

POWDERHOUSE ROAD CORRIDOR STUDY

35% IMPROVEMENT PLANS

OWNER

CHEYENNE METROPOLITAN PLANNING ORGANIZATION
 2101 O'NEIL AVE
 CHEYENNE, WY 82001

ENGINEER:

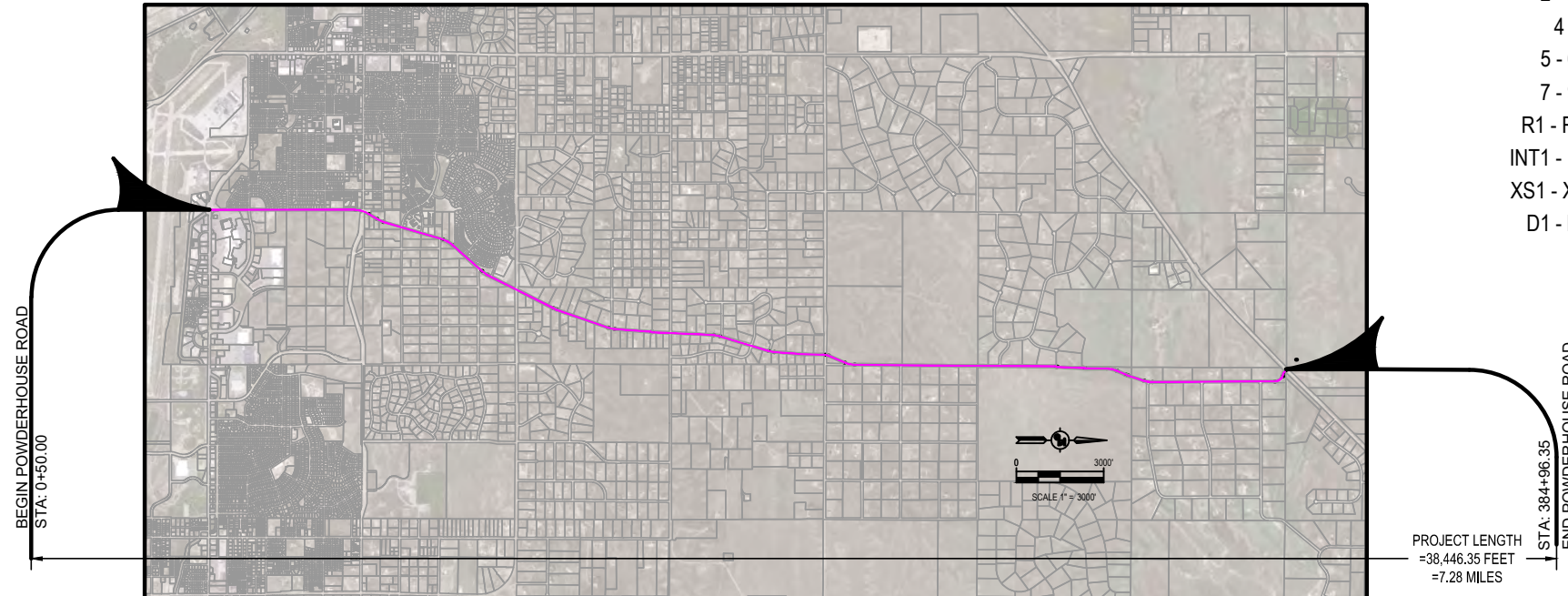


1103 OLD TOWN LANE,
 SUITE 101
 CHEYENNE, WYOMING 82009
 307.637.6017
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GRADING, ROADWAY & UTILITY PLANS

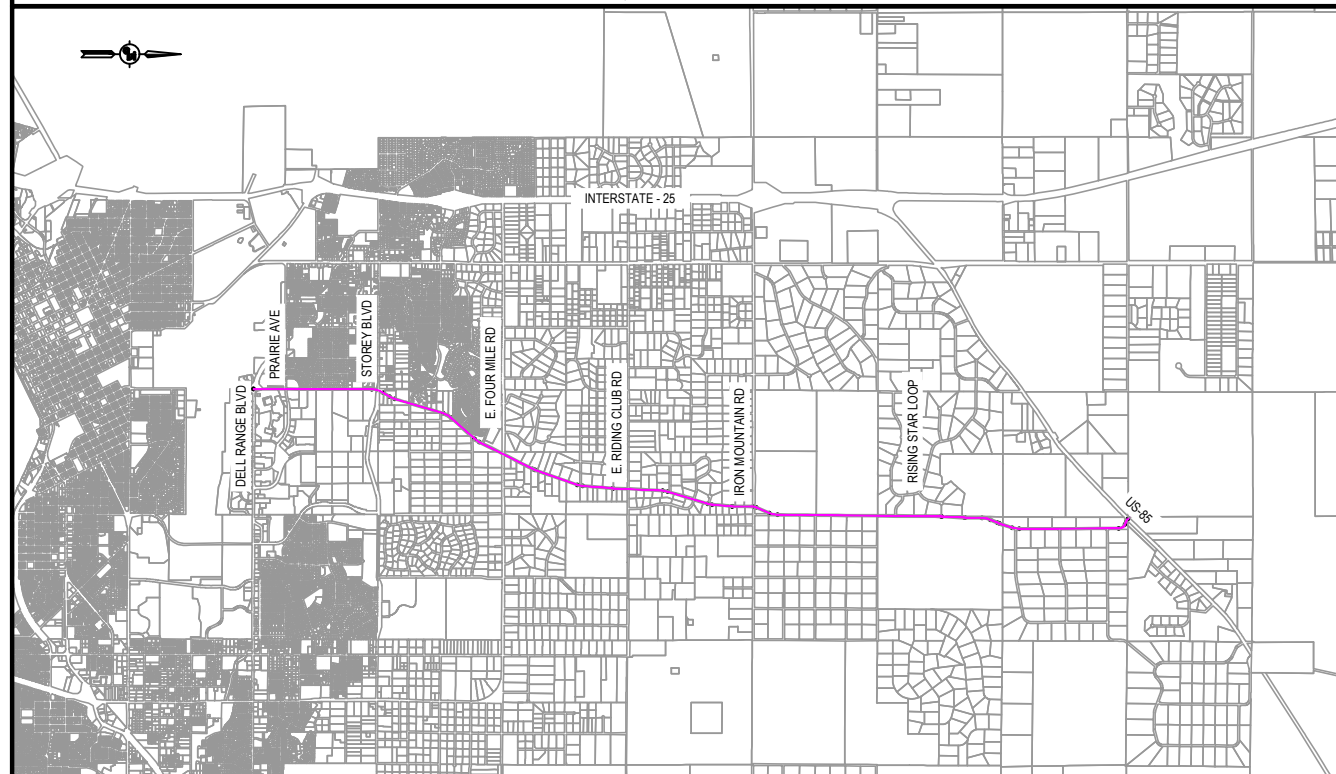
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PROJECT LENGTH
 =38,446.35 FEET
 =7.28 MILES

Project Extents



Vicinity Map - Cheyenne, Wyoming

ENGINEER'S CERTIFICATE

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

PROJECT SURVEY DATUM

STATE PLANE NAD83
 WY EAST FIP ZONE 4901

REVIEWED AND APPROVED PER CITY OF CHEYENNE STANDARDS, ORDINANCES, AND CITY CODES.

ENGINEERING:	DATE APPROVED
CHEYENNE FIRE DEPARTMENT:	DATE APPROVED
CHEYENNE BOARD OF PUBLIC UTILITIES:	DATE APPROVED

NOT FOR CONSTRUCTION



GENERAL NOTES:

- ALL WORK SHOWN ON THESE CIVIL DRAWINGS WHETHER PUBLIC OR PRIVATE IMPROVEMENTS SHALL COMPLY WITH THE CITY OF CHEYENNE, BOARD OF PUBLIC UTILITIES CONSTRUCTION SPECIFICATIONS LATEST VERSION, AND THE PROJECT SPECIFICATIONS. IF CONFLICTS EXIST IN THE PROJECT DRAWINGS, THE CITY SPECIFICATIONS, OR THE PROJECT SPECIFICATIONS, THE DOCUMENTS SHALL BE REVIEWED BY THE ENGINEER AND THE MORE STRINGENT OR CONSERVATIVE SPECIFICATION BENEFITING THE OWNER SHALL PREVAIL.
- ALL WORK IN RIGHT-OF-WAY SHALL CONFORM TO CITY OF CHEYENNE AND BOPU CONSTRUCTION SPECIFICATIONS AND THE CONSTRUCTION PLANS IN THEIR ENTIRETY.
- ALL WORK IN THE RIGHT-OF-WAY REQUIRES A "RIGHT-OF-WAY CONSTRUCTION PERMIT". TWO SETS OF APPROVED PLANS SHALL ACCOMPANY RIGHT-OF-WAY PERMIT APPLICATION AS WELL AS TRAFFIC CONTROL PLAN. NO WORK IN THE RIGHT-OF-WAY SHALL BEGIN UNTIL PERMIT HAS BEEN APPROVED AND ISSUED.
- UPON COMPLETION OF UTILITY SYSTEMS & ACCEPTANCE, CONTRACTOR SHALL STAKE CURBLINE & BLUETOP CENTERLINE SUBGRADE AT 50 FOOT SPACING.
- THE OWNER SHALL PROVIDE THE CONTRACTOR WITH A COPY OF THE DEQ PERMIT TO CONSTRUCT (IF APPLICABLE).
- PLEASE REFER TO OTHER REQUIREMENTS & SPECIAL CONDITIONS AS PROVIDED FOR IN THE CONTRACT DOCUMENTS WHICH ARE HEREBY INCORPORATED HEREIN BY REFERENCE.
- PLEASE INCORPORATE ALL OTHER NOTES AS MAY BE PRESENTED WITHIN AND THROUGHOUT THIS PLAN SET AS SET FORTH HEREIN.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A DETAILED WRITTEN CONSTRUCTION PLAN, TRAFFIC CONTROL PLAN AND CONSTRUCTION SCHEDULE TO BE APPROVED BY THE OWNER PRIOR TO THE PRE-CONSTRUCTION MEETING.
- THE CONTRACTOR SHALL HIRE AN INDEPENDENT REPUTABLE MATERIAL TESTING COMPANY FOR MATERIAL, COMPACTION, ETC TESTS TO COMPLETE THE PROJECT.
- THE CONTRACTOR'S SURVEYOR SHALL VERIFY PROJECT HORIZONTAL AND VERTICAL CONTROL WITH A LEVEL LOOP PRIOR TO BEGINNING ANY CONSTRUCTION WORK AND NOTIFY THE ENGINEER IF A DISCREPANCY IS FOUND.
- ALL STRUCTURES SHALL BE STAKED AND CONSTRUCTED ACCORDING TO THE STAMPED FOUNDATION PLANS.

UTILITY LOCATE NOTES:

- CALL FOR UTILITY LOCATES 48 HOURS BEFORE DIGGING IN THE CONSTRUCTION SITE: DIAL 811
- UTILITY OWNER REPRESENTATIVE SHALL BE PRESENT FOR ALL UTILITY POT HOLING ACTIVITIES
- CONTRACTOR IS RESPONSIBLE FOR NOTING ALL UTILITY LOCATIONS ON THE AS-BUILT SET OF DRAWINGS IF THE DOCUMENTS ARE NOT ACCURATE
- THE CONTRACTOR SHALL VERIFY ALL ABANDONED UTILITIES IN THE PROJECT PRIOR TO BEGINNING CONSTRUCTION.

PARKING LOT/STREET/SURFACING CONSTRUCTION NOTES:

- ALL ASPHALT IS TO BE PLACED FROM A CURRENT YEAR'S APPROVED MIX DESIGN. TACK SHALL BE REQUIRED BETWEEN LIFTS IF TOP LIFT IS NOT PLACED WITHIN 24 HOURS OR IF BOTTOM LIFT BECOMES EXCESSIVELY DIRTY.
- BACKFILL IS TO BE PLACED AND COMPACTED AS SOON AS PRACTICAL BEHIND THE CURB AND GUTTER TO PROVIDE PROPER DRAINAGE AND PREVENT EXCESSIVE INFILTRATION INTO THE SUBGRADE. BACKFILL SHALL BE COMPLETED PRIOR TO ASPHALT PAVING ACTIVITIES.
- STATIONING SHOWN IN SITE PROFILES IS ALONG BASELINE.
- SPOT ELEVATIONS SHOWN ON PARKING LOT PLANS FOR CURB LINES ARE TO DESIGN TOP BACK OF CURB UNLESS OTHERWISE NOTED.
- ADA RAMPS SHALL BE INSTALLED PER THE DETAILS IN THE CONSTRUCTION PLANS & ADA STANDARDS WITH THE UNDERSTANDING ADJUSTMENTS MIGHT BE NEEDED AS EACH RAMP IS SLIGHTLY DIFFERENT THAN THE OTHER.
- THE OWNER AND/OR THE ENGINEERS RESERVES THE RIGHT TO MAKE ADJUSTMENTS TO CURB/GUTTER STRINGLINE AND CONCRETE FORMS TO OPTIMIZE THE DESIGN AND NO ADDITIONAL COST TO THE OWNER.
- CONCRETE TO BE PLACED SHALL HAVE A CURRENT YEAR'S APPROVED MIX DESIGN.
- ALL CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCEMENT. (DOUBLE GUTTER, CURB FILLETS, CURB AND GUTTER).
- WHEN AN EXISTING ASPHALT STREET MUST BE CUT, THE STREET SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. THE EXISTING STREET CONDITION SHALL BE DOCUMENTED BY THE ENGINEER AND CITY OF CHEYENNE CONSTRUCTION INSPECTOR. THE FINISHED PATCH SHALL BLEND SMOOTHLY INTO EXISTING SURFACE. ALL LARGE PATCHES SHALL BE PAVED WITH AN ASPHALT LAY-DOWN MACHINE.
- UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED BEFORE CONSTRUCTION, OR TO THE GRADES AND CONDITION REQUIRED BY THESE PLANS.

CONTRACTOR'S AS-BUILT DRAWING NOTES:

- THE CONTRACTOR SHALL PROVIDE, AT THE COMPLETION OF THE PROJECT OR EACH PHASE OF THE PROJECT, A COMPLETE SET OF REPRODUCIBLE "AS-BUILT" DRAWINGS TO THE OWNER PRIOR TO FINAL PAYMENT. THE AS-BUILT DRAWINGS WILL CONSIST OF A MARKED-UP SET OF "ISSUED FOR CONSTRUCTION" DRAWINGS VERIFYING THE FOLLOWING:
 - ALL LENGTHS, SIZES AND MATERIAL OF INSTALLED PIPE, MANHOLES, AND ANY OTHER IMPROVEMENT.
 - INVERT ELEVATION OF EACH PIPE AT: STORM SEWER AND SANITARY SEWER MANHOLES, INLETS, OUTLETS, STUB ENDS, ETC. TOP OF PIPE ELEVATIONS OF EACH FOREIGN PIPE CROSSING.
 - SLOPE OF STORM AND SANITARY PIPES BETWEEN MANHOLES AND STRUCTURES.
 - TOP OF PIPE ELEVATION AT REGULAR INTERVALS AND/OR FITTINGS FOR WATER LINES, FIRE PROTECTION LINES, GAS LINES, ELECTRIC CONDUITS.
 - ELEVATIONS AT FLOWLINE OF CURB AND GUTTER AT DESIGN LOCATIONS AND GRADE BREAKS. ELEVATION OF INLET AND TOP OF CURB AT CURB INLETS.
 - ANY OTHER VARIATIONS FROM THE CONSTRUCTION DOCUMENTS MUST BE CLEARLY NOTED AND DETAILED ON THE PLANS.
- THE FINAL AS-BUILT DRAWING CERTIFICATE SHALL BE SIGNED ON EACH SHEET BY THE CONTRACTOR OR SUBCONTRACTOR RESPONSIBLE FOR THE WORK.
- CONTRACTOR AS-BUILT DRAWINGS WILL BE DUE PRIOR TO SUBMITTING THE FINAL PAY REQUEST. NON-CONFORMING AS-BUILT DRAWINGS WILL BE RETURNED TO THE CONTRACTOR FOR REVISIONS AND RESUBMITTAL. FINAL PAYMENT WILL NOT BE ISSUED UNTIL THE OWNER HAS REVIEWED AND APPROVED THE AS-BUILT DRAWINGS.

GENERAL / GRADING NOTES:

- ALL STATIONING IS ALONG BASELINE CENTERLINE, UNLESS OTHERWISE NOTED.
- IN THE PLAN AND PROFILE SHEETS, LT. IS LEFT AND RT. IS RIGHT OF CENTERLINE LOOKING "UPSTATION" ALONG CENTERLINE.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION (HORIZONTAL AND VERTICAL) AND SIZE (OUTSIDE DIAMETER, ETC.) OF ALL EXISTING IMPROVEMENTS THAT MAY BE AFFECTED BY THE CONSTRUCTION WITHIN PROJECT LIMITS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO THE CONSTRUCTION OF IMPROVEMENTS THAT ARE AFFECTED BY INFORMATION THAT DIFFERS FROM THAT SHOWN ON THESE PLANS.
- ANY UTILITIES OR IMPROVEMENTS THAT ARE DISCOVERED DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE PLANS SHALL BE IMMEDIATELY BROUGHT TO THE ENGINEERS ATTENTION.
- LOCATIONS OF POTENTIAL CONFLICT BETWEEN EXISTING UTILITIES AND NEW CONSTRUCTION SHALL BE POT-HOLED AND THE EXISTING IMPROVEMENT SHALL BE SURVEYED. THE SURVEY RESULTS SHALL BE PRESENTED TO THE OWNER & AVI AND ANY DESIGN CHANGES WILL TAKE UP TO 5 WORKING DAYS TO RETURN TO THE CONTRACTOR.
- THE CONTRACTOR SHALL NOT OPERATE ANY FACILITIES OWNED BY ANY UTILITY.
- THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAG PERSONS, OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY, IN ACCORDANCE WITH THE CITY OF CHEYENNE AND/OR THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AS NOTED PRIOR TO COMMENCEMENT OF ANY WORK ON THE PROJECT.
- THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS-BUILT RECORD DRAWINGS TO THE OWNER AT THE END OF THE PROJECT. THE DRAWINGS SHALL BE COMPLETE WITH DETAILS, DIMENSIONS, AND ELEVATIONS OF ALL INSTALLATIONS VARYING FROM THESE PLANS (SEE CONTRACTOR'S AS-BUILT DRAWING NOTES, THIS SHEET).
OWNER - 1 SET
ENGINEER - 1 SET
- ANY DAMAGE TO ANYTHING OUTSIDE THE CONSTRUCTION LIMITS OR INTENTS SHALL BE REPAIRED OR REPLACED PER CITY STANDARDS AND SPECIFICATIONS AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL CONTROL STORMWATER RUNOFF, DUST AND MUD FROM ALL CONSTRUCTION ACTIVITIES PER STATE AND FEDERAL REQUIREMENTS, INCLUDING ACCESS ROADS THROUGHOUT CONSTRUCTION.
- QUALITY ASSURANCE MATERIAL TESTING FOR SOILS WILL BE PERFORMED BY AN INDEPENDENT TESTING LAB, HIRED BY THE CONTRACTOR, FOR VERIFICATION OF CONTRACTORS COMPLIANCE. THE CONTRACTOR IS NOT RELIEVED FROM COMPLYING WITH ALL APPLICABLE SPECIFICATIONS. ANY RETESTS REQUIRED WILL BE PAID FOR BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTINUOUS STORMWATER MANAGEMENT, SEDIMENT, EROSION CONTROL AND FULL REHABILITATION OF ALL DAMAGED IMPROVEMENTS, INCLUDING CULVERTS TO ORIGINAL OR BETTER CONDITION. AFTER A STORM EVENT, ALL STANDING WATER SHALL BE PUMPED OUT TO PROTECT ROADWAY SUBGRADE.
- GRADE ALL WORK AREAS TO MAINTAIN POSITIVE SURFACE DRAINAGE DURING THE WORK.
- ALL REMOVED MATERIALS (UNSUITABLE SOIL, EXCESS MATERIAL, ROCK MATERIAL, STRUCTURES, PIPE, ETC.) SHALL BE PROPERLY DISPOSED OF, OFF SITE, AT THE CONTRACTOR'S EXPENSE UNLESS DESIGNATED OTHERWISE.
- AVI & THE OWNER ARE NOT A GUARANTOR OF THE CONSTRUCTING CONTRACTORS OBLIGATION AND PERFORMANCE OF WORK.
- AVI & THE OWNER ARE NOT RESPONSIBLE FOR SAFETY, IN, ON, OR ABOUT THE PROJECT SITE, NOR FOR COMPLIANCE BY THE APPROPRIATE PARTY OF ANY REGULATIONS THERETO.
- AVI & THE OWNER EXERCISES NO CONTROL OF THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENTS, SCAFFOLDING, FORMS, OR OTHER WORK AIDS USED IN OR ABOUT THE PROJECT, OR IN THE SUPERVISION OF THE SAME.
- ALL NOTES AND REQUIREMENTS IDENTIFIED IN THE BID PACKAGE ARE APPLICABLE AND PART OF THE ENTIRE CONSTRUCTION DOCUMENTS.
- REFER TO OWNERS GEOTECHNICAL ENGINEERING REPORT AND ADDENDUM (IF PRESENT) FOR SOIL CONDITIONS, GROUNDWATER & RECOMMENDATIONS FOR THIS PROJECT. THE CONTRACTOR SHALL MAKE THEIR OWN CONCLUSIONS FROM THE INFORMATION AND DETERMINE EFFORTS FOR COMPACTION AND DEWATERING BASED ON THIS REPORT AND OTHER INFORMATION INCLUDED IN THE PLANS AND SPECIFICATIONS.
- EMBANKMENTS CONSTRUCTED FOR THE PURPOSE OF STORMWATER CONTROL SHALL BE PLACED IN 8" MAXIMUM LIFTS COMPACTED TO 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT OF + 2%, -4% OPTIMUM PER THE CITY OF CHEYENNE STANDARD SPECIFICATIONS SECTION 2210.
- EMBANKMENTS CONSTRUCTED FOR THE PURPOSE OF STORMWATER DETENTION REQUIRE COMPACTION TESTING. COMPACTION LOGS MUST BE PROVIDED TO THE ENGINEER PRIOR TO POND VOLUME CERTIFICATION.
- STORMWATER DETENTION FACILITIES MUST BE CERTIFIED PRIOR TO RECEIVING A C.O. IT IS RECOMMENDED THE CONTRACTOR REQUEST TOPOGRAPHIC SURVEY TO CHECK ELEVATIONS AND STORAGE CAPACITY PRIOR TO ANY CONCRETE OR LANDSCAPING IN THE DETENTION FACILITY.

DRAWING SCALE NOTE:

- FULL SIZE DRAWINGS ARE BASED ON 11"x17"
- DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING/ IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE ENGINEER FOR CLARIFICATION, AND ANNOTATE THE DIMENSION ON THE AS-CONSTRUCTED RECORD DRAWINGS.
- IF BAR SCALES DO NOT MEASURE 1" THEN THE DRAWINGS ARE NOT TO A 'PER INCH SCALE'.


PERMITS REQUIRED:

PERMITS & ASSOCIATED FEES REQUIRED TO BE OBTAINED BY THE CONTRACTOR FOR THIS PROJECT MAY INCLUDE, BUT MAY NOT BE LIMITED TO THE FOLLOWING:

DUST CONTROL PLAN: CITY OF CHEYENNE, LARAMIE COUNTY
 RIGHT-OF-WAY PERMIT: CITY OF CHEYENNE, LARAMIE COUNTY
 GRADING PERMIT: CITY OF CHEYENNE, LARAMIE COUNTY
 CONSTRUCTION WATER: CONTRACTOR SOURCE
 WATER & SEWER: DEQ
 STORM WATER POLLUTION PLAN AND PERMIT TO DISCHARGE FROM DEQ.

BASIS OF BEARINGS:

ALL COORDINATES ARE BASED ON US STATE PLANE 1983, WYOMING STATE PLANE EAST FIPZONE 4901.

DATE					
REVISION					
NO.					
PREPARED FOR: CHEYENNE METROPOLITAN ORGANIZATION (MPO) 2101 ONEIL AVE CHEYENNE, WY 82001					
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY			DRAWING TITLE: GENERAL NOTES		
					
307.637.6017 1103 OLD TOWN LANE, SUITE 101 WING-CHEYENNE, WY 82009 AVI@AVIPC.COM					
DATE PLOTTED: Jun 12, 2023					
DRAWN BY: CA					
DESIGNED BY: CA					
CHECKED BY: TC					
JOB NO.: 4642					
DWG NO. 2 OF 85					

STORM SIZING PER STORM EVENT

Culvert ID/Basin	Existing Pipe		2-YR Pipe (RCP)		10-YR Pipe (RCP)	
	Culvert Dia.	No. Barrels	Culvert Dia.	No. Barrels	Culvert Dia.	No. Barrels
	(FT)		(FT)		(FT)	
1	3.00	2	3.00	2	3.00	5
2	3.00	2	4.50	6	6.00	8
3	N/A	N/A	4.50	4	6.00	7
4a	N/A	N/A	1.25	1	1.25	1
4b	N/A	N/A	1.50	1	2.00	1
4c	N/A	N/A	1.50	1	2.00	1
4d	1.50	1	2.00	1	2.00	2
4e	3.00	2	3.00	2	3.00	5
4f	2.00	1	2.50	1	2.50	2
5a	2.00	1	3.50	4	6.00	3
5b	N/A	N/A	2.00	1	2.50	1
6a	3.00	3	3.50	2	5.00	3
6b	3.00	1	3.00	1	3.00	1
6c	2.00	1	2.00	1	2.00	1
6d	2.00	1	2.00	1	2.00	1

NOTES:

- 1) ALL CULVERTS ARE SIZES TO MEET A 10 YEAR EVENT STORM.
- 2) REFER TO 'POWDERHOUSE ROAD CORRIDOR STUDY - FINAL DRAINAGE ANALYSIS' FOR BASIN DELINEATION AND ADDITIONAL DATA.

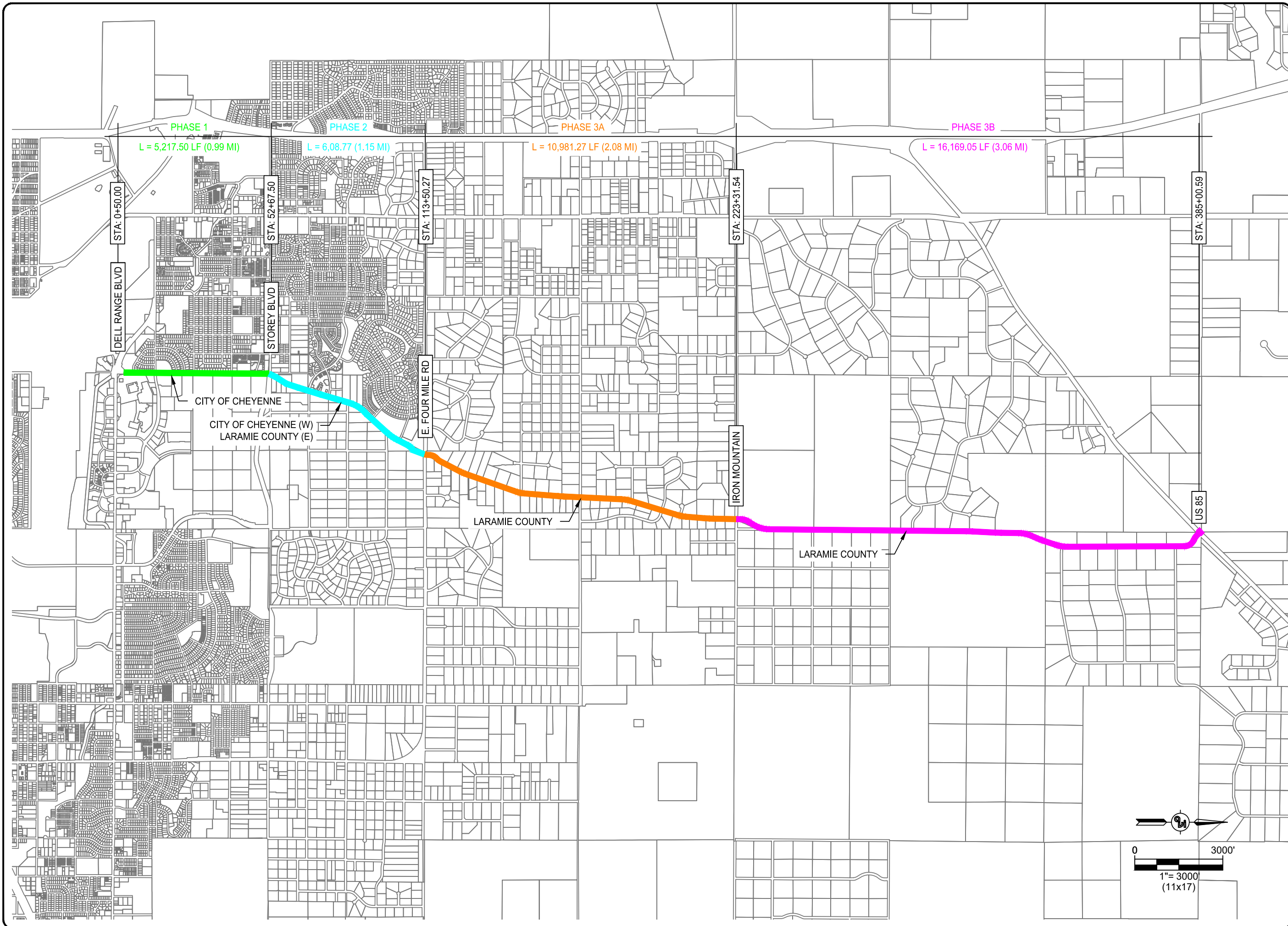
NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: GENERAL NOTES



DATE PLOTTED: Jun 12, 2023
 DRAWN BY: CA
 DESIGNED BY: CA
 CHECKED BY: TC
 JOB NO.: 4642



NO.	REVISION	DATE

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CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
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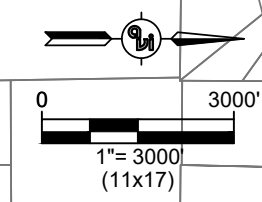
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: PROPOSED PHASING MAP



DATE PLOTTED: Jun 12, 2023
 DRAWN BY: CA
 DESIGNED BY: CA
 CHECKED BY: TC

JOB NO.: 4642

DWG NO. 4 OF 85



Phase 1 - Dell Range Blvd to Storey Blvd Improvements			
Item No.	Item	Total Estimated Quantity	Unit
1020.00	Bonds & Insurance	1	LS
1020.10	Quality Control & Materials Testing	1	LS
1030.00	Mobilization	1	LS
1035.00	Force Account	1	FA
1041.00	Construction Surveying	1	LS
1050.10	Traffic Control	1	LS
1563.00	Erosion Control & Stormwater Management	1	LS
2050.10	Remove & Reset Fence (Vinyl, Wood Slat, Ornamental, Split Rail, etc)	200	LF
2050.50	Remove & Reset Street Signs	19	EA
2206.00	Potholing	10	EA
2210.00	Unclassified Excavation	12,292	CY
2231.00	Remove Existing Crushed Base - 4" (Curb & Gutter and Sidewalk)	4,312	SY
2231.00	Remove Existing Asphalt & Crushed Base (Asphalt Roadway)	26,508	SY
2231.00	Crushed Base, Grading W 4" (Curb & Gutter and Sidewalk)	8,367	SY
2231.10	Crushed Base, Grading W 6" (Streets, Driveways, Fillets, & Approaches)	27,520	SY
2235.00	Pozzolan Treated Subgrade 12"	500	SY
2512.10	Plant Mix Bit. Pvmt - 5"	26,508	SY
2900.10	Irrigation System Modifications & Repair	1	LS
2900.21	Seeding (Hydro Seed/ Hydro Mulch)	15,980	SY
2900.50	Topsoil Placing 4"	15,980	SY
2900.61	Landscape Retaining Wall	1,110	LF
3330.00	Remove Existing Curb and Gutter	7,027	LF
3330.10	New Curb and Gutter, 24-inch, type A	9,492	LF
3340.00	Remove Existing Concrete Sidewalk	2,750	SY
3340.10	New Concrete Sidewalk, 4"	6,258	SY
3340.20	Remove Existing Curb Turn Fillets (Including ADA Ramps)	22	EA
3340.30	New Curb Turn Fillets, R15 (Includes C+G, ADA Ramps)	22	EA
4000.00	Striping - Yellow Centerline (Length of Double Yellow)	9,293	LF
4000.10	Striping - White Striping	10,963	LF
4000.20	Miscellaneous Striping	1	LS
3340.50	New Drive Approach, 6" Residential	400	SY
	2" Communication Conduit (dbl line)	5,227	LF
Phase 2 - Storey Blvd to Four Mile Rd Improvements			
Item No.	Item	Total Estimated Quantity	Unit
1020.00	Bonds & Insurance	1	LS
1020.10	Quality Control & Materials Testing	1	LS
1030.00	Mobilization	1	LS
1035.00	Force Account	1	FA
1041.00	Construction Surveying	1	LS
1050.10	Traffic Control	1	LS
1563.00	Erosion Control & Stormwater Management	1	LS
2050.00	Remove & Reset Street Signs	19	EA
2206.00	Potholing	10	EA
2210.00	Unclassified Excavation	9,233	CY
2210.01	Import Borrow Excavation	10,506	CY
2231.00	Remove Existing Crushed Base - 4" (Curb & Gutter and Sidewalk)	3,554	SY
2231.10	Remove Existing Asphalt & Crushed Base (Asphalt Roadway)	30,576	SY
2231.20	Crushed Base, Grading W 4" (Curb & Gutter and Sidewalk)	9,648	SY
2231.10	Crushed Base, Grading W 6" (Streets, Driveways, Fillets, & Approaches)	30,372	SY
2235.00	Pozzolan Treated Subgrade 12"	500	SY
2512.10	Plant Mix Bit. Pvmt - 5"	29,583	SY
2900.21	Seeding (Hydro Seed/ Hydro Mulch)	29,483	SY
2900.50	Topsoil Placing 4"	29,483	SY
3330.00	Remove Existing Curb and Gutter	1,423	LF
3330.10	New Curb and Gutter, 24-inch, type A	11,872	LF
3340.00	Remove Existing Concrete Sidewalk	3,238	SY
3340.10	New Concrete Sidewalk, 4"	7,010	SY
3340.20	Remove Existing Curb Turn Fillets (Including ADA Ramps)	12	EA
3340.30	New Curb Turn Fillets, R15 (Includes C+G, ADA Ramps)	20	EA
4000.00	Striping - Yellow Centerline (Length of Double Yellow)	12,102	LF
4000.10	Striping - White Striping	13,615	LF
4000.20	Miscellaneous Striping	1	LS
3338.50	New Drive Approach, 6" Residential	176	SY
2665.30	Water Main, 8-Inch PVC C900	125	LF
2665.40	Water Main Fittings, 8"x8" Tee	1	EA
2665.41	Water Main Fittings, 11.25 Deg Bend	1	EA
2665.42	Water Main Fittings, 8" Plug	1	EA
	2" Communication Conduit (dbl line)	6,074	LF
3340.00	Remove Existing Concrete Sidewalk	3,238	SY
3340.10	New Concrete Sidewalk, 4"	7,010	SY
3340.20	Remove Existing Curb Turn Fillets (Including ADA Ramps)	12	EA
3340.30	New Curb Turn Fillets, R15 (Includes C+G, ADA Ramps)	20	EA
4000.00	Striping - Yellow Centerline (Length of Double Yellow)	12,102	LF
4000.10	Striping - White Striping	13,615	LF
4000.20	Miscellaneous Striping	1	LS
3338.50	New Drive Approach, 6" Residential	176	SY
2665.30	Water Main, 8-Inch PVC C900	125	LF
2665.40	Water Main Fittings, 8"x8" Tee	1	EA
2665.41	Water Main Fittings, 11.25 Deg Bend	1	EA
2665.42	Water Main Fittings, 8" Plug	1	EA

DATE					
REVISION					
NO.					

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD
 CORRIDOR STUDY

DRAWING TITLE: PHASE 1 & 2
 ESTIMATES



307.637.6017
 1103 OLD TOWN LANE, SUITE 101
 CHEYENNE, WY 82009
 AVI@AVIPC.COM

DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO.	5 OF 85

Phase 3A - Four Mile Rd to Iron Mountain Rd Improvements			
Item No.	Item	Total Estimated Quantity	Unit
1020.00	Bonds & Insurance	1	LS
1020.10	Quality Control & Materials Testing	1	LS
1030.00	Mobilization	1	LS
1035.00	Force Account	1	FA
1041.00	Construction Surveying	1	LS
1050.10	Traffic Control	1	LS
1563.00	Erosion Control & Stormwater Management	1	LS
2050.00	Remove & Reset Street Signs	18	EA
2206.00	Potholing	5	EA
2210.00	Unclassified Excavation	23,104	CY
2231.00	Removals (Existing Base & Asphalt Pavement)	49,058	SY
2231.10	Crushed Base, Grading W 6" (Streets, Driveways, Fillets, & Approaches)	58,782	SY
2512.10	Plant Mix Bit. Pvmt - 5"	49,058	SY
2725.00	24" CMP Culvert	136	LF
2725.10	24" F.E.S	4	EA
2725.20	30" RCP Culvert	344	LF
2725.30	30" F.E.S	8	EA
2725.40	36" RCP Culvert	200	LF
2725.50	36" F.E.S	8	EA
2725.60	72" RCP Culvert	348	LF
2725.70	72" F.E.S	6	EA
2900.10	Seeding (Hydro Seed/ Hydro Mulch)	37,528	SY
2900.20	Topsoil Placing 4"	37,528	SY
4000.00	Striping - Yellow Centerline (Length of Double Yellow)	10,931	LF
4000.10	Striping - White Striping	21,863	LF
4000.20	Miscellaneous Striping	1	LS
	2" Communication Conduit (dbl line)	10,982	LF
Phase 3B - Iron Mountain Rd to US HWY 85 Improvements			
Item No.	Item	Total Estimated Quantity	Unit
1020.00	Bonds & Insurance	1	LS
1020.10	Quality Control & Materials Testing	1	LS
1030.00	Mobilization	1	LS
1035.00	Force Account	1	FA
1041.00	Construction Surveying	1	LS
1050.10	Traffic Control	1	LS
1563.00	Erosion Control & Stormwater Management	1	LS
2050.00	Remove & Reset Street Signs	18	EA
2206.00	Potholing	5	EA
2210.00	Unclassified Excavation	1,177	CY
2231.00	Removals (Existing Base & Asphalt Pavement)	49,452	SY
2231.10	Crushed Base, Grading W 6" (Streets, Driveways, Fillets, & Approaches)	75,641	SY
2512.10	Plant Mix Bit. Pvmt - 5"	69,352	SY
2725.00	15" RCP Culvert	55	LF
2725.10	15" F.E.S	2	EA
2725.20	24" RCP Culvert	122	LF
2725.30	24" F.E.S	4	EA
2725.40	36" RCP Culvert	500	LF
2725.50	36" F.E.S	10	EA
2725.60	72" RCP Culvert	1,011	LF
2725.70	72" F.E.S	30	EA
2900.10	Seeding (Hydro Seed/ Hydro Mulch)	70,290	SY
2900.20	Topsoil Placing 4"	70,290	SY
4000.00	Striping - Yellow Centerline (Length of Double Yellow)	16,170	LF
4000.10	Striping - White Striping	33,056	LF
4000.20	Miscellaneous Striping	1	LS
	2" Communication Conduit (dbl line)	16,170	LF

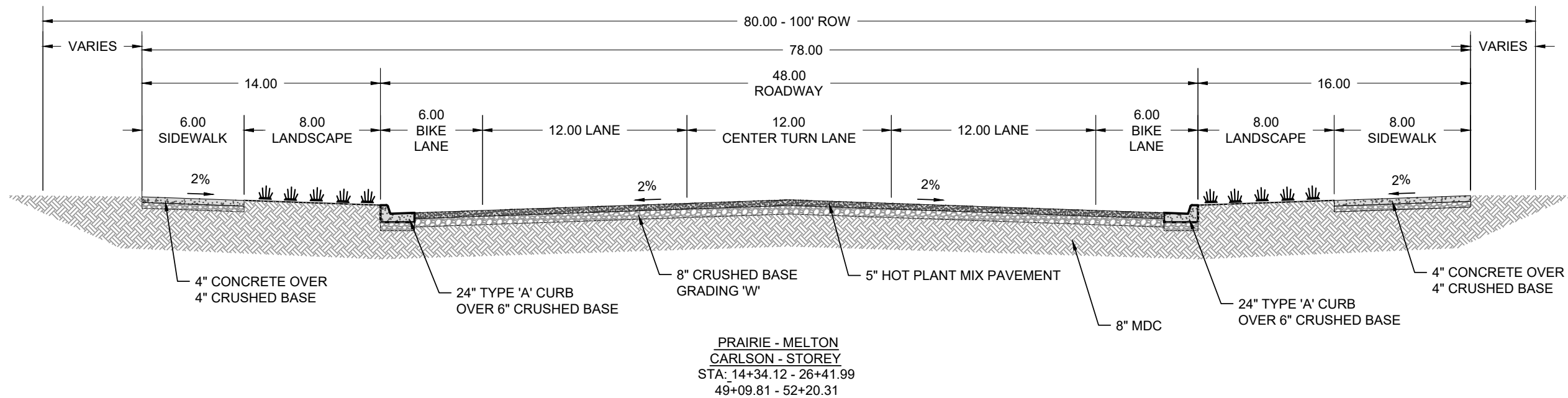
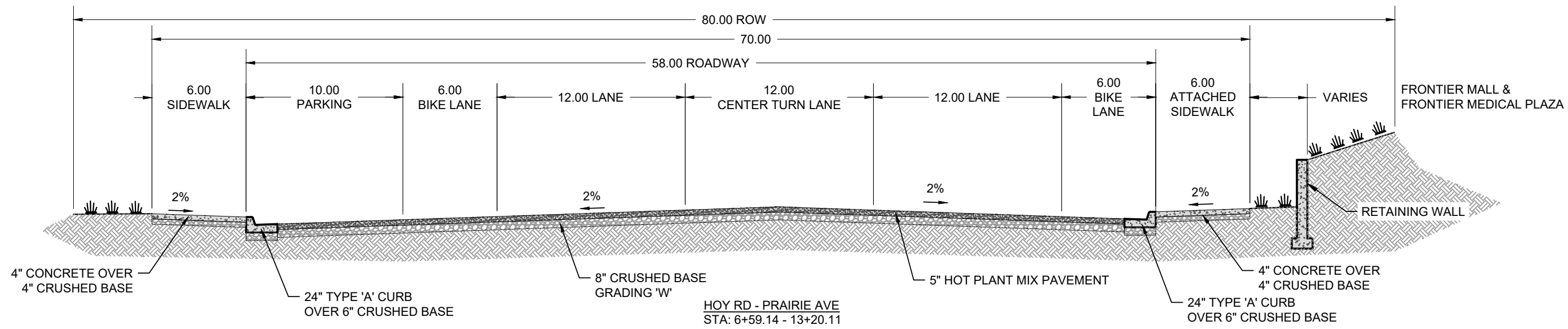
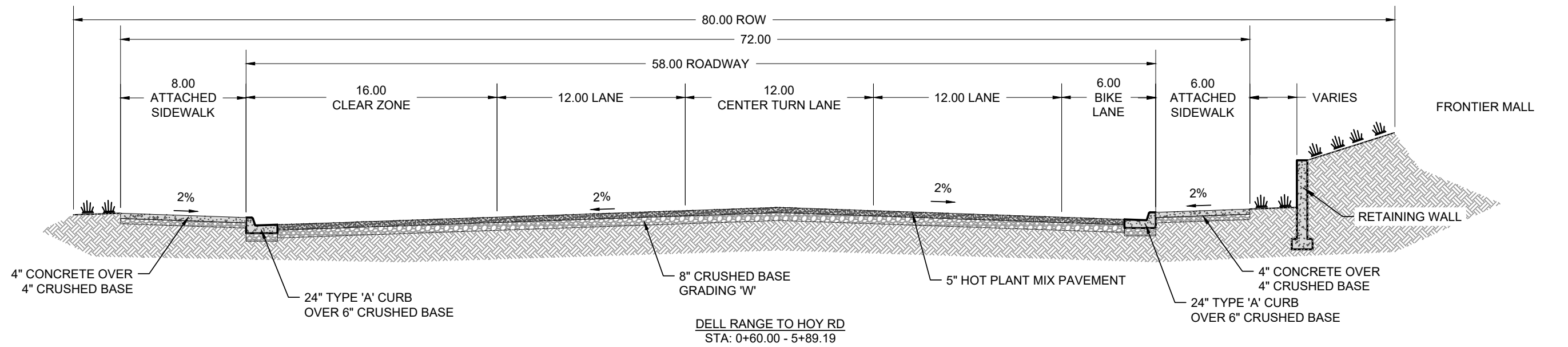
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CHEYENNE METROPOLITAN ORGANIZATION (MPO)
2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
DRAWING TITLE: PHASE 3 ESTIMATES



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JOB NO.: 4642



NOTE: TYPICAL SECTIONS ARE NTS

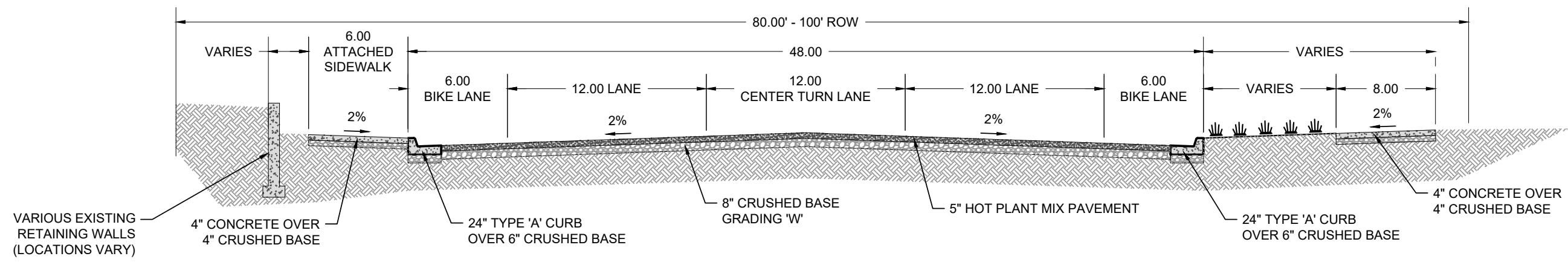
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2101 ONEIL AVE
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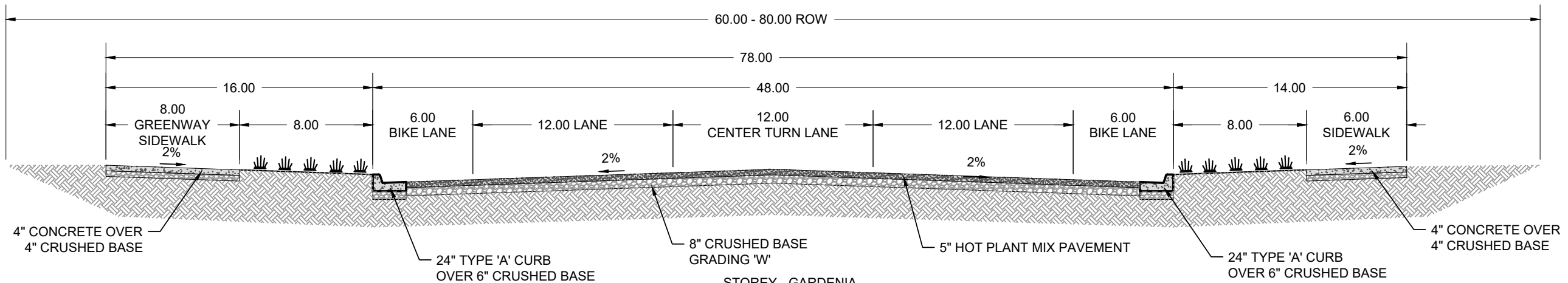
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
DRAWING TITLE: TYPICAL SECTIONS



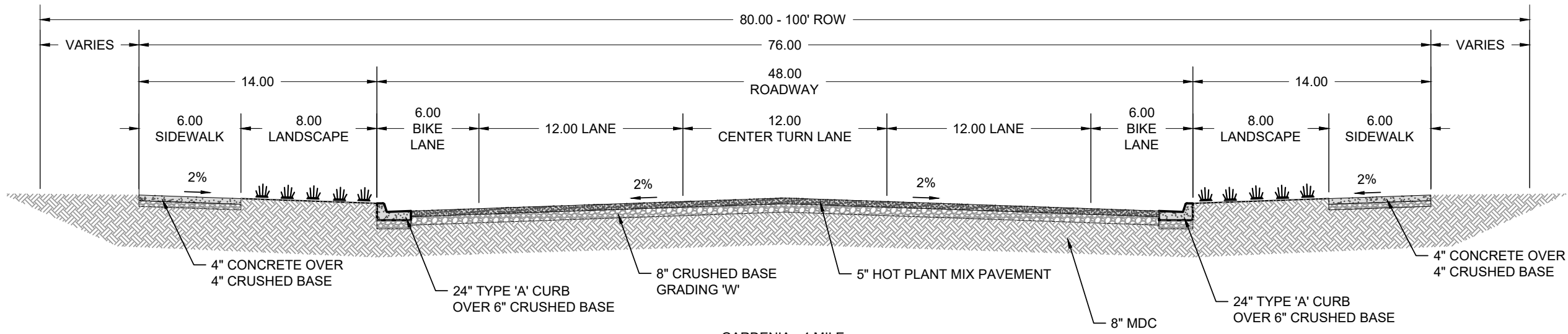
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JOB NO.:	4642
DWG NO.	7 OF 85



MELTON ST - CARLSON ST
 STA: 0+60.00 - 5+89.19



STOREY - GARDENIA
 STA: 6+59.14 - 13+20.11



GARDENIA - 4 MILE
 STA: 76+64.72 - 113+50.27

NOTE: TYPICAL SECTIONS ARE NTS

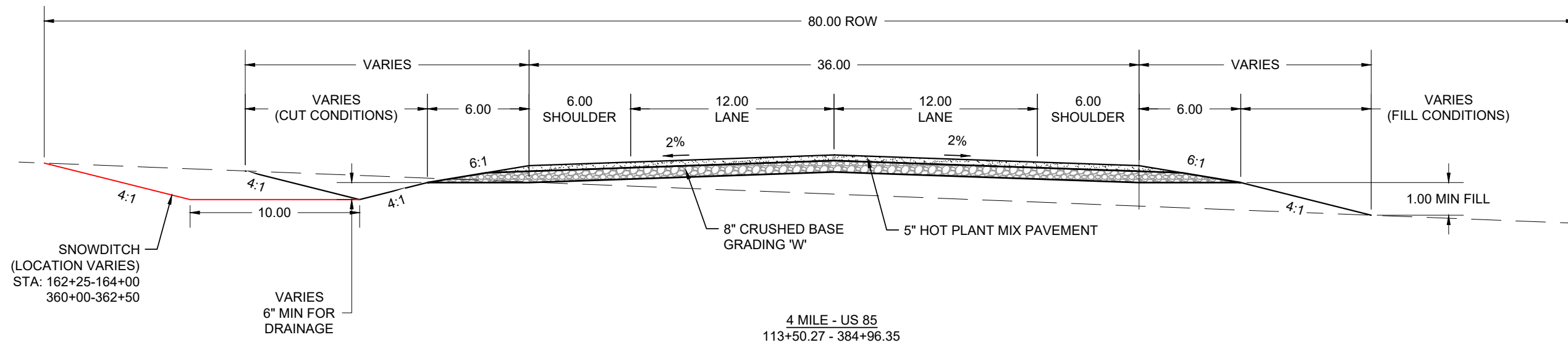
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: TYPICAL SECTIONS



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PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY

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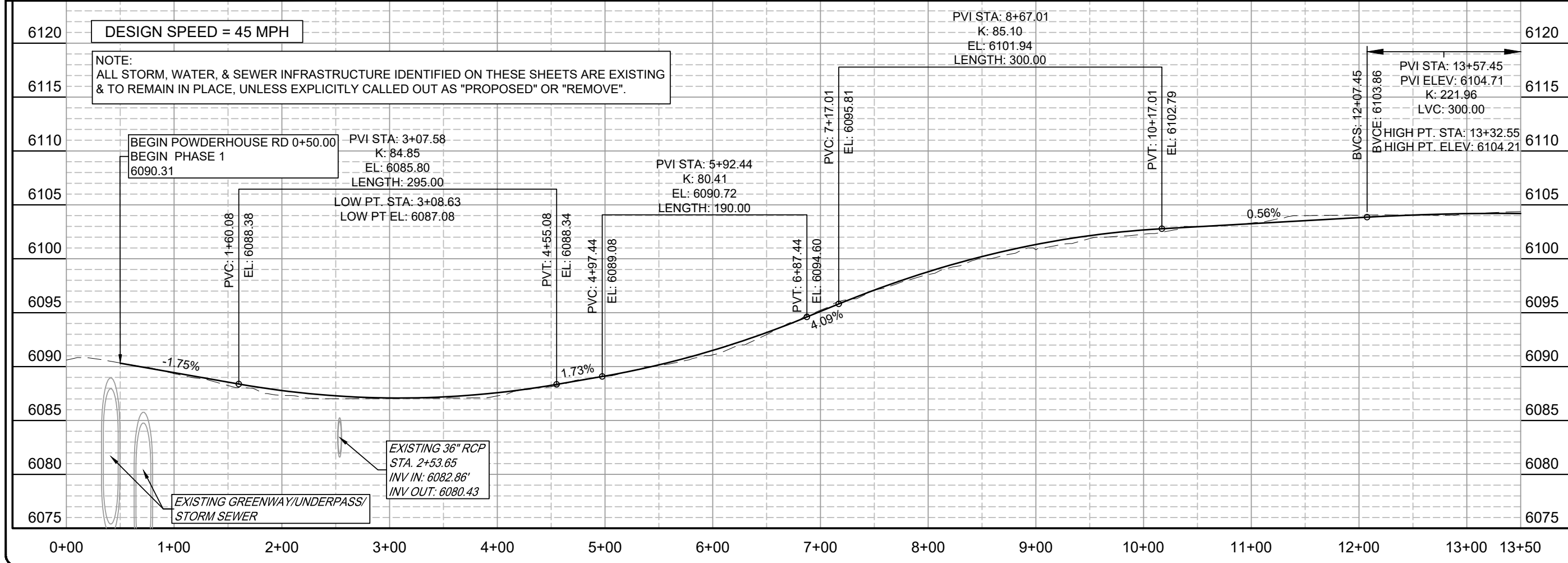
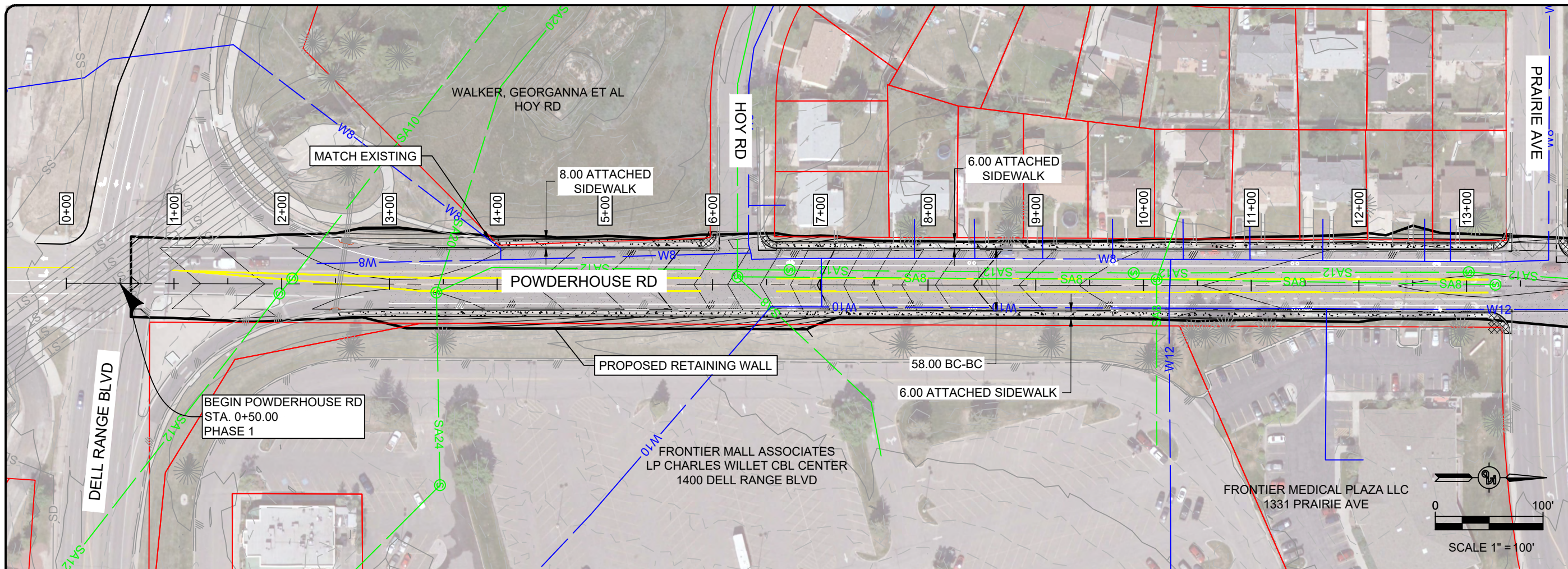
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 2101 ONEIL AVE
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PROJECT:
POWDERHOUSE ROAD CORRIDOR STUDY

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PLAN AND PROFILE

307.637.6017
 1103 OLD TOWN LANE, SUITE 101
 CHEYENNE, WY 82009
 AVI@AVIPC.COM

DATE PLOTTED:
Jun 12, 2023

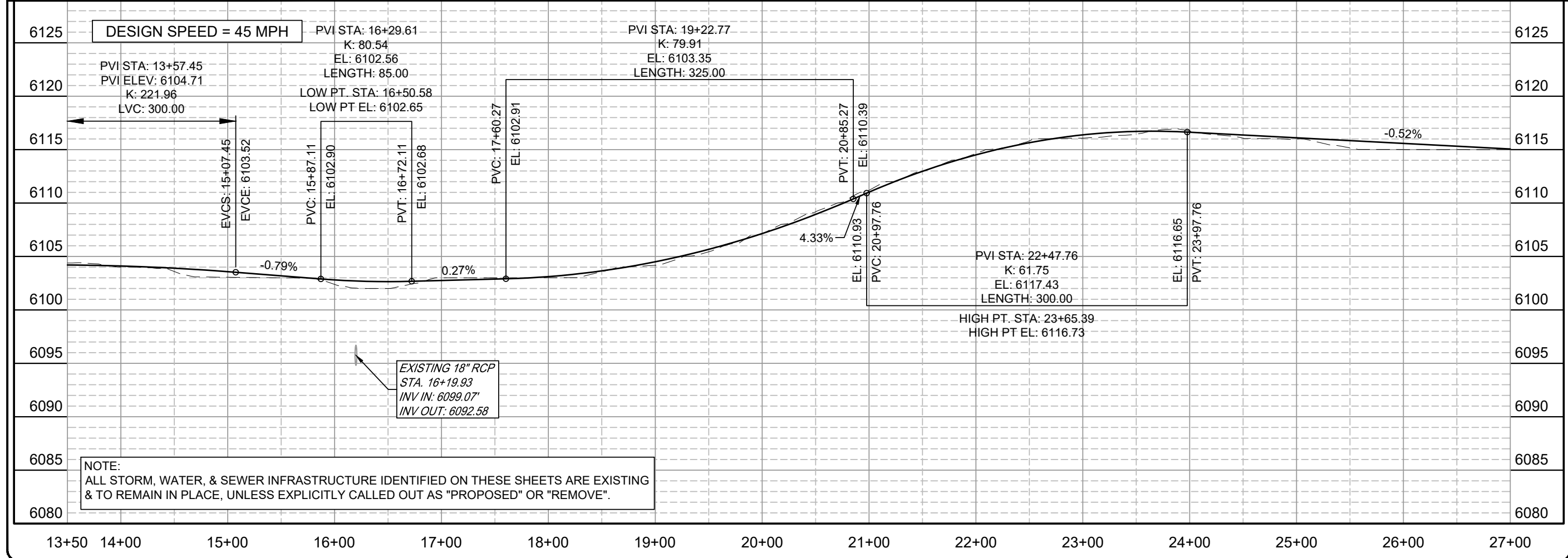
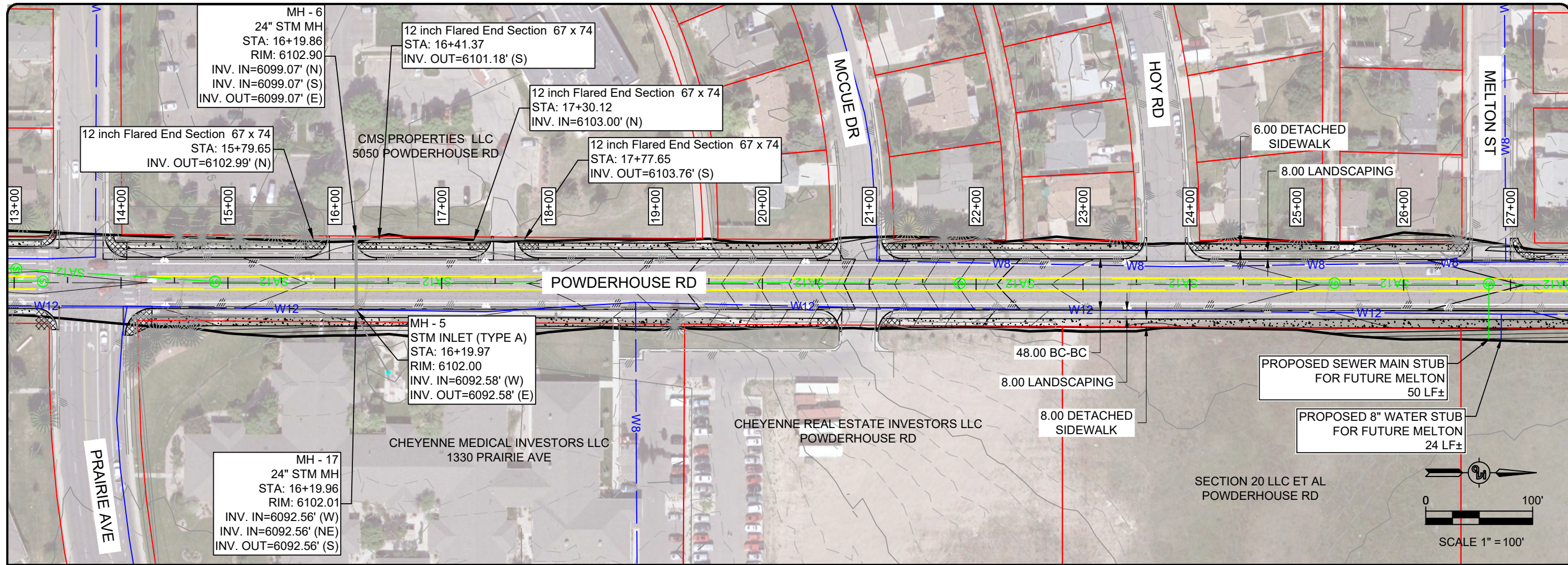
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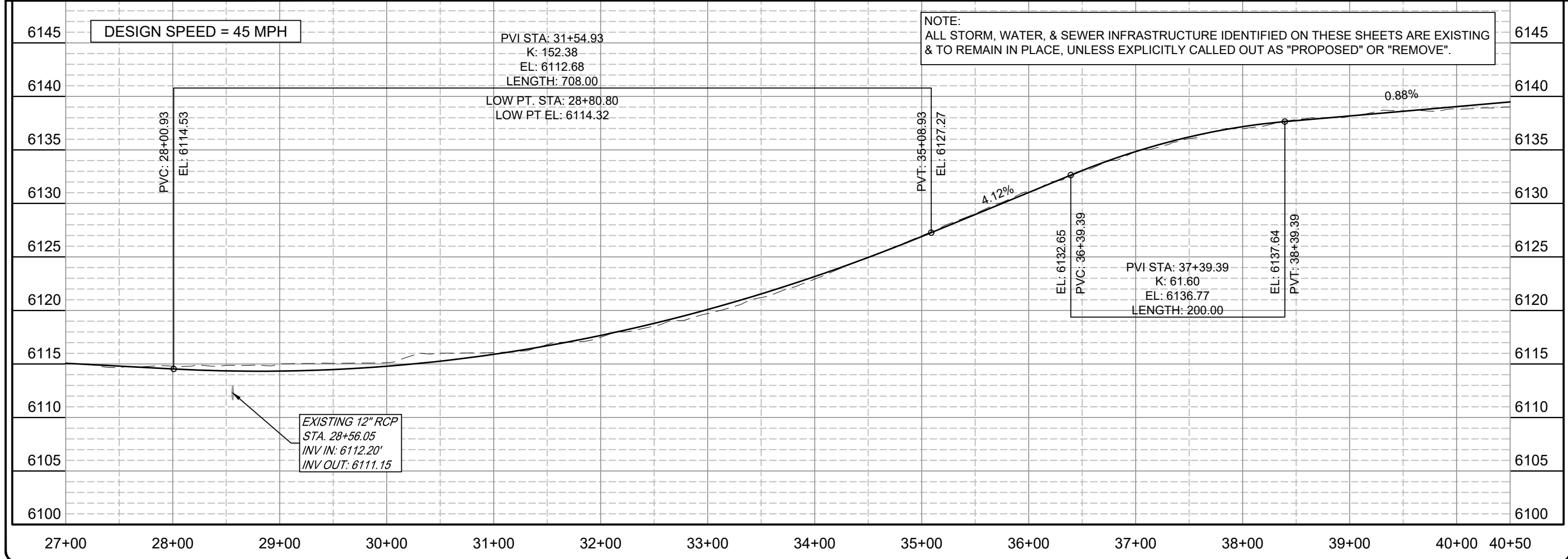
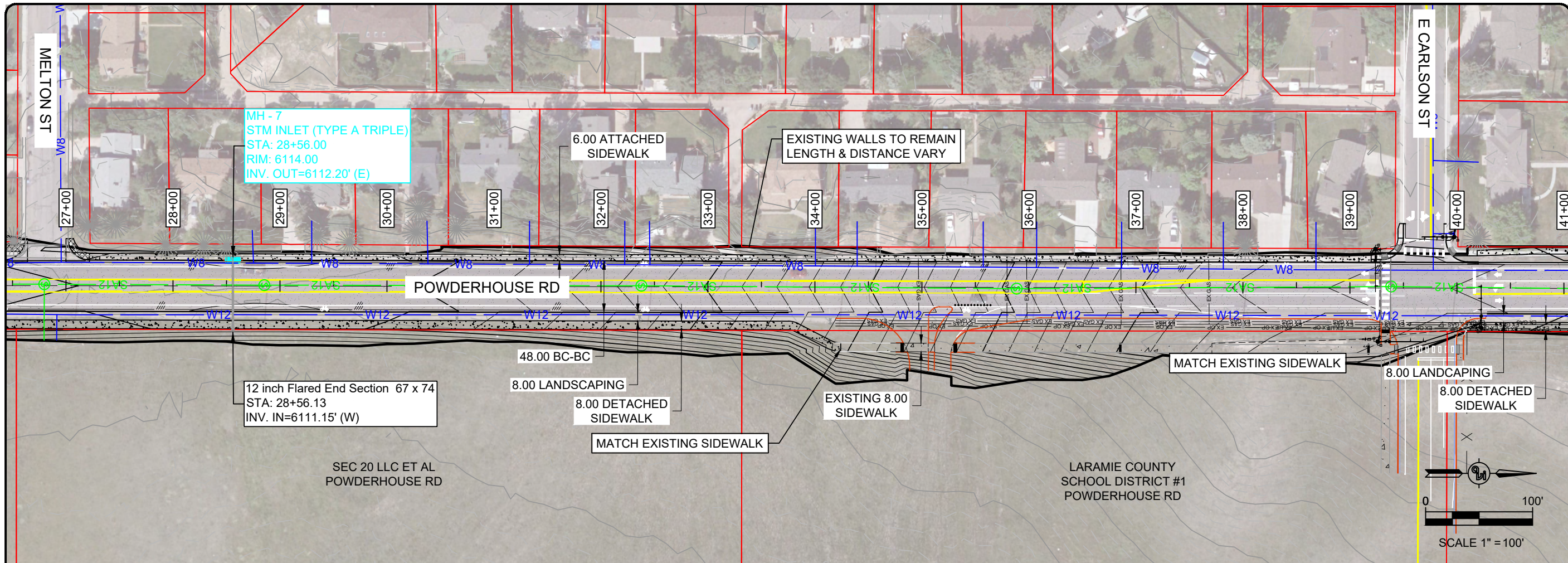
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2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
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DWG NO. R2 OF 85	



NO.	REVISION	DATE

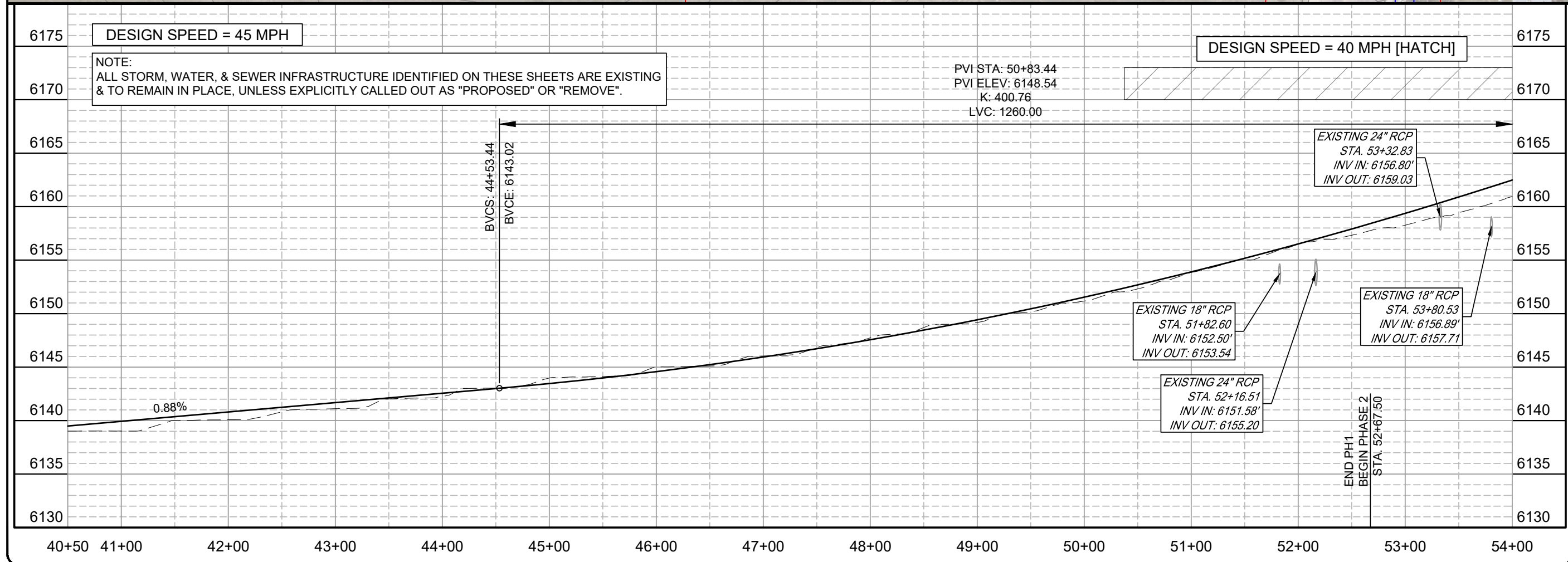
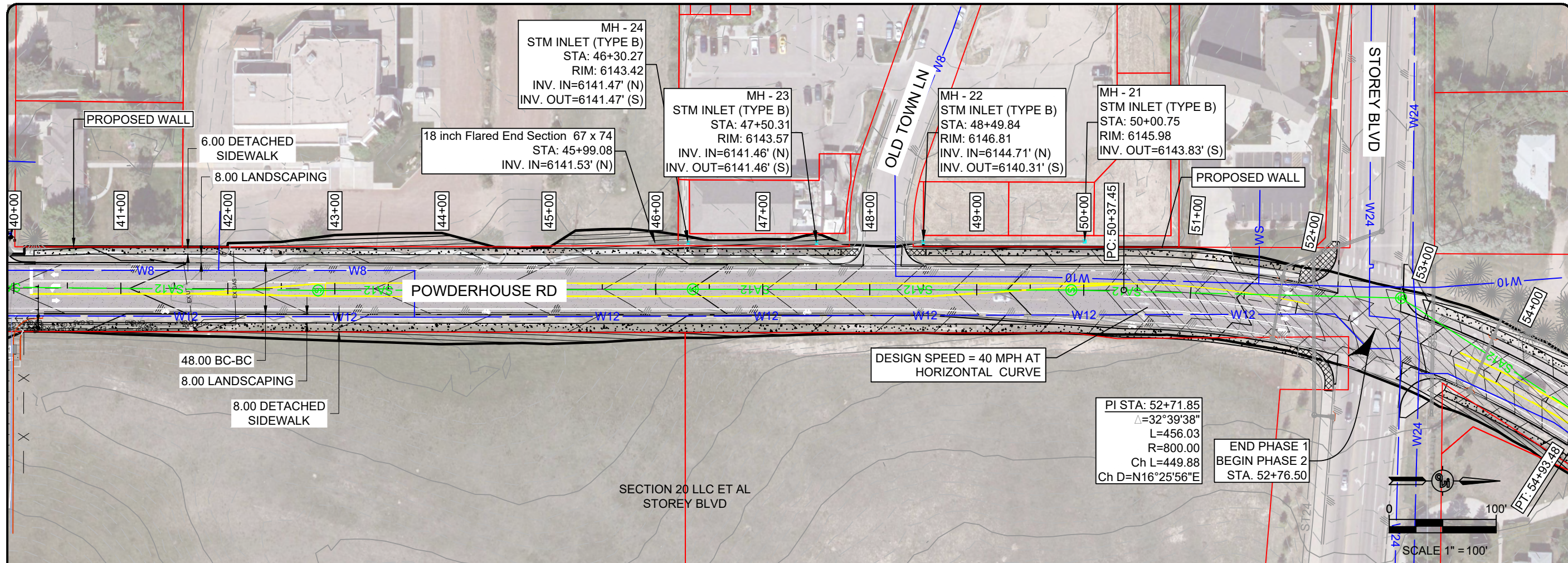
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2101 ONEIL AVE
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PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY

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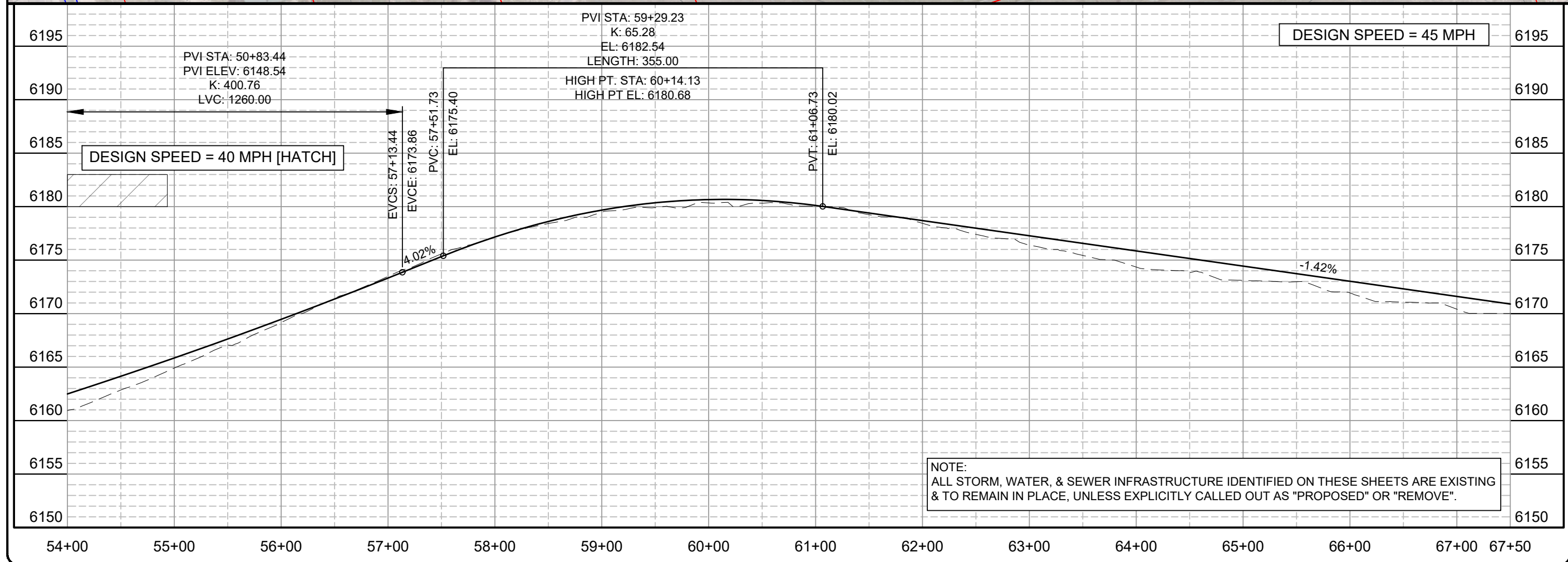
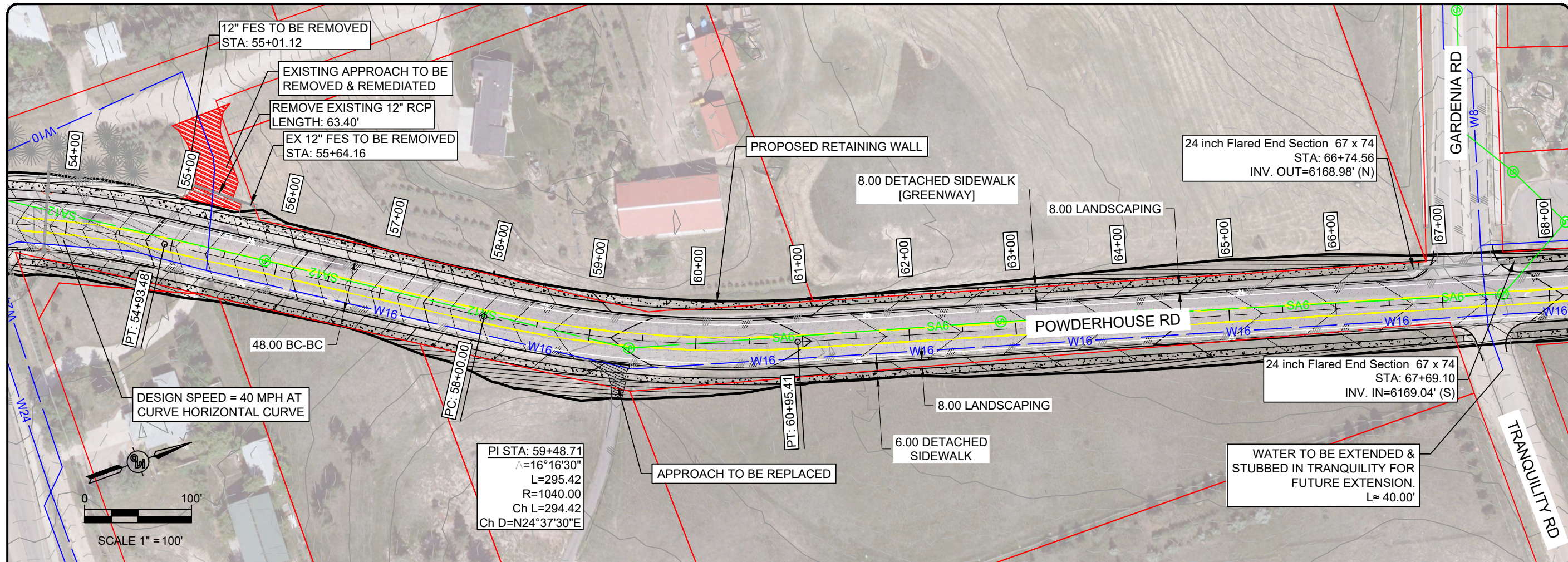
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CHEYENNE, WY 82001

PROJECT:
POWDERHOUSE ROAD
CORRIDOR STUDY

DRAWING TITLE:
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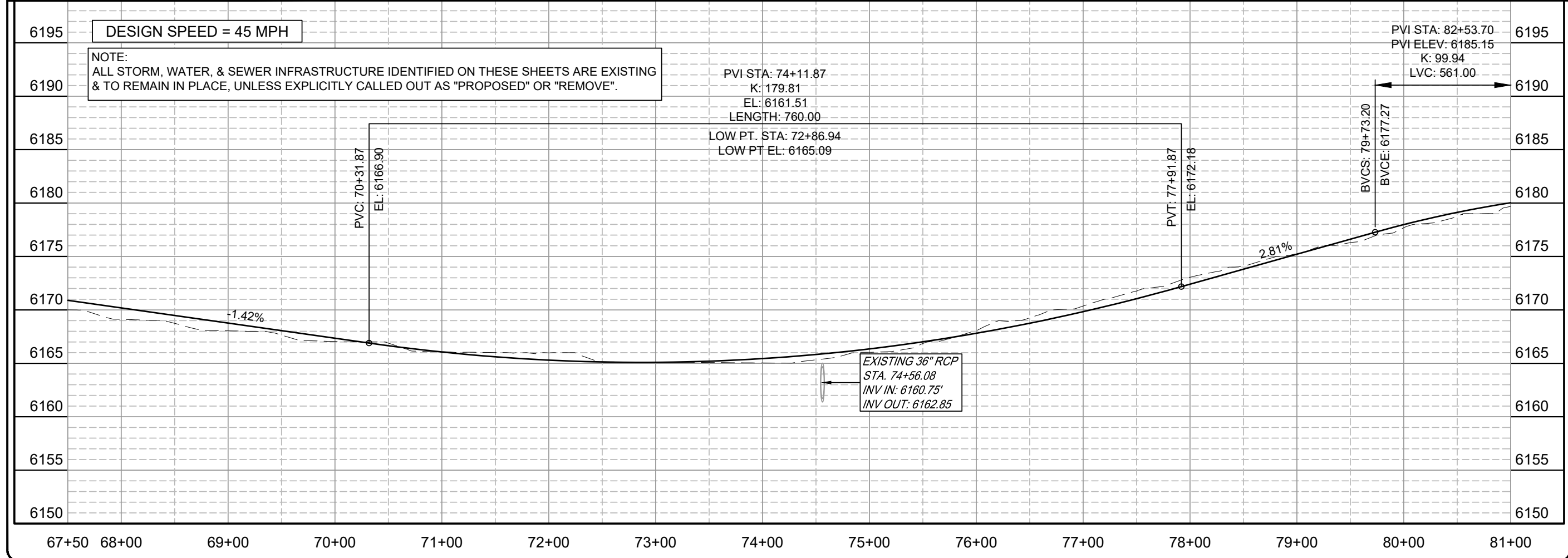
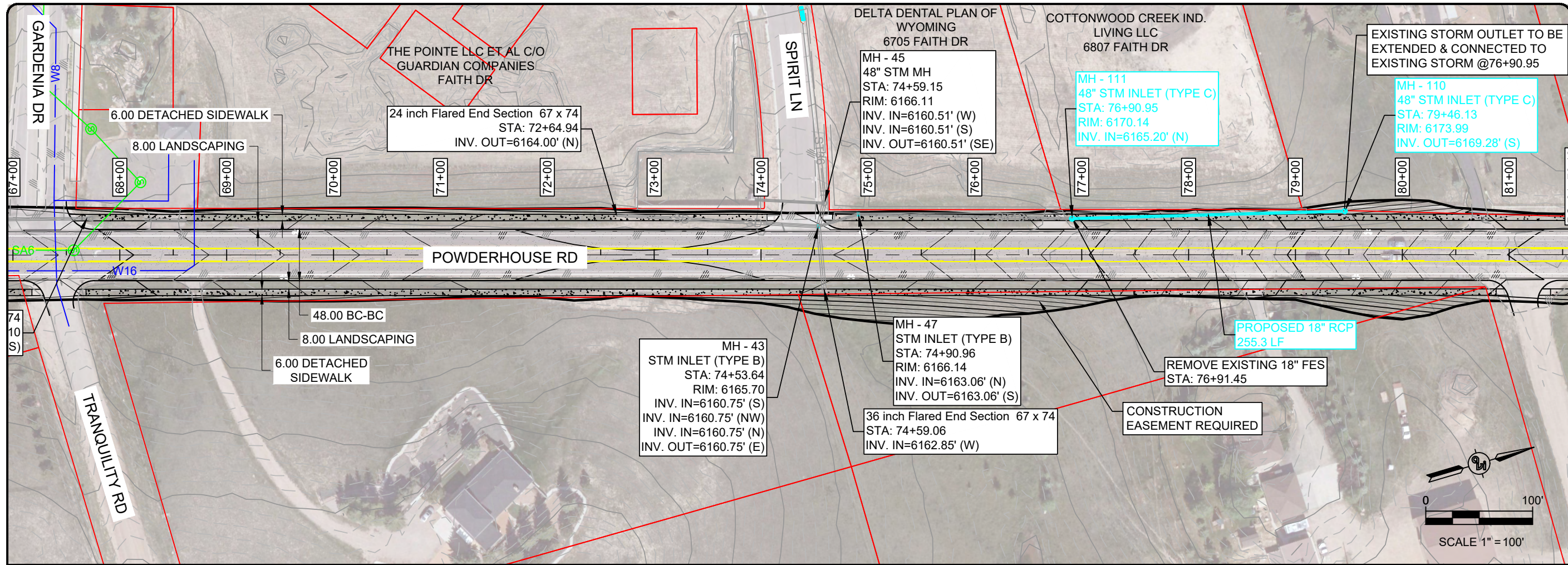
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2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT:
POWDERHOUSE ROAD
CORRIDOR STUDY

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DWG NO. R5	OF 85



DATE	REVISION	NO.

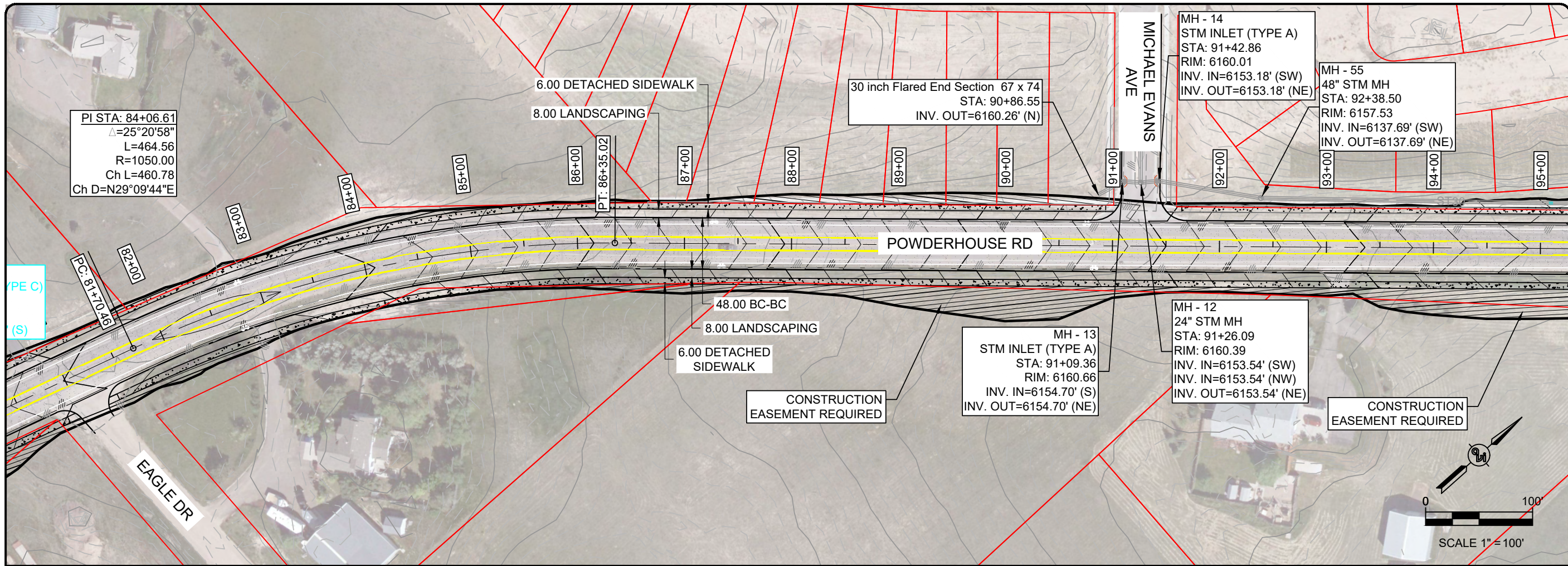
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2101 ONEIL AVE
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PROJECT:
POWDERHOUSE ROAD CORRIDOR STUDY

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DWG NO.	R6 OF 85



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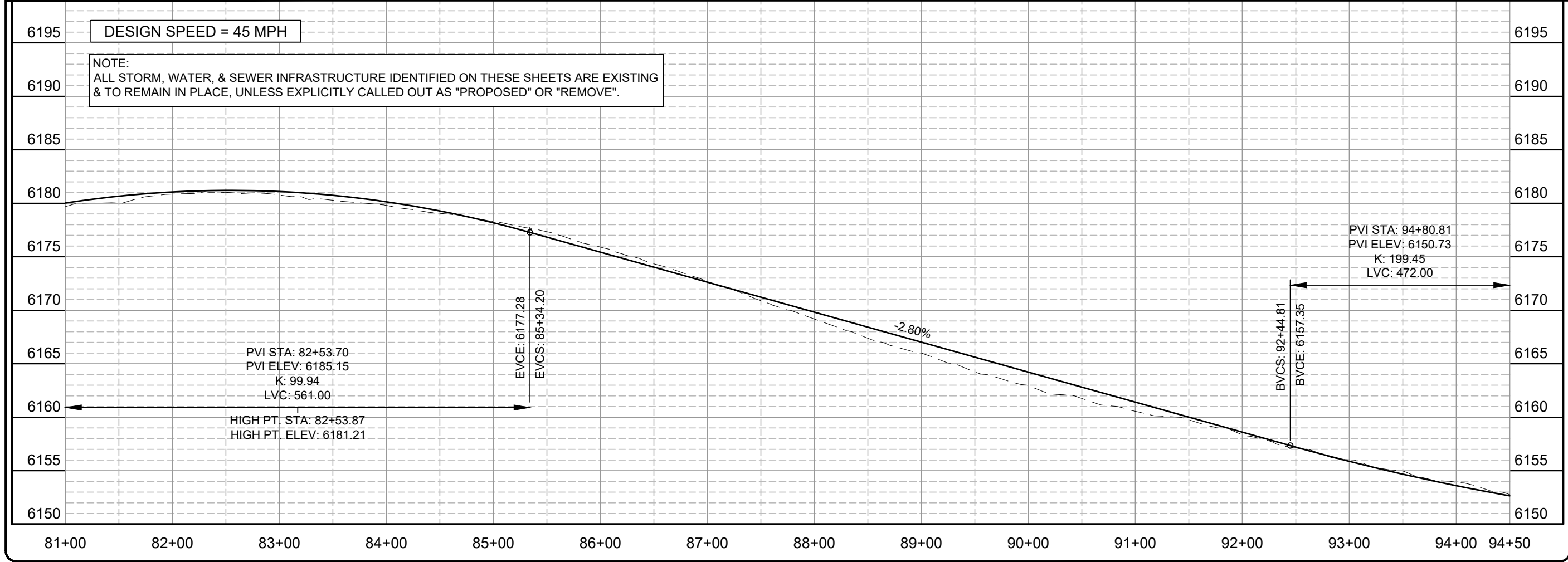
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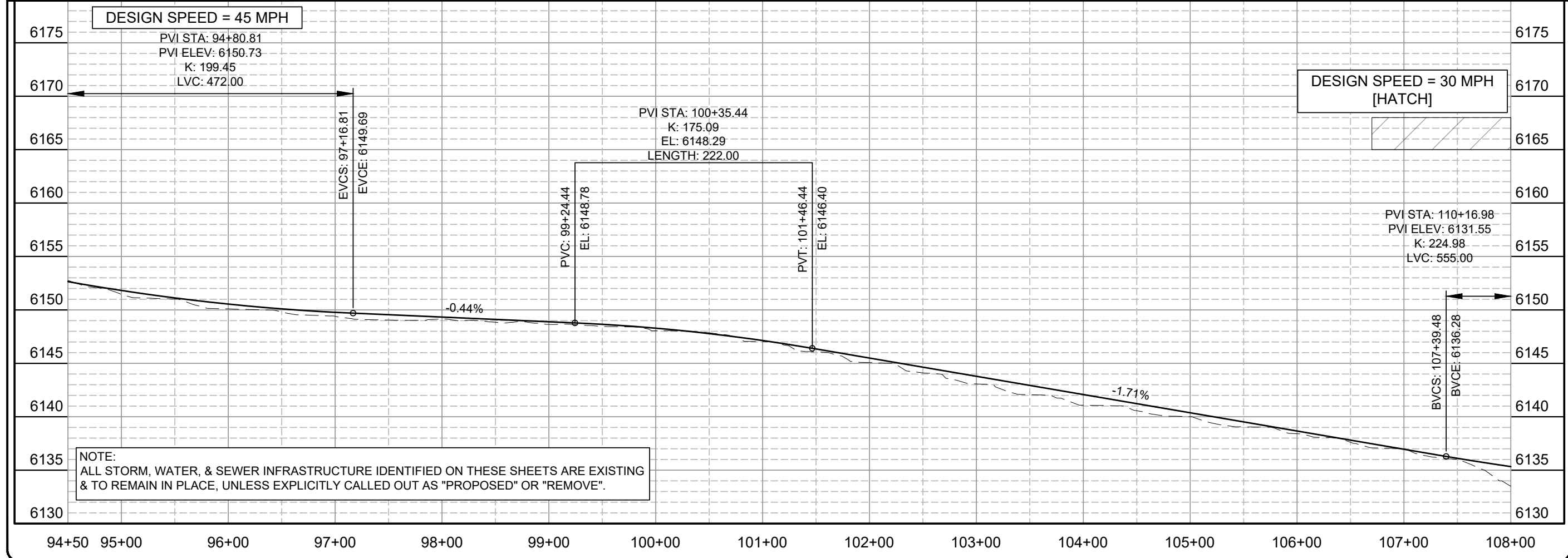
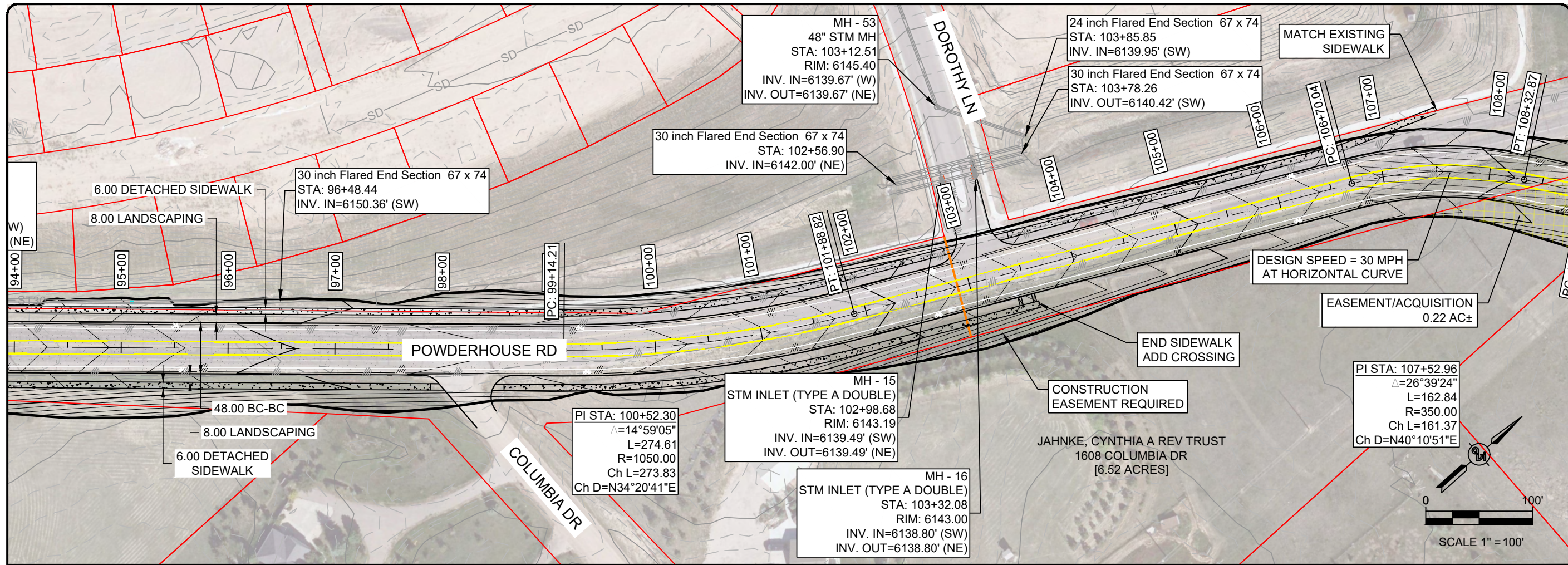
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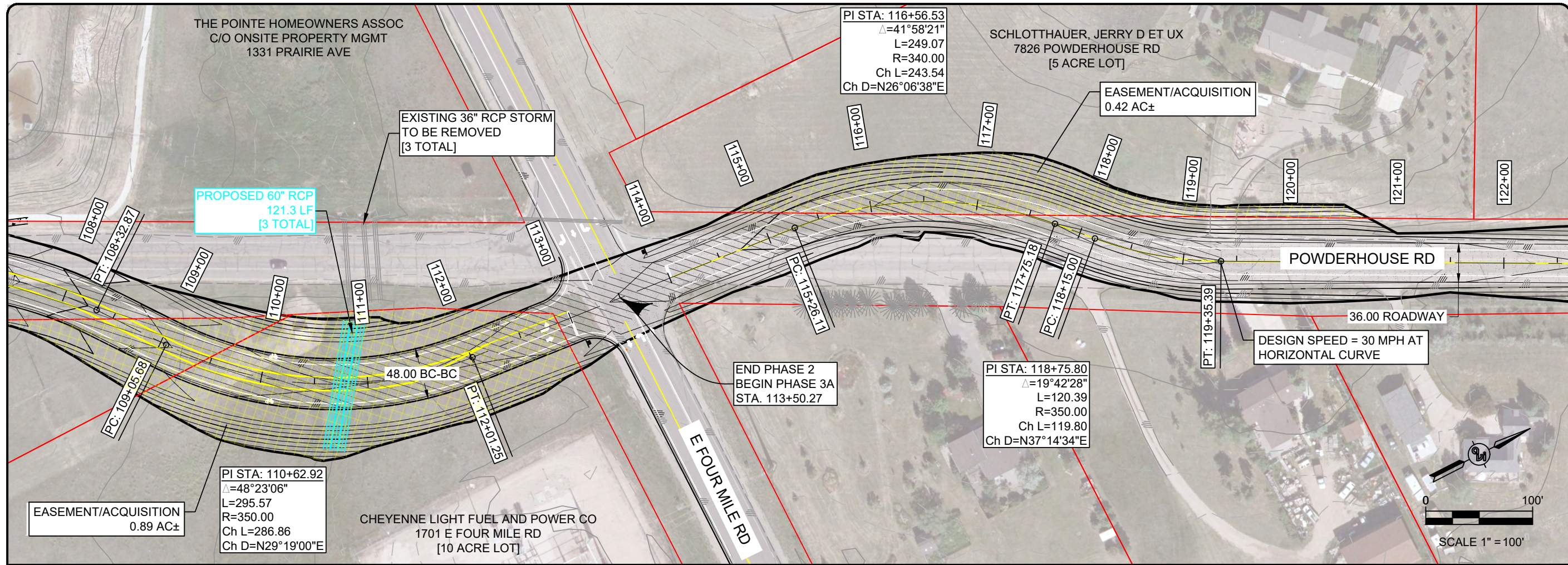
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CHEYENNE, WY 82001

PROJECT:
POWDERHOUSE ROAD
CORRIDOR STUDY

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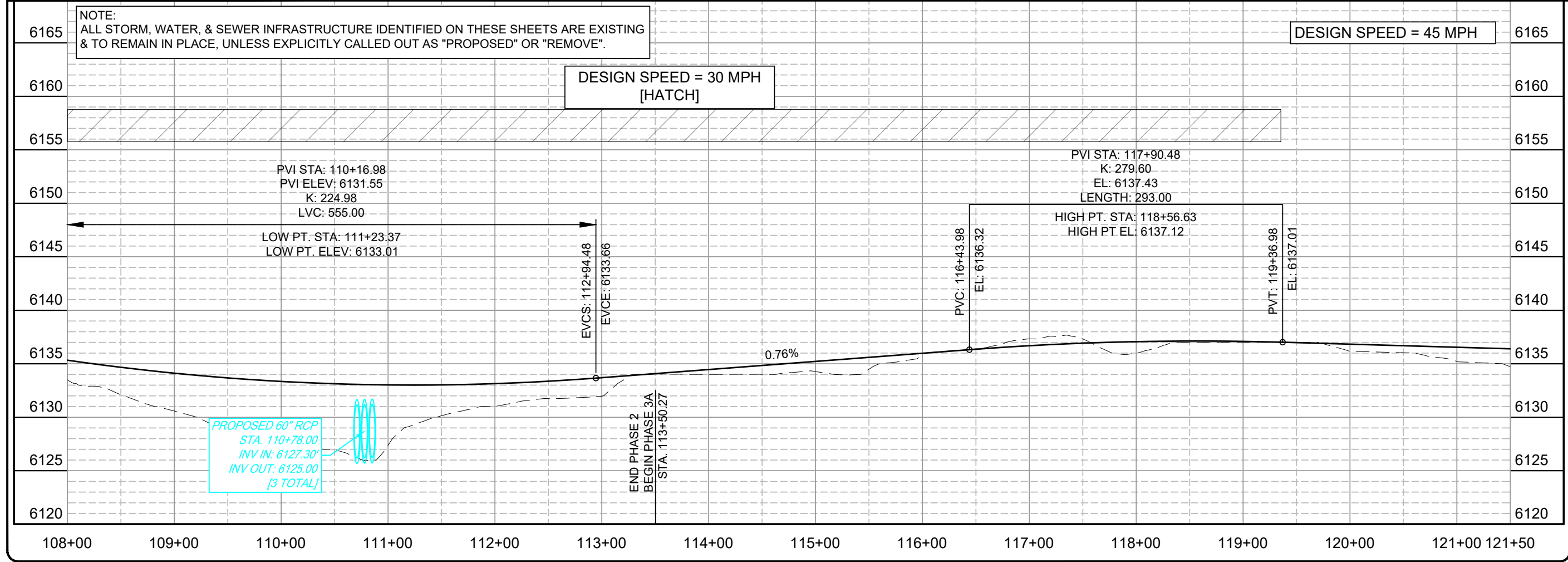
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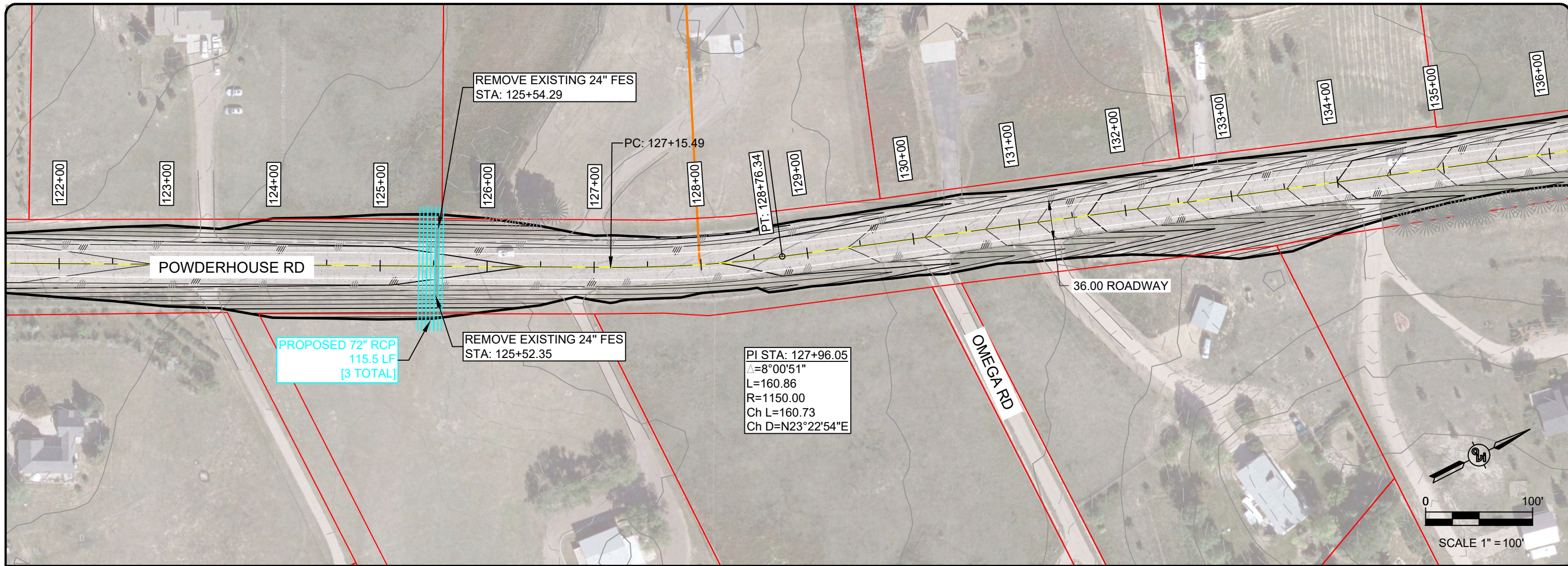
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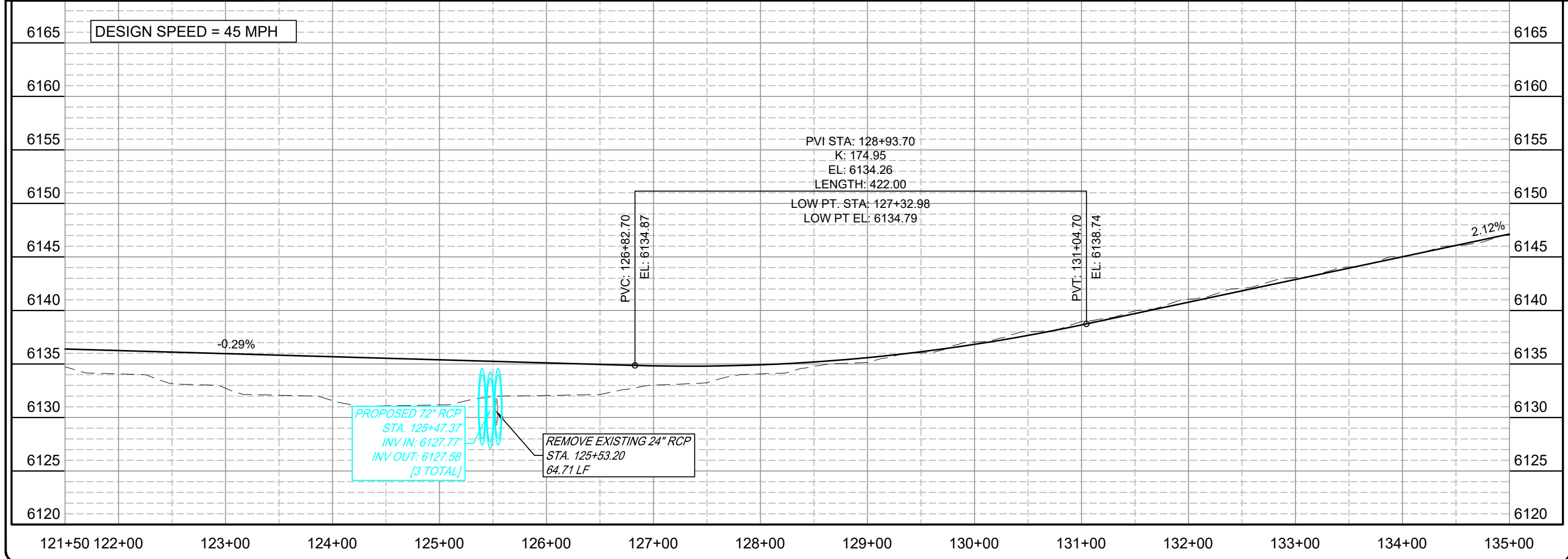
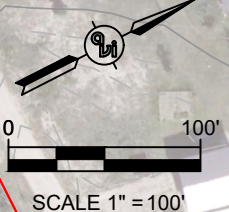
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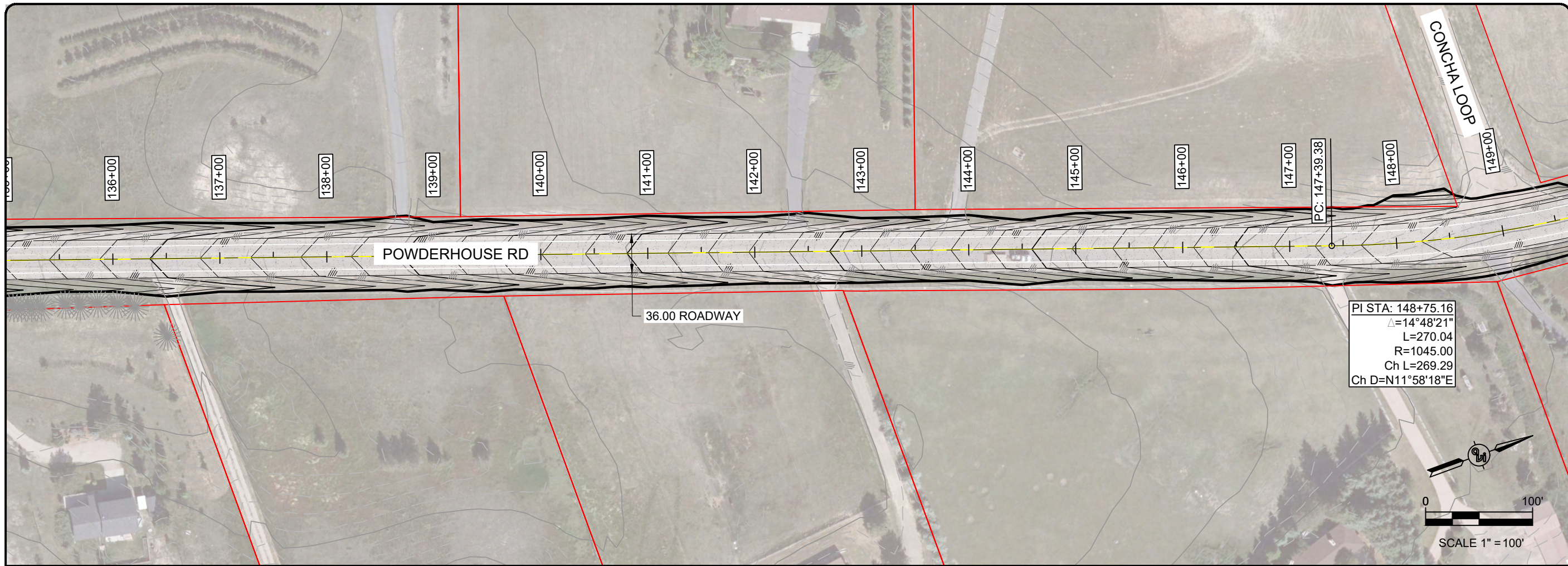


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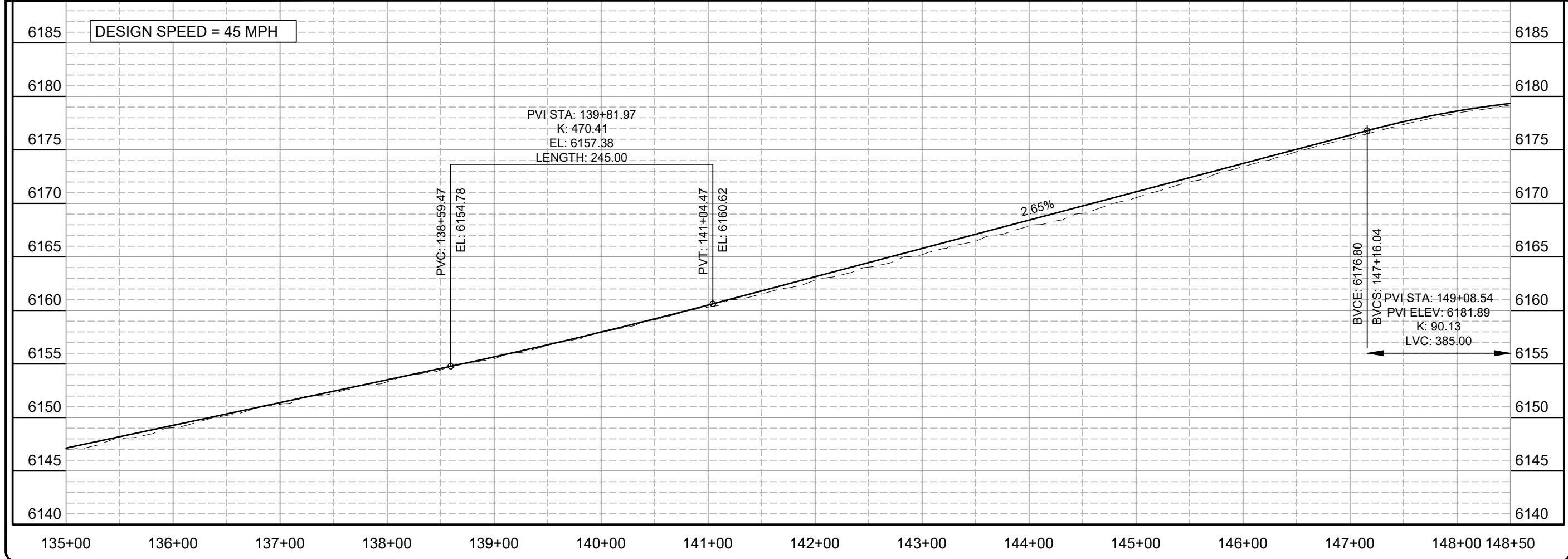
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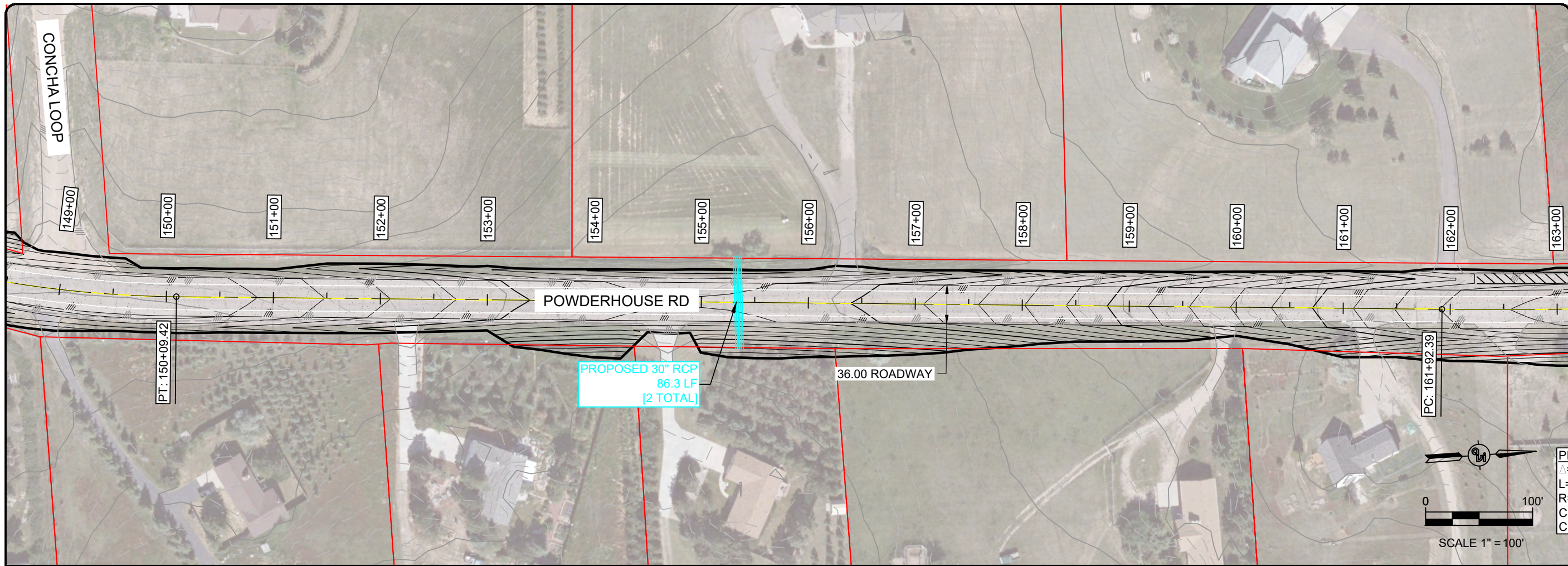
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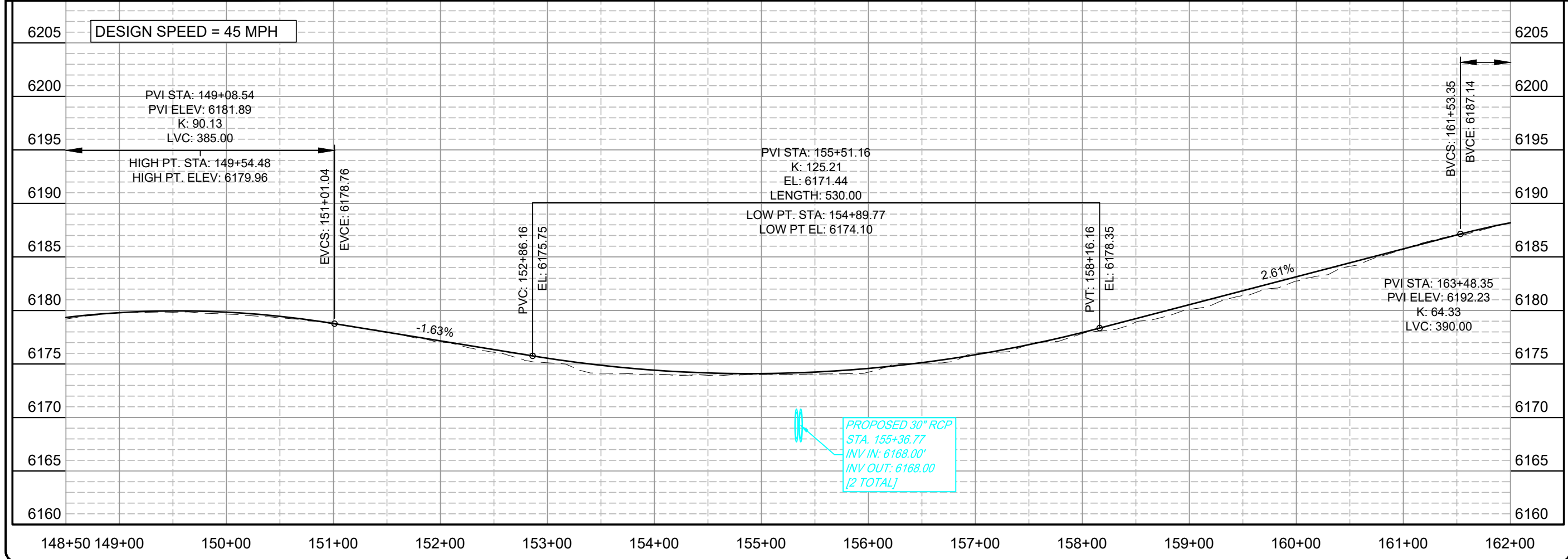
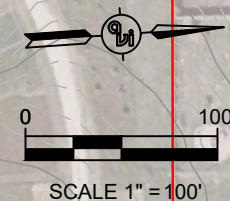
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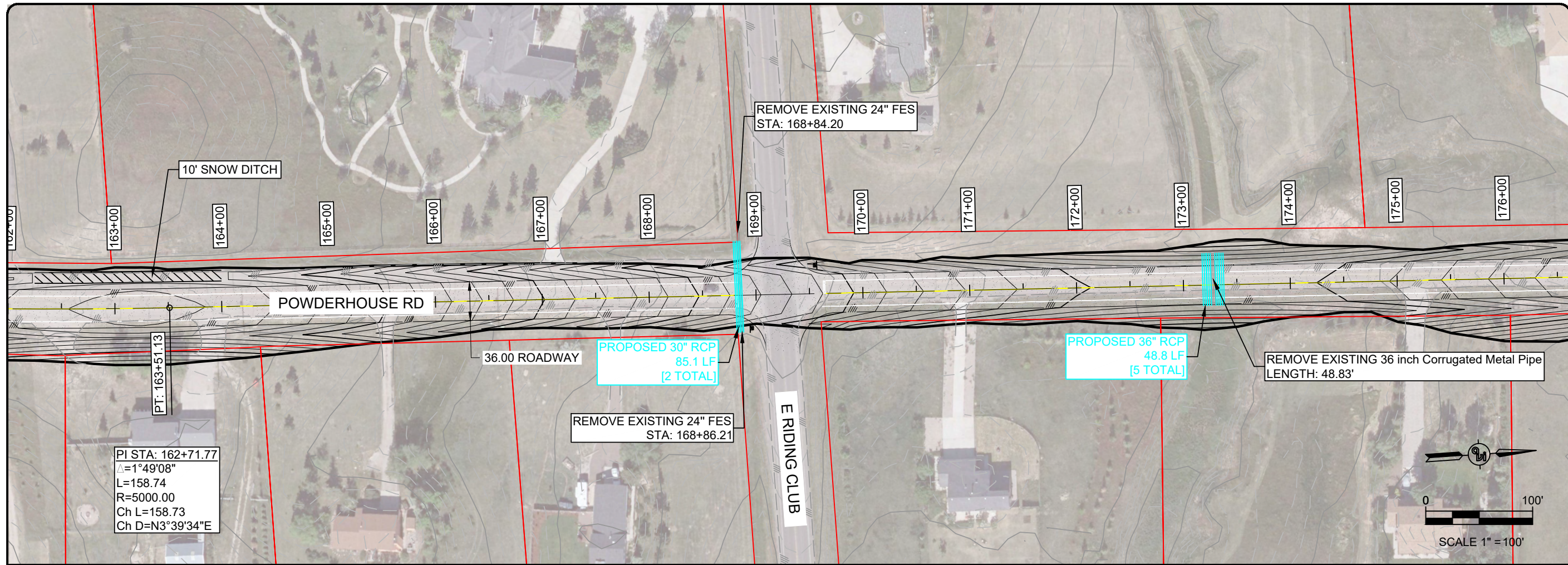
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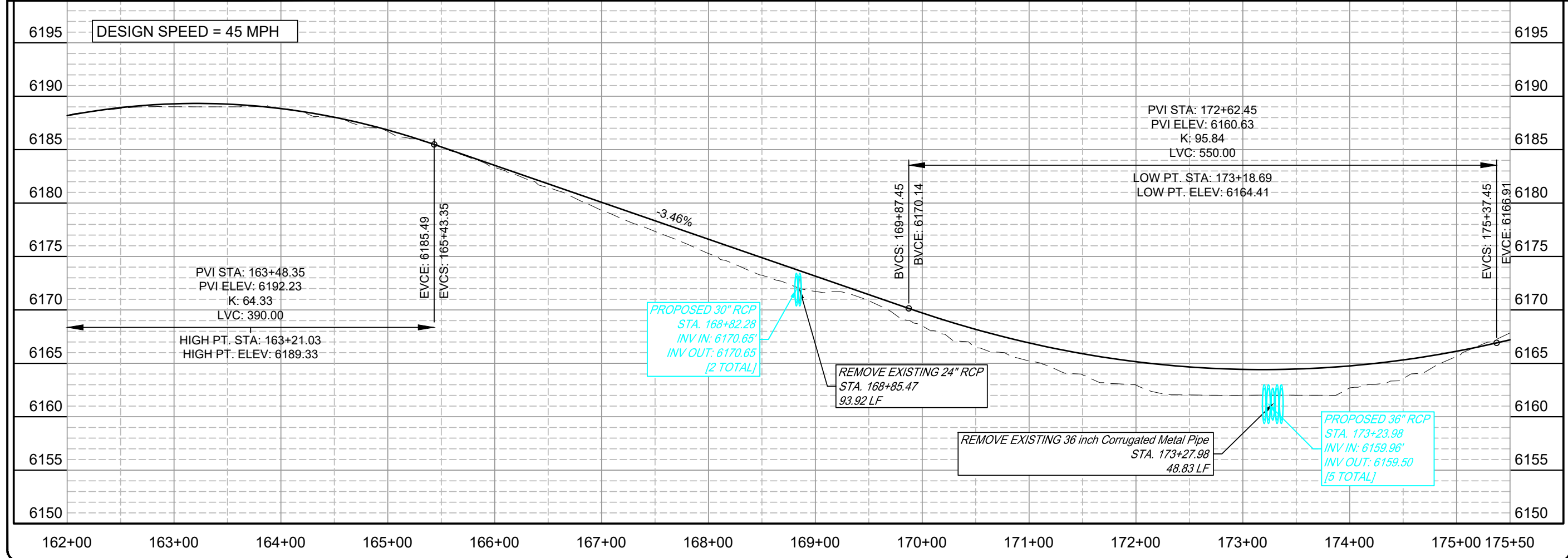
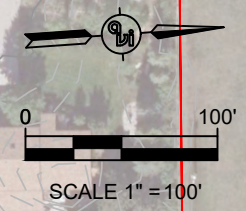


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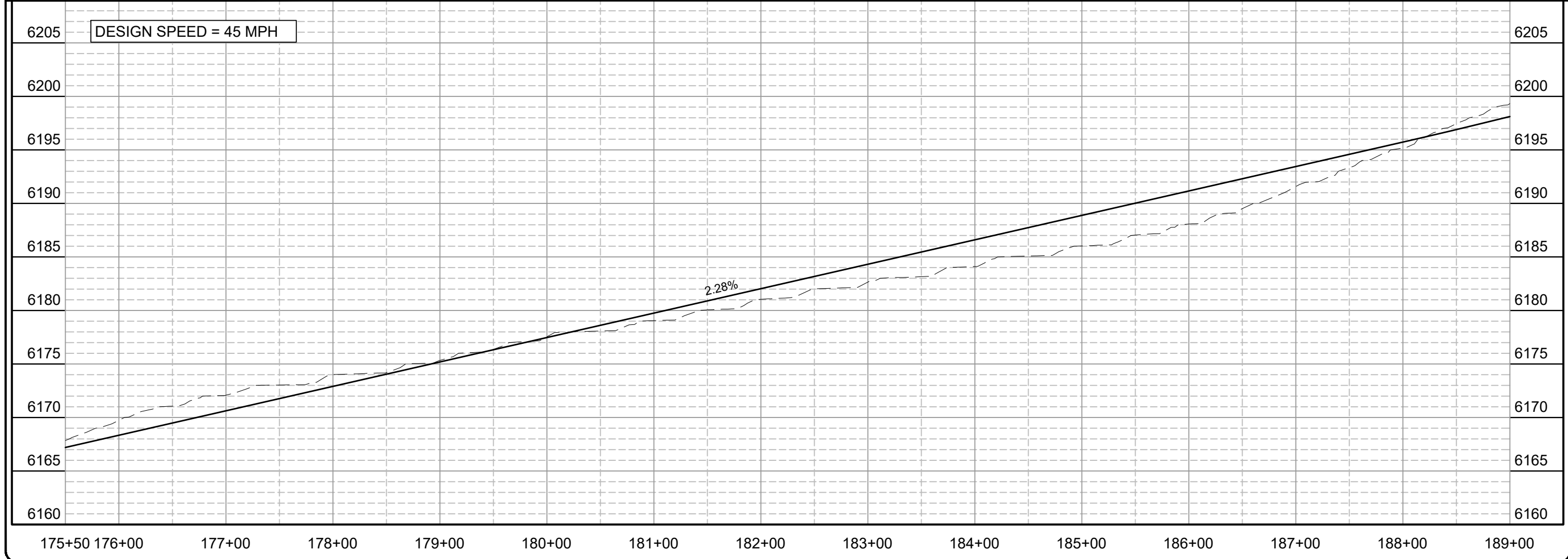
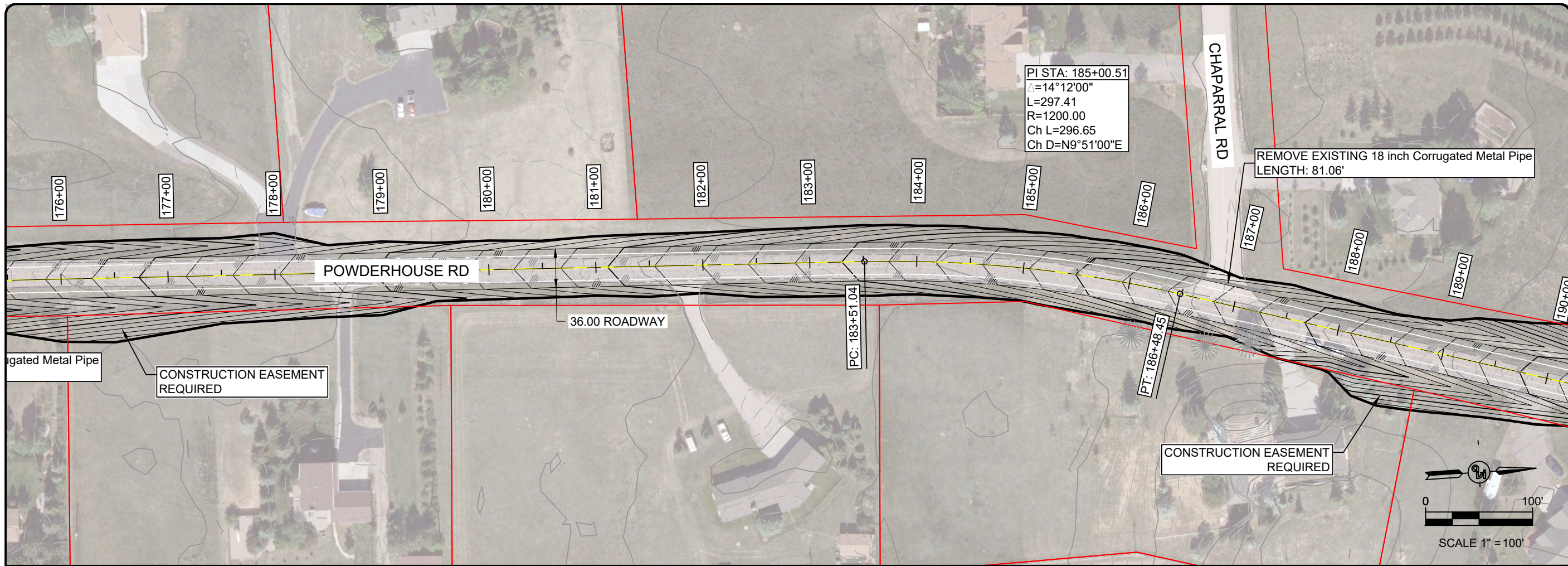
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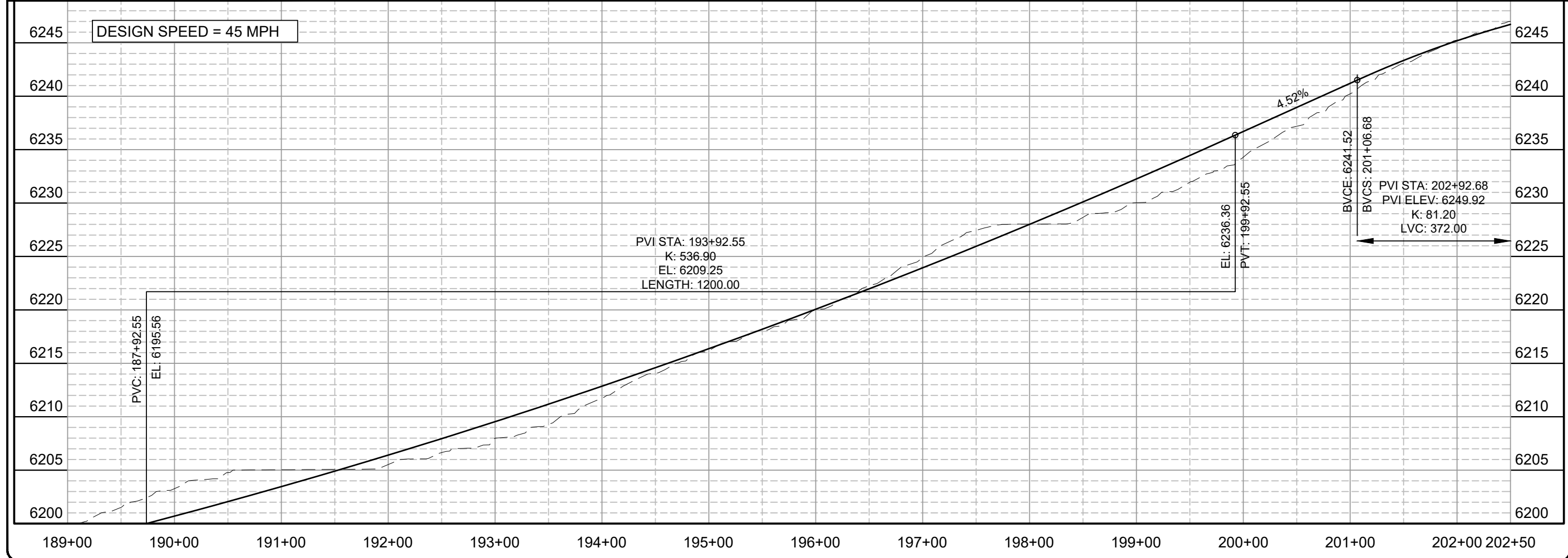
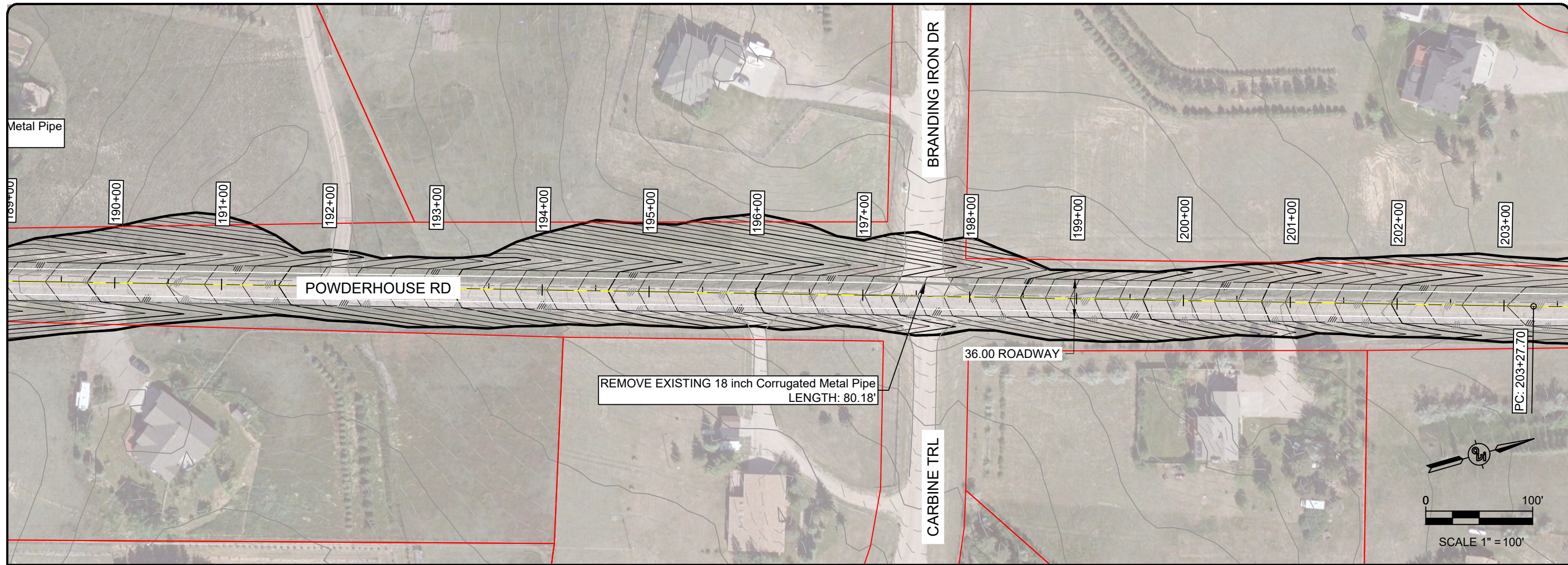
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 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD
 CORRIDOR STUDY

DRAWING TITLE:
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 1103 OLD TOWN LANE, SUITE 101
 CHEYENNE, WY 82009
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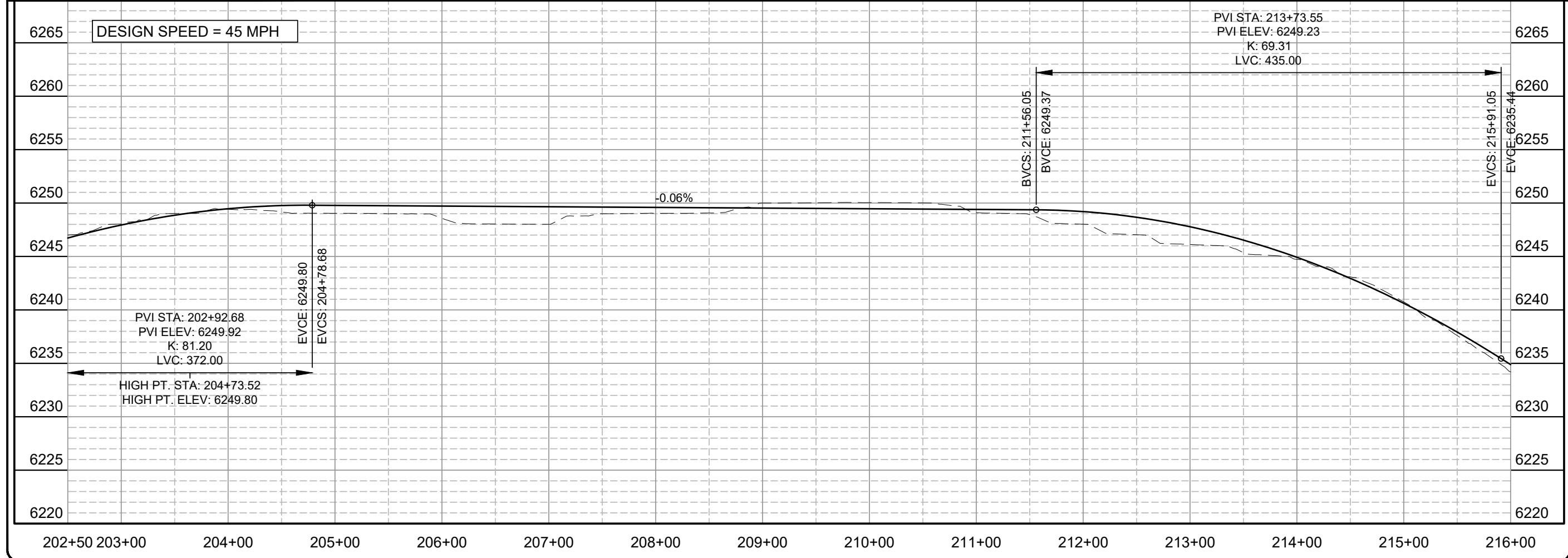
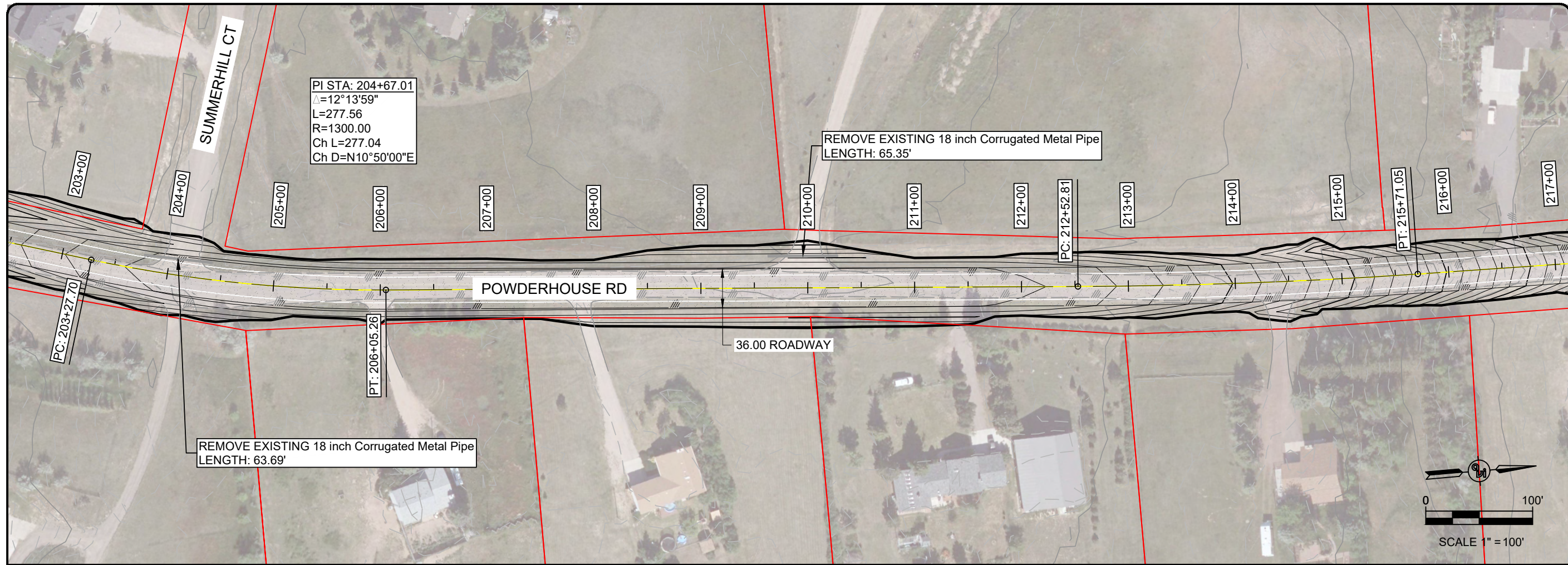
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
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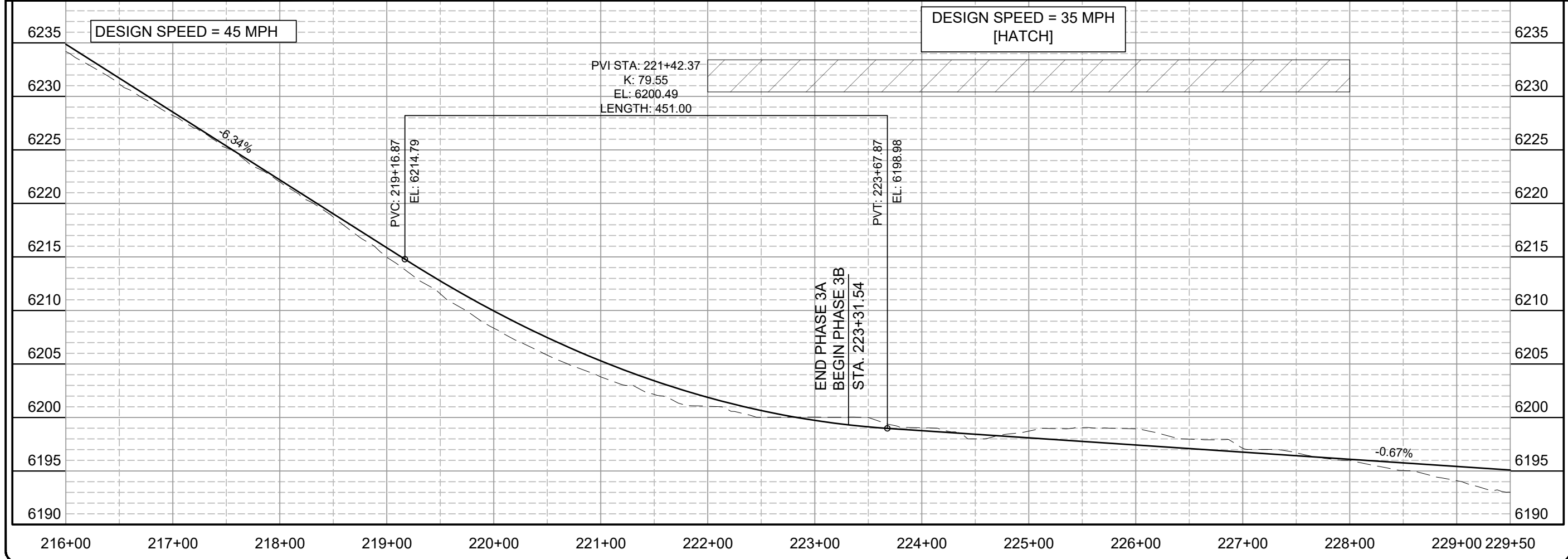
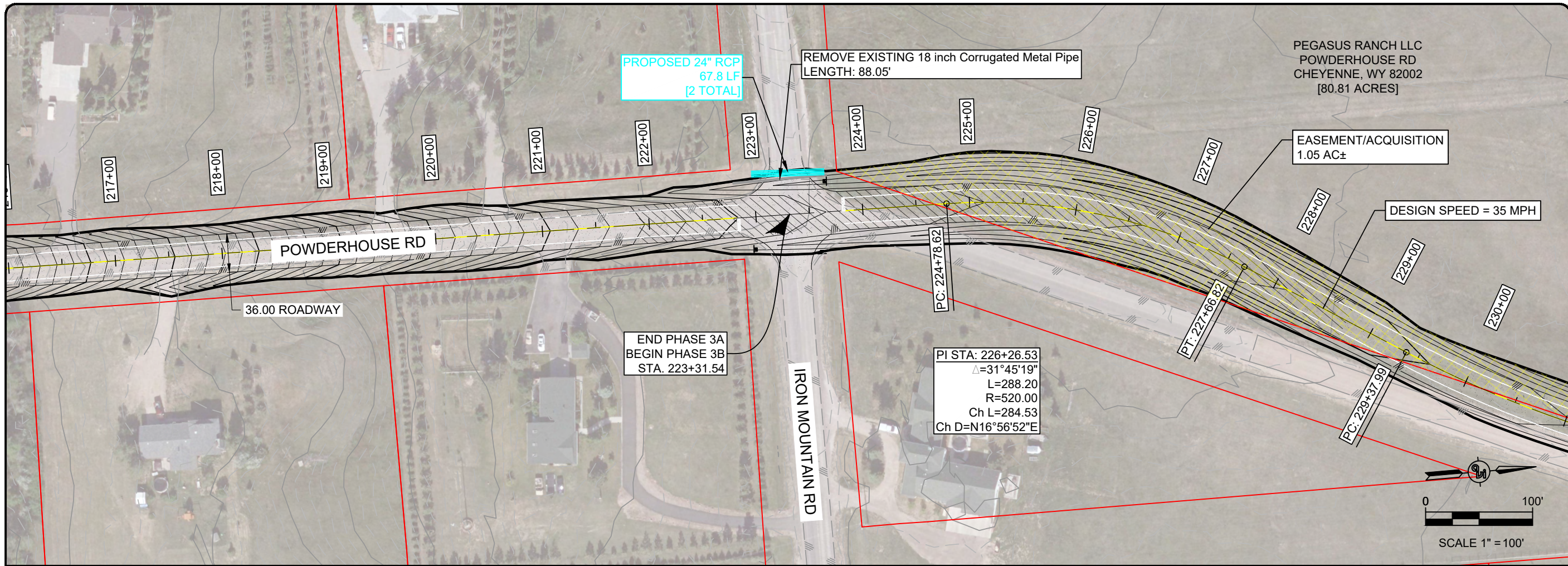
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 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD
 CORRIDOR STUDY

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DWG NO. R16 OF 85	



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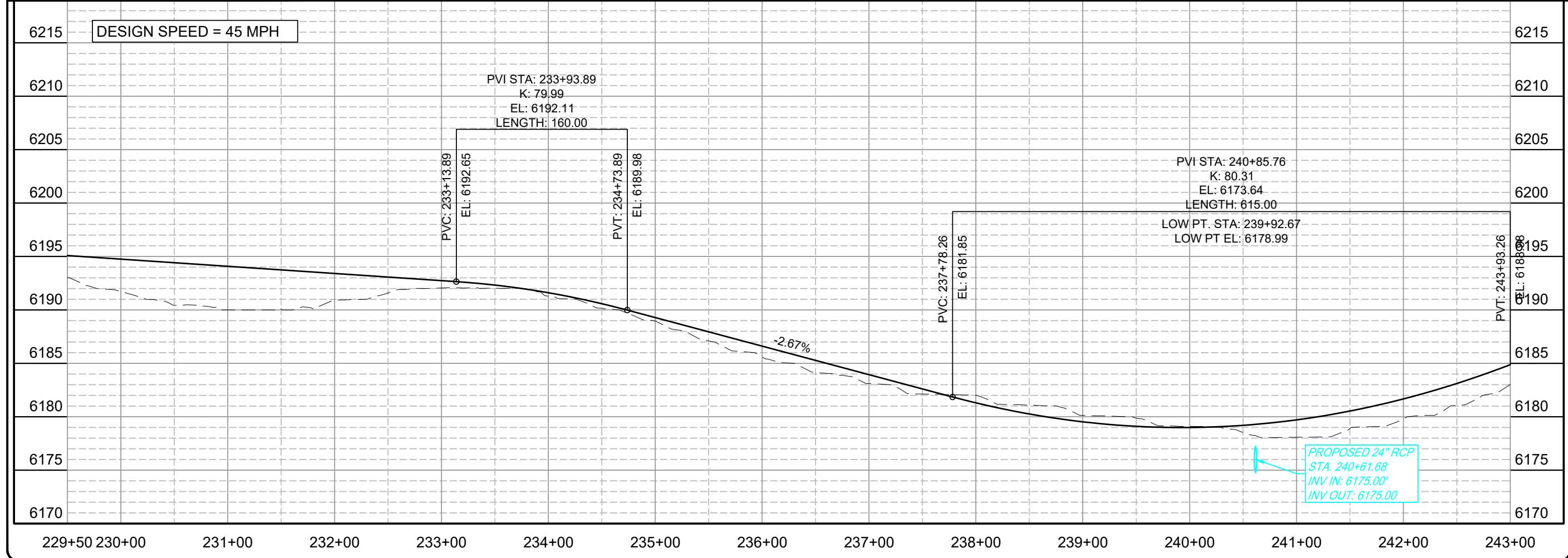
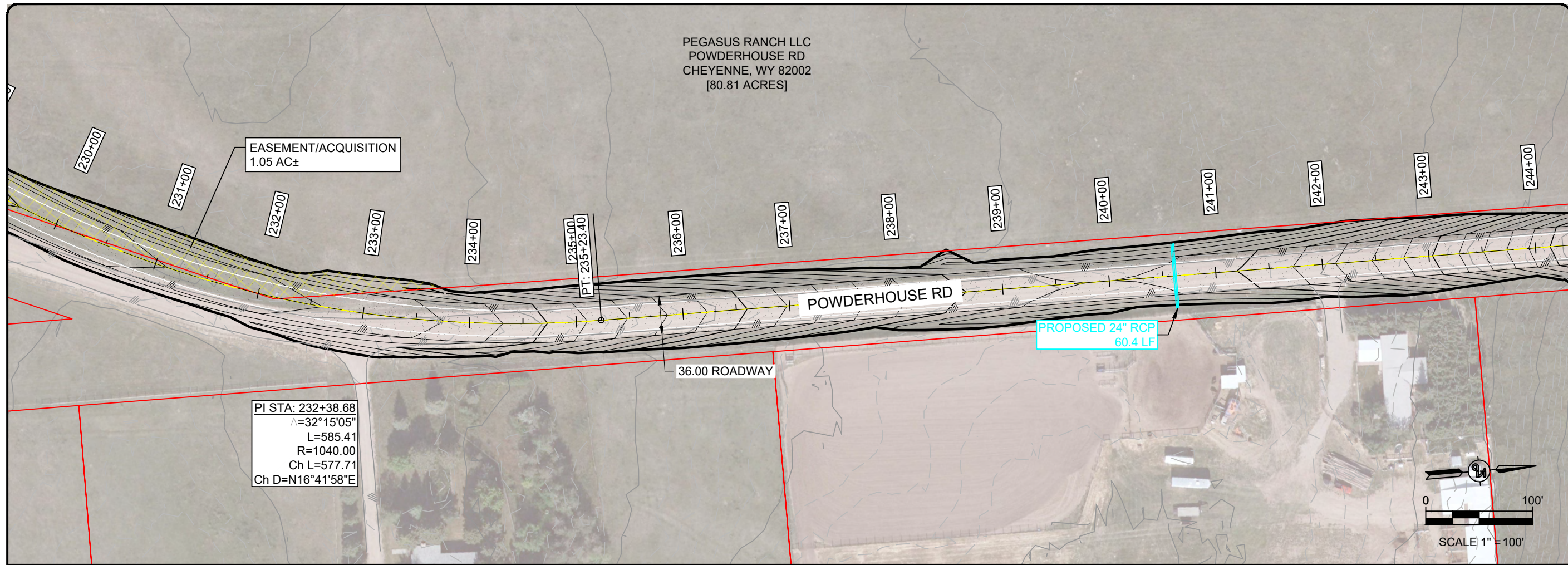
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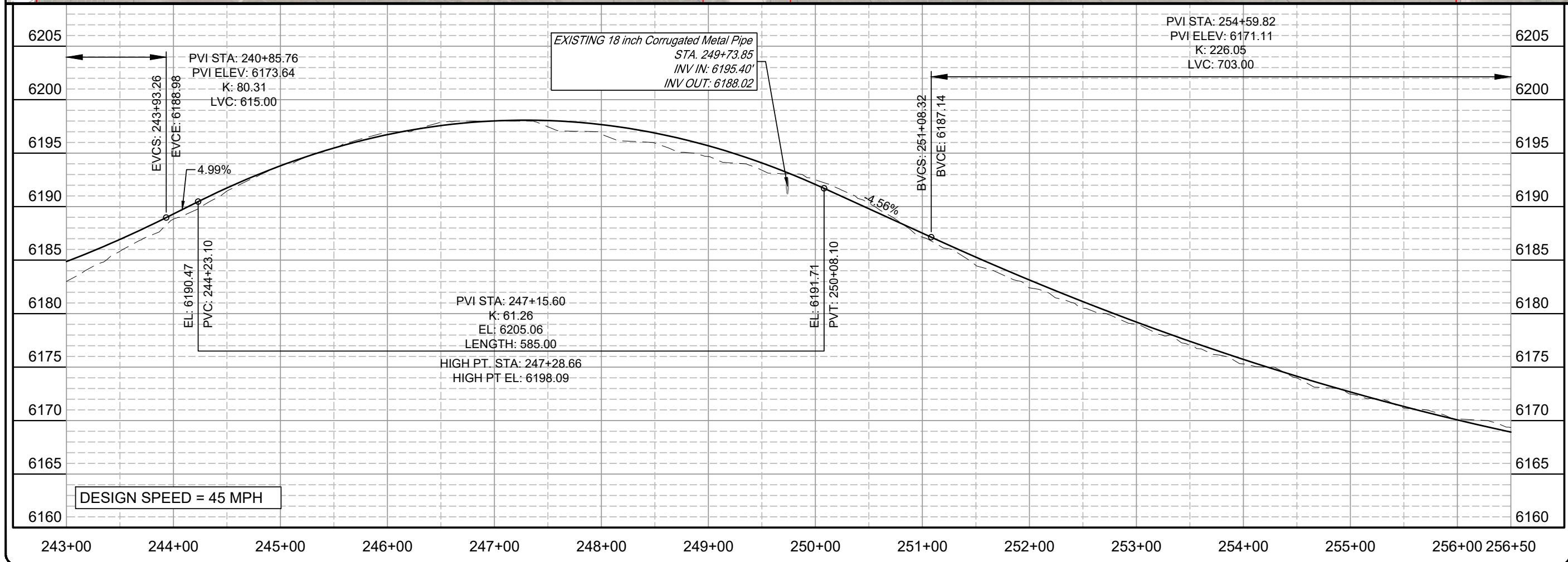
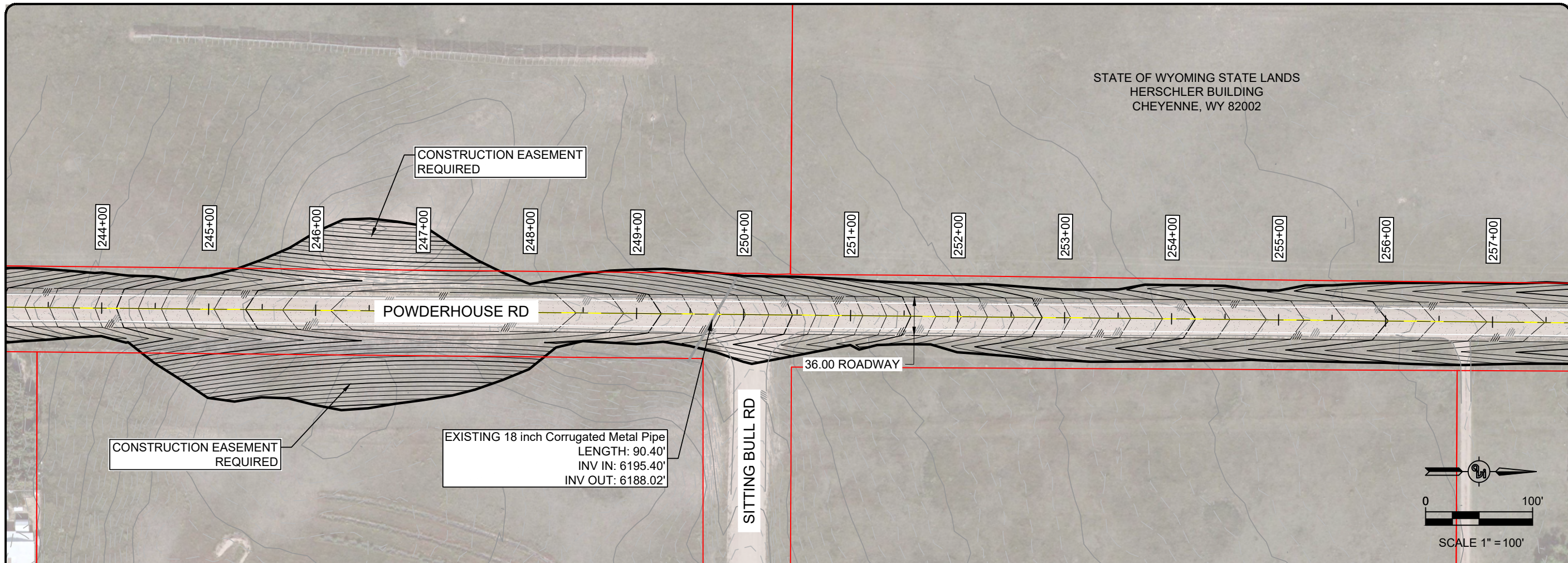
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JOB NO.:	4642
DWG NO. R18 OF 85	



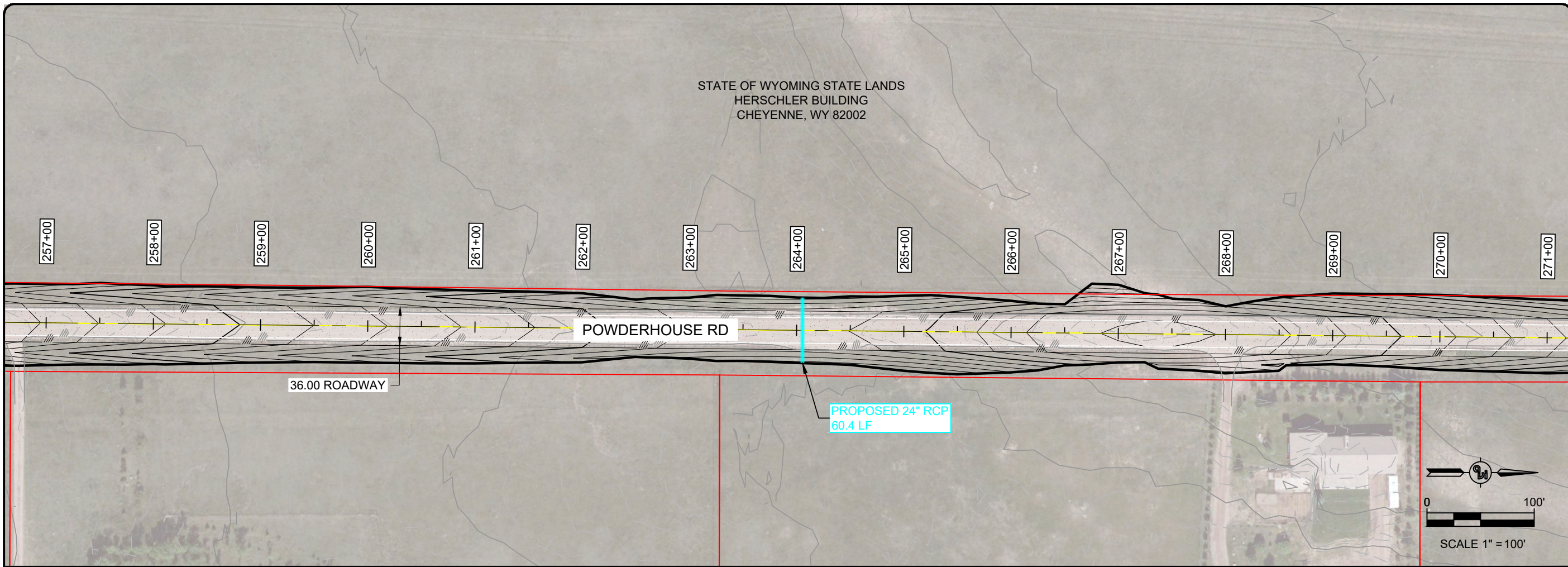
NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
DRAWING TITLE: PLAN AND PROFILE

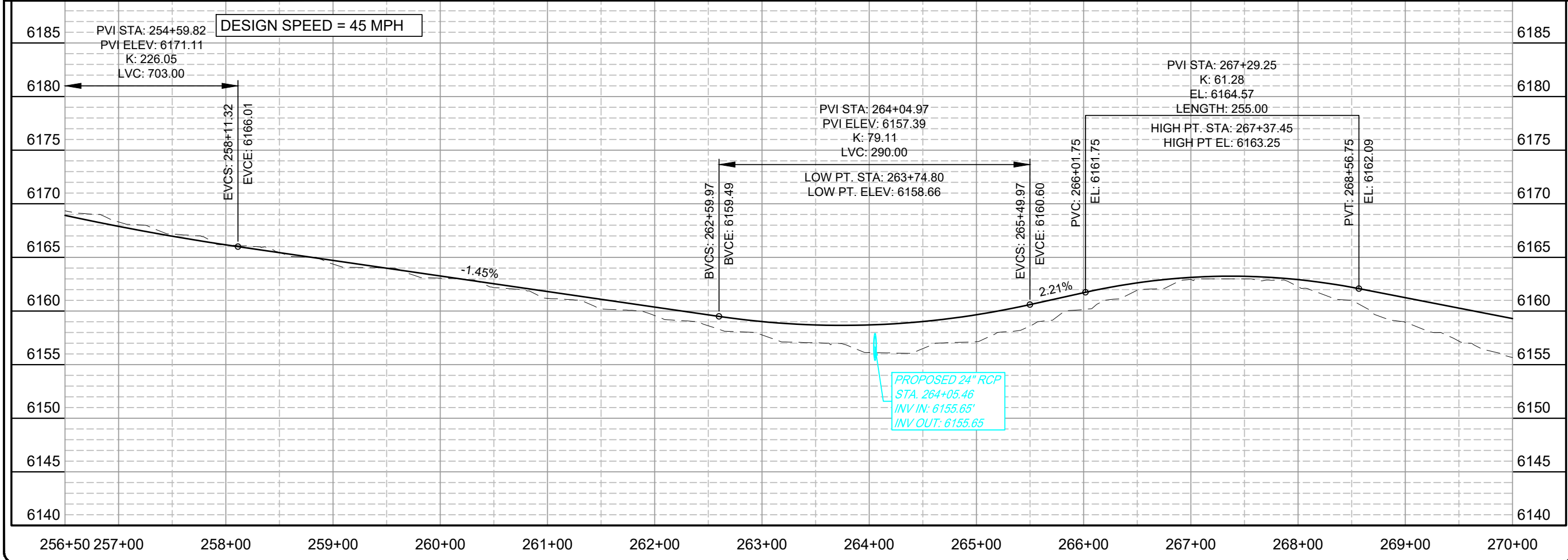
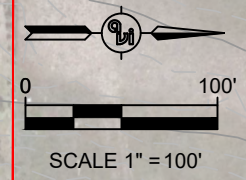


DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
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JOB NO.:	4642
DWG NO. R19 OF 85	



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PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

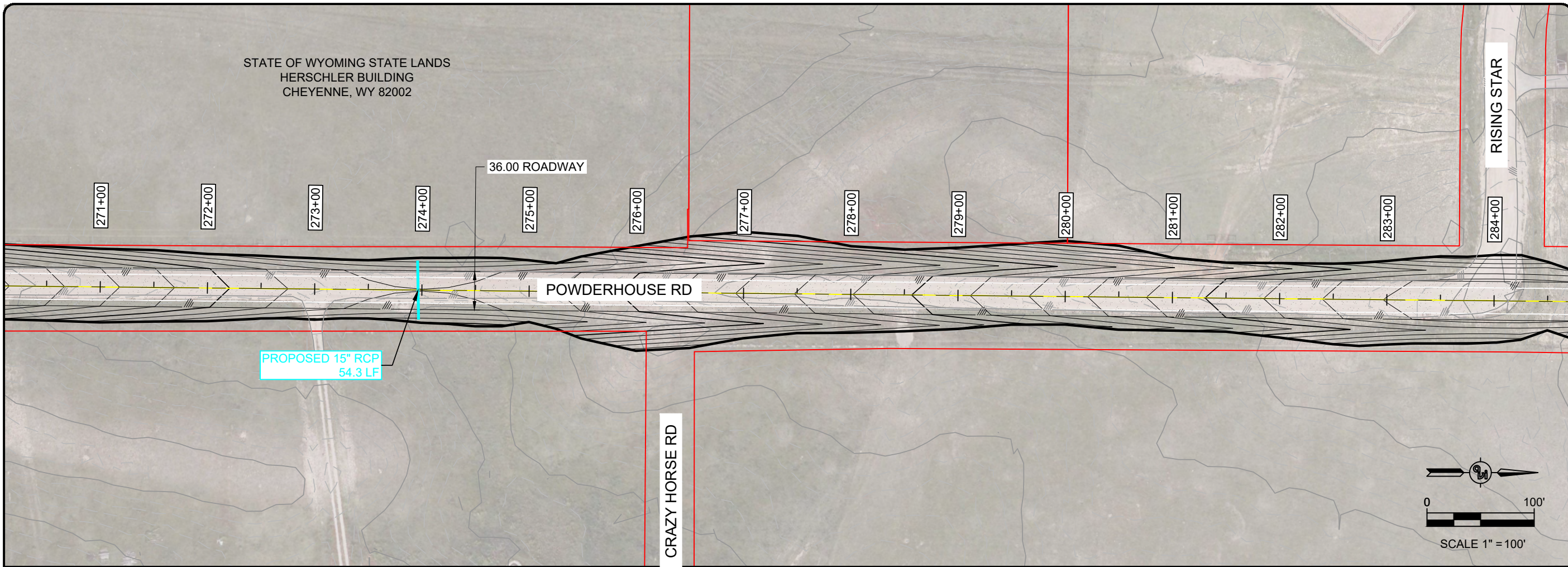


PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: PLAN AND PROFILE



DATE PLOTTED:	Jun 12, 2023
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DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. R20 OF 85	

STATE OF WYOMING STATE LANDS
HERSCHLER BUILDING
CHEYENNE, WY 82002

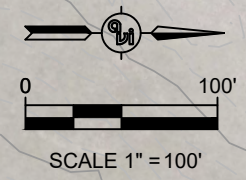


RISING STAR

CRAZY HORSE RD

POWDERHOUSE RD

PROPOSED 15" RCP
54.3 LF



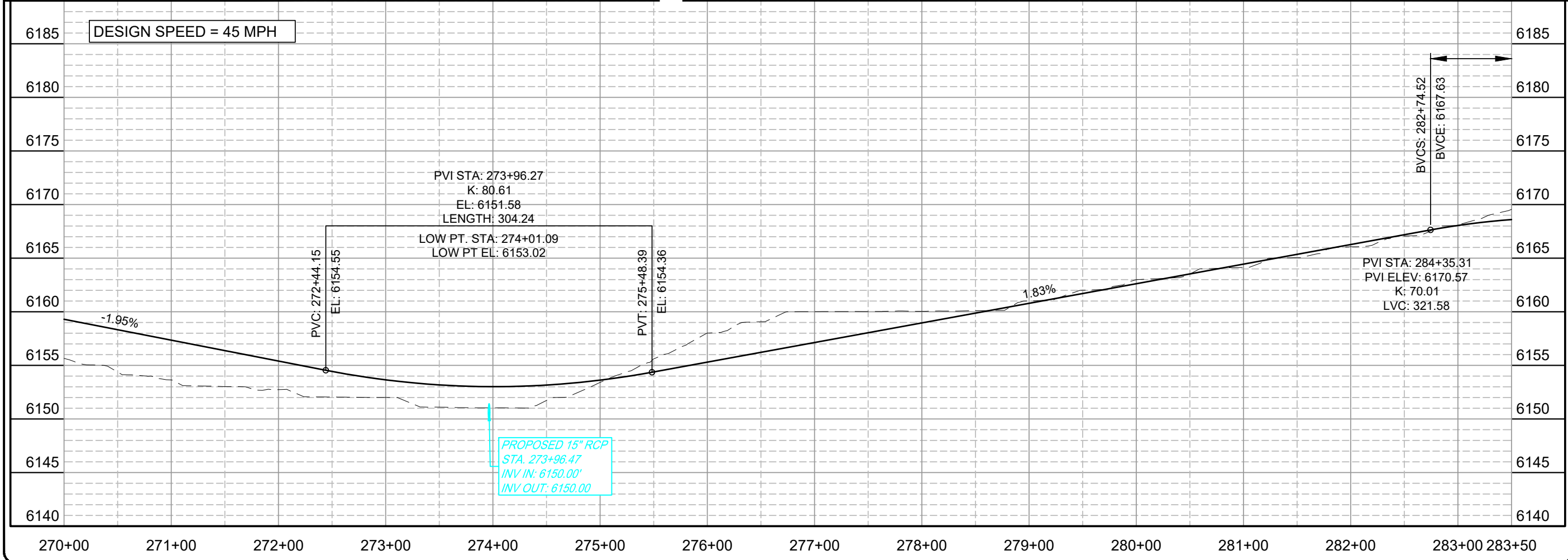
NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
DRAWING TITLE: PLAN AND PROFILE



DATE PLOTTED: Jun 12, 2023
DRAWN BY: CA
DESIGNED BY: CA
CHECKED BY: TC
JOB NO.: 4642



DESIGN SPEED = 45 MPH

PVI STA: 273+96.27
K: 80.61
EL: 6151.58
LENGTH: 304.24
LOW PT. STA: 274+01.09
LOW PT EL: 6153.02

PVC: 272+44.15
EL: 6154.55

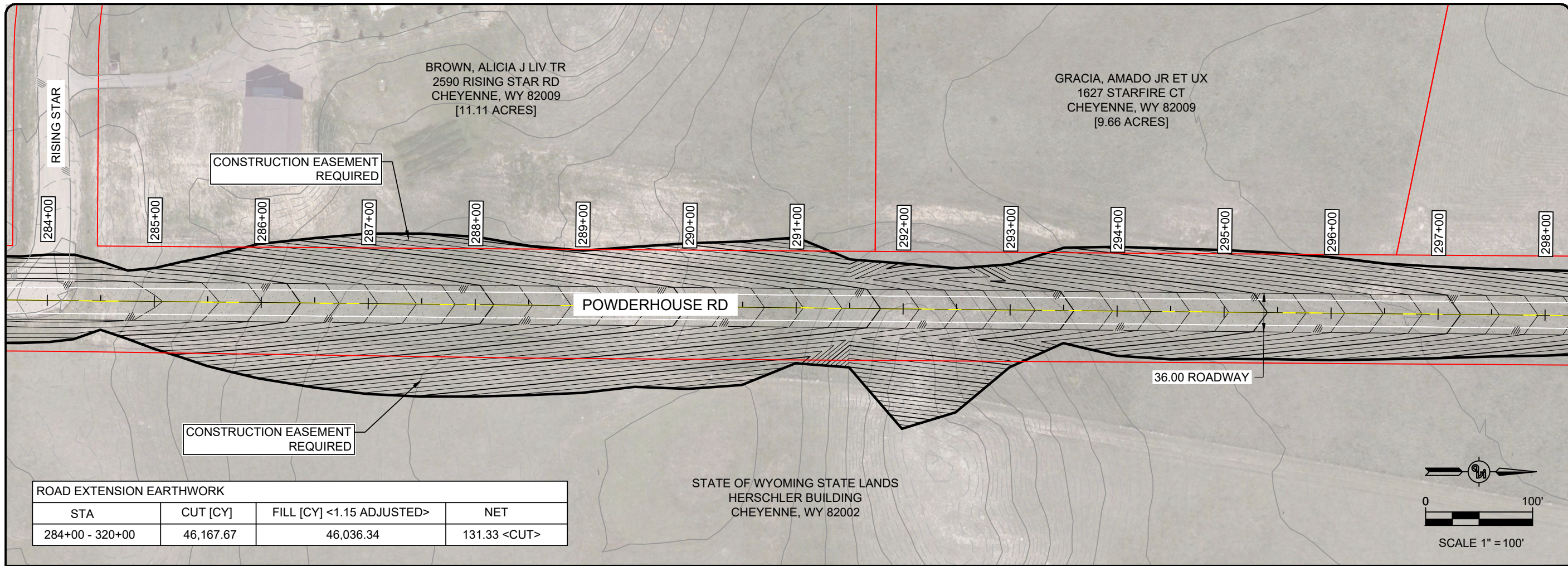
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EL: 6154.36

PVI STA: 284+35.31
PVI ELEV: 6170.57
K: 70.01
LVC: 321.58

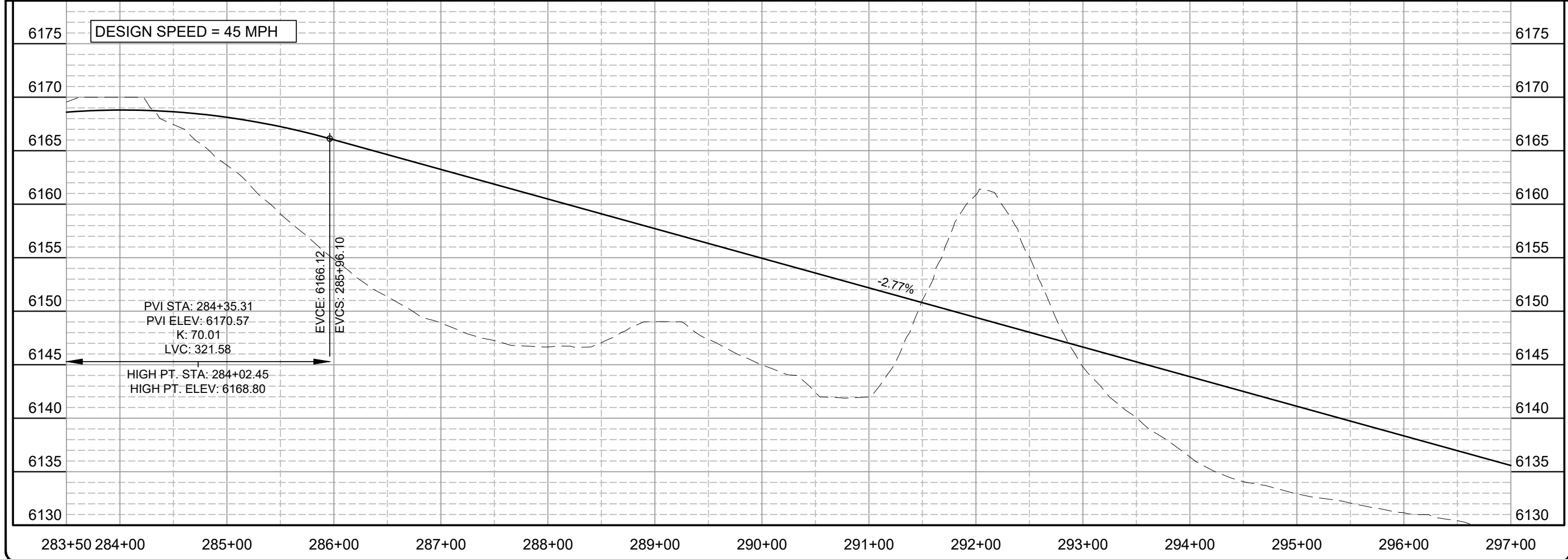
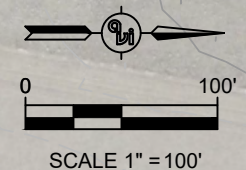
BVCS: 282+74.52
BVCE: 6167.63

PROPOSED 15" RCP
STA: 273+96.47
INV IN: 6150.00'
INV OUT: 6150.00'

270+00 271+00 272+00 273+00 274+00 275+00 276+00 277+00 278+00 279+00 280+00 281+00 282+00 283+00 283+50



ROAD EXTENSION EARTHWORK			
STA	CUT [CY]	FILL [CY] <1.15 ADJUSTED>	NET
284+00 - 320+00	46,167.67	46,036.34	131.33 <CUT>



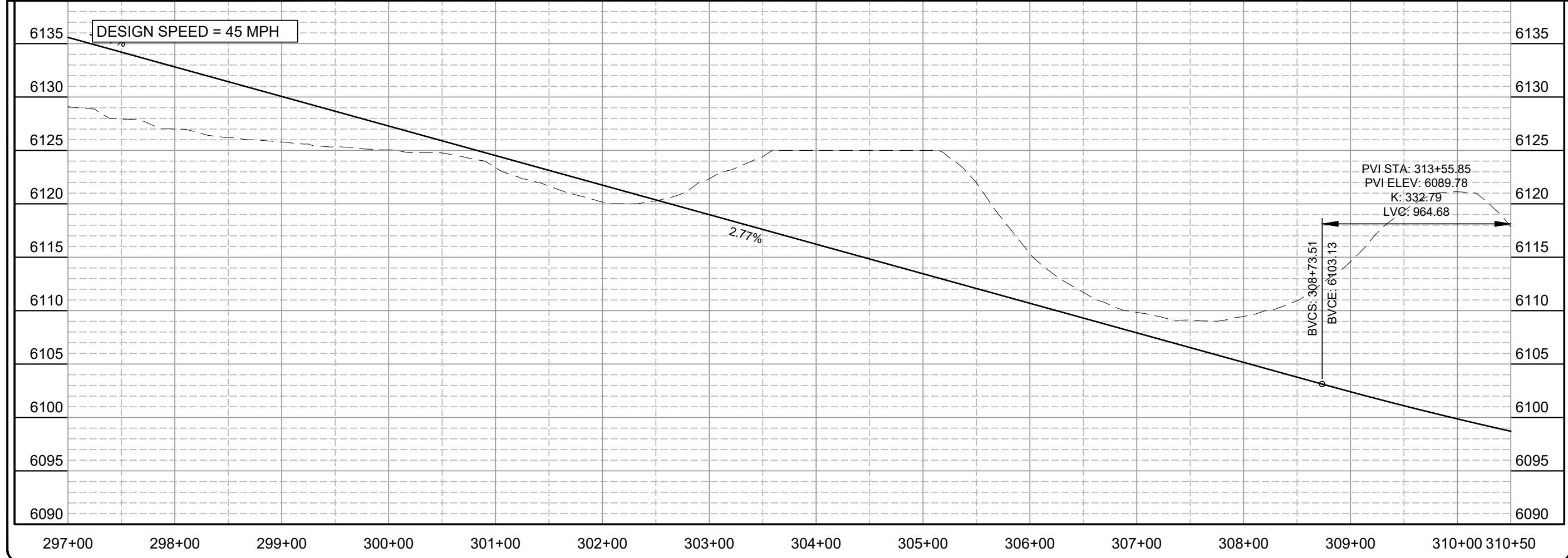
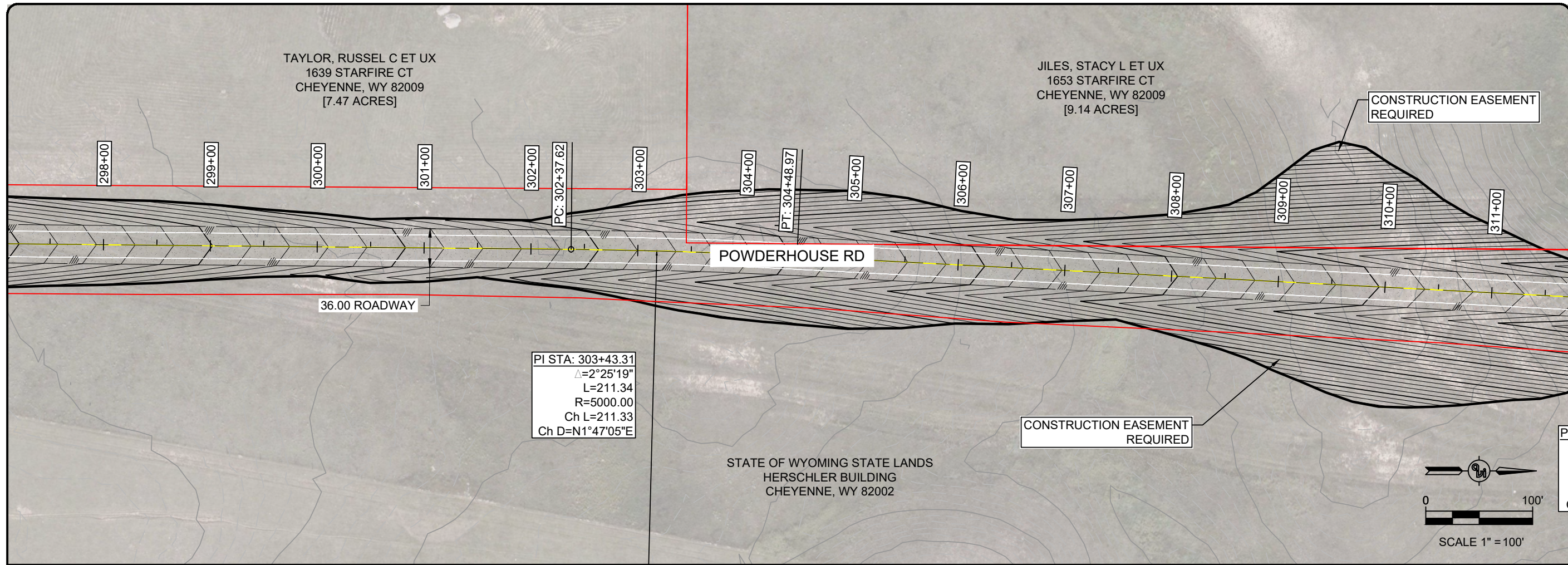
NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
DRAWING TITLE: PLAN AND PROFILE



DATE PLOTTED:	Jun 12, 2023
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DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. R22 OF 85	



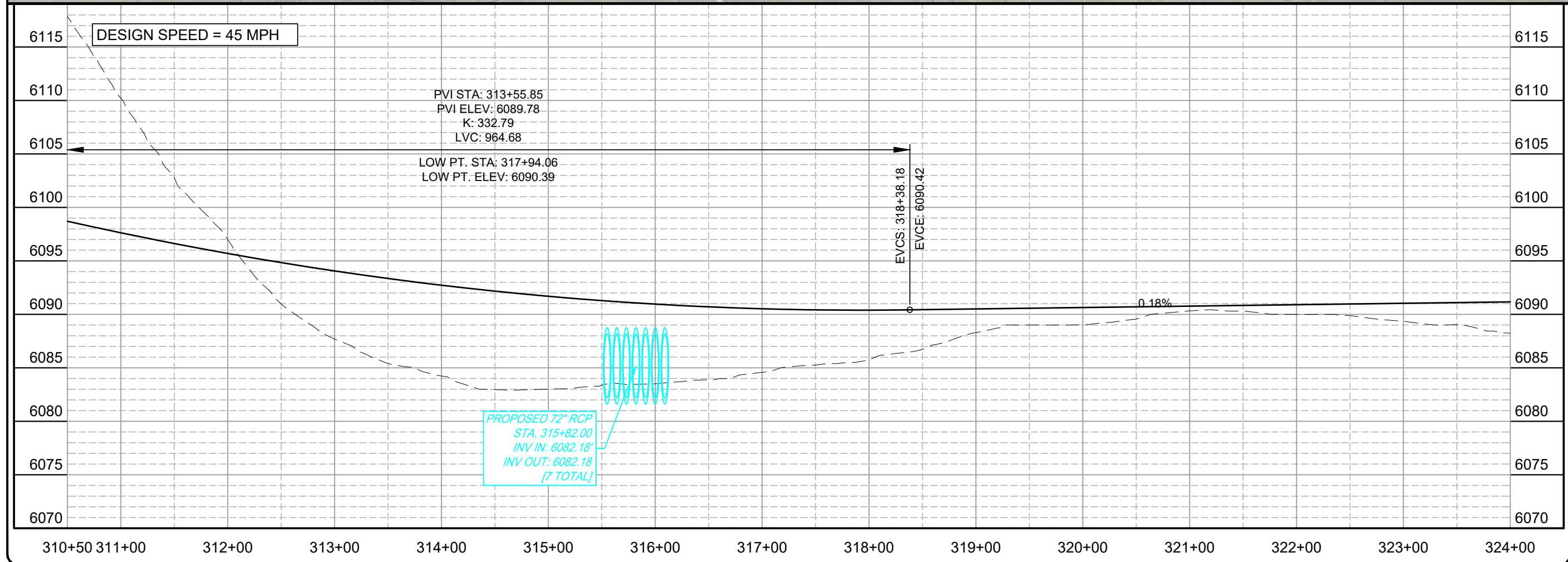
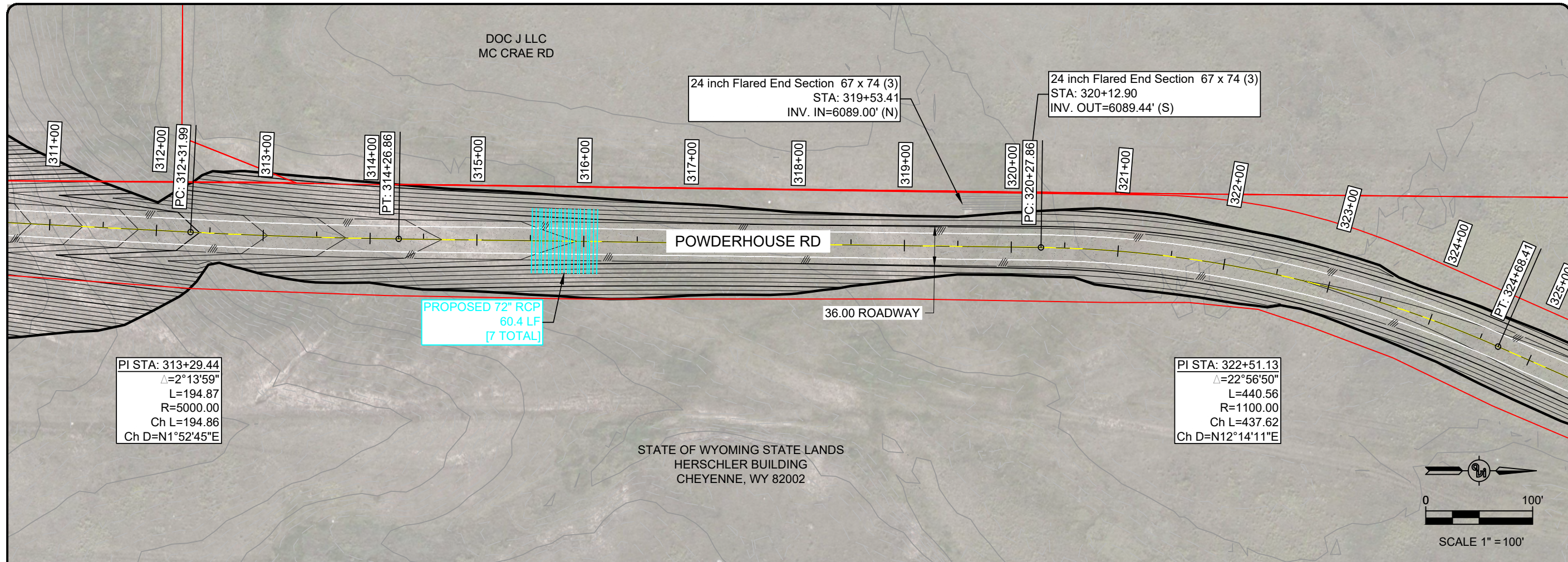
NO.	REVISION	DATE

PREPARED FOR:
 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: PLAN AND PROFILE



DATE PLOTTED:	Jun 12, 2023
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DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. R23 OF 85	



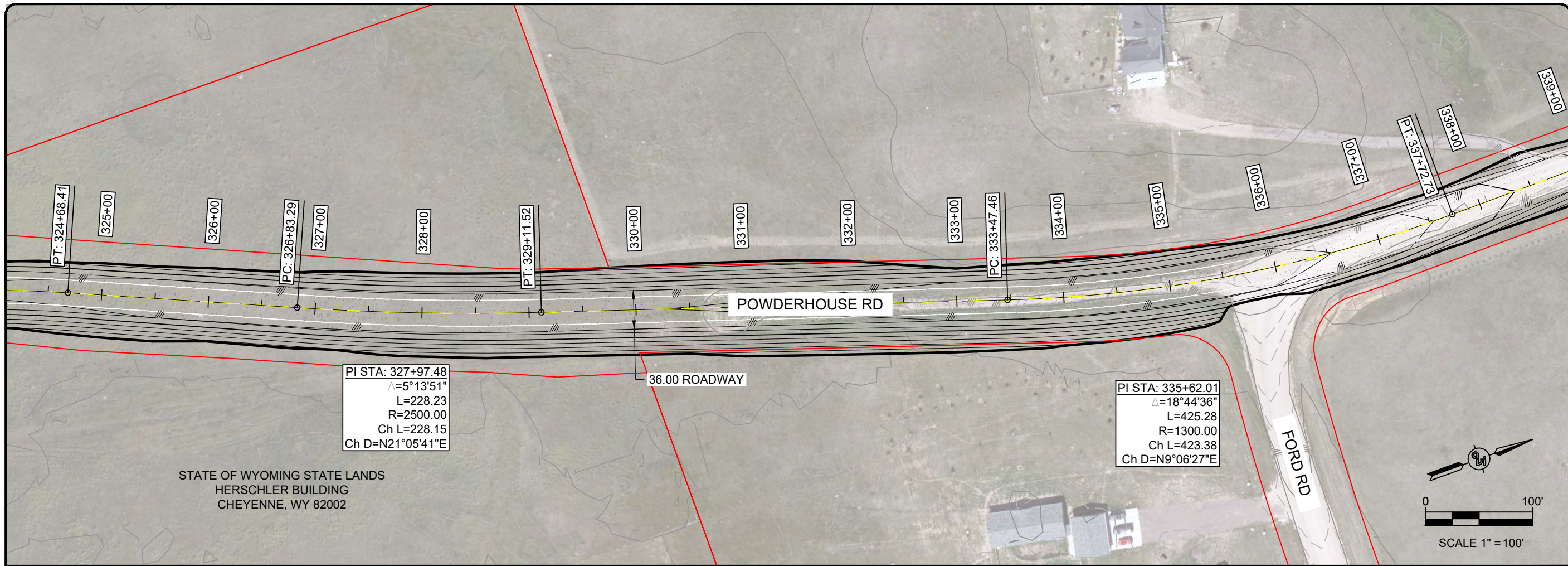
NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
DRAWING TITLE: PLAN AND PROFILE

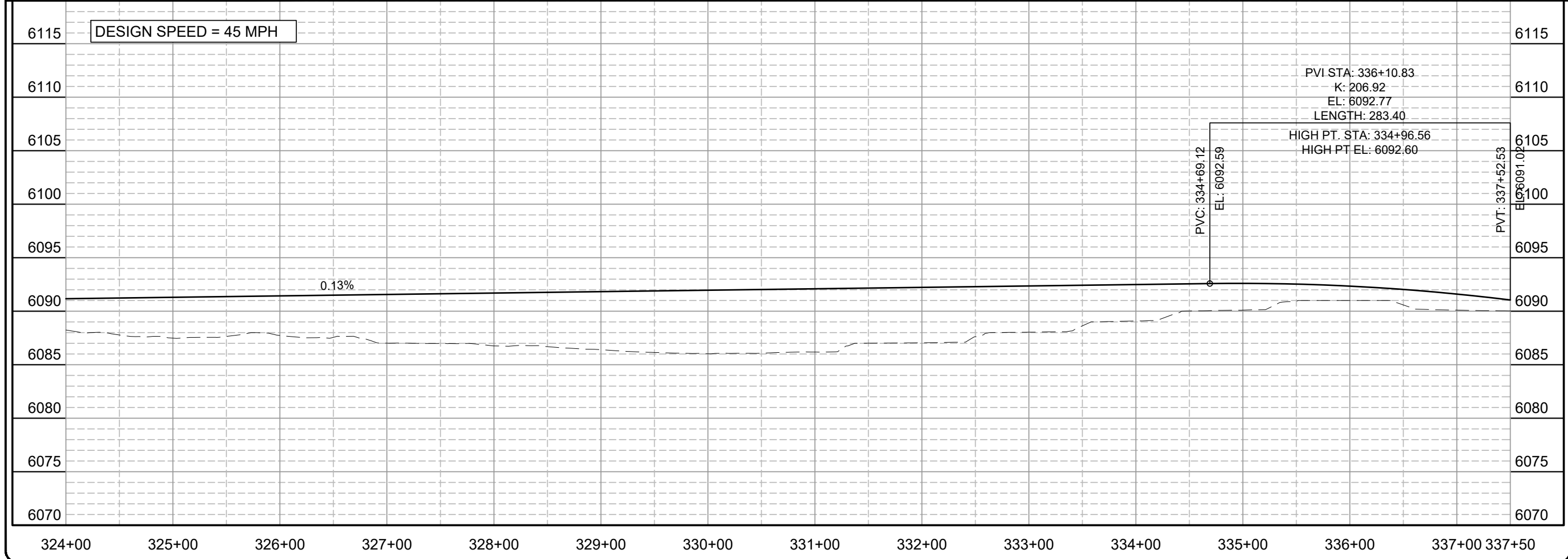


DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. R24 OF 85	



NO.	REVISION	DATE

PREPARED FOR:
 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

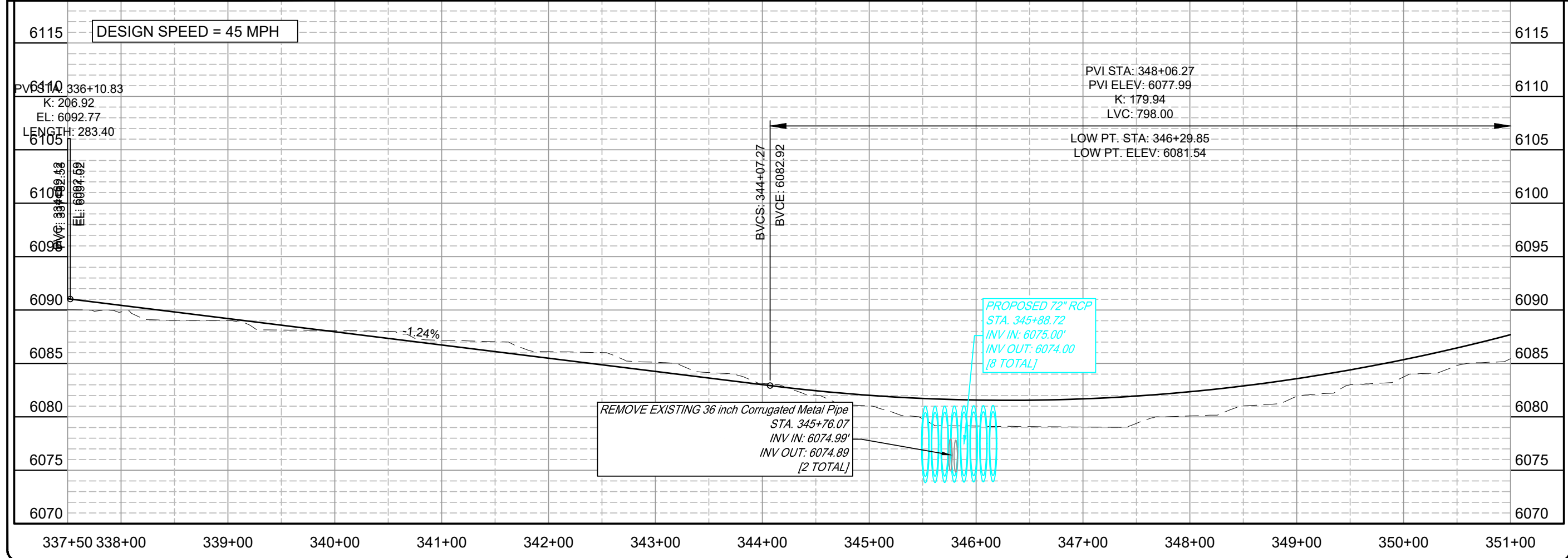
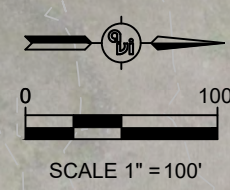
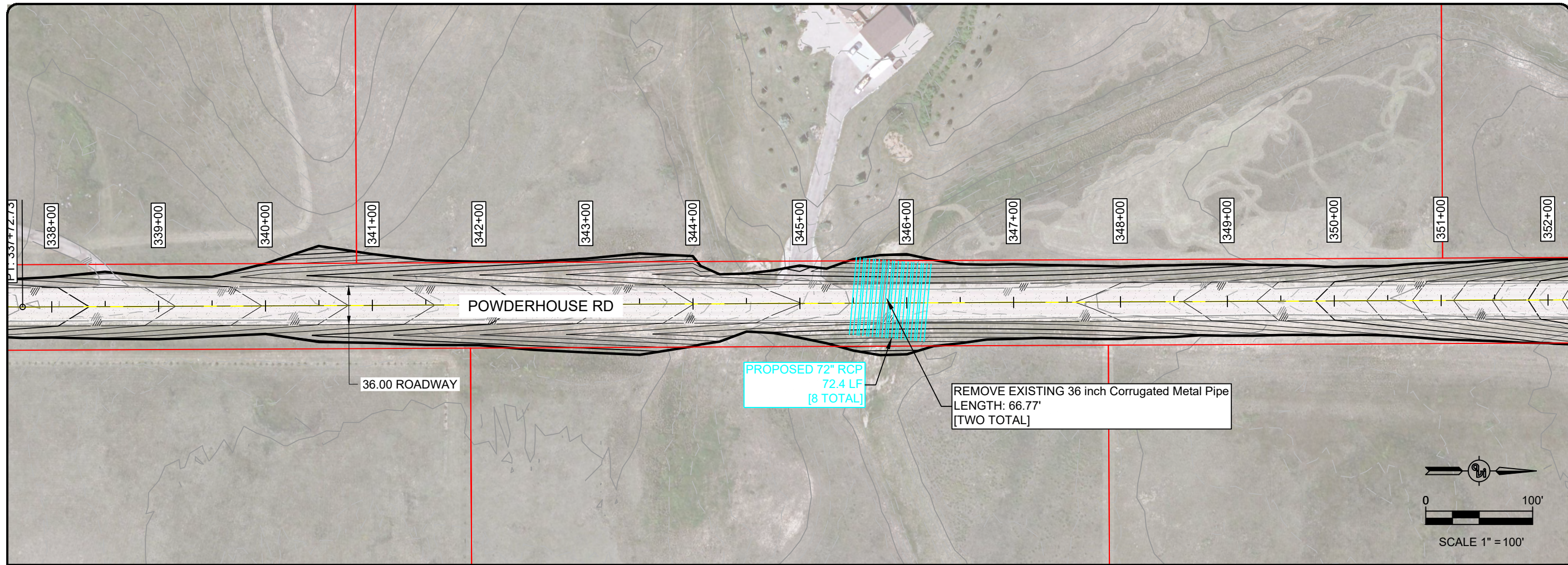


PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY

DRAWING TITLE: PLAN AND PROFILE



DATE PLOTTED:	Jun 12, 2023
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DESIGNED BY:	CA
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JOB NO.:	4642
DWG NO. R25 OF 85	



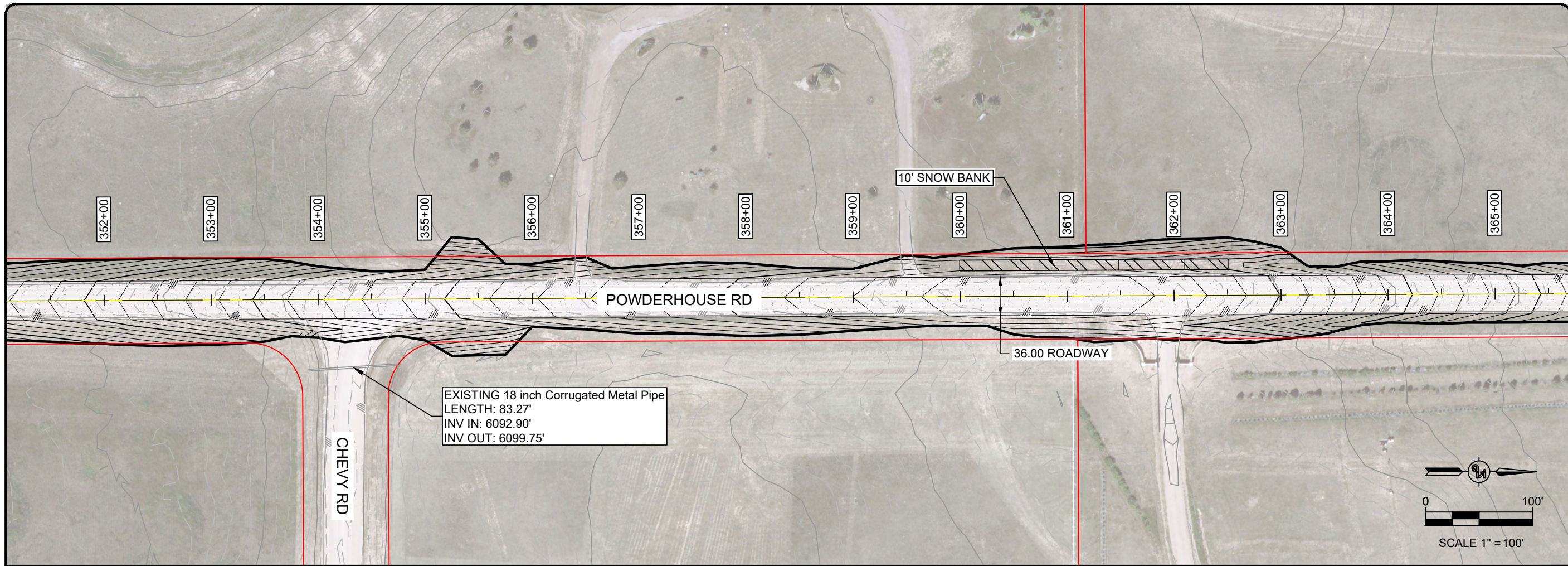
NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: PLAN AND PROFILE

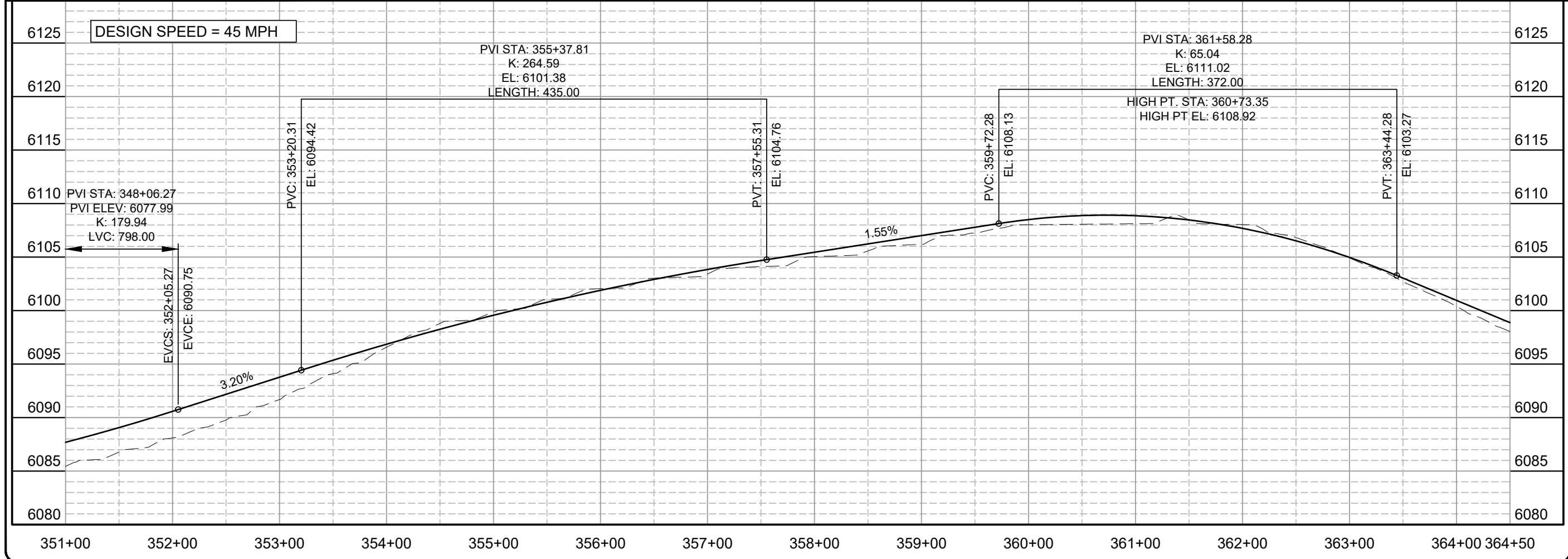


DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. R26 OF 85	



NO.	REVISION	DATE

PREPARED FOR:
 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

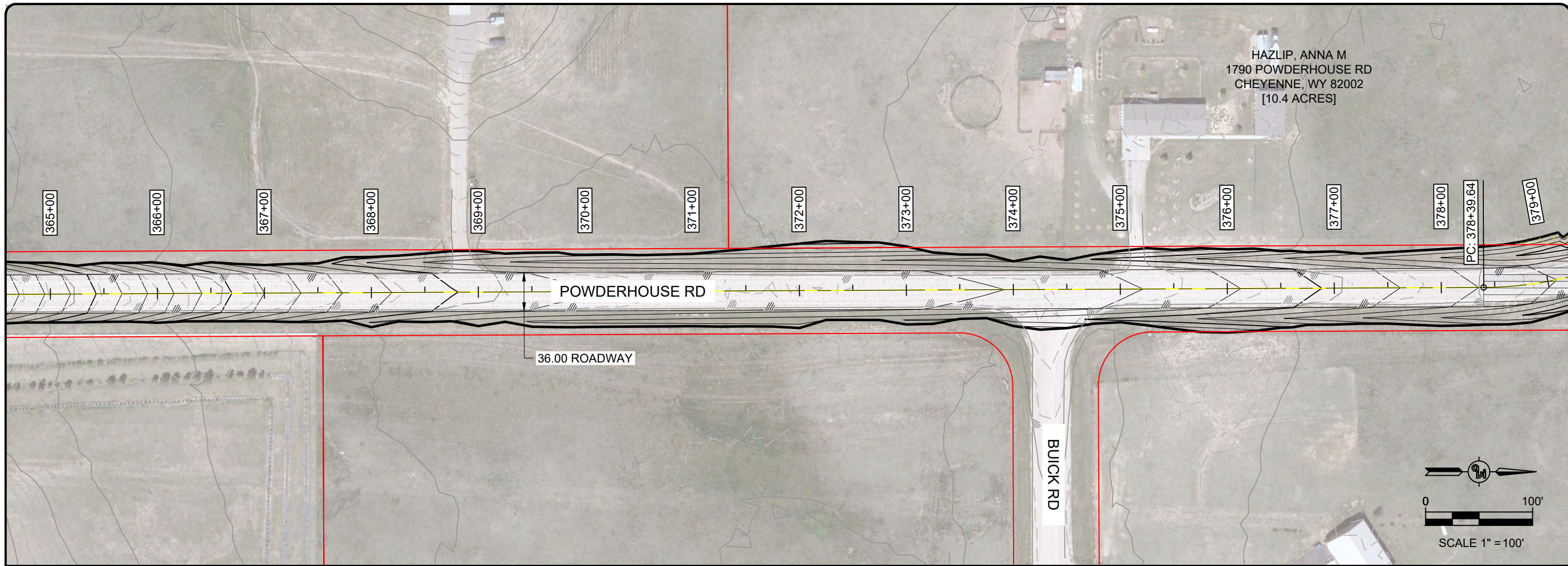


PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY

DRAWING TITLE: PLAN AND PROFILE

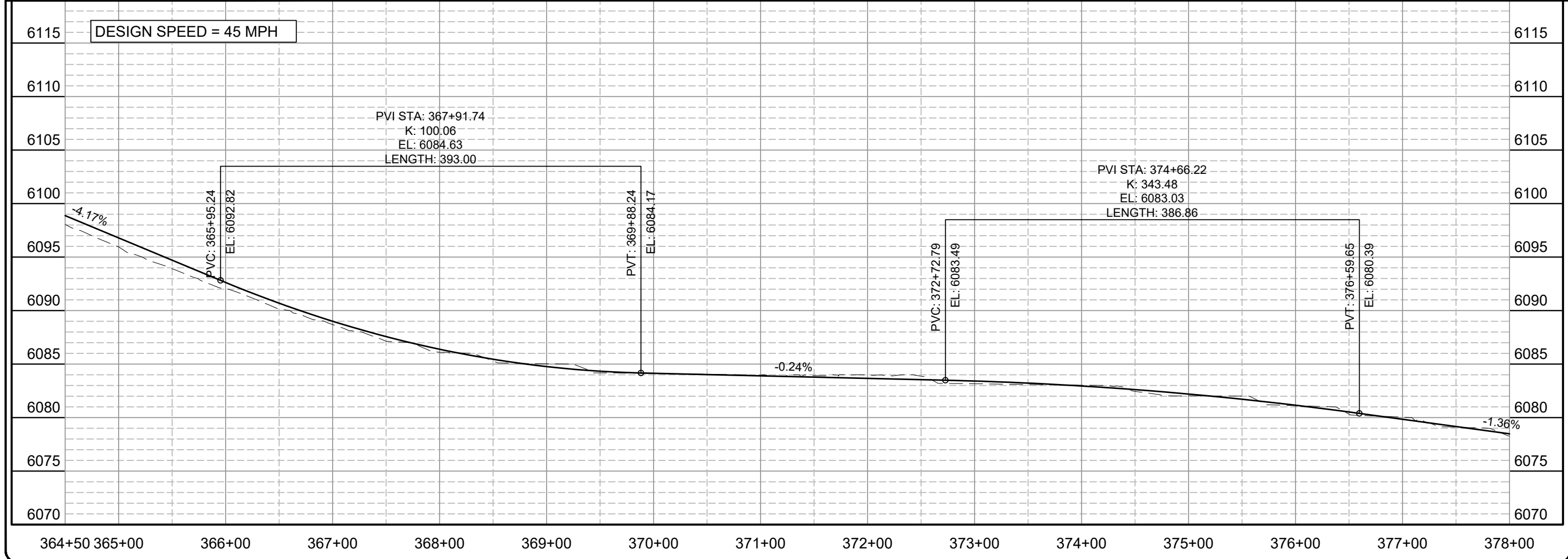


DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
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JOB NO.:	4642
DWG NO. R27 OF 85	



NO.	REVISION	DATE

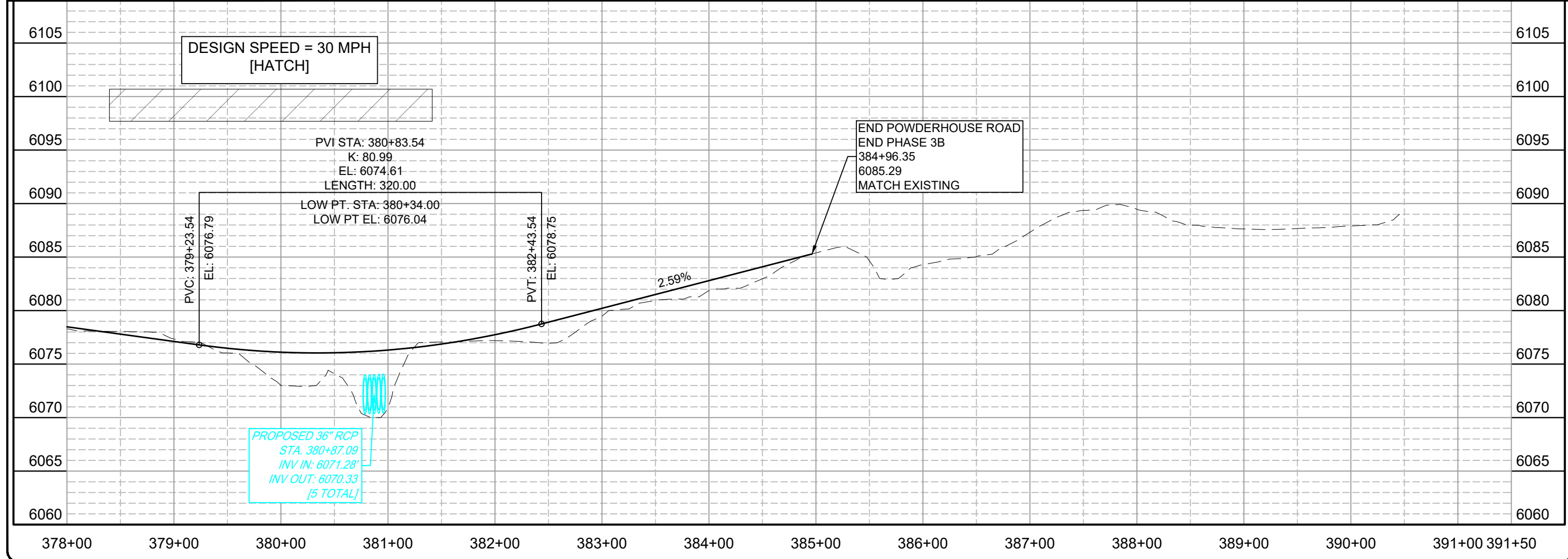
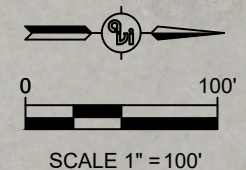
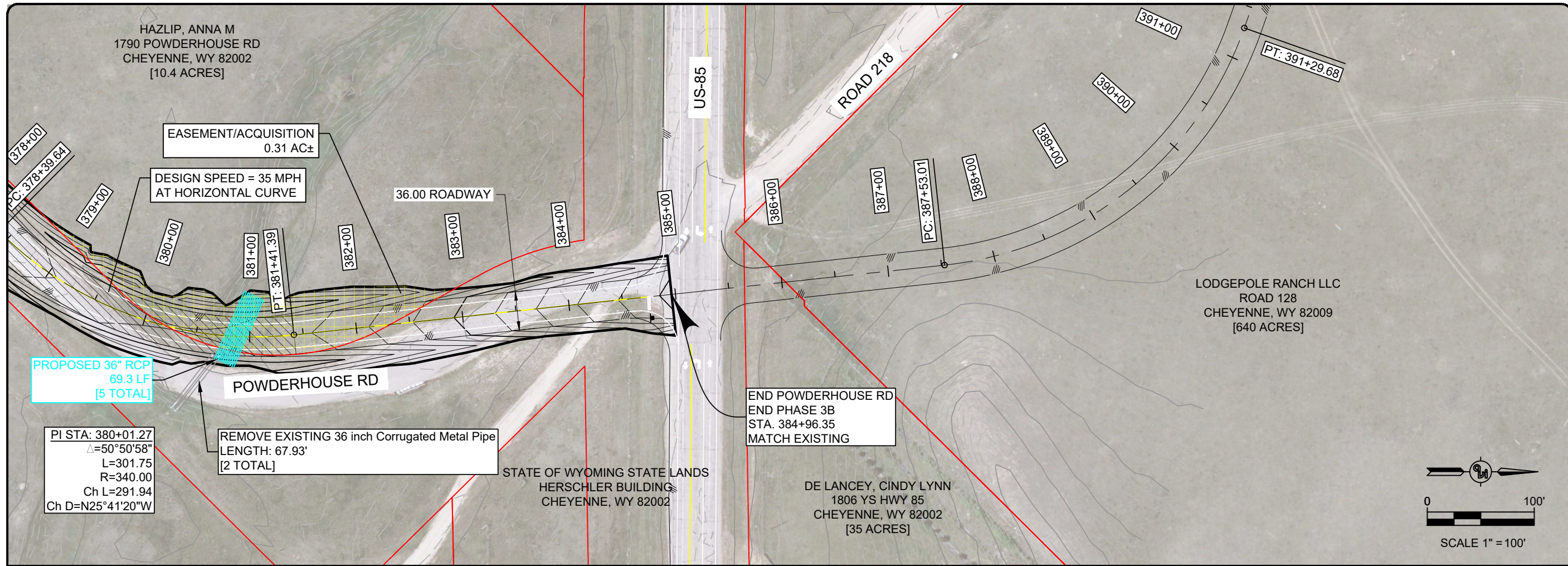
PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001



PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: PLAN AND PROFILE



DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. R28 OF 85	



NO.	REVISION	DATE

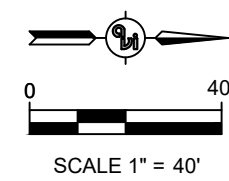
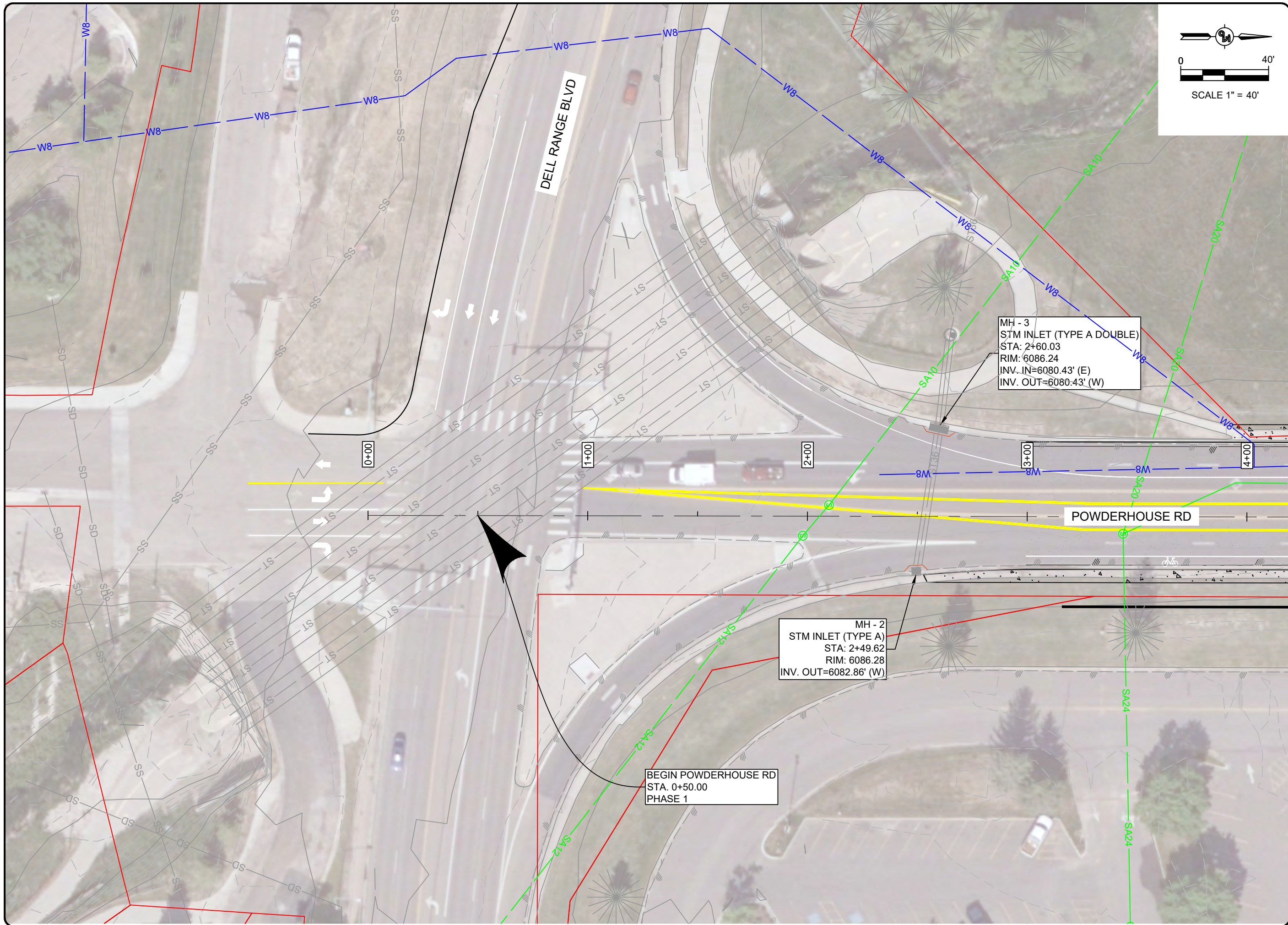
PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD
CORRIDOR STUDY

DRAWING TITLE: PLAN AND PROFILE



DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. R29 OF 85	



MH - 3
 STM INLET (TYPE A DOUBLE)
 STA: 2+60.03
 RIM: 6086.24
 INV. IN=6080.43' (E)
 INV. OUT=6080.43' (W)

MH - 2
 STM INLET (TYPE A)
 STA: 2+49.62
 RIM: 6086.28
 INV. OUT=6082.86' (W)

BEGIN POWDERHOUSE RD
 STA. 0+50.00
 PHASE 1

NO.	REVISION	DATE

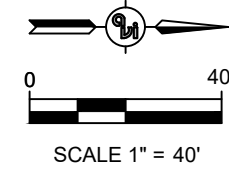
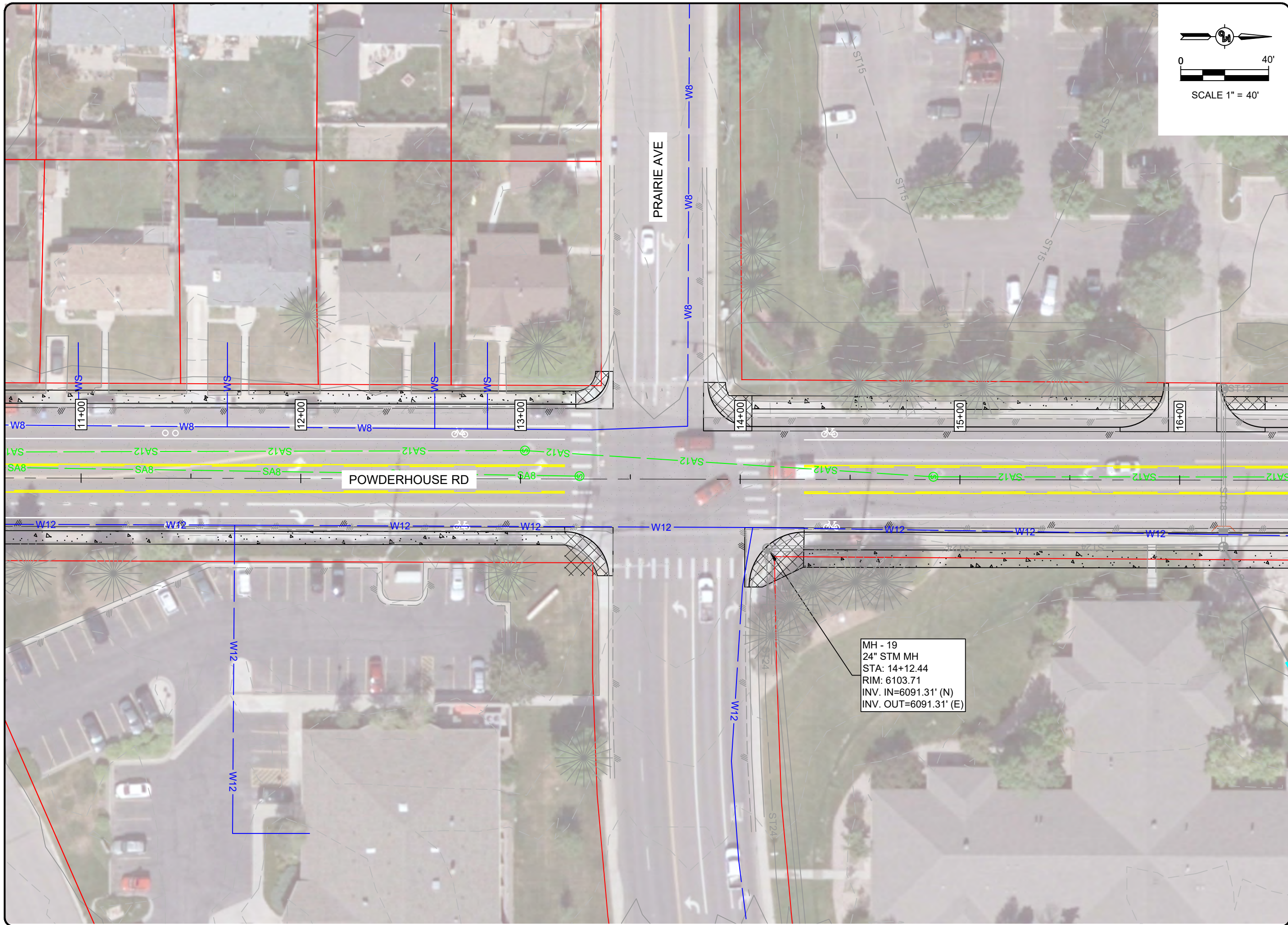
PREPARED FOR:
 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT:
 POWDERHOUSE ROAD
 CORRIDOR STUDY

DRAWING TITLE:
 DELL RANGE & POWDERHOUSE
 INTERSECTION LAYOUT



DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. INT1 OF 85	



MH - 19
 24" STM MH
 STA: 14+12.44
 RIM: 6103.71
 INV. IN=6091.31' (N)
 INV. OUT=6091.31' (E)

NO.	REVISION	DATE

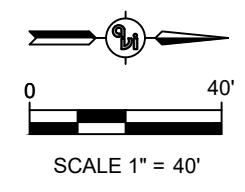
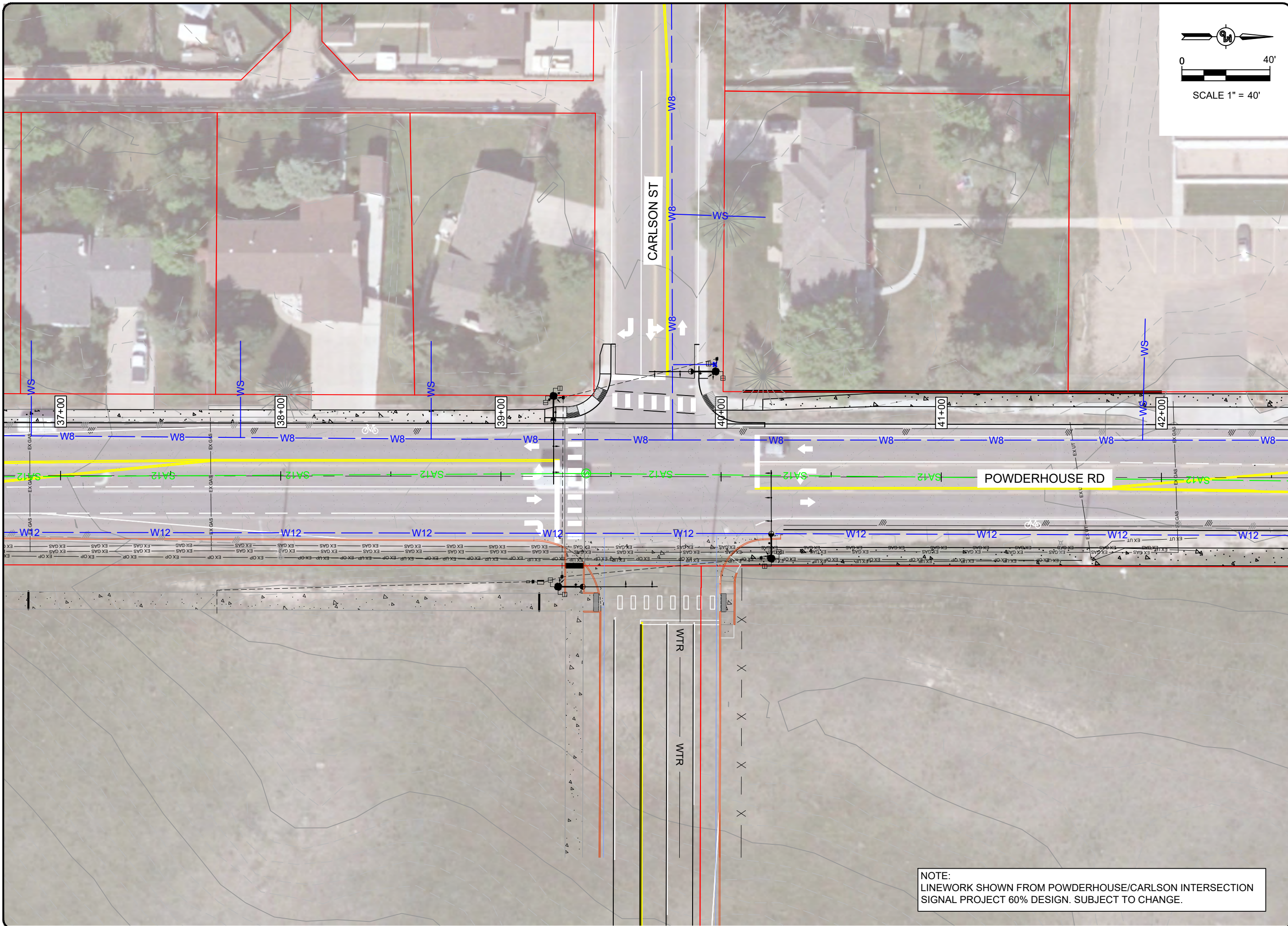
PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT:
**POWDERHOUSE ROAD
 CORRIDOR STUDY**

DRAWING TITLE:
**PRAIRIE & POWDERHOUSE
 INTERSECTION LAYOUT**



DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. INT2	OF 85



NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

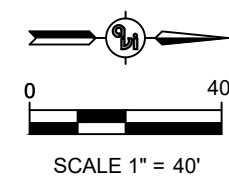
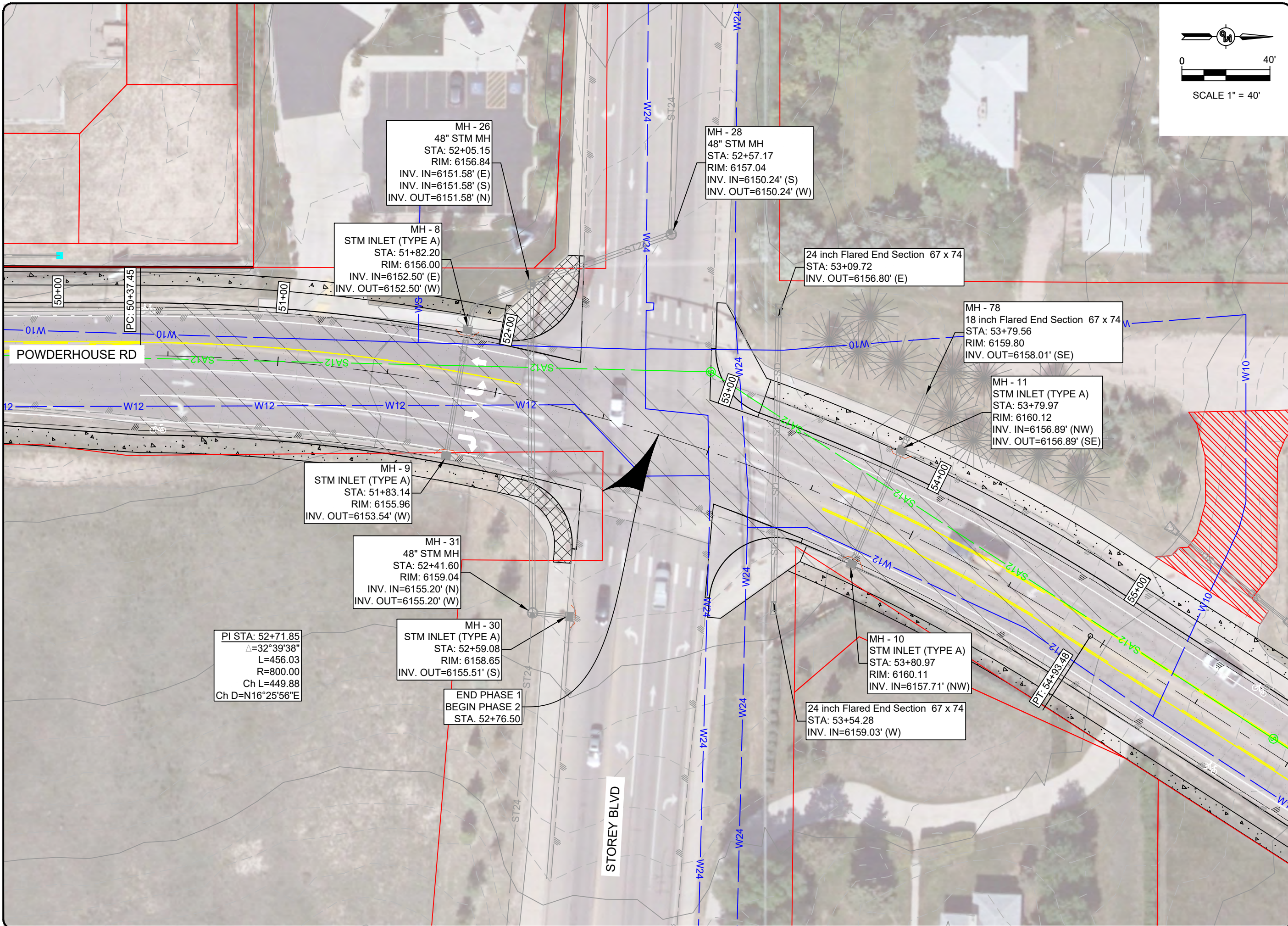
PROJECT:
**POWDERHOUSE ROAD
 CORRIDOR STUDY**

DRAWING TITLE:
**CARLSON & POWDERHOUSE
 INTERSECTION LAYOUT**



DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO.	INT3 OF 85

NOTE:
 LINENWORK SHOWN FROM POWDERHOUSE/CARLSON INTERSECTION
 SIGNAL PROJECT 60% DESIGN. SUBJECT TO CHANGE.



PI STA: 52+71.85
 $\Delta=32^{\circ}39'38''$
 L=456.03
 R=800.00
 Ch L=449.88
 Ch D=N16°25'56"E

MH - 9
 STM INLET (TYPE A)
 STA: 51+83.14
 RIM: 6155.96
 INV. OUT=6153.54' (W)

MH - 8
 STM INLET (TYPE A)
 STA: 51+82.20
 RIM: 6156.00
 INV. IN=6152.50' (E)
 INV. OUT=6152.50' (W)

MH - 26
 48" STM MH
 STA: 52+05.15
 RIM: 6156.84
 INV. IN=6151.58' (E)
 INV. IN=6151.58' (S)
 INV. OUT=6151.58' (N)

MH - 31
 48" STM MH
 STA: 52+41.60
 RIM: 6159.04
 INV. IN=6155.20' (N)
 INV. OUT=6155.20' (W)

MH - 30
 STM INLET (TYPE A)
 STA: 52+59.08
 RIM: 6158.65
 INV. OUT=6155.51' (S)

END PHASE 1
 BEGIN PHASE 2
 STA. 52+76.50

MH - 28
 48" STM MH
 STA: 52+57.17
 RIM: 6157.04
 INV. IN=6150.24' (S)
 INV. OUT=6150.24' (W)

24 inch Flared End Section 67 x 74
 STA: 53+09.72
 INV. OUT=6156.80' (E)

MH - 78
 18 inch Flared End Section 67 x 74
 STA: 53+79.56
 RIM: 6159.80
 INV. OUT=6158.01' (SE)

MH - 11
 STM INLET (TYPE A)
 STA: 53+79.97
 RIM: 6160.12
 INV. IN=6156.89' (NW)
 INV. OUT=6156.89' (SE)

MH - 10
 STM INLET (TYPE A)
 STA: 53+80.97
 RIM: 6160.11
 INV. IN=6157.71' (NW)

24 inch Flared End Section 67 x 74
 STA: 53+54.28
 INV. IN=6159.03' (W)

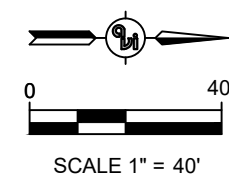
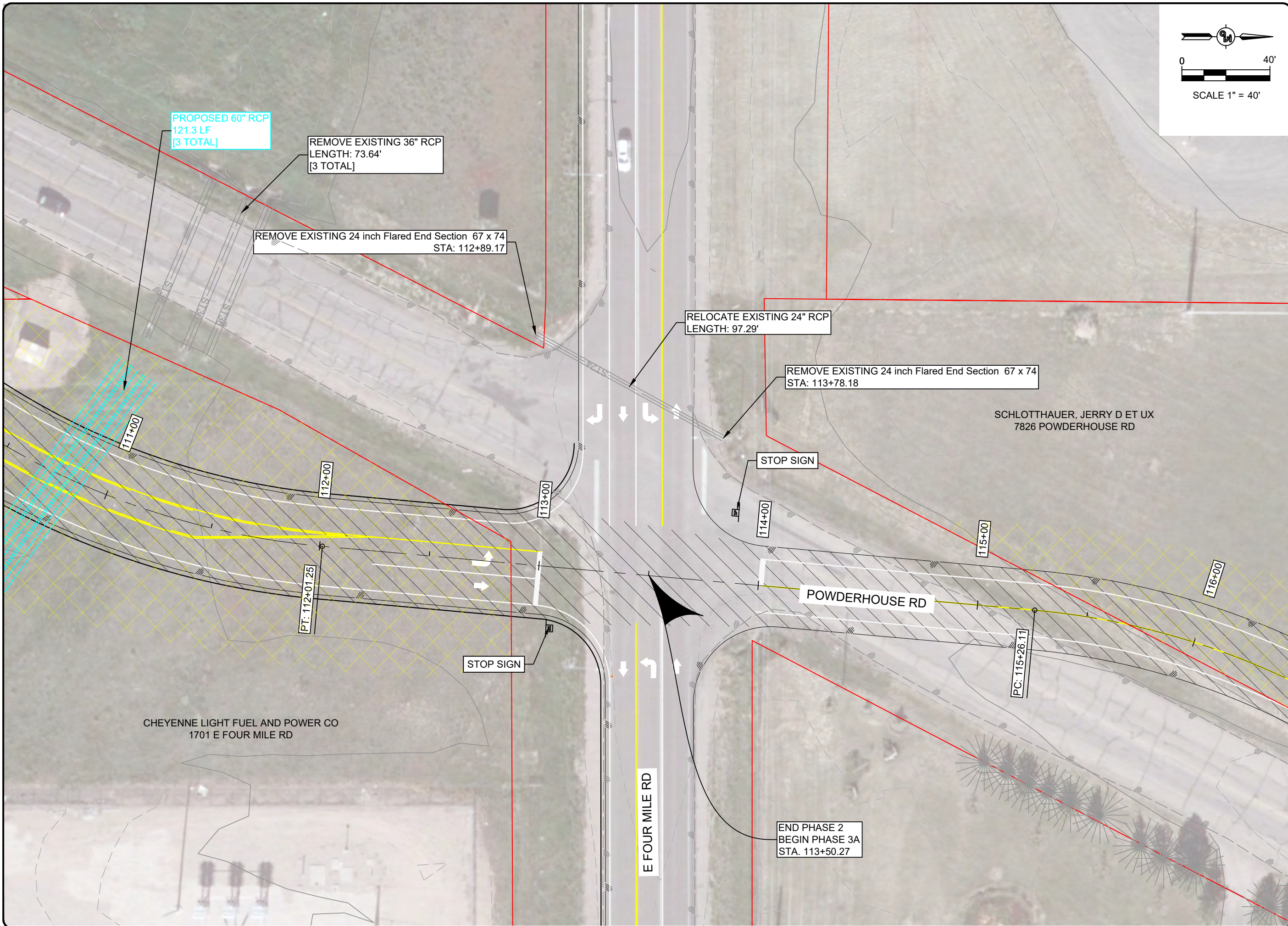
NO.	REVISION	DATE

PREPARED FOR:
 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD
 CORRIDOR STUDY
 DRAWING TITLE: STOREY & POWDERHOUSE
 INTERSECTION LAYOUT



DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. INT4 OF 85	



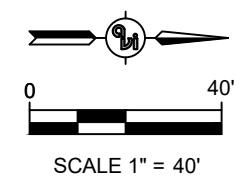
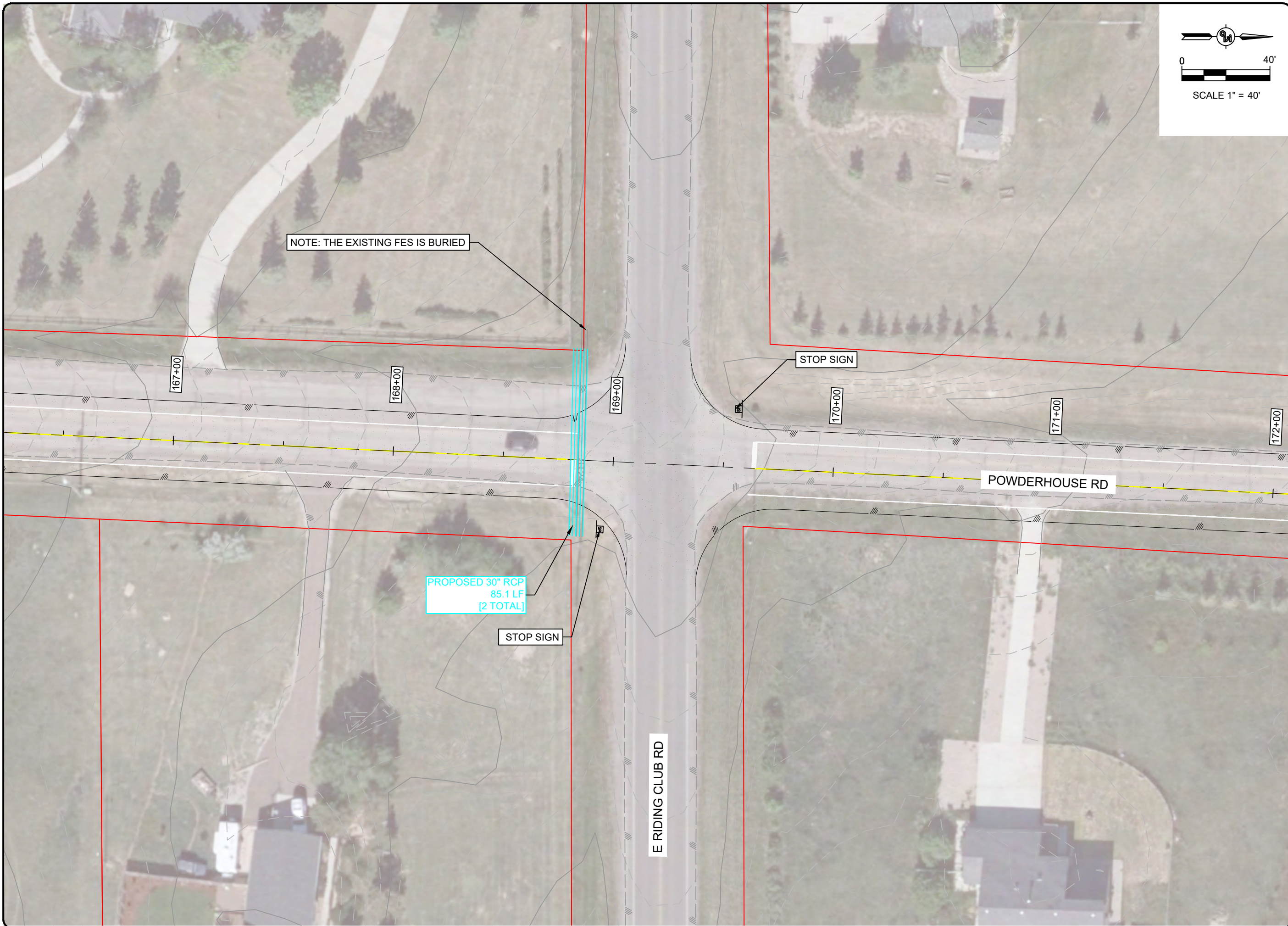
NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: FOUR MILE & POWDERHOUSE INTERSECTION LAYOUT



DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. INT5 OF 85	



NOTE: THE EXISTING FES IS BURIED

PROPOSED 30" RCP
85.1 LF
[2 TOTAL]

STOP SIGN

STOP SIGN

POWDERHOUSE RD

E RIDING CLUB RD

NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD
 CORRIDOR STUDY

DRAWING TITLE:
 E RIDING CLUB & POWDERHOUSE
 INTERSECTION LAYOUT



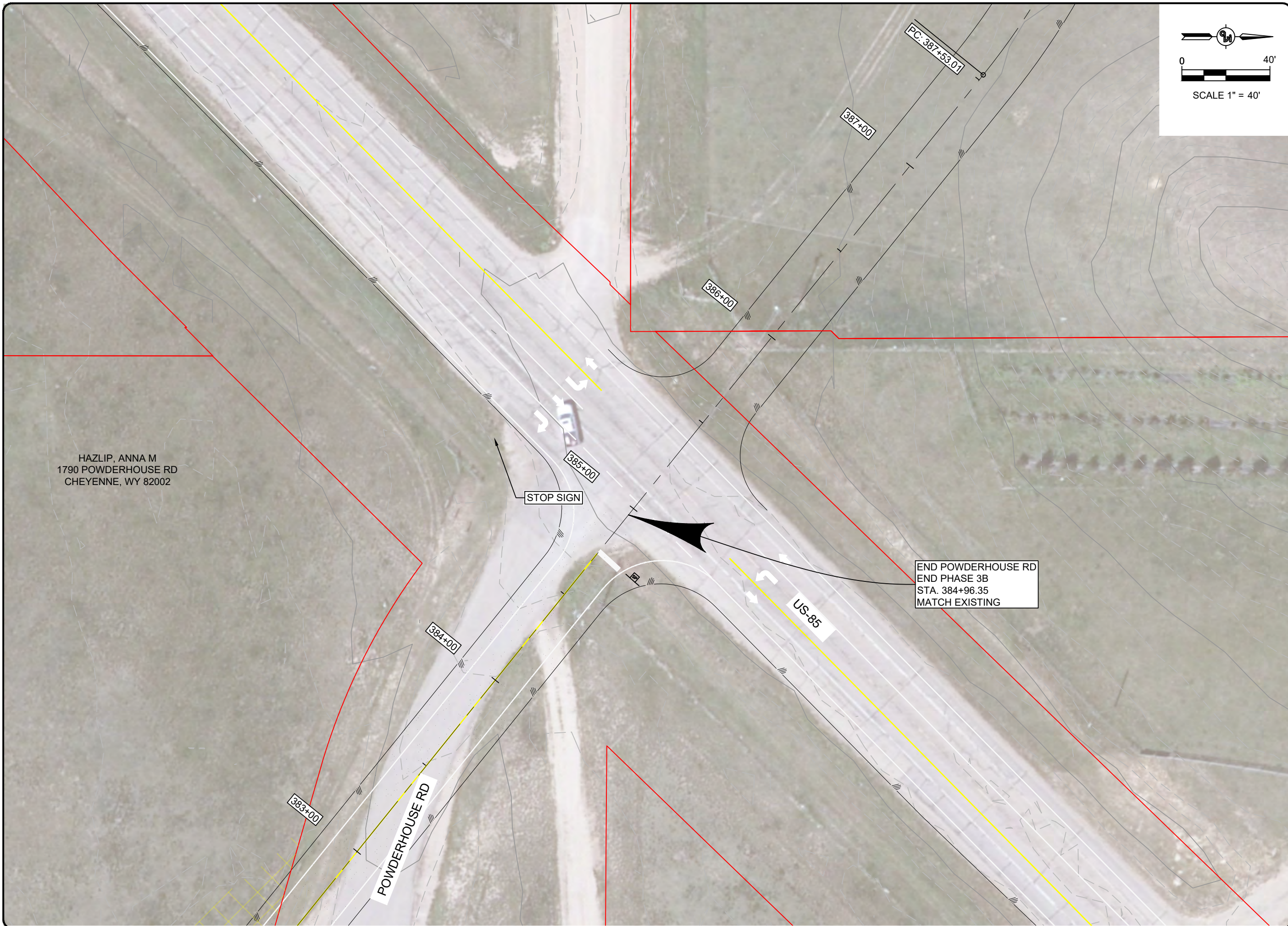
DATE PLOTTED: Jun 12, 2023

DRAWN BY: CA

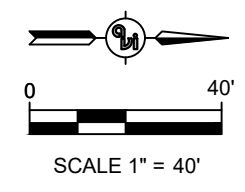
DESIGNED BY: CA

CHECKED BY: TC

JOB NO.: 4642



HAZLIP, ANNA M
1790 POWDERHOUSE RD
CHEYENNE, WY 82002



NO.	REVISION	DATE

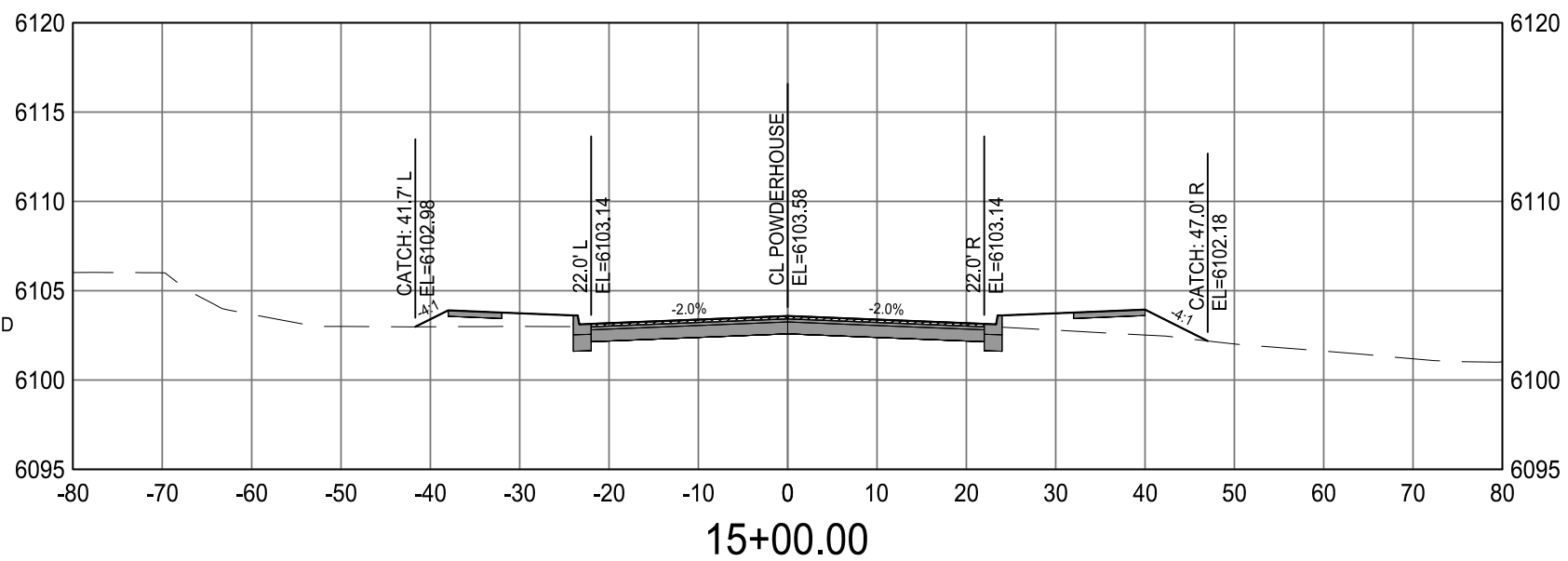
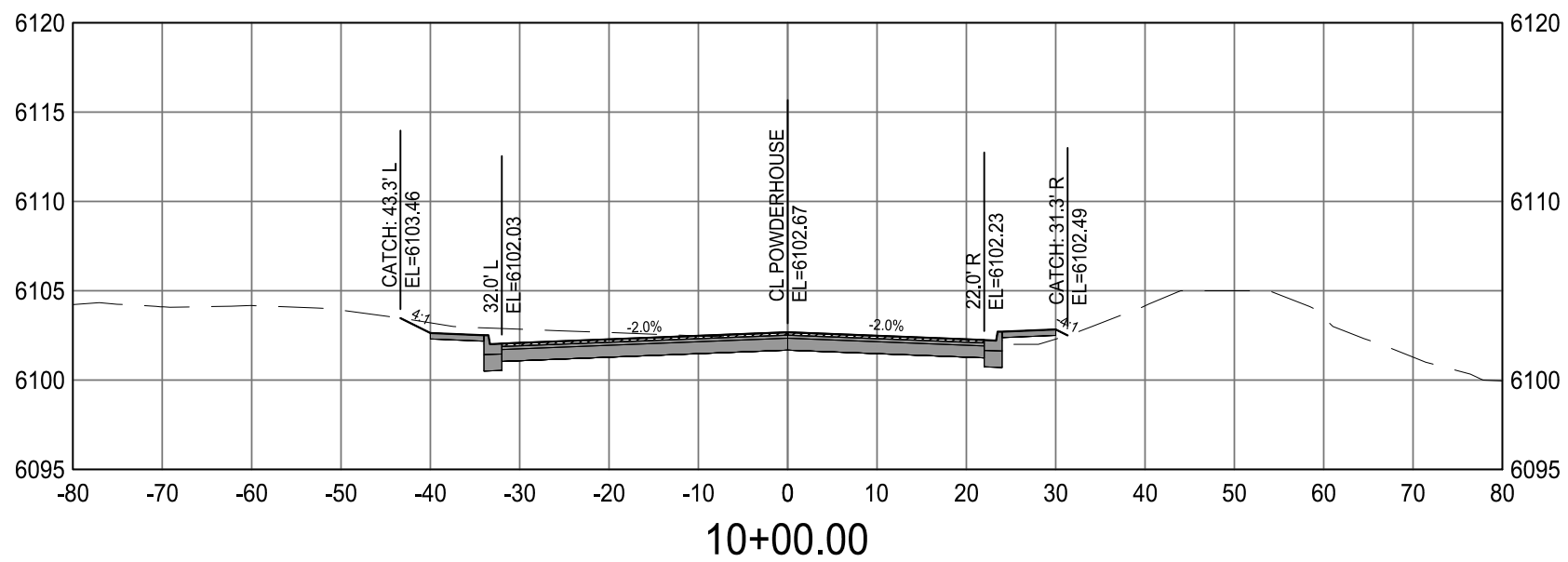
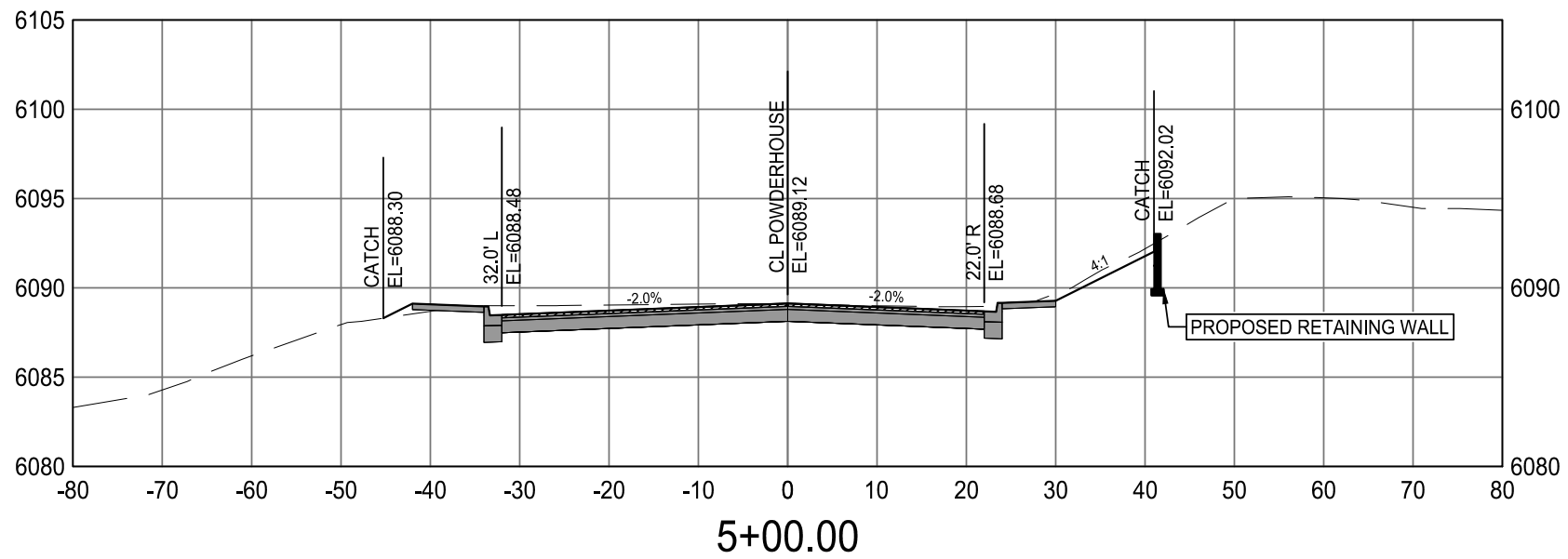
PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD
CORRIDOR STUDY

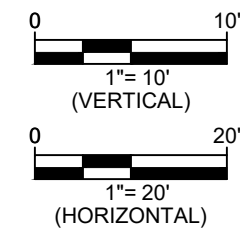
DRAWING TITLE:
US 85 & POWDERHOUSE
INTERSECTION LAYOUT



DATE PLOTTED:	Jun 12, 2023
DRAWN BY:	CA
DESIGNED BY:	CA
CHECKED BY:	TC
JOB NO.:	4642
DWG NO. INT8	OF 85



LEGEND
 - - - - - EXISTING GROUND
 _____ PROPOSED FINISHED GROUND



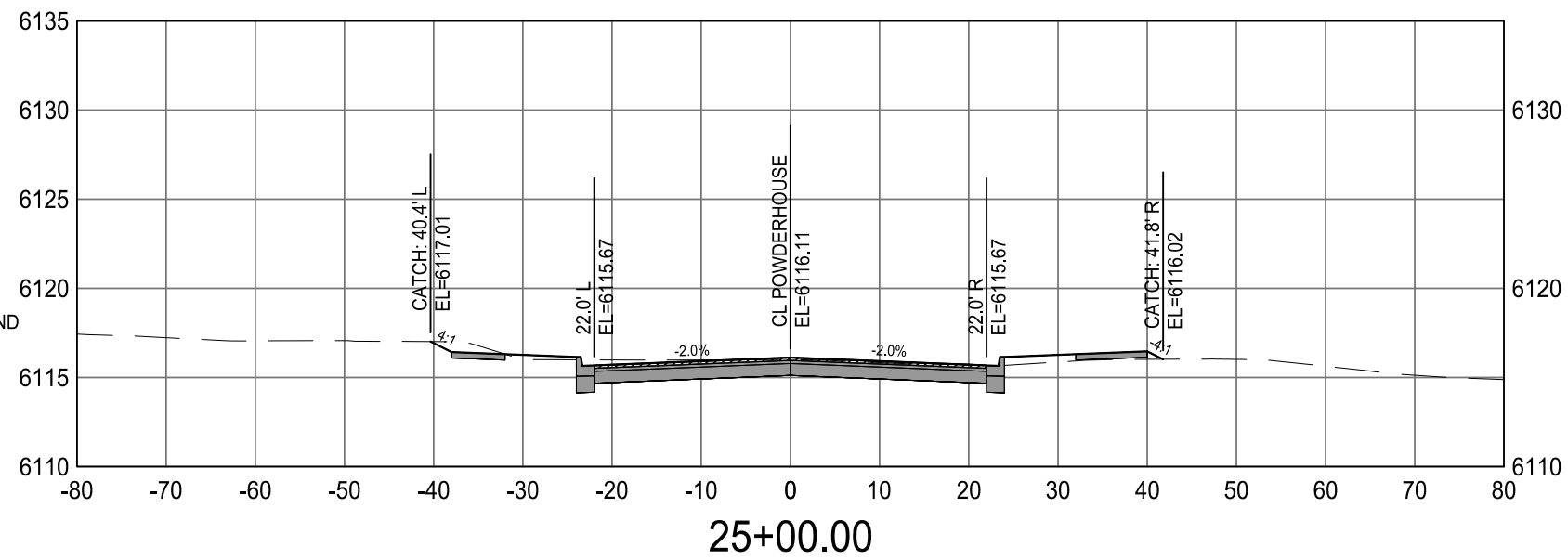
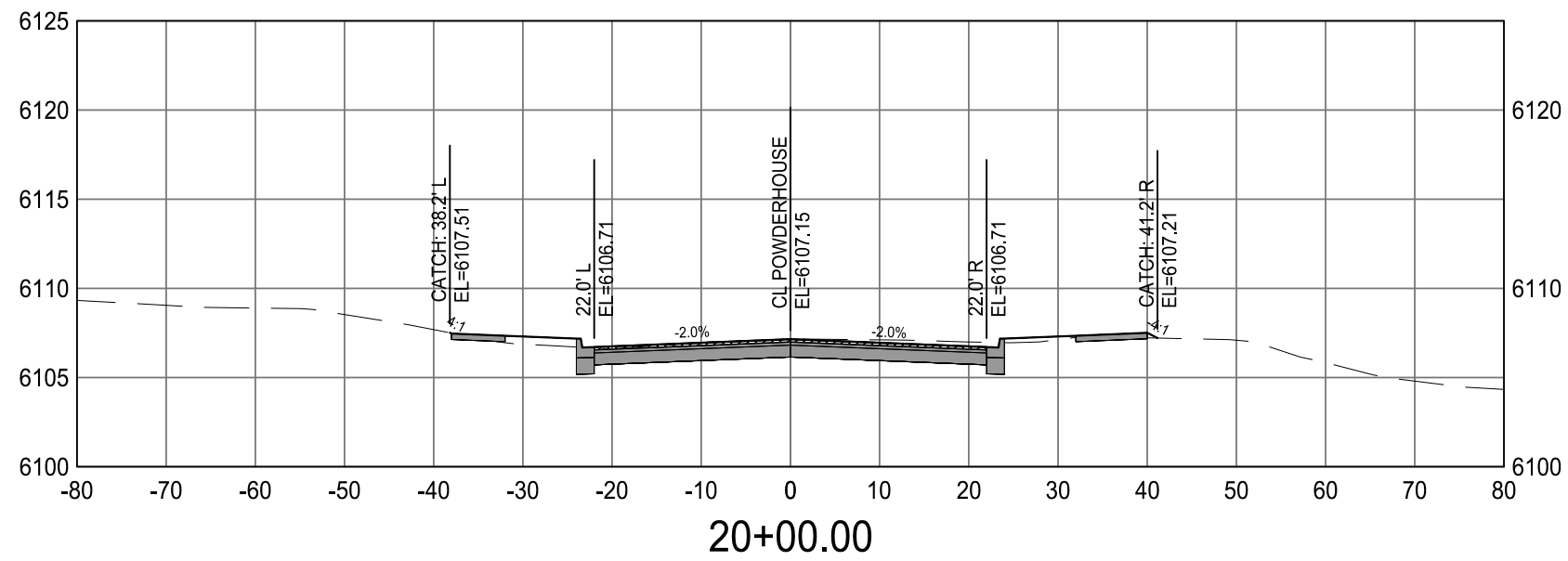
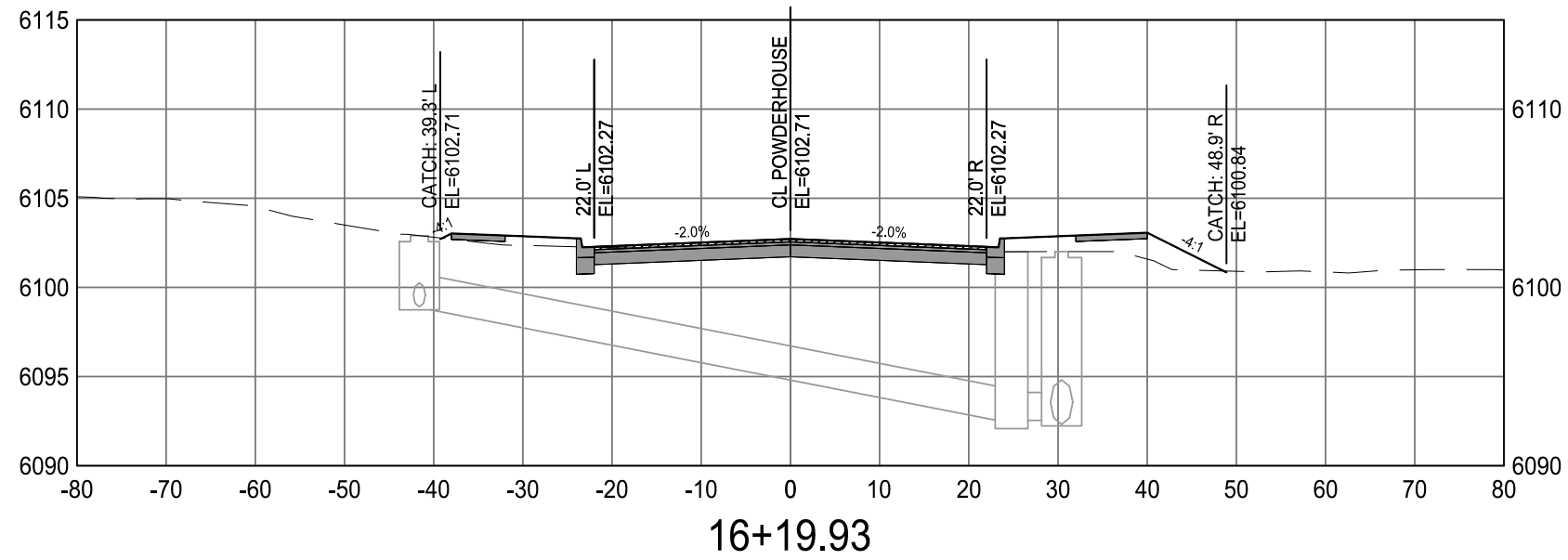
NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

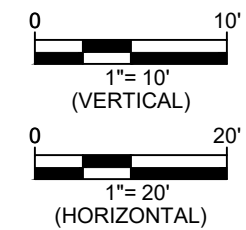
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



DATE PLOTTED: Jun 12, 2023
 DRAWN BY: CA
 DESIGNED BY: CA
 CHECKED BY: TC
 JOB NO.: 4642



LEGEND
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 ————— PROPOSED FINISHED GROUND



NO.	REVISION	DATE

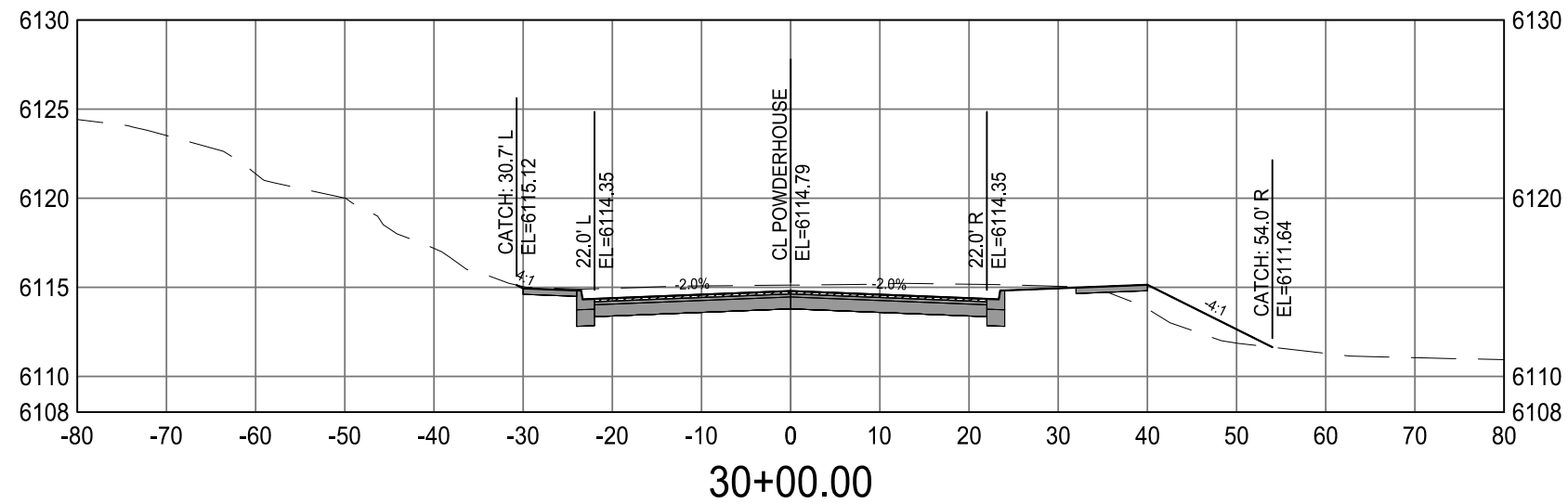
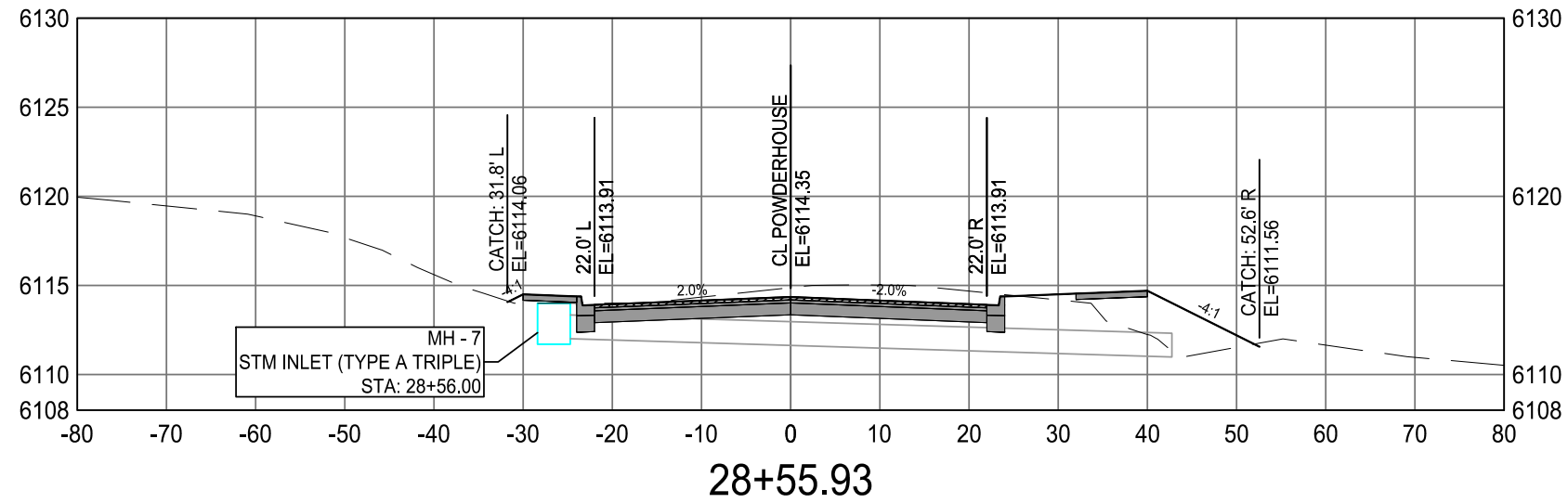
PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



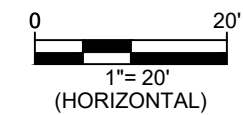
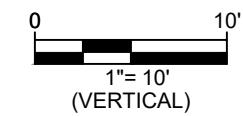
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 JOB NO.: 4642

DWG NO. XS2 OF 85



LEGEND

- EXISTING GROUND
- PROPOSED FINISHED GROUND



NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: **POWDERHOUSE ROAD CORRIDOR STUDY**

DRAWING TITLE: **POWDERHOUSE RD CROSS SECTIONS**



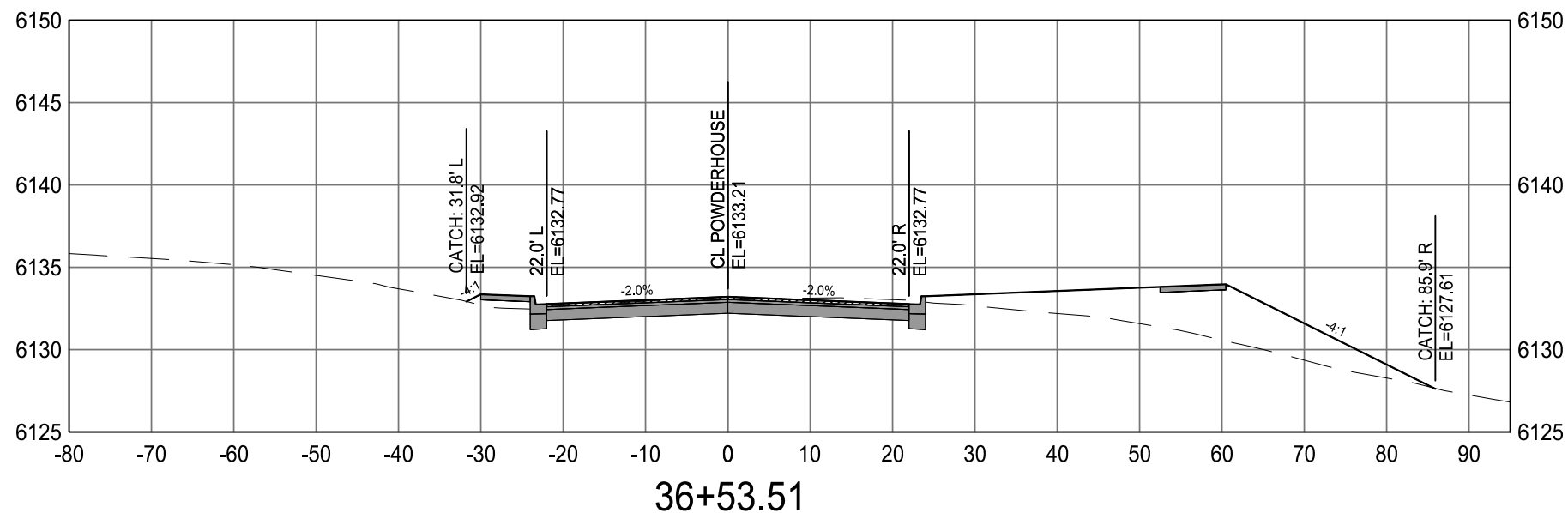
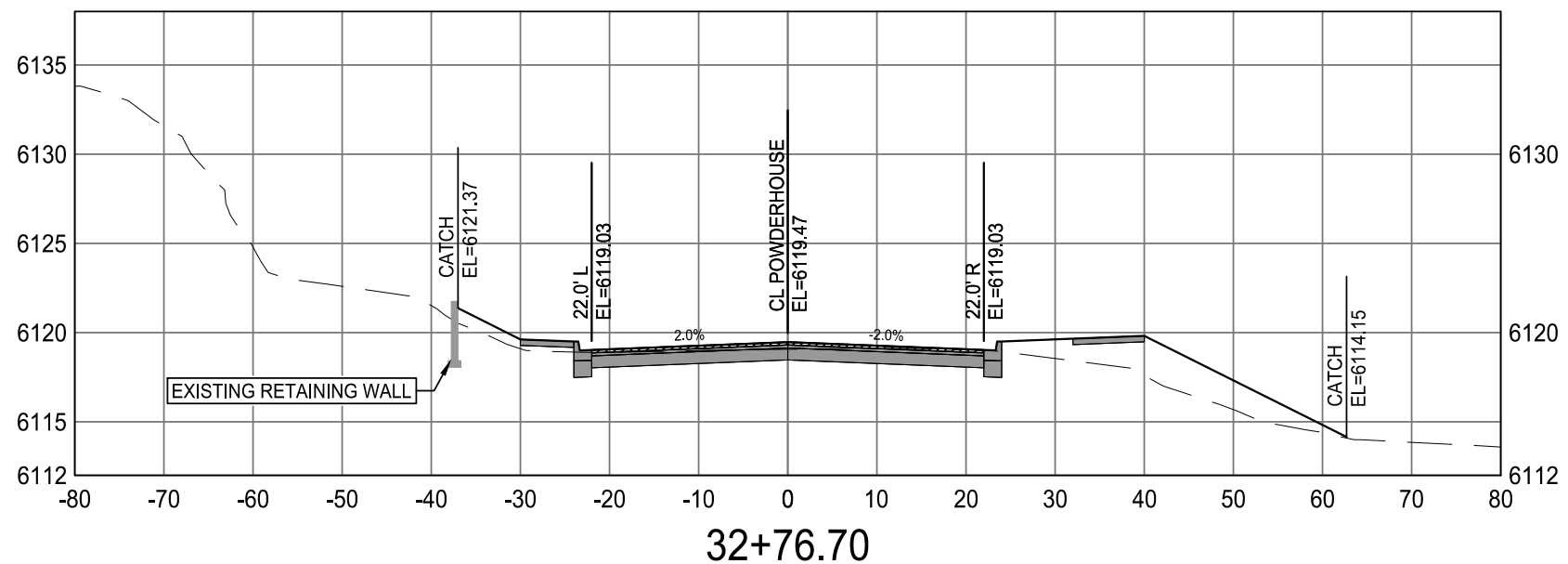
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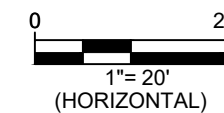
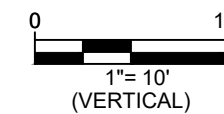
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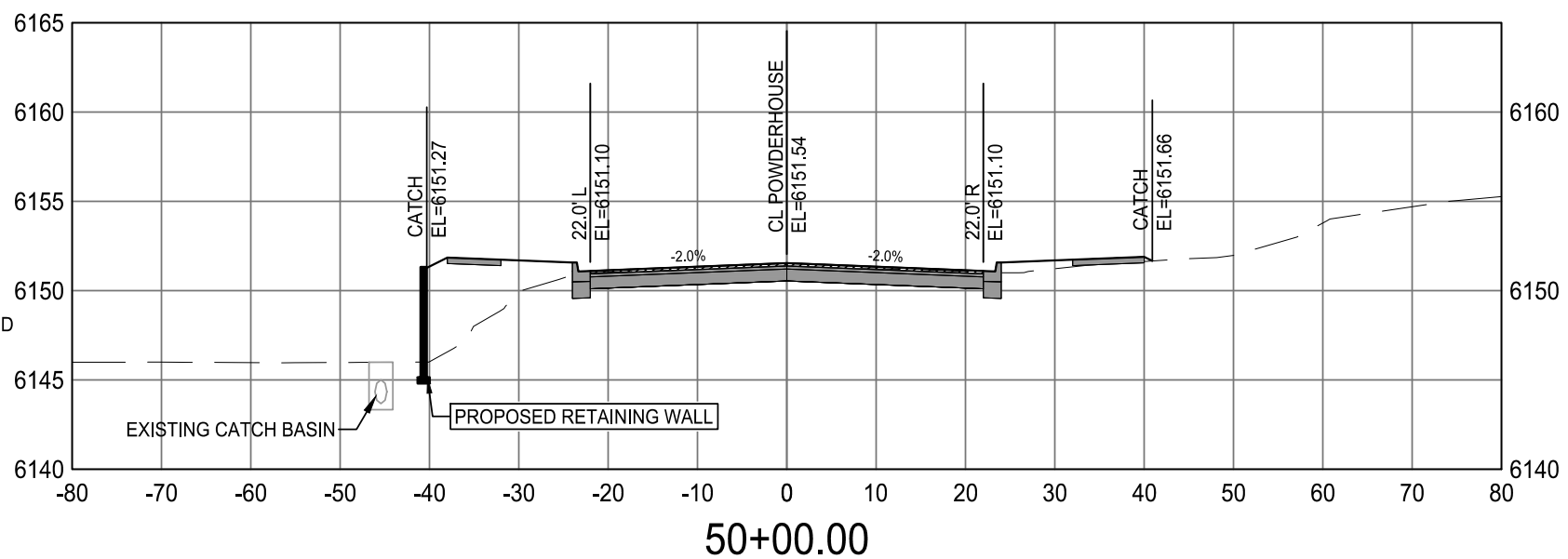
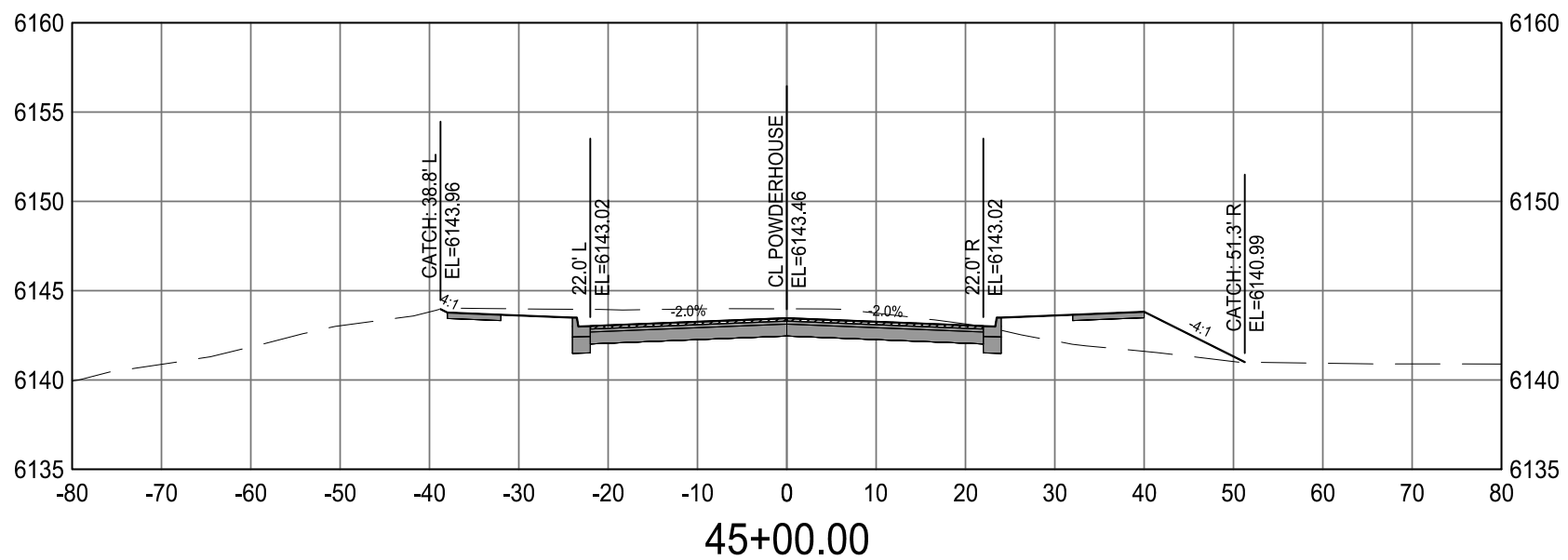
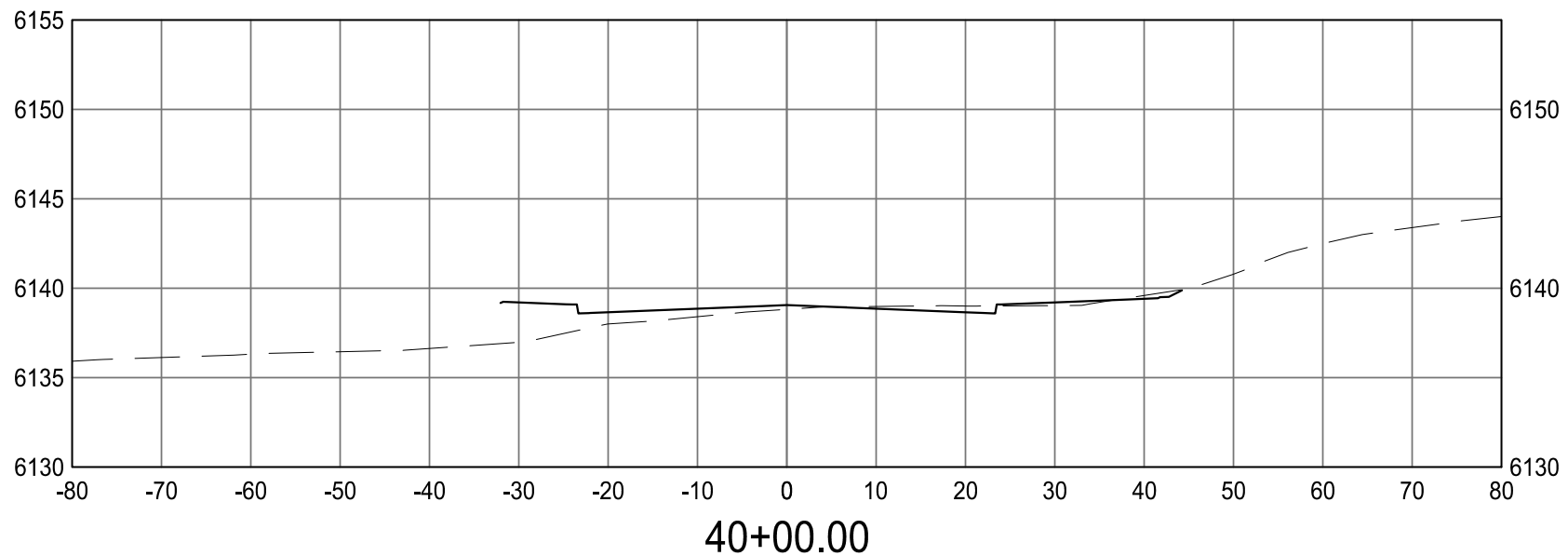
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

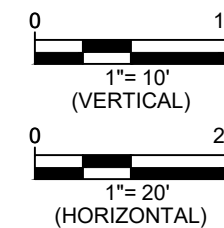
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



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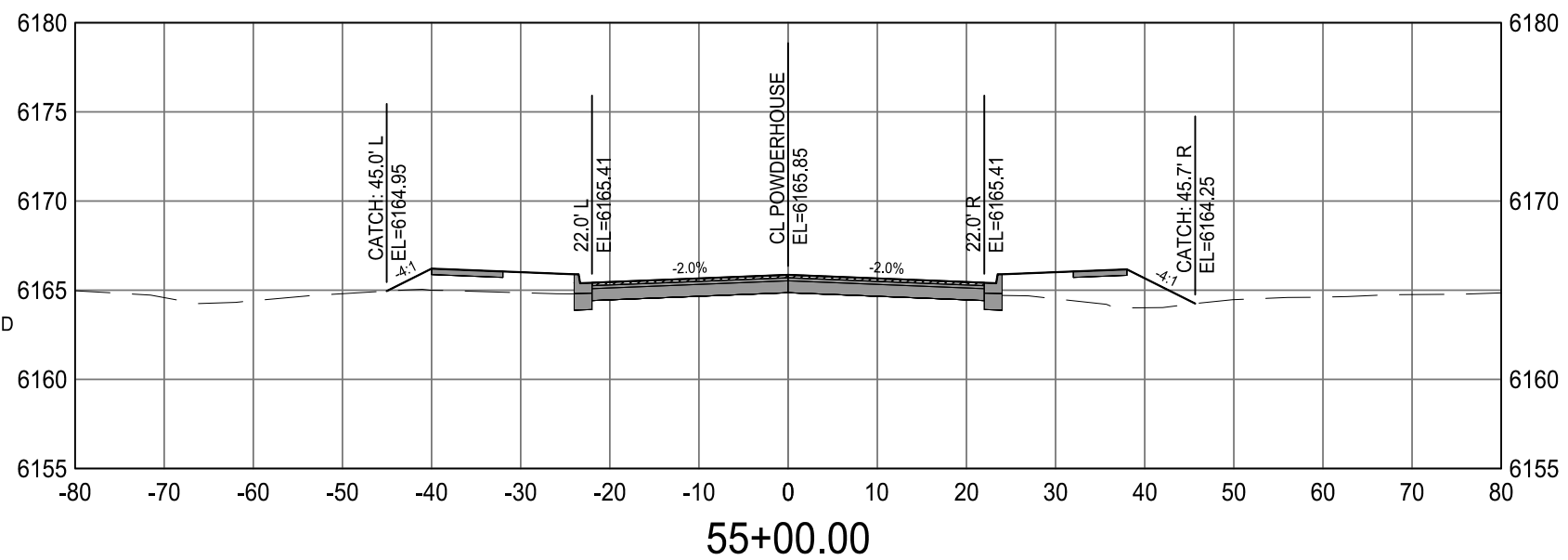
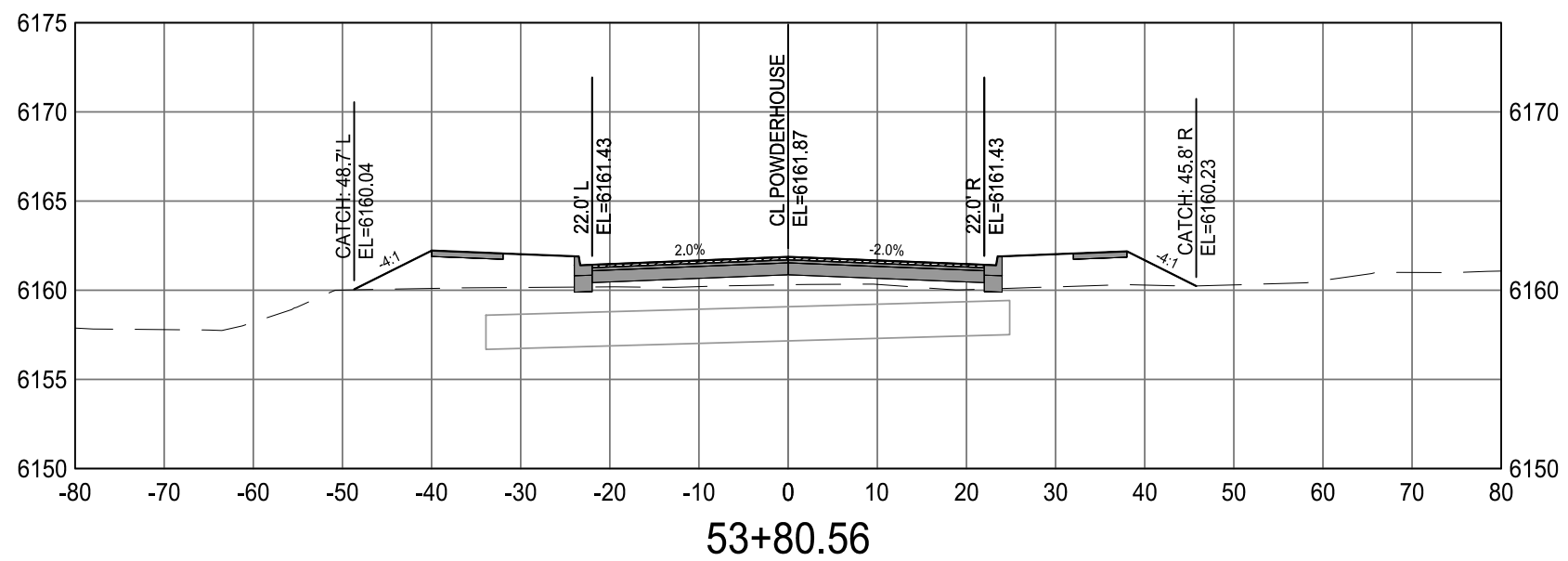
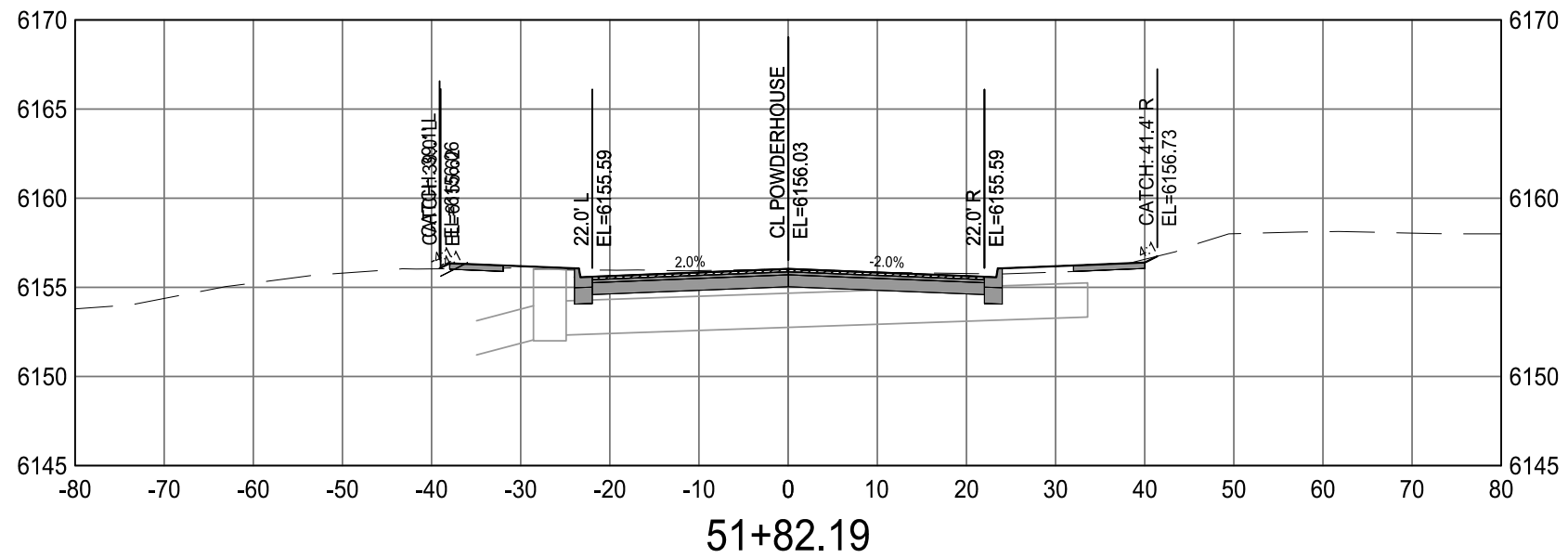
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 2101 ONEIL AVE
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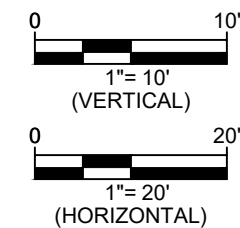
PROJECT: **POWDERHOUSE ROAD CORRIDOR STUDY**
 DRAWING TITLE: **POWDERHOUSE RD CROSS SECTIONS**



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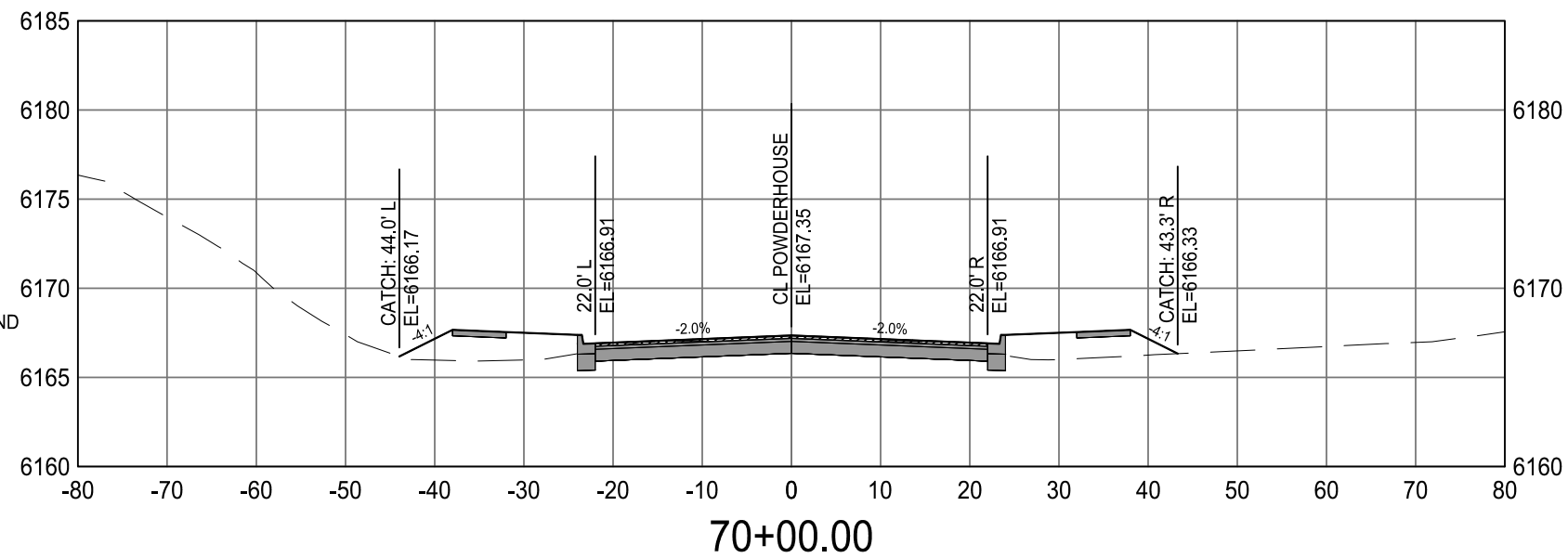
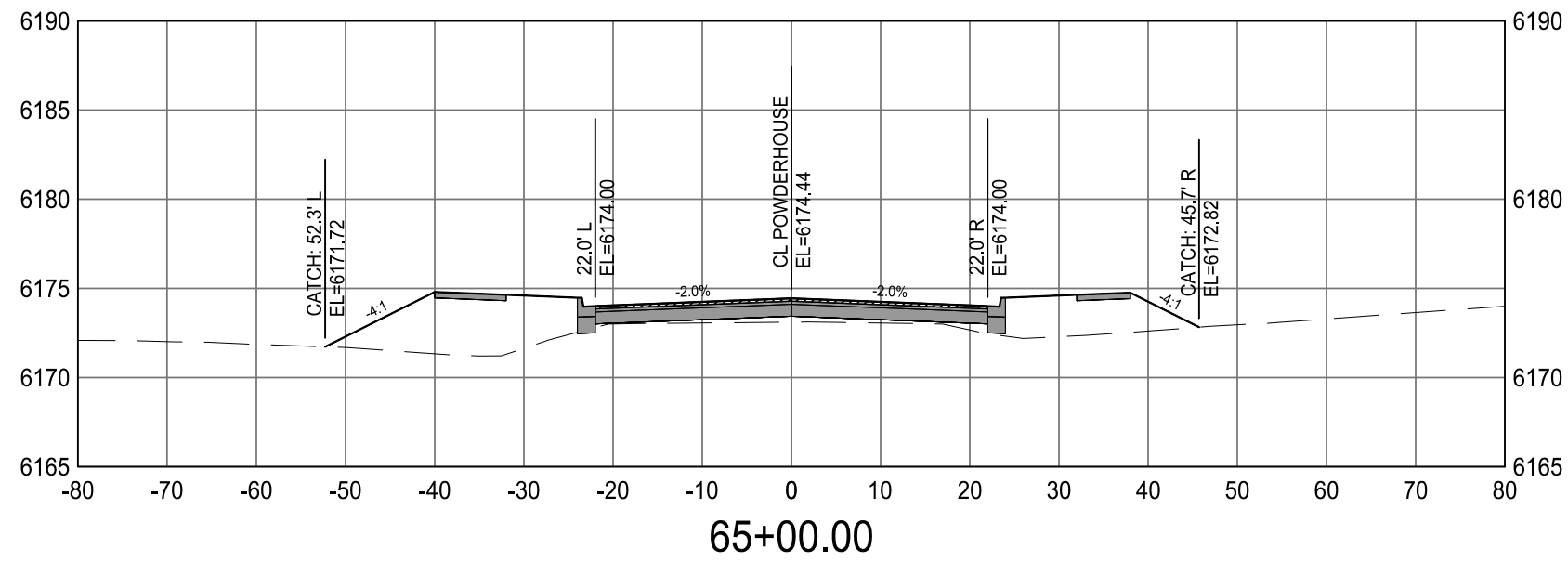
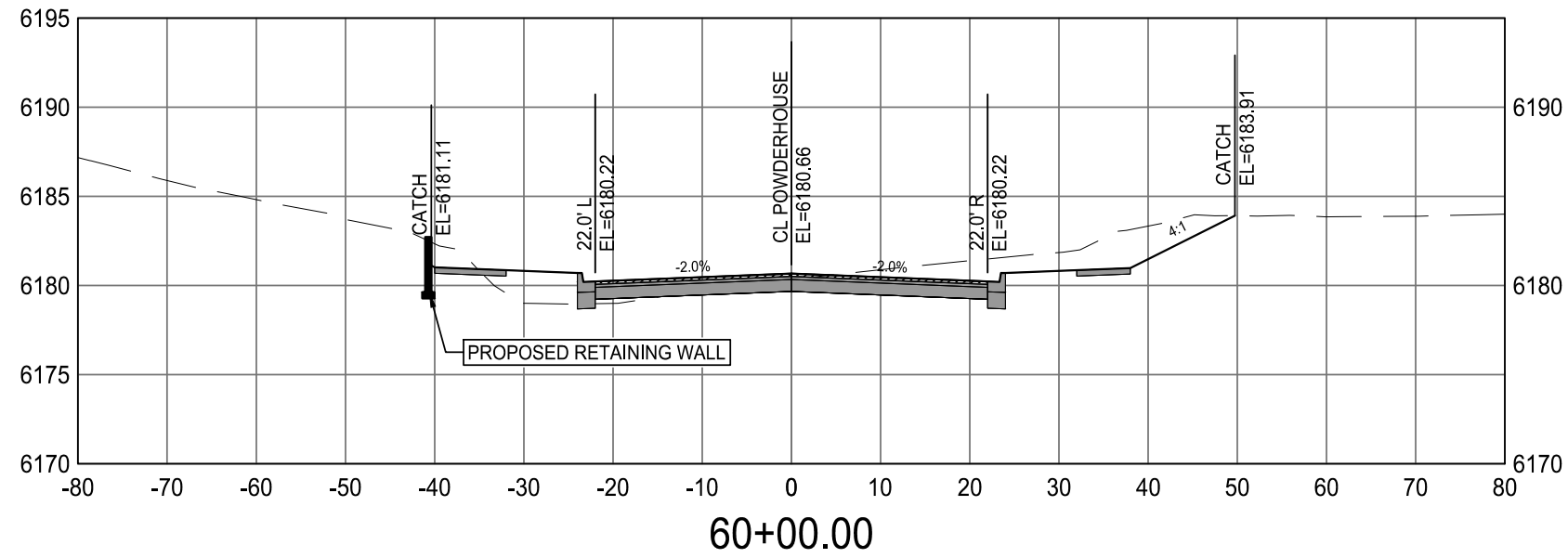
PREPARED FOR:
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: **POWDERHOUSE ROAD CORRIDOR STUDY**

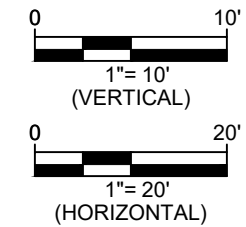
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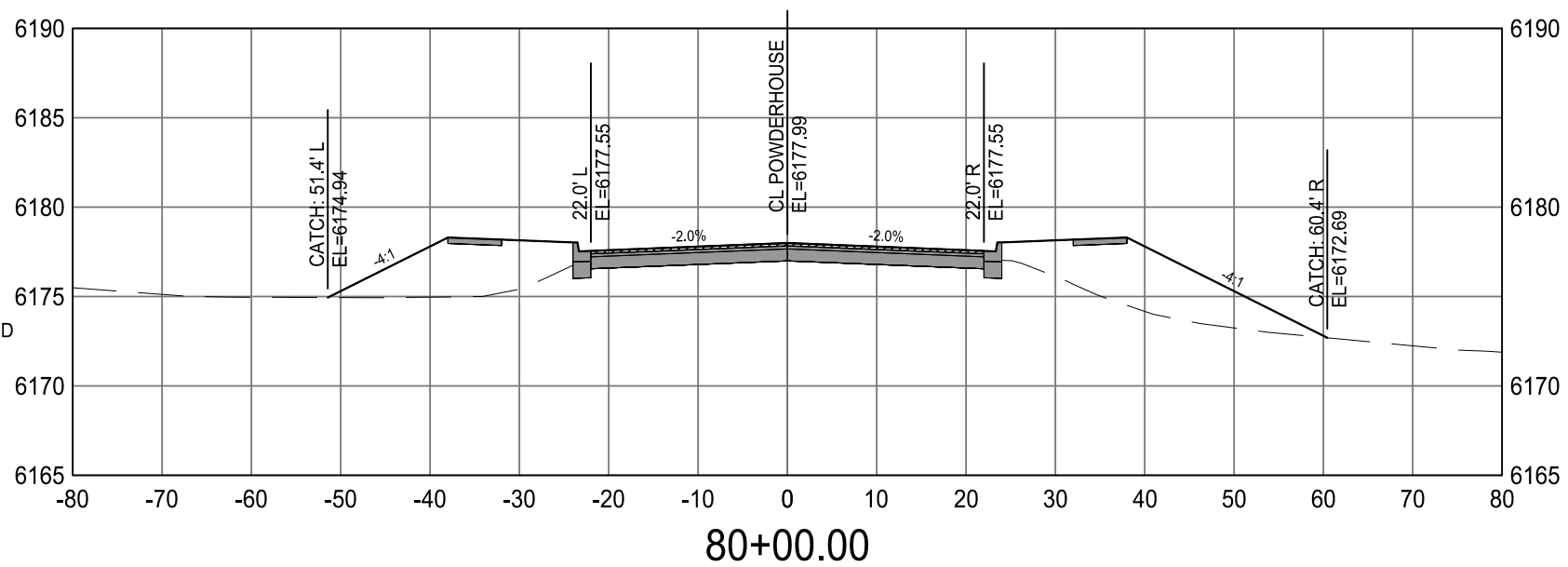
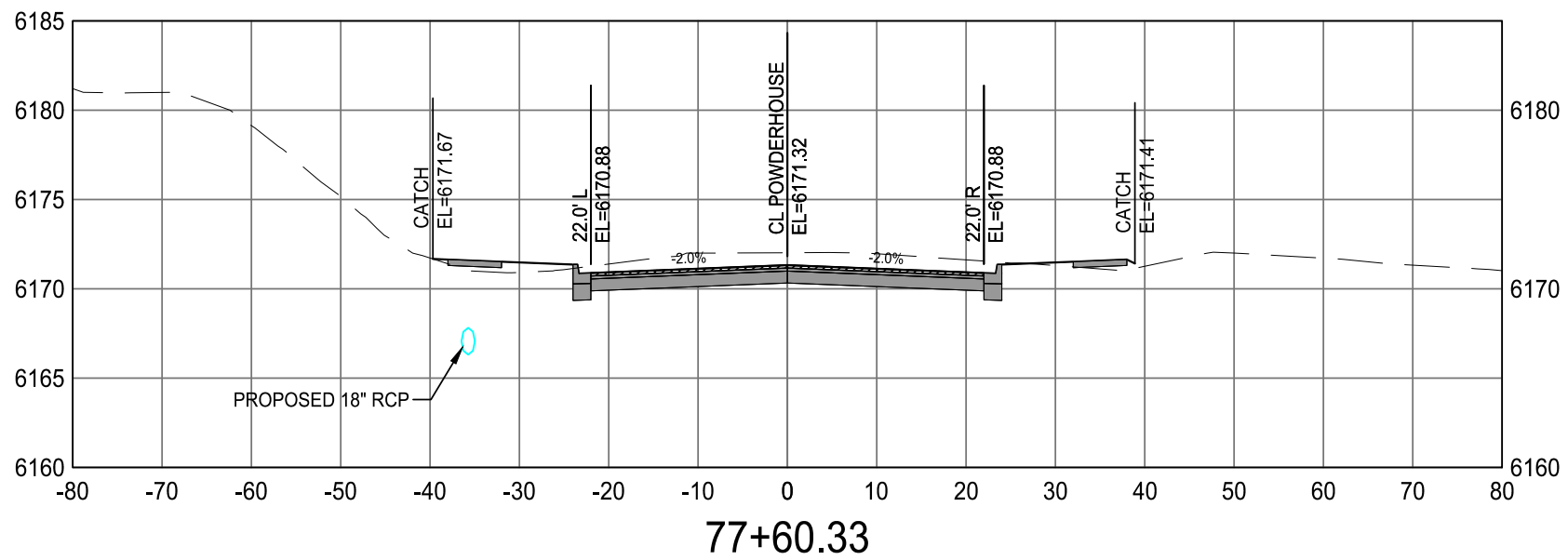
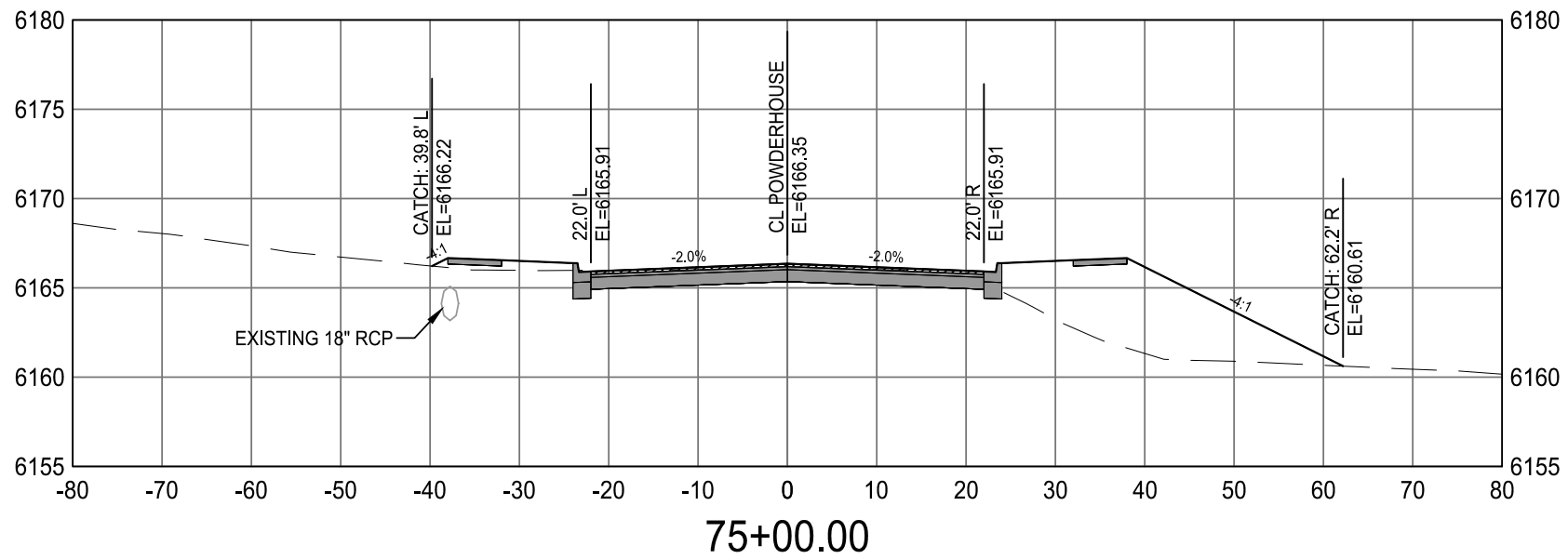
PREPARED FOR:
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS

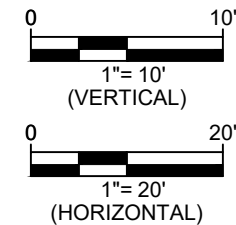


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DWG NO. XS7 OF 85



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 ——— PROPOSED FINISHED GROUND



NO.	REVISION	DATE

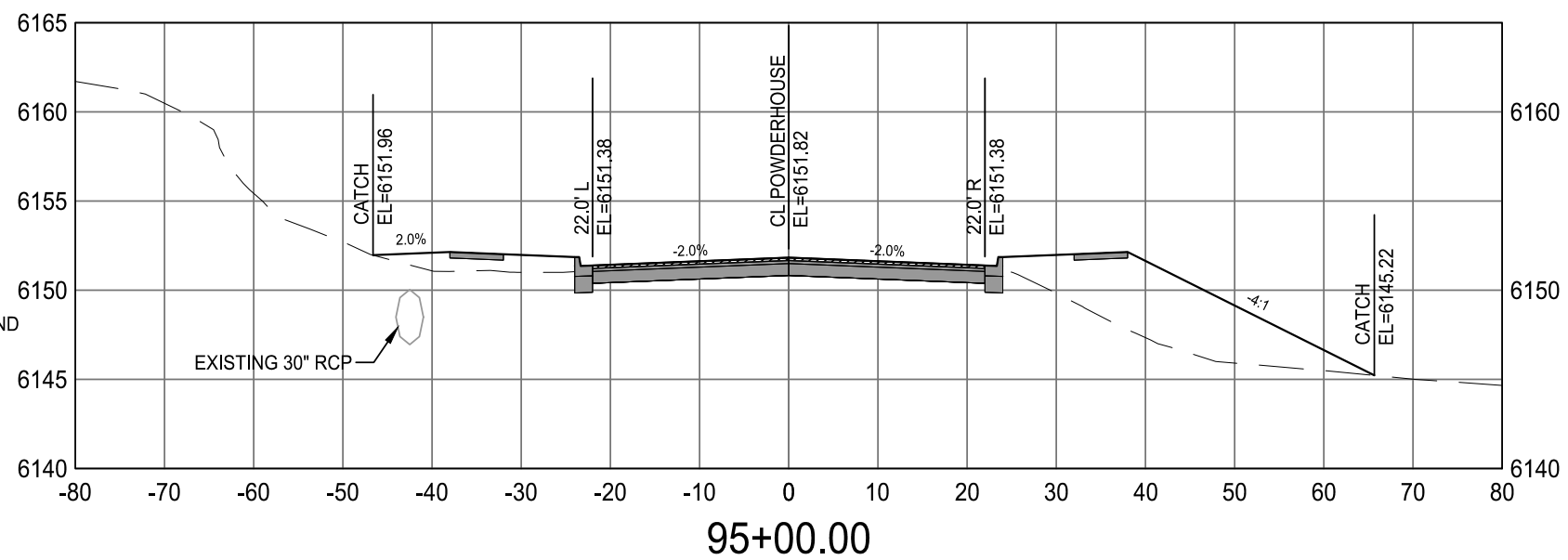
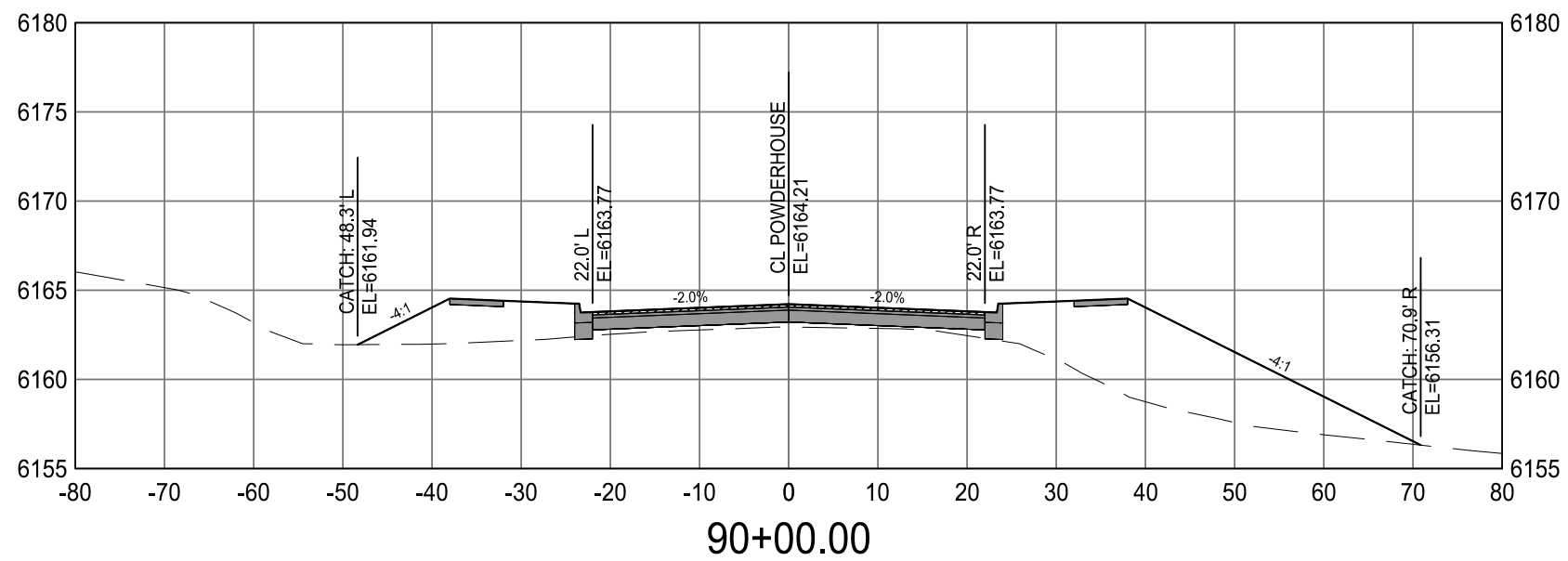
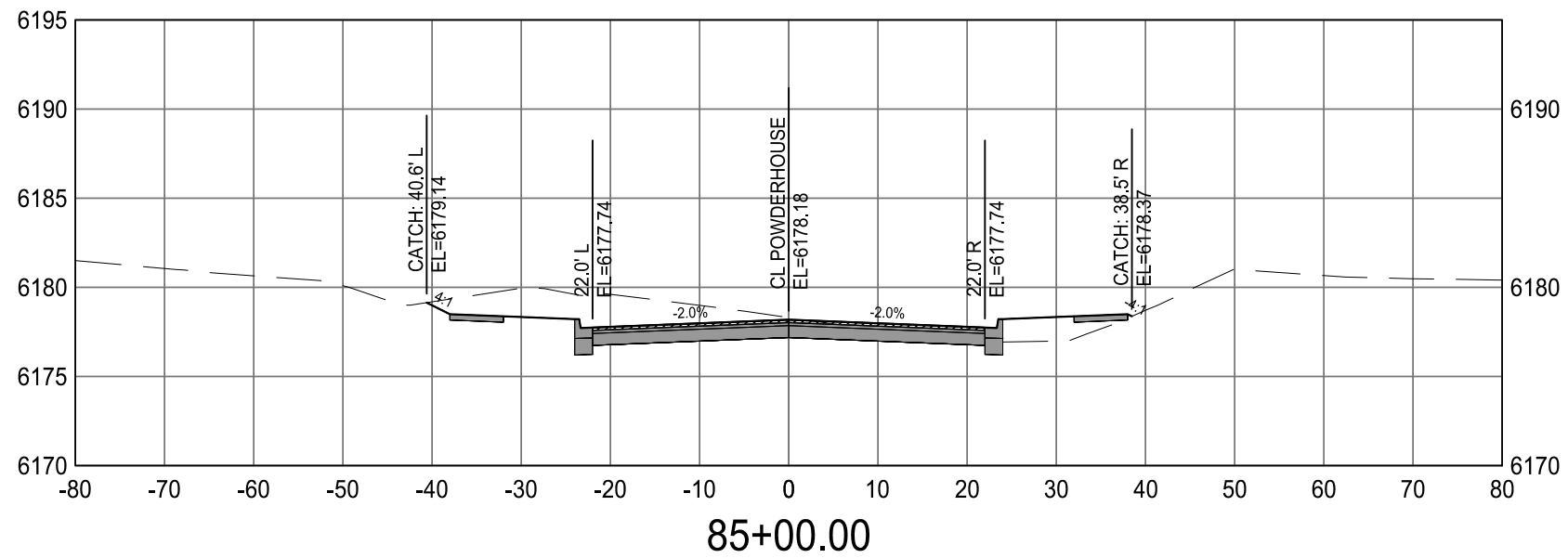
PREPARED FOR:
 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS

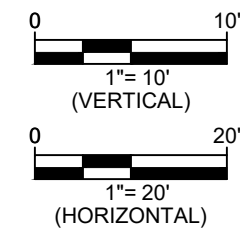


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DWG NO. XS8 OF 85



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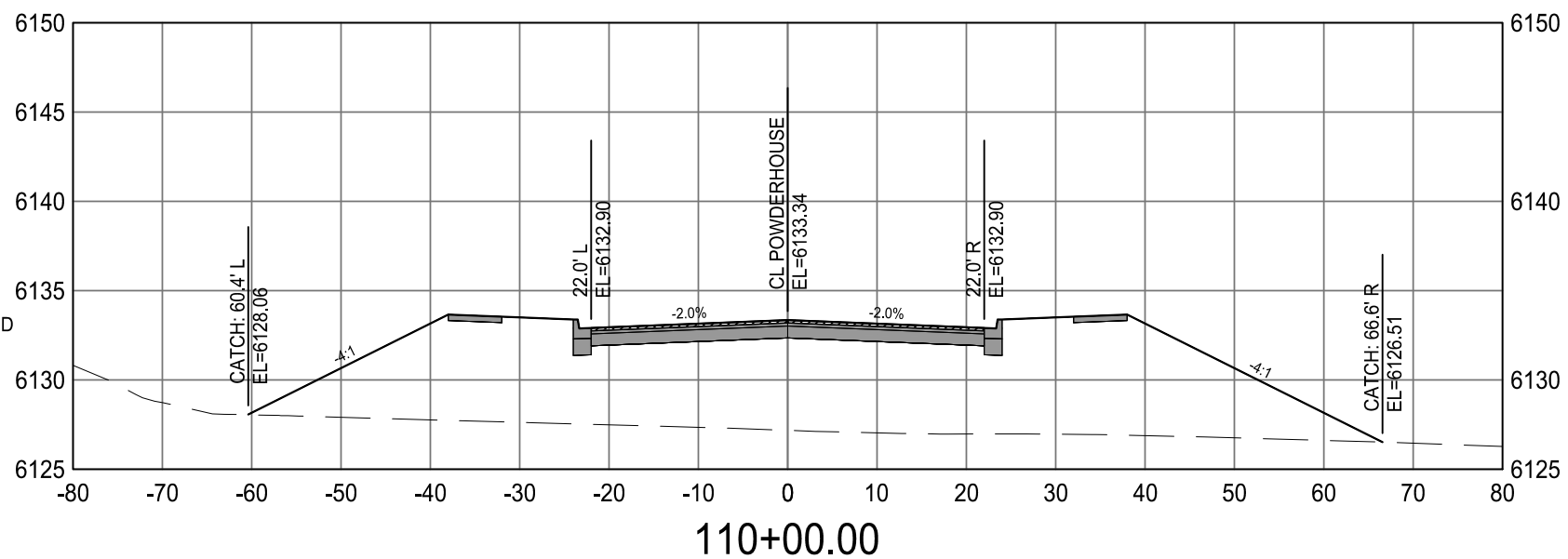
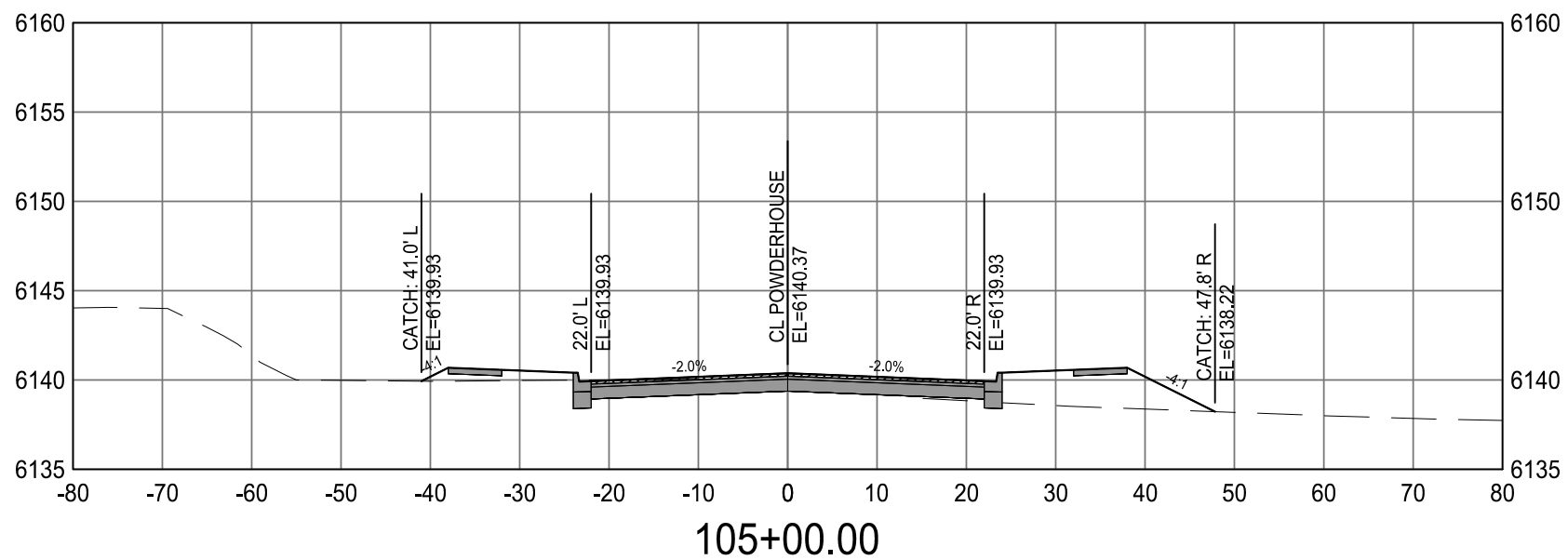
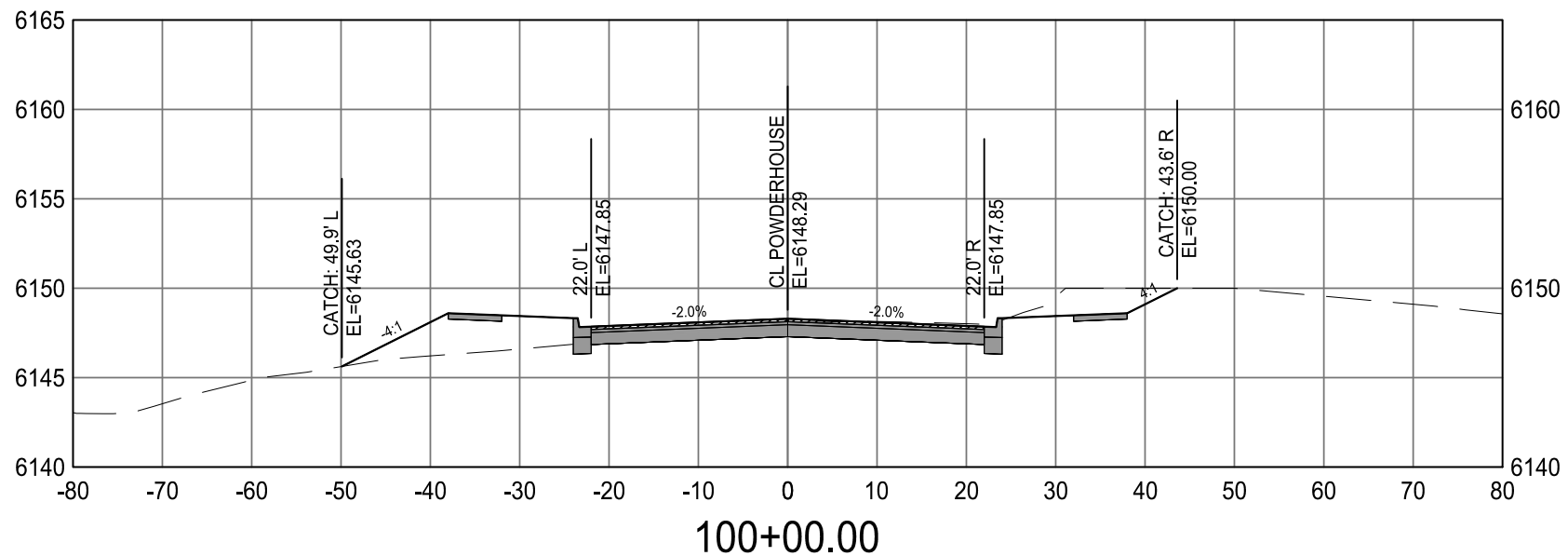
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PREPARED FOR:
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

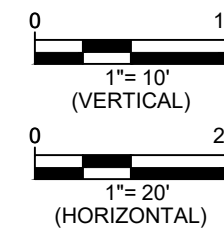
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



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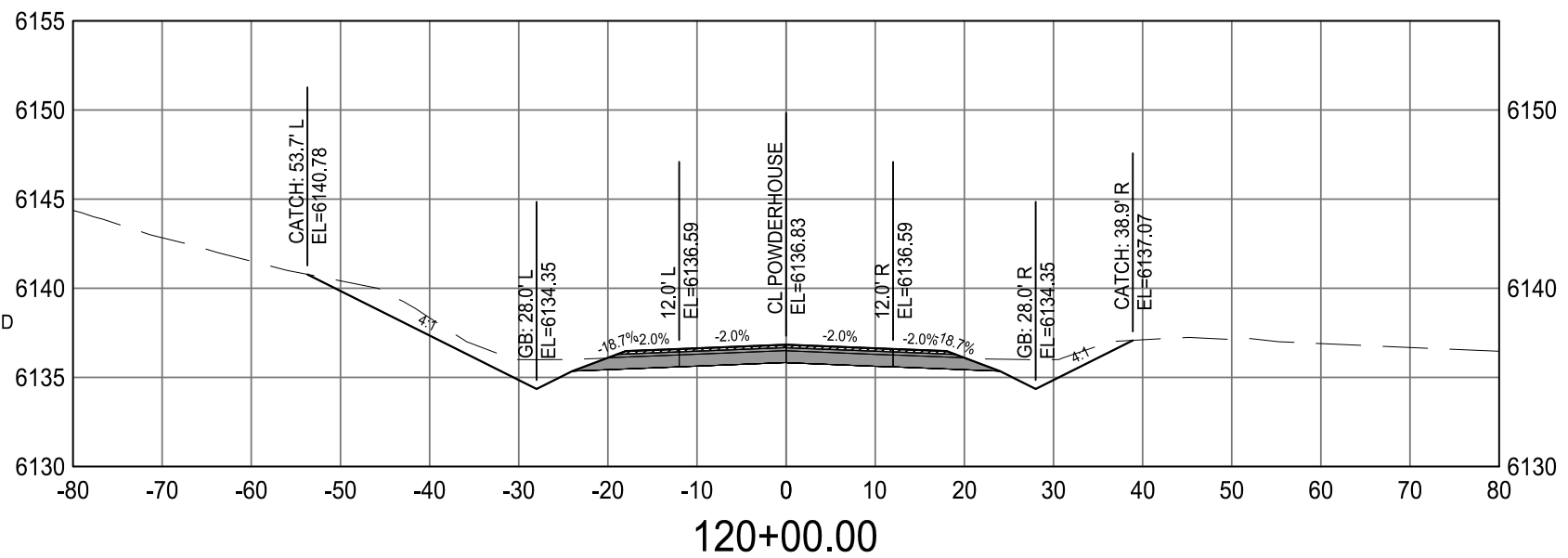
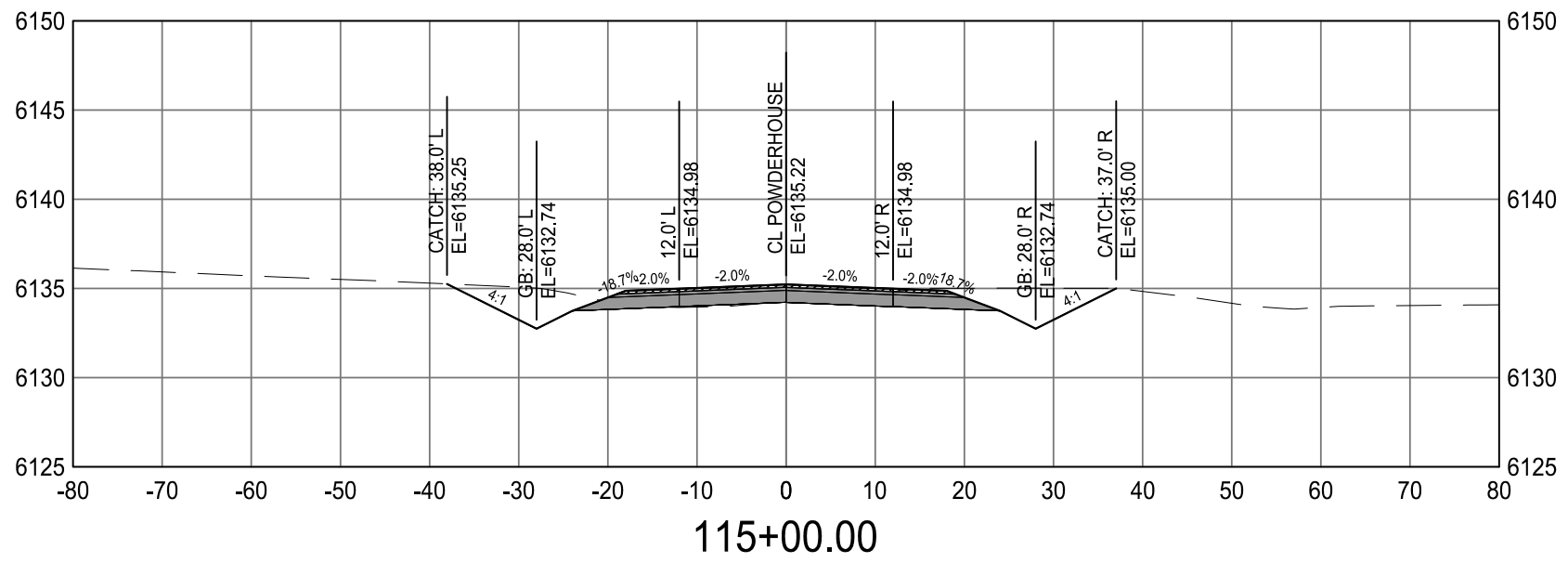
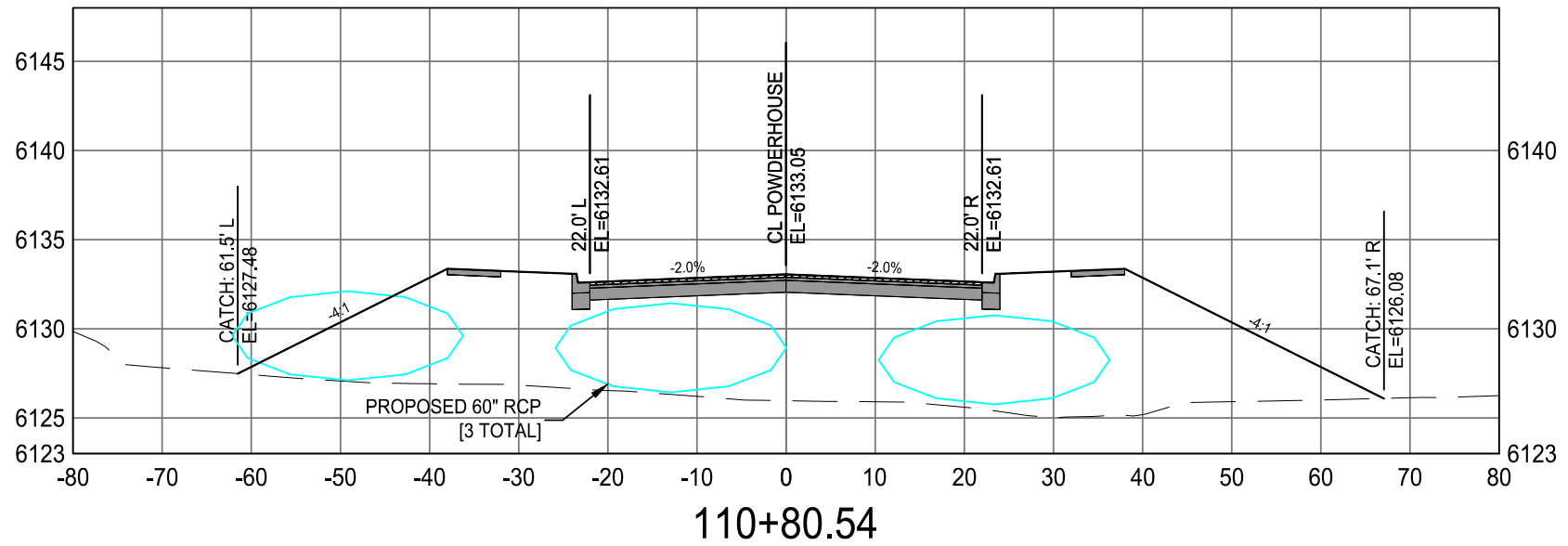
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 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



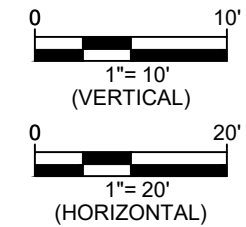
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PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
2101 ONEIL AVE
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PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY

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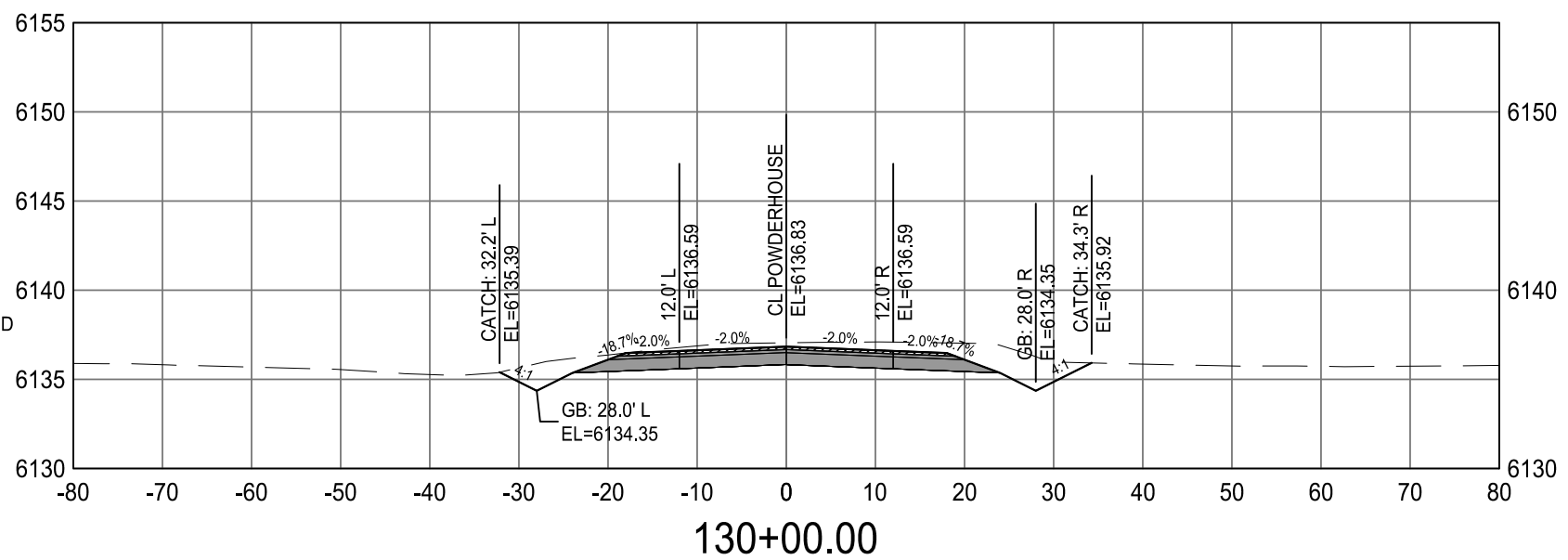
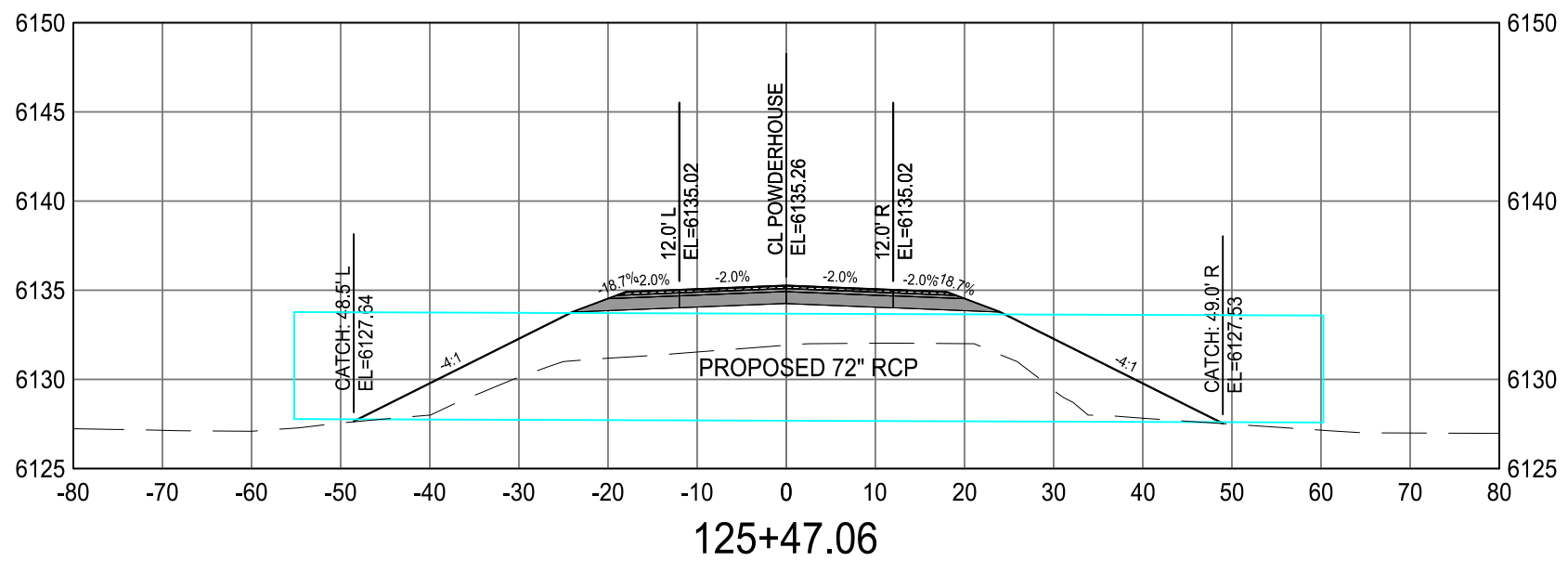
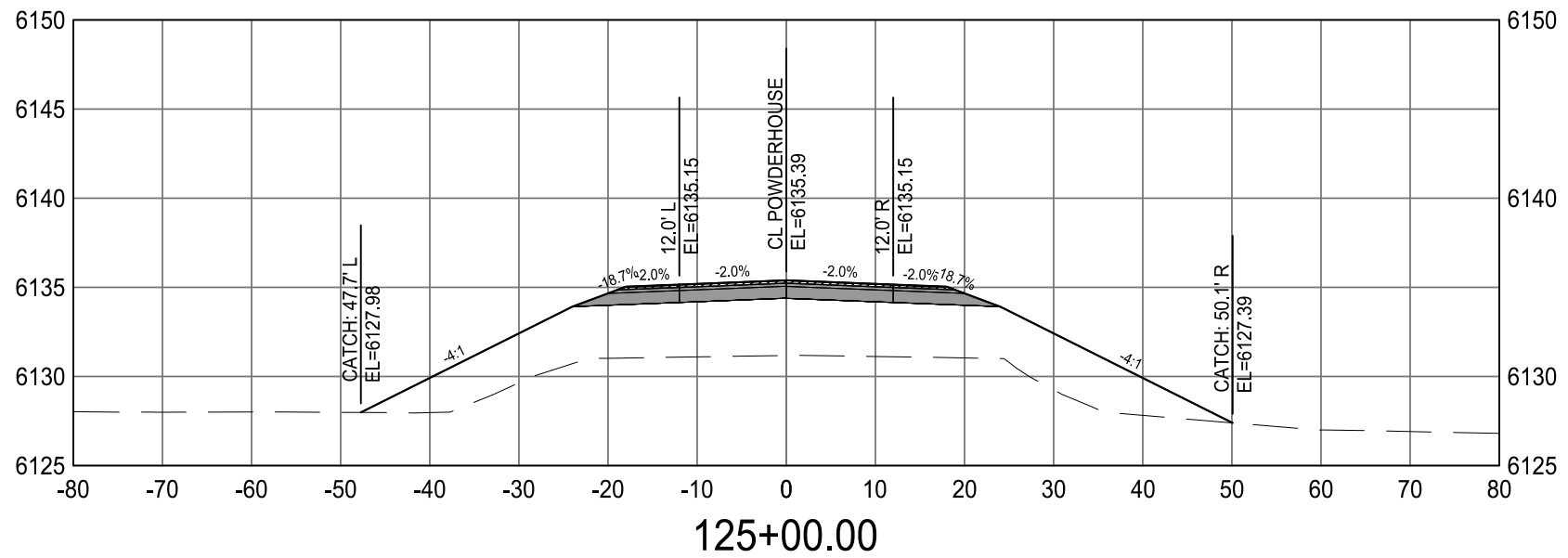
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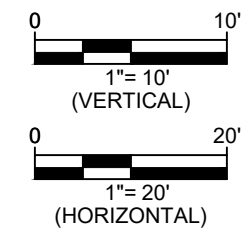
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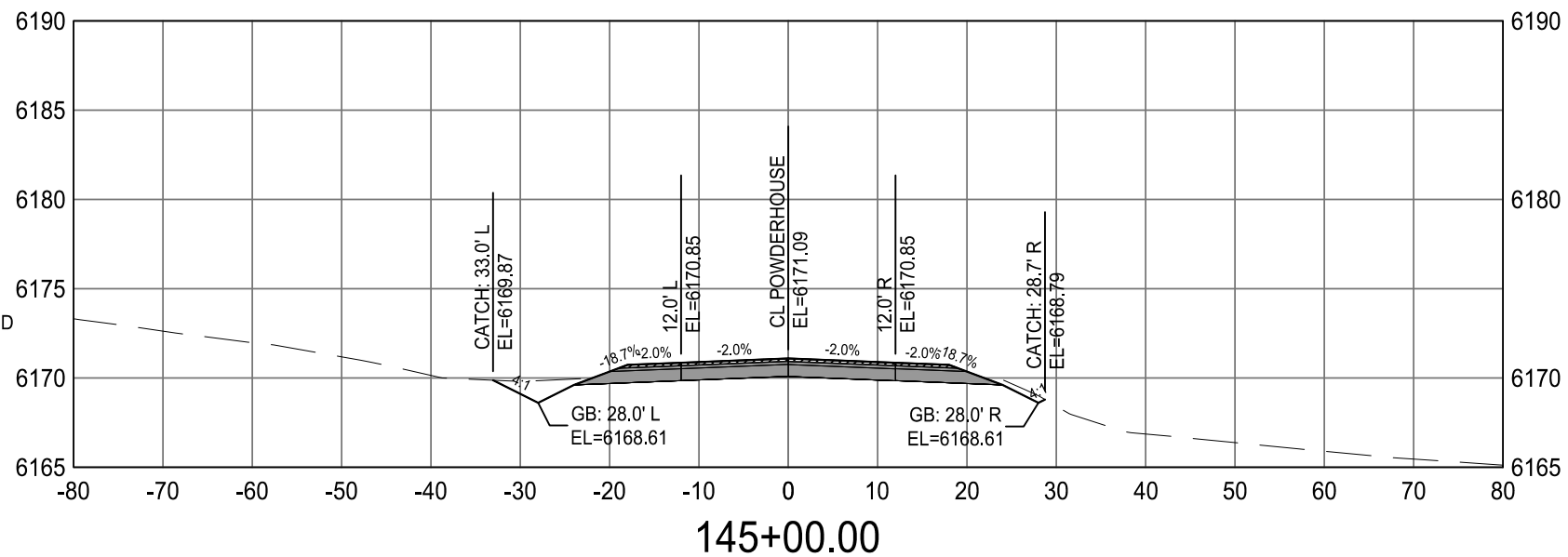
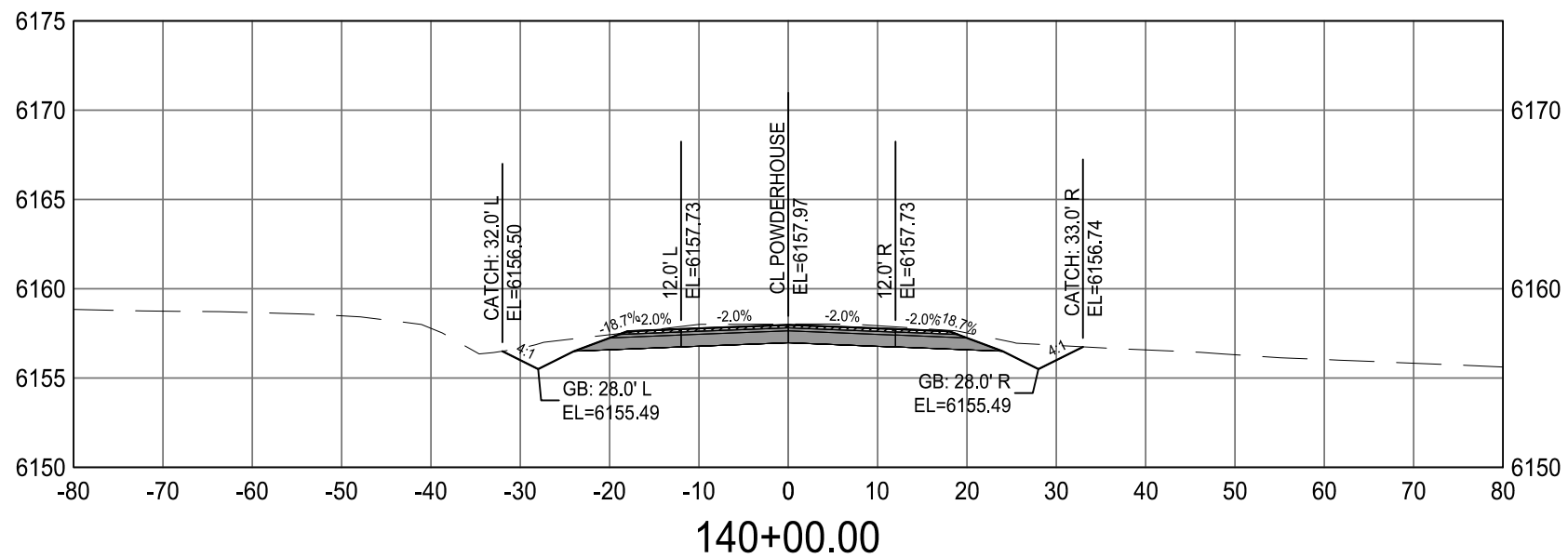
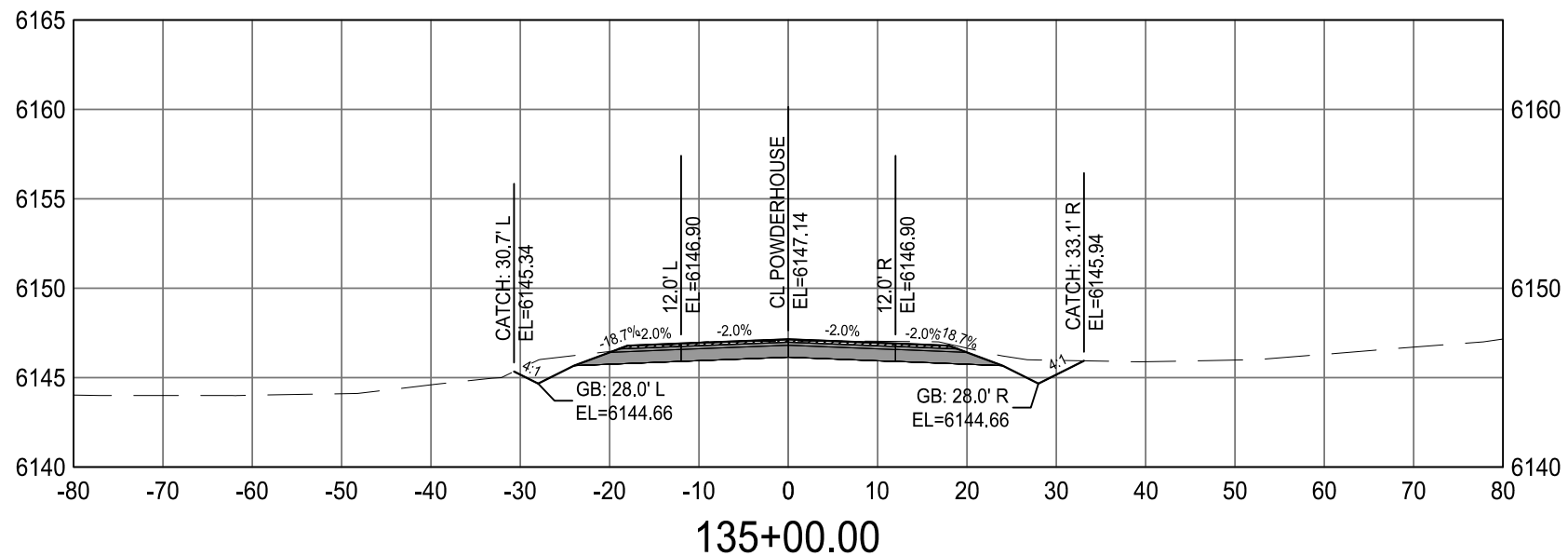
PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS

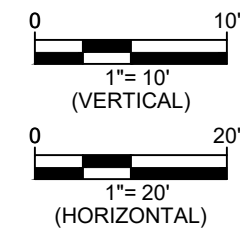


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DWG NO. XS12 OF 85



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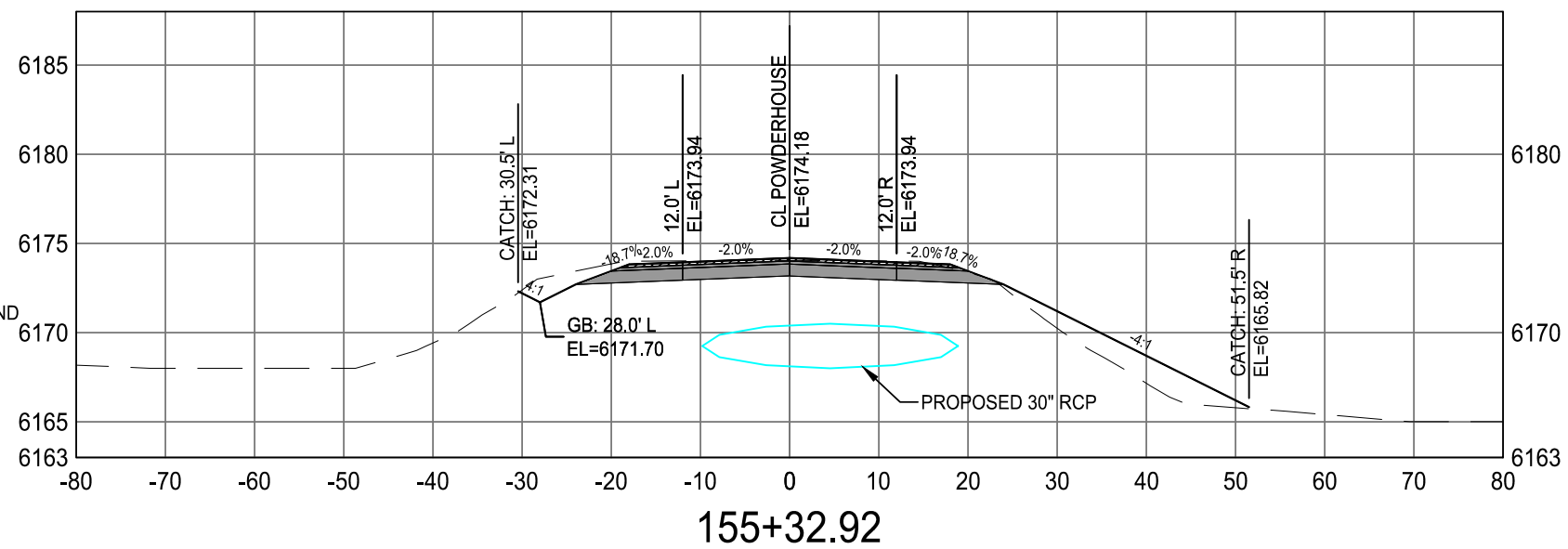
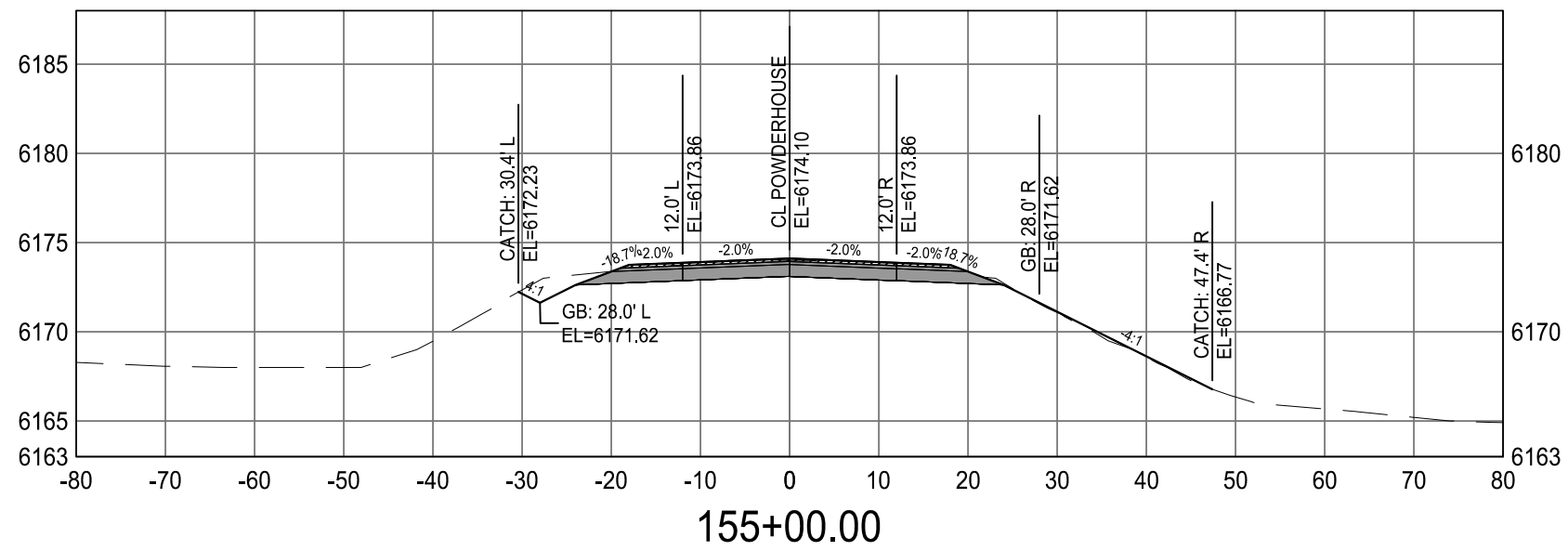
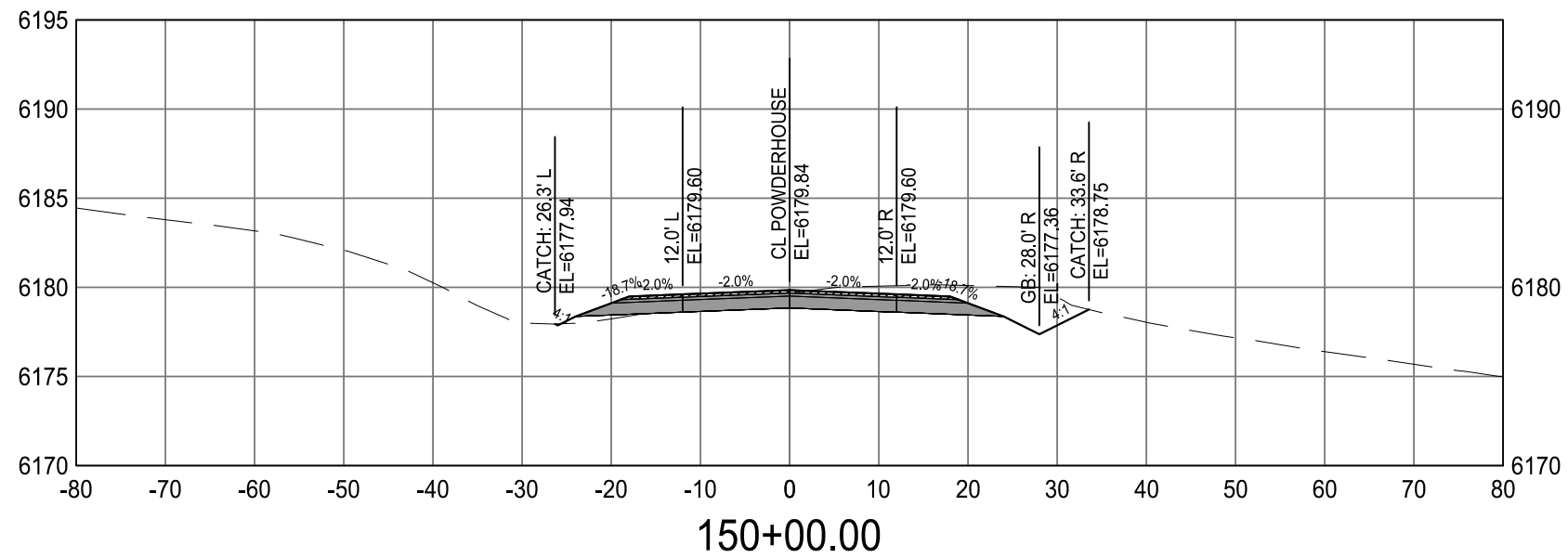
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 CHEYENNE, WY 82001

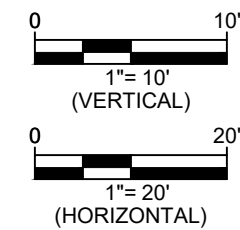
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



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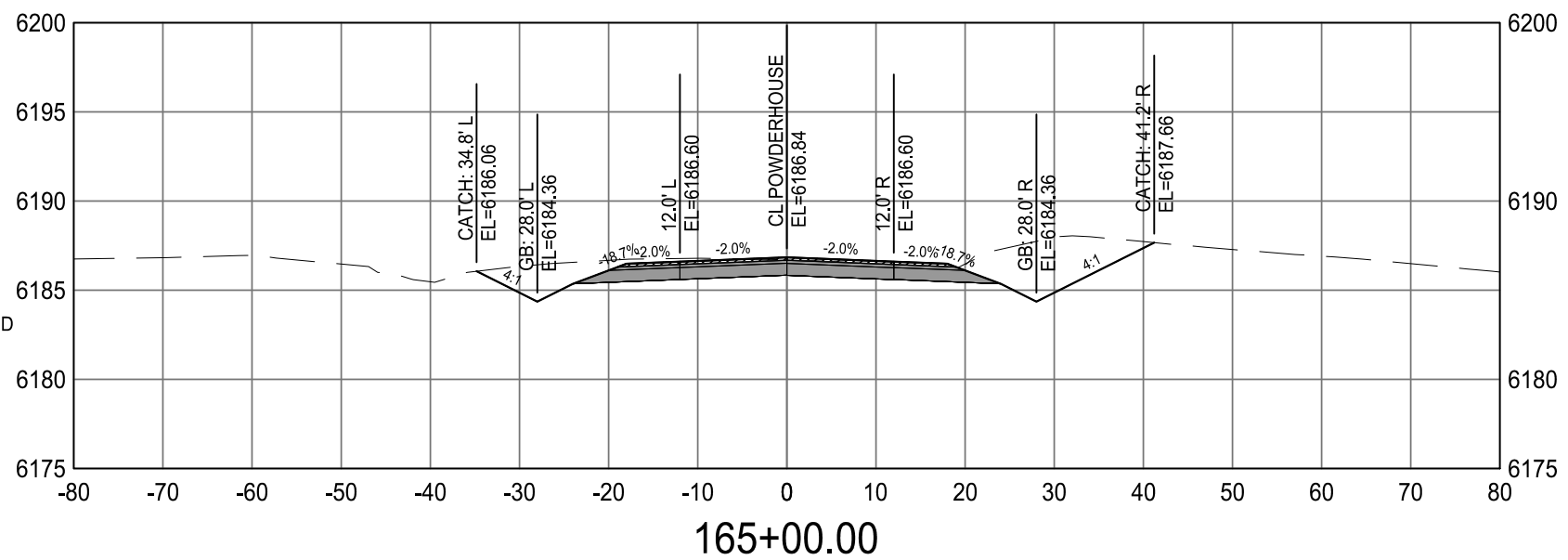
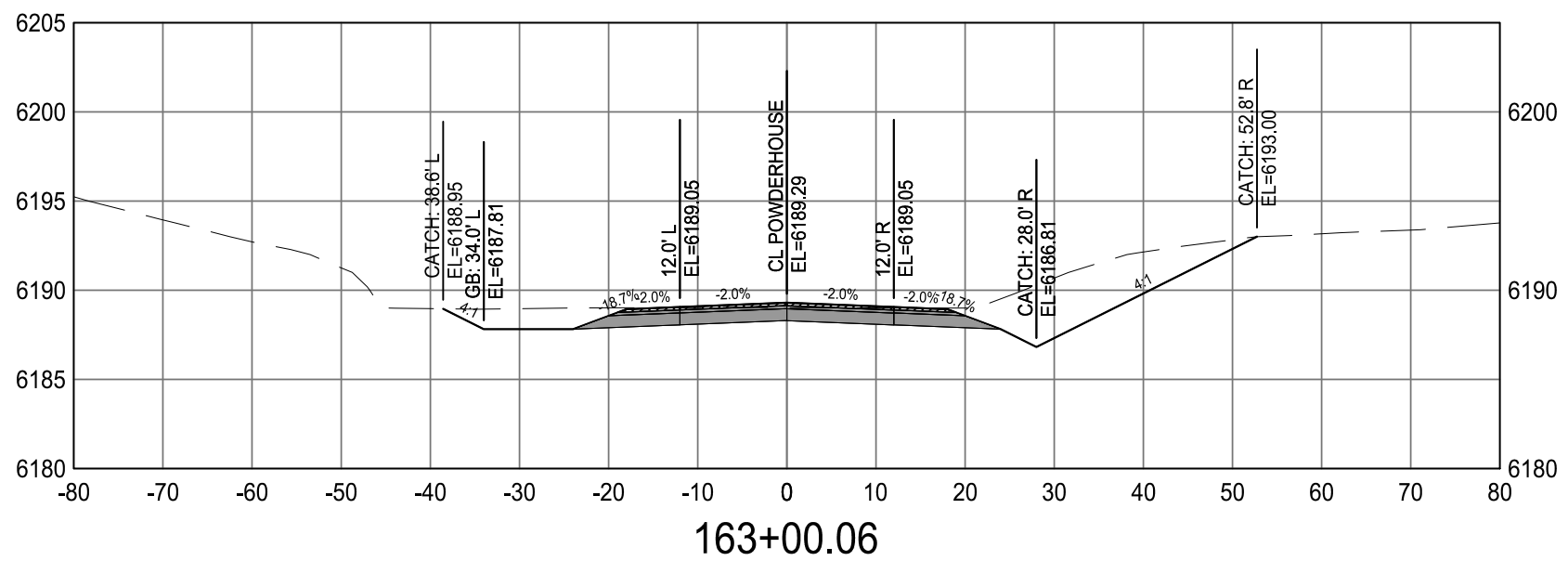
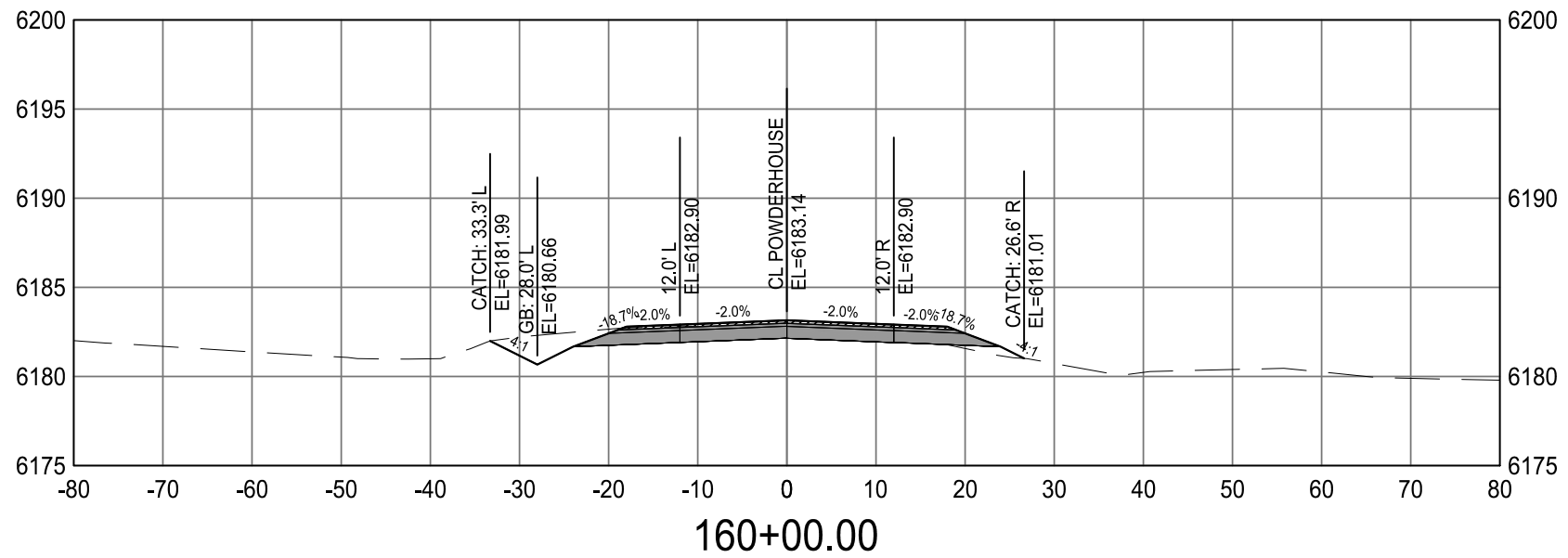
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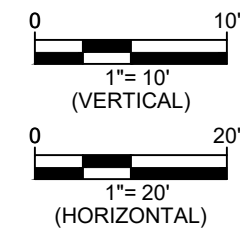
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
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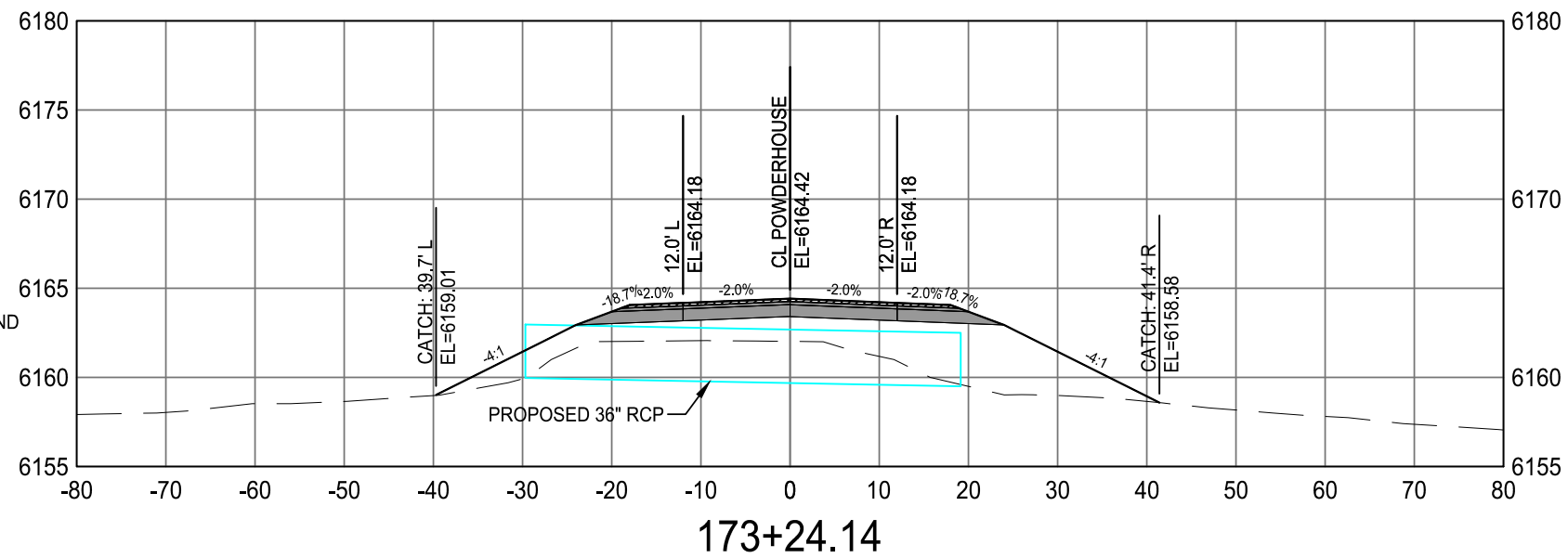
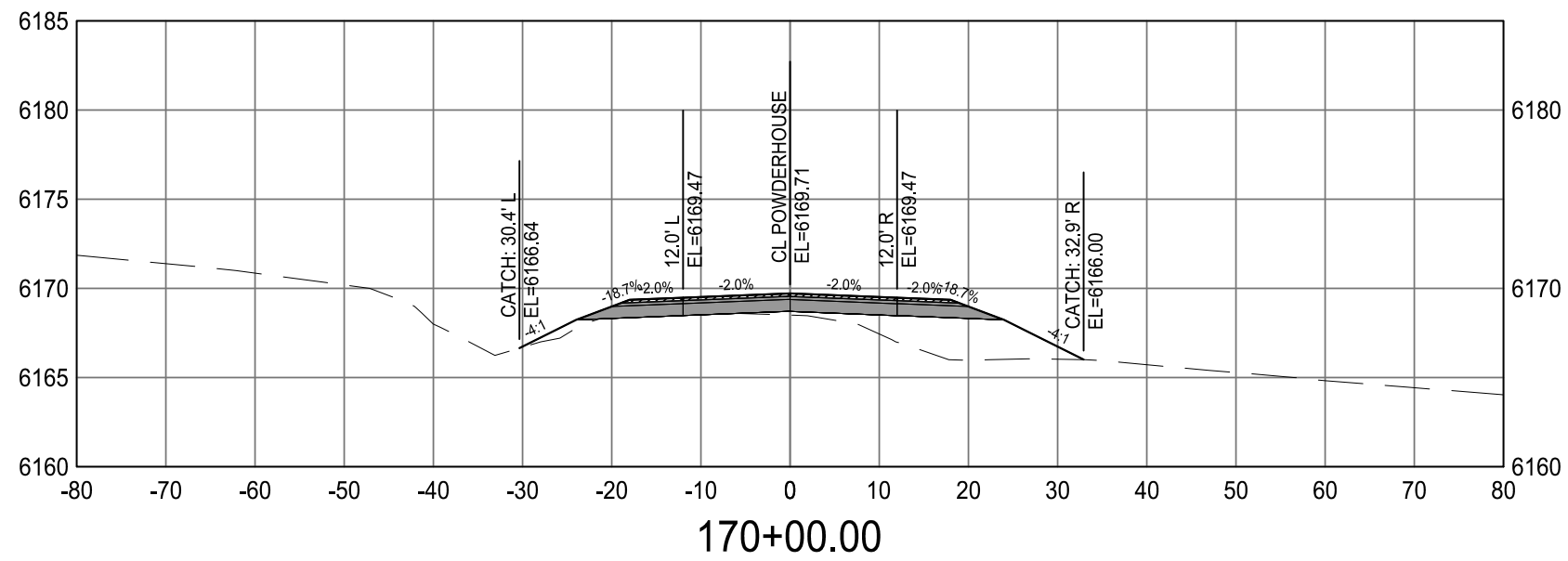
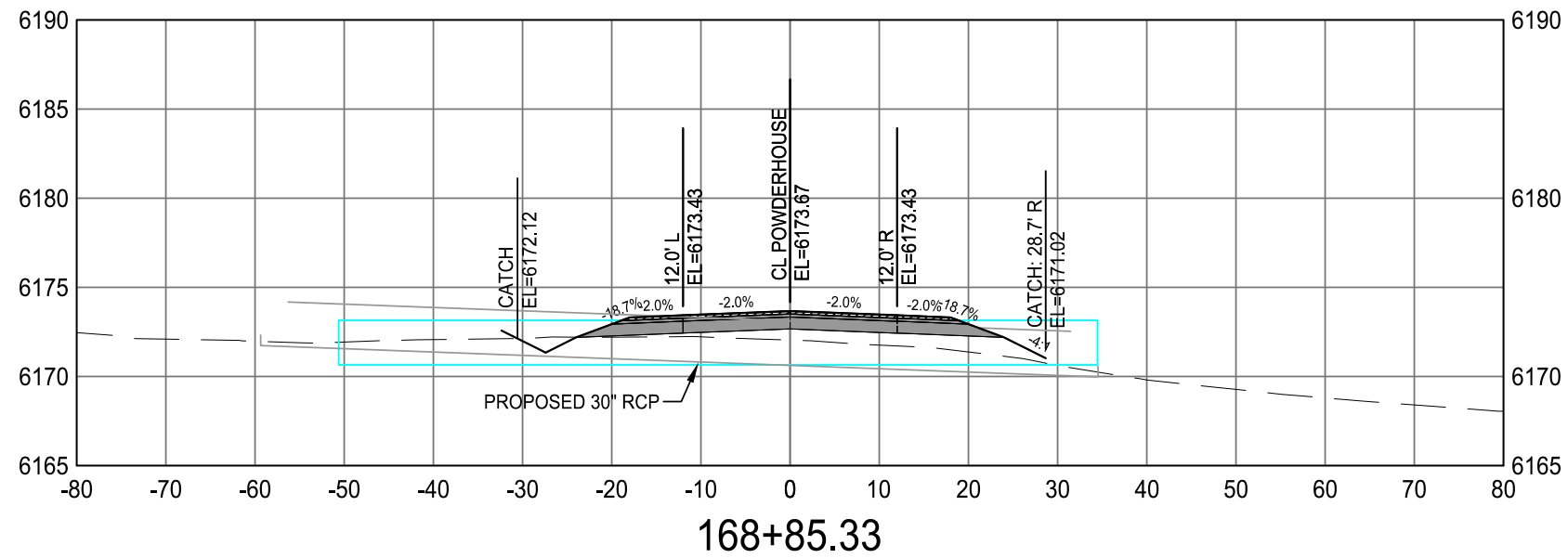
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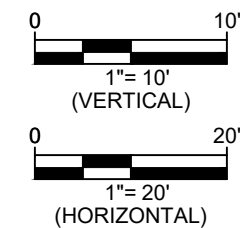
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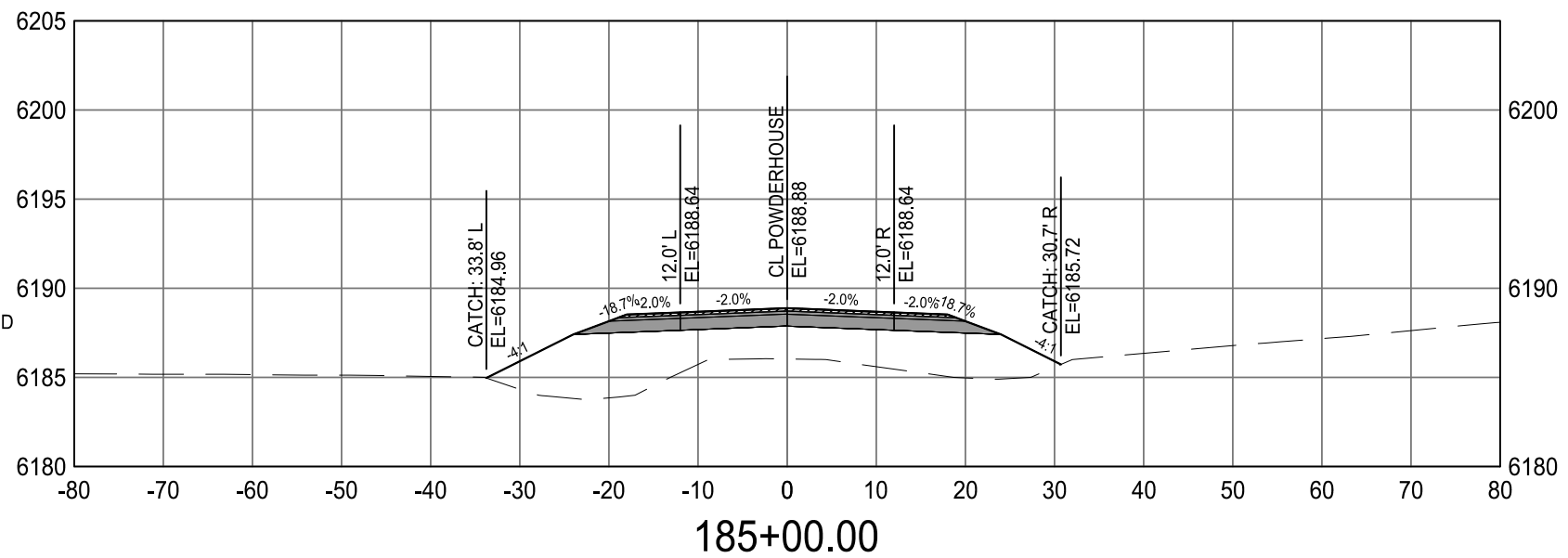
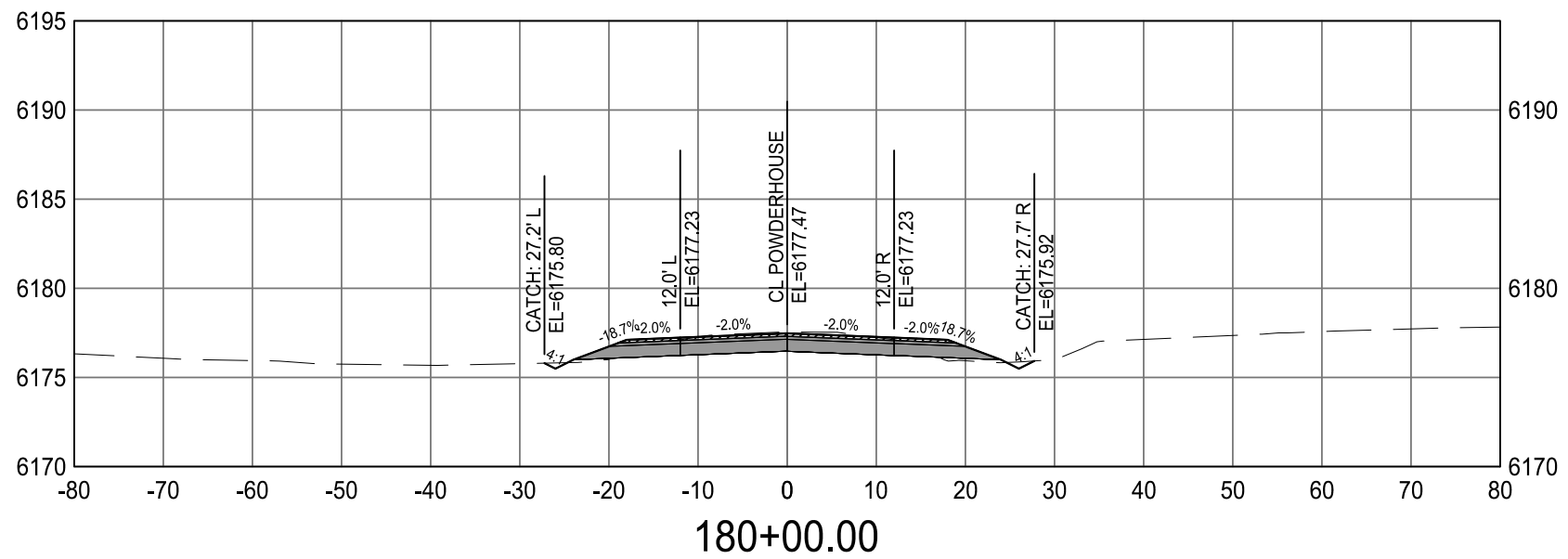
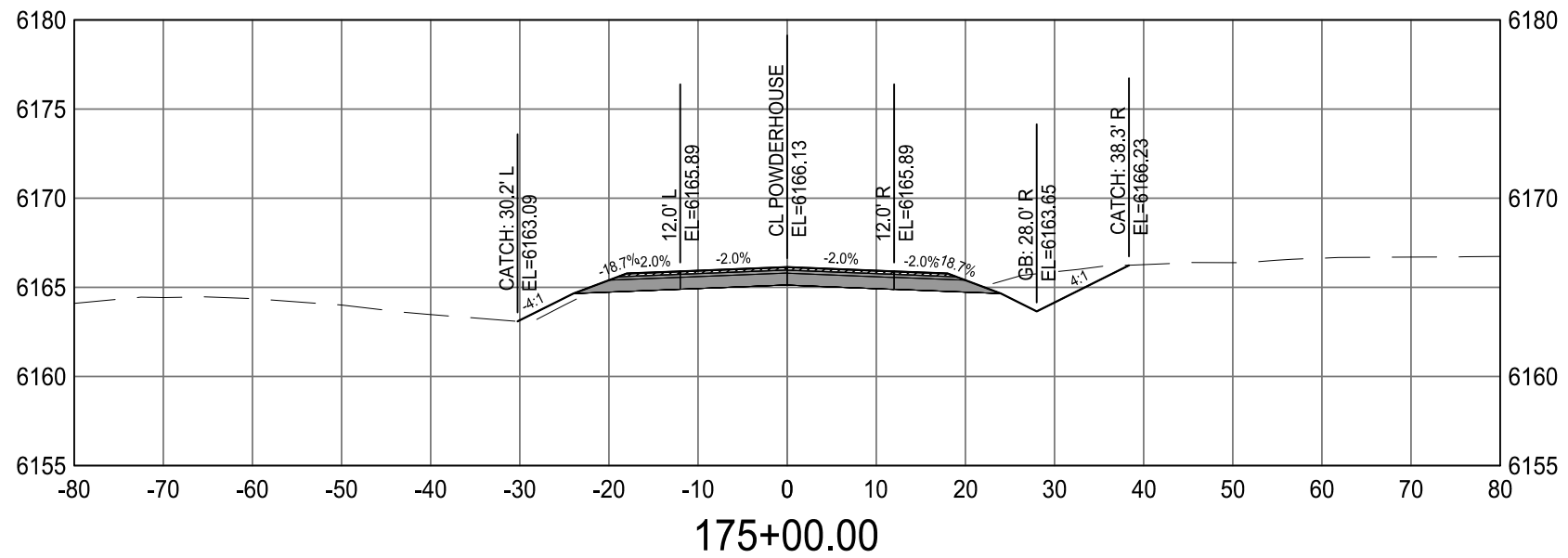
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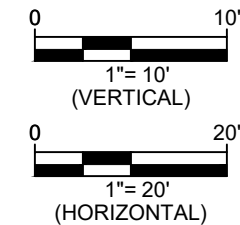
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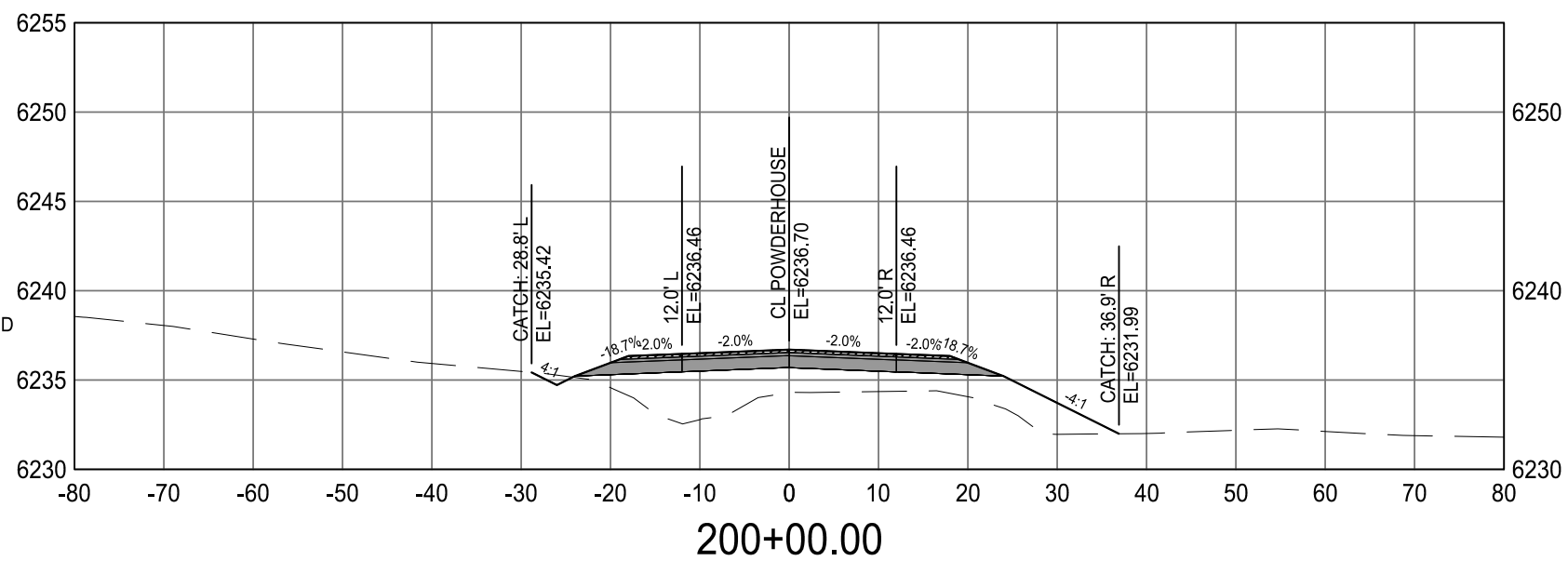
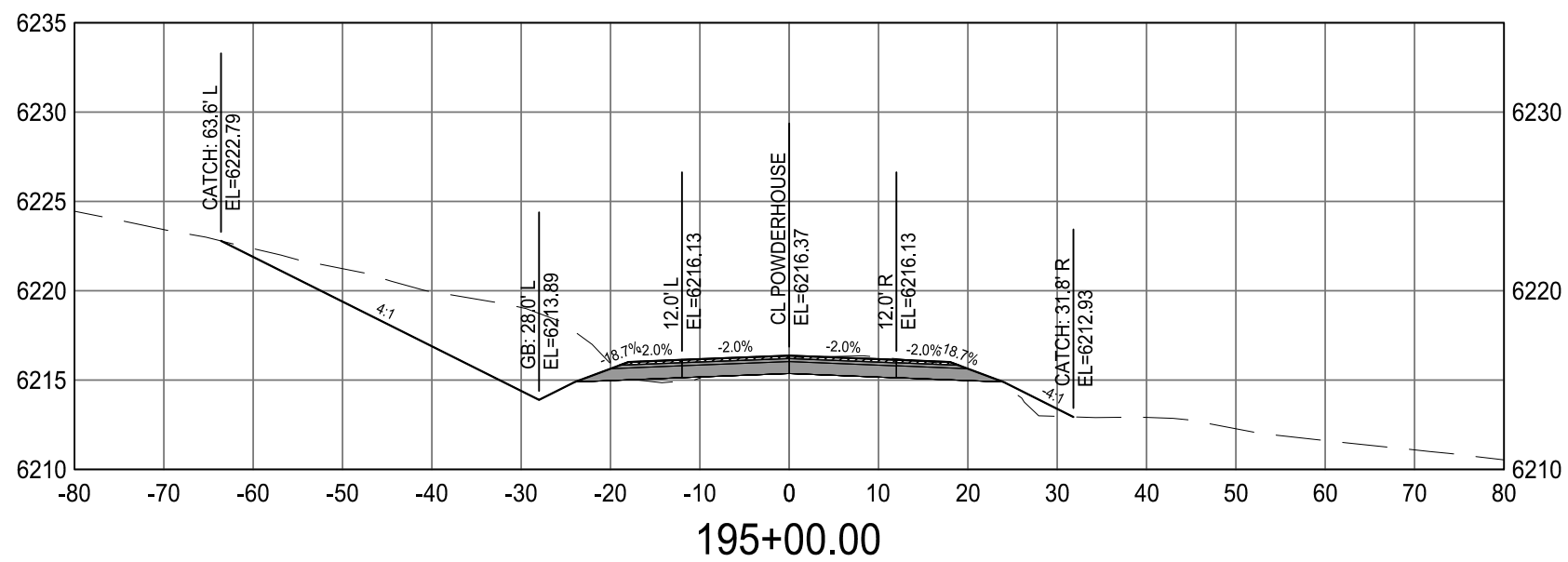
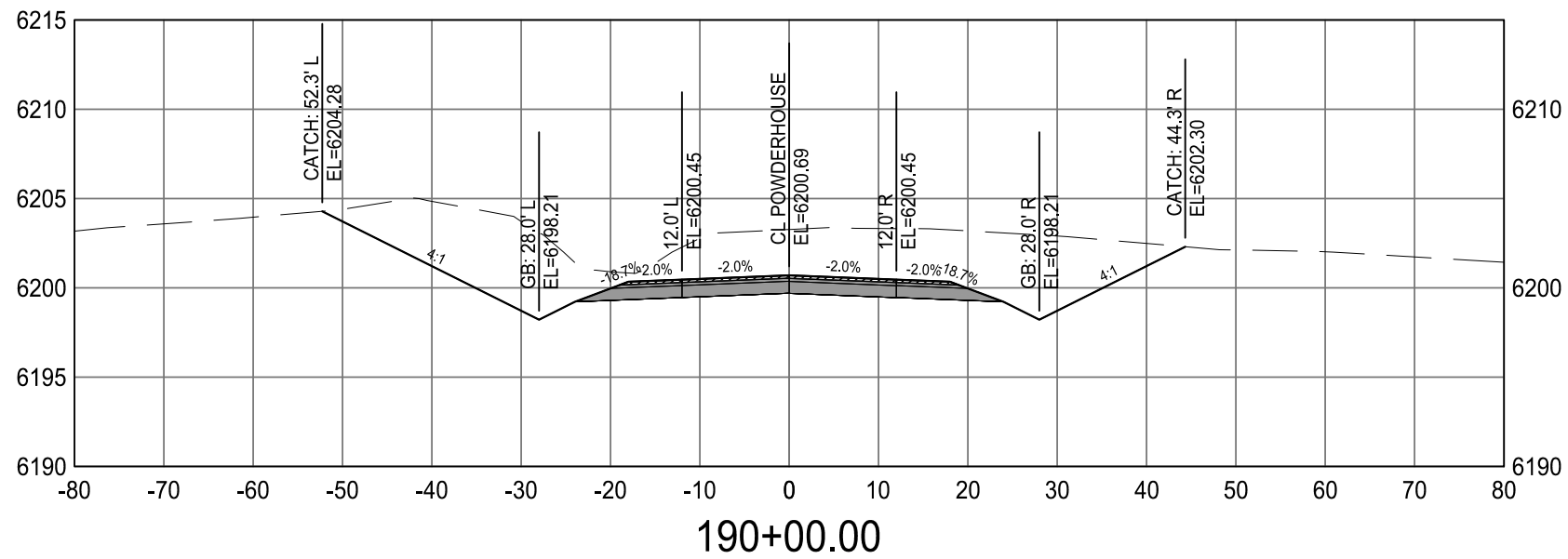
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 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS

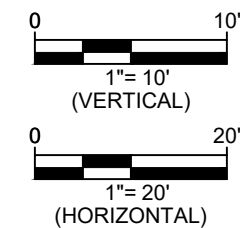


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 JOB NO.: 4642

DWG NO. XS17 OF 85



LEGEND
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 — PROPOSED FINISHED GROUND



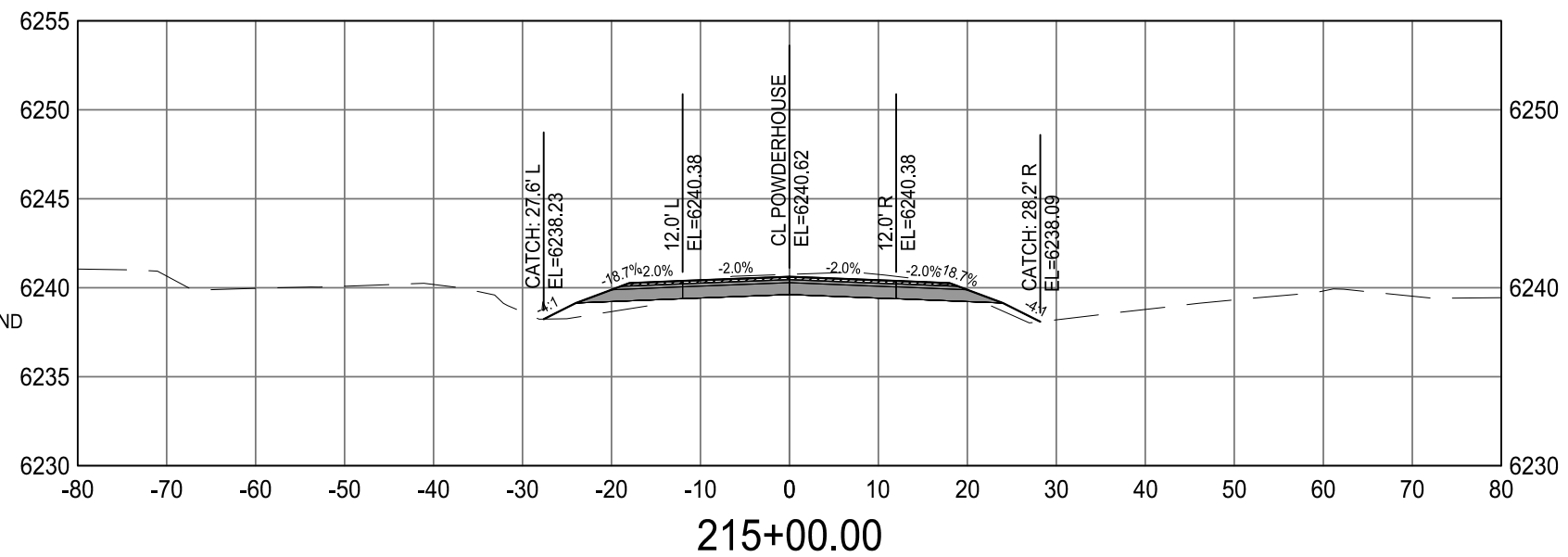
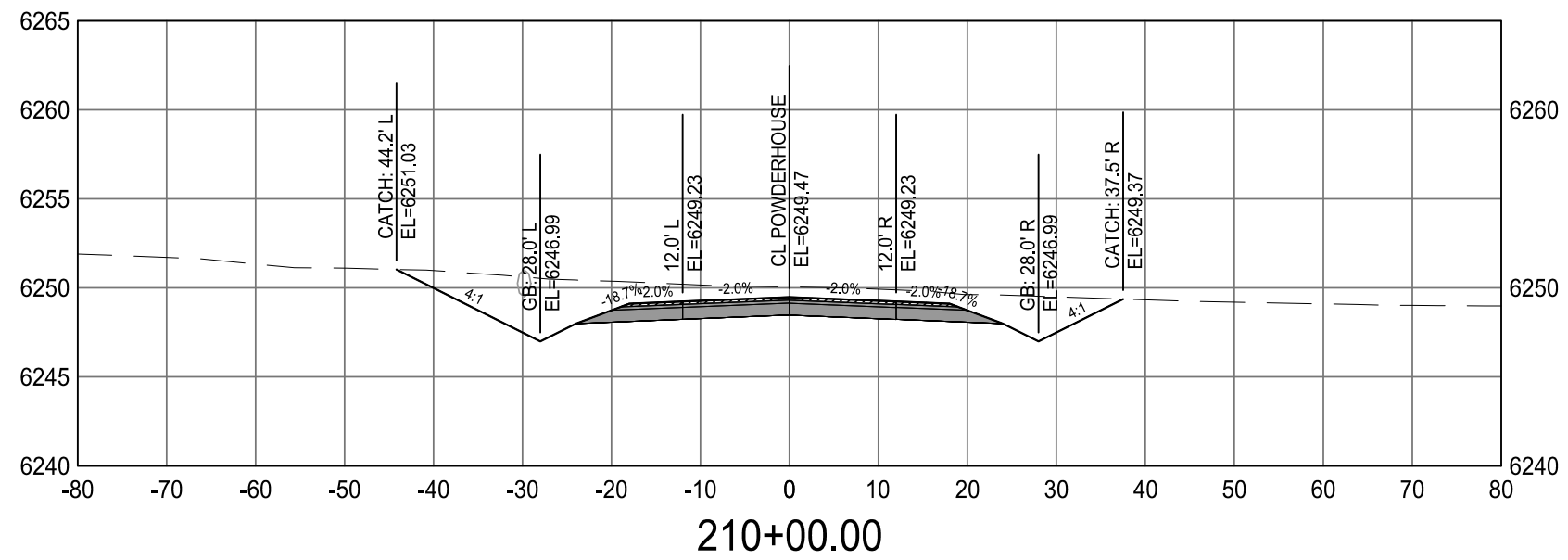
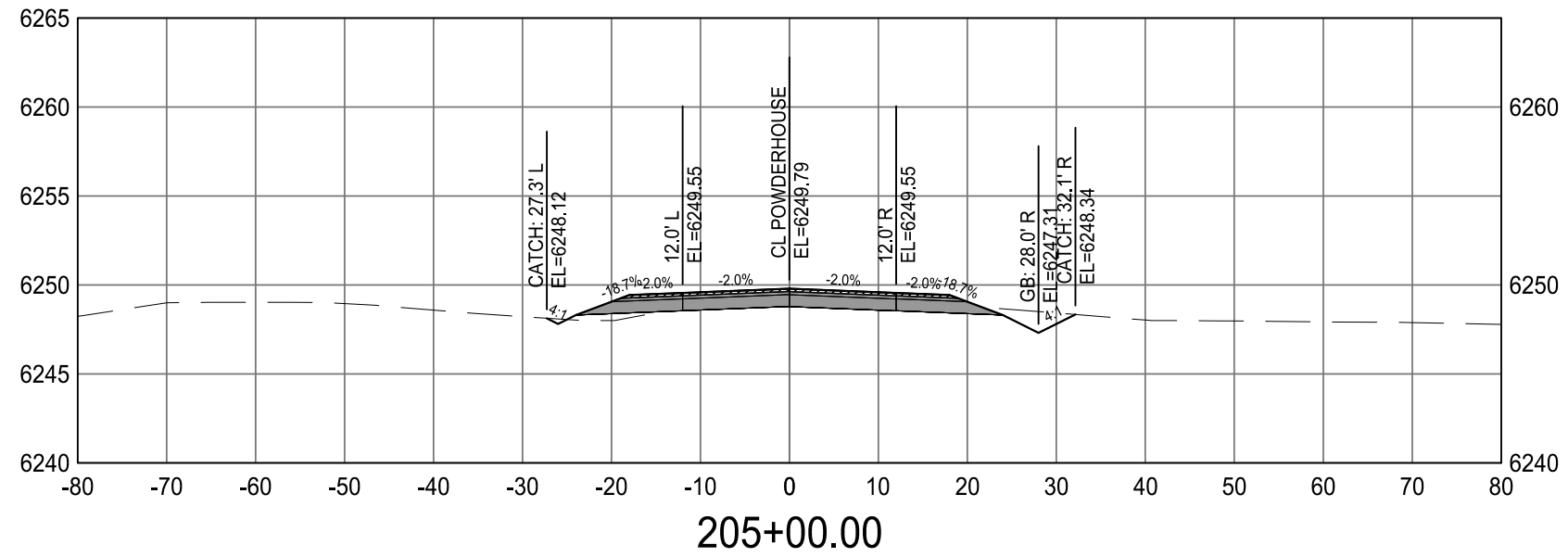
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 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

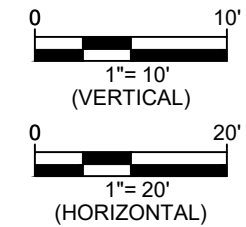
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



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LEGEND
 --- EXISTING GROUND
 ——— PROPOSED FINISHED GROUND



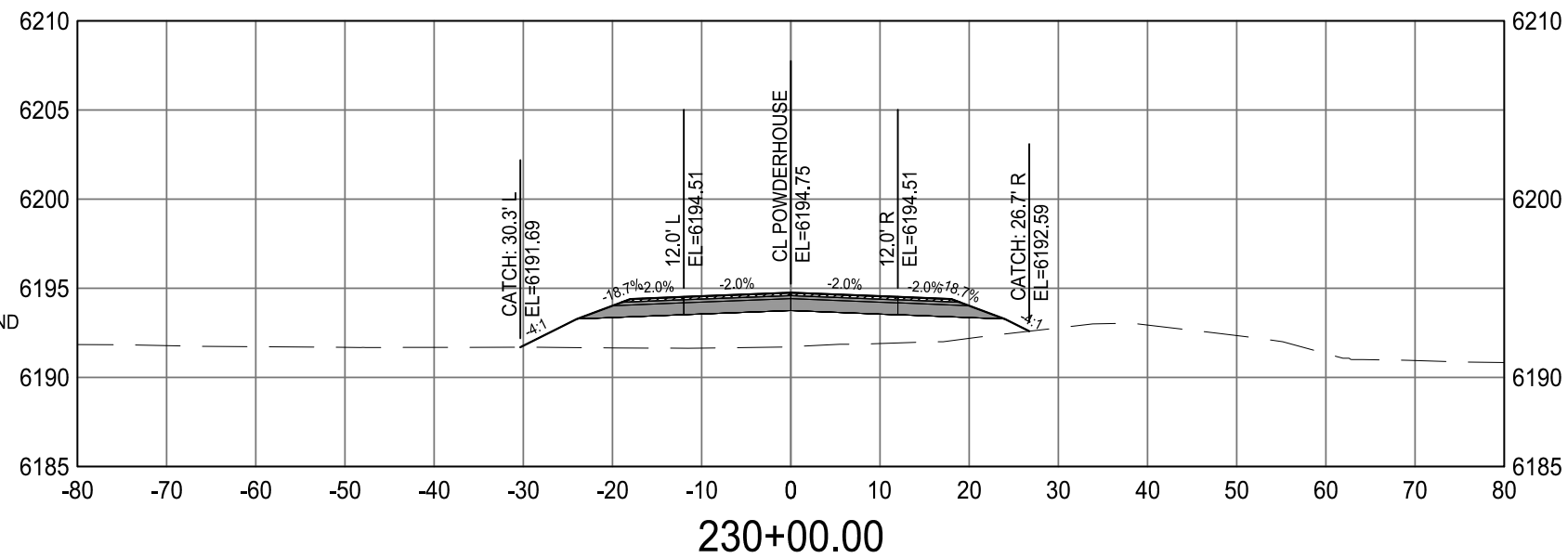
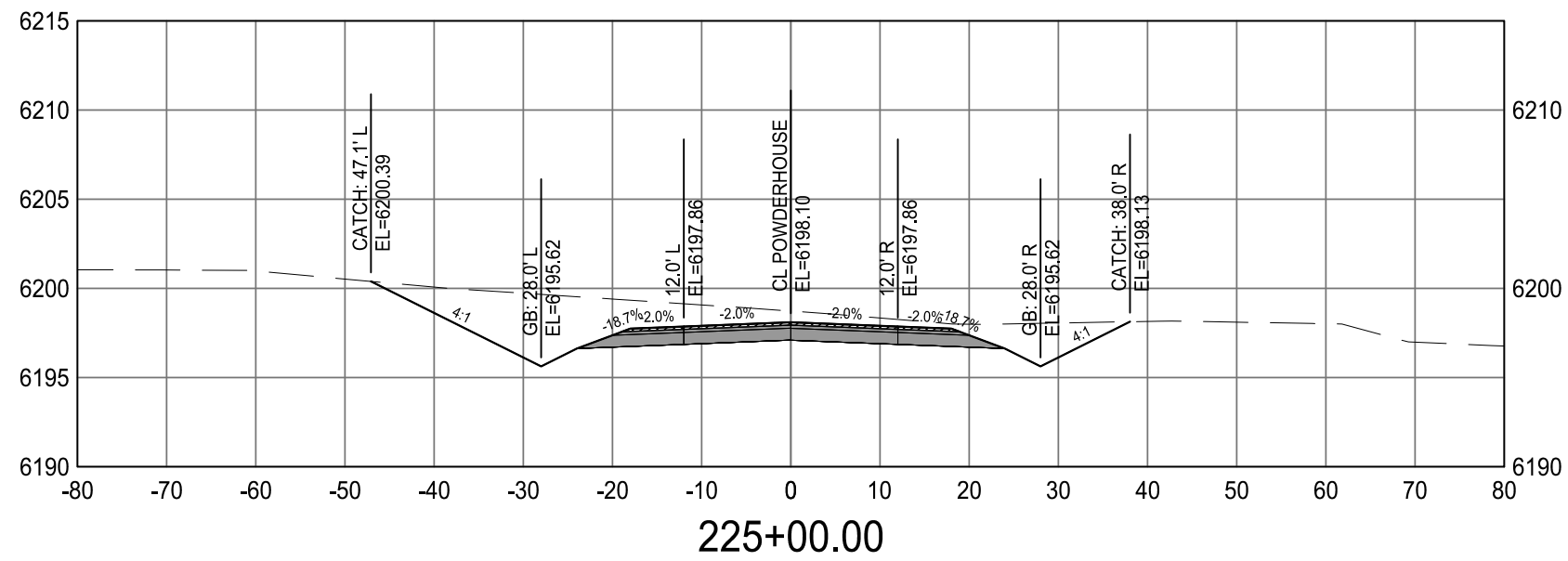
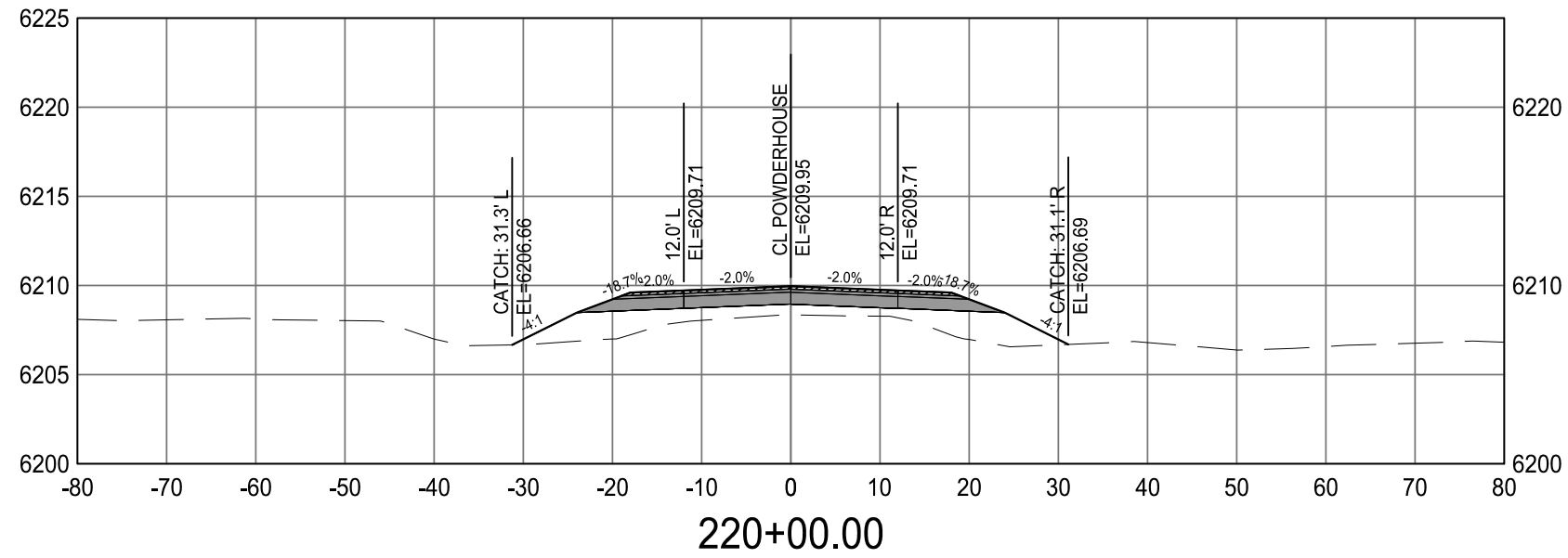
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PREPARED FOR:
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

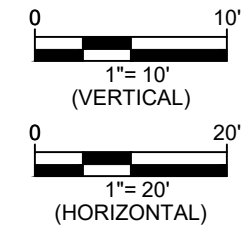
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



DATE PLOTTED: Jun 12, 2023
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LEGEND
 --- EXISTING GROUND
 ——— PROPOSED FINISHED GROUND



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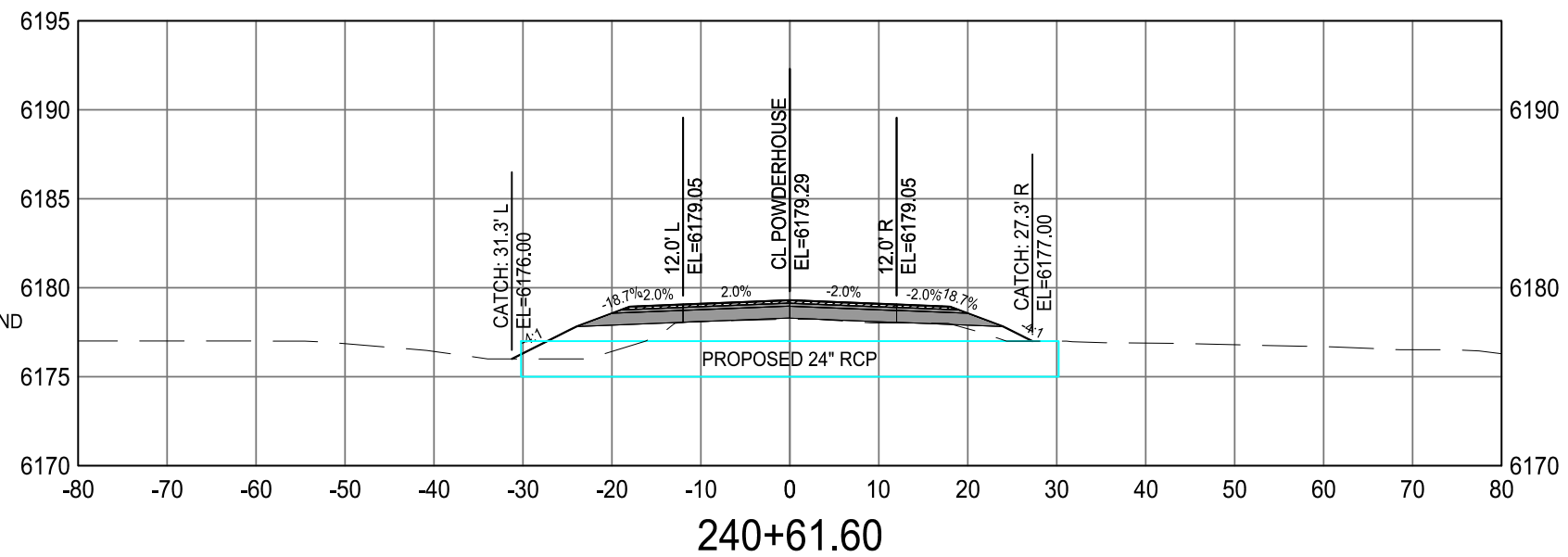
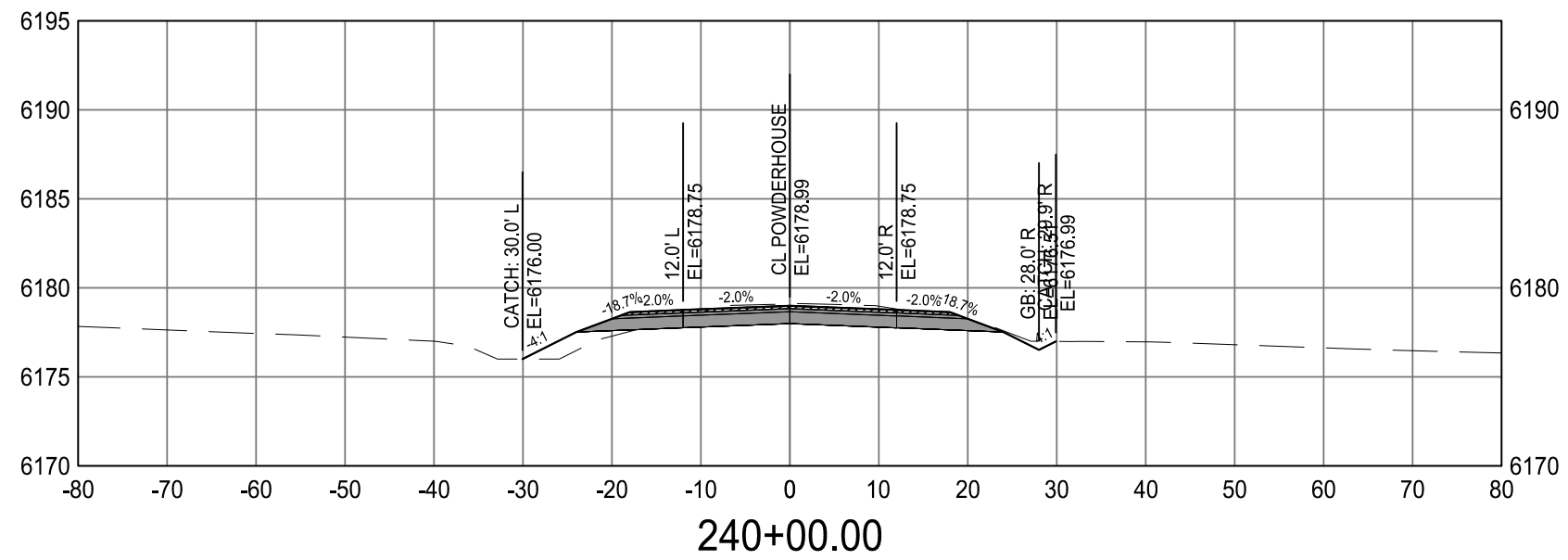
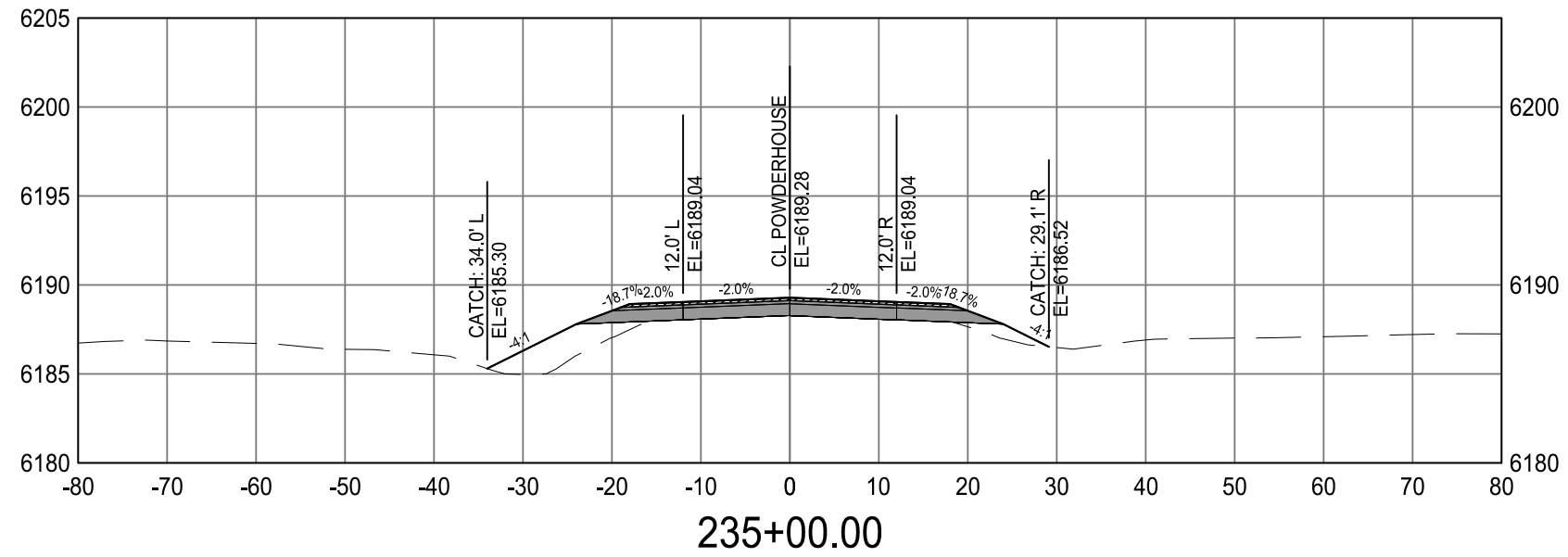
PREPARED FOR:
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS

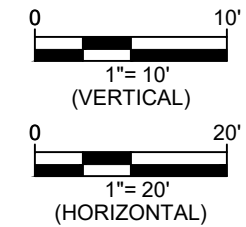


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DWG NO. XS20 OF 85



LEGEND
 --- EXISTING GROUND
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NO.	REVISION	DATE

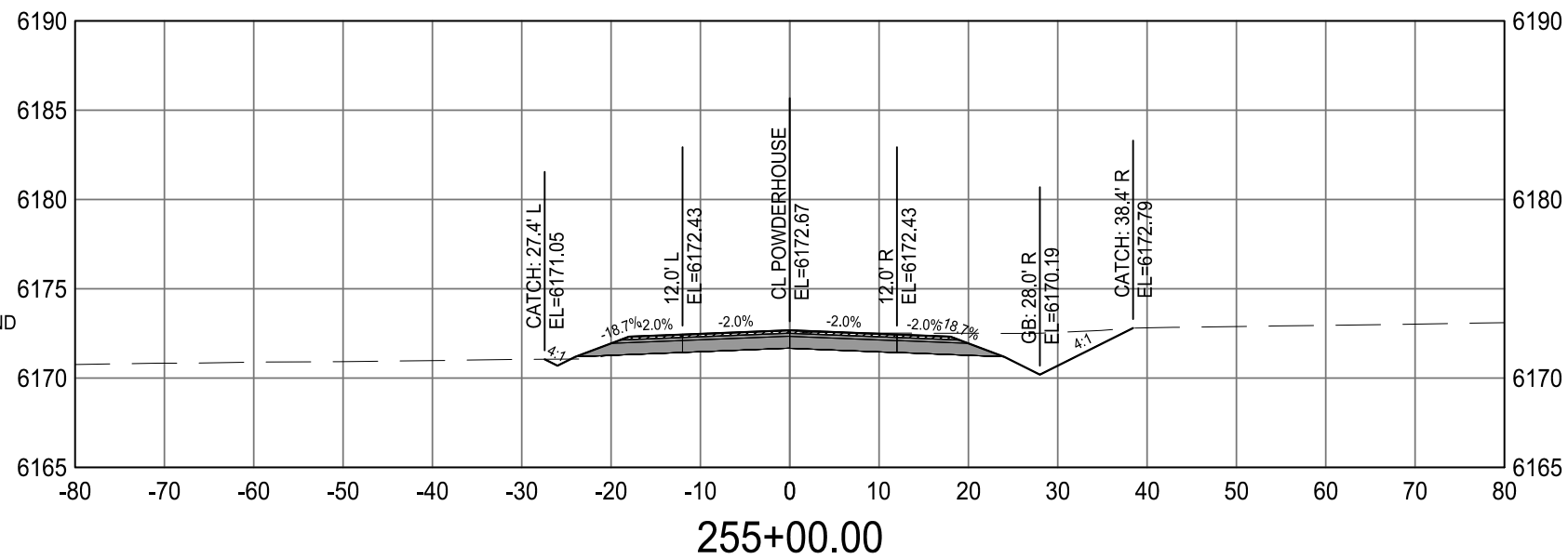
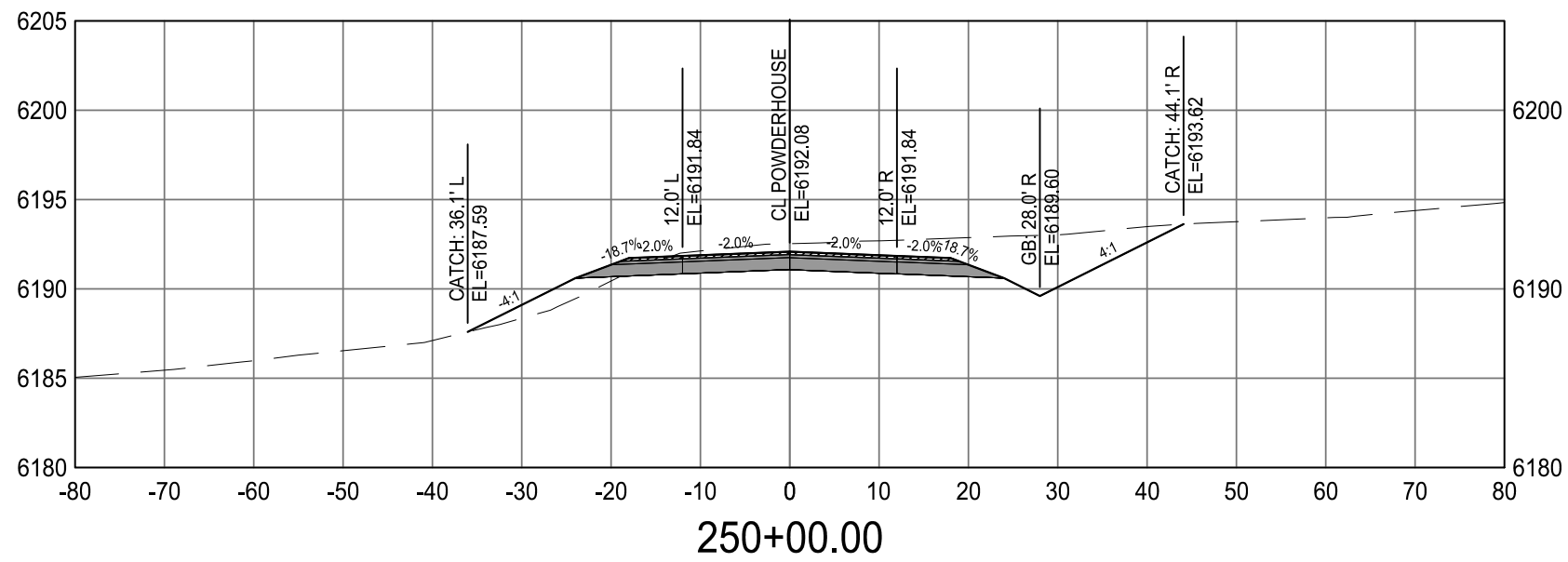
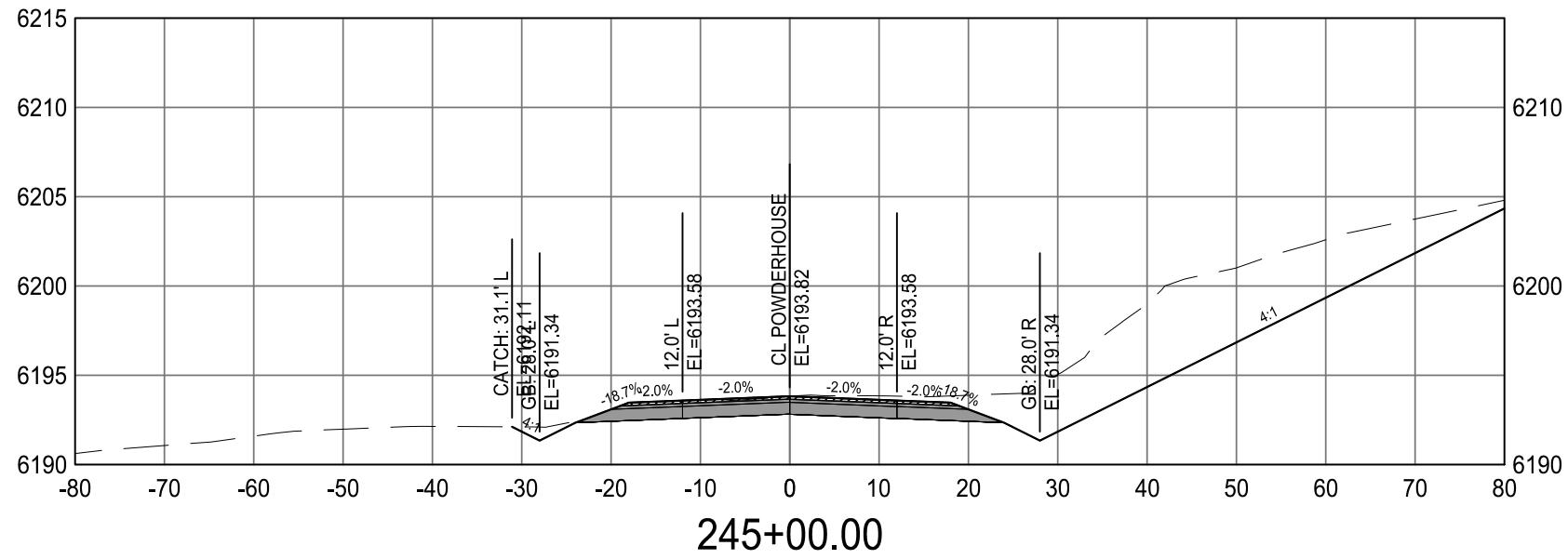
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 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS

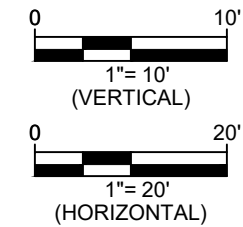


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 JOB NO.: 4642

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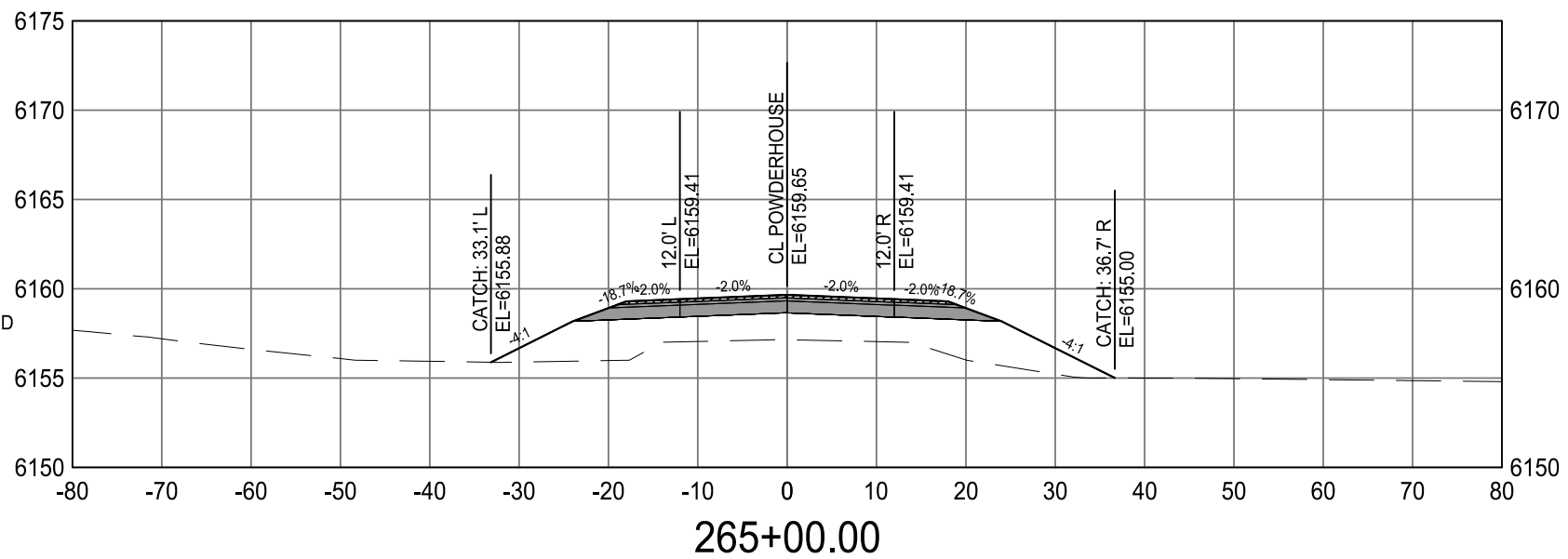
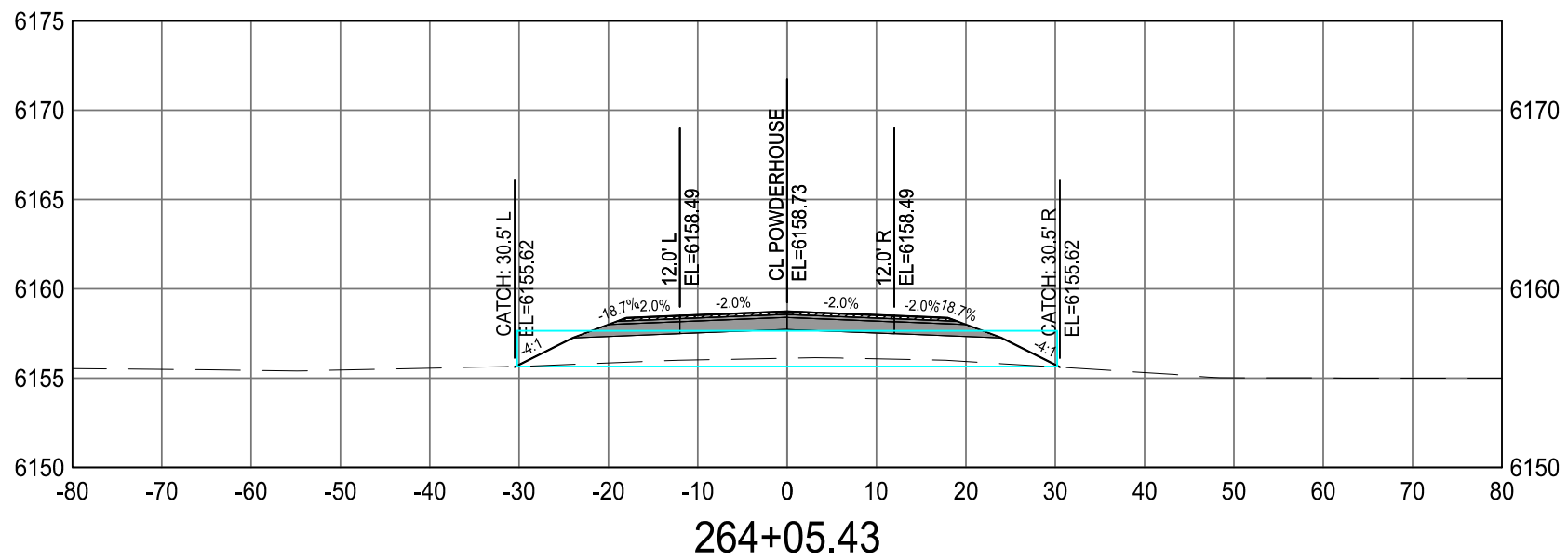
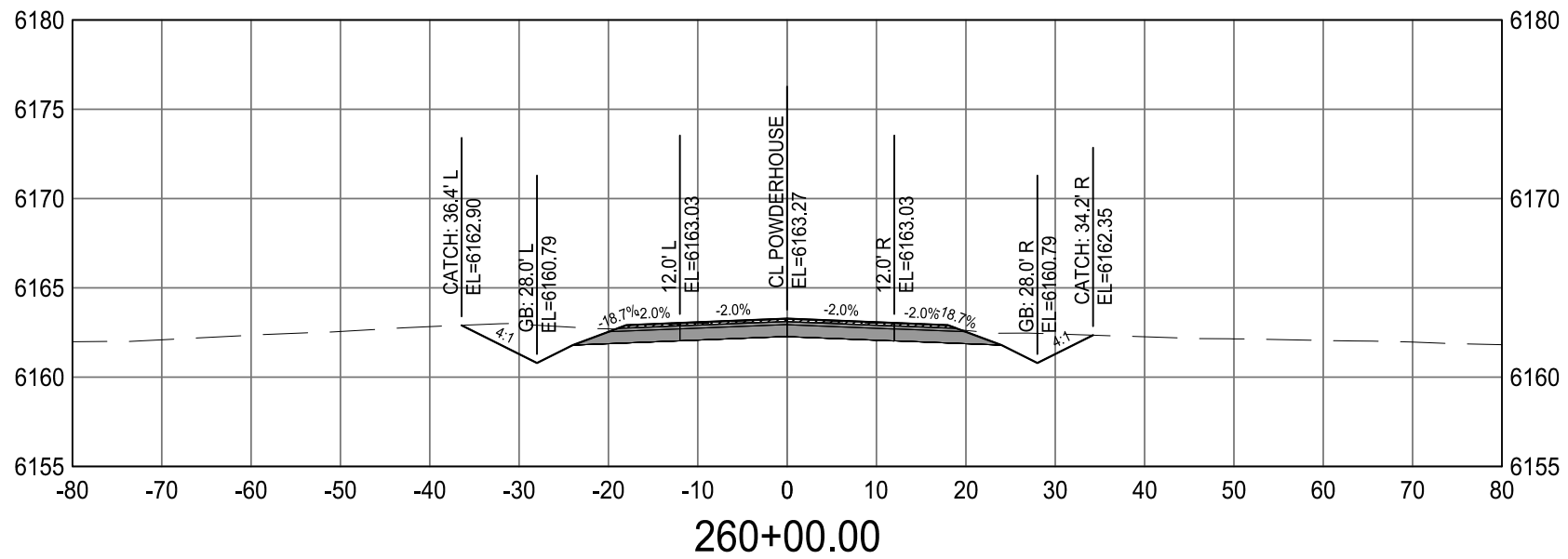
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 2101 ONEIL AVE
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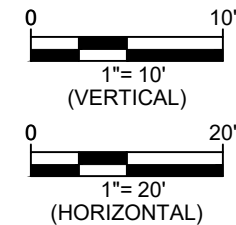
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 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



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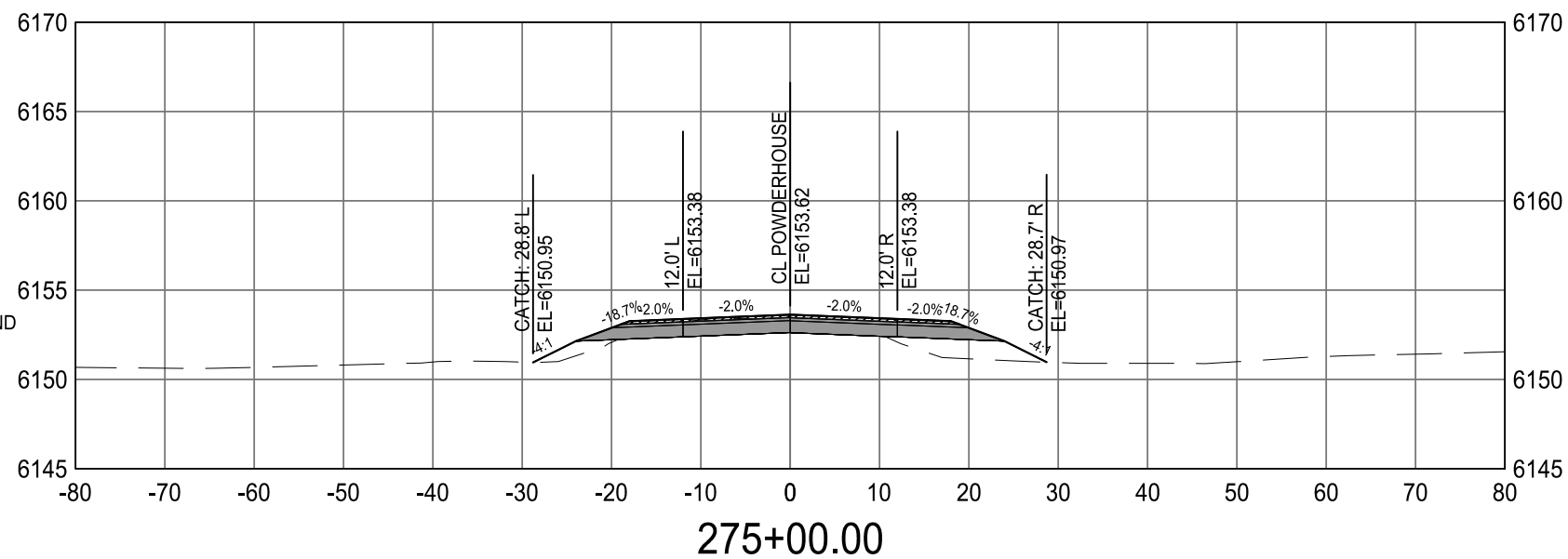
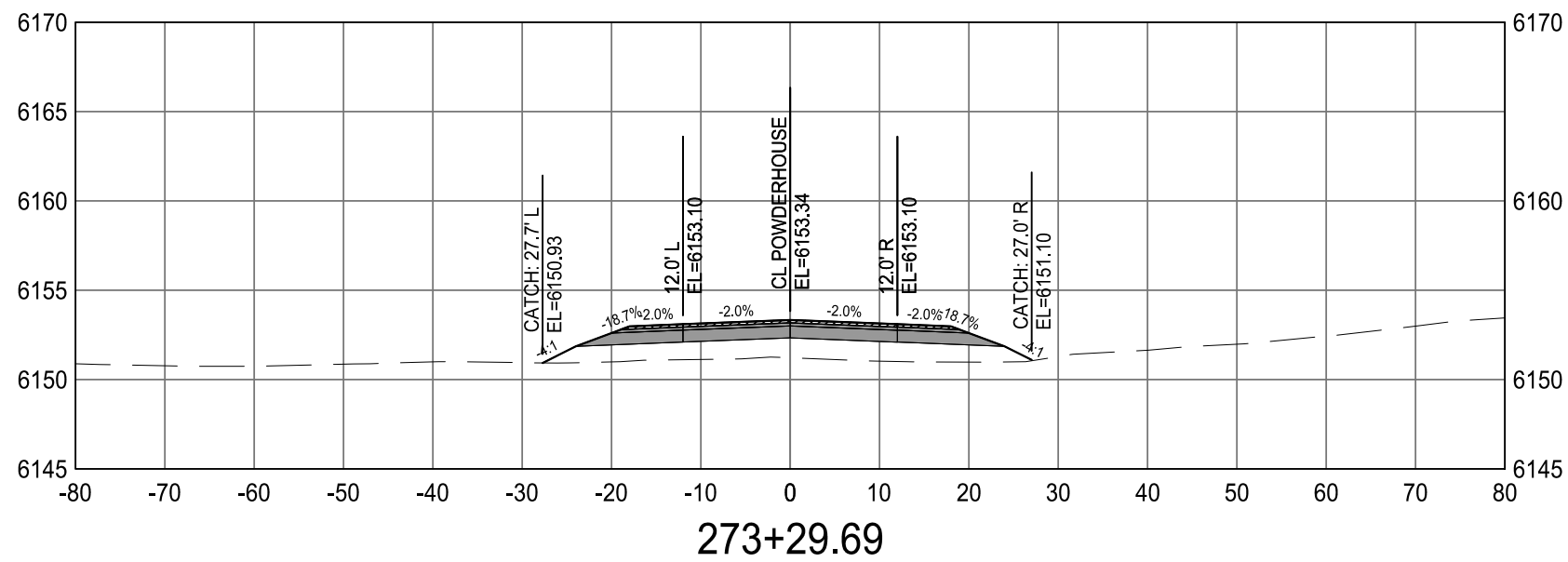
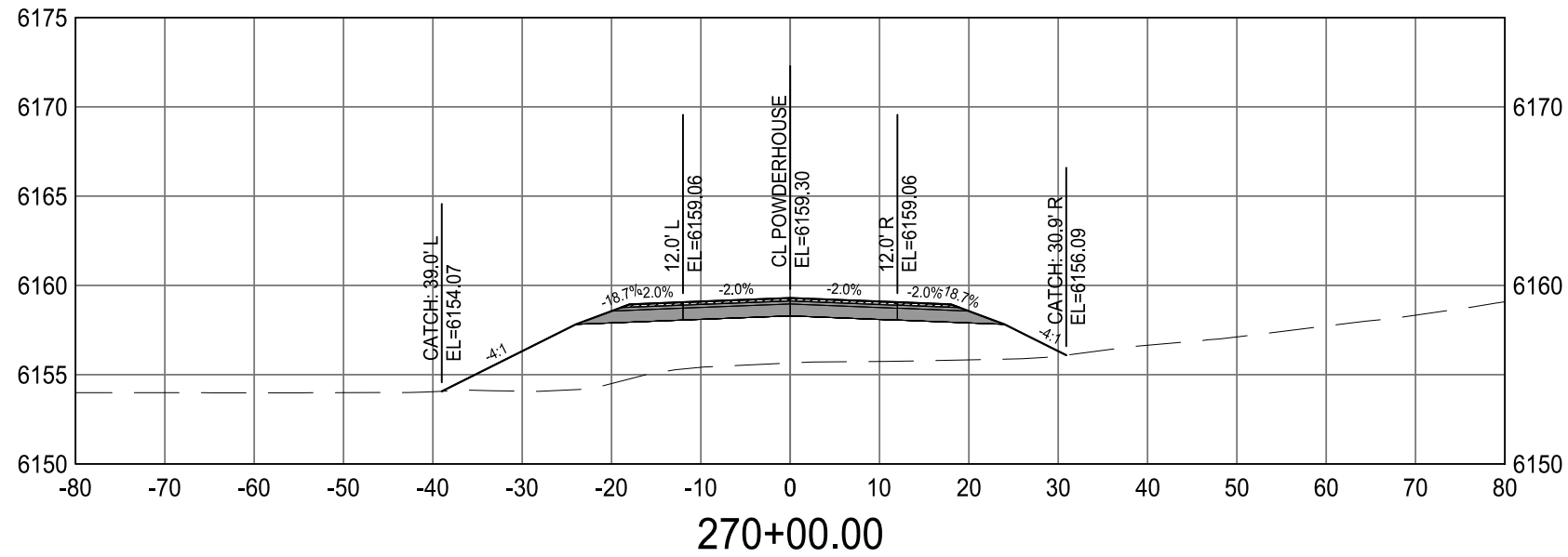
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PREPARED FOR:
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

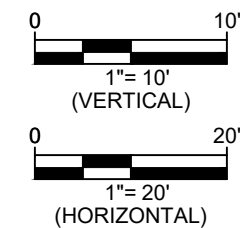
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



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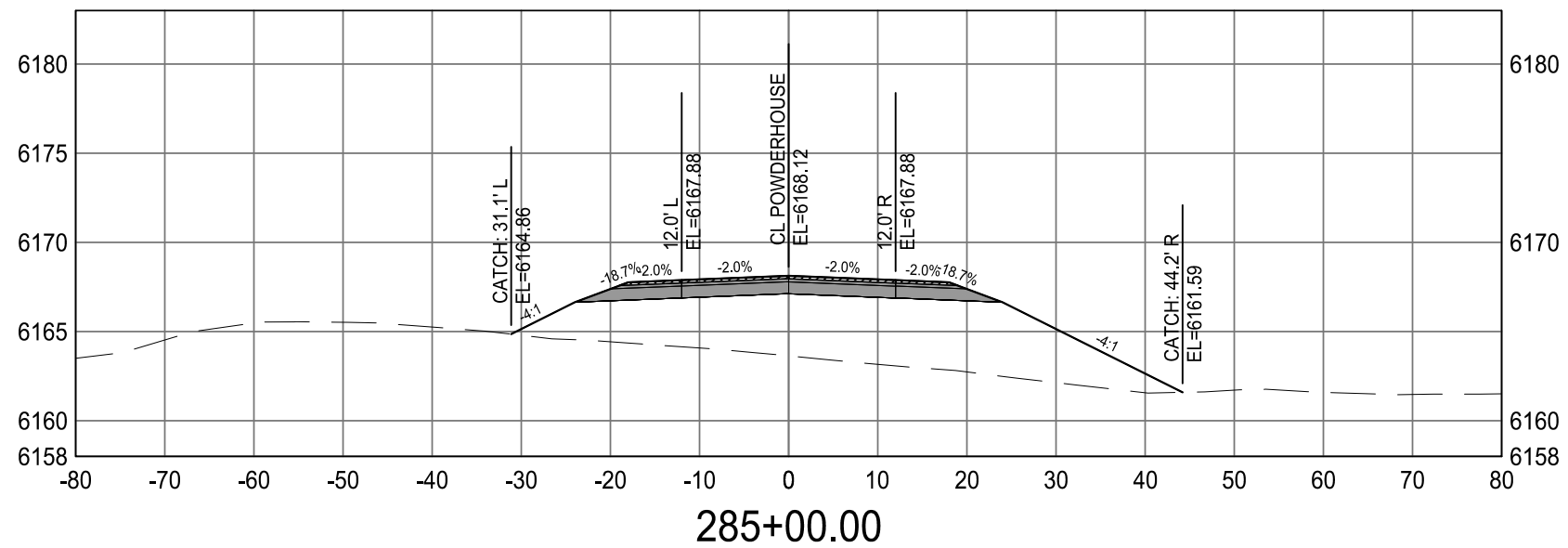
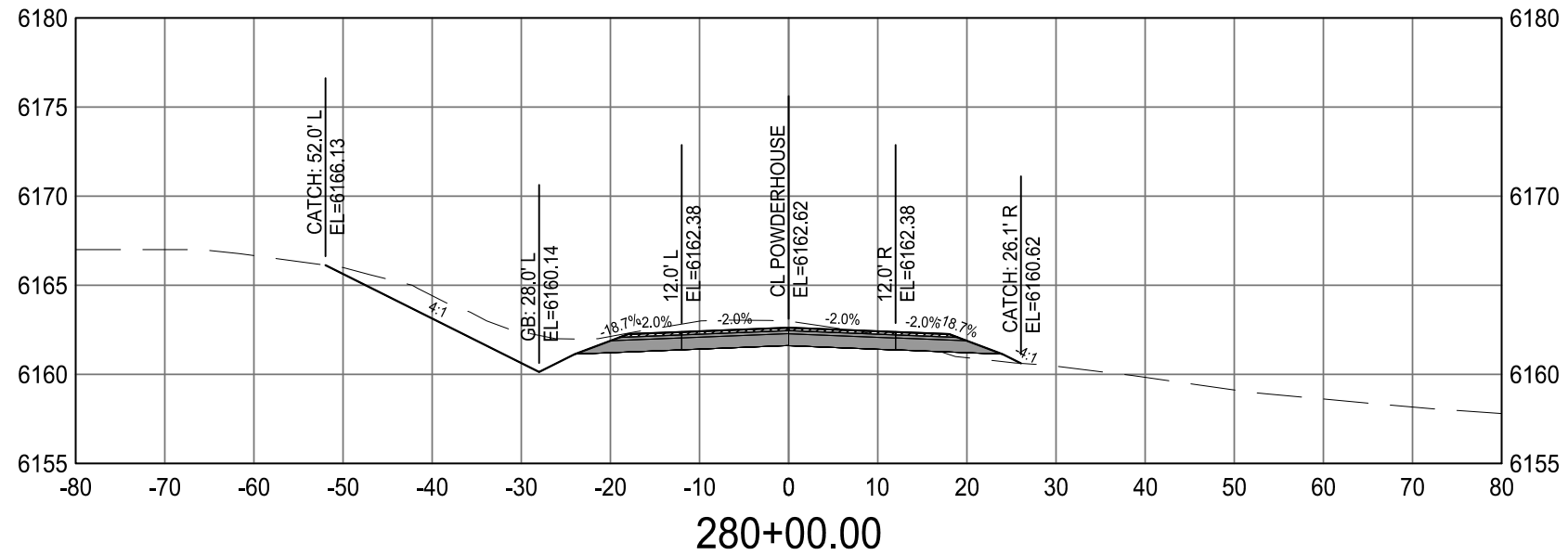
PREPARED FOR:
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 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



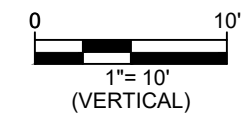
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 DRAWN BY: CA
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DWG NO. XS24 OF 85



LEGEND

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 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: **POWDERHOUSE ROAD CORRIDOR STUDY**

DRAWING TITLE: **POWDERHOUSE RD CROSS SECTIONS**



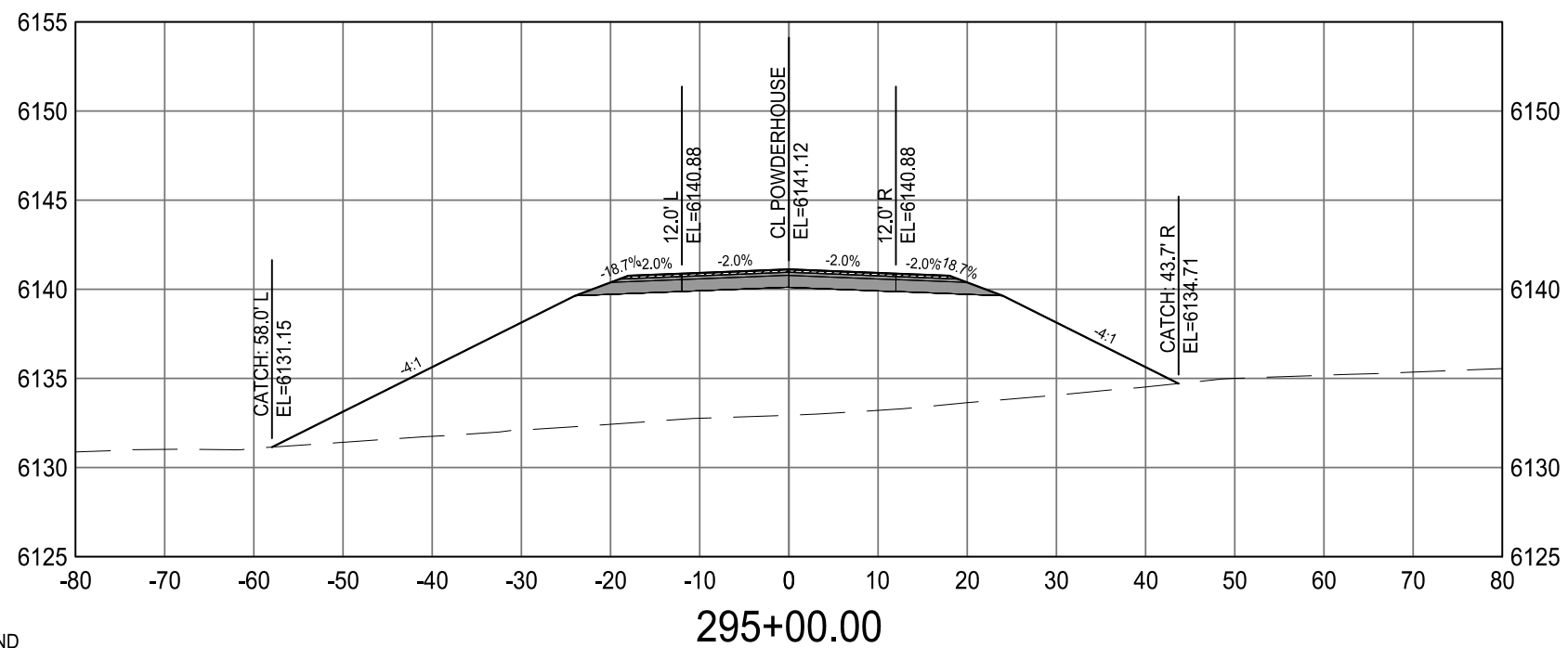
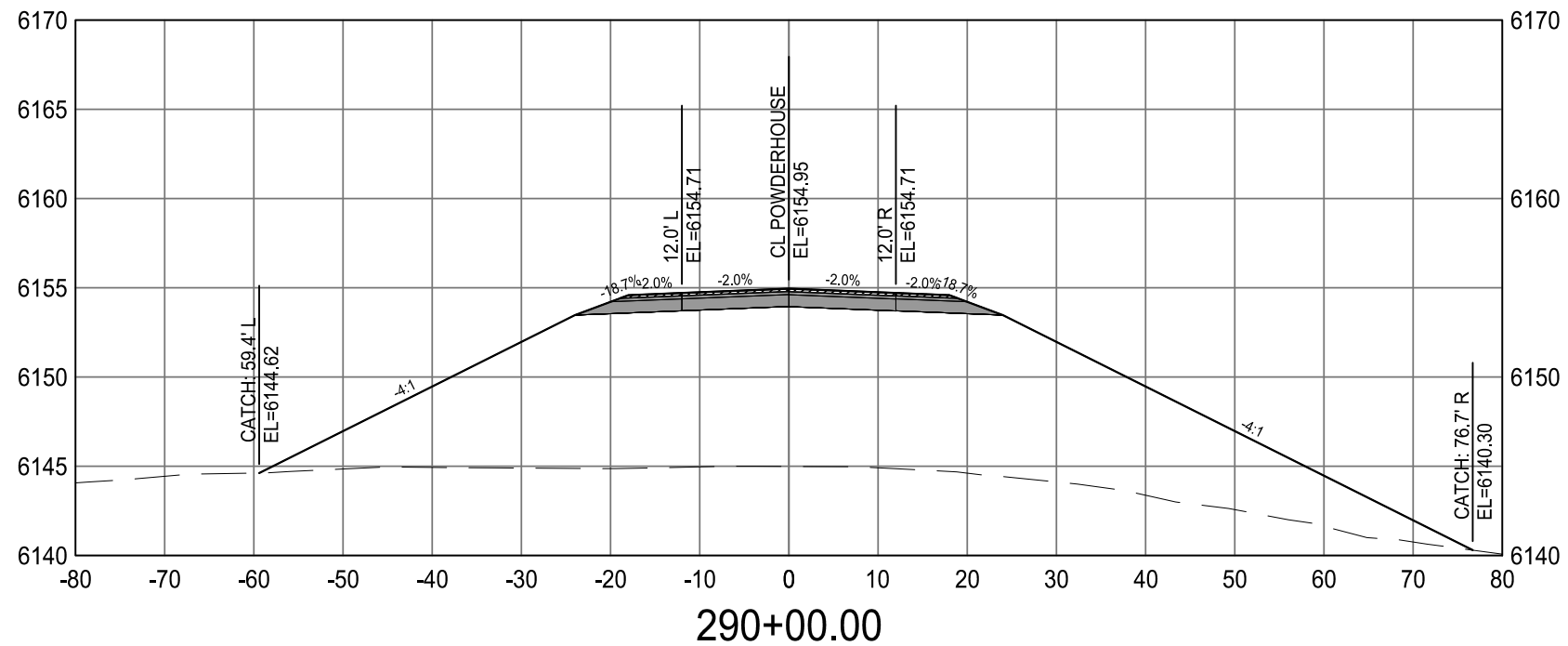
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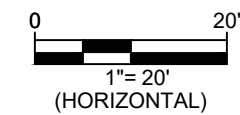
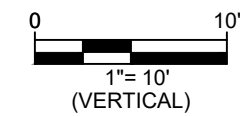
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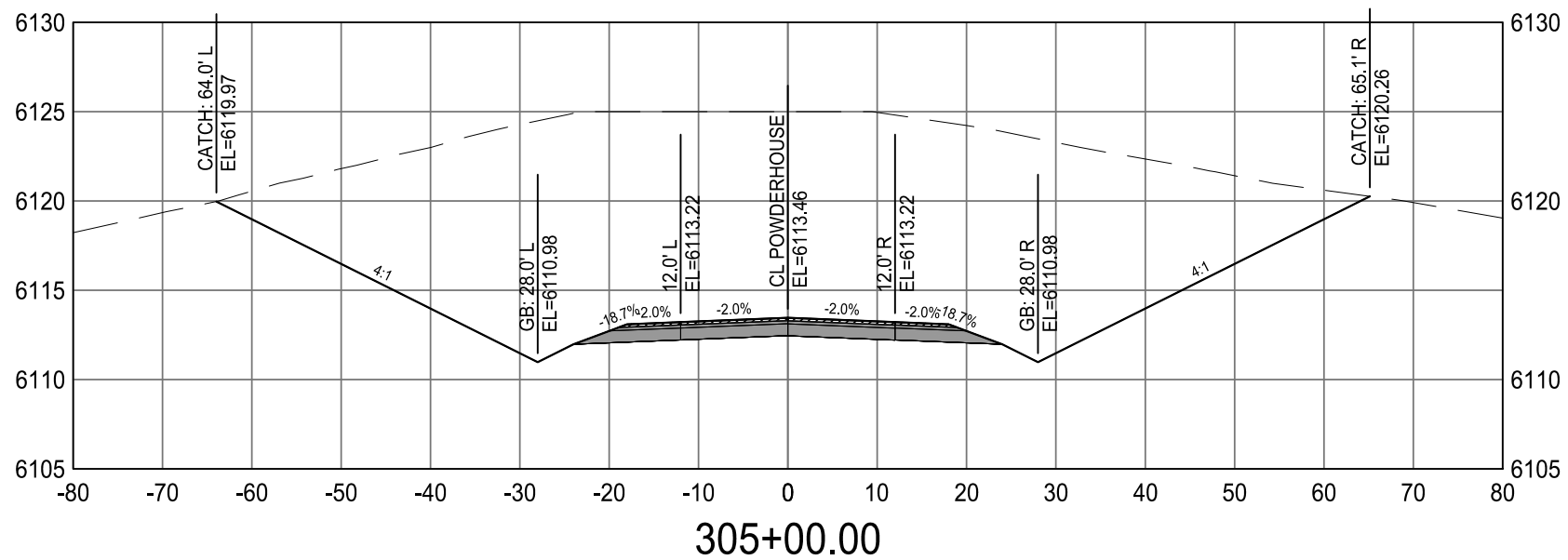
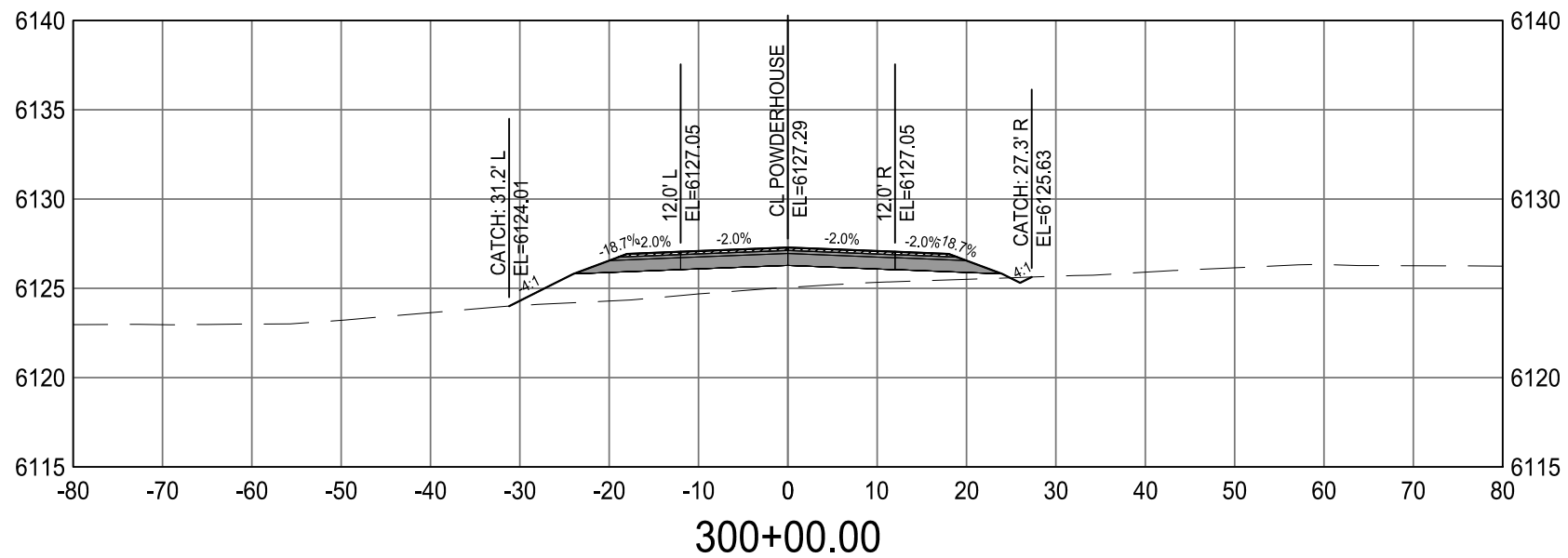
NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS

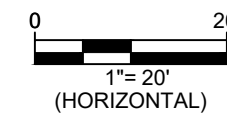
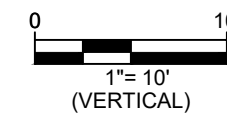


DATE PLOTTED: Jun 12, 2023
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PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: **POWDERHOUSE ROAD CORRIDOR STUDY**

DRAWING TITLE: **POWDERHOUSE RD CROSS SECTIONS**



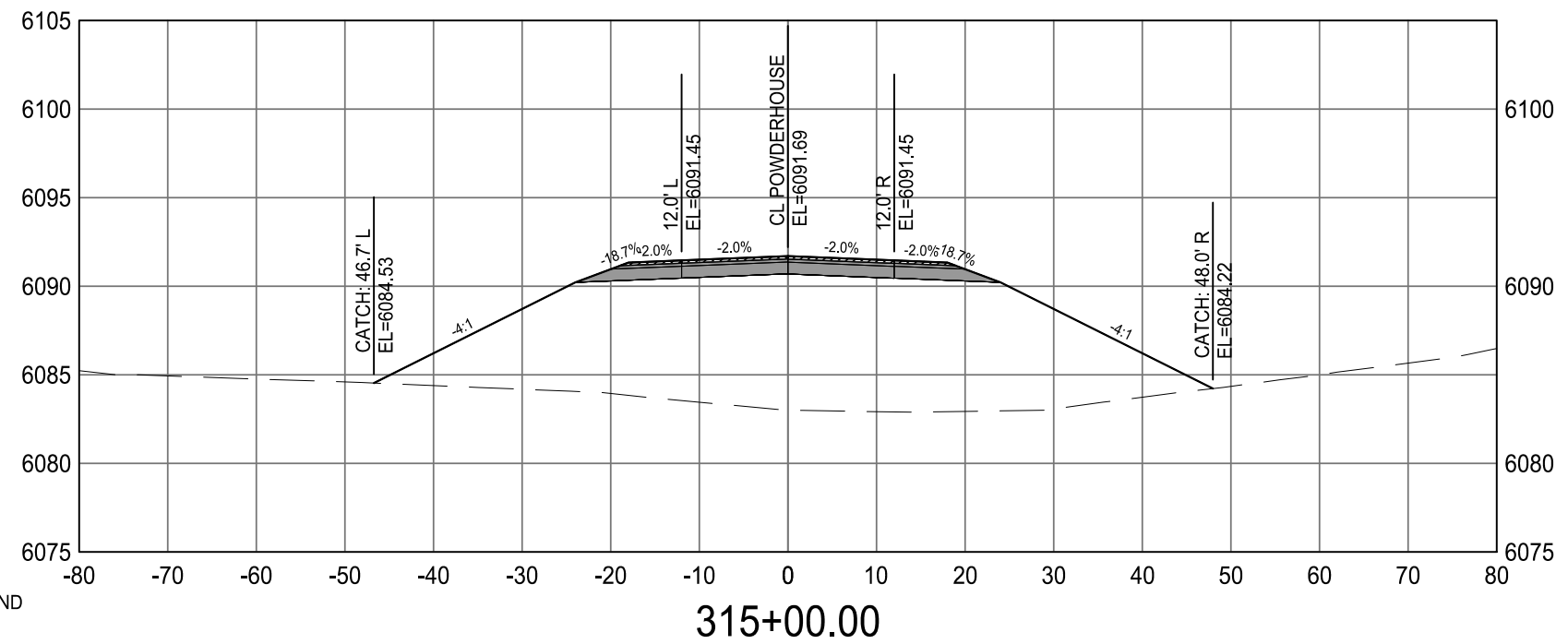
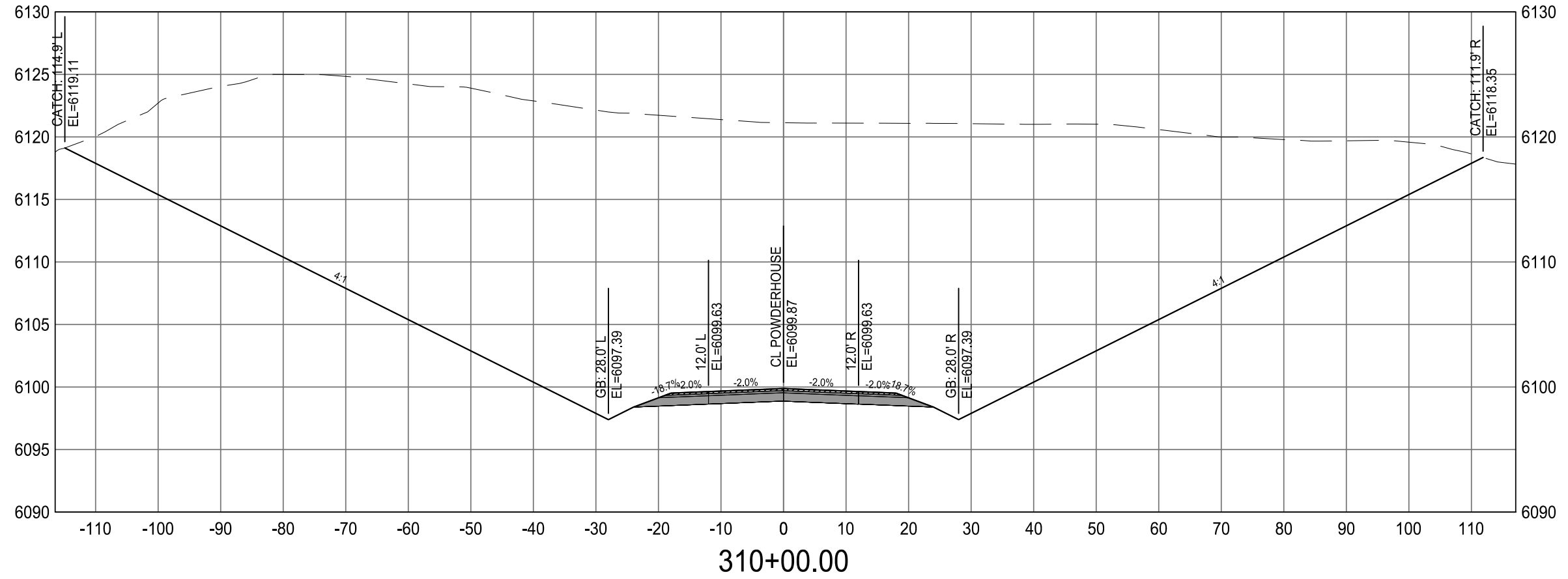
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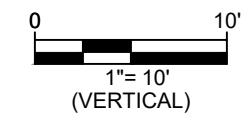
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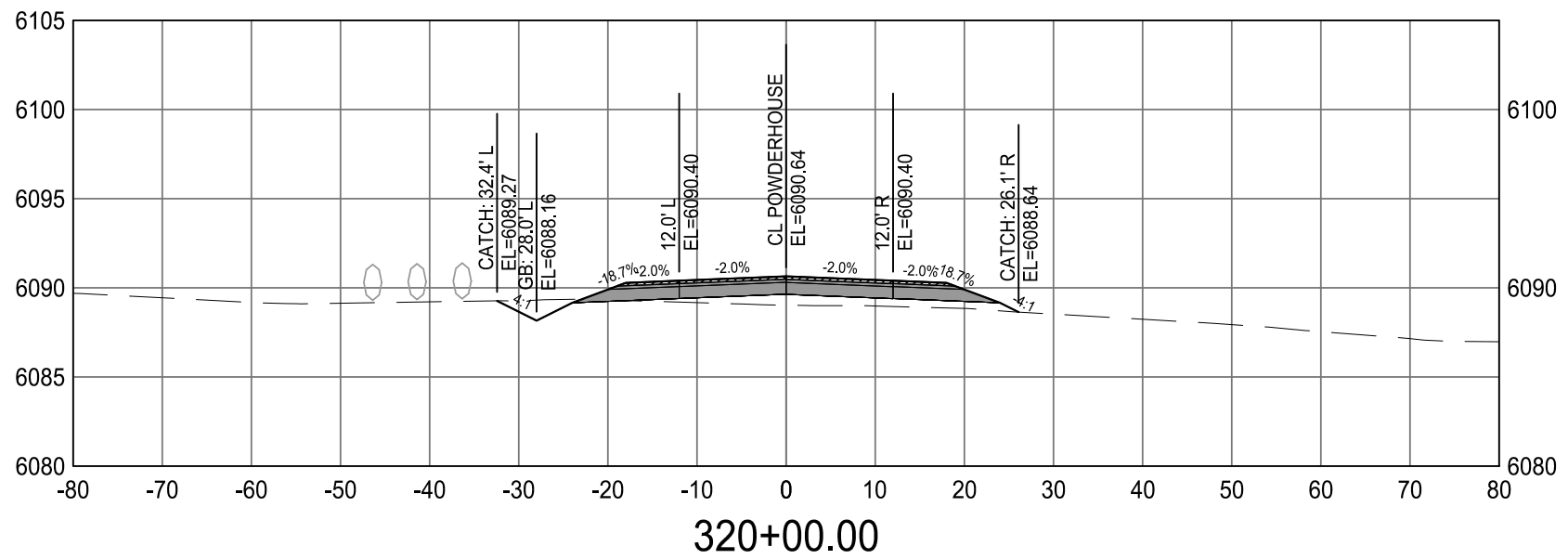
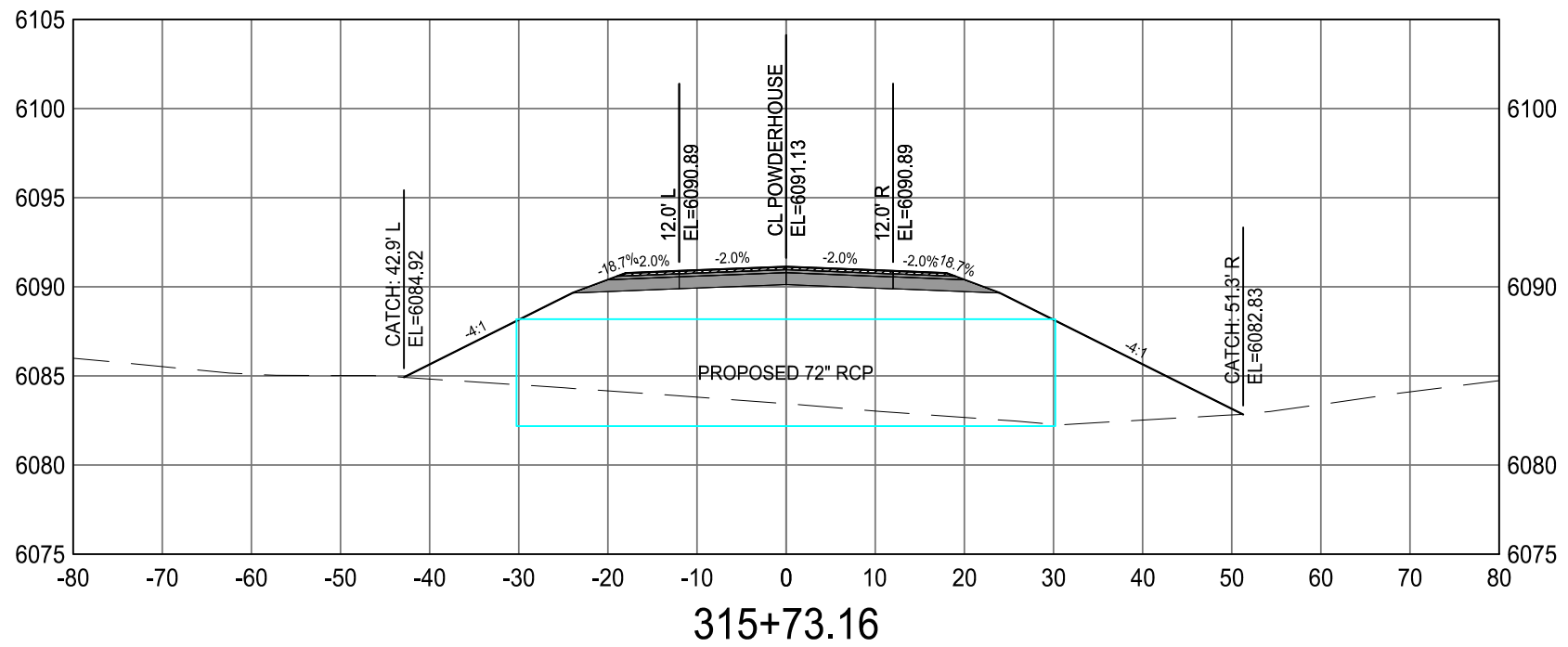
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS

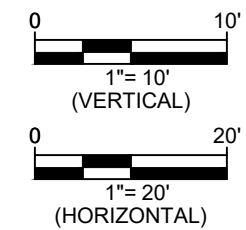


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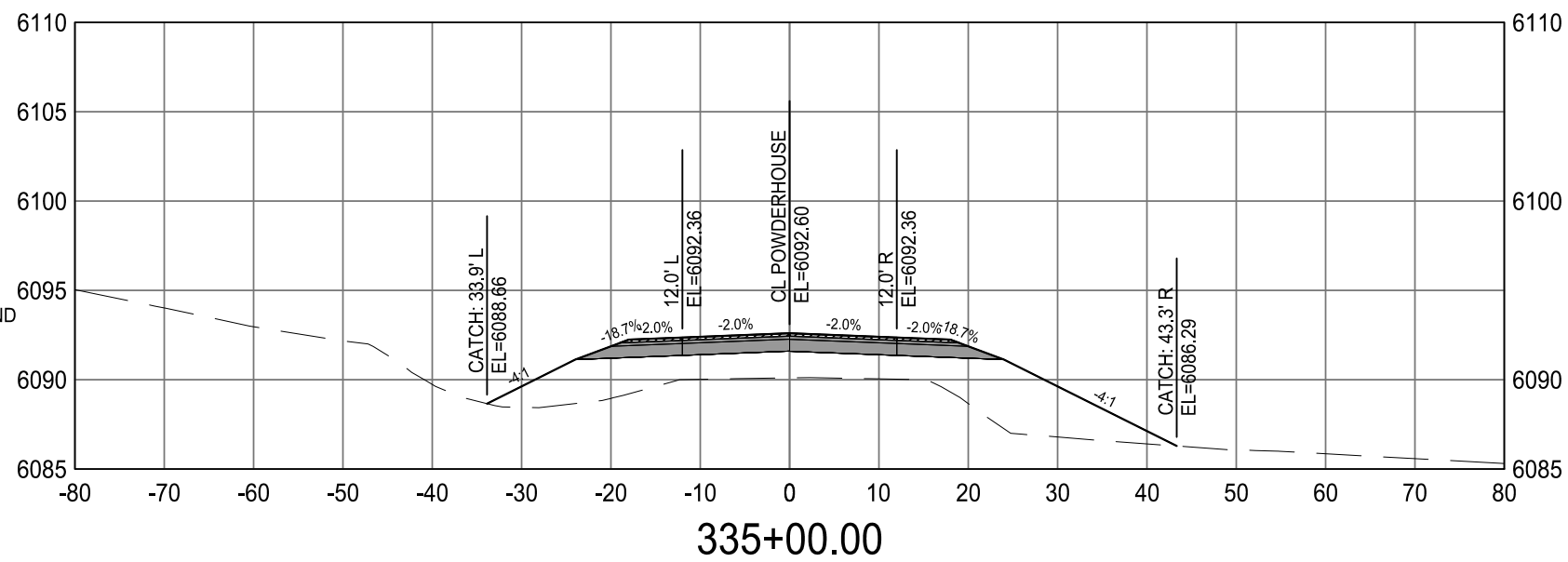
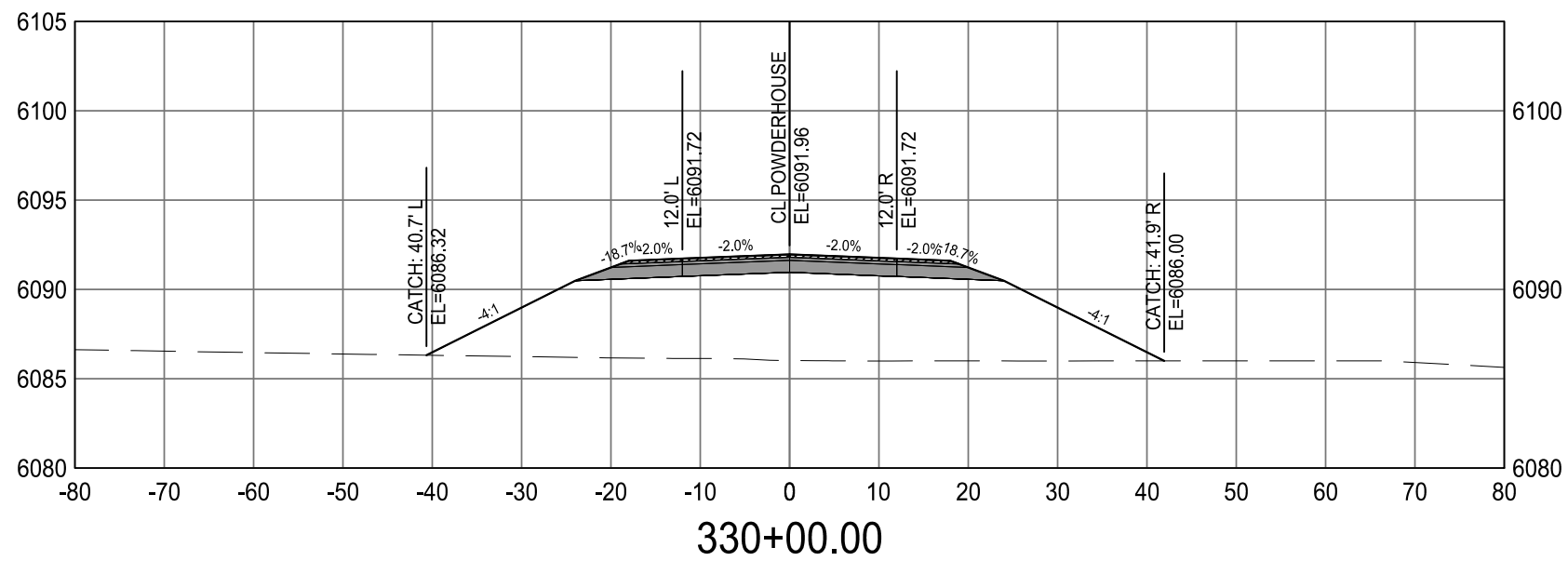
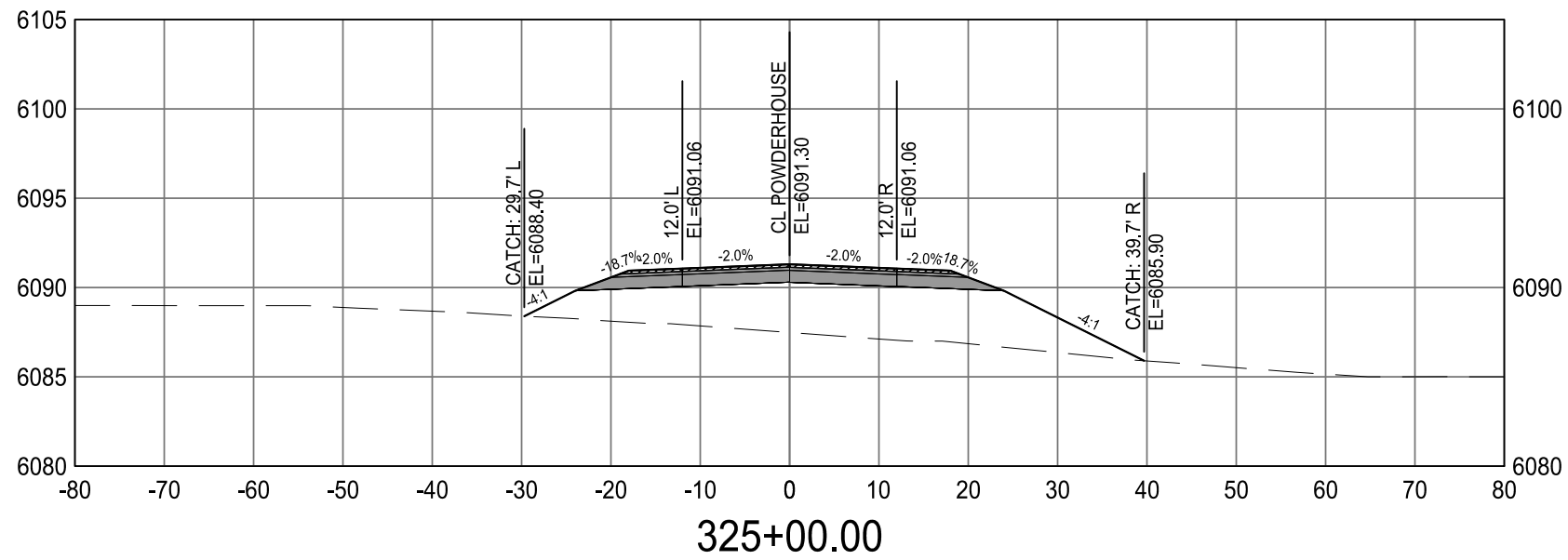
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

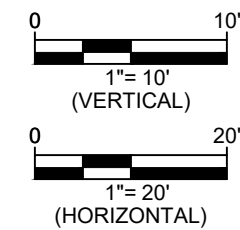
PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS



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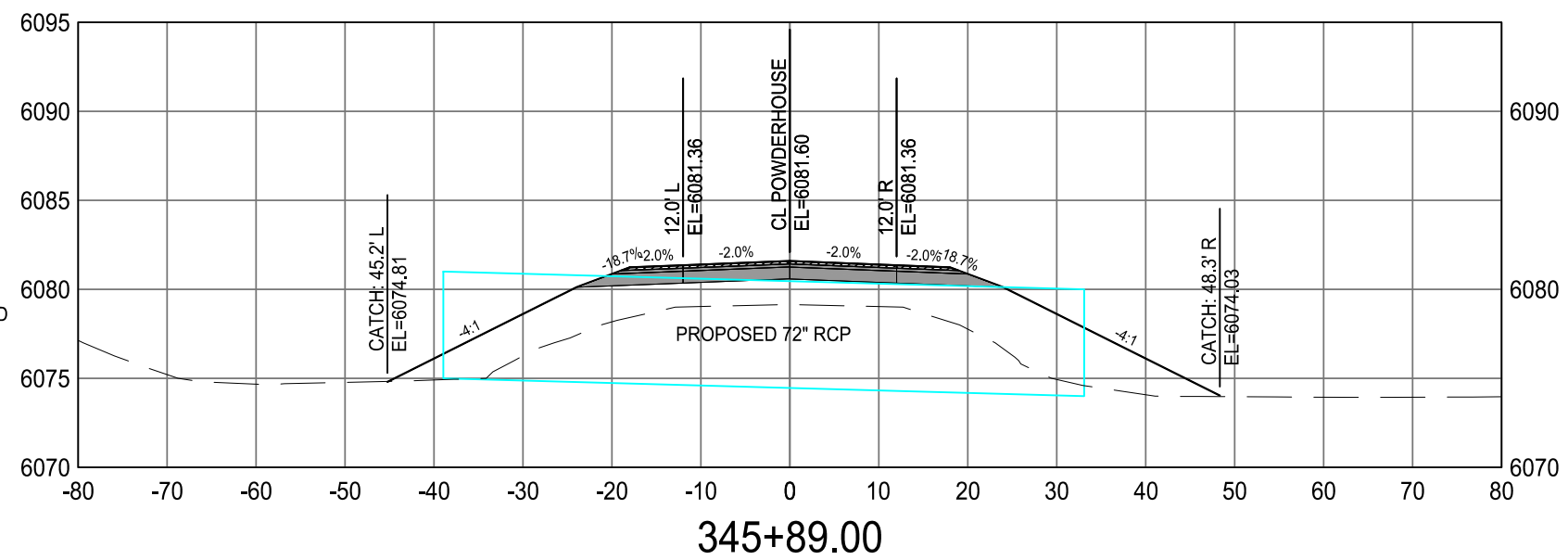
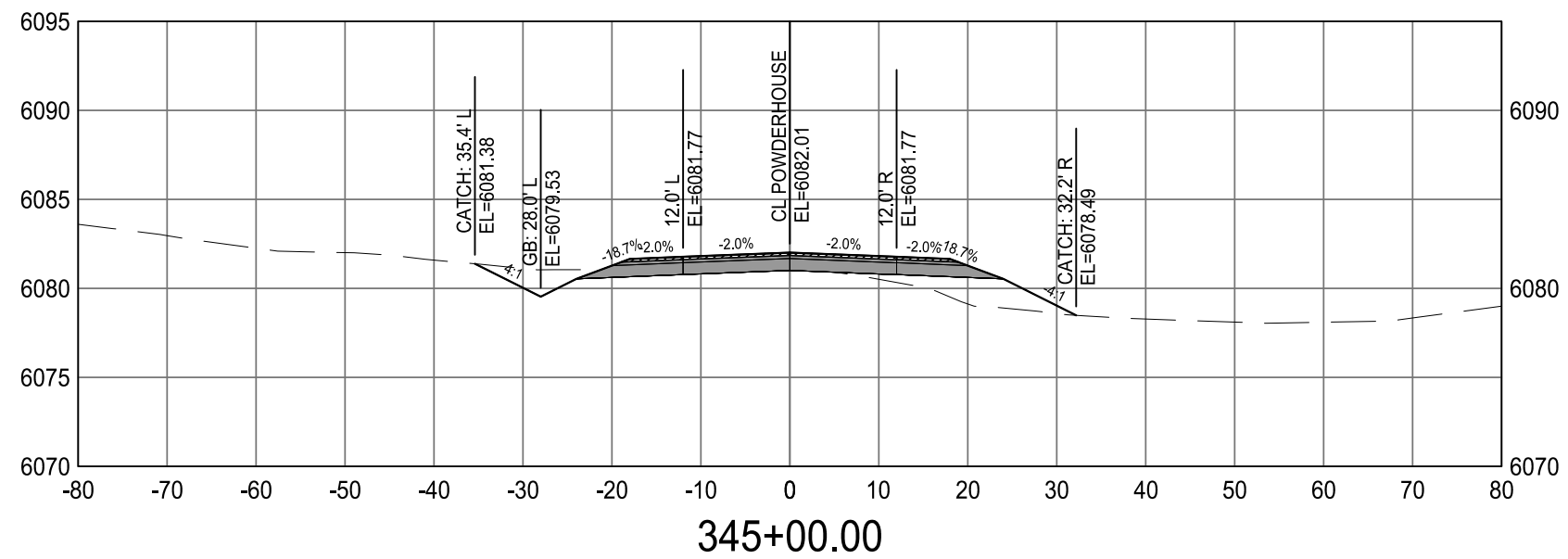
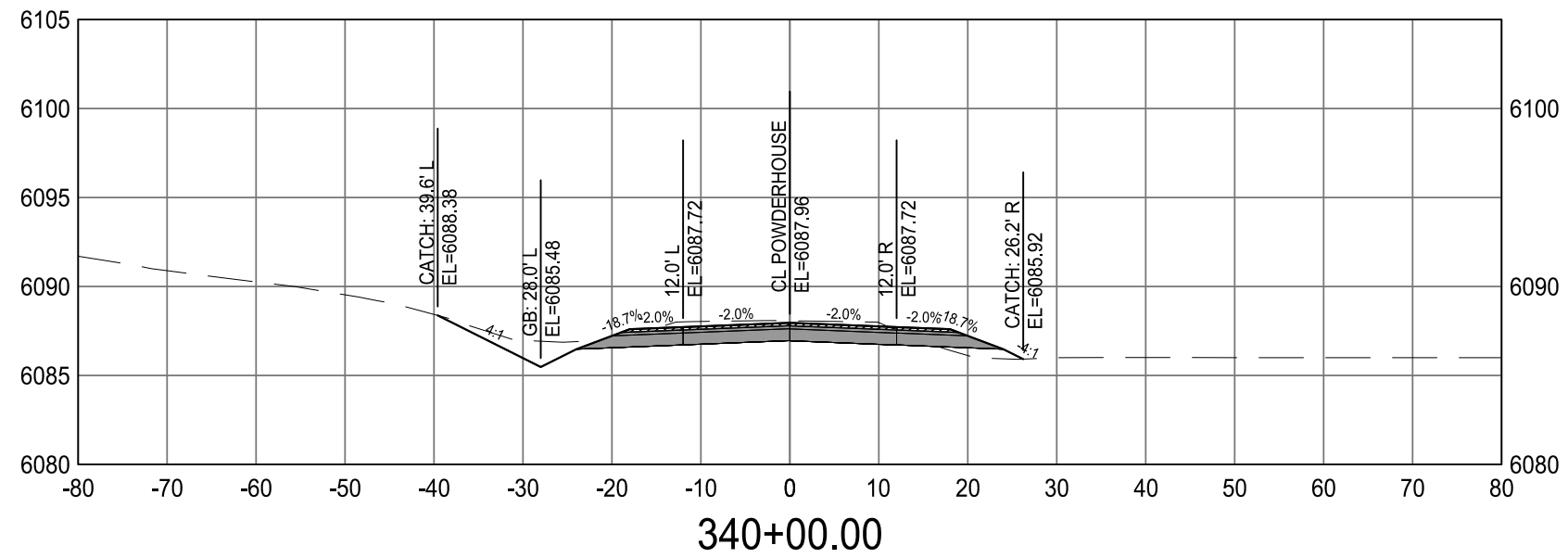
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY
 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS

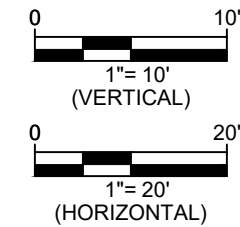


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LEGEND

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 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: **POWDERHOUSE ROAD CORRIDOR STUDY**

DRAWING TITLE: **POWDERHOUSE RD CROSS SECTIONS**

307.637.6017
 1103 OLD TOWN LANE, SUITE 101
 CHEYENNE, WY 82009
 AVI@AVIPC.COM

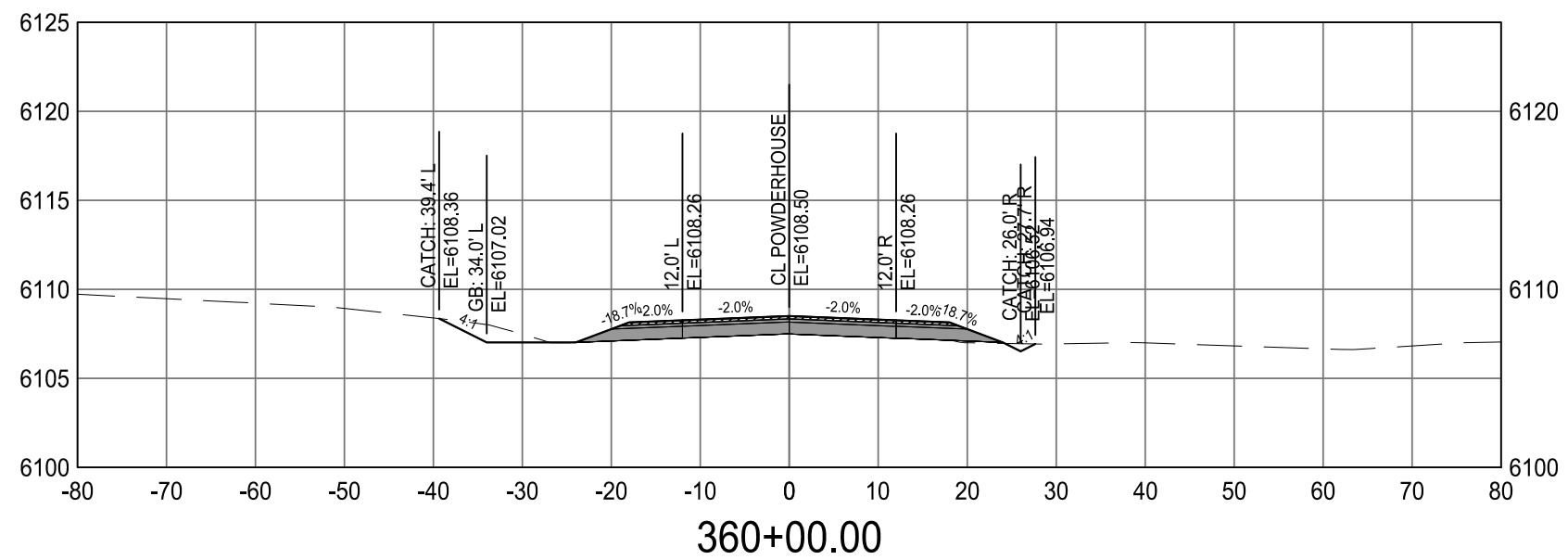
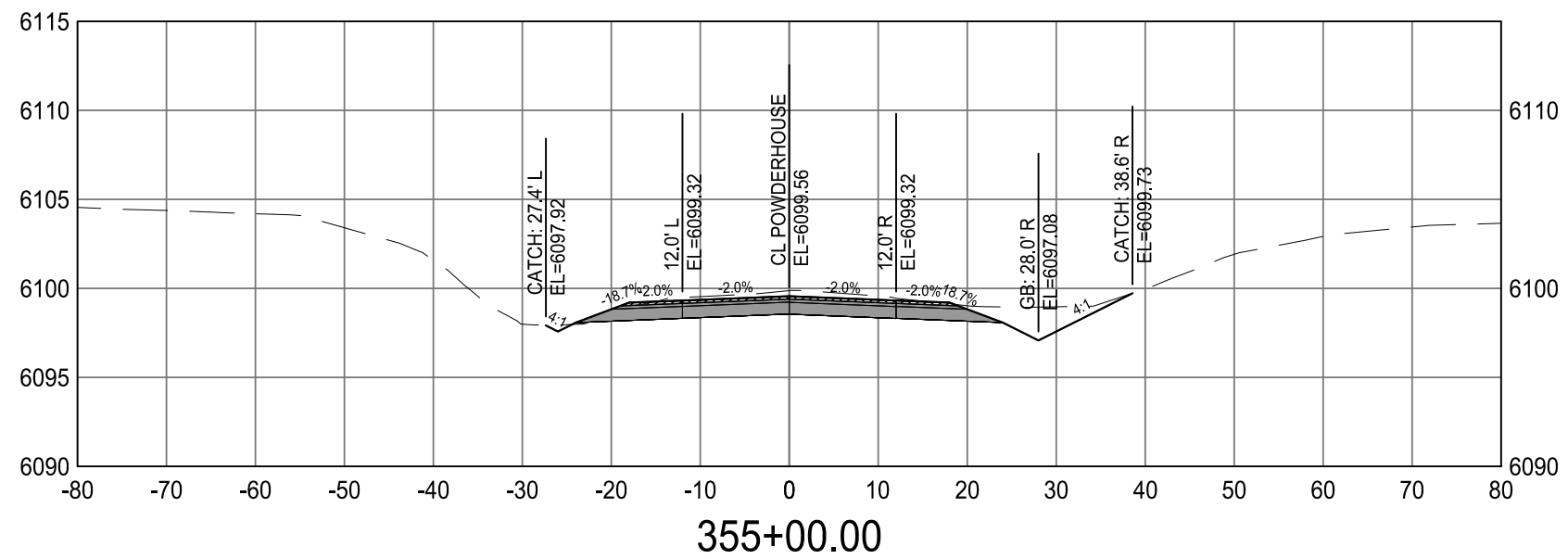
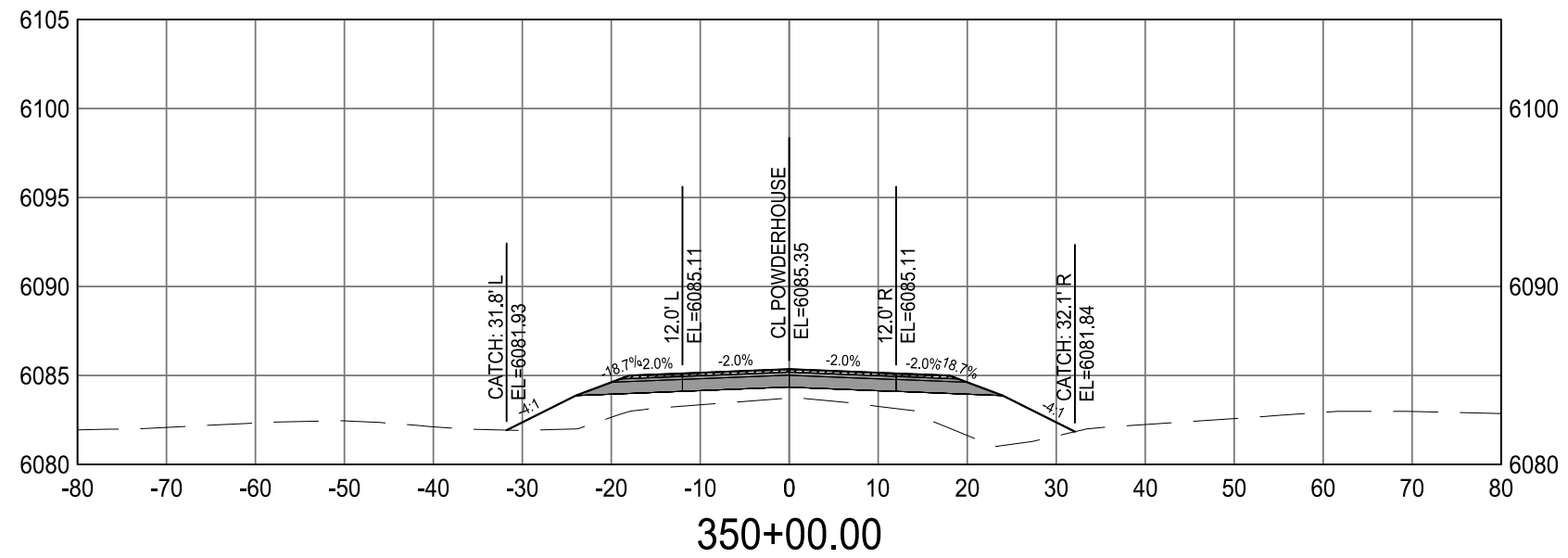
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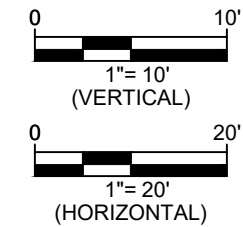
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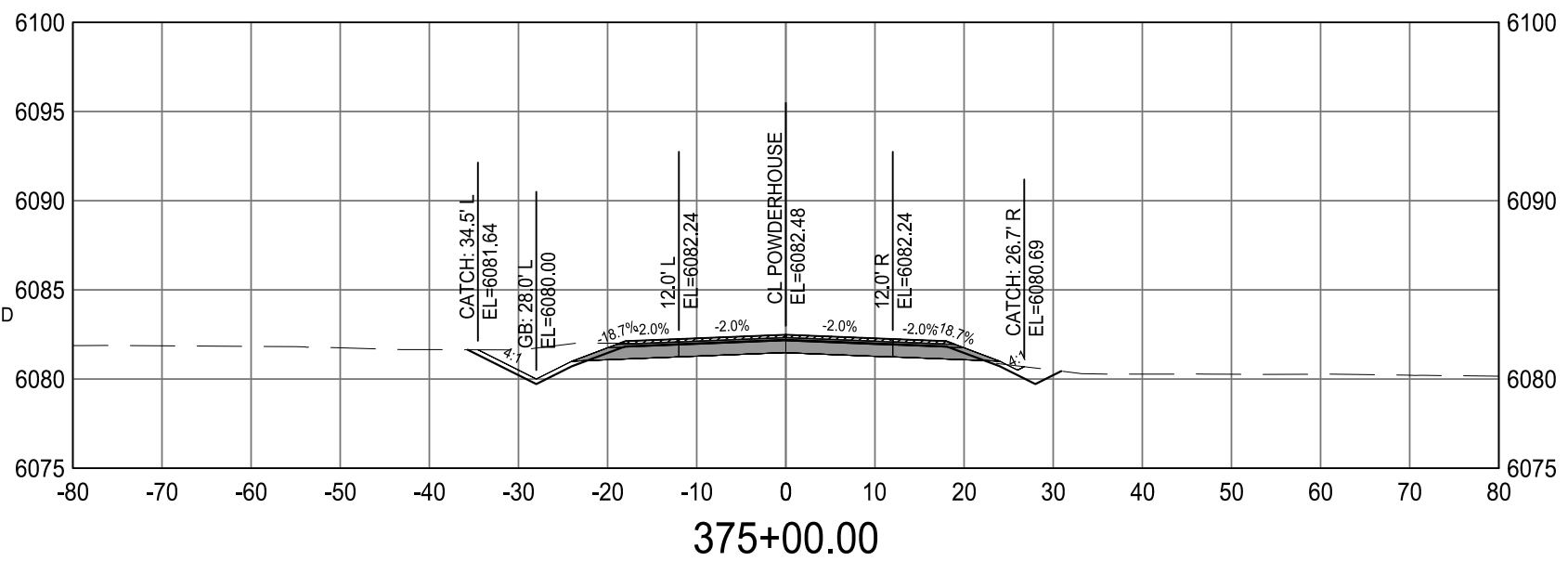
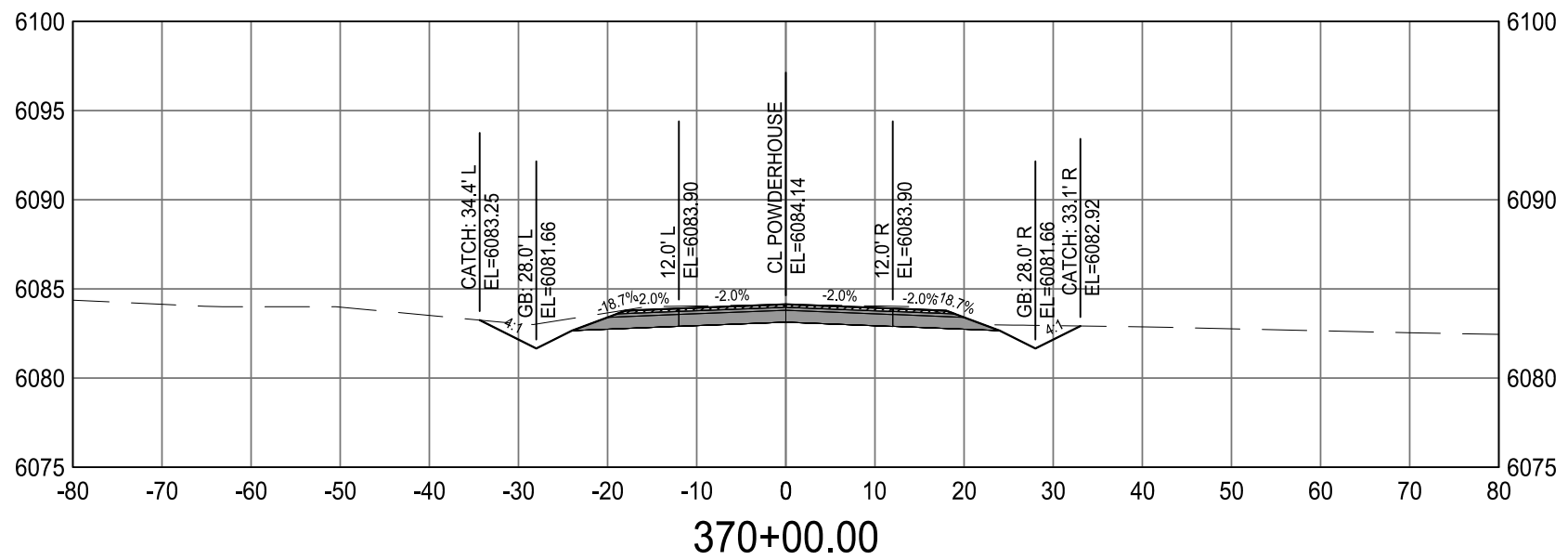
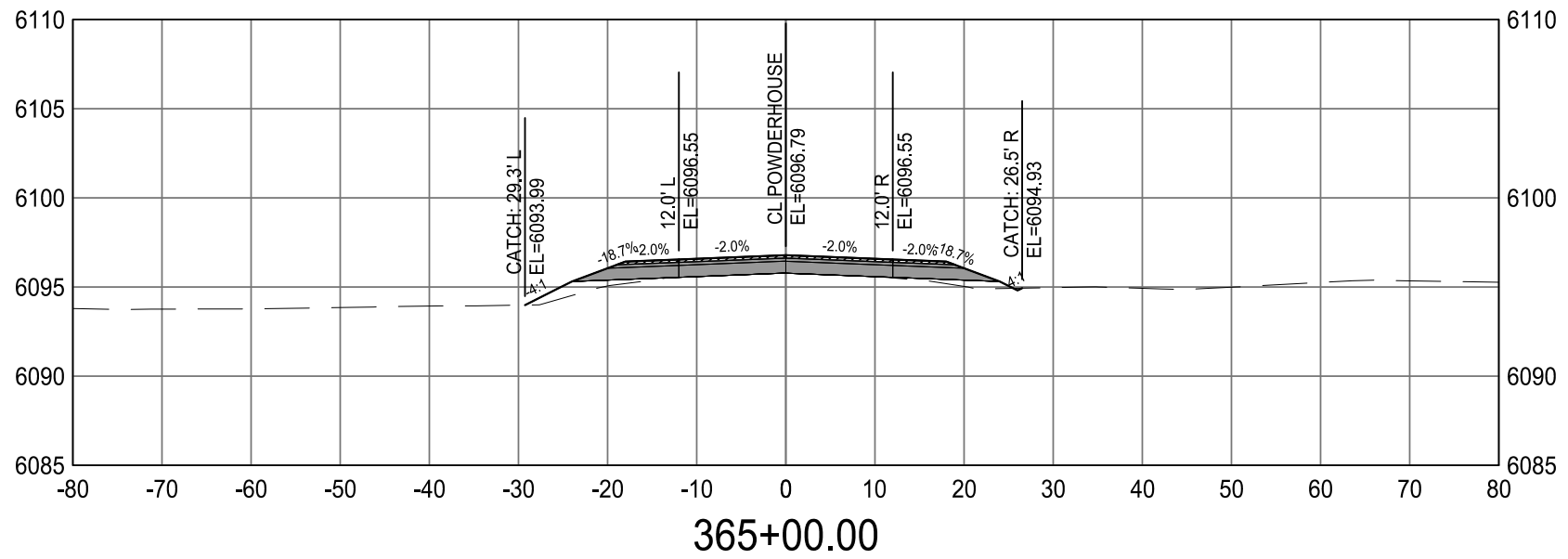
PREPARED FOR:
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 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT: **POWDERHOUSE ROAD CORRIDOR STUDY**

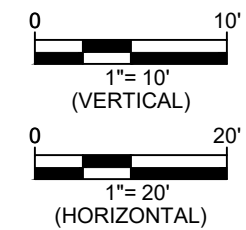
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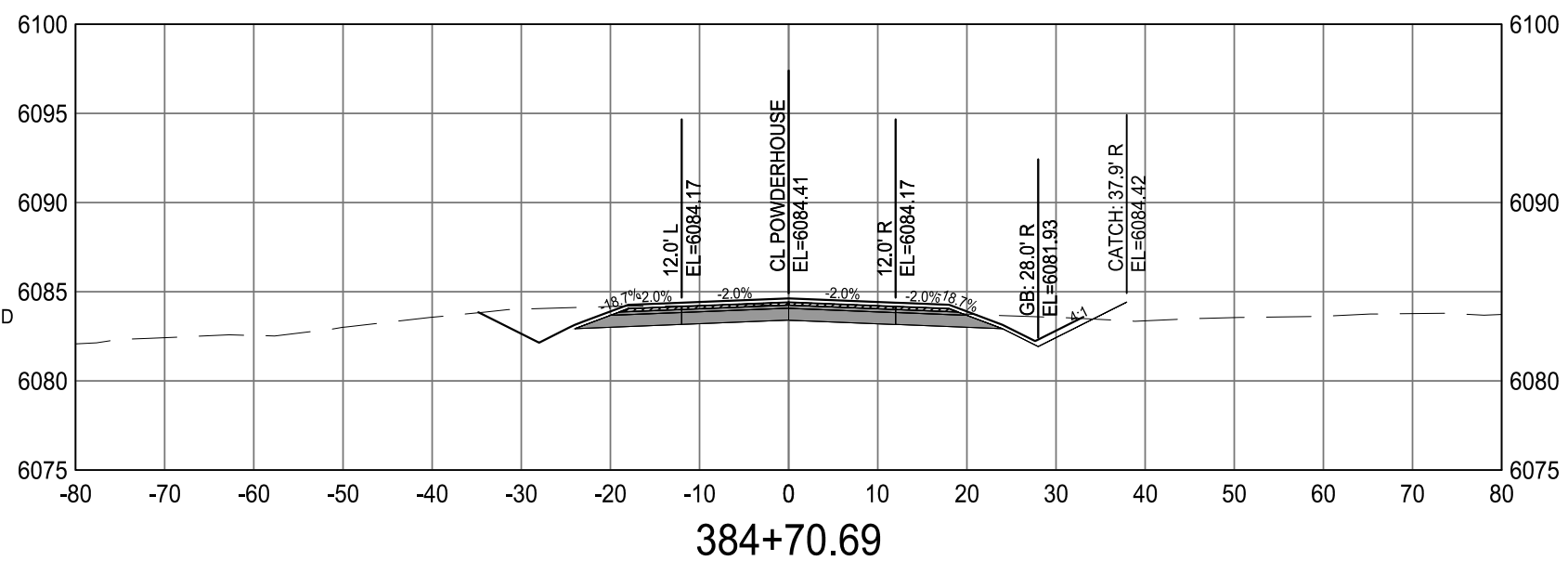
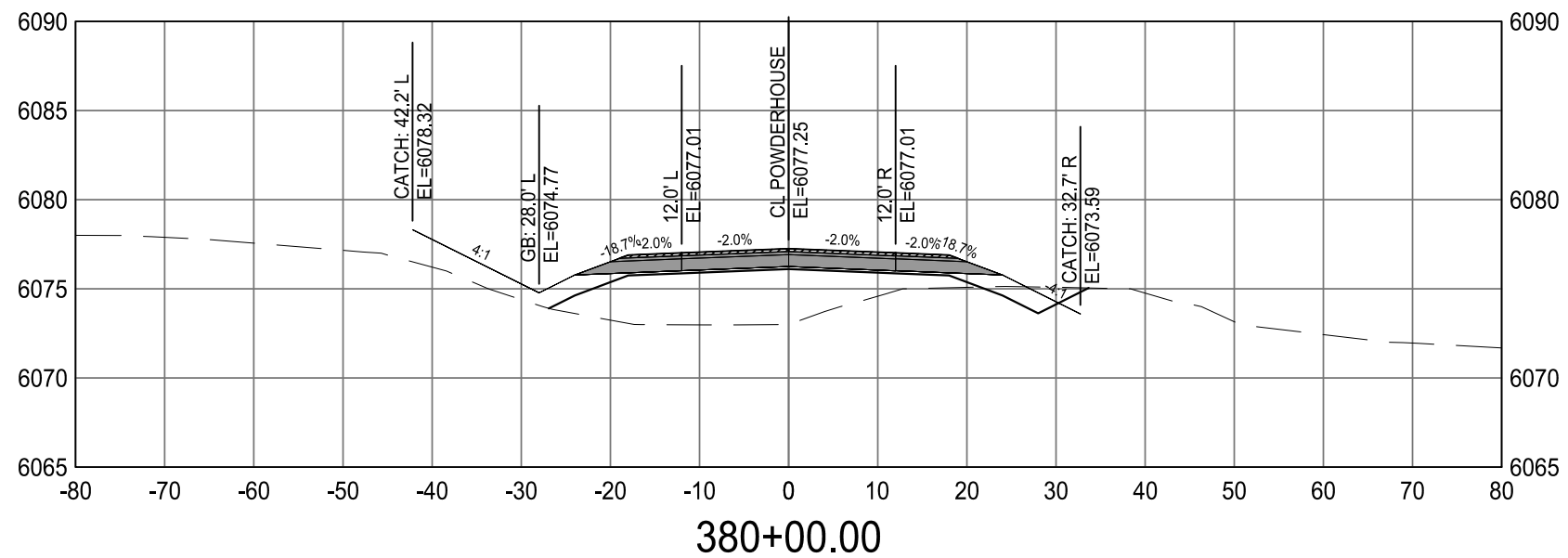
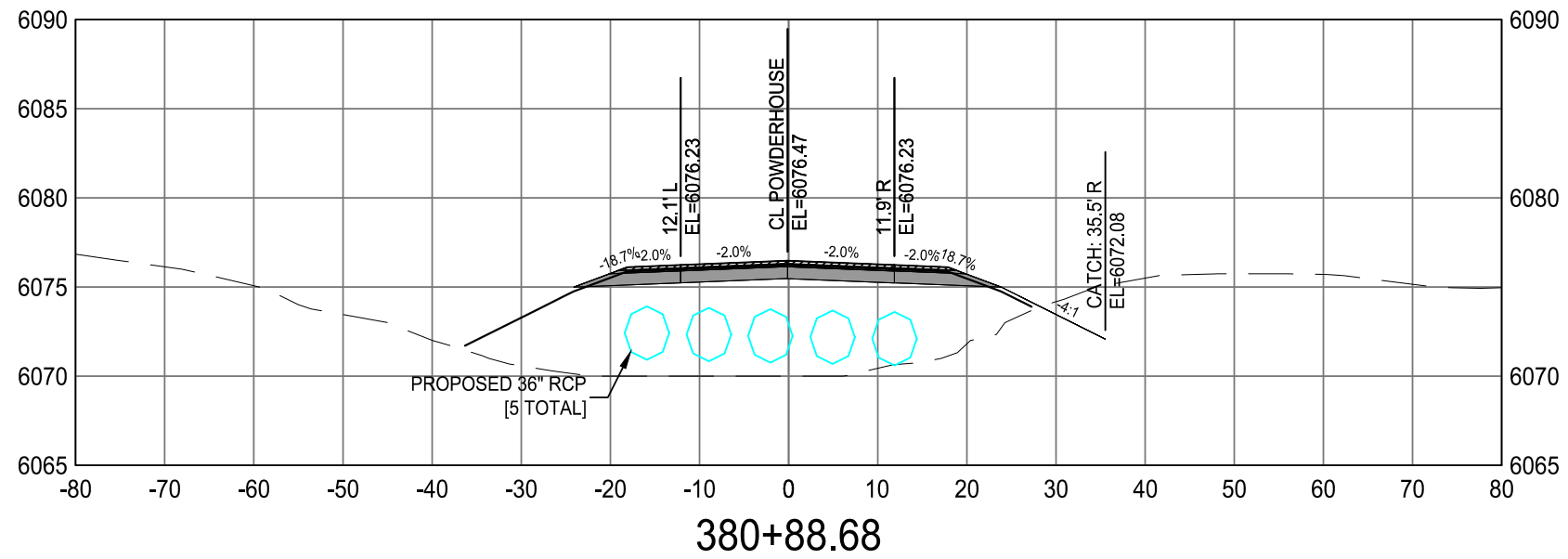
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 2101 ONEIL AVE
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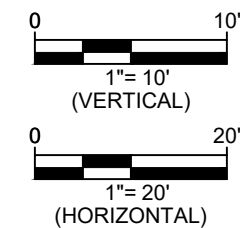
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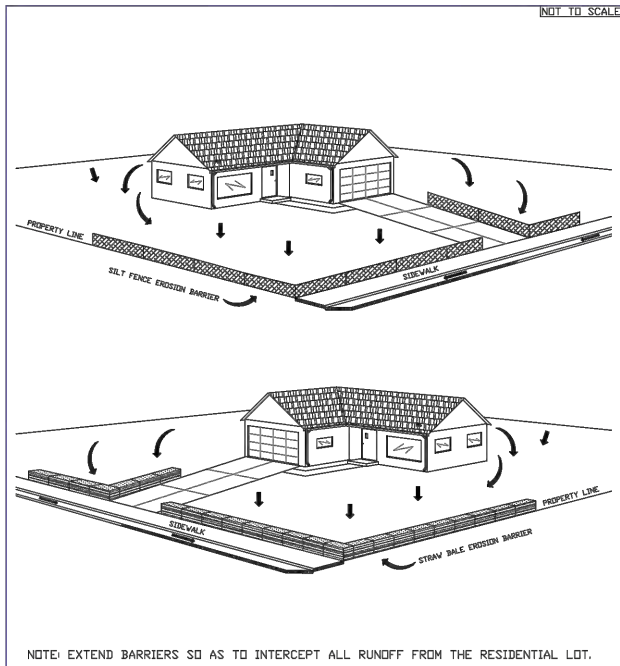
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 CHEYENNE, WY 82001

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 DRAWING TITLE: POWDERHOUSE RD CROSS SECTIONS

307.637.6017
 1103 OLD TOWN LANE, SUITE 101
 CHEYENNE, WY 82009
 AVI@AVIPC.COM

DATE PLOTTED: Jun 12, 2023
 DRAWN BY: CA
 DESIGNED BY: CA
 CHECKED BY: TC
 JOB NO.: 4642



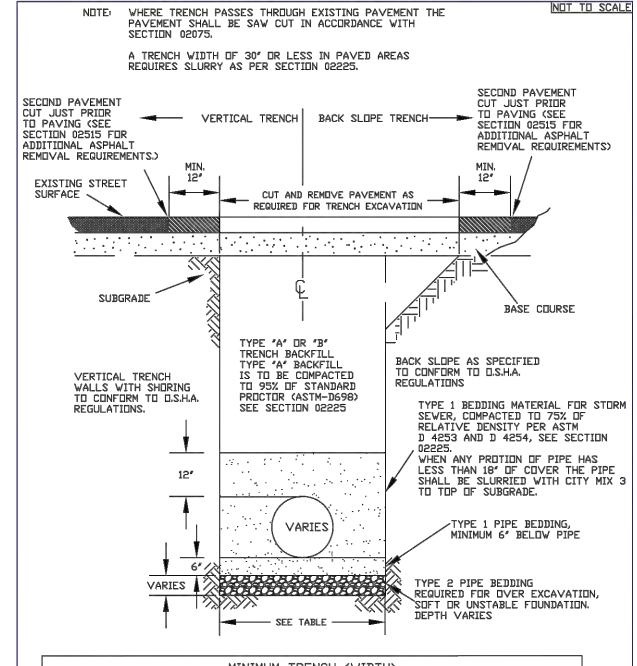
NOTE: EXTEND BARRIERS SO AS TO INTERCEPT ALL RUNOFF FROM THE RESIDENTIAL LOT.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

EROSION CONTROL MEASURES

STANDARD DRAWING NO. 01563-02

REVISED 2007

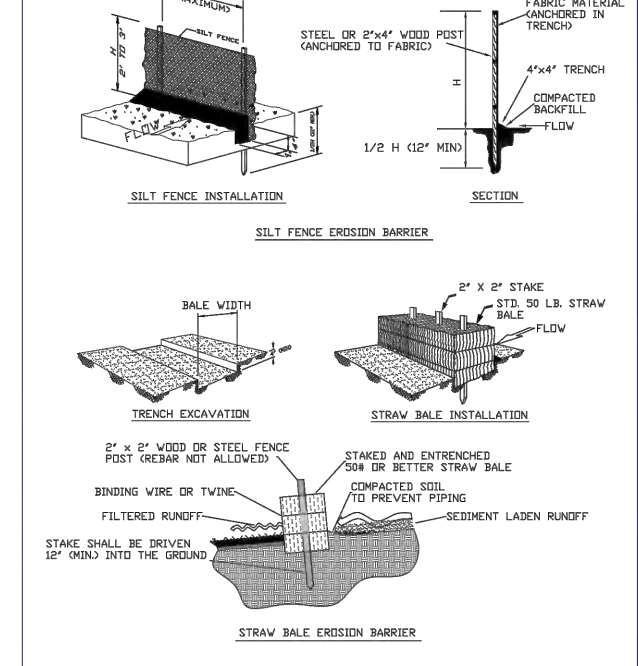


CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

TYPICAL TRENCH DETAIL FOR STORM SEWER PIPE

STANDARD DRAWING NO. 02220-02

REVISED 2007



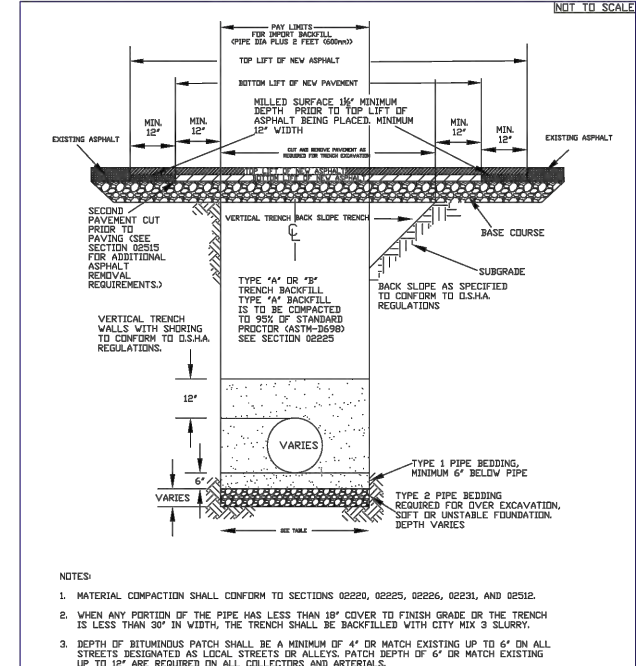
NOTE: EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL LANDSCAPING IS COMPLETED AND ESTABLISHED, OR AS DIRECTED BY THE ENGINEER.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

EROSION CONTROL MEASURES

STANDARD DRAWING NO. 01563-01

REVISED 2007



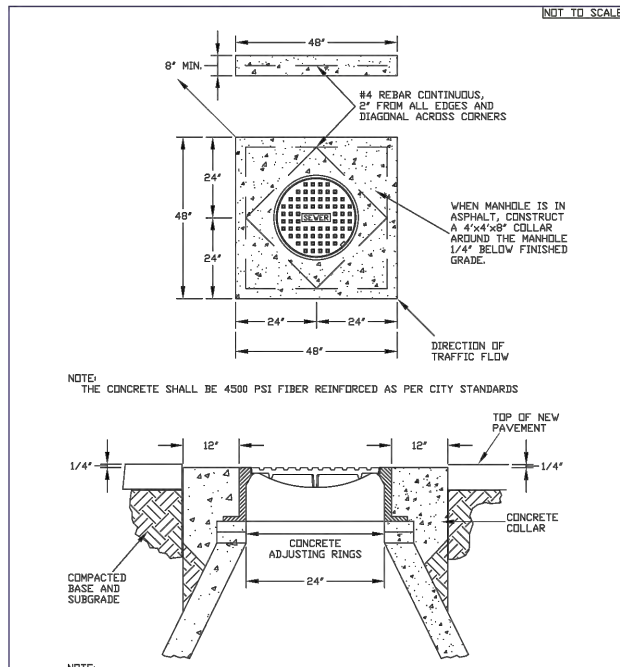
NOTE: MATERIAL COMPACTION SHALL CONFORM TO SECTIONS 02220, 02225, 02226, 02231, AND 02512.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

TYPICAL TRENCH DETAIL FOR STORM SEWER, WATER AND SANITARY SEWER PIPE

STANDARD DRAWING NO. 02220-01

REVISED 2014



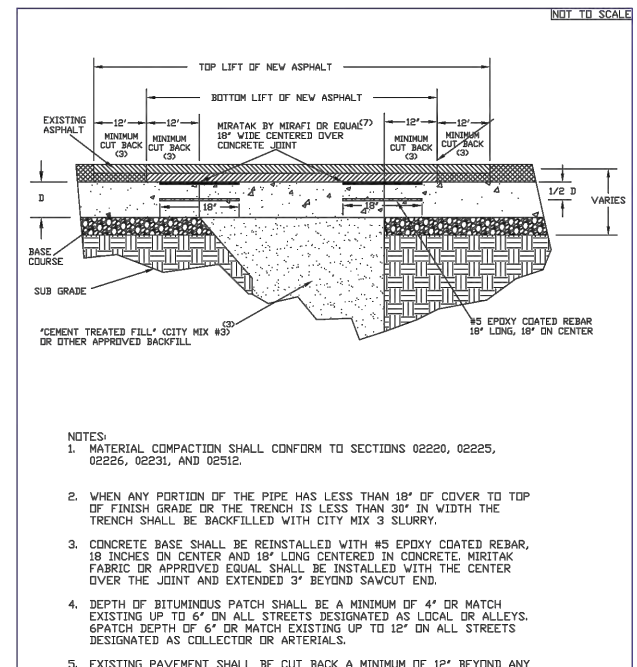
NOTE: ADJUST MANHOLE UPWARD WITH ADJUSTING RINGS UNDER FRAME, ADJUST MANHOLE DOWNWARD BY REMOVING A PORTION OF THE MANHOLE RISER AND REBUILDING TO PROPER DIAMETER. SLOPE MANHOLE RING AS REQUIRED TO MATCH STREET GRADE AND CROSS SLOPE. FINAL MANHOLE ADJUSTMENT WILL BE MADE AFTER PAVING AND BEFORE SEAL COATING. 6" MAX. ADJUSTMENT ON ALL NEW INSTALLATIONS.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

MANHOLE COVER AND MANHOLE ADJUSTMENT DETAILS

STANDARD DRAWING NO. 02570-02

REVISED 2007



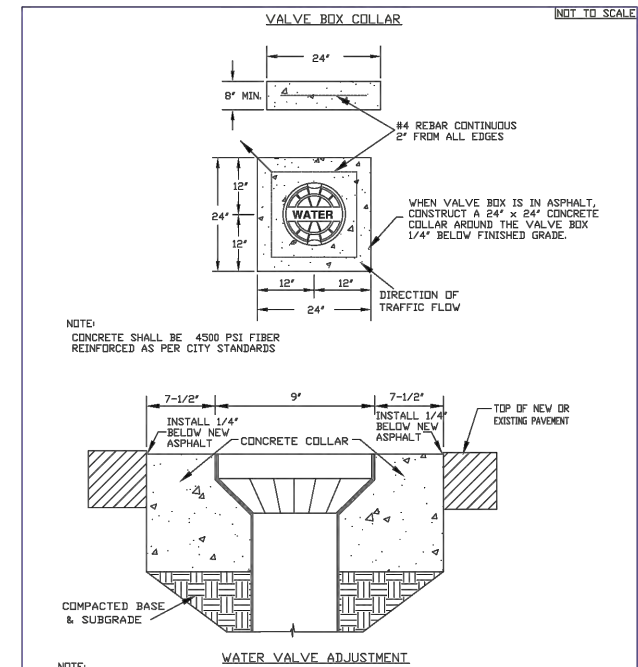
NOTE: 1. MATERIAL COMPACTION SHALL CONFORM TO SECTIONS 02220, 02225, 02226, 02231, AND 02512.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

STREET CUT REPAIRS REPLACING ASPHALT WHERE CONCRETE BASE EXIST

STANDARD DRAWING NO. 02515-02

REVISED 2014



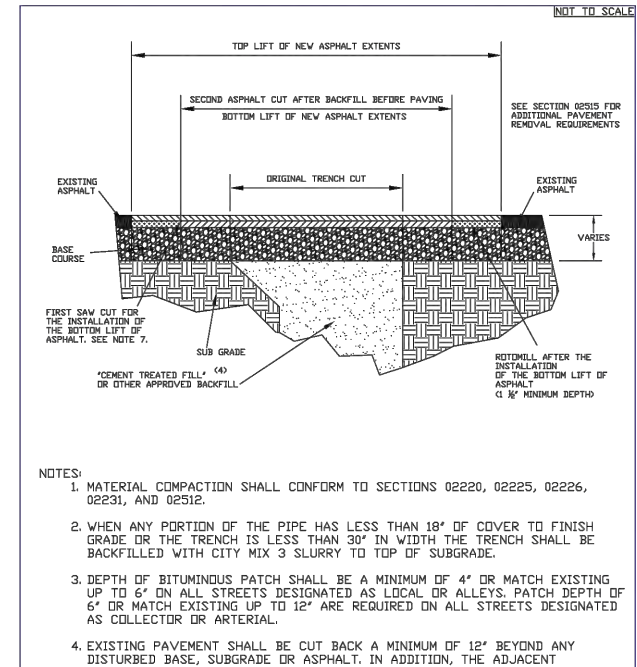
NOTE: ADJUST WATER VALVES UPWARD OR DOWNWARD AS REQUIRED, FINAL ADJUSTMENTS SHALL BE MADE AFTER PAVING AND BEFORE SEAL COATING. NO PAYMENT SHALL BE MADE BEFORE ADJUSTMENT OF NEW VALVES TO FINAL GRADE.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

VALVE BOX ADJUSTMENT DETAIL

STANDARD DRAWING NO. 02570-01

REVISED 2007



NOTE: 1. MATERIAL COMPACTION SHALL CONFORM TO SECTIONS 02220, 02225, 02226, 02231, AND 02512.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

STREET CUT REPAIRS REPLACING BITUMINOUS PAVEMENT

STANDARD DRAWING NO. 02515-01

REVISED 2014

DATE: _____

REVISION: _____

NO. _____

PREPARED FOR: CHEYENNE METROPOLITAN ORGANIZATION (MPO)
2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY

DRAWING TITLE: STANDARD DETAILS

DATE PLOTTED: Jun 12, 2023

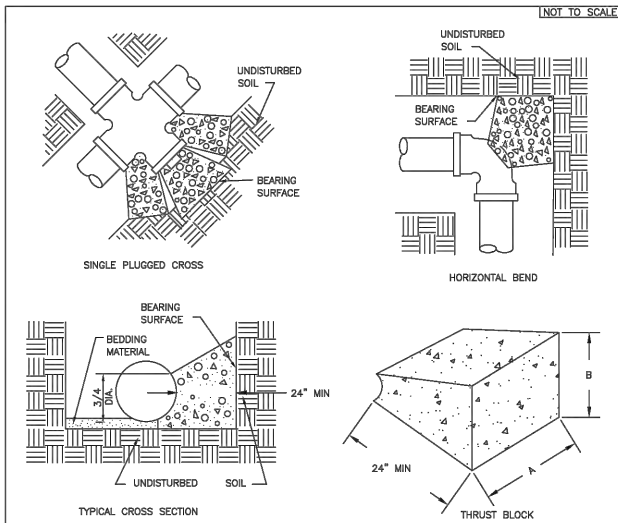
DRAWN BY: CA

DESIGNED BY: CA

CHECKED BY: TC

JOB NO.: 4642

DWG NO. D1 OF 85



FITTING SIZE	TEES & PLUGS		90° BENDS		45° BENDS & WYES		REDUCERS & 2 1/2 BENDS		11 1/4° BENDS	
	A	B	A	B	A	B	A	B	A	B
4"	1'-8"	1'-8"	2'-0"	1'-6"	2'-0"	1'-6"	1'-6"	0'-9"	1'-8"	0'-9"
6"	2'-8"	2'-0"	3'-3"	2'-8"	2'-8"	2'-0"	2'-6"	1'-0"	1'-8"	0'-9"
8"	3'-6"	3'-0"	4'-3"	3'-6"	3'-8"	2'-8"	2'-3"	2'-0"	1'-8"	1'-0"
10"	4'-3"	4'-0"	4'-8"	3'-3"	4'-0"	3'-3"	3'-0"	2'-3"	1'-8"	1'-0"
12"	5'-6"	4'-8"	6'-8"	5'-0"	4'-8"	4'-0"	3'-6"	2'-9"	2'-0"	1'-0"

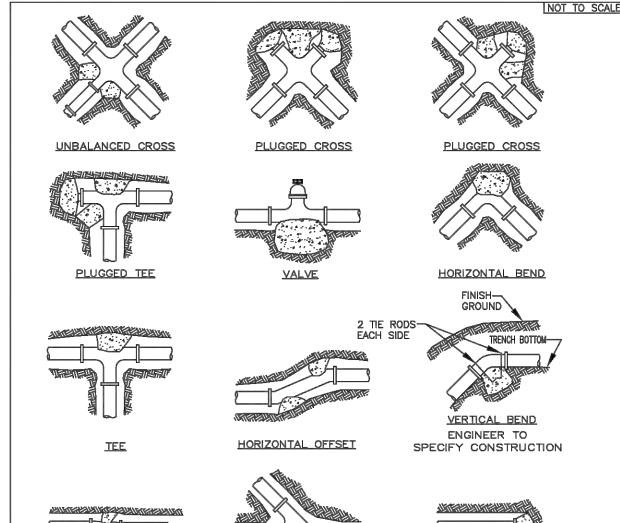
- NOTE:
- FITTINGS TO BE SEPARATED FROM BLOCKS WITH AN APPROVED BOND BREAKER.
 - ALL BLOCKS TO BEAR AGAINST UNDISTURBED MATERIAL.
 - THRUST BLOCKS FOR FITTING SIZE GREATER THAN 12" SHALL BE DESIGNED BY PROFESSIONAL ENGINEER, AND APPROVED BY BOPU.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

THRUST BLOCK SIZE REQUIREMENTS

STANDARD DRAWING NO. 02665-04

REVISED 2022



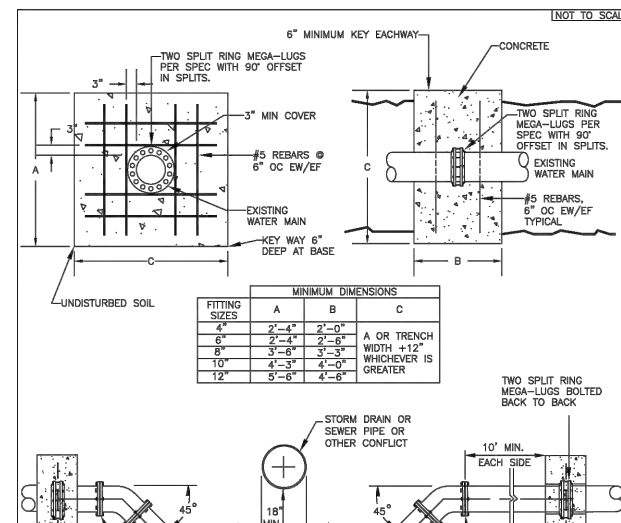
- NOTES:
- ALL BLOCKING SHALL BEAR AGAINST UNDISTURBED MATERIAL.
 - FITTINGS TO BE SEPARATED FROM THRUST BLOCK WITH 2 LAYERS OF 8 MIL. V-BIO POLYWRAP AND SECURE WITH 2" WIDE 7-MIL POLYTAPE.
 - ALL TIE DOWN RODS SHALL BE EPOXY COATED #5 REBAR.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

THRUST BLOCK DETAIL

STANDARD DRAWING NO. 02665-03

REVISED 2022



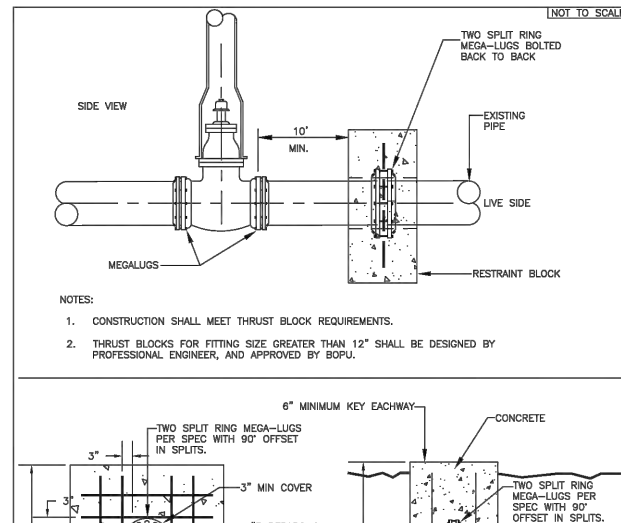
- NOTES:
- THRUST BLOCKS MAY BE REQUIRED IN UNSTABLE MATERIAL. REFERENCE RESTRAINT BLOCK DETAILS FOR MORE INFORMATION.
 - SEE DRAWING 02665-02 FOR DETAILS ON CASING PIPE SPACERS AND END SEALS.
 - ALL JOINTS BETWEEN RESTRAINT BLOCKS SHALL BE RESTRAINED JOINTS.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

WATER MAIN ADJUSTMENT

STANDARD DRAWING NO. 02665-06

REVISED 2022



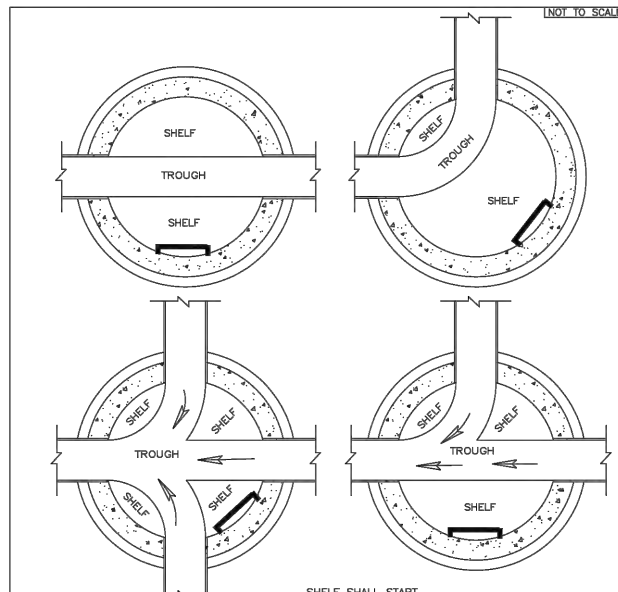
- NOTES:
- CONSTRUCTION SHALL MEET THRUST BLOCK REQUIREMENTS.
 - THRUST BLOCKS FOR FITTING SIZE GREATER THAN 12" SHALL BE DESIGNED BY PROFESSIONAL ENGINEER, AND APPROVED BY BOPU.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

RESTRAINT BLOCK

STANDARD DRAWING NO. 02665-05

REVISED 2022



- NOTES:
- SLOPE ALL SHELVES TO CHANNEL AT 1" TO 2" PER FOOT.
 - SEE PLAN AND PROFILE SHEETS FOR SLOPE OF CHANNEL.
 - SHELVES SHALL BE GIVEN A ROUGH BRUSHED FINISH WHEN PLACED.
 - LOCATION FOR STEPS.
 - TRoughs SHALL BE FORMED BY PVC PIPE AND GLUED FITTINGS UNLESS OTHERWISE APPROVED BY BOPU.
 - TOP OF PIPE SHALL BE CUT AT SPRINGLINE AND REMOVED TO ACCOMMODATE BOPU CLEANING EQUIPMENT (5.5"x31" MINIMUM).
 - SHELF SHALL SLOPE 1:1 FROM SPRINGLINE TO TOP OF PIPE.

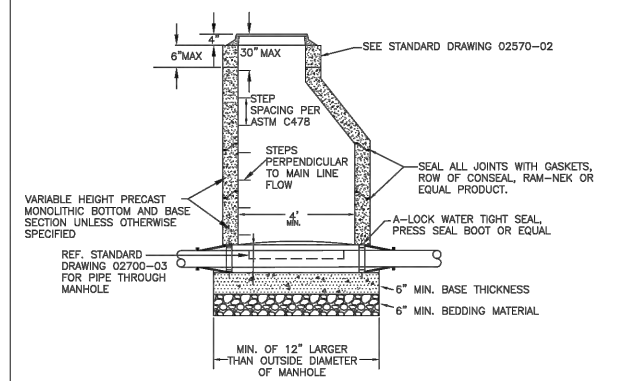
CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

TYPICAL MANHOLE CHANNEL DETAILS

STANDARD DRAWING NO. 02700-03

REVISED 2022

- NOTES:
- DROP ACROSS THE MANHOLE SHALL BE THE SAME SLOPE AS THE ADJACENT SEWER MAINS, BUT NOT LESS THAN 0.05 FEET.
 - PRECAST MANHOLE SECTIONS SHALL CONFORM TO ASTM C 478 FOR AASHTO HS-20-44 LOADINGS.
 - TOP SECTION SHALL BE PRECAST MONOLITHIC CONE SECTION.
 - TOTAL HEIGHT OF CONCRETE ADJUSTMENT RINGS SHALL NOT EXCEED 6" IN DESIGN AND 12" IN CONSTRUCTION WITH MAXIMUM OF 2 ADJUSTMENT RINGS ALLOWED. NO CAST IRON RING INSERTS WILL BE ALLOWED TO RAISE THE ELEVATION OF THE RING OR COVER.
 - MANHOLES SHALL BE INSTALLED SUCH THAT MANHOLE IS WATER TIGHT. MANHOLE SECTIONS SHALL HAVE BITUMINOUS EXTERIOR COATING APPLIED IN MINIMUM OF TWO LAYERS OF 12-MIL DRY-THICKNESS EACH LAYER OR PER MANUFACTURER RECOMMENDATIONS.



PIPE DIAMETER	DEPTH OF LINE	MANHOLE DIAMETER
8" THRU 12"	UP TO 15 FEET	FOUR FEET
12" THRU 18"	UP TO 20 FEET	FIVE FEET
18" THRU 21"	UP TO 25 FEET	SIX FEET
24" +	GREATER THAN 20 FEET	SEVEN FEET

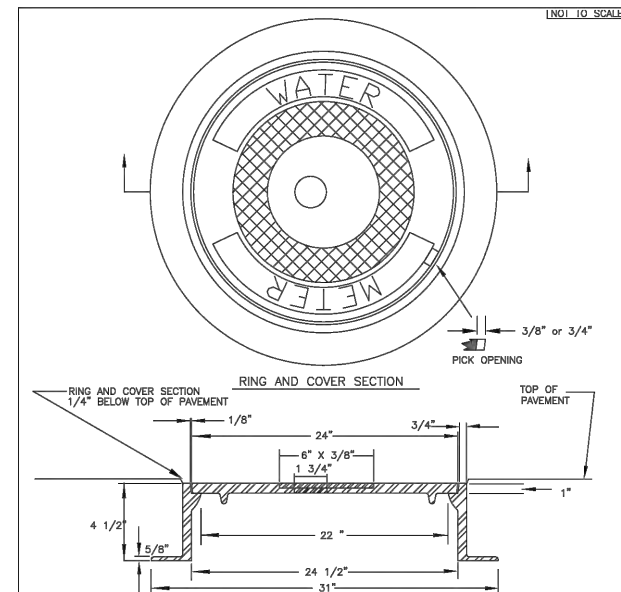
REQUIRES BOPU REVIEW AND APPROVAL

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

STANDARD MANHOLE DETAIL

STANDARD DRAWING NO. 02700-01

REVISED 2022



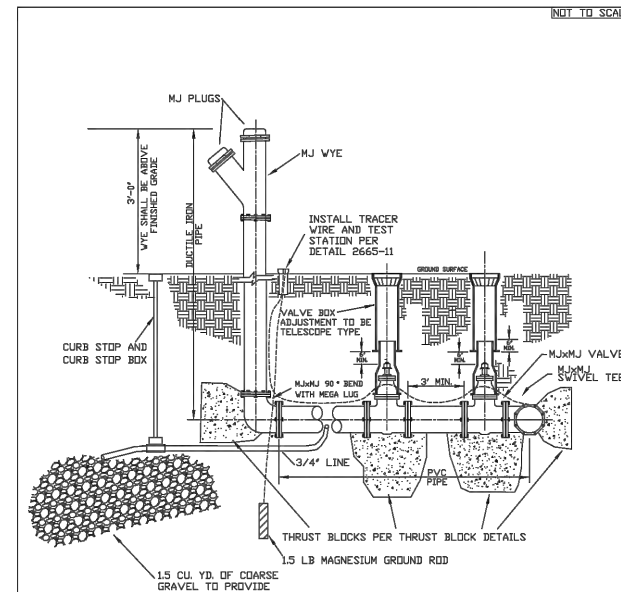
- NOTES:
- WITH APPROVED BOLT DOWN COVER AND WATER TIGHT GASKET IN FLOOD PLAIN AND OTHER AREAS SUBJECT TO INUNDATION.
 - CASTING INC. CL-24-R / AL-24-R OR APPROVED EQUAL. MUST MEET HS-20-44 LOADING.
 - WEIGHT OF CASTING LIDS SHALL BE A MINIMUM OF 135 POUND COVER.
 - 1 1/2" ECCENTRIC HOLE WITH LID WITH A 5"x1/2" RECESS FOR A NEPTUNE R 900 PIT ANTENNA.
 - SINGLE HOLE LID SHALL BE USED FOR TURBINE METER, DOUBLE HOLE LID FOR COMPOUND METER.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

TRAFFIC AREA METER PIT RING AND COVER DETAILS

STANDARD DRAWING NO. 02665-17

REVISED 2022



- NOTE:
- MAINS 16" AND LARGER WILL USE 8" PIPE. MAINS SMALLER THAN 16" WILL USE 6" PIPE. RESTRAIN ALL JOINTS FROM MAIN TO BLOWOFF WYE.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

BLOW OFF DETAIL

STANDARD DRAWING NO. 02665-12

REVISED 2022

DATE: _____

REVISION: _____

NO.: _____

PREPARED FOR: CHEYENNE METROPOLITAN ORGANIZATION (MPO)
2101 ONEIL AVE
CHEYENNE, WY 82001

PROJECT: POWDERHOUSE ROAD CORRIDOR STUDY

DRAWING TITLE: STANDARD DETAILS

DATE PLOTTED: Jun 12, 2023

DRAWN BY: CA

DESIGNED BY: CA

CHECKED BY: TC

JOB NO.: 4642

DWG NO. D2 OF 85

NOT TO SCALE

Dimensions (inches)											
	A	B	C	D	E	F	G	H	J	K	L
Type I	6	(1)	4C*	1	(2)	1.5 Min	1 (3)	D=7/16 (3)	R=1 (4)		
Type I with Descenders	6	(1)	4C*	0.5	1.5	(2)	1.5 Min	1 (3)	D=7/16 (3)	R=1 (4)	
Type II	9	(1)	6C**	1.5	1.5	(2)	2 Min	1 (3)	D=7/16 (3)	R=1 (4)	
Type II with Descenders	9	(1)	6C**	0.75	2.25	(2)	2 Min	1 (3)	D=7/16 (3)	R=1 (4)	

* Type I upper case 4" min, and lower case 3" min.
** Type II upper case 6" minimum, and lower case 4 1/2" minimum

Types I & II

Types I & II with Descenders

Notes
 (1) - As needed; 24" Minimum
 (2) - As needed
 (3) - Typ. of 2
 (4) - Optional

Type I Street Name Signs used at the intersection of two local roads speed limits of 25 mph or less.
 Type II Street Name Signs used at all intersections on collectors and arterials with posted speed limits of 40 mph or less or 2 lane road any speed.

COLORS: LEGEND -WHITE (RETROREFLECTIVE)
 BACKGROUND -GREEN (RETROREFLECTIVE)

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING TYPE I AND TYPE II STREET NAME SIGN DETAILS

REVISOR: 2014
 STANDARD DRAWING NO. 02808-01

NOT TO SCALE

DOUBLE INLET TYPE "AA"

Notes:
 1. PIPE INLET AND OUTLET HOLES FOR PRECAST INLETS SHALL BE PERFORMED. ALL PIPES SHALL BE GROUDED WITH A NONSHRINK GROUT IN ACCORDANCE WITH SECTION 03600.
 2. A 1/8" PER FOOT TAPER IN BOX WALLS IS ALLOWED TO EASE FORM REMOVAL.
 3. LIVE LOADING SHALL CONFORM TO HS 20-44.
 4. NO. 5 REBAR SHALL BE GRADE 60 AND PLACED ON 12" CENTERS.
 5. WHEN BOX IS POURED IN PLACE THE CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCING. PRECAST SHALL BE 4000 PSI AND CONFORM WITH SECTION 03480.
 6. BOTTOM OF BOX SHALL BE SLOPED TO OUTFLOW PIPE.
 7. INLET FRAME SHALL BE SET 0.17' BELOW EXTENDED FLOW LINE.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

REVISOR: 2007
 STANDARD DRAWING NO. 02725-03

NOT TO SCALE

STORM SEWER CATCH BASIN TYPE "B"

Notes:
 1. PIPE INLET AND OUTLET HOLES FOR PRECAST INLETS SHALL BE PERFORMED. ALL PIPES SHALL BE GROUDED WITH A NONSHRINK GROUT IN ACCORDANCE WITH SECTION 03600.
 2. A 1/8" PER FOOT TAPER IN BOX WALLS IS ALLOWED TO EASE FORM REMOVAL.
 3. LIVE LOADING SHALL CONFORM TO HS 20-44.
 4. NO. 5 REBAR SHALL BE GRADE 60 AND PLACED ON 12" CENTERS.
 5. WHEN BOX IS POURED IN PLACE THE CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCING. PRECAST SHALL BE 4000 PSI AND CONFORM WITH SECTION 03480.
 6. BOTTOM OF BOX SHALL BE SLOPED TO OUTFLOW PIPE.
 7. INLET FRAME SHALL BE SET 0.17' BELOW EXTENDED FLOW LINE.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

REVISOR: 2007
 STANDARD DRAWING NO. 02725-02

NOT TO SCALE

WATER MAIN TRACER WIRE

Notes:
 1. A #10 THIN BLUE PLASTIC COATED SOLID COPPER WIRE OR #12 COPPERHEAD AND #12 AWG HS-CGS BLUE HOPE 30 MIL INSULATION COATED WIRE RUN CONTINUOUSLY. THE TRACER WIRE SHALL BE FASTENED SECURELY TO THE TOP OF THE PIPE WITH VINYL PLASTIC ELECTRICAL TAPE 7-MIL (2) INCH WIDE
 2. ALL SPLICES SHALL BE MADE WITH A 3M R/Y CONNECTOR, CAPABLE OF HANDLING 3-#10 WIRES.
 3. AT EVERY FIRE HYDRANT LOCATION A MINI GLEN 4 STATION OR B.O.P.U. APPROVED EQUAL SHALL BE INSTALLED 1 FOOT FROM THE HYDRANT, CONNECTED TO THE TRACER WIRE.
 4. COIL 18 INCHES OF THE WIRE IN THE TEST STATION.
 5. LEAVE 5 FT. COIL AT EXTENT OF PROJECT IF NOT TIED TO EXISTING TRACER WIRE.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

REVISOR: 2022
 STANDARD DRAWING NO. 02665-11

NOT TO SCALE

Dimensions (inches)											
	A	B	C	D	E	F	G	H	J	K	L
Type IV	18	(1)	12C*	3	3	(2)	3 Min.	3 (2)	R=1.5 (3)	3C**	4
Type IV with Descenders	18	(1)	12C*	1.5	4.5	(2)	3 Min.	3 (2)	R=1.5 (3)	3C**	4

* Type IV lower case 4" minimum
 ** Type IV lower case 2.25" minimum

Type IV

Type IV with Descenders

Notes
 (1) - As needed; 36" Minimum
 (2) - As needed

Type IV Street Name Signs to be used at all signalized intersections.

COLORS: LEGEND AND BORDER -WHITE (RETROREFLECTIVE)
 BACKGROUND -GREEN (RETROREFLECTIVE)

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING TYPE IV STREET NAME SIGN DETAILS

NEW 2014
 STANDARD DRAWING NO. 02808-03

NOT TO SCALE

Dimensions (inches)											
	A	B	C	D	E	F	G	H	J	K	L
Type III	12	(1)	8C*	2	2	(2)	2 Min.	1 (3)	D=7/16 (3)	R=1.5 (3)	1.5 (3)
Type III with Descenders	12	(1)	8C*	1	3	(2)	2 Min.	1 (3)	D=7/16 (3)	R=1.5 (3)	1.5 (3)

* Type III lower case 4" minimum

Type III

Type III with Descenders

Notes
 (1) - As needed; 24" Minimum
 (2) - As needed
 (3) - Typ. of 2

Type III Street Name Signs used at all intersections on streets with posted speed limits of more than 40 mph.

COLORS: LEGEND AND BORDER -WHITE (RETROREFLECTIVE)
 BACKGROUND -GREEN (RETROREFLECTIVE)

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING TYPE III STREET NAME SIGN DETAILS

NEW 2014
 STANDARD DRAWING NO. 02808-02

NOT TO SCALE

STORM SEWER CATCH BASIN TYPE "A"

Notes:
 1. PIPE INLET AND OUTLET HOLES FOR PRECAST INLETS SHALL BE PERFORMED. ALL PIPES SHALL BE GROUDED WITH A NONSHRINK GROUT IN ACCORDANCE WITH SECTION 03600.
 2. A 1/8" PER FOOT TAPER IN BOX WALLS IS ALLOWED TO EASE FORM REMOVAL.
 3. LIVE LOADING SHALL CONFORM TO HS 20-44.
 4. NO. 5 REBAR SHALL BE GRADE 60 AND PLACED ON 12" CENTERS.
 5. WHEN BOX IS POURED IN PLACE THE CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCING. PRECAST SHALL BE 4000 PSI AND CONFORM WITH SECTION 03480.
 6. BOTTOM OF BOX SHALL BE SLOPED TO OUTFLOW PIPE.
 7. INLET FRAME SHALL BE SET 0.17' BELOW EXTENDED FLOW LINE.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

REVISOR: 2007
 STANDARD DRAWING NO. 02725-01

NOT TO SCALE

SEWER MANHOLE COVER DETAIL

Notes:
 1. EAST JORDAN IRON WORKS 330-4 RING WITH A CHECKERED FLUSH MOUNT COVER MARKED "SEWER" OR APPROVED EQUAL.
 2. MUST HAVE APPROVED BOLT DOWN COVER AND GASKET IN FLOOR PLAIN AND OTHER AREAS SUBJECT TO INFLOW.
 3. MANHOLES OUTSIDE PAVED STREETS SHALL HAVE RING BOLTED DIRECTLY TO CONE SECTION OR FLAT TOP SECTION OF MANHOLE. USE FOUR (4) 1/2" DIAMETER X 3" LONG STAINLESS STEEL RING SET ANCHORS OR APPROVED EQUAL.
 4. IN NON PAVED AREAS OTHER THAN TRAVELWAYS. PLACE TOP OF MANHOLE ONE FOOT ABOVE GROUND.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

REVISOR: 2022
 STANDARD DRAWING NO. 02700-05

NO.	REVISION	DATE

PREPARED FOR:
 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT:
 POWDERHOUSE ROAD CORRIDOR STUDY

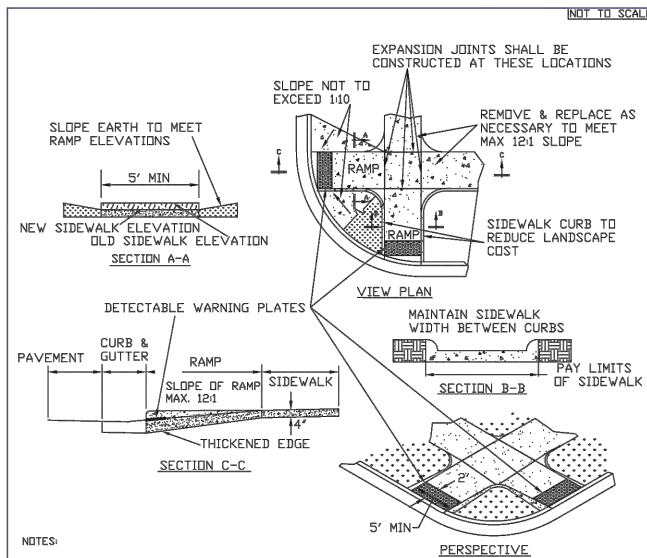
DRAWING TITLE:
 STANDARD DETAILS

DATE PLOTTED:
 Jun 12, 2023

DRAWN BY: CA
 DESIGNED BY: CA
 CHECKED BY: TC

JOB NO.: 4642

DWG NO. D3 OF 85



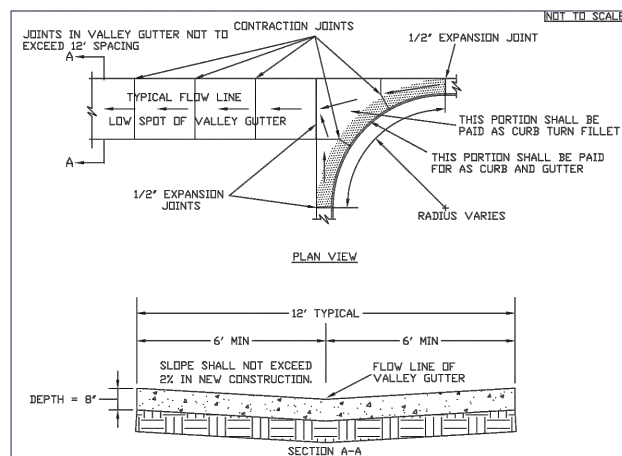
- NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
 2. CONTRACTION AND EXPANSION JOINTS SHALL BE AS SHOWN AND CONFORM WITH SECTIONS 03251 AND 03340.
 3. NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY CONSTRUCTION DEPARTMENT.
 4. CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCEMENT AND CONFORM WITH SECTION 03304.
 5. ALL LANDINGS SHALL BE 5' X 5'.
 6. ENSURE ALL PAVEMENT SURFACES ARE SMOOTHLY TAPERED AND FLUSH AT CURB RAMPS TO FACILITATE WHEELCHAIR MOVEMENTS.
 7. DETECTABLE WARNINGS SHALL BE EAST JORDON IRON WORKS 7005 SERIES NATURAL FINISH (7006 SERIES ON RADIUS TYPE), NEENAH 4984 SERIES DETECTABLE WARNING PLATES OR APPROVED EQUAL.
 8. DETECTABLE WARNING PLATES SHALL BE PLACED AT BOTTOM OF RAMP AND EXTEND TWO (2) FEET BACK FROM EDGE AND A MINIMUM LENGTH OF 5 FEET (TO MATCH WIDTH OF RAMP).

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

WHEELCHAIR RAMP TYPE "A" WITH DETECTABLE WARNING PLATES

STANDARD DRAWING NO. 03340-02

REVISED 2014



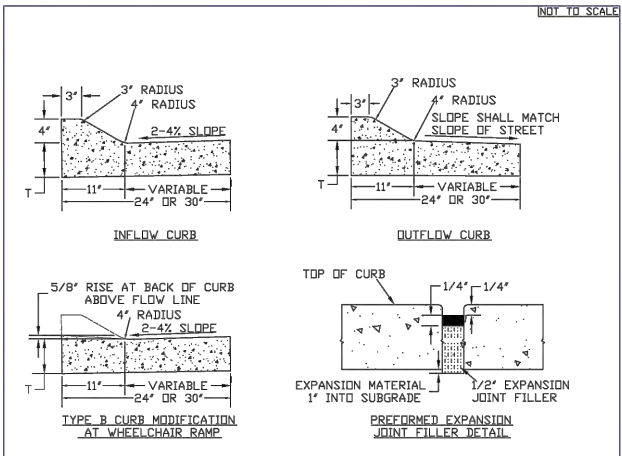
- NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
 2. CONTRACTION AND EXPANSION JOINTS SHALL BE AS SHOWN AND CONFORM WITH SECTIONS 03251 AND 03340.
 3. NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY CONSTRUCTION DEPARTMENT.
 4. CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCEMENT AND CONFORM WITH SECTION 03405.
 5. ALL LANDINGS SHALL BE 5' X 5'.
 6. ENSURE ALL PAVEMENT SURFACES ARE SMOOTHLY TAPERED AND FLUSH AT CURB RAMPS TO FACILITATE WHEELCHAIR MOVEMENTS.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

VALLEY GUTTER AND CURB TURN FILLET DETAIL

STANDARD DRAWING NO. 03340-01

REVISED JAN 2007



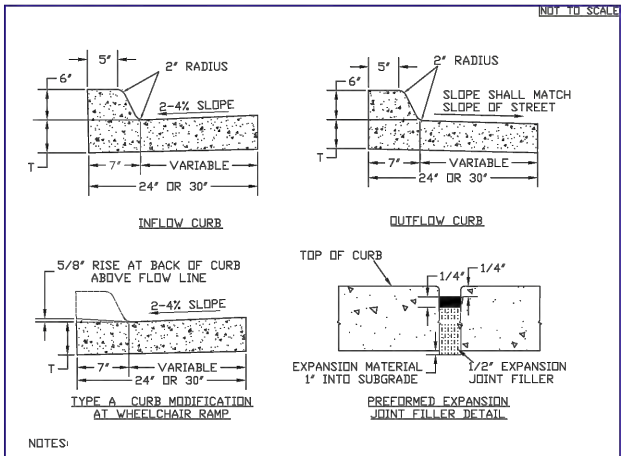
- NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
 2. CONTRACTION AND EXPANSION JOINTS SHALL CONFORM TO SECTIONS 03251 AND 03330.
 3. CONCRETE SHALL NOT BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY CONSTRUCTION DIVISION.
 4. CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCING.
 5. *T* = THICKNESS OF ALLEY APPROACH, COMMERCIAL DRIVE APPROACH, VALLEY GUTTER OR FILLET.
- UNLESS SPECIFIED OTHERWISE:
 T = 6" WHERE ADJACENT TO PLANTMIX PAVEMENT.
 T = CONCRETE PAVEMENT THICKNESS WHERE ADJACENT TO CONCRETE PAVEMENT UNLESS OTHERWISE SPECIFIED.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

TYPE "B" CURB AND GUTTER DETAILS

STANDARD DRAWING NO. 03330-02

REVISED 2007



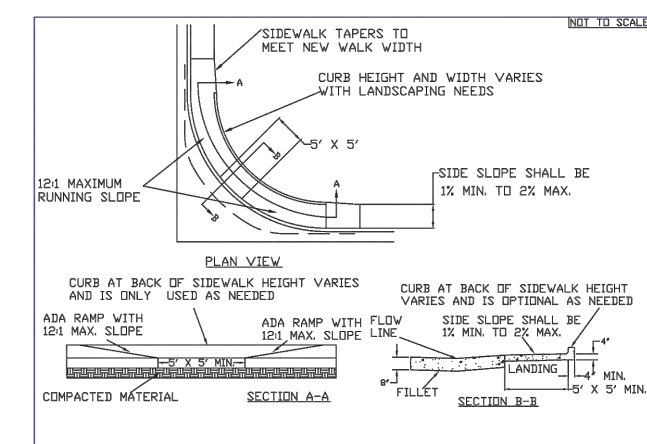
- NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
 2. 1/2" EXPANSION JOINT MATERIAL SHALL BE PLACED AT THE INTERFACE OF EXISTING CONCRETE, AT THE P.C. AND P.T.
 3. CONTRACTION AND EXPANSION JOINTS SHALL CONFORM TO SECTIONS 03251 AND 03330.
 4. CONCRETE SHALL NOT BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY CONSTRUCTION DEPARTMENT.
 5. CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCING.
 6. *T* = THICKNESS OF ALLEY APPROACH, DRIVE APPROACH, VALLEY GUTTER OR FILLET.
- UNLESS SPECIFIED OTHERWISE:
 T = 6" WHERE ADJACENT TO PLANTMIX PAVEMENT.
 T = CONCRETE PAVEMENT THICKNESS WHERE ADJACENT TO CONCRETE PAVEMENT UNLESS OTHERWISE SPECIFIED.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

TYPE "A" CURB AND GUTTER DETAILS

STANDARD DRAWING NO. 03330-01

REVISED 2007



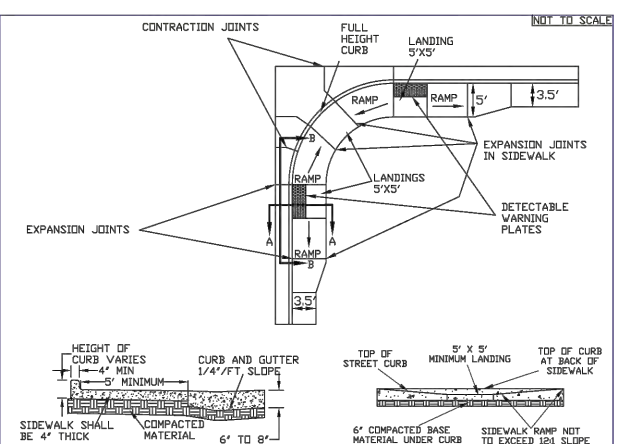
- NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
 2. CONTRACTION AND EXPANSION JOINTS SHALL BE AS SHOWN AND SHALL CONFORM TO SECTIONS 03251 AND 03340.
 3. NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY CONSTRUCTION DEPARTMENT.
 4. CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCEMENT AND CONFORM TO SECTION 03405.
 5. ALL LANDINGS SHALL BE 5 FOOT BY 5 FOOT.
 6. THICKNESS OF DRIVE APPROACH AND GUTTER SECTION SHALL BE 6" FOR RESIDENTIAL AND 8" FOR COMMERCIAL DRIVE AND ALLEY APPROACHES.
 7. NOT FOR USE IN NEW CONSTRUCTION. ONLY TO BE USED WITH PRIOR APPROVAL BY THE CITY ENGINEER IN RETROFIT CONSTRUCTION.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

WHEEL CHAIR RAMP TYPE "C"

STANDARD DRAWING NO. 03340-04

REVISED 2007



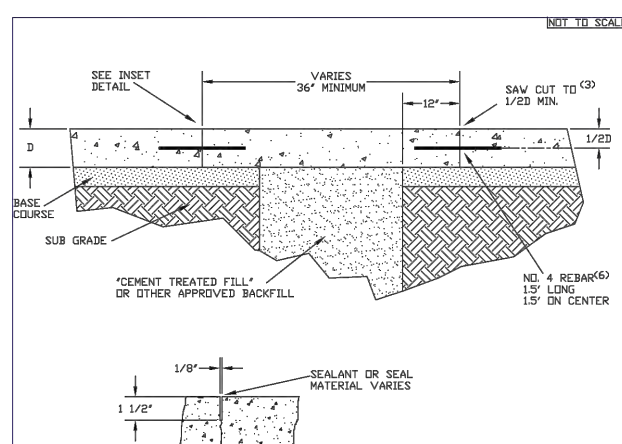
- NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
 2. CONTRACTION AND EXPANSION JOINTS SHALL BE AS SHOWN AND CONFORM WITH SECTIONS 03251 AND 03340.
 3. NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY CONSTRUCTION DEPARTMENT.
 4. CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCEMENT AND CONFORM WITH SECTION 03405.
 5. ALL LANDINGS SHALL BE 5' X 5'.
 6. ENSURE ALL PAVEMENT SURFACES ARE SMOOTHLY TAPERED AND FLUSH AT CURB RAMPS TO FACILITATE WHEELCHAIR MOVEMENTS.
 7. DETECTABLE WARNINGS SHALL BE EAST JORDON IRON WORKS 7005 SERIES NATURAL FINISH (7006 SERIES ON RADIUS TYPE) DETECTABLE WARNING PLATES OR APPROVED EQUAL.
 8. DETECTABLE WARNING PLATES SHALL BE PLACED AT BOTTOM OF RAMP AND EXTEND 2 FEET BACK FROM EDGE AND A MINIMUM LENGTH OF 5 FEET (TO MATCH WIDTH OF RAMP).

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

WHEEL CHAIR RAMP TYPE "B", WITH DETECTABLE WARNING PLATES

STANDARD DRAWING NO. 03340-03

REVISED 2014



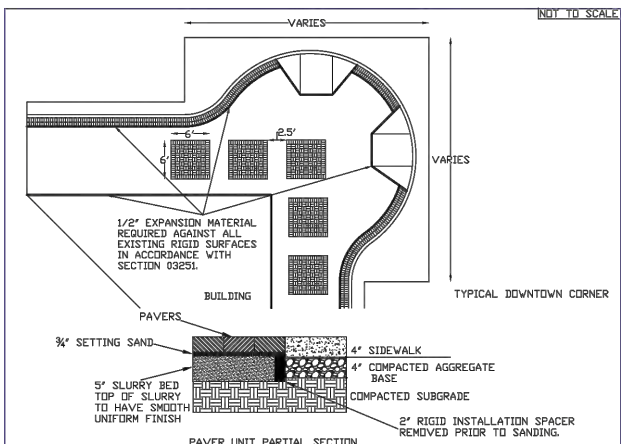
- NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02225.
 2. DEPTH OF CONCRETE PATCH SHALL BE 8 INCHES OR MATCH EXISTING, WHICHEVER IS GREATER.
 3. EXISTING PAVEMENT SHALL BE CUT BACK A MIN. OF 12" BEYOND ANY DISTURBED BASE COURSE OR SUBGRADE.
 4. TRENCHES IN EXCESS OF 30" MAY USE ALTERNATIVE COMPACTION AND MATERIALS AND METHODS FOUND IN SECTION 02225 OR AS APPROVED BY THE CITY PRIOR TO ACTUAL CUTTING OF STREET.
 5. CEMENT TREATED FILL SHALL BE CONSOLIDATED BY A 6000VPM VIBRATOR.
 6. WHEN BARS ARE USED, #4 GRADE 60 REBAR SHALL BE USED TO TIE EXISTING CONCRETE TO NEW CONCRETE.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

STREET CUT REPAIRS REPLACING CONCRETE PAVEMENT

STANDARD DRAWING NO. 03320-01

REVISED 2007



- NOTES:
1. COMPACT SOIL SUBGRADE UNIFORMLY TO AT LEAST 95% OF ASTM D698.
 2. SLURRY SHALL BE 2000 PSI AND BE INSTALLED TO A DEPTH OF 5". THE SLURRY SHALL BE LEVEL AND FINISH SMOOTH. ENGINEER SHALL APPROVE SLURRY BED PRIOR TO CONTRACTOR PROCEEDING.
 3. PLACE SAND FOR LEVELING COURSE AND SCREED TO A DEPTH OF 3/4" MINIMUM, TAKING CARE THAT MOISTURE CONTENT REMAINS CONSTANT AND THE DENSITY IS LOOSE AND CONSTANT INTO PAVERS ARE SET AND COMPACTED.
 4. SET PAVERS HAND TIGHT AGAINST CONCRETE WALKS, RETAINING WALLS, OR EDGE RESTRAINT. USE STRINGS LINES TO KEEP STRAIGHT LINES WHERE NECESSARY. SELECT UNITS AT RANDOM TO PROPERLY BLEND COLOR AND TEXTURE VARIATIONS. FILL GAPS BETWEEN UNITS THAT EXCEED 3/16" WITH PIECES CUT TO FIT FROM FULL SIZE UNIT PAVERS.
 5. VIBRATE PAVERS INTO LEVELING COURSE WITH A LOW AMPLITUDE PLATE VIBRATOR CAPABLE OF A 3500 TO 5000 POUND COMPACTION FORCE.
 6. SPREAD DRY SAND AND FILL JOINTS IMMEDIATELY AFTER VIBRATING PAVERS INTO LEVELING COURSE. BRUSH AND VIBRATE SAND JOINTS UNTIL JOINTS ARE COMPLETELY FILLED, THEN REMOVE SURPLUS SAND.
 7. DO NOT ALLOW TRAFFIC ON INSTALLED PAVERS UNTIL SAND HAS BEEN VIBRATED INTO JOINTS.
 8. REPEAT JOINT FILLING PROCESS 30 DAYS LATER.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

UNIT PAVER INSTALLATION DETAIL

STANDARD DRAWING NO. 02915-01

NEW 2007

NO.	REVISION	DATE

PREPARED FOR:
 CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT:
 POWDERHOUSE ROAD
 CORRIDOR STUDY

DRAWING TITLE:
 STANDARD DETAILS

307.637.6017
 1103 OLD TOWN LANE, SUITE 101
 CHEYENNE, WY 82009
 AVI@AVIPC.COM

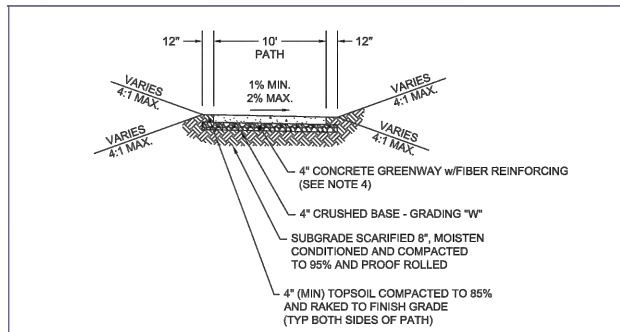
DATE PLOTTED:
 Jun 12, 2023

DRAWN BY: CA

DESIGNED BY: CA

CHECKED BY: TC

JOB NO.: 4642

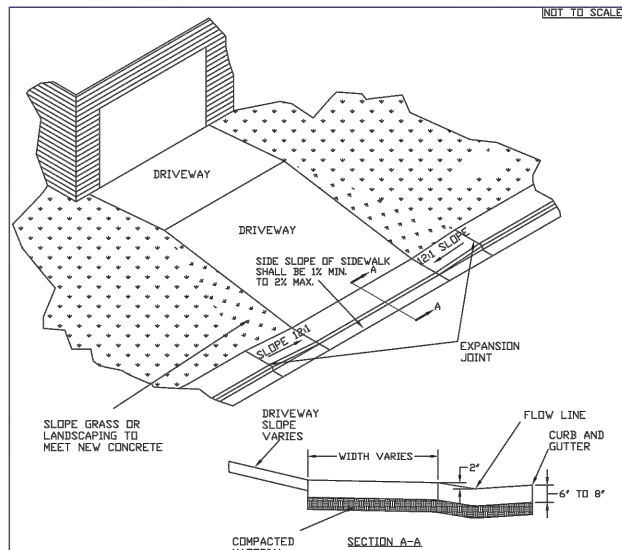


TYPICAL SECTION

NOTES:

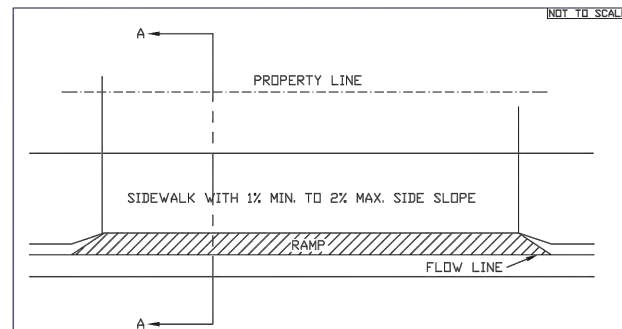
- 1.) FULL WIDTH TRANSVERSE GREENWAY JOINT SPACING SHALL BE 10'-0" (SAWCUT), 1" MIN. DEPTH.
- 2.) EXPANSION GREENWAY JOINT SPACING SHALL BE 150'. USE PREFORMED JOINT MATERIAL FULL DEPTH. GROUT AND SEAL WITH SILICONE. EXPANSION JOINT SHALL BE CONSIDERED SUBSIDIARY TO THE GREENWAY.
- 3.) ALL CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCEMENT AND CONFORM TO SECTION 03405.
- 4.) ALL GREENWAY PATH WILL BE 4" THICK EXCEPT FOR ACROSS APPROACHES. THICKNESS OF DRIVE APPROACH SHALL BE 6" FOR RESIDENTIAL AND 8" FOR COMMERCIAL DRIVE AND ALLEY APPROACHES.
- 5.) CRUSHED BASE IS TO EXTEND 12" PAST EDGE OF PATH AND COMPACTED PER SECTION 02231.
- 6.) NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY.
- 7.) MAX. LONGITUDINAL GRADE SHALL NOT EXCEED 5% PER ADA STANDARDS.

	CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING		GREENWAY TYPICAL SECTION		NEW
					2014
				STANDARD DRAWING NO. 03340-11	

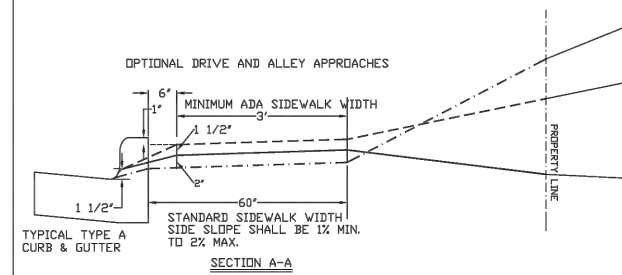


- NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
 2. CONTRACTION AND EXPANSION JOINTS SHALL BE AS SHOWN AND CONFORM TO SECTIONS 03251 AND 03340.
 3. NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY OF CHEYENNE CONSTRUCTION DIVISION.
 4. CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCEMENT AND CONFORM TO SECTION 03405.
 5. THICKNESS OF DRIVE APPROACH SHALL BE 6" FOR RESIDENTIAL AND 8" FOR COMMERCIAL DRIVE AND ALLEY APPROACHES.

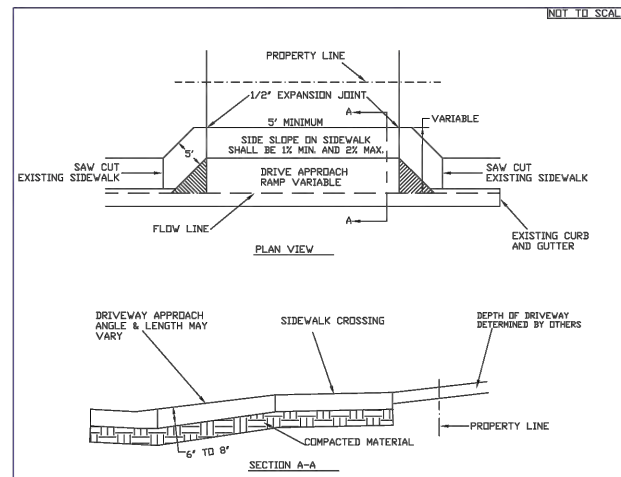
	CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING		DRIVE AND ALLEY APPROACH FOR ATTACHED SIDEWALK		REVISED
					2007
				STANDARD DRAWING NO. 03340-05	



- NOTES:
1. DRIVE APPROACH CHOICE IS DEPENDENT UPON THE LAY OF LAND AND POSITION OF THE GARAGE IN RELATION TO THE FLOW LINE.
 2. IT MAY BE NECESSARY TO REMOVE A PORTION OF THE EXISTING DRIVEWAY IN ORDER TO MAKE DRIVE APPROACH WORK.

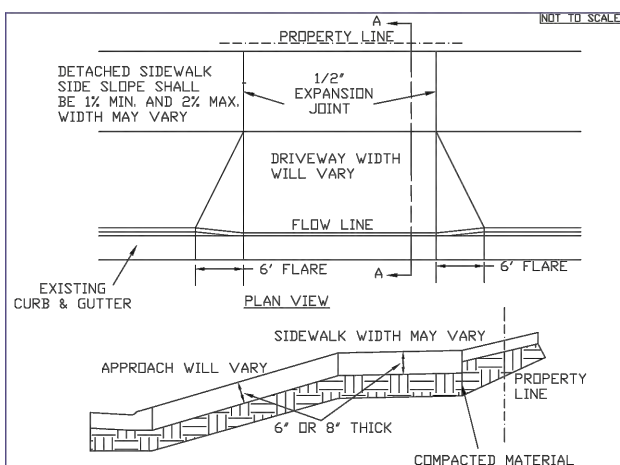


	CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING		CROSS SECTION THRU DRIVE APPROACHES		REVISED
					2007
				STANDARD DRAWING NO. 03340-09	



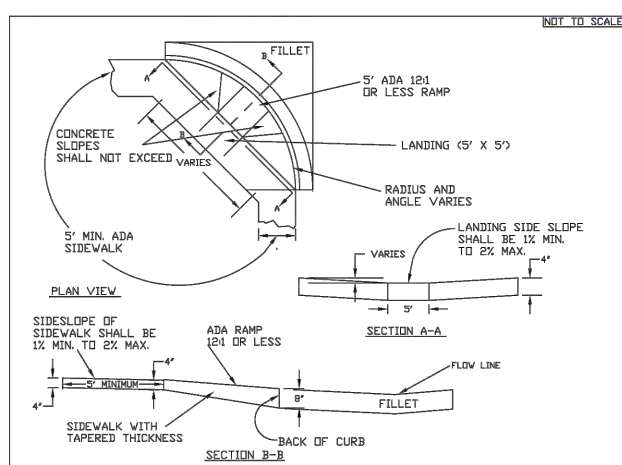
- NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
 2. CONTRACTION AND EXPANSION JOINTS SHALL CONFORM TO SECTIONS 03251 AND 03340.
 3. NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY CONSTRUCTION DIVISION.
 4. CONCRETE SHALL BE 4500 WITH FIBER REINFORCEMENT AND CONFORM TO SECTION 03405.
 5. FOR USE IN RETRO-FIT CONSTRUCTION ONLY.
 6. THICKNESS OF DRIVE APPROACH AND GUTTER SECTION SHALL BE 6" FOR RESIDENTIAL AND 8" FOR COMMERCIAL DRIVE AND ALLEY APPROACHES THRU THE BACK OF THE SIDEWALK.

	CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING		DRIVE AND ALLEY APPROACH FOR ATTACHED SIDEWALK, ALTERNATE "A"		REVISED
					2007
				STANDARD DRAWING NO. 03340-08	



- ED NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
 2. CONTRACTION AND EXPANSION JOINTS SHALL BE AS SHOWN AND CONFORM TO SECTIONS 03251 AND 03340.
 3. NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION THE CITY CONSTRUCTION DIVISION.
 4. CONCRETE SHALL BE 4500 WITH FIBER REINFORCEMENT AND CONFORM TO SECTION 03405.
 5. FOR USE IN RETRO-FIT CONSTRUCTION ONLY.
 6. THICKNESS OF DRIVE APPROACH AND GUTTER SECTION SHALL BE 6" FOR RESIDENTIAL AND 8" FOR COMMERCIAL DRIVE AND ALLEY APPROACHES THRU THE BACK OF THE SIDEWALK.

	CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING		DRIVE AND ALLEY APPROACH FOR DETACHED SIDEWALK		REVISED
					2007
				STANDARD DRAWING NO. 03340-07	



- NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
 2. CONTRACTION AND EXPANSION JOINTS SHALL CONFORM TO SECTIONS 03251 AND 03340.
 3. NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY CONSTRUCTION DIVISION.
 4. CONCRETE SHALL BE 4500PSI WITH FIBER REINFORCEMENT AND CONFORM TO SECTION 03405.
 5. ALL LANDINGS SHALL BE 5 FOOT BY 5 FOOT.
 6. ENSURE ALL PAVEMENT SURFACES ARE SMOOTHLY TAPERED AND FLUSH AT CURB RAMPS TO FACILITATE WHEELCHAIR MOVEMENTS.
 7. THICKNESSES OF DRIVE APPROACH AND GUTTER SECTION SHALL BE 6" FOR RESIDENTIAL AND 8" FOR COMMERCIAL DRIVE AND ALLEY APPROACHES THRU THE BACK OF THE SIDEWALK.
 8. NOT FOR USE IN NEW CONSTRUCTION. ONLY TO BE USED WITH PRIOR APPROVAL BY CITY ENGINEER IN RETROFIT CONSTRUCTION.

	CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING		WHEEL CHAIR RAMP MODIFIED "C"		REVISED
					2007
				STANDARD DRAWING NO. 03340-05	

NO.	REVISION	DATE

PREPARED FOR:
CHEYENNE METROPOLITAN ORGANIZATION (MPO)
 2101 ONEIL AVE
 CHEYENNE, WY 82001

PROJECT:
POWDERHOUSE ROAD CORRIDOR STUDY

DRAWING TITLE:
STANDARD DETAILS

307.637.6017
 1103 OLD TOWN LANE, SUITE 101
 CHEYENNE, WY 82009
 AVI@AVIPC.COM

DATE PLOTTED:
 Jun 12, 2023

DRAWN BY: CA

DESIGNED BY: CA

CHECKED BY: TC

JOB NO.: 4642