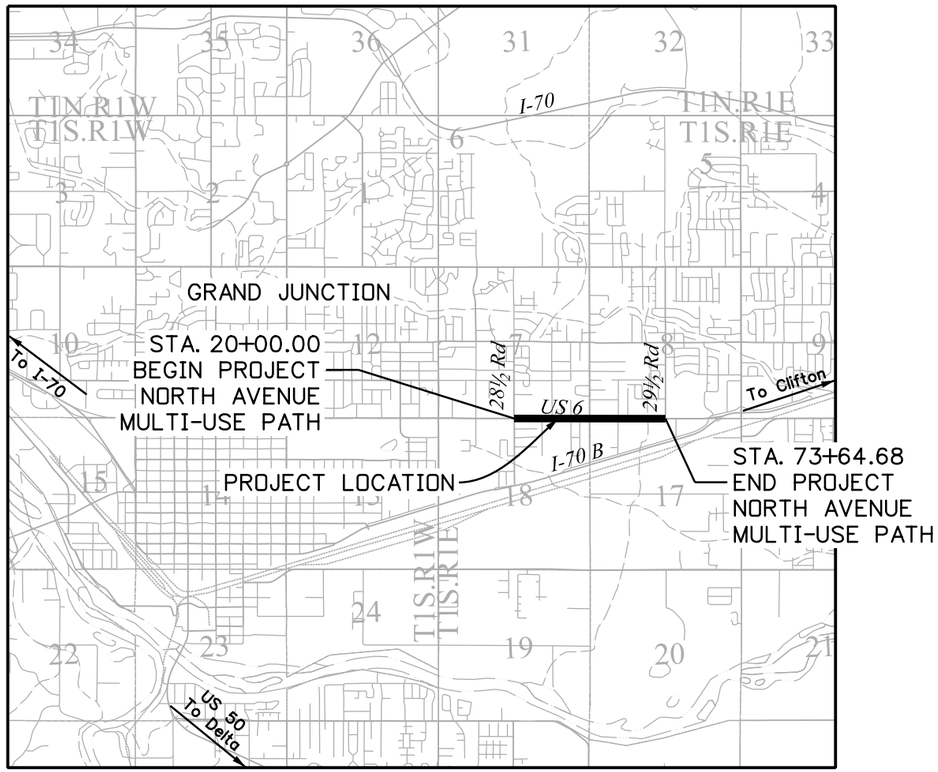
NORTH AVENUE / US 6B
ENHANCED TRANSIT CORRIDOR STUDY
MULTI-USE PATH 28½ RD TO 29½ RD

STATE HIGHWAY US 6 MESA COUNTY

TABULATION OF LENGTH & DESIGN DATA

STATION	PATH	
	FEET	MILES
APPROACH TO PROJECT M.P. 32.75		
BEGIN PROJECT STA. 20+00.00 M.P. 33.16	2592	0.49
END 28 1/2 Rd to 29 Rd MULTI-USE PATH STA. 45+92.02 M.P. 33.68		
BEGIN 29 Rd to 29 1/2 Rd MULTI-USE PATH STA. 50+50.08 M.P. 33.68	2295	0.43
END PROJECT STA. 73+64.68 M.P. 34.20		
APPROACH TO PROJECT M.P. 34.75		
PROJECT LENGTH	**4887**	**0.93**

DESIGN DATA	PATH
DESIGN SPEED	14 MPH
MAXIMUM GRADE	2.00%
MINIMUM GRADE	0.50%
MINIMUM S.S.D. HORIZONTAL	93
MINIMUM S.S.D. VERTICAL	93
CLEAR ZONE (TANGENT)	5 FT.



PROJECT LOCATION MAP

0 1/2 Mile 1 Mile 2 Miles

N

INDEX OF SHEETS

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Unit Information

MULLER ENGINEERING COMPANY

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

CITY OF Grand Junction COLORADO

MESA COUNTY

As Constructed	
No Revisions:	
Revised:	
Void:	

Contract Information	
Contractor:	
Resident Engineer:	
Project Engineer:	
PROJECT STARTED: / /	ACCEPTED: / /
Comments:	

Project No./Code	
Sheet Number	1

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COLORADO
DEPARTMENT OF TRANSPORTATION

M&S STANDARDS PLANS LIST

July 31, 2019

Revised on March 7, 2022

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

THE M&S STANDARD PLANS USED TO DESIGN THIS PROJECT ARE INDICATED BY A MARKED BOX ■, AND WILL BE ATTACHED TO THE PLANS. ALL THE OTHER M&S STANDARD PLANS ARE STILL ELIGIBLE FOR CONSTRUCTION IF APPROVED BY AN APPROPRIATE CDOT ENGINEER.

All seals for this set of drawings are applied to the cover page(s)

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Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado
MESA COUNTY

As Constructed
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STANDARD PLANS
NORTH AVE. MULTI-USE PATH

Designer: RVH
Detailer: DMC
Sheet Subset: M&S
Structure Numbers:
Subset Sheets: 1 of 1

Project No./Code

Sheet Number 2

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6/23/2022 iplotdrvm.plt MEC-Standard.tbl

GENERAL NOTES:

1. THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2021, ALONG WITH PROJECT SPECIAL PROVISIONS AND STANDARD SPECIAL PROVISIONS, CONTROL CONSTRUCTION OF THIS PROJECT.
2. IN ACCORDANCE WITH SECTION 630.10 OF THE STANDARD SPECIFICATIONS, THIS PROJECT IS CLASSIFIED AS A NON-SIGNIFICANT PROJECT.
3. THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF ANY PROBLEM IN CONFORMING TO THE APPROVED PLANS FOR ANY ELEMENT OF THE PROPOSED IMPROVEMENTS PRIOR TO ITS CONSTRUCTION.
4. THE CONTRACTOR SHALL BE REQUIRED TO FIELD VERIFY LENGTHS, DIAMETERS, ELEVATIONS, LOCATIONS, AND THICKNESS BEFORE ORDERING MATERIALS.
5. ANY DAMAGE TO ITEMS DESIGNATED TO BE PROTECTED IN PLACE SHALL BE REPAIRED OR REPLACED TO PRECONSTRUCTION CONDITIONS OR BETTER AT NO ADDITIONAL COST TO THE PROJECT.
6. CLEARING AND GRUBBING SHALL INCLUDE, BUT NOT BE LIMITED TO, THE REMOVAL OF MEDIAN SHRUBS NOT OTHERWISE SHOWN TO BE PROTECTED, AND DEBRIS.
7. NO EXCESS MATERIAL SHALL BE DISPOSED OF WITHIN THE PROJECT LIMITS BUT SHALL BE HAULED OFF SITE FOR DISPOSAL, WHICH SHALL BE INCLUDED IN THE COST OF THE WORK.
8. UNLESS OTHERWISE NOTED, MATERIALS SHALL BE CONTRACTOR'S SOURCE.
9. A CLEAR ZONE CRITERIA OF 15 FEET FOR NORTH AVENUE SHALL BE USED DURING THIS PROJECT. NO PARKING OR EQUIPMENT STORAGE SHALL BE ALLOWED WITHIN THE CLEAR ZONE. THE CONTRACTOR SHALL NOT STOCKPILE MATERIAL WITHIN THE CLEAR ZONE.
10. THE CONTRACTOR SHALL NOT PARK EQUIPMENT OVERNIGHT WITHIN THE CLEAR ZONE LIMITS.
11. SULFATE EXPOSURE FOR CONCRETE ON THIS PROJECT IS CLASS __. SEE SPECIFICATION SECTION 601, STRUCTURAL CONCRETE.
12. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND OBTAINING A SUITABLE STAGING AREA.
13. PRIVATE DRIVEWAYS AND PARKING LOTS SHALL NOT BE USED AS TURNAROUNDS UNLESS WRITTEN PERMISSION IS OBTAINED FROM THE APPROPRIATE LAND OWNER.
14. ALL EXISTING SURVEY MONUMENTATION DESIGNATED TO REMAIN SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR DURING CONSTRUCTION OPERATIONS. ANY MONUMENTS DISTURBED BY THE CONTRACTOR THAT ARE NOT DESIGNATED FOR RELOCATION, SHALL BE RESET AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR AND ENGINEER SHALL NOTE THOSE MONUMENTS IN THE FIELD PRIOR TO CONSTRUCTION.
15. CONTRACTOR SHALL COORDINATE WITH OTHER PROJECTS WITHIN THE CORRIDOR. *(Add projects as applicable)*

EARTHWORK:

16. WATER SOURCE REQUIRED FOR MOISTURE/DENSITY CONTROL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE FREE OF EXCESSIVE SEDIMENTS AND OTHER CONTAMINANTS THAT MAY BE DETRIMENTAL TO EMBANKMENTS, SUB-BASES, AND BASE COURSE MATERIAL.
17. NO VERTICAL SLOPES SHALL BE LEFT UNPROTECTED OVERNIGHT. ALL UNPROTECTED VERTICAL SLOPES SHALL BE FLATTENED TO A 4:1 SIDE SLOPE PRIOR TO THE END OF THE WORK DAY, OR AS DIRECTED BY THE ENGINEER.
18. ALL SLOPES SHALL BE ROUGHENED AS DIRECTED BY THE ENGINEER. COSTS ASSOCIATED WITH THIS ORDER SHALL BE INCIDENTAL TO THE WORK.
19. ALL TRENCHES SHALL BE BACKFILLED BEFORE THE WORK SHIFT ENDS. ANY TRENCHES THAT CANNOT BE BACKFILLED BEFORE THE WORK SHIFT ENDS MUST BE COVERED WITH A STEEL PLATE.
20. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ANY ADDITIONAL BORING LOGS AND/OR SOIL INFORMATION.
21. WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. THE CONTRACTOR SHALL PROVIDE A WATER TRUCK ON-SITE FOR DUST CONTROL. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER. WATER SHALL NOT BE PAID FOR SEPARATELY.
22. DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:
    a. FULL DEPTH OF ALL EMBANKMENTS
    b. FULL DEPTH FOR AGGREGATE BASE COURSE
    c. 6 INCHES FOR BASES OF CUTS AND FILLS
23. EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.
24. EARTHWORK REQUIRED FOR THIS PROJECT WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK.

BASES & PAVEMENT:

25. FOR PLAN QUANTITIES OF PAVEMENT MATERIALS, THE FOLLOWING RATES OF APPLICATIONS WERE USED:
    AGGREGATE BASE COURSE @ 133 LBS. PER CU. FT.
    HOT MIX ASPHALT @ 110 LBS. PER SQ. YD./INCH
    TACK COAT DILUTED EMULSIFIED ASPHALT (SLOW-SETTING) @ 0.1 GALS. PER SQ. YD. (DILUTED)
26. A TACK COAT OF EMULSIFIED ASPHALT (SLOW SETTING) IS TO BE APPLIED TO IMPROVE BOND AT THE FOLLOWING LOCATIONS:
    a. BEFORE PLACING NEW PAVEMENT OVER EXISTING PAVEMENT
    b. ALONG THE FACE OF ALL CURBS, GUTTERS, MANHOLES, ADJACENT EXISTING PAVEMENT, AND OTHER SURFACES AGAINST WHICH ASPHALT WILL BE PLACED
27. TACK COAT (DILUTED) FOR THIS PROJECT SHALL BE ONE PART EMULSIFIED ASPHALT (SLOW SETTING) AND ONE PART WATER. RATES OF APPLICATION SHALL BE AS DETERMINED BY THE ENGINEER AT THE TIME OF APPLICATION.
28. BEFORE PLACEMENT OF TACK COAT, THE CONTRACTOR SHALL CLEAN THE ROADWAY AS DIRECTED BY THE ENGINEER. CLEANING WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE CONSIDERED
29. ALL LIFTS OF HOT MIX ASPHALT, INCLUDING PATCHING, SHALL HAVE A MINIMUM THICKNESS OF 1.5" AND A MAXIMUM THICKNESS OF 3.0" UNLESS OTHERWISE APPROVED BY THE ENGINEER. FEATHERING OF HOT MIX ASPHALT LIFTS WILL NOT BE ALLOWED UNLESS OTHERWISE APPROVED BY THE ENGINEER.
30. A 2 INCH BUTT JOINT SHALL BE PROVIDED WHERE NEW ASPHALT PAVEMENT TIES INTO EXISTING ASPHALT PAVEMENT AT ROAD APPROACHES AND DRIVEWAYS.
31. EXISTING ASPHALT PAVEMENT TO BE REMOVED AND PAID FOR AS 202-00220 REMOVAL OF ASPHALT MAT, SHALL BE REMOVED TO FULL DEPTH.
32. WHERE NEW PAVEMENT IS TO ABUT EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE REMOVED TO A NEAT VERTICAL LINE USING A CUTTING SAW OR OTHER METHOD AS APPROVED BY THE ENGINEER. CUT FACES SHALL NOT REMAIN UNPROTECTED OVERNIGHT. THE CONTRACTOR WILL BE REQUIRED TO APPLY DILUTED EMULSIFIED ASPHALT (SLOW-SETTING) TO THE EDGE OF CUT ASPHALT PRIOR TO PAVING OPERATIONS. SAW CUTTING ASPHALT SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF REMOVAL OF ASPHALT MAT.

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MULLER ENGINEERING COMPANY

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

CITY OF Grand Junction COLORADO

MESA COUNTY

As Constructed
No Revisions:
Revised:
Void:

GENERAL NOTES
NORTH AVE. MULTI-USE PATH

Designer: RVH
Detailer: DMC
Sheet Subset: NOTES
Structure Numbers:
Subset Sheets: 1 of 2

Project No./Code

Sheet Number 3

ENVIRONMENTAL:

33. THE CONTRACTOR SHALL KEEP THE WORK AREA DRY OF STANDING WATER AND SHALL KEEP THE EXCAVATION AREAS FREE FROM STORM RUN-OFF.

34. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCEPTANCE AND CONTROL OF ALL SURFACE AND SUBSURFACE DRAINAGE AND GROUNDWATER ENTERING THE PROJECT AREA.

35. THE CONTRACTOR SHALL PREVENT TOOLS, CONCRETE, DIRT, AND OTHER DEBRIS OF ANY KIND FROM FALLING INTO THE CHANNEL OF ANY LIVE WATERCOURSE. THE CONTRACTOR SHALL CLEAN OR REMOVE FROM THE LIVE WATER ALL SUCH ITEMS THAT ENTER IT AS A RESULT OF THE CONTRACTOR'S OPERATIONS.

36. ALL STAGING AREAS AND EQUIPMENT SHALL BE LOCATED AT LEAST 100 FEET FROM ANY LIVE WATERCOURSE.

37. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONSTRUCTION ACTIVITIES IN ADDITION TO NORMAL CONSTRUCTION PROCEDURE SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER, AND ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS.

38. NO CONSTRUCTION ACTIVITIES, PARKING, OR STAGING AREAS SHALL BE PERMITTED ON ANY TRAILS/PATHS ALONG NORTH AVE.

39. ANY DAMAGE TO PRESENT HIGHWAY FACILITIES SHALL BE REPAIRED IMMEDIATELY AND PRIOR TO CONTINUING OTHER WORK. ANY MUD OR OTHER MATERIAL TRACKED OR OTHERWISE DEPOSITED ON THE ROADWAY AND SIDEWALK SHALL BE REMOVED DAILY AS DIRECTED BY THE ENGINEER.

40. DURING ALL SUBSURFACE ACTIVITIES, WORKERS SHALL BE ALERT FOR VISUAL AND OLFACTORY SIGNS OF CONTAMINATION. IF CONTAMINATION IS ENCOUNTERED, WORK SHALL STOP AND PROCEDURES ESTABLISHED IN THE CDOT 250 SPECIFICATION SHALL BE FOLLOWED. ANY CONTAMINATED SOILS OR LANDFILL MATERIAL SHALL BE PROPERLY HANDLED AND SAMPLED PRIOR TO DISPOSAL.

PAY ITEMS:

41. ALL ITEMS NOT SHOWN IN THE SUMMARY OF QUANTITIES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND WILL NOT BE PAID FOR SEPARATELY. PAYMENT SHALL BE MADE ONLY FOR ITEMS ON THE PAY ITEM LIST.

42. IT IS ESTIMATED THAT THE FOLLOWING ITEMS WILL BE REQUIRED:

ITEM NO. 201-00000 CLEARING AND GRUBBING	**1 (LUMP SUM)**
ITEM NO. 203-01597 POTHOLING	**20 (HOURS)**
ITEM NO. 620-00001 FIELD OFFICE (CLASS 1)	**1 (EACH)**
ITEM NO. 620-00020 SANITARY FACILITY	**1 (EACH)**
ITEM NO. 625-00000 CONSTRUCTION SURVEYING	**1 (LUMP SUM)**
ITEM NO. 626-00000 MOBILIZATION	**1 (LUMP SUM)**

MAINTENANCE OF THE SANITARY FACILITY SHALL INCLUDE CLEANING AT LEAST TWICE A WEEK.

NOTE: ALL ITEMS LISTED AND DESCRIBED HEREIN AS REQUIRED FOR THE COMPLETION OF THE PROJECT SHALL BE PLACED AS DIRECTED BY THE PROJECT ENGINEER

UTILITIES

43. UTILITIES SHOWN HEREON ARE FROM VISIBLE FIELD INFORMATION AND PROVIDED MAPPING ONLY (QL-C AND QL-D). ENCOMPASS SERVICES, LLC DOES NOT GUARANTEE THESE LOCATIONS OR THAT THE UTILITIES SHOWN HEREON COMPRISE ALL UTILITIES IN THIS AREA, EITHER IN SERVICE OR ABANDONED. FOR THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AND THE APPROPRIATE UTILITY COMPANY PRIOR TO EXCAVATION AND OR CONSTRUCTION.

44. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SUBSECTION 105.11 OF THE STANDARD SPECIFICATIONS AND THE UTILITY PROJECT SPECIAL PROVISIONS CONCERNING UTILITIES. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH UTILITY OWNERS IN THEIR REMOVAL, ADJUSTMENT AND/OR RELOCATION OPERATIONS SO THAT THE UTILITY WORK CAN BE ACCOMPLISHED WITHOUT IMPACTING THE CONSTRUCTION SCHEDULE.

45. THE CONTRACTOR SHALL COMPLY WITH ARTICLE 1.5 OF TITLE 9, CRS ("EXCAVATION REQUIREMENTS") WHEN EXCAVATING OR GRADING IS PLANNED IN THE AREA OF UNDERGROUND UTILITY FACILITIES. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITIES AT LEAST TWO (2) BUSINESS DAYS, NOT INCLUDING THE ACTUAL DAY OF NOTICE, PRIOR TO COMMENCING SUCH OPERATIONS. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 811 OR 1-800-922-1987, TO HAVE LOCATIONS OF UNCC REGISTERED LINES MARKED BY MEMBER COMPANIES. ALL OTHER UNDERGROUND FACILITIES SHALL BE LOCATED BY CONTACTING THE RESPECTIVE OWNER. UTILITY SERVICE LATERALS SHALL ALSO BE LOCATED PRIOR TO BEGINNING EXCAVATION OR GRADING.

46. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AT PIPES, CULVERTS, CONCRETE BOX CULVERTS AND OTHER AREAS OF EXCAVATION AS NECESSARY TO ENSURE THE UTILITIES WILL NOT BE IMPACTED.

47. THERE ARE POSSIBLE UTILITY CONFLICTS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL REQUEST UTILITY LOCATES PRIOR TO COMMENCING ANY TYPE OF EXCAVATION. BASED UPON THESE LOCATES, CONSTRUCTION IMPROVEMENTS MAY BE DIRECTED BY THE PROJECT ENGINEER TO AVOID UTILITY CONFLICTS. HAND DIGGING MAY BE REQUIRED IF A UTILITY IS WITHIN 5 FEET.

PROJECT UTILITY CONTACTS

CDOT – REGION 3 TRAFFIC SECTION	MARC TRAVIS	970-683-7534
CITY OF GRAND JUNCTION (Water, Sewer, Storm)	TRENT PRALL	970-244-1590
CHARTER COMMUNICATION – (Communications)	JEFF VALDEZ	970-244-1590
LUMEN – (Communications)	CHRIS JOHNSON	970-244-1590
UTE WATER (Water)	DAVE PRISKE	970-244-1590
XCEL ENERGY – (Electric)	TILLMON MCSCHOOLER	970-244-2693
XCEL ENERGY – (Gas)	SARAH DARRICAU	970-244-2693
VARIOUS MEMBER UTILITIES – (Utilities Notification Center of Colorado)		(811) or 1-800-922-1987

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Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction COLORADO

MESA COUNTY

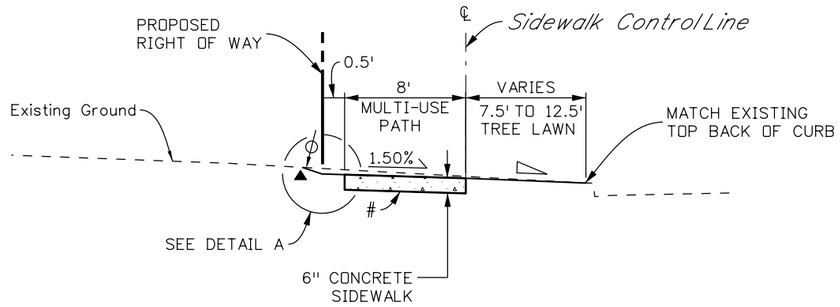
As Constructed
No Revisions:
Revised:
Void:

GENERAL NOTES
NORTH AVE. MULTI-USE PATH

Designer: RVH
Detailer: DMC
Sheet Subset: NOTES
Structure Numbers:
Subset Sheets: 2 of 2

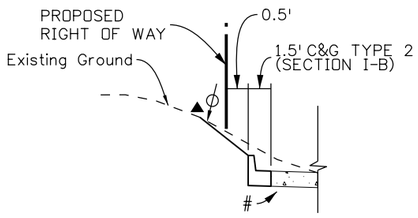
Project No./Code:

Sheet Number 4



28 1/2 RD TO 29 RD MULTI-USE PATH

STA. 20+51 TO STA. 25+28
STA. 29+65 TO STA. 32+98
STA. 35+80 TO STA. 36+23
STA. 36+94 TO STA. 38+94
STA. 40+76 TO STA. 41+20



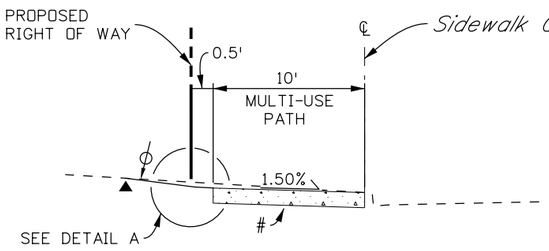
DETAIL A

STA. 35+68 TO STA. 36+15
STA. 38+80 TO STA. 39+60

MULTI-USE PATH AND TREE LAWN WIDTHS
TRANSITION BETWEEN
ATTACHED AND DETTACHED.

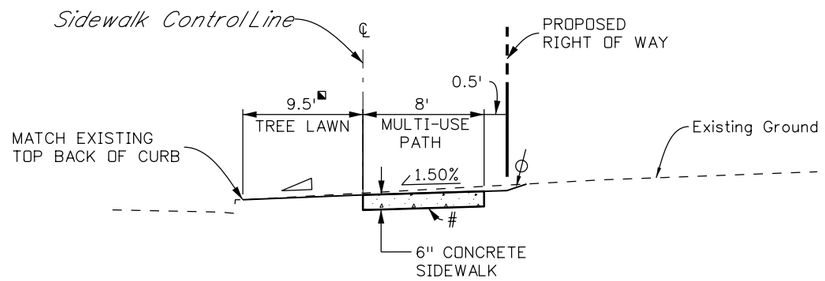
28 1/2 RD TO 29 RD MULTI-USE PATH

STA. 25+28 TO STA. 25+79
STA. 27+03 TO STA. 27+49
STA. 38+94 TO STA. 39+49
STA. 40+28 TO STA. 40+76
STA. 45+37 TO STA. 45+96



28 1/2 RD TO 29 RD MULTI-USE PATH

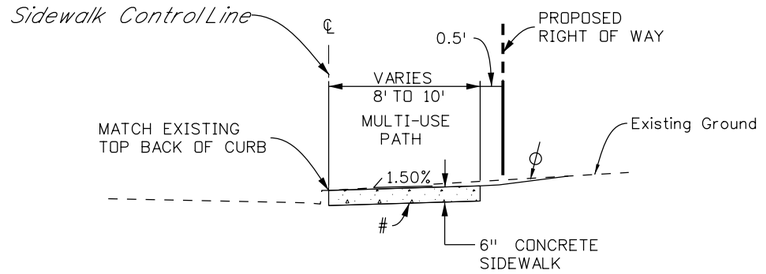
STA. 25+79 TO STA. 27+03
STA. 39+49 TO STA. 39+69
STA. 45+96



29 RD TO 29 1/2 RD MUTLI-USE PATH

▪ TREE LAWN WIDTH VARIES

STA. 51+40 TO STA. 56+69
STA. 57+37 TO STA. 62+51
STA. 66+98 TO STA. 73+00
STA. 56+49 TO STA. 56+69
STA. 57+37 TO STA. 58+02
STA. 61+94 TO STA. 62+51
STA. 72+42 TO STA. 73+00

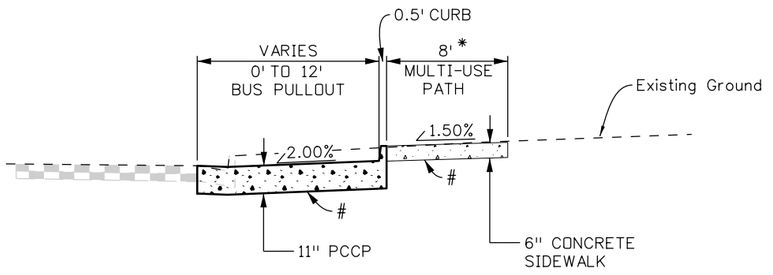


29 RD TO 29 1/2 RD MULTI-USE PATH

STA. 62+51 TO STA. 64+35 - 8' PATH WIDTH
STA. 73+00 TO STA. 73+15 - 10' PATH WIDTH

TYPICAL SECTION NOTES

1. ϕ — THE CONTRACTOR WILL BE REQUIRED TO PLACE 4 INCHES OF TOPSOIL TO THIS LINE AFTER COMPLETION OF PAVING OPERATION.
2. ▲ — BREAKPOINTS IN SLOPES AND IN BOTTOMS OF DITCHES SHALL BE ROUNDED DURING CONSTRUCTION FOR A PLEASING APPEARANCE.
3. ◿ — 2% TREE LAWN CROSS SLOPE (TYPICAL).
4. SIDE SLOPES:
   ALL SLOPES SHALL BE 4:1 OR FLATTER UNLESS NOTED OTHERWISE. SLOPES MAY VARY IN ACCORDANCE WITH THE CROSS SECTIONS.
5. # — DEPTH OF SCARIFICATION AND MOISTURE-DENSITY CONTROL AT BASES OF CUTS AND FILLS SHALL BE 6 INCHES.
6. SEE SIDEWALK ALIGNMENT PLANS FOR CONTROL LINE GEOMETRY.



BUS PULLOUT

STA. 50+50 TO STA. 51+40
*STA. 64+84 TO STA. 66+04

* NO CONCRETE SIDEWALK AT THIS LOCATION

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Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

Grand Junction COLORADO

MESA COUNTY

As Constructed
No Revisions:
Revised:
Void:

TYPICAL SECTION
NORTH AVE. MULTI-USE PATH

Designer: RVH
Detailer: DMC
Sheet Subset: SECTION
Structure Numbers:
Subset Sheets: 1 of 1

Project No./Code:

Sheet Number 5

SUMMARY OF APPROXIMATE QUANTITIES

INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY		STR NO.										PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	TOTAL	AS CONST.
			201-00000	Clearing and Grubbing	L S	1												1	
			202-00010	Removal of Tree	EACH	3												3	
			202-00019	Removal of Inlet	EACH	2												2	
			202-00025	Removal of Ditch Lining	LF	604												604	
			202-00031	Removal of Fire Hydrant	EACH	1												1	
			202-00032	Removal of Valve	EACH	1												1	
			202-00200	Removal of Sidewalk	SY	829												829	
			202-00203	Removal of Curb and Gutter	LF	679												679	
			202-00206	Removal of Concrete Curb Ramp	SY	66												66	
			202-00210	Removal of Concrete Pavement	SY	181												181	
			202-00220	Removal of Asphalt Mat	SY	1,434												1,434	
			202-00700	Removal of Light Standard	EACH	3												3	
			202-00705	Removal of Light Standard Foundation	EACH	3												3	
			202-01000	Removal of Fence	LF	130												130	
			203-01597	Potholing	HOUR	20												20	
			210-00035	Reset Water Meter	EACH	21												21	
			210-00810	Reset Ground Sign	EACH	4												4	
			210-00827	Reset Pull Box	EACH	2												2	
			210-008XX	Reset Business Sign (Special)	EACH	8												8	
			210-04010	Adjust Maintenance Hole	EACH	2												2	
			210-04015	Modify Maintenance Hole	EACH	2												2	
			210-04020	Modify Inlet	EACH	1												1	
			403-00720	Hot Mix Asphalt (Patching) (Asphalt)	TON	43												43	
			403-34871	Hot Mix Asphalt (Grading SX) (100) (PG 76-28)	TON	24												24	
			412-00600	Concrete Pavement (6 Inch)	SY	58												58	
			412-01100	Concrete Pavement (11 Inch)	SY	242												242	
			603-01125	12 Inch Reinforced Concrete Pipe (Complete In Place)	LF	942												942	
			603-01245	24 Inch Reinforced Concrete Pipe (Complete In Place)	LF	10												10	
			604-00000	Junction Box	EACH	4												4	
			604-00305	Inlet Type C (5 Foot)	EACH	2												2	

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Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

CITY OF Grand Junction COLORADO

MESA COUNTY

As Constructed
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SUMMARY OF APPROXIMATE QUANTITIES
NORTH AVE. MULTI-USE PATH

Designer: RVH
Detailer: DMC
Sheet Subset: SAQ
Structure Numbers:
Subset Sheets: 1 of 2

Project No./Code

Sheet Number 6

SUMMARY OF APPROXIMATE QUANTITIES

INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY		STR NO.										PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	TOTAL	AS CONST.
			608-00006	Concrete Sidewalk (6 Inch)	SY	3,176												3,176	
			608-00010	Concrete Curb Ramp	SY	98												98	
			608-10010	Sidewalk Drain	EACH	3												3	
			609-21010	Curb and Gutter Type 2 (Section I-B)	LF	187												187	
			609-21020	Curb and Gutter Type 2 (Section II-B)	LF	180												180	
			620-00001	Field Office (Class 1)	EACH	1												1	
			620-00020	Sanitary Facility	EACH	1												1	
			625-00000	Construction Surveying	L S	1												1	
			626-00000	Mobilization	L S	1												1	
			700-70010	F/A Minor Contract Revisions	F A	1												1	
			700-70016	F/A Fuel Cost Adjustment	F A	1												1	
			700-70100	F/A Relocate Utilities	F A	1													
			700-70380	F/A Erosion Control	F A	1													

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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

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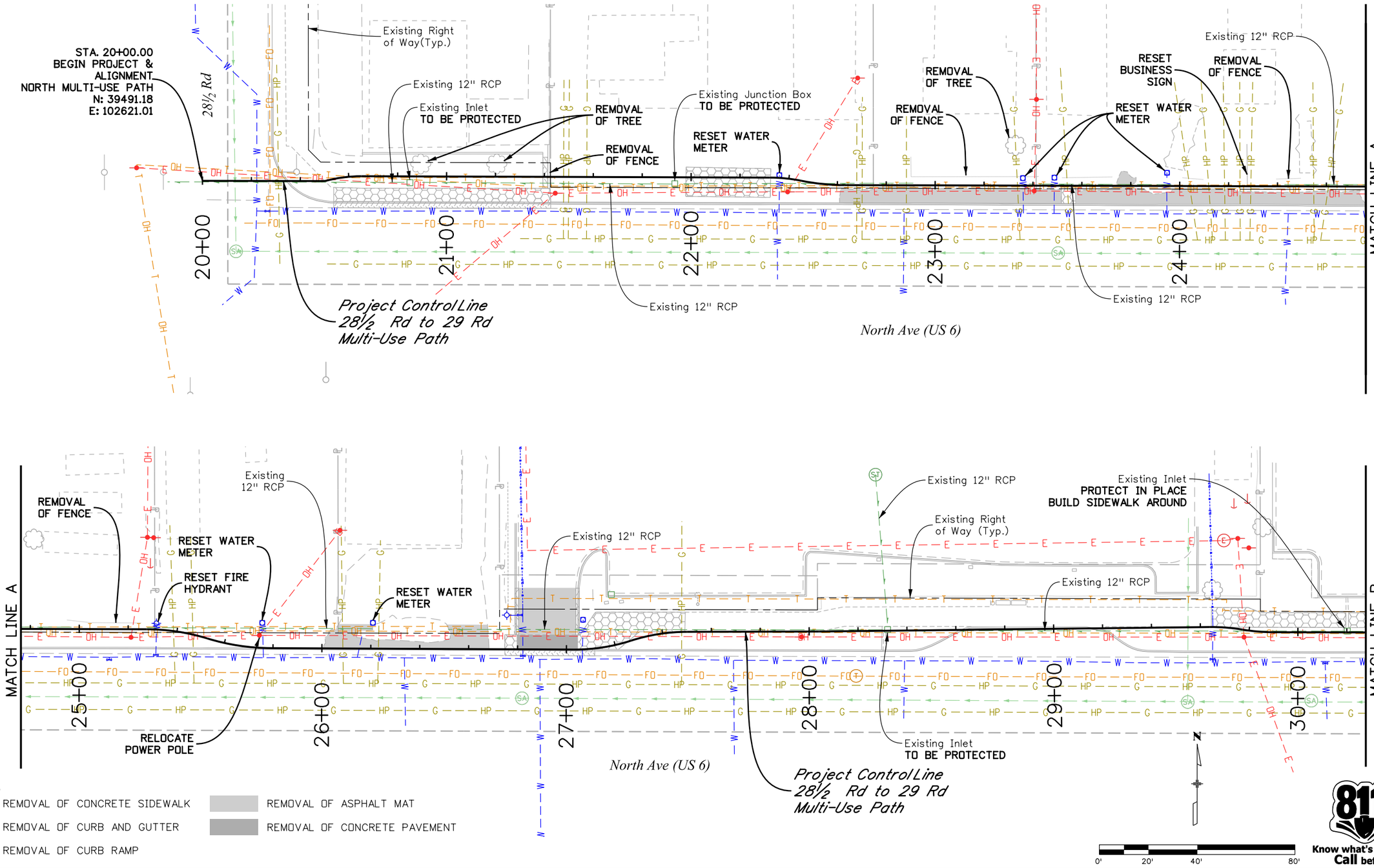
SUMMARY OF APPROXIMATE QUANTITIES
NORTH AVE. MULTI-USE PATH

Designer: RVH
Detailer: DMC
Sheet Subset: SAQ
Structure Numbers:
Subset Sheets: 2 of 2

Project No./Code

Sheet Number 7



LEGEND

- REMOVAL OF CONCRETE SIDEWALK
- REMOVAL OF CURB AND GUTTER
- REMOVAL OF CURB RAMP
- REMOVAL OF ASPHALT MAT
- REMOVAL OF CONCRETE PAVEMENT

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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

Grand Junction COLORADO

MESA COUNTY

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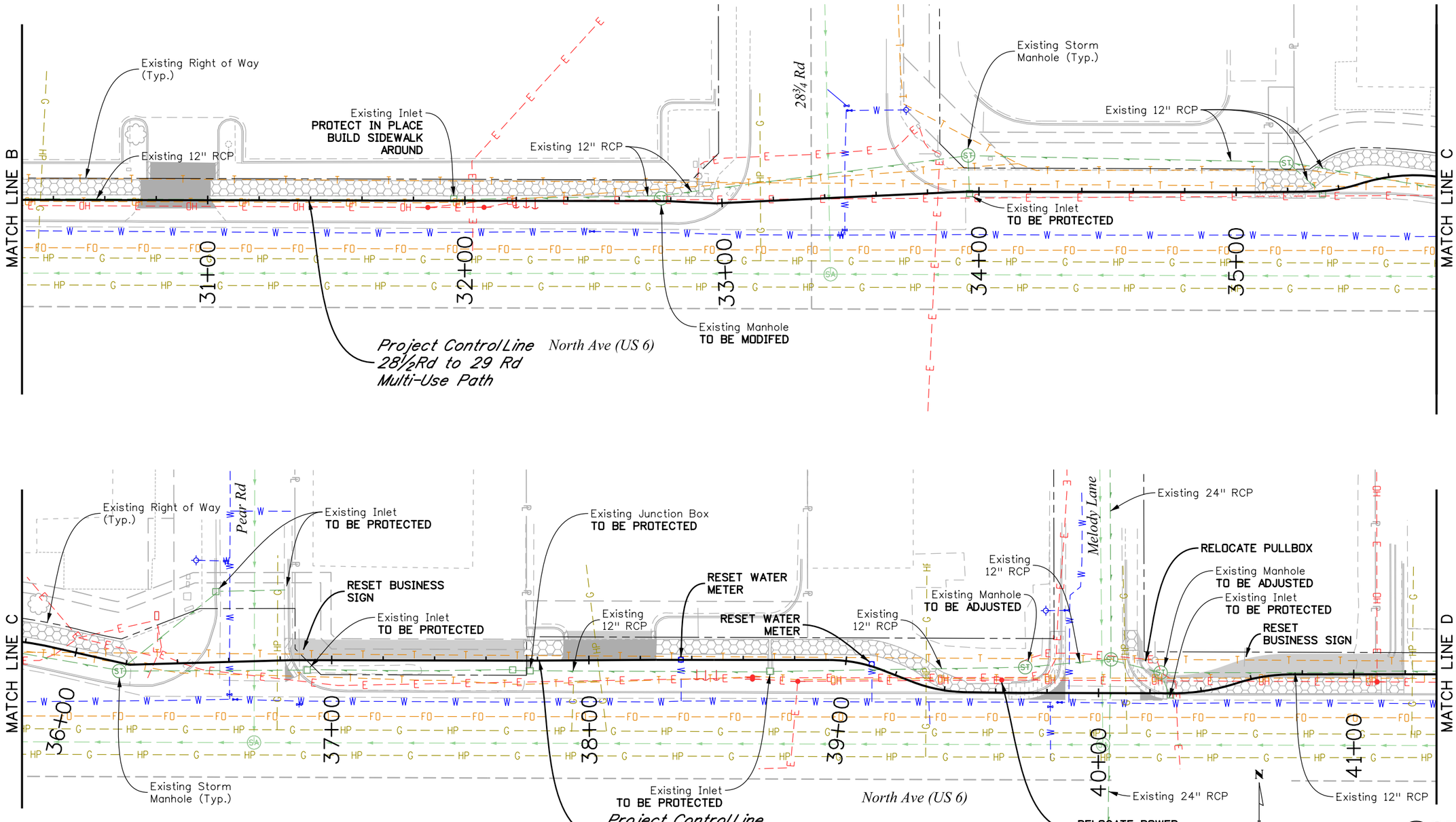
Void:

REMOVAL PLANS
NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Sheet Subset: REM
Structure Numbers:
Subset Sheets: 1 of 5

Project No./Code

Sheet Number 8



LEGEND

- REMOVAL OF CONCRETE SIDEWALK
- REMOVAL OF CURB AND GUTTER
- REMOVAL OF CURB RAMP
- REMOVAL OF ASPHALT MAT
- REMOVAL OF CONCRETE PAVEMENT

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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

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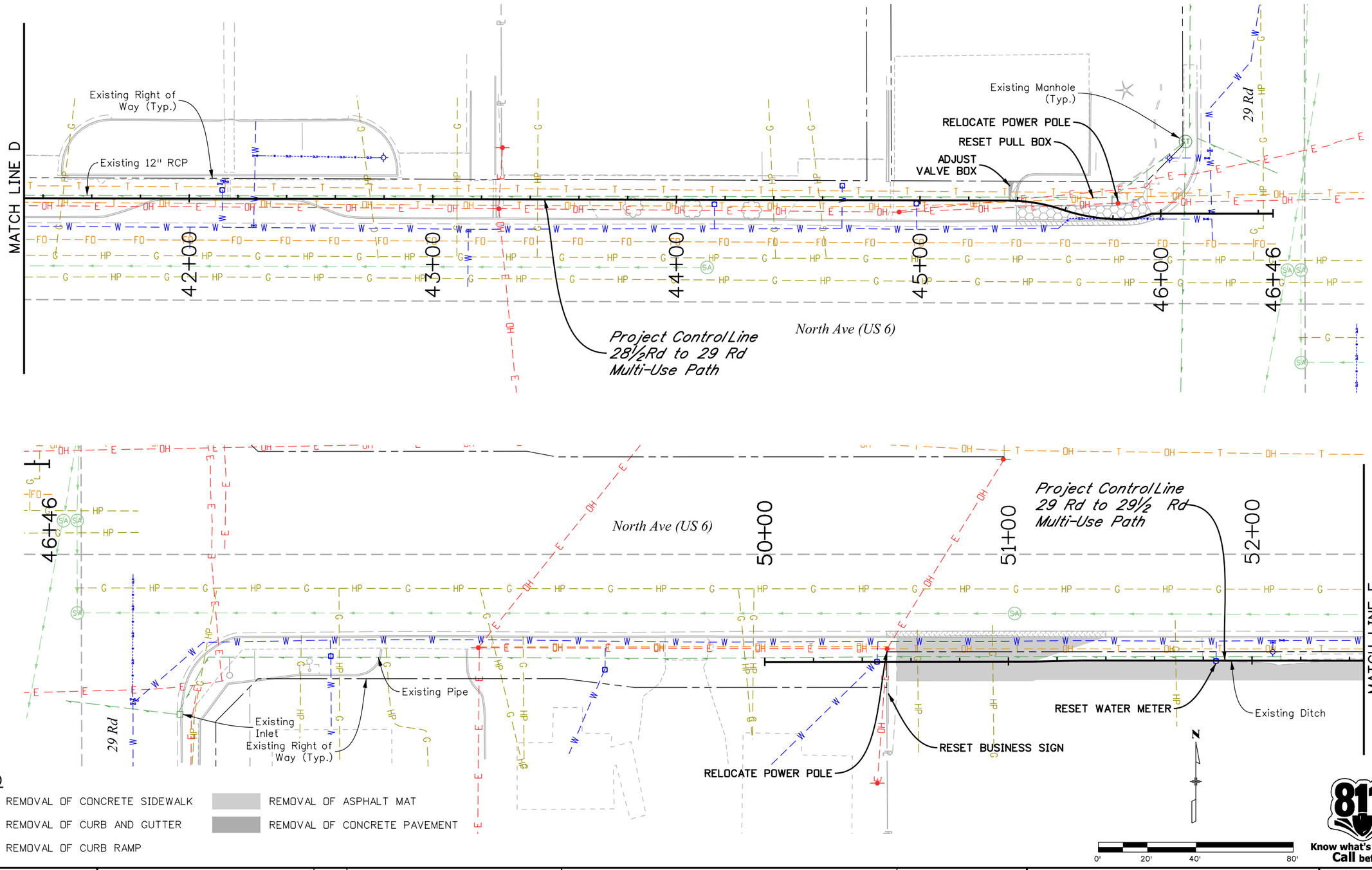
Revised:
Void:

REMOVAL PLANS
NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Sheet Subset: REM
Structure Numbers:
Subset Sheets: 2 of 5

Project No./Code:

Sheet Number 9



LEGEND

- REMOVAL OF CONCRETE SIDEWALK
- REMOVAL OF CURB AND GUTTER
- REMOVAL OF CURB RAMP
- REMOVAL OF ASPHALT MAT
- REMOVAL OF CONCRETE PAVEMENT

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Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

Grand Junction COLORADO

MESA COUNTY

As Constructed
No Revisions:
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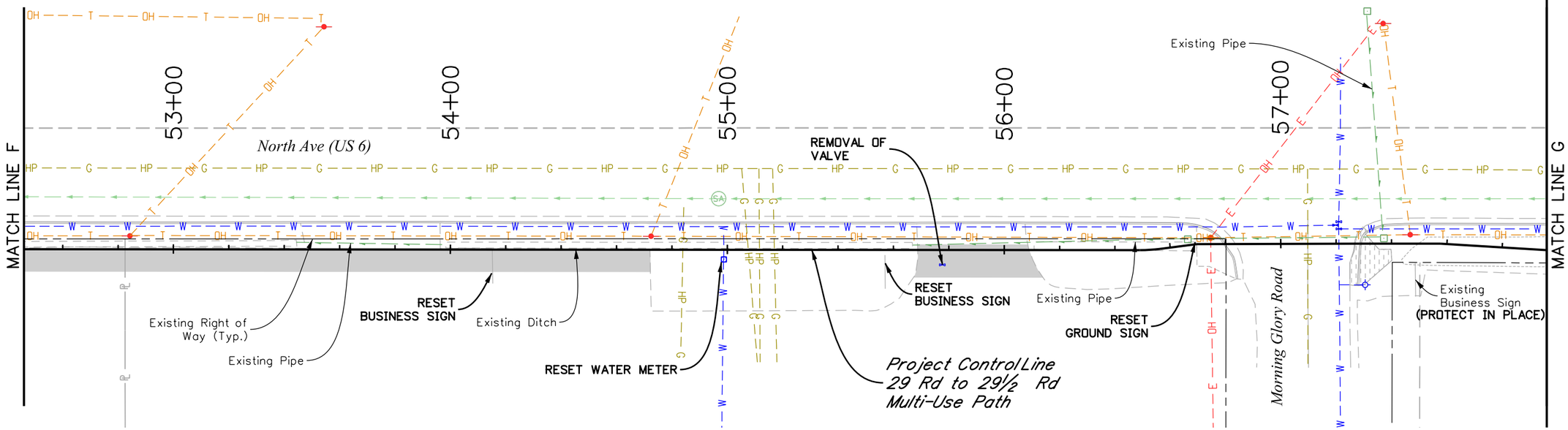
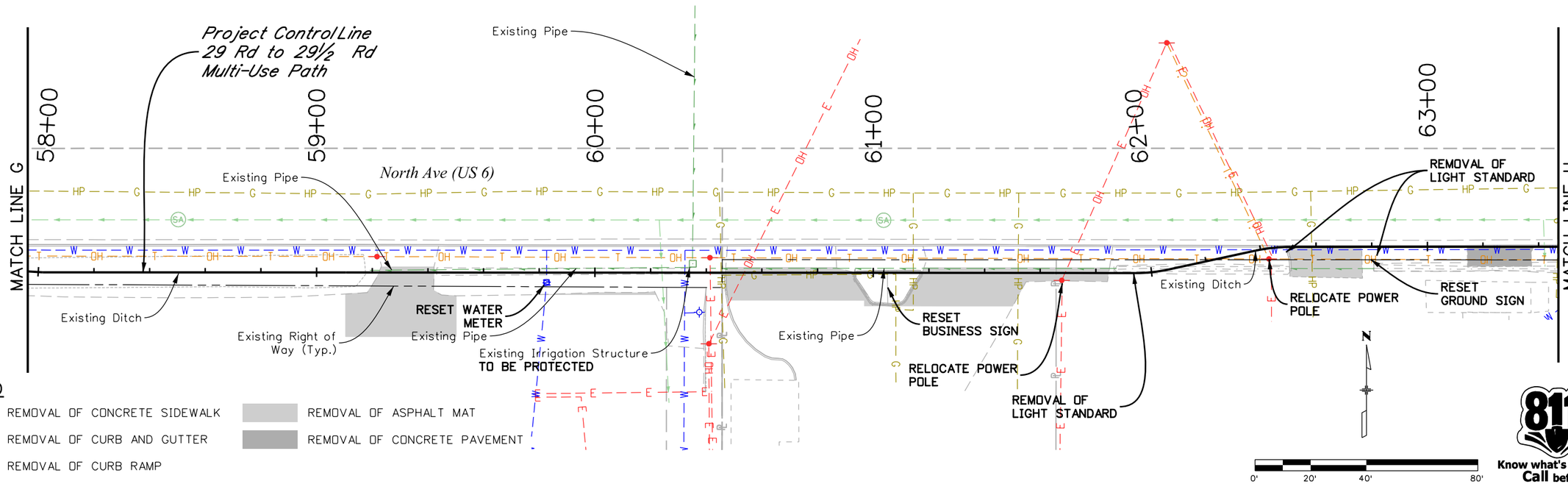
REMOVAL PLANS NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Sheet Subset: REM
Structure Numbers:
Subset Sheets: 3 of 5

Project No./Code:

Sheet Number 10





LEGEND

- REMOVAL OF CONCRETE SIDEWALK
- REMOVAL OF CURB AND GUTTER
- REMOVAL OF CURB RAMP
- REMOVAL OF ASPHALT MAT
- REMOVAL OF CONCRETE PAVEMENT

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Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado
MESA COUNTY

As Constructed
No Revisions:
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REMOVAL PLANS
NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Sheet Subset: REM
Structure Numbers:
Subset Sheets: 4 of 5

Project No./Code:

Sheet Number 11

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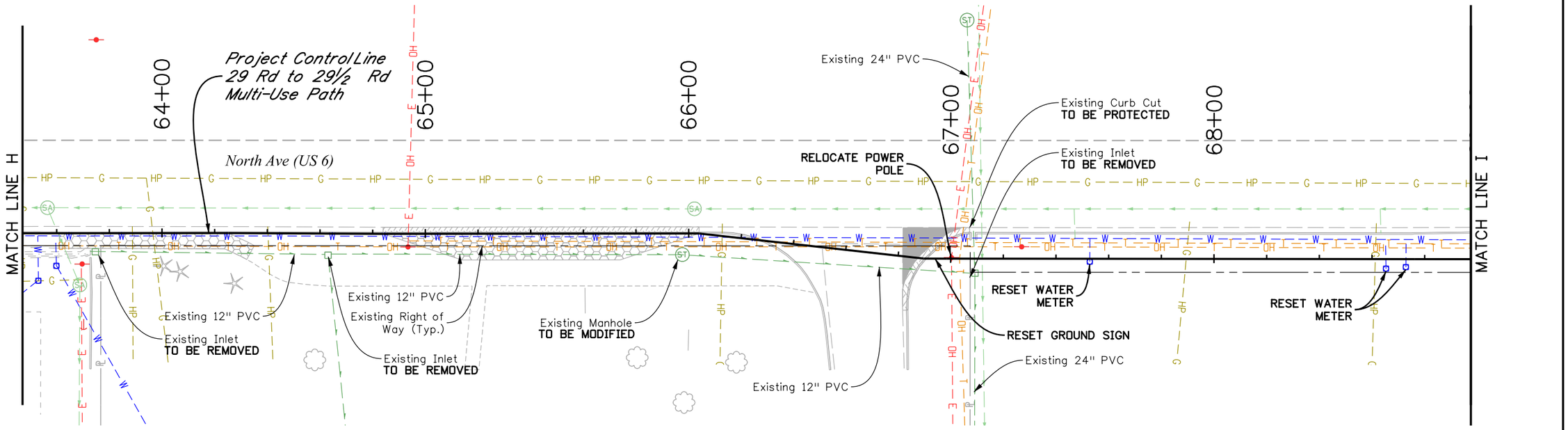

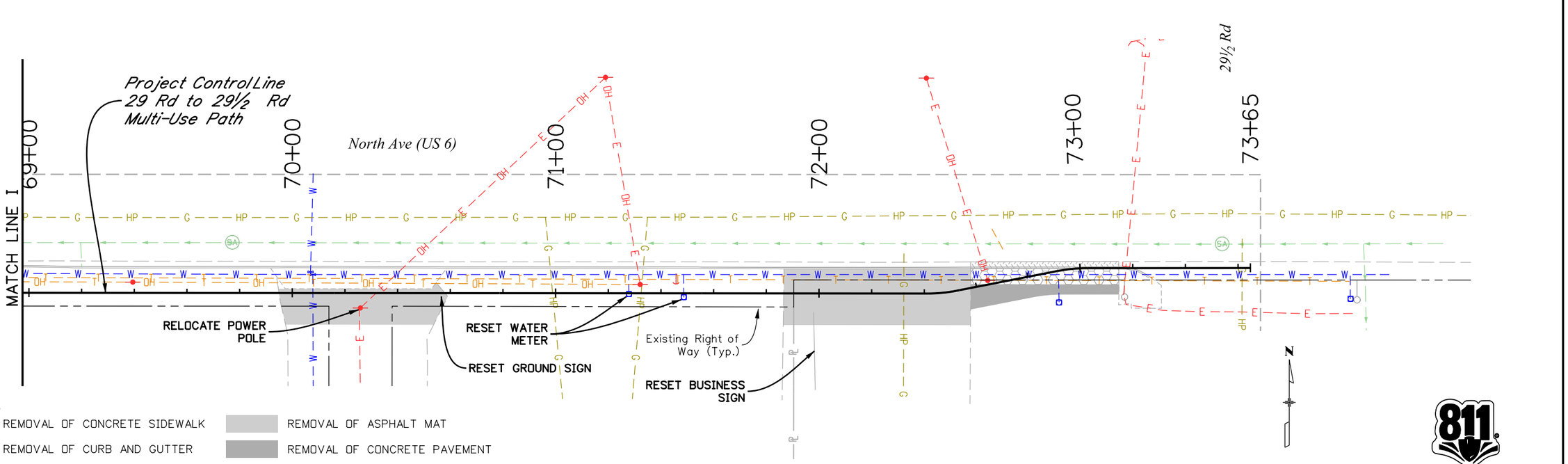

LEGEND

- REMOVAL OF CONCRETE SIDEWALK
- REMOVAL OF CURB AND GUTTER
- REMOVAL OF CURB RAMP
- REMOVAL OF ASPHALT MAT
- REMOVAL OF CONCRETE PAVEMENT

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Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

CITY OF Grand Junction COLORADO

MESA COUNTY

As Constructed

No Revisions:

Revised:

Void:

REMOVAL PLANS
NORTH AVE. MULTI-USE PATH

Designer:	MMD	Structure Numbers	
Detailer:	REW		
Sheet Subset:	REM	Subset Sheets:	5 of 5

Project No./Code

Sheet Number 12

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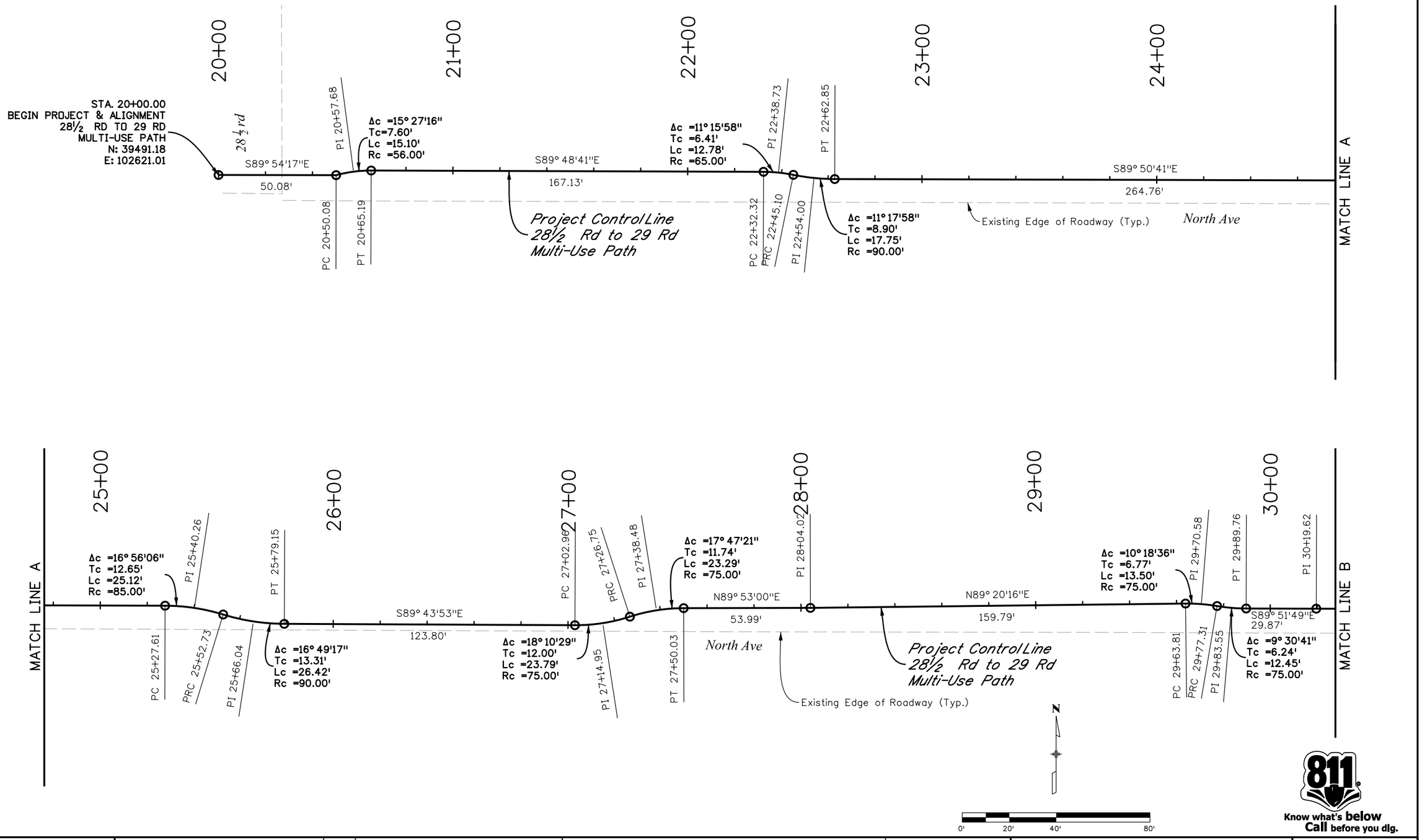

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Horiz. Scale: 1:40 Vert. Scale: As Noted

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Sheet Revisions

Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction COLORADO
MESA COUNTY

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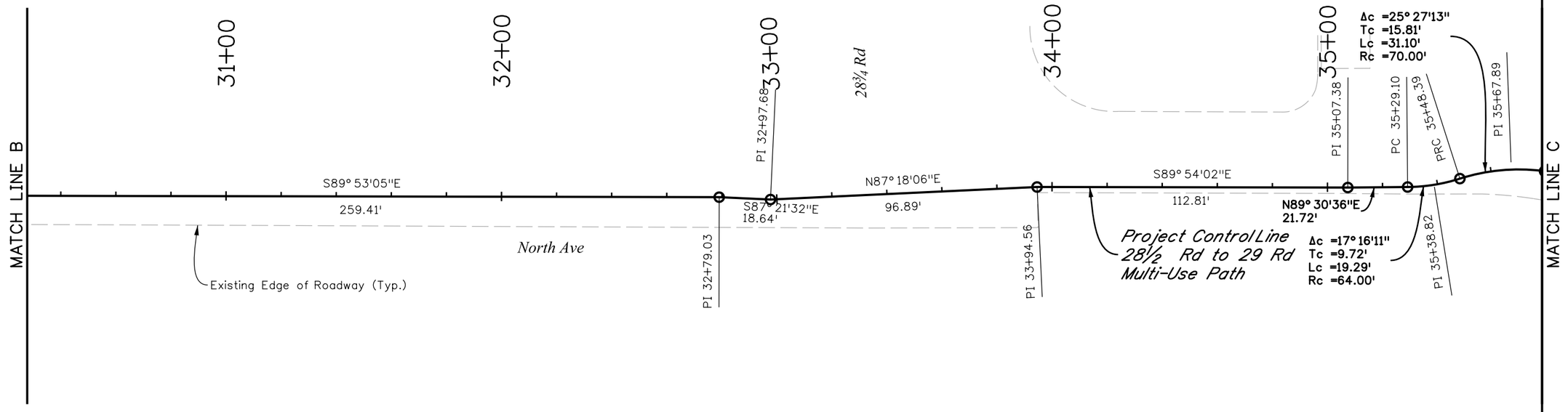
No Revisions:
Revised:
Void:

GEOMETRY PLANS
NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Sheet Subset: GEOMETRY
Structure Numbers:
Subset Sheets: 1 of 5

Project No./Code:

Sheet Number 13



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MULLER ENGINEERING COMPANY

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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

As Constructed
No Revisions:
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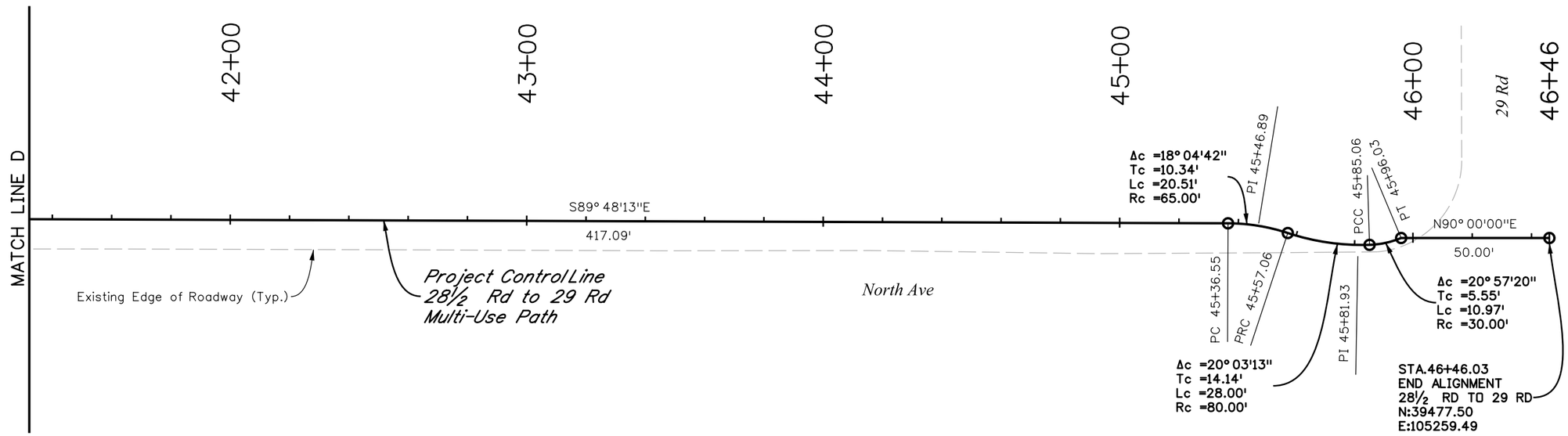
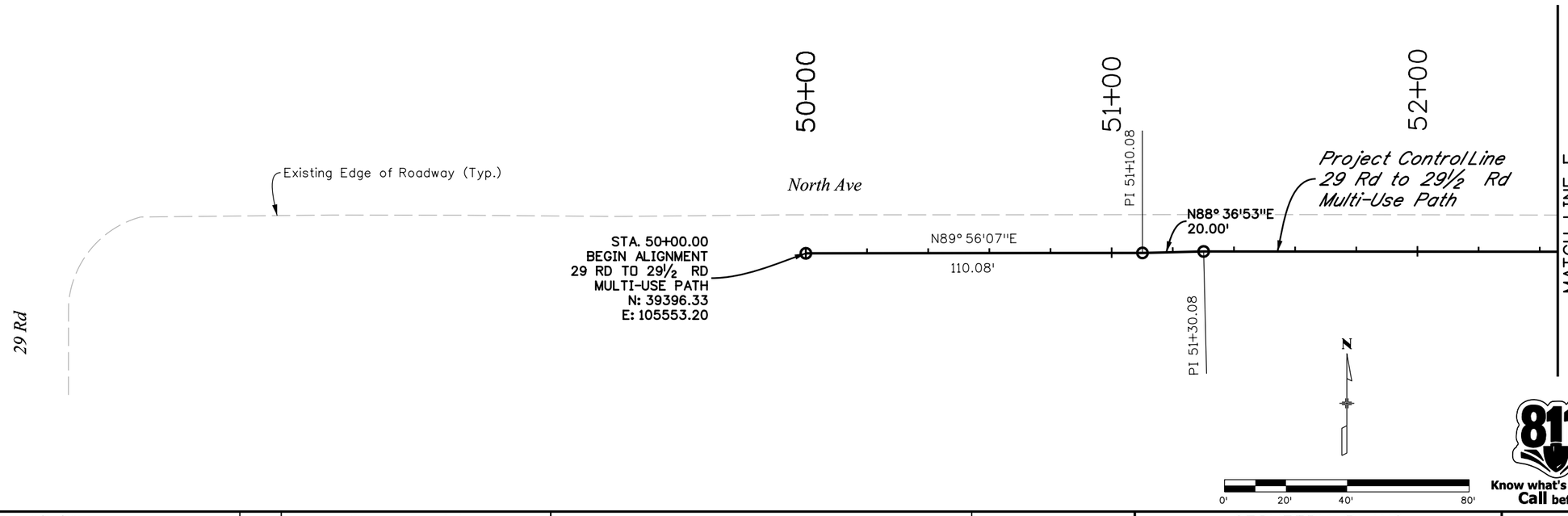
GEOMETRY PLANS
NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Sheet Subset: GEOMETRY
Structure Numbers:
Subset Sheets: 2 of 5

Project No./Code:

Sheet Number 14





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Print Date: 6/23/2022
File Name: 110_21049DES_Geometry Plan_03.dgn
Horiz. Scale: 1:40 Vert. Scale: As Noted

MULLER ENGINEERING COMPANY

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

Grand Junction COLORADO

MESA COUNTY

As Constructed
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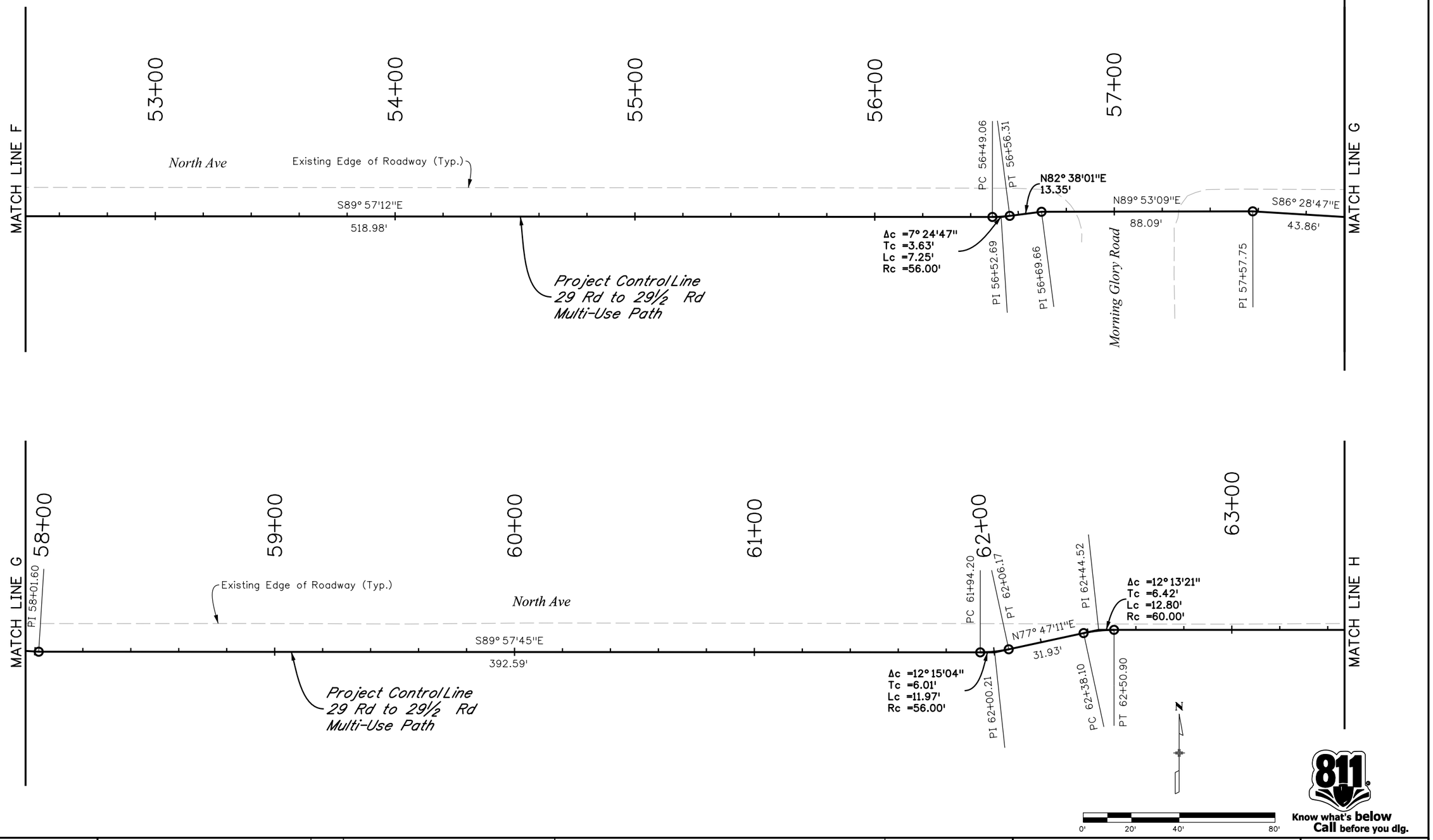
Revised:
Void:

GEOMETRY PLANS
NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Sheet Subset: GEOMETRY
Structure Numbers:
Subset Sheets: 3 of 5

Project No./Code:

Sheet Number 15



All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/23/2022
File Name: 110_21049DES_Geometry Plan_04.dgn
Horiz. Scale: 1:40 Vert. Scale: As Noted

MULLER ENGINEERING COMPANY

Sheet Revisions		
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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

Grand Junction COLORADO

MESA COUNTY

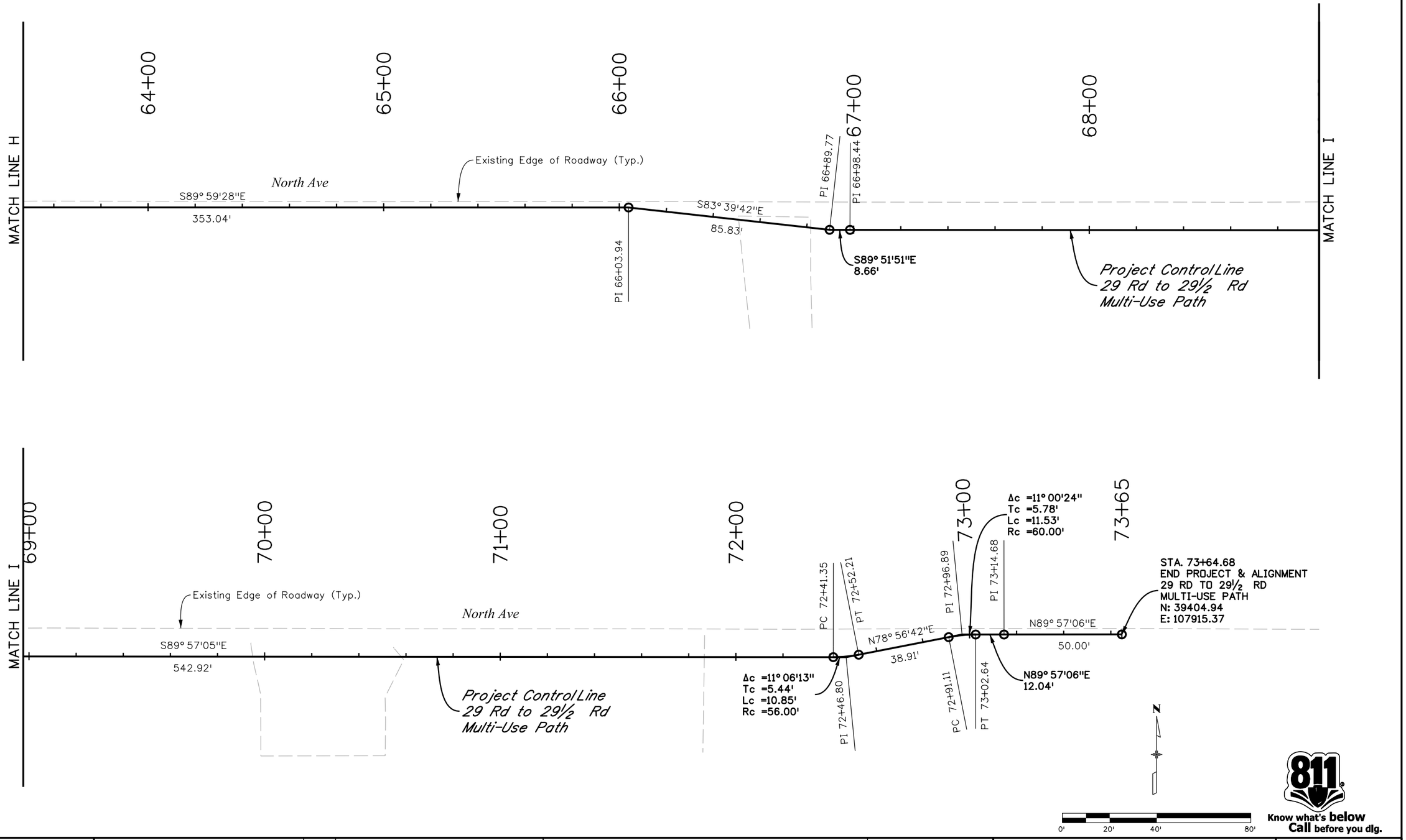
As Constructed
No Revisions:
Revised:
Void:

GEOMETRY PLANS
NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Structure Numbers:
Sheet Subset: GEOMETRY
Subset Sheets: 4 of 5

Project No./Code

Sheet Number 16



All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/23/2022
File Name: 110_21049DES_Geometry Plan_05.dgn
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Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

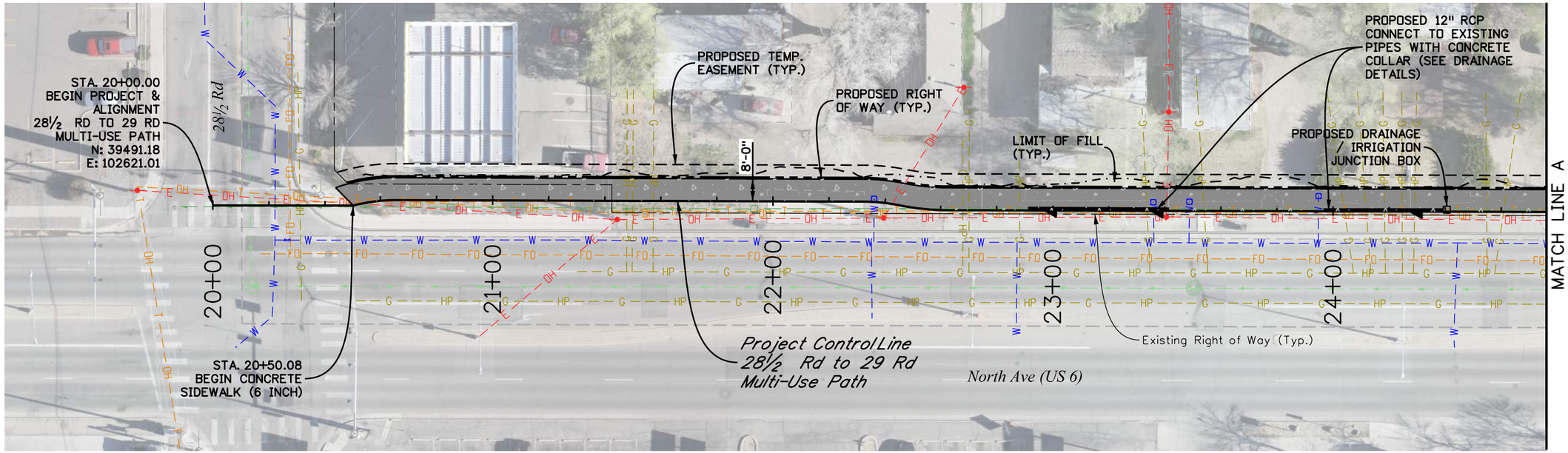
As Constructed
No Revisions:
Revised:
Void:

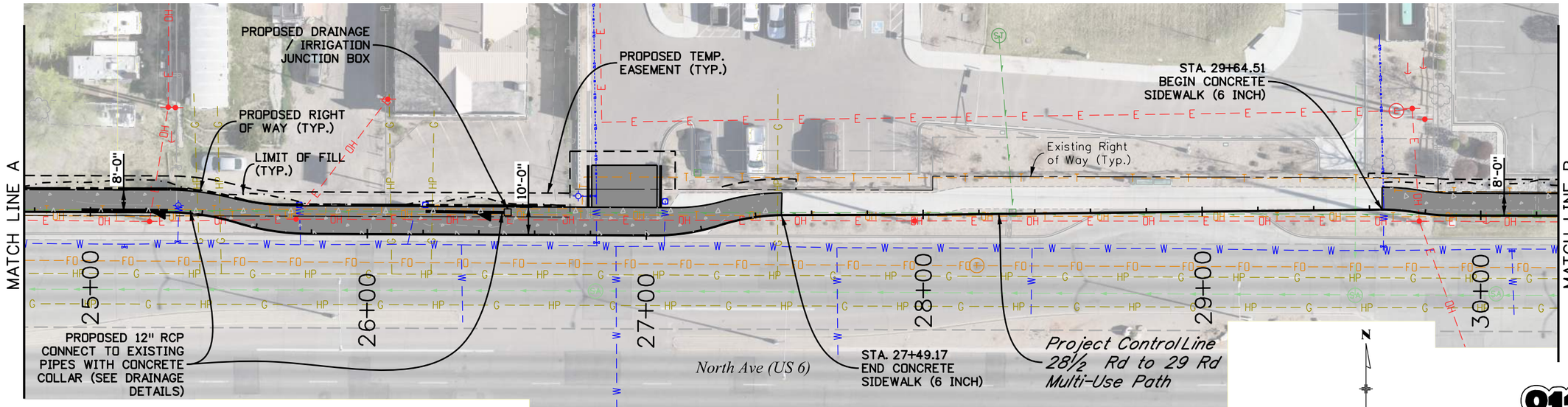
GEOMETRY PLANS
NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Sheet Subset: GEOMETRY
Structure Numbers
Subset Sheets: 5 of 5

Project No./Code

Sheet Number 17





LEGEND

- CONCRETE SIDEWALK (6 INCH)
- CONCRETE PAVEMENT (6 INCH)
- CONCRETE PAVEMENT (11 INCH)
- H.M.A.

Know what's below Call before you dig.

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Print Date: 6/23/2022
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Horiz. Scale: 1:40 Vert. Scale: As Noted

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Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

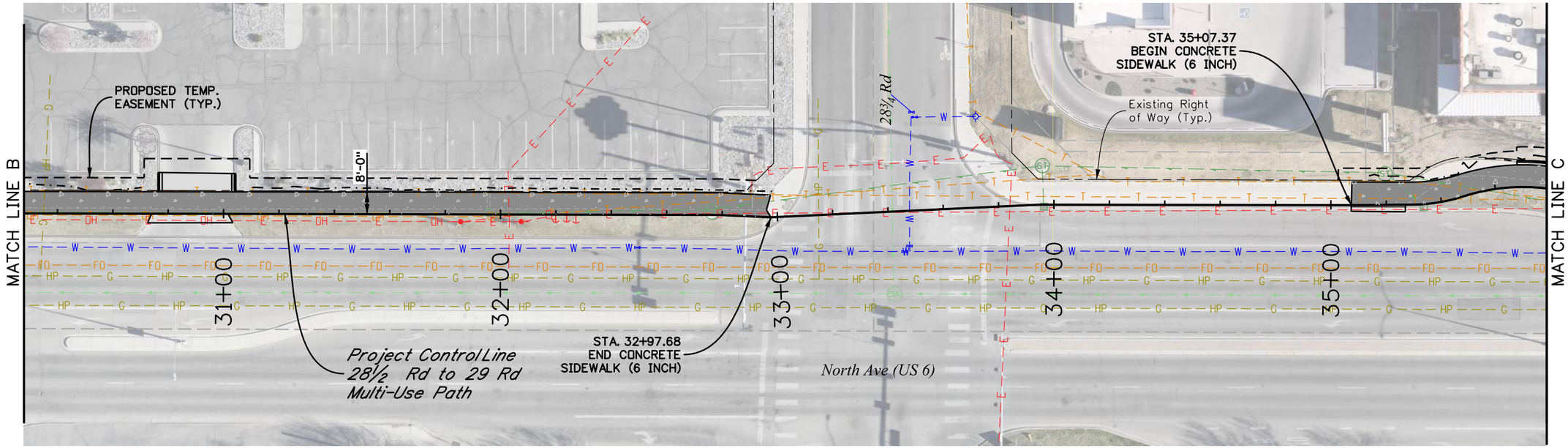
As Constructed
No Revisions:
Revised:
Void:

ROADWAY PLANS
NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Sheet Subset: PLAN
Structure Numbers:
Subset Sheets: 1 of 5

Project No./Code:

Sheet Number 18



LEGEND

- CONCRETE SIDEWALK (6 INCH)
- CONCRETE PAVEMENT (6 INCH)
- CONCRETE PAVEMENT (11 INCH)
- H.M.A.

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Print Date:	6/23/2022
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Horiz. Scale:	1:40
Vert. Scale:	As Noted

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Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

As Constructed

No Revisions:

Revised:

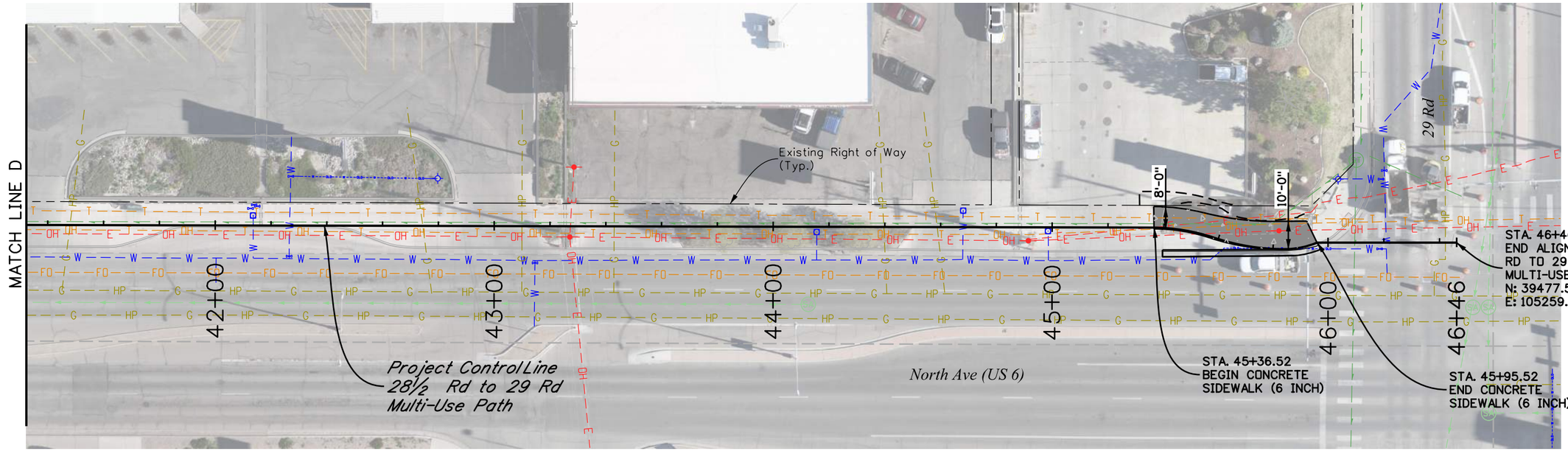
Void:

ROADWAY PLANS
NORTH AVE. MULTI-USE PATH

Designer:	MMD	Structure Numbers	
Detailer:	REW		
Sheet Subset:	PLAN	Subset Sheets:	2 of 5

Project No./Code

Sheet Number 19



LEGEND

- CONCRETE SIDEWALK (6 INCH)
- CONCRETE PAVEMENT (11 INCH)
- CONCRETE PAVEMENT (6 INCH)
- H.M.A.

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Print Date:	6/23/2022
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Horiz. Scale:	1:40
Vert. Scale:	As Noted

MULLER ENGINEERING COMPANY

Sheet Revisions

Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

As Constructed

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Revised:	
Void:	

ROADWAY PLANS
NORTH AVE. MULTI-USE PATH

Designer:	MMD	Structure Numbers	
Detailer:	REW		
Sheet Subset:	PLAN	Subset Sheets:	3 of 5

Project No./Code

Sheet Number 20

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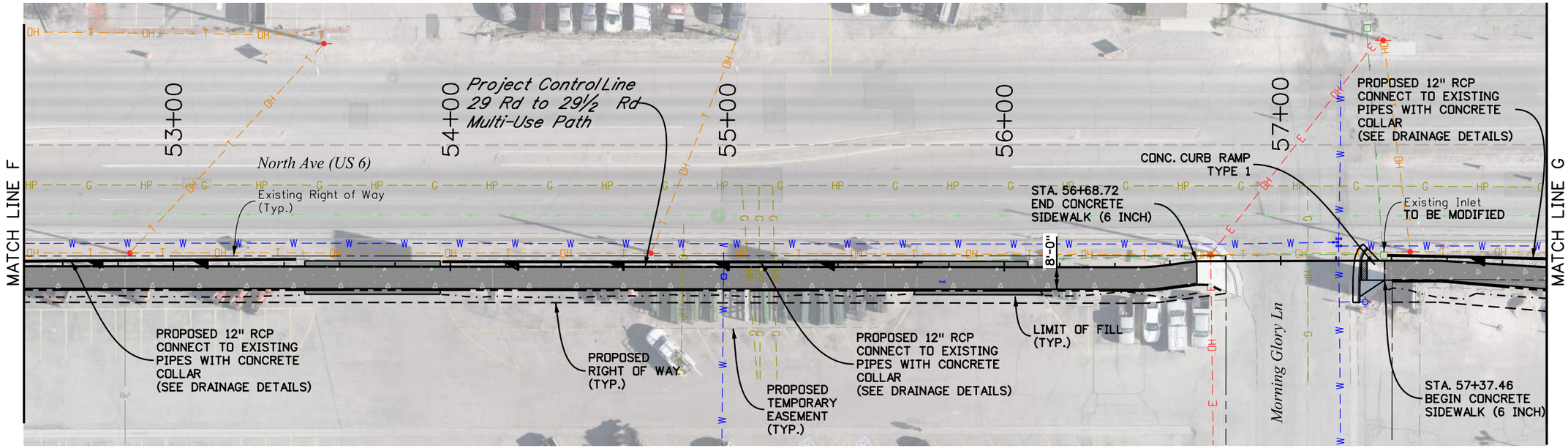

LEGEND

- CONCRETE SIDEWALK (6 INCH)
- CONCRETE PAVEMENT (6 INCH)
- CONCRETE PAVEMENT (11 INCH)
- H.M.A.

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Sheet Revisions

Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction COLORADO

MESA COUNTY

As Constructed

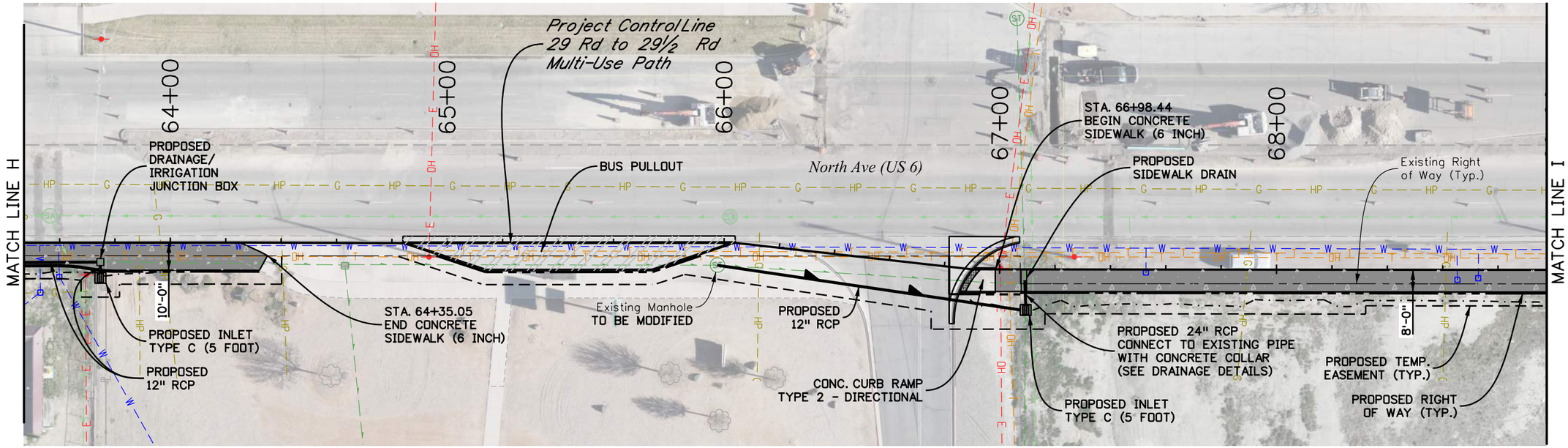
No Revisions:	
Revised:	
Void:	

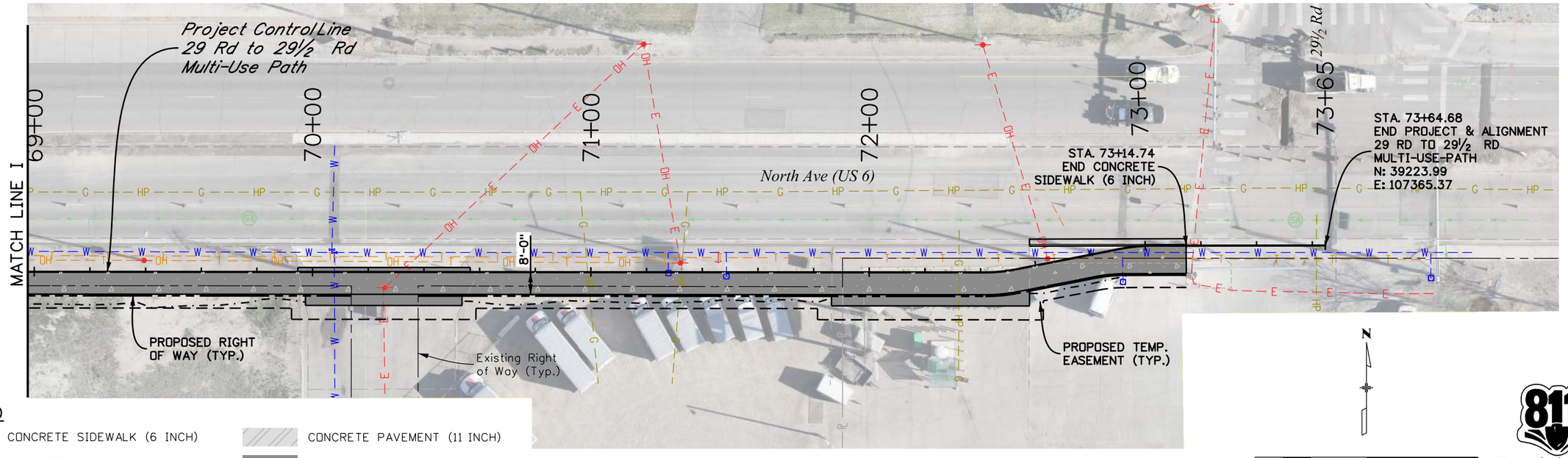
ROADWAY PLANS
NORTH AVE. MULTI-USE PATH

Designer:	MMD	Structure Numbers	
Detailer:	REW		
Sheet Subset:	PLAN	Subset Sheets:	4 of 5

Project No./Code

Sheet Number 21





LEGEND

- CONCRETE SIDEWALK (6 INCH)
- CONCRETE PAVEMENT (6 INCH)
- CONCRETE PAVEMENT (11 INCH)
- H.M.A.

N

0' 20' 40' 80'

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Sheet Revisions		
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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

Grand Junction COLORADO

MESA COUNTY

As Constructed
No Revisions:
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ROADWAY PLANS
NORTH AVE. MULTI-USE PATH

Designer: MMD
Detailer: REW
Sheet Subset: PLAN
Structure Numbers:
Subset Sheets: 5 of 5

Project No./Code

Sheet Number 22

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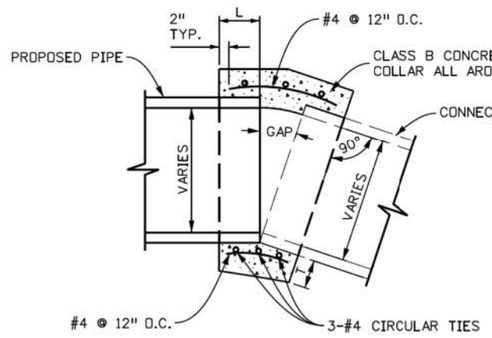
DRAINAGE GENERAL NOTES

1. THE MANUFACTURER'S JOINT TOLERANCE FOR ALL PIPE TYPES USED SHALL BE SUPPLIED TO THE ENGINEER. FOR DEFLECTIONS GREATER THAN THE MANUFACTURER'S TOLERANCE, A CONCRETE PIPE COLLAR SHALL BE USED PER THE DRAINAGE DETAIL SHEETS. CONCRETE PIPE COLLARS SHALL BE USED FOR EXISTING PIPE TO PROPOSED PIPE CONNECTIONS. THE COST OF THE CONCRETE PIPE COLLAR SHALL BE INCLUDED IN THE COST OF THE WORK.
2. THE "PIPE CONNECTION" DETAIL SHALL APPLY TO ALL PIPE CONNECTIONS TO PROPOSED PRECAST CONCRETE STRUCTURES AND EXISTING STRUCTURES. THE COST OF THE PIPE CONNECTION SHALL BE INCLUDED IN THE COST OF THE WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING PIPE SIZES, LENGTHS AND LOCATIONS PRIOR TO ORDERING AND DELIVERY OF THE PIPE MATERIAL TO THE SITE.
4. ALL PIPES SHALL BE REINFORCED CONCRETE PIPE (RCP) AND SHALL BE A MINIMUM OF CLASS III (STRENGTH) UNLESS HIGHER CLASS IS REQUIRED BY CDOT M&S STANDARD M-603-2.
5. ALL END SECTIONS MUST BE INSTALLED WITH JOINT FASTENERS. IN ADDITION, JOINT FASTENERS SHALL BE INSTALLED ON ALL PIPE JOINTS WITHIN 15-FEET OF THE DOWNSTREAM END OF ALL CULVERTS. (INCLUDING END SECTION LENGTH, IF APPLICABLE).
6. STRUCTURE BACKFILL (FLOW-FILL) PER CDOT STANDARD 206.02 SHALL BE USED IN PLACE OF STRUCTURE BACKFILL (CLASS 1) FOR STORM DRAINS THAT ARE LOCATED UNDER ROADWAYS AND HAVE 2 FEET OR LESS OF COVER FROM TOP OF FINISHED SUBGRADE TO TOP OF PIPE. FLOW-FILL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PIPE.
7. OTHER UTILITIES MAY BE CROSSED OR OTHERWISE IMPACT STORM DRAIN CONSTRUCTION. CONTRACTOR SHALL PROTECT EXISTING UTILITIES IN PLACE. UNLESS NOTED OTHERWISE, PROTECTION OF EXISTING UTILITIES, INCLUDING INCIDENTAL SHORING THAT IS NOT INCLUDED AS A PAY ITEM, WILL NOT BE MEASURED SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE WORK.
8. RUBBER GASKETS SHALL BE USED FOR ALL RCP JOINTS IN ACCORDANCE WITH ASTM C443. THE COST OF ALL JOINT GASKETS FOR STORM DRAIN CONSTRUCTION SHALL BE INCLUDED IN THE COST OF THE PIPE.
9. ALL STRUCTURE INLET AND OUTLET ELEVATIONS HAVE BEEN APPROXIMATED USING DESIGN SURVEY ELEVATIONS. ADJUSTMENTS MAY BE NECESSARY DURING CONSTRUCTION. ALL CHANGES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
10. THE TOP PORTION OF INLETS AND MANHOLES SHALL FIT THE LONGITUDINAL PROFILE SLOPE AND TYPICAL SECTION REQUIREMENTS. THE CONTRACTOR SHALL CROSS REFERENCE THIS INFORMATION PRIOR TO CONSTRUCTING INLETS AND MANHOLES TO FINAL GRADE.
11. TYPE C INLETS AND MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CDOT M&S STANDARDS, LATEST EDITION, UNLESS NOTED OTHERWISE.
12. DRAINAGE/IRRIGATION JUNCTION BOX SHALL BE CONSTRUCTED SIMILAR TO EXISTING JUNCTION BOXES WITHIN THE PROJECT AREA (I.E. APPROXIMATELY STATION 22+00 LT). THE TOP PORTION OF THE PROPOSED JUNCTION BOX SHALL BE CONSTRUCTED TO BE FLUSH WITH THE PROPOSED SIDEWALK AND/OR PROPOSED FINISHED GRADE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEWATERING AND DIVERSION INCLUDING, BUT NOT LIMITED TO, LIVE STREAM FLOW AND GROUNDWATER AND OBTAINING THE APPLICABLE DEWATERING PERMIT FOR CONSTRUCTION AT THE SITE. THIS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK. THE CONTRACTOR TYPE C INLETS AND TYPE D INLETS SHALL HAVE CLOSE MESH GRATES UNLESS OTHERWISE SPECIFIED.SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.

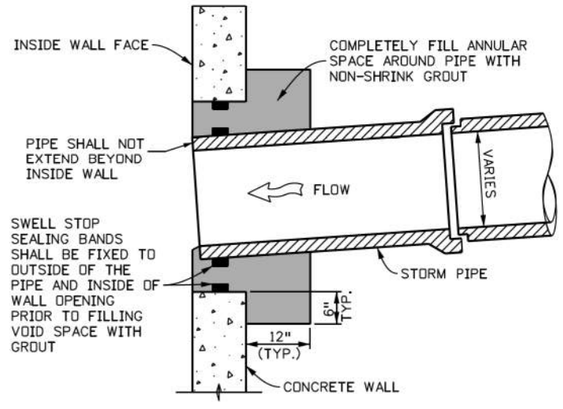
PIPE SIZE	L	T
12"-24"	1.0'	6"
30"-42"	1.5'	8"
48"-60"	2.0'	11"
66"-78"	2.5'	12"
84"-96"	3.0'	13"
102"-114"	3.5'	14"



NOTE:

1. CONCRETE COLLAR WORK SHALL BE INCLUDED IN THE COST OF PIPE.
2. FOR STRAIGHT CSP EXTENTIONS, CONTRACTOR MAY SUBSTITUTE APPROVED CSP BAND FOR CONCRETE COLLAR.

CONCRETE PIPE COLLAR
NOT TO SCALE



NOTE:
PIPE CONNECTION INCIDENTAL TO COST OF PIPE.

PIPE CONNECTION DETAIL
(EXISTING AND PRECAST WALLS)
NOT TO SCALE

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File Name: 410_21049HYDR_Notes-01.dgn
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Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado
MESA COUNTY

As Constructed
No Revisions:
Revised:
Void:

DRAINAGE GENERAL NOTES AND DETAILS
NORTH AVE. MULTI-USE PATH

Designer: ACF
Detailer: DMC
Sheet Subset: HYDR NOTE
Structure Numbers:
Subset Sheets: 1 of 1

Project No./Code:

Sheet Number 23

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 to reflect current project site conditions.

A. PROJECT SITE LOCATION: The project is located along the North Avenue corridor between 28½ Road and 29 Road on the North side of the corridor and between 29 Road and 29½ Road on the South side of the corridor.

Location or address of construction office:_____

B. PROJECT SITE DESCRIPTION: A proposed multimodal path will be constructed along a portion on the North side and South side of the North Avenue corridor and paved with concrete. The path on the North side will be eight feet wide with a seven and a half feet tree lawn, and the path on the South side will vary between eight and ten feet and a nine and a half tree lawn. Two bus pullouts will be constructed along the South side of the corridor.

C. PROPOSED SEQUENCING FOR MAJOR CONSTRUCTION ACTIVITIES: Stabilize all areas that are not paved or landscaped through establishment of vegetation cover. Initial erosion control measures such as perimeter control, inlet protection, tree/landscaping protection, and sediment control will be installed prior to the start of clearing and grubbing. As construction of the sidewalk and drainage pipes/inlets are completed, the appropriate erosion control measures will be installed. At substantial completion of the project, permanent stabilization measures will be installed. This includes permanent seeding, mulching, and plantings

D. ACRES OF DISTURBANCE:

1. Total area of construction site (LOC (PERMITTED AREA)): TBD
2. Total area of proposed disturbance (LDA): 1.6 acres
3. Total area of seeding: TBD
4. Total area of pre-project impervious surface: TBD
5. Total area of final impervious surface: TBD

E. EXISTING SOIL DATA: The primary soil type is Sagers-Urban Land Complex. The primary Hydrologic group is C with slopes ranging from 0 to 2 percent.

Data Source(s): National Resource Conservation Service

F. EXISTING VEGETATION, INCLUDING PERCENT 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: _____ Percent Existing Vegetative Cover: _____

Description of existing vegetation:

Method for determining percent vegetative cover:

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 existing 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: Generally, runoff flows from Northeast to Southwest, ultimately draining to the Colorado River.
2. Names of immediate receiving water(s) on site: N/A
3. Description of all stream crossings located within the Construction Site Boundary: N/A

I. ALLOWABLE NON-STORMWATER DISCHARGES:

Discharge Description	Site Map #	Method Statement (Location)
Uncontaminated Spring		
Concrete Wash 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 water from leaving the site as surface runoff or reaching receiving waters.

J. DIVERSION CRITERIA:

1. Is a diversion planned for the Site? No
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.

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 to 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 SWMP Site Maps

B. FLOW ARROWS THAT DEPICT STORMWATER FLOW DIRECTIONS ON-SITE, RUN-ON, AND RUNOFF DIRECTION: See SWMP Site Maps

C. ALL AEAS OF GROUND SURFACE DISTURBANCE: See SWMP Site Maps

D. AREAS OF CUT AND FILL: See SWMP Site Maps

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: To be determined by the contractor.

F. LOCATION OF ALL STRUCTURAL CONTROL MEASURES IDENTIFIED IN THE SWMP: See SWMP Site Maps

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

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	Date:	Comments	Init.
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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

As Constructed
No Revisions:
Revised:
Void:

SWMP NOTES
NORTH AVE. MULTI-USE PATH

Designer:	ACF	Structure Numbers	
Detailer:	REW		
Sheet Subset:	SWMP	Subset Sheets:	1 of 7

Project No./Code

Sheet Number 24

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: N/A

I. LOCATION OF ALL STREAM CROSSINGS LOCATED WITHIN THE CONSTRUCTION SITE BOUNDARY: N/A

J. PROTECTION OF TREES, SHRUBS, SENSITIVE HABITAT, AND CULTURAL RESOURCES: See SWMP Site Maps

K. LOCATIONS WHERE ALTERNATIVE TEMPORARY STABILIZATION SCHEDULES APPLY: To be determined by the contractor.

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 #
Alejandra Ferrufino	aferrufino@mullereng.com 303-901-1409	AA796DFF

B. SWMP Administrator for Construction: (As defined in Subsection 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 Subsection 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)	Certification #	Start Date	Engineer Approval

D. PERMANENT STABILIZATION SUBJECT MATTER EXPERT: This qualified individual will either be 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 the requirements of the 207 and 212 Project Special Provisions as follows and will be available for questions regarding permanent stabilization requirements.

https://www.codot.gov/programs/environmental/assets/construction-phase-inspection-and-verification-checklist-for-successful-roadside-revegetation

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

4. STORMWATER MANAGEMENT CONTROLS 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 PAD/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-F below as needed in accordance with subsection 208.06.

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.

A. MATERIALS HANDLING AND SPILL PREVENTION AND RESPONSE PLAN: Prior to construction commencing the contractor shall submit a Spill Response Plan, see subsection 208.06. Materials handling 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 subsection 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 subsection 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

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

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Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

CITY OF Grand Junction COLORADO

MESA COUNTY

As Constructed
No Revisions:
Revised:
Void:

SWMP NOTES
NORTH AVE. MULTI-USE PATH

Designer: ACF
Detailer: REW
Sheet Subset: SWMP
Structure Numbers:
Subset Sheets: 2 of 7

Project No./Code

Sheet Number 25

8. RECORD KEEPING

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

9. INTERIM, PERMANENT STABILIZATON and LONGTERM STORMWATER MANAGEMENT

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

A. SEEDING PLAN: To be determined for 90% design.

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
TOTAL		

B. SEEDING APPLICATION: 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	
212-00707	Seeding (Native) Hydraulic	
212-00708	Seeding (Native) Broadcast	
212-00709	Seeding (Wetland) Drill	
212-00710	Seeding (Wetland) Hydraulic	
212-00711	Seeding (Wetland) Broadcast	
	TOTAL	

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 2½ tons/ac of certified weed free straw and mechanically crimp into the soil in combination of 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.
2. Apply Spray-on Mulch Blanket hydraulically in accordance with Section 213.
3. Apply Bonded Fiber Matrix hydraulically in accordance with Section 213.
4. Install Soil Retention Blankets in accordance with Standard Plan M-216-1 and Section 216.

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.

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

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

TBD Total Acres of Seeding (Native) Hydraulic With Topsoil Generated From

	Pay Item	Description	Amount/ Acre	Units	Total For This Method
Seeding (Native) Hydraulic Pay Item 212-00707	212-00700	Organic Fertilizer High or Low N		Pounds	
	212-00702	Biotic Soil Amendments (Hydraulic Applied)		Pounds	
	212-00703	Humate		Pounds	
	212-00704	Mycorrhizae		Pounds	

TBD Total Acres of Seeding (Native) Broadcast With Topsoil Generated From

	Pay Item	Description	Amount/ Acre	Units	Total For This Method
Seeding (Native) Broadcast Pay Item 212-00708	212-00700	Organic Fertilizer High or 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 until Partial Acceptance of the stormwater construction work.

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

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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

As Constructed
No Revisions:
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SWMP NOTES
NORTH AVE. MULTI-USE PATH

Designer:	ACF	Structure Numbers	
Detailer:	REW		
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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 Specification 208.10 for Items to be completed prior to requesting partial acceptance of water quality work.

11. NARRATIVES:

Control Measure Matrixes During Construction:

1. 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 added to the SWMP. The appropriate "X" shall also be added to the implementation phase(s).
2. The SWMP Administrator for Construction shall place an "X" in the column In Use On Site when the control measure has been installed.
3. 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:

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 mature trees and/or existing landscaping prior to start of construction disturbances.			**B or X**	**X**	
CHECK DAM/DITCH CHECK *Erosion log, silt berm, silt dike, rock check dam*	Placed in ditches immediately upon completion of ditch grading to reduce velocity of runoff in ditch. For existing ditches, place prior to start of construction disturbances.	M-208		**X**	**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 or X**	**X**	**X**
STORM DRAIN INLET PROTECTION IN NATIVE SEED AREAS *(M-604 Standard Inlets Type C and D)*	Erosion logs or aggregate bags placed around inlet grate to prevent sediment from entering inlet. Place prior to construction disturbances to protect existing inlets or immediately upon completion of new inlets.	M-208		**B or 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 start of construction disturbances.	M-208		**B or X**	**X**	**X**
TYPE C, TYPE D AND TYPE 13 PROTECTION *Erosion logs, aggregate bags, erosion bales*	Placed around inlet grate or slope and ditch paving to prevent sediment from entering inlet. Place prior to start of construction disturbances.	M-208		**B or X**	**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 stockpile, increase control as 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 or X**	**X**	

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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

As Constructed
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SWMP NOTES
NORTH AVE. MULTI-USE PATH

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SEDIMENT CONTROL/SLOPE CONTROL *Silt fence, erosion logs*	Placed on the contour of a slope to contain and slow down construction runoff. Place prior to start of construction disturbances.	M-208		**X**	**X**	
OUTLET PROTECTION *Riprap, or approved other*	Material placed as energy dissipator 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 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 start of construction disturbances.	M-208		**B or X**	**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**	
CLEAN WATER DIVERSION	Placed to divert clean surface or ground water around disturbance area to prevent it from mixing with construction runoff.			**X**	**X**	
OTHER						

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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

CITY OF Grand Junction COLORADO

MESA COUNTY

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SWMP NOTES
NORTH AVE. MULTI-USE PATH

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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 ACTIVITIES	INTERIM ACTIVITIES	PERMANENT STABILIZATION
GRADING APPLICATIONS (LANDFORM)	Existing or created landforms may be used as a control measure if they prevent sediment from entering or leaving the disturbance area. If a landform directs flow of water to a concentrated outfall point, the outfall point shall be protected to prevent erosion. Area to be identified on SWMP prior to construction starting.	M-208		X	X	
TOPSOIL MANAGEMENT STOCKPILE/SALVAGE Windrow or 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	
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
SOIL RETENTION BLANKET (SRB)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.	M-216			X	X
TURF REINFORCEMENT MAT (TRM)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas. Placed in channels or on slopes for erosion control, channel liner and seeding establishment.	M-216				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
OTHER						

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CITY OF Grand Junction COLORADO

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SWMP NOTES
NORTH AVE. MULTI-USE PATH

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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.

B. It is estimated that [XXX] hours of blading (140-250 horsepower) and dozing (130-250 horsepower) may be required for miscellaneous erosion control work as directed by the Engineer. Work shall be paid for as: 203 Blading, and 203 Dozing.

NOTE: TABULATION OF SWMP QUANTITIES SUBMITTED AS A "LUMP SUM: AT 30% SUBMITTAL. UNIT QUANTITIES WILL BE PROVIDED AT NEXT SUBMITTAL.

13. BIOLOGIC 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.

14. NOTES

A. SWMP Site Map information shown is based upon existing conditions. The Contractor is responsible for making determination as to the accuracy of BMP/Control Measure types and locations shown. The contracted Erosion Control Supervisor shall coordinate with the superintendent and engineer as to the appropriate BMPs/Control Measures and their locations and shall make the updates to the SWMP Site Maps sheets as soon as the changes are known.

B. Contractor shall use construction fence and barriers around limits of work as necessary to keep pedestrians out of work area and construction vehicles within work area shown on plans.

C. Contractor shall sweep up sawcut slurry after sawcutting operations to keep it from being transported into existing drainage system.

D. Vehicle tracking pad and concrete washout area locations shall be determined by the Contractor and drawn on the plans. For the tabulation of stormwater quantities, it was assumed that X vehicle tracking pads and two concrete washout areas are needed.

E. If stabilized staging area is used by the Contractor, the location shall be shown on the plans, with appropriate BMPs/Control Measures.

F. Inlet protection shall be installed on existing inlets prior to the start of construction. Protection for proposed inlets shall be installed once the inlet is in place.

G. Aggregate bags shall be placed in gutter once the curb and gutter have been installed.

H. Road shall be swept prior to striping to minimize the transport of sediment.

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SWMP NOTES
NORTH AVE. MULTI-USE PATH

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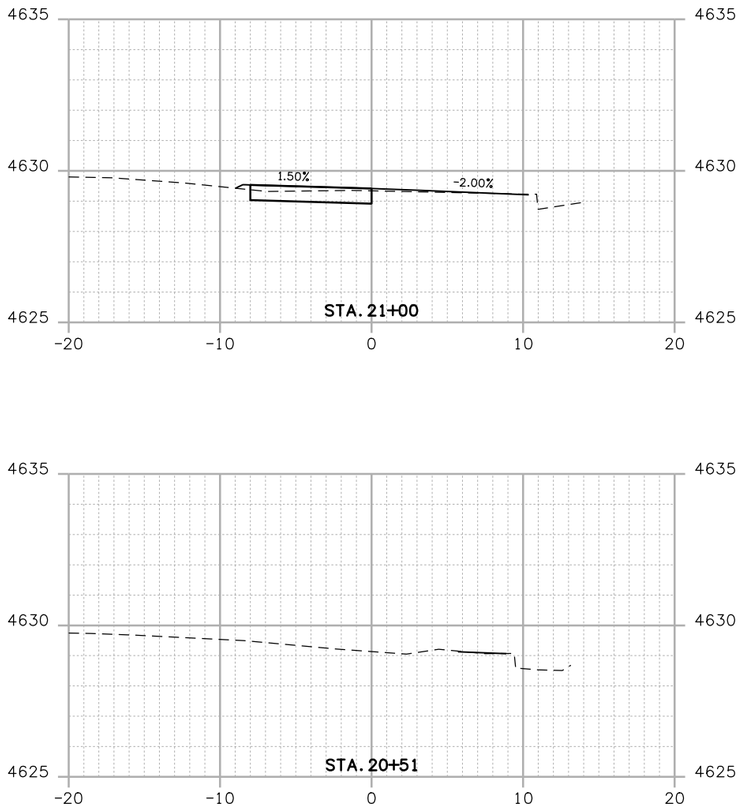

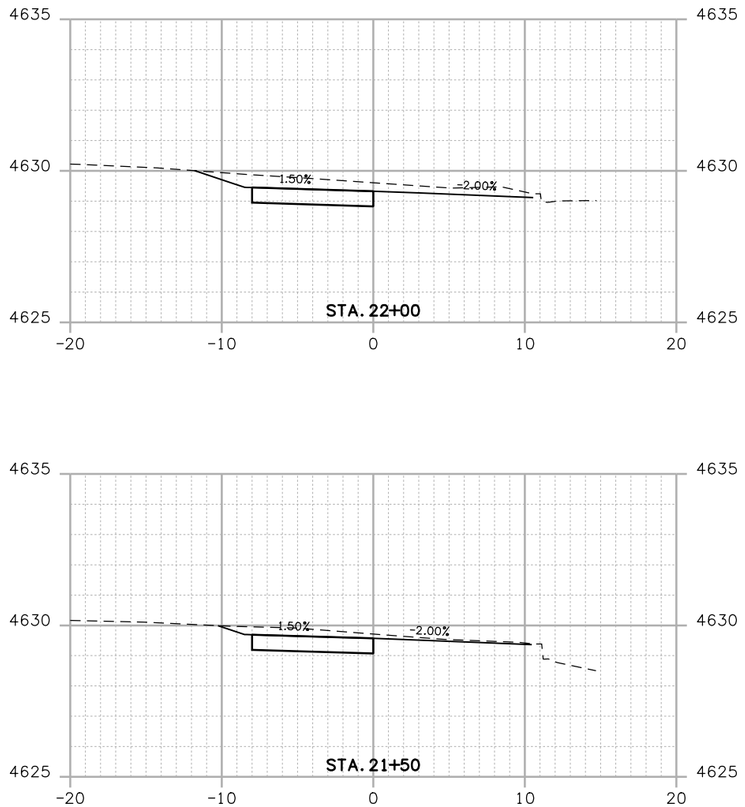

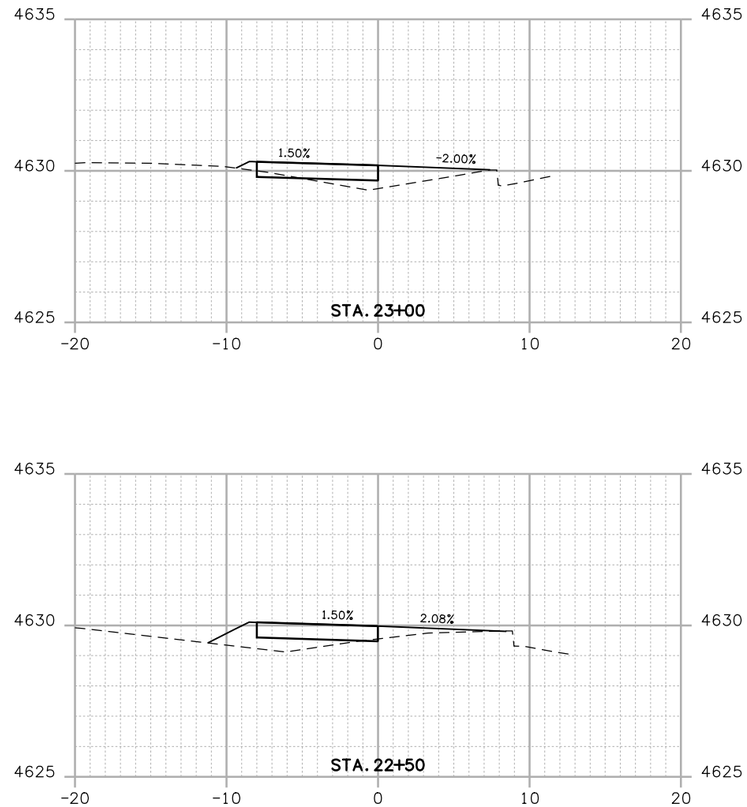

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CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

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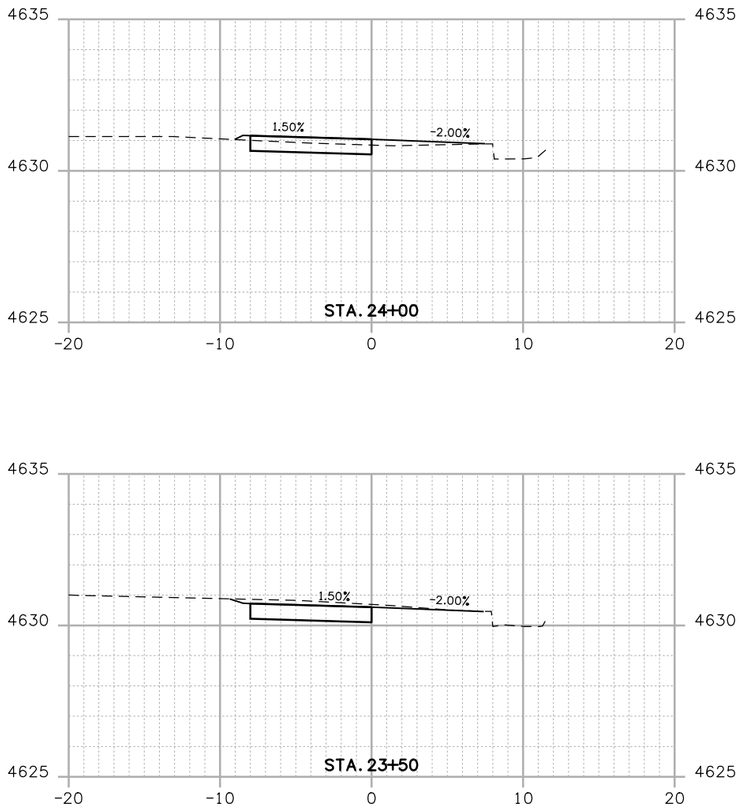

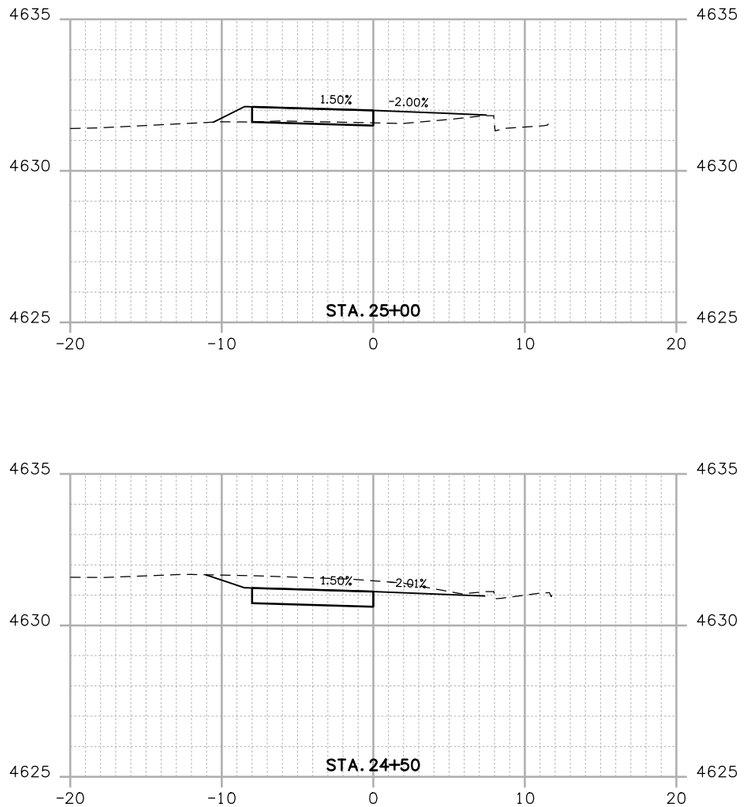

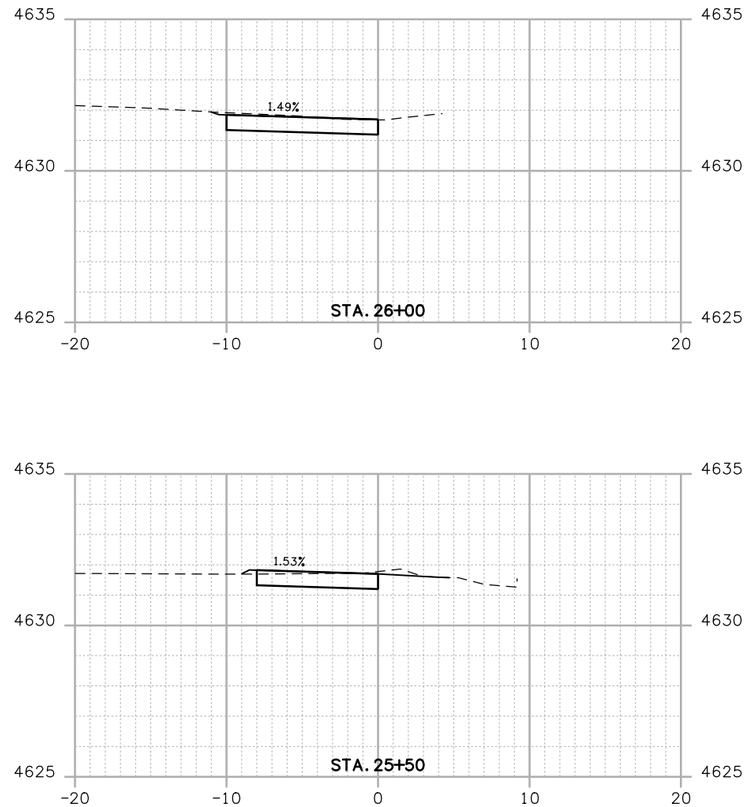

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CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

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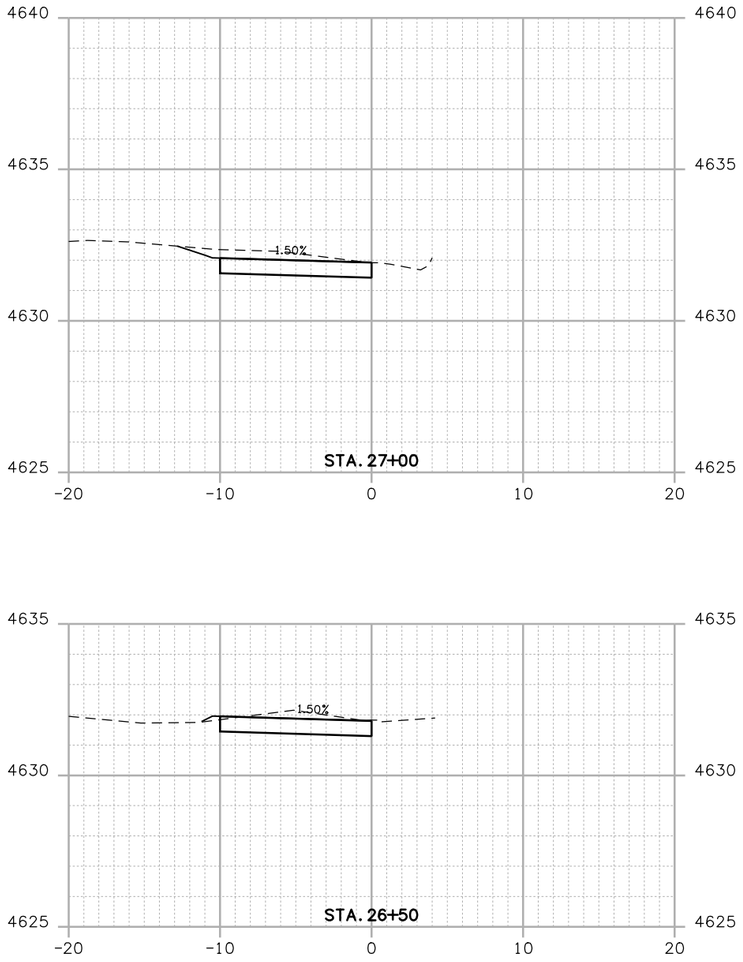

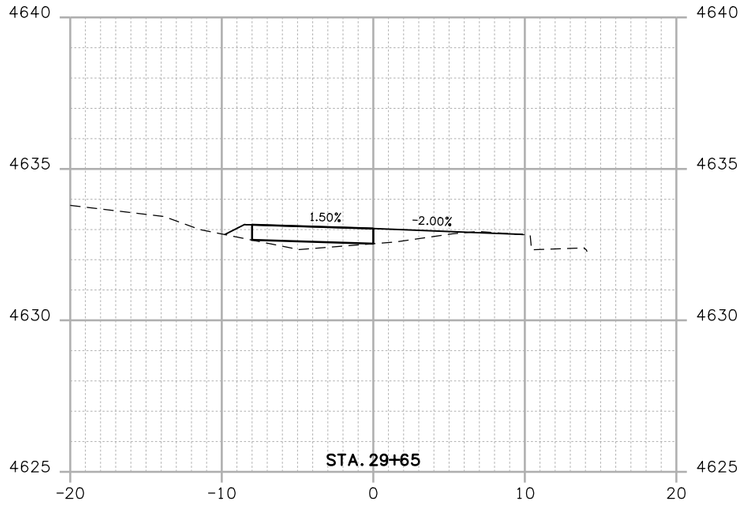

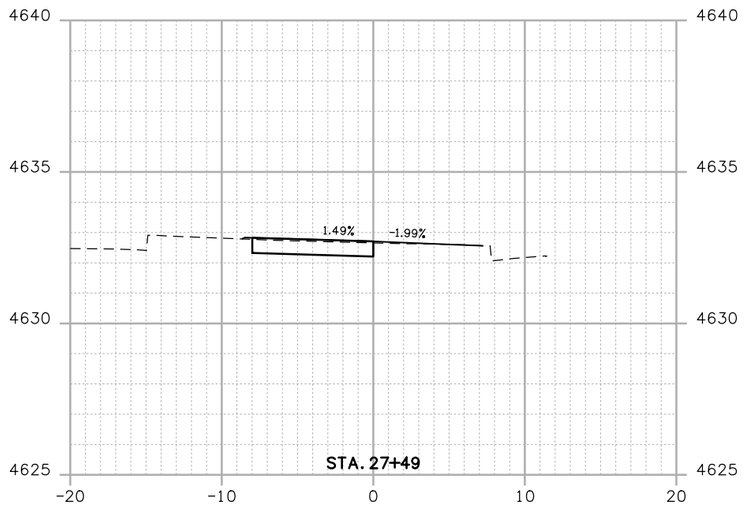

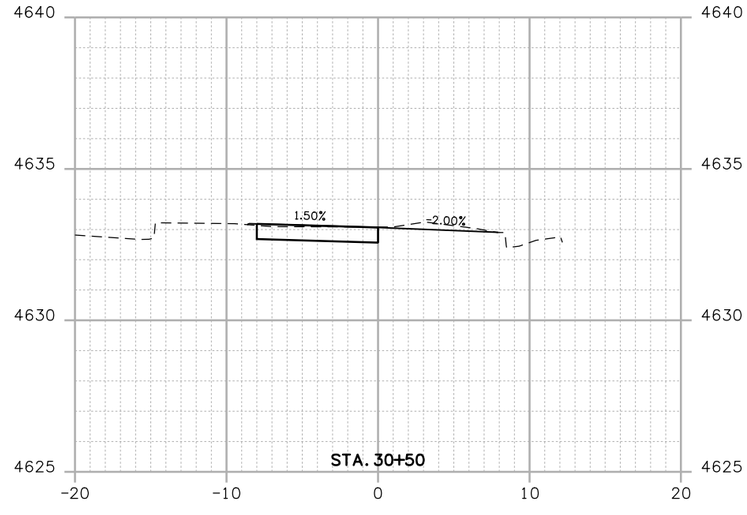

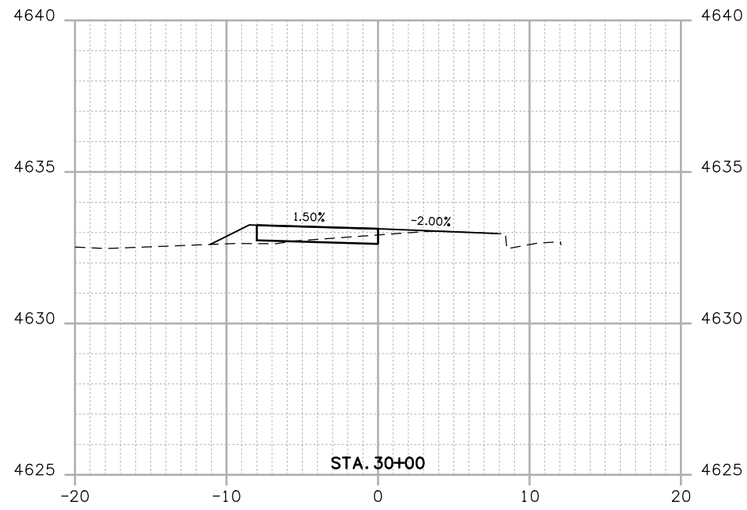

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NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

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CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

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Detailer: RVH
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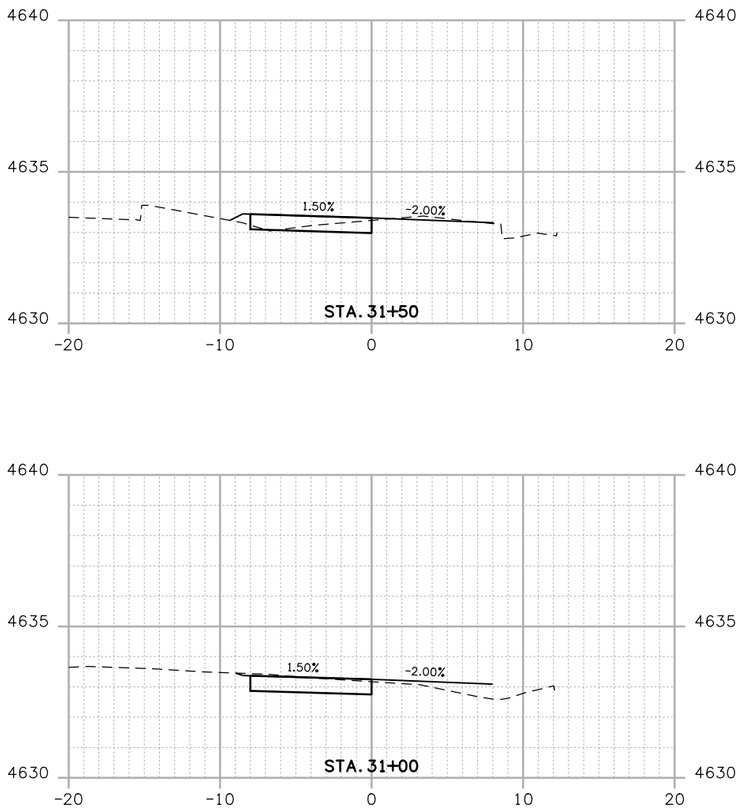

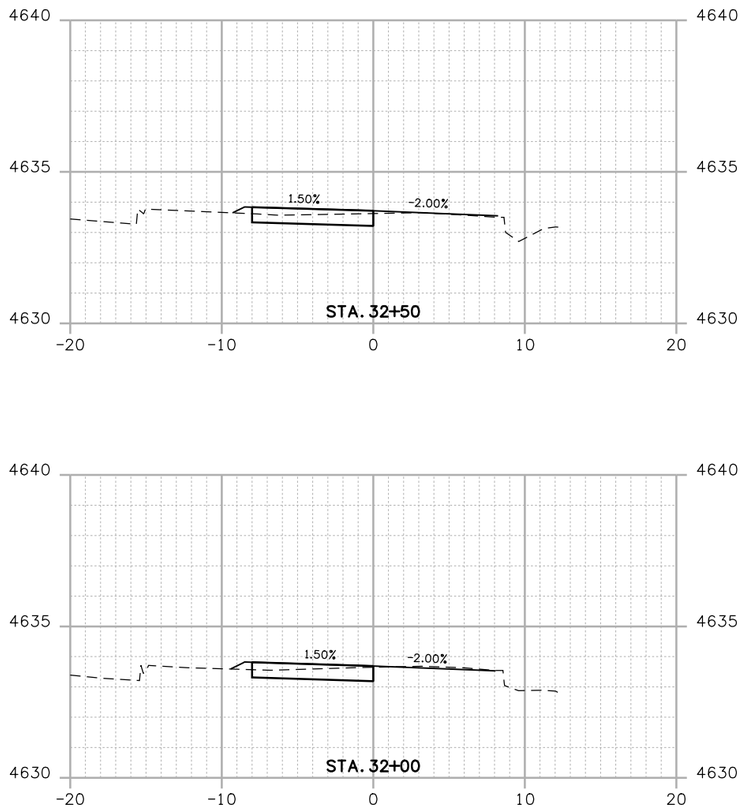

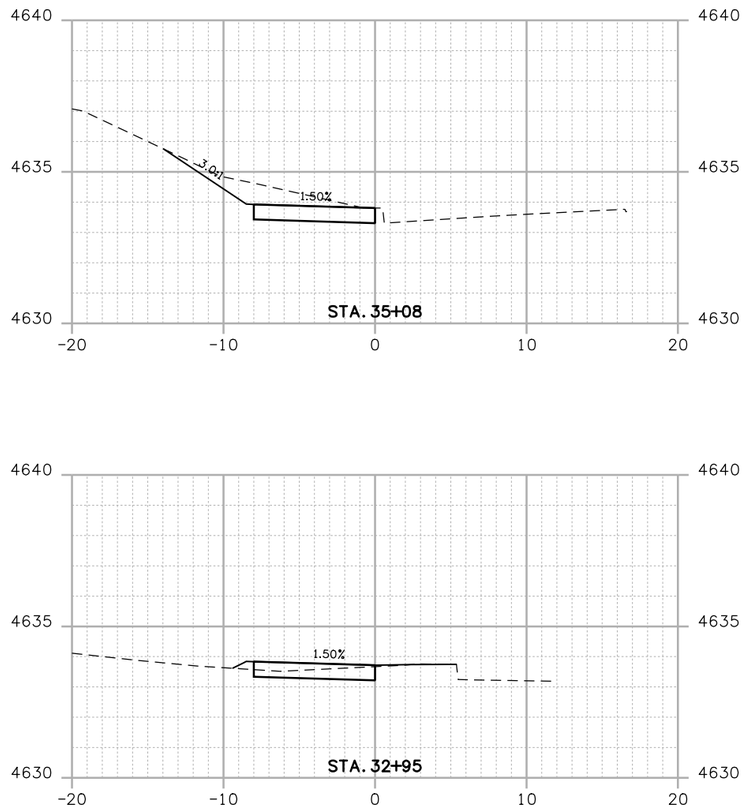

All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
File Name: 21049DES_Cross Sections.dgn
Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions

Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

As Constructed

No Revisions:

Revised:

Void:

CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

Designer:	RVH	Structure Numbers	
Detailer:	RVH		
Sheet Subset:	XSEC	Subset Sheets:	4 of 15

Project No./Code

Sheet Number 34

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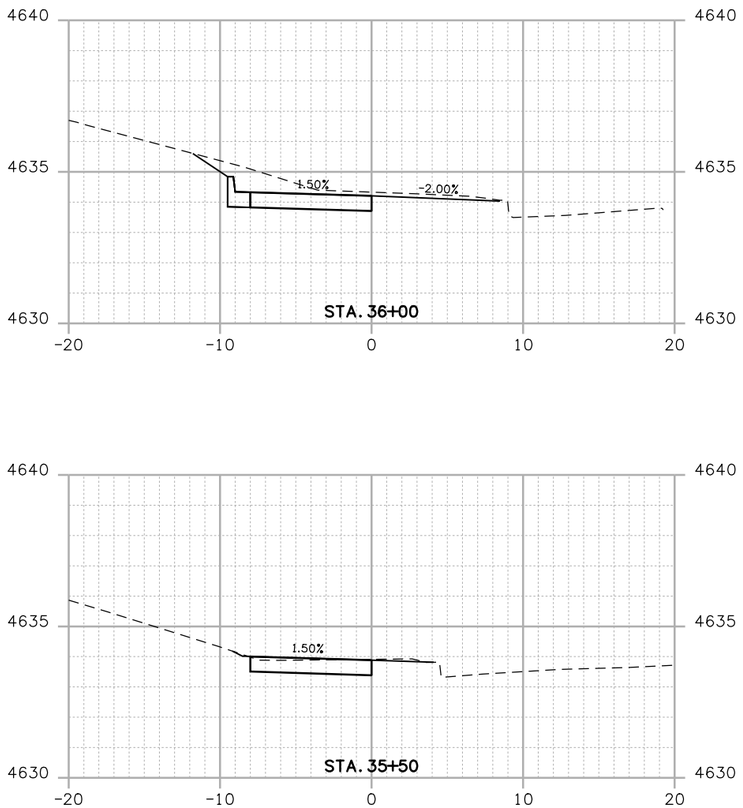
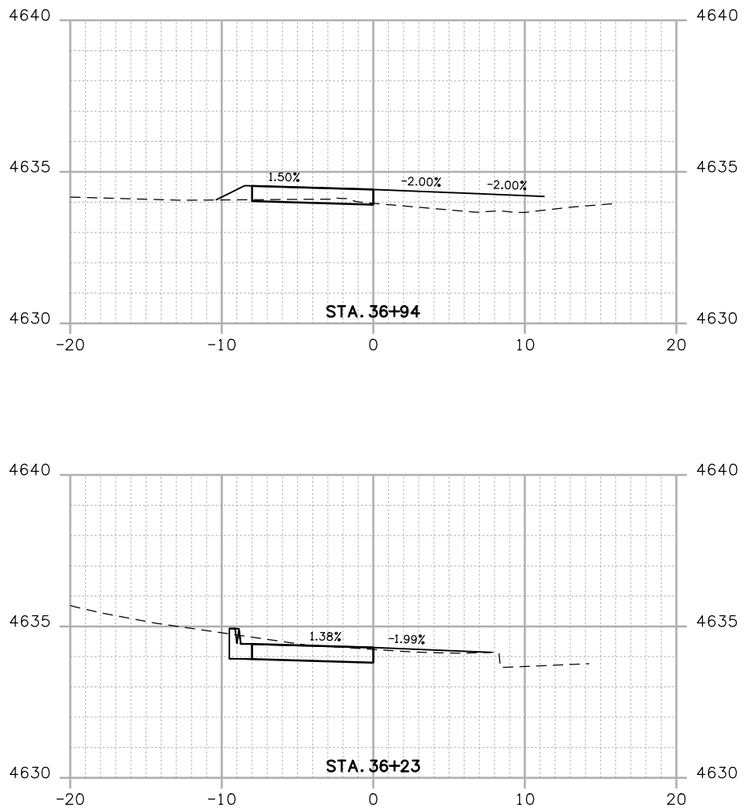
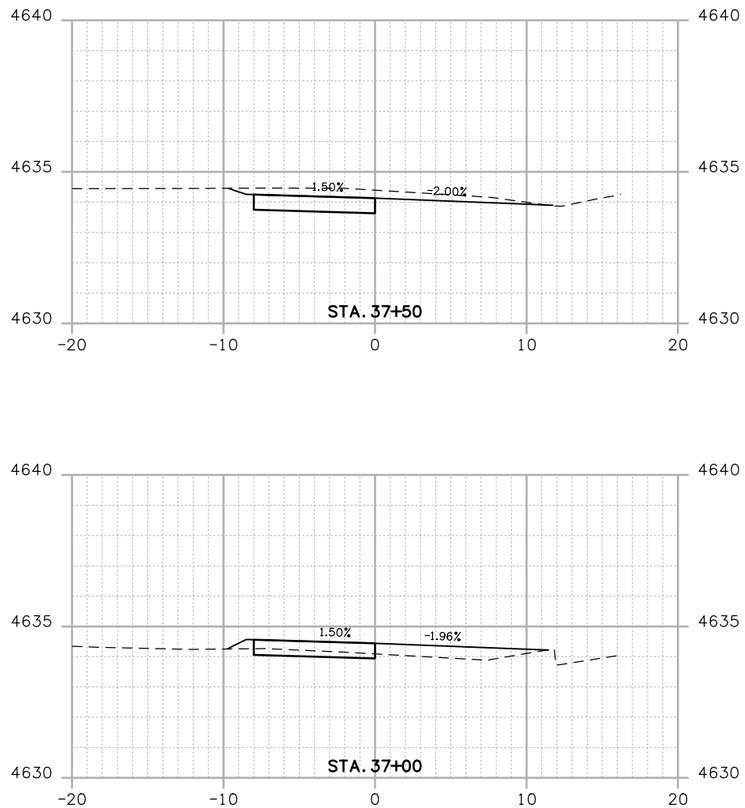
6/22/2022 CDOT-PDFHighQuality_V8i.pltcfg CDOT-PenTable.tbl







All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
File Name: 21049DES_Cross Sections.dgn
Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

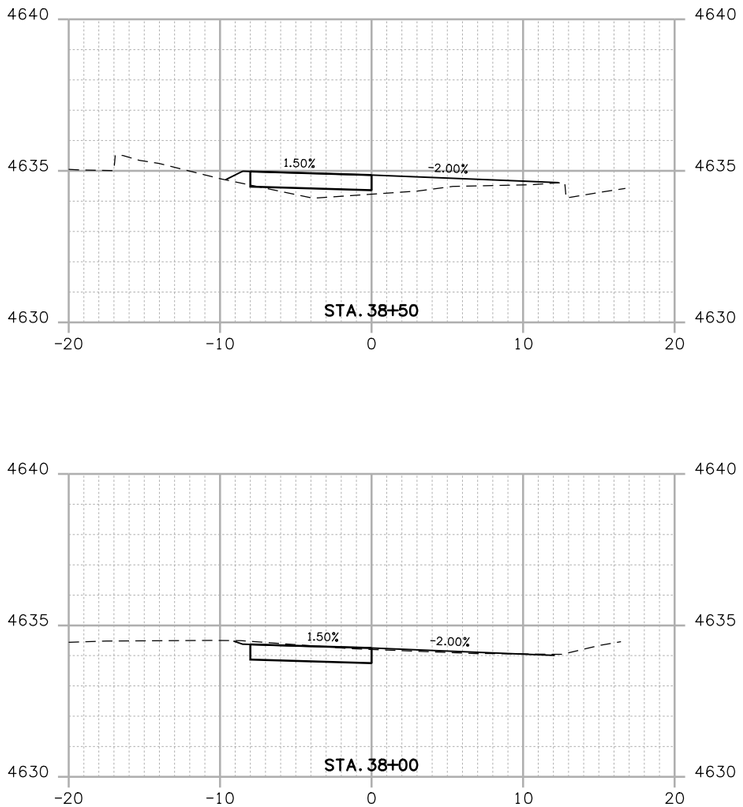
As Constructed
No Revisions:
Revised:
Void:

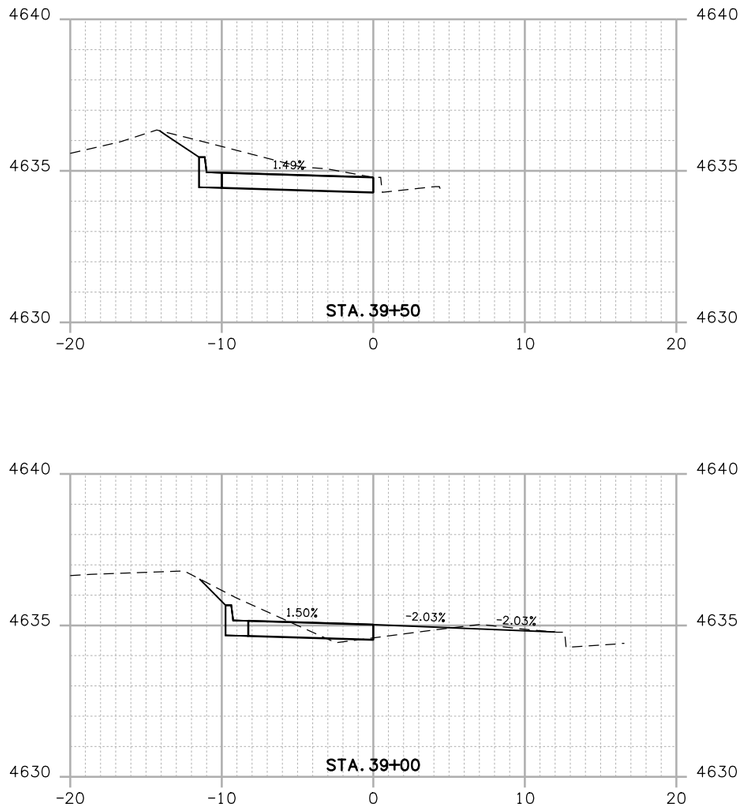
CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

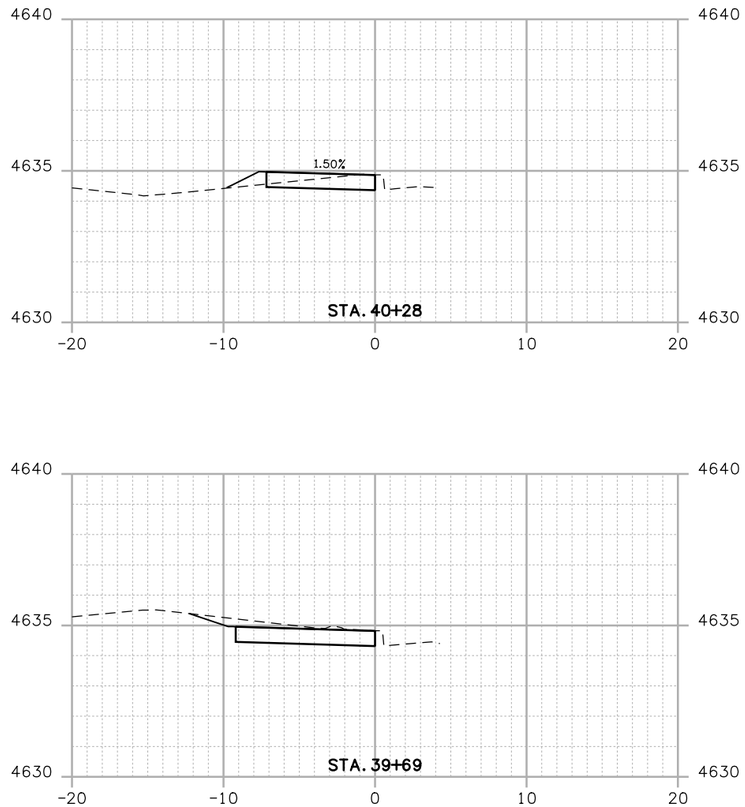
Designer:	RVH	Structure Numbers	
Detailer:	RVH		
Sheet Subset:	XSEC	Subset Sheets:	5 of 15

Project No./Code

Sheet Number 35







All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
File Name: 21049DES_Cross Sections.dgn
Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

CITY OF Grand Junction COLORADO

MESA COUNTY

As Constructed
No Revisions:
Revised:
Void:

CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

Designer:	RVH	Structure Numbers	
Detailer:	RVH		
Sheet Subset:	XSEC	Subset Sheets:	6 of 15

Project No./Code

Sheet Number 36

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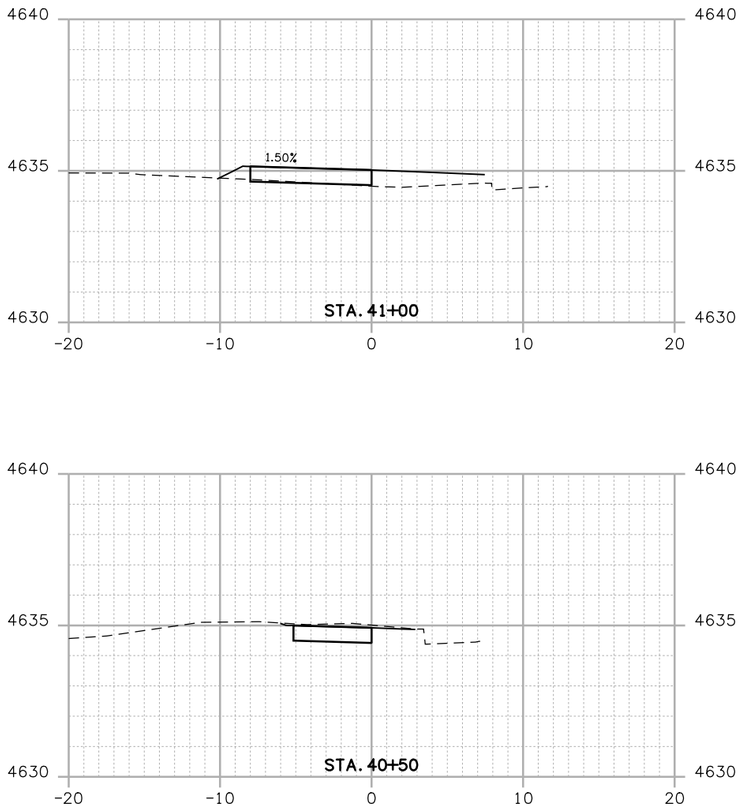
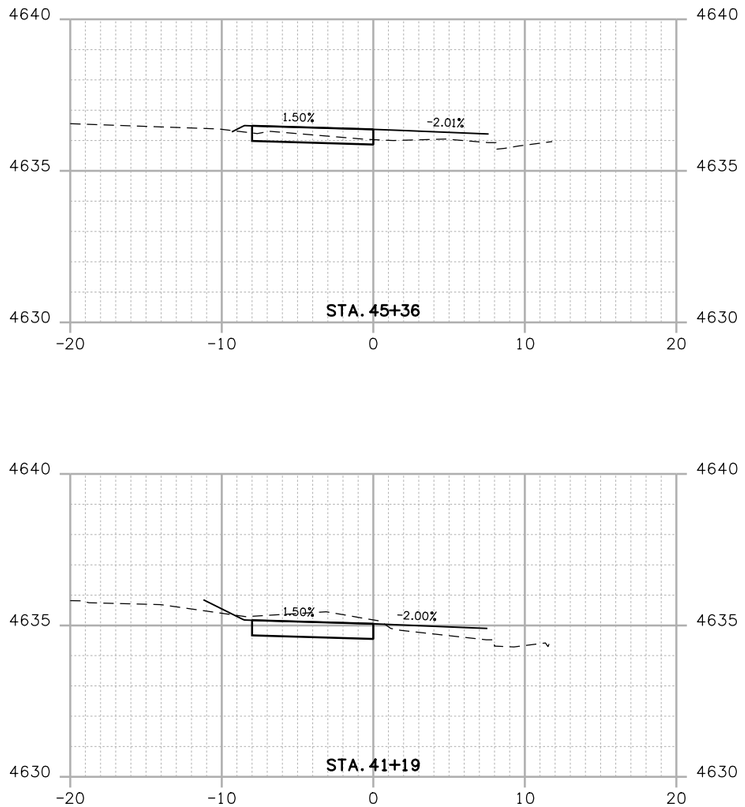
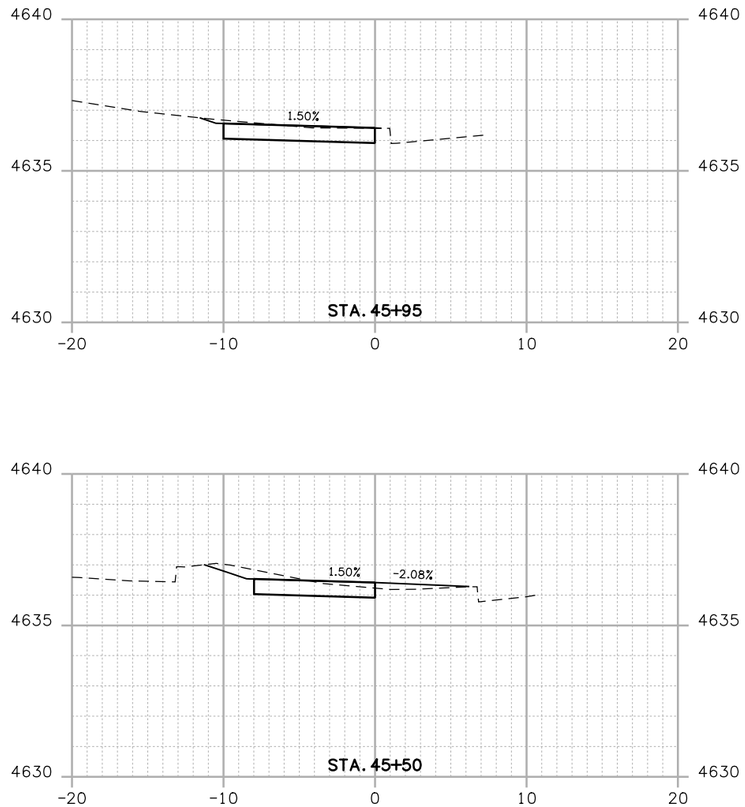
6/22/2022 CDOT-PDFHighQuality_V8i.pltcfg CDOT-PenTable.tbl







All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
File Name: 21049DES_Cross Sections.dgn
Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

Grand Junction COLORADO

MESA COUNTY

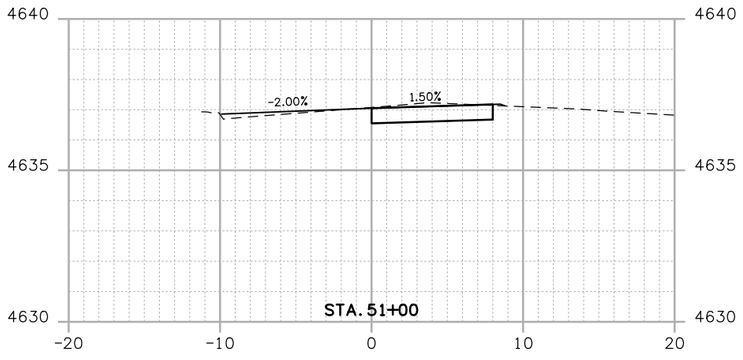
As Constructed
No Revisions:
Revised:
Void:

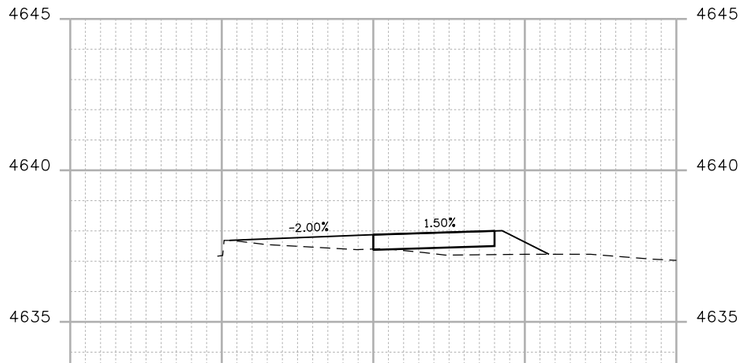
CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

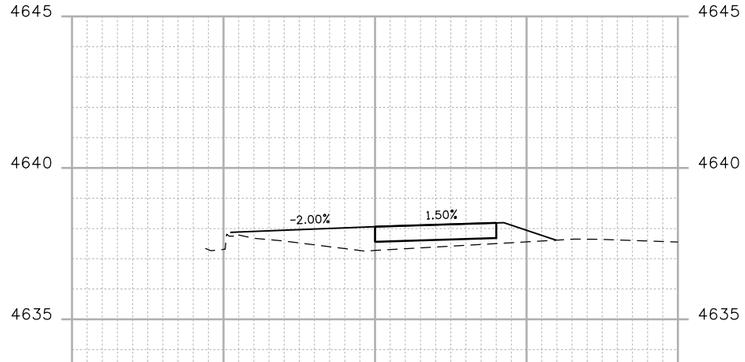
Designer:	RVH	Structure Numbers	
Detailer:	RVH		
Sheet Subset:	XSEC	Subset Sheets:	7 of 15

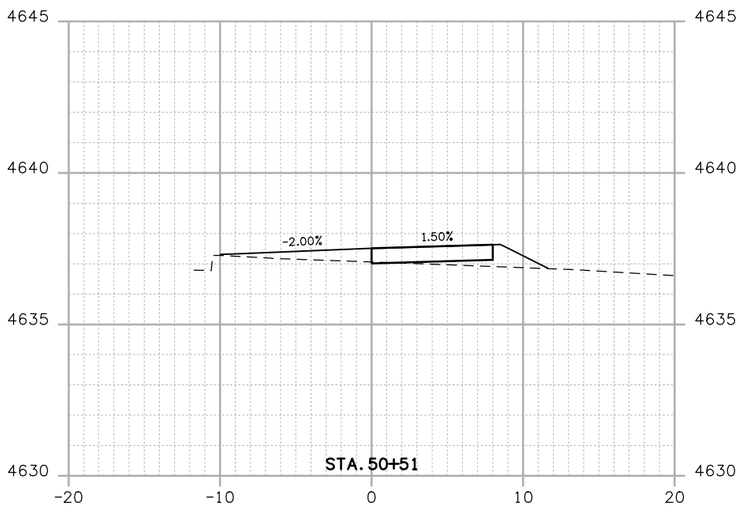
Project No./Code

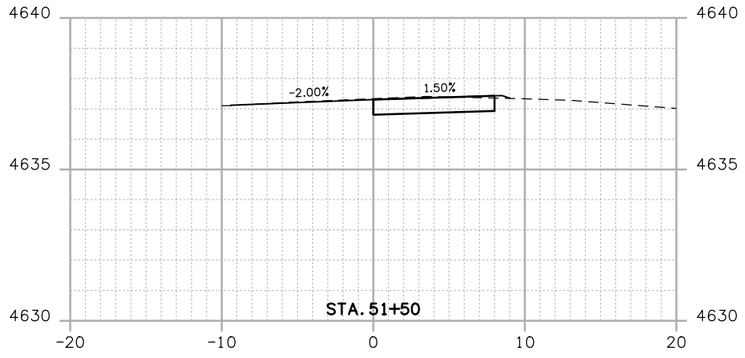
Sheet Number 37

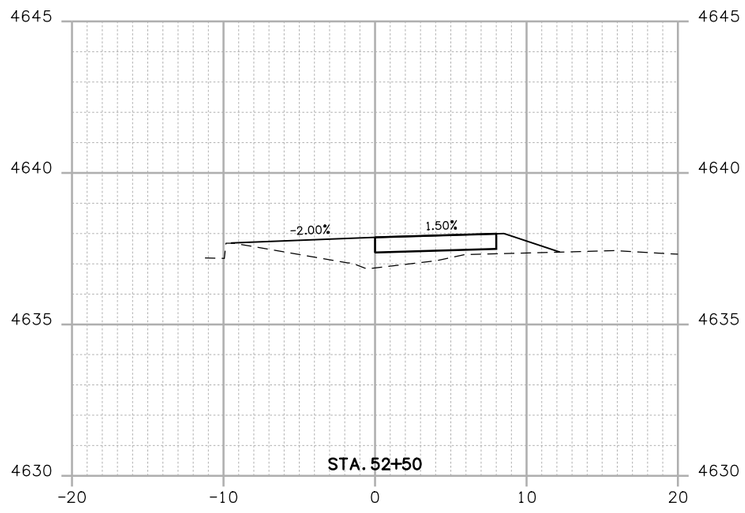












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All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
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Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

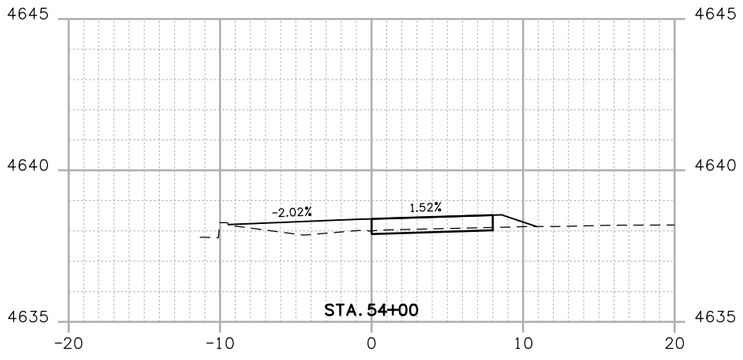
As Constructed
No Revisions:
Revised:
Void:

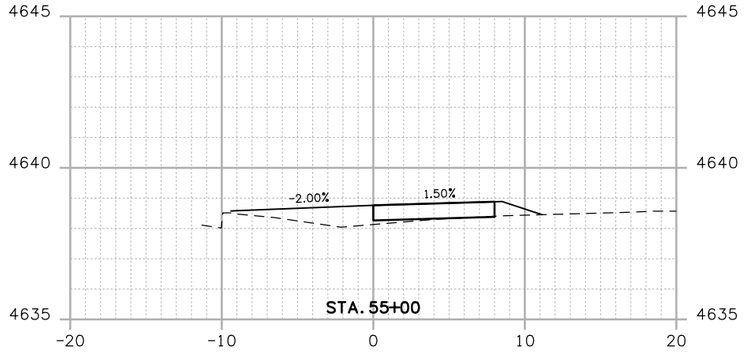
CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

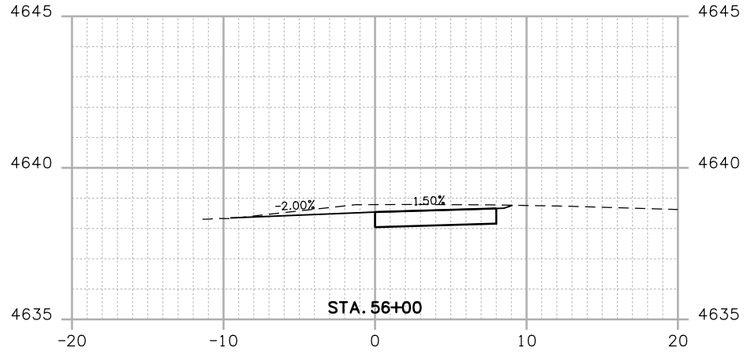
Designer: RVH
Detailer: RVH
Sheet Subset: XSEC
Structure Numbers
Subset Sheets: 8 of 15

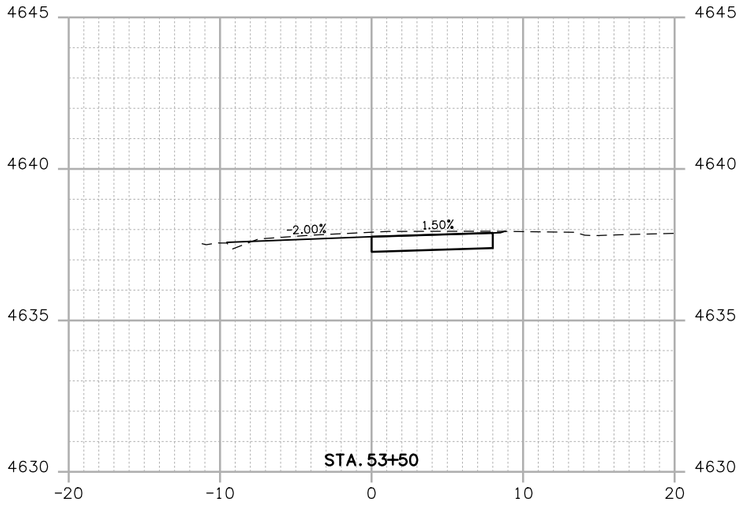
Project No./Code

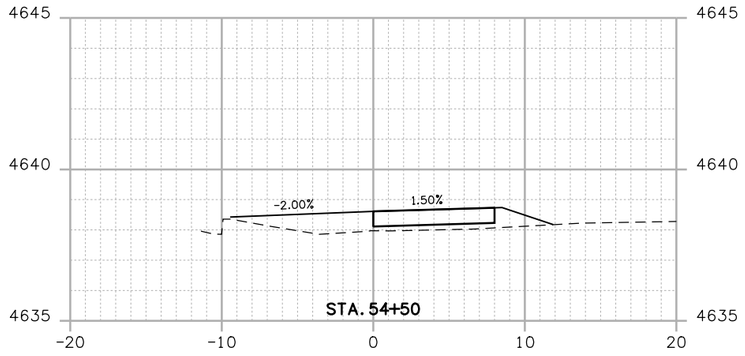
Sheet Number 38

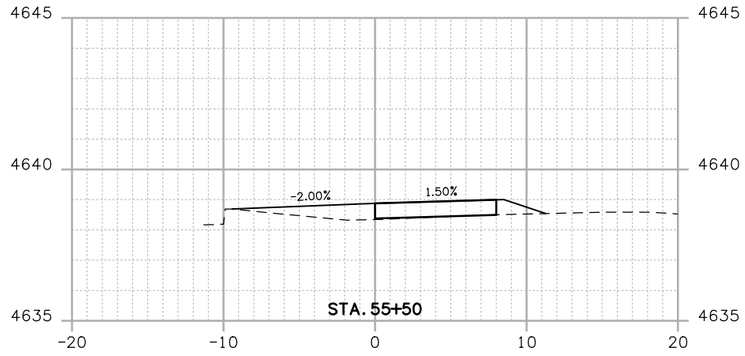












All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
File Name: 21049DES_Cross Sections.dgn
Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE
ENHANCED TRANSIT CORRIDOR STUDY

CITY OF Grand Junction COLORADO
MESA COUNTY

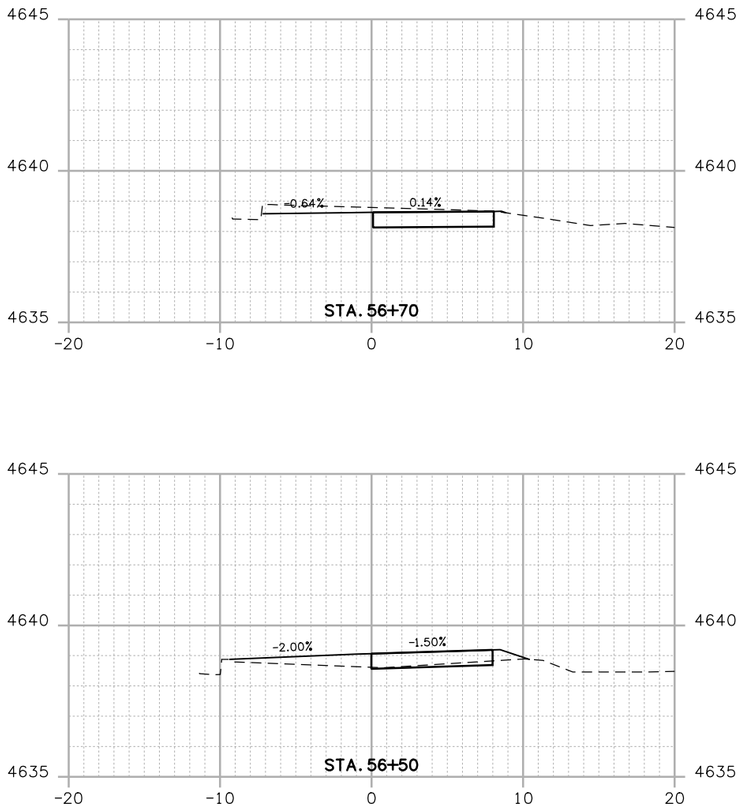
As Constructed
No Revisions:
Revised:
Void:

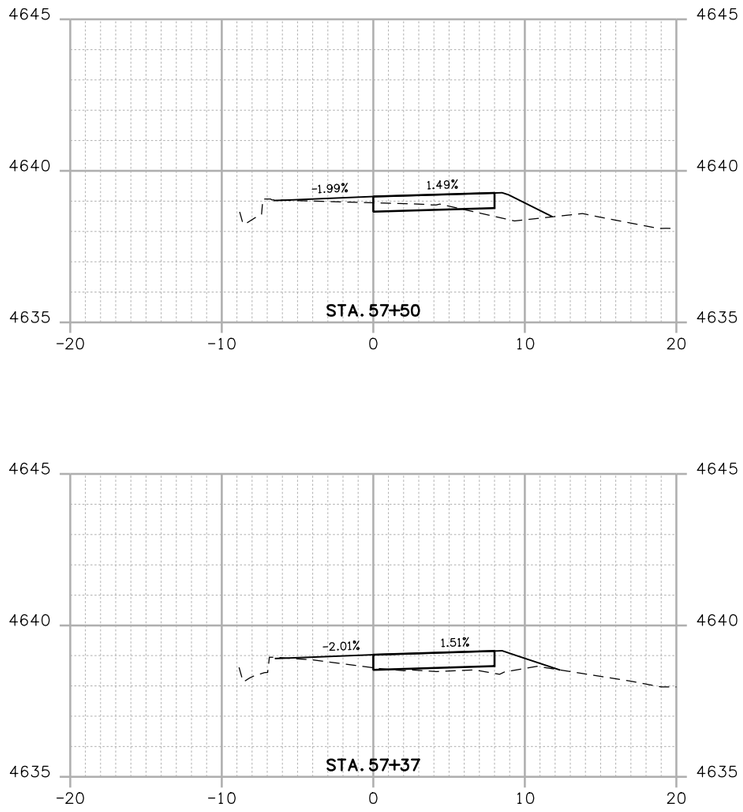
CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

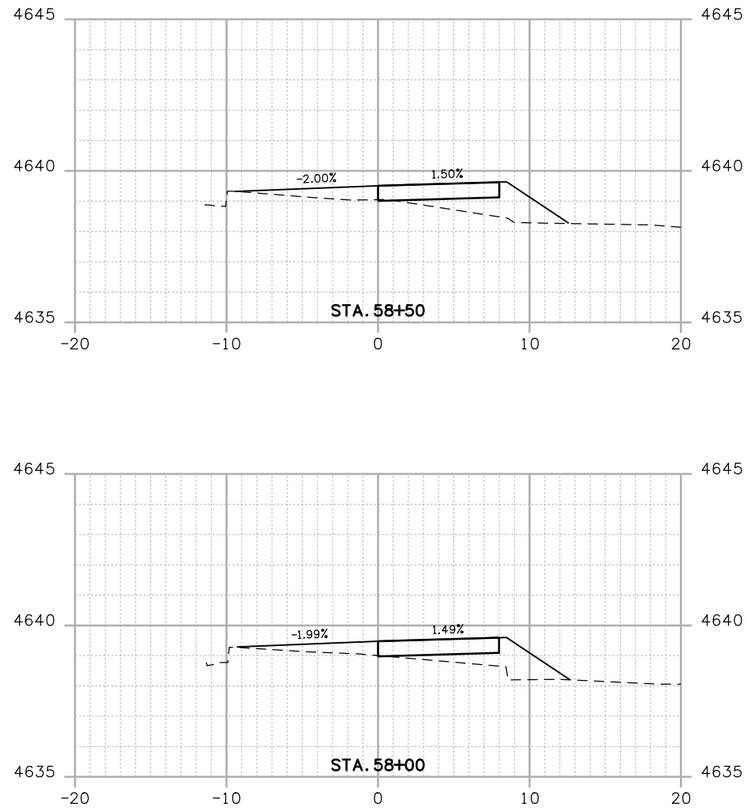
Designer: RVH
Detailer: RVH
Sheet Subset: XSEC
Structure Numbers:
Subset Sheets: 9 of 15

Project No./Code:

Sheet Number 39







All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
File Name: 21049DES_Cross Sections.dgn
Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

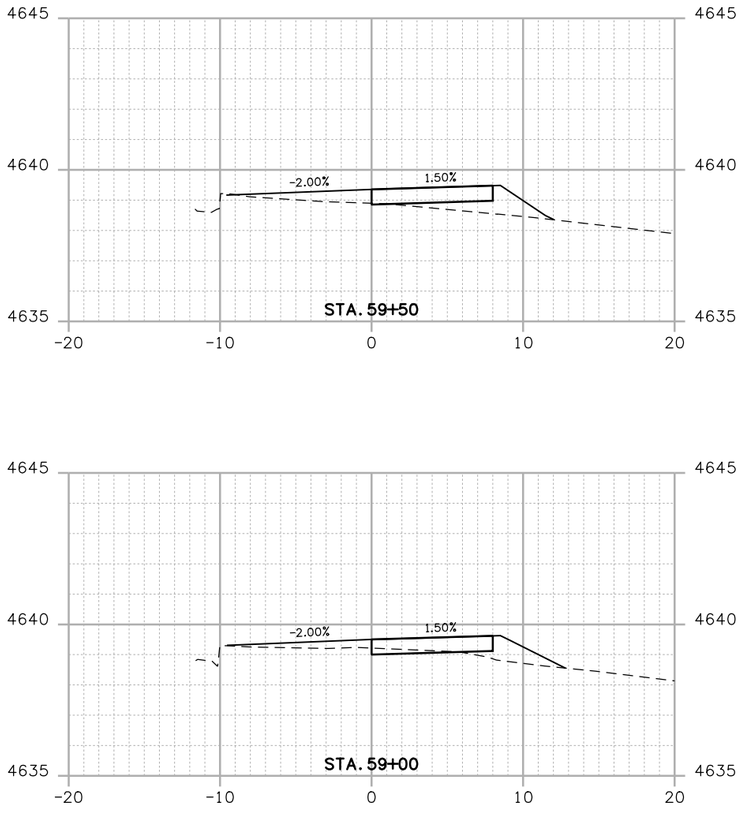
As Constructed
No Revisions:
Revised:
Void:

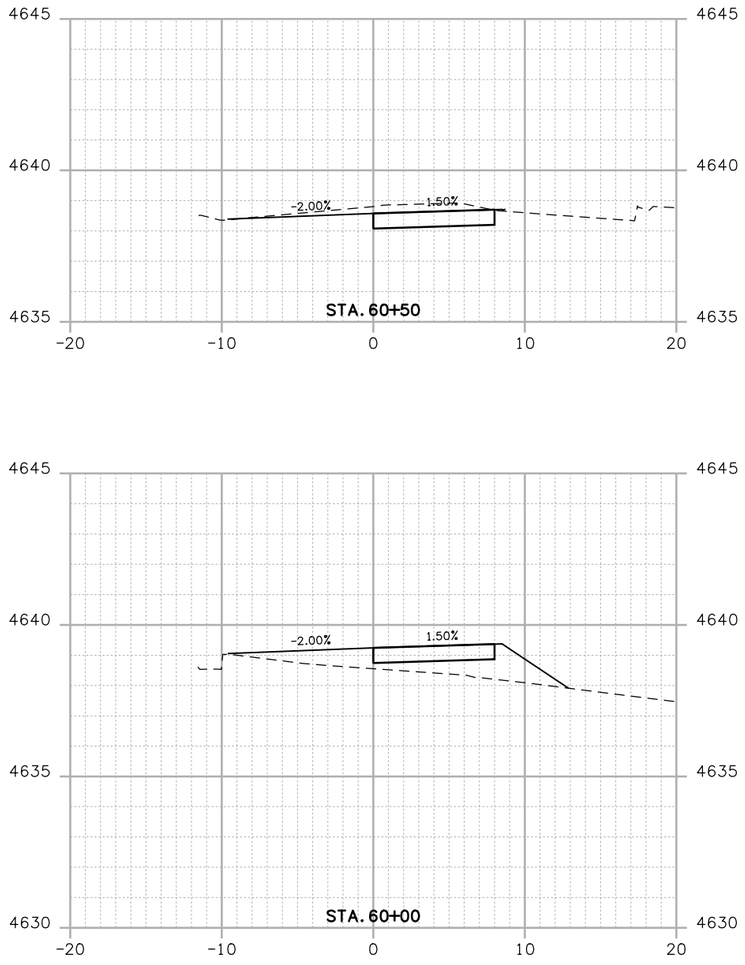
CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

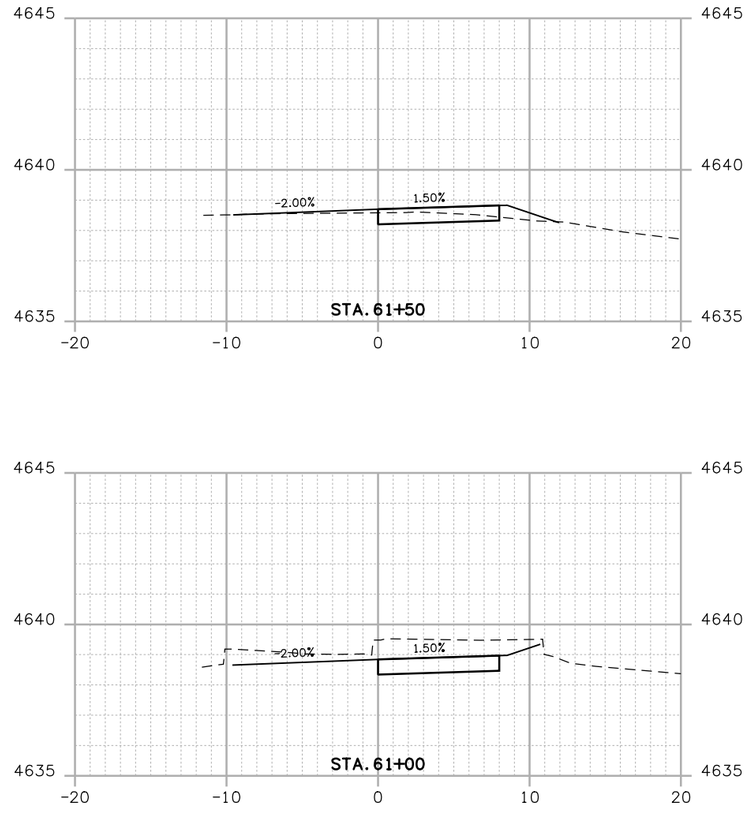
Designer:	RVH	Structure Numbers	
Detailer:	RVH		
Sheet Subset:	XSEC	Subset Sheets:	10 of 15

Project No./Code

Sheet Number 40







All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
File Name: 21049DES_Cross Sections.dgn
Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

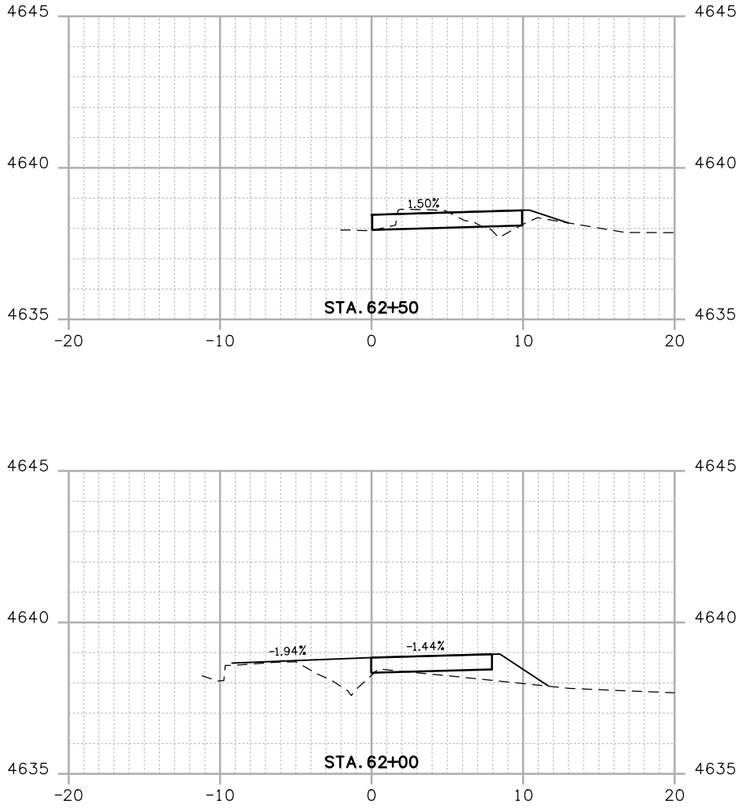
As Constructed
No Revisions:
Revised:
Void:

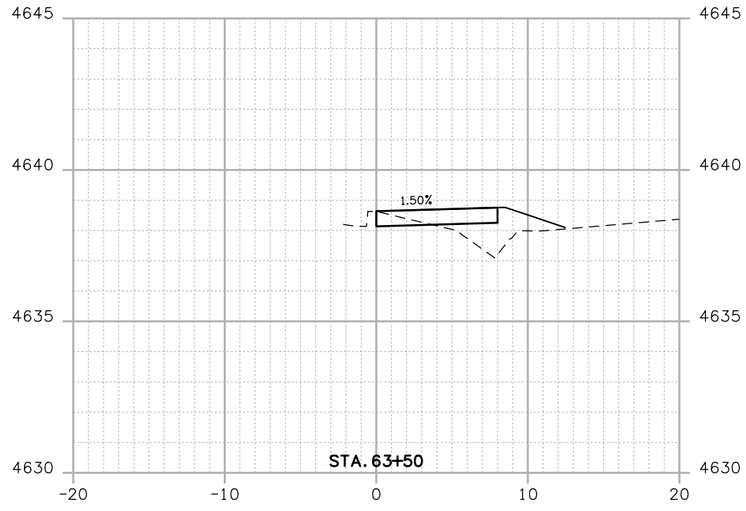
CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

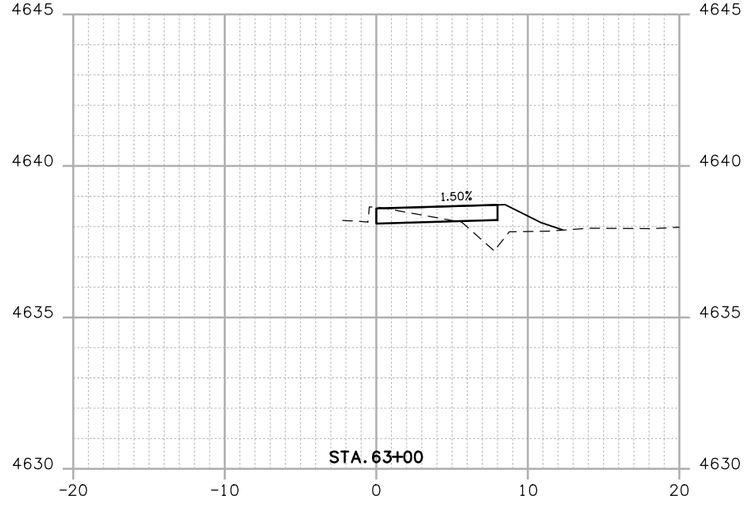
Designer: RVH
Detailer: RVH
Sheet Subset: XSEC
Structure Numbers:
Subset Sheets: 11 of 15

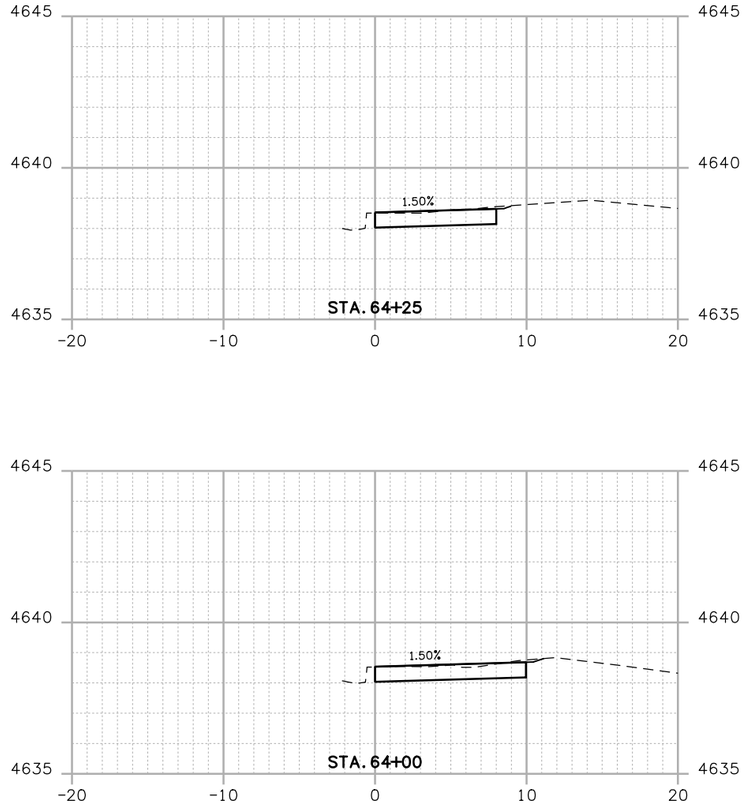
Project No./Code

Sheet Number 41









All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
File Name: 21049DES_Cross Sections.dgn
Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction Colorado

MESA COUNTY

As Constructed
No Revisions:
Revised:
Void:

CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

Designer:	RVH	Structure Numbers	
Detailer:	RVH		
Sheet Subset:	XSEC	Subset Sheets:	12 of 15

Project No./Code

Sheet Number 42

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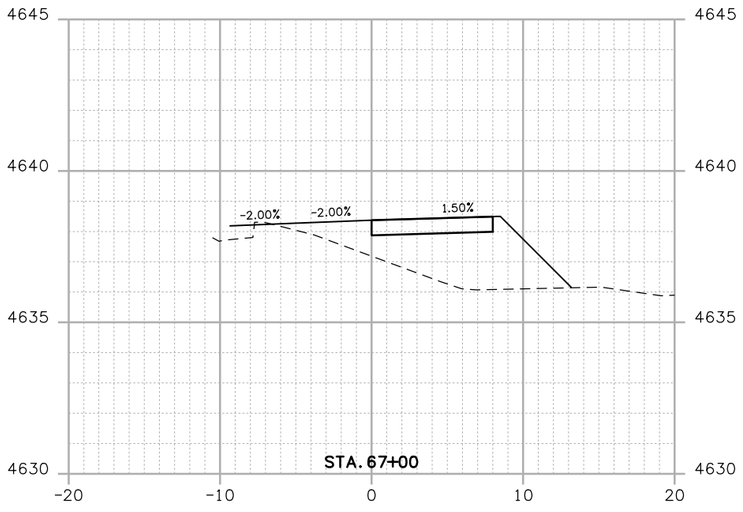
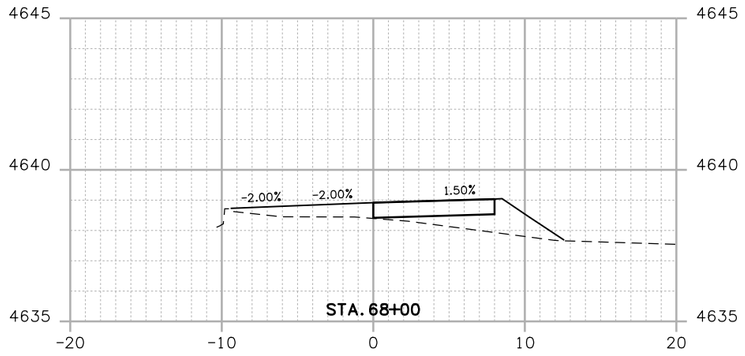
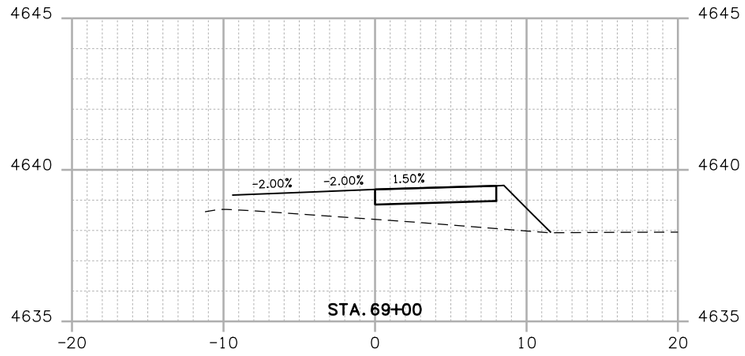
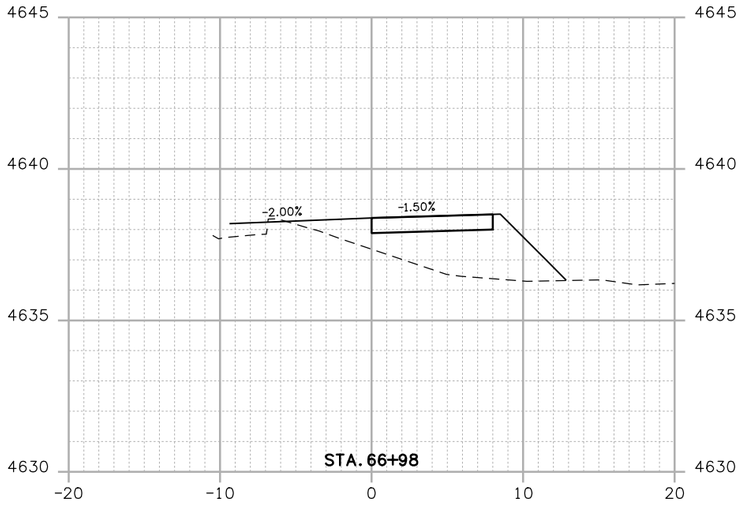
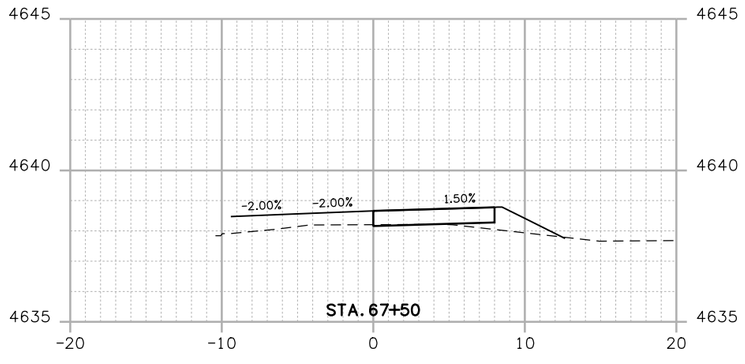
6/22/2022 CDOT-PDFHighQuality_V8i.pltcfg CDOT-PenTable.tbl

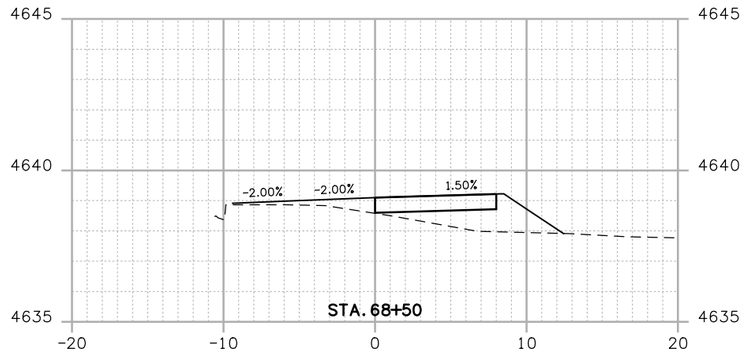












All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
File Name: 21049DES_Cross Sections.dgn
Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions		
Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

City of Grand Junction COLORADO

MESA COUNTY

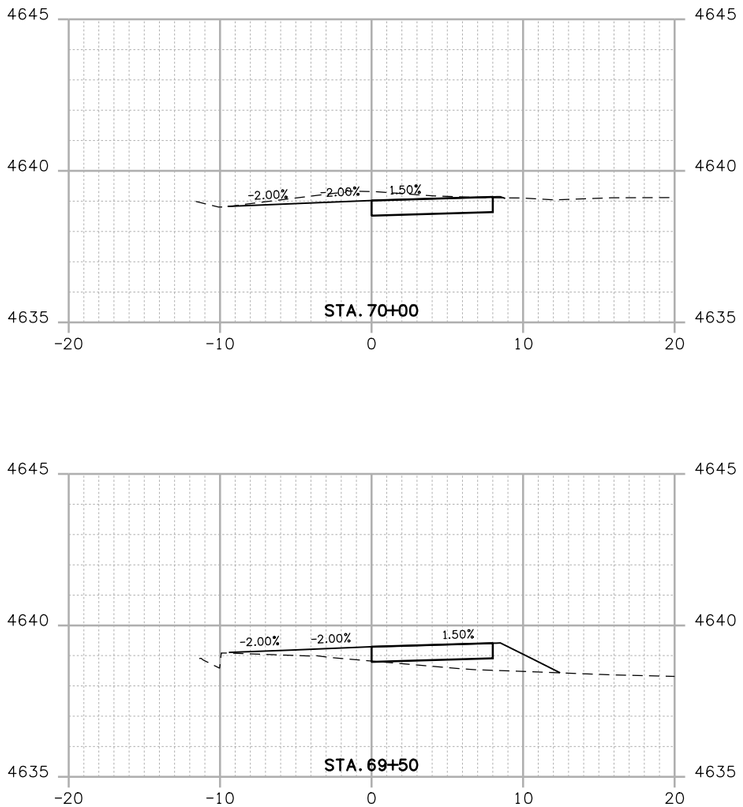
As Constructed
No Revisions:
Revised:
Void:

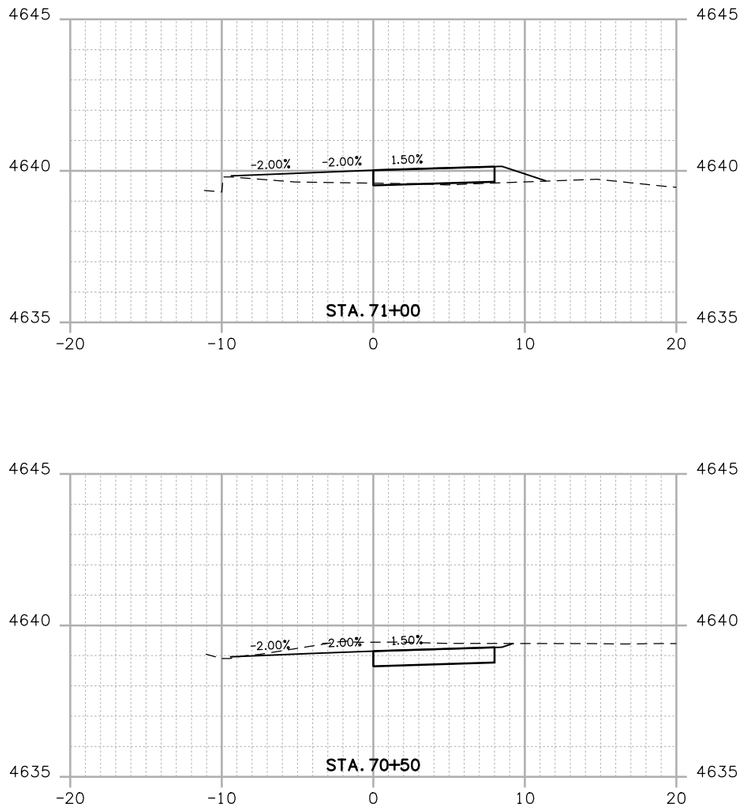
CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

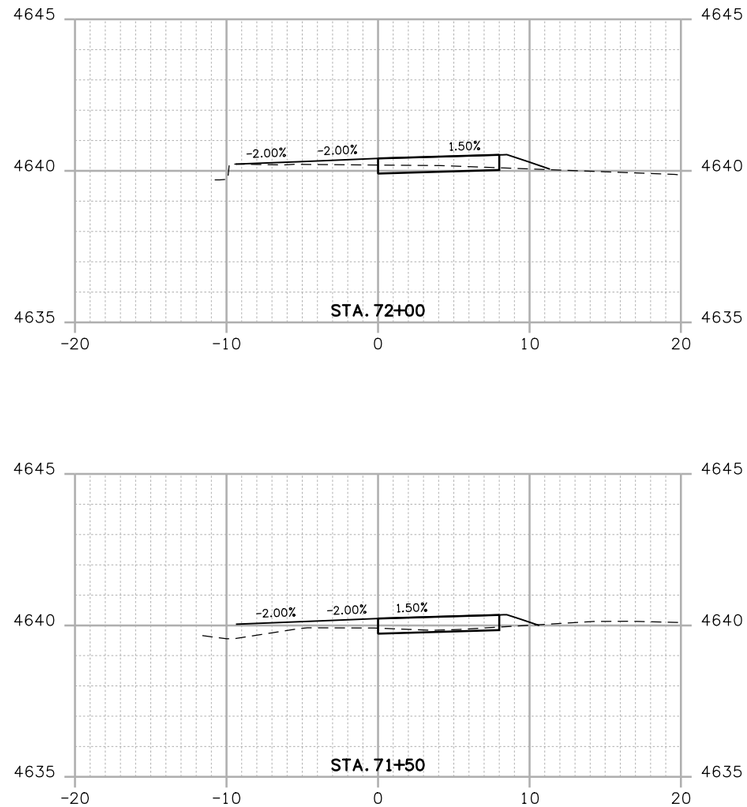
Designer: RVH
Detailer: RVH
Sheet Subset: XSEC
Structure Numbers
Subset Sheets: 13 of 15

Project No./Code

Sheet Number 43







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Sheet Revisions

Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

CITY OF Grand Junction COLORADO

MESA COUNTY

As Constructed

No Revisions:

Revised:

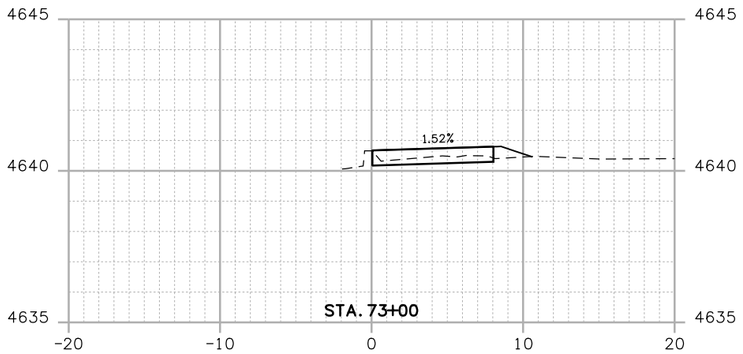
Void:

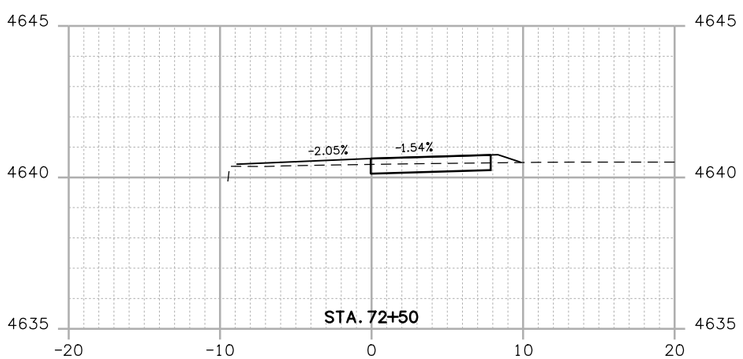
CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

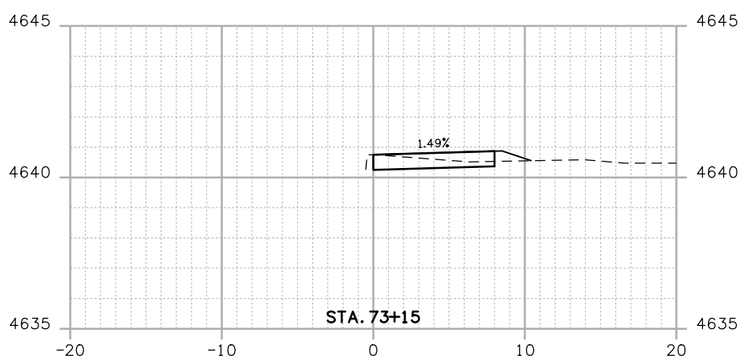
Designer:	RVH	Structure Numbers	
Detailer:	RVH		
Sheet Subset:	XSEC	Subset Sheets:	14 of 15

Project No./Code

Sheet Number 44







All seals for this set of drawings are applied to the cover page(s)

Print Date: 6/22/2022
File Name: 21049DES_Cross Sections.dgn
Horiz. Scale: 1:10 Vert. Scale: As Noted

Sheet Revisions

Date:	Comments	Init.

NORTH AVENUE ENHANCED TRANSIT CORRIDOR STUDY

CITY OF Grand Junction COLORADO

MESA COUNTY

As Constructed

No Revisions:

Revised:

Void:

CROSS SECTIONS
NORTH AVE. MULTI-USE PATH

Designer: RVH
Detailer: RVH
Sheet Subset: XSEC
Structure Numbers:
Subset Sheets: 15 of 15

Project No./Code

Sheet Number 45