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100% SUBMITTAL

TABULATION OF LENGTH & DESIGN DATA

STATION	LINEAR FEET	
	ROADWAY	STRUCTURE
CENTRAL MINER STREET LOCAL		
STA. 50+22.75 BEGIN PROJECT STA. 62+06.48 END PROJECT 20TH AVENUE	1183.73	
STA. 10+00.00 BEGIN PROJECT STA. 11+69.70 END PROJECT	169.70	

DESIGN DATA	
CENTRAL MINER STREET	
MAXIMUM DESIGN SPEED	30 M.P.H.
MINIMUM RADIUS OF CURVE	500'
MAXIMUM GRADE	4.88%
MINIMUM S.S.D. HORIZONTAL	> 200'
MINIMUM S.S.D. VERTICAL	> 200'
2014 DESIGN TRAFFIC	ADT= UNKNOWN DHV= UNKNOWN
CLEAR ZONE DISTANCE	14'-16'
SIDE STREETS	
MAXIMUM DESIGN SPEED	10 M.P.H.
MINIMUM RADIUS OF CURVE	50'
MAXIMUM GRADE	11.76%
MINIMUM S.S.D. HORIZONTAL	> 60'
MINIMUM S.S.D. VERTICAL	> 60'
2014 DESIGN TRAFFIC	ADT= UNKNOWN DHV= UNKNOWN

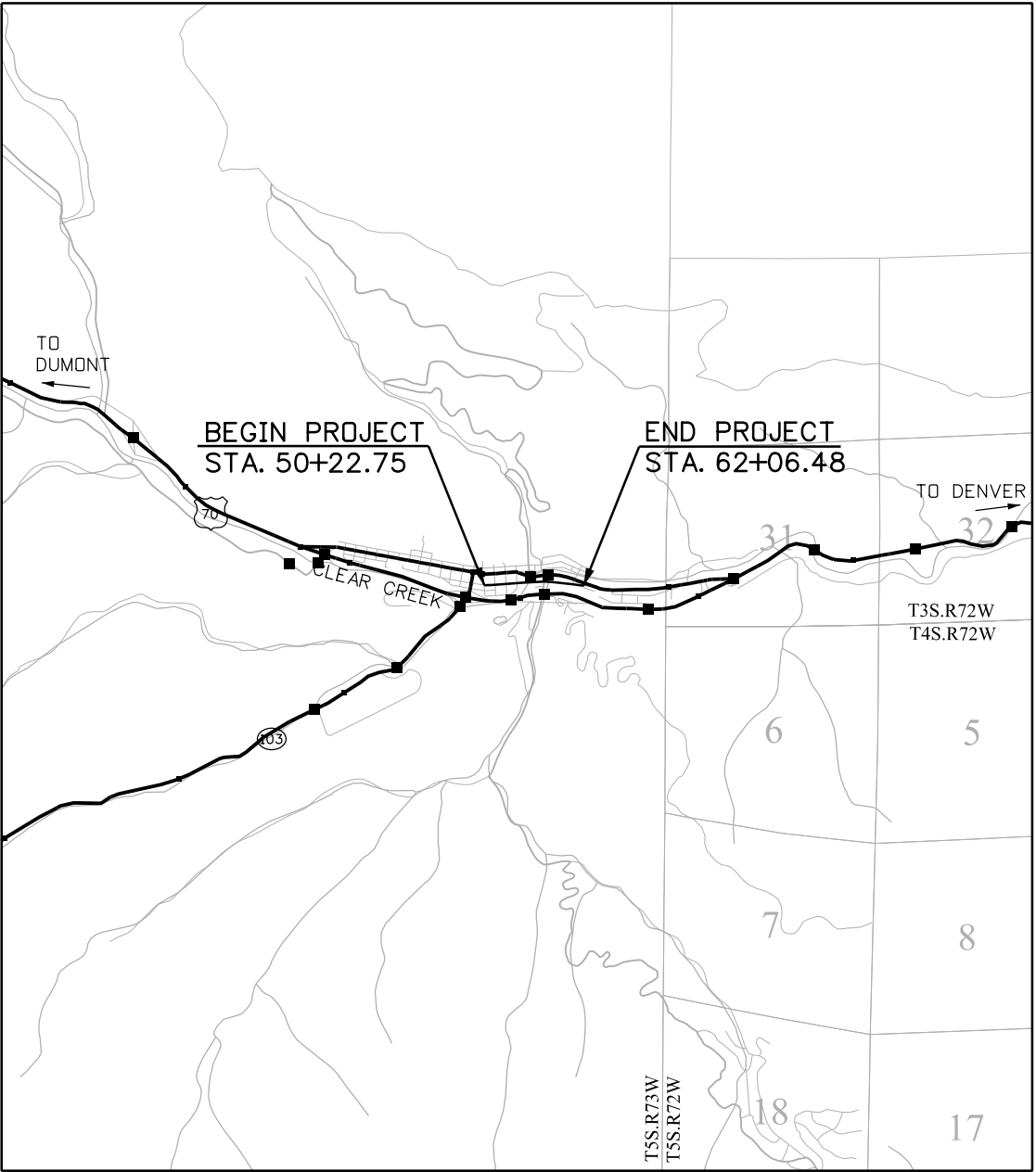
CITY OF IDAHO SPRINGS

CONSTRUCTION BID PLANS OF PROPOSED

CLEAR CREEK COUNTY

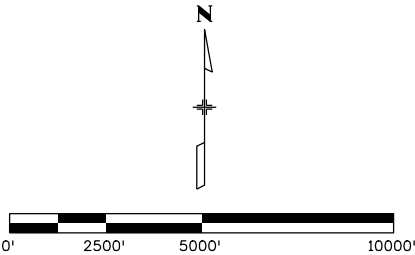
CENTRAL MINER STREET LOCAL

ROADWAY IMPROVEMENTS



PROJECT LOCATION MAP

INDEX OF SHEETS	
SHEET	DESCRIPTION
1	TITLE SHEET
2	STANDARD DRAWINGS LIST
3-4	GENERAL NOTES
5-6	ROADWAY NOTES AND DETAILS
7	SURVEY TABULATION
8-9	SUMMARY OF APPROXIMATE QUANTITIES
10	TABULATION OF EARTHWORK
11	TABULATION OF REMOVALS
12	TABULATION OF SURFACING
13	TABULATION OF PEDESTRAIN RAILING, SIDEWALK, AND CURB & GUTTER
14	HORIZONTAL CONTROL
15-16	TYPICAL SECTIONS
17-21	ROADWAY PLAN AND PROFILES
22	INTERSECTION DETAILS
23-24	REMOVALS
25	BRIDGE GENERAL NOTES
26	BRIDGE GENERAL LAYOUT
27	BRIDGE ABUTMENT DETAILS
28	BRIDGE GIRDER DETAILS
29	BRIDGE HANDRAIL DETAILS
30	TABULATION OF DRAINAGE STRUCTURES
31	DRAINAGE DETAILS
32-35	GRADING & DRAINAGE PLAN & PROFILES
36-40	STORMWATER MANAGEMENT PLAN NOTES
41-42	EROSION CONTROL
43	UTILITY GENERAL NOTES
44	UTILITY LEGEND
45	TABULATION OF UTILITIES
46-51	UTILITY DETAILS
52-54	UTILITY PLAN AND PROFILES
55-56	UTILITY SERVICES
57	TABULATION OF SIGNING
58	TABULATION OF PAVEMENT MARKINGS
59-60	SIGNING & STRIPING PLANS
61	SIGN DETAILS
100-111	CROSS SECTIONS



Print Date: 9/7/2018
File Name: CMINER_GEN_TITLE.dgn
Horiz. Scale: 1:1 Vert. Scale: As Noted

HR 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202
Phone: 303-764-1520 Fax: 303-860-7139

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Sheet Revisions

Date:	Comments	Init.



City of Idaho Springs
Department of Public Works

1711 Miner Street
Idaho Springs, CO 80452
Phone: 303-567-4421 FAX: 303-567-4955

As Constructed

No Revisions:
Revised:
Void:

Contract Information

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

Project No./Code

Sheet Number 1

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PLAN NUMBER	NEW OR REVISED	M STANDARD TITLE	PAGE NUMBER
M-100-1		STANDARD SYMBOLS (3 SHEETS).....	1-3
M-100-2		ACRONYMS AND ABBREVIATIONS (4 SHEETS).....	4-7
M-203-1	<input type="checkbox"/>	APPROACH ROADS (REVISED ON JULY 08, 2013).....	8
M-203-2		DITCH TYPES.....	9
M-203-11		SUPERELEVATION CROWNED AND DIVIDED HIGHWAYS (3 SHEETS).....	10-12
M-203-12		SUPERELEVATION STREETS (2 SHEETS).....	13-14
M-206-1		EXCAVATION AND BACKFILL FOR STRUCTURES (2 SHEETS).....	15-16
M-206-2		EXCAVATION AND BACKFILL FOR BRIDGES (2 SHEETS).....	17-18
M-208-1	<input checked="" type="checkbox"/>	TEMPORARY EROSION CONTROL (11 SHEETS) (REVISED ON AUGUST 10, 2017).....	19-30
M-210-1		MAILBOX SUPPORTS (2 SHEETS).....	31-32
M-214-1		PLANTING DETAILS.....	33
M-216-1	<input checked="" type="checkbox"/>	SOIL RETENTION COVERING (2 SHEETS) (NEW ON JULY 16, 2015).....	
M-412-1	<input checked="" type="checkbox"/>	CONCRETE PAVEMENT JOINTS (5 SHEETS) (REVISED ON JANUARY 18, 2018).....	34-38
M-510-1		STRUCTURAL PLATE PIPE H-20 LOADING.....	39
M-601-1	<input type="checkbox"/>	SINGLE CONCRETE BOX CULVERT (2 SHEETS) (REVISED ON NOVEMBER 25, 2015).....	40-41
M-601-2	<input type="checkbox"/>	DOUBLE CONCRETE BOX CULVERT (2 SHEETS) (REVISED ON NOVEMBER 25, 2015).....	42-43
M-601-3	<input type="checkbox"/>	TRIPLE CONCRETE BOX CULVERT (2 SHEETS) (REVISED ON NOVEMBER 25, 2015).....	44-45
M-601-10		HEADWALL FOR PIPES.....	46
M-601-11		TYPE "S" SADDLE HEADWALLS FOR PIPE.....	47
M-601-12		HEADWALLS AND PIPE OUTLET PAVING.....	48
M-601-20		WINGWALLS FOR PIPE OR BOX CULVERTS.....	49
M-603-1	<input checked="" type="checkbox"/>	METAL PIPE (4 SHEETS). (REVISED ON OCTOBER 02, 2014).....	50-53
M-603-2	<input checked="" type="checkbox"/>	REINFORCED CONCRETE PIPE . (REVISED ON OCTOBER 02, 2014).....	54
M-603-3		PRECAST CONCRETE BOX CULVERT.....	55
M-603-4	<input type="checkbox"/>	CORRUGATED POLYETHYLENE PIPE (AASHTO M294) (REVISED ON OCT. 02, 2014).....	56
M-603-5	<input type="checkbox"/>	POLYVINYL CHLORIDE (PVC) PIPE (AASHTO M304) (REVISED ON OCT. 02, 2014).....	57
M-603-6	<input type="checkbox"/>	STEEL REINFORCED POLYETHYLENE RIBBED PIPE (AASHTO MP 20) (NEW ON APRIL 30, 2015).....	
M-603-10		CONCRETE AND METAL END SECTIONS (2 SHEETS).....	58-59
M-604-10		INLET, TYPE C.....	60
M-604-11		INLET, TYPE D.....	61
M-604-12		CURB INLET TYPE R (2 SHEETS).....	62-63
M-604-13		CONCRETE INLET TYPE 13.....	64
M-604-20		MANHOLES (3 SHEETS).....	65-67
M-604-25		VANE GRATE INLET (5 SHEETS).....	68-72
M-605-1		SUBSURFACE DRAINS.....	73
M-606-1	<input type="checkbox"/>	GUARDRAIL TYPE 3 W-BEAM (20 SHEETS) (REVISED ON OCTOBER 27, 2014).....	74-92
M-606-1	<input checked="" type="checkbox"/>	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES (20 SHEETS) (REVISED ON FEBRUARY 8, 2018).....	
M-606-13	<input type="checkbox"/>	GUARDRAIL TYPE 7 F-SHAPE BARRIER (4 SHEETS).....	93-96
M-606-14		PRECAST TYPE 7 CONCRETE BARRIER (3 SHEETS).....	97-99
M-606-15	<input type="checkbox"/>	GUARDRAIL TYPE 9 SINGLE SLOPE BARRIER (11 SHEETS) (REVISED ON JULY 16, 2018).....	

PLAN NUMBER	NEW OR REVISED	M STANDARD TITLE	PAGE NUMBER
M-607-1		WIRE FENCES AND GATES (3 SHEETS).....	100-102
M-607-2		CHAIN LINK FENCE (3 SHEETS).....	103-105
M-607-3		BARRIER FENCE.....	106
M-607-4	<input type="checkbox"/>	DEER FENCE, GATES, AND GAME RAMPS (5 SHEETS).....	107-109
M-607-10		PICKET SNOW FENCE.....	110
M-607-15		ROAD CLOSURE GATE (9 SHEETS).....	111-119
M-608-1	<input checked="" type="checkbox"/>	CURB RAMPS (10 SHEETS) (REVISED ON FEBRUARY 23, 2017).....	120-125
M-609-1	<input checked="" type="checkbox"/>	CURBS, GUTTERS, AND SIDEWALKS (4 SHEETS) (REVISED ON JULY 24, 2012).....	126-129
M-611-1		CATTLE GUARD (2 SHEETS).....	130-131
M-611-2	<input type="checkbox"/>	DEER GUARD (2 SHEETS) (NEW ON APRIL 30, 2015).....	
M-613-1		ROADWAY LIGHTING (4 SHEETS).....	132-135
M-614-1		RUMBLE STRIPS (3 SHEETS).....	136-138
M-614-2		SAND BARREL ARRAYS (2 SHEETS).....	139-140
M-615-1		EMBANKMENT PROTECTOR TYPE 3.....	141
M-615-2		EMBANKMENT PROTECTOR TYPE 5.....	142
M-616-1		INVERTED SIPHON.....	143
M-620-1		FIELD LABORATORY CLASS 1.....	144
M-620-2		FIELD LABORATORY CLASS 2 (2 SHEETS).....	145-146
M-620-11		FIELD OFFICE CLASS 1.....	147
M-620-12		FIELD OFFICE CLASS 2.....	148
M-629-1		SURVEY MONUMENTS (2 SHEETS).....	149-150

PLAN NUMBER	NEW OR REVISED	S STANDARD TITLE	PAGE NUMBER
S-612-1	<input type="checkbox"/>	DELINEATOR INSTALLATIONS (8 SHEETS) (REVISED ON APRIL 12, 2018).....	151-157
S-614-1	<input checked="" type="checkbox"/>	GROUND SIGN PLACEMENT (2 SHEETS) (REVISED ON DECEMBER 12, 2014).....	158-159
S-614-2	<input checked="" type="checkbox"/>	CLASS I SIGNS (REVISED ON JUNE 24, 2016).....	160
S-614-3		CLASS II SIGNS.....	161
S-614-4	<input type="checkbox"/>	CLASS III SIGNS (3 SHEETS) (REVISED ON DECEMBER 17, 2014).....	162-164
S-614-5	<input checked="" type="checkbox"/>	BREAK-AWAY SIGN SUPPORT DETAILS (REVISED ON FEBRUARY 8, 2017) .	165-166
S-614-6	<input type="checkbox"/>	CONCRETE FOOTINGS AND SIGN ISLANDS.....	167-168
S-614-8	<input type="checkbox"/>	TUBULAR STEEL SIGN SUPPORT DETAILS (7 SHEETS).....	169-173
S-614-9	<input type="checkbox"/>	PEDESTRIAN PUSH BUTTON POST ASSEMBLY (REVISED ON MAY 24, 2016).....	174
S-614-10		MARKER ASSEMBLY INSTALLATIONS.....	175
S-614-11		MILEPOST SIGN DETAIL FOR HIGH SNOW AREAS.....	176
S-614-12	<input type="checkbox"/>	STRUCTURE NUMBER INSTALLATION (2 SHEETS).....	177
S-614-14		FLASHING BEACON AND SIGN INSTALLATIONS (3 SHEETS).....	178-180
S-614-20		TYPICAL POLE MOUNT SIGN INSTALLATIONS.....	181
S-614-21	<input type="checkbox"/>	CONCRETE BARRIER SIGN POST INSTALLATIONS.....	182
S-614-22		TYPICAL MULTI-SIGN INSTALLATIONS.....	183
S-614-40	<input type="checkbox"/>	TYPICAL TRAFFIC SIGNAL INSTALLATION DETAILS.....	184-188
S-614-40A	<input type="checkbox"/>	ALTERNATIVE TRAFFIC SIGNAL INSTALLATION DETAILS.....	189-192
S-614-41	<input type="checkbox"/>	TEMPORARY SPAN WIRE SIGNALS (REVISED ON APRIL 2, 2015).....	193
S-614-42		CABINET FOUNDATION DETAIL (4 SHEETS).....	194-197
S-614-43		TRAFFIC LOOP AND MISCELLANEOUS SIGNAL DETAILS.....	198-207
S-614-44	<input type="checkbox"/>	PEDESTAL POLE SIGNALS (2 SHEETS) (REVISED ON JUNE 17, 2016).....	
S-614-50	<input type="checkbox"/>	STATIC SIGN MONOTUBE STRUCTURES (12 SHEETS).....	208-219
S-614-60	<input type="checkbox"/>	DYNAMIC SIGN MONOTUBE STRUCTURES (14 SHEETS).....	220-233
S-627-1	<input checked="" type="checkbox"/>	PAVEMENT MARKINGS (8 SHEETS) (REVISED ON FEBRUARY 8, 2017).....	234-238
S-630-1	<input type="checkbox"/>	TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION.....	239-258
S-630-2	<input checked="" type="checkbox"/>	BARRICADES, DRUMS, CONCRETE BARRIERS (TEMP).....	259
S-630-3		FLASHING BEACON (PORTABLE) DETAILS.....	260
S-630-4		STEEL SIGN SUPPORT (TEMPORARY) INSTALLATION.....	261-262
S-630-5	<input type="checkbox"/>	PORTABLE RUMBLE STRIPS (TEMPORARY) (2 SHEETS).....	263-264
S-630-6		EMERGENCY PULL-OFF AREA (TEMPORARY).....	265
S-630-7		ROLLING ROADBLOCKS FOR TRAFFIC CONTROL.....	266-268

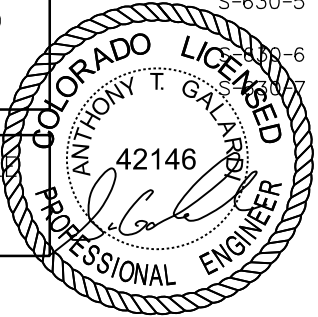
COLORADO
DEPARTMENT OF TRANSPORTATION
M&S STANDARDS PLANS LIST

July 04, 2012

Revised on July 16, 2018

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

NEW OR REVISED STANDARD PLAN SHEETS APPLICABLE TO THIS PROJECT, INDICATED BY A MARKED BOX ☒, WILL BE ATTACHED TO THE PLANS.



Print Date: 9/4/2018		<div><div></div><div></div><div></div><div></div><div></div></div>	Sheet Revisions			<div><div>City of Idaho Springs Department of Public Works</div><div>1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955</div></div>	As Constructed		STANDARD PLANS LIST			Project No./Code	
File Name: CMINER_GEN_M&S.dgn			Date:	Comments	Init.		No Revisions:						
Horiz. Scale: 1:1 Vert. Scale:							Revised:		Designer: M. ASKHAM	Structure Numbers			
							Void:		Detailer: M. ASKHAM				
<div> 1670 BROADWAY, SUITE 3400 Phone: 303-764-1520</div> <div>DENVER, COLORADO 80202 Fax: 303-860-7139</div>							Sheet Subset: STANDARD		Subset Sheets: 1 of 1		Sheet Number 2		

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GENERAL

1.

THE CONTRACTOR SHALL HAVE IN POSSESSION AT THE JOB SITE AT ALL TIMES ONE (1) SIGNED COPY OF APPROVED PLANS, STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN EMERGENCY ACCESS ROUTES TO THE SITE AND STRUCTURE AT ALL TIMES PER THE APPLICABLE CLEAR CREEK FIRE AUTHORITY REQUIREMENTS. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FOR ANY VARIANCE TO THE ABOVE DOCUMENTS. NOTIFY ENGINEER OF ANY CONFLICTING STANDARDS OR SPECIFICATIONS. IN THE EVENT OF ANY CONFLICTING STANDARD OR SPECIFICATION, THE MORE STRINGENT OR HIGHER QUALITY STANDARD, DETAIL OR SPECIFICATION SHALL APPLY.
2.

THE CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL APPLICABLE CODES, LICENSES, STANDARD SPECIFICATIONS, PERMITS, BONDS, ETC., WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK, INCLUDING, BUT NOT LIMITED TO A LOCAL AND STATE GROUNDWATER DISCHARGE AND COLORADO DEPARTMENT OF HEALTH AND ENVIRONMENT (CDPHE) STORMWATER DISCHARGE PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITY.
3.

THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN FOR OWNER AND/OR CITY APPROVAL AND PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FENCING, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR AGREES TO COMPLY WITH THE PROVISIONS OF THE TRAFFIC CONTROL PLAN AND THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," PART VI, FOR CONSTRUCTION SIGNAGE AND TRAFFIC CONTROL. ALL TEMPORARY AND PERMANENT TRAFFIC SIGNS SHALL COMPLY TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH REGARD TO SIGN SHAPE, COLOR, SIZE, LETTERING, ETC. UNLESS OTHERWISE SPECIFIED. IF APPLICABLE, PART NUMBERS ON SIGNAGE DETAILS REFER TO MUTCD SIGN NUMBERS.
4.

ALL SURPLUS MATERIALS, TOOLS, AND TEMPORARY STRUCTURES, FURNISHED BY THE CONTRACTOR, SHALL BE REMOVED FROM THE PROJECT SITE BY THE CONTRACTOR. ALL DEBRIS AND RUBBISH CAUSED BY THE OPERATIONS OF THE CONTRACTOR SHALL BE REMOVED, AND THE AREA OCCUPIED DURING CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL CONDITION, WITHIN 48 HOURS OF PROJECT COMPLETION, UNLESS OTHERWISE DIRECTED BY THE MUNICIPALITY OR OWNER'S REPRESENTATIVE.
5.

BENCHMARK INFORMATION: TOPOGRAPHIC INFORMATION WAS PROVIDED BY CLEAR CREEK SURVEYING. SEE "LAND SURVEY PLAT OF THE SODA CREEK ROAD RIGHT OF WAY" DATED 03/09/2017. PROJECT BENCHMARK ELEVATION: 7560.61 AT THE 3 1/4" BRASS CAP IN CONCRETE CDOT ROW MARKER, DATUM PER SURVEY. COORDINATE AND VERIFY ALL VERTICAL AND HORIZONTAL DATA SHOWN IN SURVEY AND REPORT ANY IRREGULARITIES OR DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION.
6.

HORIZONTAL CONTROL INFORMATION: HORIZONTAL CONTROL COORDINATES ARE BASED ON THE REFERENCED SURVEY AND ARE PROVIDED BY THE FOLLOWING POINTS AS SHOWN ON THE PLAN AND PROFILE SHEETS:

CP-01

N1695239.68, E2996416.48, NO 5 REBAR W/ 1 1/4" RED PLASTIC CAP, LS25363

CP-02

N1695187.89, E2996540.69, NO 5 REBAR W/ 1 1/4" GREEN PLASTIC CAP, LS25373

CP-03

N1695189.83, E2996730.08, 2" ALUMINUM TAG W/ NAIL, GREG MARKLE LS25373

CP-04

N1695178.78, E2996727.24, 2" ALUMINUM TAG W/ NAIL, GREG MARKLE LS25373

CP-05

N1695187.88, E2997176.66, NO 5 REBAR W/ 1 1/4" RED PLASTIC CAP, LS25353
7.

THE CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD A COMPLETE SET OF CONSTRUCTION RECORD DRAWINGS ("AS-BUILTS") IN BOTH HARD COPY AND DIGITAL FORMAT OF CHOOSING BY THE CITY OF IDAHO SPRINGS, FOR THE CONSTRUCTED IMPROVEMENTS AND GIS LOCATED UTILITIES. THE PLANS SHALL SHOW SUFFICIENT DIMENSION TIES TO PERMANENT SURFACE FEATURES FOR ALL BURIED FACILITIES TO ALLOW FOR FUTURE LOCATING. THE PLANS SHALL SHOW FINAL PAVEMENT, FLOW LINE ELEVATIONS, CONTOURS AT POND/DRAINAGE FEATURES (AS SURVEYED AND CERTIFIED BY A COLORADO P.L.S.), MANHOLE, PIPE, AND INLET LOCATIONS, INVERTS, GRATE ELEVATIONS, SIZES OF ALL UTILITIES, AND ANY VARIATIONS FROM THE APPROVED PLAN. ENGINEER WILL PRODUCE FINAL RECORD DRAWINGS.

PAVEMENT/RESURFACING

1.

FOR FINAL PLAN QUANTITIES OF PAVEMENT MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:

AGGREGATE BASE COURSE CLASS 6@ 133 LBS/CF

HOT MIX ASPHALT@ 110 LBS/SY-IN

DILUTED EMULSIFIED ASPHALT (SLOW-SETTING).....@ 0.10 GAL/SY
2.

A TACK COAT OF DILUTED EMULSIFIED ASPHALT (SLOW-SETTING) IS TO BE APPLIED TO THE EXISTING SURFACE PRIOR TO PAVING. DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF 1 PART EMULSIFIED ASPHALT AND 1 PART WATER.
3.

THE FOLLOWING SHALL BE FURNISHED WITH EACH HOT MIX ASPHALT PAVER AND SHALL BE INCLUDED IN THE COST OF THE WORK:

1.

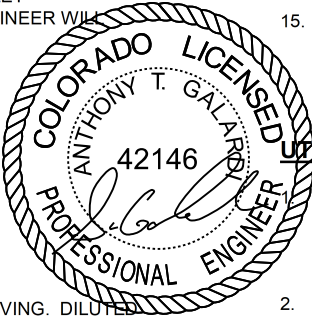
A SKI TYPE DEVICE AT LEAST 30 FEET IN LENGTH.

2.

SHORT SKI OR SHOE.

3.

5,000 FEET OF CONTROL LINE AND STAKES.



UTILITIES

4.

LONGITUDINAL JOINT WORK SHALL BE INSPECTED AFTER 300 FEET OF JOINT WORK IS COMPLETED. CONTINUAL PAVING OR REQUIRED MODIFICATION SHALL BE DETERMINED BY THE ENGINEER AT THAT TIME. ITEMS OF CONCERN ARE DENSITY, VERTICAL GRADE, AND ALIGNMENT OF THE LANE LINES AND CENTERLINES.
5.

ANY LAYER OF ASPHALT PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE THE SUCCEEDING LAYER IS PLACED.
6.

HMA JOINTS SHALL BE LOCATED ON JUST LEFT OF CENTER, SHOULDER, OR MEDIAN LINES EXCEPT WHERE STATED IN PLANS.
7.

WHERE IT IS REQUIRED TO CUT EXISTING ASPHALT (SUCH AS FOR ASPHALT PATCHING), THE CUTTING SHALL BE DONE FULL DEPTH TO A NEAT WORK LINE WITH A SAW AS APPROVED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE WORK.
8.

COMPACTION SHALL BE PER REVISION OF SECTIONS 203, 206, 304 AND 613 – COMPACTION. OR PER THE ENGINEER. MOISTURE DENSITY CONTROL FOR THIS PROJECT SHALL BE FULL DEPTH FOR ALL EMBANKMENTS AND 6 INCHES IN BASES OF CUT AND FILLS.
9.

TYPE OF COMPACTION FOR ABC CLASS 6 WILL BE AASHTO T-180. THE TYPE OF COMPACTION FOR ROADWAY EMBANKMENT AND THE REMAINDER OF THE PROJECT IS AASHTO T-99.
10.

TO PROVIDE FOR ADEQUATE SULFATE RESISTANCE IN ALL CONCRETE SUPPLIED, SEVERITY OF POTENTIAL EXPOSURE SHALL BE CLASS 1 FOR THIS PROJECT. THE CONTRACTOR MAY AT HIS OWN EXPENSE HAVE A CERTIFIED LABORATORY TEST THE SUB GRADE AS PER THE FIELD MATERIALS MANUAL. TESTING SHALL BE AT THE SAME SCHEDULE AND FREQUENCY AS REQUIRED FOR THE PRELIMINARY SOIL SURVEY. THE CONTRACTOR MAY PROPOSE A DIFFERENT CLASS OF EXPOSURE FOR THE PROJECT BASED ON THOSE TEST RESULTS.
11.

ALL MATERIAL, EQUIPMENT, INSTALLATION AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION CDOT STANDARD PLANS (M&S STANDARDS), FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS AND THE COLORADO SUPPLEMENT THERETO.
12.

THE EXISTING AND PROPOSED ELEVATIONS OF FLATWORK, SIDEWALKS, CURBS, PAVING, ETC. AS SHOWN HEREON ARE BASED ON EXTRAPOLATION OF FIELD SURVEY DATA AND EXISTING CONDITIONS. AT CRITICAL AREAS AND SITE FEATURES, CONTRACTOR SHALL HAVE FORMWORK INSPECTED AND APPROVED BY OWNER, OWNER'S REPRESENTATIVE, OR ENGINEER PRIOR TO PLACING CONCRETE. MINOR ADJUSTMENTS, AS APPROVED, TO PROPOSED GRADES, INVERTS, ETC. MAY BE REQUIRED TO PREVENT PONDING OR SLOPE NOT IN CONFORMANCE WITH MUNICIPAL STANDARDS. ALL FLATWORK MUST PREVENT PONDING AND PROVIDE POSITIVE DRAINAGE AWAY FROM EXISTING AND PROPOSED BUILDINGS, WALLS, ROOF DRAIN OUTFALLS, ACROSS DRIVES AND WALKS, ETC., TOWARDS THE PROPOSED INTENDED DRAINAGE FEATURES AND CONVEYANCES.
13.

THE RATIO AND PERCENTAGE SLOPES SHOWN ON CONCRETE CURB RAMP AND SIDEWALK DETAILS INCLUDED IN THE PLANS AND IN CDOT M&S STANDARDS GREATER THAN 2% (THAT IS SLOPES LISTED AS 5%, 8.3%, 10:1, AND 20:1), ARE THE MAXIMUM SLOPES ALLOWED TO SATISFY AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSIDER EXISTING TERRAIN WHEN ESTABLISHING THE REMOVAL AND REPLACEMENT LIMITS NECESSARY TO MEET THESE REQUIREMENTS. ANY COMPLETED RAMP AREAS EXCEEDING SLOPE REQUIREMENTS, WHEN CHECKED WITH A PROPERLY CALIBRATED SMART LEVEL, SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS OWN EXPENSE AS DIRECTED BY THE ENGINEER. THE AREAS SLOPED AT 2% ARE TO PROVIDE PROPER DRAINAGE AND ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. CURB RAMPS SHALL PROVIDE A LANDING AT THE TOP AND RAMP RUNS PROVIDE LANDINGS AT THE BOTTOM AND TOP OF EACH RAMP RUN AT A SLOPE NOT TO EXCEED 2%. RAMP RUNS EXCEEDING SIX INCHES SHALL INCLUDE HANDRAILS. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2% IN ALL DIRECTIONS. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO PLACEMENT OF FLATWORK OF SITE CONDITIONS OR DISCREPANCIES WHICH PREVENT TYPICAL REQUIRED GRADES FROM BEING ACHIEVED. ALL RAMPS, STAIRS, EDGE PROTECTION, AND RAILINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT ADA STANDARDS. ACCESSIBLE CURB RAMPS SHALL CONFORM TO THE CDOT M-STANDARDS (SEE DETAIL M-608-1, ETC).
14.

NO SUBSURFACE INVESTIGATION WAS CONDUCTED DURING DESIGN. IF UNSUITABLE MATERIAL, HAZARDS, OR GROUNDWATER IS ENCOUNTERED CONTACT THE ENGINEER IMMEDIATELY.
15.

FINAL LIMITS OF REQUIRED ASPHALT SAWCUTTING AND PATCHING MAY VARY FROM LIMITS SHOWN ON PLANS. CONTRACTOR TO PROVIDE SAWCUT AND PATCH WORK TO ACHIEVE POSITIVE DRAINAGE AND A SMOOTH TRANSITION TO EXISTING ASPHALT WITHIN SLOPES ACCEPTABLE TO THE ENGINEER AND WITHIN MUNICIPAL STANDARDS. CONTRACTOR SHALL PROVIDE ADDITIONAL SAWCUTTING AND PATCHING AT UTILITY WORK, CONNECTION POINTS TO EXISTING PAVEMENT AND FEATURES, ETC. THAT MAY NOT BE DELINEATED ON PLANS.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO SUBSECTION 105.11 OF THE STANDARD SPECIFICATIONS AND THE UTILITY PROJECT SPECIAL PROVISIONS CONCERNING UTILITIES. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH UTILITY OWNERS IN THEIR REMOVAL, ADJUSTMENT, AND/OR RELOCATION OPERATIONS SO THAT THE UTILITY WORK CAN BE ACCOMPLISHED WITHOUT IMPACTING THE CONSTRUCTION SCHEDULE.
2.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY REPRESENTATIVES TO BE ONSITE DURING POTHOLING. IT IS ESTIMATED THAT THERE SHALL BE 60 HOURS OF POTHOLING (203). THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL REFER TO THE UTILITY SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3.

UTILITY LINES SHOWN ON THE PLANS ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALL FOR UTILITY LOCATES.

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File Name: CMINER_GEN_Notes-01.dgn			Date:	Comments	Init.		1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955		No Revisions:						
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<div><div>HDR</div><div>1670 BROADWAY, SUITE 3400 Phone: 303-764-1520</div><div>DENVER, COLORADO 80202 Fax: 303-860-7139</div></div>									Void:		Detailer: M. ASKHAM				
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UTILITIES (CONTINUED)

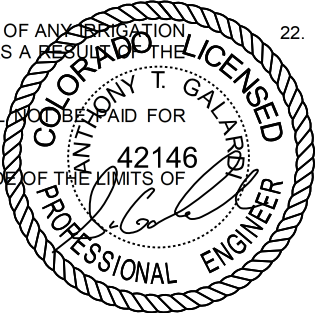
1. THE CONTRACTOR SHALL COMPLY WITH ARTICLE 1.5 OF TITLE 9, CRS ("EXCAVATION REQUIREMENTS") WHEN EXCAVATING OR GRADING IS PLANNED IN THE AREA OF UNDERGROUND UTILITY FACILITIES. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITIES AT LEAST TWO (2) BUSINESS DAYS, NOT INCLUDING THE ACTUAL DAY OF NOTICE, PRIOR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

QUANTITIES/MISCELLANEOUS

1. NO CONSTRUCTION VEHICLES SHALL BE PARKED IN THE TRAVELED WAY AT ANY TIME WITHOUT APPROPRIATE CONSTRUCTION TRAFFIC CONTROL. ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL BE MOVEABLE UNLESS DIRECTED BY THE ENGINEER. ALL SUCH DEVICES SHALL BE REMOVED BY THE CONTRACTOR FROM THE WORK SITE AT THE END OF EACH WORKDAY.
2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO BUSINESS/RESIDENTIAL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE PROJECT.
3. THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT, SHALL REPLACE SIGNS, DELINEATORS, AND/OR ANY OTHER STRUCTURE OR MARKERS DAMAGED BY THE WORK.
4. THE CONTRACTOR SHALL CLEAR AND SWEEP THE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE WORK.
5. ANY LANDSCAPED, IRRIGATED, OR PAVED AREAS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE PROJECT.
6. THE CONTRACTOR SHALL MASK ALL SIGNS CONFLICTING WITH CONSTRUCTION SIGNING. THE MASKING OF SIGNS WILL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE WORK.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR ALL APPLICABLE AGENCIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AT NO ADDITIONAL COST TO THE PROJECT.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY. REFER TO OSHA PUBLICATION 2226, EXCAVATING AND TRENCHING.
9. ALL REMOVED ITEMS BECOME THE PROPERTY OF THE CONTRACTOR TO BE DISPOSED OF OFF-SITE UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER.
10. THE CONTRACTOR SHALL CONFORM TO THE BUY AMERICA REQUIREMENT AS DETAILED IN SECTION 106.11 OF THE STANDARD SPECIFICATIONS.
11. THIS PROJECT IS CLASSIFIED AS NON-SIGNIFICANT. THE TMP SHALL CONSIST OF A TCP.

ENVIRONMENTAL/EROSION & CULVERTS

1. THE CONTRACTOR SHALL PERFORM ALL WORK IN SUCH A MANNER THAT THE LEAST ENVIRONMENTAL DAMAGE WILL RESULT. ANY QUESTIONABLE AREAS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR APPROVAL PRIOR TO WORK COMMENCING.
2. CONSTRUCTION STAGING AND MATERIALS STOCKPILING WILL BE LOCATED GREATER THAN 50 FEET FROM THE EDGE OF WETLANDS OR THE EDGE OF OTHER WATERS OF THE U.S., WHEN POSSIBLE, TO AVOID DISTURBANCE OF VEGETATION AND TO PREVENT POLLUTANT DISCHARGES INTO SENSITIVE HABITATS. IF THIS BUFFER IS NOT ACHIEVABLE, THE ENGINEER WILL CONSIDER THE PLACEMENT OF MATERIALS CLOSER TO THE EDGE OF WETLANDS OR THE EDGE OF WATER AND IDENTIFY APPROPRIATE ADDITIONAL BEST MANAGEMENT PRACTICES (BMPS) THAT WOULD BE REQUIRED TO MINIMIZE POTENTIAL IMPACTS.
3. THE CONTRACTOR WILL TAKE PRECAUTIONS TO MINIMIZE WILD FIRE HAZARDS AND FOLLOW ALL REQUIRED ORDINANCES.
4. WATER SHALL BE USED AS A DUST PALLATIVE WHERE REQUIRED OR AS DIRECTED BY THE ENGINEER. MAGNESIUM CHLORIDE SHALL BE USED AS DIRECTED BY THE ENGINEER. WATER AS A DUST PALLATIVE SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE WORK. CONTRACTOR SHALL FOLLOW SECTION 209 OF THE STANDARD SPECIFICATIONS AND OPEN TERMS AND CONDITIONS FOR ALL WATERING AND DUST PALLIATIVE PRACTICES.
5. SEE STORMWATER MANAGEMENT PLANS, STANDARD SPECIFICATIONS, AND PROJECT SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION REGARDING EROSION CONTROL REQUIREMENTS FOR THIS PROJECT, INCLUDING QUANTITIES.
6. THE CONTRACTOR SHALL PREVENT TOOLS, CONCRETE, DIRT AND DEBRIS OF ANY KIND FROM FALLING INTO THE CHANNEL OF ANY DRAINAGE DITCH OR STREAM. THE CONTRACTOR SHALL CLEAN OR REMOVE FROM THE CHANNEL ALL SUCH ITEMS THAT ENTER IT AS A RESULT OF THE CONTRACTOR'S OPERATIONS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DIVERTING STORM WATER DURING CONSTRUCTION. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK.
8. ALL WORK SHALL BE PERFORMED WITHIN THE ROW OR TWP. THE INSTALLATION OF A HAUL ROAD OR OTHER WORK OUTSIDE OF THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS IS NOT ALLOWED, UNLESS DIRECTED BY THE ENGINEER.
9. IF REMAINS OF PREHISTORIC OR HISTORIC STRUCTURES, PREHISTORIC OR HISTORIC ARTIFACTS ARE DISCOVERED, CONTRACTOR SHALL FOLLOW STANDARD SPECIFICATION, SECTION 107.23 AND IMMEDIATELY CONTACT HDR STAFF SANDY BEAZLEY AT SANDY.BEAZLEY@HDRINC.COM OR 303.318.6343.



10. EROSION & SEDIMENT CONTROL: EROSION/SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED BEFORE REMOVALS, CONSTRUCTION, GRADING AND MILLING OPERATIONS BEGIN. ALL EROSION/SEDIMENT CONTROL BMPS SHALL BE PLACED CONTINUALLY AND REPLACED AS NECESSARY ACCORDING TO THE CONSTRUCTION PHASING AND AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS REQUIRED TO PROVIDE AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE LOCAL JURISDICTION, THE STATE OF COLORADO, URBAN DRAINAGE AND FLOOD CONTROL DISTRICT "URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3", THE M-STANDARD PLANS OF THE COLORADO DEPARTMENT OF TRANSPORTATION, AND THE APPROVED EROSION CONTROL PLAN. JURISDICTIONAL AUTHORITY MAY REQUIRE THE CONTRACTOR TO PROVIDE ADDITIONAL EROSION CONTROL MEASURES AT THE CONTRACTOR'S EXPENSE DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE PLANS DO NOT FUNCTION AS INTENDED. THE CONTRACTOR IS RESPONSIBLE FOR PROHIBITING SILT AND DEBRIS LADEN RUNOFF FROM LEAVING THE SITE, AND FOR KEEPING ALL PUBLIC AREAS FREE OF MUD AND DEBRIS. THE CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING FINAL GRADES AND FOR REMOVING ACCUMULATED SEDIMENTATION FROM ALL AREAS INCLUDING SWALES AND DETENTION/WATER QUALITY AREAS. CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL MEASURES AND REPAIR AREAS AS REQUIRED AFTER VEGETATION IS ESTABLISHED AND ACCEPTED BY OWNER AND MUNICIPALITY.
11. BMPS PROTECTIONS SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETE. ALL EROSION/SEDIMENT CONTROL AND STORMWATER RESPONSIBILITIES STATED IN THE STORMWATER MANAGEMENT PLAN AND 2011 CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTIONS 101, 107, AND 208 SHALL BE FOLLOWED OR AMENDED.
12. THE CONTRACTOR OR CONTRACTOR'S ECS SHALL PROVIDE ADEQUATE EROSION CONTROL FEATURES FOR EACH PHASING PLAN AND COORDINATE THE PLACEMENT OF ALL EROSION/SEDIMENT CONTROL FEATURES (BMPS) FOR EACH PHASING PLAN. THESE BMPS SHALL BE IN PLACE PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES IN THAT PHASE AND APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL BMPS THAT HAVE BEEN INSTALLED.
13. SAW RESIDUE: THE DISCHARGE OF ANY WATER CONTAMINATED BY WASTE PRODUCTS FROM CUTTING OR SAND BLASTING OPERATIONS TO THE WATERS OF THE STATE, THROUGH INLETS, STORM DRAINS, VEGETATIVE SWALES, RIVERS, STREAMS, ETC IS PROHIBITED. THE CONTRACTOR SHALL PROTECT ALL FACILITIES ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATIONS INVOLVING WHEEL CUTTING, SAW CUTTING, SAND BLASTING OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTAINMENT, REMOVAL AND PROPER DISPOSAL OF ALL WATER, SAW RESIDUE OR SAND PRODUCTS GENERATED BY SAID CUTTING OR SAND BLASTING OPERATIONS ON A DAILY BASIS FOLLOWING M-208-1 TEMPORARY EROSION CONTROL MEASURES. CONTAINMENT AND DISPOSAL SHALL BE INCLUDED IN THE COST OF THE WORK. SAW CUTTING SHALL BE DONE IN ACCORDANCE WITH STANDARD SPECIFICATIONS 2011, SUBSECTION 107.25, 208.04, 208.05.
14. STOCK PILES: STOCKPILE AREAS SHALL BE DESIGNATED BY THE ECS AND APPROVED BY THE ENGINEER. BMP PROTECTION SHALL BE PLACED AT THE TOE OF ALL STOCKPILES. BMP PROTECTION FOR STOCKPILES SHALL BE INCLUDED IN THE COST OF THE WORK.
15. PROTECTION OF AREA/LIMITS OF DISTURBANCE: THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPES AS SHOWN ON THE PLANS AND CROSS SECTIONS OR PAVED SURFACE. ANY DISTURBANCES BEYOND THESE LIMITS SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONSTRUCTION ACTIVITIES IN ADDITION TO NORMAL CONSTRUCTION PROCEDURE SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER, AND ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS. ANY OFF ROAD STAGING AREAS MUST BE PRE-APPROVED BY THE ENGINEER.
16. PROTECT ALL TREES AND VEGETATION. PLACE CONSTRUCTION FENCING AT DRIP LINE OF TREES AND PLANTS NEAR THE WORK ZONE. DEEP WATER TREES WEEKLY. HAND EXCAVATION REQUIRED AT ROOT ZONES WHERE PROPOSED PAVING OR UTILITY WORK IS WITHIN DRIPLINE OF TREES.
17. ALL EQUIPMENT AND VEHICLES SHALL STAY ON THE PAVED SURFACES OR SHOULDERS UNLESS APPROVED BY THE ENGINEER OR NOTED IN THE PLANS.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PRESENT CONDITION OF ANY EXISTING BUILDINGS, LANDSCAPING, IRRIGATION, WATER SERVICES, FENCING, EQUIPMENT, WALKS, DRIVES, AND ATTACHMENTS. IF ANY DAMAGE OCCURS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE DAMAGE TO A BETTER OR NEW CONDITION AT NO ADDITIONAL COST TO THE PROJECT.
19. ALL HERBICIDE TREATMENT SHALL BE PERFORMED BY A LICENSED HERBICIDE APPLICATOR, USING HERBICIDES THAT ARE PERMITTED FOR APPLICATION ADJACENT TO WATERWAYS, AND SHALL BE INCLUDED IN THE COST OF THE WORK.
20. CONTRACTOR SHALL USE THE CLEANEST FUELS AVAILABLE AT THE TIME IN CONSTRUCTION EQUIPMENT AND VEHICLES TO REDUCE EXHAUST EMISSIONS AND KEEP CONSTRUCTION EQUIPMENT WELL MAINTAINED TO ENSURE THAT EXHAUST SYSTEMS ARE IN GOOD WORKING ORDER.
21. REFUEL EQUIPMENT WITHIN DESIGNATED REFUELING CONTAINMENT AREAS AWAY FROM THE ORDINARY HIGH WATER MARK AND WETLANDS.
22. THE CONTRACTOR IS REQUIRED TO PROVIDE AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE LOCAL JURISDICTION, THE STATE OF COLORADO, URBAN DRAINAGE AND FLOOD CONTROL DISTRICT "URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3", THE M-STANDARD PLANS OF THE COLORADO DEPARTMENT OF TRANSPORTATION, AND THE APPROVED EROSION CONTROL PLAN. JURISDICTIONAL AUTHORITY MAY REQUIRE THE CONTRACTOR TO PROVIDE ADDITIONAL EROSION CONTROL MEASURES AT THE CONTRACTOR'S EXPENSE DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE PLANS DO NOT FUNCTION AS INTENDED. THE CONTRACTOR IS RESPONSIBLE FOR PROHIBITING SILT AND DEBRIS LADEN RUNOFF FROM LEAVING THE SITE, AND FOR KEEPING ALL PUBLIC AREAS FREE OF MUD AND DEBRIS. THE CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING FINAL GRADES AND FOR REMOVING ACCUMULATED SEDIMENTATION FROM ALL AREAS INCLUDING SWALES AND DETENTION/WATER QUALITY AREAS. CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL MEASURES AND REPAIR AREAS AS REQUIRED AFTER VEGETATION IS ESTABLISHED AND ACCEPTED BY OWNER AND MUNICIPALITY.

Print Date: 9/4/2018

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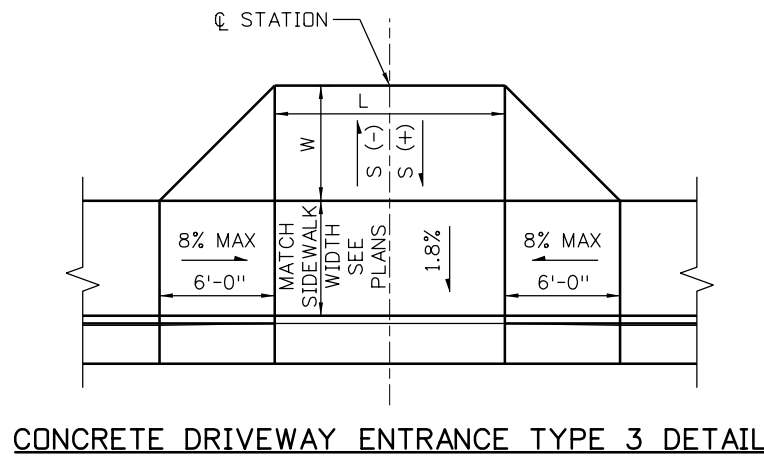
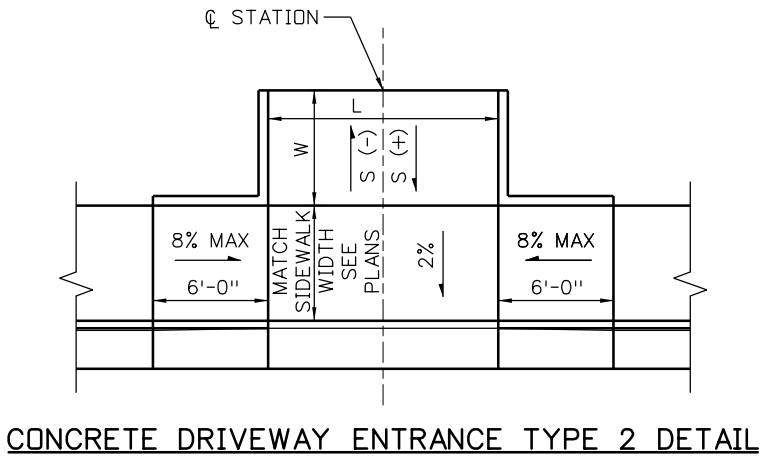
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City of Idaho Springs
Department of Public Works

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Idaho Springs, CO 80452
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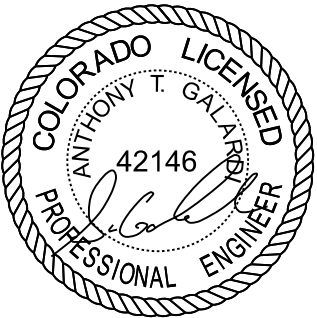
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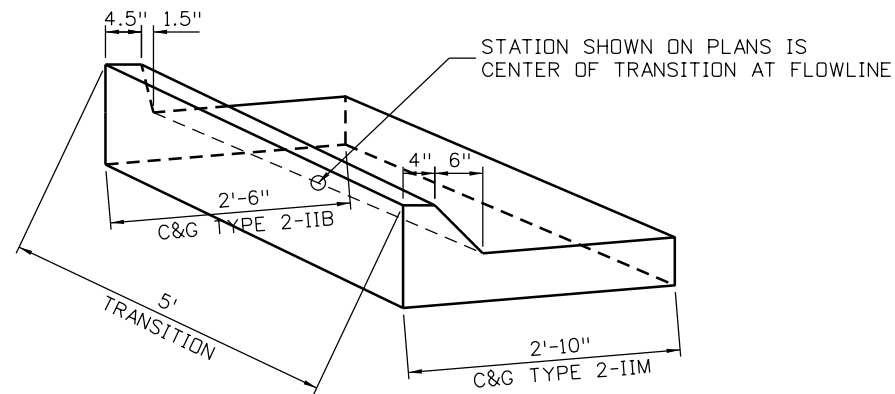


ROADWAY NOTES:

1. SEE SIDEWALK PLAN AND PROFILE SHEETS FOR SIDEWALK BUILD DATA.
2. SEE CURB RAMP DETAILS FOR ALL CURB RAMP ELEVATIONS.
3. SEE INTERSECTION DETAILS FOR CURB RETURN BUILD DATA.
4. ALL DRIVEWAYS ARE CDOT TYPES. SEE DETAILS THIS SHEET.
5. WHERE PAVEMENT IS REMOVED AND NOT REPLACED, CONTRACTOR TO APPLY 4" OF TOP SOIL AND FINISH AT A SMOOTH GRADE OF LESS THAN 4:1 OR 4" CONCRETE AS DIRECTED BY THE ENGINEER.
6. CURB TYPE TRANSITIONS NOTED IN PLANS SHALL BE CONSTRUCTED PER DETAIL ON ROADWAY DETAILS SHEET 2.
7. EDGES OF SIDEWALK ARE DESIGNED TO GRADE INTO EXISTING GROUND AT A CROSS SLOPE OF 2.0%. 4" CONCRETE IS REQUIRED TO COMPLETE THESE SLOPES WHERE SIDEWALK ABUTS EXISTING ASPHALT OR BUILDING FACE. CONTRACTOR TO PATCH SLOPES AT 4:1 OR LESS. SEE DETAIL ON ROADWAY DETAILS SHEET 2.
8. IF CONTROL MONUMENTS ARE DISTURBED OR DAMAGED DURING CONSTRUCTION, CONTRACTOR WILL RESET MONUMENTS IN ACCORDANCE WITH SPECIFICATION 625.
9. THE FOLLOWING PAY ITEMS SHALL BE INCLUDED IN THIS PLAN SET AND ARE NOT SPECIFIED IN TABULATIONS:
 - A. CONSTRUCTION SURVEYING, LUMP SUM, SHALL BE INCLUDED FOR THE USE OF THE CONTRACTOR BY CDOT SPECIFICATION. ANY ADDITIONAL HOURS NEEDED FOR SURVEYING BEYOND THE SPECIFICATION WILL BE INCLUDED IN THE PAY ITEM CONSTRUCTION SURVEYING, HOUR.
 - B. PUBLIC INFORMATION SERVICES WILL BE MEASURED AND PAID FOR IN ACCORDANCE TO SECTION 626.

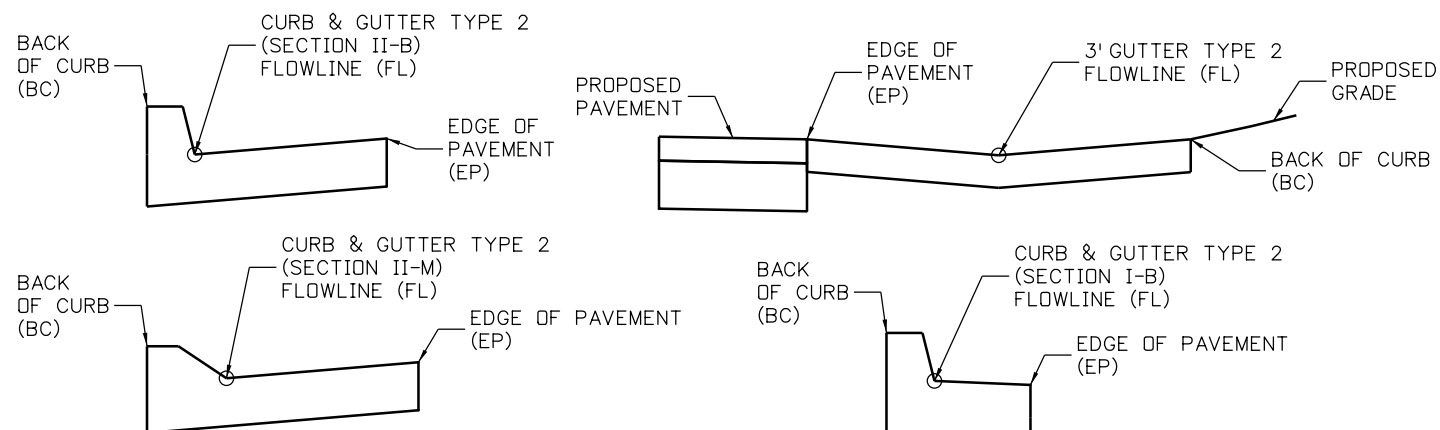


Print Date: 9/4/2018		<div>0000</div>	Sheet Revisions			<div><div>City of Idaho Springs Department of Public Works 1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955</div></div>	As Constructed		ROADWAY NOTES AND DETAILS			Project No./Code	
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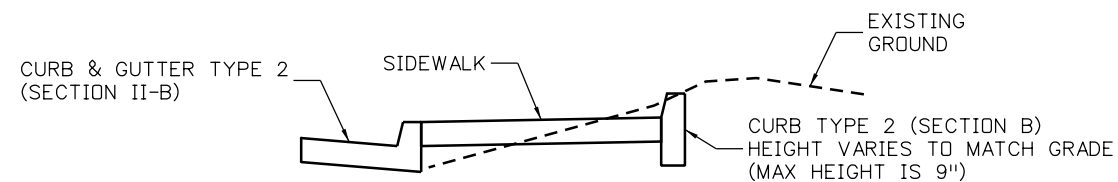


CURB TYPE TRANSITION DETAIL

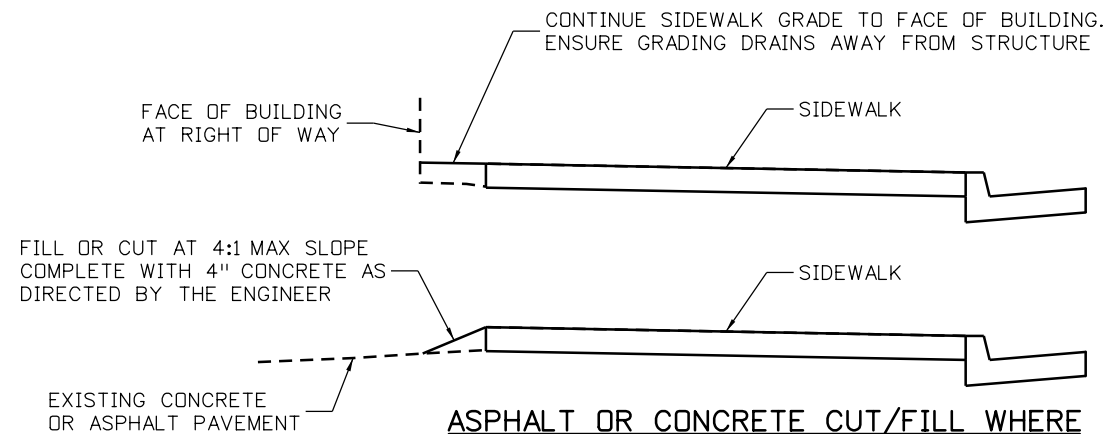
EDGE OF PAVEMENT AND FLOWLINE TO REMAIN CONSTANT OFFSET.
CURB & GUTTER TYPE 2 (SECTION II-B) TO TYPE 2 (SECTION II-M) SHOWN. OTHER TRANSITIONS SIMILAR.
THE TRANSITION WILL NOT BE MEASURED AND PAID FOR SEPARATELY,
BUT SHALL BE INCLUDED IN THE COST OF CURB AND GUTTER TYPE 2 (SECTION II-B).



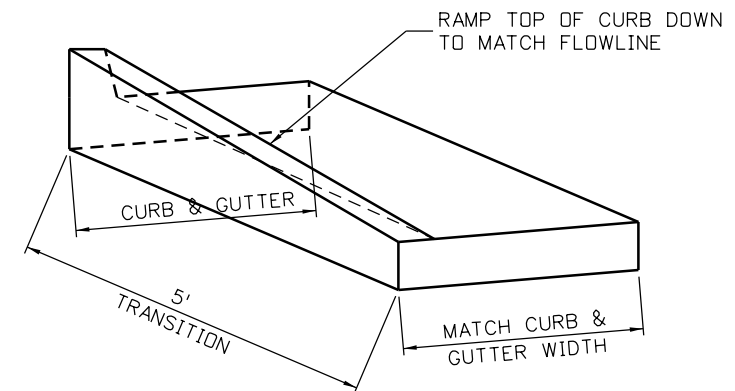
CURB AND GUTTER FLOWLINE CALLOUT DETAIL CURB HEIGHT EQUALS 6" UNLESS NOTED ON PLANS



BARRIER CURB AT BACK OF SIDEWALK

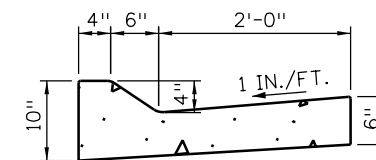


ASPHALT OR CONCRETE CUT/FILL WHERE TIES INTO EXISTING PAVEMENT OR BUILDING FACE



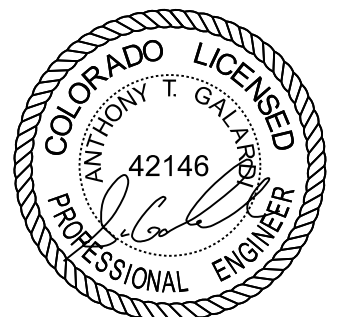
CURB AND GUTTER ENDING TRANSITION

THE TRANSITION WILL NOT BE MEASURED AND PAID FOR SEPARATELY,
BUT SHALL BE INCLUDED IN THE COST OF CURB AND GUTTER TYPE 2 (SECTION II-B).



CURB AND GUTTER TYPE 2 (SECTION II-M)

(4 IN. MOUNTABLE - 2 FT. GUTTER)



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TO ESTABLISH GEOMETRIC CONTROL FOR THE CONSTRUCTION OF THIS PROJECT, THE DEPARTMENT HAS PROVIDED THE FOLLOWING INFORMATION:

☐ Horizontal Control

☐ Vertical Control

☐ Roadway Alignment

☐ Original Terrain Data

☐ Other: _____

Format *

Plan Sheet

Plan Sheet

Plan Sheet

* Specify the information format, ie., plan sheet, computer disk, computer printout, or other. The information marked is either contained on the plans or is available from the Engineer.

TYPE OF PROJECT

☐ Landscaping

☐ Signalization

☐ Safety Improvement

☒ Asphalt Overlay

☒ Concrete Overlay

☐ Minor Widening

☒ Major Reconstruction

☐ New Roadway Construction

☐ Bridge Replacement

☐ Bridge Widening

☐ New Bridge

☐ Other: _____

SURVEY WORK TO BE PERFORMED BY OTHERS: _____

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 625:

☐ Establish and Maintain Project Centerline or Engineer Approved Offset Line(s)

☐ Verification and Maintenance of Horizontal and Vertical Control

☐ Verify or Determine existing grades and alignments

☐ Verify or Determine existing topography

☐ GPS/RTS (Global Positioning System/Robotic Total Station) Construction Machine Control

☐ Clearing and Grubbing Limits (Section 201)

☐ Removal Limits (Section 202)

☐ Reset Items (Section 210)

☐ Excavation and Embankment (Section 203)

☐ Excavation

☐ Unclassified

☐ Stripping

☐ Muck

☐ Rock

☐ Borrow

☐ Other: _____

☐ Embankment

☐ Site Grading

☐ Erosion Control (Perm)

☐ Other: _____

☐ As Staked Earthwork Quantities

(See General Notes)

☐ Landscaping

☐ Top Soil (Section 207)

☐ Seeding (Section 212)

☐ Mulching (Section 213)

☐ Planting (Section 214)

☐ Herbicide (Section 217)

☐ Other: _____

☐ Erosion Control (Section 208)

☐ Seeding (Temp)

☐ Silt Fence

☐ Erosion Bales

☐ Erosion Logs

☐ Riprap (Temp)

☐ Other: _____

☐ Landscaping

☐ Top Soil (Section 207)

☐ Seeding (Section 212)

☐ Mulching (Section 213)

☐ Planting (Section 214)

☐ Herbicide (Section 217)

☐ Other: _____

☐ Erosion Control (Section 208)

☐ Seeding (Temp)

☐ Silt Fence

☐ Erosion Bales

☐ Erosion Logs

☐ Riprap (Temp)

☐ Other: _____

☒ Roadway Bases

☐ Untreated Subgrade

☐ Treated Subgrade

☒ Aggregate Base Course (Section 304)

☐ Reconditioning

☐ PMBB - Plant Mix Bituminous Base

☐ Other: _____

Excavation	Slope Staking (Y/N)	Grid (Y/N)	Grade (Y/N)	Special Interval
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

Embankment	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

Roadway Bases	Grid (Y/N)	Grade (Y/N)	Special Interval	Special Offset
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

☐ Pavements

☒ HMA - Hot Mix Asphalt (Section 403)

☒ Concrete (Section 412)

☐ Heating & Scarifying Treatment

☐ Prime Coat, Tack Coat & Rejuvenating Agent (Section 407)

☐ Seal Coat or Chip Seal (Section 409)

☐ Other: _____

☒ Roadway Elements

☒ Curb and Gutter (Section 609)

☒ Drop inlets - alignment and grades (Section 604)

☒ Retaining Walls

☒ Guard Rail (Section 606)

☒ Sidewalk (Section 608)

☐ Overlay Stationing

☐ Other: _____

☒ Riprap (Perm) (Section 506)

☐ Slope and Ditch Paving (Section 507)

☒ Minor Structures

☐ Structure Excavation limits (Section 206)

☐ Culverts (Section 603)

☒ Culverts w/ Headwalls and Wingwalls (Section 601)

☐ Concrete Box Culverts w/ Headwalls and Wingwalls

☒ Pipes (Section 603)

☒ Sanitary Sewer

☒ Storm Sewer

☒ Water

☐ Irrigation

☐ Miscellaneous

☒ Manholes (Section 604)

☒ Inlets (Section 604)

☐ Permanent Water Quality BMP (Section 208)

☐ Other: _____

☒ Major Structures - Overhead Signs (Section 614), Concrete Box Culverts, Bridges - and all other structures assigned a structure number

☒ Structure Excavation limits (Section 206)

☐ Concrete Box Culverts (Section 603) w/ Headwalls and Wingwalls (Section 601)

☐ Piling locations and cut off elevations (Section 502)

☐ Caisson locations and elevations (Section 503)

☒ Footing locations, alignment, and elevations

☒ Abutment/Pier locations, alignment, and elevations

☐ Wingwall skew angles/offsets

☒ Structural concrete form locations

☐ Substructure As-constructed survey required for Bridges (Subsection 601 .12) and Overhead signs (S-614-50)

☐ Bridge expansion joint(s) alignment and grade (longitudinal and transverse)

☒ Deck grades at Girder 10th or "n" th point locations and elevations

☐ Slope and Ditch Paving (Section 507)

☐ Other: _____

☒ Fencing (Section 607)

☐ Temporary

☒ Permanent

☐ Sound Barrier

☐ Other: _____

☐ Delineators (Section 612)

☐ Temporary

☐ Permanent

☒ Lighting (Section 613) and Traffic Control Devices (Permanent) (Section 614)

☒ Signal pole locations and elevations

☒ Light pole locations and elevations

☒ Sign locations

☒ Field verify sign post locations, elevations, and lengths before fabrication.

☐ Other: _____

Pavements	Grid (Y/N)	Special Interval	Special Offset
	-	-	-
	-	-	-
	-	-	-
	-	-	-

Curb & Gutter	Tangent Interval	Curve Interval	Special Offset
	-	-	-

Stationing	Left Interval	Center Interval	Right Interval
	-	-	-

☒ Pavement Marking (Section 627)

☒ Striping (Temp)

☒ Striping (Perm)

☐ Symbols

☐ Other: _____

☐ Temporary Lighting and Construction Traffic Control Devices (Section 630)

☐ Signal pole locations and elevations (Temp)

☐ Light pole locations and elevations (Temp)

☐ Sign Locations (Temp)

☐ Other: _____

☒ All Easements (Temp Staking by P.L.S. Only)

☐ Right of Way (Temp Staking by P.L.S. Only)

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 629:

☐ Monumentation (Section 629)

☐ Control

☐ Right of Way

☐ Land corners, Aliquot corners

☐ Easements

☐ Reference the specified existing monuments: ** _____

☐ Replace the specified existing monuments: ** _____

☐ Locate monuments. It is estimated _____ hours are required.

NOTE: All 629 items shall include adequate research, calculations, and evaluations of evidence for monuments to be set.

** A Tabulation of Survey Monuments may be provided on the plans.

GENERAL NOTES:

- Unless indicated otherwise on this Survey Tabulation Sheet, all survey work and staking intervals shall be done in accordance with the latest edition of the CDDT Survey Manual.
- Adequate information for establishing lines, grades, and locations for all work items have been specified on the plans. Any additional information required to stake the item or element shall be generated by the Contractor's surveyor.
- The Contractor's surveyor shall provide an estimate of the man-hours necessary to complete the work items indicated on this sheet. A copy of this sheet, with the estimated man-hours written on the blank line to the left of the specified items, shall be submitted with the Survey Schedule to the Engineer 10 days prior to the Presurvey Conference - Construction Survey.
- Stakes and Monuments which are damaged or destroyed by the progress of construction shall be replaced by the Contractor at no additional cost to the Department.
- The Contractor shall furnish an As Staked (or GPS/RTS Construction Machine Control) Earthwork Quantity report to the Engineer prior to completion of twenty percent (20%) of the planned earthwork in any phase as per the CDDT Survey Manual. A printed copy of the As Staked (or GPS/RTS Construction Machine Control) Earthwork data report and a computer disk with that information on it, in the specified format shall be submitted to the Engineer. The Contractor shall field verify original ground cross sections at a maximum 500 feet intervals.
- Prior to beginning work on any subsequent operation, such as placing base course or paving, the Contractor shall certify in writing to the Engineer that the final grade is within specified tolerance.
- The Contractor's surveyor shall perform all field surveying and calculations necessary to tie plan grades into field grades.
- The Contractor shall coordinate construction staking on the project with any utility work.
- Fieldbooks shall contain daily records of points set and or measurements observed. The information recorded shall contain: date, crew members' names, point no., description, staking information, and sketches. If the survey information is collected electronically, information recorded shall be provided to the Project Engineer in a hard copy format that is intuitive, clear and related to the supplemental information recorded in the field books. All linear surveys, such as slope stakes and blue tops, shall have the station and offset information related to the measured information. Non-linear surveys such as structures staking shall have sketches relating electronic information, such as point numbers, to the sketch.
- The Contractor's surveyor shall submit the following fieldbooks to the Engineer:

☐ Horizontal Control (Primary & Secondary)

☐ Vertical Control (i.e. Benchmarks)

☐ Property Pin Ties

☐ Horizontal Alignment

☐ Grading

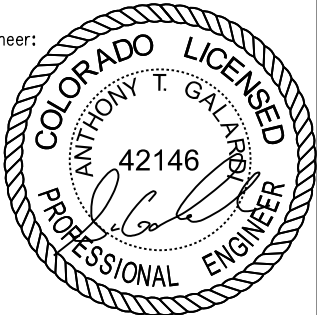
☐ Slope Staking

☐ Minor Structures

☐ Major Structures

☒ One fieldbook for each work category shown on this sheet

☐ Other Fieldbook(s): _____



Print Date: 9/4/2018

File Name: CMINER_DES_SurveyTab_01.dgn

Horiz. Scale: 1:1

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Sheet Revisions

Date:

Comments

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City of Idaho Springs

Department of Public Works

1711 Miner Street

Idaho Springs, CO 80452

Phone: 303-567-4421 FAX: 303-567-4955

As Constructed

No Revisions:

Revised:

Void:

SURVEY TABULATION SHEET

Designer: M. ASKHAM

Detailer: M. ASKHAM

Sheet Subset: SURVEY

Structure Numbers

Subset Sheets: 1 of 1

Project No./Code

Sheet Number 7

SDAQ 11:40:55 PM pw:\\pwhdfrusen01\HDR_US_Central_01\Documents\6065\10120232\6.0_CAD_BIM_6.2_WIP\Central Miner\Design\Drawings\CMINER_GEN_SDAQ_01.dgn



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ITEM NO.	CONTRACT ITEM	UNITS	ROADWAY		DRAINAGE		UTILITIES		BRIDGE		PROJECT TOTALS	
			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
201	Clearing and Grubbing	L S	1								1	
202	Removal of Structure (Special)	EACH							2		2	
202	Removal of Tree	EACH	1								1	
202	Removal of Manhole	EACH					2				2	
202	Removal of Fire Hydrant	EACH					3				3	
202	Removal of Light Pole (Fire Signal)	EACH	1								1	
202	Removal of Sidewalk	SY	747								747	
202	Removal of Curb (Includes Removal of Driveway Culverts)	LF	381								381	
202	Removal of Asphalt Mat	SY	3801								3,801	
202	2" Mill of Asphalt Mat	SY	1050								1,050	
202	Removal of Ground Sign	EACH	3								3	
202	Removal of Sign Panel	EACH	2								2	
202	Clean Culvert	EACH			2						2	
202	Clean Inlet	EACH			3						3	
202	Sawing Asphalt Material (6 Inch)	LF	207								207	
203	Unclassified Excavation (Complete In Place)	CY	1494								1,494	
203	Muck Excavation	CY	200								200	
203	Potholing	HOURL	60								60	
203	Laborer	HOURL	60								60	
206	Structure Excavation	CY							33		33	
206	Structure Backfill (Class 1)	CY							22		22	
206	Structure Backfill (Flow-Fill)	CY							50		50	
208	Erosion and Sediment Control	LS			1						1	
209	Dust Palliative	GAL			5000						5,000	
210	Reset Ground Sign	EACH	6				1				7	
210	Adjust Manhole	EACH					1				1	
304	Aggregate Base Course (Class 6)	CY	557								557	
403	Hot Mix Asphalt (Grading S) (75) (PG 58-28)	TON	1079								1,079	
411	Emulsified Asphalt (Slow-Setting)	GAL	78								78	
412	Concrete Pavement (6 Inch) (Driveways)	SY	418								418	
420	Geotextile (Drainage) (Class 2)	SY			5						5	
506	Riprap (9 Inch)	CY			1						1	
514	Pedestrian Railing	LF							46		46	
579	Thin Bonded Epoxy Overlay	SY	205								205	
601	Concrete, Class D, Wall Plain (Small Repair)	CY	4								4	
601	Concrete Class D (Bridge)	CY							6		6	
602	Reinforcing Steel (Epoxy Coated)	LBS							800		800	
603	4 Inch Plastic Pipe (Sewer Services)	LF					165				165	
603	8 Inch Plastic Pipe (Sewer)	LF					456				456	
604	Manhole Slab Base (10 Foot)	EACH					3				3.00	
604	Sanitary Service Connections	EACH					11				11	
604	4 Inch Non-Perforated Pipe Underdrain	LF			226						226	
608	Concrete Sidewalk (4 Inch)	SY	732								732.00	
608	Sidewalk Chase	EACH			1						1	
608	Concrete Curb Ramp	SY	107								107	
609	Curb Type 2 (Section I-B)	LF	100								100	
609	Curb and Gutter Type 2 (Section II-B)	LF	1646								1,646	
609	Gutter, Type 2, (3')	LF	374								374	
614	Sign Panel (Class I)	SF	50								50	
614	Steel Sign Support (2-Inch Round)(Post & Socket)	LF	46								46	
614	Steel Sign Support (2.5-Inch Round)(Post & Socket)	LF	35								35	
618	Prestressed Concrete Slab (Depth 6" Through 13")	SF							230		230	
619	Water Service	EACH					38				38	
619	Fire Hydrant Assembly A	EACH					3				3	

Print Date: 9/7/2018

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Sheet Revisions		
Date:	Comments	Init.



City of Idaho Springs
Department of Public Works

1711 Miner Street
Idaho Springs, CO 80452
Phone: 303-567-4421 FAX: 303-567-4955

As Constructed	CENTRAL MINER STREET SUMMARY OF APPROXIMATE QUANTITIES			Project No./Code
No Revisions:				
Revised:	Designer: M. ASKHAM	Structure Numbers		
Void:	Detailer: M. ASKHAM			
	Sheet Subset: SDAQ	Subset Sheets: 01 of 02	Sheet Number	8



Print Date: 9/7/2018		<div><div></div><div>Sheet Revisions</div><table><thead><tr><th>Date:</th><th>Comments</th><th>Init.</th></tr></thead><tbody><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></tbody></table></div> <div><div><div><div>City of Idaho Springs</div><div>Department of Public Works</div><div>1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955</div></div></div></div> <table><thead><tr><th colspan="2">As Constructed</th><th colspan="2">CENTRAL MINER STREET SUMMARY OF APPROXIMATE QUANTITIES</th><th colspan="2">Project No./Code</th></tr></thead><tbody><tr><td colspan="2">No Revisions:</td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">Revised:</td><td>Designer: M. ASKHAM</td><td>Structure Numbers</td><td colspan="2"></td></tr><tr><td colspan="2">Void:</td><td>Detailer: M. ASKHAM</td><td></td><td colspan="2"></td></tr><tr><td colspan="2"></td><td>Sheet Subset: SDAQ</td><td>Subset Sheets: 02 of 02</td><td colspan="2">Sheet Number 9</td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr></tbody></table>			Date:	Comments	Init.													As Constructed		CENTRAL MINER STREET SUMMARY OF APPROXIMATE QUANTITIES		Project No./Code		No Revisions:						Revised:		Designer: M. ASKHAM	Structure Numbers			Void:		Detailer: M. ASKHAM						Sheet Subset: SDAQ	Subset Sheets: 02 of 02	Sheet Number 9								File Name: CMINER_GEN_SDAQ_02.dgn	
Date:	Comments				Init.																																																				
As Constructed		CENTRAL MINER STREET SUMMARY OF APPROXIMATE QUANTITIES		Project No./Code																																																					
No Revisions:																																																									
Revised:		Designer: M. ASKHAM	Structure Numbers																																																						
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		Sheet Subset: SDAQ	Subset Sheets: 02 of 02	Sheet Number 9																																																					
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SUMMARY OF EARTHWORK QUANTITIES			
PAY QUANTITIES		PROJECT TOTALS	
		PLAN	AS CONST.
203 UNCLASSIFIED EXCAVATION (CY) (COMPLETE IN PLACE)			
FROM ROADWAY		1,494	
		1494	
203 MUCK EXCAVATION (CY)		200	
FOR INFORMATION ONLY		PROJECT TOTALS	
		PLAN	AS CONST.
<u>UNCLASSIFIED EXCAVATION (CY)</u>			
MINER STREET		1,351	
20TH AVENUE		143	
SUBTOTAL		1,494	
TOTAL		1,494	
<u>EMBANKMENT MATERIAL (CY)</u>			
MINER STREET		29	
20TH AVENUE		0	
TOTAL		30	
<u>COMPACTION (AASHTO T-99) (CY) **</u>			
TOTAL EMBANKMENT (NET)		30	
TOTAL		30	
<u>WETTING **</u>			
FOR COMPACTION (0.04 MGAL/CY)		1	
TOTAL		1	

SDAQ
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Print Date: 9/4/2018		<div>0000</div>	Sheet Revisions			<div><div>City of Idaho Springs Department of Public Works 1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955</div></div>	As Constructed		CENTRAL MINER STREET TABULATION OF EARTHWORK			Project No./Code	
File Name: CMINER_TAB_Earthwork.dgn			Date:	Comments	Init.		No Revisions:						
Horiz. Scale: 1:100			Vert. Scale:						Revised:	Designer: M. ASKHAM	Structure Numbers		
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									Sheet Subset: TAB	Subset Sheets: 01 of 01	Sheet Number 10		



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Tabulation of Removals																	
Station		Alignment	Side	202 Removal of Tree		202 Removal of Light Pole (Fire Signal)		202 Removal of Sidewalk		202 Removal of Curb (Includes Removal of Driveway Culverts)		202 Removal of Asphalt Mat		202 2" Mill of Asphalt Mat		202 Sawing Asphalt Material (6 inch)	
				EACH		EACH		SY		LF		SY		SY		LF	
From	To			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST	PLAN	AS CONST.	PLAN	AS CONST.
50+22.82	50+47.85	Central Miner	LT/RT									78				33	
51+22.62	51+76.95	Central Miner	LT/RT									166					
51+76.95	53+96.95	Central Miner	LT/RT											834			
51+93.57	53+21.58	Central Miner	LT											216			
52+70.83	52+85.83	Central Miner	RT					12		15							
53+21.58	55+27.92	Central Miner	LT					152		28							
53+96.95	56+30.00	Central Miner	LT/RT	1								967					
54+04.02	54+08.89	Central Miner	RT					4									
54+60.27	54+65.86	Central Miner	RT					3									
55+39.14	55+87.35	Central Miner	LT					31									
56+07.14	56+27.64	Central Miner	RT							19							
56+07.49	56+27.33	Central Miner	LT							19							
56+30.00	56+73.53	Central Miner	LT					25									
56+30.00	62+06.49	Central Miner	LT/RT			1				300		1963				33	
57+03.79	61+06.96	Central Miner	LT					228									
57+64.19	62+06.36	Central Miner	RT					262									
61+06.96	62+06.49	Central Miner	LT					30				196				21	
10+16.13	11+72.70	20th Avenue	LT/RT									431				120	
PROJECT TOTAL				1		1		747		381		3801		1050		207	

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As Constructed

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CENTRAL MINER STREET
TABULATION OF REMOVALS

Designer: M. ASKHAM

Detailer: M. ASKHAM

Sheet Subset: TAB

Structure Numbers

Subset Sheets: 01 of 01

Project No./Code

Sheet Number 11



Know what's below.
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Tabulation of Surfacing

Tabulation of Surfacing												
Station		Location	304 Aggregate Base Course		403 Hot Mix Asphalt (Grading S) (75) (PG 58-28)		411 Emulsified Asphalt (Slow-Setting)		412 Concrete Pavement (6 Inch)		579 Thin Bonded Epoxy Overlay	
			CY		TON		GAL		SY		SY	
From	To		PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
Miner Street												
50+22.82	50+47.85	Miner St (Full Depth 5.5")	13		24		2					
50+47.85	51+22.62	Clear Creek Bridge								205		
51+22.62	51+76.95	Miner St (Full Depth 5.5")	28		50		4					
51+76.95	53+96.95	Miner St (Overlay 2")			85							
51+93.57	53+28.13	Senior Care Parking (Overlay 2")			23							
53+28.13	56+00.00	Miner St (Full Depth 5.5")	139		249		19					
		Driveways							71			
56+00.00	61+00.00	Miner St (Full Depth 5.5")	248		445		34					
		Driveways							253			
61+00.00	62+06.57	Miner St (Full Depth 5.5")	40		72		6					
		Driveways							79			
61+29.71	62+06.57	Visitor's Center Parking (Full Depth 5.5")	33		59		5					
20th Avenue												
10+23.87	11+69.21	20th Ave (Full Depth 4")	44		57		6					
10+84.76	11+72.47	20th Ave (Full Depth 4")	12		15		2					
11+19.01	11+57.88	Driveways							15			
Project Total			557		1,079		78		418		205	

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Department of Public Works

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CENTRAL MINER STREET
TABULATION OF SURFACING

Designer: M. ASKHAM
Detailer: M. ASKHAM
Sheet Subset: TAB

Structure Numbers
Subset Sheets: 01 of 01

Project No./Code

Sheet Number 12



Know what's below.
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Tabulation of Pedestrian Railing, Sidewalk, and Curb & Gutter														
Station		Side	514 Pedestrian Railing (Steel)		608 Concrete Sidewalk (4 inch)		608 Concrete Curb Ramp		609 Curb Type 2 (Section I-B)		609 Curb and Gutter Type 2 (Section II-B)		609 Gutter Type 2 (3 Foot)	
			LF		SY		SY		LF		LF		LF	
			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
From	To													
E Miner Street														
51+96.87	53+30.21	LT											133	
52+70.83	52+85.83	RT					13							
53+21.58	56+00.00	LT			164		8				281			
54+04.02	54+25.28	RT			18		23				7			
54+56.60	56+00.00	RT			60		24				128			
56+00.00	56+82.34	LT			30		12				66			
56+00.00	61+00.00	RT			176		9				489			
56+04.33	56+27.33	LT	23											
56+04.64	56+27.64	RT	23											
57+00.95	61+00.00	LT			172		18				384			
61+00.00	62+06.36	RT			43						107			
61+00.00	61+27.90	LT			6						28			
61+27.90	62+06.80	LT			63				100					
61+27.90	62+06.56	LT											87	
20th Avenue														
10+20.02	11+67.18	LT									149			
10+21.47	10+28.32	RT									7			
10+28.32	11+72.10	RT											143	
11+59.38	11+62.02	LT											10	
Project Total			46		732		107		100		1,646		374	

SDAQ
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Print Date: 9/4/2018

File Name: CMINER_TAB_Misc.dgn

Horiz. Scale: 1:100 Vert. Scale:



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Sheet Revisions		
Date:	Comments	Init.

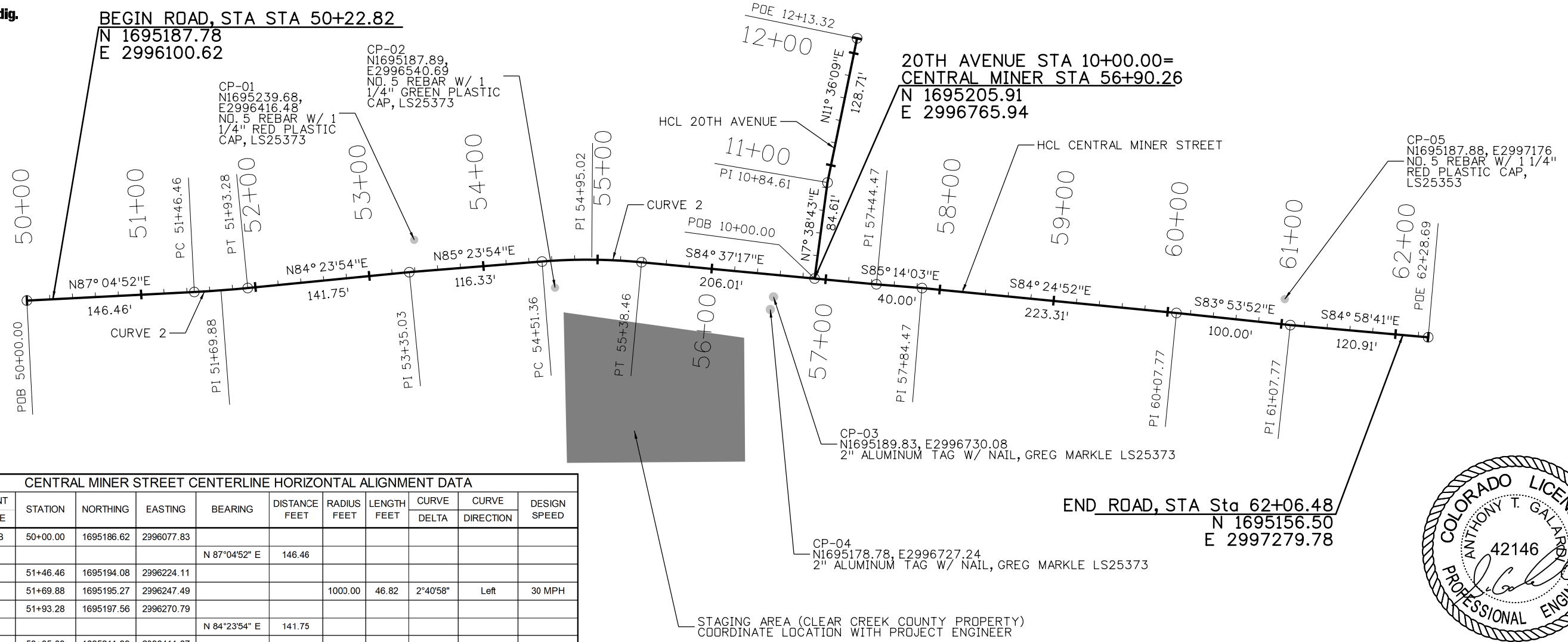


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As Constructed	CENTRAL MINER STREET TABULATION OF PEDESTIRAN RAILING SIDEWALK, AND CURB & GUTTER		Project No./Code
No Revisions:			
Revised:	Designer: M. ASKHAM	Structure Numbers	
Void:	Detailer: M. ASKHAM		
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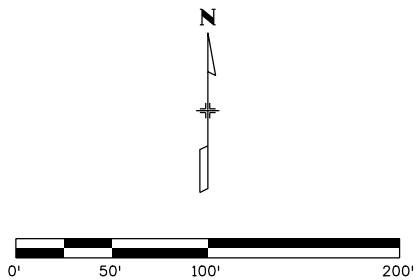


Know what's below.
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CENTRAL MINER STREET CENTERLINE HORIZONTAL ALIGNMENT DATA											
CURVE NUMBER	POINT TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE FEET	RADIUS FEET	LENGTH FEET	CURVE DELTA	CURVE DIRECTION	DESIGN SPEED
	POB	50+00.00	1695186.62	2996077.83							
					N 87°04'52" E	146.46					
	PC	51+46.46	1695194.08	2996224.11							
CURVE 1	PI	51+69.88	1695195.27	2996247.49			1000.00	46.82	2°40'58"	Left	30 MPH
	PT	51+93.28	1695197.56	2996270.79							
					N 84°23'54" E	141.75					
	PI	53+35.03	1695211.39	2996411.87							
					N 85°23'54" E	116.33					
	PC	54+51.36	1695220.73	2996527.82							
CURVE 2	PI	54+95.02	1695224.23	2996571.34			500.00	87.09	9°58'49"	Right	30 MPH
	PT	55+38.46	1695220.14	2996614.80							
					S 84°37'17" E	206.01					
	PI	57+44.47	1695200.83	2996819.91							
					S 85°14'03" E	40.00					
	PI	57+84.47	1695197.50	2996859.77							
					S 84°24'52" E	223.31					
	PI	60+07.77	1695175.77	2997082.01							
					S 83°53'52" E	100.00					
	PI	61+07.77	1695165.14	2997181.45							
					S 84°58'41" E	120.91					
	POE	62+28.69	1695154.55	2997301.90							

20TH AVE CENTERLINE HORIZONTAL ALIGNMENT DATA											
CURVE NUMBER	POINT TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE FEET	RADIUS FEET	LENGTH FEET	CURVE DELTA	CURVE DIRECTION	DESIGN SPEED
	POB	10+00.00	1695205.91	2996765.94							
					N 7°38'43" E	84.61					
	PI	10+84.61	1695289.77	2996777.19							
					N 11°36'09" E	128.71					
	POE	12+13.32	1695415.85	2996803.08							



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Sheet Revisions		
Date:	Comments	Init.

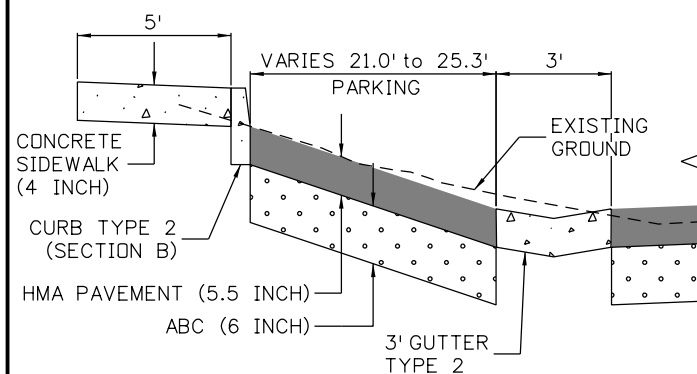
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As Constructed	
No Revisions:	
Revised:	
Void:	

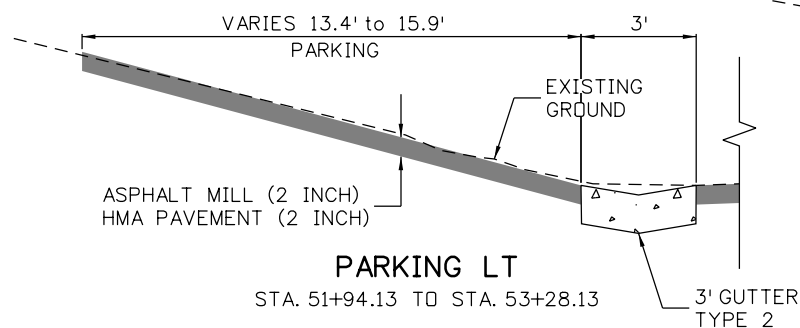
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Designer:	M. ASKHAM	Structure Numbers		
Detailer:	M. ASKHAM			
Sheet Subset:	HORIZ	Subset Sheets:	01 of 01	Sheet Number 14



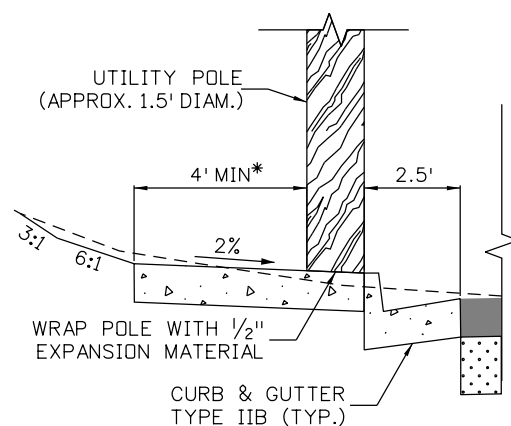
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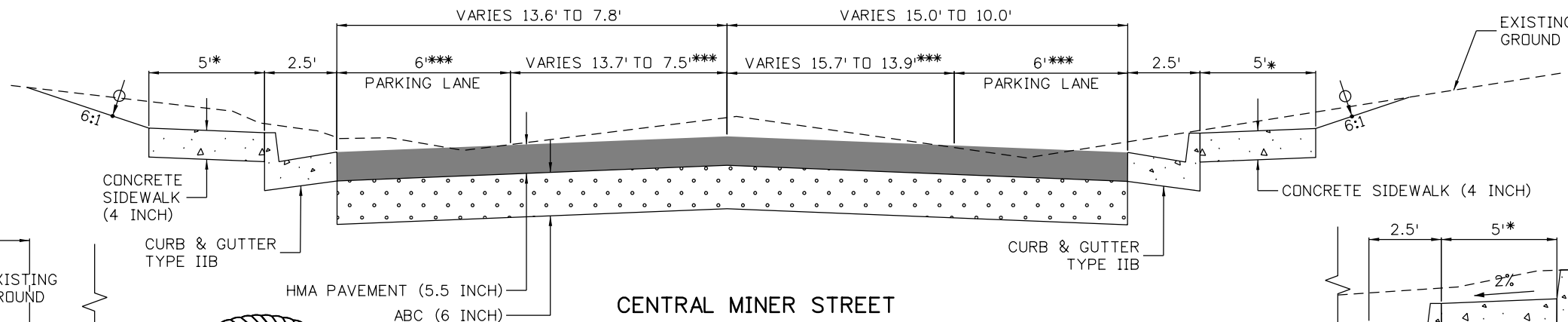
PARKING WITH SIDEWALK LT
STA. 60+35.57 TO STA. 61+29.67



PARKING LT
STA. 51+94.13 TO STA. 53+28.13

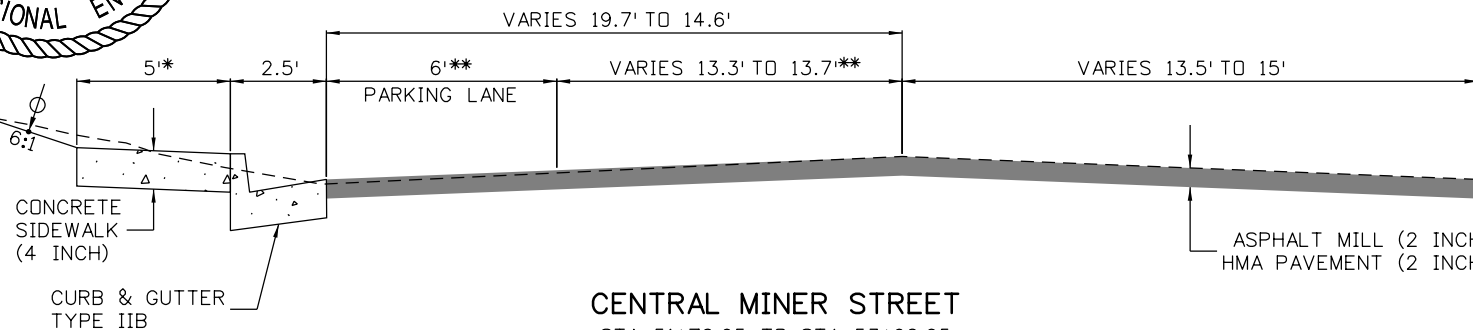


SIDEWALK WITH UTILITY POLE



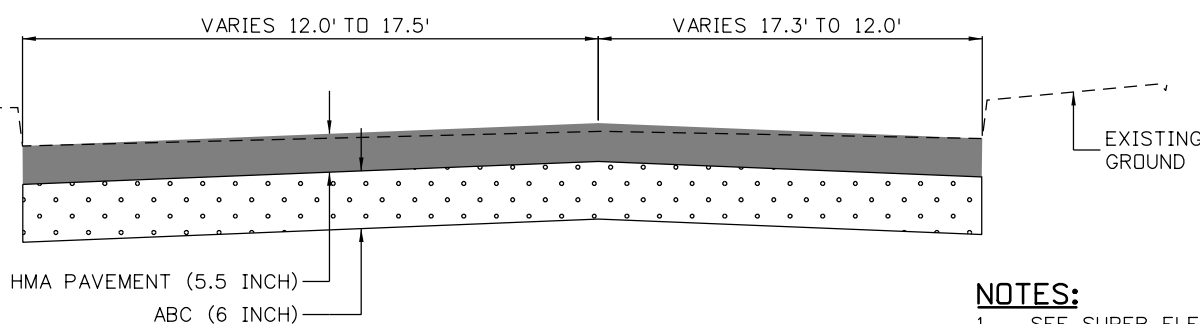
CENTRAL MINER STREET

STA. 53+96.95 TO STA. 62+06.48
***PARKING LANE LT STA. 53+96.95 TO STA. 55+82.43
AND STA. 57+24.66 TO STA. 60+86.80
***PARKING LANE RT STA. 55+07.77 TO STA. 55+92.87



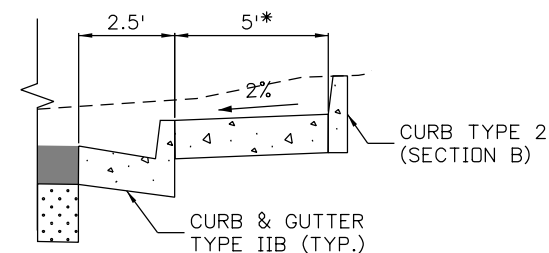
CENTRAL MINER STREET

STA. 51+76.95 TO STA. 53+96.95
**PARKING LANE STA. 53+46.61 TO STA. 53+96.95
NO CURB & GUTTER OR SIDEWALK STA. 51+78.43 TO STA. 53+19.73

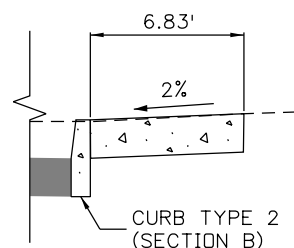


CENTRAL MINER STREET

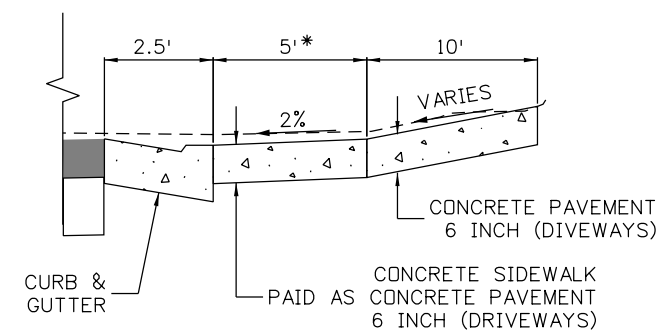
STA. 50+22.82 TO STA. 50+47.85
STA. 51+22.77 TO STA. 51+76.95



SIDEWALK WITH BACK CURB RIGHT
SEE PLANS FOR LOCATION



SIDEWALK LT
STA. 52+70.76 TO STA. 52+85.76



DRIVEWAY ENTRANCE

NOTES:

- SEE SUPER ELEVATION DIAGRAM ON PROFILE SHEETS FOR CROSS SLOPE INFORMATION.
- DEMINSION VARIES - SEE PLANS FOR INFORMATION

4" TOPSOIL

Print Date: 9/4/2018

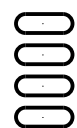
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Horiz. Scale: 1:40

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Sheet Revisions

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**CENTRAL MINER STREET
TYPICAL SECTIONS**

Designer: M. ASKHAM
Detailer: M. ASKHAM
Sheet Subset: TYPICAL

Structure
Numbers

Subset Sheets: 01 of 02

Project No./Code

Sheet Number 15

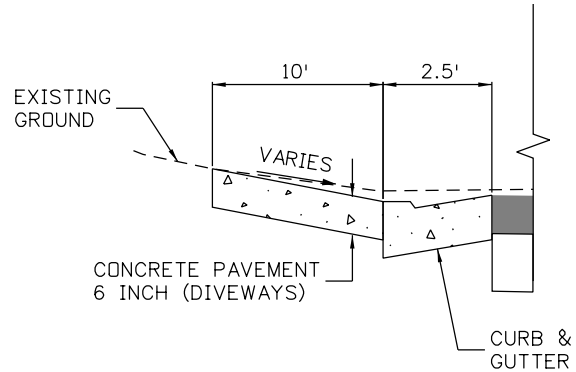


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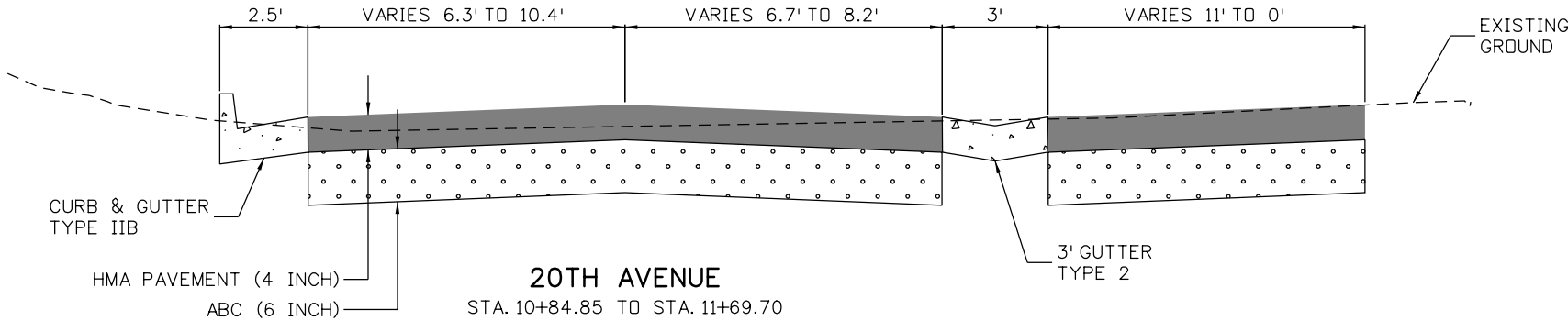
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1. SEE SUPER ELEVATION DIAGRAM ON PROFILE SHEETS FOR CROSS SLOPE INFORMATION.

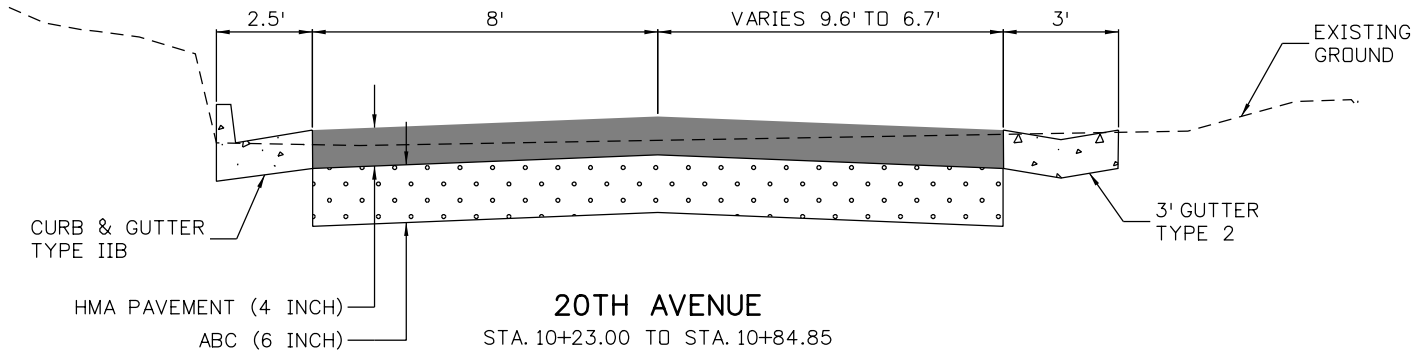
4" TOPSOIL



DRIVEWAY ENTRANCE LEFT



20TH AVENUE
STA. 10+84.85 TO STA. 11+69.70



20TH AVENUE
STA. 10+23.00 TO STA. 10+84.85

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H&R 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202								Sheet Subset: TYPICAL		Subset Sheets: 02 of 02	Sheet Number 16
Phone: 303-764-1520 Fax: 303-860-7139											

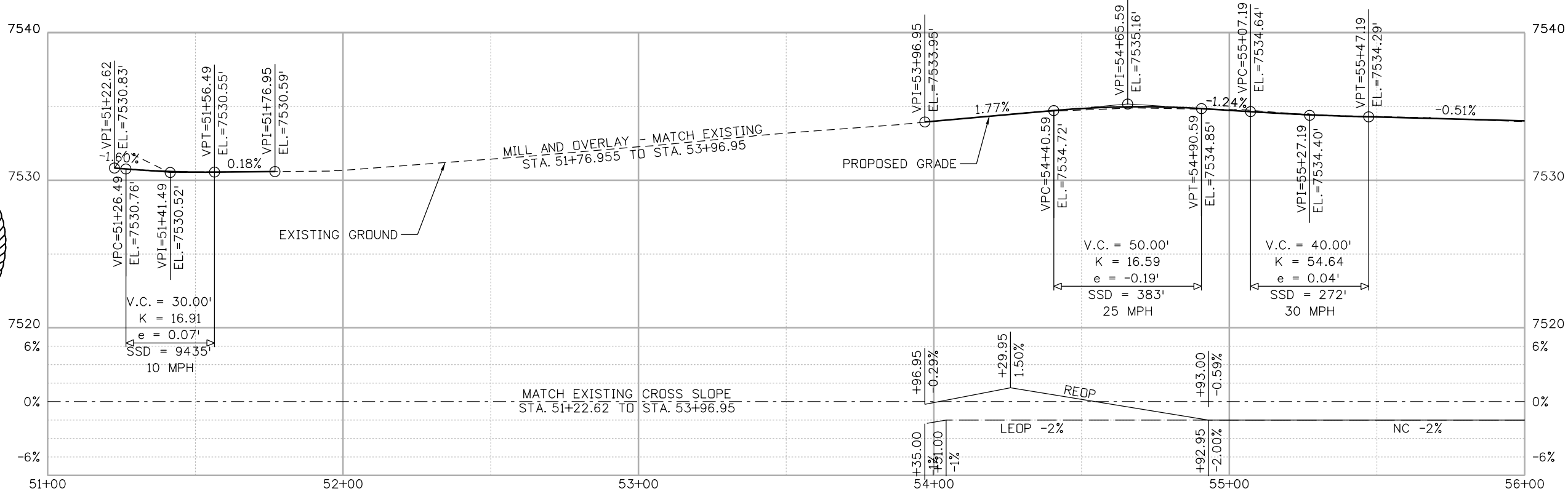
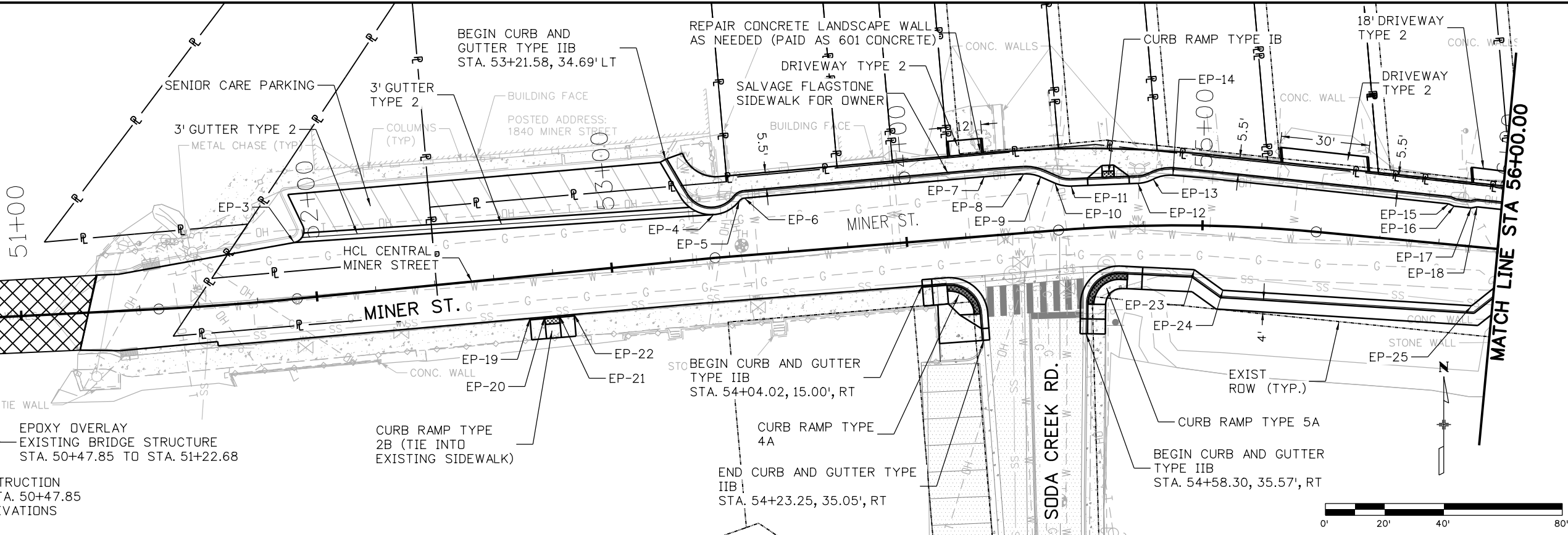


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Sheet Revisions		
Date:	Comments	Init.

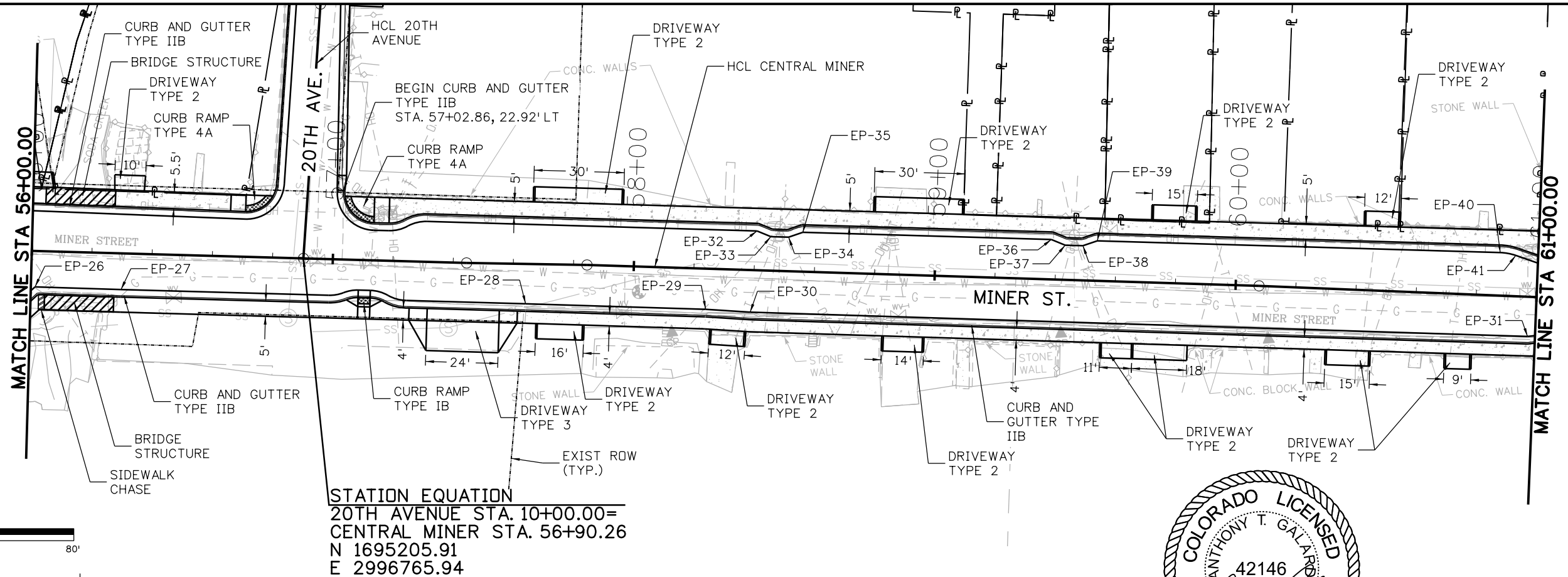


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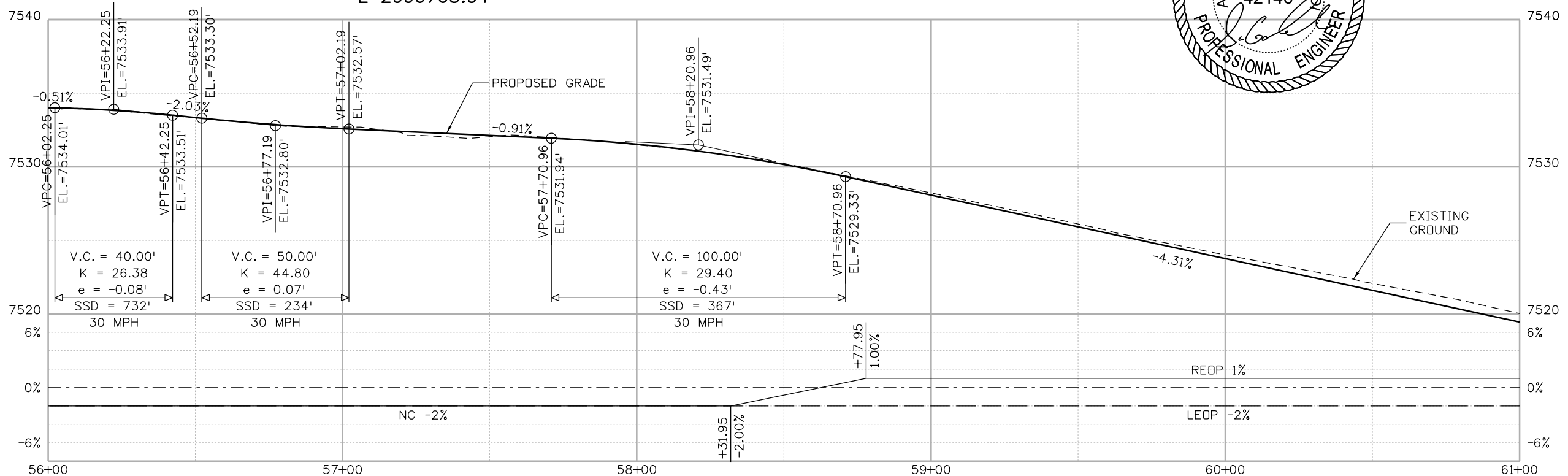
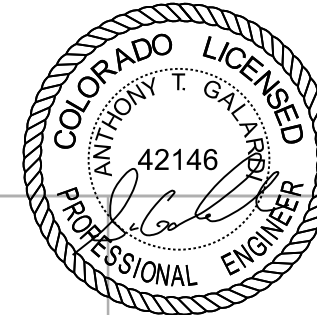
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No Revisions:	Revised:	Designer: M. ASKHAM	Structure Numbers	
Void:		Detailer: M. ASKHAM		
		Sheet Subset: ROADWAY	Subset Sheets: 01 of 05	Sheet Number 17



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STATION EQUATION
20TH AVENUE STA. 10+00.00=
CENTRAL MINER STA. 56+90.26
N 1695205.91
E 2996765.94



Print Date: 9/4/2018

File Name: CMINER_DES_PnP_02.dgn

Horiz. Scale: 1:40

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Sheet Revisions

Date:	Comments	Init.



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As Constructed

No Revisions:

Revised:

Void:

CENTRAL MINER STREET PLAN & PROFILE

STA. 56+00.00 TO STA. 61+00.00

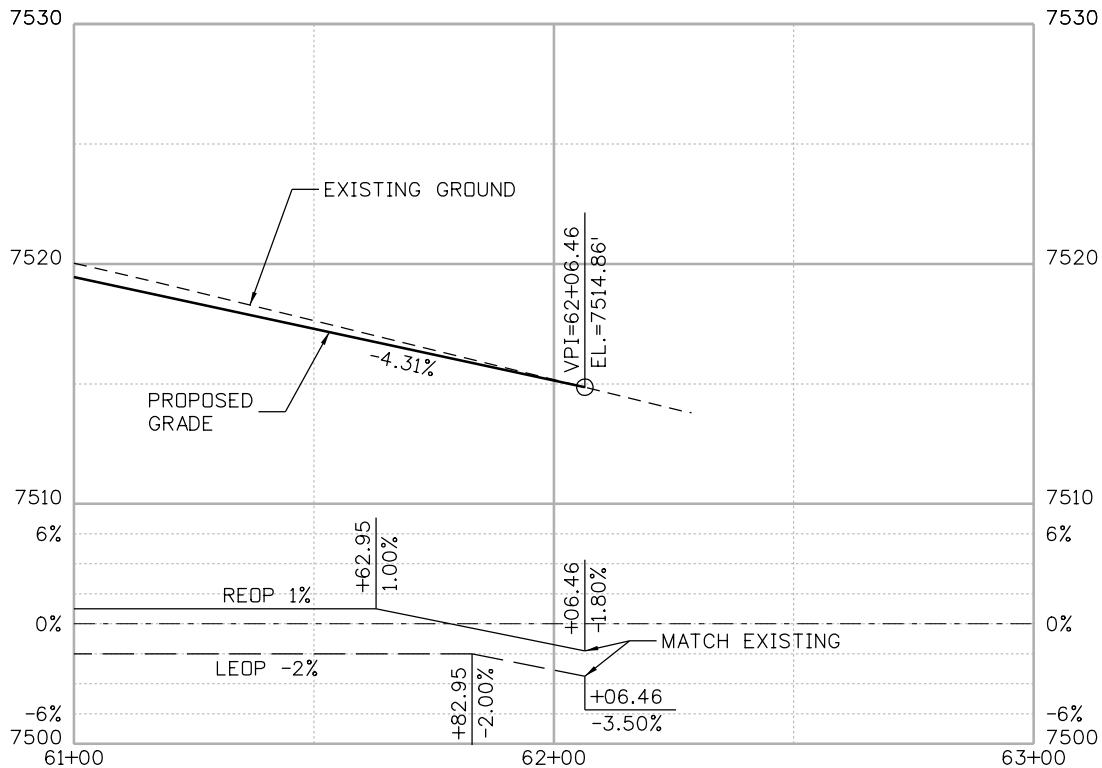
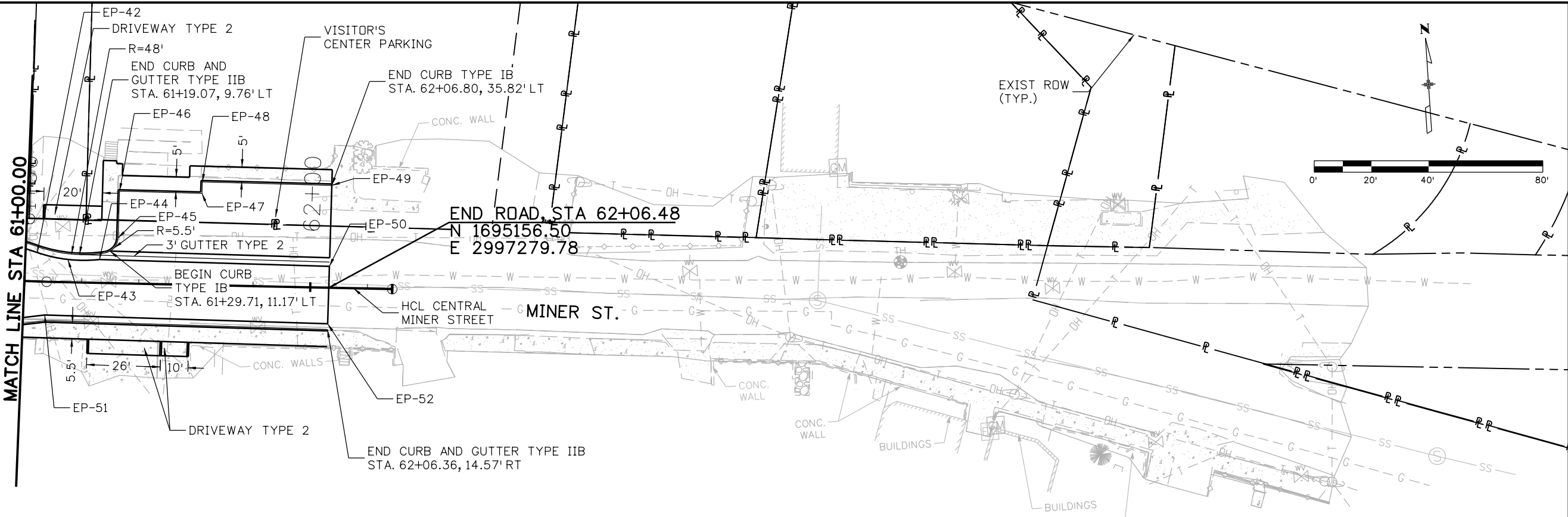
Designer: M. ASKHAM
Detailer: M. ASKHAM
Sheet Subset: ROADWAY
Structure Numbers
Subset Sheets: 02 of 05

Project No./Code

Sheet Number 18



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Print Date: 9/4/2018
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Phone: 303-764-1520 Fax: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.



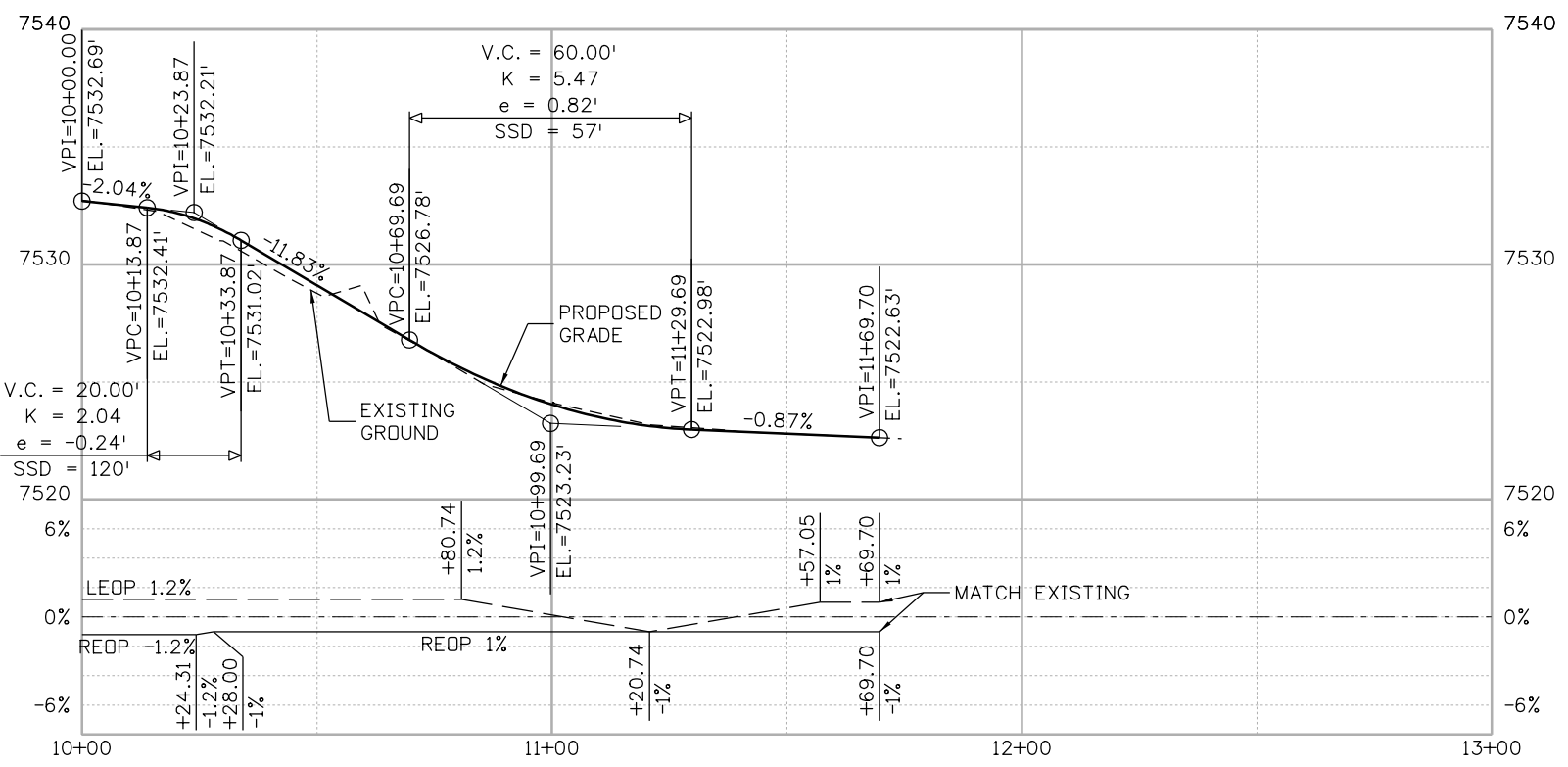
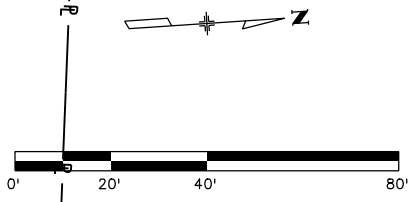
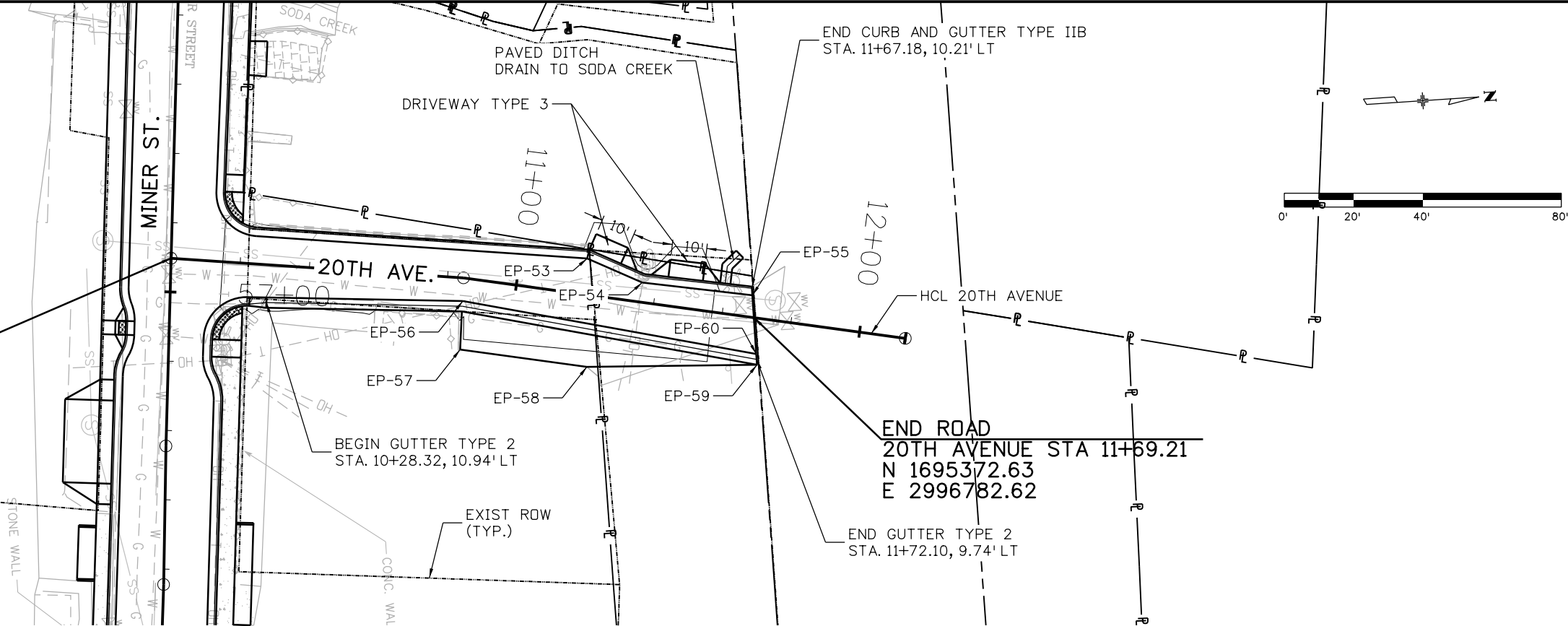
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As Constructed	CENTRAL MINER STREET PLAN & PROFILE STA. 61+00.00 TO STA. 62+06.48		Project No./Code
No Revisions:	Designer: M. ASKHAM	Structure Numbers	
Revised:	Detailer: M. ASKHAM		
Void:	Sheet Subset: ROADWAY	Subset Sheets: 03 of 05	Sheet Number 19



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STATION EQUATION
20TH AVENUE STA 10+00.00=
CENTRAL MINER STA 56+90.29
N 1695205.91
E 2996765.94



Print Date: 9/4/2018		<div>0000</div>	Sheet Revisions				City of Idaho Springs Department of Public Works		As Constructed		20TH AVENUE PLAN & PROFILE STA. 10+00.00 TO STA. 11+69.21			Project No./Code	
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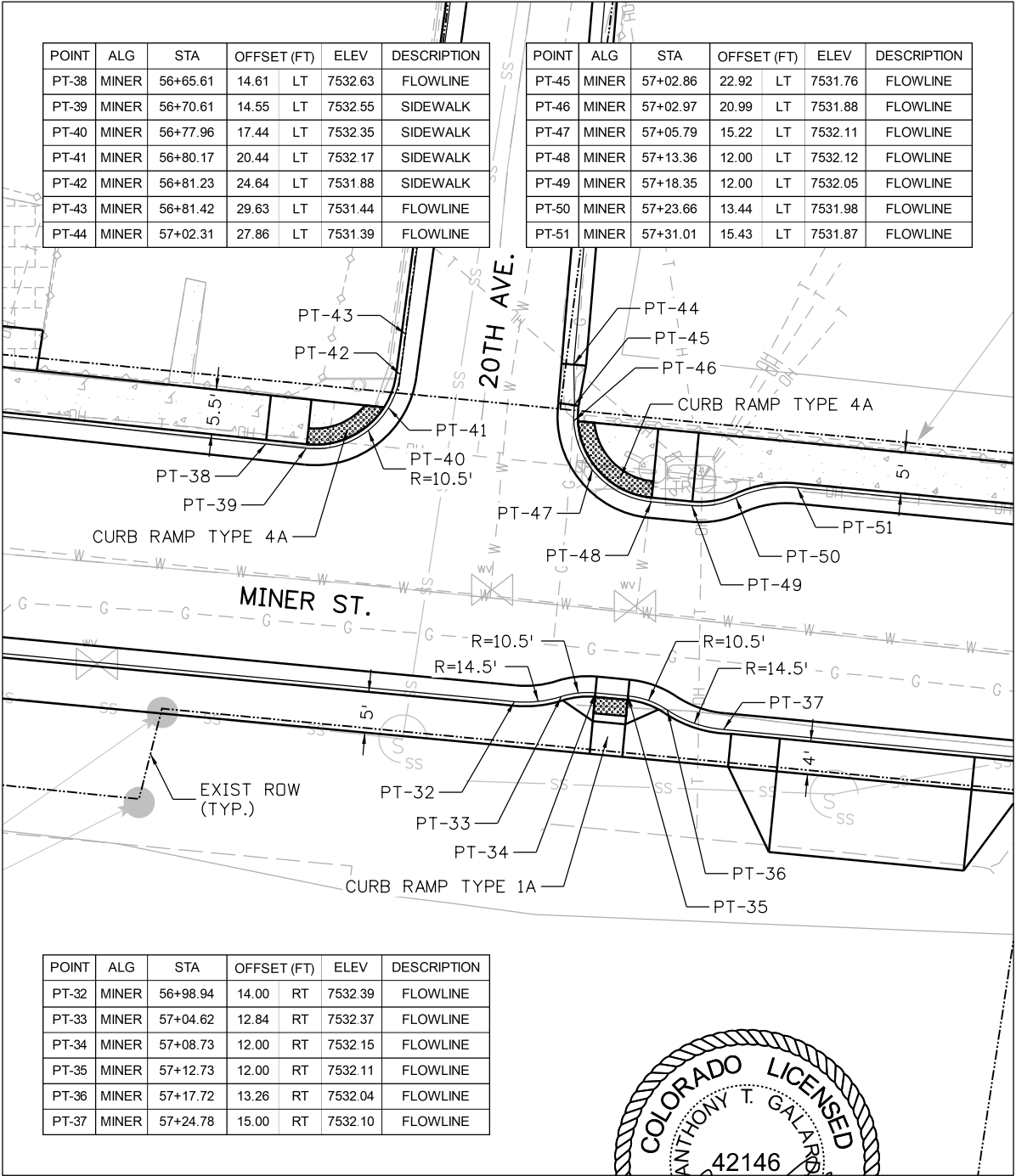
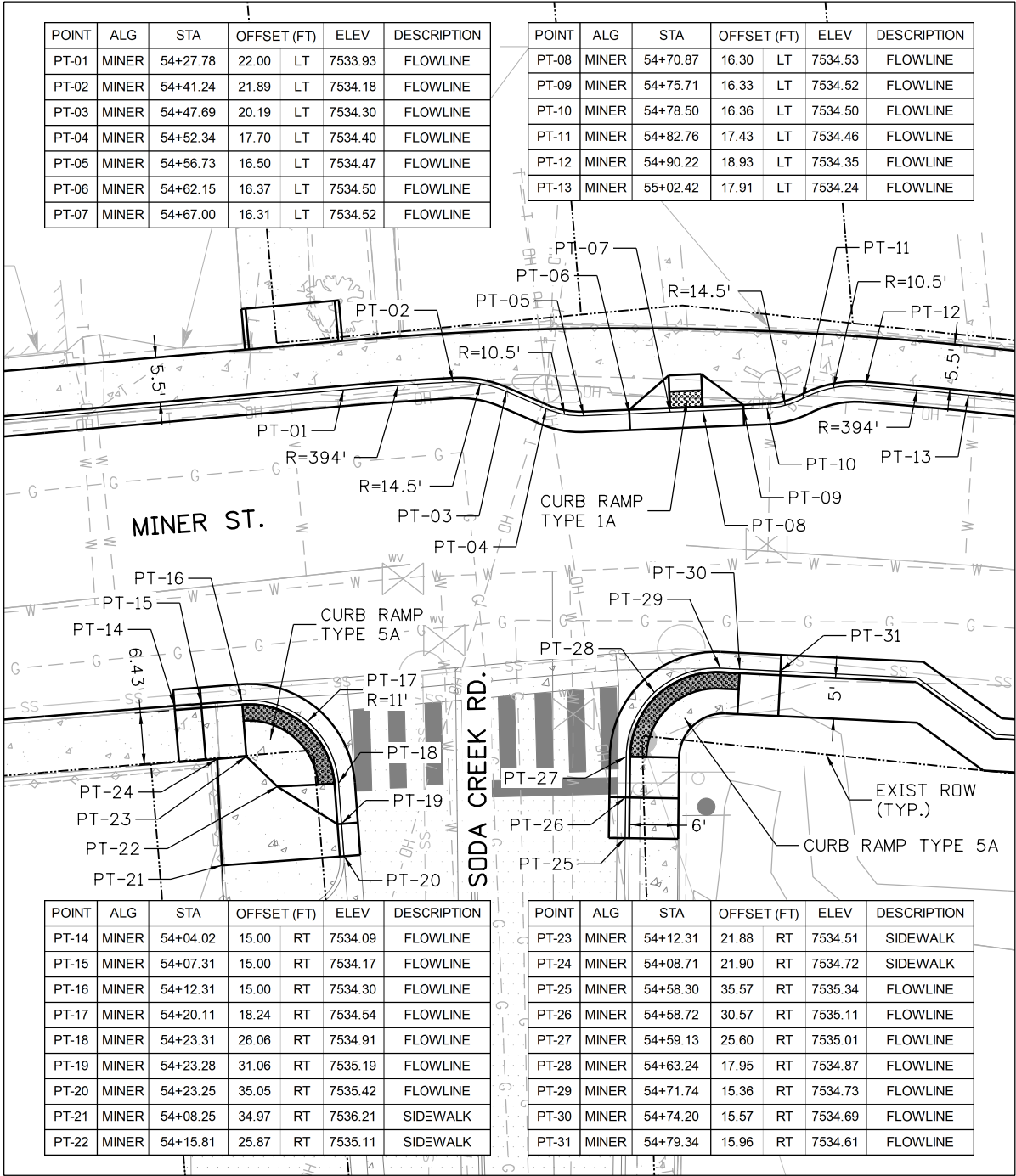
EDGE OF PAVEMENT POINTS						
POINT	ALG	STA	OFFSET (FT)		ELEV	SHEET
EP-1	MINER	50+23.57	14.71	LT	EXIST	PNP-01
EP-2	MINER	50+21.93	17.33	RT	EXIST	PNP-01
EP-3	MINER	51+94.13	18.98	LT	7530.16	PNP-01
EP-4	MINER	53+35.72	14.57	LT	7532.64	PNP-01
EP-5	MINER	53+44.73	18.47	LT	7532.70	PNP-01
EP-6	MINER	53+46.56	19.28	LT	7532.71	PNP-01
EP-7	MINER	54+27.80	20.00	LT	7534.09	PNP-01
EP-8	MINER	54+41.19	9.89	LT	7534.32	PNP-01
EP-9	MINER	54+46.75	18.42	LT	7534.44	PNP-01
EP-10	MINER	54+51.43	15.93	LT	7534.55	PNP-01
EP-11	MINER	54+56.67	14.50	LT	7534.63	PNP-01
EP-12	MINER	54+78.53	14.36	LT	7534.67	PNP-01
EP-13	MINER	54+83.62	15.63	LT	7534.61	PNP-01
EP-14	MINER	54+90.08	16.93	LT	7534.52	PNP-01
EP-15	MINER	55+82.10	13.60	LT	7533.86	PNP-01
EP-16	MINER	55+84.00	12.98	LT	7533.85	PNP-01
EP-17	MINER	55+89.77	12.91	LT	7533.82	PNP-01
EP-18	MINER	55+91.68	13.49	LT	7533.77	PNP-01
EP-19	MINER	52+70.83	14.27	RT	7531.52	PNP-01
EP-20	MINER	52+75.83	14.32	RT	7531.59	PNP-01
EP-21	MINER	52+80.83	14.37	RT	7531.67	PNP-01
EP-22	MINER	52+85.83	14.41	RT	7531.74	PNP-01
EP-23	MINER	54+97.42	14.93	RT	7534.47	PNP-01
EP-24	MINER	55+07.59	21.66	RT	7534.15	PNP-01
EP-25	MINER	55+93.05	19.94	RT	7533.80	PNP-01
EP-26	MINER	56+01.38	11.91	RT	7533.78	PNP-02
EP-27	MINER	56+29.99	12.01	RT	7533.49	PNP-02
EP-28	MINER	57+64.29	13.21	RT	7531.74	PNP-02
EP-29	MINER	58+24.31	13.50	RT	7530.70	PNP-02
EP-30	MINER	58+39.10	14.00	RT	7530.32	PNP-02

EDGE OF PAVEMENT POINTS CONTINUED						
POINT	ALG	STA	OFFSET (FT)	ELEV	SHEET	
EP-31	MINER	60+97.56	1.3.19	RT	7519.67	PNP-02
EP-32	MINER	58+40.52	13.04	LT	7530.22	PNP-02
EP-33	MINER	58+45.20	11.30	LT	7530.10	PNP-02
EP-34	MINER	58+51.11	11.31	LT	7529.89	PNP-02
EP-35	MINER	58+55.79	13.07	LT	7529.67	PNP-02
EP-36	MINER	59+38.33	13.23	LT	7526.14	PNP-02
EP-37	MINER	59+43.01	11.49	LT	7525.99	PNP-02
EP-38	MINER	59+48.92	11.50	LT	7525.74	PNP-02
EP-39	MINER	59+53.60	13.26	LT	7525.47	PNP-02
EP-40	MINER	60+87.35	14.24	LT	7519.71	PNP-02
EP-41	MINER	60+92.56	13.51	LT	7519.50	PNP-02
EP-42	MINER	61+04.6	10.07	LT	7519.08	PNP-03
EP-43	MINER	61+15.07	7.96	LT	7518.64	PNP-03
EP-44	MINER	61+26.11	8.20	LT	7518.16	PNP-03
EP-45	MINER	61+32.43	15.86	LT	7518.42	PNP-03
EP-46	MINER	61+32.61	32.20	LT	7518.53	PNP-03
EP-47	MINER	61+61.47	32.05	LT	7516.76	PNP-03
EP-48	MINER	61+61.50	36.05	LT	7517.29	PNP-03
EP-49	MINER	62+06.80	35.82	LT	7514.73	PNP-03
EP-50	MINER	62+06.55	7.52	LT	7514.60	PNP-03
EP-51	MINER	61+07.56	11.60	RT	7519.25	PNP-03
EP-52	MINER	62+06.37	12.57	RT	7514.64	PNP-03
EP-53	20TH	11+18.85	10.42	LT	7523.07	PNP-04
EP-54	20TH	11+35.74	6.33	LT	7522.86	PNP-04
EP-55	20TH	11+67.67	8.24	LT	7522.56	PNP-04
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EP-57	20TH	10+85.05	20.68	RT	7524.44	PNP-04
EP-58	20TH	11+24.24	20.43	RT	7523.00	PNP-04
EP-59	20TH	11+72.47	11.24	RT	7522.69	PNP-04
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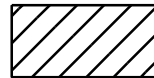
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Date:	Comments	Init.	

 **City of Idaho Springs**
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1711 Miner Street
Idaho Springs, CO 80452
Phone: 303-567-4421 FAX: 303-567-4955

As Constructed		CENTRAL MINER STREET INTERSECTION DETAILS			Project No./Code	
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Revised:		Designer:	M. ASKHAM	Structure Numbers		
Void:		Detailer:	M. ASKHAM	Subset Sheets: 01 of 01	Sheet Number 22	



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REMOVAL OF PAVEMENT
(FULL DEPTH)

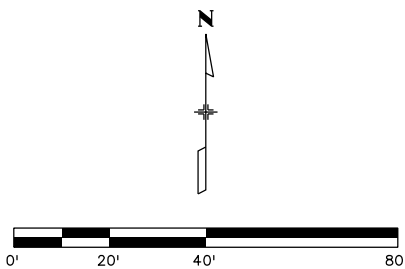
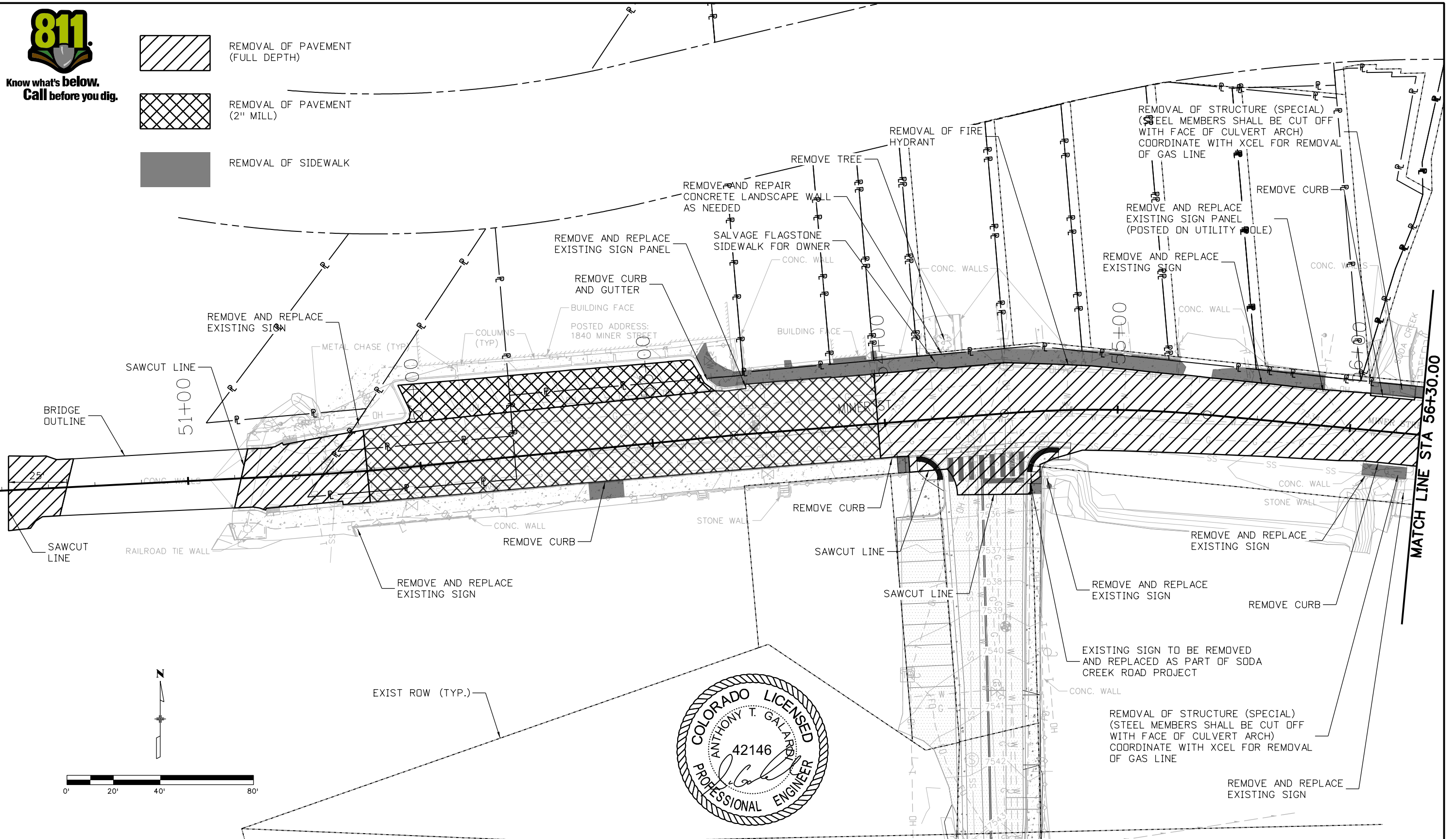


REMOVAL OF PAVEMENT
(2" MILL)



REMOVAL OF SIDEWALK

MMARSHAL 11:28:10 AM pw:\p\h\driscen01\HDR_US_Central_01\Documents\6065\10120232\6.0_CAD_BIM\6.2_WIP_Central Miner_Design\Drawings\CMINER_REMOVAL_01.dgn



Print Date: 9/4/2018		
File Name: CMINER_REMOVAL_01.dgn		
Horiz. Scale: 1:40	Vert. Scale:	
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	Phone: 303-764-1520 Fax: 303-860-7139	

Sheet Revisions			
Date:	Comments	Init.	



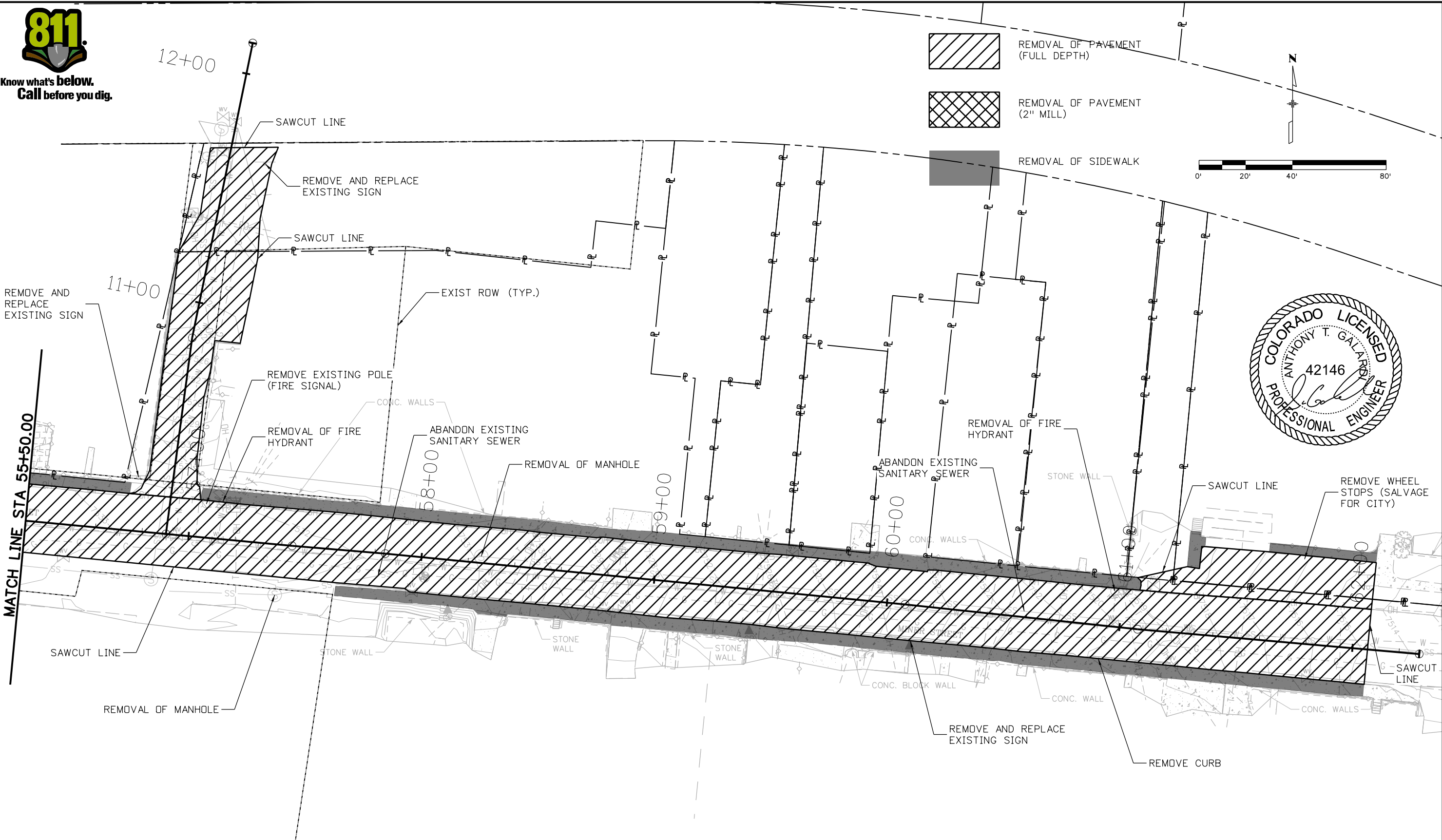
City of Idaho Springs
Department of Public Works

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Phone: 303-567-4421 FAX: 303-567-4955

As Constructed		CENTRAL MINER STREET REMOVALS		Project No./Code
No Revisions:		Designer: M. ASKHAM	Structure Numbers	
Revised:		Detailer: M. ASKHAM		
Void:		Sheet Subset: REMOVALS	Subset Sheets: 01 of 02	Sheet Number 23



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Print Date: 9/4/2018

File Name: CMINER_REMOVAL_02.dgn

Horiz. Scale: 1:40 Vert. Scale:

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Sheet Revisions			
Date:	Comments	Init.	

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As Constructed
No Revisions:
Revised:
Void:

CENTRAL MINER STREET REMOVALS			
Designer:	M. ASKHAM	Structure Numbers	
Detailer:	M. ASKHAM		
Sheet Subset:	REMOVALS	Subset Sheets:	02 of 02

Project No./Code
Sheet Number 24

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EXPANSION JOINT MATERAIL SHALL MEET AASHTO SPECIFICATION M213.

ALL REINFORCING STEEL SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION.

THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 1-800-922-1987 AT LEAST 2 DAYS (NOT INCLUDING THE DAY OF NOTIFICATION) PRIOR TO ANY EXCAVATION OR OTHER EARTHWORK.

STATIONS, ELEVATIONS, AND DIMENSIONS CONTAINED IN THESE PLANS ARE CALCULATED FROM A RECENT FIELD SURVEY. THE CONTRACTOR SHALL VERIFY ALL DEPENDENT DIMENSIONS IN THE FIELD BEFORE ORDERING OR FABRICATING ANY MATERIAL.

LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES (2009)

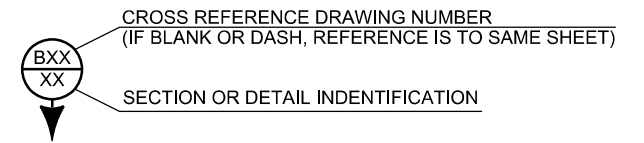
DESIGN METHOD: LOAD AND RESISTANCE FACTOR DESIGN


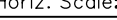
VEHICULAR LIVE LOAD: H20 TRUCK

REINFORCED CONCRETE:

B1	GENERAL NOTES
B2	GENERAL LAYOUT
B3	ABUTMENT DETAILS
B4	GIRDER DETAILS
B5	HANDRAIL DETAILS

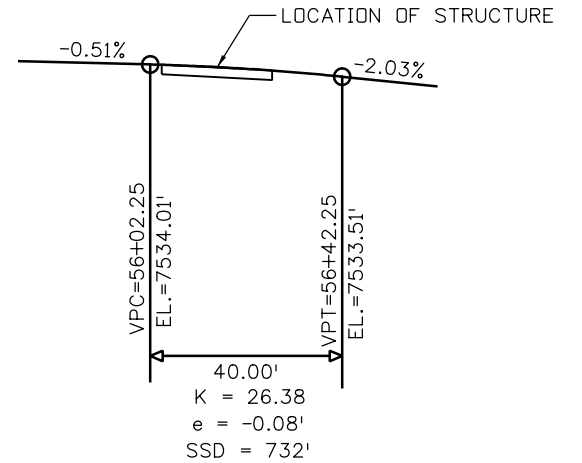
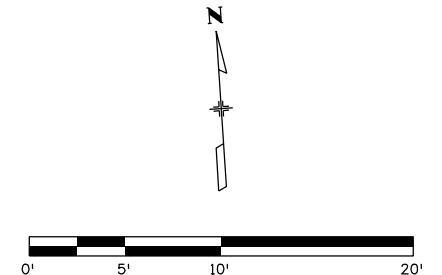
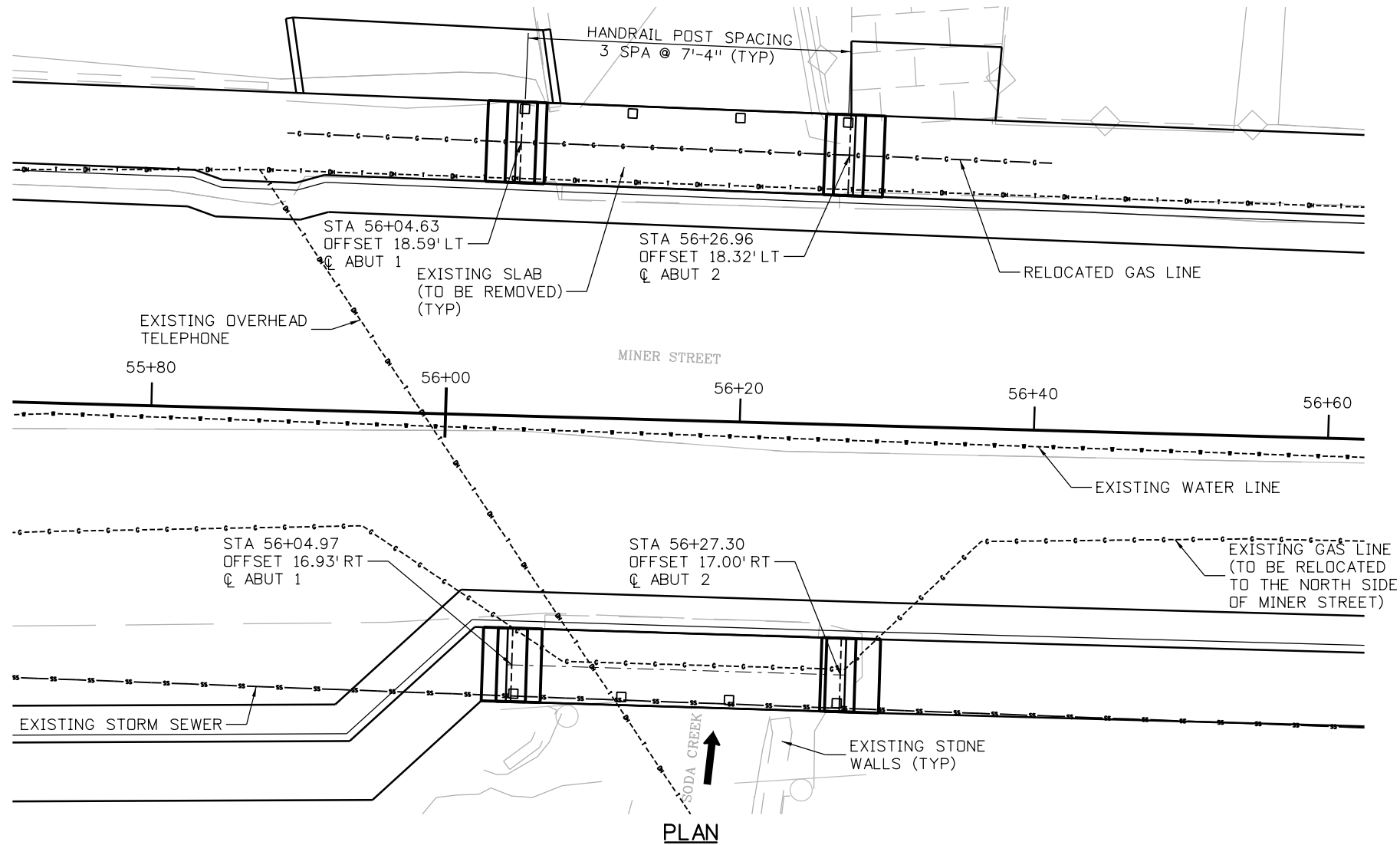
1 - SPAN (23'-0") PRECAST SLAB GIRDER
OVER SODA CREEK, 5'-0" CLEAR WIDTH
90°00'00" SKEW



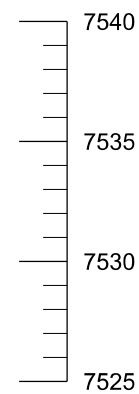
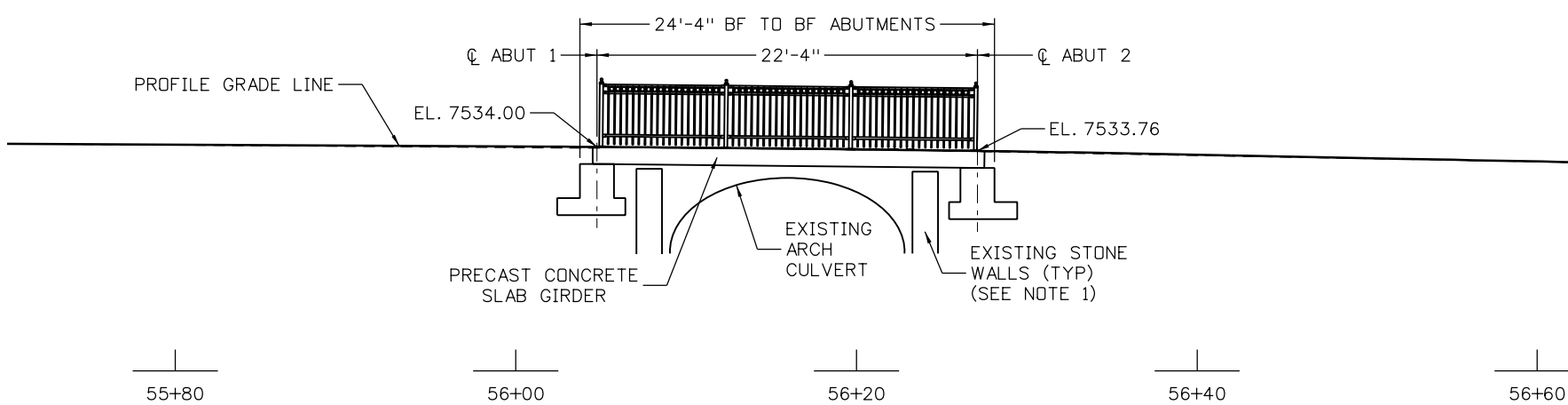
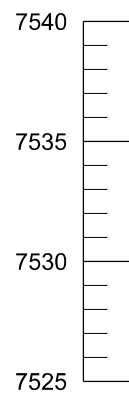
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File Name: CMINER_BRDG_Notes.dgn			No Revisions:		GENERAL NOTES			
Horiz. Scale: 1:1 Vert. Scale: N/A			Revised:		Designer: J. ROBERTS	Structure		
			Void:		Detailer: J. ROBERTS	Numbers		
 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 Fax: 303-860-7139					Sheet Subset: BRIDGE	Subset Sheets: B1 of 5	Sheet Number	25



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VERTICAL PROFILE GRADE
(HCL MINER ST)



ELEVATION

(TAKEN ALONG HCL MINER ST)


NOTES:

1. THE TOPS OF EXISTING STONE WALLS MAY NEED TO BE CUT DOWN TO ALLOW ROOM FOR SLAB GIRDER. A GAP OF 3" TO 6" MAX SHALL BE MAINTAINED BETWEEN TOP OF STONE WALL AND BOTTOM OF SLAB GIRDER.



Print Date: 9/5/2018
File Name: CMINER_BRDG General Layout
Horiz. Scale: 1:40 Vert. Scale:
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Sheet Revisions		
Date:	Comments	Init.



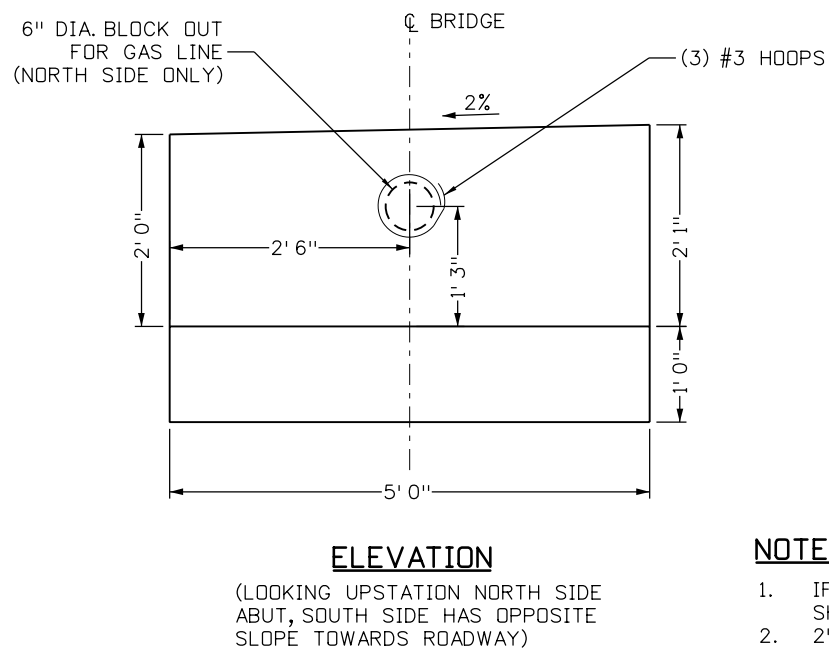
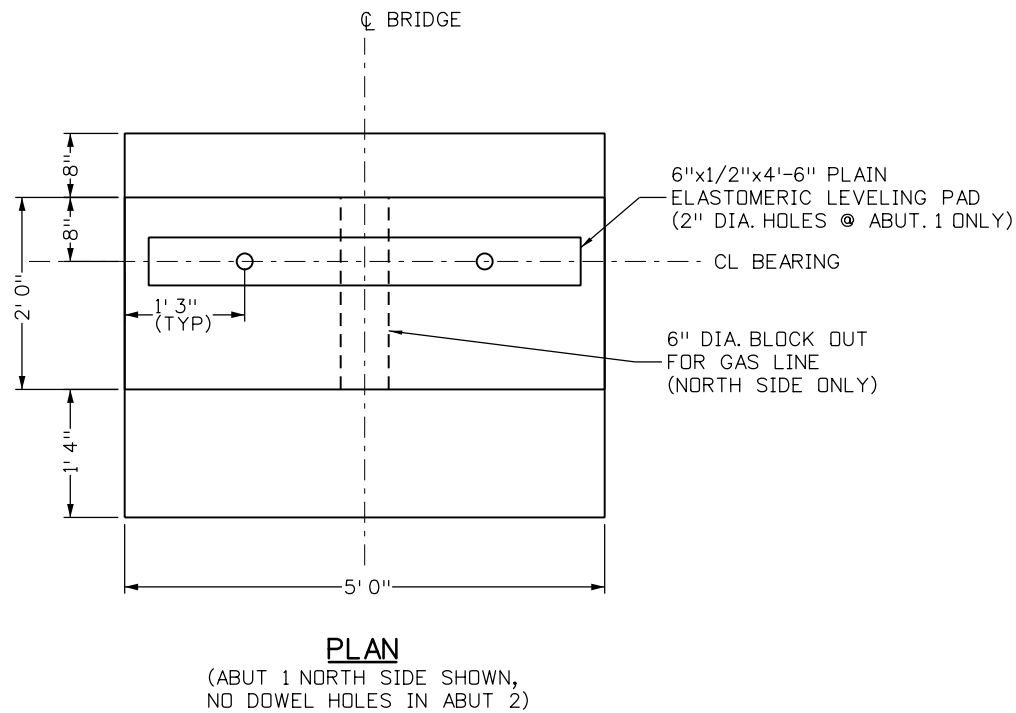
City of Idaho Springs
Department of Public Works
1711 Miner Street
Idaho Springs, CO 80452
Phone: 303-567-4421 FAX: 303-567-4955

As Constructed
No Revisions:
Revised:
Void:

CENTRAL MINER STREET SODA CREEK PEDESTRIAN BRIDGES GENERAL LAYOUT			
Designer:	J. ROBERTS	Structure	
Detailer:	J. ROBERTS	Numbers	
Sheet Subset:	BRIDGE	Subset Sheets:	B2 of 5

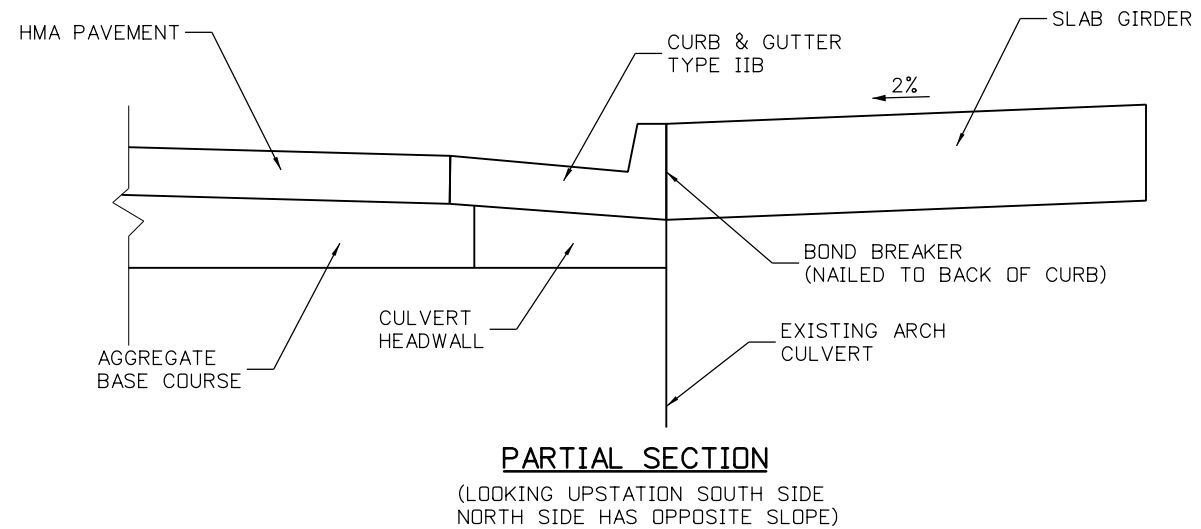
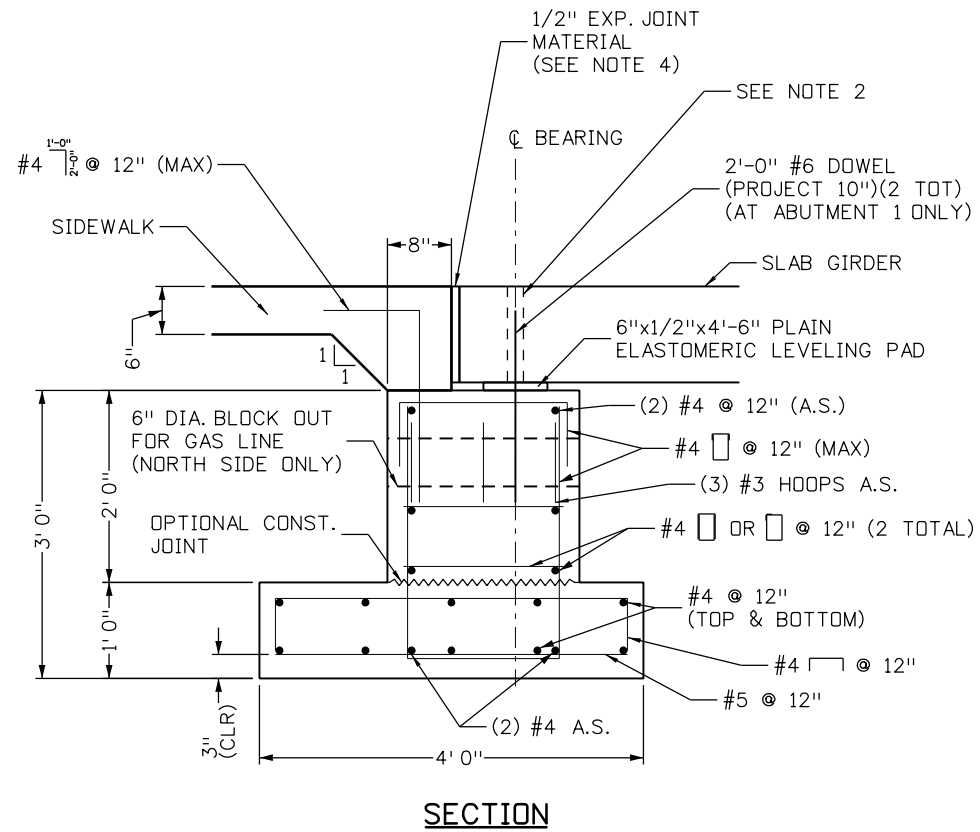
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Sheet Number 26

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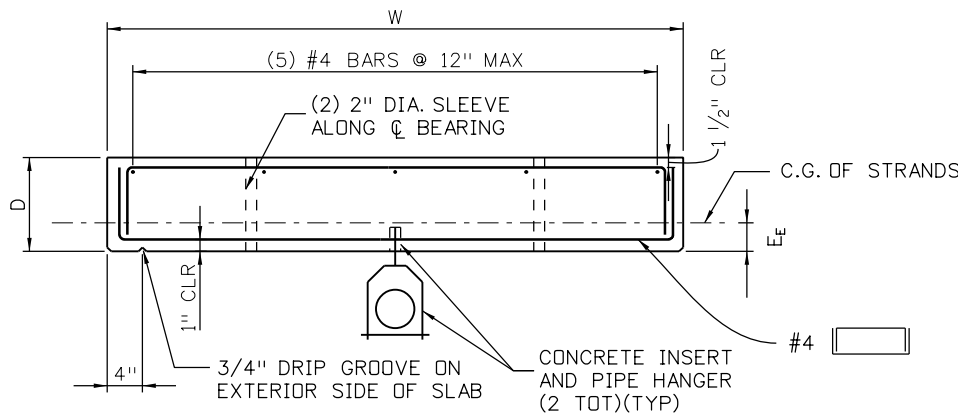
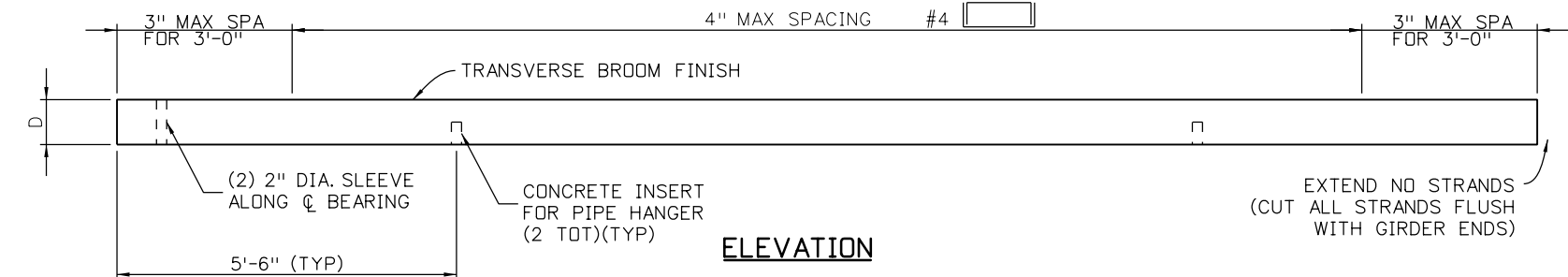
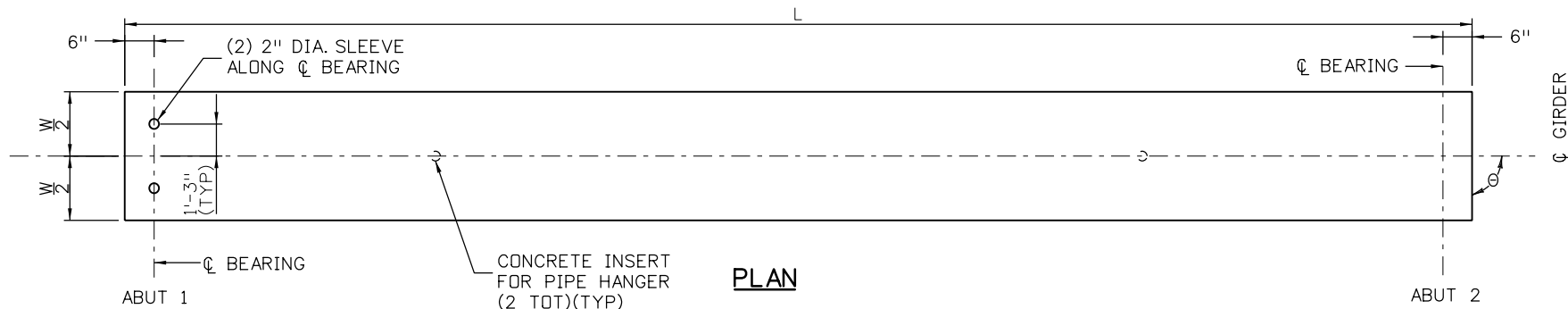
NOTES:

1. IF ARCH CULVERT HEADWALL INTERFERES WITH PLACEMENT OF CURB & GUTTER THE HEADWALL SHALL BE CUT DOWN AS NECESSARY.
2. 2" Ø BLOCK OUT IN GIRDER. #6 DOWEL X 2'-0" SHALL BE SECURED IN PLACE WITH A HIGH STRENGTH EPOXY AND FINISHED LEVEL WITH THE TOP OF THE GIRDER. (ABUTMENT 1 ONLY)
3. ELASTOMERIC LEVELING PAD, #6 DOWELS & EPOXY, EXPANSION JOINT MATERIAL, AND BOND BREAKER SHALL NOT BE QUANTIFIED AND PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE CONCRETE CLASS D (BRIDGE).
4. EXPANSION JOINT MATERIAL SHALL BE NAILED TO END OF SLAB GIRDER PRIOR TO POURING OF SIDEWALK.



Print Date: 9/5/2018		<div>0000</div>	Sheet Revisions				City of Idaho Springs Department of Public Works		As Constructed		CENTRAL MINER STREET SODA CREEK PEDESTRIAN BRIDGES ABUTMENT DETAILS				Project No./Code		
File Name: CMINER_BRDG Abutment Details			Date:	Comments	Init.		1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955		No Revisions:		Designer: J. ROBERTS		Structure Numbers				
Horiz. Scale: 1:1 Vert. Scale: N/A									Revised:		Detailer: J. ROBERTS						
 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 Fax: 303-860-7139									Void:		Sheet Subset: BRIDGE		Subset Sheets: B3 of 5		Sheet Number 27		

J:\ROBERT 11:44:35 PM pw\pwhdruscen01\HDR_US_Central_01\Documents\City_of_Idaho_Springs_Colorado\Idaho_Springs_T0_1_Bonded_St\6.0_CAD_BIM\6.2_WIP_Central Miner\Bridge Drawings\CMINER_BRDG Girder Details



TYPICAL SECTION

GIRDER SCHEDULE														
Span No.	Girder No.	L (Ft)	W (In.)	D (In.)	Θ (Deg.)	A _s * (Sq In)	E _E (In.)	F _j (Kips)	F _r (Kips)	Concrete Strength		Δ (In.)	Predicted Release Camber (In.)	Predicted Camber (In.)
										f' _{ci} (psi)	f' _c (psi)			
1	1 & 2	23.00	60	12	90	2.604	2.5	527.3	480.4	6000	8000	-0.09	0.28	0.51

NOTES:

All work necessary to fabricate and install the integral parts of the girder (including the intermediate diaphragms, if any, and leveling pads), as shown on the plans, shall be included in the bid price for Item No. 618, Prestressed Concrete Slab (Depth 6" through 13"), with a pay unit of Sq. Ft. measured by L x W. When approved by the Engineer a minimum of tack welding will be permitted on ASTM A706 uncoated reinforcing steel.

Reinforcing projecting from the top of the girder and reinforcing within eight feet of an expansion device in the bridge deck shall be epoxy coated. Damaged coating on girder reinforcing need not be repaired. The minimum cover for reinforcing steel is 1". Welded wire fabric may be used with D20 wires in lieu of the #4 bars shown. At girder ends not embedded in concrete diaphragms, cut strands off 1" below the surface of the concrete and finish with an approved epoxy grout. At girder ends embedded in concrete diaphragms, cut strands to project 3", except as shown. Do not make cosmetic repairs (damage less than 1/2" deep) to the parts of the girders embedded in concrete. Use low relaxation strands meeting the requirements of ASTM A416 Grade 270. The minimum clear distance between groups or individual strands shall be 2.3() but not less than 1/4". The minimum cover for prestressing steel is 1/2".

A_s* = minimum area of the prestressing steel.
d_s = nominal strand diameter.
f_s = ultimate strength of prestressing steel.
F_j = jacking force per girder.
F_r = final force per girder after all losses.
f'_{ci} = required concrete strength at release of prestress force.
f'_c = required concrete strength at 28 days of age.
L = length of girder along the grade of the girder.
Δ = deflection at centerline of span due to cast-in-place slab, diaphragms, asphalt, curbs, rails, and walks.
Θ = bridge skew angle

Concrete shall be Class PS. Entrained air is not required for girder concrete. Use 1/2" chamfer on all corners, except as noted. Predicted camber is the camber for the girder alone at 90 days. The Contractor shall limit the camber growth to a value not to exceed the predicted camber plus 1" prior to the deck pour by weighting, scheduling fabrication, post tensioning, or other means and must report to the Engineer values of camber which exceed the predicted camber plus 1". Remedial measures, as approved by the Engineer, shall be taken if the predicted camber plus 1" is exceeded. The approved remedial measures shall be free of any adverse impact. The costs associated with all remedial measures shall be borne by the Contractor.

Side by side slabs placed over roads or pedestrian facilities shall not have cambers of adjacent girders differ by more than 1" before the deck pour. Prior to placing deck reinforcing, the Contractor shall adjust this differential to within this limit by sorting the girders to minimize differentials, or by pulling the high boxes down and low boxes up. The depth (D) tolerance shall be +1/2", -1/4". The Contractor is responsible for determining necessary bracing requirements, and for providing adequate bracing for the specific wind and weather conditions to be encountered for each specific project.

NOTES:

- PIPE HANGER SHALL BE AN ADJUSTABLE ROLLER HANGER AND GIRDER INSERTS SHALL BE COMPATIBLE WITH THE HANGER CONNECTION. PIPE HANGER AND GIRDER INSERTS SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO CASTING OF GIRDER.
- PIPE HANGER AND GIRDER INSERTS SHALL NOT BE QUANTIFIED AND PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE GIRDER.
- STIRRUPS AND LONGITUDINAL #4 BARS SHALL BE TIED TOGETHER.



Print Date: 9/4/2018

File Name: CMINER_BRDG Girder Details

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Sheet Revisions

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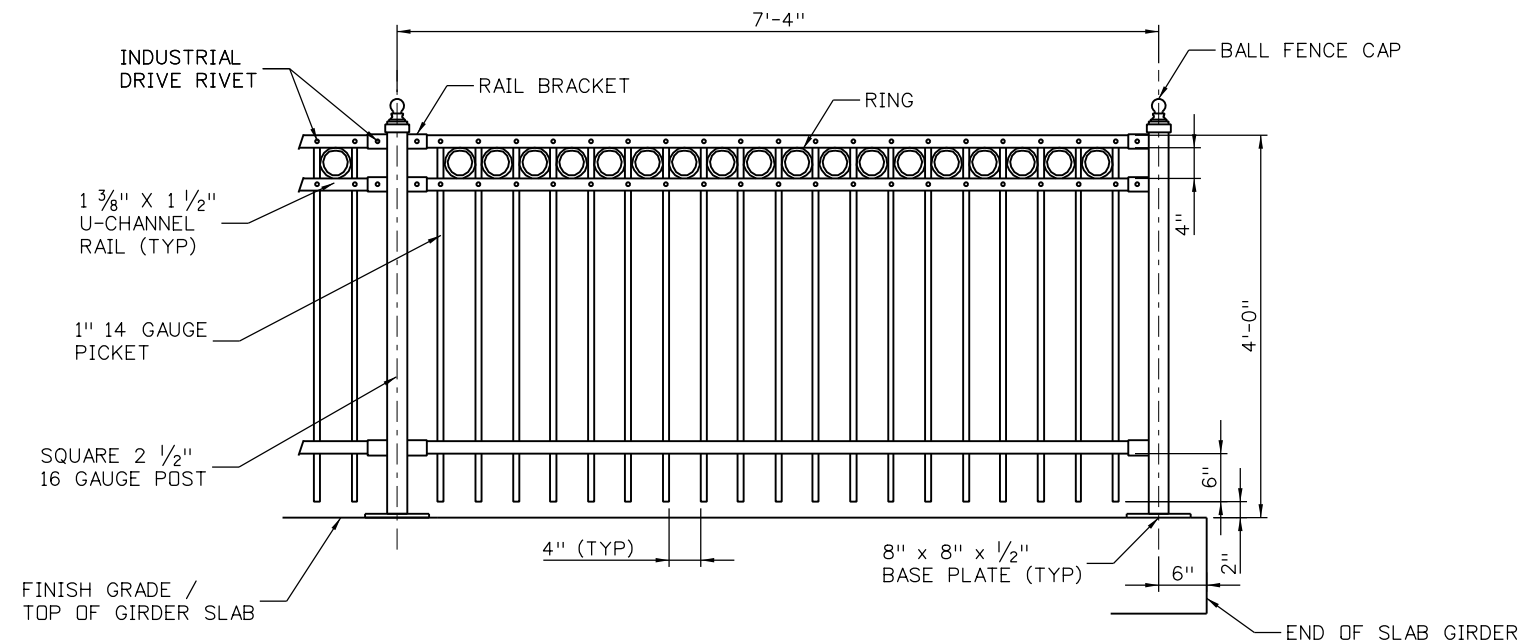
CENTRAL MINER STREET
SODA CREEK PEDESTRIAN BRIDGES
GIRDER DETAILS

Designer: J. ROBERTS Structure
Detailer: J. ROBERTS Numbers
Sheet Subset: BRIDGE Subset Sheets: B4 of 5

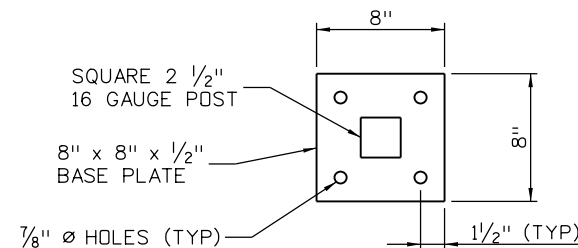
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Sheet Number **28**

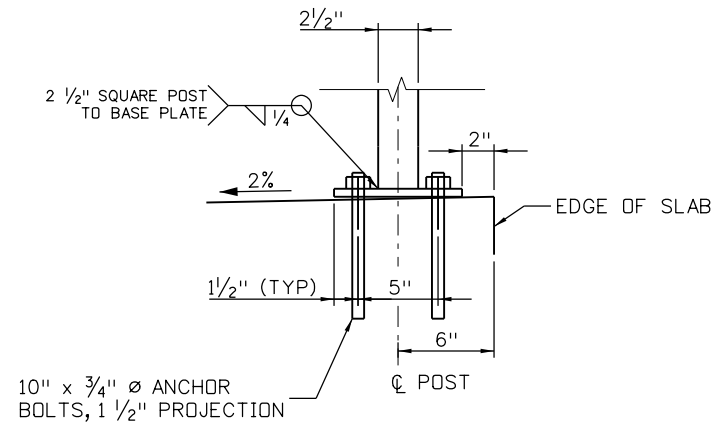
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HANDRAIL PANEL ELEVATION



BASE PLATE DETAIL



HANDRAIL ANCHOR DETAIL



HANDRAIL DESIGN NOTES:

1. HANDRAILS SHALL BE DESIGNED TO WITHSTAND A 200 LB. CONCENTRATED LOAD APPLIED IN ANY DIRECTION AND AT ANY POINT ON THE TOP RAIL. HANDRAILS SHALL ALSO BE DESIGNED TO WITHSTAND A UNIFORM LOAD OF 50 LB/FT APPLIED HORIZONTALLY TO THE TOP RAIL. UNIFORM LOADS ARE NOT APPLIED SIMULTANEOUSLY WITH THE CONCENTRATED LOAD.
2. PICKETS AND INTERMEDIATE RAILING SHALL BE PROVIDED SUCH THAT A 4" Ø SPHERE CANNOT PASS THROUGH ANY OPENING.
3. PICKETS AND INTERMEDIATE RAILINGS SHALL BE DESIGNED TO WITHSTAND A HORIZONTAL LOAD OF 50 LB APPLIED NORMAL TO AN AREA NOT TO EXCEED ONE SQUARE FOOT INCLUDING OPENING AND SPACE BETWEEN RAILS.

NOTES:

1. SEE SHEET B2 FOR HANDRAIL POST LAYOUT
2. HANDRAIL POSTS SHALL BE PLUM TO WITHIN A TOLERANCE OF 1/4".
3. BASE PLATE MAY BE TAPERED OR A GROUT PAD USED TO MAKE POSTS PLUM.
4. ANCHOR BOLTS SHALL BE F1554 AND SHALL BE GALVANIZED. ANCHOR BOLTS INSTALLATION DETAILS SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO HANDRAIL ERECTION.
5. ALL STEEL FOR HANDRAIL POSTS & PANELS, INCLUDING WELDED JOINTS, SHALL BE GALVANIZED AND PAINTED. THE COLOR SHALL BE BLACK.
6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW BY ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.
7. ALL MATERIALS AND WORKMANSHIP REQUIRED FOR THE FABRICATION AND INSTALLATION OF THE HANDRAILS SHALL BE INCLUDED IN THE COST OF ITEM 514 HANDRAIL.
8. HANDRAIL POST BASE PLATE SHALL BE ASTM A-572 GRADE 50 AND SHALL BE PAINTED TO MATCH THE HANDRAIL POSTS.



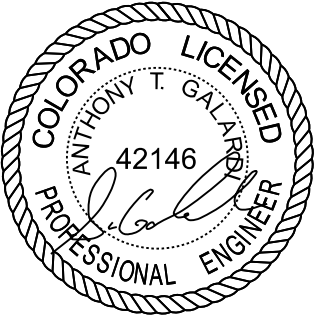
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File Name: CMINER_BRDG Handrail Details			Date:	Comments	Init.		No Revisions:							
Horiz. Scale: 1:1 Vert. Scale: N/A							Revised:		Designer:	J. ROBERTS	Structure			
 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 Fax: 303-860-7139							Void:		Detailer:	J. ROBERTS	Numbers			
									Sheet Subset:	BRIDGE	Subset Sheets:	B5 of 5	Sheet Number	29



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Tabulation of Drainage Structures											
Structure ID	Pipe ID	Alignment	Station	Offset	202-04002	202-04010	420-00113	506-00209	605-00004	608	REMARKS
					Clean Culvert	Clean Inlet	Geotextile (Drainage) (Class 2)	Riprap (9 Inch)	4 Inch Non- Perforated Pipe Underdrain	Sidewalk Chase	
					EACH	EACH	SY	CY	LF	EACH	
EX-IN1	EX-P1	C MINER	51+45	15.4' LT	1	1					EXISTING BRIDGE DRAIN
EX-IN2	EX-P2	C MINER	51+36	14.6' RT	1	1					EXISTING BRIDGE DRAIN
EX-IN3		C MINER	51+57	17.6' LT		1					EXISTING SIDEWALK CHASE
		C MINER	56+04	14.4' RT			5	1		1	
	PVC1	C MINER	59+90	21.6' RT					9		
	PVC2-4	C MINER	59+90	13.0' RT					217		
Project Totals					2	3	5	1	226	1	

*SEE PLANS FOR ITEM DESCRIPTION AND SPECIFICATION





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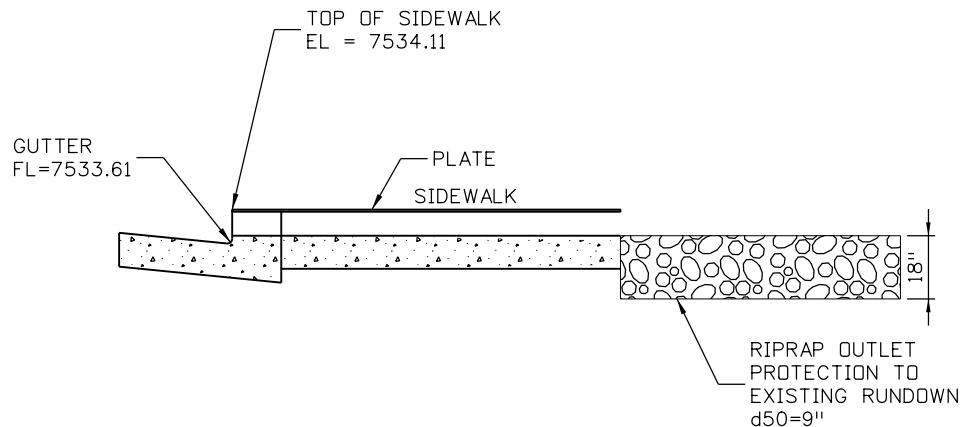
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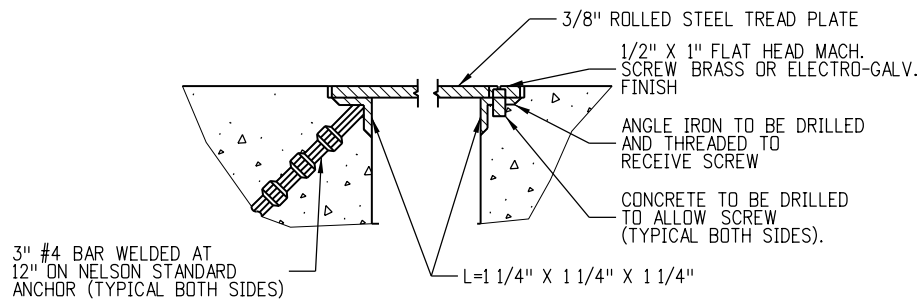
PLAN VIEW



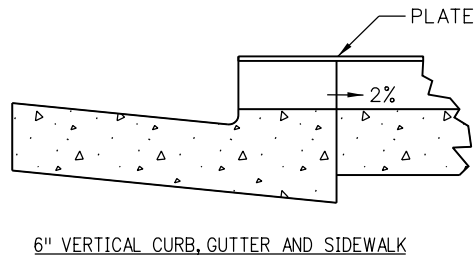
TREAD PLATE (3/8" ROLLED
STEEL DIAMOND PATTERN)
DIMENSION VARIABLE



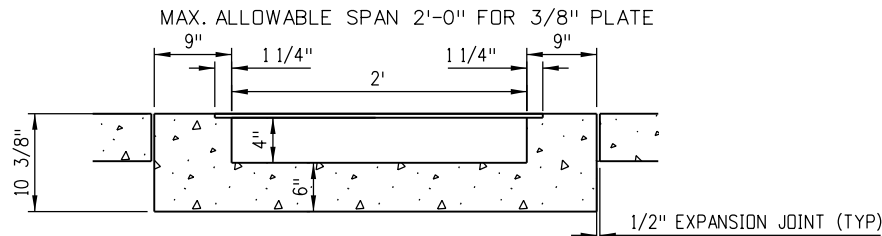
SECTION A-A



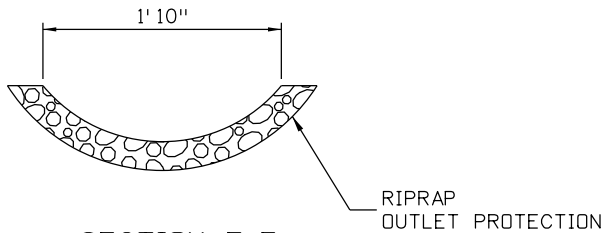
SECTION C-C



SECTION D-D



SECTION B-B



SECTION E-E



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Vert. Scale: NTS



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As Constructed	CENTRAL MINER STREET DRAINAGE DETAILS CHASE DRAIN DETAIL			Project No./Code
No Revisions:				
Revised:	Designer: A. FINSETH	Structure Numbers		
	Detailer: A. FINSETH			
Void:	Sheet Subset: DR DET	Subset Sheets: 1 of 1	Sheet Number	31



Know what's below.
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STA 51+57, 17.6' LT
EX-IN3
CLEAN INLET
(SIDEWALK CHASE)

STA 51+45, 15.4' LT
EX-IN1
CLEAN INLET
CLEAN CULVERT

STA 51+36, 14.6' RT
EX-IN2
CLEAN INLET
CLEAN CULVERT

CLEAR CREEK

MINER ST

HCL CENTRAL MINER ST

EXISTING ROW

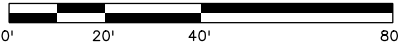
CROSS PAN

SODA CREEK RD

EXISTING INLET

EXISTING INLET

MATCH LINE STA 56+00.00



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City of Idaho Springs
Department of Public Works

1711 Miner Street
Idaho Springs, CO 80452
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As Constructed

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CENTRAL MINER STREET
GRADING & DRAINAGE P&P
STA. 51+00 TO STA. 56+00

Designer: A. FINSETH

Detailer: A. FINSETH

Sheet Subset: DRAINAGE

Structure

Numbers

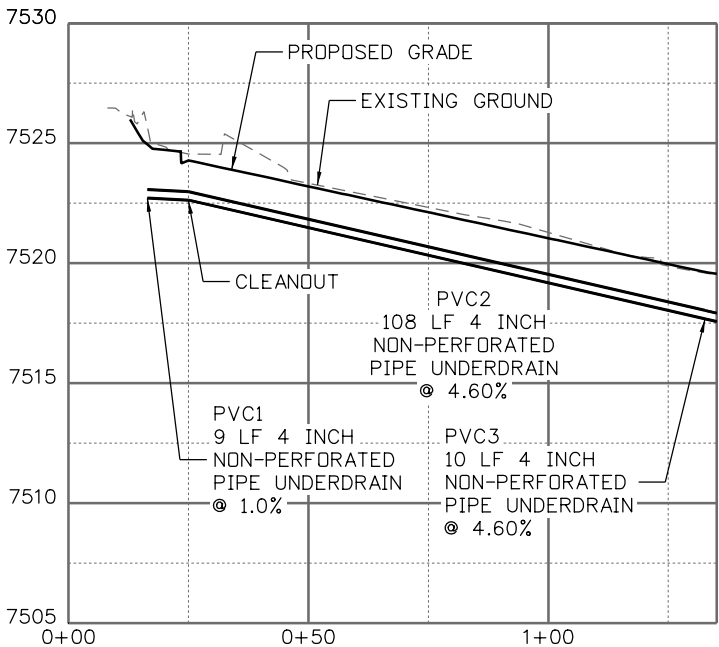
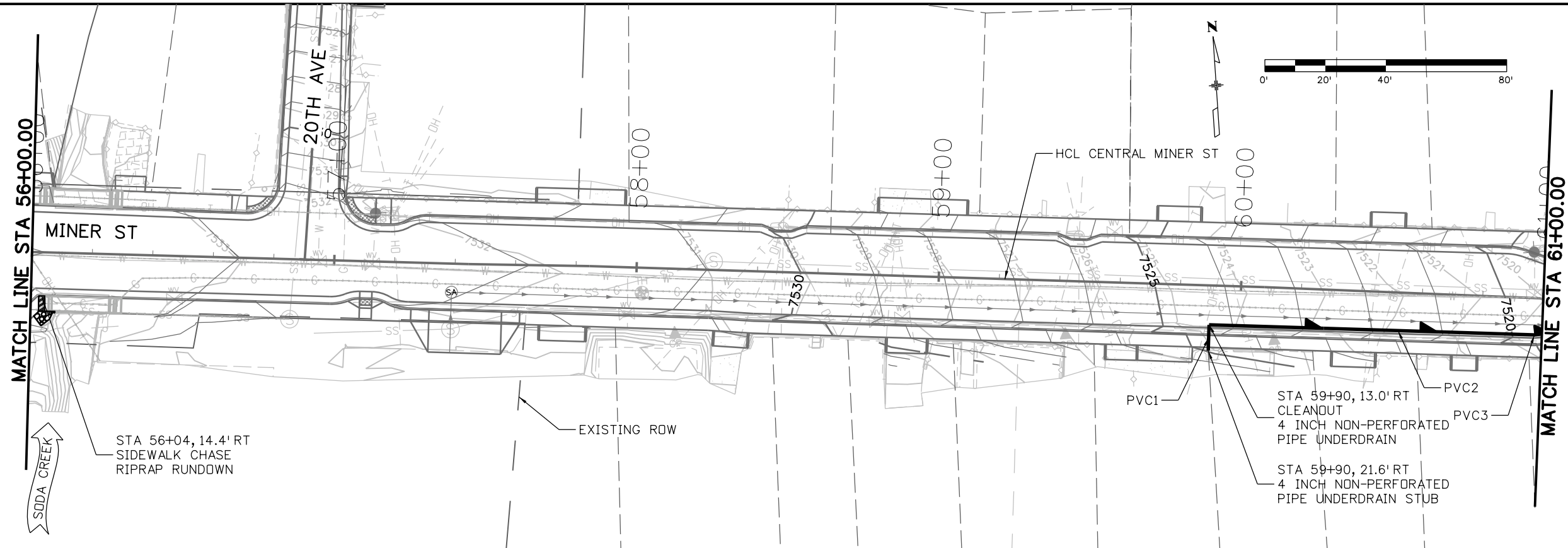
Subset Sheets: 01 of 04

Project No./Code

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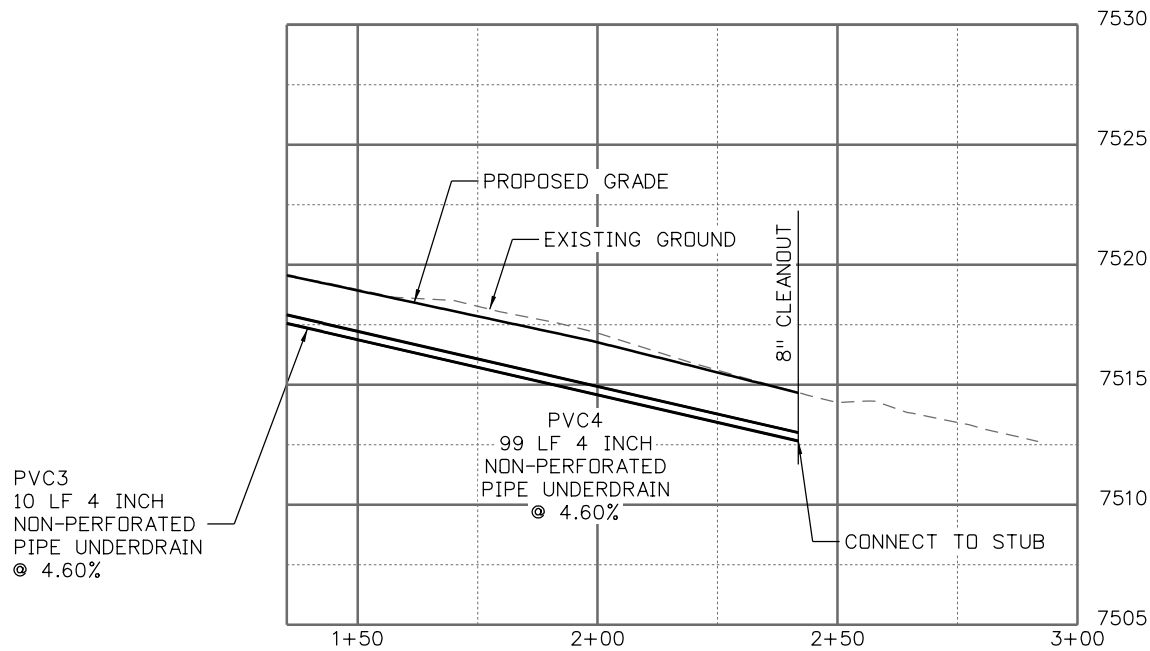
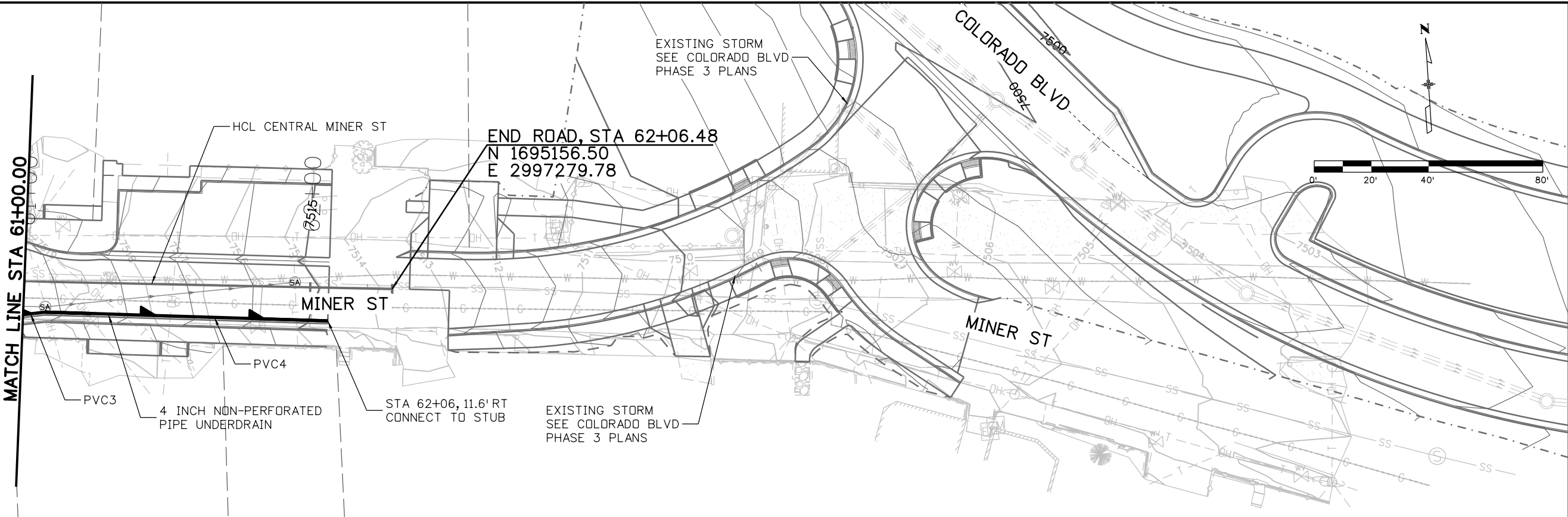
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CENTRAL MINER STREET GRADING & DRAINAGE P&P STA. 56+00.00 TO STA. 61+00.00			
Designer:	A. FINSETH	Structure	
Detailer:	A. FINSETH	Numbers	
Sheet Subset:	DRAINAGE	Subset Sheets:	02 of 04

Project No./Code
Sheet Number 33




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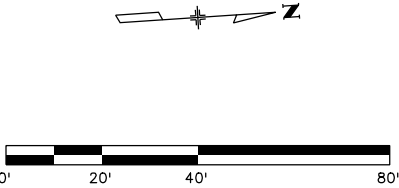
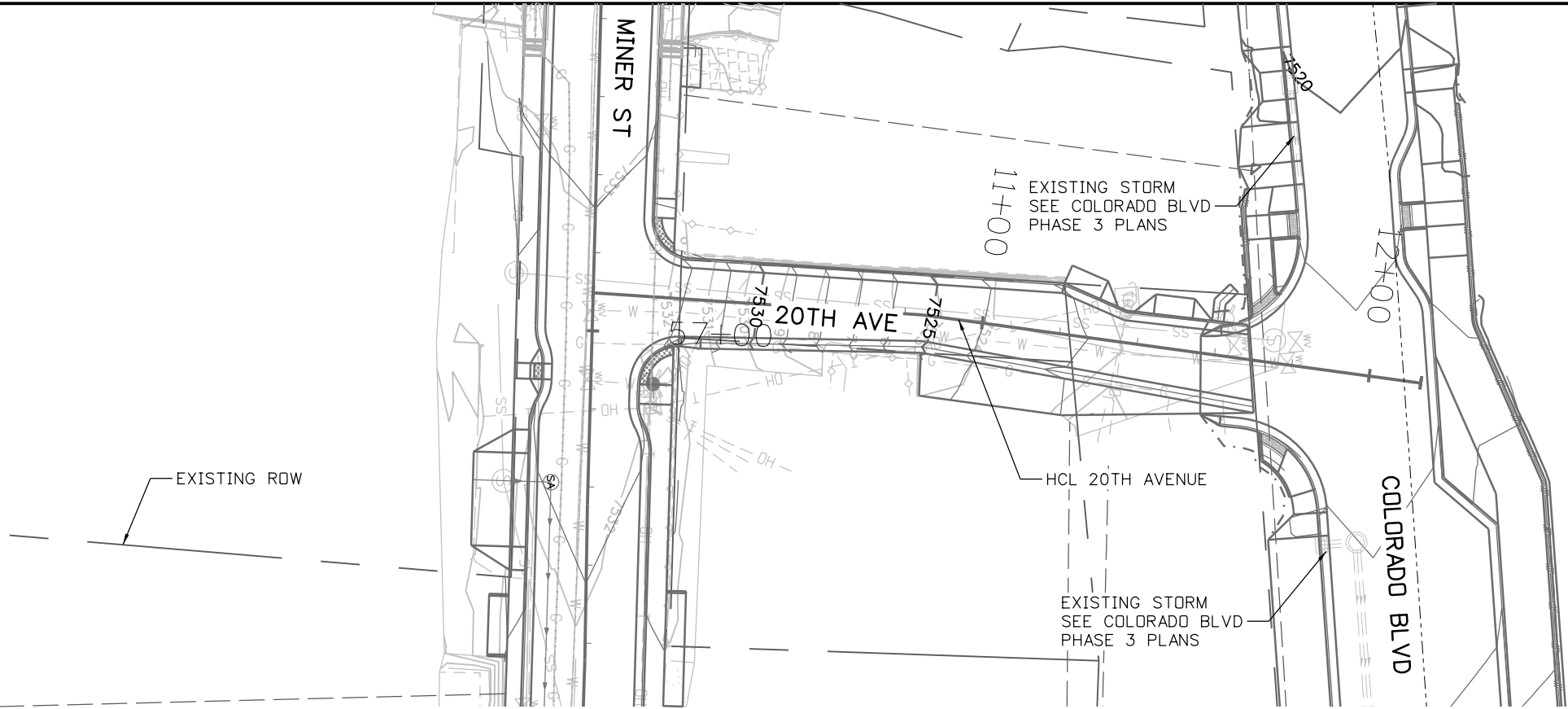
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No Revisions:		Designer: A. FINSETH	Structure		
Revised:		Detailer: A. FINSETH	Numbers		
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Revised:	Detailer: A. FINSETH	Numbers		
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1. SITE DESCRIPTION

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

A. PROJECT SITE LOCATION: The project location follows the existing Central Miner Street alignment, between the Clear Creek bridge and Old Miner Street in Clear Creek County, Idaho Springs, Colorado.

B. PROJECT SITE DESCRIPTION: The improvements include roadway reconstruction, sidewalks, drainage and water and sanitary improvements.

C. PROPOSED SEQUENCING FOR MAJOR CONSTRUCTION ACTIVITIES: The sequence of construction events begins with clearing and grubbing and removals, followed by excavation, utility relocation, drainage installation, and grading. This is ultimately followed by construction of pavement, flatwork and landscaping.

D. ACRES OF DISTURBANCE:

- 1. Total area of construction site (LOC (PERMITTED AREA)): 3.0 acres
- 2. Total area of proposed disturbance (LDA): 1.3 acres
- 3. Total area of seeding: 0.25 acres
- 4. Total area of impervious surface: 1.20 acres
- 5. Total area of NEW impervious surface: 0.06 acres

E. EXISTING SOIL DATA: Existing soil data was determined from the Natural Resources Conservation Service (NRCS) Soil Survey including Clear Creek County. Soils in the project area are primarily hydrologic soil group A. Group A soils have a high infiltration rate and a low runoff potential.

F. EXISTING VEGETATION, INCLUDING PERCENT COVER:

During design the SWMP Administrator for Design in consultation with the Engineer will determine if the SWMP Administrator for Design or the SWMP Administrator will conduct the Vegetation Transects as outlined in Chapter 4.11.2 of the Erosion Control and Stormwater Quality Guide.

Pre-Construction Date of survey: _____ %Density: _____
Description of existing vegetation:
Map or table showing transect locations in SWMP notebook tab 17:

Post-Construction Date of survey: _____ %Density: _____
Description of existing vegetation: **Date of CDPS-SCP Closure:** _____
Map or table showing transect locations in SWMP notebook tab 17:

G. POTENTIAL POLLUTANTS SOURCES: See First Construction Activities under Potential Pollutant Sources. The SWMP Administrator shall prepare a list of all potential pollutants and their locations in accordance with subsection 107.25.

H. RECEIVING WATER:

- 1. Outfall locations: Location of outfalls shown on SWMP plans. The size and type of pipe is shown on the drainage plans. The ultimate receiving water is Clear Creek.
- 2. Names of receiving water(s) on site: Clear Creek
- 3. Ultimate receiving water: Clear Creek
- 4. Horizontal distance nearest water of the state is from project: Construction begins at the Clear Creek Bridge approximately 15 feet above Clear Creek.

I. NON-STORMWATER DISCHARGES:

ALLOWABLE:

- 1. Groundwater and stormwater dewatering: Discharges to the ground of water from construction dewatering activities may be authorized provided that:
 - a. the source is groundwater and/or groundwater combined with stormwater that does not contain pollutants

- b. the source and BMPs/Control Measures are identified in the SWMP
- c. discharges do not leave the site as surface runoff or to surface waters
- d. The contractor shall protect all work areas and facilities from water at all times. Areas and facilities subject to flooding, regardless of the source of water, shall be promptly dewatered and restored at no cost to the owner. This shall include removal of any debris caused by flooding. Any dewatering shall be done in accordance with Subsection 107.25

CONTAMINATED:

- 1. If discharges do not meet the above criteria a separate CDPS permit shall be obtained by the Contractor from the CDPHE. See standard special provision 250 Hazardous Waste and Contaminated Water.

2. SITE MAP COMPONENTS:

Pre-construction

A. PROJECT CONSTRUCTION POTENTIAL SITE BOUNDARIES See Erosion Control Plans.

B. ALL AREAS OF GROUND SURFACE DISTURBANCE See Erosion Control Plans.

C. AREAS OF CUT AND FILL See Erosion Control Plans.

D. LOCATION OF ALL STRUCTURAL BMPs/CONTROL MEASURES IDENTIFIED IN THE SWMP
See Erosion Control Plans.

E. LOCATION OF NON-STRUCTURAL BMPs/CONTROL MEASURES AS APPLICABLE IN THE SWMP
See Erosion Control Plans.

F. SPRINGS, STREAMS, WETLANDS AND OTHER SURFACE WATER Clear Creek Watershed:
See Erosion Control Plans.

G. PROTECTION OF TREES, SHRUBS, CULTURAL RESOURCES AND MATURE VEGETATION
See Erosion Control Plans.

H. AREAS USED FOR STORING AND STOCKPILING OF MATERIALS, STAGING AREAS (field trailer, fueling, etc.) and BATCH PLANTS Contractor to coordinate staging, storage and layout areas and update locations on plans.

3. SWMP ADMINISTRATOR:

A. SWMP ADMINISTRATOR FOR DESIGN:

Name/Title	Contact Information
Amy Finseth, Transportation Hydraulics, HDR	303.764.1520 amy.finseth@hdrinc.com

B. SWMP ADMINISTRATOR FOR CONSTRUCTION: (As defined in Subsection 208) The Contractor shall designate a SWMP Administrator for Construction upon ownership of the SWMP. The SWMP Administrator shall become the owner/operator and assume responsibility for all design changes to the SWMP implementation and maintenance in accordance to 208.03. The SWMP Administrator shall be responsible for implementing, maintaining and revising SWMP, including the title and contact information. The activities and responsibilities of the SWMP administrator shall address all aspects of the projects SWMP. (Update the information below for each new SWMP Administrator) (Copy of TECS Certification must also be included in the SWMP Notebook.)

Name/Title	Contact Information	Certification #	Start Date	Engineer Approval



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CENTRAL MINER STREET
STORMWATER MANAGEMENT
PLAN NOTES

Designer: A FINSETH Structure
Detailer: A FINSETH Numbers
Sheet Subset: SWMP Subset Sheets: 1 of 5

Project No./Code

Sheet Number 36

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

Name/Title	Contact Information	Certification #	Start Date	Engineer Approval

4. STORMWATER MANAGEMENT CONTROLS FIRST CONSTRUCTION ACTIVITIES

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

A. POTENTIAL POLLUTANT SOURCES

Evaluate, identify, locate and describe all potential sources of pollutants at the site in accordance with subsection 107.25, CDPS-SCP and place in the SWMP notebook. All BMPs/Control Measures related to potential pollutants shall be shown on the SWMP site map by the Contractor's SWMP Administrator.

B. OFFSITE DRAINAGE (RUN ON WATER)

1. Describe and record BMPs/Control Measures on the SWMP site map that have been implemented to address off site run-on water in accordance with subsection 208.03.

C. VEHICLE TRACKING PAD/VEHICLE TRACKING CONTROL

1. BMPs/Control Measures shall be implemented in accordance with subsection 208.04.

D. PERIMETER CONTROL

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

5. DURING CONSTRUCTION

RESPONSIBILITIES OF THE SWMP ADMINISTRATOR DURING CONSTRUCTION

The SWMP should be considered a "living document" that is continuously reviewed and modified. During construction, the following items shall be added, updated, or amended as needed by the SWMP Administrator in accordance with subsection 208.

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

A. STOCKPILE MANAGEMENT: Shall be done in accordance with subsection 107.25 and 208.07

B. CONCRETE WASHOUT: Concrete wash out water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.

C. SAW CUTTING: Shall be done in accordance with subsection 107.25, 208.04, 208.05

D. STREET SWEEPING: Shall be done in accordance with subsection 208.04

6. INSPECTIONS

A. Inspections shall be in accordance with subsection 208.03 (c).

7. BMP/CONTROL MEASURE MAINTENANCE

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

8. RECORD KEEPING

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

9. INTERIM AND PERMANENT STABILIZATON

A. SEEDING PLAN

Soil preparation, soil conditioning or topsoil, seeding (native), mulching (weed free) and mulch tackifier will be required for an estimated 0.25 acres of disturbed area within the right-of-way limits which are not surfaced. The following types and rates shall be used:

COMMON NAME	BOTANICAL NAME	LBS. PLS PER ACRE
EPHRAIM CRESTED WHEATGRASS	AGROPYRON CRISTATUM	7 LBS/ACRE
SHEEP FESCUE	FESTUCA OVINA L.	6 LBS/ACRE
PERENNIAL RYE	LOLIUM PERENNE L.	5 LBS/ACRE
CHEWINGS FESCUE	FESTUCA RUBRA SPP. RUBRA	4 LBS/ACRE
CANADA BLUEGRASS	POA COMRESSA	3 LBS/ACRE
TOTAL		25 LBS/ACRE

B. SEEDING APPLICATION: Drill seed 0.25 inch to 0.5 inch into the soil. In small areas not accessible to a drill, hand broadcast or hydroseed at double the rate and rake 0.25 inch to 0.5 inch into the soil per subsection 212.

C. MULCHING APPLICATION: Apply a minimum of 2 tons of certified weed free hay or 2 1/2 tons of certified weed free straw per acre and in accordance with Section 213, and mechanically crimp it into the soil in combination with an organic mulch tackifier.

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

D. SPECIAL REQUIREMENTS:

- Due to high failure rates, hydroseeding will not be allowed for permanent stabilization.

E. SOIL CONDITIONING AND FERTILIZER REQUIREMENTS: Minimum requirements for all disturbances to receive seeding (native). Elevation: 7,526) feet

Biological nutrient organic based fertilizer (lbs/acre)*	Humate (lbs/acre)	Compost (cys/acre) All areas <2:1 [1/2 inch depth]
300	200	65

*Biological nutrient shall not exceed 8-8-8 (N-P-K).

Humate based material shall be in accordance to Standard Special Provision 212 and compost shall be in accordance to Standard Special Provision 212.

F. SOIL RETENTION COVERING: On slopes and ditches requiring a blanket or turf reinforcement mat (trm), the blanket/trm shall be placed in lieu of mulch and mulch tackifier and placed after seeding (native). See SWMP site map for blanket/trm locations.

G. RESEEDING OPERATIONS/CORRECTIVE STABILIZATION

Prior to partial acceptance.



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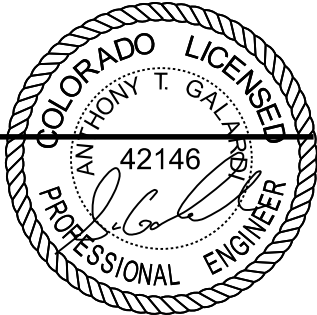
 City of Idaho Springs Department of Public Works 1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955	As Constructed		CENTRAL MINER STREET STORMWATER MANAGEMENT PLAN NOTES			Project No./Code
	No Revisions:		Designer: A FINSETH	Structure		
	Revised:		Detailer: A FINSETH	Numbers		
	Void:		Sheet Subset: SWMP	Subset Sheets: 2 of 5		Sheet Number 37

1. All seeded areas shall be reviewed during the 14 day inspections by the SWMP Administrator and or Erosion Control Inspector for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be re-graded, seeded, and have the designated mulching applied as necessary, at no additional cost to the project.

10. PRIOR TO PROJECT FINAL ACCEPTANCE

- A. Partial Acceptance shall be in accordance with subsection 107.25 (d), 208.10 and 214.04 at the Partial Acceptance of the project, it shall be determined by the SWMP Administrator and

- the Engineer which temporary BMPs/Control Measures shall remain until 70% revegetation is established or which shall be removed.
- B. At the end of the project, all ditch checks shall either consist of temporary erosion logs (or equivalent) or permanent rip-rap.
- A. All storm drains shall be cleaned prior to the Final Acceptance of the project. Work shall be included in 202 Clean Culvert.



11. NARRATIVES: ADDITIONAL BMPS/CONTROL MEASURES AND NARRATIVES:

BMP/Control Measure details and narratives not covered by the SWMP or Standard Plan M-208, M-216 shall be added to the SWMP notebook by the SWMP Administrator.

BMP Matrix:

1. M-Standards have been included along with standard BMP narratives. If a Non-Standard BMP will be used or the standard narrative does not apply, the SWMP Administrator shall write a Non-Standard BMP narrative, place an "X" in the column and complete a Non-Standard BMP Specification and Narrative for the SWMP notebook.
2. The SWMP Administrator shall place an "X" in the column In Use on Site when the BMP/Control Measure has been installed.
3. Place an "X" in the column BMP/Control Measure to be located by SWMP Administrator if the SWMP Administrator shall locate the BMP/Control Measure during construction. These BMP/Control Measures are not currently located on SWMP Plans but are anticipated to be used during construction (i.e. Vehicle Tracking Pad, Batch Plants, etc.). The SWMP Administrator shall locate these prior to or during construction and reflect on SWMP Map.
4. Place an "X" in the column Installation BMP/Control Measure Pre-Construction if the BMP/Control Measure is to be installed prior to construction activity.

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

APPLICATION, BMP/CONTROL MEASURE	NARRATIVE	M-STANDARD/NON-STANDARD	IN USE ON SITE	BMP/CONTROL MEASURE TO BE LOCATED BY SWMP ADMINISTRATOR	INSTALLATION BMP/CONTROL MEASURE PRE-CONSTRUCTION	BMP/CONTROL MEASURE PHASING		
						FIRST/INITIAL CONSTRUCTION ACTIVITIES	INTERIM CONSTRUCTION ACTIVITIES	PERMANENT STABILIZATION
PROTECTION OF EXISTING TREES/LANDSCAPING Fence (plastic)	Fence (plastic) shall be used in areas indicated in the plans to prevent encroachment of construction traffic and sediment for the protection of mature trees and/or existing landscaping prior to start of construction disturbances.					X	X	
CHECK DAM/DITCH CHECK Erosion log, silt berm, silt dike, rock check dam	Placed in ditches immediately upon completion of ditch grading to reduce velocity of runoff in ditch. For existing ditches, place prior to start of construction disturbances.	M-208				X	X	X
TYPE R AND TYPE 16 INLET PROTECTION Storm drain inlet protection (Type 1,2 and 3)	Placed prior to construction disturbances as detailed in M-208-1, to protect existing inlets or immediately upon completion of new inlets to prevent sediment from entering the inlet throughout construction.	M-208				X	X	X
CULVERT INLET/OUTLET PROTECTION Erosion logs, aggregate bags	Placed at mouth of culvert inlets and over top of culvert at inlet and outlet where disturbance may be occurring adjacent to pipe to prevent sediment laden water from entering pipe or drainage. Place prior to start of construction disturbances.	M-208				X	X	X
TYPE C, TYPE D AND TYPE 13 PROTECTION Erosion logs, aggregate bags, erosion bales	Placed around inlet grate or slope and ditch paving to prevent sediment from entering inlet. Place prior to start of construction disturbances.	M-208				X	X	X
STOCKPILE PROTECTION Temporary berm, erosion logs, aggregate bags*	Placed within specified distance, in accordance with subsection 208.06, from toe to contain sediment around stockpile. *Aggregate bags are easily moved and replaced for access during the work day. Place prior to start of stock pile, increase control as stock pile increases size.	M-208					X	

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CENTRAL MINER STREET
STORMWATER MANAGEMENT
PLAN NOTES

Designer: A FINSETH

Detailer: A FINSETH

Sheet Subset: SWMP

Structure

Numbers

Subset Sheets:

3 of 5

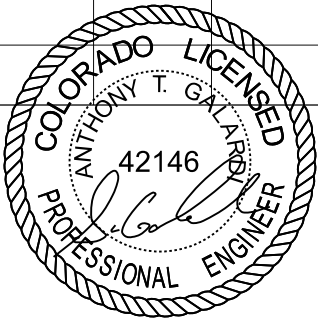
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TOE OF FILL PROTECTION <i>Erosion logs, temporary berm, silt fence, topsoil windrow*</i>	Place prior to slope/embankment work to capture sediment and protect and delineate undisturbed areas. *Can be used to stockpile topsoil for salvage.	M-208					X	X	
PERIMETER CONTROL <i>Erosion logs, silt fence, temporary berm, topsoil windrow*</i>	Placed prior to construction commencing to address potential run-on water from off site, and to divert around disturbed area. *Can be used to stockpile topsoil for salvage.	M-208					X	X	
SEDIMENT CONTROL/ SLOPE CONTROL <i>Silt fence, erosion logs</i>	Placed on the contour of a slope to contain and slow down construction runoff. Place prior to start of construction disturbances.	M-208					X	X	
OUTLET PROTECTION <i>Riprap, or approved other</i>	Material placed as energy dissipater to prevent erosion at outlet structure.							X	X
CONCRETE WASHOUT <i>In-ground or fabricated</i>	Construction control, used for waste management of concrete and concrete equipment cleaning. Place prior to start of concrete activities.	M-208					X	X	
VEHICLE TRACKING PAD	Source control, placed to prevent tracking of sediment from disturbed area to offsite surface. Place prior to start of construction disturbances.	M-208					X	X	
SWEEPING	Source control, used to remove sediment tracked onto paved surfaces and to prevent sediment from entering drainage system. Sweep daily and at the end of the construction shift as needed. Kick brooms shall not be permitted.						X	X	
DEWATERING <i>(Contractor is responsible for obtaining a permit from Colorado Department of Health and Environment.)</i>	Shall be done in such a manner to prevent potential pollutants from entering state waters.						X	X	
CLEAN WATER DIVERSION	Placed to divert clean surface or ground water around disturbance area to prevent it from mixing with construction runoff.						X	X	

NON-STRUCTURAL BMPs/Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to:
Erosion control devices are used to limit the amount of soil loss on site
Sediment control devices are designed to capture sediment on the project site.
Construction controls are BMPs/Control Measures related to construction access and staging.
BMP/Control Measure locations are indicated on the SWMP site map.




APPLICATION, BMP/CONTROL MEASURE	NARRATIVE	M-STANDARD	IN USE ON SITE	BMP/CONTROL MEASURE TO BE LOCATED BY SWMP ADMINISTRATOR	INSTALLATION BMP/CONTROL MEASURE PRE-CONSTRUCTION	BMP/CONTROL MEASURE PHASING		
						FIRST/INITIAL CONSTRUCTION ACTIVITIES	INTERIM CONSTRUCTION ACTIVITIES	PERMANENT STABILIZATION
VEGETATIVE BUFFER STRIP <i>Fence (plastic)</i>	Filter sediment laden runoff from disturbance area. Area to be identified on SWMP prior to construction starting.					X	X	X
LANDFORM <i>(SWMP Administrator shall add locations to SWMP site maps)</i>	Existing or created landforms may be used as a BMP/Control Measure if they prevent sediment from entering or leaving the disturbance area. If a landform directs flow of water to a concentrated outfall point, the outfall point shall be protected to prevent erosion. Area to be identified on SWMP prior to construction starting.					X	X	
TOPSOIL MANAGEMENT STOCKPILE/SALVAGE <i>Windrow or stockpile</i>	Prior to embankment work commencing, existing topsoil shall be scraped to a depth of 4 inches, and placed in stockpiles or windrows. Upon completion of slope work/final grading (less 4 inches), topsoil shall be evenly distributed over embankment to a depth of 4 inches.					X	X	
SURFACE ROUGHENING / GRADING TECHNIQUES <i>Blading, Backhoe, Dozing, Combination Loader</i>	Temporary stabilization of disturbance and to minimize wind and erosion.						X	

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CENTRAL MINER STREET
STORMWATER MANAGEMENT
PLAN NOTES

Designer: A FINSETH

Detailer: A FINSETH

Sheet Subset: SWMP

Structure Numbers

Subset Sheets: 4 of 5

Project No./Code

Sheet Number 39

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SEEDING (TEMPORARY)	Temporary stabilization used for over wintering of disturbance or used to control erosion for areas scheduled for future construction.							X	
BONDED FIBER MATRIX/HYDRAULIC MULCH	Not to be used in areas of concentrated flows, i.e. ditch lines. To be used in combination with surface roughening for temporary stabilization of disturbed soils, when work is temporarily halted and as approved by the Engineer. May be used as surface cover for temporary topsoil stockpiles							X	
MULCH/MULCH TACKIFIER	Temporary or Final Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as temporary surface cover when work is temporarily halted and as approved by the Engineer							X	X
SPRAY-ON MULCH BLANKET (Not to be used in areas of concentrated flows, i.e. ditch lines.)	Temporary or Final Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as temporary surface cover when work is temporarily halted and as approved by the Engineer							X	X
SEEDING PERMANENT (NATIVE)	Final Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.								X

12. TABULATION OF STORMWATER QUANTITIES

- A. BMP/Control Measure sediment removal and disposal shall be paid for as lump sum. All other BMP/Control Measure maintenance shall be included in the cost of the BMP/Control Measure.
- B. It is estimated that 40 hours of labor, blading, dozing, may be required for miscellaneous erosion control work as directed by the Engineer. Work shall be paid for as lump sum.
- C. Establishment of seeded areas shall be paid for as lump sum. This shall include mowing, weed control, reseeding/mulch/tackifier.

Items are listed for information only, erosion control will be paid as lump sum.

Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
Laborer	Hour			40	40
Erosion Log Type 1 (12 inch)	LF	227	227		454
Aggregate Bag	LF	100	52		152
Pre-fabricated Concrete Washout Structure	Each	3			3
Storm Drain Inlet Protection (Type I)	LF	19	7		19
Storm Drain Inlet Protection (Type II)	LF	24			24
Vehicle Tracking Pad	Each	3			3
Removal and Disposal of Sediment (Labor)	Hour	6	6	6	18
Removal and Disposal of Sediment (Equipment)	Hour	6	6	6	18
Sweeping (Sediment Removal)	Hour	4	4	4	12
Erosion Control Management (ECM)	LS	1	1	1	1
Seeding (Native)	Acre			0.25	0.25
Soil Conditioning	Acre			0.25	0.25
Mulching (Weed Free)	Acre			0.25	0.25

*It is anticipated that additional BMPs/Control Measures and BMP/Control Measure quantities not shown on the SWMP Site Maps shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsection 208.03 and 208.04. Quantities for all BMPs/Control Measures shown above are estimated, and have been increased for unforeseen conditions and normal BMP/Control Measure life

expectancy. Quantities shall be adjusted according to the conditions encountered in the field as directed and approved by the Engineer. Payment shall be for the actual work completed and material used.

13. BIOLOGIC IMPACTS

- A. ENVIRONMENTAL IMPACTS:
1. Wetland Impacts: NO
2. Stream Impacts: NO
3. Threatened and Endangered Species: No species are anticipated to be impacted by the project. There are no critical habitats in this location as referenced in the U.S. Fish & Wildlife Servie IPaC Trust Resources Report.

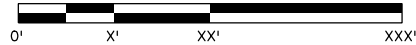
14. NOTES



Print Date: 9/6/2018	<div>0000</div>	Sheet Revisions				City of Idaho Springs Department of Public Works 1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955	As Constructed		CENTRAL MINER STREET STORMWATER MANAGEMENT PLAN NOTES		Project No./Code	
File Name: CMINER_ENV_ErosionControl_Notes05.dgn		Date:	Comments	Init.			No Revisions:		Designer: A FINSETH	Structure Numbers		
Horiz. Scale: 1:50 Vert. Scale:							Revised:		Detailer: A FINSETH			
 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 Fax: 303-860-7139							Void:		Sheet Subset: SWMP	Subset Sheets: 5 of 5	Sheet Number 40	

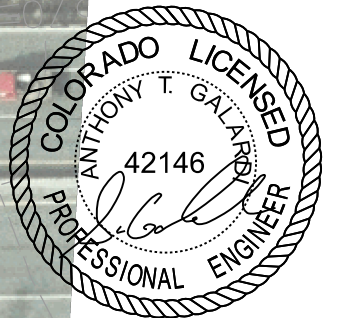


Know what's below.
Call before you dig.



LEGEND

- | | |
|---|-------------------------------|
| EROSION LOG (12'')
DROP INLET PROTECTION | DIRECTION OF SURFACE
FLOW |
| INLET PROTECTION
TYPE 2 | -LOA- LIMITS OF DISTURBANCE |
| INLET PROTECTION
TYPE 2 | - - - - - TOE OF FILL |
| ① INITIAL PROTECTION | - - - - - TOP OF CUT |
| ② INTERIM/CONSTRUCTION | RIPRAP |
| EROSION LOG (12'')
CULVERT PROTECTION | SEEDING AND MULCHING |
| AGGREGATE BAG/
ROCK SOCK | - - - - - CONSTRUCTION LIMITS |
| EROSION LOG TYPE 1 | |



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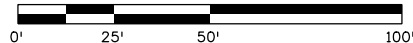


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As Constructed	CENTRAL MINER STREET EROSION CONTROL STA 50+00 TO 56+60		Project No./Code
No Revisions:	Designer: A.FINSETH	Structure Numbers	
Revised:	Detailer: A. FINSETH		
Void:	Sheet Subset: SWMP	Subset Sheets: 01 of 02	Sheet Number 41



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LEGEND

	EROSION LOG (12")		DIRECTION OF SURFACE FLOW
	DROP INLET PROTECTION TYPE 2		LDA LIMITS OF DISTURBANCE
	INLET PROTECTION TYPE 2		TOE OF FILL
	INITIAL PROTECTION		TOP OF CUT
	INTERIM/CONSTRUCTION		RIPRAP
	EROSION LOG (12")		SEEDING AND MULCHING
	CULVERT PROTECTION		CONSTRUCTION LIMITS
	AGGREGATE BAG/ROCK SOCK		
	EROSION LOG TYPE 1		

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Department of Public Works

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As Constructed		CENTRAL MINER STREET EROSION CONTROL STA 56+60 TO STA 62+06.48		Project No./Code
No Revisions:		Designer: A. FINSETH	Structure Numbers	
Revised:		Detailer: A. FINSETH		
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UTILITY GENERAL NOTES:

1.

THE CONTRACTOR SHALL PROVIDE AT LEAST TWO WEEKS NOTICE TO THE APPROPRIATE UTILITY COMPANIES FOR ATTENDANCE AT THE COORDINATION MEETINGS WHERE THE UTILITIES ARE AFFECTED.
2.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONFIRM THAT UTILITY RELOCATIONS, AS NECESSARY, HAVE PROGRESSED SUFFICIENTLY SO THAT CONSTRUCTION OF THE PROJECT WILL NOT BE DELAYED. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE PROJECT WITH ALL UTILITIES AFFECTED BY THIS PROJECT. UTILITIES NOT SCHEDULED FOR RELOCATION SHALL BE PROTECTED IN PLACE BY THE CONTRACTOR PER UTILITY COMPANY REQUIREMENTS.
3.

TELEPHONE AND CABLE TELEVISION ARE LOCATED OVERHEAD ON POWER POLES AND SHALL REMAIN IN SERVICE WITH THE EXCEPTION OF SHUTDOWNS COORDINATED THROUGH THE RESPECTED UTILITY COMPANY.
4.

AT ALL STORM DRAIN STRUCTURES, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES. IF DEPTH OF UTILITY BURIAL IS SUFFICIENT, CONTRACTOR SHALL VERIFY THAT RELOCATION OF UTILITY IS UNNECESSARY PRIOR TO CONSTRUCTION. IF DEPTH OF UTILITY BURIAL IS INSUFFICIENT, AND IT'S A FIBER OPTIC LINE, SLACK SHALL BE USED TO BURY UNDER STORM DRAIN STRUCTURES. IF IT'S A UTILITY THAT CANNOT BE RELOCATED, ENGINEER AND THE CITY OF IDAHO SPRINGS SHALL BE CONTACTED IMMEDIATELY. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR THE MINOR ADJUSTMENT OF STRUCTURES IN ORDER TO CLEAR A CONFLICTING UTILITY.
5.

ALL REMOVED UTILITY MATERIAL WITHIN THE PROJECT LIMITS WILL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR WILL VERIFY WITH THE UTILITY OWNER THAT THE UTILITY MATERIAL IS OUT OF SERVICE BEFORE REMOVAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF THE MATERIALS. THE COST FOR REMOVAL AND DISPOSAL OF THE UTILITY MATERIALS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK. IF ITEMS ARE DETERMINED TO BE CATEGORIZED AS ENVIRONMENTAL CONTAMINANT OR HAZARDOUS MATERIALS, AS DEFINED IN SECTION 250 OF THE SPECIAL PROVISIONS, THOSE UTILITIES WILL BE PAID FOR UNDER SECTION 250.
6.

PRIVATE GAS, WATER, AND SANITARY SEWER SERVICE LINES ARE NOT SHOWN. PRIVATE WATER SERVICE LINES SHOWN WHEN VALVE BOX FIELD LOCATED.
7.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADJUSTMENT OF ALL WATER VALVE, VALVE BOXES AND SEWER MANHOLES WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL NOTIFY THE IMPACTED UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO ANY WORK BEING ACCOMPLISHED ON WATER OR SEWER UTILITIES.
8.

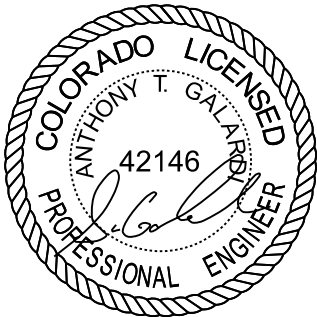
IT IS ASSUMED THAT EACH PROPERTY HAS EXISTING SANITARY SEWER AND WATER SERVICE. ALL LOCATIONS FOR EXISTING SERVICES ARE NOT KNOWN. PROPOSED SEWER AND WATER SERVICES ARE NOT SHOWN FOR PROPERTIES WHERE EXISTING SERVICE LOCATION IS UNKNOWN. THE QUANTITY FOR PROPOSED SERVICES AT THESE LOCATIONS INCLUDES A NEW SERVICE LINE FROM THE NEW MAIN TO THE ROW LINE.
9.

FOR THE PURPOSE OF ESTIMATING QUANTITIES, IT IS ASSUMED THAT EVERY PROPERTY HAS THEIR OWN SANITARY SEWER CONNECTION. BASED ON PAST EXPERIENCE, THERE WILL LIKELY BE SOME COMBINED CONNECTIONS FOR SOME BUILDINGS, REDUCING THE TOTAL NUMBER SOMEWHAT.
10.

ABANDON THE SEWER LINE IN PLACE BY REMOVING MANHOLES AND PLUGGING THE LINES WITH CONCRETE. INCLUDE COSTS FOR ABANDONING THE LINES IN THE PRICE FOR REMOVAL OF MANHOLES.
11.

LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. FOR INFORMATION, CONTACT: UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT (800) 922-1987 OR 811.
12.

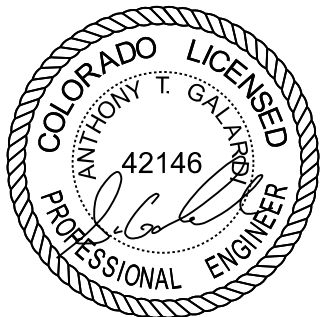
THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY FOR UNDERGROUND UTILITIES, WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND PROTECTING THEM DURING CONSTRUCTION.



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	-	EXISTING SANITARY SEWER		-	PROPOSED WATER UTILITY MANHOLE		-	EXISTING OVERHEAD ELECTRIC		-	PROPOSED GAS DISTRIBUTION (BY XCEL)
	-	EXISTING SANITARY MANHOLE		-	PROPOSED WATER VALVE		-	PROPOSED ELECTRIC (BY XCEL)			
	-	EXISTING STORM SEWER INLET		-	PROPOSED FIRE HYDRANT		-	POTHOLE			
	-	PROPOSED SANITARY SEWER		-	PROPOSED VENT		-	EXISTING GAS METER			
	-	PROPOSED SANITARY MANHOLE		-	EXISTING OVERHEAD ELECTRIC		-	TRAFFIC MANAGEMENT SYSTEM MANHOLE			
	-	EXISTING WATER LINE		-	EXISTING ELECTRIC GUY WIRE		-	EXISTING REPEATER			
	-	EXISTING WATER VALVE		-	EXISTING POWER POLE		-	EXISTING PEDESTAL			
	-	EXISTING WATER UTILITY MANHOLE		-	EXISTING LIGHT STANDARD		-	PROPOSED REPEATER (BY CENTURYLINK)			
	-	EXISTING FIRE HYDRANT		-	PROPOSED POWER POLE (BY XCEL)		-	PROPOSED PEDESTAL (BY CENTURYLINK)			
	-	EXISTING WATER UTILITY METER		-	PROPOSED LIGHT STANDARD (BY XCEL)		-	EXISTING TELEPHONE POLE			
	-	PROPOSED WATER		-	PROPOSED LIGHT STANDARD (BY XCEL)		-	3" EMPTY CONDUIT			
	-			-	TRANSMISSION TOWER		-	PROPOSED UTILITY POLE (BY CENTURYLINK)			
	-			-			-	PROPOSED COMMUNICATION/FIBER OPTIC (BY CENTURYLINK)			
	-			-			-	PROPOSED OVERHEAD COMMUNICATION/FIBER OPTIC (BY CENTURYLINK)			
	-			-			-	EXISTING COMMUNICATION/FIBER OPTIC			
	-			-			-	EXISTING HIGH PRESSURE GAS TRANSMISSION			
	-			-			-	EXISTING GAS DISTRIBUTION			
	-			-			-	PROPOSED GAS DISTRIBUTION (BY XCEL)			



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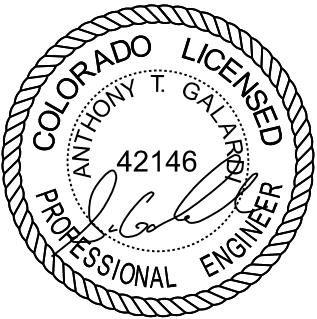
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Revised:	Designer: G. YOUNG	Structure		
	Detailer: G. YOUNG	Numbers		
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Know what's below.
Call before you dig.

Tabulation of Utilities							
Station		Alignment	Side	202-00021 Removal of Manhole		202-00031 Removal of Fire Hydrant	
				EACH		EACH	
From	To			PLAN	AS CONST.	PLAN	AS CONST.
54+79.25		C. MINER STREET	LT			1	
57+13.21		C. MINER STREET	LT			1	
57+39.02		C. MINER STREET	RT	1			
58+25.41		C. MINER STREET	LT	1			
60+96.38		C. MINER STREET	LT			1	
Project Totals				2		3	

Tabulation of Utilities					
Station		Alignment	Side	210-04010 Adjust Manhole	
				EACH	
From	To			PLAN	AS CONST.
54+66.94		C. MINER STREET	RT	1	
56+85.73		C. MINER STREET	RT	1	
Project Totals				2	




Tabulation of Utilities											
Station		Alignment	Side	603-50004 4 Inch Plastic Pipe		603-50012 8 Inch Plastic Pipe		604-30010 Manhole Slab Base (10 Foot)		604-50900 Sanitary Service Connections	
				LF		LF		EACH		EACH	
From	To			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
57+39.02		C. MINER STREET	RT					1			
57+39.02	61+07.62	C. MINER STREET	RT			369					
61+07.62		C. MINER STREET	RT					1			
61+07.62	61+94.62	C. MINER STREET	LT			87					
61+94.62		C. MINER STREET	LT					1			
SANITARY SEWER SERVICES			RT/LT	165							
SANITARY SEWER CONNECTIONS			RT/LT							11	
Project Totals				165		456		3		11	

Tabulation of Utilities							
Station		Alignment	Side	619-78048 6 Inch Fire Hydrant (Fire Hydrant Assembly A)		619-00002 Water Service	
				EACH		EACH	
From	To			PLAN	AS CONST.	PLAN	AS CONST.
54+79.25		C. MINER STREET	RT	1			
57+13.21		C. MINER STREET	RT	1			
60+96.38		C. MINER STREET	RT	1			
WATER SERVICE 3/4 INCH			RT/LT			38	
Project Totals				3		38	

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As Constructed

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CENTRAL MINER STREET
TABULATION OF UTILITIES

Designer: G. YOUNG

Detailer: G. YOUNG

Sheet Subset: UTILITIES

Structure Numbers

Subset Sheets: 3 of 14

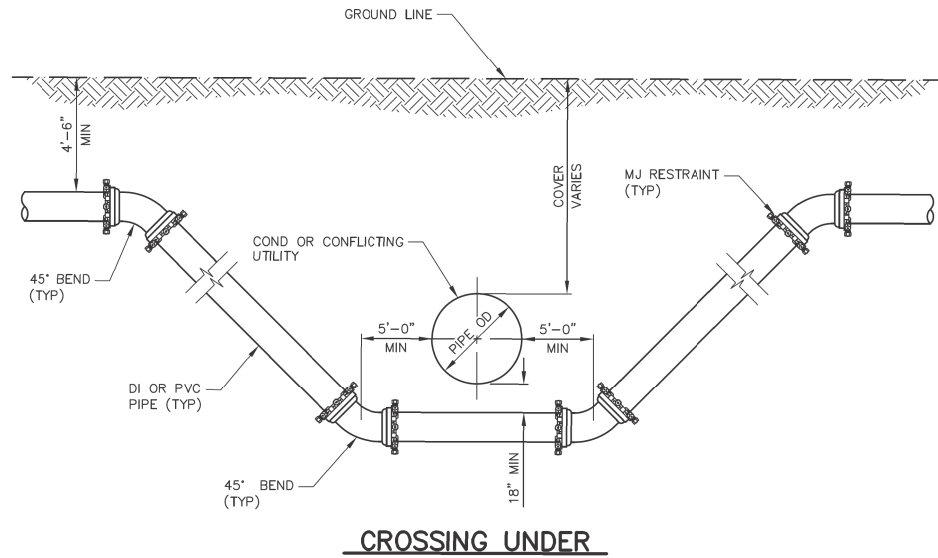
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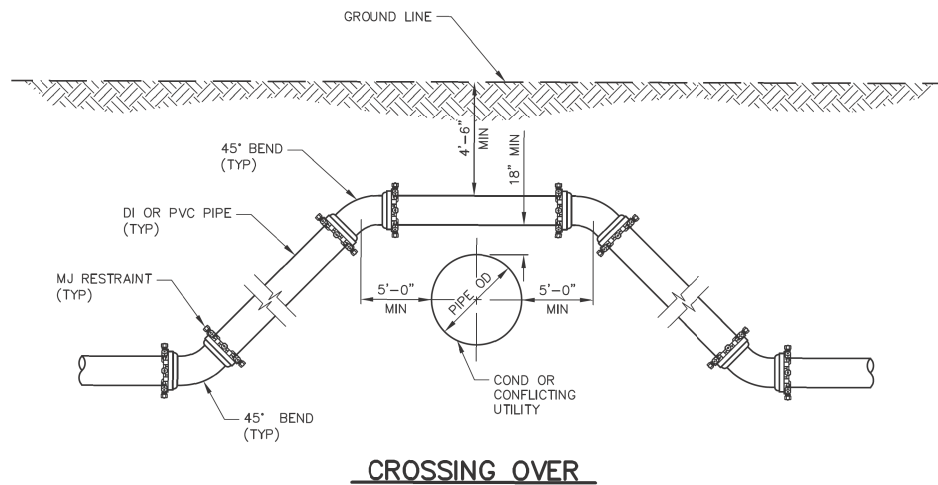
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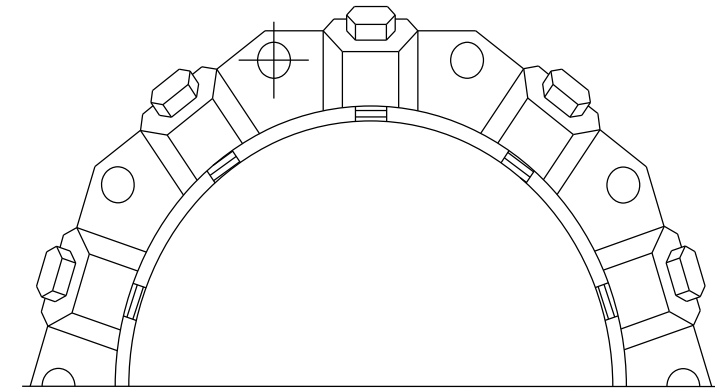


CROSSING UNDER

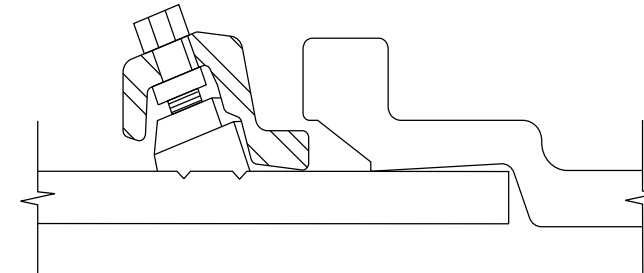


CROSSING OVER

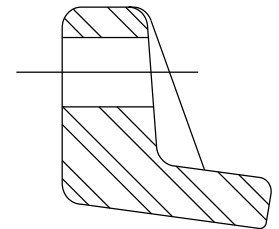
CROSSING OVER OR UNDER CONDUIT OR CONFLICTING UTILITY



MECHANICAL JOINT RESTRAINT
(MEGALUGS)



WEDGE



BOLT HOLE

NOTES:

1. MEGALUGS BY EBBA IRONWORKRS
2. MECHANICAL JOINT RESTRAINT DEVICES MUST BE APPROVED BEFORE INSTALLATION.
3. MECHANICAL JOINT RESTRAINTS ARE REQUIRED ON ALL DUCTILE IRON JOINTS AND TRANSITIONS.

MECHANICAL JOINT RESTRAINT DETAILS



Print Date: 9/5/2018		Sheet Revisions			As Constructed		CENTRAL MINOR STREET UTILITY DETAILS			Project No./Code	
File Name: EMINER_UTIL_DETAILS_CONFLICT_RESTRAINTS.dgn											
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									Sheet Number 46		

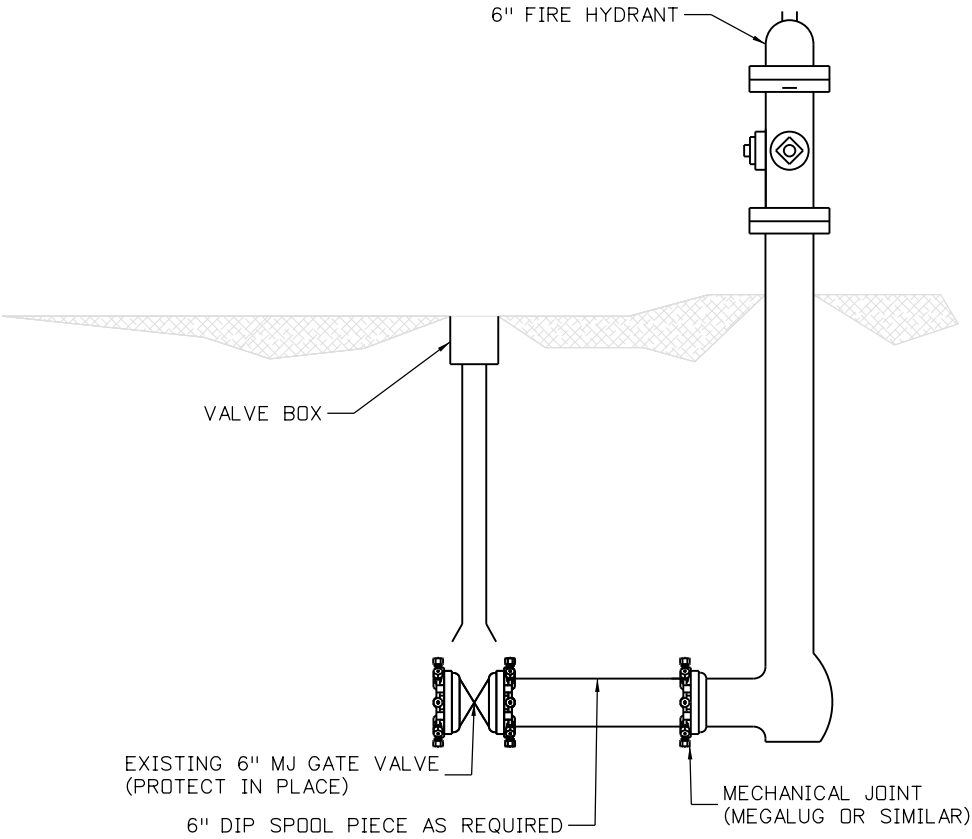




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NOTES:

1. EXISTING FIRE HYDRANT ASSEMBLY SHALL BE REMOVED TO THE EXISTING VALVE. FIRE HYDRANT ASSEMBLY A IS INCLUSIVE OF THE FIRE HYDRANT AND 6" DIP LENGTHS ONLY. ALL CONNECTIONS SHALL BE FULLY RESTRAINED.



FIRE HYDRANT ASSEMBLY A
EXISTING LINE

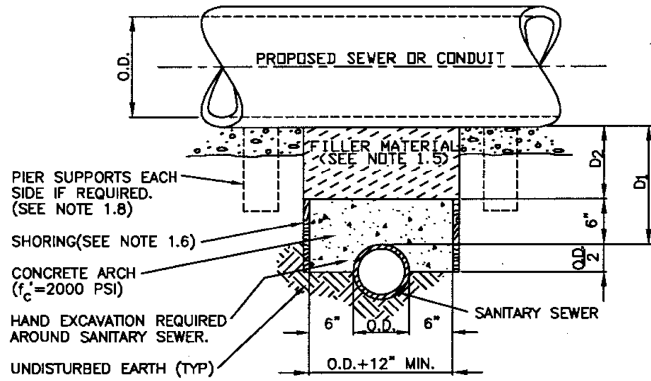


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File Name: EMINER_UTIL_DETAILS_CUT IN HYD.dgn												
Horiz. Scale: 1:480		<div><div></div><div></div><div></div><div></div><div></div></div>	Date:	Comments	Init.	No Revisions:	Designer: G.YOUNG			Structure Numbers		Sheet Number 47
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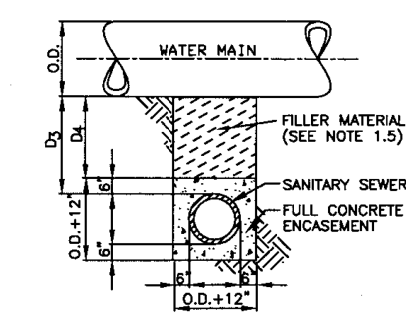


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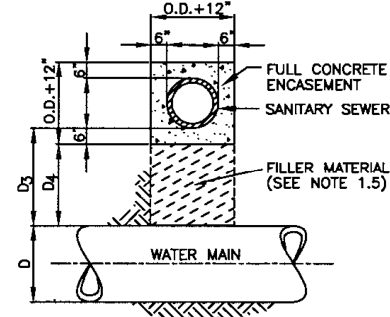


TYPE I
CONCRETE ENCASEMENT FOR SANITARY SEWERS
(CONCRETE ARCH) NO SCALE (RIGID CONDUITS ONLY)

O.D.= OUTSIDE DIAMETER

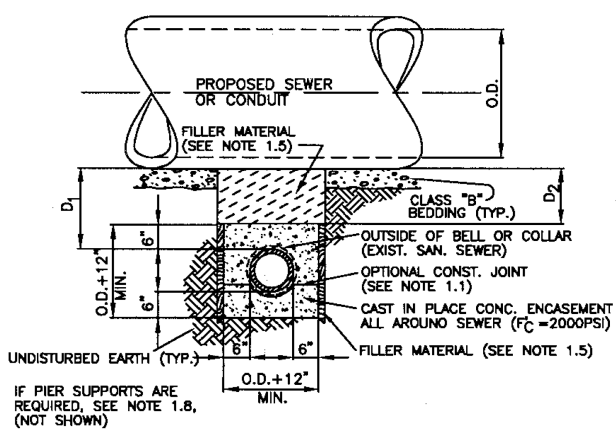


TYPE IIA
SANITARY SEWER CROSSING UNDER WATER MAIN
IF D3>2FT., ENCASEMENT NOT REQUIRED



TYPE IIB
SANITARY SEWER CROSSING OVER WATER MAIN
FULL ENCASEMENT REQUIRED REGARDLESS OF DIMENSION "D3"

TYPE II
CONCRETE ENCASEMENT FOR SANITARY SEWERS
CROSSING OVER OR UNDER WATER MAIN
NO SCALE (RIGID CONDUITS ONLY)



TYPE III
CONCRETE ENCASEMENT FOR SANITARY SEWERS
(FULL ENCASEMENT) NO SCALE (RIGID CONDUITS ONLY)

GENERAL ENCASEMENT FOR SANITARY SEWERS

- 1.1 CONCRETE TO BE CAST AGAINST UNDISTURBED SOIL OR SHORING. IF OPTIONAL CONSTRUCTION JOINT IS USED & BOTTOM HALF OF ENCASEMENT IS POURED SEPARATELY, A ONE INCH LAYER OF SAND OR MORTAR SHALL BE PLACED BETWEEN BOTTOM OF SANITARY SEWER AND TOP OF CONCRETE.
- 1.2 LENGTH OF ENCASEMENT FOR :
(A) TYPE I & III ENCASEMENT SHALL EXTEND FULL TRENCH WIDTH EXCAVATED FOR PROPOSED SEWER OR CONDUIT.
(B) TYPE II ENCASEMENT SHALL EXTEND AT LEAST 10 FEET EACH SIDE OF WATER MAIN.
- 1.3 UNLESS OTHERWISE NOTED ON PLAN/PROFILE DRAWINGS, TYPE I, II, & III ENCASEMENTS NEED NOT TO BE REINFORCED. REINFORCEMENT, IF REQUIRED, TO BE SPECIFIED AND DETAILED SEPARATELY ON PLAN & PROFILE DRAWINGS.
- 1.4 TYPE I, II OR III ENCASEMENT REQUIRED UNDER FOLLOWING CONDITIONS:
(A) TYPE I OR TYPE III IF D1 ≤ 18" (D2≤12") EXCEPT FOR SANITARY SEWER CROSSINGS OVER OR UNDER WATER MAINS.
(B) TYPE IIA REQUIRED FOR SANITARY SEWER CROSSING UNDER WATER MAINS AND D3≤24"(D4≤18").
(C) TYPE IIB REQUIRED FOR SANITARY SEWER CROSSING OVER TOP OF WATER MAINS, REGARDLESS OF DIMENSION "D3".
(D) EXCEPT FOR UNUSUAL CIRCUMSTANCES, WATER MAIN CROSSINGS, OR WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, TYPE I ENCASEMENTS WILL NORMALLY BE SATISFACTORY.
(E) IF THE SANITARY SEWER IS REPLACED OR CONSTRUCTED OF CAST IRON PIPE (AWWA C-106 OR C-108) OR DUCTILE IRON PIPE (AWWA C-150 OR C-151). CONCRETE ENCASEMENT MAY NOT BE REQUIRED.
- 1.5 FILLER MATERIAL BETWEEN CONDUITS TO BE :
(A) APPROVED COMPRESSIBLE MATERIAL SUCH AS STYROFOAM, ETC., IF D2 & D4 ≤6".
(B) COMPACTED CLASS "B" BEDDING IF D2 & D4>6". (IF D4>6" FOR TYPE IIB ENCASEMENT POUR CONCRETE ON UNDISTURBED SOIL).
- 1.6 SHORING OR SHEETING, IF USED, TO BE CUT OFF AT TOP OF ENCASEMENT.
- 1.7 THESE ENCASEMENT DETAILS MAY ALSO BE APPLICABLE FOR CONDUITS OTHER THAN STORM OR SANITARY SEWER INSTALLATION.
- 1.8 IN CERTAIN SITUATIONS WHERE CONDUIT DIAMETER "D" IS EXTREMELY LARGER, PIER SUPPORTS EACH SIDE OF THE SANITARY SEWER MAY ALSO BE REQUIRED. IF REQUIRED, SUPPORTS TO BE SPECIFIED AND DETAILED SEPARATELY ON PLAN AND PROFILE DRAWINGS. NO PIPE JOINTS OVER TOP OF WATER MAIN.
- 1.9 DETAILS SHOWN CONSIDER RIGID CONDUITS ONLY. FLEXIBLE CONDUITS REQUIRE SPECIAL CONSIDERATION.



Print Date: 9/5/2018
File Name: EMINER_UTIL_DETAILS_ENCASEMENT.dgn
Horiz. Scale: 1:480 Vert. Scale: NA

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Sheet Revisions			
Date:	Comments	Init.	



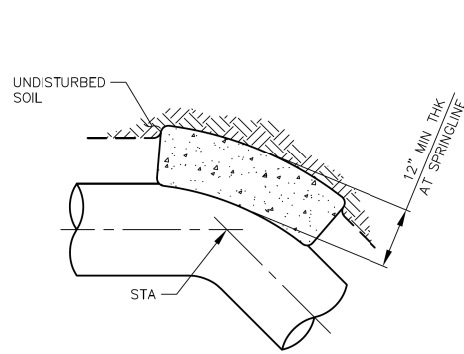
City of Idaho Springs
Department of Public Works

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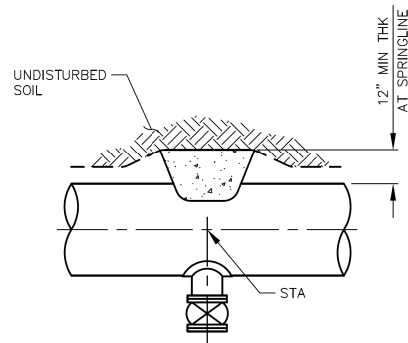
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No Revisions:				
Revised:		Designer: G. YOUNG	Structure Numbers	
Void:		Detailer: G. YOUNG		
		Sheet Subset: UTILITIES	Subset Sheets: 6 of 14	Sheet Number 48



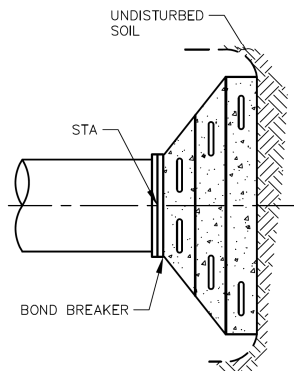
Know what's below.
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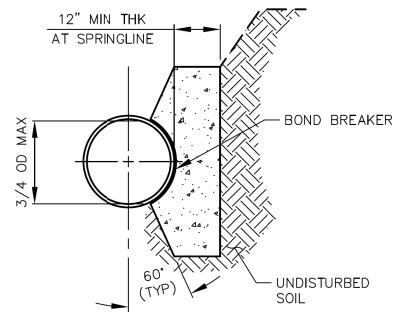
PLAN-TYPE 1



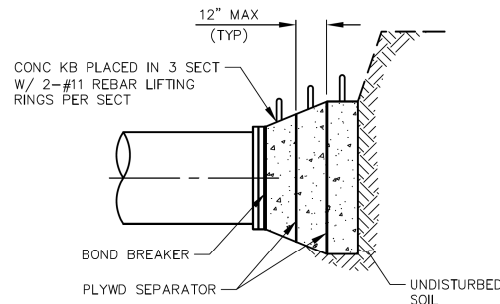
PLAN-TYPE 2



PLAN-TYPE 3



ELEVATION-TYPE 1&2



ELEVATION-TYPE 3

MINIMUM BEARING SURFACE AREA
(IN SQUARE FEET)

NOMINAL PIPE Ø	BENDS				TEE OR DEAD END
	11 1/4'	22 1/2'	45°	90°	
4"	1.00	1.00	1.00	1.75	1.25
6"	1.00	1.25	2.25	3.25	2.75
8"	1.00	2.00	3.75	6.75	5.00
12"	2.25	4.25	8.25	15.00	10.75
16"	3.25	7.50	14.25	26.50	18.75
20"	5.00	9.75	19.25	35.50	25.00
24"	7.00	14.00	27.75	51.00	36.00

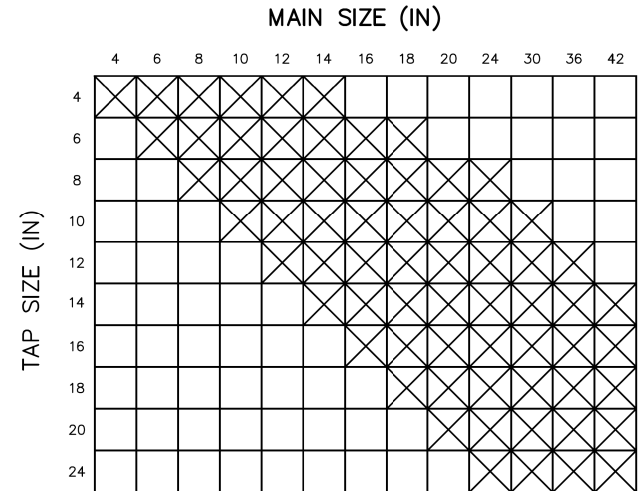
NOTES:

1. THE MINIMUM BEARING SURFACE AREAS SHOWN IN THE TABLE ARE BASED ON 150 POUNDS PER SQUARE INCH INTERNAL PIPE PRESSURE PLUS WATER HAMMER AND 3000 POUNDS PER SQUARE FOOT ALLOWABLE SOIL BEARING CAPACITY.

A. WATER HAMMER = 110 POUNDS PER SQUARE INCH FOR 4", 6", 8", 12", AND 16"

B. WATER HAMMER = 70 POUNDS PER SQUARE INCH FOR 20" AND 24"

WATER MAIN & TAP SIZE COMBINATIONS WHICH REQUIRE A CONC KB BEHIND THE MAIN AT THE TAPPING SLV, SADDLE, OR TEE



KICKBLOCK REQUIREMENTS FOR WATER MAIN & TAP SIZE COMBINATIONS OTHER THAN THOSE SHOWN WILL REQUIRE SPECIAL DESIGN APPROVAL BY THE ENGINEER

LEGEND:



INDICATED CONCRETE KICKBLOCK REQUIRED.



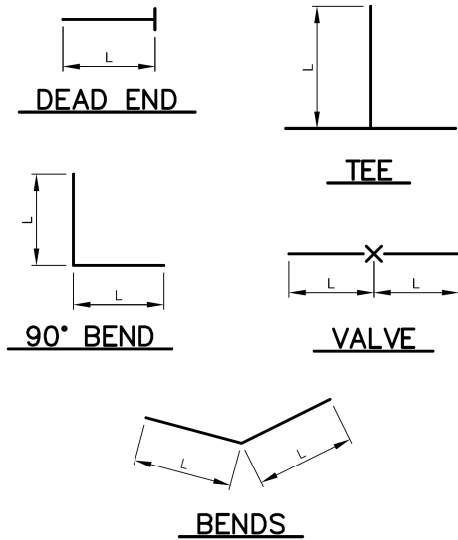
CONCRETE KICKBLOCKS BEARING SURFACES & INSTALLATION

CONCRETE KICKBLOCK REQUIREMENTS FOR WATER MAIN & TAP SIZE COMBOS

Print Date: 9/5/2018		<div>0000</div>	Sheet Revisions			<div><div><div>City of Idaho Springs</div><div>Department of Public Works</div><div>1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955</div></div></div>	As Constructed		CENTRAL MINER STREET UTILITY DETAILS			Project No./Code	
File Name: EMINER_UTIL_DETAILS_KICKBLOCKS.dgn			Date:	Comments	Init.		No Revisions:						
Horiz. Scale: 1:480 Vert. Scale: NA							Revised:		Designer: G. YOUNG	Structure			
<div><div></div><div>1670 BROADWAY, SUITE 3400 Phone: 303-764-1520</div><div>DENVER, COLORADO 80202 Fax: 303-860-7139</div></div>							Void:		Detailer: G. YOUNG	Numbers			
							Sheet Subset: UTILITIES		Subset Sheets: 7 of 14		Sheet Number 49		



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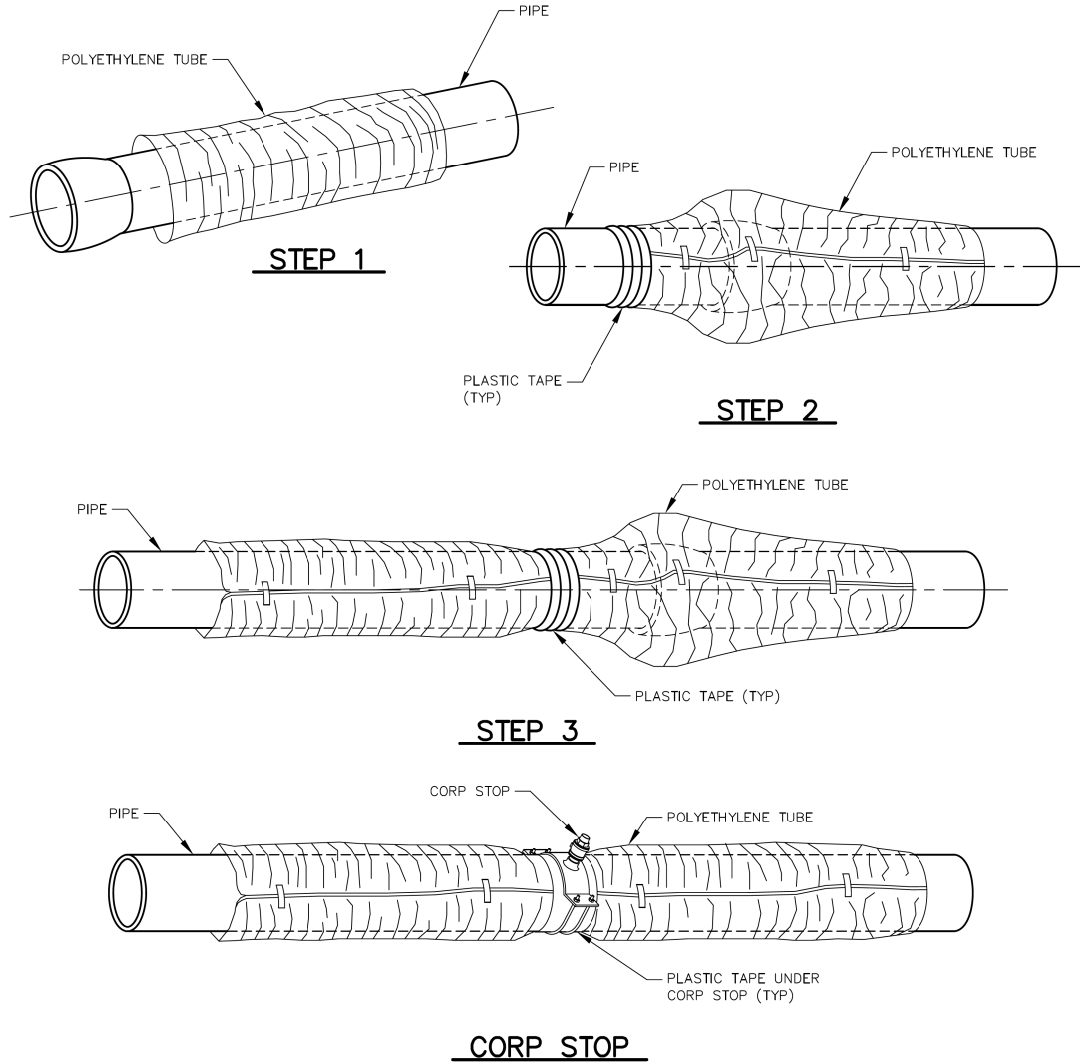
LENGTH OF RESTRAINED PIPE

NOMINAL PIPE ø	4"	6"	8"	12"	16"	20"
FITTING	L	L	L	L	L	L
90° BEND, TEE, DEAD END	30'	46'	61'	90'	116'	141'
VALVE	30'	46'	61'	90'	116'	141'
45° BEND	9'	13'	18'	26'	34'	41'
22 1/2° BEND	2'	3'	5'	7'	9'	11'
11 1/4° BEND	1'	1'	1'	2'	2'	3'

NOTES:

1. LENGTH OF RESTRAINED PIPE MEASURED EACH WAY FROM VALVES AND BENDS.
2. MINIMUM 4'-6" GROUND COVER REQUIRED.
3. BASED ON 150 POUNDS PER SQUARE INCH WORKING PRESSURE.
4. CROSSES MUST BE RESTRAINED IN ALL DIRECTIONS.
5. WHEN REDUCERS ARE USED ON A VALVE INSTALLATION THE LENGTH OF RESTRAINT SHALL BE BASED ON THE SIZE OF THE PIPE NOT THE SIZE OF THE VALVE.
6. WHEN INSTALLING VALVES ON EXISTING MAINS 12" AND SMALLER, USE MECHANICAL RESTRAINTS IN ACCORDANCE WITH MS-29 ON INSTALLED VALVES AND ASSOCIATED FITTINGS. REMOVE ALL PUSH ON JOINTS WITHIN THE EXCAVATION.

LENGTH OF RESTRAINED PIPE



NOTES FOR FIELD INSTALLATION — POLYETHYLENE WRAP:

- STEP 1 PLACE THE TUBE OF POLYETHYLENE MATERIAL AROUND THE PIPE PRIOR TO LOWERING IT INTO THE TRENCH.
- STEP 2 PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE THE TUBE TO THE PIPE AT THE JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH THREE CIRCUMFERENTIAL TURNS OF 2" WIDE PLASTIC TAPE TO HOLD PLASTIC TUBE AROUND SPIGOT END.
- STEP 3 ADJACENT TUBE OVERLAPS FIRST TUBE AND IS SECURED WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE WILL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED INTO AN OVERLAP ON TOP OF THE PIPE, AND HELD IN PLACE BY MEANS OF PIECES OF PLASTIC TAPE AT APPROXIMATELY 3' TO 5' INTERVALS.

NOTE:

AT LOCATION OF TAP, APPLY THREE OR FOUR WRAPS OF PLASTIC TAPE COMPLETELY AROUND THE PIPE FOR A WIDTH THAT WILL PROVIDE PROTECTION OF THE POLYETHYLENE WRAP FROM THE TAPING MACHINE.

POLYETHYLENE WRAP ON PIPE & AT TAP INSTALLATION

Print Date: 9/5/2018

File Name: EMINER_UTIL_DETAILS_POLY.dgn

Horiz. Scale: 1:480 Vert. Scale: NA

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Revised:	Designer: G. YOUNG	Structure Numbers		
Void:	Detailer: G. YOUNG			
	Sheet Subset: UTILITIES	Subset Sheets: 8 of 14		Sheet Number 50

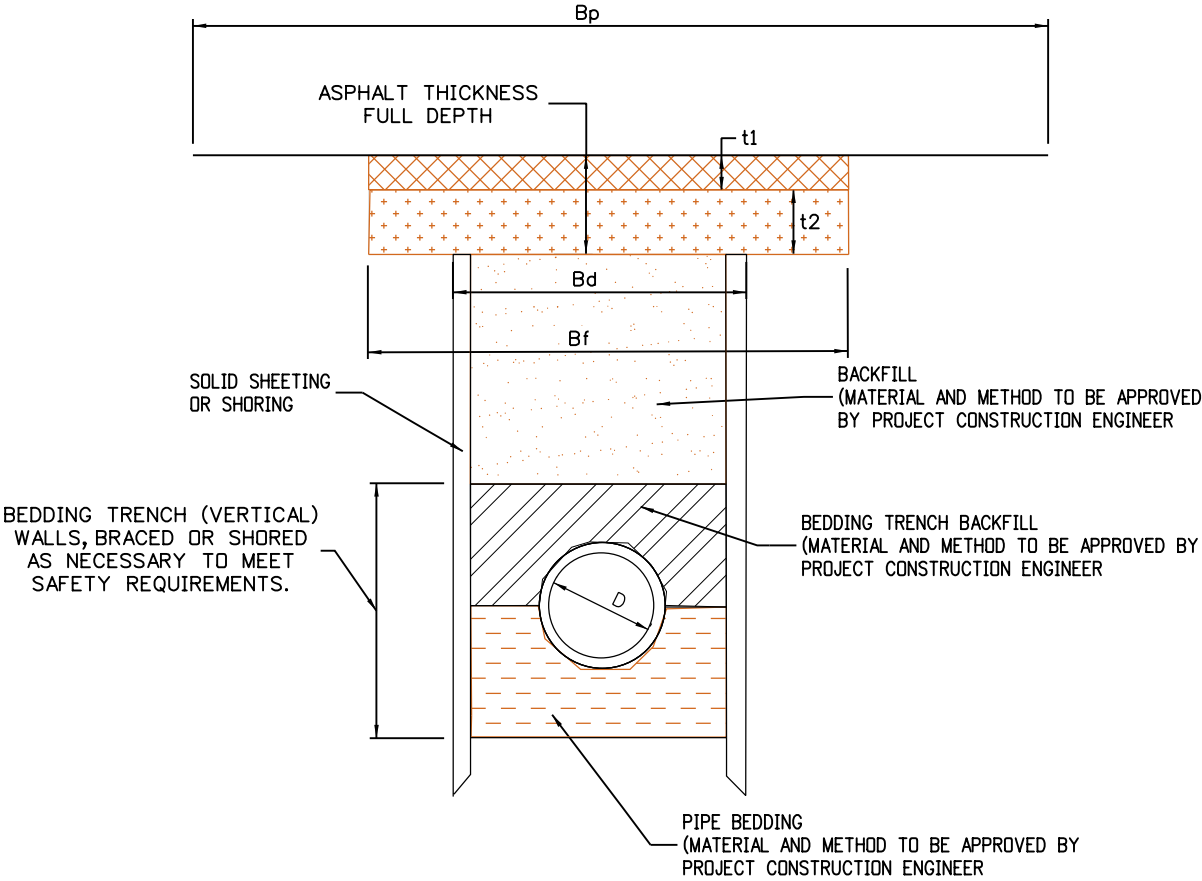


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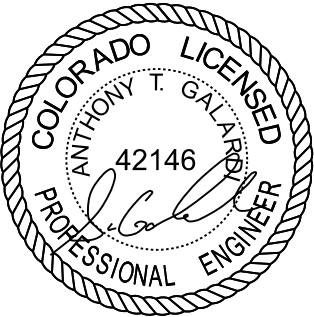
Bd, Bf, Bp Values			
D	Bd (ft)	Bf (ft)	Bp (ft)
4"-6"	3.5	8.0	12.0
8"-10"	4.0	8.0	12.0
12"-15"	4.5	8.0	12.0
18"-21"	5.0	8.0	12.0
24"	5.5	8.0	12.0
27"-30"	6.0	8.0	12.0
33"	6.5	8.0	12.0
36"-42"	9.0	11.0	15.0
48"	10.0	12.0	16.0
54"	10.5	12.5	16.5
60"	11.0	13.0	17.0
66"	11.5	13.5	17.5
72"-78"	12.5	14.5	18.5
84"	13.5	15.5	19.5
90"	14.0	16.0	20.0
96"	14.5	16.5	20.5
102"	15.0	17.0	21.0
108"	16.0	18.0	22.0
120"	18.0	20.0	24.0
144"	20.0	22.0	26.0
14'	23.0	25.0	29.0

Bd= SPECIFIED TRENCH WIDTH AS SHOWN IN TABLE ABOVE
t1= DEPTH OF ASPHALT SURFACE COURSE
t2= DEPTH FOR ASPHALT BASE COURSE
D= INSIDE DIAMETER OF THE SPECIFIED PIPE

NOTE:
1. PIPE TRENCHING, SHORING AND SOLID SHEETING TO BE IN ACCORDANCE WITH O.S.H.A. REGULATIONS.



TYPICAL TRENCH DETAIL



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51+00

52+00

53+00

54+00

55+00

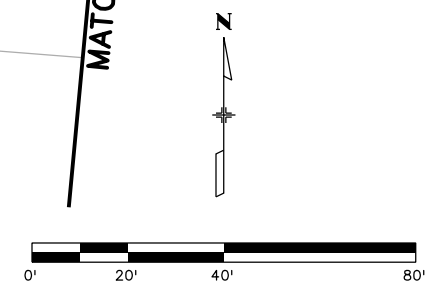
MATCH LINE STA 56+00.00

EXISTING 10" DIP
WATERMAIN
(PROTECT IN PLACE)


FIRE HYDRANT
ASSEMBLY A
54+79.25, 19.21 LT

EXISTING 8" PVC
SANITARY SEWER
(PROTECT IN PLACE)

ADJUST MANHOLE
54+66.94, 12.74 RT

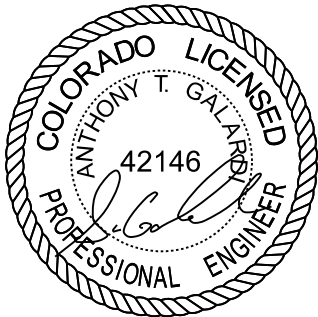
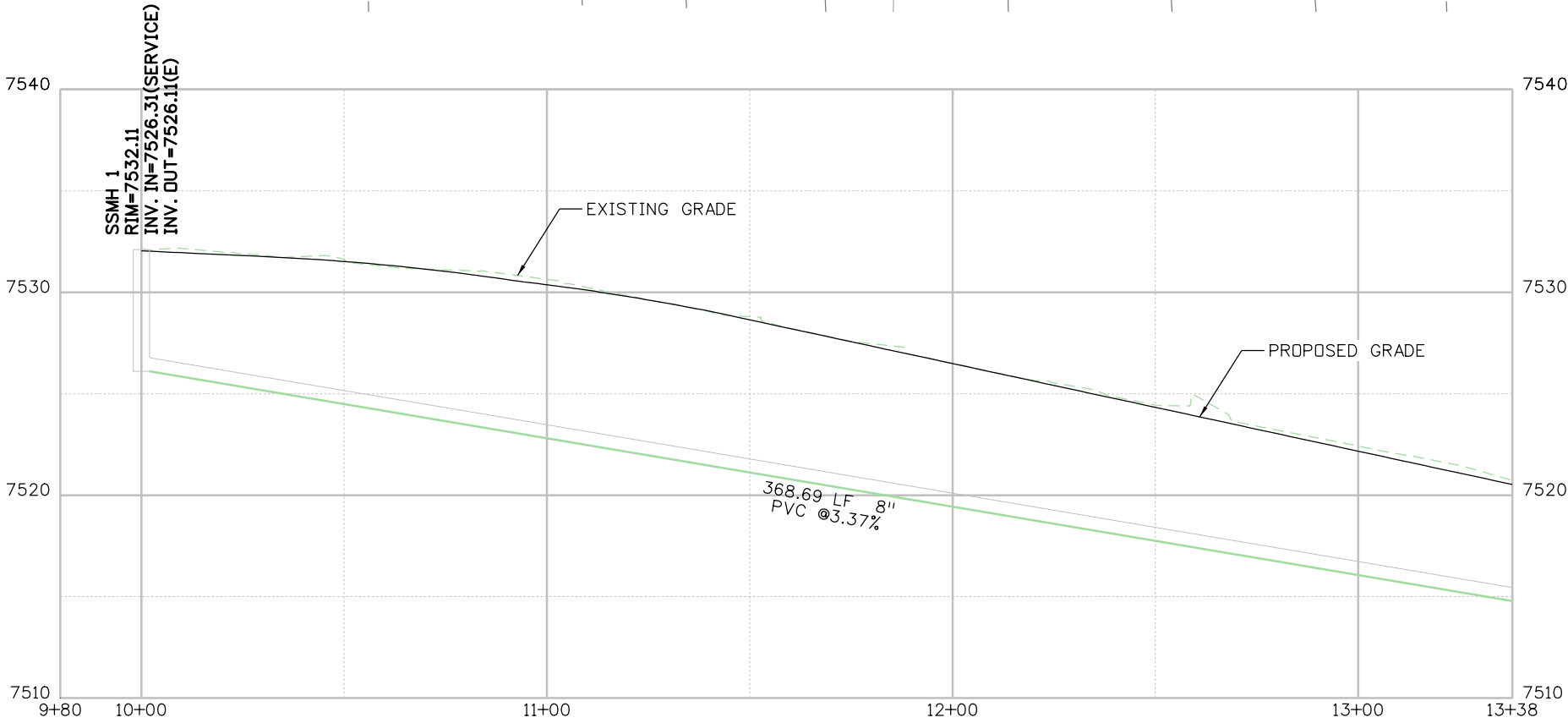
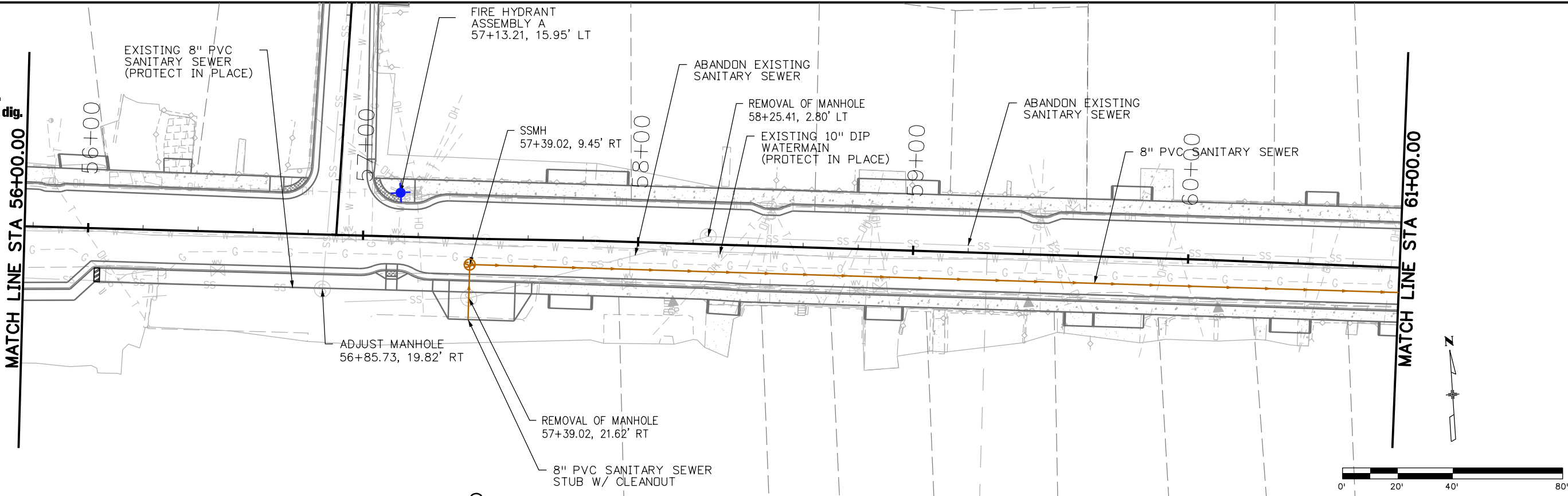


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Print Date: 9/5/2018		<div>0000</div>	Sheet Revisions			<div><div>City of Idaho Springs Department of Public Works 1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955</div></div>	As Constructed		CENTRAL MINER STREET PLAN & PROFILE STA. 50+22.75 TO STA. 56+00			Project No./Code	
File Name: CMINER_DES_UTILPnP_01.dgn			Date:	Comments	Init.		No Revisions:						
Horiz. Scale: 1:480 Vert. Scale:							Revised:		Designer: G. YOUNG	Structure			
<div> 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 Fax: 303-860-7139</div>							Void:		Detailer: G. YOUNG	Numbers			
								Sheet Subset: UTILITIES	Subset Sheets: 10 of 14		Sheet Number 52		



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File Name: CMINER_DES_UTILPnP_02.dgn
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Date:	Comments	Init.	



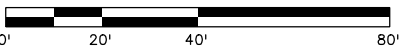
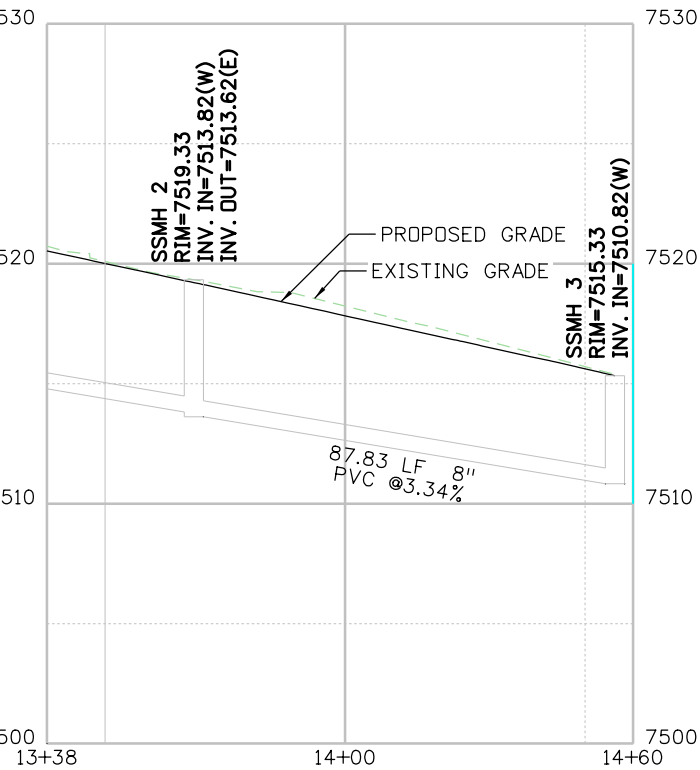
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As Constructed		CENTRAL MINER STREET PLAN & PROFILE STA. 56+00 TP STA. 61+00			Project No./Code
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MATCH LINE STA 61+00.00



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Horiz. Scale: 1:480 Vert. Scale: 1:5

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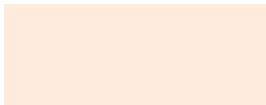
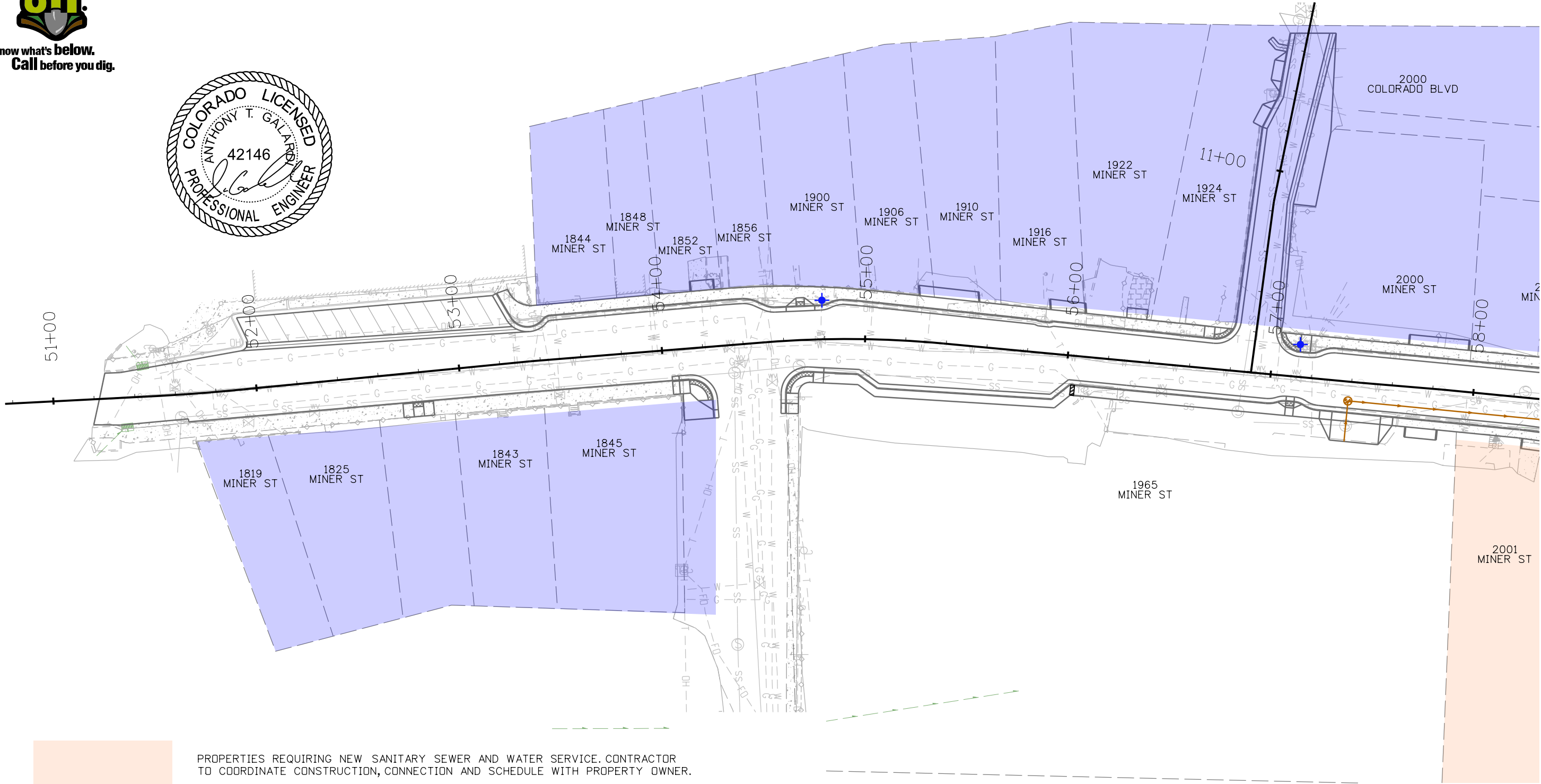
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No Revisions:		Designer: G. YOUNG			
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		Structure Numbers			
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PROPERTIES REQUIRING NEW SANITARY SEWER AND WATER SERVICE. CONTRACTOR TO COORDINATE CONSTRUCTION, CONNECTION AND SCHEDULE WITH PROPERTY OWNER.



PROPERTIES REQUIRING NEW WATER SERVICE. CONTRACTOR TO COORDINATE CONSTRUCTION, CONNECTION AND SCHEDULE WITH PROPERTY OWNER.

G. YOUNG
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File Name: CMINER_UTIL_SRVC_01.dgn
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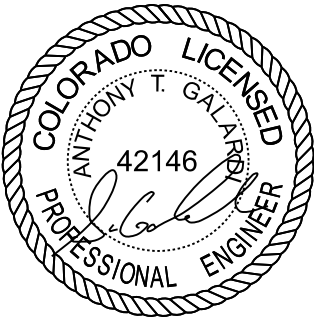
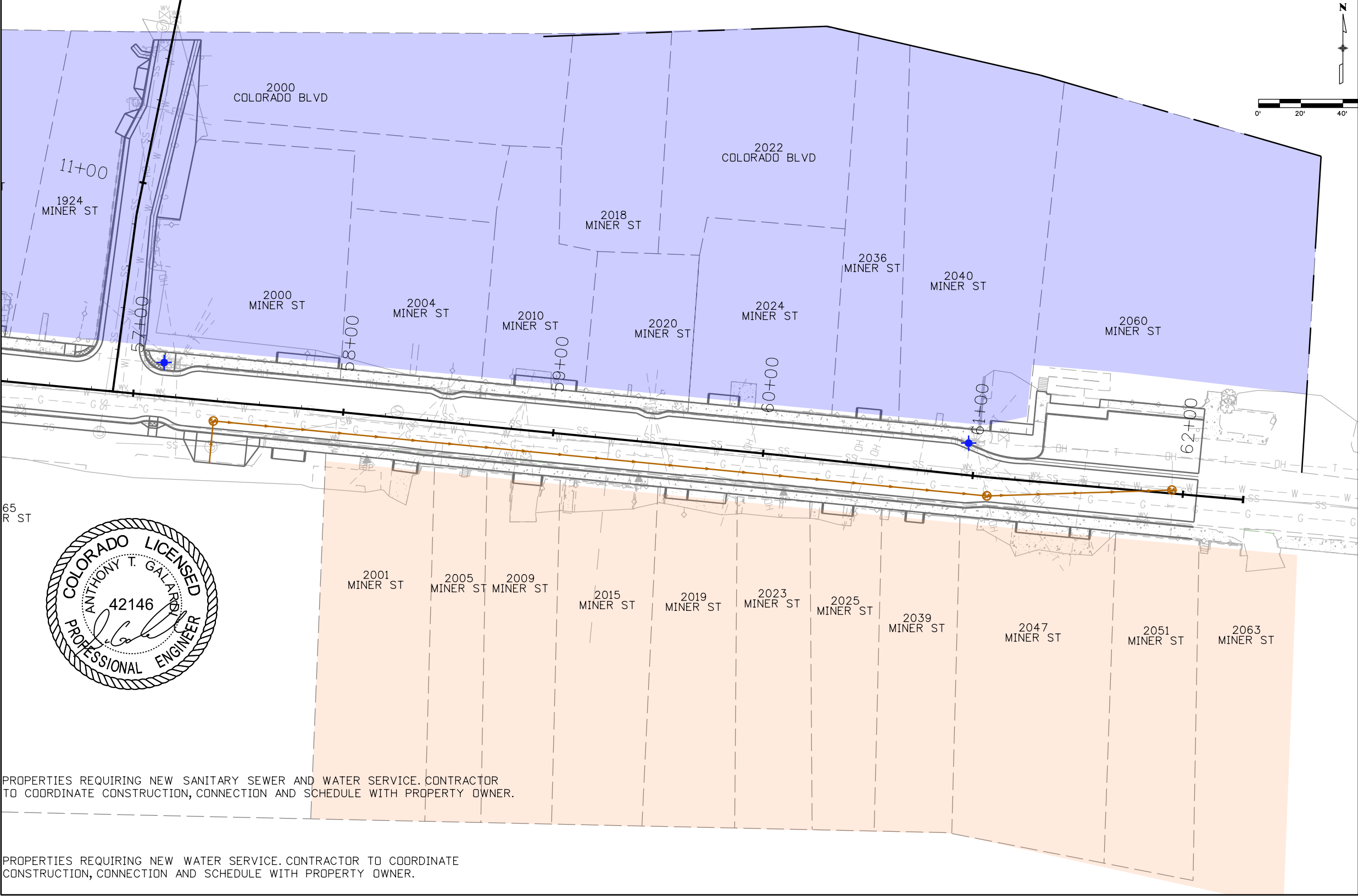
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CENTRAL MINER STREET UTILITY SERVICES			
Designer:	G. YOUNG	Structure	
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Sheet Subset:	UTILITIES	Subset Sheets:	13 of 14

Project No./Code
Sheet Number 55



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PROPERTIES REQUIRING NEW SANITARY SEWER AND WATER SERVICE. CONTRACTOR TO COORDINATE CONSTRUCTION, CONNECTION AND SCHEDULE WITH PROPERTY OWNER.

PROPERTIES REQUIRING NEW WATER SERVICE. CONTRACTOR TO COORDINATE CONSTRUCTION, CONNECTION AND SCHEDULE WITH PROPERTY OWNER.

Print Date: 9/5/2018

File Name: CMINER_UTIL_SRVC_02.dgn

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No Revisions:	UTILITY SERVICES			
Revised:	Designer: G. YOUNG	Structure Numbers		
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Tabulation of Signs																	
Sheet No.	Sign No.	Sign Code	Station	Location	Side	Sign Panel Size			Background Color	202 Removal of Ground Sign	202 Removal of Sign Panel	210 Reset Ground Sign	No. of Posts	POST TYPE	POST TYPE	SIGN PANEL	Remarks
														614 STEEL SIGN SUPPORT (2-INCH ROUND) (POST & SOCKET)	614 STEEL SIGN SUPPORT (2-1/2 INCH ROUND NP-40) (POST & SLIPBASE)	614 Class I	
						W"	x	H"		EACH	EACH	EACH		LF	LF	SF	
1																	
	A-01	RESET	51+73	Miner Street	Right						1	1	1	10.00			
	A-02	W11-2	52+68	Miner Street	Right	30	x	30	Yellow				1		11.50	6.25	
		W16-4P				30	x	24	Yellow							5.00	
	A-03	SPECIAL	54+67	Soda Creek Rd	Right	42	x	12	Black	2			1		11.50	3.50	Street Sign - Miner Street
		SPECIAL				54	x	12	Black							4.50	Street Sign - Soda Creek Road
		R1-1				30	x	30	Red							6.25	
	A-04	RESET	55+62	Miner Street	Left							1	1	9.50			
		REMOVE	56+08	Miner Street	Right						1						Remove "Caution Speed Bump" sign panel from existing sign assembly
2																	
	B-01	SPECIAL	10+25	20th Avenue	Left	42	x	12	Black	1			1		11.50	3.50	Street Sign - Miner Street
		SPECIAL				36	x	12	Black							3.00	Street Sign - 20th Avenue
		R1-1				30	x	30	Red							6.25	
	B-02	W11-2	57+22	Miner Street	Left	30	x	30	Yellow				1		11.50	6.25	
		W16-4P				30	x	24	Yellow							5.00	
	B-03	RESET	60+09	Miner Street	Right							1	1	10.0			
	B-04	RESET	61+66	Miner Street	Left							1	1	5.0			Confirm location of signs with property owner
	B-05	RESET	61+77	Miner Street	Left							1	1	5.0			Confirm location of signs with property owner
	B-06	RESET	61+96	Miner Street	Left							1	1	5.0			Confirm location of signs with property owner
PROJECT TOTALS										3	2	6	9	34.50	46.00	49.50	

- ☒ FOR INFORMATION ONLY
- ◆ DENOTES BACK-TO-BACK SIGN PANELS



SDAQ
MMARSHAL 11:28:33 AM pw:\pwhdruscen01\HDR_US_Central_01\Documents\6065\10120232\6.0_CAD_BIM\6.2_WIP\Central Miner\Design\Drawings\CMINER_TAB_Signing.dgn

Print Date: 9/4/2018	<div>0000</div>	Sheet Revisions				City of Idaho Springs Department of Public Works		As Constructed		CENTRAL MINER STREET TABULATION OF SIGNING			Project No./Code	
File Name: CMINER_TAB_Signing.dgn		Date:	Comments	Init.		1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955		No Revisions:						
Horiz. Scale: 1:100 Vert. Scale:								Revised:		Designer: J.STEMLEY	Structure Numbers			
1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 Fax: 303-860-7139								Void:		Detailer: J.STEMLEY				
										Sheet Subset: TAB	Subset Sheets: 01 of 01	Sheet Number	57	



Know what's below.
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Tabulation of Pavement Markings							
Station		Location	627 Epoxy Pavement Marking		627 Preformed Thermoplastic Pavement Marking (Xwalk-Stop Line) (SF)		627 Preformed Thermoplastic Pavement Marking (Word- Symbol) (SF)
			White Solid 3 Inch	White Solid 6 Inch	Stop Line Solid 24 Inch	Crosswalks (24"X10')	Handicap Symbol
From	To		LF	LF	SF	SF	SF
MINER STREET							
50+00	55+50	Miner Street	530	165		240	11.5
55+50	62+28	Miner Street	560	402		80	11.5
Miner Street Total			1,090	567	0	320	23
SODACREEK ROAD							
10+00	12+00	Soda Creek Road			30	140	
Soda Creek Road Total			0	0	30	140	0
20TH AVENUE							
10+00	12+00	20th Avenue			18	80	
20th Avenue Total			0	0	18	80	0
Pay Quantity Calculations							
Total Linear Feet			1,090	567			
Total Square Feet			273	284	18	400	23
Preformed Thermoplastic Pavement Marking (Xwalk-Stop Line) (SF)					18	400	23
Preformed Thermoplastic Pavement Marking (Word- Symbol) (SF)							
Pavement Marking Paint (GAL)			4	4			

SUMMARY	
YELLOW EPOXY (GAL)	0
WHITE EPOXY (GAL)	8
YELLOW THERMO PLASTIC/ XWALK-STOP LINE (SF)	0
WHITE THERMO PLASTIC/ XWALK-STOP LINE (SF)	418
YELLOW THERMO PLASTIC/ WORD-SYMBOL (SF)	0
WHITE THERMO PLASTIC/ WORD-SYMBOL (SF)	23



SDAQ
MMARSHAL 11:28:46 AM pw:\\pwhdruscen01:HDR_US_Central_01\Documents\6065\10120232\6.0_CAD_BIM\6.2_WIP\Central Miner\Design\Drawings\CMINER_TAB_Striping.dgn

Print Date: 9/4/2018		<div>0000</div>	Sheet Revisions			<div><div>City of Idaho Springs Department of Public Works 1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955</div></div>	As Constructed		CENTRAL MINER STREET TABULATION OF STRIPING			Project No./Code		
File Name: CMINER_TAB_Striping.dgn			Date:	Comments	Init.		No Revisions:							
Horiz. Scale: 1:100			Vert. Scale:						Revised:	Designer: J.STEMLEY	Structure			
										Detailer: J.STEMLEY	Numbers			
									Void:	Sheet Subset: TAB	Subset Sheets:	01 of 01	Sheet Number	58

1670 BROADWAY, SUITE 3400

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Fax: 303-860-7139



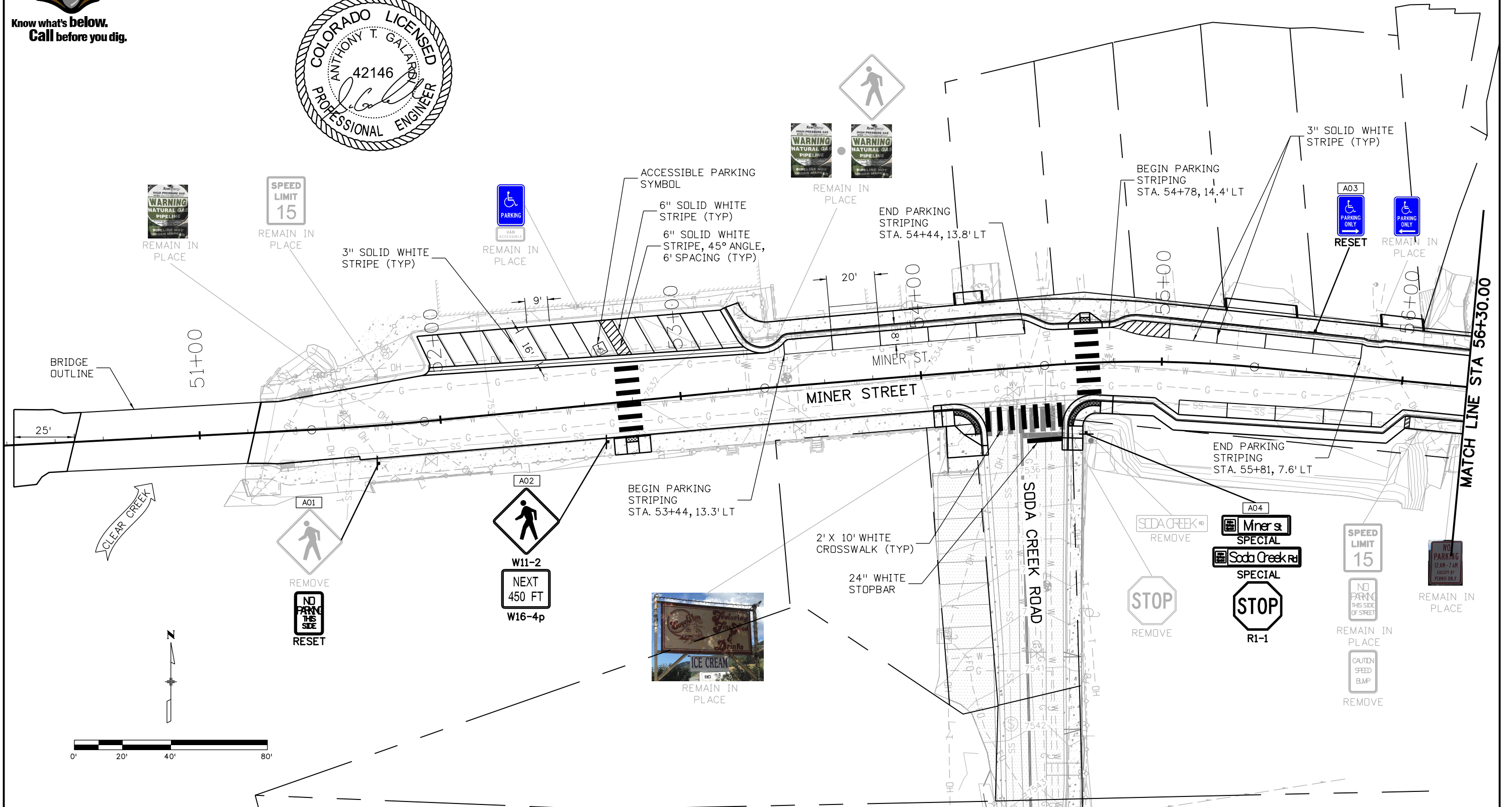
City of Idaho Springs
Department of Public Works
1711 Miner Street
Idaho Springs, CO 80452
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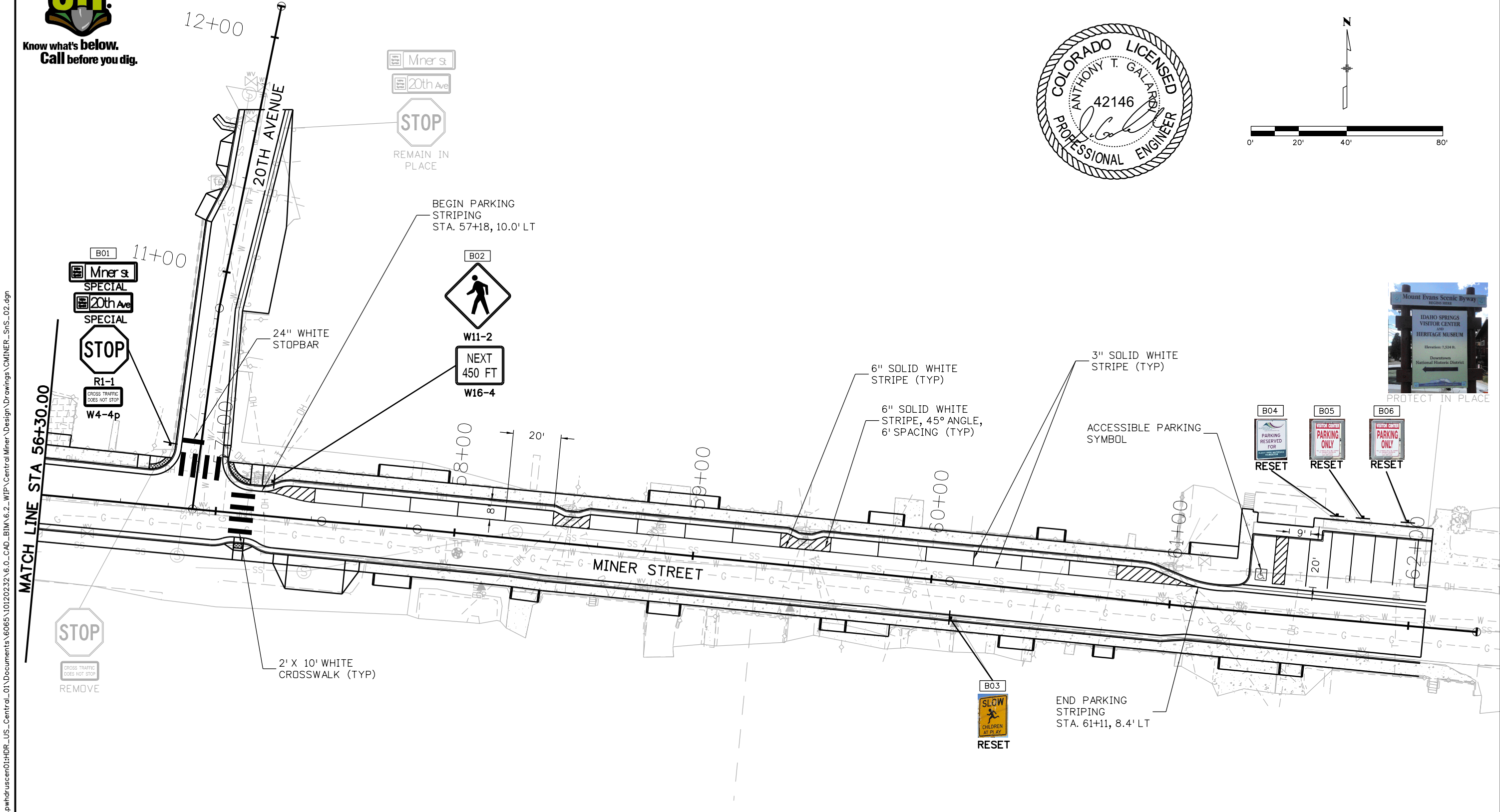
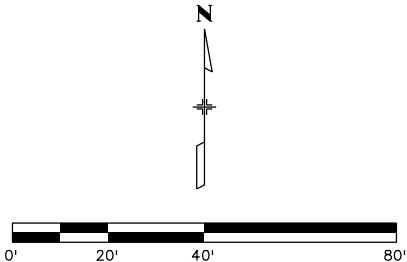
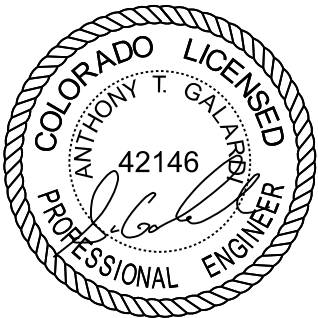
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Print Date: 9/4/2018		<div>0</div> <div>0</div> <div>0</div> <div>0</div> <div>0</div>	Sheet Revisions				City of Idaho Springs Department of Public Works 1711 Miner Street Idaho Springs, CO 80452 Phone: 303-567-4421 FAX: 303-567-4955	As Constructed		CENTRAL MINER STREET SIGNING & STRIPING			Project No./Code			
File Name: CMINER_SnS_01.dgn			Date:	Comments	Init.			No Revisions:		Designer: J.STEMLEY Detailer: J.STEMLEY			Structure Numbers			
Horiz. Scale: 1:40 Vert. Scale:								Revised:								
 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 Fax: 303-860-7139								Void:		Sheet Subset: S&S		Subset Sheets: 01 of 02		Sheet Number 59		



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File Name: CMINER_SnS_02.dgn

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As Constructed

No Revisions:

Revised:

Void:

CENTRAL MINER STREET
SIGNING & STRIPING

Designer: J.STEMLEY

Detailer: J.STEMLEY

Sheet Subset: S&S

Structure Numbers

Subset Sheets: 02 of 02

Project No./Code

Sheet Number 60



Know what's below.
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[Soda Creek Rd] C 50% spacing;
1.0" Radius, 0.5" Border, White on Black;
Rounded Rectangle 0.5" Radius;
Table of letter and object lefts.

S	o	d	a			
10.5	14.4	18.0	21.6			
C	r	e	e	k	R	d
27.6	31.8	34.3	37.9	41.5	46.8	49.4

STREET SIGN
SODA CREEK ROAD

SIGN NO. A-03
STA. 54+67



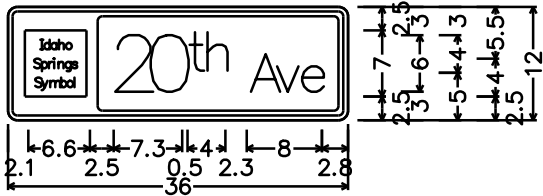
[Miner St] C 50% spacing;
1.0" Radius, 0.5" Border, White on Black;
Rounded Rectangle 0.5" Radius;
Table of letter and object lefts.

M	i	n	e	r
14.1	19.0	20.8	24.5	28.1
S	t			
32.6	35.3			

STREET SIGN
MINER STREET

SIGN NO. A-03
STA. 54+67

SIGN NO. B-01
STA. 10+25

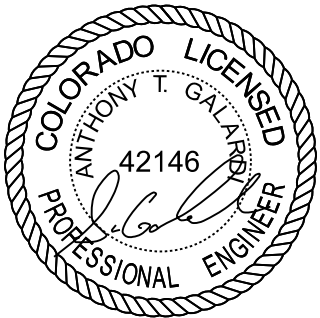


1.0" Radius, 0.5" Border, White on Black;
[20th] C 50% spacing; [Ave] C;
Rounded Rectangle 0.5" Radius;
Table of letter and object lefts.

2	0	t	h
11.1	15.0	19.0	21.0
A	v	e	
25.3	28.3	31.3	

STREET SIGN
20TH AVE

SIGN NO. B-01
STA. 10+25



SDAQ
MMARSHAL 2:59:08 PM pw:\pwhdriscen01\Documents\6065\10120232\6.0_CAD_BIM\6.2_WIP_Central Miner\Design\Drawings\CMINER_SnS_03.dgn

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City of Idaho Springs

Department of Public Works

1711 Miner Street
Idaho Springs, CO 80452
Phone: 303-567-4421 FAX: 303-567-4955

As Constructed	CENTRAL MINER STREET SIGN DETAILS		Project No./Code
No Revisions:			
Revised:	Designer: J.STEMLEY	Structure Numbers	
Void:	Detailer: J.STEMLEY		
	Sheet Subset: SIGN DET	Subset Sheets: 01 of 01	Sheet Number 61