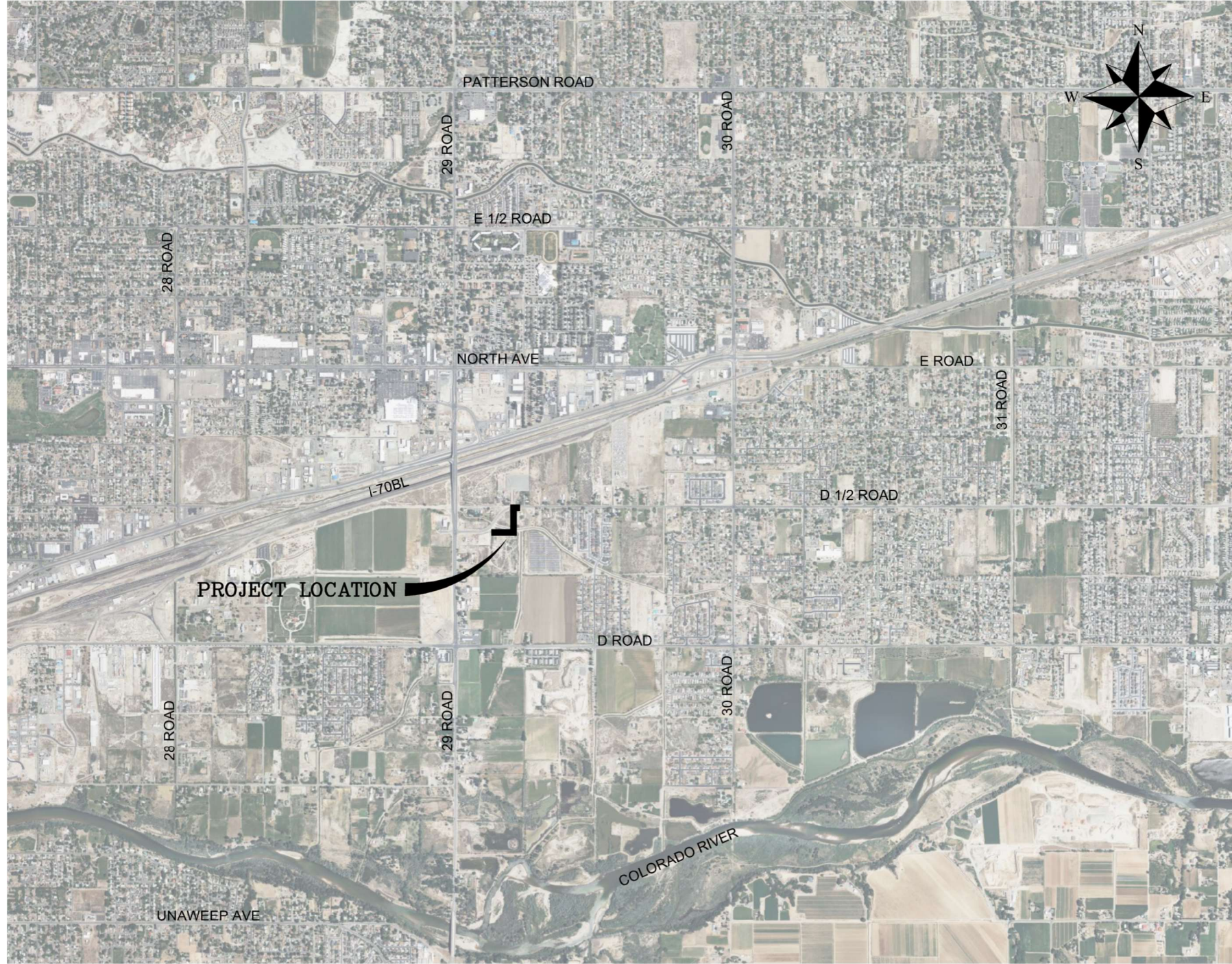


GRAND VALLEY DRAINAGE DISTRICT ODELBERG DRAIN REPLACEMENT

PROJECT NO. F210305A

January 7, 2025

No.	SHEET TITLE
01	TITLE COVER PAGE
02	SUMMARY OF APPROXIMATE QUANTITIES
03 - 05	ROADWAY DEMOLITION PLANS
06 - 11	DRAINAGE PROFILES
12 - 18	STORMWATER MANAGEMENT PLANS

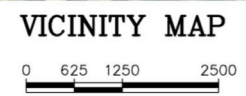


CERTIFICATION

I HEREBY CERTIFY THAT THE ATTACHED PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF COLORADO.

DATE: _____

KLJ
1601 RIVERFRONT DRIVE, SUITE 204
GRAND JUNCTION, CO 81501
PH: 970.450.7474



Engineering and Transportation Department



NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE COVER SHEET WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.



Know what's below.
Call before you dig.

REVISION	DESCRIPTION	DATE
REVISION Δ -	-	-
REVISION Δ -	-	-
REVISION Δ -	-	-
REVISION Δ -	-	-

K:\PROJECTS\CITY\CO\GRAND_JUNCTION\2204-01020_TO\CAD\T2-0.5_FROM_ZIP\ODELBERG_DRAIN\507522SH_COVER_OLDENBURG.DWG - PLOTTED 1/6/2025 3:32:32 PM BY ROCHELLE_HANSEN

ITEM DESCRIPTION	UNITS	QUANTITY	AS-BUILT
CLEARING AND GRUBBING	ACRE	0.204	
EROSION CONTROL MANAGEMENT	DAY	60	
EROSION LOG TYPE 1 (12 INCH)	LF	620	
SEEDING (NATIVE) DRILL	ACRE	0.204	
MULCHING (WEED FREE)	ACRE	0.204	
CLAY CUTOFF WALL	EA	3	
24 INCH REINFORCED CONCRETE PIPE (GASKETED) COMPLETE IN PLACE	LF	155	
24 INCH REINFORCED CONCRETE PIPE (OPEN GASKET) COMPLETE IN PLACE	LF	380	
STORM SEWER BASIC MANHOLE (60 INCH)	EA	2	
STORM SEWER BASIC MANHOLE (72 INCH)	EA	1	

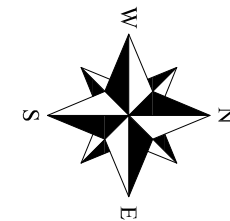


REVISION	DESCRIPTION	DATE	DRAWN BY	SPF	DATE
△					01/07/25
△					XX/XX/XX
△					XX/XX/XX
△					XX/XX/XX



**PUBLIC WORKS
ENGINEERING DIVISION**
PROJECT NO. F210305A

**D 1/2 RD, ODELBERG DRAIN
GENERAL INFORMATION
SUMMARY OF APPROXIMATE QUANTITIES**



LEGEND	
	REMOVAL OF ASPHALT MAT
	REMOVAL OF CONCRETE
	CLEARING & GRUBBING
	REMOVAL OF PIPE
	RESET FENCE
	CONSTRUCTION LIMITS
	EXST TREE/BUSH
	REMOVAL OF TREE
	EXST BUSH

GENERAL NOTES:

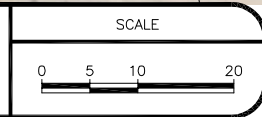
1. ALL UTILITIES SHOWN ARE QUALITY LEVEL D. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.
2. REMOVAL OF BUSHES SHALL BE INCLUDED IN CLEARING AND GRUBBING.



MATCH LINE A



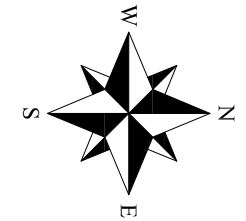
REVISION	DESCRIPTION	DATE	DRAWN BY	XXX	DATE	01/06/25
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2			CHECKED BY	XXX	DATE	XX/XX/XX
3			APPROVED BY	NONE	DATE	XX/XX/XX



ENGINEERING AND TRANSPORTATION DEPARTMENT
PROJECT NO. F210305A

D 1/2 RD, ODELBURG DRAIN ROADWAY DEMOLITION PLANS
DEMOLITION PLAN - 01

03



LEGEND	
	REMOVAL OF ASPHALT MAT
	REMOVAL OF CONCRETE
	CLEARING & GRUBBING
	REMOVAL OF PIPE
	RESET FENCE
	CONSTRUCTION LIMITS
	EXST TREE/BUSH
	REMOVAL OF TREE
	EXST BUSH

GENERAL NOTES:

1. ALL UTILITIES SHOWN ARE QUALITY LEVEL D. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.
2. REMOVAL OF BUSHES SHALL BE INCLUDED IN CLEARING AND GRUBBING.



MATCH LINE A

MATCH LINE B



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALE
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2			XXX	XX/XX/XX	
3			XXX	XX/XX/XX	
4			NONE	XX/XX/XX	

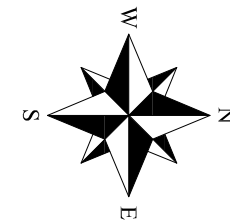


**ENGINEERING AND
TRANSPORTATION DEPARTMENT**
PROJECT NO. F210305A

**D 1/2 RD, ODELBURG DRAIN
ROADWAY DEMOLITION PLANS
DEMOLITION PLAN - 02**

04

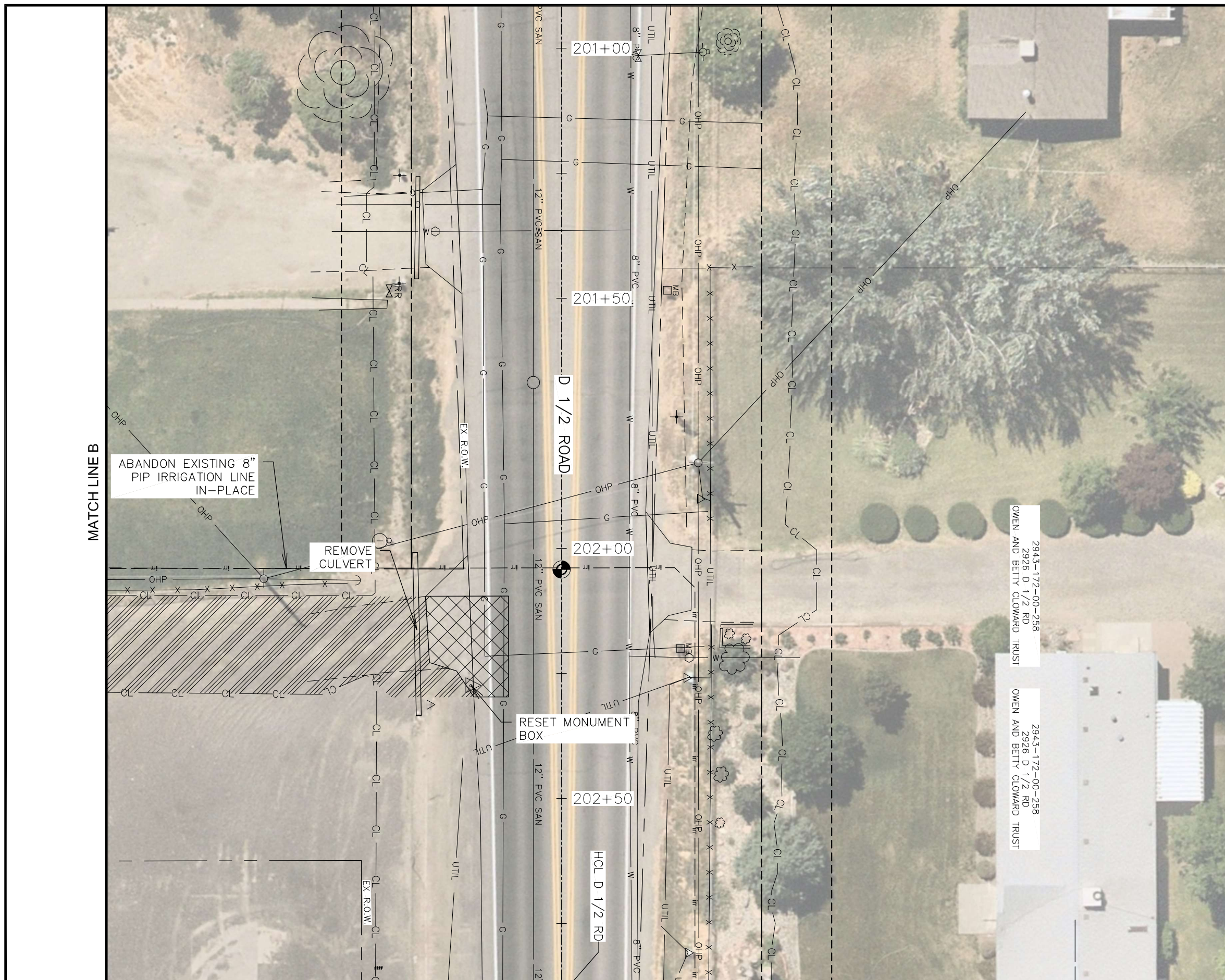
K:\PROJECTS\CITY\CO\GRAND JUNCTION\2204-01020_TO\CAD\T2-D-5_FROM ZIP\ODELBURG_DRAIN\507522SH_DEMO_PLAN_D.5_01-07.DWG - PLOTTED 1/7/2025 10:31:31 AM BY ROCHELLE HANSEN



LEGEND	
	REMOVAL OF ASPHALT MAT
	REMOVAL OF CONCRETE
	CLEARING & GRUBBING
	REMOVAL OF PIPE
	RESET FENCE
	CONSTRUCTION LIMITS
	EXST TREE/BUSH
	REMOVAL OF TREE
	EXST BUSH

GENERAL NOTES:

1. ALL UTILITIES SHOWN ARE QUALITY LEVEL D. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.
2. REMOVAL OF BUSHES SHALL BE INCLUDED IN CLEARING AND GRUBBING.



MATCH LINE B

ABANDON EXISTING 8\"/>

REMOVE CULVERT

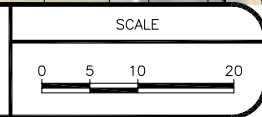
RESET MONUMENT BOX

2943-172-00-258
2926 D 1/2 RD
OWEN AND BETTY CLOWARD TRUST

2943-172-00-258
2926 D 1/2 RD
OWEN AND BETTY CLOWARD TRUST

REVISION	DESCRIPTION	DATE
REVISION A		
REVISION B		
REVISION C		
REVISION D		

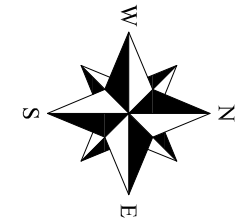
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DESIGNED BY	XXX	DATE	XX/XX/XX
CHECKED BY	XXX	DATE	XX/XX/XX
APPROVED BY	NONE	DATE	XX/XX/XX



ENGINEERING AND TRANSPORTATION DEPARTMENT
PROJECT NO. F210305A

D 1/2 RD, ODEMBERG DRAIN ROADWAY DEMOLITION PLANS
DEMOLITION PLAN - 03

K:\PROJECTS\CITY\CO\GRAND JUNCTION\2204-01020_TO\CAD\T2-0-5_FROM ZIP\ODEMBERG_DRAIN\507522SH_DEMO_PLAN_D.5_01-07.DWG - PLOTTED 1/7/2025 10:32:51 AM BY ROCHELLE HANSEN



ACCEPTANCE BLOCK

THE GRAND VALLEY DRAINAGE DISTRICT (GVDD) REVIEW CONSTITUTES GENERAL COMPLIANCE WITH GVDD STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY GVDD DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. GVDD NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

GRAND VALLEY DRAINAGE DISTRICT

DATE

DRAINAGE LEGEND

- PROPOSED IRRIGATION LINE
 - IRRIGATION MANHOLE
 - IRRIGATION VALVE/RISER
 - IRRIGATION CULVERT/PIPE
 - IRRIGATION FLOWLINE
 - SOIL RIPRAP (12 INCH)
 - TOP OF CUT
 - TOE OF FILL
 - PROPOSED STORM
 - FUTURE DEVELOPMENT
- RCP = REINFORCED CONCRETE PIPE
CIP = COMPLETE IN PLACE

NOTES:

1. INFORMATION SHOWN FOR PROPOSED IRRIGATION FACILITIES IS APPROXIMATE. CONTRACTOR NEEDS TO FIELD VERIFY ELEVATIONS MATCH EXISTING AND MAKE ADJUSTMENTS AS NEEDED.

MATCH LINE A

MATCH LINE B



NOTES:

1. GVDD SECTIONS OF PIPE TO BE OWNED AND MAINTAINED BY GRAND VALLEY DRAINAGE DISTRICT UPON COMPLETION OF THE PROJECT.
2. GVDD PIPE INSTALLED SOUTH OF RIGHT-OF-WAY SHALL BE INSTALLED WITHOUT BASKETS TO ALLOW FOR COLLECTION OF GROUNDWATER.

REVISION	DESCRIPTION	DATE	DRAWN BY	XXX	DATE	01/06/25	SCALE
REVISION			DESIGNED BY	XXX	DATE	XX/XX/XX	
REVISION			CHECKED BY	XXX	DATE	XX/XX/XX	
REVISION			APPROVED BY	NONE	DATE	XX/XX/XX	
REVISION							



ENGINEERING AND TRANSPORTATION DEPARTMENT
PROJECT NO. F210305A

D 1/2 RD, ODELBURG DRAIN DRAINAGE AND IRRIGATION PLANS
DRAINAGE PLAN - 02

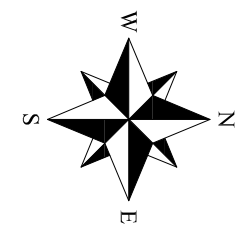
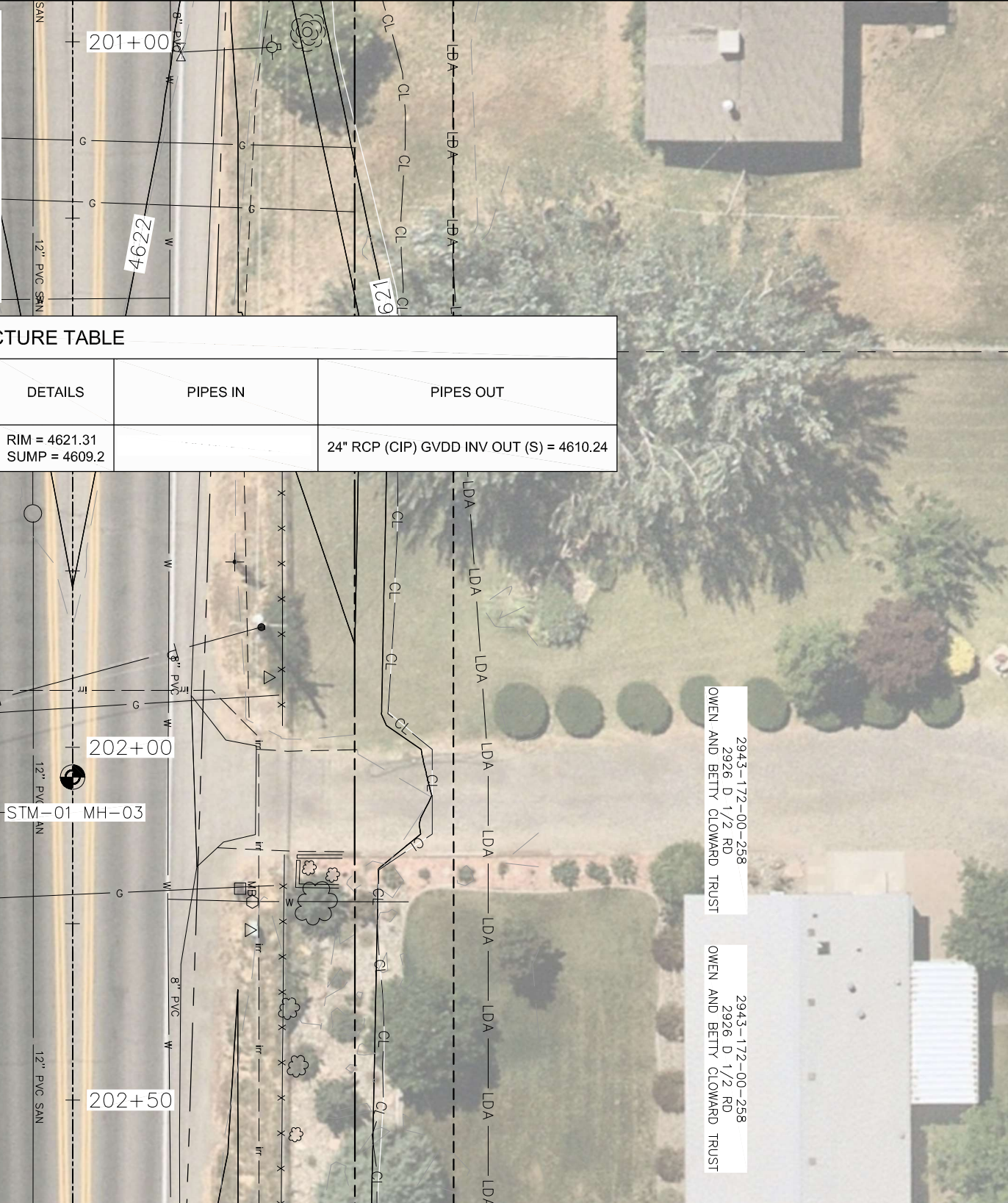
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ACCEPTANCE BLOCK

THE GRAND VALLEY DRAINAGE DISTRICT (GVDD) REVIEW CONSTITUTES GENERAL COMPLIANCE WITH GVDD STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY GVDD DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. GVDD NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

GRAND VALLEY DRAINAGE DISTRICT _____ DATE _____



DRAINAGE LEGEND

- PROPOSED IRRIGATION LINE
- IRRIGATION MANHOLE
- IRRIGATION VALVE/RISER
- IRRIGATION CULVERT/PIPE
- IRRIGATION FLOWLINE
- SOIL RIPRAP (12 INCH)
- TOP OF CUT
- TOE OF FILL
- PROPOSED STORM
- FUTURE DEVELOPMENT
- RCP = REINFORCED CONCRETE PIPE
- CIP = COMPLETE IN PLACE

NOTES:

1. INFORMATION SHOWN FOR PROPOSED IRRIGATION FACILITIES IS APPROXIMATE. CONTRACTOR NEEDS TO FIELD VERIFY ELEVATIONS MATCH EXISTING AND MAKE ADJUSTMENTS AS NEEDED.

STRUCTURE TABLE

STRUCTURE NAME	BID ITEM NAME	STATION (CENTER OF STRUCTURE)	OFFSET (CENTER OF STRUCTURE)	DETAILS	PIPES IN	PIPES OUT
STM-01 MH-03	MANHOLE (6 FOOT)	STA: 202+23.48	OFF: 15.04 RT	RIM = 4621.31 SUMP = 4609.2		24" RCP (CIP) GVDD INV OUT (S) = 4610.24

MATCH LINE A

NOTES:

1. GVDD SECTIONS OF PIPE TO BE OWNED AND MAINTAINED BY GRAND VALLEY DRAINAGE DISTRICT UPON COMPLETION OF THE PROJECT.
2. GVDD PIPE INSTALLED SOUTH OF RIGHT-OF-WAY SHALL BE INSTALLED WITHOUT BASKETS TO ALLOW FOR COLLECTION OF GROUNDWATER.

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALE
REVISION A			XXX	01/06/25	
REVISION B			DESIGNED BY XXX	DATE XX/XX/XX	
REVISION C			CHECKED BY XXX	DATE XX/XX/XX	
REVISION D			APPROVED BY NONE	DATE XX/XX/XX	



**ENGINEERING AND
TRANSPORTATION DEPARTMENT**

PROJECT NO. F210305A

**D 1/2 RD, ODEMBERG DRAIN
DRAINAGE AND IRRIGATION PLANS
DRAINAGE PLAN - 02**

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SWMP TEMPLATE (PLAN SHEETS) FOR PROJECTS WITH 1 ACRE OR MORE OF DISTURBANCE 2/25/2022 UPDATE

1. SITE DESCRIPTION

The Contractor shall comply with all CDOT contractual requirements, and all requirements associated with the CDPS-SCP on this project. The SWMP Administrator for Construction shall update the SWMP to reflect current project site conditions.

A. PROJECT SITE LOCATION:

Location or address of construction office:
The widening of D 1/2 Road is proposed between D 1/2 Court and 30 Road in Section 17 of Township 1 South, Range 1 East of the Ute Meridian. The Pear Park North subdivision was recently constructed at the northwest corner of D 1/2 Road and 30 Road. The Desert Shadows subdivision is undergoing preliminary design review to be constructed north of D 1/2 Road on the west side of the project. Also, north of D 1/2 Road and east of Desert Shadows, the proposed Silver Pointe subdivision is undergoing final design review.

B. PROJECT SITE DESCRIPTION:

This project is a storm sewer replacement project for the Oldenburg Drain.

C. PROPOSED SCHEDULE FOR SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES:

Stabilize all areas that are not paved or landscaped through establishment of vegetation cover.
Clearing and grubbing of project extents.
The contractor will construct all storm drain infrastructure including culverts, storm mains, inlets, outfalls, and riprap before irrigation ditches need to be flowing with water.
Construction of roadway surface, curb and gutter, sidewalk, ramps, fences, and gates.
Final construction items like signing and striping.

D. ACRES OF DISTURBANCE:

1. Total area of construction site (LOC (PERMITTED AREA)): 0.204 acres
2. Total area of proposed disturbance (LDA): 0.204 acres
3. Total area of seeding: 0.198 acres
4. Total area of pre-project impervious surface: 308 sq. ft.
5. Total area of final impervious surface: 308 sq. ft.

E. EXISTING SOIL DATA:

Per the NRCS soils data, the site is situated on silty clay loam soils of hydrologic soil group C. Based on information presented in the United States Geological Survey (USGS) Geologic Map of the Grand Junction Quadrangle, Mesa County, Colorado (Map MF-2363), dated 2002, alluvium and Colluvium (Qac) deposits are mapped at or near the surface for the entirety of the project roadway alignment. Native soils generally consist of lean clay with sand, sandy lean clay, silt, and sandy gravel and cobbles with AASHTO classifications of A-4 and A-6 soils, based on the samples tested.
Data Source(s): NRCS; RockSol Geotechnical Report – City of Grand Junction 2022 Transportation Corridor Improvements – February 2023

F. EXISTING VEGETATION, INCLUDING PERCENT OF VEGETATIVE COVER:

During design, the SWMP Administrator for Design in consultation with the Engineer will determine if the SWMP Administrator for Design or the SWMP Administrator for Construction will conduct the Vegetation Transects. If the site is disturbed, an Adequate Reference Site(s) may be utilized, refer to the permit.

Pre-Construction Date of survey: [XXX] Percent Existing Vegetative Cover: [XXX]

Description of existing vegetation: [XXX]

Method for determining percent vegetative cover: [XXX]

Include a map or table showing transect locations, photos documenting pre-Construction vegetative cover, and methodology used to determine existing vegetative cover to SWMP tab 17:

Post-Construction Date of survey: _____ Percent Vegetative Cover: _____

Description of vegetation:

The method used to determine pre-construction percent cover shall be used to determine post construction percent cover.

Include map or table showing transect locations, photos documenting post-Construction vegetative cover, and methodology used to determine existing vegetative cover to SWMP tab 17:

G. POTENTIAL POLLUTANTS SOURCES:

Refer to Potential Pollutant Sources in SWMP Section 4A. The SWMP Administrator for Construction shall prepare a list of all potential pollutants and their locations in accordance with subsection 107.25.

H. DRAINAGE PATTERNS AND RECEIVING WATER(S):

1. Description of drainage patterns from the Site:
Flow patterns in this area generally carry runoff north to south.
2. Names of immediate and ultimate receiving water(s) on site:
Oldenburg Drainage
Colorado River
3. Description of all stream crossings located within the Construction Site Boundary:

Location Station	Stream Name	Description Of Any Disturbed Upland Areas

I. ALLOWABLE NON-STORMWATER DISCHARGES:

Discharge Description	Site Map #	Method Statement (Location)
Uncontaminated Springs		
Concrete Washout Water (in-ground washout structure)#		
Landscape Irrigation Return Flows		
Discharges from Diversions of State Waters		
Emergency Fire Fighting		

#Concrete washout water associated with the washing of concrete tools and concrete mixer chutes can be discharged to the ground if site is managed accordingly to prevent the water from leaving the site as surface runoff or reaching receiving waters.

J. DIVERSION CRITERIA:

1. Is a diversion planned for the Site? Yes _____ No X_____.
2. If yes, complete information below:
 - a. What is the 2-year peak flow for the waterway being diverted (cubic feet per second)?
 - b. What are the monthly averages if available? (provide averages for Jan- Dec if available)
 - c. What is the upstream contributing drainage area and imperviousness?
 - d. A method statement must be prepared by the Contractor and approved by CDOT for each diversion. Diversion structures must minimize soil transport and erosion within the entire diversion, minimize erosion during discharge, and minimize run-on into the diversion and meet the conditions in the SCP.
 - e. If the conditions in the SCP cannot be met and an alternative is required, CDOT must approve the alternative and then it must be submitted and approved by CDPHE's Water Quality Control Division prior to implementation.

K. ALTERNATIVE TEMPORARY STABILIZATION SCHEDULE:

[If applicable, provide a description of the alternative temporary stabilization schedule. If temporary stabilization exceeds the 14-day schedule, then the SWMP must document the constraints necessitating the alternative schedule, provide the alternative schedule, and identify all the locations where the alternative schedule is applicable on the site map. Alternative temporary stabilization schedules must be approved by CDOT prior to implementation]

2. SITE MAP COMPONENTS:

Pre-construction

A. PROJECT CONSTRUCTION POTENTIAL SITE BOUNDARIES:

See project plans.



Template Revised: 2.25.2022

REVISION	DESCRIPTION	DATE	DRAWN BY	SPF	DATE
					01/07/25
					XX/XX/XX
					XX/XX/XX
					XX/XX/XX



ENGINEERING AND TRANSPORTATION DEPARTMENT
PROJECT NO. F210305A

D 1/2, ODELBURG DRAIN STORMWATER MANAGEMENT PLANS
SWMP NARRATIVE - 01

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B. FLOW ARROWS THAT DEPICT STORMWATER FLOW DIRECTIONS ON-SITE, RUN-ON AND RUNOFF DIRECTION:
See project plans.

C. ALL AREAS OF GROUND SURFACE DISTURBANCE:
See project plans.

D. AREAS OF CUT AND FILL:
See project plans.

E. AREAS USED FOR STORING AND STOCKPILING OF MATERIALS, STAGING AREAS (field trailer, fueling, etc.) and LOCATIONS OF ALL WASTE ACCUMULATION and BATCH PLANTS INCLUDING MASONRY MIXING STATIONS:
Not applicable for this project.

F. LOCATION OF ALL STRUCTURAL CONTROL MEASURES IDENTIFIED IN THE SWMP:
See project plans.

G. LOCATION OF NON-STRUCTURAL CONTROL MEASURES AS APPLICABLE IN THE SWMP:
See project plans.

H. SPRINGS, STREAMS, WETLANDS, DIVERSIONS, AND OTHER STATE WATERS, INCLUDING AREAS THAT REQUIRE PRE-EXISTING VEGETATION BE MAINTAINED WITHIN 50 FEET OF A RECEIVING WATER:
Not applicable for this project.

I. LOCATIONS OF ALL STREAM CROSSING LOCATED WITHIN THE CONSTRUCTION SITE BOUNDARY:
See project plans.

J. PROTECTION OF TREES, SHRUBS, SENSITIVE HABITAT, AND CULTURAL RESOURCES:
See project plans.

K. LOCATIONS WHERE ALTERNATIVE TEMPORARY STABILIZATION SCHEDULES APPLY:
Not applicable for this project.

3. QUALIFIED STORMWATER MANAGERS:

A. SWMP ADMINISTRATOR FOR DESIGN:

CDOT Certified Individual responsible for developing SWMP Plan Sheets and SWMP Site Maps during the design phase.

Name/Title	Contact Information	Certification #
Eric Rink, Project Manager	970-244-1585 ericr@gjcity.org	

B. SWMP ADMINISTRATOR FOR CONSTRUCTION: (As defined in Section 208) The Contractor shall designate a SWMP Administrator for Construction upon accepting co-permittee of the permit. The SWMP Administrator for Construction shall become the operator for the SWMP and assume responsibility for all design changes to the SWMP implementation and maintenance in accordance to 208.03, the SWMP shall remain the property of CDOT. The SWMP Administrator for Construction shall be responsible for implementing, maintaining and revising SWMP, including the title and contact information. The activities and responsibilities of the SWMP Administrator for Construction shall address all aspects of the project's SWMP. (Update the information below for each new SWMP Administrator for Construction) (A copy of TECS Certification must be included in the SWMP.)

Name/Title	Contact Information (phone & email)	Certification #	Start Date	Engineer Approval

C. EROSION CONTROL INSPECTOR: (As defined in Section 208) The Contractor may designate an Erosion Control Inspector. The Erosion Control Inspector shall complete duties in accordance with subsection 208.03 (c) (Copy of TECS Certification must also be included in the SWMP.)

Name/Title	Contact Information (phone & email)	TECS Certification #	Start Date	Engineer Approval

D. PERMANENT STABILIZATION SUBJECT MATTER EXPERT: This qualified individual will be either a Regional Environmental Staff member, or an Independent Contractor Controller (Independent Assurance Program). This expert is a project team leader responsible for ensuring project adherence to requirements of the 207 and 212 Project Special Provisions as follows and will be available for questions regarding permanent stabilization requirements.

1. Review the Topsoil Management Plan and the Permanent Stabilization Site Maps.
2. Attend the Environmental Pre-Construction Conference.
3. Coordinate the Site Pre-Vegetation Conference.
4. Review and recommend approval of products.
5. Review and recommend approval of the Quantities Verification Prerequisite.
6. Attend the Partial Landscape Completion Walkthrough.
7. Attend the Final Landscape Completion Walkthrough.

Name/Title	Contact Information (phone & email)

4. STORMWATER MANAGEMENT CONTROLS FOR FIRST CONSTRUCTION ACTIVITIES

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

A. POTENTIAL POLLUTANT SOURCES:

Evaluate, identify, locate and describe all potential sources of pollutants at the site in accordance with subsection 107.25, CDPS-SCP and place in the SWMP. All control measures related to potential pollutants shall be shown on the SWMP Site Map by the Contractor's SWMP Administrator for Construction.

B. OFFSITE DRAINAGE (RUN ON WATER):

Describe and record control measures on the SWMP Site Map that have been implemented to address off site run-on water in accordance with subsection 208.03.

C. VEHICLE TRACKING CONTROL:

Control measures shall be implemented in accordance with subsection 208.04.

D. PERIMETER CONTROL:

1. Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters. Perimeter control shall be in accordance with subsection 208.04
2. Perimeter control may consist of berms, silt fence, erosion logs, existing landforms, or other control measures as approved.

5. DURING CONSTRUCTION

RESPONSIBILITIES OF THE SWMP ADMINISTRATOR FOR CONSTRUCTION: Considered a "living document", the SWMP is continuously reviewed and modified throughout the construction phases. During construction, SWMP Administrator for Construction shall add, update, or amend the items A-G below as needed in accordance with subsection 208.03.

During construction, indicate how items that were not addressed during design are being handled in construction. If items are covered in other sections of the SWMP, indicate below what section the discussion takes place.



Template Revised: 2.25.2022

REVISION	DESCRIPTION	DATE	DRAWN BY	SPF	DATE	01/07/25
REVISION			DESIGNED BY	SPF	DATE	XX/XX/XX
REVISION			CHECKED BY	DATE	XX/XX/XX	
REVISION			APPROVED BY	SPF	DATE	XX/XX/XX

NO SCALE



ENGINEERING AND TRANSPORTATION DEPARTMENT

PROJECT NO. F210305A

D 1/2 RD, ODELBURG DRAIN
STORMWATER MANAGEMENT PLANS
SWMP NARRATIVE - 02

K:\PROJECTS\CITY CO\GRAND JUNCTION\2204-01020-TO\CAD\T2-D-5-FROM ZIP\ODELBURG_DRAIN\507522SH_SWMP_NOTES-D-5.DWG - PLOTTED 1/7/2025 1:02:31 PM BY MIKE GOODMAN

- A. **MATERIALS HANDLING AND SPILL PREVENTION AND RESPONSE PLAN:** Prior to construction commencing the Contractor shall submit a Spill Response Plan. Materials handling and Spill Response Plan shall be in accordance with subsection 208.06.
- B. **OTHER CDPS PERMITS:** List applicable CDPS permits associated with the permitted site and activities.
- C. **STOCKPILE MANAGEMENT:** Shall be done in accordance with subsections 107.25 and 208.07.
- D. **CONCRETE WASHOUT:** Concrete washout water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.
- E. **SAW CUTTING:** Shall be done in accordance with subsections 107.25, 208.04, 208.05
- F. **STREET SWEEPING:** Shall be done in accordance with subsection 208.04.

6. INSPECTIONS

- A. Water Quality Inspections shall be in accordance with subsection 208.03(c).
- B. Permanent Stabilization Inspections shall be in accordance with subsections 208.04(e)4 and 208.10.

7. CONTROL MEASURE MAINTENANCE

Maintenance shall be in accordance with subsection 208.04(f).

8. RECORD KEEPING

Records shall be kept in accordance with subsection 208.03(d).

9. INTERIM, PERMANENT STABILIZATION and LONG-TERM STORMWATER MANAGEMENT

The Contractor shall comply with all interim stabilization and permanent stabilization requirements in accordance with subsection 208.04(e).

A. **SEEDING PLAN:**

The following seed mix(es) and rates are for drill seeding method as shown on the Permanent Stabilization Site Maps shall be used:

COMMON NAME	BOTANICAL NAME	LBS. PLS PER ACRE
Western wheatgrass		7.50
Bluebunch wheatgrass		2.25
Indian ricegrass		1.00
Thickspike wheatgrass		2.25
Slender wheatgrass		9.50
Red Mexican Hat		0.50
Blanket flower		1.50
Western yarrow		0.50
Total		25.00

B. **SEEDING APPLICATION METHOD:**

The following seeding methods shall be used for all areas shown on the Permanent Stabilization Site Maps. Soil compaction shall be minimized for areas where permanent stabilization will be achieved through vegetative cover.

Pay Item	Seeding Method (subsection 212.05)	Acre
212-00706	Seeding (Native) Drill	.204
Total		.204

C. **SOIL STABILIZATION METHODS:**

Minimum soil stabilization methods (attached mulch) for all disturbances to receive seeding.
 1. Apply a minimum of 2 tons/ac certified weed free hay or 2 ½ tons/ac of certified weed free straw and mechanically crimp into the soil in combination with natural mulch tackifier in accordance with Section 213.

Prior to winter shutdown or the summer seeding window closure: Uncompleted slopes shall be mulched with 2 tons of mulching (weed free) per acre, mechanically crimped into the topsoil in combination with an organic mulch tackifier in accordance with Sections 208 and 213.

D. **SPECIAL REQUIREMENTS:**

- 1. Soil amendments, seedbed preparation, and permanent stabilization mulching shall be accomplished within four working days of placing the topsoil on the de-compacted civil subgrades. If placed topsoil is not mulched with permanent stabilization mulch within four working days, the Contractor shall complete interim stabilization methods in accordance with subsection 208.04(e) at no additional cost to the Department.
- 2. Complete permanent stabilization mulching within 24 hours of hydraulic application of native seed.
- 3. The Contractor shall submit a proposed Permanent Stabilization Phasing Plan to the Engineer for approval showing how implementation of SWMP Permanent Stabilization Plans will minimize damage to seeded areas.

E. **SOIL AMENDMENT REQUIREMENTS:** Minimum amendment material requirements for all disturbances to receive seeding.

1.08 Total Acres of Seeding (Native) Drill With Topsoil Generated From Topsoil (Onsite)

Seeding (Native) Drill Pay Item 212-00706	Pay Item	Description	Amount/Acre	Units	Total For This Method
	212-00700	Organic Fertilizer Low N		Pounds	
	212-00701	Compost (Mechanically Applied)		CY	
	212-00703	Humate		Pounds	
	212-00704	Mycorrhizae		Pounds	
	212-00705	Elemental Sulfur		Pounds	

F. **Permanent Stabilization Application Under Structures:**

Under structures shade patterns should be considered and the use of Median Cover Material (Stone) or other stabilized options with an approved Project Special Provision should be used. See SWMP Site Map for locations.

G. **RESEEDING OPERATIONS/CORRECTIVE STABILIZATION:**

Prior to stormwater construction work partial acceptance.

- 1. All seeded areas shall be reviewed by the SWMP Administrator for Construction and or Erosion Control Inspector for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be re-graded, seeded, and have the designated mulching applied as necessary, at no additional cost to the project.
- 2. The Contractor shall maintain seeding/mulch/tackifier/blanket/TRM, mow to control weeds or apply herbicide to control weeds in the seeded areas, at no additional cost to the project.

H. **LOCATION AND DESCRIPTION OF PLANNED PERMANENT CONTROL MEASURES:** Is Permanent Water Quality Required. Yes No

10. PRIOR TO PROJECT FINAL ACCEPTANCE

- A. When directed by the Engineer, removal and disposal of temporary control measures shall be included in the cost of work.
- B. At the end of the project, all ditch checks shall consist of either temporary erosion logs (or equivalent) or permanent riprap.
- C. All storm drains shall be cleaned prior to the Final Acceptance of the project. If required, include work in 202-04002 Clean Culvert. [**Check with Region Water Quality staff to see if CLEAN CULVERT PSP is needed and what Pay Item to use.**]
- D. Refer to subsection 208.10 for Items to be completed prior to requesting partial acceptance of water quality work.



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ENGINEERING AND TRANSPORTATION DEPARTMENT
PROJECT NO. F210305A

D 1/2 RD, ODELBURG DRAIN STORMWATER MANAGEMENT PLANS
SWMP NARRATIVE - 03

11. NARRATIVES

Control Measure Matrixes During Construction:

- Control measure narratives have been included for the CDOT Standard Specifications and Standard Plan M-208 and M-216 along with any non-standard control measures approved during the design process. If a Non-Standard Control Measure not included in the SWMP is proposed and approved by the Engineer the SWMP Administrator for Construction shall do the following: Place an "X" in the column for non-standard and complete a Non-Standard Control Measure Specification and Narrative covering the what, when, where and why the control measure is being used shall be add to the SWMP. The appropriate "X" shall also be added to the implementation phase(s).
- The SWMP Administrator for Construction shall place an "X" in the column In Use On Site when the control measure has been installed.
- A "B" in the Initial Activities Column indicates that the control measure shall be installed **before** construction activity starts. Locations and quantities will be discussed during the Environmental Pre-Construction Conference with the Regional Water Pollution Control Manager.

STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to the following:

APPLICATION, CONTROL MEASURE	NARRATIVE	M- 208 STANDARD or "X" for NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITIES	INTERIM ACTIVITIES	PERMANENT STABILIZATION
PROTECTION OF EXISTING TREES/LANDSCAPING Fence (plastic)	Fence (plastic) shall be used in areas indicated in the plans to prevent encroachment of construction traffic and sediment for the protection of sensitive habitat, mature trees and/or existing landscaping prior to start of construction disturbances.			B	X	
Storm Drain Inlet Protection In Paved Roadways (Type 1, 2 and 3 as shown on M-208-1, sheet 5 of 11)	Manufactured storm drain inlet protection placed prior to construction disturbances as detailed in M-208-1, to protect existing inlets or immediately upon completion of new inlets to prevent sediment from entering the inlet throughout construction.	M-208		B	X	X
CULVERT INLET/OUTLET PROTECTION Erosion logs, aggregate bags	Placed at mouth of culvert inlets and over top of culvert at inlet and outlet where disturbance may be occurring adjacent to pipe to prevent sediment laden water from entering pipe or drainage. Place prior to the start of construction disturbances.	M-208		B	X	X
STOCKPILE PROTECTION Temporary berm, erosion logs, aggregate bags*	Placed within specified distance, in accordance with subsection 208.06, from toe to contain sediment around stockpile. *Aggregate bags are easily moved and replaced for access during the work day. Place prior to start of stockpiling, increase control as the stockpile increases size.	M-208			X	
TOE OF FILL PROTECTION Erosion logs, temporary berm, silt fence, topsoil windrow*	Place prior to slope/embankment work to capture sediment and protect and delineate undisturbed areas. *Can be used to stockpile topsoil for salvage.	M-208		X	X	
PERIMETER CONTROL Erosion logs, silt fence, temporary berm, topsoil windrow*	Placed prior to construction commencing to address potential run-on water from off site, and to divert around disturbed area. *Can be used to stockpile topsoil for salvage.	M-208		B	X	
OUTLET PROTECTION Riprap, or approved other	Material placed as an energy dissipater to prevent erosion at outlet structure.	M-601-12			X	X
CONCRETE WASHOUT In-ground or fabricated	Construction control, used for waste management of concrete and concrete equipment cleaning. Place prior to the start of concrete activities.	M-208		X	X	
VEHICLE TRACKING PAD	Source control, placed to prevent tracking of sediment from disturbed area to offsite surface. Place prior to the start of construction disturbances.	M-208		B	X	
DEWATERING (Contractor is responsible for obtaining a permit from Colorado Department of Health and Environment.)	Shall be done in such a manner to prevent potential pollutants from entering state waters.			X	X	
TEMPORARY STREAM CROSSING	Constructed over stream or drainage to prevent discharge of pollutants from construction equipment into water.			X	X	



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PROJECT NO. F210305A

**D 1/2 RD, ODELBERG DRAIN
STORMWATER MANAGEMENT PLANS
SWMP NARRATIVE - 04**

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NON-STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to:

Erosion control devices are used to limit the amount of soil loss on site. Sediment control devices are designed to capture sediment on the project site. Construction controls are control measures related to construction access and staging. Control Measure locations are indicated on the SWMP Site Map.

* **Use of vegetative buffer strip requirements.** The CDPHE Water Quality Control Division Technical Memorandum dated August 27, 2015 clarifies the requirements for utilization of existing vegetation as a buffer type of sediment control measure, while maintaining compliance with the CDPS permit for Stormwater Discharges Associated with Construction Activity – CDPS Permit No. COR4000000. In general, the division does not recommend that vegetated buffers be implemented as a sediment removal control measure for runoff from disturbed areas at construction sites, unless implemented as a "finishing" component of a treatment train comprised of additional, adequate up-gradient Control Measures. The entire memorandum can be found at: <https://www.colorado.gov/pacific/sites/default/files/Vegetative%20Buffer%20Memo.pdf>

APPLICATION, CONTROL MEASURE	NARRATIVE	M-STANDARD or "For NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITY	INTERIM ACTIVITIES	PERMANENT STABILIZATION
TOPSOIL MANAGEMENT STOCKPILE/SALVAGE Stockpile	Prior to any site disturbance work commencing, existing topsoil shall be scraped to a depth six inches or as specified, and placed in stockpiles or windrows. Upon completion of final grading, topsoil shall be evenly distributed over embankment to a depth of six inches or as specified.	M-208		X	X	X
SURFACE ROUGHENING / GRADING TECHNIQUES	Temporary stabilization of disturbance and to minimize wind and erosion.				X	
SEEDING (TEMPORARY)	Temporary stabilization used for over wintering of disturbance or used to control erosion for areas scheduled for future construction.				X	
BONDED FIBER MATRIX or MULCHING (HYDRAULIC)	Not to be used in areas of concentrated flows, i.e. ditch lines. To be for either Interim or Permanent Stabilization placed as a surface cover for erosion control. May be used as surface cover when work is temporarily halted and as approved by the Engineer for stockpiles.				X	
Straw or Hay MULCH/MULCH TACKIFIER	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as Interim Stabilization as a surface cover when work is temporarily halted and as approved by the Engineer				X	X
SPRAY-ON MULCH BLANKET (Not to be used in areas of concentrated flows, i.e. ditch lines.)	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as temporary surface cover when work is temporarily halted and as approved by the Engineer				X	X
SEEDING PERMANENT (NATIVE PERENNIAL)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.					X
Sweeping	Source control, used to remove sediment tracked onto paved surfaces and to prevent sediment from entering drainage system. Sweep daily and at the end of the construction shift as needed. Kick brooms shall not be permitted.			X	X	X



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D 1/2, ODELBERG DRAIN
STORMWATER MANAGEMENT PLANS
SWMP NARRATIVE - 05

12. TABULATION OF STORMWATER QUANTITIES

A. Control Measure sediment removal and disposal shall be paid for as: 208 Removal and Disposal of Sediment (Equipment) and 208 Removal and Disposal of Sediment (Labor). All other control measure maintenance shall be included in the cost of the control measure.

PSP Spec.	Pay Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
	208-00002	Erosion Log Type 1 (12 inch)	LF	620			620
	208-00207	Erosion Control Management (ECM)	Day	60			60
	212-00706	Seeding (Native) Drill	Acre		.204		.204
	213-00003	Mulching (Weed Free)	Acre		.204		.204

*It is anticipated that additional control measures and control measure quantities not shown on the SWMP Site Maps shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsections 208.03 and 208.04. **Quantities for all control measures shown above are estimated and have been increased for unforeseen conditions and normal control measure life expectancy.** Quantities shall be adjusted according to the conditions encountered in the field as directed and approved by the Engineer. Payment shall be for the actual work completed and material used.

**Pay Item 208-00071 is included for anticipated maintenance of vehicle tracking pads based on the service life of the control measure in the field. The use of the material shall be directed and approved by the Engineer.

*** F/A refers to CDOT's Force Account Pay Items.

13. BIOLOGICAL IMPACTS and DEWATERING

A. ENVIRONMENTAL IMPACTS:

1. Wetland Impacts: NO
2. Stream Impacts: NO
3. Threatened and Endangered Species:
No species are anticipated to be impacted by the project.

B. DEWATERING:

(Not covered under the CDPHE guidance document Low Risk Discharge Guidance Discharges of Uncontaminated Groundwater to Land):

<https://www.colorado.gov/pacific/sites/default/files/WQ%20LOW%20RISK%20GW.pdf>

1. Dewatering: Refer to other environmental permits in accordance with subsection 107.02 and the permits contained in Tab 16 of the SWMP.
2. If groundwater does not meet water quality standards for receiving water a separate CDPS Dewatering Permit shall be obtained by the Contractor from CDPHE in accordance with subsections 107.02 and 107.25.



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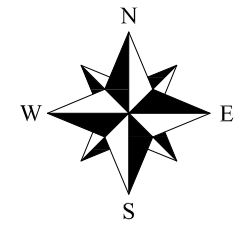
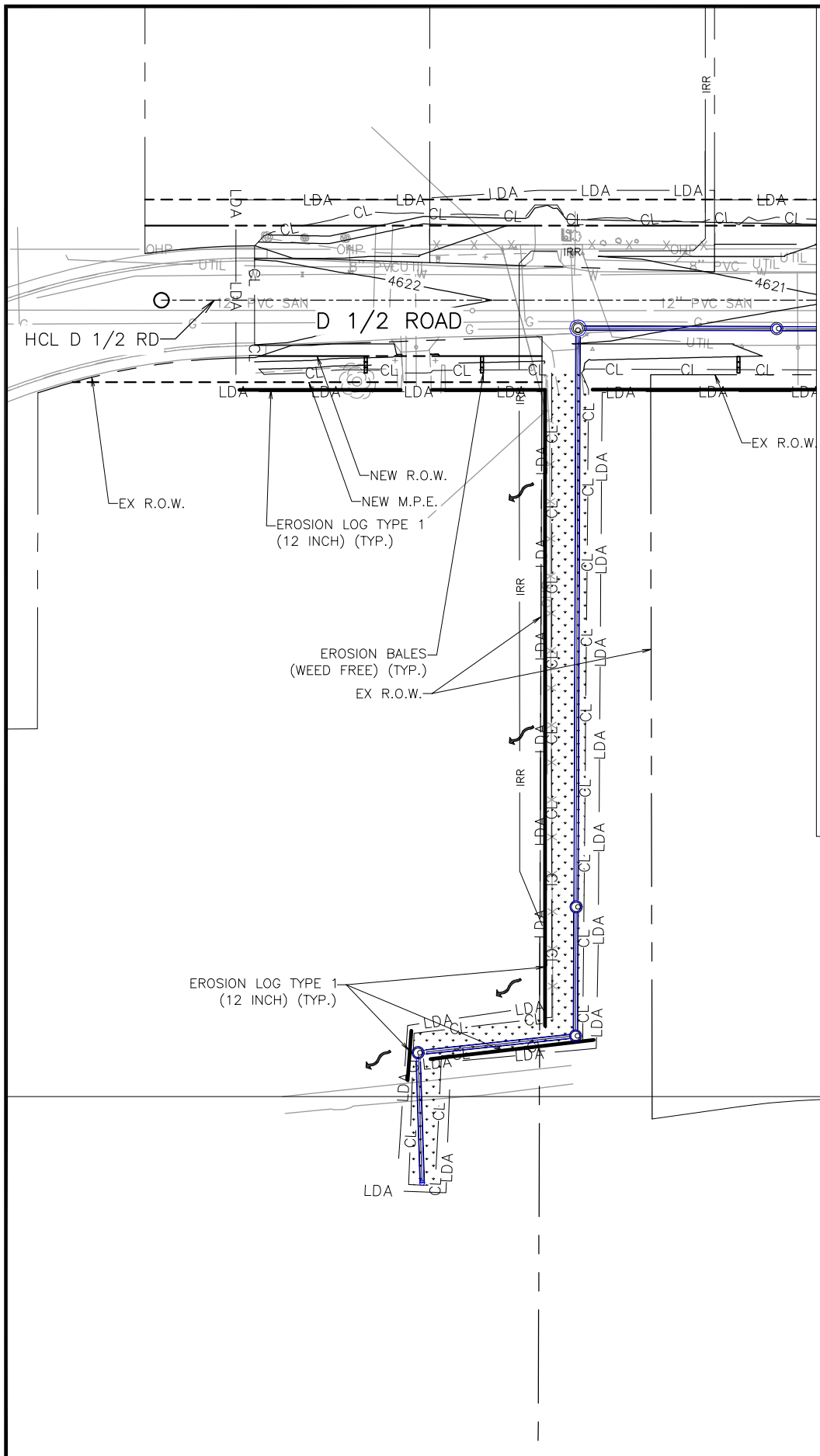
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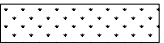








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**D 1/2, ODELBERG DRAIN
STORMWATER MANAGEMENT PLANS
SWMP NARRATIVE - 06**

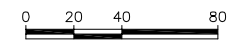
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SWMP LEGEND

-  SEEDING AND MULCHING
-  CL CONSTRUCTION LIMITS
-  LDA LIMITS OF DISTURBED AREA
-  EROSION LOG TYPE 1 (12 INCH)
-  EROSION BALES (WEED FREE)
-  STORM DRAIN INLET PROTECTION
-  FLOW ARROW
-  IRR PROPOSED IRRIGATION LINE
-  FUTURE DEVELOPMENT



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ENGINEERING AND TRANSPORTATION DEPARTMENT
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**D 1/2 RD, ODELBERG DRAIN
STORMWATER MANAGEMENT PLANS
SWMP PLAN - 01**

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