	31	N	Y	Y	Y	Y			21			13.65		0	0	1	WOOD DECK	DECK
28	27	32	N	Y	Y	Y	Y			17.57			11.42		0	0	1	CANOPY	CANOPY
29	27	33	N	Y	Y	Y	Y			14.37			9.34		0	0	1	CONCRETE/MASONRY PATIO	CM PATIO
30	27	34	N	Y	Y	Y	Y			34.41			22.37		0	0	1	STONE/TILE PATIO	ST PATIO
31	27	35	N	Y	Y	Y	Y			33.67			21.89		0	0	1	MASONRY STP/TERRACE	M STOOP
32	27	36	N	Y	Y	Y	Y			23.21			15.08		0	0	1	ATT GREENHOUSE	ATT GRNHSE
33	27	37	Y	Y	Y	Y	Y			45.37			29.49		0	0	1	SCREEN PORCH	SCRN PORCH
34	27	60	N	Y	N	N	N			32.45			21.09		0	0	1	BASEMENT(UNFINISHED)	BSMT UNFIN
35	27	61	N	Y	N	N	N	3.6		105.46			68.55		1	100	1	BASEMENT(FINISHED)	BSMT FIN
36	27	62	N	Y	N	N	N			12.17			7.91		0	0	1	ADDITIONAL CRAWL SPACE	ADDL CRAWL

ADDITION FACTORS																			
#	Version	Addn Code	Flr Adj	Low	1st	2nd	3rd	Ac Adj	1st Const	1st Rate	1st Sqrt	Up Co nst	Up Rate	Up Sqrt	Part Sfla	Area %	Model	Description	Short Desc
37	27	99	Y	Y	Y	Y	Y			24.34			15.82		0	0	1	ADDITIONAL EXTRA FEATURE	EXTRA
38	27	10	Y	Y	Y	Y	Y	3.6		127.12			82.63		1	100	2	1 STORY FRAME	RES
39	27	11	N	Y	Y	Y	Y			36.6			23.79		0	0	2	OPEN FRAME PORCH	OFP
40	27	12	Y	Y	Y	Y	Y	3.6		68.9			44.79		1	100	2	ENCLOSED FRAME PORCH	EFP
41	27	13	Y	Y	Y	Y	Y			53.14			34.54		0	0	2	FRAME GARAGE	FGAR
42	27	14	Y	Y	Y	Y	Y			42.72			27.77		0	0	2	FRAME UTILITY BUILDING	F UTIL
43	27	15	Y	Y	Y	Y	Y	3.6		27.85			18.1		1	100	2	FRAME BAY WINDOW	F BAY
44	27	16	N	Y	Y	Y	Y	3.6		68.66			44.63		1	100	2	FRAME OVERHANG	F OVER
45	27	17	Y	N	Y	Y	Y	1.8		54.76			35.59		0.5	50	2	1/2 STORY FRAME	F HALF
46	27	18	Y	N	Y	Y	Y			41.34			26.87		0	0	2	ATTIC (UNFINISHED)	ATT UNFIN
47	27	19	Y	N	Y	Y	Y	1.44		114.04			74.12		0.4	40	2	ATTIC (FINISHED)	ATT FIN
48	27	20	Y	Y	Y	Y	Y	3.6		87.36			56.78		1	100	2	1 STORY MASONRY	1S MASONRY
49	27	21	Y	Y	Y	Y	Y			27.02			17.56		0	0	2	OPEN MASONRY PORCH	OMP
50	27	22	Y	Y	Y	Y	Y	3.6		18.56			12.07		1	100	2	ENCLOSED MASONRY PORCH	EMP
51	27	23	Y	Y	Y	Y	Y			35.33			22.97		0	0	2	MASONRY GARAGE	M GAR
52	27	24	Y	Y	Y	Y	Y			101.15			65.75		0	0	2	MASONRY UTILITY BUILDING	M UTILITY
53	27	25	N	Y	Y	Y	Y	0.07		46.41			30.17		1	2	2	MASONRY BAY WINDOW	M BAY
54	27	26	N	Y	Y	Y	Y	3.6		30.23			19.65		1	100	2	MASONRY OVERHANG	M OVER

ADDITION FACTORS																			
#	Version	Addn Code	Flr Adj	Low	1st	2nd	3rd	Ac Adj	1st Const	1st Rate	1st Sqrt	Up Co nst	Up Rate	Up Sqrt	Part Sfla	Area %	Model	Description	Short Desc
55	27	27	Y	N	Y	Y	Y	1.8		94.22			61.25		0.5	50	2	MASONRY 1/2 STORY	M HALF
56	27	30	Y	Y	Y	Y	Y			44.98			29.24		0	0	2	CARPORT	CARPORT
57	27	31	N	Y	Y	Y	Y			21			13.65		0	0	2	WOOD DECK	DECK
58	27	32	N	Y	Y	Y	Y			17.57			11.42		0	0	2	CANOPY	CANOPY
59	27	33	N	Y	Y	Y	Y			14.37			9.34		0	0	2	CONCRETE/MASONRY PATIO	CM PATIO
60	27	34	N	Y	Y	Y	Y			52.44			34.09		0	0	2	STONE/TILE PATIO	ST PATIO
61	27	35	N	Y	Y	Y	Y			42.5			27.63		0	0	2	MASONRY STP/TERRACE	M STOOP
62	27	36	N	Y	Y	Y	Y			24.75			16.09		0	0	2	ATT GREENHOUSE	ATT GRNHSE
63	27	37	Y	Y	Y	Y	Y			45.37			29.49		0	0	2	SCREEN PORCH	SCRN PORCH
64	27	60	N	Y	N	N	N			12.17			7.91		0	0	2	BASEMENT(UNFINISHED)	BSMT UNFIN
65	27	61	N	Y	N	N	N	3.6		29.17			18.96		1	100	2	BASEMENT(FINISHED)	BSMT FIN
66	27	62	N	Y	N	N	N			28.55			18.56		0	0	2	ADDITIONAL CRAWL SPACE	ADDL CRAWL
67	27	99	Y	Y	Y	Y	Y			30.42			19.77		0	0	2	ADDITIONAL EXTRA FEATURE	EXTRA

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	AB1	A01	BANK BARN	1.55	1.25	1	0.85	0.55	1	999999		0	41.74	1	1
R1	AB1F		BANK BARN	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AB2	A02	FLAT BARN	1.55	1.25	1	0.85	0.55	0	50000		112.15	17.79	100	1
R1	AB2F		FLAT BARN	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AB3	A01	STABLE	1.55	1.25	1	0.85	0.55	1	999999		0	52.17	100	1
R1	AB3F		STABLE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AB4	A01	EQUESTRIAN BARN/STABLE	1.55	1.25	1	0.85	0.55	1	999999		0	83.47	1	1
R1	AB4F		EQUESTRIAN BARN/STABLE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AC1	A03	WOOD CORN CRIB	1.55	1.25	1	0.85	0.55	1	999999		77.2	9.77	1	1
R1	AC1F		WOOD CORN CRIB	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AC3	A07	WIRE CORN CRIB	1.55	1.25	1	0.85	0.55	1	999999		2.353	2.54	1	3
R1	AC3F		WIRE CORN CRIB	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AD1	A01	DAIRY BARN	1.55	1.25	1	0.85	0.55	1	999999		370	41.74	1	1
R1	AD1F		DAIRY BARN	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AF1	A06	CONC FEEDBUNK	1.55	1.25	1	0.85	0.55	1	999999	30.25	0	0	1	2
R1	AF1F		CONC FEEDBUNK	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AG1	A07	STL GRN BIN ND	1.55	1.25	1	0.85	0.55	1	999999	2415	0.416	0	1	6
R1	AG1F		STL GRN BIN ND	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AH1	A03	1SF POULTRY HS	1.55	1.25	1	0.85	0.55	1	999999		99	5.44	1	1
R1	AH1F		1SF POULTRY HS	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AH4	A03	1SM POULTRY HS	1.55	1.25	1	0.85	0.55	1	999999		143.6	5.34	1	1
R1	AH4F		1SM POULTRY HS	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AL1	A06	1S LEAN TO	1.55	1.25	1	0.85	0.55	1	999999		0	5.22	1	1
R1	AL1F		1S LEAN TO	1.55	1.25	1	0.85	0.55	1	999999				100	7

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	AM3F		DET C.BLK MLK	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AM5	A02	C.BLK MILK PAR	1.55	1.25	1	0.85	0.55	1	999999		103.4	18.22	1	1
R1	AM5F		C.BLK MILK PAR	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AO1	A03	POT STRG UNDGD	1.55	1.25	1	0.85	0.55	1	999999		24.7	6.66	1	1
R1	AO1F		POT STRG UNDGD	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AO2	A03	POT STRG ABVGD	1.55	1.25	1	0.85	0.55	1	999999		308	8.59	1	1
R1	AO2F		POT STRG ABVGD	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AO3	A03	TOBACCO BARN	1.55	1.25	1	0.85	0.55	1	999999		185	5.81	1	1
R1	AO3F		TOBACCO BARN	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AP1	A06	MTL PL.BARN 4S	1.55	1.25	1	0.85	0.55	1	999999		54.1	3.75	1	1
R1	AP1F		MTL PL.BARN 4S	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AP2	A06	WD POLEBARN 4S	1.55	1.25	1	0.85	0.55	1	999999		53.1	4.05	1	1
R1	AP2F		WD POLEBARN 4S	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AP3	A06	MTL PL.BN 1SOP	1.55	1.25	1	0.85	0.55	1	999999		16.5	4.23	1	1
R1	AP3F		MTL PL.BN 1SOP	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AP4	A06	WD PL.BRN 1SOP	1.55	1.25	1	0.85	0.55	1	999999		40	3.95	1	1
R1	AP4F		WD PL.BRN 1SOP	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AP5	A06	MTL PL.BN 4SOP	1.55	1.25	1	0.85	0.55	1	999999		47.2	2.62	1	1
R1	AP5F		MTL PL.BN 4SOP	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AP6	A06	WD PL.BRN 4SOP	1.55	1.25	1	0.85	0.55	1	999999		80.3	1.93	1	1
R1	AP6F		WD PL.BRN 4SOP	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AQ1	A06	QUONSET HUT	1.55	1.25	1	0.85	0.55	1	999999		135.59	13.91	1	1
R1	AQ1F		QUONSET HUT	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AR1	A03	GRANARY	1.55	1.25	1	0.85	0.55	1	999999		88.9	8.59	1	1
R1	AR1F		GRANARY	1.55	1.25	1	0.85	0.55	1	999999				100	7

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	AS1	A02	CONC SILO W RF	1.55	1.25	1	0.85	0.55	1	999999		9.5	6.96	1	3
R1	AS1F		CONC SILO W RF	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AS2	A02	CONC SILO NORF	1.55	1.25	1	0.85	0.55	1	999999	400	9.5	0	1	3
R1	AS2F		CONC SILO NORF	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AS3	A03	SILO-LOW MOIST	1.55	1.25	1	0.85	0.55	1	999999		24.7	34.35	1	3
R1	AS3F		SILO-LOW MOIST	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AS4F		SILO-PORCELAIN	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AS5	A03	SILO-PREFAB	1.55	1.25	1	0.85	0.55	1	999999		12.05	4.27	1	3
R1	AS5F		SILO-PREFAB	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AT2	A07	DIRT TRCH.SILO	1.55	1.25	1	0.85	0.55	1	999999	37	1.85	0	1	5
R1	AT2F		DIRT TRCH.SILO	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AW2F		SWINE CONFIN B	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	AX1	A06	PREFAB STL BLD	1.55	1.25	1	0.85	0.55	1	999999		176.23	10.43	1	1
R1	AX1F		PREFAB STL BLD	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	BD1	C20	BOAT DOCK (WOOD T	1.55	1.25	1	0.85	0.55	1	999999		0	26.09	1	1
R1	BD1F		BOAT DOCK (WOOD T	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	BH2	C20	BOAT HOUSE ENCLOS	1.55	1.25	1	0.85	0.55	1	999999		0	36.52	1	1
R1	BH2F		BOAT HOUSE ENCLOS	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	BM1	R06	CON BSMT	1.55	1.25	1	0.85	0.55	1	999999		0	21.91	1	1
R1	BM1F		CON BSMT	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	BS1	C20	BOAT SLIP ECONOMY	1.55	1.25	1	0.85	0.55	1	999999	6750	0	0	1	4
R1	BS1F		BOAT SLIP ECONOMY	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	BS2	C20	BOAT SLIP AVERAGE	1.55	1.25	1	0.85	0.55	1	999999	7500	0	0	1	4

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	CB1	C40	CABIN WITH PLUMBING	1.55	1.25	1	0.85	0.55	1	999999		0	118.25	1	1
R1	CB1F		CABIN WITH PLUMBING	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	CB2	C40	CABIN WITHOUT PLUMBING	1.55	1.25	1	0.85	0.55	1	999999		0	104.34	1	1
R1	CB2F		CABIN WITHOUT PLUMBING	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	CC1	C15	CENTRAL A/C	1.55	1.25	1	0.85	0.55	1	999999		0	10.09	1	1
R1	CC1F		CENTRAL A/C	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	CD1	C15	COMMERCIAL WOOD DECK	1.55	1.25	1	0.85	0.55	1	999999		0	27.82	1	1
R1	CD1F		COMMERCIAL WOOD DECK	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	CF		COMMERCIAL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	CP5	C20	CANOPY ONLY	1.55	1.25	1	0.85	0.55	1	999999		0	16.52	1	1
R1	CP5F		CANOPY ONLY	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	CP6	C20	CANOPY ROOF/SLAB	1.55	1.25	1	0.85	0.55	1	999999		0	29.56	1	1
R1	CP6F		CANOPY ROOF/SLAB	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	CP7	C20	CANOPY RF-ECONOMY	1.55	1.25	1	0.85	0.55	1	999999		0	36.52	1	1
R1	CP7F		CANOPY RF-ECONOMY	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	CP8	C20	CANOPY RF-AVERAGE	1.55	1.25	1	0.85	0.55	1	999999		0	46.95	1	1
R1	CP8F		CANOPY RF-AVERAGE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	CP9	C20	CANOPY RF-GOOD	1.55	1.25	1	0.85	0.55	1	999999		0	60.87	1	1
R1	CP9F		CANOPY RF-GOOD	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	DF		DWELLING	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	FF3F		Feedbunk - man. feeder	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	FF4F		Fence Bunk Gutter	1.55	1.25	1	0.85	0.55	1	999999				100	7

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	FF5F		Cattle waterer	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	FLTF		FLAT VALUE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	FN1	C20	FNC CHN-LNK	1.55	1.25	1	0.85	0.55	1	999999	12.6	0	0	1	2
R1	FN1F		FNC CHN-LNK	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	FN2	C20	FNC PICKETT	1.55	1.25	1	0.85	0.55	1	999999	9.98	0	0	1	2
R1	FN2F		FNC PICKETT	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	FN3	C20	FNC PRIVACY	1.55	1.25	1	0.85	0.55	1	999999	11.81	0	0	1	2
R1	FN3F		FNC PRIVACY	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	FN4	C20	FNC POST & RAIL	1.55	1.25	1	0.85	0.55	1	999999	9.45	0	0	1	2
R1	FN4F		FNC POST & RAIL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	FN5	C20	FNC BSKTWEAVE	1.55	1.25	1	0.85	0.55	1	999999	11.34	0	0	1	2
R1	FN5F		FNC BSKTWEAVE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	FN6	C20	FNC BRCK/STONE WA	1.55	1.25	1	0.85	0.55	1	999999	19.95	0	0	1	2
R1	FN6F		FNC BRCK/STONE WA	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	FP1	A01	OUTDOOR FIREPLACE	1.55	1.25	1	0.85	0.55	1	9	8100	0	0	1	4
R1	GC1	C50	GOLF COURSE-EX.	1.55	1.25	1	0.85	0.55	1	999999	225000	0	0	1	4
R1	GC1F		GOLF COURSE-EX.	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GC2	C50	GOLF COURSE-VG	1.55	1.25	1	0.85	0.55	1	999999	187500	0	0	1	4
R1	GC2F		GOLF COURSE-VG	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GC3	C50	GOLF COURSE-GD	1.55	1.25	1	0.85	0.55	1	999999	150000	0	0	1	4
R1	GC3F		GOLF COURSE-GD	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GC4	C50	GOLF COURSE-AV	1.55	1.25	1	0.85	0.55	1	999999	120000	0	0	1	4
R1	GC4F		GOLF COURSE-AV	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GC5	C50	GOLF COURSE-FR	1.55	1.25	1	0.85	0.55	1	999999	97500	0	0	1	4

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	GC5F		GOLF COURSE-FR	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GC6	C20	GOLF COURSE-PAR 3	1.55	1.25	1	0.85	0.55	1	999999	60000	0	0	1	4
R1	GC6F		GOLF COURSE-PAR 3	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GC7	C15	GOLF COURSE MINIATURE	1.55	1.25	1	0.85	0.55	1	999999	7500	0	0	1	4
R1	GC7F		GOLF COURSE MINIATURE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GH1	R07	GHOUSE WD FRAME	1.55	1.25	1	0.85	0.55	1	999999		142.881	11.13	1	1
R1	GH1F		GHOUSE WD FRAME	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GH2	R07	GHOUSE PIPE METAL	1.55	1.25	1	0.85	0.55	1	999999		214.214	16.69	1	1
R1	GH2F		GHOUSE PIPE METAL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GH3	R07	GHOUSE PLAS FRAME	1.55	1.25	1	0.85	0.55	1	999999		107.107	8.35	1	1
R1	GH3F		GHOUSE PLAS FRAME	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GS3	C20	ATTENDANT BOOTH MASONRY/GLASS	1.55	1.25	1	0.85	0.55	1	999999		0	278.24	1	1
R1	GS3F		ATTENDANT BOOTH MASONRY/GLASS	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GS4	C20	ATTENDANT BOOTH FRAME/BLOCK	1.55	1.25	1	0.85	0.55	1	999999		0	226.07	1	1
R1	GS4F		ATTENDANT BOOTH FRAME/BLOCK	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	GZ1	R01	GAZEBO	1.55	1.25	1	0.85	0.55	1	999999		0	27.82	1	1
R1	GZ1F		GAZEBO	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	JQ1	C15	JACUZZI SMALL	1.55	1.25	1	0.85	0.55	1	999999	4400	0	0	1	4
R1	JQ1F		JACUZZI SMALL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	JQ2	C15	JACUZZI LARGE	1.55	1.25	1	0.85	0.55	1	999999	6900	0	0	1	4

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	JQ2F		JACUZZI LARGE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	KF1	C20	KIOSK	1.55	1.25	1	0.85	0.55	1	999999		0	330.41	1	1
R1	KF1F		KIOSK	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	KT1	A01	OUTDOOR KITCHEN	1.55	1.25	1	0.85	0.55	1	9	20000	0	0	1	4
R1	LT1	C20	LGHT MER-WL-MTD-F	1.55	1.25	1	0.85	0.55	1	999999	800	0	0	1	4
R1	LT1F		LGHT MER-WL-MTD-F	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	LT2	C20	LGHT INC-WL-MTD-F	1.55	1.25	1	0.85	0.55	1	999999	200	0	0	1	4
R1	LT2F		LGHT INC-WL-MTD-F	1.55	1.25	1	0.85	0.55	1	999999	1200			100	7
R1	LT3	C20	LGHT FLO-POLE & B	1.55	1.25	1	0.85	0.55	1	999999	1900	0	0	1	4
R1	LT3F		LGHT FLO-POLE & B	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	LT4	C20	LGHT INCN-POLE &	1.55	1.25	1	0.85	0.55	1	999999	1900	0	0	1	4
R1	LT4F		LGHT INCN-POLE &	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	LT5	C20	LGHT MER-POLE & B	1.55	1.25	1	0.85	0.55	1	999999	2300	0	0	1	4
R1	LT5F		LGHT MER-POLE & B	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	MBF		MISC BLDGS	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	MH2	C15	M.H. PARK-GD	1.55	1.25	1	0.85	0.55	1	999999	15750	0	0	1	4
R1	MH2F		M.H. PARK-GD	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	MH3	C15	M.H. PARK-AV	1.55	1.25	1	0.85	0.55	1	999999	11875	0	0	1	4
R1	MH3F		M.H. PARK-AV	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	MH4	C15	M.H. PARK-FR	1.55	1.25	1	0.85	0.55	1	999999	8750	0	0	1	4
R1	MH4F		M.H. PARK-FR	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	MH5	C15	M.H. PARK-PR	1.55	1.25	1	0.85	0.55	1	999999	4750	0	0	1	4
R1	MH5F		M.H. PARK-PR	1.55	1.25	1	0.85	0.55	1	999999				100	7

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	MH6	C15	M.H. PARK-RV	1.55	1.25	1	0.85	0.55	1	999999	2375	0	0	1	4
R1	MH6F		M.H. PARK-RV	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	MS1		MOBILE HOME SITE	1	1	1	1	1	1	999999	4600	0	4600	1	4
R1	MS1F		MOBILE HOME SITE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	MSA	C20	MISC AG BLDGS	1.55	1.25	1	0.85	0.55	1	999999	750	0	0	1	4
R1	MSAF		MISC AG BLDGS	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	MSRF		MISC RES BLDGS	1.55	1.25	1	0.85	0.55	1	999999	150			100	7
R1	MSSF		MISCELLANEOUS STRUCTURE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	OF		OUTBUILDING	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	PA1	C15	PAVING-ASPHALT PA	1.55	1.25	1	0.85	0.55	1	999999		0	4.35	1	1
R1	PA1F		PAVING-ASPHALT PA	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	PA2	C15	PAVING-ASP/CONC-S	1.55	1.25	1	0.85	0.55	1	999999		0	6.96	1	1
R1	PA2F		PAVING-ASP/CONC-S	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	PB1	C20	PLUMBING FIXTURES	1.55	1.25	1	0.85	0.55	1	999999	1344	0	0	1	4
R1	PB1F		PLUMBING FIXTURES	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	PC1	C15	PAVING CONC-AVG	1.55	1.25	1	0.85	0.55	1	999999		0	6.25	1	1
R1	PC1F		PAVING CONC-AVG	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	PC2	C15	PAVING CONC-HEAVY	1.55	1.25	1	0.85	0.55	1	999999		0	9.56	1	1
R1	PC2F		PAVING CONC-HEAVY	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	PK1	R01	PICKLEBALL COURT	1.55	1.25	1	0.85	0.55	1	999999	25000	0	0	1	4
R1	PT1	C15	PATIO-CONCRETE/MASONRY	1.55	1.25	1	0.85	0.55	1	999999		0	13.51	1	1
R1	PT2	C15	PATIO-STONE/TILE	1.55	1.25	1	0.85	0.55	1	999999		0	20.07	1	1

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	RA1F		ATT FR GR	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RB1	R06	CB BT HSE	1.55	1.25	1	0.85	0.55	1	999999		0	31.3	1	1
R1	RB1F		CB BT HSE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RC1	R06	CARPORT	1.55	1.25	1	0.85	0.55	1	999999		0	44.98	1	1
R1	RC1F		CARPORT	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RC2	R06	CANOPY	1.55	1.25	1	0.85	0.55	1	999999		0	16.52	1	1
R1	RC2F		CANOPY	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RC3	R06	METAL CARPORT/SHED	1.55	1.25	1	0.85	0.55	1	999999		0	6.96	1	1
R1	RC3F		METAL CARPORT/SHED	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RD1	R10	LIGHT DOC	1.55	1.25	1	0.85	0.55	1	999999		0	23.48	1	1
R1	RD1F		LIGHT DOC	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RD2	R10	MEDIUM DOC	1.55	1.25	1	0.85	0.55	1	999999		0	31.3	1	1
R1	RD2F		MEDIUM DOC	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RESF		RESIDENTIAL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RG1	R04	DET FR GAR	1.55	1.25	1	0.85	0.55	1	999999		0	49.95	1	1
R1	RG1F		DET FR GAR	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RG2	R04	DET MAS GAR	1.55	1.25	1	0.85	0.55	1	999999		0	53.65	1	1
R1	RG2F		DET MAS GAR	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RG3	R04	DET BL/CON GAR	1.55	1.25	1	0.85	0.55	1	999999		0	34.78	1	1
R1	RG3F		DET BL/CON GAR	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RG4	C20	COM FRAME GARAGE	1.55	1.25	1	0.85	0.55	1	999999		0	50.43	1	1
R1	RG4F		COM FRAME GARAGE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RG5	C20	COM MASONARY GARAGE	1.55	1.25	1	0.85	0.55	1	999999		0	54.78	1	1
R1	RG5F		COM MASONARY GARAGE	1.55	1.25	1	0.85	0.55	1	999999				100	7

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	RG7	R01	FR/GA WITH APT	1.55	1.25	1	0.85	0.55	1	999999		0	194.77	1	1
R1	RG7F		FR/GA WITH APT	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RG8	R01	MAS/GA WITH APT	1.55	1.25	1	0.85	0.55	1	999999		0	205.2	1	1
R1	RG8F		MAS/GA WITH APT	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RMPF		(PERS)	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RP1	R10	PL. LIN PL	1.55	1.25	1	0.85	0.55	1	999999		250	21.74	1	1
R1	RP1F		PL. LIN PL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RP2	R10	PREFAB PL	1.55	1.25	1	0.85	0.55	1	999999		250	21.74	1	1
R1	RP2F		PREFAB PL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RP3	R10	CONC POOL	1.55	1.25	1	0.85	0.55	1	999999		288	33.04	1	1
R1	RP3F		CONC POOL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RP4	R10	FBRGLS PL	1.55	1.25	1	0.85	0.55	1	999999		250	21.74	1	1
R1	RP4F		FBRGLS PL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RP5	R10	GUNITE PL	1.55	1.25	1	0.85	0.55	1	999999		160	46.95	1	1
R1	RP5F		GUNITE PL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RS1	R06	FR/BR UT SHED	1.55	1.25	1	0.85	0.55	1	999999		0	20.87	1	1
R1	RS1F		FR/BR UT SHED	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RS2	R06	MET UT SHED	1.55	1.25	1	0.85	0.55	1	999999		0	27.4	1	1
R1	RS2F		MET UT SHED	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RS3	R06	MULTI STY UTILITY	1.55	1.25	1	0.85	0.55	1	999999		0	40	1	1
R1	RS3F		MULTI STY UTILITY	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RT1	R06	DET WOOD DECK	1.55	1.25	1	0.85	0.55	1	999999		0	19.74	1	1
R1	RT1F		DET WOOD DECK	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	RT2	R06	DET PORCH/CANOPY	1.55	1.25	1	0.85	0.55	1	999999		0	34.4	1	1

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	RT2F		DET PORCH/CANOPY	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SA	C15	SAUNA	1.55	1.25	1	0.85	0.55	1	999999	6875	0	0	1	4
R1	SAF		SAUNA	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SC1	C20	SWIMMING POOL-COM	1.55	1.25	1	0.85	0.55	1	999999		160	46.95	1	1
R1	SC1F		SWIMMING POOL-COM	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SH		SHACK HOUSE	1.55	1.25	1	0.85	0.55	1	999999			12	1	1
R1	SH1	C30	SHED MACHINERY-FR	1.55	1.25	1	0.85	0.55	1	999999		16.5	5.04	1	1
R1	SH1F		SHED MACHINERY-FR	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SH2	C30	SHED ALUMINUM	1.55	1.25	1	0.85	0.55	1	999999		54.1	4.52	1	1
R1	SH2F		SHED ALUMINUM	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SH3	C30	SHED FINISHED MET	1.55	1.25	1	0.85	0.55	1	999999		176.23	13.91	1	1
R1	SH3F		SHED FINISHED MET	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SH4	C30	SHED QUONSET	1.55	1.25	1	0.85	0.55	1	999999		135.59	13.91	1	1
R1	SH4F		SHED QUONSET	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SH5	C20	LUMB SHED 2SIDE O	1.55	1.25	1	0.85	0.55	1	999999		176.23	8.67	1	1
R1	SH5F		LUMB SHED 2SIDE O	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SH6	C20	LUMB SHED 4SIDE O	1.55	1.25	1	0.85	0.55	1	999999		176.23	4.35	1	1
R1	SH6F		LUMB SHED 4SIDE O	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SHF		SHACK HOUSE	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SP1F		Diving Board	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SP2F		Pool Ladder	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	SP3F		Pool Lights	1.55	1.25	1	0.85	0.55	1	999999				100	7

OBY RATES															
CDU Table	Structure Code	Depreciation Table	Description	A	B	C	D	E	MINSIZE	MAXSIZE	R1 Const	R2 Sqrt	R3 Rate	SUMPCT Area Percent	UNITS
R1	SS1	C20	SPRINKLER SYS WET	1.55	1.25	1	0.85	0.55	1	999999		0	2.26	1	1
R1	SS1F		SPRINKLER SYS WET	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	ST1	R01	STUDIO	1.55	1.25	1	0.85	0.55	1	999999		0	95.65	1	1
R1	ST1F		STUDIO	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	ST2	R01	STUDIO W/FAC	1.55	1.25	1	0.85	0.55	1	999999		0	156.51	1	1
R1	ST2F		STUDIO W/FAC	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	TC1	R01	TENNIS AS	1.55	1.25	1	0.85	0.55	1	999999	43250	0	0	1	4
R1	TC1F		TENNIS AS	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	TC2	R01	TENNIS CO	1.55	1.25	1	0.85	0.55	1	999999	56750	0	0	1	4
R1	TC2F		TENNIS CO	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	TC3	R01	TENNIS CL	1.55	1.25	1	0.85	0.55	1	999999	32250	0	0	1	4
R1	TC3F		TENNIS CL	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	TR1	C30	RESTRM STR/FRM-CB	1.55	1.25	1	0.85	0.55	1	999999		0	69.56	1	1
R1	TR1F		RESTRM STR/FRM-CB	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	TR2	C40	RESTRM STR/BRK-ST	1.55	1.25	1	0.85	0.55	1	999999		0	76.52	1	1
R1	TR2F		RESTRM STR/BRK-ST	1.55	1.25	1	0.85	0.55	1	999999				100	7
R1	TS1	C30	TRUCK SCALES	1.55	1.25	1	0.85	0.55	1	999999		0	1356.43	1	1
R1	TS1F		TRUCK SCALES	1.55	1.25	1	0.85	0.55	1	999999				100	7

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
353F	G1	FR GAR - ATTIC	0	0
AB1	1	WOOD LOFT FLOOR	2.05	
AB1	2	GAMBREL/ARCH TYPE ROOF	1.45	
AB1	3	STALLS AND PARTITION	0.45	
AB1	4	EARTH FLOOR	-1.6	
AB1	5	NO LIGHTING	-0.45	
AB1	B1	BARN WOOD LOFT FLOOR	2.05	0
AB1	B3	BARN MOD CODE 3	0.45	0
AB1	G3	FR GAR - FULL 2nd	60	0
AB2	1	WOOD LOFT DOOR	2.05	
AB2	2	GAMBREL/ARCH TYPE ROOF	1.45	
AB2	3	STALLS AND PARTITION	0.45	
AB2	4	EARTH FLOOR	-1.6	
AB2	5	NO LIGHTING	-0.45	
AB2	B1	BARN WOOD LOFT FLOOR	2.05	0
AB2	B2	BARN MOD CODE 2	1.45	0
AB2	B3	BARN MOD CODE 3	0.45	0
AB2	B4	BARN MOD CODE 4	-1.6	0
AB2	B5	BARN MOD CODE 5	-0.45	0
AB2	D1	DAIRY BARN MOD CD 1	-1.6	0
AB2	G2	FR GAR - HALF STORY	30	0
AB2	G3	FR GAR - FULL 2nd	60	0
AB2F	B1	BARN WOOD LOFT FLOOR	0	0
AB2F	B2	BARN MOD CODE 2	0	0
AB2F	B5	BARN MOD CODE 5	0	0
AB2F	G2	FR GAR - HALF STORY	0	0
AB2F	G3	FR GAR - FULL 2nd	0	0
AB3	1	WOOD LOFT FLOOR	3	
AB3	2	GAMBREL/ARCH TYPE ROOF	6	
AB3	3	STALLS & PARTITIONS	10	
AB3	4	EARTH FLOOR	-2.65	
AB3	5	NO LIGHTING	8	
AB3	B1	BARN WOOD LOFT FLOOR	2.05	0
AB4	1	WOOD LOFT FLOOR	3	
AB4	2	GAMBREL/ARCH TYPE ROOF	6	

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
AB4	3	STALLS & PARTITIONS	10	
AB4	4	EARTH FLOOR	-2.65	
AB4	5	NO LIGHTING	8	
AB4	B3	BARN MOD CODE 3	0.45	0
AB4	G2	FR GAR - HALF STORY	30	0
AC1	1	STORAGE BIN OVER WOOD	2.8	
AC1	2	STORAGE BIN OVER WIRE	1.8	
AC1	3	LIGHTING	0.65	
AC2	1	STORAGE BIN OVER WOOD	2.8	
AC2	2	STORAGE BIN OVER WELDED	1.8	
AC2	3	LIGHTING	0.65	
AC3	1	NO CONCRETE SLAB		-410
AC3	2	NO ROOF 35'		-410
AC3	3	NO ROOF 45'		-550
AC4	1	NO CONCRETE SLAB		-410
AC4	2	NO ROOF 35'		-410
AC4	3	NO ROOF 45'		-550
AC5	1	NO CONCRETE SLAB		-410
AC5	2	NO ROOF 35'		-410
AC5	3	NO ROOF 45'		-550
AC6	1	NO CONCRETE SLAB		-410
AC6	2	NO ROOF 35'		-410
AC6	3	NO ROOF 45'		-550
AD1	1	EARTH FLOOR	-1.55	
AD1	2	NO LIGHTING	-0.4	
AD1	B1	BARN WOOD LOFT FLOOR	2.05	0
AD1	B2	BARN MOD CODE 2	1.45	0
AD1	B3	BARN MOD CODE 3	0.45	0
AD1	B4	BARN MOD CODE 4	-1.6	0
AD1	B5	BARN MOD CODE 5	-0.45	0
AD1	D1	DAIRY BARN MOD CD 1	-1.6	0
AD1	D2	DAIRY BARN MOD CD 2	-0.45	0
AD1	G2	FR GAR - HALF STORY	30	0
AD1	G3	FR GAR - FULL 2nd	60	0
AD1F	B3	BARN MOD CODE 3	0	0
AD1F	G3	FR GAR - FULL 2nd	0	0

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
AH1	1	1 STY INSULATION	2.1	
AH1	2	INSULATION SECOND FLOOR	0.7	
AH1	3	INSULATION THIRD FLOOR	0.7	
AH1	4	EARTH FLOOR	-1.55	
AH1	5	SINGLE PITCH ROOF	-0.4	
AH2	1	INSULATION FIRST FLOOR	2.1	
AH2	2	INSULATION SECOND FLOOR	0.7	
AH2	3	INSULATION THIRD FLOOR	0.7	
AH2	4	EARTH FLOOR	-1.55	
AH2	5	SINGLE PITCH ROOF	-0.4	
AH3	1	INSULATION FIRST FLOOR	2.1	
AH3	2	INSULATION SECOND FLOOR	0.7	
AH3	3	INSULATION THIRD FLOOR	0.7	
AH3	4	EARTH FLOOR	-1.55	
AH3	5	SINGLE PITCH ROOF	-0.4	
AH4	1	INSULATION FIRST FLOOR	2.1	
AH4	2	INSULATION SECOND FLOOR	0.7	
AH4	3	INSULATION THIRD FLOOR	0.7	
AH4	4	EARTH FLOOR	-1.55	
AH4	5	SINGLE PITCH ROOF	-0.4	
AH5	1	INSULATION FIRST FLOOR	2.1	
AH5	2	INSULATION SECOND FLOOR	0.7	
AH5	3	INSULATION THIRD FLOOR	0.7	
AH5	4	EARTH FLOOR	-1.55	
AH5	5	SINGLE PITCH ROOF	-0.4	
AH6	1	INSULATION FIRST FLOOR	2.1	
AH6	2	INSULATION SECOND FLOOR	0.7	
AH6	3	INSULATION THIRD FLOOR	0.7	
AH6	4	EARTH FLOOR	-1.55	
AH6	5	SINGLE PITCH ROOF	-0.4	
AL1	1	EARTH FLOOR	-1.55	
AM1	1	METAL ROOF	0.75	
AM1	2	WOOD SHINGLE	0.65	
AM1	3	COMPOSITION ROOF	-0.65	
AM1	4	NO HEATING	-2.15	
AM2	1	METAL ROOF	0.75	

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
AM2	2	WOOD SHINGLE	0.65	
AM2	3	COMPOSITION ROOF	-0.65	
AM2	4	NO HEATING	-2.15	
AM3	1	METAL ROOF	0.75	
AM3	2	WOOD SHINGLE	0.65	
AM3	3	COMPOSITION ROOF	-0.65	
AM3	4	NO HEATING	-2.15	
AM4	1	METAL ROOF	0.75	
AM4	2	WOOD SHINGLE	0.65	
AM4	3	COMPOSITION ROOF	-0.65	
AM4	4	NO HEATING	-2.15	
AM5	1	METAL ROOF	0.75	
AM5	2	WOOD SHINGLE	0.65	
AM5	3	COMPOSITION ROOF	-0.65	
AM5	4	NO HEATING	-2.15	
AM6	1	METAL ROOF	0.75	
AM6	2	WOOD SHINGLE	0.65	
AM6	3	COMPOSITION ROOF	-0.65	
AM6	4	NO HEATING	-2.15	
AO1	1	NO LIGHTING	-0.65	
AO1	2	CONCRETE FLOOR	1.55	
AO2	1	NO LIGHTING	-0.65	
AO2	2	CONCRETE FLOOR	1.55	
AO3	1	NO LIGHTING	-0.65	
AO3	2	CONCRETE FLOOR	1.55	
AP1	1	TRUSS ROOF SPAN TO 50'	0.35	
AP1	2	CONCRETE FLOOR	1.55	
AP1	3	INSULATION	0.35	
AP1	4	WOOD LINING	1	
AP2	1	TRUSS ROOF SPAN TO 50 '	0.35	
AP2	2	CONCRETE FLOOR	1.55	
AP2	3	INSULATION	0.35	
AP2	4	WOOD LINING	1	
AP3	1	TRUSS ROOF SPAN TO 50'	0.35	
AP3	2	CONCRETE FLOOR	1.55	
AP3	3	INSULATION	0.35	

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
AP3	4	WOOD LINING	1	
AP4	1	TRUSS ROOF SPAN TO 50'	0.35	
AP4	2	CONCRETE FLOOR	1.55	
AP4	3	INSULATION	0.35	
AP4	4	WOOD LINING	1	
AP5	1	TRUSS ROOF SPAN TO 50'	0.35	
AP5	2	CONCRETE FLOOR	1.55	
AP5	3	INSULATION	0.35	
AP5	4	WOOD LINING	1	
AP6	1	TRUSS ROOF SPAN TO 50'	0.35	
AP6	2	CONCRETE FLOOR	1.55	
AP6	3	INSULATION	0.35	
AP6	4	WOOD LINING	1	
AP6	P4	POLE BLDG MOD CD 4	1	0
AQ1	1	LIGHTING	0.7	
AQ1	2	ASPHALT FLOOR	0.7	
AQ1	3	CONCRETE FLOOR	1.55	
AQ1	G3	FR GAR - FULL 2nd	60	0
AQ1	Q1	QUONSET MOD CD 1	0.7	0
AQ1	Q2	QUONSET MOD CD 2	0.7	0
AQ1	Q3	QUONSET MOD CD 3	1.6	0
AQ1F	Q3	QUONSET MOD CD 3	0	0
AR1	1	WOOD STORAGE BIN	2.8	
AR1	2	METAL WALL	0.65	
AR1	3	METAL ROOF	0.2	
AR1	4	WOOD VENTILATING DUCT	1.4	
AR1	5	NO LIGHTING	-0.65	
AR1	6	PIER FOUNDATION	-1.05	
AR1	R3	GRANARY MOD CD 3	0.2	0
AR1	R4	GRANARY MOD CD 4	1.45	0
AS1	1	17' AUTOMATIC UNLOADER		11800
AS1	2	20' AUTOMATIC UNLOADER		11930
AS1	3	25' AUTOMATIC UNLOADER		16730
AS1	4	17' RAISED ARM AUGER		4190
AS1	5	20' RAISED ARM AUGER		4510
AS1	6	25' RASIED ARM AUGER		4840

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
AS2	1	17' AUTOMATIC UNLOADER		11800
AS2	2	20' AUTOMATIC UNLOADER		11930
AS2	3	25' AUTOMATIC UNLOADER		16730
AS2	4	17' RAISED ARM AUGER		4190
AS2	5	20' RAISED ARM AUGER		4510
AS2	6	25' RAISED ARM AUGER		4840
AS3	1	17' AUTOMATIC UNLOADER		11800
AS3	2	20' AUTOMATIC UNLOADER		11930
AS3	3	25' AUTOMATIC UNLOADER		16730
AS3	4	17' RAISED ARM AUGER		4190
AS3	5	20' RAISED ARM AUGER		4510
AS3	6	25' RAISED ARM AUGER		4840
AS4	1	17' AUTOMATIC UNLOADER		11800
AS4	2	20' AUTOMATIC UNLOADER		11930
AS4	3	25' AUTOMATIC UNLOADER		16730
AS4	4	17' RAISED ARM AUGER		4190
AS4	5	20' RAISED ARM AUGER		4510
AS4	6	25' RAISED ARM AUGER		4840
AS5	1	17' AUTOMATIC UNLOADER		11800
AS5	2	20' AUTOMATIC UNLOADER		11930
AS5	3	25' AUTOMATIC UNLOADER		16730
AS5	4	17' RAISED ARM AUGER		4190
AS5	5	20' RAISED ARM AUGER		4510
AS5	6	25' RAISED ARM AUGER		4840
AS6	1	17' AUTOMATIC UNLOADER		11800
AS6	2	20' AUTOMATIC UNLOADER		11930
AS6	3	25' AUTOMATIC UNLOADER		16730
AS6	4	17' RAISED ARM AUGER		4190
AS6	5	20' RAISED ARM AUGER		4510
AS6	6	25' RAISED ARM AUGER		4840
AV1	1	25% CONCRETE PIT AREA	1.95	
AV1	2	100% CONCRETE PIT AREA	4.15	
AW1	1	25% CONCRETE PIT AREA	1.95	
AW1	2	100% CONCRETE PIT AREA	4.15	
AW2	1	25% CONCRETE PIT AREA	1.95	
AW2	2	100% CONCRETE PIT AREA	4.15	

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
AX1	1	LIGHTING	0.7	
AX1	2	ASPHALT FLOOR	0.3	
AX1	3	CONCRETE FLOOR	0.85	
AX1	G2	FR GAR - HALF STORY	30	0
AX1	V1	SWINE MOD CD 1	2.05	0
AX1	X1	PREFAB MOD CD 1	0.7	0
AX1	X2	PREFAB MOD CD 2	0.7	0
AX1	X3	PREFAB MOD CD 3	1.6	0
AX1F	X1	PREFAB MOD CD 1	0	0
AX1F	X3	PREFAB MOD CD 3	0	0
AZ1	1	CONCRETE FLOOR	3	
AZ1	2	LIGHTING	3	
CB1	G1	FR GAR - ATTIC	12.5	0
CB1	MS	MISC	1	0
CC1	2	HEATING SYSTEM	4	
CC1	3	UNFINISHED 2ND FLOOR	7	
CC1	4	FULL FINISHED ATTIC	8.5	
CC1	5	FINISHED 1/2 STORY	10	
CC1	6	BASEMENT	8	
CP6F	P4	POLE BLDG MOD CD 4	0	0
CS1	1	ELECTRIC	250	
CS1	2	SEWER	500	
EA1	1	FINISHED BSMT	46.2	
EA1	2	UN FINISHED BSMT	12.3	
EA2	1	FINISHED BSMT	32.8	
EA2	2	UNFINISHED BSMT	8.7	
EC1	1	FINISHED BSMT	43.3	
EC1	2	UNFINISHED BSMT	12	
EC2	1	FINISHED BSMT	55.3	
EC2	2	UNFINISHED BSMT	15.5	
ED1	1	FINISHED BSMT	38.1	
ED1	2	UNFINISHED BSMT	10.4	
EF1	1	FINISHED BSMT	42.6	
EF1	2	UNFINISHED BSMT	12.3	
EG1	1	FINISHED BSMT	35.3	
EG1	2	UNFINISHED BSMT	9.4	

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
EG2	1	FINISHED BSMT	47.3	
EG2	2	UNFINISHED BSMT	12.6	
EH1	1	FINISHED BSMT	65.7	
EH1	2	UNFINISHED BSMT	19	
EJ1	1	FINISHED BSMT	78.7	
EJ1	2	UNFINISHED BSMT	22.1	
EL1	1	FINISHED BSMT	44.9	
EL1	2	UNFINISHED BSMT	12	
EN1	1	FINISHED BSMT	48.4	
EN1	2	UNFINISHED BSMT	13.9	
EP1	1	FINISHED BSMT	43.3	
EP1	2	UNFINISHED BSMT	12	
ES1	1	FINISHED BSMT	41.4	
ES1	2	UNFINISHED BSMT	12	
ES2	1	FINISHED BSMT	55.3	
ES2	2	UNFINISHED BSMT	15.5	
FLTF	G2	FR GAR - HALF STORY	0	0
GZ1F	G3	FR GAR - FULL 2nd	0	0
RC1	G1	FR GAR - ATTIC	12.5	0
RC1	G2	FR GAR - HALF STORY	30	0
RC1	P1	POLE BLDG MOD CD 1	0.35	0
RC1	P2	POLE BLDG MOD CD 2	1.6	0
RF1	1	PLUMBING FIXTURES	1	
RF1	2	HEATING SYSTEM	5	
RF1	3	UNFINISHED 2ND FLOOR	7	
RF1	4	FULL FINISHED ATTIC	8.5	
RF1	5	1/2 STORY	11	
RF1	6	BASEMENT	4	
RG1	1	FR GAR-ATTIC	12.5	
RG1	2	FR GAR-HALF STORY	30	
RG1	3	FR GAR-FULL 2ND	60	
RG1	4	BR GAR-ATTIC	14.5	
RG1	5	BR GAR-HALF STORY	32	
RG1	6	BR GAR-FULL 2ND	62	
RG1	7	BASEMENT	12.5	
RG1	B2	BARN MOD CODE 2	1.45	0

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
RG1	B5	BARN MOD CODE 5	-0.45	0
RG1	G1	FR GAR - ATTIC	12.5	0
RG1	G2	FR GAR - HALF STORY	30	0
RG1	G3	FR GAR - FULL 2nd	60	0
RG1	L1	LEAN TO MOD CD 1	-1.6	0
RG1	MS	MISC	1	0
RG1	P4	POLE BLDG MOD CD 4	1	0
RG1F	G1	FR GAR - ATTIC	0	0
RG1F	G2	FR GAR - HALF STORY	0	0
RG1F	G3	FR GAR - FULL 2nd	0	0
RG2	1	DIRT FLOOR	-2.65	
RG2	2	UNFINISHED 2ND FLOOR	15	
RG2	3	FINISHED 2ND FLOOR 20%	17	
RG2	4	FINISHED 2ND FLOOR 40%	19	
RG2	5	FINISHED 2ND FLOOR 55%	21	
RG2	6	FINISHED 2ND FLOOR 75%	23	
RG2	7	FINISHED 2ND FLOOR 100%	25	
RG2	8	BASEMENT	10	
RG2	G1	FR GAR - ATTIC	12.5	0
RG2	G2	FR GAR - HALF STORY	30	0
RG2	G3	FR GAR - FULL 2nd	60	0
RG2	G4	BR GAR - ATTIC	14.5	0
RG2	G5	BR GAR - HALF STORY	32	0
RG2F	G1	FR GAR - ATTIC	0	0
RG3	1	DIRT FLOOR	-2.65	
RG3	2	UNFINISHED 2ND FLOOR	15	
RG3	3	FINISHED 2ND FLOOR 20%	17	
RG3	4	FINISHED 2ND FLOOR 40%	19	
RG3	5	FINISHED 2ND FLOOR 55%	21	
RG3	6	FINISHED 2ND FLOOR 75%	23	
RG3	7	FINISHED 2ND FLOOR 100%	25	
RG3	8	BASEMENT	10	
RG3	G1	FR GAR - ATTIC	12.5	0
RG3	G2	FR GAR - HALF STORY	30	0
RG7	G3	FR GAR - FULL 2nd	60	0
RM1	1	CENTRAL AIR CONDITIONING	1	

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
RM1	2	METAL FIREPLACE		1260
RM1	3	SLIDE OUT/ROLLOUT ROOM		1890
RM1	4	TIP-OUT ROOM		1260
RM2	1	CENTRAL AIR CONDITIONING	1	
RM2	2	METAL FIREPLACE		1260
RM2	3	SLIDE OUT/ROLLOUT ROOM		1890
RM2	4	TIP-OUT ROOM		1260
RM4	1	CENTRAL AIR CONDITIONING	1	
RM4	2	METAL FIREPLACE		1260
RM4	3	SLIDE OUT/ROLL OUT ROOM		1890
RM4	4	TIP OUT ROOM		1260
RP1	1	NO FILTER		-1320
RP1	2	GAS OR PROPANE HEATING		1060
RP1	3	ELECTRIC HEATING		2310
RP1	4	DIVING BOARD		440
RP1	5	CHROME OR STEEL LADDER		180
RP1	6	UNDERWATER LIGHTING		160
RP2	1	NO FILTER		-1320
RP2	2	GAS OR PROPANE HEATING		1060
RP2	3	ELECTRIC HEATING		2310
RP2	4	DIVING BOARD		440
RP2	5	CHROME OR STEEL LADDER		180
RP2	6	UNDERWATER LIGHTING		160
RP3	1	NO FILTER		-1320
RP3	2	GAS OR PROPANE HEATING		1060
RP3	3	ELECTRIC HEATING		2310
RP3	4	DIVING BOARD		440
RP3	5	CHROME OR STEEL LADDER		180
RP3	6	UNDERWATER LIGHTING		160
RP3	PL	POOL	0	2390
RP4	1	NO FILTER		-1320
RP4	2	GAS OR PROPANE HEATING		1060
RP4	3	ELECTRIC HEATING		2310
RP4	4	DIVING BOARD		440
RP4	5	CHROME OR STEEL LADDER		180
RP4	6	UNDERWATER LIGHTING		160

OBY MODEL CODE RATES				
Code	Mod Code	Description	Rate	Value
RP5	1	NO FILTER		-1320
RP5	2	GAS OR PROPANE HEATING		1060
RP5	3	ELECTRIC HEATING		2310
RP5	4	DIVING BOARD		440
RP5	5	CHROME OR STEEL LADDER		180
RP5	6	UNDERWATER LIGHTING		160
RP5	PL	POOL	0	2390
RS1	1	CONCRETE FLOOR	3	
RS1	2	LIGHTING	3	
RS1	B1	BARN WOOD LOFT FLOOR	2.05	0
RS1	G1	FR GAR - ATTIC	12.5	0
RS1	G2	FR GAR - HALF STORY	30	0
RS1	G3	FR GAR - FULL 2nd	60	0
RS1F	G1	FR GAR - ATTIC	0	0
RS1F	G2	FR GAR - HALF STORY	0	0
RS1F	G3	FR GAR - FULL 2nd	0	0
RS2	1	CONCRETE FLOOR	3	
RS2	2	LIGHTING	3	
RS3	1	CONCRETE FLOOR	3	
RS3	2	LIGHTING	3	
ST2	G2	FR GAR - HALF STORY	30	0

Model 2 is present within the CAMA system; however, it was not utilized in the valuation of any properties for Watauga County's 2027 revaluation.

COMMERCIAL TABLES

COMMERCIAL STRUCTURE CODE ASSIGNMENTS							
Struct Code	Description	Name	Basic Struct Code	Frame	Fire Res	Other Cns	Use Group
101	RESIDENTIAL 1 FAMILY	RES 1 FAMILY	10	COM40	COM40		00
102	RESIDENTIAL 2 FAMILY	RES 2 FAMILY	10	COM40	COM40		00
103	RESIDENTIAL 3 FAMILY	RES 3 FAMILY	10	COM40	COM40		00
104	RESIDENTIAL 4 FAMILY	RES 4 FAMILY	10	COM40	COM40		17
105	MIXED RESIDENTIAL/COMMERCIAL	MIX RES/COM	10	COM40	COM40		17
106	CONDO COMMON ELEMENT	CNDO COM ELE	10	COM40	COM40		00
107	CONDO FEE SIMPLE	CNDO FEE SIM	10	COM40	COM40		00
201	RES STRCT ON APT VAL	RES APT VAL	10	COM40	COM40		17
211	APARTMENTS - GARDEN	GARDEN APT	02	COM40	COM40		01
212	APARTMENTS HIGH RISE	APT HI RISE	01	COM50	COM50		01
301	RES ON COMM LAND	RES/COMM LND	10	COM40	COM40		17
314	HOTEL/MOTEL HI RISE	HTL/MTL HIRI	01	COM50	COM50		06
315	HOTEL/MOTEL LO RISE	HTL/MTL LO	02	COM30	COM40		02
316	NURSING HOME	NRSING HOME	02	COM40	COM50		00
318	BRDING-ROOMING HOUSE	BRD-RMNG HSE	10	COM40	COM50		17
319	MIXED RES/COMM	MX RES/COMM	03	COM40	COM50		03
321	RESTAURANT	RESTAURANT	03	COM40	COM50		16
323	FOOD STAND	FOOD STAND	03	COM30	COM30		24
325	FRANCHISE FOOD	FRNCHSE FOOD	09	COM30	COM30		20
327	BAR/LOUNGE	BAR/LOUNGE	03	COM40	COM50		24
328	NIGHT/CLUB/DNR THEATER	NGHT CLB DNR	03	COM40	COM50		16
330	KWIK LUBE	KWIK LUBE	03	COM40	COM20		00
331	AUTO DEALER/F-SEVICE	AUTO DLR F-S	05	COM40	COM50		04
332	AUTO SERVICE GARAGE	AUTO SRV GAR	04	COM40	COM50		14
333	SERVICE STATION - FULL	FULLSERV GAS	03	COM20	COM20		00
334	SERVICE STATION FULL SERVE	SRV STAT	03	COM20	COM20		00
335	TRUCK STOP	TRUCK STOP	04	COM40	COM50		16
336	CAR WASH - MANUAL	CAR WSH MANL	07	COM20	COM20		00
337	CAR WASH - AUTOMATIC	CAR WSH AUTO	04	COM20	COM30		00
338	PARKING GARAGE/DECK	PRKNG GAR/DK	04	COM40	COM40		13
339	KWIK LUBE	KWIK LUBE	03	COM20	COM20		00
340	SUPER REG SHOPMALL	SPR REG MALL	03	COM40	COM50		05

COMMERCIAL STRUCTURE CODE ASSIGNMENTS							
Struct Code	Description	Name	Basic Struct Code	Frame	Fire Res	Other Cns	Use Group
341	REGIONAL SHPMALL/CNT	RGNL SHPMALL	03	COM40	COM50		05
342	COMM SHOPPING CENTER	COMM SHP CNR	03	COM40	COM50	C30	03
343	NBHD SHOPPING CENTER	NBHD SHP CTR	03	COM40	COM50		03
344	STRIP SHOPPING CNTR	STRIP SHPING	03	COM40	COM50		03
345	DISCOUNT DEPT STORE	DSCNT DEPT	03	COM40	COM50		19
346	DEPARTMENT STORES	DEPT STORES	03	COM40	COM50		09
347	SUPERMARKET	SUPERMARKET	03	COM40	COM50		19
348	CONVENIENCE FOOD MKT	CNVC FD MKT	03	COM40	COM50		22
349	MEDICAL OFFICE BLDG	MED OFFC BLD	05	COM40	COM50		10
351	BANK	BANK	05	COM50	COM60		15
352	SAVINGS INSTITUTION	SAVINGS INST	05	COM50	COM50		15
353	OFFICE BLDG L/R 1-4S	OFIC BLD L/R	05	COM40	COM50		04
354	OFFICE BLDG H-R 5ST	OFIC BLD H-R	08	COM60	COM60		04
355	OFFICE CONDOMINIUM	OFIC CONDO	05	COM40	COM50		04
356	RETAIL CONDOMINIUM	RETAIL CONDO	05	COM40	COM50		03
361	FUNERAL HOME	FUNERAL HOME	10	COM40	COM50		23
362	VETERINARY CLINIC	VET CLINIC	03	COM40	COM40		23
363	LEGITIMATE THEATER	LEGIT THEATR	06	COM60	COM60		00
364	MOTION PICTURE THEATER	MTN PIC THTR	06	COM40	COM50		00
365	CINEMA/THEATER	CINMA/THEATR	06	COM40	COM50		03
366	RADIO/TV/MIN PIC STUDIO	T/TV/MN PIC	05	COM40	COM50		00
367	SOCIAL/FRATERNAL HALL	SCL/FRTNL HL	03	COM30	COM40		24
368	HANGAR	HANGAR	04	COM30	COM40		07
369	DAY CARE CENTER	DAY CARE	03	COM30	COM40		23
370	GREENHOUSE/FLORIST	GRNHS/FLST	04	COM40	COM40		03
371	DOWNTOWN ROW TYPE	DNTWN ROW TY	09	COM40	COM50		03
373	RETAIL SINGLE OCCUP	RTL SNGL OCP	03	COM40	COM50		03
374	RETAIL MULTI OCCUP	RTL MULT OCP	03	COM40	COM50		03
375	RETAIL DRIVE-UP	RTL DRIVEUP	03	COM40	COM50		03
381	BOWLING ALLEY	BWLNG ALLEY	04	COM40	COM50		00
382	SKATING RINK	SKATING RINK	04	COM40	COM50		24
383	HEALTH SPA	HEALTH SPA	05	COM40	COM50		00
384	SWIMMING-INDOOR POOL	INDR SWIM PL	04	COM20	COM30		00
385	TENNIS CLUB - INDOOR	TNIS CLUB IN	04	COM30	COM40		00

COMMERCIAL STRUCTURE CODE ASSIGNMENTS							
Struct Code	Description	Name	Basic Struct Code	Frame	Fire Res	Other Cns	Use Group
386	RACQUET CLUB INDOOR	RACQT CLB IN	03	COM30	COM40		00
387	COUNTRY CLUB	COUNTRY CLUB	05	COM40	COM50		04
388	CLUB HOUSE	CLUB HOUSE	03	COM40	COM50		03
389	COUNTRY CLUB/W CRSE	CNTRY CLB/W	05	COM40	COM50		04
391	COLD STORAGE	COLD STORAGE	04	COM30	COM40		12
392	LUMBER STORAGE	LUMBER STORG	07	COM20	COM30		07
395	TRUCK TERMINAL	TRUCK TRMNL	04	COM40	COM50		07
396	MINI WAREHOUSE	MINI WRHSE	04	COM30	COM40		08
397	OFFICE/WAREHOUSE	OFIC WRHSE	04	COM40	COM50		07
398	WAREHOUSE	WAREHOUSE	04	COM40	COM50		07
399	PREFAB WAREHOUSE	PREFAB WRHSE	07	COM30	COM30		07
401	MFG/PROCESSING	MFG/PROCESS	04	COM40	COM50		12
405	RESEARCH & DEVELOPMENT	RSCH & DVLP	05	COM40	COM50		04
610	RECREATIONAL/HEALTH	REC & HLTH	05	COM40	COM50		00
611	LIBRARY	LIBRARY	05	COM50	COM60		00
612	SCHOOL	SCHOOL	05	COM50	COM60		00
613	COLLEGES & UNIVERSITY	COLLG & UNVR	05	COM50	COM60		00
620	RELIGIOUS	RELIGIOUS	05	COM50	COM60		00
630	AUDITORIUM	AUDITORIUM	06	COM50	COM60		00
640	HOSPITALS	HOSPITALS	05	COM50	COM60		00
660	POLICE/FIRE STATIONS	PLCE/FIRE ST	05	COM50	COM50		00
670	CORRECTIONAL	CORRECTIONAL	05	COM50	COM60		00
680	CULTURAL FACILITIES	CULTRL FACIL	05	COM50	COM60		00
690	RAIL/BUS/AIR TERMINAL	TRANS TERMNL	05	COM40	COM50		00
695	COURTHOUSE	COURTHOUSE	05	COM50	COM60		00
696	ARMORY	ARMORY	04	COM50	COM60		00
710	TELEPHONE EQUIPMENT BLDG	TLPHNE EQUIP	04	COM50	COM60		00
715	TELE SRV GAR FACILITY	TV SVR GARAG	04	COM30	COM40		00
720	RADIO/TV TRANSMITTER BLD	RAD/TV TRMTR	04	COM30	COM40		00

COMMERCIAL BASE SF RATES			
Basic Struct Code	Level	Construction Type	Rate
01	B	1	19.98
01	F	1	19.11
01	U	1	19.85
01	B	2	24.8
01	F	2	23.73
01	U	2	24.64
01	B	3	31.49
01	F	3	30.13
01	U	3	31.29
01	B	4	17.11
01	F	4	16.37
01	U	4	17
02	B	1	21.02
02	F	1	34.75
02	U	1	20.89
02	B	2	26.1
02	F	2	43.15
02	U	2	25.94
02	B	3	33.13
02	F	3	54.78
02	U	3	32.92
02	B	4	18
02	F	4	29.77
02	U	4	17.89
03	B	1	51.38
03	F	1	34.31
03	U	1	51.05
03	B	2	63.79
03	F	2	42.61
03	U	2	63.38
03	B	3	81
03	F	3	54.1
03	U	3	80.47
03	B	4	44.01
03	F	4	29.39
03	U	4	43.71

COMMERCIAL BASE SF RATES			
Basic Struct Code	Level	Construction Type	Rate
04	B	1	52.2
04	F	1	57.09
04	U	1	51.87
04	B	2	64.81
04	F	2	70.88
04	U	2	64.39
04	B	3	82.28
04	F	3	90
04	U	3	81.77
04	B	4	44.71
04	F	4	48.89
04	U	4	44.42
05	B	1	32.07
05	F	1	35.07
05	U	1	31.86
05	B	2	39.81
05	F	2	43.55
05	U	2	39.56
05	B	3	50.54
05	F	3	55.28
05	U	3	50.23
05	B	4	27.46
05	F	4	30.04
05	U	4	27.29
06	B	1	30.43
06	F	1	33.28
06	U	1	30.24
06	B	2	37.78
06	F	2	41.32
06	U	2	37.54
06	B	3	47.97
06	F	3	52.46
06	U	3	47.67
06	B	4	26.06
06	F	4	28.5
06	U	4	25.9

COMMERCIAL BASE SF RATES			
Basic Struct Code	Level	Construction Type	Rate
07	B	1	53.21
07	F	1	58.18
07	U	1	52.86
07	B	2	66.06
07	F	2	72.24
07	U	2	65.63
07	B	3	83.87
07	F	3	91.71
07	U	3	83.33
07	B	4	45.56
07	F	4	49.82
07	U	4	45.27
08	B	1	26.8
08	F	1	29.31
08	U	1	26.63
08	B	2	33.27
08	F	2	36.39
08	U	2	33.06
08	B	3	42.24
08	F	3	46.2
08	U	3	41.98
08	B	4	22.95
08	F	4	25.1
08	U	4	22.8
09	B	1	190.06
09	F	1	207.84
09	U	1	188.84
09	B	2	235.97
09	F	2	258.05
09	U	2	234.46
09	B	3	299.59
09	F	3	327.61
09	U	3	297.66
09	B	4	162.76
09	F	4	177.98
09	U	4	161.71

COMMERCIAL BASE SF RATES			
Basic Struct Code	Level	Construction Type	Rate
10	B	1	46.8
10	F	1	51.17
10	U	1	46.5
10	B	2	58.1
10	F	2	63.53
10	U	2	57.73
10	B	3	73.77
10	F	3	80.67
10	U	3	73.29
10	B	4	40.07
10	F	4	43.83
10	U	4	39.82

COMMERCIAL CDU LOOKUPS			
Cdu Table	Physical Condition	Functional Utility	CDU
00	3	3	AV
00	A	A	AV
00	C	C	C
C1	1	0	UN
C1	1	1	P-
C1	1	2	P-
C1	1	3	PR
C1	1	4	PR
C1	2	0	V-
C1	2	1	P-
C1	2	2	PR
C1	2	3	FR
C1	2	4	FR
C1	3	0	VP
C1	3	1	PR
C1	3	2	FR
C1	3	3	GD
C1	3	4	VG
C1	4	0	VP
C1	4	1	PR
C1	4	2	FR
C1	4	3	VG
C1	4	4	EX
C1	5	0	VP
C1	5	1	PR
C1	5	2	AV
C1	5	3	EX
C1	5	4	EX
M1	A	A	GD
M1	A	U	P-
M1	C	C	C
M1	F	F	FR
M1	G	A	AV
M1	G	G	VG
M1	P	F	PR
M1	P	P	VP

COMMERCIAL CDU LOOKUPS			
Cdu Table	Physical Condition	Functional Utility	CDU
M1	U	P	P
M1	U	U	UN
OB	A	3	AV
OB	E		EX
OB	F	2	FR
OB	F		FR
OB	G		GD
OB	P		PR
OB	U		UN
OB	V		VG
R1	1	0	UN
R1	1	1	UN
R1	1	2	P-
R1	1	3	P-
R1	1	4	PR
R1	1	5	PR
R1	2	0	V-
R1	2	1	V-
R1	2	2	P-
R1	2	3	PR
R1	2	4	FR
R1	2	5	FR
R1	3	0	VP
R1	3	1	VP
R1	3	2	PR
R1	3	3	FR
R1	3	4	GD
R1	3	5	VG
R1	3		AV
R1	4	0	VP
R1	4	1	VP
R1	4	3	FR
R1	4	4	VG
R1	4	5	EX
R1	5	0	VP
R1	5	1	VP

COMMERCIAL CDU LOOKUPS			
Cdu Table	Physical Condition	Functional Utility	CDU
R1	5	2	PR
R1	5	3	AV
R1	5	4	GD
R1	5	5	EX
R1	A	0	VP
R1	A	2	FR
R1	A	3	GD
R1	A	A	AV
R1	A	E	VG
R1	A	F	FR
R1	A	G	GD
R1	A	P	PR
R1	A	U	P-
R1	A		AV
R1	C	C	C
R1	E	0	VP
R1	E	1	PR
R1	E	2	AV
R1	E	3	EX
R1	E	4	EX
R1	E	A	GD
R1	E	E	EX
R1	E	F	AV
R1	E	G	VG
R1	E	P	PR
R1	E	U	VP
R1	E		EX
R1	F	0	V-
R1	F	1	P-
R1	F	2	PR
R1	F	3	FR
R1	F	4	FR
R1	F	A	AV
R1	F	E	GD
R1	F	F	FR
R1	F	G	PR

COMMERCIAL CDU LOOKUPS			
Cdu Table	Physical Condition	Functional Utility	CDU
R1	F	P	VP
R1	F	U	V-
R1	F		FR
R1	G	0	VP
R1	G	1	PR
R1	G	2	FR
R1	G	3	VG
R1	G	4	EX
R1	G	A	AV
R1	G	E	VG
R1	G	F	FR
R1	G	G	GD
R1	G	P	FR
R1	G	U	VP
R1	G		GD
R1	P	0	UN
R1	P	1	P-
R1	P	2	P-
R1	P	3	PR
R1	P	4	PR
R1	P	A	FR
R1	P	E	PR
R1	P	F	PR
R1	P	G	P-
R1	P	P	VP
R1	P	U	V-
R1	P		PR
R1	U	A	P-
R1	U	E	P-
R1	U	F	VP
R1	U	G	P-
R1	U	P	V-
R1	U	U	UN
R1	V	V	VG

COMMERCIAL EXTERIOR WALL RATE			
Wall Code	Basic Struct code	Description	Rate
00	01	NONE	0
00	02	NONE	0
00	03	NONE	0
00	04	NONE	0
00	05	NONE	0
00	06	NONE	0
00	07	NONE	0
00	08	NONE	0
00	09	NONE	0
00	10	NONE	0
01	01	BRICK OR STONE	17.8
01	02	BRICK OR STONE	15.12
01	03	BRICK OR STONE	18.17
01	04	BRICK OR STONE	17.33
01	05	BRICK OR STONE	20.21
01	06	BRICK OR STONE	19.9
01	07	BRICK OR STONE	14.65
01	08	BRICK OR STONE	20.21
01	09	BRICK OR STONE	0
01	10	BRICK OR STONE	10.08
02	01	FRAME	11.97
02	02	FRAME	11.08
02	03	FRAME	12.92
02	04	FRAME	11.97
02	05	FRAME	13.28
02	06	FRAME	13.07
02	07	FRAME	10.08
02	08	FRAME	13.28
02	09	FRAME	0
02	10	FRAME	7.4
03	01	CONC BLOCK	15.49
03	02	CONC BLOCK	13.86
03	03	CONC BLOCK	15.17
03	04	CONC BLOCK	14.18
03	05	CONC BLOCK	17.06
03	06	CONC BLOCK	16.28

COMMERCIAL EXTERIOR WALL RATE			
Wall Code	Basic Struct code	Description	Rate
03	07	CONC BLOCK	11.08
03	08	CONC BLOCK	17.06
03	09	CONC BLOCK	0
03	10	CONC BLOCK	9.24
04	01	BRICK + CB	16.54
04	02	BRICK + CB	14.54
04	03	BRICK + CB	16.75
04	04	BRICK + CB	15.75
04	05	BRICK + CB	18.59
04	06	BRICK + CB	18.01
04	07	BRICK + CB	12.81
04	08	BRICK + CB	18.59
04	09	BRICK + CB	0
04	10	BRICK + CB	9.71
05	01	TILE	22.21
05	02	TILE	21.79
05	03	TILE	22.26
05	04	TILE	21.11
05	05	TILE	21.79
05	06	TILE	21.95
05	07	TILE	0
05	08	TILE	21.79
05	09	TILE	0
05	10	TILE	14.54
06	01	MAS + FRAME	14.81
06	02	MAS + FRAME	13.07
06	03	MAS + FRAME	15.59
06	04	MAS + FRAME	14.65
06	05	MAS + FRAME	16.75
06	06	MAS + FRAME	16.43
06	07	MAS + FRAME	12.29
06	08	MAS + FRAME	16.75
06	09	MAS + FRAME	0
06	10	MAS + FRAME	8.72
07	01	LIGHT METAL	0
07	02	LIGHT METAL	0

COMMERCIAL EXTERIOR WALL RATE			
Wall Code	Basic Struct code	Description	Rate
07	03	LIGHT METAL	3.83
07	04	LIGHT METAL	3.83
07	05	LIGHT METAL	3.83
07	06	LIGHT METAL	3.83
07	07	LIGHT METAL	3.31
07	08	LIGHT METAL	3.83
07	09	LIGHT METAL	0
07	10	LIGHT METAL	0
08	01	SANDWICH METAL	0
08	02	SANDWICH METAL	0
08	03	SANDWICH METAL	19.11
08	04	SANDWICH METAL	18.11
08	05	SANDWICH METAL	18.11
08	06	SANDWICH METAL	18.11
08	07	SANDWICH METAL	18.11
08	08	SANDWICH METAL	18.11
08	09	SANDWICH METAL	0
08	10	SANDWICH METAL	0
09	01	CONC LOAD-BEARING	16.75
09	02	CONC LOAD-BEARING	15.59
09	03	CONC LOAD-BEARING	17.85
09	04	CONC LOAD-BEARING	17.22
09	05	CONC LOAD-BEARING	19.22
09	06	CONC LOAD-BEARING	18.74
09	07	CONC LOAD-BEARING	13.55
09	08	CONC LOAD-BEARING	19.22
09	09	CONC LOAD-BEARING	0
09	10	CONC LOAD-BEARING	10.4
10	01	CONC NON-LOAD BRNG	15.96
10	02	CONC NON-LOAD BRNG	0
10	03	CONC NON-LOAD BRNG	16.28
10	04	CONC NON-LOAD BRNG	15.91
10	05	CONC NON-LOAD BRNG	17.69
10	06	CONC NON-LOAD BRNG	16.12
10	07	CONC NON-LOAD BRNG	12.65
10	08	CONC NON-LOAD BRNG	17.69

COMMERCIAL EXTERIOR WALL RATE			
Wall Code	Basic Struct code	Description	Rate
10	09	CONC NON-LOAD BRNG	0
10	10	CONC NON-LOAD BRNG	0
11	01	GLASS	25.88
11	02	GLASS	24.41
11	03	GLASS	26.2
11	04	GLASS	23.94
11	05	GLASS	27.46
11	06	GLASS	26.93
11	07	GLASS	20.95
11	08	GLASS	27.46
11	09	GLASS	0
11	10	GLASS	16.28
12	01	GLASS + MASONRY	23.78
12	02	GLASS + MASONRY	22.21
12	03	GLASS + MASONRY	23.63
12	04	GLASS + MASONRY	21.74
12	05	GLASS + MASONRY	26.51
12	06	GLASS + MASONRY	28.09
12	07	GLASS + MASONRY	0
12	08	GLASS + MASONRY	26.51
12	09	GLASS + MASONRY	0
12	10	GLASS + MASONRY	14.81
13	01	ENCLOSURE	0
13	02	ENCLOSURE	0
13	03	ENCLOSURE	0
13	04	ENCLOSURE	3.47
13	05	ENCLOSURE	0
13	06	ENCLOSURE	0
13	07	ENCLOSURE	3.62
13	08	ENCLOSURE	0
13	09	ENCLOSURE	0
13	10	ENCLOSURE	0
14	01	********** *******	0
14	02	********** *******	0

COMMERCIAL EXTERIOR WALL RATE			
Wall Code	Basic Struct code	Description	Rate
14	03	**********	9.4
14	04	**********	8.51
14	05	**********	9.77
14	06	**********	9.71
14	07	**********	6.46
14	08	**********	9.77
14	09	**********	0
14	10	**********	0
15	01	SOLAR GLASS	39.27
15	02	SOLAR GLASS	38.96
15	03	SOLAR GLASS	41.63
15	04	SOLAR GLASS	38.48
15	05	SOLAR GLASS	45.73
15	06	SOLAR GLASS	44.94
15	07	SOLAR GLASS	0
15	08	SOLAR GLASS	45.73
15	09	SOLAR GLASS	0
15	10	SOLAR GLASS	25.99
16	01	CORR ASBESTOS	10.71
16	02	CORR ASBESTOS	10.08
16	03	CORR ASBESTOS	11.81
16	04	CORR ASBESTOS	11.24
16	05	CORR ASBESTOS	12.34
16	06	CORR ASBESTOS	12.02
16	07	CORR ASBESTOS	8.09
16	08	CORR ASBESTOS	12.34
16	09	CORR ASBESTOS	0
16	10	CORR ASBESTOS	6.72
17	01	NATIVE STONE	14.81
17	02	NATIVE STONE	13.07

COMMERCIAL EXTERIOR WALL RATE			
Wall Code	Basic Struct code	Description	Rate
17	03	NATIVE STONE	15.59
17	04	NATIVE STONE	14.65
17	05	NATIVE STONE	16.75
17	06	NATIVE STONE	16.43
17	07	NATIVE STONE	12.29
17	08	NATIVE STONE	16.75
17	09	NATIVE STONE	0
17	10	NATIVE STONE	8.72

COMMERCIAL INTERIOR RATES

AC 0	AC 1	AC 2	AC 3	BASE	DESCR	HEAT0	HEAT1	HEAT2	HEAT3	INCUSE	INTFIN	LIGHT0	LIGHT1	LIGHT2	LIGHT3	NAME	PART0	PART1	PART2	PART3	PLUMB0	PLUMB1	PLUMB2	PLUMB3	SUMPCT	USE
0	0	0	0	240.12	APARTMENT	-8.24	0	0	-5.66	01	-20.25	-7.41	-1.14	0	1.14	APT	-39.12	-4.12	0	4.29	-14.41	-3.26	0	3.78	100	011
-10.03	0	-4.15	0	113.95	HOTEL	-6.77	0	0	-4.65	06	-13.54	-21.23	-2.13	0	2.13	HOTEL	-42.89	-4.9	0	6.02	-18.06	-4.15	0	5.77	100	012
-10.03	0	-4.15	0	94.96	MOTEL	-6.41	0	0	-4.65	02	-12.54	-9.47	-1.05	0	1.05	MOTEL	-39.63	-4.9	0	6.02	-16.94	-4.26	0	5.77	100	021
0	0	0	0	281.58	DORMITORY	-14.23	0	0	-9.78	00	-34.98	-10.16	-1.56	0	1.56	DORM	-67.58	-7.11	0	7.41	-24.9	-5.63	0	6.52	100	023
-10.4	0	-3.76	0	187.52	DWG CONV-OFFICE	-6.98	0	0	-5.06	23	-16.14	-35.25	-4.99	0	4.99	DWG CNV-OFFC	-30.1	-5.06	0	6.57	-11.49	-3.42	0	4.92	100	025
-10.4	0	-3.76	0	190.15	DWG CONV-SALES	-6.98	0	0	-5.06	24	-16.14	-20.06	-2.84	0	2.84	DWG CONV-SAL	-30.1	-5.06	0	6.57	-11.49	-3.42	0	4.92	100	026
-9.53	0	-4.15	0	223.47	DWG/LIVING AREA	-6.41	0	0	-4.65	17	-14.8	-16.2	-2.3	0	2.3	DWG	-27.59	-4.65	0	6.02	-10.53	-3.15	0	4.51	100	027
-27.4	0	-6.71	0	208.35	RESTAURANT	-7.96	0	0	-4.61	16	-20.98	-9.78	-2.14	0	2.14	RESTAURANT	-41.12	-14.27	0	28.66	-23.62	-7.96	0	11.48	100	031
-5.89	0	-3.14	0	43.76	DEPARTMENT STORE	-3.73	0	0	-2.16	09	-8.7	-18.32	-4.04	0	4.04	DEPT STORE	-8.44	-1.83	0	2.42	-4.32	-3.8	0	1.38	100	032
-10.23	0	-5.46	0	68.21	DISC STORE/ MARKET	-6.48	0	0	-3.75	19	-15.12	-1.61	-0.36	0	0.36	DISCNT STORE	-5.12	-0.57	0	0.8	-4.43	-1.14	0	4.43	100	033
-17.39	0	-9.28	0	108.75	RETAIL STORE	-11.03	0	0	-6.39	03	-25.72	-6.67	-1.48	0	1.48	RETAIL STORE	-11.21	-3.69	0	4.64	-7.17	-3.09	0	4.64	100	034
-8.37	0	-4.46	0	87.95	TAVERN/BAR	-5.31	0	0	-3.08	24	-12.37	-11.84	-2.63	0	2.63	TAVERN/BAR	-17.85	-5.95	0	9.77	-15.72	-5.31	0	7.62	100	035
-8.37	0	-4.46	0	87.95	BAR LOUNGE	-5.31	0	0	-3.08	24	-12.37	-5.16	-1.15	0	1.15	BAR LOUNGE	-17.85	-5.95	0	9.77	-15.72	-5.31	0	7.62	100	036
-4.95	0	-2.64	0	84.21	CAFETERIA	-2.15	0	0	-1.49	16	-6	-8.09	-1.79	0	1.79	CAFETERIA	-5.5	-1.98	0	2.97	-6	-2.04	0	2.97	100	037
-11.78	0	-6.29	0	164.68	CONVENIENCE STORE	-7.48	0	0	-4.33	22	-17.43	-14.43	-3.21	0	3.21	CONVNCE STOR	-7.59	-2.5	0	3.14	-4.86	-1.98	0	3.14	100	038
-11.78	0	-6.28	0	106.96	MALL SHOPS	-7.47	0	0	-4.33	05	-17.49	-8.63	-1.92	0	1.92	MALL SHOPS	-7.59	-2.5	0	3.14	-4.86	-1.98	0	3.14	100	039
0	15.57	7.04	0	31.68	MINI-WAREHOUSE	-10.25	0	0	-5.32	08	-4.18	0	0	0	0.17	MINI WRHSE	-4.01	-3.04	0	4.01	-4.76	-4.01	0	4.18	100	041
0	14.43	6.53	0	33.27	HANGAR	-9.5	0	0	-4.93	07	-3.87	-1.56	-0.37	0	0.37	HANGAR	-2.82	-0.7	0	1.25	-4.41	-3.71	0	4.41	100	042
0	8.32	3.77	0	16.76	MANUFACTURING	-5.48	0	0	-2.84	12	-2.23	-7.83	-1.19	0	1.19	MFTG	-2.75	-1.02	0	2.14	-2.84	-1.02	0	1.62	100	043
0	8.34	3.77	0	15.71	LIGHT MANUFACTURING	-5.49	0	0	-2.85	12	-2.24	-2.72	-0.59	0	0.59	LT MFGT	-2.76	-1.02	0	2.15	-2.85	-1.02	0	1.63	100	044
0	18.24	8.21	0	14.7	WAREHOUSE	-12.02	0	0	-6.22	07	-4.91	-0.21	-0.04	0	0.04	WRHSE	-4.66	-3.56	0	4.66	-5.55	-4.66	0	4.91	100	045
-8.8	0	-3.98	0	104.51	AUTO SHOWROOM/OFFICE	-5.8	0	0	-3.01	04	-13	-2.8	-0.62	0	0.62	AUTO SHWRM	-9.66	-2.58	0	3.65	-6.55	-2.05	0	2.58	100	046
-27.42	0	-12.4	0	89.43	AUTO PARTS/SERVICE	-18.06	0	0	-9.36	14	-7.36	-8.37	-1.84	0	1.84	AUTO PRTS/SR	-9.05	-3.34	0	5.35	-11.37	-5.35	0	7.36	100	047
-10.16	0	-4.59	0	70.61	TENNIS CLUB	-6.69	0	0	-3.47	00	-2.73	-5.2	-1.11	0	1.11	TENNIS CLUB	-11.15	-1.24	0	1.98	-7.57	-1.98	0	2.97	100	048

COMMERCIAL INTERIOR RATES

AC 0	AC 1	AC 2	AC 3	BASE	DESCR	HEAT0	HEAT1	HEAT2	HEAT3	INCUSE	INTFIN	LIGHT0	LIGHT1	LIGHT2	LIGHT3	NAME	PART0	PART1	PART2	PART3	PLUMB0	PLUMB1	PLUMB2	PLUMB3	SUMPCT	USE
-8.18	0	-4.21	0	101.58	RACQUET BALL COURT	-5.59	0	0	-2.36	00	-6.08	-9.39	-2.09	0	2.09	RQT BALL COR	-55.74	-5.59	0	16.1	-5.59	-1.49	0	5.59	100	049
-5.36	0	-2.8	0	36.57	SKATE RINK ICE/ROLL	-3.11	0	0	-1.71	24	-3.72	-6.92	-1.54	0	1.54	SKT RNK	-3.48	-1.16	0	1.46	-2.27	-0.98	0	1.34	100	050
-12.36	0	-5.69	0	146.74	BANK/SAVINGS INST	-9.64	0	0	-7.06	15	-28.57	-18.68	-4.13	0	4.13	BNK/SAV INST	-65.91	-9.4	0	10.88	-12.99	-4.58	0	7.06	100	051
-27.49	0	-12.65	0	316.48	MEDICAL CENTER	-21.44	0	0	-15.67	10	-63.51	-10.96	-1.67	0	1.67	MED CENTER	-145.16	-21.44	0	24.74	-43.16	-15.95	0	22.27	100	052
-12.23	0	-5.63	0	91.7	OFFICES	-9.55	0	0	-6.97	04	-28.24	-8.61	-1.43	0	1.43	OFFICES	-47.08	-10.27	0	13.33	-6.23	-0.85	0	7.82	100	053
-11.94	0	-5.5	0	134.35	NURSING HOMES	-9.32	0	0	-6.8	00	-24.29	-13.59	-1.29	0	1.29	NRSNG HOMES	-48.02	-7.64	0	9.32	-19.83	-5.73	0	7.64	100	054
-14.08	0	-6.49	0	144.85	SCHOOL	-10.99	0	0	-8.02	00	-32.52	-11.01	-1.84	0	1.84	SCHOOL	-54.19	-2.25	0	9.01	-15.2	-5.07	0	7.18	100	055
-12.95	0	-5.97	0	228.2	HOSPITAL	-10.11	0	0	-7.39	00	-29.91	-6.54	-0.99	0	0.99	HSPTL	-94.93	-8.56	0	9.46	-34.19	-8.15	0	11.01	100	056
-14.08	0	-6.49	0	156.26	LIBRARY	-10.99	0	0	-8.02	00	-32.52	-11.45	-1.91	0	1.91	LIBRARY	-54.19	-6.89	0	8.18	-12.25	-4.64	0	6.76	100	057
-15.22	0	-7	0	124.64	FUNERAL HOME	-11.57	0	0	-8.22	23	-18.43	-12.21	-0.76	0	0.76	FNRL HOME	-48.56	-11.87	0	15.22	-11.12	-4.26	0	6.86	100	058
-12.39	0	-5.7	0	126.74	AUDITORIUM/THEATER	-10.9	0	0	-7.93	00	-14.12	-9.54	-2.13	0	2.13	AUDTRM/THETR	-38.78	-7.18	0	10.79	-13.38	-3.11	0	4.21	100	061
-12.03	0	-4.7	0	111.89	CINEMA	-10.59	0	0	-7.7	03	-13.72	-8.75	-1.95	0	1.95	CINEMA	-37.91	-8.79	0	11.2	-9.38	-2.3	0	2.89	100	062
-12.39	0	-4.84	0	117.57	RELIGIOUS INST	-10.9	0	0	-7.93	00	-14.12	-6.23	-1.38	0	1.38	RLIGUS INST	-40.88	-9.41	0	12.39	-10.16	-3.47	0	5.59	100	063
-25.82	0	-10.09	0	203.97	SOCIAL/FRATERNAL HALL	-22.72	0	0	-16.52	24	-29.43	-7.62	-1.69	0	1.69	SCL/FRAT HAL	-73.61	-13.94	0	16.29	-22.49	-8.54	0	12.39	100	064
0	10.1	4.57	0	367.39	SERVICE STATION W/BAYS	-6.05	0	0	-0.87	00	-2.71	-3.21	-0.69	0	0.69	SRVC STN BAY	-24.14	-2.96	0	3.34	-17.49	-5.91	0	3.34	100	070
0	12.55	5.66	0	191.93	SERVICE STN-CONV RETAIL	-5.55	0	0	-1.06	03	-3.38	-6.91	-1.54	0	1.54	SRVC STN-CV	-29.97	-3.67	0	4.12	-21.72	-7.34	0	4.12	100	071
0	10.55	4.77	0	86.85	SERVICE STN-CONV STORAGE	-6.32	0	0	-0.91	22	-2.83	-4.43	-1.06	0	1.06	SRVC ST-CV	-25.22	-3.09	0	3.49	-18.27	-6.18	0	3.49	100	072
0	10.1	4.56	0	244.3	SERVICE STATION W/O BAY	-6.04	0	0	-0.86	00	-2.71	-6.36	-1.41	0	1.41	SRVC STN	-24.15	-2.96	0	3.33	-17.49	-5.91	0	3.33	100	073
0	37.28	16.56	0	48.32	CAR WASH MANUAL	-23.44	0	0	-12.88	00	-22.56	-9.54	-2.13	0	2.13	CAR WSH MANL	-11.04	-3.2	0	4.4	-11.04	-3.2	0	4.64	100	074
0	68.59	30.47	0	190.48	CAR WASH AUTOMATIC	-43.13	0	0	-23.7	00	-41.51	-6.68	-1.6	0	1.6	CAR WSH AUTO	-20.31	-5.89	0	8.54	-20.31	-5.89	0	8.54	100	075
0	4.65	4.65	0	238.6	KWIK LUBE	-6.98	-1.75	0	1.75	00	-2.71	-7.51	-1.69	0	1.69	KWIK LUBE	-1.41	-1	0	1	-13.63	-3.41	0	3.41	100	076
0	0	0	0	184.8	MULTI APTS	-9.34	0	0	-6.61	17	-18.09	-7.41	-1.14	0	1.14	MULT-USE APT	-45.72	-4.67	0	5.25	-14.2	-4.09	0	4.67	100	081
-12.23	0	-5.63	0	91.7	MULTI OFFICE	-9.55	0	0	-6.97	23	-28.24	-35.36	-4.71	0	4.71	MULT-USE OFC	-47.08	-10.27	0	13.33	-6.23	-0.85	0	7.82	100	082

COMMERCIAL INTERIOR RATES

AC 0	AC 1	AC 2	AC 3	BASE	DESCR	HEAT0	HEAT1	HEAT2	HEAT3	INCUSE	INTFIN	LIGHT0	LIGHT1	LIGHT2	LIGHT3	NAME	PART0	PART1	PART2	PART3	PLUMB0	PLUMB1	PLUMB2	PLUMB3	SUMPCT	USE
-17.39	0	-9.28	0	115.33	MULTI SALES	-11.03	0	0	-6.39	24	-25.72	-5.02	-1.12	0	1.12	MULTI SALES	-11.21	-3.69	0	4.64	-7.17	-3.09	0	4.64	100	083
0	10.5	4.66	0	37.86	MULTI-STRG	-6.6	0	0	-3.63	25	-6.35	-0.62	-0.15	0	0.15	MLTI STORAGE	-3.11	-0.9	0	1.31	-3.11	-0.4	0	1.31	100	084
-7.75	0	-2.85	0	48.2	ENCLOSURE	-5.21	0	0	-3.78	11	-12.23	-1.66	-0.37	0	0.37	ENCLOSURE	-22.43	-3.78	0	4.89	-8.56	-2.56	0	3.67	0	085
0	10.05	4.46	0	29.88	SUPPORT/ UTILITY STORAGE	-6.33	0	0	-3.47	00	-6.08	-2.55	-0.61	0	0.61	SPRT AREA	-2.97	-0.88	0	1.24	-2.97	-0.88	0	1.24	0	086
0	10.05	4.46	0	19.5	MULTI USE RR/LOCKER	-6.33	0	0	-3.47	24	-6.08	-0.95	-0.2	0	0.2	MULT-USE RR	-2.97	-0.88	0	1.24	-2.97	-0.88	0	1.24	100	088
0	0	0	0	10.99	PARKING GARAGE	0	0	0	0	13	0	-1.14	-0.27	0	0.27	PRKNG GRGE	-2.84	-2.16	0	2.84	0	0	0	0	100	090
0	9.12	4.17	0	7.98	UNFIN RES BSMT	0	5.74	5.74	3.15	00	-5.52	-1.14	-0.27	0	0.27	UNFIN BSMT	-2.7	-0.79	0	1.35	-2.7	-0.79	0	1.35	100	091
-12.16	0	-6.49	0	110.02	COVERED MALL	-7.7	0	0	-4.46	00	-17.97	-6.95	-1.55	0	1.55	COVERED MALL	-3.24	-0.95	0	1.35	0	0	0	0	100	095
0	0	0	0	192.3	FOOD FRANCHISE	0	0	0	0	20	0	-83.42	-18.44	0	18.44	FOOD FRCHSE	0	0	0	0	0	0	0	0	100	100
0	0	0	0	0.41	PARKING GARAGE UPPER LEVEL	0	0	0	0	13	0	0	0	0	0	PRK GR U/LVL	0	0	0	0	0	0	0	0	100	990

COMMERCIAL OTHER FEATURE RATES				
Struct Code	Description	Name	Unit of Meas	Rate Per Unit
AE1	AERIAL WALK	AERIAL WALK	2	281.61
AT1	ATRIUM - COVER ONLY		2	45.05
AT2	ATRIUM WALLS		2	16.28
BA1	BALCONY	BALCONY	2	12.6
BA2	CHURCH BALCONY	CHRCH BLCNY	2	12.6
BC1	BANK CANOPY-DRIVE IN	BNK CNPY DRV	2	31.5
BE1	BANK VAULT - NO DOOR	BANK VAULT	2	145.27
BE2	BANK VAULT REC ST/ND	BNK VLT STND	2	43.84
BE7	BANK DR IN WINDOW	BNK DRV WNDW	2	69.56
BE9	BANK DR IN TELLER BOOTH	BNK DRV TLR	2	104.32
BT1	BASEMENT TOP	BSMNT TOP	2	10.4
BV1	BRICK VENEER	BR VENEER	8	1.58
CC1	CENTRAL A/C		2	4.73
CD1	WOOD DECK		2	18.9
CF1	COOLER-CHILLER	CLR-CHLR	2	10.08
CF2	COOLER-FREEZER	CLR-FRZR	2	12.65
CF3	COOLER-SHARP FREEZE	CLR-SHRP FRZ	2	17.22
CG1	GARAGE-ATTACHED-FRM.-COMM.		2	35.44
CG2	GARAGE-ATTACHED-MAS.-COMM		2	38.59
CM1	COVERED MALL	COVRD MALL	2	42.21
CP5	CANOPY ONLY	CANOPY ONLY	2	11.81
CP6	CANOPY ROOF/SLAB	CANPY RF/SLB	2	14.18
CP7	CANOPY RF-ECONOMY	CANPY RF-ECN	2	21.63
CP8	CANOPY RF-AVERAGE	CANPY RF-AVG	2	25.57
CP9	CANOPY RF-GOOD	CANPY RF-GD	2	32.66
CR1	COMPUTER FLOOR	CMPTR FLOOR	2	15.8
CR2	COMPUTER ROOM AIR CTL	CMPTR RM AC	2	10.45
CR3	COMPUTER FIRE SUPP	CMPTR FR SUP	2	13.44
CW1	CRANEWAYS/LIGHT	CRANEWAYS	2	33.02
CW2	CRANEWAYS/MEDIUM	CRANEWAYS	3	33.02
CW3	CRANEWAYS/HEAVY	CRANEWAYS	3	33.02
DL1	DOCK LEVEL FLOOR	DOCK LVL FLR	2	1.58
EE1	ENCLOSED ENTRY	ENCLSD ENTRY	2	59.85
EL1	ELEVATOR ELECTRIC FREIGHT	EL FRT ELEV	6	1

COMMERCIAL OTHER FEATURE RATES				
Struct Code	Description	Name	Unit of Meas	Rate Per Unit
EL2	ELEVATOR ELECTRIC PASNGR	EL PASS ELEV	6	1
EL3	ELEVATOR HYDRAULIC FREIGHT	HYD FRT ELEV	6	1
EL4	ELEVATOR HYDRAULIC PASNGR	HYD PAS ELEV	6	1
EL5	ESCALATOR WIDTH=32	32"ESCALATOR	7	6060.6
EL6	ESCALATOR WIDTH=48	48"ESCALATOR	7	7161
FI1	FIREPLACE 1 OPENING	FP 1 OPENG	1	3675
FI2	FIREPLACE 2 OPENINGS	FP 2 OPENGS	1	6037.5
FI3	FIREPLACE 3 OPENINGS	FP 3 OPENG	1	7350
GH3	GREENHOUSE-GOOD		2	25.2
GZ1	GAZEBO	GAZEBO	2	27.82
JQ1	JACUZZI - Small		4	2625
JQ2	JACUZZI - Large		4	4200
LD1	LOAD DOCK,ST OR CONC	LOAD DOCK	2	20.84
LD2	LOADING DOCK, WOOD	LOAD DOCK WD	2	15.75
LD3	LOADING DOCK, INTR	LOAD DOCK IN	2	37.38
LD4	TRUCK & TRAIN WELLS	TRK,TRN WELL	2	16.07
LD5	DOCK LEVELERS	DK LVLRS	4	6825
LP3	PATIO, CONCRETE	PATIO CNCRTE	2	14.37
LP4	PATIO, ASPHALT	PATIO ASPHLT	2	4.73
LP5	PATIO, FLGST-SND-BSE	PATIO FL-SD	2	15.75
LP6	PATIO, FLGST-CON-BSE	PATIO FL-CON	2	22.05
LP7	PATIO, BRICK	PATION BRICK	2	18.9
MR1	MONITOR ROOF	MONITOR ROOF	2	4.31
MR2	HIGH BAY ROOF	HI BAY ROOF	2	4.31
MSS	MISCELLANEOUS		4	1.05
OA1	OPEN AREA APT. HOTEL	OPN AREA APT	2	8.3
OA2	OPEN AREA MOTEL DWLG	OPN AREA MOT	2	7.61
OA3	OPEN AREA STORE RSTR	O A STR RSTR	2	8.93
OA4	OPEN AREA INDSTR/WHS	OA IND/WHS	2	8.93
OA5	OPEN AREA BANKS OFFICE	OA BNK OFC	2	10.92
OA6	OPEN AREA THEAT AUDT	OA THEATR AU	2	11.81
OA7	OPEN AR.LT MTL/AG BD	OA ARLT MTL	2	6.46
OA8	OPEN AREA HI RISE OFFICE	OA HI RI OFC	2	11.24
OD1	OVERHEAD DR-WOOD/MTL	OVRHD DR	2	15.59
OD2	OVERHEAD DR-ROLL STL	OVRHD DR RL	2	24.73

COMMERCIAL OTHER FEATURE RATES				
Struct Code	Description	Name	Unit of Meas	Rate Per Unit
OD3	OVRHD DR-MTR-OP-WD-MT	OVHD MTR OP	2	20.69
OD4	OVRHD DR-MTR-OP-RL-ST	OVHD RL-ST	2	32.92
PR1	PORCH, OPEN	PORCH, OPEN	2	36.6
PR2	PORCH, ENCLOSED	PORCH, ENCLS	2	68.9
PR3	PORCH, OPEN UPPER	PORCH OPN UP	2	36.6
PR4	PORCH, ENCLOSED UPPER	PRCH ECLS UP	2	68.9
PR5	PORCH COVERED	PRCH CVRD	2	36.6
PR6	PORCH, SCREENED	PRCH SCRNED	2	45.37
PR7	PORCH COV-UPPER	PRCH COV-UPR	2	36.6
PR8	PORCH SCREEN-UPPER	PRCH SCRN-UP	2	45.37
RA1	GARAGE-ATTACHED-FRM	GAR-ATT-FRM	2	53.14
RA2	GARAGE-ATTACHED-MAS	GAR-ATT-MAS	2	57.08
RC1	CARPORT	CARPORT	2	27.49
RG4	COMMERCIAL FRAME GARAGE		2	37.8
RP1	PORCH OPEN		2	36.6
RP2	PORCH ENCLOSED		2	68.9
RP3	PORCH OPEN UPPER		2	36.6
RP4	PORCH ENCL UPPER		2	68.9
RP5	RES CAN/STOOP		2	33.67
RP6	PORCH SCREENED		2	45.37
RP7	UNF RES CAN		2	15.75
RR1	RAILROAD TRACKAGE	RR TRACK	3	63.11
RS1	UTILITY BLDG-FRAME	UTL BLDG-FRM	2	31.54
RS2	UTILITY BLDG-METAL	UTL BLDG-MTL	2	25.2
RS3	UTILITY BLDG-BRK/STN	UTL BLDG-BRK	2	33.92
RT1	WOOD DECK		2	21
SA	SAUNA		4	5250
SC2	INDOOR POOL	INDR POOL	2	35.44
SF1	STORE FRONT/WOOD FRAME	STR FRNT/WOD	2	75.13
SF2	STORE FRONT/AV MET F	STR FRNT/AV	2	150.15
SF3	STORE FRONT/ELABORATE	STR FRNT/ELB	2	225.28
SK1	INDOOR SKATING RINK	IN SKATE RNK	1	17.06
SS1	SPRINKLER SYS WET	SPRKLR WET	2	1.58
SS2	SPRINKLER SYS DRY	SPRKLR DRY	2	1.94
TS1	TRUCK SCALE	TRUCK SCALE	1	1023.75
TS2	TRUCK SCALE-ELEC.RDR.	TRUCK SCALER	1	1023.75

COMMERCIAL OTHER FEATURE RATES				
Struct Code	Description	Name	Unit of Meas	Rate Per Unit
TU1	TUNNEL	TUNNEL	1	473.03
TU2	TUNNEL UTILITY	TUNNEL UTILY	2	473.03
WD1	WOOD DECK	WOOD DECK	2	21

COMMERCIAL ELEVATOR RATES							
Code	Min Speed	Max Speed	Capacity	Rate	Per Stop/Ft	Name	Description
EL1	0	99	1500	39310	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	0	99	2000	39840	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	0	99	2500	40360	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	0	99	3000	40890	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	0	99	3500	41400	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	0	99	4000	41930	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	100	149	1500	46260	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	100	149	2000	47250	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	100	149	2500	48230	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	100	149	3000	49210	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	100	149	3500	50200	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	100	149	4000	51190	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	150	199	2000	50960	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	150	199	2500	52160	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	150	199	3000	53380	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	150	199	3500	54600	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	150	199	4000	55810	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	200	249	2000	54660	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	200	249	2500	56100	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	200	249	3000	57550	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	200	249	3500	58990	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	200	249	4000	60440	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	250	299	2000	58360	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	250	299	2500	60040	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT

COMMERCIAL ELEVATOR RATES							
Code	Min Speed	Max Speed	Capacity	Rate	Per Stop/Ft	Name	Description
EL1	250	299	3000	61720	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	250	299	3500	63390	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	250	299	4000	65070	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	300	349	2000	62070	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	300	349	2500	63980	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	300	349	3000	65890	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	300	349	3500	67790	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	300	349	4000	69700	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	350	9999	2000	65770	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	350	9999	2500	67910	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	350	9999	3000	70050	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	350	9999	3500	72190	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL1	350	9999	4000	74320	7560	ELEVATOR	ELEVATOR ELECTRIC FREIGHT
EL2	0	99	1500	31350	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	0	99	2000	36880	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	0	99	2500	42410	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	0	99	3000	47940	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	0	99	3500	53480	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	0	99	4000	59010	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	100	149	1500	41190	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	100	149	2000	46710	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	100	149	2500	52250	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	100	149	3000	57780	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	100	149	3500	63320	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER

COMMERCIAL ELEVATOR RATES							
Code	Min Speed	Max Speed	Capacity	Rate	Per Stop/Ft	Name	Description
EL2	100	149	4000	68850	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	150	199	1500	46110	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	150	199	2000	51640	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	150	199	2500	57170	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	150	199	3000	62710	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	150	199	3500	68230	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	150	199	4000	73760	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	200	249	1500	51030	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	200	249	2000	56550	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	200	249	2500	62090	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	200	249	3000	67620	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	200	249	3500	73150	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	200	249	4000	78690	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	250	349	1500	55940	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	250	349	2000	61480	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	250	349	2500	67010	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	250	349	3000	72540	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	250	349	3500	78070	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	250	349	4000	83600	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	350	9999	1500	65780	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	350	9999	2000	71320	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	350	9999	2500	76850	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	350	9999	3000	82380	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL2	350	9999	3500	87910	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER

COMMERCIAL ELEVATOR RATES							
Code	Min Speed	Max Speed	Capacity	Rate	Per Stop/Ft	Name	Description
EL2	350	9999	4000	93440	3550	ELEV EL PASS	ELEVATOR - ELECTRIC PASSENGER
EL3	0	49	1500	8360	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	0	49	2000	9710	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	0	49	2500	11070	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	0	49	3000	12420	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	0	49	3500	13780	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	0	49	4000	15120	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	50	99	1500	14350	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	50	99	2000	15860	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	50	99	2500	17370	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	50	99	3000	18870	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	50	99	3500	20380	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	50	99	4000	21880	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	100	149	1500	20350	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	100	149	2000	22010	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	100	149	2500	23670	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	100	149	3000	25330	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	100	149	3500	26990	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	100	149	4000	28640	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	150	199	1500	26330	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	150	199	2000	28150	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	150	199	2500	29970	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	150	199	3000	31770	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	150	199	3500	33590	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	150	199	4000	35410	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	200	999	1500	32330	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	200	999	2000	34290	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	200	999	2500	36260	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	200	999	3000	38230	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	200	999	3500	40190	8250	ELEVATOR	HYDRAULIC FREIGHT
EL3	200	999	4000	42160	8250	ELEVATOR	HYDRAULIC FREIGHT
EL4	0	49	1500	11060	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	0	49	2000	13510	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	0	49	2500	15970	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	0	49	3000	18430	7000	ELEVATOR	HYDRAULIC PASSENGER

COMMERCIAL ELEVATOR RATES							
Code	Min Speed	Max Speed	Capacity	Rate	Per Stop/Ft	Name	Description
EL4	0	49	3500	20880	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	0	49	4000	23340	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	50	74	1500	17360	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	50	74	2000	20280	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	50	74	2500	23190	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	50	74	3000	26110	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	50	74	3500	29030	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	50	74	4000	31950	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	75	99	1500	20510	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	75	99	2000	23660	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	75	99	2500	26810	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	75	99	3000	29960	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	75	99	3500	33110	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	75	99	4000	36260	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	100	124	1500	23660	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	100	124	2000	27040	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	100	124	2500	30420	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	100	124	3000	33800	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	100	124	3500	37180	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	100	124	4000	40550	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	125	149	1500	26810	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	125	149	2000	30420	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	125	149	2500	34030	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	125	149	3000	37640	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	125	149	3500	41240	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	125	149	4000	44860	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	150	999	1500	29960	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	150	200	2000	33800	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	150	200	2500	37640	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	150	200	3000	41480	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	150	200	3500	45320	7000	ELEVATOR	HYDRAULIC PASSENGER
EL4	150	200	4000	49160	7000	ELEVATOR	HYDRAULIC PASSENGER
EL5				76650	1350	ESCAL 32 IN	ESCALATOR - 32 IN WIDE
EL6				80850	1700	ESCAL 48IN	ESCALATOR- 48 IN WIDE

DEPRECIATION TABLES

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
00	1	100	100	100	99	95	90	90	80	80	10
00	2	100	100	100	98	94	89	89	79	79	10
00	3	100	100	100	97	94	89	89	79	79	10
00	4	100	99	99	97	93	88	88	78	78	10
00	5	100	99	99	96	92	87	87	77	77	10
00	6	100	99	98	95	91	87	87	77	77	10
00	7	99	98	97	94	90	86	86	76	76	10
00	8	99	98	96	93	89	85	85	75	75	10
00	9	99	98	95	92	89	85	85	75	75	10
00	10	99	97	94	91	88	84	84	74	74	10
00	11	99	97	93	90	86	83	83	73	73	10
00	12	99	97	92	89	86	83	83	73	73	10
00	13	98	96	91	88	85	82	82	72	72	10
00	14	98	96	90	87	84	81	81	71	71	10
00	15	98	95	89	86	83	81	81	71	71	10
00	16	98	95	88	85	82	80	80	70	70	10
00	17	98	95	87	84	82	79	79	69	69	10
00	18	98	94	87	83	81	79	79	69	69	10
00	19	97	94	87	83	80	78	78	68	68	10
00	20	97	93	86	82	79	77	77	67	67	10
00	21	97	93	86	81	78	77	77	67	67	10
00	22	97	93	86	80	78	76	76	66	66	10
00	23	97	92	85	79	77	75	75	65	65	10
00	24	97	92	84	79	77	75	75	65	65	10
00	25	96	92	83	78	77	74	74	64	64	10
00	26	96	92	83	78	76	73	73	63	63	10
00	27	96	91	83	78	75	73	73	63	63	10
00	28	96	91	83	78	74	72	72	62	62	10
00	29	96	91	82	78	73	72	72	62	62	10
00	30	96	90	82	78	73	71	71	61	61	10
00	31	95	90	82	77	73	70	70	60	60	10
00	32	95	90	81	77	73	70	70	60	60	10
00	33	95	89	81	77	73	69	69	59	59	10
00	34	95	89	81	77	72	68	68	58	58	10

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
00	35	95	89	81	77	72	68	68	58	58	10
00	36	95	88	80	77	71	67	67	57	57	10
00	37	94	88	80	76	71	66	66	56	56	10
00	38	94	88	80	76	70	66	66	56	56	10
00	39	94	87	79	76	70	65	65	55	55	10
00	40	94	87	79	76	69	64	64	54	54	10
00	41	94	87	79	75	68	64	64	54	54	10
00	42	94	86	78	74	68	63	63	53	53	10
00	43	93	86	78	73	67	62	62	52	52	10
00	44	93	86	78	73	67	62	62	52	52	10
00	45	93	85	77	72	66	61	61	51	51	10
00	46	93	85	77	71	65	60	60	50	50	10
00	47	93	85	76	71	65	60	60	50	50	10
00	48	93	84	75	70	64	59	59	49	49	10
00	49	92	84	75	70	64	58	58	48	48	10
00	50	92	84	75	69	63	58	58	48	48	10
00	51	92	83	75	69	63	57	57	47	47	10
00	52	92	83	74	68	62	56	56	46	46	10
00	53	92	83	73	68	61	56	56	46	46	10
00	54	92	82	73	67	61	55	55	45	45	10
00	55	91	82	72	67	60	54	54	44	44	10
00	56	91	82	72	66	60	54	54	44	44	10
00	57	91	81	71	66	59	53	53	43	43	10
00	58	91	81	71	66	58	52	52	42	42	10
00	59	91	81	70	65	58	52	52	42	42	10
00	60	91	80	70	65	57	51	51	41	41	10
00	999	90	80	70	65	57	50	50	40	40	10
02	1	99	99	99	99	99	99	99	99	99	99
02	2	99	99	99	99	99	99	99	99	99	99
02	3	98	98	98	98	98	98	98	98	98	98
02	4	97	97	97	97	97	97	97	97	97	97
02	5	96	96	96	96	96	96	96	96	96	96
02	6	95	95	95	95	95	95	95	95	95	95
02	7	95	95	95	95	95	95	95	95	95	95
02	8	94	94	94	94	94	94	94	94	94	94

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
02	9	93	93	93	93	93	93	93	93	93	93
02	10	93	93	93	93	93	93	93	93	93	93
02	11	92	92	92	92	92	92	92	92	92	92
02	12	91	91	91	91	91	91	91	91	91	91
02	13	91	91	91	91	91	91	91	91	91	91
02	14	90	90	90	90	90	90	90	90	90	90
02	15	89	89	89	89	89	89	89	89	89	89
02	16	89	89	89	89	89	89	89	89	89	89
02	17	88	88	88	88	88	88	88	88	88	88
02	18	87	87	87	87	87	87	87	87	87	87
02	19	87	87	87	87	87	87	87	87	87	87
02	20	86	86	86	86	86	86	86	86	86	86
02	21	85	85	85	85	85	85	85	85	85	85
02	22	85	85	85	85	85	85	85	85	85	85
02	23	84	84	84	84	84	84	84	84	84	84
02	24	83	83	83	83	83	83	83	83	83	83
02	25	83	83	83	83	83	83	83	83	83	83
02	26	82	82	82	82	82	82	82	82	82	82
02	27	81	81	81	81	81	81	81	81	81	81
02	28	81	81	81	81	81	81	81	81	81	81
02	29	80	80	80	80	80	80	80	80	80	80
02	30	79	79	79	79	79	79	79	79	79	79
02	31	79	79	79	79	79	79	79	79	79	79
02	32	78	78	78	78	78	78	78	78	78	78
02	33	77	77	77	77	77	77	77	77	77	77
02	34	77	77	77	77	77	77	77	77	77	77
02	35	76	76	76	76	76	76	76	76	76	76
02	36	75	75	75	75	75	75	75	75	75	75
02	37	75	75	75	75	75	75	75	75	75	75
02	38	74	74	74	74	74	74	74	74	74	74
02	39	73	73	73	73	73	73	73	73	73	73
02	40	73	73	73	73	73	73	73	73	73	73
02	41	72	72	72	72	72	72	72	72	72	72
02	42	71	71	71	71	71	71	71	71	71	71
02	43	71	71	71	71	71	71	71	71	71	71

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
02	44	70	70	70	70	70	70	70	70	70	70
02	45	69	69	69	69	69	69	69	69	69	69
02	46	69	69	69	69	69	69	69	69	69	69
02	47	68	68	68	68	68	68	68	68	68	68
02	48	67	67	67	67	67	67	67	67	67	67
02	49	67	67	67	67	67	67	67	67	67	67
02	50	66	66	66	66	66	66	66	66	66	66
02	51	66	66	66	66	66	66	66	66	66	66
02	52	65	65	65	65	65	65	65	65	65	65
02	53	65	65	65	65	65	65	65	65	65	65
02	54	64	64	64	64	64	64	64	64	64	64
02	55	64	64	64	64	64	64	64	64	64	64
02	56	63	63	63	63	63	63	63	63	63	63
02	57	63	63	63	63	63	63	63	63	63	63
02	58	62	62	62	62	62	62	62	62	62	62
02	59	62	62	62	62	62	62	62	62	62	62
02	60	61	61	61	61	61	61	61	61	61	61
02	61	61	61	61	61	61	61	61	61	61	61
02	62	60	60	60	60	60	60	60	60	60	60
02	63	60	60	60	60	60	60	60	60	60	60
02	64	59	59	59	59	59	59	59	59	59	59
02	65	59	59	59	59	59	59	59	59	59	59
02	66	58	58	58	58	58	58	58	58	58	58
02	67	58	58	58	58	58	58	58	58	58	58
02	68	57	57	57	57	57	57	57	57	57	57
02	69	57	57	57	57	57	57	57	57	57	57
02	70	56	56	56	56	56	56	56	56	56	56
02	71	56	56	56	56	56	56	56	56	56	56
02	72	55	55	55	55	55	55	55	55	55	55
02	73	55	55	55	55	55	55	55	55	55	55
02	74	54	54	54	54	54	54	54	54	54	54
02	75	54	54	54	54	54	54	54	54	54	54
02	76	53	53	53	53	53	53	53	53	53	53
02	77	53	53	53	53	53	53	53	53	53	53
02	78	52	52	52	52	52	52	52	52	52	52

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
02	79	52	52	52	52	52	52	52	52	52	52
02	80	51	51	51	51	51	51	51	51	51	51
02	81	51	51	51	51	51	51	51	51	51	51
02	82	50	50	50	50	50	50	50	50	50	50
02	83	50	50	50	50	50	50	50	50	50	50
02	84	49	49	49	49	49	49	49	49	49	49
02	85	49	49	49	49	49	49	49	49	49	49
02	86	48	48	48	48	48	48	48	48	48	48
02	87	48	48	48	48	48	48	48	48	48	48
02	88	47	47	47	47	47	47	47	47	47	47
02	89	47	47	47	47	47	47	47	47	47	47
02	90	46	46	46	46	46	46	46	46	46	46
02	91	46	46	46	46	46	46	46	46	46	46
02	92	45	45	45	45	45	45	45	45	45	45
02	93	45	45	45	45	45	45	45	45	45	45
02	94	45	45	45	45	45	45	45	45	45	45
02	95	44	44	44	44	44	44	44	44	44	44
02	96	44	44	44	44	44	44	44	44	44	44
02	97	44	44	44	44	44	44	44	44	44	44
02	98	43	43	43	43	43	43	43	43	43	43
02	99	43	43	43	43	43	43	43	43	43	43
02	100	0	0	0	0	0	0	0	0	0	0
03	1	98	98	98	98	98	98	98	98	98	98
03	2	97	97	97	97	97	97	97	97	97	97
03	3	96	96	96	96	96	96	96	96	96	96
03	4	94	94	94	94	94	94	94	94	94	94
03	5	93	93	93	93	93	93	93	93	93	93
03	6	91	91	91	91	91	91	91	91	91	91
03	7	90	90	90	90	90	90	90	90	90	90
03	8	89	89	89	89	89	89	89	89	89	89
03	9	88	88	88	88	88	88	88	88	88	88
03	10	86	86	86	86	86	86	86	86	86	86
03	11	85	85	85	85	85	85	85	85	85	85
03	12	84	84	84	84	84	84	84	84	84	84
03	13	82	82	82	82	82	82	82	82	82	82

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
03	14	81	81	81	81	81	81	81	81	81	81
03	15	80	80	80	80	80	80	80	80	80	80
03	16	78	78	78	78	78	78	78	78	78	78
03	17	77	77	77	77	77	77	77	77	77	77
03	18	76	76	76	76	76	76	76	76	76	76
03	19	74	74	74	74	74	74	74	74	74	74
03	20	73	73	73	73	73	73	73	73	73	73
03	21	72	72	72	72	72	72	72	72	72	72
03	22	70	70	70	70	70	70	70	70	70	70
03	23	69	69	69	69	69	69	69	69	69	69
03	24	68	68	68	68	68	68	68	68	68	68
03	25	67	67	67	67	67	67	67	67	67	67
03	26	65	65	65	65	65	65	65	65	65	65
03	27	64	64	64	64	64	64	64	64	64	64
03	28	63	63	63	63	63	63	63	63	63	63
03	29	61	61	61	61	61	61	61	61	61	61
03	30	60	60	60	60	60	60	60	60	60	60
03	31	59	59	59	59	59	59	59	59	59	59
03	32	58	58	58	58	58	58	58	58	58	58
03	33	57	57	57	57	57	57	57	57	57	57
03	34	56	56	56	56	56	56	56	56	56	56
03	35	55	55	55	55	55	55	55	55	55	55
03	36	54	54	54	54	54	54	54	54	54	54
03	37	53	53	53	53	53	53	53	53	53	53
03	38	52	52	52	52	52	52	52	52	52	52
03	39	51	51	51	51	51	51	51	51	51	51
03	40	50	50	50	50	50	50	50	50	50	50
03	41	49	49	49	49	49	49	49	49	49	49
03	42	48	48	48	48	48	48	48	48	48	48
03	43	47	47	47	47	47	47	47	47	47	47
03	44	46	46	46	46	46	46	46	46	46	46
03	45	45	45	45	45	45	45	45	45	45	45
03	46	44	44	44	44	44	44	44	44	44	44
03	47	43	43	43	43	43	43	43	43	43	43
03	48	42	42	42	42	42	42	42	42	42	42

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
03	49	41	41	41	41	41	41	41	41	41	41
03	50	40	40	40	40	40	40	40	40	40	40
03	51	39	39	39	39	39	39	39	39	39	39
03	52	38	38	38	38	38	38	38	38	38	38
03	53	37	37	37	37	37	37	37	37	37	37
03	54	36	36	36	36	36	36	36	36	36	36
03	55	35	35	35	35	35	35	35	35	35	35
03	56	34	34	34	34	34	34	34	34	34	34
03	57	33	33	33	33	33	33	33	33	33	33
03	58	32	32	32	32	32	32	32	32	32	32
03	59	31	31	31	31	31	31	31	31	31	31
03	60	31	31	31	31	31	31	31	31	31	31
03	61	30	30	30	30	30	30	30	30	30	30
03	62	30	30	30	30	30	30	30	30	30	30
03	63	30	30	30	30	30	30	30	30	30	30
03	64	30	30	30	30	30	30	30	30	30	30
03	65	29	29	29	29	29	29	29	29	29	29
03	66	29	29	29	29	29	29	29	29	29	29
03	67	29	29	29	29	29	29	29	29	29	29
03	68	29	29	29	29	29	29	29	29	29	29
03	69	28	28	28	28	28	28	28	28	28	28
03	70	28	28	28	28	28	28	28	28	28	28
03	71	28	28	28	28	28	28	28	28	28	28
03	72	28	28	28	28	28	28	28	28	28	28
03	73	28	28	28	28	28	28	28	28	28	28
03	74	27	27	27	27	27	27	27	27	27	27
03	75	27	27	27	27	27	27	27	27	27	27
03	76	27	27	27	27	27	27	27	27	27	27
03	77	27	27	27	27	27	27	27	27	27	27
03	78	27	27	27	27	27	27	27	27	27	27
03	79	26	26	26	26	26	26	26	26	26	26
03	80	26	26	26	26	26	26	26	26	26	26
03	81	26	26	26	26	26	26	26	26	26	26
03	82	26	26	26	26	26	26	26	26	26	26
03	83	26	26	26	26	26	26	26	26	26	26

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
03	84	26	26	26	26	26	26	26	26	26	26
03	85	25	25	25	25	25	25	25	25	25	25
03	86	25	25	25	25	25	25	25	25	25	25
03	87	25	25	25	25	25	25	25	25	25	25
03	88	25	25	25	25	25	25	25	25	25	25
03	89	25	25	25	25	25	25	25	25	25	25
03	90	25	25	25	25	25	25	25	25	25	25
03	91	24	24	24	24	24	24	24	24	24	24
03	92	24	24	24	24	24	24	24	24	24	24
03	93	24	24	24	24	24	24	24	24	24	24
03	94	24	24	24	24	24	24	24	24	24	24
03	95	24	24	24	24	24	24	24	24	24	24
03	96	24	24	24	24	24	24	24	24	24	24
03	97	23	23	23	23	23	23	23	23	23	23
03	98	23	23	23	23	23	23	23	23	23	23
03	99	23	23	23	23	23	23	23	23	23	23
03	100	0	0	0	0	0	0	0	0	0	0
04	1	90	90	90	90	90	90	90	90	90	90
04	2	89	89	89	89	89	89	89	89	89	89
04	3	87	87	87	87	87	87	87	87	87	87
04	4	86	86	86	86	86	86	86	86	86	86
04	5	85	85	85	85	85	85	85	85	85	85
04	6	84	84	84	84	84	84	84	84	84	84
04	7	83	83	83	83	83	83	83	83	83	83
04	8	82	82	82	82	82	82	82	82	82	82
04	9	80	80	80	80	80	80	80	80	80	80
04	10	79	79	79	79	79	79	79	79	79	79
04	11	78	78	78	78	78	78	78	78	78	78
04	12	77	77	77	77	77	77	77	77	77	77
04	13	75	75	75	75	75	75	75	75	75	75
04	14	74	74	74	74	74	74	74	74	74	74
04	15	72	72	72	72	72	72	72	72	72	72
04	16	71	71	71	71	71	71	71	71	71	71
04	17	70	70	70	70	70	70	70	70	70	70
04	18	69	69	69	69	69	69	69	69	69	69

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
04	19	67	67	67	67	67	67	67	67	67	67
04	20	66	66	66	66	66	66	66	66	66	66
04	21	65	65	65	65	65	65	65	65	65	65
04	22	63	63	63	63	63	63	63	63	63	63
04	23	62	62	62	62	62	62	62	62	62	62
04	24	60	60	60	60	60	60	60	60	60	60
04	25	59	59	59	59	59	59	59	59	59	59
04	26	57	57	57	57	57	57	57	57	57	57
04	27	56	56	56	56	56	56	56	56	56	56
04	28	55	55	55	55	55	55	55	55	55	55
04	29	53	53	53	53	53	53	53	53	53	53
04	30	52	52	52	52	52	52	52	52	52	52
04	31	51	51	51	51	51	51	51	51	51	51
04	32	50	50	50	50	50	50	50	50	50	50
04	33	49	49	49	49	49	49	49	49	49	49
04	34	48	48	48	48	48	48	48	48	48	48
04	35	47	47	47	47	47	47	47	47	47	47
04	36	46	46	46	46	46	46	46	46	46	46
04	37	45	45	45	45	45	45	45	45	45	45
04	38	44	44	44	44	44	44	44	44	44	44
04	39	43	43	43	43	43	43	43	43	43	43
04	40	42	42	42	42	42	42	42	42	42	42
04	41	41	41	41	41	41	41	41	41	41	41
04	42	41	41	41	41	41	41	41	41	41	41
04	43	40	40	40	40	40	40	40	40	40	40
04	44	39	39	39	39	39	39	39	39	39	39
04	45	38	38	38	38	38	38	38	38	38	38
04	46	37	37	37	37	37	37	37	37	37	37
04	47	36	36	36	36	36	36	36	36	36	36
04	48	35	35	35	35	35	35	35	35	35	35
04	49	34	34	34	34	34	34	34	34	34	34
04	50	33	33	33	33	33	33	33	33	33	33
04	51	32	32	32	32	32	32	32	32	32	32
04	52	31	31	31	31	31	31	31	31	31	31
04	53	30	30	30	30	30	30	30	30	30	30

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
04	54	29	29	29	29	29	29	29	29	29	29
04	55	28	28	28	28	28	28	28	28	28	28
04	56	27	27	27	27	27	27	27	27	27	27
04	57	26	26	26	26	26	26	26	26	26	26
04	58	25	25	25	25	25	25	25	25	25	25
04	59	24	24	24	24	24	24	24	24	24	24
04	60	24	24	24	24	24	24	24	24	24	24
04	61	23	23	23	23	23	23	23	23	23	23
04	62	23	23	23	23	23	23	23	23	23	23
04	63	23	23	23	23	23	23	23	23	23	23
04	64	23	23	23	23	23	23	23	23	23	23
04	65	22	22	22	22	22	22	22	22	22	22
04	66	22	22	22	22	22	22	22	22	22	22
04	67	22	22	22	22	22	22	22	22	22	22
04	68	22	22	22	22	22	22	22	22	22	22
04	69	21	21	21	21	21	21	21	21	21	21
04	70	21	21	21	21	21	21	21	21	21	21
04	71	21	21	21	21	21	21	21	21	21	21
04	72	21	21	21	21	21	21	21	21	21	21
04	73	21	21	21	21	21	21	21	21	21	21
04	74	20	20	20	20	20	20	20	20	20	20
04	75	20	20	20	20	20	20	20	20	20	20
04	76	20	20	20	20	20	20	20	20	20	20
04	77	20	20	20	20	20	20	20	20	20	20
04	78	20	20	20	20	20	20	20	20	20	20
04	79	19	19	19	19	19	19	19	19	19	19
04	80	19	19	19	19	19	19	19	19	19	19
04	81	19	19	19	19	19	19	19	19	19	19
04	82	19	19	19	19	19	19	19	19	19	19
04	83	19	19	19	19	19	19	19	19	19	19
04	84	19	19	19	19	19	19	19	19	19	19
04	85	18	18	18	18	18	18	18	18	18	18
04	86	18	18	18	18	18	18	18	18	18	18
04	87	18	18	18	18	18	18	18	18	18	18
04	88	18	18	18	18	18	18	18	18	18	18

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
04	89	18	18	18	18	18	18	18	18	18	18
04	90	18	18	18	18	18	18	18	18	18	18
04	91	17	17	17	17	17	17	17	17	17	17
04	92	17	17	17	17	17	17	17	17	17	17
04	93	17	17	17	17	17	17	17	17	17	17
04	94	17	17	17	17	17	17	17	17	17	17
04	95	17	17	17	17	17	17	17	17	17	17
04	96	17	17	17	17	17	17	17	17	17	17
04	97	16	16	16	16	16	16	16	16	16	16
04	98	16	16	16	16	16	16	16	16	16	16
04	99	16	16	16	16	16	16	16	16	16	16
04	100	0	0	0	0	0	0	0	0	0	0
05	1	97	97	97	97	97	97	97	97	97	97
05	2	95	95	95	95	95	95	95	95	95	95
05	3	92	92	92	92	92	92	92	92	92	92
05	4	90	90	90	90	90	90	90	90	90	90
05	5	88	88	88	88	88	88	88	88	88	88
05	6	86	86	86	86	86	86	86	86	86	86
05	7	85	85	85	85	85	85	85	85	85	85
05	8	83	83	83	83	83	83	83	83	83	83
05	9	81	81	81	81	81	81	81	81	81	81
05	10	79	79	79	79	79	79	79	79	79	79
05	11	77	77	77	77	77	77	77	77	77	77
05	12	76	76	76	76	76	76	76	76	76	76
05	13	74	74	74	74	74	74	74	74	74	74
05	14	72	72	72	72	72	72	72	72	72	72
05	15	70	70	70	70	70	70	70	70	70	70
05	16	69	69	69	69	69	69	69	69	69	69
05	17	67	67	67	67	67	67	67	67	67	67
05	18	66	66	66	66	66	66	66	66	66	66
05	19	65	65	65	65	65	65	65	65	65	65
05	20	63	63	63	63	63	63	63	63	63	63
05	21	61	61	61	61	61	61	61	61	61	61
05	22	59	59	59	59	59	59	59	59	59	59
05	23	58	58	58	58	58	58	58	58	58	58

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
05	24	56	56	56	56	56	56	56	56	56	56
05	25	54	54	54	54	54	54	54	54	54	54
05	26	53	53	53	53	53	53	53	53	53	53
05	27	51	51	51	51	51	51	51	51	51	51
05	28	50	50	50	50	50	50	50	50	50	50
05	29	48	48	48	48	48	48	48	48	48	48
05	30	46	46	46	46	46	46	46	46	46	46
05	31	45	45	45	45	45	45	45	45	45	45
05	32	44	44	44	44	44	44	44	44	44	44
05	33	42	42	42	42	42	42	42	42	42	42
05	34	41	41	41	41	41	41	41	41	41	41
05	35	39	39	39	39	39	39	39	39	39	39
05	36	38	38	38	38	38	38	38	38	38	38
05	37	36	36	36	36	36	36	36	36	36	36
05	38	34	34	34	34	34	34	34	34	34	34
05	39	33	33	33	33	33	33	33	33	33	33
05	40	32	32	32	32	32	32	32	32	32	32
05	41	31	31	31	31	31	31	31	31	31	31
05	42	30	30	30	30	30	30	30	30	30	30
05	43	29	29	29	29	29	29	29	29	29	29
05	44	28	28	28	28	28	28	28	28	28	28
05	45	27	27	27	27	27	27	27	27	27	27
05	46	26	26	26	26	26	26	26	26	26	26
05	47	25	25	25	25	25	25	25	25	25	25
05	48	24	24	24	24	24	24	24	24	24	24
05	49	23	23	23	23	23	23	23	23	23	23
05	50	22	22	22	22	22	22	22	22	22	22
05	51	22	22	22	22	22	22	22	22	22	22
05	52	22	22	22	22	22	22	22	22	22	22
05	53	22	22	22	22	22	22	22	22	22	22
05	54	22	22	22	22	22	22	22	22	22	22
05	55	22	22	22	22	22	22	22	22	22	22
05	56	22	22	22	22	22	22	22	22	22	22
05	57	22	22	22	22	22	22	22	22	22	22
05	58	22	22	22	22	22	22	22	22	22	22

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
05	59	22	22	22	22	22	22	22	22	22	22
05	60	22	22	22	22	22	22	22	22	22	22
05	61	22	22	22	22	22	22	22	22	22	22
05	62	22	22	22	22	22	22	22	22	22	22
05	63	22	22	22	22	22	22	22	22	22	22
05	64	22	22	22	22	22	22	22	22	22	22
05	65	22	22	22	22	22	22	22	22	22	22
05	66	22	22	22	22	22	22	22	22	22	22
05	67	22	22	22	22	22	22	22	22	22	22
05	68	22	22	22	22	22	22	22	22	22	22
05	69	22	22	22	22	22	22	22	22	22	22
05	70	22	22	22	22	22	22	22	22	22	22
05	71	22	22	22	22	22	22	22	22	22	22
05	72	22	22	22	22	22	22	22	22	22	22
05	73	22	22	22	22	22	22	22	22	22	22
05	74	22	22	22	22	22	22	22	22	22	22
05	75	22	22	22	22	22	22	22	22	22	22
05	76	22	22	22	22	22	22	22	22	22	22
05	77	22	22	22	22	22	22	22	22	22	22
05	78	22	22	22	22	22	22	22	22	22	22
05	79	22	22	22	22	22	22	22	22	22	22
05	80	22	22	22	22	22	22	22	22	22	22
05	81	22	22	22	22	22	22	22	22	22	22
05	82	22	22	22	22	22	22	22	22	22	22
05	83	22	22	22	22	22	22	22	22	22	22
05	84	22	22	22	22	22	22	22	22	22	22
05	85	22	22	22	22	22	22	22	22	22	22
05	86	22	22	22	22	22	22	22	22	22	22
05	87	22	22	22	22	22	22	22	22	22	22
05	88	22	22	22	22	22	22	22	22	22	22
05	89	22	22	22	22	22	22	22	22	22	22
05	90	22	22	22	22	22	22	22	22	22	22
05	91	22	22	22	22	22	22	22	22	22	22
05	92	22	22	22	22	22	22	22	22	22	22
05	93	22	22	22	22	22	22	22	22	22	22

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
05	94	22	22	22	22	22	22	22	22	22	22
05	95	22	22	22	22	22	22	22	22	22	22
05	96	22	22	22	22	22	22	22	22	22	22
05	97	22	22	22	22	22	22	22	22	22	22
05	98	22	22	22	22	22	22	22	22	22	22
05	99	22	22	22	22	22	22	22	22	22	22
05	100	0	0	0	0	0	0	0	0	0	0
06	1	97	97	97	97	97	97	97	97	97	97
06	2	94	94	94	94	94	94	94	94	94	94
06	3	92	92	92	92	92	92	92	92	92	92
06	4	90	90	90	90	90	90	90	90	90	90
06	5	88	88	88	88	88	88	88	88	88	88
06	6	86	86	86	86	86	86	86	86	86	86
06	7	84	84	84	84	84	84	84	84	84	84
06	8	81	81	81	81	81	81	81	81	81	81
06	9	79	79	79	79	79	79	79	79	79	79
06	10	77	77	77	77	77	77	77	77	77	77
06	11	75	75	75	75	75	75	75	75	75	75
06	12	74	74	74	74	74	74	74	74	74	74
06	13	72	72	72	72	72	72	72	72	72	72
06	14	70	70	70	70	70	70	70	70	70	70
06	15	68	68	68	68	68	68	68	68	68	68
06	16	66	66	66	66	66	66	66	66	66	66
06	17	64	64	64	64	64	64	64	64	64	64
06	18	62	62	62	62	62	62	62	62	62	62
06	19	60	60	60	60	60	60	60	60	60	60
06	20	59	59	59	59	59	59	59	59	59	59
06	21	57	57	57	57	57	57	57	57	57	57
06	22	55	55	55	55	55	55	55	55	55	55
06	23	53	53	53	53	53	53	53	53	53	53
06	24	51	51	51	51	51	51	51	51	51	51
06	25	50	50	50	50	50	50	50	50	50	50
06	26	49	49	49	49	49	49	49	49	49	49
06	27	48	48	48	48	48	48	48	48	48	48
06	28	47	47	47	47	47	47	47	47	47	47

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
06	29	46	46	46	46	46	46	46	46	46	46
06	30	45	45	45	45	45	45	45	45	45	45
06	31	44	44	44	44	44	44	44	44	44	44
06	32	43	43	43	43	43	43	43	43	43	43
06	33	42	42	42	42	42	42	42	42	42	42
06	34	41	41	41	41	41	41	41	41	41	41
06	35	40	40	40	40	40	40	40	40	40	40
06	36	39	39	39	39	39	39	39	39	39	39
06	37	38	38	38	38	38	38	38	38	38	38
06	38	37	37	37	37	37	37	37	37	37	37
06	39	36	36	36	36	36	36	36	36	36	36
06	40	35	35	35	35	35	35	35	35	35	35
06	41	33	33	33	33	33	33	33	33	33	33
06	42	32	32	32	32	32	32	32	32	32	32
06	43	32	32	32	32	32	32	32	32	32	32
06	44	32	32	32	32	32	32	32	32	32	32
06	45	32	32	32	32	32	32	32	32	32	32
06	46	31	31	31	31	31	31	31	31	31	31
06	47	31	31	31	31	31	31	31	31	31	31
06	48	31	31	31	31	31	31	31	31	31	31
06	49	31	31	31	31	31	31	31	31	31	31
06	50	31	31	31	31	31	31	31	31	31	31
06	51	30	30	30	30	30	30	30	30	30	30
06	52	30	30	30	30	30	30	30	30	30	30
06	53	30	30	30	30	30	30	30	30	30	30
06	54	30	30	30	30	30	30	30	30	30	30
06	55	30	30	30	30	30	30	30	30	30	30
06	56	29	29	29	29	29	29	29	29	29	29
06	57	29	29	29	29	29	29	29	29	29	29
06	58	29	29	29	29	29	29	29	29	29	29
06	59	29	29	29	29	29	29	29	29	29	29
06	60	28	28	28	28	28	28	28	28	28	28
06	61	28	28	28	28	28	28	28	28	28	28
06	62	28	28	28	28	28	28	28	28	28	28
06	63	28	28	28	28	28	28	28	28	28	28

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
06	64	28	28	28	28	28	28	28	28	28	28
06	65	27	27	27	27	27	27	27	27	27	27
06	66	27	27	27	27	27	27	27	27	27	27
06	67	26	26	26	26	26	26	26	26	26	26
06	68	26	26	26	26	26	26	26	26	26	26
06	69	25	25	25	25	25	25	25	25	25	25
06	70	25	25	25	25	25	25	25	25	25	25
06	71	24	24	24	24	24	24	24	24	24	24
06	72	24	24	24	24	24	24	24	24	24	24
06	73	23	23	23	23	23	23	23	23	23	23
06	74	23	23	23	23	23	23	23	23	23	23
06	75	22	22	22	22	22	22	22	22	22	22
06	76	22	22	22	22	22	22	22	22	22	22
06	77	22	22	22	22	22	22	22	22	22	22
06	78	21	21	21	21	21	21	21	21	21	21
06	79	21	21	21	21	21	21	21	21	21	21
06	80	20	20	20	20	20	20	20	20	20	20
06	81	20	20	20	20	20	20	20	20	20	20
06	82	20	20	20	20	20	20	20	20	20	20
06	83	19	19	19	19	19	19	19	19	19	19
06	84	19	19	19	19	19	19	19	19	19	19
06	85	19	19	19	19	19	19	19	19	19	19
06	86	18	18	18	18	18	18	18	18	18	18
06	87	18	18	18	18	18	18	18	18	18	18
06	88	18	18	18	18	18	18	18	18	18	18
06	89	18	18	18	18	18	18	18	18	18	18
06	90	17	17	17	17	17	17	17	17	17	17
06	91	17	17	17	17	17	17	17	17	17	17
06	92	17	17	17	17	17	17	17	17	17	17
06	93	16	16	16	16	16	16	16	16	16	16
06	94	16	16	16	16	16	16	16	16	16	16
06	95	15	15	15	15	15	15	15	15	15	15
06	96	15	15	15	15	15	15	15	15	15	15
06	97	14	14	14	14	14	14	14	14	14	14
06	98	14	14	14	14	14	14	14	14	14	14

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
06	99	13	13	13	13	13	13	13	13	13	13
06	100	0	0	0	0	0	0	0	0	0	0
07	1	99	99	99	99	99	99	99	99	99	99
07	2	97	97	97	97	97	97	97	97	97	97
07	3	96	96	96	96	96	96	96	96	96	96
07	4	94	94	94	94	94	94	94	94	94	94
07	5	93	93	93	93	93	93	93	93	93	93
07	6	91	91	91	91	91	91	91	91	91	91
07	7	90	90	90	90	90	90	90	90	90	90
07	8	88	88	88	88	88	88	88	88	88	88
07	9	87	87	87	87	87	87	87	87	87	87
07	10	86	86	86	86	86	86	86	86	86	86
07	11	85	85	85	85	85	85	85	85	85	85
07	12	84	84	84	84	84	84	84	84	84	84
07	13	82	82	82	82	82	82	82	82	82	82
07	14	81	81	81	81	81	81	81	81	81	81
07	15	80	80	80	80	80	80	80	80	80	80
07	16	79	79	79	79	79	79	79	79	79	79
07	17	78	78	78	78	78	78	78	78	78	78
07	18	77	77	77	77	77	77	77	77	77	77
07	19	75	75	75	75	75	75	75	75	75	75
07	20	74	74	74	74	74	74	74	74	74	74
07	21	73	73	73	73	73	73	73	73	73	73
07	22	72	72	72	72	72	72	72	72	72	72
07	23	71	71	71	71	71	71	71	71	71	71
07	24	70	70	70	70	70	70	70	70	70	70
07	25	69	69	69	69	69	69	69	69	69	69
07	26	68	68	68	68	68	68	68	68	68	68
07	27	67	67	67	67	67	67	67	67	67	67
07	28	66	66	66	66	66	66	66	66	66	66
07	29	65	65	65	65	65	65	65	65	65	65
07	30	64	64	64	64	64	64	64	64	64	64
07	31	64	64	64	64	64	64	64	64	64	64
07	32	63	63	63	63	63	63	63	63	63	63
07	33	63	63	63	63	63	63	63	63	63	63

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
07	34	62	62	62	62	62	62	62	62	62	62
07	35	62	62	62	62	62	62	62	62	62	62
07	36	61	61	61	61	61	61	61	61	61	61
07	37	61	61	61	61	61	61	61	61	61	61
07	38	60	60	60	60	60	60	60	60	60	60
07	39	60	60	60	60	60	60	60	60	60	60
07	40	59	59	59	59	59	59	59	59	59	59
07	41	59	59	59	59	59	59	59	59	59	59
07	42	58	58	58	58	58	58	58	58	58	58
07	43	58	58	58	58	58	58	58	58	58	58
07	44	57	57	57	57	57	57	57	57	57	57
07	45	57	57	57	57	57	57	57	57	57	57
07	46	56	56	56	56	56	56	56	56	56	56
07	47	56	56	56	56	56	56	56	56	56	56
07	48	55	55	55	55	55	55	55	55	55	55
07	49	55	55	55	55	55	55	55	55	55	55
07	50	54	54	54	54	54	54	54	54	54	54
07	51	54	54	54	54	54	54	54	54	54	54
07	52	53	53	53	53	53	53	53	53	53	53
07	53	53	53	53	53	53	53	53	53	53	53
07	54	53	53	53	53	53	53	53	53	53	53
07	55	52	52	52	52	52	52	52	52	52	52
07	56	52	52	52	52	52	52	52	52	52	52
07	57	52	52	52	52	52	52	52	52	52	52
07	58	51	51	51	51	51	51	51	51	51	51
07	59	51	51	51	51	51	51	51	51	51	51
07	60	51	51	51	51	51	51	51	51	51	51
07	61	50	50	50	50	50	50	50	50	50	50
07	62	50	50	50	50	50	50	50	50	50	50
07	63	50	50	50	50	50	50	50	50	50	50
07	64	49	49	49	49	49	49	49	49	49	49
07	65	49	49	49	49	49	49	49	49	49	49
07	66	49	49	49	49	49	49	49	49	49	49
07	67	48	48	48	48	48	48	48	48	48	48
07	68	48	48	48	48	48	48	48	48	48	48

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
07	69	48	48	48	48	48	48	48	48	48	48
07	70	47	47	47	47	47	47	47	47	47	47
07	71	47	47	47	47	47	47	47	47	47	47
07	72	47	47	47	47	47	47	47	47	47	47
07	73	46	46	46	46	46	46	46	46	46	46
07	74	46	46	46	46	46	46	46	46	46	46
07	75	46	46	46	46	46	46	46	46	46	46
07	76	46	46	46	46	46	46	46	46	46	46
07	77	46	46	46	46	46	46	46	46	46	46
07	78	45	45	45	45	45	45	45	45	45	45
07	79	45	45	45	45	45	45	45	45	45	45
07	80	45	45	45	45	45	45	45	45	45	45
07	81	45	45	45	45	45	45	45	45	45	45
07	82	45	45	45	45	45	45	45	45	45	45
07	83	44	44	44	44	44	44	44	44	44	44
07	84	44	44	44	44	44	44	44	44	44	44
07	85	44	44	44	44	44	44	44	44	44	44
07	86	44	44	44	44	44	44	44	44	44	44
07	87	44	44	44	44	44	44	44	44	44	44
07	88	43	43	43	43	43	43	43	43	43	43
07	89	43	43	43	43	43	43	43	43	43	43
07	90	43	43	43	43	43	43	43	43	43	43
07	91	43	43	43	43	43	43	43	43	43	43
07	92	43	43	43	43	43	43	43	43	43	43
07	93	43	43	43	43	43	43	43	43	43	43
07	94	42	42	42	42	42	42	42	42	42	42
07	95	42	42	42	42	42	42	42	42	42	42
07	96	42	42	42	42	42	42	42	42	42	42
07	97	42	42	42	42	42	42	42	42	42	42
07	98	42	42	42	42	42	42	42	42	42	42
07	99	42	42	42	42	42	42	42	42	42	42
07	100	0	0	0	0	0	0	0	0	0	0
08	1	99	99	99	99	99	99	99	99	99	99
08	2	98	98	98	98	98	98	98	98	98	98
08	3	97	97	97	97	97	97	97	97	97	97

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
08	4	96	96	96	96	96	96	96	96	96	96
08	5	95	95	95	95	95	95	95	95	95	95
08	6	93	93	93	93	93	93	93	93	93	93
08	7	92	92	92	92	92	92	92	92	92	92
08	8	90	90	90	90	90	90	90	90	90	90
08	9	88	88	88	88	88	88	88	88	88	88
08	10	86	86	86	86	86	86	86	86	86	86
08	11	84	84	84	84	84	84	84	84	84	84
08	12	82	82	82	82	82	82	82	82	82	82
08	13	80	80	80	80	80	80	80	80	80	80
08	14	78	78	78	78	78	78	78	78	78	78
08	15	76	76	76	76	76	76	76	76	76	76
08	16	74	74	74	74	74	74	74	74	74	74
08	17	72	72	72	72	72	72	72	72	72	72
08	18	71	71	71	71	71	71	71	71	71	71
08	19	69	69	69	69	69	69	69	69	69	69
08	20	68	68	68	68	68	68	68	68	68	68
08	21	66	66	66	66	66	66	66	66	66	66
08	22	65	65	65	65	65	65	65	65	65	65
08	23	63	63	63	63	63	63	63	63	63	63
08	24	62	62	62	62	62	62	62	62	62	62
08	25	60	60	60	60	60	60	60	60	60	60
08	26	59	59	59	59	59	59	59	59	59	59
08	27	58	58	58	58	58	58	58	58	58	58
08	28	57	57	57	57	57	57	57	57	57	57
08	29	56	56	56	56	56	56	56	56	56	56
08	30	55	55	55	55	55	55	55	55	55	55
08	31	54	54	54	54	54	54	54	54	54	54
08	32	53	53	53	53	53	53	53	53	53	53
08	33	52	52	52	52	52	52	52	52	52	52
08	34	51	51	51	51	51	51	51	51	51	51
08	35	50	50	50	50	50	50	50	50	50	50
08	36	49	49	49	49	49	49	49	49	49	49
08	37	48	48	48	48	48	48	48	48	48	48
08	38	47	47	47	47	47	47	47	47	47	47

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
08	39	46	46	46	46	46	46	46	46	46	46
08	40	45	45	45	45	45	45	45	45	45	45
08	41	44	44	44	44	44	44	44	44	44	44
08	42	44	44	44	44	44	44	44	44	44	44
08	43	44	44	44	44	44	44	44	44	44	44
08	44	43	43	43	43	43	43	43	43	43	43
08	45	43	43	43	43	43	43	43	43	43	43
08	46	43	43	43	43	43	43	43	43	43	43
08	47	42	42	42	42	42	42	42	42	42	42
08	48	42	42	42	42	42	42	42	42	42	42
08	49	42	42	42	42	42	42	42	42	42	42
08	50	41	41	41	41	41	41	41	41	41	41
08	51	41	41	41	41	41	41	41	41	41	41
08	52	41	41	41	41	41	41	41	41	41	41
08	53	40	40	40	40	40	40	40	40	40	40
08	54	40	40	40	40	40	40	40	40	40	40
08	55	40	40	40	40	40	40	40	40	40	40
08	56	40	40	40	40	40	40	40	40	40	40
08	57	39	39	39	39	39	39	39	39	39	39
08	58	39	39	39	39	39	39	39	39	39	39
08	59	39	39	39	39	39	39	39	39	39	39
08	60	39	39	39	39	39	39	39	39	39	39
08	61	38	38	38	38	38	38	38	38	38	38
08	62	38	38	38	38	38	38	38	38	38	38
08	63	38	38	38	38	38	38	38	38	38	38
08	64	38	38	38	38	38	38	38	38	38	38
08	65	37	37	37	37	37	37	37	37	37	37
08	66	37	37	37	37	37	37	37	37	37	37
08	67	37	37	37	37	37	37	37	37	37	37
08	68	37	37	37	37	37	37	37	37	37	37
08	69	36	36	36	36	36	36	36	36	36	36
08	70	36	36	36	36	36	36	36	36	36	36
08	71	36	36	36	36	36	36	36	36	36	36
08	72	36	36	36	36	36	36	36	36	36	36
08	73	35	35	35	35	35	35	35	35	35	35

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
08	74	35	35	35	35	35	35	35	35	35	35
08	75	35	35	35	35	35	35	35	35	35	35
08	76	35	35	35	35	35	35	35	35	35	35
08	77	34	34	34	34	34	34	34	34	34	34
08	78	34	34	34	34	34	34	34	34	34	34
08	79	34	34	34	34	34	34	34	34	34	34
08	80	34	34	34	34	34	34	34	34	34	34
08	81	33	33	33	33	33	33	33	33	33	33
08	82	33	33	33	33	33	33	33	33	33	33
08	83	33	33	33	33	33	33	33	33	33	33
08	84	33	33	33	33	33	33	33	33	33	33
08	85	32	32	32	32	32	32	32	32	32	32
08	86	32	32	32	32	32	32	32	32	32	32
08	87	32	32	32	32	32	32	32	32	32	32
08	88	32	32	32	32	32	32	32	32	32	32
08	89	31	31	31	31	31	31	31	31	31	31
08	90	31	31	31	31	31	31	31	31	31	31
08	91	31	31	31	31	31	31	31	31	31	31
08	92	31	31	31	31	31	31	31	31	31	31
08	93	30	30	30	30	30	30	30	30	30	30
08	94	30	30	30	30	30	30	30	30	30	30
08	95	30	30	30	30	30	30	30	30	30	30
08	96	30	30	30	30	30	30	30	30	30	30
08	97	29	29	29	29	29	29	29	29	29	29
08	98	29	29	29	29	29	29	29	29	29	29
08	99	29	29	29	29	29	29	29	29	29	29
08	100	0	0	0	0	0	0	0	0	0	0
09	1	96	96	96	96	96	96	96	96	96	96
09	2	92	92	92	92	92	92	92	92	92	92
09	3	90	90	90	90	90	90	90	90	90	90
09	4	87	87	87	87	87	87	87	87	87	87
09	5	84	84	84	84	84	84	84	84	84	84
09	6	81	81	81	81	81	81	81	81	81	81
09	7	78	78	78	78	78	78	78	78	78	78
09	8	75	75	75	75	75	75	75	75	75	75

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
09	9	73	73	73	73	73	73	73	73	73	73
09	10	71	71	71	71	71	71	71	71	71	71
09	11	69	69	69	69	69	69	69	69	69	69
09	12	67	67	67	67	67	67	67	67	67	67
09	13	65	65	65	65	65	65	65	65	65	65
09	14	63	63	63	63	63	63	63	63	63	63
09	15	61	61	61	61	61	61	61	61	61	61
09	16	59	59	59	59	59	59	59	59	59	59
09	17	57	57	57	57	57	57	57	57	57	57
09	18	55	55	55	55	55	55	55	55	55	55
09	19	53	53	53	53	53	53	53	53	53	53
09	20	52	52	52	52	52	52	52	52	52	52
09	21	51	51	51	51	51	51	51	51	51	51
09	22	50	50	50	50	50	50	50	50	50	50
09	23	49	49	49	49	49	49	49	49	49	49
09	24	48	48	48	48	48	48	48	48	48	48
09	25	47	47	47	47	47	47	47	47	47	47
09	26	46	46	46	46	46	46	46	46	46	46
09	27	45	45	45	45	45	45	45	45	45	45
09	28	44	44	44	44	44	44	44	44	44	44
09	29	43	43	43	43	43	43	43	43	43	43
09	30	42	42	42	42	42	42	42	42	42	42
09	31	41	41	41	41	41	41	41	41	41	41
09	32	40	40	40	40	40	40	40	40	40	40
09	33	39	39	39	39	39	39	39	39	39	39
09	34	38	38	38	38	38	38	38	38	38	38
09	35	37	37	37	37	37	37	37	37	37	37
09	36	36	36	36	36	36	36	36	36	36	36
09	37	35	35	35	35	35	35	35	35	35	35
09	38	34	34	34	34	34	34	34	34	34	34
09	39	33	33	33	33	33	33	33	33	33	33
09	40	32	32	32	32	32	32	32	32	32	32
09	41	32	32	32	32	32	32	32	32	32	32
09	42	32	32	32	32	32	32	32	32	32	32
09	43	32	32	32	32	32	32	32	32	32	32

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
09	44	31	31	31	31	31	31	31	31	31	31
09	45	31	31	31	31	31	31	31	31	31	31
09	46	31	31	31	31	31	31	31	31	31	31
09	47	31	31	31	31	31	31	31	31	31	31
09	48	31	31	31	31	31	31	31	31	31	31
09	49	31	31	31	31	31	31	31	31	31	31
09	50	30	30	30	30	30	30	30	30	30	30
09	51	30	30	30	30	30	30	30	30	30	30
09	52	30	30	30	30	30	30	30	30	30	30
09	53	30	30	30	30	30	30	30	30	30	30
09	54	30	30	30	30	30	30	30	30	30	30
09	55	29	29	29	29	29	29	29	29	29	29
09	56	29	29	29	29	29	29	29	29	29	29
09	57	29	29	29	29	29	29	29	29	29	29
09	58	29	29	29	29	29	29	29	29	29	29
09	59	29	29	29	29	29	29	29	29	29	29
09	60	29	29	29	29	29	29	29	29	29	29
09	61	28	28	28	28	28	28	28	28	28	28
09	62	28	28	28	28	28	28	28	28	28	28
09	63	28	28	28	28	28	28	28	28	28	28
09	64	28	28	28	28	28	28	28	28	28	28
09	65	27	27	27	27	27	27	27	27	27	27
09	66	27	27	27	27	27	27	27	27	27	27
09	67	26	26	26	26	26	26	26	26	26	26
09	68	26	26	26	26	26	26	26	26	26	26
09	69	26	26	26	26	26	26	26	26	26	26
09	70	25	25	25	25	25	25	25	25	25	25
09	71	25	25	25	25	25	25	25	25	25	25
09	72	24	24	24	24	24	24	24	24	24	24
09	73	24	24	24	24	24	24	24	24	24	24
09	74	24	24	24	24	24	24	24	24	24	24
09	75	23	23	23	23	23	23	23	23	23	23
09	76	23	23	23	23	23	23	23	23	23	23
09	77	22	22	22	22	22	22	22	22	22	22
09	78	22	22	22	22	22	22	22	22	22	22

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
09	79	22	22	22	22	22	22	22	22	22	22
09	80	21	21	21	21	21	21	21	21	21	21
09	81	21	21	21	21	21	21	21	21	21	21
09	82	20	20	20	20	20	20	20	20	20	20
09	83	20	20	20	20	20	20	20	20	20	20
09	84	20	20	20	20	20	20	20	20	20	20
09	85	19	19	19	19	19	19	19	19	19	19
09	86	19	19	19	19	19	19	19	19	19	19
09	87	19	19	19	19	19	19	19	19	19	19
09	88	18	18	18	18	18	18	18	18	18	18
09	89	18	18	18	18	18	18	18	18	18	18
09	90	18	18	18	18	18	18	18	18	18	18
09	91	18	18	18	18	18	18	18	18	18	18
09	92	17	17	17	17	17	17	17	17	17	17
09	93	17	17	17	17	17	17	17	17	17	17
09	94	17	17	17	17	17	17	17	17	17	17
09	95	16	16	16	16	16	16	16	16	16	16
09	96	16	16	16	16	16	16	16	16	16	16
09	97	16	16	16	16	16	16	16	16	16	16
09	98	16	16	16	16	16	16	16	16	16	16
09	99	16	16	16	16	16	16	16	16	16	16
09	100	0	0	0	0	0	0	0	0	0	0
A01	0	100	100	100	100	90	90	90	90	90	50
A01	1	98	98	98	98	88	88	88	88	88	49
A01	2	96	96	96	96	86	86	86	86	86	47
A01	3	94	94	94	94	85	84	84	84	84	46
A01	4	93	92	92	92	83	82	82	82	82	44
A01	5	91	91	91	90	81	80	80	80	80	42
A01	6	89	89	89	89	79	78	78	78	78	40
A01	7	88	87	87	87	78	76	76	76	76	39
A01	8	87	86	86	85	76	74	74	74	74	37
A01	9	85	84	84	84	74	71	71	71	71	35
A01	10	84	83	83	82	73	69	69	69	69	33
A01	11	83	81	81	80	71	67	67	67	67	31
A01	12	81	80	80	79	69	65	65	65	65	29

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
A01	13	80	78	78	77	68	63	63	63	63	28
A01	14	79	77	77	76	66	61	61	61	61	26
A01	15	78	76	76	74	65	59	59	59	59	25
A01	16	77	74	74	73	63	57	57	57	57	23
A01	17	76	73	73	72	62	55	55	55	55	22
A01	18	75	72	72	70	60	53	53	53	53	21
A01	19	74	71	71	69	59	52	52	52	52	20
A01	20	73	70	70	68	58	50	50	50	50	19
A01	21	72	69	69	66	56	48	48	48	48	18
A01	22	71	67	67	65	55	47	47	47	47	17
A01	23	70	66	66	64	54	45	45	45	45	16
A01	24	70	65	65	63	53	44	44	44	44	15
A01	25	69	64	64	62	51	42	42	42	42	14
A01	26	68	63	63	60	50	41	41	41	41	14
A01	27	67	62	62	59	49	40	40	40	40	13
A01	28	67	61	61	58	48	38	38	38	38	12
A01	29	66	60	60	57	47	37	37	37	37	12
A01	30	65	60	60	56	46	36	36	36	36	11
A01	31	65	59	59	55	45	35	35	35	35	11
A01	32	64	58	58	54	44	34	34	34	34	10
A01	33	63	57	57	53	43	33	33	33	33	10
A01	34	63	56	56	52	42	32	32	32	32	9
A01	35	62	55	55	51	41	31	31	31	31	9
A01	36	62	54	54	51	40	30	30	30	30	9
A01	37	61	54	54	50	39	29	29	29	29	8
A01	38	60	53	53	49	39	28	28	28	28	8
A01	39	60	52	52	48	38	27	27	27	27	8
A01	40	59	51	51	47	37	26	26	26	26	7
A01	41	59	51	51	46	36	26	26	26	26	7
A01	42	58	50	50	46	35	25	25	25	25	7
A01	43	58	49	49	45	35	24	24	24	24	6
A01	44	57	49	49	44	34	24	24	24	24	6
A01	45	57	48	48	43	33	23	23	23	23	6
A01	46	57	47	47	43	33	22	22	22	22	6
A01	47	56	47	47	42	32	22	22	22	22	6

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
A01	48	56	46	46	41	31	21	21	21	21	5
A01	49	55	46	46	41	31	21	21	21	21	5
A01	50	55	45	45	40	30	20	20	20	20	5
A02	0	100	100	100	100	90	90	90	90	90	50
A02	1	98	98	98	98	88	88	88	88	88	49
A02	2	96	96	96	96	86	86	86	86	86	47
A02	3	94	94	94	94	84	83	83	83	83	46
A02	4	92	92	92	92	82	80	80	80	80	44
A02	5	91	90	90	89	80	77	77	77	77	42
A02	6	89	88	88	87	78	74	74	74	74	40
A02	7	87	86	86	85	76	70	70	70	70	39
A02	8	86	85	85	83	74	67	67	67	67	37
A02	9	84	83	83	80	71	64	64	64	64	35
A02	10	83	81	81	78	69	61	61	61	61	33
A02	11	81	79	79	76	67	58	58	58	58	31
A02	12	80	78	78	74	65	55	55	55	55	29
A02	13	78	76	76	72	63	52	52	52	52	28
A02	14	77	74	74	70	61	49	49	49	49	26
A02	15	76	73	73	68	59	47	47	47	47	25
A02	16	74	71	71	66	57	44	44	44	44	23
A02	17	73	69	69	64	55	42	42	42	42	22
A02	18	72	68	68	62	53	40	40	40	40	21
A02	19	71	66	66	60	52	38	38	38	38	20
A02	20	70	65	65	58	50	36	36	36	36	19
A02	21	69	64	64	56	48	34	34	34	34	18
A02	22	67	62	62	55	47	32	32	32	32	17
A02	23	66	61	61	53	45	31	31	31	31	16
A02	24	65	60	60	52	44	29	29	29	29	15
A02	25	64	58	58	50	42	28	28	28	28	14
A02	26	63	57	57	49	41	26	26	26	26	14
A02	27	62	56	56	47	40	25	25	25	25	13
A02	28	61	55	55	46	38	24	24	24	24	12
A02	29	60	54	54	44	37	23	23	23	23	12
A02	30	60	52	52	43	36	22	22	22	22	11
A02	31	59	51	51	42	35	21	21	21	21	11

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
A02	32	58	50	50	41	34	20	20	20	20	10
A02	33	57	49	49	40	33	19	19	19	19	10
A02	34	56	48	48	38	32	18	18	18	18	9
A02	35	55	47	47	37	31	18	18	18	18	9
A02	36	54	46	46	36	30	17	17	17	17	9
A02	37	54	45	45	35	29	16	16	16	16	8
A02	38	53	44	44	34	28	16	16	16	16	8
A02	39	52	43	43	33	27	15	15	15	15	8
A02	40	51	43	43	32	26	14	14	14	14	7
A02	41	51	42	42	32	26	14	14	14	14	7
A02	42	50	41	41	31	25	13	13	13	13	7
A02	43	49	40	40	30	24	13	13	13	13	6
A02	44	49	39	39	29	24	12	12	12	12	6
A02	45	48	39	39	28	23	12	12	12	12	6
A02	46	47	38	38	28	22	11	11	11	11	6
A02	47	47	37	37	27	22	11	11	11	11	6
A02	48	46	36	36	26	21	11	11	11	11	5
A02	49	46	36	36	26	21	10	10	10	10	5
A02	50	45	35	35	25	20	10	10	10	10	5
A03	0	100	100	100	100	90	90	90	90	90	50
A03	1	98	98	98	98	88	88	88	88	88	49
A03	2	96	96	96	96	86	86	86	86	86	47
A03	3	94	94	94	93	84	83	83	83	83	46
A03	4	92	92	92	91	81	80	80	80	80	44
A03	5	90	90	90	88	79	77	77	77	77	42
A03	6	89	88	88	86	76	74	74	74	74	40
A03	7	87	86	86	83	74	70	70	70	70	39
A03	8	85	84	84	81	71	67	67	67	67	37
A03	9	84	82	82	78	69	64	64	64	64	35
A03	10	82	80	80	76	66	61	61	61	61	33
A03	11	80	78	78	73	64	58	58	58	58	31
A03	12	79	76	76	71	61	55	55	55	55	29
A03	13	77	74	74	68	59	52	52	52	52	28
A03	14	76	72	72	66	56	49	49	49	49	26
A03	15	74	70	70	64	54	47	47	47	47	25

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
A03	16	73	69	69	61	52	44	44	44	44	23
A03	17	72	67	67	59	50	42	42	42	42	22
A03	18	70	65	65	57	48	40	40	40	40	21
A03	19	69	64	64	55	46	38	38	38	38	20
A03	20	68	62	62	53	44	36	36	36	36	19
A03	21	66	60	60	51	42	34	34	34	34	18
A03	22	65	59	59	49	41	32	32	32	32	17
A03	23	64	57	57	48	39	31	31	31	31	16
A03	24	63	56	56	46	37	29	29	29	29	15
A03	25	62	55	55	44	36	28	28	28	28	14
A03	26	60	53	53	43	35	26	26	26	26	14
A03	27	59	52	52	41	33	25	25	25	25	13
A03	28	58	51	51	40	32	24	24	24	24	12
A03	29	57	49	49	39	31	23	23	23	23	12
A03	30	56	48	48	37	30	22	22	22	22	11
A03	31	55	47	47	36	29	21	21	21	21	11
A03	32	54	46	46	35	27	20	20	20	20	10
A03	33	53	45	45	34	26	19	19	19	19	10
A03	34	52	44	44	33	25	18	18	18	18	9
A03	35	51	42	42	32	25	18	18	18	18	9
A03	36	51	41	41	31	24	17	17	17	17	9
A03	37	50	40	40	30	23	16	16	16	16	8
A03	38	49	40	40	29	22	16	16	16	16	8
A03	39	48	39	39	28	21	15	15	15	15	8
A03	40	47	38	38	27	21	14	14	14	14	7
A03	41	46	37	37	26	20	14	14	14	14	7
A03	42	46	36	36	25	19	13	13	13	13	7
A03	43	45	35	35	25	19	13	13	13	13	6
A03	44	44	34	34	24	18	12	12	12	12	6
A03	45	43	34	34	23	18	12	12	12	12	6
A03	46	43	33	33	22	17	11	11	11	11	6
A03	47	42	32	32	22	16	11	11	11	11	6
A03	48	41	31	31	21	16	11	11	11	11	5
A03	49	41	31	31	21	15	10	10	10	10	5
A03	50	40	30	30	20	15	10	10	10	10	5

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
A05	0	100	100	100	100	100	100	100	100	100	100
A05	1	97	97	97	96	96	96	96	96	96	95
A05	2	93	93	93	93	92	91	91	91	91	87
A05	3	90	89	89	88	87	85	85	85	85	78
A05	4	86	86	86	84	82	78	78	78	78	69
A05	5	83	82	82	80	77	72	72	72	72	60
A05	6	80	78	78	76	72	66	66	66	66	52
A05	7	77	75	75	72	67	60	60	60	60	45
A05	8	73	71	71	68	63	54	54	54	54	39
A05	9	70	68	68	64	58	50	50	50	50	34
A05	10	68	64	64	60	54	45	45	45	45	30
A05	11	65	61	61	56	50	41	41	41	41	26
A05	12	62	58	58	53	47	37	37	37	37	23
A05	13	59	55	55	50	43	34	34	34	34	21
A05	14	57	53	53	47	40	31	31	31	31	19
A05	15	55	50	50	44	37	29	29	29	29	17
A05	16	52	48	48	42	35	26	26	26	26	15
A05	17	50	45	45	40	33	24	24	24	24	14
A05	18	48	43	43	37	30	22	22	22	22	12
A05	19	46	41	41	35	29	21	21	21	21	11
A05	20	44	39	39	33	27	19	19	19	19	10
A05	21	42	37	37	32	25	18	18	18	18	10
A05	22	41	36	36	30	24	17	17	17	17	9
A05	23	39	34	34	28	22	15	15	15	15	8
A05	24	38	32	32	27	21	14	14	14	14	8
A05	25	36	31	31	26	20	14	14	14	14	7
A05	26	35	30	30	24	19	13	13	13	13	6
A05	27	34	28	28	23	18	12	12	12	12	6
A05	28	32	27	27	22	17	11	11	11	11	6
A05	29	31	26	26	21	16	11	11	11	11	5
A05	30	30	25	25	20	15	10	10	10	10	5
A06	0	100	100	100	100	90	90	90	90	90	50
A06	1	97	97	97	96	87	86	86	86	86	48
A06	2	93	93	93	93	83	82	82	82	82	45
A06	3	90	89	89	88	79	77	77	77	77	42

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
A06	4	86	86	86	84	75	72	72	72	72	39
A06	5	83	82	82	80	70	66	66	66	66	36
A06	6	80	78	78	76	66	61	61	61	61	33
A06	7	77	75	75	72	62	56	56	56	56	30
A06	8	73	71	71	68	58	51	51	51	51	27
A06	9	70	68	68	64	54	47	47	47	47	25
A06	10	68	64	64	60	51	43	43	43	43	23
A06	11	65	61	61	56	47	39	39	39	39	20
A06	12	62	58	58	53	44	36	36	36	36	19
A06	13	59	55	55	50	41	33	33	33	33	17
A06	14	57	53	53	47	38	30	30	30	30	16
A06	15	55	50	50	44	36	28	28	28	28	14
A06	16	52	48	48	42	34	26	26	26	26	13
A06	17	50	45	45	40	32	24	24	24	24	12
A06	18	48	43	43	37	30	22	22	22	22	11
A06	19	46	41	41	35	28	20	20	20	20	10
A06	20	44	39	39	33	26	19	19	19	19	10
A06	21	42	37	37	32	25	18	18	18	18	9
A06	22	41	36	36	30	23	16	16	16	16	8
A06	23	39	34	34	28	22	15	15	15	15	8
A06	24	38	32	32	27	21	14	14	14	14	7
A06	25	36	31	31	26	20	13	13	13	13	7
A06	26	35	30	30	24	18	13	13	13	13	6
A06	27	34	28	28	23	18	12	12	12	12	6
A06	28	32	27	27	22	17	11	11	11	11	6
A06	29	31	26	26	21	16	11	11	11	11	5
A06	30	30	25	25	20	15	10	10	10	10	5
A07	0	100	100	100	100	90	90	90	90	90	50
A07	1	96	96	96	95	86	84	84	84	84	47
A07	2	92	92	92	90	80	76	76	76	76	44
A07	3	88	87	87	84	74	67	67	67	67	40
A07	4	84	83	83	78	67	57	57	57	57	37
A07	5	80	78	78	72	61	49	49	49	49	33
A07	6	76	74	74	66	55	42	42	42	42	29
A07	7	72	70	70	61	49	36	36	36	36	26

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
A07	8	69	66	66	56	44	30	30	30	30	23
A07	9	65	62	62	51	40	26	26	26	26	21
A07	10	62	58	58	47	36	23	23	23	23	19
A07	11	59	55	55	43	32	20	20	20	20	17
A07	12	56	52	52	39	29	17	17	17	17	15
A07	13	53	49	49	36	26	15	15	15	15	14
A07	14	51	46	46	33	24	14	14	14	14	12
A07	15	48	43	43	30	22	12	12	12	12	11
A07	16	46	41	41	28	20	11	11	11	11	10
A07	17	44	38	38	26	18	10	10	10	10	9
A07	18	41	36	36	24	17	9	9	9	9	9
A07	19	40	34	34	22	16	8	8	8	8	8
A07	20	38	32	32	21	14	7	7	7	7	7
A07	21	36	31	31	19	13	7	7	7	7	7
A07	22	34	29	29	18	12	6	6	6	6	6
A07	23	33	28	28	17	11	6	6	6	6	6
A07	24	31	26	26	16	11	5	5	5	5	5
A07	25	30	25	25	15	10	5	5	5	5	5
A08	0	100	100	100	100	90	90	90	90	90	50
A08	1	93	93	93	92	82	79	79	79	79	45
A08	2	86	86	86	82	72	63	63	63	63	39
A08	3	80	78	78	72	61	49	49	49	49	33
A08	4	73	71	71	63	51	37	37	37	37	27
A08	5	68	64	64	54	43	29	29	29	29	23
A08	6	62	58	58	47	36	23	23	23	23	19
A08	7	57	53	53	40	30	18	18	18	18	16
A08	8	52	48	48	35	26	15	15	15	15	13
A08	9	48	43	43	30	22	12	12	12	12	11
A08	10	44	39	39	27	19	10	10	10	10	10
A08	11	41	36	36	24	16	9	9	9	9	8
A08	12	38	32	32	21	14	7	7	7	7	7
A08	13	35	30	30	19	13	6	6	6	6	6
A08	14	32	27	27	17	11	6	6	6	6	6
A08	15	30	25	25	15	10	5	5	5	5	5
C01	0	100	100	100	100	100	100	100	100	100	100

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
C01	1	94	94	94	94	94	93	93	91	90	87
C01	2	88	88	88	88	88	86	84	78	76	69
C01	3	84	84	83	83	82	80	76	66	62	52
C01	4	80	79	79	78	77	73	68	54	50	39
C01	5	76	76	75	74	72	68	60	45	40	30
C01	6	73	72	71	70	68	62	53	37	32	23
C01	7	70	69	68	66	63	57	47	31	27	19
C01	8	67	67	65	63	60	52	42	26	22	15
C01	9	65	64	63	60	56	48	37	22	19	12
C01	10	63	62	60	57	53	44	33	19	16	10
C01	11	61	60	58	54	50	41	30	17	14	9
C01	12	59	58	56	51	47	38	27	14	12	8
C01	13	58	56	54	49	45	35	24	13	10	6
C01	14	56	55	52	47	42	32	22	11	9	6
C01	15	55	53	50	45	40	30	20	10	8	5
C10	0	100	100	100	100	100	100	100	100	100	100
C10	1	91	91	91	91	90	90	88	85	83	78
C10	2	84	84	83	83	82	80	76	66	62	52
C10	3	78	78	77	76	74	70	64	50	45	34
C10	4	73	72	71	70	68	62	53	37	32	23
C10	5	69	68	67	64	62	55	44	29	24	17
C10	6	65	64	63	60	56	48	37	22	19	12
C10	7	62	61	59	55	51	42	32	18	15	10
C10	8	59	58	56	51	47	38	27	14	12	8
C10	9	57	55	53	48	43	34	23	12	10	6
C10	10	55	53	50	45	40	30	20	10	8	5
C15	0	100	100	100	100	100	100	100	100	100	100
C15	1	94	94	94	94	94	93	93	91	90	87
C15	2	88	88	88	88	88	86	84	78	76	69
C15	3	84	84	83	83	82	80	76	66	62	52
C15	4	80	79	79	78	77	73	68	54	50	39
C15	5	76	76	75	74	72	68	60	45	40	30
C15	6	73	72	71	70	68	62	53	37	32	23
C15	7	70	69	68	66	63	57	47	31	27	19
C15	8	67	67	65	63	60	52	42	26	22	15

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
C15	9	65	64	63	60	56	48	37	22	19	12
C15	10	63	62	60	57	53	44	33	19	16	10
C15	11	61	60	58	54	50	41	30	17	14	9
C15	12	59	58	56	51	47	38	27	14	12	8
C15	13	58	56	54	49	45	35	24	13	10	6
C15	14	56	55	52	47	42	32	22	11	9	6
C15	15	55	53	50	45	40	30	20	10	8	5
C20	0	100	100	100	100	100	100	100	100	100	100
C20	1	95	95	95	95	95	95	95	93	93	91
C20	2	91	91	91	91	90	90	88	85	83	78
C20	3	87	87	87	87	86	85	82	75	72	64
C20	4	84	84	83	83	82	80	76	66	62	52
C20	5	81	80	80	79	78	75	70	57	52	42
C20	6	78	78	77	76	74	70	64	50	45	34
C20	7	75	75	74	73	71	66	58	43	38	28
C20	8	73	72	71	70	68	62	53	37	32	23
C20	9	71	70	69	67	64	58	49	33	28	20
C20	10	69	68	67	64	62	55	44	29	24	17
C20	11	67	66	65	62	59	51	41	25	21	14
C20	12	65	64	63	60	56	48	37	22	19	12
C20	13	64	62	61	57	54	45	34	20	16	11
C20	14	62	61	59	55	51	42	32	18	15	10
C20	15	61	59	57	53	49	40	29	16	13	8
C20	16	59	58	56	51	47	38	27	14	12	8
C20	17	58	57	54	50	45	36	25	13	11	7
C20	18	57	55	53	48	43	34	23	12	10	6
C20	19	56	54	51	46	42	32	21	11	9	5
C20	20	55	53	50	45	40	30	20	10	8	5
C25	0	100	100	100	100	100	100	100	100	100	100
C25	1	96	96	96	96	96	96	96	95	95	94
C25	2	93	93	93	92	92	92	91	88	87	84
C25	3	89	89	89	89	89	88	86	81	79	73
C25	4	87	86	86	86	85	84	81	73	70	62
C25	5	84	84	83	83	82	80	76	66	62	52
C25	6	81	81	81	80	79	76	71	59	54	44

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
C25	7	79	79	78	77	76	72	66	52	48	37
C25	8	77	76	76	74	73	69	61	47	42	32
C25	9	75	74	74	72	70	65	57	42	37	27
C25	10	73	72	71	70	68	62	53	37	32	23
C25	11	71	71	69	67	65	59	49	33	29	20
C25	12	70	69	68	65	63	56	46	30	26	18
C25	13	68	67	66	63	60	53	43	27	23	16
C25	14	67	66	64	61	58	51	40	25	21	14
C25	15	65	64	63	60	56	48	37	22	19	12
C25	16	64	63	61	58	54	46	35	20	17	11
C25	17	63	61	60	56	52	44	33	19	15	10
C25	18	62	60	58	54	51	41	31	17	14	9
C25	19	60	59	57	53	49	40	29	16	13	8
C25	20	59	58	56	51	47	38	27	14	12	8
C25	21	58	57	54	50	46	36	25	13	11	7
C25	22	57	56	53	49	44	34	24	12	10	6
C25	23	57	55	52	47	43	33	22	12	9	6
C25	24	56	54	51	46	41	31	21	11	9	5
C25	25	55	53	50	45	40	30	20	10	8	5
C30	0	100	100	100	100	100	100	100	100	100	100
C30	1	97	97	97	97	97	97	96	96	96	95
C30	2	94	94	94	94	94	93	93	91	90	87
C30	3	91	91	91	91	90	90	88	85	83	78
C30	4	88	88	88	88	88	86	84	78	76	69
C30	5	86	86	86	85	85	83	80	72	69	60
C30	6	84	84	83	83	82	80	76	66	62	52
C30	7	82	81	81	80	79	77	72	60	55	45
C30	8	80	79	79	78	77	73	68	54	50	39
C30	9	78	78	77	76	74	70	64	50	45	34
C30	10	76	76	75	74	72	68	60	45	40	30
C30	11	75	74	73	72	70	65	56	41	36	26
C30	12	73	72	71	70	68	62	53	37	32	23
C30	13	71	71	70	68	65	59	50	34	29	21
C30	14	70	69	68	66	63	57	47	31	27	19
C30	15	69	68	67	64	62	55	44	29	24	17

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
C30	16	67	67	65	63	60	52	42	26	22	15
C30	17	66	65	64	61	58	50	40	24	20	14
C30	18	65	64	63	60	56	48	37	22	19	12
C30	19	64	63	61	58	55	46	35	21	17	11
C30	20	63	62	60	57	53	44	33	19	16	10
C30	21	62	61	59	55	51	42	32	18	15	10
C30	22	61	60	58	54	50	41	30	17	14	9
C30	23	60	59	57	53	49	39	28	15	13	8
C30	24	59	58	56	51	47	38	27	14	12	8
C30	25	59	57	55	50	46	36	26	14	11	7
C30	26	58	56	54	49	45	35	24	13	10	6
C30	27	57	55	53	48	43	34	23	12	10	6
C30	28	56	55	52	47	42	32	22	11	9	6
C30	29	56	54	51	46	41	31	21	11	8	5
C30	30	55	53	50	45	40	30	20	10	8	5
C40	0	100	100	100	100	100	100	100	100	100	100
C40	1	98	98	98	98	98	97	97	97	97	97
C40	2	95	95	95	95	95	95	95	93	93	91
C40	3	93	93	93	93	93	92	92	89	88	85
C40	4	91	91	91	91	90	90	88	85	83	78
C40	5	89	89	89	89	88	87	85	80	78	71
C40	6	87	87	87	87	86	85	82	75	72	64
C40	7	86	85	85	85	84	82	79	70	67	58
C40	8	84	84	83	83	82	80	76	66	62	52
C40	9	82	82	82	81	80	77	73	61	57	47
C40	10	81	80	80	79	78	75	70	57	52	42
C40	11	79	79	78	77	76	73	67	53	48	38
C40	12	78	78	77	76	74	70	64	50	45	34
C40	13	77	76	75	74	73	68	61	46	41	31
C40	14	75	75	74	73	71	66	58	43	38	28
C40	15	74	74	73	71	69	64	56	40	35	26
C40	16	73	72	71	70	68	62	53	37	32	23
C40	17	72	71	70	68	66	60	51	35	30	21
C40	18	71	70	69	67	64	58	49	33	28	20
C40	19	70	69	68	66	63	56	46	30	26	18

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
C40	20	69	68	67	64	62	55	44	29	24	17
C40	21	68	67	66	63	60	53	43	27	23	15
C40	22	67	66	65	62	59	51	41	25	21	14
C40	23	66	65	63	61	57	50	39	24	20	13
C40	24	65	64	63	60	56	48	37	22	19	12
C40	25	64	63	62	58	55	47	36	21	17	12
C40	26	64	62	61	57	54	45	34	20	16	11
C40	27	63	62	60	56	53	44	33	19	15	10
C40	28	62	61	59	55	51	42	32	18	15	10
C40	29	61	60	58	54	50	41	30	17	14	9
C40	30	61	59	57	53	49	40	29	16	13	8
C40	31	60	59	56	52	48	39	28	15	12	8
C40	32	59	58	56	51	47	38	27	14	12	8
C40	33	59	57	55	51	46	37	26	14	11	7
C40	34	58	57	54	50	45	36	25	13	11	7
C40	35	58	56	53	49	44	35	24	13	10	6
C40	36	57	55	53	48	43	34	23	12	10	6
C40	37	57	55	52	47	43	33	22	11	9	6
C40	38	56	54	51	46	42	32	21	11	9	5
C40	39	55	54	51	46	41	31	21	10	8	5
C40	40	55	53	50	45	40	30	20	10	8	5
C50	0	100	100	100	100	100	100	100	100	100	100
C50	1	98	98	98	98	98	98	98	98	98	97
C50	2	96	96	96	96	96	96	96	95	95	94
C50	3	94	94	94	94	94	94	93	92	91	89
C50	4	93	93	93	92	92	92	91	88	87	84
C50	5	91	91	91	91	90	90	88	85	83	78
C50	6	89	89	89	89	89	88	86	81	79	73
C50	7	88	88	88	87	87	86	83	77	74	67
C50	8	87	86	86	86	85	84	81	73	70	62
C50	9	85	85	85	84	84	82	78	69	66	57
C50	10	84	84	83	83	82	80	76	66	62	52
C50	11	83	82	82	81	80	78	73	62	58	48
C50	12	81	81	81	80	79	76	71	59	54	44
C50	13	80	80	79	78	77	74	68	56	51	40

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
C50	14	79	79	78	77	76	72	66	52	48	37
C50	15	78	78	77	76	74	70	64	50	45	34
C50	16	77	76	76	74	73	69	61	47	42	32
C50	17	76	75	75	73	72	67	59	44	39	29
C50	18	75	74	74	72	70	65	57	42	37	27
C50	19	74	73	72	71	69	64	55	39	35	25
C50	20	73	72	71	70	68	62	53	37	32	23
C50	21	72	71	70	69	66	60	51	35	31	22
C50	22	71	71	69	67	65	59	49	33	29	20
C50	23	70	70	68	66	64	57	48	32	27	19
C50	24	70	69	68	65	63	56	46	30	26	18
C50	25	69	68	67	64	62	55	44	29	24	17
C50	26	68	67	66	63	60	53	43	27	23	16
C50	27	67	66	65	62	59	52	41	26	22	15
C50	28	67	66	64	61	58	51	40	25	21	14
C50	29	66	65	63	60	57	49	39	23	20	13
C50	30	65	64	63	60	56	48	37	22	19	12
C50	31	65	63	62	59	55	47	36	21	18	12
C50	32	64	63	61	58	54	46	35	20	17	11
C50	33	63	62	60	57	53	45	34	19	16	11
C50	34	63	61	60	56	52	44	33	19	15	10
C50	35	62	61	59	55	51	42	32	18	15	10
C50	36	62	60	58	54	51	41	31	17	14	9
C50	37	61	60	57	54	50	40	30	16	13	9
C50	38	60	59	57	53	49	40	29	16	13	8
C50	39	60	58	56	52	48	39	28	15	12	8
C50	40	59	58	56	51	47	38	27	14	12	8
C50	41	59	57	55	51	46	37	26	14	11	7
C50	42	58	57	54	50	46	36	25	13	11	7
C50	43	58	56	54	49	45	35	25	13	10	7
C50	44	57	56	53	49	44	34	24	12	10	6
C50	45	57	55	53	48	43	34	23	12	10	6
C50	46	57	55	52	47	43	33	22	12	9	6
C50	47	56	54	52	47	42	32	22	11	9	6
C50	48	56	54	51	46	41	31	21	11	9	5

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
C50	49	55	53	51	46	41	31	21	10	8	5
C50	50	55	53	50	45	40	30	20	10	8	5
C60	0	100	100	100	100	100	100	100	100	100	100
C60	1	98	98	98	98	98	98	98	98	98	98
C60	2	97	97	97	97	97	97	96	96	96	95
C60	3	95	95	95	95	95	95	95	93	93	91
C60	4	94	94	94	94	94	93	93	91	90	87
C60	5	92	92	92	92	92	92	91	88	86	83
C60	6	91	91	91	91	90	90	88	85	83	78
C60	7	90	90	90	89	89	88	86	82	79	73
C60	8	88	88	88	88	88	86	84	78	76	69
C60	9	87	87	87	87	86	85	82	75	72	64
C60	10	86	86	86	85	85	83	80	72	69	60
C60	11	85	85	85	84	83	81	78	69	65	56
C60	12	84	84	83	83	82	80	76	66	62	52
C60	13	83	83	82	81	81	78	74	63	58	49
C60	14	82	81	81	80	79	77	72	60	55	45
C60	15	81	80	80	79	78	75	70	57	52	42
C60	16	80	79	79	78	77	73	68	54	50	39
C60	17	79	78	78	77	76	72	66	52	47	37
C60	18	78	78	77	76	74	70	64	50	45	34
C60	19	77	77	76	75	73	69	62	47	42	32
C60	20	76	76	75	74	72	68	60	45	40	30
C60	21	75	75	74	73	71	66	58	43	38	28
C60	22	75	74	73	72	70	65	56	41	36	26
C60	23	74	73	72	71	69	63	55	39	34	25
C60	24	73	72	71	70	68	62	53	37	32	23
C60	25	72	72	71	69	67	61	52	36	31	22
C60	26	71	71	70	68	65	59	50	34	29	21
C60	27	71	70	69	67	64	58	49	33	28	20
C60	28	70	69	68	66	63	57	47	31	27	19
C60	29	69	69	67	65	62	56	46	30	25	18
C60	30	69	68	67	64	62	55	44	29	24	17
C60	31	68	67	66	63	61	53	43	27	23	16
C60	32	67	67	65	63	60	52	42	26	22	15

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
C60	33	67	66	65	62	59	51	41	25	21	14
C60	34	66	65	64	61	58	50	40	24	20	14
C60	35	66	65	63	60	57	49	38	23	19	13
C60	36	65	64	63	60	56	48	37	22	19	12
C60	37	65	64	62	59	55	47	36	21	18	12
C60	38	64	63	61	58	55	46	35	21	17	11
C60	39	64	62	61	57	54	45	34	20	16	11
C60	40	63	62	60	57	53	44	33	19	16	10
C60	41	63	61	59	56	52	43	32	18	15	10
C60	42	62	61	59	55	51	42	32	18	15	10
C60	43	62	60	58	55	51	42	31	17	14	9
C60	44	61	60	58	54	50	41	30	17	14	9
C60	45	61	59	57	53	49	40	29	16	13	8
C60	46	60	59	57	53	49	39	28	15	13	8
C60	47	60	58	56	52	48	38	28	15	12	8
C60	48	59	58	56	51	47	38	27	14	12	8
C60	49	59	57	55	51	47	37	26	14	11	7
C60	50	59	57	55	50	46	36	26	14	11	7
C60	51	58	57	54	50	45	36	25	13	11	7
C60	52	58	56	54	49	45	35	24	13	10	6
C60	53	57	56	53	49	44	34	24	12	10	6
C60	54	57	55	53	48	43	34	23	12	10	6
C60	55	57	55	52	48	43	33	23	12	9	6
C60	56	56	55	52	47	42	32	22	11	9	6
C60	57	56	54	51	46	42	32	21	11	9	5
C60	58	56	54	51	46	41	31	21	11	8	5
C60	59	55	53	50	45	41	31	20	10	8	5
C60	60	55	53	50	45	40	30	20	10	8	5
COM20	0	150	125	100	90	80	60	40	20	15	10
COM20	1	146	122	97	88	78	58	39	19	15	10
COM20	2	142	118	95	85	76	57	38	19	14	9
COM20	3	139	115	92	83	74	55	37	18	14	9
COM20	4	135	112	90	81	72	54	36	18	13	9
COM20	5	131	109	87	79	70	52	35	17	13	9

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
COM20	6	127	105	85	76	68	51	34	17	13	8
COM20	7	124	102	82	74	66	49	33	16	12	8
COM20	8	120	99	80	72	64	48	32	16	12	8
COM20	9	116	96	77	70	62	46	31	15	12	8
COM20	10	112	92	75	67	60	45	30	15	11	7
COM20	11	109	89	72	65	58	43	29	14	11	7
COM20	12	105	86	70	63	56	42	28	14	10	7
COM20	13	101	83	67	61	54	40	27	13	10	7
COM20	14	97	79	65	58	52	39	26	13	10	6
COM20	15	94	76	62	56	50	37	25	12	9	6
COM20	16	90	73	60	54	48	36	24	12	9	6
COM20	17	86	70	57	52	46	34	23	11	9	6
COM20	18	82	66	55	49	44	33	22	11	8	5
COM20	19	79	63	52	47	42	31	21	10	8	5
COM20	20	75	60	50	45	40	30	20	10	7.5	5
COM30	0	150	125	100	90	80	60	40	20	15	10
COM30	1	147	123	98	88	79	59	39	20	15	10
COM30	2	145	121	96	87	77	58	39	19	14	10
COM30	3	142	118	95	85	76	57	38	19	14	9
COM30	4	140	116	93	84	75	56	37	19	14	9
COM30	5	137	114	92	82	73	55	37	18	14	9
COM30	6	135	112	90	81	72	54	36	18	13	9
COM30	7	132	110	88	79	71	53	35	18	13	9
COM30	8	130	108	87	78	69	52	35	17	13	9
COM30	9	127	105	85	76	68	51	34	17	13	8
COM30	10	125	103	83	75	67	50	33	17	12	8
COM30	11	122	101	82	73	65	49	33	16	12	8
COM30	12	120	99	80	72	64	48	32	16	12	8
COM30	13	117	97	78	70	63	47	31	16	12	8

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
COM30	14	115	95	77	69	61	46	31	15	11	8
COM30	15	112	92	75	67	60	45	30	15	11	7
COM30	16	110	90	73	66	59	44	29	15	11	7
COM30	17	107	88	72	64	57	43	29	14	11	7
COM30	18	105	86	70	63	56	42	28	14	10	7
COM30	19	102	84	68	61	55	41	27	14	10	7
COM30	20	100	82	67	60	53	40	27	13	10	7
COM30	21	97	79	65	58	52	39	26	13	10	6
COM30	22	95	77	63	57	51	38	25	13	9	6
COM30	23	92	75	62	55	49	37	25	12	9	6
COM30	24	90	73	60	54	48	36	24	12	9	6
COM30	25	87	71	58	52	47	35	23	12	9	6
COM30	26	85	69	57	51	45	34	23	11	8	6
COM30	27	82	66	55	49	44	33	22	11	8	5
COM30	28	80	64	53	48	43	32	21	11	8	5
COM30	29	77	62	52	46	41	31	21	10	8	5
COM30	30	75	60	50	45	40	30	20	10	7.5	5
COM40	0	150	125	100	90	80	60	40	20	15	10
COM40	1	148	123	99	89	79	59	39	20	15	10
COM40	2	146	122	97	88	78	58	39	19	15	10
COM40	3	144	120	96	87	77	58	38	19	14	10
COM40	4	142	118	95	85	76	57	38	19	14	9
COM40	5	141	117	94	84	75	56	37	19	14	9
COM40	6	139	115	92	83	74	55	37	18	14	9
COM40	7	137	114	91	82	73	55	36	18	14	9
COM40	8	135	112	90	81	72	54	36	18	13	9
COM40	9	133	110	89	80	71	53	35	18	13	9
COM40	10	131	109	87	79	70	52	35	17	13	9
COM40	11	129	107	86	78	69	52	34	17	13	9

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
COM40	12	127	105	85	76	68	51	34	17	13	8
COM40	13	126	104	84	75	67	50	33	17	13	8
COM40	14	124	102	82	74	66	49	33	16	12	8
COM40	15	122	101	81	73	65	49	32	16	12	8
COM40	16	120	99	80	72	64	48	32	16	12	8
COM40	17	118	97	79	71	63	47	31	16	12	8
COM40	18	116	96	77	70	62	46	31	15	12	8
COM40	19	114	94	76	69	61	46	30	15	11	8
COM40	20	112	92	75	67	60	45	30	15	11	7
COM40	21	111	91	74	66	59	44	29	15	11	7
COM40	22	109	89	72	65	58	43	29	14	11	7
COM40	23	107	88	71	64	57	43	28	14	11	7
COM40	24	105	86	70	63	56	42	28	14	10	7
COM40	25	103	84	69	62	55	41	27	14	10	7
COM40	26	101	83	67	61	54	40	27	13	10	7
COM40	27	99	81	66	60	53	40	26	13	10	7
COM40	28	97	79	65	58	52	39	26	13	10	6
COM40	29	96	78	64	57	51	38	25	13	10	6
COM40	30	94	76	62	56	50	37	25	12	9	6
COM40	31	92	75	61	55	49	37	24	12	9	6
COM40	32	90	73	60	54	48	36	24	12	9	6
COM40	33	88	71	59	53	47	35	23	12	9	6
COM40	34	86	70	57	52	46	34	23	11	9	6
COM40	35	84	68	56	51	45	34	22	11	8	6
COM40	36	82	66	55	49	44	33	22	11	8	5
COM40	37	81	65	54	48	43	32	21	11	8	5
COM40	38	79	63	52	47	42	31	21	10	8	5
COM40	39	77	62	51	46	41	31	20	10	8	5
COM40	40	75	60	50	45	40	30	20	10	7.5	5

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
COM50	0	150	125	100	90	80	60	40	20	15	10
COM50	1	148	124	99	89	79	59	40	20	15	10
COM50	2	147	122	98	88	78	59	39	20	15	10
COM50	3	145	121	97	87	78	58	39	19	15	10
COM50	4	144	120	96	86	77	58	38	19	14	10
COM50	5	142	118	95	85	76	57	38	19	14	9
COM50	6	141	117	94	85	75	56	38	19	14	9
COM50	7	139	116	93	84	74	56	37	19	14	9
COM50	8	138	115	92	83	74	55	37	18	14	9
COM50	9	136	113	91	82	73	55	36	18	14	9
COM50	10	135	112	90	81	72	54	36	18	13	9
COM50	11	133	111	89	80	71	53	36	18	13	9
COM50	12	132	109	88	79	70	53	35	18	13	9
COM50	13	130	108	87	78	70	52	35	17	13	9
COM50	14	129	107	86	77	69	52	34	17	13	9
COM50	15	127	105	85	76	68	51	34	17	13	8
COM50	16	126	104	84	76	67	50	34	17	13	8
COM50	17	124	103	83	75	66	50	33	17	12	8
COM50	18	123	102	82	74	66	49	33	16	12	8
COM50	19	121	100	81	73	65	49	32	16	12	8
COM50	20	120	99	80	72	64	48	32	16	12	8
COM50	21	118	98	79	71	63	47	32	16	12	8
COM50	22	117	96	78	70	62	47	31	16	12	8
COM50	23	115	95	77	69	62	46	31	15	12	8
COM50	24	114	94	76	68	61	46	30	15	11	8
COM50	25	112	92	75	67	60	45	30	15	11	7
COM50	26	111	91	74	67	59	44	30	15	11	7
COM50	27	109	90	73	66	58	44	29	15	11	7
COM50	28	108	89	72	65	58	43	29	14	11	7

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
COM50	29	106	87	71	64	57	43	28	14	11	7
COM50	30	105	86	70	63	56	42	28	14	10	7
COM50	31	103	85	69	62	55	41	28	14	10	7
COM50	32	102	83	68	61	54	41	27	14	10	7
COM50	33	100	82	67	60	54	40	27	13	10	7
COM50	34	99	81	66	59	53	40	26	13	10	7
COM50	35	97	79	65	58	52	39	26	13	10	6
COM50	36	96	78	64	58	51	38	26	13	10	6
COM50	37	94	77	63	57	50	38	25	13	9	6
COM50	38	93	76	62	56	50	37	25	12	9	6
COM50	39	91	74	61	55	49	37	24	12	9	6
COM50	40	90	73	60	54	48	36	24	12	9	6
COM50	41	88	72	59	53	47	35	24	12	9	6
COM50	42	87	70	58	52	46	35	23	12	9	6
COM50	43	85	69	57	51	46	34	23	11	9	6
COM50	44	84	68	56	50	45	34	22	11	8	6
COM50	45	82	66	55	49	44	33	22	11	8	5
COM50	46	81	65	54	49	43	32	22	11	8	5
COM50	47	79	64	53	48	42	32	21	11	8	5
COM50	48	78	63	52	47	42	31	21	10	8	5
COM50	49	76	61	51	46	41	31	20	10	8	5
COM50	50	75	60	50	45	40	30	20	10	7.5	5
COM60	0	150	125	100	90	80	60	40	20	15	10
COM60	1	149	124	99	89	79	59	40	20	15	10
COM60	2	147	123	98	88	79	59	39	20	15	10
COM60	3	146	122	97	88	78	58	39	19	15	10
COM60	4	145	121	97	87	77	58	39	19	14	10
COM60	5	144	120	96	86	77	57	38	19	14	10
COM60	6	142	118	95	85	76	57	38	19	14	9

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
COM60	7	141	117	94	85	75	56	38	19	14	9
COM60	8	140	116	93	84	75	56	37	19	14	9
COM60	9	139	115	92	83	74	55	37	18	14	9
COM60	10	137	114	92	82	73	55	37	18	14	9
COM60	11	136	113	91	82	73	54	36	18	14	9
COM60	12	135	112	90	81	72	54	36	18	13	9
COM60	13	134	111	89	80	71	53	36	18	13	9
COM60	14	132	110	88	79	71	53	35	18	13	9
COM60	15	131	109	87	79	70	52	35	17	13	9
COM60	16	130	108	87	78	69	52	35	17	13	9
COM60	17	129	107	86	77	69	51	34	17	13	9
COM60	18	127	105	85	76	68	51	34	17	13	8
COM60	19	126	104	84	76	67	50	34	17	13	8
COM60	20	125	103	83	75	67	50	33	17	12	8
COM60	21	124	102	82	74	66	49	33	16	12	8
COM60	22	122	101	82	73	65	49	33	16	12	8
COM60	23	121	100	81	73	65	48	32	16	12	8
COM60	24	120	99	80	72	64	48	32	16	12	8
COM60	25	119	98	79	71	63	47	32	16	12	8
COM60	26	117	97	78	70	63	47	31	16	12	8
COM60	27	116	96	77	70	62	46	31	15	12	8
COM60	28	115	95	77	69	61	46	31	15	11	8
COM60	29	114	94	76	68	61	45	30	15	11	8
COM60	30	112	92	75	67	60	45	30	15	11	7
COM60	31	111	91	74	67	59	44	30	15	11	7
COM60	32	110	90	73	66	59	44	29	15	11	7
COM60	33	109	89	72	65	58	43	29	14	11	7
COM60	34	107	88	72	64	57	43	29	14	11	7
COM60	35	106	87	71	64	57	42	28	14	11	7

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
COM60	36	105	86	70	63	56	42	28	14	10	7
COM60	37	104	85	69	62	55	41	28	14	10	7
COM60	38	102	84	68	61	55	41	27	14	10	7
COM60	39	101	83	67	61	54	40	27	13	10	7
COM60	40	100	82	67	60	53	40	27	13	10	7
COM60	41	99	81	66	59	53	39	26	13	10	7
COM60	42	97	79	65	58	52	39	26	13	10	6
COM60	43	96	78	64	58	51	38	26	13	10	6
COM60	44	95	77	63	57	51	38	25	13	9	6
COM60	45	94	76	62	56	50	37	25	12	9	6
COM60	46	92	75	62	55	49	37	25	12	9	6
COM60	47	91	74	61	55	49	36	24	12	9	6
COM60	48	90	73	60	54	48	36	24	12	9	6
COM60	49	89	72	59	53	47	35	24	12	9	6
COM60	50	87	71	58	52	47	35	23	12	9	6
COM60	51	86	70	57	52	46	34	23	11	9	6
COM60	52	85	69	57	51	45	34	23	11	8	6
COM60	53	84	68	56	50	45	33	22	11	8	6
COM60	54	82	66	55	49	44	33	22	11	8	5
COM60	55	81	65	54	49	43	32	22	11	8	5
COM60	56	80	64	53	48	43	32	21	11	8	5
COM60	57	79	63	52	47	42	31	21	10	8	5
COM60	58	77	62	52	46	41	31	21	10	8	5
COM60	59	76	61	51	46	41	30	20	10	8	5
COM60	60	75	60	50	45	40	30	20	10	7.5	5
MH	0	95	95	95	95	90	85	85	80	80	5
MH	1	95	95	95	95	90	85	85	80	80	5
MH	2	95	95	95	95	89	83	83	77	77	5
MH	3	95	95	95	94	88	81	81	74	74	5
MH	4	95	95	95	94	87	79	79	71	71	5

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
MH	5	95	95	94	93	86	77	77	68	68	5
MH	6	95	95	94	92	85	75	75	65	65	5
MH	7	95	94	94	92	83	73	73	63	63	5
MH	8	95	94	94	91	81	71	71	61	61	5
MH	9	95	94	94	91	79	69	69	59	59	5
MH	10	95	94	93	90	77	67	67	57	57	5
MH	11	95	94	93	89	75	65	65	55	55	5
MH	12	95	94	93	88	73	63	63	53	53	5
MH	13	95	94	93	87	72	62	62	52	52	5
MH	14	95	94	93	86	71	61	61	51	51	5
MH	15	95	94	92	85	70	60	60	50	50	5
MH	16	94	93	92	84	69	59	59	49	49	5
MH	17	94	93	92	83	68	58	58	48	48	5
MH	18	94	93	91	82	67	57	57	47	47	5
MH	19	94	93	91	81	66	56	56	46	46	5
MH	20	94	93	90	80	65	55	55	45	45	5
MH	21	94	93	90	80	65	55	55	45	45	5
MH	22	94	93	89	79	64	54	54	44	44	5
MH	23	94	93	89	79	64	54	54	44	44	5
MH	24	94	93	88	78	63	53	53	43	43	5
MH	25	94	93	87	77	62	52	52	42	42	5
MH	26	93	93	87	77	62	52	52	42	42	5
MH	27	93	93	86	76	61	51	51	41	41	5
MH	28	93	93	86	76	61	51	51	41	41	5
MH	29	93	93	85	75	60	50	50	40	40	5
MH	30	93	92	85	75	60	50	50	40	40	5
MH	31	93	92	84	74	59	49	49	39	39	5
MH	32	93	92	84	74	59	49	49	39	39	5
MH	33	93	92	83	73	58	48	48	38	38	5
MH	34	93	92	83	73	58	48	48	38	38	5
MH	35	92	92	82	72	57	47	47	37	37	5
MH	36	92	92	81	71	56	46	46	36	36	5
MH	37	92	92	81	71	56	46	46	36	36	5
MH	38	92	92	80	70	55	45	45	35	35	5
MH	39	92	92	80	70	55	45	45	35	35	5

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
MH	40	92	91	79	69	54	44	44	34	34	5
MH	41	92	91	79	69	54	44	44	33	33	5
MH	42	92	91	78	68	53	43	43	33	33	5
MH	43	92	91	78	68	53	43	43	32	32	5
MH	44	92	91	77	67	52	42	42	32	32	5
MH	45	92	90	77	67	52	42	42	31	31	5
MH	46	92	90	76	66	51	41	41	31	31	5
MH	47	92	90	76	66	51	41	41	30	30	5
MH	48	92	90	75	65	50	40	40	30	30	5
MH	49	92	90	75	65	50	40	40	29	29	5
MH	50	92	90	74	64	49	39	39	29	29	5
MH	51	91	89	74	64	49	39	39	28	28	5
MH	52	91	89	73	63	48	38	38	28	28	5
MH	53	91	89	73	63	48	38	38	27	27	5
MH	54	91	89	72	62	47	37	37	27	27	5
MH	999	91	89	72	62	47	37	37	27	27	5
P6	1	98	98	98	98	98	98	98	98	98	98
P6	2	96	96	96	96	96	96	96	96	96	96
P6	3	94	94	94	94	94	94	94	94	94	94
P6	4	92	92	92	92	92	92	92	92	92	92
P6	5	90	90	90	90	90	90	90	90	90	90
P6	6	88	88	88	88	88	88	88	88	88	88
P6	7	86	86	86	86	86	86	86	86	86	86
P6	8	84	84	84	84	84	84	84	84	84	84
P6	9	82	82	82	82	82	82	82	82	82	82
P6	10	80	80	80	80	80	80	80	80	80	80
P6	11	78	78	78	78	78	78	78	78	78	78
P6	12	76	76	76	76	76	76	76	76	76	76
P6	13	74	74	74	74	74	74	74	74	74	74
P6	14	72	72	72	72	72	72	72	72	72	72
P6	15	70	70	70	70	70	70	70	70	70	70
P6	16	68	68	68	68	68	68	68	68	68	68
P6	17	66	66	66	66	66	66	66	66	66	66
P6	18	64	64	64	64	64	64	64	64	64	64
P6	19	62	62	62	62	62	62	62	62	62	62

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
P6	20	60	60	60	60	60	60	60	60	60	60
P6	21	58	58	58	58	58	58	58	58	58	58
P6	22	56	56	56	56	56	56	56	56	56	56
P6	23	54	54	54	54	54	54	54	54	54	54
P6	24	52	52	52	52	52	52	52	52	52	52
P6	25	50	50	50	50	50	50	50	50	50	50
P6	26	48	48	48	48	48	48	48	48	48	48
P6	27	46	46	46	46	46	46	46	46	46	46
P6	28	44	44	44	44	44	44	44	44	44	44
P6	29	42	42	42	42	42	42	42	42	42	42
P6	30	40	40	40	40	40	40	40	40	40	40
P6	31	38	38	38	38	38	38	38	38	38	38
P6	32	36	36	36	36	36	36	36	36	36	36
P6	33	34	34	34	34	34	34	34	34	34	34
P6	34	32	32	32	32	32	32	32	32	32	32
P6	35	30	30	30	30	30	30	30	30	30	30
P6	36	30	30	30	30	30	30	30	30	30	30
P6	37	30	30	30	30	30	30	30	30	30	30
P6	38	30	30	30	30	30	30	30	30	30	30
P6	39	30	30	30	30	30	30	30	30	30	30
P6	40	30	30	30	30	30	30	30	30	30	30
P6	41	30	30	30	30	30	30	30	30	30	30
P6	42	30	30	30	30	30	30	30	30	30	30
P6	43	30	30	30	30	30	30	30	30	30	30
P6	44	30	30	30	30	30	30	30	30	30	30
P6	45	30	30	30	30	30	30	30	30	30	30
P6	46	30	30	30	30	30	30	30	30	30	30
P6	47	30	30	30	30	30	30	30	30	30	30
P6	48	30	30	30	30	30	30	30	30	30	30
P6	49	30	30	30	30	30	30	30	30	30	30
P6	50	30	30	30	30	30	30	30	30	30	30
P6	51	30	30	30	30	30	30	30	30	30	30
P6	52	30	30	30	30	30	30	30	30	30	30
P6	53	30	30	30	30	30	30	30	30	30	30
P6	54	30	30	30	30	30	30	30	30	30	30

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
P6	55	30	30	30	30	30	30	30	30	30	30
P6	56	30	30	30	30	30	30	30	30	30	30
P6	57	30	30	30	30	30	30	30	30	30	30
P6	58	30	30	30	30	30	30	30	30	30	30
P6	59	30	30	30	30	30	30	30	30	30	30
P6	60	30	30	30	30	30	30	30	30	30	30
P6	61	30	30	30	30	30	30	30	30	30	30
P6	62	30	30	30	30	30	30	30	30	30	30
P6	63	30	30	30	30	30	30	30	30	30	30
P6	64	30	30	30	30	30	30	30	30	30	30
P6	65	30	30	30	30	30	30	30	30	30	30
P6	66	30	30	30	30	30	30	30	30	30	30
P6	67	30	30	30	30	30	30	30	30	30	30
P6	68	30	30	30	30	30	30	30	30	30	30
P6	69	30	30	30	30	30	30	30	30	30	30
P6	70	30	30	30	30	30	30	30	30	30	30
P6	71	30	30	30	30	30	30	30	30	30	30
P6	72	30	30	30	30	30	30	30	30	30	30
P6	73	30	30	30	30	30	30	30	30	30	30
P6	74	30	30	30	30	30	30	30	30	30	30
P6	75	30	30	30	30	30	30	30	30	30	30
P6	76	30	30	30	30	30	30	30	30	30	30
P6	77	30	30	30	30	30	30	30	30	30	30
P6	78	30	30	30	30	30	30	30	30	30	30
P6	79	30	30	30	30	30	30	30	30	30	30
P6	80	30	30	30	30	30	30	30	30	30	30
P6	81	30	30	30	30	30	30	30	30	30	30
P6	82	30	30	30	30	30	30	30	30	30	30
P6	83	30	30	30	30	30	30	30	30	30	30
P6	84	30	30	30	30	30	30	30	30	30	30
P6	85	30	30	30	30	30	30	30	30	30	30
P6	86	30	30	30	30	30	30	30	30	30	30
P6	87	30	30	30	30	30	30	30	30	30	30
P6	88	30	30	30	30	30	30	30	30	30	30
P6	89	30	30	30	30	30	30	30	30	30	30

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
P6	90	30	30	30	30	30	30	30	30	30	30
P6	91	30	30	30	30	30	30	30	30	30	30
P6	92	30	30	30	30	30	30	30	30	30	30
P6	93	30	30	30	30	30	30	30	30	30	30
P6	94	30	30	30	30	30	30	30	30	30	30
P6	95	30	30	30	30	30	30	30	30	30	30
P6	96	30	30	30	30	30	30	30	30	30	30
P6	97	30	30	30	30	30	30	30	30	30	30
P6	98	30	30	30	30	30	30	30	30	30	30
P6	99	30	30	30	30	30	30	30	30	30	30
P6	100	30	30	30	30	30	30	30	30	30	30
P7	1	97	97	97	97	97	97	97	97	97	97
P7	2	95	95	95	95	95	95	95	95	95	95
P7	3	92	92	92	92	92	92	92	92	92	92
P7	4	90	90	90	90	90	90	90	90	90	90
P7	5	88	88	88	88	88	88	88	88	88	88
P7	6	86	86	86	86	86	86	86	86	86	86
P7	7	85	85	85	85	85	85	85	85	85	85
P7	8	83	83	83	83	83	83	83	83	83	83
P7	9	81	81	81	81	81	81	81	81	81	81
P7	10	79	79	79	79	79	79	79	79	79	79
P7	11	77	77	77	77	77	77	77	77	77	77
P7	12	76	76	76	76	76	76	76	76	76	76
P7	13	74	74	74	74	74	74	74	74	74	74
P7	14	72	72	72	72	72	72	72	72	72	72
P7	15	70	70	70	70	70	70	70	70	70	70
P7	16	69	69	69	69	69	69	69	69	69	69
P7	17	67	67	67	67	67	67	67	67	67	67
P7	18	66	66	66	66	66	66	66	66	66	66
P7	19	65	65	65	65	65	65	65	65	65	65
P7	20	63	63	63	63	63	63	63	63	63	63
P7	21	61	61	61	61	61	61	61	61	61	61
P7	22	59	59	59	59	59	59	59	59	59	59
P7	23	58	58	58	58	58	58	58	58	58	58
P7	24	56	56	56	56	56	56	56	56	56	56

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
P7	25	54	54	54	54	54	54	54	54	54	54
P7	26	53	53	53	53	53	53	53	53	53	53
P7	27	51	51	51	51	51	51	51	51	51	51
P7	28	50	50	50	50	50	50	50	50	50	50
P7	29	48	48	48	48	48	48	48	48	48	48
P7	30	46	46	46	46	46	46	46	46	46	46
P7	31	45	45	45	45	45	45	45	45	45	45
P7	32	44	44	44	44	44	44	44	44	44	44
P7	33	42	42	42	42	42	42	42	42	42	42
P7	34	41	41	41	41	41	41	41	41	41	41
P7	35	39	39	39	39	39	39	39	39	39	39
P7	36	38	38	38	38	38	38	38	38	38	38
P7	37	36	36	36	36	36	36	36	36	36	36
P7	38	34	34	34	34	34	34	34	34	34	34
P7	39	33	33	33	33	33	33	33	33	33	33
P7	40	32	32	32	32	32	32	32	32	32	32
P7	41	32	32	32	32	32	32	32	32	32	32
P7	42	32	32	32	32	32	32	32	32	32	32
P7	43	32	32	32	32	32	32	32	32	32	32
P7	44	32	32	32	32	32	32	32	32	32	32
P7	45	32	32	32	32	32	32	32	32	32	32
P7	46	32	32	32	32	32	32	32	32	32	32
P7	47	32	32	32	32	32	32	32	32	32	32
P7	48	32	32	32	32	32	32	32	32	32	32
P7	49	32	32	32	32	32	32	32	32	32	32
P7	50	32	32	32	32	32	32	32	32	32	32
P7	51	32	32	32	32	32	32	32	32	32	32
P7	52	32	32	32	32	32	32	32	32	32	32
P7	53	32	32	32	32	32	32	32	32	32	32
P7	54	32	32	32	32	32	32	32	32	32	32
P7	55	32	32	32	32	32	32	32	32	32	32
P7	56	32	32	32	32	32	32	32	32	32	32
P7	57	32	32	32	32	32	32	32	32	32	32
P7	58	32	32	32	32	32	32	32	32	32	32
P7	59	32	32	32	32	32	32	32	32	32	32

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
P7	60	32	32	32	32	32	32	32	32	32	32
P7	61	32	32	32	32	32	32	32	32	32	32
P7	62	32	32	32	32	32	32	32	32	32	32
P7	63	32	32	32	32	32	32	32	32	32	32
P7	64	32	32	32	32	32	32	32	32	32	32
P7	65	32	32	32	32	32	32	32	32	32	32
P7	66	32	32	32	32	32	32	32	32	32	32
P7	67	32	32	32	32	32	32	32	32	32	32
P7	68	32	32	32	32	32	32	32	32	32	32
P7	69	32	32	32	32	32	32	32	32	32	32
P7	70	32	32	32	32	32	32	32	32	32	32
P7	71	32	32	32	32	32	32	32	32	32	32
P7	72	32	32	32	32	32	32	32	32	32	32
P7	73	32	32	32	32	32	32	32	32	32	32
P7	74	32	32	32	32	32	32	32	32	32	32
P7	75	32	32	32	32	32	32	32	32	32	32
P7	76	32	32	32	32	32	32	32	32	32	32
P7	77	32	32	32	32	32	32	32	32	32	32
P7	78	32	32	32	32	32	32	32	32	32	32
P7	79	32	32	32	32	32	32	32	32	32	32
P7	80	32	32	32	32	32	32	32	32	32	32
P7	81	32	32	32	32	32	32	32	32	32	32
P7	82	32	32	32	32	32	32	32	32	32	32
P7	83	32	32	32	32	32	32	32	32	32	32
P7	84	32	32	32	32	32	32	32	32	32	32
P7	85	32	32	32	32	32	32	32	32	32	32
P7	86	32	32	32	32	32	32	32	32	32	32
P7	87	32	32	32	32	32	32	32	32	32	32
P7	88	32	32	32	32	32	32	32	32	32	32
P7	89	32	32	32	32	32	32	32	32	32	32
P7	90	32	32	32	32	32	32	32	32	32	32
P7	91	32	32	32	32	32	32	32	32	32	32
P7	92	32	32	32	32	32	32	32	32	32	32
P7	93	32	32	32	32	32	32	32	32	32	32
P7	94	32	32	32	32	32	32	32	32	32	32

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
P7	95	32	32	32	32	32	32	32	32	32	32
P7	96	32	32	32	32	32	32	32	32	32	32
P7	97	32	32	32	32	32	32	32	32	32	32
P7	98	32	32	32	32	32	32	32	32	32	32
P7	99	32	32	32	32	32	32	32	32	32	32
P7	100	32	32	32	32	32	32	32	32	32	32
R01	0	100	100	100	90	90	90	90	90	90	50
R01	1	98	98	98	88	88	88	88	88	88	49
R01	2	96	96	96	86	86	86	86	86	86	47
R01	3	94	94	94	85	84	84	84	84	84	46
R01	4	93	92	92	83	82	82	82	82	82	44
R01	5	91	91	90	81	80	80	80	80	80	42
R01	6	89	89	89	79	78	78	78	78	78	40
R01	7	88	87	87	78	76	76	76	76	76	39
R01	8	87	86	85	76	74	74	74	74	74	37
R01	9	85	84	84	74	71	71	71	71	71	35
R01	10	84	83	82	73	69	69	69	69	69	33
R01	11	83	81	80	71	67	67	67	67	67	31
R01	12	81	80	79	69	65	65	65	65	65	29
R01	13	80	78	77	68	63	63	63	63	63	28
R01	14	79	77	76	66	61	61	61	61	61	26
R01	15	78	76	74	65	59	59	59	59	59	25
R01	16	77	74	73	63	57	57	57	57	57	23
R01	17	76	73	72	62	55	55	55	55	55	22
R01	18	75	72	70	60	53	53	53	53	53	21
R01	19	74	71	69	59	52	52	52	52	52	20
R01	20	73	70	68	58	50	50	50	50	50	19
R01	21	72	69	66	56	48	48	48	48	48	18
R01	22	71	67	65	55	47	47	47	47	47	17
R01	23	70	66	64	54	45	45	45	45	45	16
R01	24	70	65	63	53	44	44	44	44	44	15
R01	25	69	64	62	51	42	42	42	42	42	14
R01	26	68	63	60	50	41	41	41	41	41	14
R01	27	67	62	59	49	40	40	40	40	40	13
R01	28	67	62	58	48	38	38	38	38	38	12

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
R01	29	66	60	57	47	37	37	37	37	37	12
R01	30	65	60	56	46	36	36	36	36	36	11
R01	31	65	59	55	45	35	35	35	35	35	11
R01	32	64	58	54	44	34	34	34	34	34	10
R01	33	63	57	53	43	33	33	33	33	33	10
R01	34	63	56	52	42	32	32	32	32	32	9
R01	35	62	55	51	41	31	31	31	31	31	9
R01	36	62	54	51	40	30	30	30	30	30	9
R01	37	61	54	50	39	29	29	29	29	29	8
R01	38	60	53	49	39	28	28	28	28	28	8
R01	39	60	52	48	38	27	27	27	27	27	8
R01	40	59	51	47	37	26	26	26	26	26	7
R01	41	59	51	46	36	26	26	26	26	26	7
R01	42	58	50	46	35	25	25	25	25	25	7
R01	43	58	49	45	35	24	24	24	24	24	6
R01	44	57	49	44	34	24	24	24	24	24	6
R01	45	57	48	43	33	23	23	23	23	23	6
R01	46	57	47	43	33	22	22	22	22	22	6
R01	47	56	47	42	32	22	22	22	22	22	6
R01	48	56	46	41	31	21	21	21	21	21	5
R01	49	55	46	41	31	21	21	21	21	21	5
R01	50	55	45	40	30	20	20	20	20	20	5
R04	0	100	100	100	100	100	100	100	100	100	100
R04	1	98	98	98	97	97	97	97	97	97	97
R04	2	95	95	95	95	95	93	93	93	93	91
R04	3	93	93	93	92	92	89	89	89	89	85
R04	4	91	90	90	90	88	85	85	85	85	78
R04	5	89	88	88	87	85	80	80	80	80	71
R04	6	87	86	86	85	82	75	75	75	75	64
R04	7	85	84	84	82	79	70	70	70	70	58
R04	8	83	82	82	80	76	66	66	66	66	52
R04	9	82	80	80	77	73	61	61	61	61	47
R04	10	80	78	78	75	70	57	57	57	57	42
R04	11	78	76	76	73	67	53	53	53	53	38
R04	12	77	74	74	70	64	50	50	50	50	34

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
R04	13	75	73	73	68	61	46	46	46	46	31
R04	14	74	71	71	66	58	43	43	43	43	28
R04	15	73	69	69	64	56	40	40	40	40	26
R04	16	71	68	68	62	53	37	37	37	37	23
R04	17	70	66	66	60	51	35	35	35	35	21
R04	18	69	64	64	58	49	33	33	33	33	20
R04	19	68	63	63	56	46	30	30	30	30	18
R04	20	67	62	62	55	44	29	29	29	29	17
R04	21	66	60	60	53	43	27	27	27	27	15
R04	22	65	59	59	51	41	25	25	25	25	14
R04	23	63	57	57	50	39	24	24	24	24	13
R04	24	63	56	56	48	37	22	22	22	22	12
R04	25	62	55	55	47	36	21	21	21	21	12
R04	26	61	54	54	45	34	20	20	20	20	11
R04	27	60	53	53	44	33	19	19	19	19	10
R04	28	59	51	51	42	32	18	18	18	18	10
R04	29	58	50	50	41	30	17	17	17	17	9
R04	30	57	49	49	40	29	16	16	16	16	8
R04	31	56	48	48	39	28	15	15	15	15	8
R04	32	56	47	47	38	27	14	14	14	14	8
R04	33	55	46	46	37	26	14	14	14	14	7
R04	34	54	45	45	36	25	13	13	13	13	7
R04	35	53	44	44	35	24	13	13	13	13	6
R04	36	53	43	43	34	23	12	12	12	12	6
R04	37	52	43	43	33	22	11	11	11	11	6
R04	38	51	42	42	32	21	11	11	11	11	5
R04	39	51	41	41	31	21	10	10	10	10	5
R04	40	50	40	40	30	20	10	10	10	10	5
R06	0	100	100	100	100	90	90	90	90	90	50
R06	1	97	97	97	96	87	86	86	86	86	48
R06	2	93	93	93	93	83	82	82	82	82	45
R06	3	90	89	89	88	79	77	77	77	77	42
R06	4	86	86	86	84	75	72	72	72	72	39
R06	5	83	82	82	80	70	66	66	66	66	36
R06	6	80	78	78	76	66	61	61	61	61	33

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
R06	7	77	75	75	72	62	56	56	56	56	30
R06	8	73	71	71	68	58	51	51	51	51	27
R06	9	70	68	68	64	54	47	47	47	47	25
R06	10	68	64	64	60	51	43	43	43	43	23
R06	11	65	61	61	56	47	39	39	39	39	20
R06	12	62	58	58	53	44	36	36	36	36	19
R06	13	59	55	55	50	41	33	33	33	33	17
R06	14	57	53	53	47	38	30	30	30	30	16
R06	15	55	50	50	44	36	28	28	28	28	14
R06	16	52	48	48	42	34	26	26	26	26	13
R06	17	50	45	45	40	32	24	24	24	24	12
R06	18	48	43	43	37	30	22	22	22	22	11
R06	19	46	41	41	35	28	20	20	20	20	10
R06	20	44	39	39	33	26	19	19	19	19	10
R06	21	42	37	37	32	25	18	18	18	18	9
R06	22	41	36	36	30	23	16	16	16	16	8
R06	23	39	34	34	28	22	15	15	15	15	8
R06	24	38	32	32	27	21	14	14	14	14	7
R06	25	36	31	31	26	20	13	13	13	13	7
R06	26	35	30	30	24	18	13	13	13	13	6
R06	27	34	28	28	23	18	12	12	12	12	6
R06	28	32	27	27	22	17	11	11	11	11	6
R06	29	31	26	26	21	16	11	11	11	11	5
R06	30	30	25	25	20	15	10	10	10	10	5
R07	0	100	100	100	100	90	90	90	90	90	50
R07	1	96	96	96	95	86	84	84	84	84	47
R07	2	92	92	92	90	80	76	76	76	76	44
R07	3	88	87	87	84	74	67	67	67	67	40
R07	4	84	83	83	78	67	57	57	57	57	37
R07	5	80	78	78	72	61	49	49	49	49	33
R07	6	76	74	74	66	55	42	42	42	42	29
R07	7	72	70	70	61	49	36	36	36	36	26
R07	8	69	66	66	56	44	30	30	30	30	23
R07	9	65	62	62	51	40	26	26	26	26	21
R07	10	62	58	58	47	36	23	23	23	23	19

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
R07	11	59	55	55	43	32	20	20	20	20	17
R07	12	56	52	52	39	29	17	17	17	17	15
R07	13	53	49	49	36	26	15	15	15	15	14
R07	14	51	46	46	33	24	14	14	14	14	12
R07	15	48	43	43	30	22	12	12	12	12	11
R07	16	46	41	41	28	20	11	11	11	11	10
R07	17	44	38	38	26	18	10	10	10	10	9
R07	18	41	36	36	24	17	9	9	9	9	9
R07	19	40	34	34	22	16	8	8	8	8	8
R07	20	38	32	32	21	14	7	7	7	7	7
R07	21	36	31	31	19	13	7	7	7	7	7
R07	22	34	29	29	18	12	6	6	6	6	6
R07	23	33	28	28	17	11	6	6	6	6	6
R07	24	31	26	26	16	11	5	5	5	5	5
R07	25	30	25	25	15	10	5	5	5	5	5
R08	0	100	100	100	100	90	90	90	90	90	50
R08	1	93	93	93	92	82	79	79	79	79	45
R08	2	86	86	86	82	72	63	63	63	63	39
R08	3	80	78	78	72	61	49	49	49	49	33
R08	4	73	71	71	63	51	37	37	37	37	27
R08	5	68	64	64	54	43	29	29	29	29	23
R08	6	62	58	58	47	36	23	23	23	23	19
R08	7	57	53	53	40	30	18	18	18	18	16
R08	8	52	48	48	35	26	15	15	15	15	13
R08	9	48	43	43	30	22	12	12	12	12	11
R08	10	44	39	39	27	19	10	10	10	10	10
R08	11	41	36	36	24	16	9	9	9	9	8
R08	12	38	32	32	21	14	7	7	7	7	7
R08	13	35	30	30	19	13	6	6	6	6	6
R08	14	32	27	27	17	11	6	6	6	6	6
R08	15	30	25	25	15	10	5	5	5	5	5
R10	0	100	100	100	100	90	90	90	90	90	50
R10	1	93	93	93	92	82	79	79	79	79	45
R10	2	86	86	86	82	72	63	63	63	63	39
R10	3	80	78	78	72	61	49	49	49	49	33

DEPRECIATION TABLES											
Table #	Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	P-	Very Poor	V-	Un Sound
R10	4	73	71	71	63	51	37	37	37	37	27
R10	5	68	64	64	54	43	29	29	29	29	23
R10	6	62	58	58	47	36	23	23	23	23	19
R10	7	57	53	53	40	30	18	18	18	18	16
R10	8	52	48	48	35	26	15	15	15	15	13
R10	9	48	43	43	30	22	12	12	12	12	11
R10	10	44	39	39	27	19	10	10	10	10	10
R10	11	41	36	36	24	16	9	9	9	9	8
R10	12	38	32	32	21	14	7	7	7	7	7
R10	13	35	30	30	19	13	6	6	6	6	6
R10	14	32	27	27	17	11	6	6	6	6	6
R10	15	30	25	25	15	10	5	5	5	5	5
XXX	0	100	100	100	100	90	90	90	90	90	50
XXX	1	93	93	93	92	82	79	79	79	79	45
XXX	2	86	86	86	82	72	63	63	63	63	39
XXX	3	80	78	78	72	61	49	49	49	49	33
XXX	4	73	71	71	63	51	37	37	37	37	27
XXX	5	68	64	64	54	43	29	29	29	29	23
XXX	6	62	58	58	47	36	23	23	23	23	19
XXX	7	57	53	53	40	30	18	18	18	18	16
XXX	8	52	48	48	35	26	15	15	15	15	13
XXX	9	48	43	43	30	22	12	12	12	12	11
XXX	10	44	39	39	27	19	10	10	10	10	10
XXX	11	41	36	36	24	16	9	9	9	9	8
XXX	12	38	32	32	21	14	7	7	7	7	7
XXX	13	35	30	30	19	13	6	6	6	6	6
XXX	14	32	27	27	17	11	6	6	6	6	6
XXX	15	30	25	25	15	10	5	5	5	5	5

Watauga County
2027
Use Value Manual

Use Value Manual for the appraisal and valuation of qualifying present-use value land in Watauga County for the reappraisal effective January 1, 2027.

WATAUGA COUNTY
BOARD OF COMMISSIONERS

Braxton Eggers, Chairman
Todd Castle, Vice Chairman
Emily Greene
Tim Hodges
Ronnie Marsh

Approved

_____
Date

WATAUGA COUNTY BOARD OF COMMISSIONERS

Signed_____
Chairman, Board of Commissioners

2027 USE-VALUE MANUAL

FOR AGRICULTURAL, HORTICULTURAL

AND

FOREST LAND

June 2026

North Carolina Use-Value Advisory Board
North Carolina Department of Revenue
Raleigh, North Carolina

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Foreword

When originally enacted in 1973, the objective of the present-use value program was to keep "the family farm in the hands of the farming family." By the early 1970's, North Carolina had become a prime site for industrial and commercial companies to relocate because of its plentiful and reliable work force. With this growth came other improvements to the State's infrastructure to accommodate this growth, such as new and larger road systems, more residential subdivisions, and new industrial and commercial developments. The land on which to build these improvements came primarily from one source: farmland. As the demand for this land skyrocketed, so did its price as well as its assessed value, as counties changed from a fractional assessment to a market value system. Farmers who owned land near these sites soon could not afford the increase in property values and sought relief from the General Assembly.

In response, the General Assembly passed legislation known as the Present-Use Value program. As originally enacted, the basic tenets of this program were that only individuals who lived on the land for which they were applying could immediately qualify and that the land had to have a highest and best use as agriculture, horticulture or forest land. Land might also have qualified if the farmer owned it for seven years. Passage of this law eased the financial burden of most farmers and eliminated to some degree the "sticker shock" of the new property tax values. From that time until the mid-1980's, the present-use value schedules were based on farmer-to-farmer sales, and quite often the market value schedules were very similar to the present use schedules, especially in the more rural areas.

Virtually every session of the General Assembly has seen new changes to the law, causing a constant rethinking as to how the law is to be administered. The mid-1980's saw several court cases that aided in this transformation. Among the legislative changes that resulted from these cases were the use of soil productivity to determine value, the use of a 9% capitalization rate, and the utilization of the "unit concept" to bring smaller tracts under the present use value guidelines.

Through the years the General Assembly has expanded the present-use value program to include new types of ownership such as business entities, tenants in common, trusts, and testamentary trusts. Legislation also expanded the definition of a relative. More recent legislation has established cash rents as the basis for determining present-use value for agricultural and horticultural land, while retaining the net income basis for determining present-use value for forestland.

This Use-Value Advisory Board Manual is published yearly to communicate the UVAB recommended present-use value rates and to explain the methodology used in establishing the recommended rates.

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USE-VALUE ADVISORY BOARD MANUAL

Following are explanations of the major components of this manual.

I. Cash Rents

Beginning in 1985, the basis for determining present-use value for agricultural land was based on the soil productivity for growing corn and soybeans. At that time, corn and soybeans were considered the predominant crops in the state. Over time, fewer and fewer acres went into the production of corn and soybeans and the land used for these crops tended to be lower quality. As a result, both the productivity and value of these crops plummeted, thus resulting in lower present-use values. A viable alternative was sought to replace corn and soybeans as the basis for present-use value. Following a 1998 study by North Carolina State University, cash rents for agricultural and horticultural land were determined to be the preferred alternative. Cash rents are a very good indicator of net income, which can be converted into a value using an appropriate capitalization rate.

The General Assembly passed legislation that established cash rents as the required method for determining the recommended present-use values for agricultural and horticultural land. The cash rents data from the NCSU study served as the basis for determining present-use value for the 2004-2007 UVAB manuals. However, starting in 2006, funding became available for the North Carolina Department of Agriculture to perform an extensive statewide cash rents survey on a yearly basis. The 2006 survey became the basis for the 2008 UVAB recommended values, and this process will

continue forward until changes dictate otherwise (i.e. the 2007 survey is used to establish the 2009 UVAB values, etc.).

Forestland does not lend itself well to cash rents analysis and continues to be valued using the net income from actual production.

II. Soil Types and Soil Classification

The 1985 legislation divided the state using the six Major Land Resource Areas (MLRAs). Five different classes of productive soils and one non-productive soil class for each MLRA were determined. Each class was identified by its net income according to type: agriculture, horticulture and forestry. The net income was then divided by a 9% capitalization rate to determine the present-use value. For 2004 and forward, the following change has taken place. For agricultural and horticultural classifications, the five different soil classes have been reduced to three soil classes and one non-productive soil class. Forestland present-use value has kept the five soil classes and one non-productive soil class. The use of the six MLRAs has been retained.

The six MLRAs are as follows:

MLRA 130	Mountains
MLRA 133A	Upper Coastal Plain
MLRA 136	Piedmont
MLRA 137	Sandhills
MLRA 153A	Lower Coastal Plains
MLRA 153B	Tidewater

The soils are listed in this manual according to the MLRA in which they occur. They are then further broken down into their productivity for each of the three types of use: agriculture, horticulture and forestry. Every soil listed in each of the MLRAs is ranked by its productivity into four classes (with the exception of forestry which retained its previous six classes). The classes for agricultural and horticultural land are as follows:

CLASS I	Best Soils
CLASS II	Average Soils
CLASS III	Fair Soils
CLASS IV	Non-Productive Soils

It should be noted that, in some soil types, all the various slopes of that soil have the same productivity class for each of the usages, and therefore for the sake of brevity, the word "ALL" is listed to combine these soils. Each of the classes set up by the UVAB soils subcommittee corresponds to a cash rent income established by the most recent cash rents survey conducted by the North Carolina Department of Agriculture. This rent income is then capitalized by a rate established each year by the UVAB (see below). The criteria for establishing present-use value for forestry have remained basically unchanged from previous years due to the quantity and quality of information already available.

III. Capitalization Rate

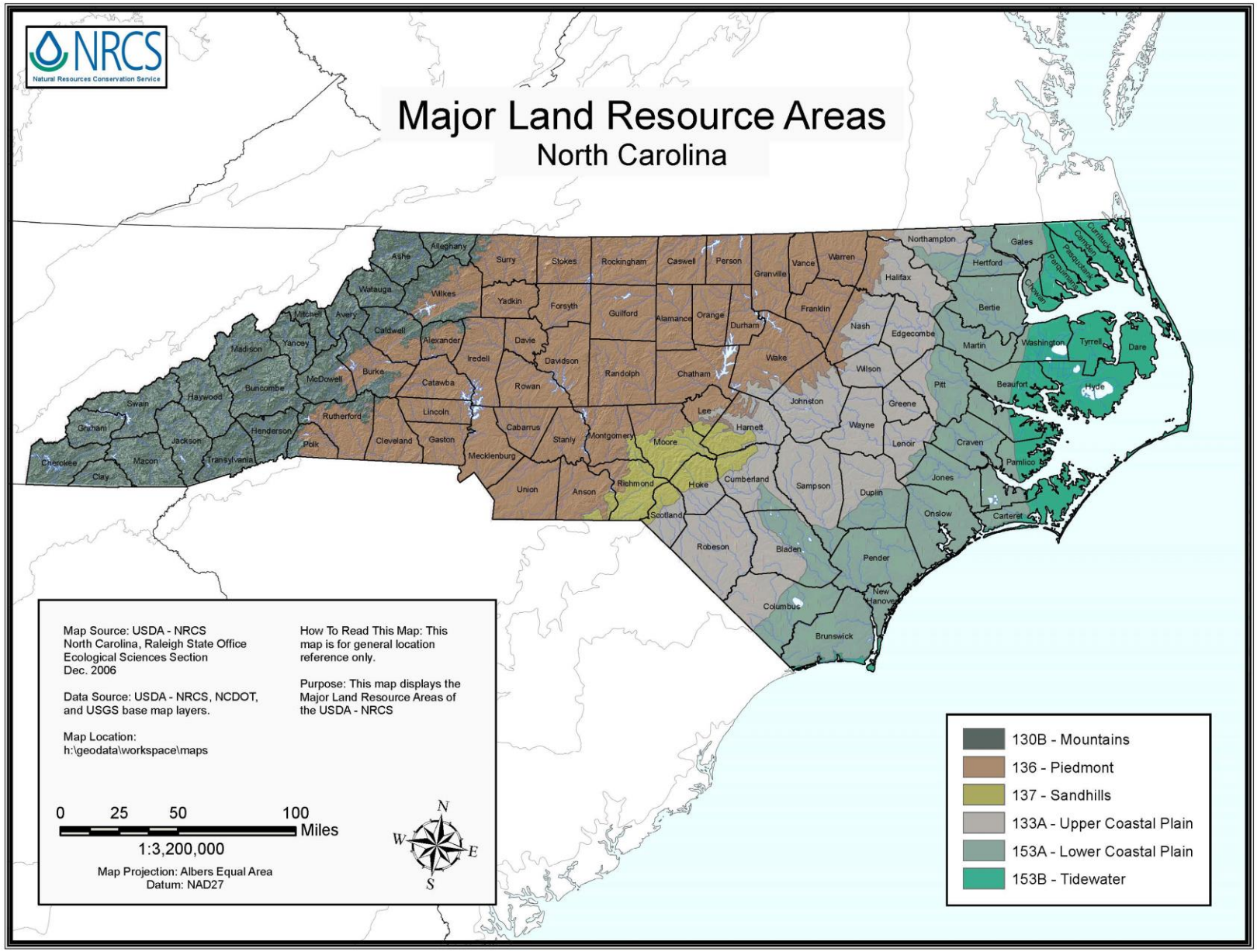
The capitalization rate mandated by the 1985 legislation for all types of present-use value land was 9%. The 1998 study by NCSU strongly indicated that a lower capitalization rate for agricultural and horticultural land was more in line with current sales and rental information. The 2002 legislation mandated a rate between 6%-7% for agricultural and horticultural land.

For the year 2004 and the subsequent years, the UVAB has set the capitalization rate at 6.5% for agricultural and horticultural land.

The capitalization rate for forestland continues to be fixed at 9% as mandated by the statutes.

IV. Other Issues

The value for the best agricultural land can be no higher than $1,200 an acre for any MLRA.


NRCS
Natural Resources Conservation Service
Major Land Resource Areas
North Carolina
Ashe
Alleghany
Surry
Stokes
Rockingham
Caswell
Person
Granville
Vance
Warren
Northampton
Gates
Hertford
Halifax
Currituck
Camden
Pasquotank
Perquimans
Chowan
Watauga
Wilkes
Yadkin
Forsyth
Guilford
Alamance
Orange
Durham
Franklin
Bertie
Mitchell
Avery
Caldwell
Alexander
Davie
Iredell
Davidson
Randolph
Chatham
Wake
Nash
Edgecombe
Martin
Washington
Tyrrell
Dare
Yancey
Madison
Burke
McDowell
Catawba
Rowan
Wilson
Pitt
Beaufort
Hyde
Buncombe
Haywood
Swain
Graham
Rutherford
Lincoln
Cabarrus
Stanly
Montgomery
Moore
Lee
Harnett
Johnston
Greene
Wayne
Lenoir
Craven
Pamlico
Jones
Henderson
Polk
Cleveland
Gaston
Mecklenburg
Union
Anson
Richmond
Hoke
Cumberland
Sampson
Duplin
Onslow
Carteret
Jackson
Cherokee
Macon
Transylvania
Clay
Scotland
Robeson
Bladen
Pender
New Hanover
Columbus
Brunswick
Map Source: USDA - NRCS
North Carolina, Raleigh State Office
Ecological Sciences Section
Dec. 2006
Data Source: USDA - NRCS, NCDOT, and USGS base map layers.
Map Location:
h:\geodata\workspace\maps
How To Read This Map: This map is for general location reference only.
Purpose: This map displays the Major Land Resource Areas of the USDA - NRCS
0 25 50 100
Miles
1:3,200,000
Map Projection: Albers Equal Area
Datum: NAD27
N
W
E
S
130B - Mountains
136 - Piedmont
137 - Sandhills
133A - Upper Coastal Plain
153A - Lower Coastal Plain
153B - Tidewater

PRESENT-USE VALUE SCHEDULES

AGRICULTURAL RENTS

MLRA	BEST	AVERAGE	FAIR
130	90.30	54.30	35.50
133A	82.15	58.30	43.65
136	61.80	42.10	27.35
137	67.50	47.30	32.20
153A	77.10	56.10	42.20
153B	103.95	70.70	53.00

AGRICULTURAL SCHEDULE

MLRA	CLASS I	CLASS II	CLASS III
130	$1,200*	$835	$545
133A	$1,200*	$895	$670
136	$950	$645	$420
137	$1,035	$725	$495
153A	$1,185	$860	$645
153B	$1,200*	$1,085	$815

--NOTE: All Class IV or Non-Productive Land will be appraised at $40.00 per acre.
--Cash rents were capitalized at a rate of 6.5% to produce the Agricultural Schedule.
* As required by statute, agricultural values cannot exceed $1,200.

HORTICULTURAL SCHEDULE

All horticultural crops requiring more than one growing season between planting or setting out and harvest, such as Christmas trees, ornamental shrubs and nursery stock, apple and peach orchards, grapes, blueberries, strawberries, sod and other similar horticultural crops should be classified as horticulture regardless of location in the state.

HORTICULTURAL RENTS

MLRA	BEST	AVERAGE	FAIR
130	161.70	111.10	72.90
133A	99.10	68.40	52.25
136	89.20	58.05	40.15
137	84.35	56.85	37.70
153A	93.80	58.15	44.40
153B	122.40	92.80	84.35

HORTICULTURAL SCHEDULE

MLRA	CLASS I	CLASS II	CLASS III
130	$2,485	$1,705	$1,120
133A	$1,520	$1,050	$800
136	$1,370	$890	$615
137	$1,295	$870	$580
153A	$1,440	$890	$680
153B	$1,880	$1,425	$1,295

--NOTE: All Class IV or Non-Productive Land will be appraised at $40.00 per acre.

--Cash rents were capitalized at a rate of 6.5% to produce the Horticultural Schedule.

FORESTLAND NET PRESENT VALUES

MLRA	Class I	Class II	Class III	Class IV	Class V
130	$40.48	$26.89	$10.66	$5.53	$5.48
133A	$31.32	$24.47	$18.22	$6.88	$4.68
136	$34.40	$25.38	$23.03	$14.61	$10.78
137	$37.15	$25.38	$23.85	$8.48	$3.13
153A	$31.32	$24.47	$18.22	$6.88	$4.68
153B	$26.40	$19.34	$18.22	$6.88	$4.68

FORESTLAND SCHEDULE

MLRA	Class I	Class II	Class III	Class IV	Class V
130	$445	$300	$120	$65	$65
133A	$345	$270	$200	$75	$55
136	$380	$280	$255	$160	$120
137	$400	$280	$265	$95	$35
153A	$345	$270	$200	$75	$55
153B	$290	$215	$200	$75	$55

--NOTE: All Class VI or Non-Productive Land will be appraised at $40.00/Acre. Exception: For any MLRA where the Class V rate is $40 or less, use 80% of the Class V rate.

--Net Present Values were divided by a capitalization rate of 9.00% to produce the Forestland Schedule.

2009 Cash Rent Study

INTRODUCTION

The National Agricultural Statistics Service in cooperation with the North Carolina Department of Agricultural and Consumer Services collected cash rents data on the 2009 County Estimates Survey. North Carolina farmers were surveyed to obtain cash rent values per acre for three land types: Agricultural, horticultural, and Christmas tree land. Supporting funds for this project were provided by the North Carolina Legislature. Appreciation is expressed to all survey participants who provided the data on which this report is based.

THE SURVEY

The survey was conducted by mail with telephone follow-up during September through February. Values relate to the data collection time period when the respondent completed the survey.

THE DATA

This report includes the most current number of responses and average rental rate per acre. Producers were asked to provide their best estimate of cash rent values in their county by land quality. The data published here are simple averages of the best estimate of the cash rent value per acre. These averages are not official estimates of actual sales.

Reported data that did not represent agricultural usage were removed in order to give a more accurate reflection of agricultural rents and values. To ensure respondent confidentiality and provide more statistical reliability, counties and districts with fewer than 10 reports are not published individually, but are included in aggregate totals. Published values in this report should never be used as the only factor to establish rental arrangements.

Data were collected for three land types: Agricultural, horticultural, and Christmas tree land. Agricultural land includes land used to produce row crops such as soybeans, corn, peanuts, and small grains, pasture land, and hay. Agricultural land also includes any land on which livestock are grown. Horticultural land includes commercial production or growing of fruits or vegetables or nursery or floral products such as apple orchards, blueberries, cucumbers, tomatoes, potted plants, flowers, shrubs, sod, and turf grass. Christmas tree land includes any land to produce Christmas trees, including cut and balled Christmas trees.

2009 Average Cash Rents for Resource Area = 130 Mountains

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
ALLEGHANY	22	89.80	21	55.50	21	33.30												
ASHE	17	76.50	15	43.50	15	28.30							12	162.50				
AVERY																		
BUNCOMBE	37	100.70	31	53.90	27	33.80												
BURKE	25	55.20	22	33.20	19	26.60												
CALDWELL	13	35.40	11	23.20	10	16.70												
CHEROKEE	16	88.10	11	48.60	10	29.50												
CLAY	15	68.70	14	39.10	13	25.20												
GRAHAM																		
HAYWOOD	41	117.90	28	73.80	29	43.50												
HENDERSON	24	83.50	18	57.60	18	36.90												
JACKSON																		
MACDOWELL																		
MACON	11	73.20	12	43.30														
MADISON	26	116.50	22	63.20	23	40.50												
MITCHELL																		
POLK																		
SWAIN																		
TRANSYLVANIA	14	93.60											11	181.36				
WATAUGA	27	79.10	18	49.70	14	32.50												
WILKES	79	57.30	71	39.30	59	27.00												
YANCEY	17	117.90	13	72.30	13	48.85												
AREA TOTAL	**422**	**82.10**	**349**	**49.40**	**317**	**32.30**	**78**	**147.00**	**47**	**101.10**	**41**	**66.30**	**69**	**153.60**	**47**	**93.60**	**38**	**61.30**

2009 Average Cash Rents for Resource Area = 133A Upper Coastal Plain

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
BLADEN	36	63.10	32	49.20	25	33.80												
COLUMBUS	77	60.80	58	45.80	51	34.60												
CUMBERLAND	36	66.40	29	44.70	25	30.40												
DUPLIN	142	69.30	113	50.80	90	39.70												
EDGECOMBE	36	77.10	29	57.20	22	43.60												
GREENE	61	79.70	40	55.00	36	41.30												
HALIFAX	28	83.30	18	64.20	14	42.10												
HARNETT	58	74.50	52	51.70	39	36.40												
JOHNSTON	103	71.90	84	49.90	63	33.40	13	93.90	10	53.00								
LENOIR	60	81.60	45	58.70	33	42.10												
NASH	51	77.80	39	52.70	31	43.10												
NORTHAMPTON	23	102.60	17	73.80	13	57.30												
ROBESON	53	49.60	52	38.90	28	32.40												
SAMPSON	128	81.60	109	56.40	87	41.80	10	95.00										
SCOTLAND	10	44.50																
WAYNE	96	89.70	64	62.30	65	47.00												
WILSON	40	82.80	30	61.50	27	48.20												
AREA TOTAL	**1038**	**74.70**	**819**	**53.00**	**655**	**39.70**	**61**	**90.10**	**46**	**62.20**	**35**	**47.50**						

2009 Average Cash Rents for Resource Area = 136 Piedmont

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
ALAMANCE	63	52.30	51	32.90	50	20.70												
ALEXANDER	35	49.10	28	33.40	29	20.00												
ANSON	35	50.10	31	4130	25	28.40												
BURKE	25	55.20	22	33.20	19	26.60												
CABARRUS	20	42.20	16	37.80	13	23.90												
CALDWELL	13	35.40	11	23.50	10	16.70												
CASWELL	54	49.90	41	30.90	44	19.20												
CATAWBA	32	39.20	29	28.60	31	19.20												
CHATHAM	47	48.80	48	34.70	37	23.10												
CLEVELAND	44	36.50	39	29.20	34	2120												
DAVIDSON	50	45.60	43	32.90	40	2140												
DAVIE	38	60.70	27	39.30	24	2130												
DURHAM	15	36.50	12	27.50	13	2150												
FORSYTH	26	63.60	16	48.80	18	23.30												
FRANKLIN	41	59.20	38	37.10	35	2190												
GASTON	17	33.50	15	27.30	15	18.80												
GRANVILLE	58	53.00	45	3160	43	17.80												
GUILFORD	46	4120	39	27.00	34	17.60												
HALIFAX	28	83.30	18	64.20	14	42.10												
IREDELL	52	53.90	49	43.40	43	27.90												
JOHNSTON	103	7190	84	49.90	63	33.40	13	93.90	10	53.00								
LEE	25	72.40	20	45.40	16	33.10												
LINCOLN	16	35.60	14	2180	12	15.60												
MECKLENBURG	11	6140																
MONTGOMERY	16	4160	16	39.10	14	20.00												
MOORE	37	56.50	33	37.30	25	23.90												
NASH	51	77.80	39	52.70	31	43.10												
ORANGE	31	37.60	26	3180	25	19.40												
PERSON	38	60.70	26	40.60	22	23.30												
POLK																		
RANDOLPH	96	48.20	81	33.80	73	2190												
RICHMOND	21	32.60	15	23.30	18	19.30												
ROCKINGHAM	55	55.10	41	30.30	40	16.60												
ROWAN	47	48.80	36	34.70	33	23.50												
RUTHERFORD	21	37.40	16	27.60	14	19.30												
STANLY	34	52.50	30	40.30	29	27.90												
STOKES	54	74.20	39	47.10	34	28.10												
SURRY	73	83.00	57	53.90	53	35.30												
UNION	55	66.30	50	47.80	40	40.30												
VANCE	32	55.00	22	29.30	23	17.20												
WAKE	55	6120	46	36.20	39	26.20												
WARREN	24	40.90	15	25.30	20	17.80												
WILKES	79	57.30	71	39.30	59	27.00												
YADKIN	79	67.00	60	47.80	58	3150												
AREA TOTAL	**1798**	**56.20**	**1468**	**38.30**	**1324**	**24.90**	**125**	**81.10**	**101**	**52.80**	**89**	**36.50**	**46**	**77.90**	**43**	**52.90**	**41**	**35.00**

2009 Average Cash Rents for Resource Area = 137 Sandhills

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
HARNETT	58	74.50	52	51.70	39	36.40												
HOKE	17	56.50	11	45.00	11	29.10												
LEE	25	72.40	20	45.40	16	33.10												
MOORE	37	56.50	33	37.30	25	23.90												
RICHMOND	21	32.60	15	23.30	18	19.30												
SCOTLAND	10	44.50																
AREA TOTAL	**168**	**61.40**	**139**	**43.00**	**115**	**29.30**	*	**76.70**	*	**51.70**	*	**34.30**						

An * indicates the data is published even though there are less than 10 reports.

2009 Average Cash Rents for Resource Area = 153A Lower Coastal Plain

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
BEAUFORT	30	83.70	23	52.00	21	37.10												
BERTIE	41	75.00	23	60.10	21	44.50												
BLADEN	36	63.10	32	49.20	25	33.80												
BRUNSWICK	23	44.40	15	38.00	13	30.00												
CARTERET																		
CHOWAN	20	87.00	13	58.90	12	51.70												
COLUMBUS	77	60.80	58	45.80	51	34.60												
CRAVEN	32	60.60	29	47.80	21	35.20												
DUPLIN	142	69.30	113	50.80	90	39.70												
EDGECOMBE	36	77.10	29	57.20	22	43.60												
GATES	13	81.20	11	62.30														
HERTFORD	15	73.00	11	49.60														
JONES	25	64.40	22	49.80	20	41.30												
MARTIN	46	80.70	33	53.20	29	40.50												
NEW HANOVER																		
ONSLOW	34	55.40	24	42.80	23	34.80												
PAMLICO	13	70.40	13	51.20	13	36.50												
PENDER	24	67.10	21	45.50	19	33.70												
PITT	45	73.70	39	56.20	33	40.50												
WASHINGTON	12	128.80	10	61.00														
AREA TOTAL	**672**	**70.10**	**525**	**51.00**	**442**	**38.40**	**30**	**85.30**	**19**	**52.90**	**13**	**40.40**						

2009 Average Cash Rents for Resource Area = 153B Tidewater

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
BEAUFORT	30	83.70	23	52.00	21	37.10												
CAMDEN																		
CARTERET																		
CHOWAN	20	87.00	13	58.40	12	51.70												
CURRITUCK	10	88.00																
DARE																		
HYDE																		
PAMLICO	13	70.40	13	51.20	13	36.50												
PASQUOTANK	19	105.30	11	73.20	10	60.00												
PERQUIMANS	24	101.90	21	78.10	18	58.90												
TYRRELL	10	109.50																
WASHINGTON	12	128.80	10	61.00														
AREA TOTAL	**163**	**94.50**	**117**	**64.30**	**111**	**48.20**	**12**	**111.30**	*	**84.40**	*	**76.70**						

An * indicates the data is published even though there are less than 10 reports.

2009 Average Cash Rents - State Total

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
STATE TOTAL	**3431**	**66.90**	**2743**	**45.60**	**2414**	**31.50**	**254**	**103.20**	**184**	**67.70**	**155**	**46.90**	**114**	**121.50**	**93**	**75.30**	**80**	**49.40**

Christmas Tree Guidelines

This information replaces a previous memorandum issued by our office dated December 12, 1989. The 1989 General Assembly enacted an "in-lieu of income" provision allowing land previously qualified as horticulture to continue to receive benefits of the present-use value program when the crop being produced changed from any horticultural product to Christmas trees. It also directed the Department of Revenue to establish a separate gross income requirement different from the $1,000 gross income requirement for horticultural land, when the crop being grown was evergreens intended for use as Christmas trees. N.C.G.S. 105-289(a)(6) directs the Department of Revenue:

> **"To establish requirements for horticultural land, used to produce evergreens intended for use as Christmas trees, in lieu of a gross income requirement until evergreens are harvested from the land, and to establish a gross income requirement for this type of horticultural land, that differs from the income requirement for other horticultural land, when evergreens are harvested from the land."**

It should be noted that horticultural land used to produce evergreens intended for use as Christmas trees is the only use allowed benefit of the present-use value program without first having met a gross income requirement. The trade-off for this exception is a different gross income requirement in recognition of the potential for greater income than would normally be associated with other horticultural or agricultural commodities.

While the majority of Christmas tree production occurs in the western mountain counties (MLRA 130), surveys as far back as 1996 indicate that there are approximately 135 Christmas tree operations in non-mountain counties (MLRAs 136, 137, 133A, 153A & 153B). They include such counties in the piedmont and coastal plain as Craven, Halifax, Robeson, Wake, and Warren. For this reason we have prepared separate in-lieu of income requirements and gross income requirements for these two areas of the State. The different requirements recognize the difference in species, growing practices, markets, and resulting gross income potential.

After consulting with cooperative extension agents, the regional Christmas tree/horticultural specialist at the Western North Carolina Experimental Research Station, and various landowners/growers, we have determined the standards in the following attachments to be reasonable guidelines for compliance with G.S. 105-289(a)(6). Please note these requirements are subject to the whims of weather and other conditions that can have a significant impact. The combined effect of recent hurricanes, spring freezes, and ice storms across some parts of the State should be taken into consideration when appropriate within each county. As with other aspects of the present-use value program, owners of Christmas tree land should not be held accountable for conditions such as adverse weather or disease outbreak beyond their control.

We encourage every county to contact their local Cooperative Extension Service Office to obtain the appropriate local data and expertise to support particular situations in each county.

I. Gross Income Requirement for Christmas Trees

For MLRA 130, the gross income requirement for horticultural land used to grow evergreens intended for use as Christmas trees is $2,000 per acre.

For all other MLRAs, the gross income requirement for horticultural land used to grow evergreens intended for use as Christmas trees is $1,500 per acre.

II. In-Lieu of Income Requirement

MLRA 130 – Mountains

The in-lieu of income requirement is for acreage in production but not yet undergoing harvest, and will be determined by sound management practices, best evidenced by the following:

1. Sites prepared by controlling problem weeds and saplings, taking soil samples, and applying fertilizer and/or lime as appropriate.

2. Generally, a 5' x 5' spacing producing approximately 1,750 potential trees per acre. Spacing must allow for adequate air movement around the trees. (There is very little 4' x 4' or 4.5' x 4.5' spacing. Some experimentation has occurred with 5' x 6' spacing, primarily aimed at producing a 6' tree in 5 years. All of the preceding examples should be acceptable.)

3. A program for insect and weed control.

4. Generally, an eight-to-ten year setting to harvest cycle. (Most leases are for 10 years, which allows for a replanting of non-established or dying seedlings up through the second year.)

The gross income requirement for acres undergoing Christmas tree harvest in the mountain region of North Carolina (MLRA 130) is $2,000 per acre. Once Christmas trees are harvested from specific acreage, the requirement for those harvested acres will revert to the in-lieu of income requirement.

As an example, if the total amount of acres devoted to Christmas tree production is six acres, three of which are undergoing harvest and three of which have yet to reach maturity, the gross income requirement would be $6,000.

MLRA 136 – Piedmont, MLRA 137 – Sandhills, MLRA 133A – Upper Coastal Plain, MLRA 153A – Lower Coastal Plain, and MLRA 153B – Tidewater.

The in-lieu of income requirement is for acreage in production but not yet undergoing harvest, and will be determined by sound management practices, best evidenced by the following:

1. Sites prepared by controlling problem weeds and saplings, taking soil samples, and applying fertilizer and/or lime as appropriate.

2. Generally, a 7' x 7' spacing producing approximately 900 potential trees per acre. Spacing must allow for adequate air movement around the trees. (There may be variations in the spacing dependent on the species being grown, most likely Virginia Pine, White Pine, Eastern Red Cedar, and Leyland Cypress. All reasonable spacing practices should be acceptable.)

3. A program for insect and weed control.

4. Generally a five-to-six year setting to harvest cycle. (Due to the species being grown, soil conditions and growing practices, most operations are capable of producing trees for market in the five-to-six year range. However, the combined effect of adverse weather and disease outbreak may force greater replanting of damaged trees thereby lengthening the current cycle beyond that considered typical.)

The gross income requirement for acres undergoing Christmas tree harvest in the non-mountain regions of North Carolina (MLRAs 136, 137, 133A, 153A, and 153B) is $1,500 per acre. Once Christmas trees are harvested from specific acreage, the requirement for those harvested acres will revert to the in-lieu of income requirement.

As an example, if the total amount of acres devoted to Christmas tree production is six acres, three of which are undergoing harvest and three of which have yet to reach maturity, the gross income requirement would be $4,500.

Procedure for Forestry Schedules

The charge to the Forestry Group is to develop five net income per-acre ranges for each MLRA based on the ability of the soils to produce timber income. The task is confounded by variable species and stand type; management level, costs and opportunities; markets and stumpage prices; topographies; and landowner objectives across North Carolina.

In an attempt to develop realistic net income per acre in each MLRA, the Forestry Group considered the following items by area:

1. Soil productivity and indicator tree species (or stand type);
2. Average stand establishment and annual management costs;
3. Average rotation length and timber yield; and
4. Average timber stumpage prices.

Having selected the appropriate combinations above, the harvest value (gross income) from a managed rotation on a given soil productivity level can be calculated, netted of costs and amortized to arrive at the net income per acre per year soil expectation value. The ensuing discussion introduces users of this manual to the procedure, literature and software citations and decisions leading to the five forest land classes for each MLRA. Column numbers beside sub-headings refer to columns in the Forestry Net Present Values Table.

Soil Productivity/Indicator Species Selection (Col. 1). Soil productivity in forestry is measured by site index (SI). Site index is the height to which trees of a given species will grow on a given soil/site over a designed period of time (usually 50 or 25 years, depending on species, site or age

of site table). The Forestry Group identified key indicator species (or stand types) for each MLRA and then assigned site index ranges for the indicator species that captured the management opportunities for that region. The site index ranges became the productivity class basis for further calculations of timber yield and generally can be correlated to Natural Resource Conservation Service (NRCS) cubic foot per acre productivity classes for most stand types. By MLRA, the following site index ranges and species/stand types cover the overwhelming majority of soils/sites and management opportunities.

MLRA 153A, 153B, 137, 136, 133A:

Species/Stand Type	SI Range (50 yr. basis)
Loblolly pine	86-104
Loblolly pine	66-85
Loblolly pine	60-65
Mixed hardwoods	Mixed species and site indices on coves, river bottoms, bottomlands
Pond and/or longleaf pine	50-55
Upland hardwoods (MLRA 136)	40-68 (Upland oak)

MLRA 130:

Species/Stand Type	SI Range (50 yr. basis)
White pine	70-89
White pine	55-69
Shortleaf/mixed hardwoods	Mixed species/sites (SI 42-58 shortleaf)
Bottomland/cove hardwoods	Mixed species/site indices on coves and bottoms
Upland oak ridges	40-68

The site index ranges above, in most cases, can be correlated to individual soil series (and series' phases) according to NRCS cubic foot per acre productivity classes. An exception will be the cove, bottomland, river bottom, and other hardwood sites where topographic position must also be

considered. The Soils Group is responsible for assigning soil series to the appropriate class for agriculture, horticulture and forestry.

Stand Establishment and Annual Management Costs (Columns 2 and 3). Stand establishment costs include site preparation and tree planting costs. Costs vary from $0 to over $200 per acre depending on soils, species, and management objectives. No cost would be incurred for natural regeneration (as practiced for hardwoods) with costs increasing as pine plantations are intensively managed on highly productive sites. The second column in the Forestry Net Present Values Table contains average establishment costs for the past five years as reported by the N.C. Forest Service for site classes in each MLRA.

Annual management may include costs of pine release, timber stand improvement activities, prescribed burning, boundary line maintenance, consultant fees and other contractual services. Cost may vary from $0 on typical floodplain or bottomland stands to as high as $6 per acre per year on intensively managed pine plantations. Annual management costs in Forestry Net Present Values Table are the best estimates under average stand management regimes by site class.

Rotation Length and Timber Yields (Columns 4, 5, 6). Saw timber rotations are recommended on all sites in North Carolina. This decision is based on the market situation throughout the state, particularly the scarce markets for low quality and small-diameter pine and hardwood, which normally would be used for pulpwood. Timber thinnings are not available to most woodlot managers and, therefore, rotations are assumed to proceed unthinned until the optimum economic product mix is achieved.

Timber yields are based on the most current yield models developed at the N.C. State University College of Natural Resources for loblolly pine. (Hafley, Smith, and Buford, 1982) and natural hardwood stands (Gardner et al. 1982). White pine yields, mountain mixed stand yields, and upland oak yields are derived from U.S. Forest Service yield models developed by Vimmerstedt (1962) and McClure and Knight. Longleaf and pond pine yields are from Schumacher and Coile (1960).

Timber Stumpage Prices (Columns 7 and 8). Cost of forestry operations are derived from the past five-year regional data (provided by the NC Forest Service). For timber, stumpage prices (prices paid for standing timber to landowners) are derived over the same 5-year period from regional timber price data obtained from Timber Mart-South, Inc, or similar timber price reporting system.

Harvest Values (Column 9). Multiplication of timber yields (columns 5 and 6) times the respective timber stumpage prices (columns 7 and 8) gives the gross harvest value of one rotation.

Annualized Net Present Value (NPV) (Column 10). Harvest values (column 9) are discounted to present value at a 4 percent discount rate, which is consistent with rates used and documented by the U.S. Forest Service, forestry industry and forestry economists. This rate approximates the long-term measures of the opportunity cost of capital in the private sector of the U. S. economy (Row et al. 1981; Gunter and Haney, 1984). The respective establishment costs and the present value of annual management costs are subtracted from the present value of the income to obtain the net

present value of the timber stand. This is then amortized over the life of the rotation to arrive at the annualized net present value (or annual net income) figure.

Forestry Net Present Values

Indicator Species or Stand Types, Lengths of Rotation, Costs, Yields, Price and Annualized Net Present Value per Acre of Land by Site Index Ranges in Each Major Land Resource Area, North Carolina.

(1) Species/Stand Type	(2) Est. Cost	(3) Mgmt. Cost	(4) Rot. Lgth.	(5) Yield	(6) Yield	(7) Price /mbf	(8) Price /cd	(9) Harvest Value	(10) Annualized NPV
	($)	($)	(yrs)	(MBF)	(cds)	($)	($)	($)	($)
MLRAs 153A and 133A (Lower and Upper CP)									
Mixed hardwoods	0	0.0	50	11.5	44	255.42	18.15	3,736	24.47
Loblolly pine (86-104)	373	3.0	30	12	14.4	229.79	26.25	3,135	31.32
Loblolly pine (66-85)	282	2.0	30	7	16.8	229.79	26.25	2,050	18.22
Loblolly pine (60-65)	143	1.0	40	4.8	12.7	229.79	26.25	1,436	6.88
Pond pine (50-55)	50	0.5	50	2.7	20	229.79	26.25	1,145	4.68
Longleaf pine (50-55)	50	0.5	50	3.2	8	229.79	26.25	945	4.02
MLRA 153B (Tidewater)									
Mixed hardwoods	0	0.0	50	8.43	44	255.42	18.15	2,952	19.34
Loblolly pine (86-104)	458	3.0	30	12	14.4	229.79	26.25	3,135	26.40
Loblolly pine (66-85)	282	2.0	30	7	16.8	229.79	26.25	2,050	18.22
Loblolly pine (60-65)	143	1.0	40	4.8	12.7	229.79	26.25	1,436	6.88
Pond pine (low site)	50	0.5	50	2.7	20	229.79	26.25	1,145	4.68
MLRA 137 (Sandhills)									
Mixed hardwoods	0	0.0	50	11.9	46	255.42	18.15	3,874	25.38
Loblolly pine (86-104)	282	3.0	30	12	15.6	229.79	26.25	3,167	37.15
Loblolly pine (66-85)	143	2.0	30	6.4	16.9	229.79	26.25	1,914	23.85
Loblolly pine (60-65)	55	1.0	50	7.2	7	229.79	26.25	1,838	8.48
Longleaf pine (50-55)	55	0.5	50	3.2	8	229.79	26.25	945	3.13

Forestry Net Present Values

Indicator Species or Stand Types, Lengths of Rotation, Costs, Yields, Price and Annualized Net Present Value per Acre of Land by Site Index Ranges in Each Major Land Resource Area, North Carolina.

(1) Species/Stand Type	(2) Est. Cost	(3) Mgmt. Cost	(4) Rot. Lgth.	(5) Yield	(6) Yield	(7) Price /mbf	(8) Price /cd	(9) Harvest Value	(10) Annualized NPV
	($)	($)	(yrs)	(MBF)	(cds)	($)	($)	($)	($)
MLRA 136 (Pied)									
Mixed hardwoods	0	0.0	50	11.9	46	255.42	18.15	3,874	25.38
Loblolly pine (86-104)	294	3.0	30	11.5	15.6	229.79	26.25	3,052	34.40
Loblolly pine (66-85)	157	2.0	30	6.4	16.9	229.79	26.25	1,914	23.03
Loblolly pine (60-65)	55	0.5	40	4.1	15	229.79	26.25	1,336	10.78
Upland hardwoods	0	0.0	50	6.05	32	229.79	26.25	2,230	14.61
MLRA 130 (MTN)									
Mixed hardwoods*	0	0.0	50	10.95	0	374.95	15.82	4,106	26.89
White pine (70-89)	298	2.0	30	17.8	0	188.21	17.79	3,350	40.48
White pine (55-69)	188	1.0	35	8.5	0	188.21	17.79	1,600	10.66
Shortleaf/mixed hwd.	0	0.0	60	6	0	219.30	17.79	1,316	5.53
Upland oak ridge (40-68)	0	0.0	70	5.32	0	374.95	15.82	1,995	5.48

* Coves, riverbottoms, bottomland yields

MLRA 130 – Mountains

Map Unit Name	Agri	For	Hort
Alluvial land, wet	IV	II	IV
Arents, loamy	IV	II	IV
Arkaqua loam, 0 to 2 percent slopes, frequently flooded	IV	II	IV
Arkaqua loam, 0 to 2 percent slopes, occasionally flooded	II	III	II
Arkaqua loam, 0 to 2 percent slopes, rarely flooded	II	III	II
Ashe and Edneyville soils, 6 to 15 percent slopes	IV	I	III
Ashe and Edneyville soils, 15 to 25 percent slopes	IV	I	III
Ashe and Edneyville soils, 25 to 45 percent slopes	IV	I	IV
Ashe fine sandy loam, 6 to 15 percent slopes	IV	III	III
Ashe fine sandy loam, 10 to 25 percent slopes	IV	III	III
Ashe fine sandy loam, 15 to 25 percent slopes	IV	III	III
Ashe fine sandy loam, 25 to 45 percent slopes	IV	III	IV
Ashe gravelly fine sandy loam, 25 to 65 percent slopes	IV	III	IV
Ashe stony fine sandy loam, ALL	IV	III	IV
Ashe stony sandy loam, ALL	IV	III	IV
Ashe-Chestnut-Buladean complex, very stony, ALL	IV	III	IV
Ashe-Cleveland complex, stony, ALL	IV	IV	IV
Ashe-Cleveland-Rock outcrop complex, ALL	IV	IV	IV
Ashe-Rock outcrop complex, 15 to 70 percent slopes	IV	VI	IV
Augusta fine sandy loam, cool variant, 1 to 4 percent slopes (Delanco)	II	I	II
Balsam, ALL	IV	VI	IV
Balsam-Rubble land complex, windswept, ALL	IV	VI	IV
Balsam-Tanasee complex, extremely bouldery, ALL	IV	VI	IV
Bandana sandy loam, 0 to 3 percent slopes, occasionally flooded	II	II	II
Bandana-Ostin complex, 0 to 3 percent slopes, occasionally flooded	III	II	III
Biltmore, ALL	IV	II	IV
Braddock and Hayesville clay loams, eroded, ALL	III	I	III
Braddock clay loam, 2 to 6 percent slopes, eroded	II	I	III
Braddock clay loam, 2 to 8 percent slopes, eroded	II	I	III
Braddock clay loam, 6 to 15 percent slopes, eroded	II	I	III
Braddock clay loam, 8 to 15 percent slopes, eroded	II	I	III
Braddock clay loam, eroded, ALL OTHER	IV	I	III
Braddock clay loam, 15 to 30 percent slopes, eroded, stony	IV	I	IV
Braddock fine sandy loam, 15 to 30 percent slopes	III	I	III
Braddock gravelly loam, 2 to 8 percent slopes	I	I	I
Braddock gravelly loam, 8 to 15 percent slopes	II	I	I
Braddock loam, 2 to 8 percent slopes	I	I	I
Braddock loam, 8 to 15 percent slopes	II	I	I
Braddock-Urban land complex, ALL	IV	I	IV
Bradson gravelly loam, ALL	II	I	I
Brandywine stony soils, ALL	IV	IV	IV
Brasstown-Junaluska complex, 8 to 15 percent slopes	III	IV	III
Brasstown-Junaluska complex, 15 to 30 percent slopes	IV	IV	III
Brasstown-Junaluska complex, ALL OTHER	IV	IV	IV
Brevard fine sandy loam, 1 to 6 percent slopes, rarely flooded	I	I	I
Brevard loam, 2 to 6 percent slopes	I	I	I
Brevard loam, 6 to 10 percent slopes	II	I	I
Brevard loam, 7 to 15 percent slopes	II	I	I
Brevard loam, 10 to 25 percent slopes	IV	I	I
Brevard loam, 15 to 25 percent slopes	IV	I	I
Brevard loam, 25 to 45 percent slopes	IV	I	II
Brevard sandy loam, 8 to 15 percent slopes	II	I	I

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Brevard-Greenlee complex, extremely bouldery, ALL	IV	I	IV
Buladean-Chestnut complex, 15 to 30 percent slopes, stony	IV	I	III
Buladean-Chestnut complex, stony, ALL OTHER	IV	I	IV
Burton stony loam, ALL	IV	V	IV
Burton-Craggey complex, windswept, ALL	IV	VI	IV
Burton-Craggey-Rock outcrop complex, windswept, ALL	IV	VI	IV
Burton-Wayah complex, windswept, ALL	IV	VI	IV
Cashiers fine sandy loam, 2 to 8 percent slopes	II	I	I
Cashiers fine sandy loam, 8 to 15 percent slopes	II	I	II
Cashiers fine sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Cashiers fine sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Cashiers fine sandy loam, 50 to 95 percent slopes, stony	IV	I	IV
Cashiers gravelly fine sandy loam, 8 to 15 percent slopes	II	I	II
Cashiers gravelly fine sandy loam, 15 to 30 percent slopes	IV	I	II
Cashiers gravelly fine sandy loam, 30 to 50 percent slopes	IV	I	III
Cashiers gravelly fine sandy loam, 50 to 95 percent slopes	IV	I	IV
Cashiers sandy loam, 8 to 15 percent slopes, stony	II	I	II
Cashiers sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Cashiers sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Cashiers sandy loam, 50 to 95 percent slopes, stony	IV	I	IV
Cataska-Rock outcrop complex, 30 to 95 percent slopes	IV	VI	IV
Cataska-Sylco complex, 50 to 95 percent slopes	IV	VI	IV
Chandler and Fannin soils, 25 to 45 percent slopes	IV	I	IV
Chandler gravelly fine sandy loam, 8 to 15 percent slopes	IV	III	II
Chandler gravelly fine sandy loam, 15 to 30 percent slopes	IV	III	II
Chandler gravelly fine sandy loam, 30 to 50 percent slopes	IV	III	III
Chandler gravelly fine sandy loam, ALL OTHER	IV	III	IV
Chandler gravelly fine sandy loam, windswept, ALL	IV	VI	IV
Chandler loam, 2 to 8 percent slopes	III	III	II
Chandler loam, 8 to 15 percent slopes	IV	III	II
Chandler loam, 15 to 25 percent slopes	IV	III	III
Chandler loam, 25 to 65 percent slopes	IV	III	IV
Chandler silt loam, 10 to 25 percent slopes	IV	III	II
Chandler silt loam, 25 to 45 percent slopes	IV	III	III
Chandler stony loam, 45 to 70 percent slopes	IV	III	IV
Chandler stony silt loam, ALL	IV	III	IV
Chandler-Micaville complex, 8 to 15 percent slopes	IV	III	II
Chandler-Micaville complex, 15 to 30 percent slopes, stony	IV	III	II
Chandler-Micaville complex, 30 to 50 percent slopes, stony	IV	III	III
Chandler-Micaville complex, 50 to 95 percent slopes, stony	IV	III	IV
Cheoah channery loam, ALL	IV	I	IV
Cheoah channery loam, stony, ALL	IV	I	IV
Cheoah channery loam, windswept, stony	IV	VI	IV
Chester clay loam, 15 to 45 percent slopes, eroded (Evard)	IV	I	III
Chester fine sandy loam, 6 to 15 percent slopes (Evard)	II	I	I
Chester fine sandy loam, 15 to 25 percent slopes (Evard)	II	I	III
Chester fine sandy loam, 25 to 45 percent slopes (Evard)	IV	I	III
Chester loam, 2 to 6 percent slopes	II	I	I
Chester loam, 6 to 10 percent slopes	III	I	I
Chester loam, 10 to 25 percent slopes	IV	I	II
Chester loam, 25 to 45 percent slopes	IV	I	III
Chester stony loam, 10 to 15 percent slopes (Evard)	III	I	III

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Map Unit Name	Agri	For	Hort
Chester stony loam, (Evard), ALL OTHER	IV	I	IV
Chestnut and Edneyville soils, 15 to 25 percent slopes	IV	I	II
Chestnut and Edneyville soils, 25 to 50 percent slopes	IV	I	III
Chestnut gravelly loam, 50 to 80 percent slopes	IV	III	IV
Chestnut-Ashe complex, ALL	IV	III	IV
Chestnut-Buladean complex, 8 to 15 percent slopes, rocky	III	III	III
Chestnut-Buladean complex, stony, ALL	IV	III	IV
Chestnut-Cleveland-Rock outcrop complex, windswept, ALL	IV	VI	IV
Chestnut-Edneyville complex, 8 to 25 percent slopes, stony	IV	III	III
Chestnut-Edneyville complex, 25 to 60 percent slopes, stony	IV	III	IV
Chestnut-Edneyville complex, windswept, stony, ALL	IV	VI	IV
Chestoa-Ditney-Rock outcrop complex, 30 to 95 percent slopes, very bouldery	IV	VI	IV
Cleveland-Chestnut-Rock outcrop complex, windswept, ALL	IV	VI	IV
Cleveland-Rock outcrop complex, 8 to 90 percent slopes	IV	VI	IV
Cliffield-Cowee complex, 15 to 30 percent slopes, very stony	IV	V	IV
Cliffield-Fairview complex, 15 to 25 percent slopes	IV	V	IV
Cliffield-Pigeonroost complex, very stony, ALL	IV	V	IV
Cliffield-Rhodhiss complex, 25 to 60 percent slopes, very stony	IV	V	IV
Cliffield-Rock outcrop complex, 50 to 95 percent slopes	IV	VI	IV
Cliffield-Woolwine complex, 8 to 15 percent slopes	IV	V	IV
Clifton (Evard) stony loam, ALL	IV	I	IV
Clifton clay loam, 8 to 15 percent slopes, eroded	III	I	III
Clifton clay loam, 15 to 30 percent slopes, eroded	IV	I	III
Clifton clay loam, 30 to 50 percent slopes, eroded	IV	I	IIII
Clifton loam, 2 to 8 percent slopes	II	I	I
Clifton loam, 6 to 10 percent slopes	II	I	I
Clifton loam, 8 to 15 percent slopes	II	I	II
Clifton loam, 10 to 25 percent slopes	IV	I	II
Clifton loam, 15 to 25 percent slopes	IV	I	II
Clifton loam, 25 to 45 percent slopes	IV	I	III
Clifton stony loam, 15 to 45 percent slopes	IV	I	IV
Clingman-Craggey-Rock outcrop complex, windswept, 15 to 95 percent slopes, extremely bouldery	IV	VI	IV
Codorus, ALL	II	II	III
Colvard, ALL	I	II	III
Comus, ALL	I	II	III
Cowee gravelly loam, stony, ALL	IV	V	IV
Cowee-Evard-Urban land complex, 15 to 30 percent slopes	IV	III	IV
Cowee-Saluda complex, stony, ALL	IV	V	IV
Craggey-Rock outcrop complex, 40 to 90 percent slopes	IV	VI	IV
Craggey-Rock outcrop-Clingman complex, windswept, rubbly, ALL	IV	VI	IV
Crossnore-Jeffrey complex, very stony, ALL	IV	I	IV
Cullasaja cobbly fine sandy loam, 8 to 30 percent slopes, very bouldery	IV	II	IV
Cullasaja cobbly loam, extremely bouldery, ALL	IV	II	IV
Cullasaja very cobbly fine sandy loam, extremely bouldery, ALL	IV	II	IV
Cullasaja very cobbly loam, extremely bouldery, ALL	IV	II	IV
Cullasaja very cobbly sandy loam, extremely bouldery, ALL	IV	II	IV
Cullasaja-Tuckasegee complex, 8 to 15 percent slopes, stony	IV	II	II
Cullasaja-Tuckasegee complex, 15 to 30 percent slopes, stony	IV	II	II
Cullasaja-Tuckasegee complex, 30 to 50 percent slopes, stony	IV	II	III
Cullasaja-Tuckasegee complex, 50 to 90 percent slopes, stony	IV	II	IV
Cullasaja-Tuckasegee complex, 50 to 95 percent slopes, stony	IV	II	IV

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Map Unit Name	Agri	For	Hort
Cullasaja-Tusquitee complex, 10 to 45 percent slopes	IV	II	III
Cullowhee fine sandy loam, 0 to 2 percent slopes, occasionally flooded	II	II	II
Cullowhee, frequently flooded, ALL	IV	II	IV
Cullowhee-Nikwasi complex, 0 to 2 percent slopes, frequently flooded	IV	II	IV
Delanco (Dillard) loam, ALL	I	I	I
Delanco fine sandy loam, 2 to 6 percent slopes	II	I	I
Dellwood gravelly fine sandy loam, 0 to 5 percent slopes, frequently flooded	IV	II	IV
Dellwood, occasionally flooded, ALL	III	II	III
Dellwood-Reddies complex, 0 to 3 percent slopes, occasionally flooded	III	II	III
Dellwood-Urban land complex, 0 to 3 percent slopes, occasionally flooded	IV	II	IV
Dillard, ALL	I	I	I
Dillsboro clay loam, 2 to 8 percent slopes	I	I	I
Dillsboro clay loam, 8 to 15 percent slopes, rarely flooded	II	I	II
Dillsboro clay loam, 8 to 15 percent slopes, stony	III	I	II
Dillsboro clay loam, 15 to 30 percent slopes, stony	IV	I	II
Dillsboro loam, 2 to 8 percent slopes	I	I	I
Dillsboro loam, 8 to 15 percent slopes	II	I	II
Dillsboro-Urban land complex, 2 to 15 percent slopes	IV	I	IV
Ditney-Unicoi complex, very stony, ALL	IV	VI	IV
Ditney-Unicoi complex, 50 to 95 percent slopes, very rocky	IV	VI	IV
Ditney-Unicoi-Rock outcrop complex, ALL	IV	VI	IV
Edneytown gravelly sandy loam, 8 to 25 percent slopes	IV	I	III
Edneytown-Chestnut complex, 30 to 50 percent slopes, stony	IV	I	III
Edneytown-Chestnut complex, 50 to 80 percent slopes, stony	IV	I	IV
Edneytown-Pigeonroost complex, 8 to 15 percent slopes, stony	III	I	III
Edneytown-Pigeonroost complex, 15 to 30 percent slopes, stony	IV	I	III
Edneytown-Pigeonroost complex, 30 to 50 percent slopes, stony	IV	I	IV
Edneyville (Edneytown) fine sandy loam, 7 to 15 percent slopes	III	I	III
Edneyville (Edneytown) fine sandy loam, 15 to 25 percent slopes	IV	I	IV
Edneyville (Edneytown) fine sandy loam, 25 to 45 percent slopes	IV	I	IV
Edneyville loam, 15 to 25 percent slopes	IV	I	II
Edneyville loam, 25 to 45 percent slopes	IV	I	III
Edneyville stony loam, 45 to 70 percent slopes	IV	I	IV
Edneyville-Chestnut complex, 2 to 8 percent slopes, stony	III	I	III
Edneyville-Chestnut complex, 8 to 15 percent slopes, stony	IV	I	III
Edneyville-Chestnut complex, 10 to 25 percent slopes, stony	IV	I	III
Edneyville-Chestnut complex, 15 to 30 percent slopes, stony	IV	I	III
Edneyville-Chestnut complex, ALL OTHER	IV	I	IV
Edneyville-Chestnut-Urban land complex, ALL	IV	I	IV
Ellijay silty clay loam, 2 to 8 percent slopes, eroded	III	I	I
Ellijay silty clay loam, 8 to 15 percent slopes, eroded	IV	I	I
Ellijay silty clay loam, eroded, ALL OTHER	IV	I	II
Elsinboro loam, ALL	I	I	I
Eutrochrepts, mined, 30 to 50 percent slopes, very stony	IV	VI	IV
Evard and Saluda fine sandy loams, 25 to 60 percent slopes	IV	I	IV
Evard fine sandy loam, 7 to 15 percent slopes	III	I	II
Evard fine sandy loam, 15 to 25 percent slopes	IV	I	II
Evard fine sandy loam, 25 to 50 percent slopes	IV	I	III
Evard gravelly sandy loam, 6 to 15 percent slopes	III	I	II
Evard gravelly sandy loam, 15 to 25 percent slopes	IV	I	III
Evard loam, ALL	IV	I	IV
Evard soils, 15 to 25 percent slopes	IV	I	III

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Map Unit Name	Agri	For	Hort
Evard soils, ALL OTHER	IV	I	IV
Evard stony loam, 25 to 60 percent slopes	IV	I	IV
Evard-Cowee complex, 2 to 8 percent slopes	III	I	II
Evard-Cowee complex, 8 to 15 percent slopes	III	I	II
Evard-Cowee complex, 8 to 15 percent slopes, eroded	III	I	II
Evard-Cowee complex, 8 to 25 percent slopes, stony	IV	I	III
Evard-Cowee complex, ALL OTHER	IV	I	IV
Evard-Cowee-Urban land complex, ALL	IV	I	IV
Fannin fine sandy loam, 8 to 15 percent slopes	III	I	I
Fannin fine sandy loam, 15 to 30 percent slopes	IV	I	II
Fannin fine sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Fannin fine sandy loam, 30 to 50 percent slopes	IV	I	II
Fannin fine sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Fannin fine sandy loam, 50 to 95 percent slopes	IV	I	III
Fannin loam, 8 to 15 percent slopes	III	I	II
Fannin loam, 15 to 25 percent slopes	IV	I	III
Fannin loam, 25 to 45 percent slopes	IV	I	III
Fannin loam, 30 to 50 percent slopes, eroded	IV	I	III
Fannin loam, 45 to 70 percent slopes	IV	I	IV
Fannin sandy clay loam, 8 to 15 percent slopes, eroded	III	I	II
Fannin sandy clay loam, eroded, ALL OTHER	IV	I	III
Fannin silt loam, 6 to 10 percent slopes, eroded	III	I	II
Fannin silt loam, 7 to 15 percent slopes	III	I	II
Fannin silt loam, 10 to 25 percent slopes, eroded	IV	I	III
Fannin silt loam, 15 to 25 percent slopes	IV	I	III
Fannin silt loam, 25 to 45 percent slopes	IV	I	III
Fannin silty clay loam, 15 to 45 percent slopes, eroded	IV	I	IV
Fannin-Chestnut complex, 50 to 85 percent slopes, rocky	IV	I	IV
Fannin-Cowee complex, 15 to 30 percent slopes, stony	IV	I	III
Fannin-Cowee complex, stony, ALL OTHER	IV	I	IV
Fannin-Urban land complex, 2 to 15 percent slopes	IV	I	IV
Fletcher and Fannin soils, 6 to 15 percent slopes	III	I	II
Fletcher and Fannin soils, 15 to 25 percent slopes	IV	I	II
Fluvaquents-Udifluvents complex, occasionally flooded, ALL	III	II	IV
Fontaflora-Ostin complex	IV	II	IV
French fine sandy loam, 0 to 3 percent slopes, frequently flooded	IV	II	IV
Greenlee ALL	IV	I	IV
Greenlee-Ostin complex, 3 to 40 percent slopes, very stony	IV	I	IV
Greenlee-Tate complex, ALL	IV	I	IV
Greenlee-Tate-Ostin complex, 1 to 15 percent slopes, extremely stony	IV	I	IV
Gullied land	IV	VI	IV
Harmiller-Shinbone complex, 15 to 30 percent slopes, stony	IV	III	III
Harmiller-Shinbone complex, 30 to 50 percent slopes, stony	IV	III	III
Hatboro loam	IV	II	IV
Hayesville channery fine sandy loam, 8 to 15 percent slopes, very stony	IV	I	II
Hayesville channery fine sandy loam, 15 to 25 percent slopes, very stony	IV	I	III
Hayesville channery fine sandy loam, 25 to 60 percent slopes, very stony	IV	I	IV
Hayesville clay loam, 2 to 8 percent slopes, eroded	III	I	II
Hayesville clay loam, 6 to 15 percent slopes, eroded	IV	I	II
Hayesville clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Hayesville clay loam, 10 to 25 percent slopes, severely eroded	IV	I	III
Hayesville clay loam, 15 to 30 percent slopes, eroded	IV	I	III

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Map Unit Name	Agri	For	Hort
Hayesville fine sandy loam, 6 to 15 percent slopes	III	I	I
Hayesville fine sandy loam, 8 to 15 percent slopes	III	I	I
Hayesville fine sandy loam, 15 to 25 percent slopes	III	I	II
Hayesville fine sandy loam, 15 to 30 percent slopes	III	I	II
Hayesville fine sandy loam, 25 to 50 percent slopes	IV	I	III
Hayesville loam, 2 to 7 percent slopes	II	I	I
Hayesville loam, 2 to 8 percent slopes	II	I	I
Hayesville loam, 6 to 10 percent slopes	II	I	I
Hayesville loam, 6 to 15 percent slopes	III	I	I
Hayesville loam, 7 to 15 percent slopes	III	I	I
Hayesville loam, 8 to 15 percent slopes	III	I	I
Hayesville loam, 10 to 25 percent slopes	III	I	II
Hayesville loam, 15 to 25 percent slopes	III	I	II
Hayesville loam, 15 to 30 percent slopes	III	I	II
Hayesville sandy clay loam, 15 to 30 percent slopes, eroded	IV	I	III
Hayesville sandy clay loam, eroded, ALL OTHER	III	I	II
Hayesville-Evard complex, 15 to 25 percent slopes	III	I	II
Hayesville-Evard-Urban land complex, 15 to 25 percent slopes	IV	I	IV
Hayesville-Sauratown complex, 2 to 8 percent slopes	II	I	II
Hayesville-Sauratown complex, 8 to 15 percent slopes	III	I	II
Hayesville-Sauratown complex, 15 to 25 percent slopes	III	I	III
Hayesville-Sauratown complex, 25 to 60 percent slopes	IV	I	III
Hayesville-Urban land complex, ALL	IV	I	IV
Haywood stony loam, 15 to 25 percent slopes	IV	I	III
Haywood stony loam, 25 to 50 percent slopes	IV	I	IV
Hemphill, rarely flooded, ALL	IV	II	IV
Humaquepts, loamy, 2 to 8 percent slopes, stony	IV	II	IV
Huntdale clay loam, 8 to 15 percent slopes, stony	III	I	II
Huntdale clay loam, 15 to 30 percent slopes, stony	IV	I	II
Huntdale clay loam, 30 to 50 percent slopes, stony	IV	I	III
Huntdale silty clay loam, 15 to 30 percent slopes, stony	IV	I	II
Huntdale silty clay loam, 30 to 50 percent slopes, very stony	IV	I	III
Huntdale silty clay loam, 50 to 95 percent slopes, very stony	IV	I	IV
Iotla sandy loam, 0 to 2 percent slopes, occasionally flooded	II	II	III
Junaluska-Brasstown complex, 6 to 25 percent slopes	IV	IV	II
Junaluska-Brasstown complex, 15 to 30 percent slopes	IV	IV	III
Junaluska-Brasstown complex, 25 to 60 percent slopes	IV	IV	III
Junaluska-Brasstown complex, 30 to 50 percent slopes	IV	IV	IV
Junaluska-Tsali complex, ALL	IV	IV	IV
Keener-Lostcove complex, 15 to 30 percent slopes, very stony	IV	I	III
Keener-Lostcove complex, 30 to 50 percent slopes, very stony	IV	I	IV
Kinkora loam	IV	I	III
Lonon loam, 2 to 8 percent slopes	I	I	I
Lonon loam, 8 to 15 percent slopes	II	I	I
Lonon loam, 15 to 30 percent slopes	IV	I	II
Lonon-Northcove complex, 6 to 15 percent slopes	IV	I	III
Maymead fine sandy loam, ALL	IV	I	II
Maymead-Greenlee-Potomac complex, 3 to 25 percent slopes	IV	I	IV
Nikwasi, ALL	IV	II	IV
Northcove very cobbly loam, ALL	IV	I	IV
Northcove-Maymead complex, extremely stony, ALL	IV	I	IV
Oconaluftee channery loam, ALL	IV	VI	IV

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Map Unit Name	Agri	For	Hort
Oconaluftee channery loam, windswept, ALL	IV	VI	IV
Ostin, occasionally flooded, ALL	IV	II	IV
Pigeonroost-Edneytown complex, stony, ALL	IV	I	III
Pineola gravelly loam, 2 to 8 percent slopes	IV	I	II
Pineola gravelly loam, 8 to 15 percent slopes, stony	IV	I	II
Pineola gravelly loam, 15 to 30 percent slopes, stony	IV	I	III
Pits, ALL	IV	VI	IV
Plott fine sandy loam, 8 to 15 percent slopes, stony	III	I	II
Plott fine sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Plott fine sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Plott fine sandy loam, 50 to 95 percent slopes, stony	IV	I	IV
Plott loam, 15 to 30 percent slopes, stony	IV	I	II
Plott loam, 30 to 50 percent slopes, stony	IV	I	III
Plott loam, 50 to 95 percent slopes, stony	IV	I	IV
Ponzer muck, cool variant	IV	VI	IV
Porters gravelly loam, 8 to 15 percent slopes, stony	III	I	II
Porters gravelly loam, 15 to 30 percent slopes, stony	IV	I	II
Porters gravelly loam, 30 to 50 percent slopes, stony	IV	I	III
Porters gravelly loam, 50 to 80 percent slopes, stony	IV	I	IV
Porters loam, 25 to 45 percent slopes	IV	I	III
Porters loam, 25 to 80 percent slopes, stony	IV	I	IV
Porters loam, 30 to 50 percent slopes, stony	IV	I	IV
Porters loam, ALL OTHER	IV	I	II
Porters stony loam, 10 to 25 percent slopes	IV	I	II
Porters stony loam, 15 to 25 percent slopes	IV	I	II
Porters stony loam, 15 to 45 percent slopes	IV	I	II
Porters stony loam, 25 to 45 percent slopes	IV	I	III
Porters stony loam, ALL OTHER	IV	I	IV
Porters-Unaka complex, 8 to 15 percent slopes, stony	IV	I	II
Porters-Unaka complex, 15 to 30 percent slopes, stony	IV	I	II
Porters-Unaka complex, 30 to 50 percent slopes, stony	IV	I	III
Porters-Unaka complex, 50 to 95 percent slopes, rocky	IV	I	IV
Potomac, frequently flooded, ALL	IV	II	IV
Potomac-Iotla complex, 0 to 3 percent slopes, mounded, frequently flooded	IV	II	IV
Rabun loam, 6 to 25 percent slopes	IV	I	II
Rabun loam, 25 to 50 percent slopes	IV	I	III
Reddies, occasionally flooded	II	II	II
Reddies, frequently flooded, ALL	IV	II	IV
Rock outcrop	IV	VI	IV
Rock outcrop-Ashe complex, ALL	IV	VI	IV
Rock outcrop-Ashe-Cleveland complex, ALL	IV	VI	IV
Rock outcrop-Cataska complex, ALL	IV	VI	IV
Rock outcrop-Cleveland complex, ALL	IV	VI	IV
Rock outcrop-Cleveland complex, windswept, ALL	IV	VI	IV
Rock outcrop-Craggey complex, windswept, ALL	IV	VI	IV
Rosman, frequently flooded, ALL	IV	II	IV
Rosman, ALL OTHER	I	II	I
Rosman-Reddies complex, 0 to 3 percent slopes, occasionally flooded	I	II	I
Saunook gravelly loam, 2 to 8 percent slopes	I	I	I
Saunook gravelly loam, 8 to 15 percent slopes	I	I	I
Saunook gravelly loam, 8 to 15 percent slopes, stony	II	I	II
Saunook gravelly loam, 15 to 30 percent slopes	IV	I	II

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Map Unit Name	Agri	For	Hort
Saunook gravelly loam, 15 to 30 percent slopes, stony	IV	I	II
Saunook gravelly loam, 30 to 50 percent slopes, stony	IV	I	III
Saunook loam, 2 to 8 percent slopes	I	I	I
Saunook loam, 8 to 15 percent slopes	I	I	I
Saunook loam, 8 to 15 percent slopes, stony	II	I	II
Saunook loam, 15 to 30 percent slopes, stony	IV	I	II
Saunook loam, 15 to 30 percent slopes, very stony	IV	I	III
Saunook loam, 30 to 50 percent slopes, very stony	IV	I	IV
Saunook sandy loam, 2 to 8 percent slopes	I	I	I
Saunook sandy loam, 8 to 15 percent slopes, stony	II	I	II
Saunook silt loam, 2 to 8 percent slopes	I	I	I
Saunook silt loam, 8 to 15 percent slopes, stony	II	I	II
Saunook-Nikwasi complex, 2 to 15 percent slopes	IV	I	III
Saunook-Thunder complex, ALL	IV	I	III
Saunook-Urban land complex, 2 to 15 percent slopes	IV	I	IV
Sauratown channery fine sandy loam, 8 to 15 percent slopes	IV	V	III
Sauratown channery fine sandy loam, 8 to 15 percent slopes, very stony	IV	V	III
Sauratown channery fine sandy loam, ALL OTHER	IV	V	IV
Soco-Cataska-Rock outcrop complex, 50 to 95 percent slopes	IV	VI	IV
Soco-Ditney complex, 6 to 25 percent slopes, stony	IV	III	III
Soco-Ditney complex, 8 to 15 percent slopes, very stony	IV	III	III
Soco-Ditney complex, 15 to 30 percent slopes, very stony	IV	III	III
Soco-Ditney complex, ALL OTHER	IV	III	IV
Soco-Stecoah complex, 8 to 15 percent slopes, stony	IV	III	II
Soco-Stecoah complex, 15 to 30 percent slopes	IV	III	III
Soco-Stecoah complex, 15 to 30 percent slopes, stony	IV	III	III
Soco-Stecoah complex, ALL OTHER	IV	III	IV
Soco-Stecoah complex, windswept, 30 to 50 percent slopes	IV	VI	IV
Spivey cobbly loam, extremely bouldery, ALL	IV	I	IV
Spivey stony loam, 10 to 40 percent slopes	IV	I	IV
Spivey-Santeetlah complex, 8 to 15 percent slopes, stony	IV	I	III
Spivey-Santeetlah complex, 15 to 30 percent slopes, stony	IV	I	III
Spivey-Santeetlah complex, stony, ALL OTHER	IV	I	IV
Spivey-Whiteoak complex, ALL	IV	I	IV
Statler, rarely flooded, ALL	I	I	I
Stecoah-Soco complex, 15 to 30 percent slopes, stony	IV	I	III
Stecoah-Soco complex, 30 to 50 percent slopes, stony	IV	I	III
Stecoah-Soco complex, 50 to 80 percent slopes, stony	IV	I	IV
Stony colluvial land	IV	II	IV
Stony land	IV	VI	IV
Stony steep land	IV	VI	IV
Suncook loamy sand, ALL	IV	II	II
Sylco-Cataska complex, ALL	IV	IV	IV
Sylco-Rock outcrop complex, 50 to 95 percent slopes	IV	IV	IV
Sylco-Soco complex, 10 to 30 percent slopes, stony	IV	IV	IV
Sylva-Whiteside complex, ALL	IV	I	II
Talladega, ALL	IV	IV	IV
Tanasee-Balsam complex, ALL	IV	VI	IV
Tate fine sandy loam, 2 to 6 percent slopes	I	I	I
Tate fine sandy loam, 2 to 7 percent slopes	I	I	I
Tate fine sandy loam, 2 to 8 percent slopes	I	I	I
Tate fine sandy loam, 2 to 8 percent slopes, very stony	IV	I	II

MLRA 130 – Mountains

Map Unit Name	Agri	For	Hort
Tate fine sandy loam, 6 to 15 percent slopes	II	I	I
Tate fine sandy loam, 7 to 15 percent slopes	II	I	I
Tate fine sandy loam, 8 to 15 percent slopes	II	I	I
Tate fine sandy loam, 8 to 25 percent slopes	IV	I	II
Tate fine sandy loam, 15 to 25 percent slopes	IV	I	II
Tate gravelly loam, 8 to 15 percent slopes	II	I	I
Tate gravelly loam, 8 to 15 percent slopes, stony	II	I	II
Tate gravelly loam, 15 to 30 percent slopes, stony	IV	I	II
Tate loam, 2 to 6 percent slopes	I	I	I
Tate loam, 2 to 8 percent slopes	I	I	I
Tate loam, 6 to 10 percent slopes	II	I	I
Tate loam, 6 to 15 percent slopes	II	I	I
Tate loam, 8 to 15 percent slopes	II	I	I
Tate loam, 10 to 15 percent slopes	II	I	I
Tate loam, 15 to 25 percent slopes	IV	I	II
Tate loam, 15 to 30 percent slopes	IV	I	II
Tate-Cullowhee complex, 0 to 25 percent slopes	IV	I	II
Tate-French complex, 2 to 10 percent slopes	II	I	II
Tate-Greenlee complex, ALL	IV	I	IV
Thunder-Saunook complex, ALL	IV	II	IV
Toecane-Tusquitee complex, ALL	IV	II	III
Toxaway, ALL	IV	II	IV
Transylvania silt loam	I	II	II
Trimont gravelly loam, ALL	IV	I	IV
Tuckasegee-Cullasaja complex, 8 to 15 percent slopes, stony	IV	II	III
Tuckasegee-Cullasaja complex, 15 to 30 percent slopes, very stony	IV	II	IV
Tuckasegee-Cullasaja complex, 30 to 50 percent slopes, extremely stony	IV	II	IV
Tuckasegee-Whiteside complex, 2 to 8 percent slopes	I	II	I
Tuckasegee-Whiteside complex, 8 to 15 percent slopes	II	II	I
Tusquitee and Spivey stony soils, ALL	IV	I	IV
Tusquitee loam, 6 to 10 percent slopes	I	I	I
Tusquitee loam, 6 to 15 percent slopes	II	I	I
Tusquitee loam, 7 to 15 percent slopes	II	I	I
Tusquitee loam, 8 to 15 percent slopes	II	I	I
Tusquitee loam, 10 to 15 percent slopes	II	I	I
Tusquitee loam, 15 to 25 percent slopes	IV	I	II
Tusquitee stony loam, 25 to 45 percent slopes	IV	I	IV
Tusquitee stony loam, ALL OTHER	IV	I	III
Udifluvents, frequently flooded, ALL	IV	II	IV
Udorthents, loamy, ALL	IV	V	IV
Udorthents-Pits complex, mounded, 0 to 2 percent slopes, occasionally flooded	IV	V	IV
Udorthents-Urban land complex, ALL	IV	V	IV
Unaka-Porters complex, very rocky, ALL	IV	V	IV
Unaka-Rock outcrop complex, 50 to 95 percent slopes, very bouldery	IV	VI	IV
Unicoi-Rock outcrop complex, 30 to 95 percent slopes, extremely bouldery	IV	V	IV
Unison fine sandy loam, 2 to 8 percent slopes	I	I	I
Unison fine sandy loam, 8 to 15 percent slopes	II	I	I
Unison fine sandy loam, 15 to 25 percent slopes	IV	I	II
Unison loam, 2 to 8 percent slopes	I	I	I
Unison loam, 8 to 15 percent slopes	II	I	I
Unison loam, 15 to 30 percent slopes	IV	I	II
Urban land	IV	VI	II

MLRA 130 – Mountains

Map Unit Name	Agri	For	Hort
Watauga loam, 6 to 10 percent slopes	III	I	II
Watauga loam, 6 to 15 percent slopes	III	I	II
Watauga loam, 8 to 15 percent slopes	III	I	II
Watauga loam, ALL OTHER	IV	I	III
Watauga sandy loam, 8 to 15 percent slopes, stony	III	I	II
Watauga sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Watauga sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Watauga stony loam, 15 to 45 percent slopes	IV	I	IV
Wayah loam, windswept, eroded, stony, ALL	IV	VI	IV
Wayah sandy loam, stony, ALL	IV	V	IV
Wayah sandy loam, windswept, stony, ALL	IV	VI	IV
Wayah-Burton complex, 15 to 30 percent slopes, bouldery	IV	V	IV
Wayah-Burton complex, 30 to 50 percent slopes, bouldery	IV	V	IV
Wayah-Burton complex, 50 to 95 percent slopes, very rocky	IV	V	IV
Wayah-Burton complex, windswept, ALL	IV	V	IV
Whiteoak cobbly loam, 8 to 15 percent slopes, stony	II	I	II
Whiteoak cobbly loam, 15 to 30 percent slopes, stony	IV	I	III
Whiteoak fine sandy loam, 2 to 8 percent slopes	I	I	I
Whiteoak fine sandy loam, 8 to 15 percent slopes, stony	II	I	II
Whiteoak fine sandy loam, 15 to 30 percent slopes, very stony	IV	I	III
Whiteside-Tuckasegee complex, 2 to 8 percent slopes	I	I	I

MLRA133A - Upper Coastal Plain

Map Unit Name	Agri	For	Hort
Alluvial land, wet	III	III	III
Alpin, ALL	IV	II	IV
Altavista. ALL	I	I	I
Altavista-Urban land complex, 0 to 3 percent slopes, rarely flooded	IV	I	IV
Augusta, ALL	I	I	I
Autryville loamy sand, ALL	III	II	III
Autryville, ALL OTHER	IV	II	IV
Autryville-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Aycock very fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Aycock, ALL OTHER	I	II	I
Ballahack fine sandy loam	I	I	I
Barclay very fine sandy loam	I	I	I
Bethera loam, 0 to 1 percent slopes	II	I	II
Bibb and Johnston soils, frequently flooded	IV	III	IV
Bibb, ALL	IV	III	IV
Blaney, ALL	IV	II	IV
Blanton, ALL	IV	V	IV
Bojac loamy fine sand, 0 to 3 percent slopes	III	II	III
Bonneau loamy fine sand, 0 to 4 percent slopes	II	II	II
Bonneau loamy sand, 0 to 4 percent slopes	II	II	II
Bonneau loamy sand, 0 to 6 percent slopes	II	II	II
Bonneau loamy sand, 6 to 12 percent slopes	III	II	III
Bonneau sand, 0 to 3 percent slopes	II	II	II
Butters fine sand, 0 to 2 percent slopes	II	II	II
Butters loamy sand, 0 to 2 percent slopes	II	II	II
Byars loam	II	I	II
Candor sand, 1 to 8 percent slopes	IV	V	IV
Candor sand, 8 to 15 percent slopes	IV	V	IV
Cape Fear loam	I	I	I
Caroline sandy loam, 0 to 2 percent slopes	II	II	II
Caroline sandy loam, 2 to 6 percent slopes	II	II	II
Centenary sand	IV	II	IV
Chastain and Bibb soils, 0 to 1 percent slopes, frequently flooded	IV	III	IV
Chastain silt loam, frequently flooded	IV	III	IV
Chewacla and Chastain soils, frequently flooded	IV	III	IV
Chewacla and Congaree loams, frequently flooded	III	III	III
Chewacla and Wehadkee soils, 0 to 1 percent slopes, frequently flooded	IV	III	IV
Chewacla loam	II	III	II
Chewacla loam, 0 to 1 percent slopes, occasionally flooded	II	III	II
Chewacla loam, frequently flooded	IV	III	IV
Chewacla silt loam	II	III	II
Chipley loamy sand (Pactolus)	IV	II	IV
Chipley sand, 0 to 2 percent slopes	IV	II	IV
Conetoe loamy sand, ALL	III	II	III
Congaree silt loam	I	III	I
Congaree silt loam, frequently flooded	I	III	I
Cowarts loamy sand, 2 to 6 percent slopes	II	I	II
Cowarts loamy sand, 6 to 10 percent slopes	III	I	III
Cowarts sandy loam, 6 to 12 percent slopes, eroded	IV	I	IV
Coxville loam	II	I	II
Coxville sandy loam	II	I	II
Craven fine sandy loam, 0 to 1 percent slopes	II	I	II

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Map Unit Name	Agri	For	Hort
Craven fine sandy loam, 1 to 4 percent slopes	II	I	II
Craven fine sandy loam, 4 to 10 percent slopes	III	I	III
Craven loam, 1 to 4 percent slopes	II	I	II
Craven sandy clay loam, 1 to 4 percent slopes, eroded	II	I	II
Craven sandy loam, 2 to 6 percent slopes, eroded	II	I	II
Craven sandy loam, 2 to 6 percent slopes, eroded (Gritney)	II	I	II
Craven sandy loam, 6 to 10 percent slopes, eroded (Gritney)	III	I	III
Craven-Urban land complex, 0 to 4 percent slopes	IV	I	IV
Croatan muck	I	V	I
Deloss loam	I	III	I
Dogue, ALL	II	I	II
Dothan loamy sand, 2 to 6 percent slopes	II	I	II
Dothan, ALL OTHER	I	I	I
Dragston loamy sand	I	III	I
Dunbar, ALL	II	I	II
Duplin, ALL	II	I	II
Duplin-Urban land complex, 0 to 5 percent slopes	IV	I	IV
Dystrochrepts, steep	IV	II	IV
Emporia, ALL	II	II	II
Emporia-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Emporia-Wedowee complex, 2 to 6 percent slopes	II	II	II
Eustis, ALL	IV	II	IV
Exum, ALL	I	II	I
Faceville fine sandy loam, ALL	II	II	II
Faceville loamy sand, 6 to 10 percent slopes, eroded	IV	II	IV
Faceville loamy sand, ALL OTHER	II	II	II
Faceville sandy loam, 0 to 2 percent slopes	II	II	II
Faceville sandy loam, 2 to 6 percent slopes	II	II	II
Faceville sandy loam, 2 to 6 percent slopes, eroded	III	II	III
Faceville sandy loam, 6 to 10 percent slopes, eroded	IV	II	IV
Faceville-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Foreston loamy sand, ALL	II	II	II
Fuquay, ALL	IV	II	IV
Gilead loamy sand, 0 to 2 percent slopes	III	II	III
Gilead loamy sand, 10 to 15 percent slopes	IV	II	IV
Gilead loamy sand, 2 to 6 percent slopes	IV	II	IV
Gilead loamy sand, 2 to 6 percent slopes, eroded	III	II	III
Gilead loamy sand, 6 to 10 percent slopes	IV	II	IV
Gilead loamy sand, 6 to 10 percent slopes, eroded	IV	II	IV
Gilead sandy loam, 2 to 8 percent slopes	III	II	III
Gilead sandy loam, 8 to 15 percent slopes	IV	II	IV
Goldsboro, ALL	I	I	I
Goldsboro-Urban land complex, ALL	IV	I	IV
Grantham, ALL	I	I	I
Grantham-Urban land complex	IV	I	IV
Grifton-Meggett complex, occasionally flooded	IV	I	IV
Gritney fine sandy loam, 2 to 6 percent slopes	II	II	II
Gritney fine sandy loam, 2 to 7 percent slopes	II	II	II
Gritney fine sandy loam, 4 to 8 percent slopes	III	II	III
Gritney fine sandy loam, 5 to 12 percent slopes, eroded	IV	II	IV
Gritney fine sandy loam, 6 to 10 percent slopes	III	II	III
Gritney fine sandy loam, 7 to 15 percent slopes	IV	II	IV

MLRA133A - Upper Coastal Plain

Map Unit Name	Agri	For	Hort
Gritney fine sandy loam, 10 to 15 percent slopes	IV	II	IV
Gritney loamy fine sand, 2 to 7 percent slopes	II	II	II
Gritney sandy clay loam, ALL	III	II	III
Gritney sandy loam, 2 to 5 percent slopes, eroded	III	II	III
Gritney sandy loam, 2 to 6 percent slopes	II	II	II
Gritney sandy loam, 5 to 12 percent slopes, eroded	IV	II	IV
Gritney sandy loam, 6 to 10 percent slopes	III	II	III
Gritney-Urban land complex, 2 to 12 percent slopes	IV	II	IV
Hoffman loamy sand, 6 to 10 percent slopes, eroded (Gilead)	IV	II	IV
Hoffman loamy sand, 10 to 20 percent slopes (Gilead)	III	II	III
Johns, ALL	II	I	II
Johnston, ALL	IV	III	IV
Kalmia loamy sand, 0 to 2 percent slopes	II	II	II
Kalmia loamy sand, 0 to 3 percent slopes	II	II	II
Kalmia loamy sand, 2 to 6 percent slopes	II	II	II
Kalmia loamy sand, 10 to 15 percent slopes	III	II	III
Kalmia loamy sand, 15 to 25 percent slopes	IV	II	IV
Kenansville, ALL	III	II	III
Kinston, ALL	IV	III	IV
Kureb sand, 1 to 8 percent slopes	IV	V	IV
Lakeland, ALL	IV	V	IV
Leaf loam	III	I	III
Lenoir loam	III	I	III
Leon sand, ALL	IV	V	IV
Liddell very fine sandy loam	I	I	I
Lillington-Turbeville complex, 8 to 15 percent slopes	III	II	III
Lucy loamy sand	II	II	II
Lumbee, ALL	II	I	II
Lynchburg, ALL	I	I	I
Lynchburg-Urban land complex	IV	I	IV
Lynn Haven and Torhunta soils	II	II	II
Mantachie soils, local alluvium	II	III	II
Marlboro, ALL	II	II	II
Marlboro-Cecil complex, 2 to 8 percent slopes	II	II	II
Marvyn and Gritney soils. 6 to 15 percent slopes	IV	I	IV
Marvyn loamy sand, 6 to 12 percent slopes	IV	I	IV
Maxton loamy sand, 0 to 2 percent slopes	II	II	II
McColl loam	III	II	III
McQueen loam, 1 to 6 percent slopes	II	II	II
Meggett, ALL	IV	I	IV
Muckalee, ALL	IV	III	IV
Myatt very fine sandy loam	II	I	II
Nahunta, ALL	I	I	I
Nankin ,ALL	II	II	II
Nixonton very fine sandy loam	I	I	I
Norfolk and Faceville soils, 6 to 10 percent slopes	II	II	II
Norfolk loamy fine sand, ALL	I	II	I
Norfolk loamy sand, 0 to 2 percent slopes	I	II	I
Norfolk loamy sand, 2 to 6 percent slopes	I	II	I
Norfolk loamy sand, 2 to 6 percent slopes, eroded	II	II	II
Norfolk loamy sand, 6 to 10 percent slopes	II	II	II
Norfolk loamy sand, 6 to 10 percent slopes, eroded	III	II	III

MLRA133A - Upper Coastal Plain

Map Unit Name	Agri	For	Hort
Norfolk sandy loam, 0 to 2 percent slopes	I	II	I
Norfolk sandy loam, 2 to 6 percent slopes	I	II	I
Norfolk sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Norfolk sandy loam, 6 to 10 percent slopes	II	II	II
Norfolk, Georgeville, and Faceville soils, 2 to 8 percent slopes	II	II	II
Norfolk-Urban land complex, 0 to 3 percent slopes	IV	II	IV
Norfolk-Wedowee complex, 2 to 6 percent slopes	II	II	II
Ocilla, ALL	III	II	III
Okenee loam (Paxville)	II	III	II
Orangeburg loamy sand, eroded, ALL	II	II	II
Orangeburg loamy sand, ALL OTHER	I	II	I
Pactolus, ALL	IV	II	IV
Pamlico muck	III	V	III
Pantego, ALL	I	I	I
Paxville fine sandy loam	II	III	II
Paxville loam	II	III	II
Peawick, ALL	II	II	II
Pits-Tarboro complex	IV	VI	IV
Plummer and Osier soils	IV	I	IV
Plummer, ALL	IV	V	IV
Pocalla loamy sand, 0 to 3 percent slopes	III	II	III
Polawana loamy sand, frequently flooded	IV	III	IV
Ponzer muck, siliceous subsoil variant	I	V	I
Portsmouth, ALL	I	I	I
Rains, ALL	I	I	I
Rains-Toisnot complex, 0 to 2 percent slopes	IV	I	IV
Rains-Urban land complex, ALL	IV	I	IV
Rimini sand	IV	V	IV
Riverview loam, 0 to 1 percent slopes, occasionally flooded	I	III	I
Roanoke and Wahee loams	II	III	II
Roanoke, ALL	II	III	II
Roanoke-Urban land complex	IV	III	IV
Ruston loamy sand, ALL	III	II	III
Ruston sandy loam, 2 to 6 percent slopes, eroded	IV	II	IV
Rutlege loamy sand	IV	V	IV
Seabrook loamy sand, rarely flooded	IV	II	IV
Smoothed sandy land	IV	VI	IV
St. Lucie sand (Kureb)	IV	V	IV
Stallings, ALL	II	II	II
State, ALL	I	I	I
Swamp	IV	III	IV
Tarboro, ALL	IV	II	IV
Toisnot, ALL	IV	II	IV
Tomahawk sand	III	II	III
Tomotley, ALL	I	I	I
Torhunta and Lynn Haven soils	II	I	II
Torhunta, ALL	I	I	I
Trebloc loam	I	I	I
Troup sand	IV	II	IV
Turbeville fine sandy loam, 2 to 6 percent slopes	I	II	I
Turbeville gravelly sandy loam, 2 to 8 percent slopes	II	II	II
Turbeville loamy sand, 0 to 2 percent slopes	I	II	I

MLRA133A - Upper Coastal Plain

Map Unit Name	Agri	For	Hort
Turbeville loamy sand, 2 to 6 percent slopes	I	II	I
Turbeville sandy clay loam, 2 to 6 percent slopes, eroded	II	II	II
Turbeville sandy loam, 0 to 2 percent slopes	I	II	I
Turbeville sandy loam, 2 to 6 percent slopes	I	II	I
Turbeville sandy loam, 2 to 8 percent slopes	I	II	I
Turbeville sandy loam, 6 to 12 percent slopes	II	II	II
Turbeville-Urban land complex, 0 to 8 percent slopes	IV	II	IV
Uchee, ALL	III	V	III
Udorthents, loamy	IV	VI	IV
Urban land	IV	VI	IV
Varina, ALL	II	II	II
Vaucluse loamy sand, 10 to 15 percent slopes	IV	II	IV
Vaucluse loamy sand, 10 to 15 percent slopes, eroded	IV	II	IV
Vaucluse loamy sand, 2 to 6 percent slopes	III	II	III
Vaucluse loamy sand, 2 to 6 percent slopes, eroded	III	II	III
Vaucluse loamy sand, 6 to 10 percent slopes	III	II	III
Vaucluse loamy sand, 6 to 10 percent slopes, eroded	III	II	III
Wagram fine sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 0 to 2 percent slopes	II	II	II
Wagram loamy sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 2 to 6 percent slopes	II	II	II
Wagram loamy sand, 6 to 10 percent slopes	III	II	III
Wagram loamy sand, 10 to 15 percent slopes	III	II	III
Wagram sand, thick surface, 0 to 6 percent slopes	II	II	II
Wagram sand, thick surface, 6 to 10 percent slopes	III	II	III
Wagram sand, thick surface, 10 to 15 percent slopes	III	II	III
Wagram-Troup sands, 0 to 4 percent slopes	IV	II	IV
Wagram-Urban land complex, ALL	IV	II	IV
Wahee, ALL	I	I	I
Wakulla, ALL	IV	V	IV
Wehadkee and Chewacla loams	IV	III	IV
Wehadkee, ALL	IV	III	IV
Wehadkee-Chastain association, frequently flooded	IV	III	IV
Weston loamy sand	III	I	III
Wickham fine sandy loam, 6 to 15 percent slopes, rarely flooded	II	I	II
Wickham fine sandy loam, ALL OTHER	I	I	I
Wickham loamy sandy, ALL	I	I	I
Wickham sandy loam, 0 to 4 percent slopes	I	I	I
Wickham sandy loam, 2 to 6 percent slopes, eroded	II	I	II
Wickham-Urban land complex, 1 to 6 percent slopes	IV	I	IV
Wilbanks loam, frequently flooded	IV	III	IV
Wilbanks silt loam	IV	III	IV
Winton fine sandy loam, ALL	IV	I	IV
Woodington loamy sand	II	II	II

MLRA136 – Piedmont

Map Unit Name	Agri	For	Hort
Ailey-Appling complex, 2 to 8 percent slopes	II	II	II
Ailey-Appling complex, 8 to 15 percent slopes, bouldery	IV	II	III
Alamance silt loam, gently sloping phase	II	II	II
Alamance variant gravelly loam, ALL	IV	II	II
Altavista fine sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Altavista fine sandy loam, 7 to 10 percent slopes	II	I	I
Altavista fine sandy loam, 0 to 2 percent slopes occasionally flooded	I	I	II
Altavista fine sandy loam, ALL OTHER	I	I	I
Altavista fine sandy loam, clayey variant	I	I	I
Altavista loam, 0 to 3 percent slopes, rarely flooded	I	I	I
Altavista sandy loam, ALL	I	I	I
Altavista silt loam, ALL	I	I	I
Appling coarse sandy loam, eroded gently sloping phase	II	II	II
Appling coarse sandy loam, eroded sloping phase	II	II	II
Appling coarse sandy loam, ALL OTHER	II	II	I
Appling fine sandy loam, 2 to 6 percent slopes	II	II	I
Appling fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Appling fine sandy loam, 2 to 7 percent slopes	II	II	I
Appling fine sandy loam, 2 to 7 percent slopes, eroded	II	II	II
Appling fine sandy loam, 6 to 10 percent slopes	II	II	I
Appling fine sandy loam, 6 to 10 percent slopes, eroded	II	II	II
Appling fine sandy loam, 7 to 10 percent slopes(Wedowee)	II	II	I
Appling fine sandy loam, 7 to 10 percent slopes, eroded (Wedowee)	II	II	II
Appling fine sandy loam, 10 to 14 percent slopes (Wedowee)	III	II	II
Appling fine sandy loam, 10 to 14 percent slopes, eroded (Wedowee)	III	II	II
Appling fine sandy loam, (Wedowee), ALL OTHER	IV	II	II
Appling gravelly sandy loam, 2 to 6 percent slopes	II	II	I
Appling gravelly sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Appling gravelly sandy loam, 6 to 10 percent slopes	II	II	I
Appling gravelly sandy loam, 6 to 10 percent slopes, eroded	II	II	II
Appling loamy sand, 2 to 6 percent slopes	II	II	I
Appling sandy clay loam, 6 to 10 percent slopes, severely eroded	III	II	II
Appling sandy clay loam, 10 to 15 percent slopes, severely eroded	IV	II	II
Appling sandy clay loam, severely eroded sloping phase	III	II	III
Appling sandy loam, 1 to 6 percent slopes	II	II	I
Appling sandy loam, 2 to 6 percent slopes	II	II	I
Appling sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Appling sandy loam, 2 to 8 percent slopes	II	II	I
Appling sandy loam, 6 to 10 percent slopes	II	II	I
Appling sandy loam, 6 to 10 percent slopes, eroded	II	II	II
Appling sandy loam, 6 to 12 percent slopes	II	II	II
Appling sandy loam, 8 to 15 percent slopes	II	II	II
Appling sandy loam, 10 to 15 percent slopes	III	II	II
Appling sandy loam, 10 to 15 percent slopes, eroded	III	II	II
Appling sandy loam, 10 to 25 percent slopes, eroded (Wedowee)	IV	II	II
Appling sandy loam, 15 to 25 percent slopes (Wedowee)	IV	II	II
Appling sandy loam, 15 to 25 percent slopes, eroded (Wedowee)	IV	II	II
Appling sandy loam, eroded gently sloping phase	II	II	II
Appling sandy loam, eroded sloping phase	II	II	II
Appling sandy loam, eroded strongly sloping phase	III	II	II
Appling sandy loam, gently sloping phase	II	II	I
Appling sandy loam, moderately steep phase (Wedowee)	III	II	II

MLRA136 – Piedmont

Map Unit Name	Agri	For	Hort
Appling sandy loam, sloping phase	II	II	II
Appling sandy loam, strongly sloping phase	II	II	II
Appling-Marlboro complex, 1 to 6 percent slopes	II	II	II
Appling-Urban land complex, ALL	IV	II	IV
Armenia, ALL	IV	III	III
Ashlar-Rock outcrop complex, ALL	IV	V	IV
Augusta, ALL	III	I	II
Ayersville gravelly loam, ALL	IV	V	II
Badin channery loam, 8 to 15 percent slopes	III	II	II
Badin channery silt loam, 2 to 8 percent slopes	III	II	II
Badin channery silt loam, 8 to 15 percent slopes	III	II	II
Badin channery silt loam, ALL OTHER	IV	II	II
Badin channery silty clay loam, eroded, ALL	III	II	II
Badin silty clay loam, 2 to 8 percent slopes, moderately eroded	III	II	II
Badin silty clay loam, 8 to 15 percent slopes, moderately eroded	IV	II	II
Badin-Goldston complex, 2 to 8 percent slopes	III	II	II
Badin-Goldston complex, 8 to 15 percent slopes	IV	II	III
Badin-Goldston complex, 15 to 25 percent slopes	IV	II	IV
Badin-Nanford complex, 15 to 30 percent slopes	IV	II	IV
Badin-Tarrus complex, 2 to 8 percent slopes	II	II	I
Badin-Tarrus complex, 2 to 8 percent slopes, moderately eroded	III	II	I
Badin-Tarrus complex, 8 to 15 percent slopes	III	II	II
Badin-Tarrus complex, 8 to 15 percent slopes, moderately eroded	IV	II	II
Badin-Tarrus complex, 15 to 25 percent slopes	IV	II	II
Badin-Tarrus complex, 25 to 45 percent slopes	IV	II	IV
Badin-Urban land complex, ALL	IV	II	IV
Banister loam, 1 to 6 percent slopes, rarely flooded	II	I	I
Bethlehem gravelly sandy loam, 2 to 8 percent slopes	III	II	II
Bethlehem gravelly sandy loam, 8 to 15 percent slopes	IV	II	II
Bethlehem-Hibriten complex, 6 to 15 percent slopes	IV	II	III
Bethlehem-Urban land complex, 2 to 15 percent slopes	IV	II	IV
Buncombe, ALL	IV	III	IV
Callison-Lignum complex, 2 to 6 percent slopes	III	II	II
Callison-Misenheimer complex, 6 to 10 percent slopes	III	II	II
Carbonton-Brickhaven complex, ALL	IV	II	IV
Cartecay and Chewacla soils	II	III	III
Cecil clay loam, 2 to 6 percent slopes, eroded	III	II	II
Cecil clay loam, 2 to 6 percent slopes, severely eroded	III	II	II
Cecil clay loam, 2 to 7 percent slopes, severely eroded	III	II	II
Cecil clay loam, 2 to 8 percent slopes, eroded	III	II	II
Cecil clay loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil clay loam, 6 to 10 percent slopes, severely eroded	IV	II	II
Cecil clay loam, ALL OTHER	IV	II	II
Cecil fine sandy loam, 2 to 6 percent slopes	II	II	I
Cecil fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Cecil fine sandy loam, 2 to 7 percent slopes	II	II	I
Cecil fine sandy loam, 2 to 7 percent slopes, eroded	II	II	II
Cecil fine sandy loam, 2 to 8 percent slopes	II	II	I
Cecil fine sandy loam, 6 to 10 percent slopes	III	II	II
Cecil fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil fine sandy loam, 7 to 10 percent slopes (Pacolet)	III	II	II
Cecil fine sandy loam, 7 to 10 percent slopes, eroded (Pacolet)	III	II	II

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Map Unit Name	Agri	For	Hort
Cecil fine sandy loam, 8 to 15 percent slopes	III	II	II
Cecil fine sandy loam, 10 to 14 percent slopes (Pacolet)	III	II	II
Cecil fine sandy loam, 10 to 14 percent slopes, eroded (Pacolet)	III	II	II
Cecil fine sandy loam, 10 to 15 percent slopes	III	II	II
Cecil fine sandy loam, 10 to 15 percent slopes (Pacolet)	III	II	II
Cecil fine sandy loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	II
Cecil fine sandy loam, 14 to 25 percent slopes (Pacolet)	IV	II	II
Cecil fine sandy loam, 14 to 25 percent slopes, eroded (Pacolet)	IV	II	II
Cecil fine sandy loam, 25 to 40 percent slopes (Pacolet)	IV	II	III
Cecil fine sandy loam, 25 to 40 percent slopes, eroded (Pacolet)	IV	II	III
Cecil fine sandy loam, eroded gently sloping phase	II	II	II
Cecil fine sandy loam, eroded sloping phase	II	II	II
Cecil fine sandy loam, eroded strongly sloping phase	III	II	II
Cecil fine sandy loam, gently sloping phase	II	II	I
Cecil fine sandy loam, moderately steep phase	III	II	II
Cecil fine sandy loam, sloping phase	III	II	II
Cecil fine sandy loam, strongly sloping phase	III	II	II
Cecil gravelly fine sandy loam, 2 to 6 percent slopes	II	II	I
Cecil gravelly fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Cecil gravelly fine sandy loam, 2 to 7 percent slopes	II	II	I
Cecil gravelly fine sandy loam, 2 to 7 percent slopes, eroded	III	II	II
Cecil gravelly fine sandy loam, 6 to 10 percent slopes	III	II	II
Cecil gravelly fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil gravelly fine sandy loam, 7 to 10 percent slopes	III	II	II
Cecil gravelly fine sandy loam, 7 to 10 percent slopes, eroded (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, 10 to 14 percent slopes (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, 10 to 14 percent slopes, eroded (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, 10 to 15 percent slopes	III	II	II
Cecil gravelly fine sandy loam, 10 to 15 percent, eroded (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, ALL OTHER	IV	II	II
Cecil gravelly sandy clay loam, 2 to 8 percent slopes, eroded	III	II	II
Cecil gravelly sandy clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Cecil gravelly sandy loam, 2 to 6 percent slopes	II	II	I
Cecil gravelly sandy loam, 2 to 6 percent slopes, eroded	II	II	I
Cecil gravelly sandy loam, 6 to 10 percent slopes	III	II	II
Cecil gravelly sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil gravelly sandy loam, 10 to 15 percent slopes	IV	II	IV
Cecil loam, 2 to 6 percent slopes	II	II	I
Cecil loam, ALL OTHER	III	II	II
Cecil sandy clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Cecil sandy clay loam, 8 to 15 percent slopes, moderately eroded	IV	II	II
Cecil sandy clay loam, ALL OTHER	III	II	II
Cecil sandy loam, 2 to 6 percent slopes	II	II	I
Cecil sandy loam, 2 to 6 percent slopes, eroded	III	II	II
Cecil sandy loam, 2 to 8 percent slopes	II	II	I
Cecil sandy loam, 2 to 8 percent slopes, eroded	III	II	II
Cecil sandy loam, 6 to 10 percent slopes	III	II	I
Cecil sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil sandy loam, 8 to 15 percent slopes	III	II	II
Cecil sandy loam, 8 to 15 percent slopes, eroded	IV	II	II
Cecil sandy loam, 10 to 15 percent slopes	III	II	II
Cecil sandy loam, 10 to 15 percent slopes, eroded	III	II	II

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Map Unit Name	Agri	For	Hort
Cecil sandy loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	II
Cecil sandy loam, 15 to 45 percent slopes (Pacolet)	IV	II	II
Cecil sandy loam, eroded gently sloping phase	III	II	II
Cecil sandy loam, eroded sloping phase	III	II	II
Cecil sandy loam, gently sloping phase	II	II	I
Cecil sandy loam, sloping phase	III	II	I
Cecil soils, (Pacolet), ALL	IV	II	II
Cecil stony fine sandy loam, (Uwharrie), ALL	IV	II	II
Cecil-Urban land complex, ALL	IV	II	IV
Chastain silty clay loam	IV	III	III
Chenneby silt loam, 0 to 2 percent slopes, frequently flooded	III	III	III
Chewacla and Chastain soils, 0 to 2 percent slopes, frequently flooded	IV	III	III
Chewacla and Wehadkee, ALL	IV	III	III
Chewacla silt loam, frequently flooded	III	III	III
Chewacla, ALL OTHER	II	III	III
Cid, ALL	III	II	II
Cid-Lignum complex, 1 to 6 percent slopes	II	II	II
Cid-Misenheimer complex, 0 to 4 percent slopes	III	II	II
Cid-Urban land complex, 1 to 5 percent slopes	IV	II	IV
Meadowfield-Fairview complex, 15 to 25 percent slopes	IV	IV	IV
Meadowfield-Rhodhiss complex, 25 to 60 percent slopes, very stony	IV	IV	IV
Meadowfield-Woolwine complex, 8 to 15 percent slopes	IV	IV	IV
Claycreek fine sandy loam, 0 to 2 percent slopes	III	I	II
Colfax sandy loam, ALL	III	II	II
Colvard sandy loam, 0 to 3 percent slopes, occasionally flooded	I	III	III
Colfax silt loam	III	II	II
Congaree, frequently flooded	II	III	III
Congaree, ALL OTHER	I	III	III
Coronaca clay loam, ALL	II	II	I
Coronaca-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Creedmoor coarse sandy loam, ALL	III	I	II
Creedmoor fine sandy loam, 8 to 15 percent slopes	IV	I	II
Creedmoor fine sandy loam, ALL OTHER	III	I	II
Creedmoor loam, 2 to 8 percent slopes	III	I	II
Creedmoor sandy loam, 10 to 15 percent slopes	IV	I	II
Creedmoor sandy loam, 10 to 20 percent slopes	IV	I	II
Creedmoor sandy loam, ALL OTHER	III	I	II
Creedmoor silt loam, ALL	III	I	II
Cullen clay loam, ALL	II	II	II
Cullen-Wynott complex, 15 to 35 percent slopes	IV	II	III
Cut and fill land	IV	VI	IV
Davidson clay, severely eroded strongly sloping phase	III	I	II
Davidson sandy clay loam, 15 to 25 percent slopes	III	I	I
Davidson, ALL OTHER	II	I	I
Dillard fine sandy loam, 2 to 8 percent slopes, rarely flooded	I	III	I
Dogue, ALL	II	I	I
Dogue-Roanoke complex, 0 to 6 percent slopes, rarely flooded	II	I	III
Durham coarse sandy loam, gently sloping phase	II	I	I
Durham coarse sandy loam, sloping phase	III	I	I
Durham loamy sand, 6 to 10 percent slopes, eroded	III	I	I
Durham loamy sand, ALL OTHER	II	I	I
Durham sandy loam, eroded sloping phase	II	I	I

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Map Unit Name	Agri	For	Hort
Durham sandy loam, ALL OTHER	III	I	I
Efland silt loam, eroded gently sloping phase (Badin)	II	II	II
Efland silt loam, eroded sloping phase (Badin)	III	II	II
Efland silt loam, gently sloping phase (Badin)	II	II	II
Efland silt loam, sloping phase (Badin)	II	II	II
Efland silt loam, strongly sloping phase (Badin)	III	II	II
Efland silty clay loam severely eroded strongly sloping phase (Badin)	III	II	II
Efland silty clay loam, severely eroded sloping phase (Badin)	III	II	II
Enon clay loam, 2 to 6 percent slopes, eroded	III	II	II
Enon clay loam, 6 to 10 percent slopes, eroded	III	II	II
Enon clay loam, 10 to 15 percent slopes, eroded	IV	II	II
Enon clay loam, severely eroded sloping phase	III	II	II
Enon clay loam, severely eroded strongly sloping phase	IV	II	II
Enon cobbly loam, 2 to 8 percent slopes	II	II	II
Enon cobbly loam, 8 to 15 percent slopes	III	II	II
Enon complex, gullied	IV	II	IV
Enon fine sandy loam, 2 to 15 percent slopes, very stony	IV	II	II
Enon fine sandy loam, 2 to 6 percent slopes	II	II	II
Enon fine sandy loam, 2 to 6 percent slopes, eroded	III	II	II
Enon fine sandy loam, 2 to 8 percent slopes	II	II	II
Enon fine sandy loam, 6 to 10 percent slopes	III	II	II
Enon fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Enon fine sandy loam, 8 to 15 percent slopes	III	II	II
Enon fine sandy loam, 10 to 15 percent slopes	III	II	II
Enon fine sandy loam, 10 to 15 percent slopes, eroded	III	II	II
Enon fine sandy loam, eroded gently sloping phase	II	II	II
Enon fine sandy loam, eroded sloping phase	III	II	II
Enon fine sandy loam, gently sloping phase	II	II	II
Enon fine sandy loam, sloping phase	III	II	II
Enon gravelly loam, 2 to 8 percent slopes	II	II	II
Enon gravelly loam, 8 to 15 percent slopes	III	II	II
Enon loam, 2 to 6 percent slopes	II	II	II
Enon loam, 6 to 10 percent slopes	II	II	II
Enon loam, 6 to 12 percent slopes	III	II	II
Enon loam, eroded gently sloping phase	II	II	II
Enon loam, eroded sloping phase	III	II	II
Enon loam, eroded strongly sloping phase	III	II	II
Enon loam, gently sloping phase	II	II	II
Enon loam, sloping phase	III	II	II
Enon loam, strongly sloping phase	III	II	II
Enon sandy loam, 2 to 8 percent slopes	II	II	II
Enon sandy loam, 8 to 15 percent slopes	III	II	II
Enon very cobbly loam, very stony, ALL	IV	II	IV
Enon very stony loam, ALL	IV	II	IV
Enon-Mayodan complex, 15 to 35 percent slopes, very stony	IV	II	III
Enon-Urban land complex, ALL	IV	II	IV
Enon-Wynott complex, 2 to 8 percent slopes	II	II	II
Enon-Wynott complex, 4 to 15 percent slopes, very bouldery	IV	II	IV
Fairview sandy clay loam, 2 to 8 percent slopes, moderately eroded	II	II	II
Fairview sandy clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Fairview sandy clay loam, 15 to 25 percent slopes, moderately eroded	IV	II	II
Fairview-Urban land complex, ALL	IV	II	IV

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Map Unit Name	Agri	For	Hort
Fluvaquents-Udifluvents complex, 0 to 3 percent slopes, mounded, occasionally flooded	IV	VI	IV
Gaston clay loam, 2 to 8 percent slopes, eroded	II	II	II
Gaston clay loam, 8 to 15 percent slopes, eroded	III	II	II
Gaston loam, 15 to 25 percent slopes	III	II	II
Gaston sandy clay loam, 2 to 8 percent slopes, eroded	II	II	II
Gaston sandy clay loam, 8 to 15 percent slopes, eroded	III	II	II
Georgeville clay loam, 2 to 6 percent slopes, eroded	II	I	II
Georgeville clay loam, 2 to 8 percent slopes, eroded	II	I	II
Georgeville clay loam, 8 to 15 percent slopes, eroded	III	I	II
Georgeville gravelly loam, 2 to 6 percent slopes	II	I	I
Georgeville gravelly loam, 2 to 8 percent slopes, stony	III	I	II
Georgeville gravelly loam, 6 to 10 percent slopes	II	I	I
Georgeville gravelly loam, 10 to 25 percent slopes	IV	I	II
Georgeville gravelly silt loam, 2 to 8 percent slopes	II	I	I
Georgeville gravelly silt loam, 8 to 15 percent slopes	III	I	II
Georgeville loam, 2 to 6 percent slopes	II	I	I
Georgeville loam, 2 to 8 percent slopes	II	I	I
Georgeville loam, 6 to 10 percent slopes	II	I	I
Georgeville loam, 8 to 15 percent slopes	III	I	I
Georgeville loam, ALL OTHER	IV	I	II
Georgeville silt loam, 2 to 6 percent slopes	II	I	I
Georgeville silt loam, 2 to 6 percent slopes, eroded	III	I	II
Georgeville silt loam, 2 to 8 percent slopes	II	I	I
Georgeville silt loam, 2 to 10 percent slopes, eroded	III	I	II
Georgeville silt loam, 4 to 15 percent slopes, extremely stony	IV	I	IV
Georgeville silt loam, 6 to 10 percent slopes	II	I	I
Georgeville silt loam, 6 to 10 percent slopes, eroded	III	I	II
Georgeville silt loam, 8 to 15 percent slopes	III	I	I
Georgeville silt loam, 10 to 15 percent slopes	III	I	I
Georgeville silt loam, 10 to 15 percent slopes, eroded	III	I	II
Georgeville silt loam, 10 to 25 percent slopes	IV	I	II
Georgeville silt loam, 15 to 45 percent slopes, extremely bouldery	IV	I	IV
Georgeville silt loam, eroded gently sloping phase	II	I	II
Georgeville silt loam, eroded sloping phase	III	I	II
Georgeville silt loam, eroded strongly sloping phase	III	I	II
Georgeville silt loam, gently sloping phase	II	I	I
Georgeville silt loam, moderately steep phase	III	I	II
Georgeville silt loam, sloping phase	II	I	I
Georgeville silt loam, strongly sloping phase	III	I	I
Georgeville silty clay loam, 2 to 6 percent slopes, moderately eroded	II	I	II
Georgeville silty clay loam, 2 to 8 percent slopes	II	I	II
Georgeville silty clay loam, 2 to 8 percent slopes, eroded	II	I	II
Georgeville silty clay loam, 2 to 8 percent slopes, moderately eroded	II	I	II
Georgeville silty clay loam, 6 to 10 percent slopes, moderately eroded	III	I	II
Georgeville silty clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Georgeville silty clay loam, 8 to 15 percent slopes, moderately eroded	IV	I	II
Georgeville silty clay loam, severely eroded gently sloping phase	III	I	II
Georgeville silty clay loam, severely eroded moderately steep phase	IV	I	III
Georgeville silty clay loam, severely eroded sloping phase	III	I	III
Georgeville silty clay loam, severely eroded strongly sloping phase	IV	I	III
Georgeville-Badin complex, ALL	IV	I	II
Georgeville-Montonia complex, very stony ALL	IV	I	III

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Map Unit Name	Agri	For	Hort
Georgeville-Urban land complex, ALL	IV	I	IV
Goldston, ALL	IV	II	III
Goldston-Badin complex, ALL	IV	II	III
Granville gravelly sandy loam, 2 to 8 percent slopes	II	II	I
Granville sandy loam, 2 to 6 percent slopes	II	II	I
Granville sandy loam, 2 to 6 percent slopes, eroded	II	II	I
Granville sandy loam, 2 to 8 percent slopes	II	II	I
Granville sandy loam, 6 to 10 percent slopes	III	II	I
Granville sandy loam, 6 to 10 percent slopes, eroded	III	II	I
Granville sandy loam, 10 to 15 percent slopes	IV	II	I
Grover, ALL	IV	II	III
Gullied land, ALL	IV	VI	IV
Halewood stony sandy loam, (Edneyville), ALL	IV	III	II
Hatboro sandy loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV
Hayesville and Cecil clay loams, 7 to 14 percent slopes, severely eroded (Cecil and Cecil)	II	II	II
Hayesville and Cecil clay loams, 7 to 14 percent slopes, severely eroded (Cecil and Cecil)	III	II	II
Hayesville and Cecil clay loams, 14 to 25 percent slopes, severely eroded (Pacolet and Pacolet)	IV	II	II
Hayesville and Cecil fine sandy loam, eroded, ALL	IV	II	II
Helena clay loam, severely eroded sloping phase	IV	II	II
Helena coarse sandy loam, sloping phase	IV	II	II
Helena coarse sandy loam, ALL OTHER	III	II	II
Helena fine sandy loam, 2 to 8 percent slopes	III	II	II
Helena sandy loam, 10 to 15 percent slopes	IV	II	II
Helena sandy loam, ALL OTHER	III	II	II
Helena-Sedgefield sandy loams, ALL	III	II	II
Helena-Urban land complex, ALL	IV	II	IV
Helena-Worsham complex, 1 to 6 percent slopes	IV	II	III
Herndon loam, 2 to 6 percent slopes	II	II	I
Herndon loam, 6 to 10 percent slopes	II	II	I
Herndon silt loam, 2 to 6 percent slopes	II	II	I
Herndon silt loam, 2 to 6 percent slopes, eroded	II	II	II
Herndon silt loam, 2 to 8 percent slopes	II	II	I
Herndon silt loam, 6 to 10 percent slopes	III	II	I
Herndon silt loam, 6 to 10 percent slopes, eroded	III	II	II
Herndon silt loam, 8 to 15 percent slopes	III	II	I
Herndon silt loam, 10 to 15 percent slopes, eroded	III	II	II
Herndon silt loam, 15 to 25 percent slopes	III	II	I
Herndon silt loam, eroded gently sloping phase	II	II	II
Herndon silt loam, eroded sloping phase	III	II	II
Herndon silt loam, eroded strongly sloping phase	III	II	II
Herndon silt loam, gently sloping phase	II	II	I
Herndon silt loam, moderately steep phase	III	II	I
Herndon silt loam, sloping phase	II	II	I
Herndon silt loam, strongly sloping phase	III	II	I
Herndon silty clay loam, ALL	IV	II	II
Herndon stony silt loam, 2 to 10 percent slopes	III	II	II
Hibriten very cobbly sandy loam, ALL	IV	V	III
Hiwassee clay loam, 8 to 15 percent slopes, eroded	III	II	II
Hiwassee clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Hiwassee clay loam, 10 to 15 percent slopes, eroded	III	II	II

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Map Unit Name	Agri	For	Hort
Hiwassee clay loam, 15 to 30 percent slopes, moderately eroded	IV	II	II
Hiwassee clay loam, ALL OTHER	II	II	II
Hiwassee gravelly loam, 2 to 8 percent slopes	II	II	I
Hiwassee gravelly loam, 8 to 15 percent slopes	II	II	II
Hiwassee loam, 2 to 6 percent slopes	II	II	I
Hiwassee loam, 2 to 6 percent slopes, eroded	II	II	II
Hiwassee loam, 2 to 7 percent slopes, eroded	II	II	II
Hiwassee loam, 2 to 8 percent slopes	II	II	I
Hiwassee loam, 6 to 10 percent slopes	II	II	I
Hiwassee loam, 6 to 10 percent slopes, eroded	II	II	II
Hiwassee loam, 8 to 15 percent slopes	II	II	I
Hiwassee loam, 10 to 15 percent slopes	II	II	I
Hiwassee loam, 10 to 15 percent slopes, eroded	III	II	II
Hiwassee loam, 15 to 25 percent slopes	IV	II	II
Hornsboro, ALL	I	I	I
Hulett, ALL	IV	II	II
Hulett-Saw complex, 4 to 15 percent slopes, very rocky	IV	II	III
Hulett-Urban Land complex, 2 to 8 percent slopes	IV	II	IV
Iotla sandy loam, 0 to 2 percent slopes, occasionally flooded	II	III	III
Iredell clay loam, 2 to 6 percent slopes	III	II	III
Iredell fine sandy loam, 10 to 14 percent slopes (Wilkes)	IV	II	III
Iredell fine sandy loam, 10 to 14 percent slopes, eroded (Wilkes)	IV	II	III
Iredell fine sandy loam, ALL OTHER	III	II	III
Iredell gravelly loam, 1 to 4 percent slopes	III	II	III
Iredell loam, ALL	III	II	III
Iredell sandy loam, ALL	III	II	III
Iredell very stony loam, gently sloping phase (Enon)	IV	II	IV
Iredell-Urban land complex, ALL	IV	II	IV
Iredell-Urban land-Picture complex, 0 to 10 percent slopes	IV	II	IV
Kirksey silt loam, ALL	II	II	II
Kirksey-Cid complex, 2 to 6 percent slopes	III	II	II
Leaksville silt loam, 0 to 4 percent slopes	III	III	III
Leaksville-Urban land complex, 0 to 4 percent slopes	IV	III	IV
Leveled clayey land	IV	VI	IV
Lignum gravelly silt loam, 2 to 8 percent slopes	II	III	II
Lignum loam, 2 to 6 percent slopes	II	III	II
Lignum silt loam, 7 to 12 percent slopes	III	III	II
Lignum silt loam, ALL OTHER	II	III	II
Lloyd clay loam, 2 to 6 percent slopes, severely eroded (Gaston)	II	II	II
Lloyd clay loam, 2 to 10 percent slopes, severely eroded (Pacolet)	II	II	II
Lloyd clay loam, 6 to 10 percent slopes, severely eroded (Gaston)	II	II	II
Lloyd clay loam, 10 to 14 percent slopes, severely eroded (Pacolet)	III	II	III
Lloyd clay loam, 10 to 15 percent slopes, severely eroded (Gaston)	III	II	III
Lloyd clay loam, 14 to 25 percent slopes, severely eroded (Pacolet)	IV	II	IV
Lloyd clay loam, 15 to 25 percent slopes, severely eroded (Gaston)	IV	II	IV
Lloyd clay loam, severely eroded gently sloping phase (Gaston)	II	II	II
Lloyd clay loam, severely eroded sloping phase (Gaston)	II	II	II
Lloyd clay loam, severely eroded strongly sloping phase (Gaston)	III	II	III
Lloyd clay loam, severely eroded, moderately steep phase (Cecil)	IV	II	III
Lloyd fine sandy loam, 2 to 6 percent slopes (Cecil)	II	II	II
Lloyd fine sandy loam, 2 to 6 percent slopes, eroded (Cecil)	II	II	II
Lloyd fine sandy loam, 6 to 10 percent slopes (Cecil)	III	II	II

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Map Unit Name	Agri	For	Hort
Lloyd fine sandy loam, 6 to 10 percent slopes, eroded (Cecil)	III	II	II
Lloyd fine sandy loam, 10 to 15 percent slopes (Pacolet)	II	II	II
Lloyd fine sandy loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	II
Lloyd fine sandy loam, 15 to 25 percent slopes (Pacolet)	IV	II	II
Lloyd fine sandy loam, 15 to 25 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 2 to 6 percent slopes (Gaston)	II	II	I
Lloyd loam, 2 to 6 percent slopes, eroded (Davidson)	II	II	II
Lloyd loam, 2 to 6 percent slopes, eroded (Gaston)	II	II	I
Lloyd loam, 2 to 7 percent slopes (Pacolet)	II	II	I
Lloyd loam, 2 to 7 percent slopes, eroded (Pacolet)	II	II	II
Lloyd loam, 6 to 10 percent slopes (Cecil)	III	II	II
Lloyd loam, 6 to 10 percent slopes, eroded (Cecil)	III	II	II
Lloyd loam, 6 to 10 percent slopes, eroded (Davidson)	II	II	II
Lloyd loam, 7 to 10 percent slopes (Pacolet)	III	II	II
Lloyd loam, 7 to 10 percent slopes, eroded (Pacolet)	III	II	II
Lloyd loam, 10 to 14 percent slopes (Pacolet)	IV	II	II
Lloyd loam, 10 to 14 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 10 to 15 percent slopes (Cecil)	IV	II	II
Lloyd loam, 10 to 15 percent slopes, eroded (Davidson)	II	II	III
Lloyd loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	III
Lloyd loam, 14 to 25 percent slopes (Pacolet)	IV	II	II
Lloyd loam, 14 to 25 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 15 to 25 percent slopes (Pacolet)	IV	II	II
Lloyd loam, 15 to 25 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 25 to 40 percent slopes (Pacolet)	IV	II	IV
Lloyd loam, eroded gently sloping phase (Gaston)	III	II	II
Lloyd loam, eroded sloping phase (Cecil)	III	II	II
Lloyd loam, eroded strongly sloping phase (Cecil)	IV	II	II
Lloyd loam, gently sloping phase (Gaston)	II	II	I
Lloyd loam, level phase (Gaston)	II	II	I
Lloyd loam, moderately steep phase (Cecil)	II	II	II
Lloyd loam, sloping phase (Cecil)	II	II	II
Lloyd loam, strongly sloping phase (Cecil)	IV	II	II
Local alluvial land, ALL	IV	III	III
Louisa fine sandy loam, 25 to 45 percent slopes	IV	II	III
Louisa sandy loam, 25 to 45 percent slopes	IV	II	III
Louisburg and Louisa soils, 25 to 55 percent slopes	IV	II	II
Louisburg and Louisa soils, ALL OTHER	IV	II	III
Louisburg coarse sandy loam, ALL	IV	II	II
Louisburg loamy coarse sand, ALL	IV	II	IV
Louisburg loamy sand, 2 to 6 percent slopes	III	II	II
Louisburg loamy sand, 6 to 10 percent slopes	III	II	II
Louisburg loamy sand, 6 to 15 percent slopes	IV	II	II
Louisburg loamy sand, 10 to 15 percent slopes	IV	II	II
Louisburg loamy sand, 15 to 45 percent slopes	IV	II	III
Louisburg sandy loam, ALL	IV	II	II
Louisburg-Wedowee complex, 15 to 25 percent slopes	IV	II	II
Louisburg-Wedowee complex, ALL OTHER	III	II	II
Made land	IV	VI	IV
Madison clay loam, 2 to 6 percent slopes, eroded	III	II	II
Madison clay loam, 6 to 10 percent slopes, eroded	III	II	II
Madison clay loam, eroded, ALL OTHER	IV	II	II

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Map Unit Name	Agri	For	Hort
Madison complex, gullied	IV	II	IV
Madison fine sandy loam, 2 to 6 percent slopes	II	II	II
Madison fine sandy loam, 2 to 7 percent slopes	II	II	II
Madison fine sandy loam, 2 to 7 percent slopes, eroded	II	II	II
Madison fine sandy loam, 6 to 10 percent slopes	III	II	II
Madison fine sandy loam, 7 to 10 percent slopes	III	II	II
Madison fine sandy loam, 7 to 10 percent slopes, eroded	III	II	II
Madison fine sandy loam, 10 to 14 percent slopes	III	II	II
Madison fine sandy loam, 10 to 14 percent slopes, eroded	IV	II	II
Madison fine sandy loam, 10 to 15 percent slopes	III	II	II
Madison fine sandy loam, 14 to 25 percent slopes	IV	II	II
Madison fine sandy loam, 15 to 45 percent slopes	IV	II	II
Madison gravelly fine sandy loam, 2 to 6 percent slopes	II	II	II
Madison gravelly fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Madison gravelly fine sandy loam, 6 to 10 percent slopes	III	II	II
Madison gravelly fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Madison gravelly fine sandy loam, 7 to 10 percent slopes	III	II	II
Madison gravelly fine sandy loam, 10 to 14 percent slopes	III	II	II
Madison gravelly fine sandy loam, 10 to 15 percent slopes	III	II	II
Madison gravelly fine sandy loam, ALL OTHER	IV	II	II
Madison gravelly sandy clay loam, 2 to 8 percent slopes, moderately eroded	III	II	II
Madison gravelly sandy clay loam, 8 to 15 percent slopes, moderately eroded	IV	II	II
Madison gravelly sandy loam, 10 to 25 percent slopes, eroded	IV	II	II
Madison gravelly sandy loam, ALL OTHER	III	II	II
Madison sandy clay loam, 2 to 8 percent slopes, eroded	III	II	II
Madison sandy clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Madison sandy clay loam, 15 to 25 percent slopes, eroded	IV	II	II
Madison sandy loam, 2 to 6 percent slopes	II	II	II
Madison sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Madison sandy loam, 6 to 10 percent slopes	II	II	II
Madison sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Madison sandy loam, 8 to 15 percent slopes	III	II	II
Madison sandy loam, 10 to 15 percent slopes	III	II	II
Madison sandy loam, ALL OTHER	IV	II	II
Madison-Bethlehem complex, 2 to 8 percent slopes, stony, moderately eroded	III	II	II
Madison-Bethlehem complex, 8 to 15 percent slopes, very stony, moderately eroded	IV	II	III
Madison-Bethlehem-Urban Land complex, 2 to 8 percent slopes	IV	II	IV
Madison-Udorthents complex, 2 to 15 percent slopes, gullied	IV	II	IV
Madison-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Mantachie soils	III	III	II
Masada fine sandy loam, ALL	I	II	I
Masada gravelly sandy clay loam, eroded, ALL	II	II	I
Masada loam, 2 to 8 percent slopes	I	II	I
Masada loam, 8 to 15 percent slopes	II	II	I
Masada sandy clay loam, eroded ALL	II	II	I
Masada sandy loam, 2 to 8 percent slopes	I	II	I
Masada sandy loam, 8 to 15 percent slopes	II	II	I
Masada sandy loam, 15 to 25 percent slopes	IV	II	II
Masada-Urban land complex, 2 to 15 percent slopes	IV	II	IV
Mayodan fine sandy loam, 2 to 6 percent slopes	II	I	I
Mayodan fine sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Mayodan fine sandy loam, 2 to 7 percent slopes	II	I	I

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Map Unit Name	Agri	For	Hort
Mayodan fine sandy loam, 2 to 8 percent slopes	II	I	I
Mayodan fine sandy loam, 6 to 10 percent slopes	III	I	I
Mayodan fine sandy loam, 7 to 10 percent slopes	III	I	I
Mayodan fine sandy loam, 7 to 10 percent slopes, eroded	III	I	I
Mayodan fine sandy loam, 8 to 15 percent slopes	III	I	I
Mayodan fine sandy loam, 10 to 14 percent slopes	III	I	I
Mayodan fine sandy loam, 10 to 14 percent slopes, eroded	III	I	II
Mayodan fine sandy loam, ALL OTHER	IV	I	II
Mayodan gravelly sandy loam, 2 to 6 percent slopes	II	I	I
Mayodan gravelly sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Mayodan gravelly sandy loam, 2 to 8 percent slopes	II	I	I
Mayodan gravelly sandy loam, 6 to 10 percent slopes	III	I	I
Mayodan gravelly sandy loam, 6 to 10 percent slopes, eroded	IV	I	I
Mayodan gravelly sandy loam, 8 to 15 percent slopes	III	I	II
Mayodan gravelly sandy loam, 10 to 15 percent slopes	III	I	II
Mayodan gravelly sandy loam, 15 to 25 percent slopes	IV	I	II
Mayodan sandy clay loam, 2 to 8 percent slopes, eroded	II	I	II
Mayodan sandy clay loam, 8 to 15 percent slopes, eroded	III	I	II
Mayodan sandy clay loam, 15 to 25 percent slopes, eroded	IV	I	II
Mayodan sandy loam, 2 to 6 percent slopes	II	I	I
Mayodan sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Mayodan sandy loam, 2 to 8 percent slopes	II	I	I
Mayodan sandy loam, 6 to 10 percent slopes	III	I	I
Mayodan sandy loam, 6 to 10 percent slopes, eroded	III	I	I
Mayodan sandy loam, 8 to 15 percent slopes	III	I	II
Mayodan sandy loam, 10 to 15 percent slopes	III	I	II
Mayodan sandy loam, 10 to 15 percent slopes, eroded	IV	I	II
Mayodan sandy loam, 15 to 25 percent slopes	IV	I	II
Mayodan sandy loam, 15 to 25 percent slopes, stony	IV	I	IV
Mayodan silt loam, 2 to 8 percent slopes	II	I	I
Mayodan silt loam, 8 to 15 percent slopes	III	I	II
Mayodan silt loam, 15 to 25 percent slopes	IV	I	II
Mayodan silt loam, 25 to 45 percent slopes	IV	I	III
Mayodan silt loam, thin, ALL	III	I	II
Mayodan silty clay loam, 2 to 8 percent slopes, eroded	III	I	II
Mayodan silty clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Mayodan-Brickhaven complex, 15 to 30 percent slopes	IV	I	III
Mayodan-Exway complex, eroded, ALL	III	I	II
Mayodan-Pinkston complex, 25 to 45 percent slopes	IV	I	III
Mayodan-Urban land complex, ALL	IV	I	IV
McQueen loam, 1 to 6 percent slopes	II	II	II
Mecklenburg clay loam, 2 to 8 percent slopes, eroded	II	II	II
Mecklenburg clay loam, 2 to 8 percent slopes, moderately eroded	II	II	II
Mecklenburg clay loam, 6 to 15 percent slopes, severely eroded	IV	II	II
Mecklenburg clay loam, 8 to 15 percent slopes, eroded	III	II	II
Mecklenburg clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Mecklenburg clay loam, severely eroded sloping phase	IV	II	II
Mecklenburg fine sandy loam, 2 to 6 percent slopes	II	II	I
Mecklenburg fine sandy loam, 2 to 8 percent slopes	II	II	II
Mecklenburg fine sandy loam, 8 to 15 percent slopes	III	II	II
Mecklenburg loam, 2 to 6 percent slopes	II	II	I
Mecklenburg loam, 2 to 6 percent slopes, eroded	II	II	II

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Map Unit Name	Agri	For	Hort
Mecklenburg loam, 2 to 7 percent slopes, eroded	II	II	II
Mecklenburg loam, 2 to 8 percent slopes	II	II	I
Mecklenburg loam, 6 to 10 percent slopes	II	II	II
Mecklenburg loam, 6 to 10 percent slopes, eroded	II	II	II
Mecklenburg loam, 7 to 14 percent slopes, eroded	III	II	II
Mecklenburg loam, 8 to 15 percent slopes	III	II	II
Mecklenburg loam, 10 to 15 percent slopes, eroded	III	II	II
Mecklenburg loam, ALL OTHER	IV	II	II
Mecklenburg loam, dark surface variant, 2 to 6 percent slopes	II	II	I
Mecklenburg loam, dark surface variant, 6 to 10 percent slopes	II	II	II
Mecklenburg loam, dark surface variant, 10 to 15 percent slopes	III	II	II
Mecklenburg loam, eroded gently sloping phase	II	II	II
Mecklenburg loam, eroded sloping phase	II	II	II
Mecklenburg loam, eroded strongly sloping phase	III	II	II
Mecklenburg sandy clay loam, eroded, ALL	III	II	II
Mecklenburg-Urban land complex, ALL	IV	II	IV
Miscellaneous water	IV	VI	IV
Misenheimer channery silt loam, 0 to 4 percent slopes	IV	V	III
Misenheimer-Callison complex, 0 to 3 percent slopes	IV	V	III
Misenheimer-Cid complex, 0 to 3 percent slopes	IV	V	III
Misenheimer-Kirksey complex, 0 to 5 percent slopes	IV	V	III
Mixed alluvial land, ALL	IV	III	III
Mocksville sandy loam, 2 to 8 percent slopes	II	II	II
Mocksville sandy loam, 8 to 15 percent slopes	III	II	II
Mocksville sandy loam, 15 to 45 percent slopes	IV	II	III
Moderately gullied land, ALL	IV	VI	IV
Monacan and Arents soils	I	III	IV
Monacan loam	I	III	III
Montonia very channery silt loam, 25 to 60 percent slopes, very stony	IV	V	IV
Mooshaunee-Hallison complex, 2 to 8 percent slopes	III	II	II
Mooshaunee-Hallison complex, 8 to 15 percent slopes	IV	II	III
Mooshaunee-Hallison complex, 15 to 25 percent slopes	IV	II	IV
Mooshaunee-Hallison complex, ALL OTHER	IV	II	IV
Nanford gravelly fine sandy loam, 8 to 15 percent slopes	III	II	II
Nanford silt loam, 2 to 6 percent slopes	II	II	I
Nanford silt loam, 2 to 8 percent slopes	II	II	I
Nanford silt loam, 8 to 15 percent slopes	III	II	II
Nanford silty clay loam, 2 to 6 percent slopes, moderately eroded	III	II	II
Nanford-Badin complex, 6 to 10 percent slopes	III	II	II
Nanford-Badin complex, 10 to 15 percent slopes	IV	II	II
Nanford-Emporia complex, 2 to 8 percent slopes	II	II	I
Nason gravelly loam, 2 to 6 percent slopes	III	II	I
Nason gravelly loam, 6 to 10 percent slopes	III	II	II
Nason gravelly loam, 10 to 25 percent slopes	IV	II	II
Nason gravelly loam, 25 to 50 percent slopes	IV	II	III
Nason gravelly silt loam, 2 to 8 percent slopes	II	II	I
Nason gravelly silt loam, 8 to 15 percent slopes	III	II	II
Nason loam, 2 to 6 percent slopes	II	II	I
Nason loam, 6 to 10 percent slopes	III	II	I
Nason silt loam, 2 to 6 percent slopes	II	II	I
Nason silt loam, 2 to 8 percent slopes	II	II	I
Nason silt loam, 6 to 12 percent slopes	III	II	I

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Map Unit Name	Agri	For	Hort
Nason silt loam, 8 to 15 percent slopes	III	II	I
Nason silt loam, 10 to 15 percent slopes	III	II	I
Nason silt loam, 15 to 25 percent slopes	IV	II	II
Nason stony silt loam, 10 to 15 percent slopes (Uwharrie)	IV	II	IV
Oakboro silt loam, ALL	III	III	III
Orange gravelly loam, 2 to 7 percent slopes	II	II	II
Orange loam, 0 to 2 percent slopes	II	II	II
Orange silt loam, 0 to 3 percent slopes	II	II	II
Orange silt loam, eroded gently sloping moderately well drained variant	III	II	II
Orange silt loam, eroded gently sloping phase	III	II	II
Orange silt loam, eroded sloping moderately well drained variant	III	II	II
Orange silt loam, gently sloping moderately well drained variant	III	II	II
Orange silt loam, gently sloping phase	II	II	II
Orange silt loam, nearly level phase	II	II	II
Orange silt loam, sloping moderately well drained variant	III	II	II
Pacolet clay loam, 2 to 6 percent slopes, eroded	II	II	II
Pacolet clay loam, 2 to 8 percent slopes, moderately eroded	II	II	II
Pacolet clay loam, 6 to 10 percent slopes, eroded	III	II	II
Pacolet clay loam, 6 to 10 percent slopes, severely eroded	III	II	II
Pacolet clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Pacolet clay loam, 10 to 15 percent slopes, eroded	III	II	II
Pacolet clay loam, 15 to 45 percent slopes, eroded	IV	II	II
Pacolet complex, 10 to 25 percent slopes, severely eroded	IV	II	III
Pacolet fine sandy loam, 2 to 6 percent slopes	II	II	I
Pacolet fine sandy loam, 6 to 10 percent slopes	III	II	I
Pacolet fine sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet fine sandy loam, 10 to 15 percent slopes	III	II	II
Pacolet fine sandy loam, ALL OTHER	IV	II	II
Pacolet gravelly fine sandy loam, 2 to 6 percent slopes	II	II	I
Pacolet gravelly fine sandy loam, 6 to 10 percent slopes	III	II	II
Pacolet gravelly fine sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet gravelly fine sandy loam, 15 to 25 percent slopes	IV	II	II
Pacolet gravelly sandy clay loam, 15 to 30 percent slopes, eroded	IV	II	II
Pacolet gravelly sandy loam, 2 to 8 percent slopes	II	II	I
Pacolet gravelly sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet gravelly sandy loam, ALL OTHER	IV	II	II
Pacolet loam, 10 to 15 percent slopes	III	II	II
Pacolet loam, 15 to 25 percent slopes	IV	II	II
Pacolet sandy clay loam, 2 to 6 percent slopes, eroded	II	II	II
Pacolet sandy clay loam, 2 to 6 percent slopes, moderately eroded	II	II	II
Pacolet sandy clay loam, 2 to 8 percent slopes, eroded	II	II	II
Pacolet sandy clay loam, 6 to 10 percent slopes, moderately eroded	III	II	II
Pacolet sandy clay loam, 8 to 15 percent slopes, eroded	III	II	II
Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Pacolet sandy clay loam, 10 to 15 percent slopes, moderately eroded	III	II	II
Pacolet sandy clay loam, ALL OTHER	IV	II	II
Pacolet sandy loam, 2 to 6 percent slopes	II	II	I
Pacolet sandy loam, 2 to 8 percent slopes	II	II	I
Pacolet sandy loam, 6 to 10 percent slopes	III	II	II
Pacolet sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet sandy loam, 10 to 15 percent slopes	III	II	II
Pacolet sandy loam, ALL OTHER	IV	II	II

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Map Unit Name	Agri	For	Hort
Pacolet soils, 10 to 25 percent slopes	IV	II	III
Pacolet-Bethlehem complex, 2 to 8 percent slopes, eroded	III	II	II
Pacolet-Bethlehem complex, 2 to 8 percent slopes, moderately eroded	III	II	II
Pacolet-Bethlehem complex, ALL OTHER	IV	II	II
Pacolet-Bethlehem complex, 15 to 25 percent slopes, stony	IV	II	III
Pacolet-Bethlehem-Urban Land complex, ALL	IV	II	IV
Pacolet-Madison-Urban land complex, ALL	IV	II	IV
Pacolet-Saw complex, 2 to 8 percent slopes, eroded	III	II	II
Pacolet-Saw complex, 2 to 8 percent slopes, moderately eroded	III	II	II
Pacolet-Saw complex, ALL OTHER	IV	II	II
Pacolet-Udorthents complex, gullied, ALL	IV	II	IV
Pacolet-Urban land complex, ALL	IV	II	IV
Pacolet-Wilkes complex, 8 to 15 percent slopes	III	II	II
Pacolet-Wilkes complex, 15 to 25 percent slopes	IV	II	II
Picture loam, 0 to 3 percent slopes	IV	II	III
Pinkston, ALL	IV	II	III
Pinoka, ALL	IV	II	III
Pinoka-Carbonton complex, 2 to 8 percent slopes	IV	II	III
Pits, ALL	IV	VI	IV
Poindexter and Zion sandy loams, 2 to 8 percent slopes	III	II	II
Poindexter and Zion sandy loams, 8 to 15 percent slopes	IV	II	II
Poindexter and Zion sandy loams, ALL OTHER	IV	II	III
Poindexter fine sandy loam, 25 to 60 percent slopes	IV	II	III
Poindexter loam, 2 to 8 percent slopes	III	II	II
Poindexter loam, 8 to 15 percent slopes	IV	II	II
Poindexter loam, 15 to 45 percent slopes	IV	II	III
Poindexter-Mocksville complex, 2 to 8 percent slopes	IV	II	II
Poindexter-Mocksville complex, 8 to 15 percent slopes	IV	II	II
Poindexter-Mocksville complex, ALL OTHER	IV	II	III
Poindexter-Zion-Urban land complex, 2 to 15 percent slopes	IV	II	IV
Polkton-White Store complex, 2 to 8 percent slopes, severely eroded	III	II	III
Polkton-White Store complex, ALL OTHER	IV	II	III
Quarry, ALL	IV	VI	IV
Rhodhiss, ALL	IV	II	II
Rhodhiss-Bannertown complex, 25 to 50 percent slopes	IV	II	III
Rion fine sandy loam, 2 to 8 percent slopes	III	II	II
Rion fine sandy loam, 8 to 15 percent slopes	IV	II	II
Rion fine sandy loam, 15 to 25 percent slopes	IV	II	II
Rion fine sandy loam, 25 to 60 percent slopes	IV	II	III
Rion loamy sand, 8 to 15 percent slopes	IV	II	II
Rion loamy sand, 15 to 25 percent slopes	IV	II	III
Rion sandy loam, 2 to 8 percent slopes	III	II	II
Rion sandy loam, 8 to 15 percent slopes	III	II	II
Rion sandy loam, 15 to 25 percent slopes	IV	II	II
Rion sandy loam, 15 to 30 percent slopes	IV	II	II
Rion sandy loam, ALL OTHER	IV	II	III
Rion, Pacolet, and Wateree soils, 25 to 60 percent slopes	IV	II	IV
Rion-Ashlar complex, 15 to 35 percent slopes, stony	IV	II	III
Rion-Ashlar complex, 25 to 60 percent slopes, rocky	IV	II	IV
Rion-Ashlar-Rock outcrop complex, 45 to 70 percent slopes	IV	II	IV
Rion-Cliffside complex, 25 to 60 percent slopes, very stony	IV	II	IV
Rion-Hibriten complex, 25 to 45 percent slopes, very stony	IV	II	IV

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Map Unit Name	Agri	For	Hort
Rion-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Rion-Wateree-Wedowee complex, 8 to 15 percent slopes	IV	II	III
Rion-Wedowee complex, ALL	III	II	II
Rion-Wedowee-Ashlar complex, ALL	IV	II	III
Riverview and Buncombe soils, 0 to 3 percent slopes, frequently flooded	II	III	III
Riverview and Toccoa soils, 0 to 4 percent slopes, occasionally flooded	II	III	III
Riverview, frequently flooded, ALL	II	III	III
Riverview, occasionally flooded, ALL	I	III	III
Roanoke, ALL	II	III	III
Roanoke-Wahee complex, 0 to 3 percent slopes, occasionally flooded	II	III	III
Rock outcrop	IV	VI	IV
Rock outcrop-Ashlar complex, 2 to 15 percent slopes	IV	VI	IV
Rock outcrop-Wake complex, ALL	IV	VI	IV
Sauratown channery fine sandy loam, 25 to 60 percent slopes, very stony	IV	IV	IV
Saw-Pacolet complex, ALL	IV	II	II
Saw-Wake Complex, very rocky, ALL	IV	II	IV
Secrest-Cid complex, 0 to 3 percent slopes	III	II	II
Sedgefield fine sandy loam, 1 to 4 percent slopes	II	II	II
Sedgefield fine sandy loam, 1 to 6 percent slopes	III	II	II
Sedgefield sandy loam, 1 to 6 percent slopes	III	II	II
Sedgefield sandy loam, 2 to 8 percent slopes	III	II	II
Severely gullied land, ALL	IV	VI	IV
Shellbluff loam, 0 to 2 percent slopes, occasionally flooded	II	III	III
Shellbluff silt loam, 0 to 2 percent slopes, frequently flooded	IV	III	III
Skyuka clay loam, 2 to 8 percent slopes, eroded	II	I	II
Skyuka loam, 2 to 8 percent slopes	I	I	II
Spray loam, 0 to 5 percent slopes	IV	II	III
Spray-Urban land complex, 0 to 5 percent slopes	IV	II	IV
Starr loam, ALL	II	I	III
State, ALL	I	I	I
Stoneville loam, 2 to 8 percent slopes	II	II	I
Stoneville loam, 8 to 15 percent slopes	III	II	I
Stoneville loam, 15 to 25 percent slopes	IV	II	II
Stoneville-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Stony land	IV	VI	IV
Swamp	IV	III	IV
Tallapoosa fine sandy loam, ALL	IV	II	III
Tarrus gravelly silt loam, 2 to 8 percent slopes	II	II	I
Tarrus-Georgeville complex, 8 to 15 percent slopes	II	II	I
Tatum and Nason channery silt loams, 15 to 25 percent slopes	IV	II	II
Tatum channery silt loam, ALL	III	II	I
Tatum channery silty clay loam, ALL	III	II	II
Tatum gravelly loam, 2 to 8 percent slopes	II	II	I
Tatum gravelly loam, 8 to 15 percent slopes	III	II	I
Tatum gravelly loam, ALL OTHER	IV	II	II
Tatum gravelly silt loam, 2 to 8 percent slopes	II	II	I
Tatum gravelly silt loam, 8 to 15 percent slopes	III	II	I
Tatum gravelly silt loam, ALL OTHER	IV	II	II
Tatum gravelly silty clay loam, eroded, ALL	III	II	II
Tatum loam, 2 to 6 percent slopes	II	II	I
Tatum loam, 10 to 15 percent slopes	III	II	II
Tatum loam, ALL OTHER	IV	II	II

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Map Unit Name	Agri	For	Hort
Tatum silt loam, 2 to 8 percent slopes	II	II	I
Tatum silt loam, 8 to 15 percent slopes	III	II	I
Tatum silt loam, ALL OTHER	IV	II	II
Tatum silty clay loam, eroded, ALL	III	II	II
Tatum-Badin complex, 2 to 8 percent slopes	III	II	I
Tatum-Badin complex, 2 to 8 percent slopes, eroded	III	II	II
Tatum-Badin complex, 8 to 15 percent slopes	III	II	II
Tatum-Montonia complex, 15 to 30 percent slopes	IV	II	II
Tatum-Montonia complex, ALL OTHER	III	II	II
Tatum-Urban land complex, 2 to 8 percent slopes	IV	II	IV
Tetotum fine sandy loam, 1 to 4 percent slopes	I	I	I
Tetotum silt loam, 0 to 3 percent slopes	I	I	I
Tirzah silt loam, eroded gently sloping phase (Tatum)	III	II	I
Tirzah silt loam, eroded sloping phase (Tatum)	II	II	I
Tirzah silt loam, eroded strongly sloping phase (Tatum)	III	II	II
Tirzah silt loam, gently sloping phase (Stoneville)	II	II	II
Tirzah silt loam, sloping phase (Stoneville)	III	II	II
Tirzah silt loam, strongly sloping phase (Stoneville)	III	II	II
Tirzah silty clay loam, severely eroded gently sloping phase (Tatum)	III	II	II
Tirzah silty clay loam, severely eroded sloping phase (Tatum)	III	II	II
Tirzah silty clay loam, severely eroded strongly sloping phase (Tatum)	IV	II	II
Toast sandy loam, 2 to 8 percent slopes	II	I	I
Toast sandy loam, 8 to 15 percent slopes	III	I	II
Toccoa, ALL	I	III	III
Turbeville fine sandy loam, 0 to 3 percent slopes	I	II	I
Udorthents, ALL	IV	VI	IV
Udorthents-Pits complex, mounded, 0 to 2 percent slopes, occasionally flooded	IV	VI	IV
Udorthents-Urban land complex, ALL	IV	VI	IV
Urban land, ALL	IV	VI	IV
Urban land-Arents complex, occasionally flooded	IV	III	IV
Urban land-Iredell-Creedmoor complex, 2 to 10 percent slopes	IV	II	IV
Urban land-Masada complex, 2 to 15 percent slopes	IV	II	IV
Uwharrie clay loam, 2 to 8 percent slopes, eroded	III	II	III
Uwharrie clay loam, 8 to 15 percent slopes, eroded	IV	II	III
Uwharrie loam, 15 to 25 percent slopes	IV	II	III
Uwharrie loam, very stony, ALL	IV	II	III
Uwharrie silt loam, 2 to 8 percent slopes	II	II	I
Uwharrie silty clay loam, 2 to 8 percent slopes, eroded	III	II	II
Uwharrie silty clay loam, 2 to 8 percent slopes, moderately eroded	III	II	II
Uwharrie silty clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Uwharrie stony loam, ALL	IV	II	III
Uwharrie stony loam, very bouldery, ALL	IV	II	IV
Uwharrie-Badin complex, ALL	IV	II	III
Uwharrie-Tatum complex, 8 to 15 percent slopes	III	II	III
Uwharrie-Tatum complex, 8 to 15 percent slopes, moderately eroded	IV	II	III
Uwharrie-Urban Land, 2 to 8 percent slopes	IV	II	IV
Vance clay loam, severely eroded sloping phase	IV	II	II
Vance coarse sandy loam, 2 to 8 percent slopes	II	II	II
Vance coarse sandy loam, eroded gently sloping phase	III	II	II
Vance coarse sandy loam, eroded sloping phase	III	II	II
Vance coarse sandy loam, gently sloping phase	II	II	II

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Map Unit Name	Agri	For	Hort
Vance sandy clay loam, ALL	III	II	II
Vance sandy loam, 2 to 6 percent slopes	II	II	II
Vance sandy loam, 2 to 6 percent slopes, eroded	III	II	II
Vance sandy loam, 2 to 8 percent slopes	II	II	II
Vance sandy loam, 6 to 10 percent slopes	III	II	II
Vance sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Vance sandy loam, 8 to 15 percent slopes	III	II	II
Vance sandy loam, 10 to 15 percent slopes	III	II	II
Vance sandy loam, eroded gently sloping phase	III	II	II
Vance sandy loam, eroded moderately sloping phase	III	II	II
Vance sandy loam, eroded strongly sloping phase	IV	II	II
Vance sandy loam, gently sloping phase	II	II	II
Vance-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Wadesboro clay loam, 2 to 8 percent slopes, moderately eroded	II	I	II
Wadesboro clay loam, 8 to 15 percent slopes, moderately eroded	III	I	II
Wadesboro fine sandy loam, 2 to 7 percent slopes (Mayodan)	II	I	II
Wadesboro fine sandy loam, 2 to 7 percent slopes, eroded (Mayodan)	II	I	II
Wadesboro fine sandy loam, 7 to 10 percent slopes (Mayodan)	III	I	II
Wadesboro fine sandy loam, 7 to 10 percent slopes, eroded (Mayodan)	III	I	II
Wadesboro fine sandy loam, 10 to 14 percent slopes (Mayodan)	III	I	II
Wadesboro fine sandy loam, 10 to 14 percent slopes, eroded (Mayodan)	IV	I	II
Wadesboro fine sandy loam, 14 to 30 percent slopes (Mayodan)	IV	I	II
Wahee, ALL	II	III	I
Wake soils, ALL	IV	II	III
Wake-Saw-Wedowee complex, 2 to 8 percent slopes, rocky	IV	II	III
Wake-Wateree complex, 15 to 30 percent slopes, very rocky	IV	II	III
Wake-Wateree-Wedowee complex, 8 to 15 percent slopes, rocky	IV	II	III
Warne and Roanoke fine sandy loams (Dogue)	IV	III	II
Wateree fine sandy loam, ALL	IV	II	II
Wateree-Rion complex, 40 to 95 percent slopes	IV	II	III
Wateree-Rion-Wedowee complex, 15 to 30 percent slopes	IV	II	III
Wedowee coarse sandy loam, 2 to 6 percent slopes	II	I	I
Wedowee coarse sandy loam, 6 to 10 percent slopes	III	I	II
Wedowee loam, 2 to 8 percent slopes	II	I	I
Wedowee loam, 8 to 15 percent slopes	III	I	II
Wedowee loam, 15 to 25 percent slopes	IV	I	II
Wedowee sandy clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Wedowee sandy loam, 2 to 10 percent slopes, extremely bouldery	IV	I	IV
Wedowee sandy loam, 2 to 15 percent slopes, bouldery	IV	I	III
Wedowee sandy loam, 2 to 6 percent slopes	II	I	I
Wedowee sandy loam, 2 to 6 percent slopes, eroded	II	I	II
Wedowee sandy loam, 2 to 8 percent slopes	II	I	I
Wedowee sandy loam, 6 to 10 percent slopes	III	I	II
Wedowee sandy loam, 6 to 10 percent slopes, eroded	III	I	II
Wedowee sandy loam, 6 to 15 percent slopes	III	I	II
Wedowee sandy loam, 8 to 15 percent slopes	III	I	II
Wedowee sandy loam, 10 to 15 percent slopes	III	I	II
Wedowee sandy loam, 10 to 15 percent slopes, eroded	III	I	II
Wedowee sandy loam, 10 to 25 percent slopes	III	I	II
Wedowee sandy loam, 15 to 25 percent slopes	IV	I	II
Wedowee sandy loam, 15 to 35 percent slopes, bouldery	IV	I	III
Wedowee sandy loam, 15 to 40 percent slopes	IV	I	II

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Map Unit Name	Agri	For	Hort
Wedowee-Louisburg complex, 2 to 6 percent slopes	II	I	II
Wedowee-Louisburg complex, ALL OTHER	III	I	III
Wedowee-Urban land-Udorthents complex, 2 to 10 percent slopes	IV	I	IV
Wehadkee and Bibb soils	IV	III	III
Wehadkee, ALL	IV	III	III
White Store clay loam, ALL	IV	II	III
White Store fine sandy loam, moderately eroded, ALL	IV	II	III
White Store loam, 8 to 15 percent slopes	IV	II	III
White Store loam, ALL OTHER	III	II	III
White Store sandy loam, 2 to 6 percent slopes	III	II	III
White Store sandy loam, ALL OTHER	IV	II	III
White Store silt loam, 8 to 15 percent slopes	IV	II	III
White Store silt loam, ALL OTHER	III	II	III
White Store-Polkton complex, ALL	IV	II	III
White Store-Urban land complex, ALL	IV	II	IV
Wickham fine sandy loam, 0 to 3 percent slopes, rarely flooded	I	I	I
Wickham fine sandy loam, 2 to 6 percent slopes	I	I	I
Wickham fine sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Wickham fine sandy loam, 2 to 7 percent slopes, eroded	II	I	I
Wickham fine sandy loam, 2 to 8 percent slopes	II	I	I
Wickham fine sandy loam, 6 to 10 percent slopes	II	I	I
Wickham fine sandy loam, 6 to 10 percent slopes, eroded	III	I	II
Wickham fine sandy loam, 7 to 14 percent slopes, eroded	III	I	II
Wickham fine sandy loam, 10 to 15 percent slopes	III	I	II
Wickham sandy loam, ALL	I	I	I
Wilkes, ALL	IV	II	III
Wilkes-Poindexter-Wynott complex, ALL	IV	II	III
Wilkes-Urban land complex, 8 to 15 percent slopes	IV	II	IV
Winnsboro fine sandy loam, 2 to 8 percent slopes	II	II	I
Winnsboro loam, 2 to 8 percent slopes	III	II	I
Winnsboro loam, 8 to 15 percent slopes	IV	II	II
Winnsboro-Wilkes complex, 2 to 8 percent slopes	III	II	II
Winnsboro-Wilkes complex, ALL OTHER	IV	II	III
Woolwine-Fairview complex, 2 to 8 percent slopes, moderately eroded	III	II	II
Woolwine-Fairview complex, moderately eroded, ALL OTHER	IV	II	II
Woolwine-Fairview-Urban land complex, ALL	IV	II	IV
Worsham, ALL	IV	III	III
Wynott cobbly loam, 2 to 10 percent slopes, extremely stony	IV	II	IV
Wynott loam, 2 to 8 percent slopes	III	II	II
Wynott-Enon complex, 2 to 8 percent slopes	II	II	II
Wynott-Enon complex, 2 to 8 percent slopes, moderately eroded	II	II	II
Wynott-Enon complex, 8 to 15 percent slopes	II	II	II
Wynott-Enon complex, 8 to 15 percent slopes, moderately eroded	III	II	II
Wynott-Enon complex, 15 to 25 percent slopes	IV	II	II
Wynott-Enon complex, extremely bouldery, ALL	IV	II	IV
Wynott-Wilkes-Poindexter complex, 2 to 8 percent slopes	IV	II	II
Wynott-Winnsboro complex, 2 to 8 percent slopes	II	II	II
Wynott-Winnsboro complex, 8 to 15 percent slopes	II	II	II
Wynott-Winnsboro complex, 15 to 25 percent slopes	IV	II	II
Zion gravelly loam, 2 to 8 percent slopes	III	II	II
Zion gravelly loam, 8 to 15 percent slopes	IV	II	II
Zion-Enon complex, 2 to 8 percent slopes	III	II	III

MLRA136 – Piedmont

Map Unit Name	Agri	For	Hort
Zion-Enon complex, 8 to 15 percent slopes	IV	II	II
Zion-Mocksville complex, 25 to 45 percent slopes	IV	II	III
Zion-Wilkes complex, 8 to 15 percent slopes	IV	II	II
Zion-Winnsboro-Mocksville complex, ALL	IV	II	II

MLRA137 – Sandhills

Map Unit Name	Agri	For	Hort
Ailey gravelly loamy sand, 8 to 15 percent slopes	III	V	III
Ailey gravelly loamy sand, 15 to 25 percent slopes	IV	V	IV
Ailey loamy sand, ALL	III	V	III
Ailey sand, moderately wet, 0 to 6 percent slopes	II	V	II
Ailey-Urban land complex, ALL	IV	V	IV
Bibb loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV
Blaney loamy sand, 2 to 8 percent slopes	II	II	II
Blaney loamy sand, 8 to 15 percent slopes	III	II	III
Blaney-Urban land complex, ALL	IV	II	IV
Bragg sandy loam, 1 to 4 percent slopes	IV	V	IV
Candor and Wakulla soils, 8 to 15 percent slopes	IV	V	IV
Candor sand, ALL	IV	V	IV
Candor-Urban land complex, 2 to 12 percent slopes	IV	V	IV
Dothan gravelly loamy sand, 0 to 6 percent slopes	I	II	I
Dothan loamy sand, ALL	I	II	I
Emporia loamy sand, ALL	II	II	II
Faceville sandy clay loam, 2 to 6 percent slopes, eroded	II	II	II
Fuquay, ALL	II	II	II
Fuquay-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Gilead loamy sand, ALL	II	II	II
Johns fine sandy loam, 0 to 2 percent slopes	I	I	I
Johnston, ALL	IV	III	IV
Kalmia sandy loam, wet substratum, 0 to 2 percent slopes	I	II	I
Kenansville loamy sand, 0 to 4 percent slopes	II	I	II
Lakeland, ALL	IV	V	IV
Lakeland-Urban land complex, 1 to 8 percent slopes	IV	V	IV
Lillington gravelly sandy loam, 2 to 8 percent slopes	III	II	III
Lillington gravelly sandy loam, 8 to 15 percent slopes	IV	II	IV
Lillington gravelly sandy loam, 15 to 25 percent slopes	IV	II	IV
Pactolus sand, 0 to 3 percent slopes	IV	II	IV
Paxville fine sandy loam, 0 to 2 percent slopes	I	III	I
Pelion loamy sand, 0 to 2 percent slopes	II	II	II
Pelion loamy sand, 1 to 4 percent slopes	IV	II	IV
Pelion loamy sand, 2 to 8 percent slopes	III	II	III
Pelion loamy sand, 8 to 15 percent slopes	IV	II	IV
Pelion-Urban land complex, ALL	IV	II	IV
Pelion-Urban land complex, 8 to 15 percent slopes	IV	II	IV
Pocalla loamy sand, 0 to 6 percent slopes	II	II	II
Rains fine sandy loam, 0 to 2 percent slopes	III	I	III
Tetotum silt loam, 0 to 3 percent slopes, rarely flooded	I	I	I
Udorthents, ALL	IV	VI	IV
Urban land, ALL	IV	VI	IV
Vaucluse gravelly loamy sand, 2 to 8 percent slopes	III	II	III
Vaucluse gravelly loamy sand, 8 to 15 percent slopes	IV	II	IV
Vaucluse gravelly loamy sand, 15 to 25 percent slopes	IV	II	IV
Vaucluse gravelly sandy loam, ALL	III	II	III
Vaucluse gravelly sandy loam, 8 to 15 percent slopes	III	II	III
Vaucluse gravelly sandy loam, 15 to 25 percent slopes	III	II	III
Vaucluse loamy sand, 2 to 8 percent slopes	II	II	II
Vaucluse loamy sand, 8 to 15 percent slopes	III	II	III
Vaucluse loamy sand, 15 to 25 percent slopes	IV	II	IV
Vaucluse very gravelly loamy sand, ALL	IV	II	IV

MLRA137 – Sandhills

Map Unit Name	Agri	For	Hort
Vaucluse-Gilead loamy sands, 15 to 25 percent slopes	IV	II	IV
Vaucluse-Urban land complex, ALL	IV	II	IV
Wakulla and Candor soils, 0 to 8 percent slopes	IV	V	IV
Wakulla sand, ALL	IV	V	IV
Wakulla-Candor-Urban land complex, 0 to 10 percent slopes	IV	V	IV
Wehadkee fine sandy loam	IV	III	IV
Wehadkee loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV

MLRA153A – Lower Coastal Plain

Map Unit Name	Agri	For	Hort
Alaga, ALL	IV	II	IV
Alpin, ALL	IV	II	IV
Altavista, ALL	I	I	I
Altavista-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Arapahoe fine sandy loam	II	I	II
Augusta, ALL	II	I	II
Autryville fine sand, 1 to 4 percent slopes	IV	II	IV
Autryville, ALL OTHER	III	II	III
Aycock, ALL ERODED	II	I	II
Aycock, ALL OTHER	I	I	I
Ballahack loam, 0 to 2 percent slopes, occasionally flooded	I	I	I
Bayboro, ALL	I	I	I
Baymeade and Marvyn soils, 6 to 12 percent slopes	IV	V	IV
Baymeade fine sand, ALL	IV	V	IV
Baymeade-Urban land complex, 0 to 6 percent slopes	IV	V	IV
Bethera, ALL	II	I	II
Bibb and Johnston loams, frequently flooded	IV	III	IV
Bibb, ALL	IV	III	IV
Bladen, ALL	III	I	III
Blanton, ALL	IV	V	IV
Bohicket, ALL	IV	VI	IV
Bonneau loamy fine sand, 0 to 6 percent slopes	II	II	II
Bonneau loamy sand, 0 to 4 percent slopes	II	II	II
Bonneau loamy sand, 0 to 6 percent slopes	II	II	II
Bonneau loamy sand, 6 to 10 percent slopes	III	II	III
Bonneau loamy sand, 6 to 12 percent slopes	III	II	III
Borrow pits	IV	VI	IV
Bragg, ALL	IV	VI	IV
Brookman loam, frequently flooded	IV	III	IV
Butters loamy fine sand, 0 to 3 percent slopes	III	II	III
Byars loam	II	III	II
Cainhoy, ALL	IV	V	IV
Cape Fear loam, ALL	I	I	I
Caroline fine sandy loam, ALL	II	II	II
Carteret, ALL	IV	VI	IV
Centenary fine sand	IV	II	IV
Chastain and Chenneby soils, frequently flooded	IV	III	IV
Chastain silt loam, frequently flooded	IV	III	IV
Chewacla and Chastain soils, frequently flooded	IV	III	IV
Chewacla loam, frequently flooded	IV	III	IV
Chipley sand	IV	II	IV
Chowan silt loam	IV	III	IV
Conetoe, ALL	III	II	III
Congaree silt loam, 0 to 4 percent slopes, occasionally flooded	I	III	I
Corolla fine sand	IV	VI	IV
Coxville, ALL	II	I	II
Craven clay loam, 4 to 12 percent slopes, eroded	IV	I	IV
Craven fine sandy loam, 0 to 1 percent slopes	II	I	II
Craven fine sandy loam, 1 to 4 percent slopes	II	I	II
Craven fine sandy loam, 1 to 6 percent slopes, eroded	III	I	III
Craven fine sandy loam, 4 to 8 percent slopes	III	I	III
Craven fine sandy loam, 4 to 8 percent slopes, eroded	IV	I	IV

MLRA153A – Lower Coastal Plain

Map Unit Name	Agri	For	Hort
Craven fine sandy loam, 6 to 10 percent slopes	IV	I	IV
Craven fine sandy loam, 8 to 12 percent slopes, eroded	IV	I	IV
Craven loam, 1 to 4 percent slopes	II	I	II
Craven loam, 1 to 4 percent slopes, eroded	III	I	III
Craven silt loam, 1 to 4 percent slopes	II	I	II
Craven very fine sandy loam, 1 to 4 percent slopes	II	I	II
Craven very fine sandy loam, 4 to 8 percent slopes	IV	I	IV
Craven-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Croatan muck, frequently flooded	III	V	III
Croatan muck, ALL OTHER	II	V	II
Dogue sandy loam, 0 to 2 percent slopes	II	I	II
Dogue sandy loam, 2 to 6 percent slopes	III	I	III
Dogue sandy loam, 6 to 12 percent slopes	IV	I	IV
Dorovan, ALL	IV	V	IV
Duckston fine sand	IV	VI	IV
Echaw, ALL	IV	V	IV
Exum fine sandy loam, 0 to 1 percent slopes	I	II	I
Exum fine sandy loam, 1 to 6 percent slopes	II	II	II
Exum loam, 0 to 2 percent slopes	I	II	I
Exum silt loam, 0 to 2 percent slopes	I	II	I
Exum very fine sandy loam, 0 to 2 percent slopes	I	II	I
Exum very fine sandy loam, 2 to 5 percent slopes	II	II	II
Exum-Urban land complex, 0 to 2 percent slopes	IV	II	IV
Foreston loamy fine sand, ALL	II	II	II
Goldsboro sandy loam, 1 to 6 percent slopes	I	I	I
Goldsboro, ALL OTHER	I	I	I
Goldsboro-Urban land complex, ALL	IV	I	IV
Grantham, ALL	I	I	I
Grifton, ALL	II	I	II
Hobonny muck	IV	VI	IV
Icaria fine sandy loam, ALL	II	I	II
Invershiel-Pender complex, 0 to 2 percent slopes	I	II	I
Johns, ALL	II	I	II
Johnston and Pamlico soils, 0 to 1 percent slopes, frequently flooded	IV	III	IV
Johnston soils	IV	III	IV
Kalmia, ALL	II	II	II
Kenansville, ALL	III	II	III
Kinston loam, frequently flooded	IV	III	IV
Kureb, ALL	IV	V	IV
Lafitte muck	IV	VI	IV
Lakeland sand, 0 to 6 percent slopes	IV	V	IV
Leaf, ALL	III	I	III
Lenoir, ALL	III	I	III
Leon, ALL	IV	V	III
Leon-Urban land complex	IV	V	IV
Liddell silt loam	II	I	II
Lucy loamy sand, 0 to 6 percent slopes	II	II	II
Lumbee, ALL	II	I	II
Lynchburg, ALL	II	I	II
Lynchburg-Urban land complex	IV	I	IV
Lynn Haven sand	IV	II	IV
Mandarin, ALL	IV	V	IV

MLRA153A – Lower Coastal Plain

Map Unit Name	Agri	For	Hort
Mandarin-Urban land complex	IV	V	IV
Marvyn and Craven soils, 6 to 12 percent slopes	IV	I	IV
Marvyn, ALL	IV	I	IV
Masada sandy loam, 0 to 4 percent slopes	I	II	I
Masontown, ALL	IV	III	IV
Masontown mucky fine sandy loam and Muckalee sandy loam, frequently flooded	IV	III	IV
Meggett fine sandy loam, frequently flooded	IV	III	IV
Meggett, ALL OTHER	III	I	III
Mine pits	IV	VI	IV
Muckalee loam, ALL	IV	III	IV
Murville, ALL	IV	V	IV
Nahunta, ALL	I	I	I
Nakina fine sandy loam	I	I	I
Nawney loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV
Newhan, ALL	IV	VI	IV
Newhan-Corolla complex, 0 to 30 percent slopes	IV	VI	IV
Newhan-Corolla-Urban land complex, 0 to 30 percent slopes	IV	VI	IV
Noboco fine sandy loam, 0 to 2 percent slopes	I	I	I
Noboco fine sandy loam, 2 to 6 percent slopes	II	I	II
Norfolk, ALL	II	II	II
Norfolk-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Ocilla loamy fine sand, 0 to 4 percent slopes	IV	II	IV
Olustee loamy sand, sandy subsoil variant (Murville)	IV	II	IV
Onslow, ALL	II	II	II
Osier loamy sand, loamy substratum	IV	I	IV
Pactolus, ALL	IV	II	IV
Pamlico muck, frequently flooded	IV	V	IV
Pamlico muck, ALL OTHER	III	V	III
Pantego, ALL	I	I	I
Paxville sandy loam	II	III	II
Pender fine sandy loam	II	I	II
Pender-Urban land complex	IV	I	IV
Pits, ALL	IV	VI	IV
Pocalla loamy sand, 0 to 6 percent slopes	III	II	III
Rains, ALL	I	I	I
Rains-Urban land complex	IV	I	IV
Rimini sand 1 to 6 percent slopes	IV	V	IV
Roanoke, frequently flooded	IV	III	IV
Roanoke, ALL OTHER	II	III	II
Rumford, ALL	III	II	III
Rutlege mucky loamy fine sand	IV	V	IV
Seabrook, ALL	IV	II	IV
Seabrook-Urban land complex	IV	II	IV
Stallings, ALL	II	II	II
State fine sandy loam, 0 to 2 percent slopes	I	I	I
State fine sandy loam, 2 to 6 percent slopes	II	I	II
State loamy sand, 0 to 2 percent slopes	I	I	I
Stockade fine sandy loam	I	I	I
Suffolk loamy sand, 10 to 30 percent slopes	I	II	I
Swamp	IV	III	IV
Tarboro, ALL	IV	II	IV
Tarboro-Urban land complex, 0 to 6 percent slopes	IV	II	IV

MLRA153A – Lower Coastal Plain

Map Unit Name	Agri	For	Hort
Tomahawk fine sand, 0 to 3 percent slopes	IV	II	IV
Tomahawk loamy fine sand	IV	II	IV
Tomahawk loamy fine sand	IV	II	IV
Tomahawk loamy sand, 0 to 3 percent slopes	III	II	III
Tomotley, ALL	I	I	I
Torhunta, ALL	II	I	II
Torhunta-Urban land complex	IV	I	IV
Tuckerman fine sandy loam	II	II	II
Udorthents, ALL	IV	VI	IV
Udults, steep	IV	VI	IV
Umbric Ochraqualfs	IV	VI	IV
Urban land	IV	VI	IV
Valhalla fine sand, 0 to 6 percent slopes	III	II	III
Wagram loamy fine sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 6 to 10 percent slopes	III	II	III
Wagram loamy sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 10 to 15 percent slopes	IV	II	IV
Wahee, ALL	II	I	II
Wando fine sand, 0 to 6 percent slopes	IV	II	IV
Wando-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Wakulla sand, ALL	IV	V	IV
Wasda muck	I	I	I
Wehadkee silt loam	IV	III	IV
Wickham fine sandy loam, 0 to 2 percent slopes	I	I	I
Wickham fine sandy loam, 2 to 6 percent slopes	II	I	II
Wickham fine sandy loam, 6 to 10 percent slopes	II	I	II
Wickham loamy sand, 1 to 6 percent slopes	II	I	II
Wickham sandy loam, 0 to 2 percent slopes	I	I	I
Wickham sandy loam, 0 to 6 percent slopes	II	I	II
Wickham sandy loam, 0 to 6 percent slopes, rarely flooded	II	I	II
Wickham sandy loam, 2 to 6 percent slopes	II	I	II
Wickham-Urban land complex, 2 to 10 percent slopes	IV	I	IV
Wilbanks, ALL	IV	III	IV
Winton, ALL	IV	I	IV
Woodington, ALL	II	II	II
Wrightsboro fine sandy loam 0 to 2 percent slopes	I	I	I
Yaupon silty clay loam, 0 to 3 percent slopes	III	VI	III

MLRA153B – Tidewater Area

Map Unit Name	Agri	For	Hort
Acredale silt loam, 0 to 2 percent slopes, rarely flooded	I	I	I
Altavista ,ALL	I	I	I
Altavista-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Arapahoe, ALL	I	I	I
Argent, ALL	II	I	II
Augusta ,ALL	II	I	II
Augusta-Urban land complex	IV	I	IV
Backbay mucky peat, 0 to 1 percent slopes, very frequently flooded	IV	VI	IV
Ballahack fine sandy loam, occasionally flooded	I	I	I
Barclay very fine sandy loam	I	I	I
Bayboro, ALL	I	I	I
Baymeade ,ALL	IV	V	IV
Baymeade-Urban land complex 1 to 6 percent slopes	IV	V	IV
Beaches, ALL	IV	VI	IV
Beaches-Newhan association	IV	VI	IV
Beaches-Newhan complex, ALL	IV	VI	IV
Belhaven muck, 0 to 2 percent slopes, frequently flooded	IV	V	IV
Belhaven muck, ALL OTHER	II	V	II
Bertie ,ALL	II	I	II
Bibb soils	IV	III	IV
Bladen ,ALL	III	I	III
Bohicket silty clay loam	IV	VI	IV
Bojac, ALL	III	II	III
Bolling loamy fine sand, 0 to 3 percent slopes, rarely flooded	II	I	II
Borrow pits	IV	VI	IV
Brookman loam, 0 to 2 percent slopes, rarely flooded	II	I	II
Brookman mucky loam, frequently flooded	IV	III	IV
Brookman mucky silt loam	I	I	I
Cape Fear, ALL	I	I	I
Carteret, ALL	IV	VI	IV
Chapanoke silt loam, ALL	I	I	I
Charleston loamy fine sand	III	II	III
Chowan, ALL	IV	III	IV
Conaby muck, ALL	II	I	II
Conetoe, ALL	III	II	III
Corolla, ALL	IV	VI	IV
Corolla-Duckston complex, ALL	IV	VI	IV
Corolla-Urban land complex	IV	VI	IV
Currituck, ALL	IV	VI	IV
Dare muck	IV	V	IV
Deloss fine sandy loam	I	III	I
Deloss mucky loam, frequently flooded	IV	III	IV
Delway muck, 0 to 1 percent slopes, very frequently flooded	IV	VI	IV
Dogue, ALL	II	I	II
Dorovan, ALL	IV	V	IV
Dragston, ALL	II	I	II
Duckston, ALL	IV	VI	IV
Duckston-Corolla complex, 0 to 6 percent slopes, rarely flooded	IV	VI	IV
Dune land, ALL	IV	VI	IV
Dune land-Newhan complex, 2 to 40 percent slopes	IV	VI	IV
Elkton, ALL	II	I	II
Engelhard loamy very fine sand, 0 to 2 percent slopes, frequently flooded	IV	III	IV

MLRA153B – Tidewater Area

Map Unit Name	Agri	For	Hort
Engelhard loamy very fine sand, 0 to 2 percent slopes, rarely flooded	II	III	II
Fallsington fine sandy loam	IV	I	IV
Fork fine sandy loam, 0 to 2 percent slopes, rarely flooded	I	I	I
Fork loamy fine sand	II	I	II
Fortescue, ALL	I	III	I
Fripp fine sand, 2 to 30 percent slopes	IV	VI	IV
Galestown loamy fine sand	IV	II	IV
Gullrock muck, 0 to 2 percent slopes, rarely flooded	II	I	II
Hobonny muck, 0 to 1 percent slopes, frequently flooded	IV	VI	IV
Hobucken, ALL	IV	VI	IV
Hyde, ALL	I	I	I
Hydeland silt loam, 0 to 2 percent slopes, rarely flooded	I	I	I
Icaria loamy fine sand, 0 to 2 percent slopes, rarely flooded	II	I	II
Johns loamy sand, 0 to 2 percent slopes	II	I	II
Klej loamy fine sand	IV	II	IV
Kureb sand 1 to 8 percent slopes	IV	V	IV
Kureb-Urban land complex 1 to 8 percent slopes	IV	V	IV
Lafitte muck, ALL	IV	VI	IV
Lakeland sand 1 to 8 percent slopes	IV	V	IV
Leaf silt loam	III	I	III
Lenoir, ALL	III	I	III
Leon fine sand, 0 to 2 percent slopes, rarely flooded	IV	V	III
Leon sand	IV	V	III
Longshoal mucky peat, 0 to 1 percent slopes, very frequently flooded	IV	VI	IV
Lynn Haven, ALL	IV	II	IV
Made land and dumps	IV	VI	IV
Masontown mucky fine sandy loam	IV	III	IV
Matapeake fine and very fine sandy loams	I	II	I
Mattapex, ALL	II	I	II
Munden, ALL	II	I	II
Newhan, ALL	IV	VI	IV
Newhan-Beaches complex,	IV	VI	IV
Newhan-Corolla complex, ALL	IV	VI	IV
Newhan-Corolla-Urban land complex, 0 to 30 percent slopes	IV	VI	IV
Newhan-Urban land complex, ALL	IV	VI	IV
Newholland mucky loamy sand, 0 to 2 percent slopes, frequently flooded	IV	V	IV
Newholland mucky loamy sand, 0 to 2 percent slopes, rarely flooded	I	V	I
Nimmo, ALL	II	I	II
Nixonton very fine sandy loam	I	I	I
Osier fine sand, ALL	IV	I	IV
Othello, ALL	I	II	I
Ousley fine sand, ALL	IV	V	IV
Pactolus fine sand	IV	II	IV
Pasquotank, ALL	I	I	I
Paxville mucky fine sandy loam	II	III	II
Perquimans, ALL	I	I	I
Pettigrew muck, ALL	II	I	II
Pits, mine	IV	VI	IV
Pocomoke, ALL	II	I	II
Ponzer, ALL	II	V	II
Portsmouth, ALL	I	I	I
Psamments, 0 to 6 percent slopes	IV	VI	IV

MLRA153B – Tidewater Area

Map Unit Name	Agri	For	Hort
Pungo muck, ALL	III	V	III
Roanoke, ALL	II	I	II
Roper muck, ALL	I	I	I
Sassafras loamy fine sand	II	I	II
Scuppernong muck, ALL	II	V	II
Seabrook, ALL	IV	II	IV
Seabrook-Urban land complex	IV	II	IV
Seagate fine sand	IV	II	IV
Seagate-Urban land complex	IV	II	IV
State fine sandy loam, ALL	I	I	I
State loamy fine sand, ALL	II	I	II
State sandy loam, ALL	I	I	I
State-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Stockade loamy fine sand	I	III	I
Stockade mucky loam, ALL	IV	III	IV
Stono, ALL	I	I	I
Tarboro sand, ALL	IV	II	IV
Tidal marsh	IV	VI	IV
Tomotley fine sandy loam, ALL	I	I	I
Udorthents, ALL	IV	VI	IV
Urban land ALL	IV	VI	IV
Wahee, ALL	II	I	II
Wakulla sand, ALL	IV	V	IV
Wando, ALL	IV	II	IV
Wasda muck ALL	I	I	I
Weeksville loam, 0 to 2 percent slopes, frequently flooded	IV	I	IV
Weeksville, ALL OTHER	I	I	I
Wickham loamy sand, 0 to 4 percent slopes	II	I	II
Woodstown fine sandy loam	I	I	I
Wysocking very fine sandy loam, 0 to 3 percent slopes, rarely flooded	I	III	I
Yaupon fine sandy loam, 0 to 3 percent slopes	III	VI	III
Yeopim loam, 0 to 2 percent slopes	I	I	I
Yeopim loam, 2 to 6 percent slopes	II	I	II
Yeopim silt loam, ALL	I	I	I
Yonges, ALL	I	I	I

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

A. Change Order Requests #28 and #29 for Emergency Services Facility

Manager's Comments:

Greene Construction has submitted Change Order Requests 28 and 29 for the Emergency Services Facility. Change Order Request 28 reconciles a $3,395.15 credit associated with the removal of SVG2 and SVG3 (graphics package) from the project and contract, including costs related to design and shop drawings previously completed. Change Order Request 29 addresses an additional cost of $2,761.08 to change out Door 100.4 at the County's request.

Board action is requested to approve Change Order Request 28 in the amount of -$3,395.15 and Change Order Request 29 in the amount of $2,761.08 for net deductive change balance.

Change Order Request

Greene Construction Inc.
525 George Wilson Rd
Boone , NC, 28607
License #: 1610

Attention:	David GoldSmith	Project:	Watauga County EMS Facility
Company:	CLARKNEXSEN	Estimator:	Isaac Webb
Address:	301 College Street Suite 300 Asheville, NC, 28801	Phone:	(828) 264-2611
		Date:	09/10/2026
Email:	DGoldsmith@clarknexsen.com		
Phone:	(828) 232-0608		

This Change Order Request Includes The Following Items

- ***This change order is to reconcile a credit from the removal of scope including SVG2 and SVG3 from the project and contract. This Credit/change order releases GCI from any further responsibility, including all labor, materials, etc.. regarding SVG2 and SVG3.***
- ***Please refer to the attached National Solutions quote #11509 for credit total. Also, please refer to attached National Solutions invoice #165700 for funds that were owed due to work completed on design and shop drawings.***
- ***No other scope of work is to be added or credited other than that pertaining to SVG2 and SVG3.***

This Change Order Request Does Not Include The Following

- Any work not specifically included on the inclusions of this proposal.
- NOTE: GCI will **not** be held liable for project duration late fees and or funds associated with the additional scope of work found on this proposal that may require additional project duration. This also includes architectural and or engineering fees of any kind.

Change Order Request Summary

Description	Total Estimate
Change Order Request #28 - Deduct SVG2 & SVG3	-3,395.15
Total Estimate	**-$3,395.15**

Deron Geouque / _____ / _____ (Owner)
NAME SIGNATURE DATE

David Goldsmith / _____ / _____ (Architect)
NAME SIGNATURE DATE

Isaac Webb / _____ / _____ (GC)
NAME SIGNATURE DATE

Change Order Request Breakdown

Description	Quantity	Unit	Unit Cost	Total
0100 General Requirements				
CREDIT - Markup/Profit	1.00	LS	-112.50	-112.50
1005 Signage				
CREDIT - Signage Subcontractor	1.00	LS	-3,474.80	-3,474.80
Signage Subcontractor (Invoice for work performed/design fees)	1.00	LS	192.15	192.15

Sales Tax

Description	Percentage	Totals
Sub-Total (After Sales Tax)		
Material	6.75%	$0.00
Labor	0.00%	$0.00
SubContractor	0.00%	-$3,282.65
Equipment	6.75%	$0.00
Other	0.00%	-$112.50
Sub-Total (After Sales Tax) Total		**-$3,395.15**

Overhead - Profit

Description	Percentage	Totals
Sub-Total (After Overhead & Profit)		
Overhead & Profit	15.00%	$0.00
Sub-Total (After Overhead & Profit) Total		**-$3,395.15**

Performance & Payment Bonds - Builders Risk

Description	Percentage	Totals
Total Estimate		
P&P Bonds	1.00%	$0.00
Builders Risk Insurance	0.35%	$0.00
Unite Price #3	10.17%	$0.00
Unit Price #5	10.13%	$0.00
Total Estimate Total		**-$3,395.15**

Quote # QUOTE-11509
100626 BCC Meeting
Date: 1 Jul 2026
Expiry Date: 31 Jul 2026

PRICE QUOTE

To: Greene Construction - 31681
525 George WIlson Rd.
Boone, NC 28607

Job Name: SVG2 & SVG3
Job Location: Watauga
Sales Rep Name: Jill Griffin
Sales Rep Code: NC01
Specifier: Clark Nexsen Architects - Charlotte - 7794

Sub-Total	**$3,474.80**
Freight	**0**
Total	**$3,474.80**

Details	Item	Pattern	Price	QTY	UOM	Extended Amt	Item Notes	Additional Notes
SVG 2	CD-DIG-SELF ADHESIVE	Cdi Digital Self Adhesive Vinyl	$62.05	28	EA	$1,737.40	CUSTOMER PROVIDED ART, SELF ADHESIVE VINYL 5' DIAMETER USING ORIGINAL IMAGE 60"W X 60"H=28SF	
SVG 3	CD-DIG-SELF ADHESIVE	Cdi Digital Self Adhesive Vinyl	$62.05	28	EA	$1,737.40	CUSTOMER PROVIDED ART, SELF ADHESIVE VINYL 5' DIAMETER USING NEW IMAGE 60"W X 60"H=28SF	

national

PRICE QUOTE

Quote # QUOTE-11509
100626 BCC Meeting
Date: 1 Jul 2026
Expiry Date: 31 Jul 2026

Price does not include freight or taxes unless listed above. Any change in quantity may result in a price adjustment.

National Wallcovering, Inc. ● PO Box 13396 ● Maumelle, AR 72113
Phone (800) 222 -1028 ●customerservice@nationalsolutions.com
Please visit our website www.nationalsolutions.com for Standard Operating Policies

Proforma Invoice

165700

Bill To: **31681 - Greene Construction**
525 George WIlson Rd.
Boone, NC 28607-

Telephone 8284571767

Email isaac@gci.build

Ship To: Greene Construction
Attn: Isaac
525 George WIlson Rd.
Boone, NC 28607-

Ship via FedEx Ground

Special Instructions

Sales order	Sales rep	Order date	Customer PO
165700	NC01	09/09/26	SVG

Stock code	Description	Color Name	Warehouse	Order quantity	Unit price	Gross amount
CD-DIG-DESIGN	Cdi Digital Design Fees		NWC-3PL	3	$60.00	$180.00

P/O: 56175

Fees for Design Time

NOTES

A 3% Surcharge will incur on all credit card transactions.

Total gross	:	**$180.00**
Total discount	:	**$0.00**
Total freight	:	**$0.00**
Misc charges	:	**$0.00**
Total tax	:	**$12.15**
Total net amount	:	**$192.15**
Payments received	:	**$0.00**
Total amount due	:	**$192.15**

National Wallcovering, Inc. ● PO Box 13396 ● Maumelle, AR 72113
Phone (800) 222-1028
Please visit our website www.nationalsolutions.com for Standard Operating Policies

Change Order Request

Greene Construction Inc.
525 George Wilson Rd
Boone , NC, 28607
License #: 1610

Attention:	David GoldSmith
Company:	CLARKNEXSEN
Address:	301 College Street Suite 300 Asheville, NC, 28801
Email:	DGoldsmith@clarknexsen.com
Phone:	(828) 232-0608

Project:	Watauga County EMS Facility
Estimator:	Isaac Webb
Phone:	(828) 264-2611
Date:	09/16/2026

Inclusions

- ***This change order is to reconcile the additional cost to change out door 100.4 per owner request.***
  - ***refer to attached 369207 - Watauga County EMS change order request for inclusions.***

Exclusions

- Any work not specifically included on the inclusions of this proposal.
- NOTE: GCI will **not** be held liable for project duration late fees and or funds associated with the additional scope of work found on this proposal that may require additional project duration. This also includes architectural and or engineering fees of any kind.

Change Order Request Summary

Description	Total Estimate
Change Order Request #29 - Change Out Door 100.4	2,761.08
Total Estimate	**$2,761.08**

Change Order Request Breakdown

Description	Quantity	Unit	Unit Cost	Total
0800 Frames, Doors, Hardware				
Frames, Doors, Hardware Subcontractor	1.00	LS	5,049.28	5,049.28
Rate Adjustment (Per Contract)	1.00	LS	-2,288.20	-2,288.20

Sales Tax

Description	Percentage	Totals
Sub-Total (After Sales Tax)		
Material	6.75%	$0.00
Labor	0.00%	$0.00
SubContractor	0.00%	$5,049.28
Equipment	6.75%	$0.00
Other	0.00%	-$2,288.20
Sub-Total (After Sales Tax) Total		**$2,761.08**

Overhead - Profit

Description	Percentage	Totals
Sub-Total (After Overhead & Profit)		
Overhead & Profit	15.00%	$0.00
Sub-Total (After Overhead & Profit) Total		**$2,761.08**

Performance & Payment Bonds - Builders Risk

Description	Percentage	Totals
Total Estimate		
P&P Bonds	1.00%	$0.00
Builders Risk Insurance	0.35%	$0.00
Unite Price #3	10.17%	$0.00
Unit Price #5	10.13%	$0.00
Total Estimate Total		**$2,761.08**

Deron Geouque /_____/_____ (Owner)
NAME SIGNATURE DATE

David Goldsmith /_____/_____ (Architect)
NAME SIGNATURE DATE

Isaac Webb /_____/_____ (GC)
NAME SIGNATURE DATE

Contemplated Change Order #14
Change hardware @ 100.4

-1	**Single Door #100.4**	**CORRIDOR 100A to CORRIDOR 100**	**100° LHR**
1	**Single Door #100.4**	**CORRIDOR 100A to CORRIDOR 100**	**100° LHR**

-1	WD 3070 4 N DCL-20PPFM 20PP-FM PSWB CLEAR LHR (3SWH; EPT; REDE; W7WO)						0.00
1	WD 3070 4 N DCL-20PPFM 20PP-FM PSWB CLEAR LHR (3SWH; ELML; EPT; MSC; W7WO)						1,830.00
1	Mortise Lockset	ML20906 106X 24AD LC M92	LHR	626	CR		1,225.00
1	Mortise Cylinder	41 13-0921 DO NOT DUPLICATE RESTRICTED KEYWAY X 3 KEYS		32D	SA		175.00

Opening Total: **3,230.00**

Section Totals

08 14 16 Flush Wood Doors	1,830.00
08 71 11 Finish Hardware	1,400.00
Installation	1,500.00
Pre-Tax Total:	**4,730.00**

Taxes

10193	NC-Watauga County	94.60
10202	NC-NORTH CAROLINA STATE TAX 4.75%	224.68
	Tax Total:	**319.28**
	Grand Total:	**5,049.28**

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

B. Department of Social Services Out-of-State Travel Request

Manager's Comments:

Amy Bateman and Mandy Davis, Department of Social Services, request approval for out-of-state travel to Charlotte and West Palm Beach, Florida, September 29-30, 2026, to transport a child in DSS custody back to North Carolina. Due to the timing of the required travel, the trip occurred prior to a Board of Commissioners meeting at the County Manager approved the request. All expenses will be covered by the Department of Social Services budget.

Board action is requested to approve the out-of-state travel per County policy.

Watauga County
Travel Authorization and Travel Advance Request

Date	September 23, 2026	Budget Account Number	145310-431100;145310-431200

Name: Amy Bateman	Title: SW III	Department: DSS
Destination: Charlotte, NC; West Palm Beach, FL Is this out of state travel? ✓ Yes No If yes, Board of County Commissioners approval is required and must be signed by the County Manager.	Meeting Dates: September 29 – 30, 2026 Departure Date: September 29, 2026 Time 6:45 a.m.	Return Date: September 30, 2026 Time 9:00 pm

Purpose of Trip:
Move Foster Child from facility in Florida to North Carolina

Overnight Accommodations Required? X Yes No Rate per night/person $169.00 – (9/29/2026)

Name of Hotel/Motel: Homewoood Suites, West Palm Beach, FL)
Government Discount X Yes No

Method of Transportation:
Cost $ X County Vehicle Personal Vehicle Air X Rental Car
❑ Other _____

Estimated Expenses			Totals
* **REGISTRATION FEES:** Please indicate meals and/or banquets included in registration fee			
MEALS:	Breakfast	$8.00 x 1 (9/29 & 9/30)	$16.00
	Lunch	$ 10.00 x 2 (9/29, 9/30)	$20.00
	Dinner	$ 16.00 x 2 (9/29, 9/30)	$32.00
* **LODGING:**	Single Rate	$ 169.00 (9/29)	$169.00
* Other:	Rental Car	$46.99	$ 46.99
	Airport Parking	$51.00	$51.00

* Receipts Required for Reimbursement

Remarks: Air is reserved using Mandy Davis purchasing card.

Are funds requested in advance:
Yes ✓ No

Form is Mathematically Correct:
❑ Yes ❑ Approved as corrected

_____
Finance Staff

_____
Date

If settlement has not been made on this advance within 20 working days after completion of travel, I authorize this amount to be deducted from my next paycheck.

Amy Bateman
Employee

9/23/26
Date

I believe this trip to be necessary and beneficial to Watauga County and funds were provided for this purpose in this departments appropriate budget account.

Julie Pecot
Department Head or County Manager

_____
County Manager (Out of State Travel)

9/24/2026
Date

Heather.Porch

From: amy b <batemanamy1@gmail.com>
Sent: Wednesday, September 23, 2026 11:05 AM
To: Heather.Porch
Subject: Fwd: Confirmed: Enterprise Rent-A-Car Reservation 2136497590 at President Donald J. Trump Intl. Airport (DJT)

---------- Forwarded message ---------
From: **Enterprise Rent-A-Car** <No-Reply@enterprise.com>
Date: Mon, Sep 21, 2026 at 4:02 PM
Subject: Confirmed: Enterprise Rent-A-Car Reservation 2136497590 at President Donald J. Trump Intl. Airport (DJT)
To: <batemanamy1@gmail.com>

Visit enterprise.com

YOUR RESERVATION IS CONFIRMED

Thank you for your reservation.
Your confirmation number is 2136497590.

Check in online so you can skip the paperwork and save time when you arrive.

We'll contact you by email or text 24 hours prior to your rental to confirm your details.

Pick-Up Details

Location	**President Donald J. Trump Intl. Airport (DJT)**
Date & Time	**Tuesday, September 29, 2026 @ 2:00 PM**
Address	2125 Belvedere Rd West Palm Beach, FL 33406
Phone	+1 833-479-1098
Hours	Tuesday: 5:00 AM - 11:59 PM

Return Details

Location	**President Donald J. Trump Intl. Airport (DJT)**
Date & Time	**Wednesday, September 30, 2026 @ 1:00 PM**
Address	2125 Belvedere Rd West Palm Beach, FL 33406
Phone	+1 833-479-1098

525

Hours	Wednesday: 5:00 AM - 11:59 PM

Renter Details

Name	AMY BATEMAN
E-mail Address	b•••••1@gmail.com
Address	•••• COLLIN••••
	•••••••••, ••• •••••••••
Phone	••••••9043

Membership

Membership Number	NJYJ95X
Loyalty Program	Enterprise Plus

Pricing Details

Vehicle Class	Dodge Durango or Similar
Transmission Type	Automatic

Estimated Total to be billed		**$62.20**
Rates		
Vehicle		
TIME & DISTANCE	1 DAILY @ $46.99	$46.99
Extras		
Unlimited Mileage		Included
Taxes & Fees		
CONCESSION RECOVERY FEE (11.11%)		$5.04
CUSTOMER FACILITY CHARGE 1 Day(s) @ $6.00 / Day		$6.00
FL WASTE TIRE/BATTERY FEE .02/DAY 1 Day(s) @ $0.02 / Day		$0.02
SC REC - FL SURCHG RECOV 2.00/DAY 1 Day(s) @ $2.00 / Day		$2.00
VEHICLE LICENSE FEE RECOVERY 1 Day(s) @ $0.70 / Day		$0.70
SALES TAX (6.5%)		$3.80
Savings		
ENTERPRISE PLUS (5.0%)		$-2.35
Estimated Total		**$62.20**

VIEW / MODIFY / CANCEL

Follow these directions to get to the counter

CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT

Customer Receipt
Charlotte Airport Parking

Amy Bateman
132 Poplar Grove Connector, Suite C
Boone, North Carolina 28607-5915

Receipt Date: 09/17/2026
Receipt No: CL87147
Booking Reference: CLTZDD4821507

Hello Amy,

Thank you for booking your parking at Charlotte Douglas International Airport. Below is the confirmation of your booking and your receipt.

Product	Period (from - to)	Gross
Daily Decks	09/29/2026 at 10:00 AM to 09/30/2026 at 06:00 PM	$ 51.00
	Amount (net)	$ 51.00
	Tax (City, Sales & State Tax)	$ 0.00
	Total amount	**$ 51.00**
	Remaining balance	**$ 0.00**
	Paid with Visa (*********)	

This receipt was generated automatically and is valid without a signature.

Thank you

Charlotte Douglas International Airport

100626 BCC Meeting

You're all set, Amy!

Confirmation number: 52861606

We sent the details to a••••n@watgov.org.

Hotel Information

Homewood Suites by Hilton West Palm Beach
2455 Metrocentre Boulevard
West Palm Beach, Florida 33407 USA
+1 561-682-9188

Stay Information

29 SEP TUE – 30 SEP WED

Check-in: 3 pm
Check-out: 12 pm

Early check-in cannot be guaranteed. Contact the hotel to inquire about early check-in or late check-out.

Guest information

Amy Bateman
Mandy Davis

1 room for 2 adults
2 Queens 1 Bedroom Suite - Flexible Rate

Total room charge	$169.00
Total taxes and government charges	$21.97

Total for stay: $190.97

Payment VISA 1738 Jul 2027

Guarantee policy

There is a Credit Card required for this reservation.
If you use a debit/credit card to check in, a hold may be placed on your card account for the full anticipated amount to be owed to the hotel, including estimated incidentals, through your date of

528

Watauga County
Travel Authorization and Travel Advance Request

Date	September 23, 2026	Budget Account Number	145310-431100;145310-431200

Name: Mandy Davis	Title: SW IA&T	Department: DSS
Destination: Charlotte, NC; West Palm Beach, FL Is this out of state travel? ✓ Yes No If yes, Board of County Commissioners approval is required and must be signed by the County Manager.	Meeting Dates: September 29 – 30, 2026 Departure Date: September 29, 2026 Time 6:45 a.m.	Return Date: September 30, 2026 Time 9:00 pm
Purpose of Trip: Move Foster Child from facility in Florida to North Carolina		
Overnight Accommodations Required? X Yes No Name of Hotel/Motel: Homewoood Suites, West Palm Beach, FL) Government Discount X Yes No	Rate per night/person On Amy Bateman Pcard	
Method of Transportation: Cost $ X County Vehicle Personal Vehicle X Air Rental Car ☐ Other _____		

Estimated Expenses			Totals
* **REGISTRATION FEES:** Please indicate meals and/or banquets included in registration fee			
MEALS:	Breakfast	$8.00 x 1 (9/29 & 9/30)	$16.00
	Lunch	$ 10.00 x 2 (9/29, 9/30)	$20.00
	Dinner	$ 16.00 x 2 (9/29, 9/30)	$32.00
* **LODGING:**	Single Rate		
* Other:	Air	$1827.00	$ 1827.00

* Receipts Required for Reimbursement

Hotel, Airport parking + Rental car reserved using Amy Bateman Purchasing card.

Are funds requested in advance: Yes ✓ No Form is Mathematically Correct: ☐ Yes ☐ Approved as corrected _____ Finance Staff _____ Date	If settlement has not been made on this advance within 20 working days after completion of travel, I authorize this amount to be deducted from my next paycheck. Mandy Davis Employee 9/23/26 Date	I believe this trip to be necessary and beneficial to Watauga County and funds were provided for this purpose in this departments appropriate budget account. Julie Peck Department Head or County Manager _____ County Manager (Out of State Travel) 9/24/2026 Date

Heather.Porch

From: Amanda Davis <davisam3@icloud.com>
Sent: Wednesday, September 23, 2026 11:03 AM
To: Heather.Porch
Subject: Fwd: Your trip confirmation (DJT - CLT)

Thank you
Amanda Davis (she/her/hers)
Bachelors of Social Work (BSW)
Class of 2024 (MSW)

Begin forwarded message:

From: American Airlines <no-reply@info.email.aa.com>
Date: September 21, 2026 at 3:43:15 PM EDT
To: davisam3@icloud.com
Subject: Your trip confirmation (DJT - CLT)

Mandy Davis Patterson

Your trip confirmation and receipt

Confirmation code: **ODLXGV**

Wednesday, September 30, 2026

DJT
West Palm Beach
2:51 PM

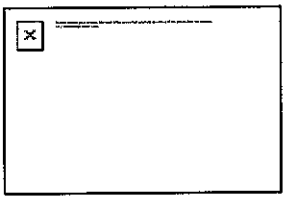
AA 2208

CLT
Charlotte
4:56 PM

Seat: **28D, 28E, 28F**
Class: **Economy (S)**
Meals:

Manage your trip

530



Limited time: Earn up to 125,000 bonus miles*
Find the Citi® / AAdvantage® card that's right for you.
Terms apply.
Learn more

Your purchase

Amanda Davis - AAdvantage® #: X5J****	
New ticket	$317.21
Taxes & carrier-imposed fees	$39.19
Ticket #: 0012379049140	
Amy Bateman	
New ticket	$317.21
Taxes & carrier-imposed fees	$39.19
Ticket #: 0012379049141	
Alexis Patterson	
New ticket	$317.21
Taxes & carrier-imposed fees	$39.19
Ticket #: 0012379049142	
Checked bags (DJT-CLT)	$45.00
Document #: 0014210961522	
Total cost (all passengers)	**$1,114.20**

Your payment

(ending 8571)	$1,114.20
Total paid	**$1,114.20**

Bag information

Checked Bag (Airport)		**Checked Bag (Online*)**
1st bag	$50.00	1st bag $45.00
2nd bag	$60.00	

Heather.Porch

From: Amanda Davis <davisam3@icloud.com>
Sent: Wednesday, September 23, 2026 11:03 AM
To: Heather.Porch
Subject: Fwd: Your trip confirmation (CLT - DJT)

Thank you
Amanda Davis (she/her/hers)
Bachelors of Social Work (BSW)
Class of 2024 (MSW)

Begin forwarded message:

From: American Airlines <no-reply@info.email.aa.com>
Date: September 21, 2026 at 3:25:31 PM EDT
To: davisam3@icloud.com
Subject: Your trip confirmation (CLT - DJT)

Your trip confirmation and receipt

Confirmation code: **NPSQJA**

Tuesday, September 29, 2026

CLT
Charlotte
12:10 PM

AA 473

DJT
West Palm Beach
2:01 PM

Seat: **28D, 28E**
Class: **Economy (S)**
Meals:

Manage your trip

Limited time: Earn up to 125,000 bonus miles*
Find the Citi® / AAdvantage® card that's right for you.
Terms apply.
Learn more

Your purchase

Amanda Davis - AAdvantage® #: X5J**

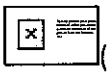
New ticket	$317.21
Taxes & carrier-imposed fees	$39.19
Ticket #: 0012379042855	

Amy Bateman

New ticket	$317.21
Taxes & carrier-imposed fees	$39.19
Ticket #: 0012379042856	

Total cost (all passengers) **$712.80**

Your payment

 (ending 8571) $712.80

Total paid **$712.80**

Bag information

Checked Bag (Airport)	
1st bag	$50.00
2nd bag	$60.00

Checked Bag (Online*)	
1st bag	$45.00
2nd bag	$55.00

Taxes are included, when applicable.
Maximum dimensions: 62 inches or 158 centimeters calculated as (length + width + height)
Maximum weight: 50 pounds or 23 kilograms

533

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

C. Fire Tower Road Radio Building Easement

Manager's Comments:

County Manager Geouque will present a utility easement and Owner's Agreement with Blue Ridge Electric Membership Corporation d/b/a Blue Ridge Energy for the installation of underground and overhead electrical facilities serving the Emergency Services radio building on Fire Tower Road.

Board action is requested to approve the utility easement and Owner's Agreement to allow Blue Ridge Energy to install the necessary electrical facilities to serve the Emergency Services radio building.

UTILITY EASEMENT
Return to: Blue Ridge Electric Membership Corporation

STATE OF NORTH CAROLINA

COUNTY OF Watauga

KNOW ALL MEN BY THESE PRESENTS, that the undersigned, Watauga County, a body politic _____, on behalf of **[*himself/herself/itself*],** and **[*his/her/its*]** heirs, executors, administrators, successors and assigns (collectively, "Grantor"), for a good and valuable consideration, the receipt of which is hereby acknowledged, does hereby grant unto BLUE RIDGE ELECTRIC MEMBERSHIP CORPORATION and its subsidiaries, and their successors, assigns, lessees and licensees (collectively, "Grantee"), a perpetual right-of-way and easement upon, over and across the lands of the Grantor situated in Watauga County, North Carolina, more particularly described as follows: A tract of land approximately .52 acres in size as described in that deed recorded at Deed Book 122 ,Page 283 ,Watauga County Registry, currently known as Tax Parcel #2901-44-0447-000 (the "Premises").

Underground Facilities _____ *(Initial to grant underground facilities easement)*

By initialing above, Grantor grants to Grantee an easement extending perpendicularly ten (10) feet to either side of the centerline of said lines or system as installed, measuring twenty (20) feet in width in its entirety. By initialing above, Grantor further grants to Grantee, its agents, employees and contractors, the following rights: to erect, construct (by digging, trenching or other means), reconstruct, relocate, repair, operate, upgrade, alter and maintain underground electric distribution facilities, lines and conduits, as well as transformers, service connections, communications lines, fiber optics cables, cabinets, and other apparatus and appliances, either above ground or below ground, for the purpose of transporting electricity and for communications purposes (including but not limited to the transmission of data, sound and images); to enter upon and travel across, at any time now or in the future, the Premises, and all abutting streets, roads or highways, in order to access the easement and any easements on adjacent properties and to exercise all other rights granted herein; to clear the land within the easement, and to keep it clear of shrubbery, trees and other growth located within the easement, regardless of how long said vegetation has been permitted to grow, and to keep the easement clear of any and all other obstructions; to clear and keep clear from the easement all structures, buildings, wells, mobile homes, swimming pools, septic or storage tanks, flammable materials or other fire hazards, wrecked or disabled vehicles, and refuse of any type; and to clear land outside the easement within ten (10) feet of the service door of any transformer or cabinet, and to keep the area within ten (10) feet of said door clear of trees and shrubbery (regardless of how long said vegetation has been permitted to grow), structures and other obstructions.

Overhead Facilities _____ *(Initial to grant overhead facilities easement)*

By initialing above, Grantor grants to Grantee an easement extending perpendicularly fifteen (15) feet to either side of the centerline of said lines or system as installed, measuring thirty (30) feet in width in its entirety. By initialing above, Grantor further grants to Grantee, its agents, employees and contractors, the following rights: to erect, construct, reconstruct, relocate, repair, operate, upgrade, alter and maintain upon the easement, and upon all abutting streets, roads or highways, one or more lines or systems, including poles, cross-arms, wires, guys, anchors, cable, transformers, antennae, amplifiers, communications cabinets and other apparatus and appliances, for the purpose of transporting electricity and for communications purposes (including but not limited to the

transmission of data, sound and images); to install, maintain and use anchors, stub poles and guy wires on land adjacent to the easement; to enter upon and travel across, at any time now or in the future, the Premises, and all abutting streets, roads or highways, in order to access the easement and any easements on adjacent properties and to exercise all other rights granted herein; to clear the land within the easement, and to keep it clear of shrubbery, trees and other growth located within the easement, regardless of how long said vegetation has been permitted to grow, and to keep the easement clear of any and all other obstructions; to clear and keep clear from the easement all structures, buildings, wells, mobile homes, swimming pools, septic or storage tanks, flammable materials or other fire hazards, wrecked or disabled vehicles, and refuse of any type; to prohibit the construction of buildings or other facilities on the Premises within such proximity to any above-ground electric or communications facility that would endanger the operation or prevent the maintenance of the facility; to trim or remove and to keep trimmed or removed dead, diseased, weak or leaning trees or limbs outside of the easement which, in the opinion of Grantee, might interfere with or fall upon the electric or communication facilities within the easement, regardless of how long said vegetation has been permitted to grow.

Additional Terms of All Easements

Construction of new facilities on property outside the footprint of the easement and future extensions of facilities beyond the footprint of the easement are not permitted by this Agreement. In the event facilities outside the footprint of this easement are contemplated, additional easement rights may be acquired.

Once construction is complete, in the event Grantee exercises its rights of ingress and egress, Grantee shall repair any damage it shall do to Grantor's private lanes, roads, and/or crops that result from Grantee's ingress and egress.

Grantor further gives, grants and conveys to Grantee, its agents, employees and contractors, the right to relocate its facilities, and the corresponding easement, over the Premises to conform to any future highway or street relocation, widening or improvement.

Grantor shall retain all other rights to his lands not inconsistent with the rights and easements herein conveyed, but Grantor cannot interfere with or endanger the construction, operation, or maintenance of Grantee's facilities.

The failure of Grantee to exercise any of the rights herein acquired shall not be construed as a waiver or abandonment of the right hereafter at any time, and from time to time, to exercise any or all of them.

Grantor agrees that all poles, wires, structures, antennae, accessories and other facilities installed on the Premises by Grantee shall remain the property of Grantee, removable at the option of the Grantee.

Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, or any interest therein, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever, except as expressly hereinafter stated.

Exceptions: _____

It is further understood that, whenever necessary, words used in this instrument in the singular shall be construed to read in the plural and that words used in the masculine gender shall be construed to read in the feminine.

TO HAVE AND TO HOLD, all and singular, the rights, privileges and easements aforesaid unto the said Grantee forever.

FOR OFFICE USE ONLY: SO# 980242 CF.

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officer, this the _____ day of _____, 20_____.

Watauga County, a body politic
Name of Corporation

BY :_____(SEAL)

Print Name and Title: _____

STATE OF _____
COUNTY OF _____

I, _____, a Notary Public for _____County, State of _____, certify that _____ personally came before me this day and acknowledged that he (or she) is _____ of _____, a corporation, and that he (or she), as _____, being authorized to do so, executed the foregoing instrument on behalf of the corporation.

Witness my hand and official seal, this the _____day of _____, 20_____.

(Official seal)

_____
Notary Public
Printed Name _____

My Commission Expires: _____.

BLUE RIDGE ELECTRIC MEMBERSHIP CORPORATION
D/B/A BLUE RIDGE ENERGY
OWNER'S AGREEMENT
for
INSTALLATION OF UNDERGROUND SERVICE

AGREEMENT

STATE OF NORTH CAROLINA

COUNTY OF _____

THIS AGREEMENT, made this _____ day of_____, 20_Wa by and between Blue Ridge Electric Membership Corporation d/b/a Blue Ridge Energy hereinafter called the Cooperative, and Watauga County, a body politic
hereinafter called the Owner.

WITNESSETH

WHEREAS, the Owner has requested that the Cooperative install underground service on his premises located at 2901-44-0447-000 and agrees to make any required contribution in aid of construction as defined in the Cooperative's Service Rules and Regulations;

NOW, THEREFORE, in consideration of the Cooperative's and the Owner's mutual promises, the parties hereto agree that the Cooperative will install, own and maintain the underground distribution facilities on the aforesaid premises under the following terms and conditions:
1. The underground distribution facilities covered by this agreement will provide electric service for the aforesaid premises.

2. The Owner will grant a satisfactory easement for the Cooperative's facilities without cost to the Cooperative.

3. Facilities associated with an underground distribution system, other than the conductors, may be installed above or below ground as determined solely by the Cooperative in accordance with the current construction design practices of the Cooperative.

4. The Cooperative will provide service to a single transformer using a loop system design at the request of the member who desires to have a loop system installed and makes a payment equal to the estimated cost of the additional facilities in excess of the radial extension facilities.

5. Existing overhead distribution facilities will remain installed overhead unless the member desires to have them installed underground. Distribution feeders necessary to serve a new underground subdivision will be installed overhead unless the owner agrees to pay for the cost of underground facilities.

6. Prior to the installation of the underground distribution system by the Cooperative, the final grade levels of the building sites shall be established by the member. The building construction program shall be coordinated with the installation of underground electrical facilities to permit unimpeded access to the Cooperative's equipment to the installation site; to allow installation of underground facilities at proper depth and before streets, curbs, or other obstructions are installed; and to eliminate digging into the underground electrical facilities after installation.

Should streets, curbs, or other obstructions be present prior to installation of underground facilities, resulting in additional expense to the Cooperative, payment for these additional expenses shall be made to the Cooperative by the member. Should established lots or final grade levels change after installation of underground electrical

facilities has begun, or if installation of electrical facilities are required by the owner before final grades are established, and either of these conditions results in additional expense to the Cooperative, payment for these additional expenses shall be made to the Cooperative by the member.

7. Should existing sidewalks, septic tank systems, fuel tanks, other utility lines, or other man-made obstructions result in additional expenses to the Cooperative, payment for the same will be made by the member.

8. Actual costs incurred to comply with special requirements, if any, of municipalities, state and federal highway agencies or departments regarding a breaking of pavement, ditching, backfilling, and other related conditions, will be paid by the member.

9. Member agrees to pay actual additional cost incurred by the Cooperative due to adverse conditions, such as: rock or the composition of the land where the underground facilities are to be installed is such that standard construction equipment cannot be used to complete the installation; or, special equipment and materials are needed for stream crossing structures or concrete structures; or, blasting is required; or, if abrupt changes in final grade levels exceed a slope ratio of one when measured within three feet of the trench.

10. The Cooperative's agreement to provide underground service is dependent upon the securing of all necessary rights, easements, rights-of-way, privileges, franchises, or permits for the installation of such service from those requesting the underground facilities. The Cooperative shall exercise care in the utilization of its underground equipment during construction, but the ultimate responsibility for the protection of shrubs, trees, grass sod and driveways will be that of the member. Reseeding of trench cover will be done by the member. Shrubs, trees, or any other obstacle shall not be placed within ten feet of the transformer cabinet or cabinet openings which would hinder the access of the Cooperative at any time.

11. Temporary service will not be available in the area served from underground facilities until the underground system is in place unless the member elects to pay the “in and out” cost of temporary facilities necessary to deliver the temporary service from overhead distribution lines. After the underground facilities are in place, temporary service may be provided for normal fees only at a transformer or pedestal location.

12. All underground facilities not owned by utilities are to be located and exposed by owner. Any damage to these facilities not located and exposed will be at the owner’s expense to repair.

IN WITNESS WHEREOF, the parties have executed this agreement on the date first above written.

_____
(Owner)

Blue Ridge Electric Membership Corporation
d/b/a Blue Ridge Energy

_____
(Authorized Agent)

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officer, this the _____ day of _____, 2026.

Watauga County, a body politic

By:_____

Name: Braxton Eggers

CORPORATE SEAL

Title: Chair, Watauga County Board of Commissioners

ATTEST: _____

Name: Madison Mathis

Title: Clerk to the Board

STATE OF NORTH CAROLINA
COUNTY OF WATAUGA

I, _____, a Notary Public in and for the above named State and County, do hereby certify that **Madison Mathis** personally appeared before me this day and acknowledged that she is **Clerk of The Board of County Commissioners of Watauga County, a body politic**, and that authority duly given and as the act of the corporate body, the foregoing instrument was signed in its name by its **Chair of the Board of Commissioners** and attested by her as its **clerk.**

This the _____ day of _____, 2026.

SEAL

_____
Notary Public

_____
Printed Name of Notary Public

My commission expires:

_____

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

D. IAED Annual Renewal for Emergency Services

Manager's Comments:

County Manager Geouque will present the annual renewal of the IAED Priority Dispatch software license in the amount of $22,500. The Priority Dispatch software is used for call processing of Fire, EMS, and Law Enforcement calls and provides standardized questions for the prioritization of emergency calls. The renewal covers all three disciplines and will be funded entirely through 911 surcharge funds.

Board action is requested to approve the $22,500 annual renewal of the IAED Priority Dispatch software license.

Watauga County Emergency Services

184 Hodges Gap Rd, Suite D
Boone, NC 28607
Phone 828-264-4235
Fax 828-265-7617

Fire Marshal ♦ Emergency Management ♦ EMS ♦ Communications ♦ County Safety

September 21st, 2026

To: Board of Commissioners

CC: Deron Geouque, County Manager
Madison Mathis, Clerk to the Board

Subject: IAED annual renewal

Board of Commissioners,

Please consider my request for $22,500 for the renewal of the Priority Dispatch software license. This suite of programs is used for call processing of Fire, EMS and Law Enforcement calls with a nationally recognized list of questions that allow for standardization and prioritization of emergency calls. It is also important to note that this set of questions is required by the State for medical emergencies, although the State does not require this specific vendor. This is a renewal of the current license in place and covers all three disciplines in the suite. The cost of this software is 100% funded by 911 surcharge funds.

Respectfully,

William Holt, MPA, NRP, CEM
Emergency Services Director

Quote

110 Regent Street, Suite 500
Salt Lake City, UT 84111
USA
www.prioritydispatch.net
Prepared By: Katie Morgan
Phone: (800) 363-9127
Direct:
Email: katie.morgan@prioritydispatch.net

Agency:	Watauga County Communications
Agency ID #:	7953
Quote #:	Q-88330
Date:	9/15/2026
Offer Valid Through:	1/13/2027
Payment Terms:	Net 30
Currency:	U.S. Dollar

Bill To:
Watauga County Communications
184 HODGES GAP RD STE D
BOONE, North Carolina 28607-8635
United States

Ship To:
Watauga County Communications
184 HODGES GAP RD STE D
BOONE, North Carolina 28607-8635
United States

Product	Discipline	Qty	Amount
Priority Dispatch System Annual Maintenance (P) **License Renewal, Service and Support for ProQA, AQUA, Cardsets, Tech Support and Upgrades** Service Dates: 9/9/2026 - 9/8/2027	Medical;Fire;Police	5.00	USD 22,500.00

Subtotal	**USD 22,500.00**
Total	**USD 22,500.00**

Customer Signature:		**Date:**	
Customer Name:		**Purchase Order ID:**	
Expiration Date:			

Terms and Conditions

This quote is valid for 120 days from date of issue. All prices quoted are exclusive of any applicable taxes, duties, or government assessments relating to this transaction, which are the sole obligation of Buyer. You can find it here: https://prioritydispatch.net/licensing/

"To lead the creation of meaningful change in public safety and health."

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

E. Unit Surplus for Emergency Services

Manager's Comments:

County Manager Geouque will present a request to surplus the 2021 Chevrolet 3500 ambulance currently serving as a reserve unit for the Watauga County Emergency Services Division. With the addition of two new ambulances, the vehicle is ready to be decommissioned from the County's EMS fleet. This follows the County's replacement schedule and maintains adequate backup vehicles for the system.

Board action is requested to declare the 2021 Chevrolet 3500 ambulance surplus.

Watauga County Emergency Services

184 Hodges Gap Rd, Suite D
Boone, NC 28607
Phone 828-264-4235
Fax 828-265-7617

Fire Marshal ♦ Emergency Management ♦ EMS ♦ Communications ♦ County Safety

September 21st, 2026

To: Board of Commissioners

CC: Deron Geouque, County Manager
Madison Mathis, Clerk to the Board

Subject: EMS Unit Surplus

Board of Commissioners,

Please consider my request to surplus the 2021 Chevrolet 3500 ambulance currently functioning as a reserve in the EMS Division. This vehicle is a legacy Watauga Medics, Inc. vehicle and has always been in reserve status with WCES. With the arrival of two new ambulances, this vehicle is ready to be decommissioned from our fleet. For reference, with Base 4 coming online this puts 6 to 8 EMS units on-duty at any given time (6 – 24hr crews, 1 – 12hr crew, 1 – 8hr BLS Convalescent when needed) and 12 total EMS units in the fleet.

Respectfully,

William Holt, MPA, NRP, CEM
Emergency Services Director

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

F. Innovation Drive Parcel Offers and Agreement

Manager's Comments:

The North Carolina Department of Transportation (NCDOT) has provided contingent offers to purchase Parcels 3 and 4 associated with the Innovation Drive and Landfill Road improvements, should the County elect to have NCDOT acquire the properties. The acquisition is related to right-of-way and associated with intersection improvements at U.S. 421 and S.R. 1655 (Landfill Road), including improvements to Innovation Drive. Right-of-way agreements, a highway right-of-way deed, and a drainage easement are included for consideration contingent upon county attorney approval.

Board action is requested to authorize NCDOT to acquire Parcels 3 and 4 pursuant to the contingent offers and approve the associated right-of-way agreements.

SUMMARY STATEMENT/CONTINGENT OFFER TO PURCHASE REAL PROPERTY DUE TO THE ACQUISITION OF RIGHT OF WAY AND DAMAGES

TO: Watauga County
814 W. King St. Suite 205
Boone, NC 28607

DATE: 09-29-2026
TO: Lessee, if Applicable
N/A

TIP/PARCEL NO.: 095US421A 003
COUNTY WATAUGA
WBS ELEMENT: 50899
DESCRIPTION: INNOVATION DR SR 1655 AND LANDFILL RD SR 1655 TO US HWY 421 S, WATAUGA COUNTY -NC

Dear Property Owner:

The following contingent offer of just compensation is based on the fair market value of the property and is not less than the approved appraised value for the appropriate legal compensable interest or interests. The approved value disregards any increase or decrease in the fair market value of the property acquired due to influence caused by public knowledge of this project. The contingent offer of just compensation is based on an analysis of market data, comparable land sales, and, if applicable, building costs in the area of your property. **Please retain this form as it contains pertinent income tax information.**

Value of Right of Way to be Acquired		$ 72,000.00
Value of Permanent Easements to be Acquired		$ 0.00
Value of Temporary Easement (Rental of Land) to be Acquired		$ 24,250.00
Value of Improvements to be Acquired		$ 102,675.00
Damages, if any, to Remainder		$ 0.00
Benefits, if any, to Remainder	minus	$ 0.00
TOTAL CONTINGENT OFFER		**$ 199,350.00**

The total contingent offer includes all interests other than leases involving Federal Agencies and Tenant owned improvements.

(A) Description of the land and effects of the acquisition

Subject property described in Deed Book **2332**, page **926**, **WATAUGA** County Registry, contains approximately **6.130** acres of which **1.172** acres is being acquired as right of way, leaving **4.958** acres remaining on the left with access to **SR 1655** (LANDFILL RD). Also being acquired is a temporary construction easement containing approximately **0.131** acres.

(B) The TOTAL CONTINGENT OFFER includes payment for the improvements and appurtenances described below:
21,900 SF asphalt paving, 935 LF concrete curbing

Provided there is sufficient time remaining in the project schedule, you may repurchase these improvements for a retention value, with the stipulation that you remove them from the acquisition area at no expense to the Department.

(C) Should you desire to sell the Department the portion of your property considered to be an uneconomic remnant or buildable lot, as explained to you by the Right of Way Agent, the total contingent offer would be: $ N/A . Please note that any contingent offer to purchase a remnant/buildable lot is conditioned upon the remnant/buildable lot being environmentally clean prior to the conveyance to the Department. You may be required to provide the Department with a release from the appropriate environmental agency stating that all contaminants have been remediated and/or removed to their standards.

The original of this form was handed/mailed, if out of state owner, to Deron Geouque on September 29, 20 26 . Owner was furnished a copy of the Right of Way Brochure/Owner's Letter.

I will be available at your convenience to discuss this matter further with you. My telephone number is 336-903-9105

Please be advised that the agent signing this form is only authorized to recommend settlement to the North Carolina Department of Transportation, and any recommended settlement is not a binding contract unless and until accepted by the North Carolina Department of Transportation by its formal execution of documents for conveyance of Right of Way, Easements, and/or other interests.

Dustin Martin

(Signed) _____
Dustin Martin - Right of Way Agent

FRM10-B
Revised 2/17/15

SUMMARY STATEMENT/CONTINGENT OFFER TO PURCHASE REAL PROPERTY DUE TO THE ACQUISITION OF RIGHT OF WAY AND DAMAGES

TO: Watauga County
814 W. King St. Suite 205
Boone, NC 28607

DATE: 09-29-2026
TO: Lessee, if Applicable
N/A

TIP/PARCEL NO.: 095US421A 004
COUNTY WATAUGA
WBS ELEMENT: 50899
DESCRIPTION: INNOVATION DR SR 1655 AND LANDFILL RD SR 1655 TO US HWY 421 S, WATAUGA COUNTY -NC

Dear Property Owner:

The following contingent offer of just compensation is based on the fair market value of the property and is not less than the approved appraised value for the appropriate legal compensable interest or interests. The approved value disregards any increase or decrease in the fair market value of the property acquired due to influence caused by public knowledge of this project. The contingent offer of just compensation is based on an analysis of market data, comparable land sales, and, if applicable, building costs in the area of your property. **Please retain this form as it contains pertinent income tax information.**

Value of Right of Way to be Acquired		$ 0.00
Value of Permanent Easements to be Acquired		$ 700.00
Value of Temporary Easement (Rental of Land) to be Acquired		$ 0.00
Value of Improvements to be Acquired		$ 0.00
Damages, if any, to Remainder		$ 0.00
Benefits, if any, to Remainder	minus	$ 0.00
TOTAL CONTINGENT OFFER		**$ 700.00**

The total contingent offer includes all interests other than leases involving Federal Agencies and Tenant owned improvements.

(A) Description of the land and effects of the acquisition

Subject property described in Deed Book **58**, page **33**, **WATAUGA** County Registry, contains approximately **14.960** acres of which **0.000** acres is being acquired as right of way, leaving **14.960** acres remaining on the right with access to **SR 1655** (LANDFILL RD). Being acquired Permanent Drainage easement containing approximately **0.049** acres.

(B) The TOTAL CONTINGENT OFFER includes payment for the improvements and appurtenances described below:

Provided there is sufficient time remaining in the project schedule, you may repurchase these improvements for a retention value, with the stipulation that you remove them from the acquisition area at no expense to the Department.

(C) Should you desire to sell the Department the portion of your property considered to be an uneconomic remnant or buildable lot, as explained to you by the Right of Way Agent, the total contingent offer would be: $ N/A . Please note that any contingent offer to purchase a remnant/buildable lot is conditioned upon the remnant/buildable lot being environmentally clean prior to the conveyance to the Department. You may be required to provide the Department with a release from the appropriate environmental agency stating that all contaminants have been remediated and/or removed to their standards.

The original of this form was handed/mailed, if out of state owner, to Deron Geouque on September 29, 20 26 . Owner was furnished a copy of the Right of Way Brochure/Owner's Letter.

I will be available at your convenience to discuss this matter further with you. My telephone number is 336-903-9105

Please be advised that the agent signing this form is only authorized to recommend settlement to the North Carolina Department of Transportation, and any recommended settlement is not a binding contract unless and until accepted by the North Carolina Department of Transportation by its formal execution of documents for conveyance of Right of Way, Easements, and/or other interests.

Dustin Martin

(Signed) _____
Dustin Martin - Right of Way Agent

FRM10-B
Revised 2/17/15

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

DATE:
WBS ELEMENT: 50899
FA PROJECT: N/a
TIP/PARCEL: 095US421A 003
COUNTY: Watauga
DESCRIPTION: INTERSECTION IMPROVEMENTS AT US 421 AT SR1655 (LANDFILL RD) WITH IMPROVEMENTS TO INNOVATION DR.

Property Owner Acknowledgement of the Terms for the Voluntary Donation Of Property to the North Carolina Department of Transportation.

The undersigned property owner and/or the undersigned property owner's legal representatives freely acknowledge their desire and willingness to voluntarily transfer their ownership of privately-owned real property to the North Carolina Department of Transportation for the benefit of the above sited public transportation project without receipt of just compensation. It is further agreed and acknowledged by the undersigned property owner and/or the property owner's legal representative that the property owner and/or legal representative has been advised that he/she is entitled to have an appraisal made on his/her property to determine just compensation and the owner releases the Department from this obligation and waives any compensation in exchange for the donation of property as right of way in full settlement of his/her claim. The purpose of this document is to ensure compliance under Title 23 of the United States Code of Federal Regulations (CFR), Subchapter H (Right-of-Way and Environment), Part 710 (Right-of-Way and Real Estate), Subpart E (Property Acquisition Alternatives), Subsection .505 (Real Property Donations).

BY:_____
Braxton Eggers, Chairman of Watauga County Board of Commissioners

ATTEST: _____
Madison Mathis, Clerk of Watauga County Board of Commissioners

(Official Seal)	North Carolina, _____ County I, _____, a Notary Public for _____ County, North Carolina, certify that _____ personally came before me this day and acknowledged that he/she is the CLERK of the Watauga County Board Of Commissioners, and that by authority duly given, the foregoing instrument was signed in its name by _____, its CHAIRMAN of the Watauga COUNTY BOARD OF COMMISSIONERS, sealed with its corporate seal, and attested by _____ as its CLERK. Witness my hand and official seal this the 10 day of March, 20 10 . _____ Notary Public My commission expires: _____

Telephone: (919) 707-4360
Fax: (919) 733-1390
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Mailing Address:
NC DEPT. OF TRANSPORTATION
RIGHT OF WAY UNIT
1546 MAIL SERVICE CENTER
RALEIGH, NC 27601

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

DATE:
WBS ELEMENT: 50899
FA PROJECT: N/a
TIP/PARCEL: 095US421A 004
COUNTY: Watauga
DESCRIPTION: INTERSECTION IMPROVEMENTS AT US 421 AT SR1655 (LANDFILL RD) WITH IMPROVEMENTS TO INNOVATION DR.

Property Owner Acknowledgement of the Terms for the Voluntary Donation Of Property to the North Carolina Department of Transportation.

The undersigned property owner and/or the undersigned property owner's legal representatives freely acknowledge their desire and willingness to voluntarily transfer their ownership of privately-owned real property to the North Carolina Department of Transportation for the benefit of the above sited public transportation project without receipt of just compensation. It is further agreed and acknowledged by the undersigned property owner and/or the property owner's legal representative that the property owner and/or legal representative has been advised that he/she is entitled to have an appraisal made on his/her property to determine just compensation and the owner releases the Department from this obligation and waives any compensation in exchange for the donation of property as right of way in full settlement of his/her claim. The purpose of this document is to ensure compliance under Title 23 of the United States Code of Federal Regulations (CFR), Subchapter H (Right-of-Way and Environment), Part 710 (Right-of-Way and Real Estate), Subpart E (Property Acquisition Alternatives), Subsection .505 (Real Property Donations).

BY:_____
Braxton Eggers, Chairman of Watauga County Board of Commissioners

ATTEST: _____
Madison Mathis, Clerk of Watauga County Board of Commissioners

(Official Seal)	North Carolina, _____ County I, _____, a Notary Public for _____ County, North Carolina, certify that _____ personally came before me this day and acknowledged that he/she is the CLERK of the Watauga County Board Of Commissioners, and that by authority duly given, the foregoing instrument was signed in its name by _____, its CHAIRMAN of the Watauga COUNTY BOARD OF COMMISSIONERS, sealed with its corporate seal, and attested by _____ as its CLERK. Witness my hand and official seal this the 10 day of March, 20 10 . _____ Notary Public My commission expires: _____

Telephone: (919) 707-4360
Fax: (919) 733-1390
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Mailing Address:
NC DEPT. OF TRANSPORTATION
RIGHT OF WAY UNIT
1546 MAIL SERVICE CENTER
RALEIGH, NC 27601

Revenue Stamps $ _____

DEED FOR HIGHWAY RIGHT OF WAY

THIS INSTRUMENT DRAWN BY STUART HANKS CHECKED BY DUSTIN MARTIN

The hereinafter described property ☐ Does ☒ Does not include the primary residence of the Grantor

RETURN TO: Division R/W Agent, NCDOT
PO BOX 250
NORTH WILKESBORO, NC 28659

NORTH CAROLINA
COUNTY OF WATAUGA
TAX PARCEL 2921303252000

TIP/PARCEL NUMBER: 095US421A 003
WBS ELEMENT: 50899
ROUTE: INTERSECTION IMPROVEMENTS AT US 421 AT SR1655 (LANDFILL RD) WITH IMPROVEMENTS TO INNOVATION DR.

THIS FEE SIMPLE DEED, made and entered into this the _____ day of _____ 20 ____ by and between **Watauga County**
814 West King St. Suite 205
Boone, NC 28607

hereinafter referred to as GRANTORS, and the Department of Transportation, an agency of the State of North Carolina, 1546 Mail Service Center, Raleigh, NC 27611, hereinafter referred to as the Department;

WITNESSETH

That the GRANTORS, for themselves, their heirs, successors, and assigns, for and in consideration of the sum of $ 0.00 agreed to be paid by the DEPARTMENT to the GRANTORS, do hereby give, grant and convey unto the DEPARTMENT, its successors and assigns, in FEE SIMPLE that certain property located in NEW RIVER Township, WATAUGA County, North

Point of beginning being N 45^18'53.4" W, 122.553 feet from -L- Sta 17+00 thence along a curve 45.032 feet and having a radius of 117.081 feet. The chord of said curve being on a bearing of N 37^7'15.1" W, a distance of 44.755 feet thence to a point on a bearing of S 63^54'28.0" W 8.030 feet thence along a curve 28.261 feet and having a radius of 124.270 feet. The chord of said curve being on a bearing of N 19^36'48.3" W, a distance of 28.200 feet thence along a curve 100.579 feet and having a radius of 124.270 feet. The chord of said curve being on a bearing of N 10^5'16.7" E, a distance of 97.856 feet thence to a point on a bearing of N 32^59'56.0" E 53.998 feet thence along a curve 164.920 feet and having a radius of 139.030 feet. The chord of said curve being on a bearing of N 0^59'5.0" W, a distance of 155.419 feet thence to a point on a bearing of N 34^59'11.2" W 101.857 feet thence to a point on a bearing of S 81^29'51.3" W 102.646 feet thence to a point on a bearing of S 55^29'10.3" E 13.451 feet thence to a point on a bearing of S 49^30'4.0" E 117.700 feet thence along a curve 120.990 feet and having a radius of 84.030 feet. The chord of said curve being on a bearing of S 8^15'4.0" E, a distance of 110.806 feet thence to a point on a bearing of S 57^0'12.0" E 5.000 feet thence to a point on a bearing of S 32^59'56.0" W 54.002 feet thence along a curve 342.840 feet and having a radius of 175.000 feet. The chord of said curve being on a bearing of S 23^7'29.0" E, a distance of 290.585 feet thence along a curve 36.830 feet and having a radius of 21.580 feet. The chord of said curve being on a bearing of S 30^20'45.0" E, a distance of 32.520 feet thence to a point on a bearing of S 18^33'31.0" W 19.799 feet thence along a curve 39.470 feet and having a radius of 25.360 feet. The chord of said curve being on a bearing of S 63^8'51.0" W, a distance of 35.605 feet thence to a point on a bearing of S

COUNTY: WATAUGA **WBS ELEMENT:** 50899 **TIP/PARCEL NO.:** 095US421A 003

66^25'13.5" E 76.609 feet thence along a curve 84.339 feet and having a radius of 1618.690 feet. The chord of said curve being on a bearing of S 67^15'10.2" E, a distance of 84.329 feet thence along a curve 53.822 feet and having a radius of 1114.514 feet. The chord of said curve being on a bearing of S 67^8'37.2" E, a distance of 53.817 feet thence along a curve 11.281 feet and having a radius of 5952.662 feet. The chord of said curve being on a bearing of S 68^28'22.2" E, a distance of 11.281 feet thence to a point on a bearing of N 33^30'41.1" W 192.803 feet thence to a point on a bearing of N 10^43'32.5" E 28.831 feet thence to a point on a bearing of N 79^1'44.9" W 52.241 feet thence to a point on a bearing of N 55^41'47.0" W 71.930 feet thence to a point on a bearing of S 80^29'59.8" W 20.597 feet returning to the point and place of beginning. Having an area of 51073.184 Sqr feet being 1.172 acres.

IN ADDITION, and for the aforestated consideration, the GRANTORS further hereby convey to the DEPARTMENT, its successors and assigns the following described areas and interests:

TEMPORARY CONSTRUCTION EASEMENT AS FOLLOWS:
Point of beginning being S 44^1'34.2" E, 208.592 feet from -L- Sta 17+00 thence along a curve 35.151 feet and having a radius of 5952.662 feet. The chord of said curve being on a bearing of S 68^14'57.7" E, a distance of 35.151 feet thence along a curve 10.218 feet and having a radius of 1653.439 feet. The chord of said curve being on a bearing of S 67^54'11.4" E, a distance of 10.218 feet thence to a point on a bearing of N 44^2'28.3" W 137.445 feet thence to a point on a bearing of N 28^17'35.0" E 56.979 feet thence to a point on a bearing of N 29^35'10.7" W 54.438 feet thence to a point on a bearing of N 89^28'21.4" W 49.519 feet thence to a point on a bearing of S 10^43'32.5" W 19.485 feet thence to a point on a bearing of S 33^30'41.1" E 192.803 feet returning to the point and place of beginning. Having an area of 5716.951 Sqr feet being 0.131 acres.

It is understood and agreed that the DEPARTMENT shall have the right to construct and maintain the cut and/or fill slopes in the above-described area(s) until such time that the property owners alter the adjacent lands in such a manner that the lateral support of the cut and/or fill slopes are no longer needed. Any additional construction areas lying beyond the right of way limits and beyond any permanent easement areas will terminate upon completion of the project. The underlying fee owner shall have the right to continue to use the Temporary Easement area(s) in any manner and for any purpose, provided that such use does not unreasonably interfere with the rights granted to the DEPARTMENT in this document. For example, it shall not be unreasonable for the fee owner to safely use the Temporary Easement area(s) to access the easement area or the remainder of the property, or for parking.

SPECIAL PROVISIONS. This deed is subject to the following provisions only:
The undersigned property owners request that the DEPARTMENT enter upon our lands outside the right of way to the extent necessary for the reconnection of our driveway and we will have no further claim as a result of said reconnection.

The property hereinabove described was acquired by the GRANTORS by instrument(s) recorded in the WATAUGA County Registry in Deed Book 1620 Page 54 .

The final right of way plans showing the above described right of way are to be certified and recorded in the Office of the Register of Deeds for said County pursuant to N.C.G.S. 136-19.4, reference to which plans is hereby made for purposes of further description and for greater certainty.

The Grantors acknowledge that the project plans for Project # 50899 have been made available to them. The Grantors further acknowledge that the consideration stated herein is full and just compensation pursuant to Article 9, Chapter 136 of the North Carolina General Statutes for the acquisition of the said interests and areas by the Department of Transportation and for any and all damages to the value of their remaining property; for any and all claims for interest and costs; for any and all damages caused by the acquisition for the construction of Department of Transportation Project # 50899 , WATAUGA County, and for the past and future use of said areas by the Department of Transportation, its successors and assigns for all purposes for which the said Department is authorized by law to subject the same.

TO HAVE AND TO HOLD the aforesaid premises and all privileges and appurtenances thereunto belonging to the DEPARTMENT, its successors and assigns in FEE SIMPLE, or by easement as indicated, for the past, present and future use thereof and for all purposes which the said Department is authorized by law to subject the same.

And the GRANTORS covenant with the DEPARTMENT, that the GRANTORS are seized of the premises in fee simple, have the right to convey the same in fee simple, or by easement as indicated, that the title thereto is marketable and free and clear of all encumbrances, and that the GRANTORS will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated. Title to the property hereinabove described is hereby conveyed subject to the following exceptions:
Restrictive covenants and easements of record.

COUNTY: WATAUGA **WBS ELEMENT:** 50899 **TIP/PARCEL NO.:** 095US421A 003

IN WITNESS WHEREOF, GRANTOR, pursuant to a resolution dated _____, has caused this instrument to be signed in its corporate name by its CHAIRMAN OF THE WATAUGA COUNTY BOARD OF COMMISSIONERS, its corporate seal hereto affixed, and attested by it CLERK OF THE WATAUGA COUNTY BOARD OF COMMISSIONERS, by order of the WATAUGA COUNTY COMMISSIONERS, this the day and year first above written

This instrument does not transfer the herein described interests unless and until this document is accepted by an authorized agent of the Department of Transportation.

Watauga County

BY: _____
Braxton Eggers, Chairman of Watauga County Board of Commissioners

ATTEST: _____
Madison Mathis, Clerk of Watauga County Board of Commissioners

ACCEPTED FOR THE DEPARTMENT OF TRANSPORTATION BY: _____

(Official Seal)	North Carolina, _____ County I, _____ , a Notary Public for _____ County, North Carolina, certify that _____ personally came before me this day and acknowledged that he/she is the CLERK of the Watauga County Board Of Commissioners, and that by authority duly given, the foregoing instrument was signed in its name by _____, its CHAIRMAN of the Watauga COUNTY BOARD OF COMMISSIONERS, sealed with its corporate seal, and attested by _____ as its CLERK. Witness my hand and official seal this the day of _____ , 20 _____ . _____ Notary Public My commission expires: _____

Revenue Stamps $ _____

DRAINAGE EASEMENT

THIS INSTRUMENT DRAWN BY Stuart Hanks CHECKED BY Dustin Martin

Return to: Division R/W Agent, NCDOT
PO Box 250
North Wilkesboro, NC 28659

NORTH CAROLINA
COUNTY OF Watauga
TAX PARCEL 2920392009000

TIP/PARCEL NUMBER: 095US421A 004
WBS ELEMENT: 50899
ROUTE: INTERSECTION IMPROVEMENTS AT US 421 AT SR1655 (LANDFILL RD) WITH IMPROVEMENTS TO INNOVATION DR.

THIS EASEMENT, made and entered into this the _____ day of _____ 20 26 by and between **Watauga County**
814 West King St. Suite 205
Boone, NC
28607
hereinafter referred to as GRANTORS, and the Department of Transportation, an agency of the State of North Carolina, 1546 Mail Service Center, Raleigh, NC 27611, hereinafter referred to as the Department;

WITNESSETH

THAT WHEREAS, the DEPARTMENT desires to construct and maintain a drainage facility through and across the property of GRANTORS,

AND WHEREAS, GRANTORS, recognizing the benefits accruing to their said property through the construction and maintenance by the DEPARTMENT of roads and highways upon or in the vicinity of said property of GRANTORS,

NOW, THEREFORE, in consideration of said benefits, and further consideration of $ 0.00 and other valuable considerations, GRANTORS hereby release the DEPARTMENT, its successors and assigns, from any and all claims for damages by reason of the construction and maintenance of said drainage facility across and through the lands of GRANTORS, and GRANTORS hereby give, grant, bargain, sell and convey unto the DEPARTMENT, its successors, and assigns, an easement for the construction and maintenance of a drainage facility across and through the property of GRANTORS located in New River Township, Watauga County, and being more fully described in a deed recorded in Book 58, Page 33, Watauga County Registry, said easement being described as follows:

Point of beginning being S 31^47'56.2" E, 31.417 feet from -L- Sta 19+00 thence along a curve 20.972 feet and having a radius of 5922.662 feet. The chord of said curve being on a bearing of N 68^25'32.4" W, a distance of 20.972 feet thence along a curve 55.271 feet and having a radius of 1144.514 feet. The chord of said curve being on a bearing of N 67^8'37.2" W, a distance of 55.265 feet thence along a curve 39.353 feet and having a radius of 1588.690 feet. The chord of said curve being on a bearing of N 66^28'11.4" W, a distance of 39.352 feet thence to a point on a bearing of S 7^50'35.6" W 20.894 feet thence to a point on a bearing of S 68^14'47.3" E 111.066 feet thence to a point on a bearing of N 20^4'41.8" E 18.071 feet returning to the point and place of beginning. Having an area of 2120.619 Sqr feet being 0.049 acres.

COUNTY: Watauga **WBS ELEMENT:** 50899 **TIP/PARCEL NO.:** 095US42 004

The final right of way plans showing the above described areas are to be certified and recorded in the Office of the Register of Deeds for said county pursuant to N.C.G.S. 136-19.4, reference to which plans is hereby made for purposes of further description and for greater certainty.

Said Permanent Drainage Easement (PDE) in perpetuity is for the installation and maintenance of drainage facilities as described below. The DEPARTMENT and its agents or assigns shall have the right to construct and maintain in a proper manner in, upon and through said Drainage Easement area(s) a drainage facility with all necessary pipes, poles and appurtenances, together with the right at all times to enter said Drainage Easement area(s) for the purpose of inspecting said drainage facility and making all necessary repairs and alterations thereon; together with the right to cut away and keep clear of said drainage facility, all trees and other obstructions that may in any way endanger or interfere with the proper maintenance and operation of the same. The DEPARTMENT and its agents or assigns shall also have the right to access the Drainage Easement area(s) at any time and from time to time by vehicles, equipment, and pedestrians, provided that such access to the Drainage Easement area(s) from outside of the Drainage Easement area(s) shall be confined to then-existing streets, roads, and driveways to the extent they provide sufficient access.

It is understood and agreed that the DEPARTMENT shall have the right to construct and maintain the cut and/or fill slopes in the above-described Permanent Drainage Easement area(s). It is further understood and agreed that Permanent Drainage Easement shall be used by the DEPARTMENT for additional working area during the above described project.

The underlying fee owner retains the right to continue to use the Permanent Drainage Easement area(s) in any manner and for any purpose, provided that such use does not unreasonably interfere with the rights granted to the DEPARTMENT in this document. For example, it shall not be unreasonable for the fee owner to safely use the Permanent Drainage Easement area(s) to access the easement area or the remainder of the property, or for parking.

The DEPARTMENT'S acquisition of the Permanent Drainage Easement(s), by itself, does not constitute new control of access (C/A) pursuant to N.C.G.S. §§ 136-89.51 or 136-89.52. Further, this easement does not allow the DEPARTMENT or any utility to prevent the landowner from accessing the easement or the remainder of the property outside the easement.

Upon completion and acceptance by the DEPARTMENT of the above-described project, no utilities, appurtenances, or work performed by the DEPARTMENT, a utility or other assigns pursuant to the rights granted under the easement within the Permanent Drainage Easement(s), shall be added or modified in a manner that interferes with the underlying fee owner's existing points of ingress, egress, and parking, unless appropriate substitute access or parking is provided or the DEPARTMENT provides just compensation for the taking of those rights. If existing points of ingress or egress do not exist, or if additional points of ingress or egress are desired, nothing in this easement prohibits the underlying fee owner from applying for a driveway permit from the DEPARTMENT in the ordinary course. A court of competent jurisdiction shall at all times retain the authority to determine whether the DEPARTMENT or its agents or assigns have exceeded the scope of the rights granted under the easement.

IN ADDITION, and for the aforestated consideration, the GRANTORS further hereby convey to the DEPARTMENT, its successors and assigns the following described areas and interests:
None

This EASEMENT is subject to the following provisions only:

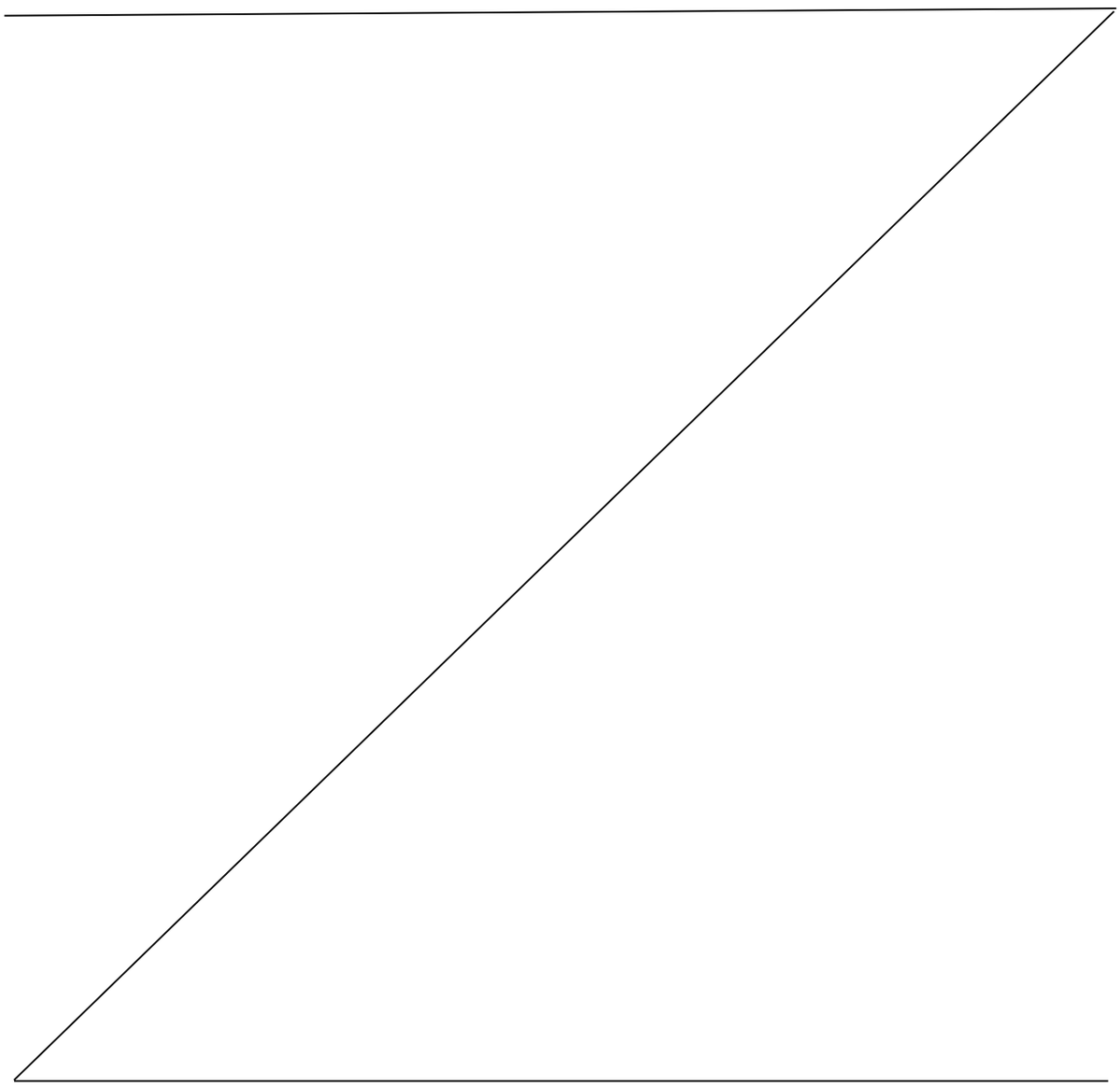
The undersigned property owners request that the DEPARTMENT enter upon our lands outside the right of way to the extent necessary for the reconnection of our driveway and we will have no further claim as a result of said reconnection.

COUNTY: Watauga **WBS ELEMENT:** 50899 **TIP/PARCEL NO.:** 095US42 004

There are no conditions to this EASEMENT not expressed herein.

To HAVE AND TO HOLD said perpetual easement for highway purposes unto the DEPARTMENT, its successors and assigns, and the GRANTORS, for themselves, their heirs, successors, executors and assigns, hereby warrant and covenant that they are the sole owners of the property; that they solely have the right to grant the easement; and that they will forever warrant and defend title to the same against the lawful claims of all persons whomsoever;

The Grantors acknowledge that the project plans for Project # 50899 have been made available to them. The Grantors further acknowledge that the consideration stated herein is full and just compensation pursuant to Article 9, Chapter 136 of the North Carolina General Statutes for the acquisition of the said interests and areas by the Department of Transportation and for any and all damages to the value of their remaining property; for any and all claims for interest and costs; for any and all damages caused by the acquisition for the construction of Department of Transportation Project # 50899 , Watauga County, and for the past and future use of said areas by the Department of Transportation, its successors and assigns for all purposes for which the said Department is authorized by law to subject the same.



COUNTY: Watauga **WBS ELEMENT:** 50899 **TIP/PARCEL NO.:** 095US42 004

IN WITNESS WHEREOF, GRANTOR, pursuant to a resolution dated _____, has caused this instrument to be signed in its corporate name by its CHAIRMAN OF THE WATAUGA COUNTY BOARD OF COMMISSIONERS, its corporate seal hereto affixed, and attested by it CLERK OF THE WATAUGA COUNTY BOARD OF COMMISSIONERS, by order of the WATAUGA COUNTY COMMISSIONERS, this the day and year first above written

This instrument does not transfer the herein described interests unless and until this document is accepted by an authorized agent of the Department of Transportation.

Watauga County

BY: _____
Braxton Eggers, Chairman of Watauga County Board of Commissioners

ATTEST: _____
Madison Mathis, Clerk of Watauga County Board of Commissioners

ACCEPTED FOR THE DEPARTMENT OF TRANSPORTATION BY: _____

(Official Seal)	North Carolina, _____ County I, _____, a Notary Public for _____ County, North Carolina, certify that _____ personally came before me this day and acknowledged that he/she is the CLERK of the Watauga County Board Of Commissioners, and that by authority duly given, the foregoing instrument was signed in its name by _____, its CHAIRMAN of the Watauga COUNTY BOARD OF COMMISSIONERS, sealed with its corporate seal, and attested by _____ as its CLERK. Witness my hand and official seal this the _____ day of _____, 20 _____. _____ Notary Public My commission expires: _____

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

G. Recommended Contract Award for Employee Medical and Dental Insurance

Manager's Comments:

Renewal rates were received for medical and dental insurance benefits. The initial renewal rate received from United HealthCare for medical insurance was an 8.6% increase. Further negotiations and analysis of additional claims reduced the increase to 5.0% without any changes to the current medical plan structure. The medical plan was bid to find the best overall solution and bids were received from BlueCross BlueShield and United HealthCare, while Aetna and Cigna declined to bid.

The negotiated renewal rate received from United HealthCare for dental insurance is a 9.0% increase without any changes to benefits or plan structure.

Community Eye Care (CEC) benefits and premiums remain the same for vision exam coverage and voluntary vision eyewear coverage, with a rate lock until December 31, 2029.

Watauga County is also currently in a three (3) year rate lock with Metropolitan Life Insurance Company (MetLife) for basic and voluntary life insurance and benefits and premiums will remain unchanged until December 31, 2028.

Staff recommends United HealthCare's fully insured plan with performance funding for the County's medical insurance with a 5.0% increase and for the County to fund $1,000 into each eligible employee's HSA account. Staff further recommends United HealthCare dental insurance with an 9.0% rate increase for the 2027 plan year. Watauga County is currently in a rate lock with Community Eye Care vision exam and eyewear insurance and MetLife for basic and voluntary life insurance with no changes to plan benefits or premiums.

Adequate funds have been budgeted to cover the renewal rates.

Board action is required.

PLAN UPDATE

2027 Renewal

September 28, 2026

2027 Medical Renewal Options

Benefit Plan			Current		Renewal		Alt #1 (EUJ7 Mod 1)		Alt #2 (7710047)
			UHC		UHC		UHC		BCBSNC
Funding Type			Fully Insured		Performance Funding		Fully Insured		BF (IHA)
Carrier Network			Choice Plus		Choice Plus		Choice Plus		Blue Options
Deductible In-Network (Ind/Fam)			$2,500 / $5,000		$2,500 / $5,000		$2,500 / $5,000		$2,500 / $5,000
In-Network Coinsurance			0%		0%		0%		0%
INN Inpatient Hospital Services			D&C		D&C		D&C		D&C
INN Outpatient Hospital Services			D&C		D&C		D&C		D&C
Out of Pocket Maximum - Ind/Fam			$2,500 / $5,000		$2,500 / $5,000		$2,500 / $5,000		$2,500 / $5,000
Primary Care Physician Visit			D&C		D&C		D&C		D&C
Specialist Physician Visit			D&C		D&C		D&C		D&C
Telemedicine (PCP)			D&C		D&C		D&C		D&C
Urgent Care			D&C		D&C		D&C		D&C
Mental Health (Outpatient)			D&C		D&C		D&C		D&C
Mental Health (Inpatient)			D&C		D&C		D&C		D&C
Emergency Room			D&C		D&C		D&C		D&C
Pharmacy Deductible			N/A		N/A		N/A		N/A
Tier 1			D&C		D&C		D&C		D&C
Tier 2			D&C		D&C		D&C		D&C
Tier 3			D&C		D&C		D&C		D&C
Tier 4			D&C		D&C		D&C		D&C
Tier 5			D&C		D&C		D&C		D&C
Agg Corridor			N/A		N/A		N/A		110%
Spec Level			N/A		N/A		N/A		$100,000
Surplus Share %			50%		50%		N/A		100%
Out of Network Coverage			See SBC		See SBC		See SBC		See SBC
Employee Only	295		$1,065.10		$1,157.13		$1,145.67		$1,262.92
Employee/ Spouse	1		$2,313.49		$2,513.39		$2,488.50		$2,743.06
Employee/Child(ren)	27		$1,584.91		$1,721.85		$1,704.80		$1,879.22
Employee/Family	0		$3,269.94		$3,552.47		$3,517.30		$3,877.17
Total Enrolled	323								
Monthly Cost			**$359,310.56**		**$390,356.69**		**$386,490.75**		**$426,043.40**
Annual Cost			**$4,311,727**		**$4,684,280**		**$4,637,889**		**$5,112,521**
Annual Dollar Differential					**$372,554**		**$326,162**		**$800,794**
Percentage Differential					**8.6%**		**7.6%**		**18.6%**

2027 Medical Renewal Options

Benefit Plan			**Current**		**Alt #1 (EUJ7 Mod 1)**
			UHC		UHC
Funding Type			Fully Insured		Fully Insured
Carrier Network			Choice Plus		Choice Plus
Deductible In-Network (Ind/Fam)			$2,500 / $5,000		$2,500 / $5,000
In-Network Coinsurance			0%		0%
INN Inpatient Hospital Services			D&C		D&C
INN Outpatient Hospital Services			D&C		D&C
Out of Pocket Maximum - Ind/Fam			$2,500 / $5,000		$2,500 / $5,000
Primary Care Physician Visit			D&C		D&C
Specialist Physician Visit			D&C		D&C
Telemedicine (PCP)			D&C		D&C
Urgent Care			D&C		D&C
Mental Health (Outpatient)			D&C		D&C
Mental Health (Inpatient)			D&C		D&C
Emergency Room			D&C		D&C
Pharmacy Deductible			N/A		N/A
Tier 1			D&C		D&C
Tier 2			D&C		D&C
Tier 3			D&C		D&C
Tier 4			D&C		D&C
Tier 5			D&C		D&C
Agg Corridor			N/A		N/A
Spec Level			N/A		N/A
Surplus Share %			50%		N/A
Out of Network Coverage			See SBC		See SBC
Employee Only	295		$1,065.10		$1,118.40
Employee/ Spouse	1		$2,313.49		$2,429.26
Employee/Child(ren)	27		$1,584.91		$1,664.22
Employee/Family	0		$3,269.94		$3,433.58
Total Enrolled	323				
Monthly Cost			**$359,310.56**		**$377,291.20**
Annual Cost			**$4,311,727**		**$4,527,494**
Annual Dollar Differential					**$215,768**
Percentage Differential					**5.0%**

2027 Dental Renewal Options

Benefit Plan		**Current**		**Renewal**
Funding Type		Fully Insured		Fully Insured
Carrier Network		Options PPO 30		Options PPO 30
Deductible In-Network (Ind/Fam)		$50 / $150		$50 / $150
Diagnostic and Preventive (In/Out)		100% / 100%		100% / 100%
BASIC Services (In/Out)		80% / 80%		80% / 80%
MAJOR Services (In/Out)		50% / 50%		50% / 50%
Benefit Period Maximum - Per Member		**$1,500**		**$1,500**
Orthodontia Coinsurance (In/Out)		Not Covered		Not Covered
Orthodontia Age Limit		N/A		N/A
Rollover Amount		None		None
Rollover Threshold		N/A		N/A
Maximum Rollover Amount		N/A		N/A
Exams/Cleanings Per Year		2 per 12 months		2 per 12 months
Out of Network Basis		UCR 90th		UCR 90th
Endodontics		BASIC (Class B)		BASIC (Class B)
Periodontics		BASIC (Class B)		BASIC (Class B)
Oral Surgery		BASIC (Class B)		BASIC (Class B)
Crowns, Inlays/Onlays, Dentures		MAJOR (Class C)		MAJOR (Class C)
Orthodontic Lifetime Maximum		**N/A**		**N/A**
Employee Only	274	$34.60		$37.70
Employee/ Spouse	22	$93.01		$101.34
Employee/Child(ren)	32	$93.01		$101.34
Employee/Family	14	$154.66		$168.52
Total Enrolled	342			
Monthly Cost		**$16,668.18**		**$18,161.44**
Annual Cost		**$200,018**		**$217,937**
Annual Dollar Differential				**$17,919**
Percentage Differential				**9.0%**

562

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

H. Sheriff's Office Retirement Award Request

Manager's Comments:

County Manager Geouque will present the request for Deputy Steven "Patrick" Anderson to retain his assigned duty weapon upon his retirement from the Watauga County Sheriff's Office. Deputy Anderson served with the Sheriff's Office from October 8, 2001, through September 30, 2026, completing more than 24 years of service to the citizens of Watauga County.

G.S. 20-187.2 allows governing bodies of a law enforcement agency to award a retiring member the service side arm at a price determined by the governing body. Law enforcement personnel may retire at age 55 with 25 years of credible service with full retirement benefits. The Sheriff's Office requests that Deputy Anderson's respective side arm and badge be awarded to him upon retirement and that the Board set the price of the side arm at $1.

Board action is required to grant the award.

WATAUGA COUNTY SHERIFF'S OFFICE

184 HODGES GAP ROAD
BOONE, NORTH CAROLINA 28607
(828) 264-3761 • FAX (828) 263-5345

LEN D. HAGAMAN, JR.
SHERIFF

To: Deron Geouque
From: Captain Brian Bumgarner

Sheriff Hagaman respectfully requests the Board's approval for Deputy Steven "Patrick" Anderson to retain his Sheriff's Office duty weapon as a token of appreciation for his many years of dedicated service to the citizens of Watauga County.

Deputy Anderson has served with the Watauga County Sheriff's Office from **October 8, 2001, through September 30, 2026**, providing more than 24 years of dedicated service to the citizens of Watauga County.

County Asset: Glock Model 45, Serial #CBHW666

Thank you for your consideration.

Respectfully,

Captain Brian Bumgarner
Watauga County Sheriff's Office

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

I. Wildcat Communications Tower Site Lease Agreement

Manager's Comments:

County Manager Geouque will request Board approval of an updated Memorandum of Lease and lease agreement for the Wildcat Communications Tower Site with Blue Ridge Buffalo Partners, LLC. The lease will have a term of ten (10) years for a consideration of $1. Upon expiration of the lease, the property will revert to the County.

Under the terms of the lease, if the County receives revenue from the rental of the communications tower, the Lessor will receive 40% of that revenue during the ten (10)-year lease term. The updated lease also provides that the County will include the property on the County's insurance policy and pay the associated property taxes on the property.

The Wildcat Communications Tower Site is critical to the County's overall emergency communications system. Approval of the lease will allow the County to relocate the existing Wildcat Tower, as the current property is being developed for a homesite.

Board approval is required for the Memorandum of Lease and updated lease agreement for the Wildcat Communications Tower Site.

STATE OF NORTH CAROLINA

MEMORANDUM OF LEASE

COUNTY OF WATAUGA

Blue Ridge Buffalo Partners, LLC of 5014 Hollow Rock Road, Durham, NC 27707 (hereinafter called "Lessor") hereby leases to Watauga County, a North Carolina body politic of 814 West King Street, Boone, NC 28607 (hereinafter called the "Lessee"), for a term beginning on _____, 2026 and continuing for an initial term of ten (10) years with five years extensions until terminated by a party, the following property:

Being all of the "Future E.M.S. Communication Tower Site", consisting of 0.075 – acre tract as shown on Sheet 4 of 4 of the plate of survey entitled "Final Subdivision Plat Phase IIIA 'Wilderness Reserve at Wildcat' Lots 138 – 169", dated March 3, 2025, and prepared by Judson Evans Howell, PLS L-4733 of NC Precision Surveys, PLLC, which said plat is recorded in Plat Book 30, at Pages 380-383, Watauga County, North Carolina Public Registry, and labeled, to which plan reference is hereby made for a more complete and accurate property description. This includes a right of way over the roads shown on said Plat.

The provisions set forth in a written Lease Agreement (the "Lease") between the parties dated _____ day of _____, 2026, are hereby incorporated in this memorandum.

LESSOR:

Blue Ridge Buffalo Partners, LLC (SEAL)

By:_____

Date:_____

STATE OF NORTH CAROLINA COUNTY OF _____

I certify that the following person(s) personally appeared before me this day, each acknowledging to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated:

_____

_____

Notary Public SEAL

My commission expires:_____

LESSEE:

Watauga County, a North Carolina corporate and body politic chartered by the State of North Carolina.

By:_____
Braxton Eggers,
Chairman of the Board of County Commissioners

Attest:

_____
Madison Mathis, Clerk to the
Board of County Commissioners

(CORPORATE SEAL)

STATE OF NORTH CAROLINA COUNTY OF _____

I, _____, a Notary Public, do hereby certify that Madison Mathis, personally appeared before me this day and acknowledged that she is the Clerk to the Board of County Commissioners for Watauga County, a North Carolina body politic, and that by authority duly given, and as an act of said body politic, and that by authority duly given, and as an act of said body politic, the foregoing instrument was signed in its name by its Chairman to the Board of County Commissioners, sealed with its corporate seal, and attested by herself as clerk.

This the _____ day of _____, 2026.

_____
Notary Public

SEAL My commission expires:_____

STATE OF NORTH CAROLINA

WILDCAT COMMUNICATIONS TOWER SITE LEASE AGREEMENT

COUNTY OF WATAUGA

THIS LEASE AGREEMENT, made and entered into this the ____ day of _____, 2026, by and between Blue Ridge Buffalo Partners, LLC, a North Carolina Limited Liability Company, 5014 Hollow Rock Road, Durham, NC 27707, hereinafter referred to as "Lessor", and Watauga County, a North Carolina body politic of 814 West King Street, Boone, NC 28607, hereinafter referred to as "Lessee".

BACKGROUND STATEMENT

WHEREAS, Lessor is the owner in fee simple of a certain tract or parcel of land lying and being in Watauga County, North Carolina consisting of 0.075 as described in the Deed recorded in Record Book 2433, Page 538 and shown on the plat recorded in Plat Book 30, Pages 380-383 all of the Watauga County Public Registry;

WHEREAS, Lessor desires to lease to Lessee the Lessor's above-described property for Lessee's location of and use of communications equipment, including towers, antennas, radios, and buildings to house accessory equipment, for the Lessee's operations on the above-described parcel.

NOW THEREFORE, for and in consideration of the premises, and the mutual covenants and conditions herein stated, and other good and valuable consideration, the receipt of which is hereby acknowledge, the parties agree as follows:

1. TERM: Lessor does hereby let and lease unto the Lessee, its successors and assigns, the Demised Premises described on Exhibit A for an original Ten (10) Years beginning at the time of the execution of this document. The term shall be automatically extended in Five (5) Year terms unless either party notifies in writing to the other party that they wish to terminate the lease at the end of that term and delivers the notice to the other party at least ninety (90) days prior to the expiration of the current term.

2. RENT: The rental amount to be paid by Lessee to Lessor during the lease term shall be One Dollar ($1.00) per year payable in ANNUAL PAYMENTS

DUE upon execution of this agreement, and each anniversary thereafter. The lease amount for the full term may be paid in advance at the option of the Lessee. In addition to the One Dollar ($1.00) per year lease amount, should the Lessee realize any revenue from rental of space on the tower to any commercial enterprise than the Lessor shall be paid 40% of said revenues monthly.

3. TAXES: Lessee shall be responsible for all Watauga County ad valorem taxes on the Demised Premises during the term of this lease agreement. Lessor shall present the Watauga County ad valorem tax bill within 30 days of receiving said bill and present the bill for each year to Lessee and Lessee agrees to promptly pay said taxes when due.

4. INDEMNITY: Lessee does hereby covenant and agree to indemnify and hold Lessor harmless from any and all liability, including attorney's fees and court costs, for injury to persons and/or property damages occurring on the leased premises during the lease period, which injuries or property damage are caused by or contributed to by Lessee, its employees, agents, business activities or assigns.

5. TERMINATION: Lessee agrees to notify Lessor, in writing, by certified mail, ninety (90) days in advance of any intent to terminate the lease agreement between the parties. If Lessee abandons the Demised Premises during the lease term, any advance lease payments made to Lessor by the Lessee shall be forfeited to Lessor. In the event of a termination the Lessee shall One Hundred and Eighty days to remove all their equipment and improvements form the Demised Premises.

6. SUBLET: Lessee shall have the right to sublet any space to any third party and may grant the third-party access to the Demised Premises. Any commercial subletting will trigger the 40% payment in paragraph 2 of this agreement.

7. UTILITIES: Lessee will pay for all utilities used for the operation of its communication equipment and will install its own electric meter. Lessee will be responsible directly to the appropriate utility companies for all utilities required for Lessee's use at the Demised Premises. Lessor agrees to cooperate

with Lessee, at Lessee's expense, in its effort to obtain utilities from any location provided by the Lessor or the servicing utility.

8. ASSIGNMENT: This agreement shall be binding upon Lessor, their heir, successors and assigns, and upon Lessee, its successors, or assigns.

9. COMMENCEMENT: This lease agreement shall commence upon the date of execution of this lease agreement.

10. MEMORANDUM OF LEASE: It is stipulated and agreed that Lessee shall cause a Memorandum of Lease of this agreement to be recorded in the Office of the Register of Deeds of Watauga County, North Carolina, after its proper execution.

11. INSURANCE: The Lessee shall keep the Demised Premises insured under the Lessee's liability insurance policy.

LESSOR:

Blue Ridge Buffalo Partners, LLC (SEAL)

By:_____

Date:_____

STATE OF NORTH CAROLINA COUNTY OF _____

I certify that the following person(s) personally appeared before me this day, each acknowledging to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated:

_____

_____

Notary Public SEAL

My commission expires:_____

LESSEE:

Watauga County, a North Carolina corporate and body politic chartered by the State of North Carolina.

By:_____
Braxton Eggers,
Chairman of the Board of County Commissioners

Attest:

_____
Madison Mathis, Clerk to the
Board of County Commissioners

(CORPORATE SEAL)

STATE OF NORTH CAROLINA COUNTY OF _____

I, _____, a Notary Public, do hereby certify that Madison Mathis, personally appeared before me this day and acknowledged that she is the Clerk to the Board of County Commissioners for Watauga County, a North Carolina body politic, and that by authority duly given, and as an act of said body politic, and that by authority duly given, and as an act of said body politic, the foregoing instrument was signed in its name by its Chairman to the Board of County Commissioners, sealed with its corporate seal, and attested by herself as clerk.

This the _____ day of _____, 2026.

_____
Notary Public

SEAL My commission expires:_____

EXHIBIT A

Situate in Watauga County, North Carolina and more particularly described as follows:

PARCEL ONE:

Being all of the “Future E.M.S. Communication Tower Site”, consisting of 0.075 – acre tract as shown on Sheet 4 of 4 of the plate of survey entitled “Final Subdivision Plat Phase IIIA ‘Wilderness Reserve at Wildcat’ Lots 138 – 169”, dated March 3, 2025, and prepared by Judson Evans Howell, PLS L-4733 of NC Precision Surveys, PLLC, which said plat is recorded in Plat Book 30, at Pages 380-383, Watauga County, North Carolina Public Registry, and labeled, to which plan reference is hereby made for a more complete and accurate property description. This includes a right of way over the roads shown on said Plat.

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

J. Appointment of the Watauga County Finance Director

Manager's Comments:

Per North Carolina General Statute 159-24 the County is required to appoint a Finance Director. Staff requests the Board appoint Ms. Misty Watson as the County's Finance Director.

Board action is required to officially appoint Ms. Misty Watson as the Watauga County Finance Director effective October 6th, 2026.

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

K. Boards and Commissions

Manager's Comments:

The County has received a volunteer application from Mr. Marcos Miralles of Boone expressing interest in serving on the Watauga County Planning Board. Mr. Miralles resides in the New River Township and is employed as Director of Hospitality with Blue Ridge Mountain Club. He would like to become more involved in the community and is interested in supporting thoughtful growth while preserving the character and natural beauty of Watauga County.

This is a first reading; therefore, no action is required by the Board.

Watauga County
BOARD OF COMMISSIONERS

BOARDS AND COMMISSIONS

VOLUNTEER APPLICATION

Watauga County
BOARDS AND COMMISSIONS

VOLUNTEER APPLICATION INSTRUCTIONS

Why Serve?

One way that residents can positively impact the future of Watauga County is by volunteering to serve on a board or commission. Volunteers appointed by the Board of County Commissioners directly influence the County's decisions, policies, and priorities.

What are the Requirements?

General requirements for appointment include:

- Must be at least 18 years old
- Must reside in Watauga County
- Must agree to attend meetings, participate in activities, and follow all applicable laws and policies
- Must be willing and able to comply with ethical requirements associated with board service

Some boards and commissions have additional eligibility requirements. If you apply for one of these, you will be contacted with the additional information before your application is presented to the Board of Commissioners to ensure you are still interested.

What Do the Boards Do?

Each board or commission has a unique charge with its own goals and objectives. A list of boards, descriptions, and the current member roster can be found here on our website.

How to Apply?

Please note that, upon submission, your volunteer application becomes a public record under North Carolina Public Records Law.

1. **Download and complete** a volunteer application (PDF) **for each** board or commission you are interested in serving on. You may include a résumé if you wish.

2. **Email completed application(s)** (and résumé, if included) to boardpacket@watgov.org.

   Or return by mail to:
   Watauga County Board of County Commissioners
   ATTN: Clerk to the Board
   814 W. King Street, Suite 205
   Boone, NC 28607

What Happens Next?

- The Clerk's Office will verify your Watauga County address and notify you by email once your application has been received.
- If there is a vacancy on the board you applied for, your application will be presented to the Board of Commissioners for consideration at a regular meeting.
- You will be notified by email by the Clerk if you are appointed.
- If you are not initially appointed, or if there are no current vacancies, your application will remain on file and will automatically be reconsidered when openings occur until you are appointed or until your application expires (two years from the date of submission).

Questions?

Please contact the Clerk's Office at **(828) 265-8000**.

Watauga County

BOARDS AND COMMISSIONS

VOLUNTEER APPLICATION FORM

PROFILE

Title:

First Name: *
Marcos

Middle Name:

Last Name: *
Miralles

Suffix:

Date of Birth: *
02/12/1994

Age Range: *
25-34

Gender: *
Male

Ethnicity: *
Hispanic or Latino

Race: *
White

Home Address: *
1523 Russ Cornett Road

City: *
Boone

State: *
NC

Zip Code: *
28607

Primary Phone Number: *
3059175758

Email Address: *
mirallesm1789@gmail.com

Are you a resident of Watauga County? *
☑ Yes ☐ No

Township of Residence: *
New River

Additional Area of Residence:
Select if you live in one of the following areas.

— Select —

EMPLOYMENT INFORMATION

Please provide your current employment status, employer/organization (if applicable), and job title or former occupation. You may attach a résumé to supplement this information if you wish.

Employment Status: *
Employed

Employer/Organization (if applicable):
Blue Ridge Mountain Club

Job Title/Former Occupation: *
Director of Hospitality

BOARDS AND COMMISSIONS INTEREST AND QUALIFICATIONS

Board or Commission of Interest*
Please choose the board or commission for which this application is being submitted.

Watauga County Planning Board

Relevant Background*
Briefly describe how your background, education, and/or experience relates to the board or commission you are interested in serving on.

I currently serve as Director of Hospitality at Blue Ridge Mountain Club, where my role involves much more than day-to-day hospitality operations. I work closely with leadership across the organization on budgeting, facilities, projects, staffing, and long-term planning. My career has been centered around leading teams, solving problems, and making decisions that balance the needs of different groups. I also hold a Master's degree in Business Administration. As a Watauga County resident and homeowner, I have a personal interest in seeing the county grow in a thoughtful and responsible way.

Motivation for Service*
Please explain why you would like to serve and what goals or perspectives you hope to contribute as a member.

My wife and I chose Watauga County as the place we wanted to call home, and I would like to become more involved in the community beyond my professional role. I'm interested in the Planning Board because growth is an important issue here. I believe we can welcome new residents, businesses, and investment while still protecting the character and natural beauty that make Watauga County such a special place to live. I would bring a practical and open-minded perspective to the board, listen to the people affected by its decisions, and do my best to make thoughtful decisions that serve the county well over the long term.

Conflict of Interest*
Do you have any personal, financial, or business interests that could present a real or perceived conflict of interest if appointed?

☐ Yes ☑ No

If yes, please describe below.

Current Service*
Are you currently serving on any Watauga County boards or commissions?

☐ Yes ☑ No

If yes, please list them below.

ACKNOWLEDGEMENT

By signing this form, I acknowledge and confirm the following (please check each box, then sign and date below).

- ☑ This application is a public record under N.C.G.S. Chapter 132.
- ☑ The information provided in this application is true and complete to the best of my knowledge.
- ☑ I agree to attend meetings, participate in activities, and follow all applicable laws and policies.
- ☑ I agree to disclose any actual or potential conflicts of interest that may arise during my service.

Signature: Marcos Miralles _____ **Date:** 09/15/2026 _____

MARCOS MIRALLES

Boone, North Carolina

Hospitality and operations executive with more than 10 years of leadership experience across luxury hospitality, hotels, food and beverage, training, people development, and business operations. Experienced in budgeting, facilities and project coordination, team leadership, service standards, organizational development, and cross-functional decision-making. MBA-educated, bilingual in English and Spanish, and committed to thoughtful leadership and community involvement.

PROFESSIONAL EXPERIENCE

Director of Hospitality | Blue Ridge Mountain Club

Boone, NC | 2026 – Present

- Lead hospitality operations for a private mountain community, with responsibility spanning food and beverage, member services, events, recreation-facing hospitality, and the overall member experience.
- Partner with executive leadership and department heads on budgeting, facilities, capital and operational projects, staffing, service standards, and long-term planning.
- Develop leaders and operating standards across departments while coordinating projects that require collaboration among hospitality, culinary, facilities, member services, and outside partners.

General Manager | Holiday Inn Boone – University Area / Kings Lane Hotels

Boone, NC | 2026

- Led hotel operations in the Boone market with responsibility for guest experience, team leadership, operating standards, and day-to-day property performance.
- Worked across hotel departments to support staffing, service delivery, operational priorities, and property needs.

Corporate Learning & Development Manager | Evans Hotels

San Diego, CA | 2022 – 2026

- Directed company-wide learning and development for 1,600+ associates across three luxury hotels, restaurants, bars, retail operations, and support departments.
- Created and delivered leadership, guest service, compliance, and safety training programs for employees and leaders.
- Led implementation of a new HRIS platform, including testing, bilingual training materials, and cross-department support.
- Launched leadership-development and future-leader programs and supported employee engagement, investigations, documentation, and organizational initiatives.

Service Manager | Cinépolis Luxury Cinemas

Del Mar, CA | 2019 – 2020

- Recruited, trained, scheduled, and coached front-of-house teams in a high-volume luxury entertainment environment.
- Improved guest satisfaction from 89% to 99% during peak periods through stronger service execution and accountability.

Sales Consultant | The Ritz-Carlton Yacht Collection

Miami, FL | 2018 – 2019

- Supported more than $60 million in sales through CRM development, training, onboarding, and pre-launch reservation-system testing.
- Selected by executive leadership to participate in culture and employee-experience initiatives.

Cluster Sales Manager | Marriott Hotels

Miramar, FL | 2015 – 2018

- Led sales and event coordination across Marriott-branded properties, including Residence Inn and Courtyard.
- Helped elevate guest satisfaction into the top 20% worldwide and achieved #2 and #3 market-share rankings among 12 competitive properties.

Business Development Manager | South Florida Truck Sales

Miami, FL | 2013 – 2015

- Managed business development, sales, and HR-related functions while expanding the company's buyer network across the United States, Caribbean, and South America.

EDUCATION & CREDENTIALS

Master of Business Administration | Western Governors University | 2022

Bachelor of Science, Business Administration | Western Governors University | 2021

Associate of Arts, Business Administration | Miami Dade College | 2016

Credentials: Human Resource Management • Applied Business Skills • DISC Communication Certified Practitioner

CORE STRENGTHS

Strategic & Operational Planning • Budgeting • Facilities & Project Coordination • Hospitality Operations • Food & Beverage Leadership • Leadership Development • Cross-Functional Collaboration • Employee Relations • Training & Facilitation • Public Speaking • English/Spanish Bilingual Communication

A G E N D A I T E M 8 :

MISCELLANEOUS ADMINISTRATIVE MATTERS

L. Announcements

Manager's Comments:

The County Manager recommends cancelling the November 3, 2026, regularly scheduled Board of Commissioners meeting.

Board action is requested to cancel the November 3, 2026, Board of Commissioners meeting.

A G E N D A I T E M 9 :

COMMISSIONERS' COMMENTS

A G E N D A I T E M 1 0 :

BREAK

A G E N D A I T E M 1 1 :

CLOSED SESSION

- Attorney-Client Matters per G. S. § 143-318.11(a)(3)

SUPPLEMENTAL MATERIALS

FROM BOARD MEETING

Watauga County
BOARD OF COMMISSIONERS

PUBLIC COMMENT SIGN-IN

WATAUGA COUNTY BOARD OF COMMISSIONERS

MEETING DATE: October 6, 2026

WATAUGA COUNTY BOARD OF COMMISSIONERS PUBLIC COMMENT RULES

At the April 18, 2023, Watauga County Board of Commissioners meeting, the Board amended the policy for public comment before the Board as follows:

In accordance with North Carolina General Statutes 160A-81.1, the Watauga County Board of Commissioners establishes the following policy and rules regarding Public Comment.

- The Board does hereby establish a time period of up to sixty (60) minutes, for an open forum, at the beginning of each regular meeting to hear citizen comments.
- Persons who wish to speak must register on the sign-up sheet located on the information desk outside the meeting room. Sign-up sheets will be available one hour prior to the start of each meeting.
- Speakers shall provide their name and address at the start of their comments.
- Each speaker is allocated up to three (3) minutes to speak. No public comment period shall extend beyond one (1) hour. The Chair reserves the right to reduce the time limitation for individual speakers in order to meet the one (1) hour time limit and as necessary for efficient conduct of business.
- A speaker may not share or relinquish any remaining time they have not used to another speaker and shall only be allowed to speak once during the public comment period.
- Speaker substitutions at the meeting are not allowed.
- Comments are to be directed to the Board as a whole. The forum is intended to provide the Board of Commissioners an opportunity to hear citizens. It is not intended to subject the Board to answering impromptu questions. Citizens will be expected to be civil in their language and presentation and not to engage in slander or name-calling.
- Speakers shall refrain from personal attacks and/or threats directed towards County staff, elected Board members, or members of the public. Insults, profanity, use of vulgar language or gestures, or other inappropriate behavior are not allowed.
- Speakers shall limit their comments to matters that are germane to, or within the jurisdiction of the Watauga County Board of Commissioners.
- Speakers shall address the Board with any, and all public comments. Comments, questions, jeering, or other interruptions from the audience are not allowed. Speakers shall likewise not address or respond to members of the audience.
- The Chair, or presiding officer, has the authority to enforce the Rules of Decorum. Failure to obey these Rules may result in the forfeiture of the remaining speaking time and possible criminal charges. Individuals who engage in egregious or repeated violations may be asked to leave the meeting.
- During the open forum, speakers should not discuss any of the following:
  a. Matters which concern the candidacy of any person seeking public office, including that of the person addressing the Board.
  b. Matters in current or anticipated litigation.
  c. Advertising or promoting the sale of products, services, or private enterprise.
  d. Promoting any contest or lottery.

Please **clearly** print your name. By printing your name, you **acknowledge** that you have read, understood, and agree to abide by the rules outlined above.

Please state your name before speaking.

SPEAKER LIST

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ADDITIONAL SIGN-UP SPACE AVAILABLE ON THE BACK.

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