

1270 MARKET STREET
 CHATTANOOGA, TN 37402
 PHONE: (423) 708-3658

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**MOWBRAY MOUNTAIN
 WATER STORAGE - PHASE I**

NORTH WEST UTILITY DISTRICT
 SODDY-DAISY, TN

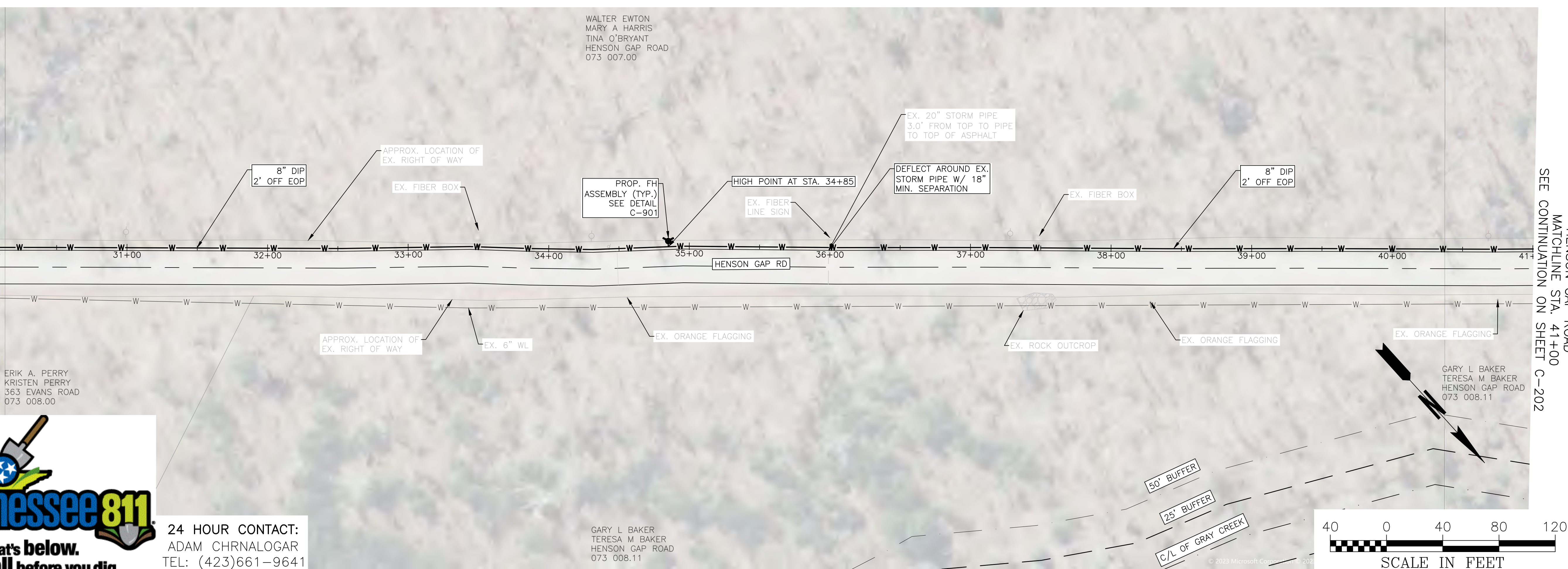
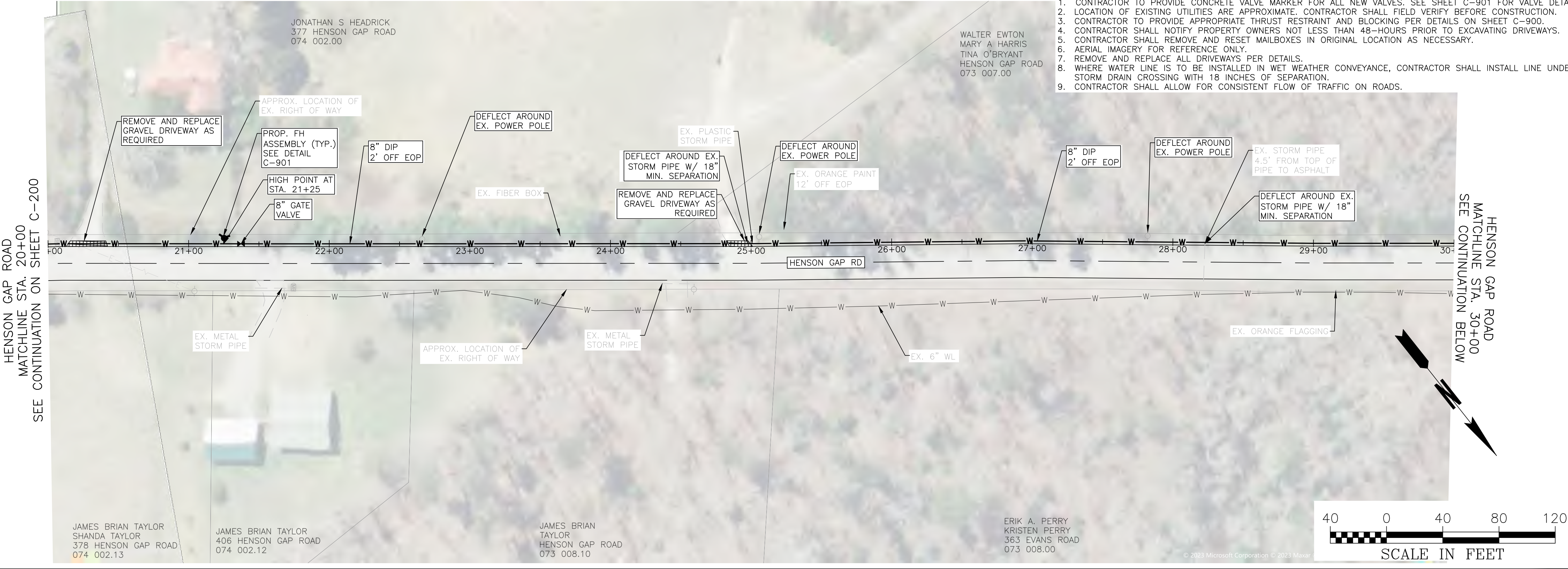
NO.	REVISION REFERENCE	DATE



SHEET TITLE
WATER LINE LAYOUT

DRAWN BY QM	CHECKED BY MDB
SCALE AS SHOWN	ISSUE DATE 3/8/2024
PROJECT NUMBER 2388.009	
DRAWING NUMBER C-201	

- NOTES:
1. CONTRACTOR TO PROVIDE CONCRETE VALVE MARKER FOR ALL NEW VALVES. SEE SHEET C-901 FOR VALVE DETAIL.
 2. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY BEFORE CONSTRUCTION.
 3. CONTRACTOR TO PROVIDE APPROPRIATE THRUST RESTRAINT AND BLOCKING PER DETAILS ON SHEET C-900.
 4. CONTRACTOR SHALL NOTIFY PROPERTY OWNERS NOT LESS THAN 48-HOURS PRIOR TO EXCAVATING DRIVEWAYS.
 5. CONTRACTOR SHALL REMOVE AND RESET MAILBOXES IN ORIGINAL LOCATION AS NECESSARY.
 6. AERIAL IMAGERY FOR REFERENCE ONLY.
 7. REMOVE AND REPLACE ALL DRIVEWAYS PER DETAILS.
 8. WHERE WATER LINE IS TO BE INSTALLED IN WET WEATHER CONVEYANCE, CONTRACTOR SHALL INSTALL LINE UNDER STORM DRAIN CROSSING WITH 18 INCHES OF SEPARATION.
 9. CONTRACTOR SHALL ALLOW FOR CONSISTENT FLOW OF TRAFFIC ON ROADS.



24 HOUR CONTACT:
 ADAM CHRNOLOGAR
 TEL: (423)661-9641

GARY L BAKER
 TERESA M BAKER
 HENSON GAP ROAD
 073 008.11

JAMES BRIAN TAYLOR
 SHANDA TAYLOR
 378 HENSON GAP ROAD
 074 002.13

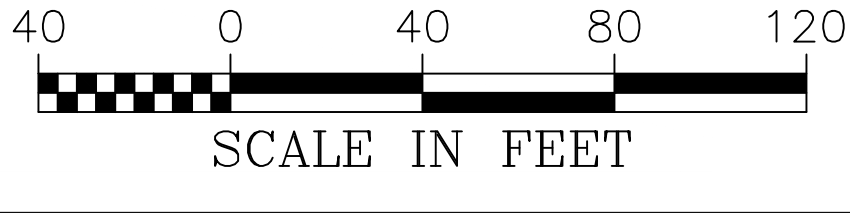
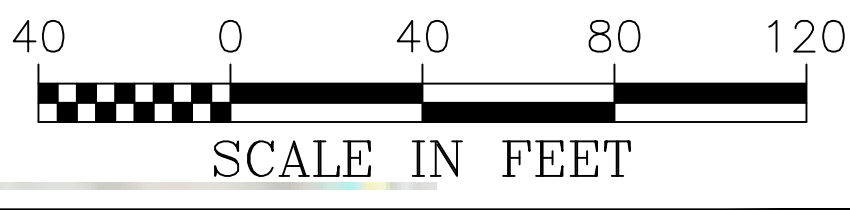
JAMES BRIAN TAYLOR
 406 HENSON GAP ROAD
 074 002.12

JAMES BRIAN TAYLOR
 HENSON GAP ROAD
 073 008.10

ERIK A. PERRY
 KRISTEN PERRY
 363 EVANS ROAD
 073 008.00

HENSON GAP ROAD
 MATCHLINE STA. 20+00
 SEE CONTINUATION ON SHEET C-200

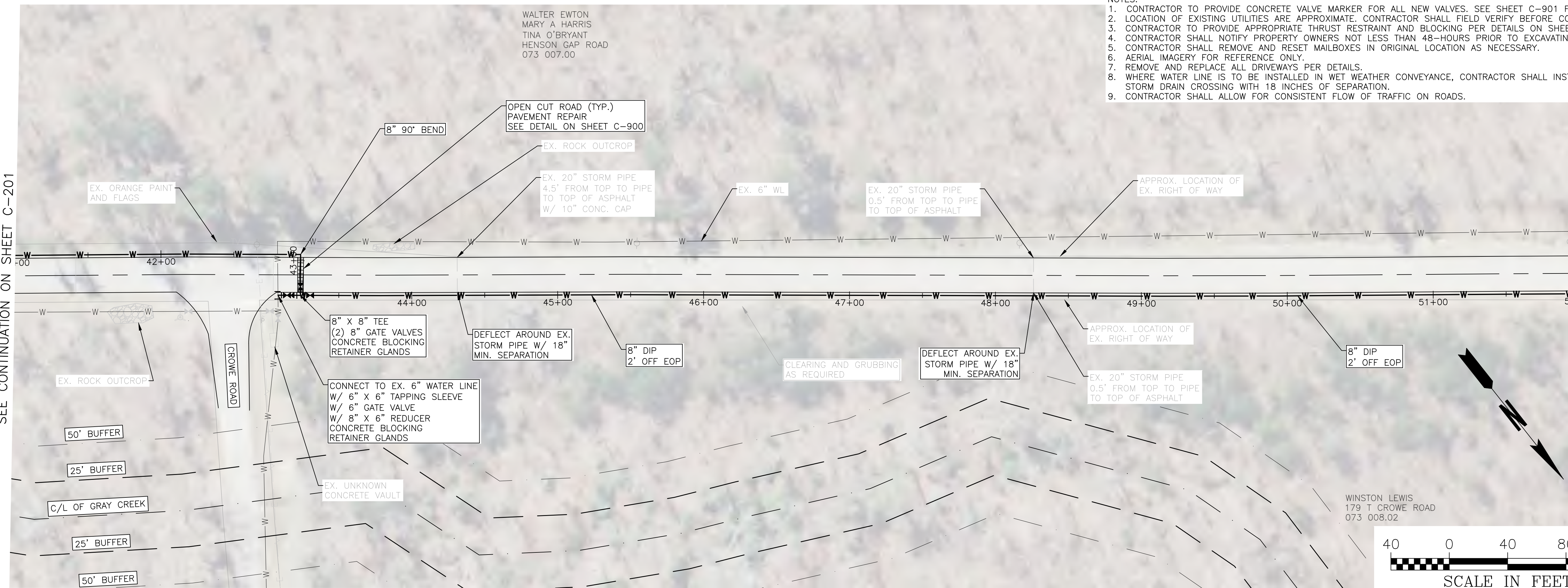
HENSON GAP ROAD
 MATCHLINE STA. 30+00
 SEE CONTINUATION BELOW



WALTER EWTON
MARY A HARRIS
TINA O'BRYANT
HENSON GAP ROAD
073 007.00

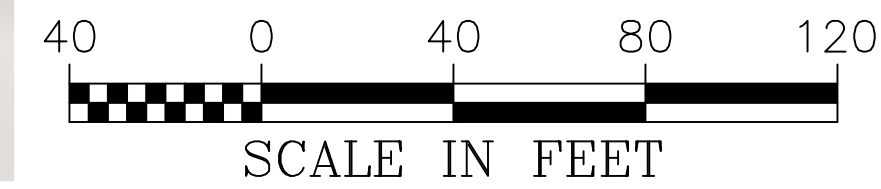
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HENSON GAP ROAD
MATCHLINE STA. 41+00
SEE CONTINUATION ON SHEET C-201



HENSON GAP ROAD
MATCHLINE STA. 52+00
SEE CONTINUATION BELOW

WINSTON LEWIS
179 T CROWE ROAD
073 008.02



1270 MARKET STREET
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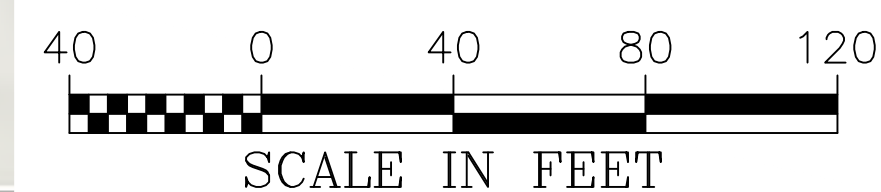
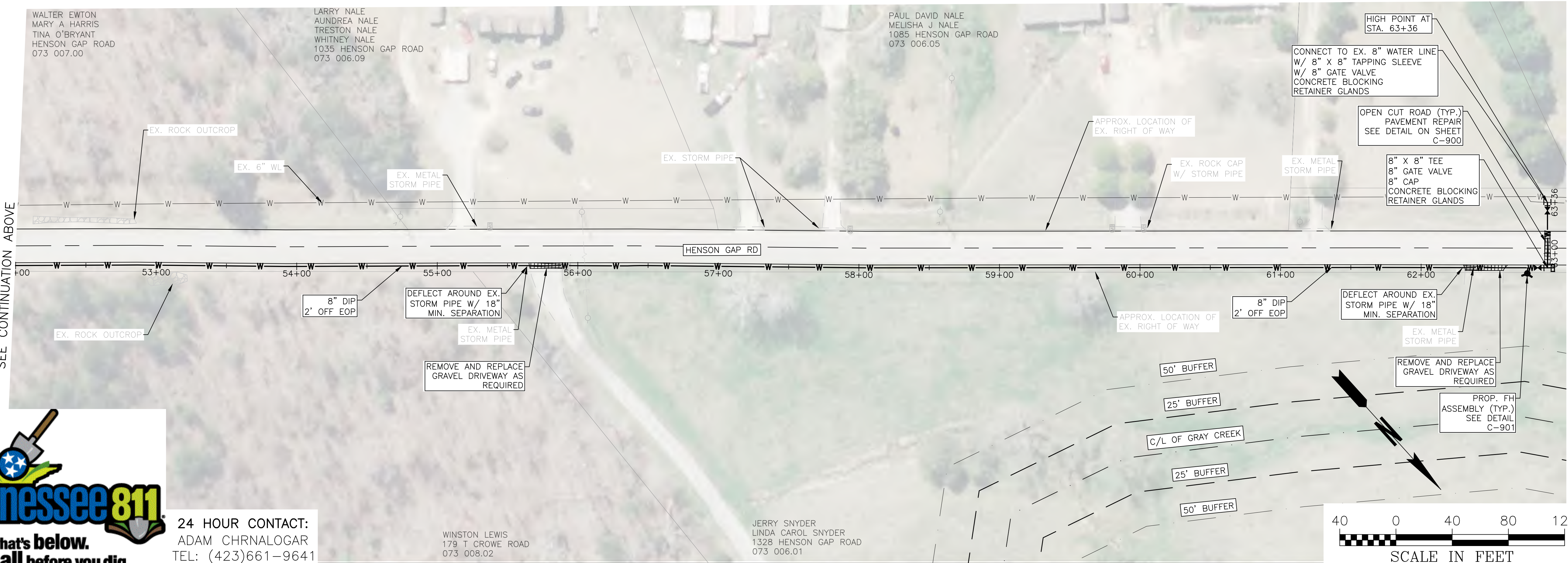
**MOWBRAY MOUNTAIN
WATER STORAGE - PHASE I**
NORTH WEST UTILITY DISTRICT
SODDY-DAISY, TN

WALTER EWTON
MARY A HARRIS
TINA O'BRYANT
HENSON GAP ROAD
073 007.00

LARRY NALE
AUNDREA NALE
TRESTON NALE
WHITNEY NALE
1035 HENSON GAP ROAD
073 006.09

PAUL DAVID NALE
MELISHA J NALE
1085 HENSON GAP ROAD
073 006.05

HENSON GAP ROAD
MATCHLINE STA. 52+00
SEE CONTINUATION ABOVE



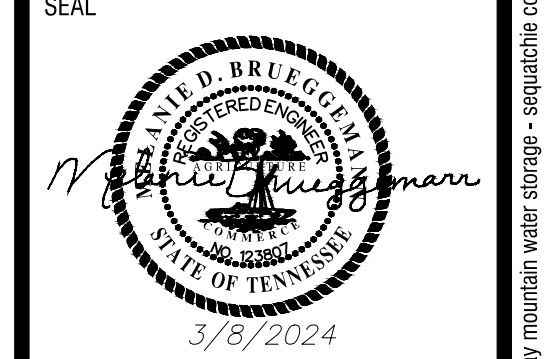
JERRY SNYDER
LINDA CAROL SNYDER
1328 HENSON GAP ROAD
073 006.01

WINSTON LEWIS
179 T CROWE ROAD
073 008.02



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ADAM CHRNALOGAR
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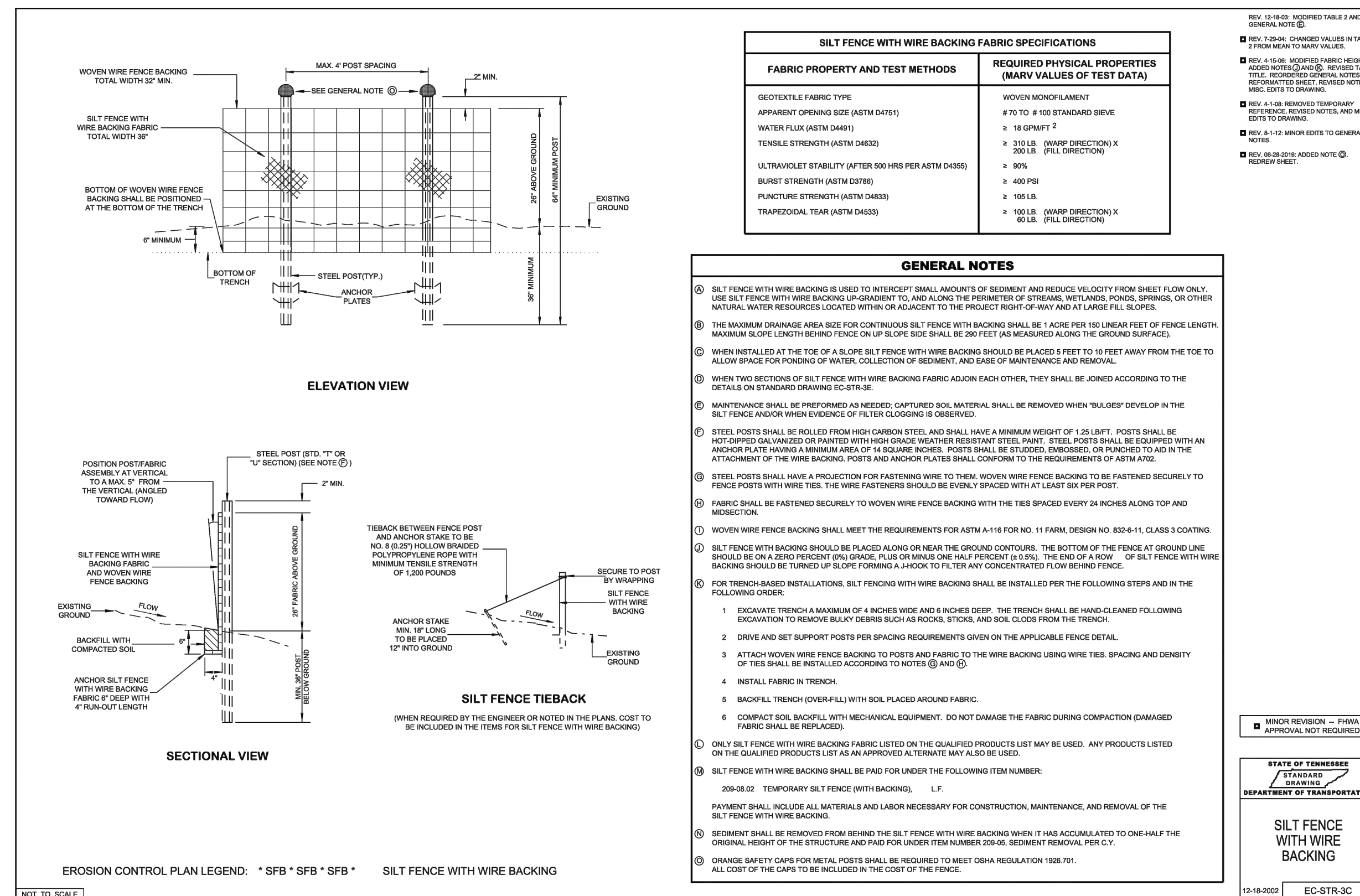
NO.	REVISION REFERENCE	DATE



SHEET TITLE
WATER LINE LAYOUT

DRAWN BY QM	CHECKED BY MDB
SCALE AS SHOWN	ISSUE DATE 3/8/2024
PROJECT NUMBER 2388.009	
DRAWING NUMBER C-202	

STREAM PROTECTION PRACTICES		POLLUTION PREVENTION PRACTICES	
Stream Buffer DO NOT DISTURB	7.41 Stream Buffers	CONCRETE WASHOUT	7.16 Concrete washout
Stream Diversion Channel		VEHICLE MAINTENANCE	7.17 Vehicle maintenance
7.43 Temporary Stream Crossing		CHEMICAL STORAGE	7.18 Chemical storage
7.44 Bioengineered Stream Bank Stabilization		DEBRIS MANAGEMENT	7.19 Trash and debris
RUNOFF CONTROL PRACTICES		STABILIZATION PRACTICES	
7.20 Check Dam		MU	7.6 Disturbed Area Stabilization with straw mulch
7.21 Dewatering Treatment Practice		MO	7.7 Disturbed area stabilization with other mulches
7.23 Outlet Protection		PS	7.8 Disturbed Area Stabilization with Permanent Vegetation
7.24 Slope Drain		SO	7.9 Disturbed Area Stabilization with Sod
7.25 Tubes and Wattles		TS	7.10 Disturbed Area Stabilization with Temporary Vegetation
7.26 Level Spreader			7.11 Rolled Erosion Control Products
7.27 Channels		HYD	7.12 Hydro Applications
SEDIMENT CONTROL PRACTICES		B	7.13 Soil binders and tackifiers
7.28 Construction Exit	CE	PLAS	7.14 Emergency stabilization with plastic
7.29 Tire washing facility		SE	7.15 Soil Enhancement
7.30 Filter Ring		SEDIMENT CONTROL PRACTICES	
7.31 Sediment Basin		CRS	7.36 Construction Road Stabilization
7.32 Sediment Trap			7.37 Tubes and Wattles (Sediment Control)
7.33 Baffles			7.38 Filter berm
7.34 Silt Fence			7.39 Turbidity curtain
7.35 Inlet Protection		F	7.40 Flocculants



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**MOBWAY MOUNTAIN
WATER STORAGE - PHASE I**
NORTH WEST UTILITY DISTRICT
SODDY-DAISY, TN

NO.	REVISION REFERENCE	DATE

SEAL

3/8/2024

SHEET TITLE
**EROSION CONTROL
DETAILS**

DRAWN BY QM	CHECKED BY MDB
SCALE AS SHOWN	ISSUE DATE 3/8/2024
PROJECT NUMBER 2388.009	
DRAWING NUMBER EC-900	

Drawing Location: c:\chattanooga\2388\ north west utility district\2388.009 mobway mountain water storage - sequatchie county erp engineering\Design\2388.009_EROS.dwg Plot Scale: 1" = 40' Plot Style: Design.ctb. Plotted By: Kristen Jolley on 4/22/2024, 10:38 AM

PREFERRED SEED MIXES - PERMANENT VEGETATION

Table 7.9-1 Preferred seed mixes using natives or naturalized plants and planting dates.
*non-native but do not spread.

Zone	Best	Marginal	Preferred Rate/Mix (lb/ac PLS)	
Region I	Poorly drained soils	Feb 1 – Mar 20 Sept 1 – Sept 30	Mar 20 – Apr 30 Sept 30 – Oct 31	15 Browntop millet* (marse crop) 2 switch grass 4 little bluestem 4 Virginia wild rye 4 purpletop 2 partridge pea 2 black-eyed susan
	Well drained soils	Apr 1 – July 15		15 Browntop millet* (marse crop) 4 little blue stem 4 purpletop 2 sideouts gramma 2 partridge pea 2 black-eyed susan
	High maintenance	Apr 1 – July 15		15 Browntop millet* (marse crop) 2 partridge pea 45 Red fescue* 45 hard fescue* 25 chewing fescue*
Region II	Low maintenance; Slopes and Poor, shallow soils	Aug 25 – Sept 15 Feb 15 – May 30	Sept 15 – Oct 25 Mar 21 – May 30	15 Browntop millet* (marse crop) 5 little bluestem 2 switch grass 2 tall dropseed 5 sideouts gramma 2 black-eyed susan 2 partridge pea 1 greyheaded coneflower
	Low maintenance; Moderate slopes; soils >6 in. depth	Aug 25 – Sept 15 Feb 15 – May 30	Sept 15 – Oct 25 Mar 21 – Apr 15	15 Browntop millet* (marse crop) 5 purpletop 5 little bluestem 5 Virginia wild rye 2 black-eyed susan 2 partridge pea 1 greyheaded coneflower
	High maintenance	Aug 30 – Oct 15	Feb 15 – Apr 15	15 Browntop millet* (marse crop) 2 partridge pea 45 Red fescue* 45 hard fescue* 25 chewing fescue*
Region III	>2500 ft elevation; steep slopes	Mar 20 – Apr 30	Aug 15 – Aug 30 Mar 1 – Mar 20 Apr 20 – June 15	15 Browntop millet* (marse crop) 5 purpletop 10 little bluestem 10 Indian grass
	<2500 ft elevation; steep slopes	Aug 15 – Sept 1 Mar 1 – Apr 1	Sept 1 – Sept 15 Apr 1 – June 10	2 black-eyed susan 0.5 monarda (bergamot) 4 Maryland senna
	>2500 ft elev.; Shallow soils	Mar 20 – Apr 20	Aug 15 – Aug 30 Mar 5 – Mar 20 Apr 20 – June 15	15 Browntop millet* (marse crop) 4 purpletop 10 little bluestem 10 broomsedge
	<2500 ft elev.; Shallow soils	Aug 15 – Sept 1 Mar 1 – Apr 1	Sept 1 – Sept 15 Apr 1 – June 10	2 partridge pea 2 black-eyed susan 0.5 monarda (bergamot)
	>2500 ft elev.; Moderate slopes	Mar 20 – Apr 20	Aug 15 – Aug 30 Mar 5 – Mar 20 Apr 20 – June 15	15 Browntop millet* (marse crop) 4 purpletop 10 little bluestem 10 Indian grass
	<2500 ft elev.; Moderate slopes	Aug 15 – Sept 1 Mar 1 – Apr 1	Sept 1 – Sept 15 Apr 1 – June 10	2 black-eyed susan 0.5 monarda (bergamot) 4 Maryland senna
	>2500 ft elev.; High maintenance	Mar 20 – Apr 20	Aug 15 – Aug 30 Mar 5 – Mar 20 Apr 20 – June 15	15 Browntop millet* (marse crop) 45 Red fescue* 45 hard fescue*
	<2500 ft elev.; High maintenance	Aug 15 – Sept 1 Mar 1 – Apr 1	Sept 1 – Sept 15 Apr 1 – June 10	25 chewing fescue*

PERMANENT SEEDING SCHEDULE

BEST PLANTING DATES	MARGINAL PLANTING DATES	RATE/MIX (POUNDS PER ACRE OF PURE LIVE SEED)
AUGUST 15 – SEPTEMBER 1; MARCH 1 – APRIL 1	SEPTEMBER 1 – SEPTEMBER 15; APRIL 1 – JUNE 10	15 BROWNTOP MILLET 4 PURPLETOP 10 LITTLE BLUESTEM 10 INDIAN GRASS 2 BLACK-EYED SUSAN 0.5 MONARDA 4 MARYLAND SENNA

REVEGETATION NOTES:

- TOTAL AREA TO BE REVEGETATED: 0.27 ACRES
- ANY DISTURBED AREAS TO RECEIVE SEED PER SEEDING SCHEDULE (SHOWN ABOVE).
- ALL SEED VARIETIES WITHIN SEED MIX SHALL HAVE A MINIMUM OF 80% PURE LIVE SEED; ALL MIX TAGS SHOULD BE RETAINED BY CONTRACTOR FOR VERIFICATION BY OWNER.
- STRAW MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS AND MUST BE APPLIED IMMEDIATELY AFTER THE APPLICATION OF SEED. THE APPLICATION RATE FOR MULCH IS 2 TONS PER ACRE WITH OVERALL UNIFORM SOIL COVERAGE OF 70%. ALL MULCH MUST BE ANCHORED.
- AN ACCEPTABLE STAND OF VEGETATION MUST BE ESTABLISHED PRIOR TO ACCEPTANCE AS DETERMINED BY LANDSCAPE ARCHITECT.

ALLOWABLE SEED MIXES - PERMANENT VEGETATION

Table 7.9-2 Allowable seed mixes and planting dates.

Zone	Best	Marginal	Rate/Mix (lb/ac PLS)	
Region I	Poorly drained soils	Feb 1 – Mar 20 Sept 1 – Sept 30	Mar 20 – Apr 30 Sept 30 – Oct 31	80 Pensacola bahiagrass 30 Bermudagrass (hulled) 20 Korean lespecheza** 10 Kobe lespecheza**
	Well drained soils	Apr 1 – July 15		50 Pensacola bahiagrass 15 Bermudagrass (hulled) 30 Korean lespecheza** 15 Foxtail millet**
	High maintenance	Apr 1 – July 15		40 Bermudagrass (hulled)
Region II	Low maintenance; Slopes and Poor, shallow soils	Aug 25 – Sept 15 Feb 15 – Mar 21	Sept 15 – Oct 25 Mar 21 – Apr 15	100 Pensacola bahiagrass 40 Bermudagrass (hulled) 20 Korean lespecheza** 10 Kobe lespecheza**
	Low maintenance; Moderate slopes; soils >6 in. depth	Aug 25 – Sept 15 Feb 15 – Mar 21	Sept 15 – Oct 25 Mar 21 – Apr 15	80 Pensacola bahiagrass 30 Bermudagrass (hulled) 20 Korean lespecheza** 10 Kobe lespecheza**
High maintenance	Aug 15 – Oct 15	Feb 15 – Apr 15	200 KY 31 fescue**	
Region III	>2500 ft elevation; steep slopes	July 25 – Aug 15 Mar 20 – Apr 20	July 15 – July 25 Aug 15 – Aug 30 Mar 1 – Mar 20 Apr 20 – May 15	100 KY 31 fescue** 20 Kobe lespecheza** 10 Korean lespecheza** 5 Redtop
	<2500 ft elevation; steep slopes	Aug 15 – Sept 1 Mar 1 – Apr 1	July 25 – Aug 15 Sept 1 – Sept 15 Apr 1 – May 10	
	>2500 ft elev.; Shallow soils	July 25 – Aug 15 Mar 20 – Apr 20	July 15 – July 25 Aug 15 – Aug 30 Mar 5 – Mar 20 Apr 20 – May 15	40 KY 31 Fescue** 10 Korean lespecheza** 10 Redtop 10 Crown vetch**
	<2500 ft elev.; Shallow soils	Aug 15 – Sept 1 Mar 1 – Apr 1	July 25 – Aug 15 Sept 1 – Sept 15 Apr 1 – May 10	
	>2500 ft elev.; Moderate slopes	July 25 – Aug 15 Mar 20 – Apr 20	July 15 – July 25 Aug 15 – Aug 30 Mar 5 – Mar 20 Apr 20 – May 15	60 KY 31 fescue** 15 Korean lespecheza** 15 Kobe lespecheza**
	<2500 ft elev.; High maintenance	Aug 15 – Sept 1 Mar 1 – Apr 1	July 25 – Aug 15 Sept 1 – Sept 15 Apr 1 – May 10	200 KY 31 fescue**

TEMPORARY SEEDING REQUIREMENTS

Species	Rate (lb/acre)
Rye	120
Seeding dates	
East	Above 2500 feet: Feb. 15 - May 15
	Below 2500 feet: Feb. 1 - May 1
Middle	Jan. 1 - May 1
West	Dec. 1 - Apr. 15
Soil amendments	
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.	
Mulch	
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.	
Maintenance	
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.	

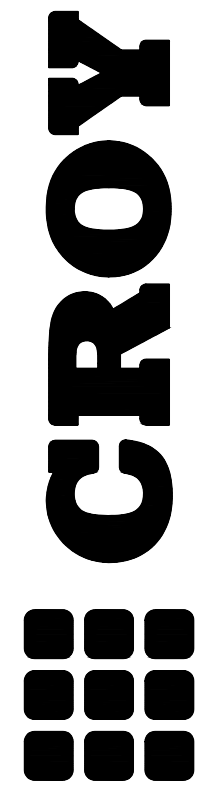
Temporary Seeding Recommendation for Late Winter and Early Spring

Species	Rate (lb/acre)
Oats	60
Brown top millet	30
Seeding dates	
East	May 15 - Aug. 15
Middle	May 1 - Aug. 15
West	Apr. 15 - Aug. 15
Soil amendments	
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.	
Mulch	
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.	
Maintenance	
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.	

Temporary Seeding Recommendation for Summer

Species	Rate (lb/acre)
Oats	30
Winter wheat	30
Seeding dates	
East	Aug 15 – Dec 15
Middle	Aug. 15 – Dec 30
West	Aug. 15 – Dec 30
Soil amendments	
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.	
Mulch	
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.	
Maintenance	
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage. If necessary to extend temporary cover beyond June 15, overseed with 50 lb/ac crimson clover in late February or early March.	

Temporary Seeding Recommendations for Fall



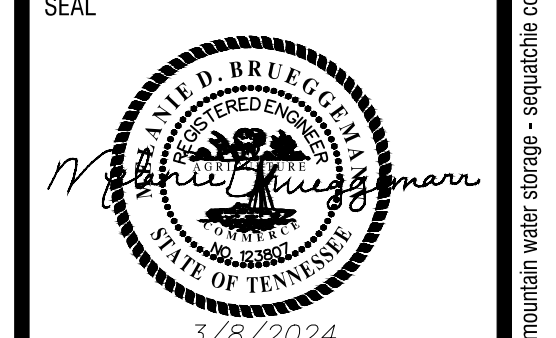
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WATER STORAGE - PHASE I
NORTH WEST UTILITY DISTRICT
SODDY-DAISY, TN**

NO.	REVISION REFERENCE	DATE

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SHEET TITLE
**EROSION CONTROL
DETAILS**

DRAWN BY QM	CHECKED BY MDB
SCALE AS SHOWN	ISSUE DATE 3/8/2024

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