OVERLOOK PHASE 3
POWDER MOUNTAIN
SITE CONSTRUCTION DRAWINGS

Located in Secs 05 & 08 T7N R2E
Weber County, Utah

SHEET INDEX:

CONDITIONAL APPROVAL PMWSID
CONDITIONS NOTED IN APPROVAL LETTER DATED 6-23-22

TALISMAN
CIVIL CONSULTANTS
1588 SOUTH MAIN STREET
SUITE 200
SALT LAKE CITY, UT 84115
801.743.1300

NO.	BY	DATE	REVISIONS:
1	JBP	05/13/2022	UPDATE TO 2021 PMWSID STANDARDS
2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, WTRWY ADD

OVERLOOK PH3 AT POWDER MTN
CIVIL TITLE SHEET

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-200.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

SCALE
HORIZONTAL: 1" = 3000'
0 750' 1500' 3000' 4500'

SHEET NUMBER
001
1 OF 19

CALL 811 BEFORE YOU DIG
SAFE DIGGING PARTNER

DATE: 6/20/2022 3:26 PM

PATH: N:\18.0793\Cadd\18-200.23-Overlook Phase3\PV\001 CIVIL TITLE SHEET.dwg

GENERAL NOTES

1. ALL CONSTRUCTION MUST STRICTLY FOLLOW THE STANDARDS AND SPECIFICATIONS SET FORTH BY: GOVERNING UTILITY MUNICIPALITY, GOVERNING CITY OR COUNTY (IF UN-INCORPORATED), INDIVIDUAL PRODUCT MANUFACTURERS, THE DESIGN ENGINEER, AND AMERICAN PUBLIC WORKS ASSOCIATION (APWA). THE ORDER LISTED ABOVE IS ARRANGED BY SENIORITY. IF A CONSTRUCTION PRACTICE IS NOT SPECIFIED BY ANY OF THE LISTED SOURCES, CONTRACTOR MUST CONTACT DESIGN ENGINEER FOR DIRECTION.
2. CONTRACTOR TO STRICTLY FOLLOW GEOTECHNICAL RECOMMENDATIONS FOR THIS PROJECT. ALL GRADING INCLUDING BUT NOT LIMITED TO CUT, FILL, COMPACTION, ASPHALT SECTION, SUBBASE, TRENCH EXCAVATION/BACKFILL, SITE GRUBBING, RETAINING WALLS AND FOOTINGS MUST BE COORDINATED DIRECTLY WITH THE PROJECT GEOTECHNICAL ENGINEER.
3. TRAFFIC CONTROL, STRIPING & SIGNAGE TO CONFORM TO CURRENT UDOT TRANSPORTATION ENGINEER'S MANUAL AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
4. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.
5. CONSULT ALL OF THE DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BEFORE COMMENCING CONSTRUCTION.
6. AT ALL LOCATIONS WHERE EXISTING PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING PAVEMENT SHALL BE SAWCUT TO A CLEAN, SMOOTH EDGE.
7. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MOST RECENT, ADOPTED EDITION OF ADA ACCESSIBILITY GUIDELINES.
8. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED THOROUGHLY REVIEWED PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
9. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND NOTIFYING ENGINEER OR INSPECTING AUTHORITY 48 HOURS IN ADVANCE OF COVERING UP ANY PHASE OF CONSTRUCTION REQUIRING OBSERVATION.
10. ANY WORK IN THE PUBLIC RIGHT-OF-WAY WILL REQUIRE PERMITS FROM THE APPROPRIATE, CITY, COUNTY OR STATE AGENCY CONTROLLING THE ROAD, INCLUDING OBTAINING REQUIRED INSPECTIONS.
11. ALL DIMENSIONS, GRADES & UTILITY DESIGNS SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES.
12. CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING AND BRING UP ANY QUESTIONS BEFOREHAND.
13. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH BY THE GEOTECHNICAL ENGINEER.
14. CATCH SLOPES SHALL BE GRADED AS SPECIFIED ON GRADING PLANS.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FLAGGING, CAUTION SIGNS, LIGHTS, BARRICADES, FLAGMEN, AND ALL OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.
16. CONTRACTOR SHALL, AT THE TIME OF BIDDING AND THROUGHOUT THE PERIOD OF THE CONTRACT, BE LICENSED IN THE STATE OF UTAH AND SHALL BE BONDABLE FOR AN AMOUNT EQUAL TO OR GREATER THAN THE AMOUNT BID AND TO DO THE TYPE OF WORK CONTEMPLATED IN THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PLANS AND SPECIFICATIONS.
17. CONTRACTOR SHALL INSPECT THE SITE OF THE WORK PRIOR TO BIDDING TO SATISFY HIMSELF BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS HE MAY PREFER OF THE LOCATION OF THE PROPOSED WORK AND OF THE ACTUAL CONDITIONS OF AND AT THE SITE OF WORK. IF, DURING THE COURSE OF HIS EXAMINATION, A BIDDER FINDS FACTS OR CONDITIONS WHICH APPEAR TO HIM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS, HE SHALL CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING HIS BID. SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT, IF AWARDED THE CONTRACT, HE HAS RELIED AND IS RELYING ON HIS OWN EXAMINATION OF (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND ON HIS OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT. THE INFORMATION PROVIDED BY THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR, OR A SUPPLEMENT TO, THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT HE HAS NOT RELIED SOLELY UPON OWNER- OR ENGINEER-FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING HIS BID.
18. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTOR'S USE DURING CONSTRUCTION.
19. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER, ENGINEER, AND/OR GOVERNING AGENCIES.
20. CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE.
21. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
22. CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER; ALL RE-TESTING AND/OR RE-INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.
23. IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT. THERE WILL BE NO EXTRA COST DUE TO THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS.
24. WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.
25. CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL STRUCTURES AND OTHER FACILITIES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.
26. WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FIRST QUALITY ARE TO BE USED.

GENERAL NOTES CONT.

27. CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PROJECT PLANS AND SPECIFICATIONS. THEREFORE, THE OWNER IS RELYING UPON THE EXPERIENCE AND EXPERTISE OF THE CONTRACTOR. PRICES PROVIDED WITHIN THE CONTRACT DOCUMENTS SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THE TRUE INTENT AND PURPOSE OF THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE COMPETENT, KNOWLEDGEABLE AND HAVE SPECIAL SKILLS IN THE NATURE, EXTENT AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN PECULIAR AND INHERENT CONDITIONS EXISTENT IN THE CONSTRUCTION OF THE PARTICULAR FACILITIES WHICH MAY CREATE, DURING THE CONSTRUCTION PROGRAM, UNUSUAL OR UNSAFE CONDITIONS HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL STRIPING AND/OR PAVEMENT MARKINGS NECESSARY TO TIE EXISTING STRIPING INTO FUTURE STRIPING. METHOD OF REMOVAL SHALL BE BY GRINDING OR SANDBLASTING.
29. CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 4' OR MORE. FOR EXCAVATIONS 4 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL COMPLY WITH INDUSTRIAL COMMISSION OF UTAH SAFETY ORDERS SECTION 68 – EXCAVATIONS, AND SECTION 69 – TRENCHES, ALONG WITH ANY LOCAL CODES OR ORDINANCES.
30. ALL EXISTING GATES AND FENCES TO REMAIN UNLESS OTHERWISE NOTED ON PLANS. PROTECT ALL GATES AND FENCES FROM DAMAGE.

UTILITY NOTES

1. CONTRACTOR SHALL COORDINATE LOCATION OF NEW "DRY UTILITIES" WITH THE APPROPRIATE UTILITY COMPANY, INCLUDING BUT NOT LIMITED TO: TELEPHONE SERVICE, GAS SERVICE, CABLE, POWER, INTERNET.
2. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING A COMBINATION OF ON-SITE SURVEYS (BY OTHERS). PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE, IN THE FIELD, THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY BLUE STAKES AT 1-800-662-4111 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK. THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.
3. CONTRACTOR SHALL POT HOLE ALL UTILITIES TO DETERMINE IF CONFLICTS EXIST PRIOR TO BEGINNING ANY EXCAVATION. NOTIFY ENGINEER OF ANY CONFLICTS. CONTRACTOR SHALL VERIFY LOCATION AND INVERTS OF EXISTING UTILITIES TO WHICH NEW UTILITIES WILL BE CONNECTED. PRIOR TO COMMENCING ANY EXCAVATION WORK THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH THE REQUIRED PROCEDURES.
4. CARE SHOULD BE TAKEN IN ALL EXCAVATIONS DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES. EXCAVATION REQUIRED WITHIN PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT HIS EXPENSE.
5. ALL VALVES AND MANHOLE COVERS SHALL BE RAISED OR LOWERED TO MEET FINISHED GRADE.
6. CONTRACTOR SHALL CUT PIPES OFF FLUSH WITH THE INSIDE WALL OF THE BOX OR MANHOLE.
7. CONTRACTOR SHALL GROUT AT CONNECTION OF PIPE TO BOX WITH NON-SHRINKING GROUT, INCLUDING PIPE VOIDS LEFT BY CUTTING PROCESS, TO A SMOOTH FINISH.
8. CONTRACTOR SHALL GROUT WITH NON-SHRINK GROUT BETWEEN GRADE RINGS AND BETWEEN BOTTOM OF INLET LID FRAME AND TOP OF CONCRETE BOX.
9. SILT AND DEBRIS IS TO BE CLEANED OUT OF ALL STORM DRAIN BOXES. CATCH BASINS ARE TO BE MAINTAINED IN A CLEANED CONDITION AS NEEDED UNTIL AFTER THE FINAL BOND RELEASE INSPECTION.
10. CONTRACTOR SHALL CLEAN ASPHALT, TAR OR OTHER ADHESIVES OFF OF ALL MANHOLE LIDS AND INLET GRATES TO ALLOW ACCESS.
11. EACH TRENCH SHALL BE EXCAVATED SO THAT THE PIPE CAN BE LAID TO THE ALIGNMENT AND GRADE AS REQUIRED. THE TRENCH WALL SHALL BE SO BRACED THAT THE WORKMEN MAY WORK SAFELY AND EFFICIENTLY. ALL TRENCHES SHALL BE DRAINED SO THE PIPE LAYING MAY TAKE PLACE IN DEWATERED CONDITIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COST OF DEWATERING AND NO COST CHANGE WILL BE PROVIDED.
12. CONTRACTOR SHALL PROVIDE AND MAINTAIN AT ALL TIMES AMPLE MEANS AND DEVICES WITH WHICH TO REMOVE PROMPTLY AND TO PROPERLY DISPOSE OF ALL WATER ENTERING THE TRENCH EXCAVATION.
13. MAINTAIN A MINIMUM 18" VERTICAL SEPARATION DISTANCE BETWEEN ALL UTILITY CROSSINGS. AT WATER/SEWER CROSSINGS, WATER IS REQUIRED TO CROSS ABOVE SANITARY SEWER UNLESS AN EXCEPTION HAS BEEN GRANTED BY THE UTAH DIVISION OF DRINKING WATER.
14. CONTRACTOR SHALL START INSTALLATION AT LOW POINT OF ALL NEW GRAVITY UTILITY LINES.
15. ALL BOLTED FITTINGS MUST BE GREASED AND WRAPPED.
16. UNLESS SPECIFICALLY NOTED OTHERWISE, MAINTAIN AT LEAST 2 FEET OF COVER OVER ALL STORM DRAIN LINES AT ALL TIMES (INCLUDING DURING CONSTRUCTION).
17. ALL WATER LINES SHALL BE INSTALLED WITH A MINIMUM OF 108 INCHES TO TOP OF PIPE FOR DEVELOPED SURFACE CONDITIONS, AND 84 INCHES TO TOP OF PIPE FOR UNDEVELOPED SURFACE CONDITIONS.
18. ALL SEWER LINES AND SEWER SERVICES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET, PIPE EDGE TO PIPE EDGE, FROM THE WATER LINES.
19. CONTRACTOR SHALL INSTALL THRUST BLOCKING AT ALL WATERLINE ANGLE POINTS AND TEES.
20. ALL UNDERGROUND UTILITIES SHALL BE IN PLACE PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK AND STREET PAVING.
21. CONTRACTOR SHALL INSTALL MAGNETIC LOCATING TAPE CONTINUOUSLY OVER ALL NONMETALLIC PIPE.
22. THE CONTRACTOR SHALL NOTIFY TALISMAN CIVIL CONSULTANTS, LLC. IN WRITING AT LEAST 48 HOURS PRIOR TO BACKFILLING OF ANY PIPE WHICH STUBS TO A FUTURE PHASE OF CONSTRUCTION FOR INVERT VERIFICATION. TOLERANCE SHALL BE IN ACCORDANCE WITH THE REGULATORY AGENCY STANDARD SPECIFICATIONS.
23. UNDER NO CIRCUMSTANCE SHALL THE PIPE OR ACCESSORIES BE DROPPED INTO THE TRENCH.
24. THE CONTRACTOR SHALL MARK ALL UNDERGROUND UTILITIES IN LOCATIONS WHERE UTILITIES ARE NOT LOCATED WITHIN A ROADWAY. THE CONTRACTOR SHALL MARK UTILITIES AT ANGLE POINTS, PCs, AND PTs WITH A 2' REBAR STAKE INSTALLED FLUSH TO GRADE. SURVEY ALL LOCATIONS AND PROVIDE GPS COORDINATES WITH AS-BUILT DRAWINGS.
25. ANY CHANGES TO THE ROAD GRADE OR PROFILE NEED TO BE APPROVED BY POWDER MOUNTAIN, AS THIS MAY AFFECT THE FINAL BURY DEPTH OF WATER LINES.
26. PROVIDE AND INSTALL FIRE HYDRANT IDENTIFICATION FLAGS ON ALL FIRE HYDRANTS WITHIN PROJECT PER POWDER MOUNTAIN RECOMMENDATIONS.
27. ALL FLUSHING SHALL BE OVERSEEN BY PMWSID. PROVIDE 48 HOURS NOTICE PRIOR TO FLUSHING.
28. ALL WORK ON WATER AND SEWER INFRASTRUCTURE REQUIRES INSPECTION BY PMWSID. PROVIDE 48 HOURS NOTICE PRIOR TO WORK COMMENCEMENT.
29. NO CONSTRUCTION WATER SHALL BE TAKEN FROM THE EXISTING WATER SYSTEM WITHOUT APPROVAL FROM THE DISTRICT.

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LEGEND:

SYMBOL / LINETYPE	DESCRIPTION	DETAIL
8"W PVC	PROPOSED 8"ø C-900 PVC WATER PIPE	APWA PLAN NO. 381, 382 – SHEET 701
10"W PVC	PROPOSED 10"ø C-900 PVC WATER PIPE	APWA PLAN NO. 381, 382 – SHEET 701
8"W HDPE	PROPOSED 8"ø HDPE WATER PIPE	APWA PLAN NO. 381, 382 – SHEET 701
10"W HDPE	PROPOSED 10"ø HDPE WATER PIPE	APWA PLAN NO. 381, 382 – SHEET 701
12"W HDPE	PROPOSED 12"ø HDPE WATER PIPE	APWA PLAN NO. 381, 382 – SHEET 701
2"W	PROPOSED 2"ø WATER SERVICE LATERAL	PMWSID PLAN NO. 541S – SHEET 704
W	PROPOSED AIR RELEASE ASSEMBLY	APWA PLAN NO. 575 – SHEET 704
W	PROPOSED WATER METER	PMWSID PLAN NO. 521S – SHEET 705
	PROPOSED WATER LINE REDUCER	APWA PLAN NO. 561, 562 – SHEET 703
	PROPOSED WATER VALVE	APWA PLAN NO. 561, 562 – SHEET 703
	PROPOSED FIRE HYDRANT ASSEMBLY	PMWSID PLAN NO. 511S – SHEET 705
8"SS PVC	PROPOSED 8"ø SDR35 PVC SEWER PIPE	APWA PLAN NO. 381, 382 – SHEET 701
8"SS HDPE	PROPOSED 8"ø HDPE SEWER PIPE	APWA PLAN NO. 381, 382 – SHEET 701
	PROPOSED PVC SANITARY SEWER LATERAL	PMWSID PLAN NO. 431S – SHEET 702
S	PROPOSED 4'ø SANITARY SEWER MANHOLE	PMWSID PLAN NO. 402S AND APWA PLAN NO. 411 – SHEET 702
SS	PROPOSED 5'ø SANITARY SEWER MANHOLE	PMWSID PLAN NO. 402S AND APWA PLAN NO. 411 – SHEET 702
15"SD	PROPOSED 15"ø CLIII RCP DRAINAGE PIPE	APWA PLAN NO. 381, 382 – SHEET 701
18"SD	PROPOSED 18"ø CLIII RCP DRAINAGE PIPE	APWA PLAN NO. 381, 382 – SHEET 701
D	PROPOSED STORM DRAIN MANHOLE	APWA PLAN NO. 341 – SHEET 701
	PROPOSED CATCH BASIN	APWA PLAN NO. 315 – SHEET 700
	PROPOSED COMBINATION CATCH BASIN AND CLEANOUT BOX	APWA PLAN NO. 316 – SHEET 701
(1)2"COM	PROPOSED TELECOMMUNICATION CONDUIT (1)2"ø	N/A
TL	PROPOSED TELECOMMUNICATION PULL BOX	N/A
(2) 6" P	PROPOSED ELECTRICAL CONDUIT (2)6"ø	N/A
E	PROPOSED ELECTRICAL METER	N/A
TR	PROPOSED ELECTRICAL TRANSFORMER	N/A
	EASEMENT LINE	N/A
	PROPOSED LOT LINE	N/A
8"W	EXISTING 8"ø WATER LINE	N/A
16"W	EXISTING 16"ø WATER LINE	N/A
	EXISTING WATER VALVE	N/A
	EXISTING FIRE HYDRANT	N/A
15"SD	EXISTING 15"ø STORM DRAIN LINE	N/A
D	EXISTING STORM DRAIN MANHOLE	N/A
	EXISTING STORM DRAIN CATCH BASIN	N/A
8"SS	EXISTING 8"ø SANITARY SEWER LINE	N/A
S	EXISTING SANITARY SEWER MANHOLE	N/A
G G	EXISTING GAS PIPE/SLEEVE	N/A
P P	EXISTING MISCELLANEOUS POWER CONDUIT	N/A
(1)4"P	EXISTING 4"ø POWER CONDUIT	N/A
(1)2"COM	EXISTING 2"ø COMMUNICATION CONDUIT	N/A
8"SS HDPE	EXISTING SANITARY SEWER LINE TO BE REMOVED	N/A
15"SD	EXISTING STORM DRAIN LINE TO BE REMOVED	N/A
16"W	EXISTING WATER LINE TO BE REMOVED	N/A
S	EXISTING SANITARY SEWER MANHOLE TO BE REMOVED	N/A

NOTE: LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED IN PLAN SET.

EROSION CONTROL GENERAL NOTES:

THE CONTRACTOR TO USE BEST MANAGEMENT PRACTICES FOR PROVIDING EROSION CONTROL FOR CONSTRUCTION OF THIS PROJECT. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO WEBER COUNTY ORDINANCES AND ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE COUNTIES. ALSO, INSPECTORS WILL HAVE THE RIGHT TO CHANGE THE FACILITIES AS NEEDED.

CONTRACTOR SHALL KEEP THE SITE WATERED TO CONTROL DUST. CONTRACTOR TO LOCATE A NEARBY HYDRANT FOR USE AND TO INSTALL TEMPORARY METER. CONSTRUCTION WATER COST TO BE INCLUDED IN BID.

WHEN GRADING OPERATIONS ARE COMPLETED AND THE DISTURBED GROUND IS LEFT "OPEN" FOR 14 DAYS OR MORE, THE AREA SHALL BE FURROWED PARALLEL TO THE CONTOURS.

THE CONTRACTOR SHALL MODIFY EROSION CONTROL MEASURES TO ACCOMMODATE PROJECT PLANNING.

ALL ACCESS TO PROPERTY WILL BE FROM PUBLIC RIGHT-OF-WAYS.

THE CONTRACTOR IS REQUIRED BY STATE AND FEDERAL REGULATIONS TO PREPARE A STORM WATER POLLUTION PREVENTION PLAN AND FILE A "NOTICE OF INTENT" WITH THE UTAH DIVISION OF WATER QUALITY.

MAINTENANCE:

ALL BEST MANAGEMENT PRACTICES (BMP'S) SHOWN ON THIS PLAN MUST BE MAINTAINED AT ALL TIMES UNTIL VEGETATION IS RE-ESTABLISHED.

THE CONTRACTOR'S RESPONSIBILITY SHALL INCLUDE MAKING BI-WEEKLY CHECKS ON ALL EROSION CONTROL MEASURES TO DETERMINE IF REPAIR OR SEDIMENT REMOVAL IS NECESSARY. CHECKS SHALL BE DOCUMENTED AND COPIES OF THE INSPECTIONS KEPT ON SITE.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF BARRIER.

SEDIMENT TRACKED ONTO PAVED ROADS MUST BE CLEANED UP AS SOON AS PRACTICAL, BUT IN NO CASE LATER THAN THE END OF THE NORMAL WORK DAY. THE CLEAN UP WILL INCLUDE SWEEPING OF THE TRACKED MATERIAL, PICKING IT UP, AND DEPOSITING IT TO A CONTAINED AREA.

EXPOSED SLOPES:

ANY EXPOSED SLOPE THAT WILL REMAIN UNTOUCHED FOR LONGER THAN 14 DAYS MUST BE STABILIZED BY ONE OR MORE OF THE FOLLOWING METHODS:

A) SPRAYING DISTURBED AREAS WITH A TACKIFIER VIA HYDROSEED
B) TRACKING STRAW PERPENDICULAR TO SLOPES
C) INSTALLING A LIGHT-WEIGHT, TEMPORARY EROSION CONTROL BLANKET

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

CULINARY WATER NOTES

1. ALL MATERIALS THAT MAY COME IN CONTACT WITH DRINKING WATER, INCLUDING PIPES, GASKETS, LUBRICANTS AND O-RINGS, SHALL BE ANSI-CERTIFIED AS MEETING THE REQUIREMENTS OF ANSI/NSF STANDARD 61, DRINKING WATER SYSTEM COMPONENTS – HEALTH EFFECTS. TO PERMIT FIELD-VERIFICATION OF THIS CERTIFICATION, ALL COMPONENTS SHALL BE APPROPRIATELY STAMPED WITH THE NSF LOGO.
2. PIPE, JOINTS, FITTINGS, VALVES, AND FIRE HYDRANTS SHALL CONFORM TO ANSI/NSF STANDARD 61, ALL APPLICABLE SECTIONS OF ASME STANDARDS AND APPLICABLE SECTIONS OF AWWA STANDARDS C104-A21.4-08 THROUGH C550-05 AND C900-07 THROUGH C950-07.
3. FOR PVC PIPE, ASTM D2774, RECOMMENDED PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING AND PVC PIPE AND AWWA MANUAL OF PRACTICE M23, 2003.
4. FOR HDPE PIPE, ASTM D2774, RECOMMENDED PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING AND AWWA MANUAL OF PRACTICE M55, 2006.
5. ALL TYPES OF INSTALLED PIPE SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C600-10.
6. THE OPEN ENDS OF ALL PIPELINES UNDER CONSTRUCTION SHALL BE COVERED AND EFFECTIVELY SEALED AT THE END OF THE DAY'S WORK.
7. ALL NEW WATER MAINS OR APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651-05 OR A METHOD APPROVED BY THE DIRECTOR. THE SPECIFICATIONS SHALL INCLUDE DETAILED PROCEDURES FOR THE ADEQUATE FLUSHING, DISINFECTION AND MICROBIOLOGICAL TESTING OF ALL WATER MAINS. ON ALL NEW AND EXTENSIVE DISTRIBUTION SYSTEM CONSTRUCTION, EVIDENCE OF SATISFACTORY DISINFECTION SHALL BE PROVIDED TO THE DIVISION. SAMPLES FOR COLIFORM ANALYSES SHALL BE COLLECTED AFTER DISINFECTION IS COMPLETE AND THE SYSTEM IS REFILLED WITH DRINKING WATER. A STANDARD HETEROTROPHIC PLATE COUNT IS ADVISABLE. THE USE OF WATER FOR PUBLIC DRINKING WATER PURPOSES SHALL NOT COMMENCE UNTIL THE BACTERIOLOGIC TESTS INDICATE THE WATER IS FREE FROM CONTAMINATION.

WEBER COUNTY

2380 WASHINGTON BLVD. #240
OGDEN, UT 84401
(801) 399-8374

ROCKY MOUNTAIN POWER

1438 WEST 2550 SOUTH
OGDEN, UT 84401
(801) 629-4429

POWDER MOUNTAIN WATER & SEWER DISTRICT

PO BOX 270
EDEN, UT 84310
(801) 745-0912

TALISMAN CIVIL CONSULTANTS
1588 SOUTH MAIN STREET
SUITE 200
SALT LAKE CITY, UT 84115
801.743.1300

NO.	BY	DATE	REVISIONS:
1	JRP	05/13/2022	UPDATE TO 2021 PMWSID STANDARDS
2	JRP	06/17/2022	REV 1 REVIEW COMMENTS, WTRWY ADD

OVERLOOK PH3 AT POWDER MTN
GENERAL NOTES

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

REGISTERED PROFESSIONAL ENGINEER No. 7899506 RYAN W. CATHEY 6/17/22 STATE OF UTAH

SHEET NUMBER
002
2 OF 19

DATE: 6/20/2022 3:26 PM

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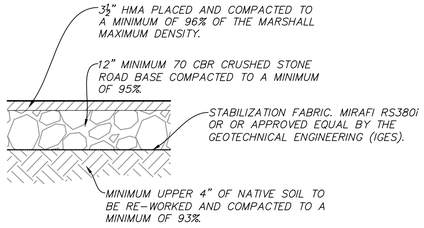
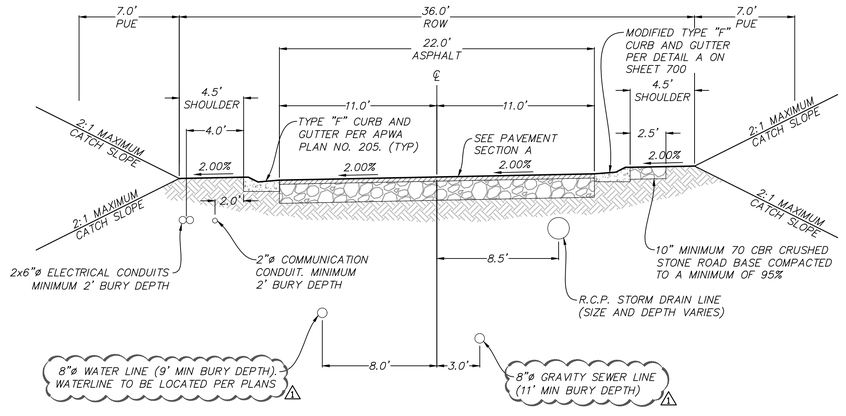


NOTE: PAVEMENT SECTION DETERMINED BY IGES GEOTECHNICAL REPORT DATED FEBRUARY 12, 2019 (REV.2).

PAVEMENT SECTION A



TYPICAL SECTION: COBABE COURT

TALISMAN
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SALT LAKE CITY, UT 84115
801.743.1300

NO.	BY	DATE	REVISIONS
1	JBP	05/13/2022	UPDATE TO 2021 PMWDG STANDARDS
2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, #ERWF ADD

OVERLOOK PH3 AT POWDER MTN
TYPICAL ROAD SECTIONS

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-200.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

SHEET NUMBER
003
3 OF 19

CALL 811 BEFORE YOU DIG
811
811 SAFE DIGGING PARTNER

DATE: 6/20/2022 3:26 PM

PATH: N:\SLB\1793\Cadd\18-200.23-Overlook Phase3\VIP\003 TYPICAL ROAD SECTIONS.dwg

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SALT LAKE CITY, UT 84115
801.743.1300

NO.	BY	DATE	REVISIONS:
1	JBP	05/13/2022	UPDATE TO 2021 PMWSS STANDARDS
2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, JRTRWY ADD

OVERLOOK PH3 AT POWDER MTN

OVERALL SITE PLAN

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18.200.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

SCALE
HORIZONTAL: 1" = 60'
0 15' 30' 60' 90'

SHEET NUMBER
200
4 OF 19

CALL 811 BEFORE YOU DIG
811 SAFE DIGGING PARTNER

DATE: 6/20/2022, 3:26 PM

PATH: N:\18.0793\Cadd\18-200.23-Overlook Phase3\VP\200 OVERALL SITE PLAN.dwg

DATE: 6/20/2022, 3:29 PM

PATH: I:\SLB\17913\Cadd\18-20.23--Overlook Phase3\VIP\201 CUT - FILL PLAN.dwg

PHASE 1&2

MERIDIAN AVENUE

COBABE COURT

PHASE 3

OVERLOOK DRIVE

MERIDIAN AVENUE

PHASE 1&2

DAYBREAK RIDGE

SUMMIT PASS

NOTE: CUT/FILL TICKS AND QUANTITIES TO SUBGRADE EARTH WORK.

CUT: 387 Cu.Yd.
FILL: 1,321 Cu.Yd.
NET (FILL): 934 Cu.Yd.

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SUITE 200
SALT LAKE CITY, UT 84115
801.743.1300

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1	JBP	05/13/2022	UPDATE TO 2021 PMWDG STANDARDS
2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, REVW ADD

OVERLOOK PH3 AT POWDER MTN

CUT - FILL PLAN

DATE SUBMITTED: 10/8/2019

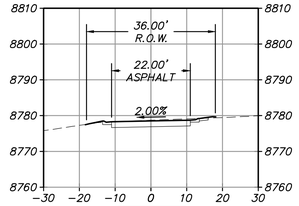
TCC JOB NUMBER: 18-20.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

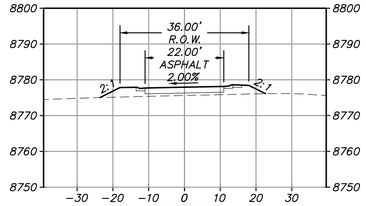
SCALE
HORIZONTAL: 1" = 60'
0 15' 30' 60' 90'

SHEET NUMBER
201
5 OF 19

CALL 811 BEFORE YOU DIG
811
811 DIGGING PARTNER



10+50
H: 1"=20'
V: 1"=20'



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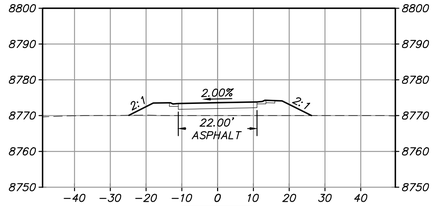
V: 1"=20'



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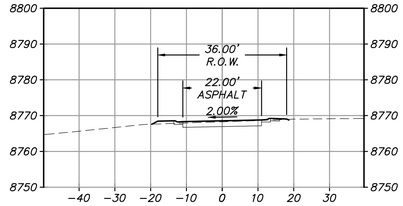
V: 1"=20'



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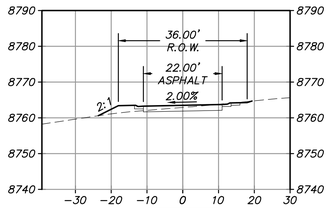
V: 1"=20'



14+00
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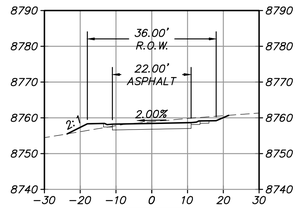
V: 1"=20'



15+00
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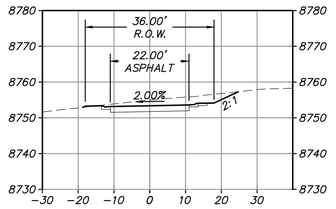
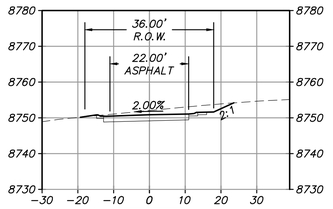
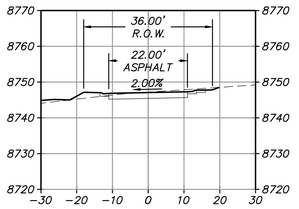
V: 1"=20'



16+00
H: 1"=20'
V: 1"=20'



16+50
H: 1"=20'
V: 1"=20'



17+25
H: 1"=20'
V: 1"=20'

TALISMAN
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NO.	BY	DATE	REVISIONS
1	JBP	05/13/2022	UPDATE TO 2021 PMWDG STANDARDS
2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, WTRWY ADD

OVERLOOK PH3 AT POWDER MTN
ROADWAY SECTIONS - COBABE COURT

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

CALL 811 BEFORE YOU DIG
SAFE DIGGING PARTNER

SHEET NUMBER
204
6 OF 19

DATE: 6/20/2022 3:30 PM

PATH: N:\SLC\7931\Cads\18-20.23-Overlook Phase3\JP\204 ROADWAY SECTIONS.dwg

DATE: 6/20/2022, 3:32 PM

PATH: N:\SLB\079\3\Cadd\18-200.23-Overlook Phase3\VIP\400 OVERALL UTILITY PLAN.dwg

PHASE 1&2

MERIDIAN AVENUE

COBABE COURT

PHASE 3

OVERLOOK DRIVE

MERIDIAN AVENUE

DAYBREAK RIDGE

SUMMIT PASS

PHASE 1&2

TALISMAN
CIVIL CONSULTANTS
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SUITE 200
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1	JBP	05/13/2022	UPDATE TO 2021 PMWSS STANDARDS
2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, REVW ADD

OVERLOOK PH3 AT POWDER MTN

OVERALL UTILITY PLAN

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

SCALE

HORIZONTAL: 1" = 50'

0 12.5' 25' 50' 75'

SHEET NUMBER

400

7 OF 19

CALL 811 BEFORE YOU DIG
811
811 SAFE DIGGING PARTNER

DATE: 6/20/2022 3:33 PM

TALISMAN
CIVIL CONSULTANTS

1588 SOUTH MAIN STREET
SUITE 200
SALT LAKE CITY, UT 84115
801.743.1300

NO.	BY	DATE	REVISIONS:
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2	JRP	06/17/2022	REV 1 REVIEW COMMENTS, WTRWY ADD

OVERLOOK PH3 AT POWDER MTN

KEY SHEET

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

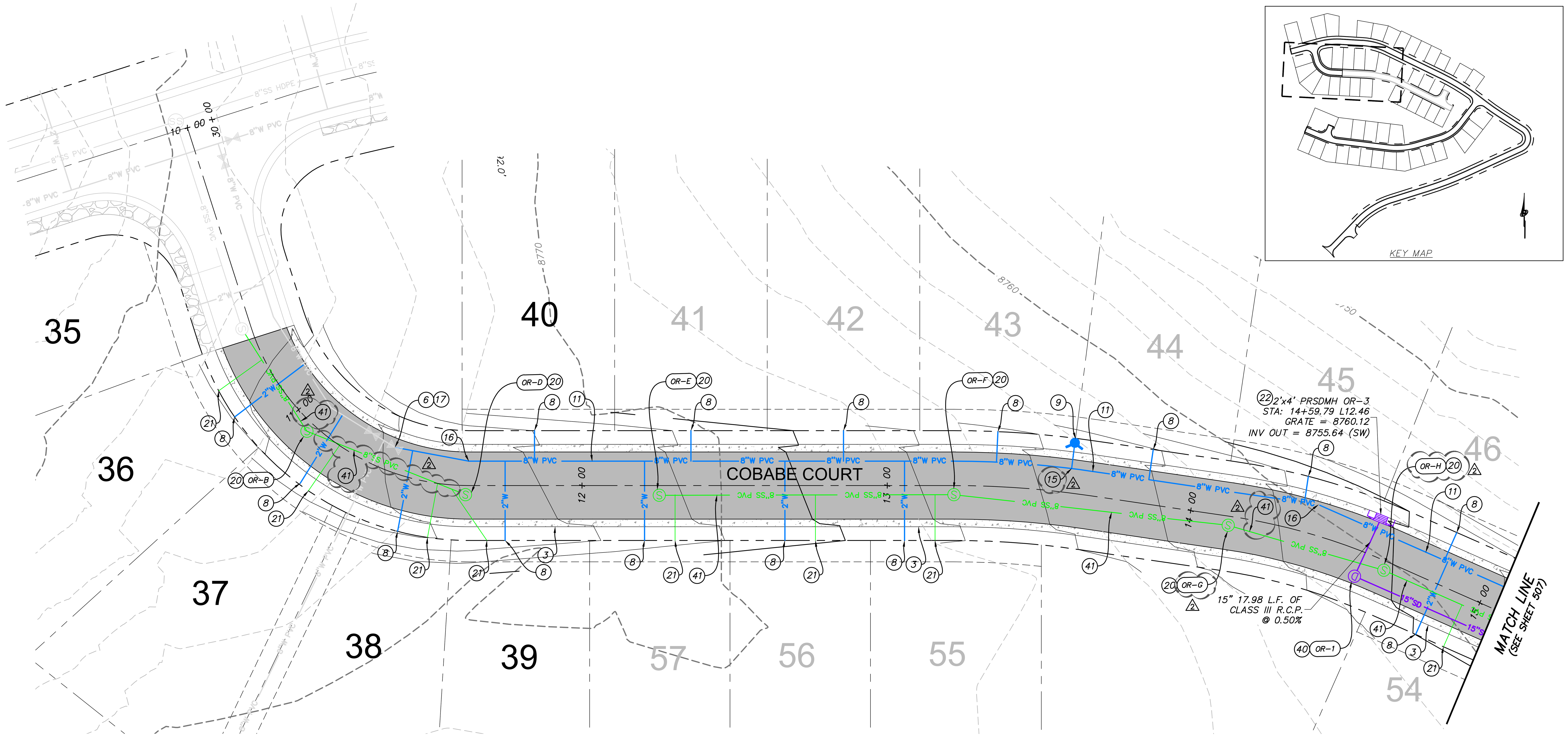
REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W CATHEY
6/17/22
STATE OF UTAH

SCALE
HORIZONTAL: 1" = 60'
0 15' 30' 60' 90'

CALL 811 BEFORE YOU DIG
SAFE DIGGING PARTNER

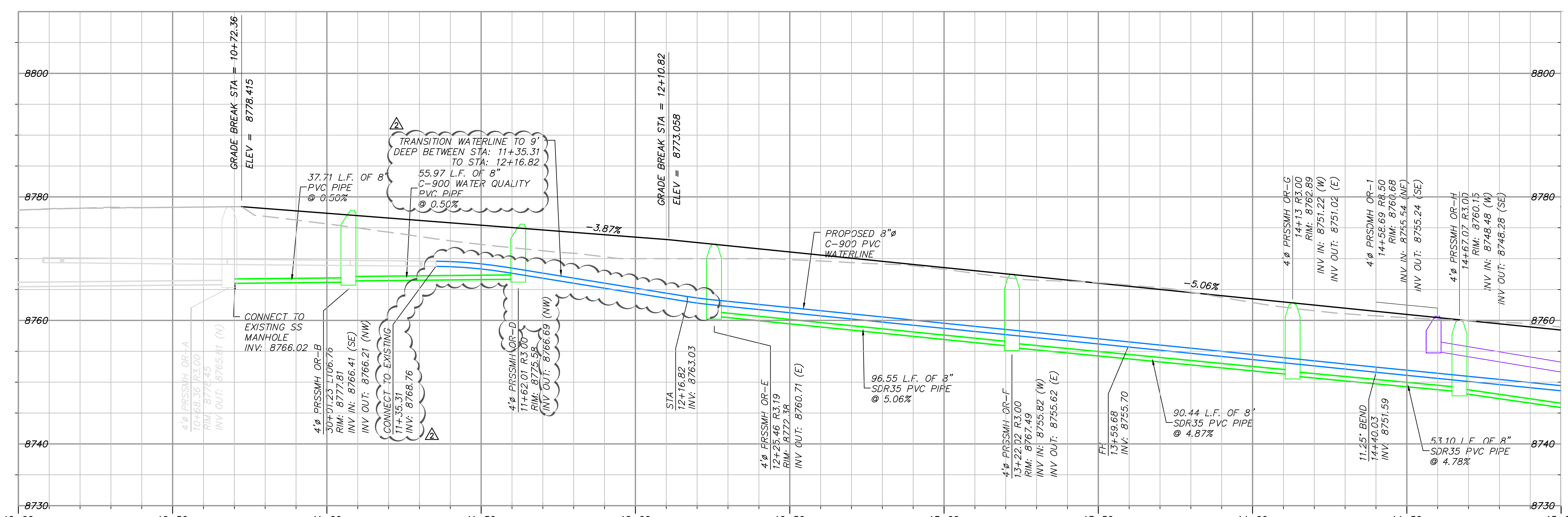
SHEET NUMBER
500

PATH: N:\SLB0793\Cadd\18-200.23-Overlook Phase3\P\500 KEY SHEET.dwg



COBABE COURT

STA: 10+00 TO 12+10.82



PROFILE VIEW

SITE SCOPE OF WORK:

NOTE: DRY UTILITY LAYOUT IS PRELIMINARY, PENDING COORDINATION WITH UTILITY AGENCIES.

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. MATCH EXISTING.
2. TYPE 'F' CURB AND GUTTER PER APWA PLAN NO. 205 ON SHEET 700.
3. MODIFIED TYPE 'F' CURB AND GUTTER PER DETAIL A/SHEET 700.
4. ASPHALT PAVEMENT PER PAVEMENT SECTION A/SHEET 003.
5. CONNECT TO EXISTING CATCH BASIN.
6. CONNECT TO EXISTING WATER LINE.
7. TRANSITION FROM MODIFIED TYPE "F" CURB AND GUTTER TO APWA TYPE "F" CURB AND GUTTER. SEE CURB AND GUTTER DETAILS ON SHEET 700.
8. INSTALL 2"Ø WATER SERVICE LATERAL TO CURB STOP PER DETAIL DW-5 & DW-7 ON SHEET 702. SERVICE LATERAL AND METER BEYOND CURB STOP INSTALLED BY OTHERS.
9. FIRE HYDRANT ASSEMBLY PER DETAIL DW-3 ON SHEET 704. (2)
10. AIR VACUUM RELIEF VALVE ASSEMBLY PER DETAIL DW-15 ON SHEET 704.
11. INSTALL 8" WATER LINE PER DETAIL DW-1 AND DW-2 ON SHEET 701.
12. 18"x10" REDUCER WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
13. 12"x8" REDUCER WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
14. 8" TEE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
15. 8"x6"x8" TEE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
16. 8"Ø 11.25° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
17. 8"Ø 22.5° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
18. 8"Ø 45° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
19. 8"Ø GATE VALVE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
20. 4'Ø SANITARY SEWER MANHOLE PER DETAIL SS-2 ON SHEET 702.
21. 4"Ø SANITARY SEWER LATERAL PER DETAIL SS-3 ON SHEET 702.
22. 2'x4' CATCH BASIN PER APWA PLAN NO. 315 ON SHEET 700.
23. CATCH BASIN PER APWA PLAN NO. 315 ON SHEET 700.
24. 10"x8"x10" TEE WITH THRUST BLOCKING PER APWA PLAN NO. 561 AND 562 ON SHEET 703.
25. CAP AND MARK UTILITY LINE FOR FUTURE CONNECTION.
26. 5'Ø SANITARY SEWER MANHOLE PER DETAIL SS-2 ON SHEET 702.
27. 5'Ø PRECAST STORM DRAIN MANHOLE PER APWA PLAN NO. 341 ON SHEET 701 WITH SOLID LID PER APWA PLAN NO. 302.
28. 10" TEE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
29. 10"x6"x10" TEE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
30. 10"Ø 11.25° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
31. 10"Ø 22.5° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
32. 10"Ø 45° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
33. 10"Ø GATE VALVE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
34. 10"x8" REDUCER WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
35. 12"x10" REDUCER WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
36. 12"Ø 22.5° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
37. INSTALL PIPE ANCHORS ON 3:1 OR STEEPER SLOPES PER DETAIL A SHEET 704.
38. INSTALL HDPE WATER PIPE, OUTSIDE OF ROADWAY, PER APWA PLAN NO. 381 AND 382. PIPE BEDDING ON ALL HDPE SHALL BE ¾" MINUS CLEAN ROCK AND SHALL EXTEND TO 1' ABOVE THE TOP OF PIPE.
39. INSTALL MANHOLE PIPE DROP PER DETAIL SS-4 ON SHEET 702.
40. 4' PRECAST STORM DRAIN MANHOLE PER APWA PLAN NO. 341 ON SHEET 701 WITH SOLID LID PER APWA PLAN NO. 302.
41. INSTALL 8" SANITARY SEWER LINE PER DETAIL SS-1 SHEET 701.
42. INSTALL 4' WATERWAY PER APWA PLAN NO. 211 ON SHEET 705.
43. INSTALL WATERWAY TRANSITION STRUCTURE PER APWA PLAN NO. 213 ON SHEET 705. (2)

SCALE
HORIZONTAL: 1" = 20'

SCALE
VERTICAL: 1" = 10'

TALISMAN
CIVIL CONSULTANTS
1588 SOUTH MAIN STREET
SUITE 200
SALT LAKE CITY, UT 84115
801.743.1300

REVISIONS:

NO.	BY	DATE	REVISIONS:
1	JRP	05/13/2022	UPDATE TO 2021 PMWSID STANDARDS
2	JRP	06/17/2022	REV 1 REVIEW COMMENTS, WTRWY ADD

OVERLOOK PH3 AT POWDER MTN

PLAN AND PROFILE

COBABE COURT STA: 10+00 - 15+00

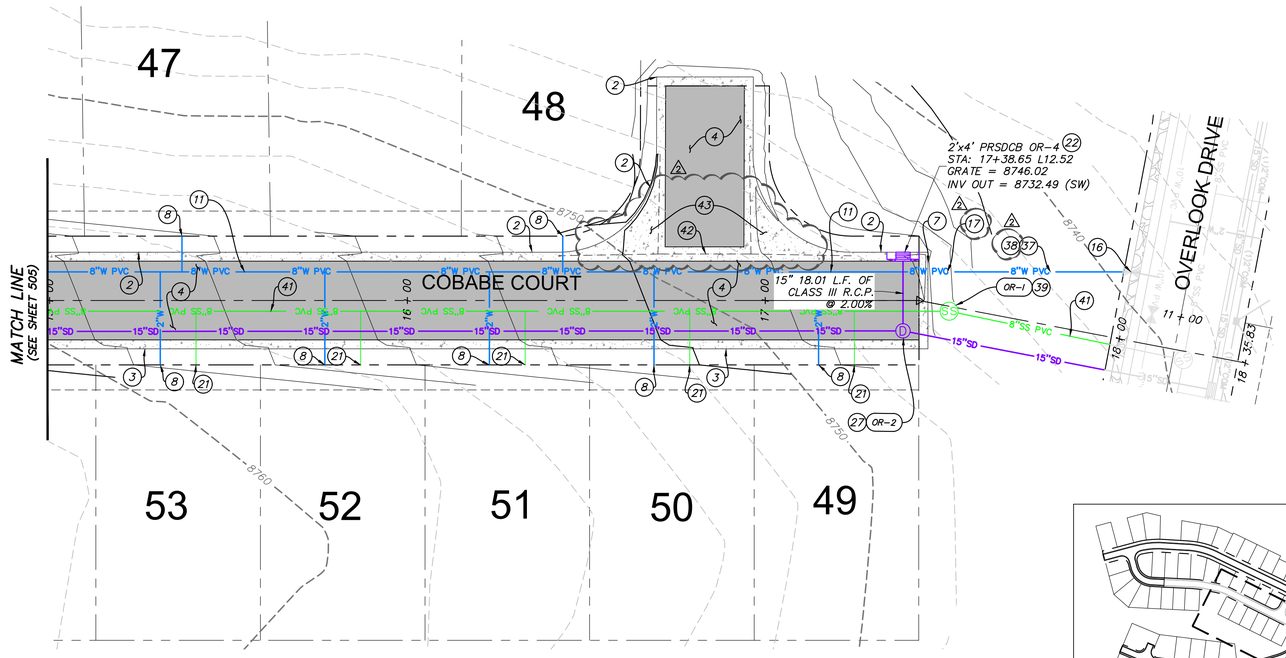
DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

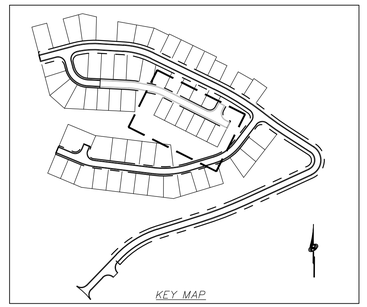
REGISTERED PROFESSIONAL ENGINEER No. 7899506 RYAN W. CATHEY 6/17/22 STATE OF UTAH

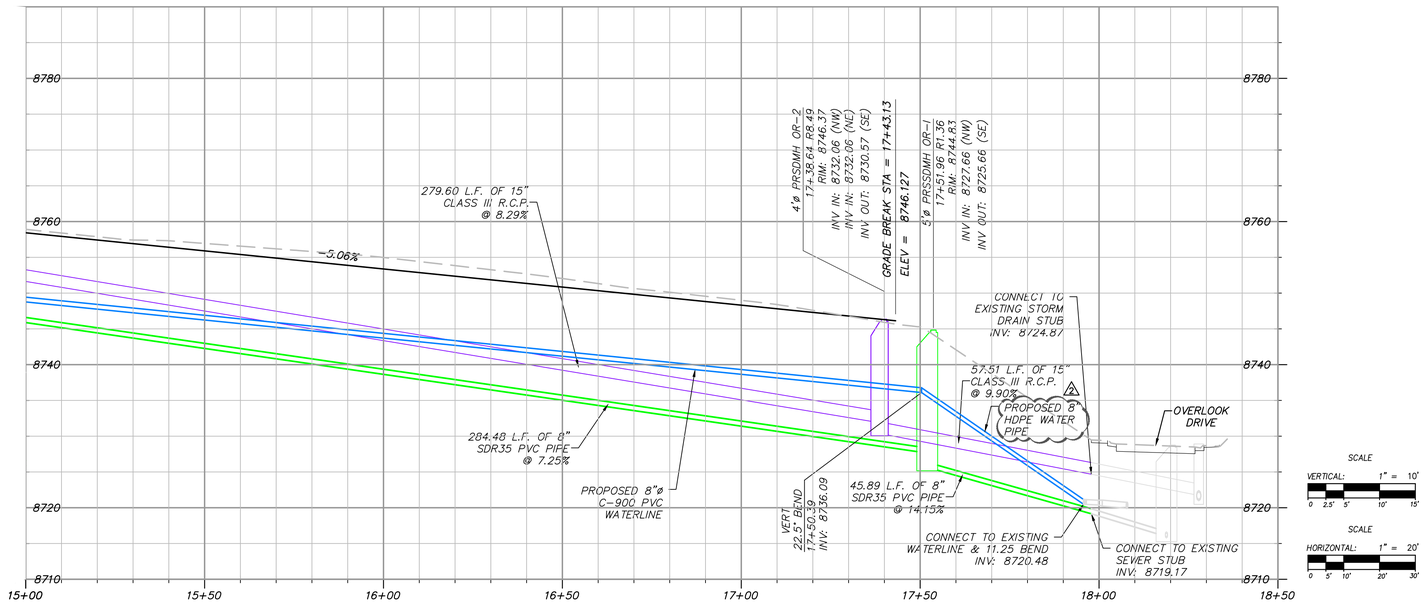
SCALE
HORIZONTAL: 1" = 20'

SHEET NUMBER
506



COBABE COURT
STA: 15+00 TO 18+16





PROFILE VIEW

SITE SCOPE OF WORK:

NOTE: DRY UTILITY LAYOUT IS PRELIMINARY, PENDING COORDINATION WITH UTILITY AGENCIES.

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. MATCH EXISTING.
2. TYPE "F" CURB AND GUTTER PER APWA PLAN NO. 205 ON SHEET 700.
3. MODIFIED TYPE 'F' CURB AND GUTTER PER DETAIL A/SHEET 700.
4. ASPHALT PAVEMENT PER PAVEMENT SECTION A/SHEET 003.
5. CONNECT TO EXISTING CATCH BASIN.
6. CONNECT TO EXISTING WATER LINE.
7. TRANSITION FROM MODIFIED TYPE "F" CURB AND GUTTER TO APWA TYPE "F" CURB AND GUTTER. SEE CURB AND GUTTER DETAILS ON SHEET 700.
8. INSTALL 2"ø WATER SERVICE LATERAL TO CURB STOP PER DETAIL DW-5 & DW-7 ON SHEET 702. SERVICE LATERAL AND METER BEYOND CURB STOP INSTALLED BY OTHERS.
9. FIRE HYDRANT ASSEMBLY PER DETAIL DW-3 ON SHEET 704.
10. AIR VACUUM RELIEF VALVE ASSEMBLY PER DETAIL DW-15 ON SHEET 704.
11. INSTALL 8" WATER LINE PER DETAIL DW-1 AND DW-2 ON SHEET 701.
12. 18"x10" REDUCER WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
13. 12"x8" REDUCER WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
14. 8" TEE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
15. 8"x6"x8" TEE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
16. 8"ø 11.25° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
17. 8"ø 22.5° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
18. 8"ø 45° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
19. 8"ø GATE VALVE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
20. 4'ø SANITARY SEWER MANHOLE PER DETAIL SS-2 ON SHEET 702.
21. 4"ø SANITARY SEWER LATERAL PER DETAIL SS-3 ON SHEET 702.
22. 2'x4' CATCH BASIN PER APWA PLAN NO. 315 ON SHEET 700.
23. CATCH BASIN PER APWA PLAN NO. 315 ON SHEET 700.
24. 10"x8"x10" TEE WITH THRUST BLOCKING PER APWA PLAN NO. 561 AND 562 ON SHEET 703.
25. CAP AND MARK UTILITY LINE FOR FUTURE CONNECTION.
26. 5'ø SANITARY SEWER MANHOLE PER DETAIL SS-2 ON SHEET 702.
27. 5'ø PRECAST STORM DRAIN MANHOLE PER APWA PLAN NO. 341 ON SHEET 701 WITH SOLID LID PER APWA PLAN NO. 302.
28. 10" TEE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
29. 10"x6"x10" TEE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
30. 10"ø 11.25° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
31. 10"ø 22.5° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
32. 10"ø 45° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
33. 10"ø GATE VALVE WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
34. 10"x8" REDUCER WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
35. 12"x10" REDUCER WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
36. 12"ø 22.5° BEND WITH THRUST BLOCKING PER DETAIL DW-1 ON SHEET 701.
37. INSTALL PIPE ANCHORS ON 3:1 OR STEEPER SLOPES PER DETAIL A SHEET 704.
38. INSTALL HDPE WATER PIPE, OUTSIDE OF ROADWAY, PER APWA PLAN NO. 381 AND 382. PIPE BEDDING ON ALL HDPE SHALL BE ¾" MINUS CLEAN ROCK AND SHALL EXTEND TO 1' ABOVE THE TOP OF PIPE.
39. INSTALL MANHOLE PIPE DROP PER DETAIL SS-4 ON SHEET 702.
40. 4' PRECAST STORM DRAIN MANHOLE PER APWA PLAN NO. 341 ON SHEET 701 WITH SOLID LID PER APWA PLAN NO. 302.
41. INSTALL 8" SANITARY SEWER LINE PER DETAIL SS-1 SHEET 701.
42. INSTALL 4' WATERWAY PER APWA PLAN NO. 211 ON SHEET 705.
43. INSTALL WATERWAY TRANSITION STRUCTURE PER APWA PLAN NO. 213 ON SHEET 705.

TALISMAN
CIVIL CONSULTANTS
1588 SOUTH MAIN STREET
SUITE 200
SALT LAKE CITY, UT 84115
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NO.	BY	DATE	REVISIONS:
1	JBP	05/13/2022	UPDATE TO 2021 PWMSS STANDARDS
2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, RTRWY ADD

OVERLOOK PH3 AT POWDER MTN
PLAN AND PROFILE
COBABE COURT STA: 15+00 - 18+16

TCC JOB NUMBER: 18-20.23

DATE SUBMITTED: 10/8/2019

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

SCALE
HORIZONTAL: 1" = 20'
0 5' 10' 20' 30'

SHEET NUMBER
507
10 OF 19

DATE: 6/20/2022 3:37 PM

PATH: N:\SLB0793\Cadd\18-200.23-Overlook Phase3\PlN507 PLAN AND PROFILE.dwg

DATE: 6/20/2022 3:38 PM

LEGEND

▨	HATCHING INDICATES AREAS LESS THAN 3:1 SLOPE TO BE SEEDED FOR REVEGETATION.
🟩	HATCHING INDICATES SLOPES 3:1 OR STEEPER TO BE SEEDED AND REQUIRING EROSION CONTROL BLANKET.
🟥	INSTALL 15' X 30' VEHICLE WASH DOWN AREA WITH 1"–2.5" COARSE AGGREGATE PLACED A MINIMUM 8" THICK. SUPPLY WATER FOR VEHICLE WASH DOWN.
🟥	STABILIZED CONSTRUCTION ENTRANCE FOR SITE INGRESS/EGRESS. IF ALTERNATE ACCESS POINTS ARE APPROVED BY OWNER, ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES WILL BE REQUIRED.
☐	INSTALL INLET PROTECTION IN FORM OF CONCRETE BLOCKS / FILTER CLOTH / GRAVEL OR SILT SACK AT EXISTING AND PROPOSED CATCH BASINS AS SHOWN ON PLAN.
▪▪▪▪▪	INSTALL EARTH BERM ALONG DOWN GRADIENT LIMITS OF DISTURBANCE AS SHOWN ON PLAN.

EXPOSED SLOPES:

ANY EXPOSED SLOPE THAT WILL REMAIN UNTOUCHED FOR LONGER THAN 14 DAYS MUST BE STABILIZED BY ONE OR MORE OF THE FOLLOWING METHODS:

A) SPRAYING DISTURBED AREAS WITH A TACKIFIER VIA HYDROSEED. USE THE FOLLOWING SEED MIXTURE.

i. MEADOW BROME (RIGOR)	14 lb/AC
ii. ORCHARD GRASS	10 lb/AC
iii. ALFALFA (ADAK)	4 lb/AC

B) TRACKING STRAW PERPENDICULAR TO SLOPES

C) INSTALLING A LIGHT–WEIGHT, TEMPORARY EROSION CONTROL BLANKET

TALISMAN
CIVIL CONSULTANTS
1588 SOUTH MAIN STREET
SUITE 200
SALT LAKE CITY, UT 84115
801.743.1300

NO.	BY	DATE	REVISIONS:
1	JRP	05/13/2022	UPDATE TO 2021 PMWSID STANDARDS
2	JRP	06/17/2022	REV 1 REVIEW COMMENTS, WTRWY ADD

OVERLOOK PH3 AT POWDER MTN

EROSION CONTROL PLAN

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

No. 7899506
RYAN W. CATHEY
6/17/22

SCALE
HORIZONTAL: 1" = 60'
0 15' 30' 60' 90'

SHEET NUMBER
600
11 OF 19

PATH: N:\SLB0793\Cadd\18-200.23-Overlook Phase3\IP\600 EROSION CONTROL.dwg

DATE: 6/20/2022 3:38 PM

Waterway

1. **GENERAL**
   A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
   B. Unless indicated otherwise, width of waterway as follows.
      1) 4 feet for a residential street.
      2) 6 feet for a non-residential street.
      3) If wider than 6 feet, offset the flow line in the waterway to match (line up with) the curb and gutter flow line. Adjust cross slopes to match existing slopes.
   C. Additional requirements are specified in APWA Section 32 16 13.

2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
   C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
   D. Reinforcement: Galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
   E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

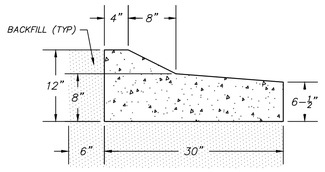
3. **EXECUTION**
   A. Base Course Placement: APWA Section 32 05 10. Thickness is 6-inches if flow-line grade is 0.5 percent (s=0.005) or greater. If slope is less, provide 8-inches. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Concrete Placement: APWA Section 03 30 10.
      1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Expansion joints are not required in concrete placement using slip-form construction.
      2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Match joint location in adjacent Portland-cement concrete roadway pavement.
      3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   C. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.

Curb and gutter

1. **GENERAL**
   A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
   B. Additional requirements are specified in APWA Section 32 16 13.

2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
   C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
   D. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. **EXECUTION**
   A. Base Course Placement: APWA Section 32 05 10. Thickness is 6-inches if flow-line grade is 0.5 percent (s=0.005) or greater. If slope is less, provide 8-inches. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Concrete Placement: APWA Section 03 30 10.
      1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Install at the start or end of a street intersection curb return. Expansion joints are not required in concrete placement using slip-form construction.
      2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Match joint location in adjacent Portland-cement concrete roadway pavement.
      3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   C. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.



MODIFIED TYPE "F" CURB AND GUTTER
A — NO SCALE

47 3/4" Grate and frame

1. **GENERAL**
   A. The grate and frame fits cleanout box Type A in Plan 331.

2. **PRODUCTS**
   A. Castings: Grey iron class 35 minimum per ASTM A 48, coated with asphalt based paint or better (except on machined surfaces).

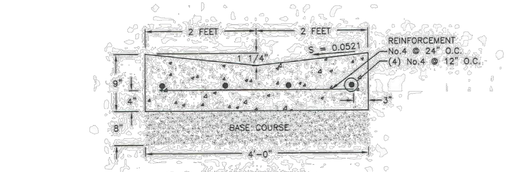
3. **EXECUTION** (Not used)

Catch basin

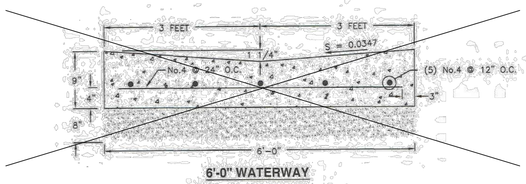
1. **GENERAL**
   A. The drawing shows typical pipe connections. Refer to construction drawings for connection locations or refer to field location of existing piping when engineering pipe connection to the box.

2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Concrete: Class 4000, APWA Section 03 30 04.
   D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A 615.

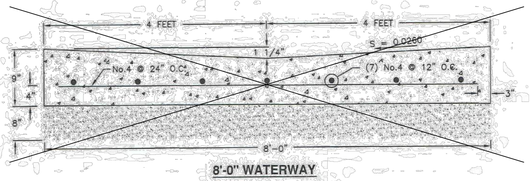
3. **EXECUTION**
   A. Base Course Placement: APWA Section 32 11 23. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Curb Face Opening: Make opening at least 4-inches high. Provide at least a 2-inch drop between the "warp line" in the gutter flow-line and the top of the grate at the curb face opening.
   C. Concrete Placement: APWA Section 03 30 10. Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   D. Backfill: Place backfill against the basin wall. Pea gravel and recycled RAP aggregate is NOT ALLOWED. Water jetting is NOT allowed. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.



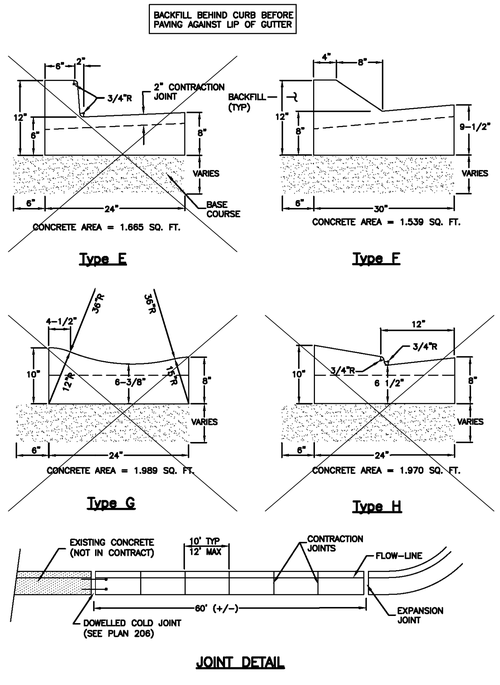
4'-0" WATERWAY
CONCRETE AREA = 2.583 SQ. FT.

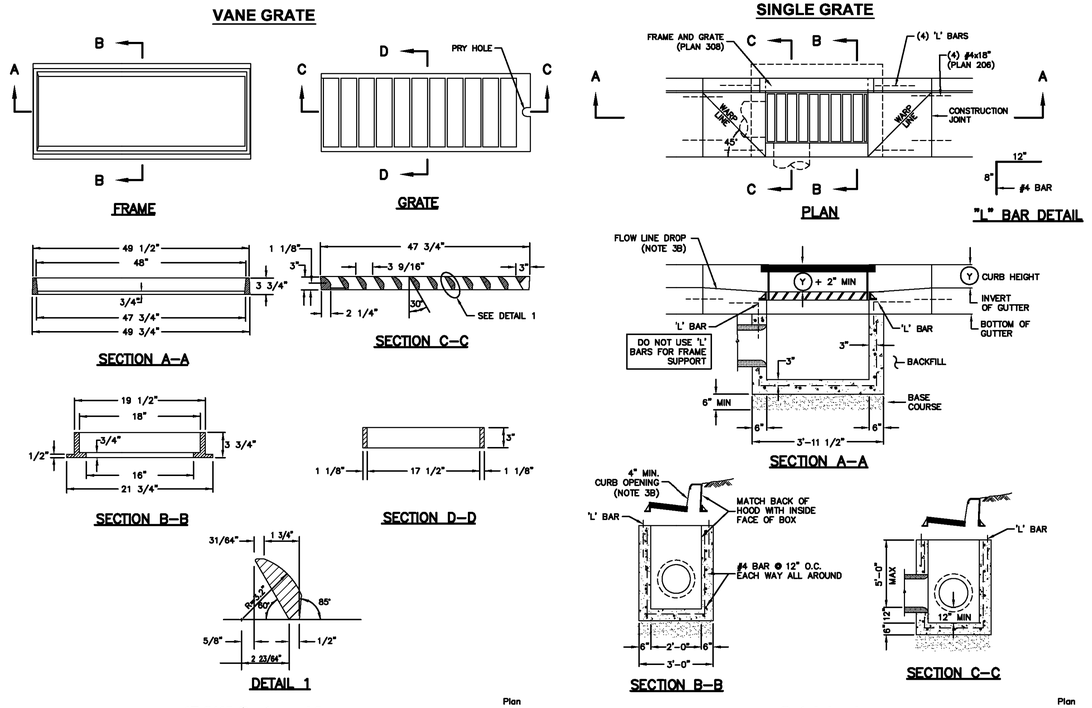


6'-0" WATERWAY
CONCRETE AREA = 3.875 SQ. FT.



8'-0" WATERWAY
CONCRETE AREA = 5.166 SQ. FT.





TALISMAN CIVIL CONSULTANTS
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SALT LAKE CITY, UT 84115
801.743.1300

NO.	BY	DATE	REVISIONS
1	JBP	05/13/2022	UPDATE TO 2021 PMWSS STANDARDS
2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, #ERWF ADD

OVERLOOK PH3 AT POWDER MTN
DETAILS

DATE SUBMITTED: 10/8/2019
TCC JOB NUMBER: 18-20.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

SHEET NUMBER
700
12 OF 19

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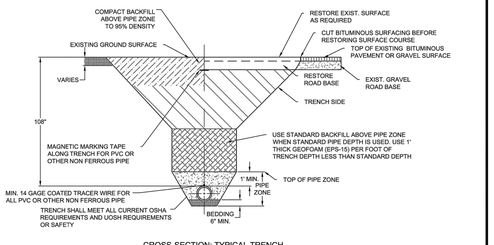

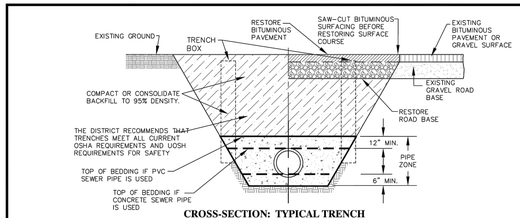

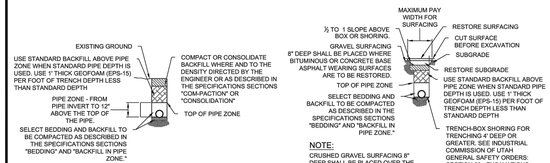

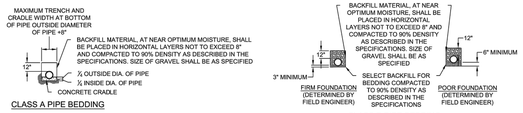

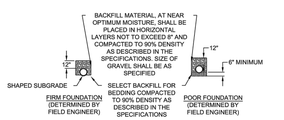

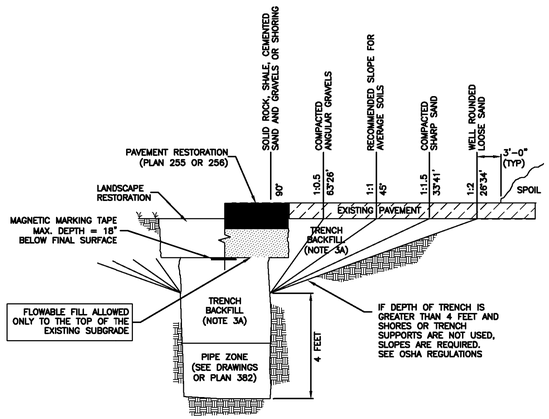

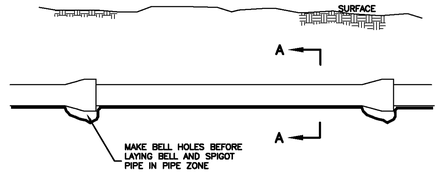

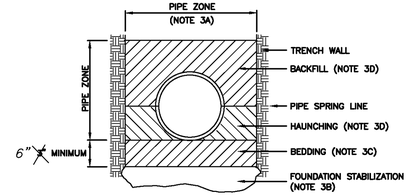

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CROSS-SECTION: TYPICAL TRENCH

SAFE BEARING LOADS

SOIL TYPE	SAFE BEARING LOAD (lb/ft²)
SAND	1000
SAND & GRAVEL	1500
SAND & GRAVEL CEMENTED WITH CLAY	2000
SHALE	5000

SAFE BEARING LOAD FORMULA

THRUST BLOCK AREA AGAINST TRENCH WALL (SQUARE FEET) = THRUST ON FITTING / SAFE BEARING LOAD OF SOIL

THRUST ON FITTINGS

POUNDS @ 1 POUND PER SQUARE INCH OF WATER PRESSURE*

PIPE SIZE	TEES	90° BENDS	45° BENDS	22.5° BENDS
4"	18.5	26.1	14.2	7.2
6"	38	53.7	29.1	14.7
8"	65.8	93	50.4	25.5
10"	107.5	152	82.4	41.7
12"	153.1	216.4	117.2	59.4
14"	183.8	260.0	141.0	71.5
16"	237.8	336.3	182.8	92.7
18"	298.6	422.3	229.7	116.5

*MULTIPLY THRUST BY MAXIMUM WATER PRESSURE

CONCRETE THRUST BLOCK DETAILS

NOTES:

1. WATER LINES 12 INCHES AND LARGER SHALL BE DUCTILE IRON CLASS-51.
2. WATER LINES 10 INCHES AND SMALLER SHALL BE PVC AWWA C900 CLASS 200.
3. VALVES 12 INCHES AND LARGER SHALL BE BUTTERFLY VALVES.
4. WHENEVER POSSIBLE "HOT TAP" CONNECTIONS REQUIRED. HOT TAP VALVE TO BE SUPPORTED DURING CONNECTION. CONTRACTOR TO NOTIFY DISTRICT 24 HOURS IN ADVANCE OF MAKING CONNECTION.
5. PIPE ZONE SHALL BE BACKFILLED WITH 3/4" GRAVEL MATERIAL.
6. TRACING WIRE TO BE BROUGHT OUTSIDE OF BOTTOM PORTION OF VALVE BOX AND INSIDE TOP TO SURFACE.
7. FURNISH AND INSTALL POLY-WRAP ON DUCTILE IRON PIPE. POLY-WRAP MAY BE DELETED WHERE DIRECTED BY DISTRICT ENGINEER.
8. WHERE COLLAPSIBLE SOILS ARE ENCOUNTERED, FURNISH, PLACE AND COMPACT IMPORTED BACKFILL MATERIALS AS REQUIRED AND AS DIRECTED.
9. SEE DW-2 FOR PIPE BEDDING SPECIFICATIONS
10. 9'-0" MINIMUM COVER REQUIRED OVER PIPE. COVER REQUIREMENT MAY BE REDUCED PER RECOMMENDATION BY APPROVED GEOTECHNICAL REPORT. IN NO CASE SHALL MINIMUM COVER OVER PIPE BE LESS THAN 7'-0". GEOTECHNICAL REPORT SHALL SPECIFICALLY ADDRESS FROST DEPTH AND PIPE FREEZING POTENTIAL.

WATERLINE TRENCH DETAIL

DATE: APRIL 2021
DRAWING NAME: DW-1
DRAWN BY: BP/JM
CHECKED: APPROVED:

GILSON ENGINEERING
Consulting Engineers & Surveyors
12401 SOUTH 450 EAST BUILDING C, UNIT 2, DRAPER, UT 84020
PHONE: (801) 571-9414 FAX: (801) 571-9449

POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT
298 24th STREET, SUITE 150, OGDEN, UT 84401
PHONE: (801) 773-1191
WWW.PMWSID.ORG

CROSS-SECTION: TYPICAL TRENCH

RECOMMENDED TRENCH QUANTITIES

PIPE DIAMETER (INCHES)		RECOMMENDED MAXIMUM TRENCH WIDTH FOR FILL IN PIPE ZONE		RECOMMENDED MAXIMUM WIDTH FOR FILL & SURFACING ABOVE PIPE ZONE MEASURED AT TOP OF TRENCH CENTERED ON PIPE	
inches	mm	inches	mm	inches	mm
4	101.6	72	1828.8	96	2438.4
6	152.4	72	1828.8	96	2438.4
8	203.2	72	1828.8	96	2438.4
10	254.0	72	1828.8	96	2438.4
12	304.8	72	1828.8	96	2438.4
15	381.0	72	1828.8	96	2438.4
18	457.2	72	1828.8	96	2438.4
21	533.4	72	1828.8	96	2438.4
24	609.6	72	1828.8	96	2438.4
30	762.0	84	2133.6	108	2743.2
36	914.4	84	2133.6	108	2743.2
42	1066.8	96	2438.4	120	3048.0
48	1219.2	96	2438.4	120	3048.0
54	1371.6	108	2743.2	132	3352.8
60	1524.0	120	3048.0	144	3657.6

NOTES:

1. THE DISTRICT RECOMMENDS CONTRACTOR MEET ALL OF THE REQUIREMENTS ESTABLISHED FOR SAFE TRENCHING. (SEE OSHA AND UOSH REQUIREMENTS, LATEST EDITIONS).

2. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE LAYING PIPE WITHIN 50' OF SAID UTILITIES WHICH MAY BE EXPOSED, DAMAGED OR CROSSED AS SHOWN ON THE DRAWINGS OR AS "BLUE STAKED". THE CONTRACTOR WILL MAKE ARRANGEMENTS WITH THE UTILITY COMPANY TO MOVE THE UTILITY IF NECESSARY OR OBTAIN PERMISSION FROM THE DISTRICT ENGINEER TO MODIFY GRADE OF PIPELINE IN ORDER TO GO AROUND UTILITIES.

3. TESTING: ALL NEW SANITARY SEWERS TO BE "TELEVISED" AND NECESSARY REPAIRS MADE BEFORE ACCEPTANCE. ALL LINES SHALL BE PRESSURE TESTED TO 3.5 psi MIN. FOR 5 MINUTES. A MANDRAL OR BALL CAN BE USED TO VERIFY DEFORMATION OF A PIPE AS DETERMINED FROM THE VIDEO UNLESS SPECIFIED OTHERWISE. MANHOLES SHALL BE TESTED AS DESCRIBED IN SECTION 02535.

4. ALL SEWER LINES TO BE INSTALLED IN PUBLIC RIGHT-OF-WAY OR RECORDED SEWER EASEMENT UNLESS OTHERWISE APPROVED BY THE DISTRICT ENGINEER.

5. WHERE COLLAPSIBLE SOILS ARE ENCOUNTERED, FURNISH, PLACE AND COMPACT IMPORTED BACKFILL MATERIALS AS REQUIRED AND AS DIRECTED.

6. MIN. DEPTH SHALL BE 4' TO TOP OF PIPE. A 2' SPACING MUST BE MAINTAINED BETWEEN ALL WATER LINE PIPE CROSSINGS AND THE TOP OF THE SEWER PIPE.

7. IN AREAS WHERE SEWER LATERALS ARE NEEDED TO SERVICE A BASEMENT 11' MIN. IS RECOMMENDED. IF THE SEWER LINE IS NOT 11' DEEP A NOTE MUST BE PLACED ON THE PLAT "BEFORE EXCAVATING BASEMENTS, CONTRACTOR MUST VERIFY SEWER DEPTH"

8. MAX. DEPTH SHALL BE 20' TO THE TOP OF PIPE UNLESS APPROVED OTHERWISE BY THE DISTRICT ENGINEER.

STANDARD SEWER TRENCH

DATE: APRIL 2021
DRAWING NAME: SS-1
DRAWN BY: BP/JM
CHECKED: APPROVED:

GILSON ENGINEERING
Consulting Engineers & Surveyors
12401 SOUTH 450 EAST BUILDING C, UNIT 2, DRAPER, UT 84020
PHONE: (801) 571-9414 FAX: (801) 571-9449

POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT
298 24th STREET, SUITE 150, OGDEN, UT 84401
PHONE: (801) 773-1191
WWW.PMWSID.ORG

UNIMPROVED TERRAIN TRENCH SECTION

NOTE:

CRUSHED GRAVEL SURFACING 8" DEEP SHALL BE PLACED OVER THE TRENCH WHERE PIPE LINES ARE LOCATED ALONG ROAD SHOULDERS.

IMPROVED TERRAIN TRENCH SECTION

CLASS A PIPE BEDDING

CLASS B PIPE BEDDING

PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-6"	2'-6"
6"	1'-6"	2'-6"
8"	1'-8"	2'-8"
10"	2'-0"	3'-0"
12"	2'-0"	3'-0"
16"	2'-6"	3'-6"
18"	2'-6"	3'-6"

CLASS C PIPE BEDDING

PIPE BEDDING SPECIFICATIONS

DATE: APRIL 2021
DRAWING NAME: DW-2
DRAWN BY: BP/JM
CHECKED: APPROVED:

GILSON ENGINEERING
Consulting Engineers & Surveyors
12401 SOUTH 450 EAST BUILDING C, UNIT 2, DRAPER, UT 84020
PHONE: (801) 571-9414 FAX: (801) 571-9449

POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT
298 24th STREET, SUITE 150, OGDEN, UT 84401
PHONE: (801) 773-1191
WWW.PMWSID.ORG

Trench backfill

1. **GENERAL**
   - A. The drawing applies to backfilling the trench above the pipe zone.
2. **PRODUCTS**
   - A. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 3-inches.
   - B. Flowable Fill: Target is 60 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31 05 15. It must flow easily requiring no vibration for consolidation.
3. **EXECUTION**
   - A. Trench Backfill:
     - 1) DO NOT USE sewer rock, pea gravel, or recycled RAP aggregate as trench backfill.
     - 2) Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.
     - 3) Water jetting is NOT allowed.
     - 4) Submission of quality control compaction test result data developed for haunching areas may be requested by ENGINEER at any time. Provide results of tests immediately upon request.
   - B. Flowable Fill: When required, place controlled low strength material in the trench, APWA Section 31 05 15. Cure the fill before placing surface restorations.
   - C. Surface Restoration:
     - 1) Landscaped Surface: Rake to match existing grade. Replace vegetation to match pre-construction conditions. Follow APWA Section 32 92 00 (turf or grass) or APWA Section 32 93 13 (ground cover) requirements.
     - 2) Paved Surface: Do not install asphalt or concrete surfacing until trench compaction is acceptable to ENGINEER. Follow APWA Section 33 05 25 (asphalt surfacing), or APWA Section 33 05 25 (concrete surfacing).

202

January 2011

Trench backfill

203

Plan **381**

Pipe zone backfill

1. **GENERAL**
   - A. Install the pipe in the center of the trench or no closer than 6-inches from the wall of the pipe to the wall of the trench.
2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches. 3/4" for plastic pipe
   - C. Concrete: APWA Section 03 30 04.
   - D. Flowable Fill: Target is 60 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31 05 15. It must flow easily requiring no vibration for consolidation.
   - E. Stabilization-Separation Geotextile: Moderate or high at CONTRACTOR's choice, APWA Section 31 05 19.
3. **EXECUTION**
   - A. Excavate the Pipe Zone: Width is measured at the pipe spring line and includes any necessary sheathing. Provide width recommended by pipe manufacturer. Follow manufacturer's recommendations when using trench boxes.
   - B. Foundation Stabilization: Get ENGINEER's permission before installing common fill. Vibrate to stabilize. Installation of stabilization-separation geotextile will be required to separate backfill material and native subgrade materials if common fill cannot provide a working surface or prevent soils migration.
   - C. Base Course:
     - 1) Furnish untreated base course material unless specified otherwise by pipe manufacturer.
     - 2) Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
     - 3) When using concrete, provide at least Class 2,000 per APWA Section 03 30 04.
   - D. Pipe Zone: DO NOT USE sewer rock, pea gravel, or recycled RAP aggregate in the pipe zone. Water jetting is NOT allowed.
     - 1) Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26 unless pipe manufacturer requires more stringent installation.
     - 2) Submission of quality control compaction test result data developed for the haunch zone may be requested by ENGINEER at any time. CONTRACTOR is to provide results of tests immediately upon request.
   - E. Flowable Fill (when required and if allowed by pipe manufacturer):
     - 1) Place the controlled low strength material, APWA Section 31 05 15.
     - 2) Prevent pipe flotation by installing in lifts and providing pipe restraints as required by pipe manufacturer.
     - 3) Reset pipe to line and grade if pipe "floats" out of position.

204

SECTION A-A

INSTALLATION

CONCRETE PIPE: FOLLOW ASTM C 1479
"STANDARD PRACTICE FOR INSTALLATION OF PRECAST CONCRETE SEWER, STORM DRAIN, AND CULVERT PIPE USING STANDARD INSTALLATIONS.

PVC AND HDPE PIPE: FOLLOW ASTM D 2321
"STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS"

CORRUGATED METAL PIPE: FOLLOW ASTM A 798
"STANDARD PRACTICE FOR INSTALLING FACOTRY-MADE CORRUGATED STEEL PIPE FOR SEWERS AND OTHER APPLICATIONS.

VITRIFIED CLAY PIPE: FOLLOW ASTM C 12.
"STANDARD RECOMMENDED PRACTICE FOR INSTALLING VITRIFIED CLAY PIPE LINES.

January 2011

Pipe zone backfill

205

Plan **382**

TALISMAN
CIVIL CONSULTANTS
1588 SOUTH MAIN STREET
SUITE 200
SALT LAKE CITY, UT 84115
801.743.1300

NO.	BY	DATE	REVISIONS:
1	JRP	05/13/2022	UPDATE TO 2021 PMWSID STANDARDS
2	JRP	06/17/2022	REV 1 REVIEW COMMENTS, WTRWY ADD

OVERLOOK PH3 AT POWDER MTN

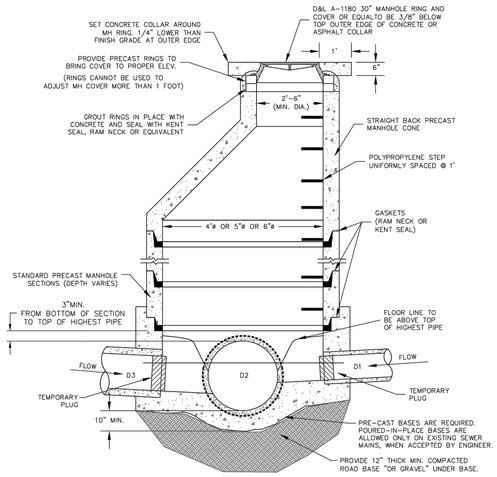
DETAILS

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

No. 7899506
RYAN W. CATHEY
6/17/22

SHEET NUMBER
701
13 OF 19

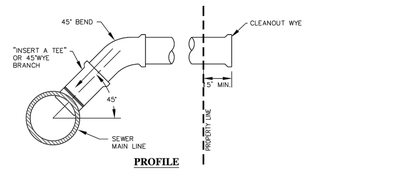


NOTES:

1. IF GRADE ALLOWS, INVERTS OF D1 & D3 SHALL BE REQUIRED TO MATCH TOP OF D2.
2. AFTER ALL GRADING AROUND MANHOLE HAS BEEN COMPLETED AND FINAL SURFACING IS IN PLACE, REMOVE DEBRIS AND TEMPORARY PLUGS OR PLYWOOD FROM INSIDE OF MANHOLES.
3. IF MANHOLE IS TO BE POURED IN PLACE, FOLLOW SAME PATTERN AS SHOWN EXCEPT USE 10" MIN WALL THICKNESS.
4. MANHOLES DEEPER THAN 20 FEET SHALL HAVE AN 18" THICK CONCRETE BASE.
5. CONE AND WALL SECTIONS SHALL CONFORM WITH ASTM C-478 STANDARD
6. ALL MANHOLE TO BE H-20 RATED

SANITARY SEWER MANHOLE

DATE: APRIL 2021	GILSON ENGINEERING Consulting Engineers & Surveyors 1240I SOUTH 450 EAST BUILDING C, UNIT 2, DRAPER, UT 84020 PHONE: (801) 571-9414 FAX: (801) 571-9449	POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT 298 24th STREET, SUITE 150, OGDEN, UT 84401 PHONE: (801) 773-1191 www.PwrSID.ORG
DRAWING NAME: SS-2		
DRAWN BY: BP/JM		
CHECKED: APPROVED:		



PLAN VIEW- 45° WYE BRANCH

PLAN VIEW- "INSERT A TEE"

NOTES:

1. ALL HOUSE SERVICES SHALL BE 4" DIAMETER. COMMERCIAL AND PUBLIC SERVICES SHALL BE 6" DIAMETER UNLESS DIRECTED OTHERWISE AND SHALL BE EXTENDED FROM MAIN LINES TO PROPERTY LINES.
2. RECOMMENDED MINIMUM GRADE SHALL BE 1% FOR 6" SERVICE LINE AND 2% FOR 4" SERVICE LINE.
3. ALL 90° BENDS AT CONNECTION TO MAIN MUST BE CONSTRUCTED WITH ONE 45° BEND AND A WYE.
4. DIRECT NOSE ON IS ALLOWED WHEN CONNECTING TO EXISTING MAIN LINE. USE RUBBER BOOT AS PER DISTRICT WITH STAINLESS STEEL STRAPS, IF REQUIRED. CORE CUT EXISTING PIPE, DO NOT BREAK OUT WITH A HAMMER.
5. NOTIFY DISTRICT 24 HOURS IN ADVANCE OF ANY CONNECTION. EVERY CONNECTION TO BE INSPECTED BY DISTRICT.
6. CONNECTION TO USERS TO BE DONE BY OTHERS.

SEWER SERVICE CONNECTION

DATE: APRIL 2021	GILSON ENGINEERING Consulting Engineers & Surveyors 1240I SOUTH 450 EAST BUILDING C, UNIT 2, DRAPER, UT 84020 PHONE: (801) 571-9414 FAX: (801) 571-9449	POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT 298 24th STREET, SUITE 150, OGDEN, UT 84401 PHONE: (801) 773-1191 www.PwrSID.ORG
DRAWING NAME: SS-3		
DRAWN BY: BP/JM		
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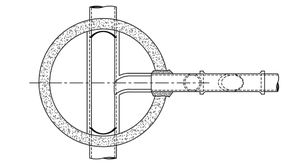
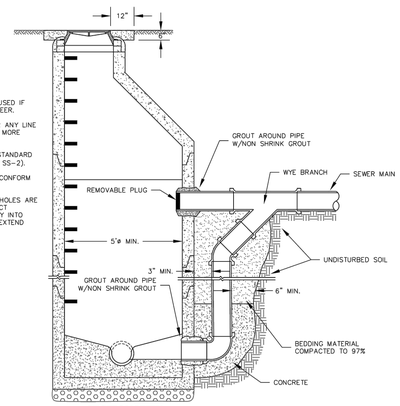


PLAN VIEW



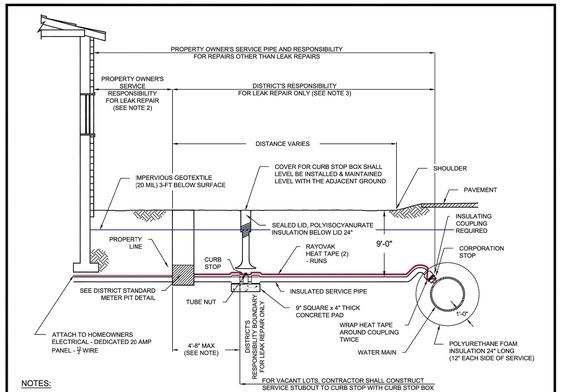
SECTION VIEW

NOTES:

1. DROP MANHOLE MAY ONLY BE USED IF APPROVED BY THE DISTRICT ENGINEER.
2. DROP MANHOLES REQUIRED FOR ANY LINE ENTERING MANHOLE TWO FOOT OR MORE ABOVE FLOWLINE OF MAIN LINE.
3. MANHOLES TO CONFORM WITH STANDARD MANHOLE DETAILS (STANDARD No. SS-2).
4. ALL PIPE AND FITTINGS SHALL CONFORM TO ASTM3034 SDR35
5. LATERAL CONNECTIONS TO MANHOLES ARE ALLOWED AS APPROVED BY DISTRICT ENGINEER. FLOW TO DROP DIRECTLY INTO FLOW LINE AND LATERAL TO NOT EXTEND BELOW TOP OF MAINLINE PIPE

OUTSIDE DROP MANHOLE

DATE: APRIL 2021	GILSON ENGINEERING Consulting Engineers & Surveyors 1240I SOUTH 450 EAST BUILDING C, UNIT 2, DRAPER, UT 84020 PHONE: (801) 571-9414 FAX: (801) 571-9449	POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT 298 24th STREET, SUITE 150, OGDEN, UT 84401 PHONE: (801) 773-1191 www.PwrSID.ORG
DRAWING NAME: SS-4		
DRAWN BY: BP/JM		
CHECKED: APPROVED:		

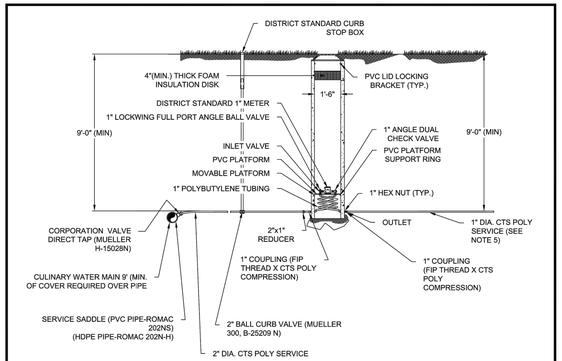


NOTES:

1. PLACEMENT OF CURB STOP SHALL BE A MAXIMUM OF 5 FEET OUTSIDE THE PROPERTY LINE INSIDE STREET RIGHT OF WAY.
2. PROPERTY OWNER'S RESPONSIBILITY FOR LEAK REPAIR SHALL BE UP TO AND INCLUDING THE SERVICE PIPE WHICH THREADS ONTO THE WATER METER. PROPERTY OWNER'S RESPONSIBILITY FOR REPAIRS OTHER THAN LEAKS EXTENDS TO THE CORPORATION STOP.
3. DISTRICT'S RESPONSIBILITY SHALL BE THE WATER MAIN, THE CORPORATION STOP, CURB STOP, WATER METER, AND WHERE NEEDED, THE DOUBLE STRAP TAPPING SADDLE. THE DISTRICT WILL ONLY REPAIR LEAKS OCCURRING BETWEEN THE CORPORATION STOP AND THE WATER METER.
4. SEE STANDARD DETAIL WT-1 AND WT-2 FOR WATER TRENCH REQUIREMENTS
5. NO LATERAL ARE TO BE INSTALLED WITHIN 5' OF BEDROCK
6. 12" THICK CLAY CUTOFF AT EACH END OF WATER SERVICE INSULATION FROM IMPERVIOUS GEOTEXTILE TO BOTTOM OF TRENCH
7. INSULATED SERVICE PIPE: SERVICE LINE ENCASED IN 8" SEAMLESS HDPE WITH CLOSED-CELL CROSS - LINKED POLYETHYLENE FOAM AND HEAT TAPE
8. 9'-0" MINIMUM COVER REQUIRED OVER PIPE. COVER REQUIREMENT MAY BE REDUCED PER RECOMMENDATION BY APPROVED GEOTECHNICAL REPORT. IN NO CASE SHALL MINIMUM COVER OVER PIPE BE LESS THAN 7'-0". GEOTECHNICAL REPORT SHALL SPECIFICALLY ADDRESS FROST DEPTH AND PIPE FREEZING POTENTIAL.

TYPICAL SMALL DIAMETER WATER SERVICE LINE DETAIL

DATE: APRIL 2021	GILSON ENGINEERING Consulting Engineers & Surveyors 1240I SOUTH 450 EAST BUILDING C, UNIT 2, DRAPER, UT 84020 PHONE: (801) 571-9414 FAX: (801) 571-9449	POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT 298 24th STREET, SUITE 150, OGDEN, UT 84401 PHONE: (801) 773-1191 www.PwrSID.ORG
DRAWING NAME: DW-5		
DRAWN BY: BP/JM		
CHECKED: APPROVED:		



NOTES:

1. METER BOXES SHALL BE 18" DIA. BY 96" DEEP MUELLER-THERMAL-COIL PVC BOXES FOR 1" SINGLE METERS (MUELLER 330CS1896FBBSN)
2. POLYETHYLENE PIPE FOR WATER SERVICES SHALL BE PE 3408 TUBING, SDR-9, COPPER TUBING SIZE AND NSF APPROVED FOR POTABLE WATER.
3. METER SHALL BE INSTALLED IN HORIZONTAL ALIGNMENT, WITH METER FACING UP, ONLY.
4. ALL PIPE, FITTING, AND VALVES SHALL COMPLY WITH NSF STANDARD NO.14 FOR USE WITH POTABLE WATER.
5. THE CUSTOMER IS RESPONSIBLE FOR PROPERLY SIZING THE SERVICE TO DELIVER FLOWS REQUIRED FOR FIRE SPRINKLER SYSTEMS. THE SERVICE FROM THE METER TO THE BUILDING CAN BE UPSIZED FROM 1" DIAMETER IF NECESSARY. CONNECTING FIRE SPRINKLER LINES TO THE 2" SERVICE BEFORE THE METER MAY BE APPROVED BY THE DISTRICT ENGINEER ONLY IF THE REQUIRED FIRE SPRINKLER CANNOT BE DELIVERED THROUGH THE METER.
6. THE DEVELOPER IS RESPONSIBLE FOR INSTALLATION OF THE SERVICE FROM THE MAIN TO THE METER BOX, INCLUDING THE SERVICE SADDLE, CORP STOP, CURB STOP BOX, AND METER BOX.
7. BASED UPON OBSERVATIONS DURING WINTER CONDITIONS, THE DISTRICT HAS DETERMINED THAT 9' (MIN) OF COVER OVER WATER MAINS AND SERVICES IS REQUIRED TO PROTECT AGAINST FREEZING.

TYPICAL METER PIT DETAIL

DATE: APRIL 2021	GILSON ENGINEERING Consulting Engineers & Surveyors 1240I SOUTH 450 EAST BUILDING C, UNIT 2, DRAPER, UT 84020 PHONE: (801) 571-9414 FAX: (801) 571-9449	POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT 298 24th STREET, SUITE 150, OGDEN, UT 84401 PHONE: (801) 773-1191 www.PwrSID.ORG
DRAWING NAME: DW-7		
DRAWN BY: BP/JM		
CHECKED: APPROVED:		

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801.743.1300

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2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, WTRWY ADD

OVERLOOK PH3 AT POWDER MTN
DETAILS

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

SHEET NUMBER
702
14 OF 19

DATE: 6/20/2022 3:39 PM

PATH: N:\18.0793\Cadd\18-200.23-Overlook Phase3\VP\102 DETAILS.dwg

DATE: 6/20/2022 3:39 PM

Direct bearing thrust block

1. **GENERAL**
   - A. Thrust design for pipe sizes or configurations not shown require special design.
   - B. Bearing areas, volumes, and special thrust blocking details shown on Drawings take precedence over this plan.
   - C. Restraint sizing is based upon a maximum operating pressure of 150 psi and a test pressure of 200 psi, and a minimum soil bearing strength of 2,000 psf. Operating pressures in excess of 150 psi or soils with less than 2,000 pound bearing strength will require special design.
   - D. Before backfilling around thrust block, secure inspection of installation by ENGINEER.
2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   - C. Thrust Bocks: Concrete Class 4000, APWA Section 03 30 04.
   - D. Grease: Non-oxide poly-FM.
3. **EXECUTION**
   - A. Pour concrete against undisturbed soil.
   - B. Pipe Joints: Do not cover with concrete. Leave completely accessible.
   - C. Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet and tape wrap.
   - D. Locking restraint devices may be used in conjunction with concrete thrust blocking (at discretion of ENGINEER).
   - E. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.

Tie-down thrust restraints

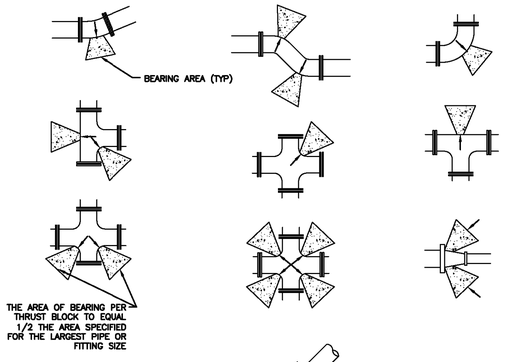
1. **GENERAL**
   - A. Thrust design for pipe sizes or configurations not shown require special design.
   - B. Bearing areas, volumes, and special thrust blocking details shown on Drawings take precedence over this plan.
   - C. Restraint sizing is based upon a maximum operating pressure of 150 psi and a test pressure of 200 psi, and a minimum soil bearing strength of 2,000 psf. Operating pressures in excess of 150 psi or soils with less than 2,000 pound bearing strength will require special design.
   - D. Before backfilling around thrust block, secure inspection of installation by ENGINEER.
2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   - C. Concrete: Class 4,000 minimum, APWA Section 03 30 04.
   - D. Reinforcement: Deformed, steel, ASTM A 615. Give bars an epoxy coating at least 15 mils thick. Minimum stress yield strength of steel tie-down bars is 70,000 ksi.
   - E. Grease: Non-oxide poly-FM.
3. **EXECUTION**
   - A. Pour concrete against undisturbed soil. Concrete must be allowed to cure in thrust restraints for 5 days before pressurizing water lines or have additional approved thrust restraints installed before pressurizing the water line.
   - B. Pipe Joints: Do not cover with concrete. Leave completely accessible.
   - C. Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet and tape wrap.
   - D. Locking restraint devices may be used in conjunction with concrete thrust blocking (at discretion of ENGINEER).
   - E. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.

4" washout valve

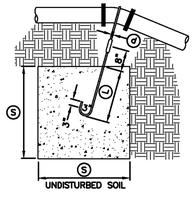
1. **GENERAL**
   - A. Before backfilling, secure inspection of installation by ENGINEER.
   - B. Water mains 12-inches and larger will require a special washout assembly design.
2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   - C. Concrete: Class 4000, APWA Section 03 30 04.
3. **EXECUTION**
   - A. Pour concrete against undisturbed soil.
   - B. Apply tape wrap to the exterior of all galvanized pipe per AWWA C209.
   - C. Place plastic sheet at least 6 mils thick over drain gravel to prevent silting.
   - D. After installation of washout valve assembly, verify the washout valve riser drains to gravel.
   - E. Backfill and Base Course Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater of a modified proctor density, APWA Section 31 23 26.

Cover collar for water valve box

1. **GENERAL**
   - A. In a pavement surface, fill an annular space around a frame and cover casting with concrete. The concrete will support the casting under traffic loadings.
2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Concrete: Class 4000, APWA Section 03 30 04.
   - C. Concrete Curing Agent: Type ID Class A (clear with fugitive dye), membrane forming compound, APWA Section 03 39 00.
3. **EXECUTION**
   - A. Base Course: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   - B. Pavement Preparation: Provide a neat vertical and concentric joint between concrete collar and existing asphalt concrete surface. Clean edges of all dirt, oil, and loose debris.

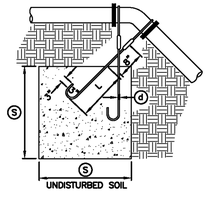


SIZE OF PIPE	MINIMUM BEARING AREA IN SQ. FT.				
	TEES, VALVES DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS	11 1/4° BENDS
4"	2	3	2	2	2
6"	4	5.5	3	1.5	1
8"	6.5	9.5	5	2.75	1.5
12"	14	20	11	5.5	3
14"	19	26.5	14.5	7.5	4
16"	24	34	18.5	9.5	6
20"	27	52	28.5	14.5	16
24"	53	74	41	21	53
30"	81	114	62	32	16



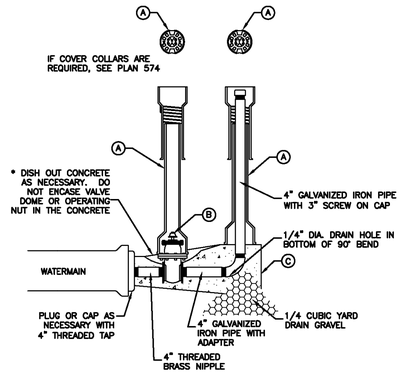
TYPE A RESTRAINT
FOR 11 1/4° – 22 1/2° VERTICAL BENDS

PIPE SIZE NOMINAL DIAMETER – INCH	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC FEET	Ⓢ SIDE OF CUBE – FEET	ⓓ DIAMETER OF SHANK OR REBAR RODS – INCH	Ⓛ DEPTH OF ROD CONCRETE – FEET
4"	11 1/4°	8	2.0	5/8"	1.5
	22 1/2°	15.6	2.5	5/8"	2.0
6"	11 1/4°	15.6	2.5	5/8"	2.0
	22 1/2°	34.3	3.25	5/8"	2.0
8"	11 1/4°	27	3.0	5/8"	2.0
	22 1/2°	64	4.0	5/8"	2.0
12"	11 1/4°	64	4.0	5/8"	2.0
	22 1/2°	125	5.0	3/4"	3.0
16"	11 1/4°	107	4.25	7/8"	3.0
	22 1/2°	216	6.0	7/8"	3.0
20"	11 1/4°	138	5.17	1"	3.5
	22 1/2°	334	6.94	1"	4.0
24"	11 1/4°	240	6.22	1"	4.0
	22 1/2°	476	7.81	1"	4.0
30"	11 1/4°	369	7.17	1"	4.0
	22 1/2°	733	9.02	1"	4.0

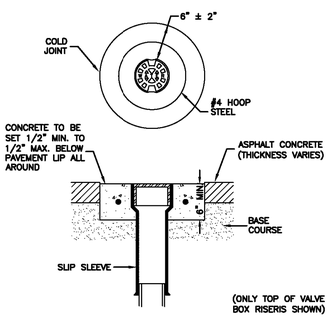


TYPE B RESTRAINT
FOR 45° VERTICAL BENDS

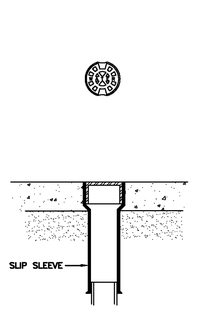
PIPE SIZE NOMINAL DIAMETER – INCH	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC FEET	Ⓢ SIDE OF CUBE – FEET	ⓓ DIAMETER OF SHANK OR REBAR RODS – INCH	Ⓛ DEPTH OF ROD CONCRETE – FEET
4"	45°	1	3.0	5/8"	2.0
6"		2.37	4.0	5/8"	2.5
8"		3.97	4.75	5/8"	3.0
12"		9.04	6.25	5/8"	4.0
16"		17.24	7.75	3/4"	4.0
20"		26.52	92.17	3/4"	4.0
24"		37.82	10.07	3/4"	4.0
30"		58.26	11.63	3/4"	4.0



LEGEND		
No.	ITEM	DESCRIPTION
Ⓐ	VALVE BOX WITH LID	2 PIECE CAST IRON
Ⓑ	4" GATE VALVE WITH SCREW ENDS	2" x 2" OPERATING NUT
Ⓒ	CONCRETE THRUST BLOCK	PLAN 561



ASPHALT CONCRETE



CONCRETE PAVEMENT

LANDSCAPED AREA

Direct bearing thrust block — Plan **561** — August 2010 — 267

Tie-down thrust restraints — Plan **562** — April 1997 — 269

4" Washout valve — Plan **571** — February 2011 — 271

Cover collar for water valve box — Plan **574** — August 2010 — 277

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2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, #STRM ADD

OVERLOOK PH3 AT POWDER MTN
DETAILS

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

SHEET NUMBER
703
15 OF 19

811 DIAL 811 BEFORE YOU DIG SAFE DIGGING PARTNER

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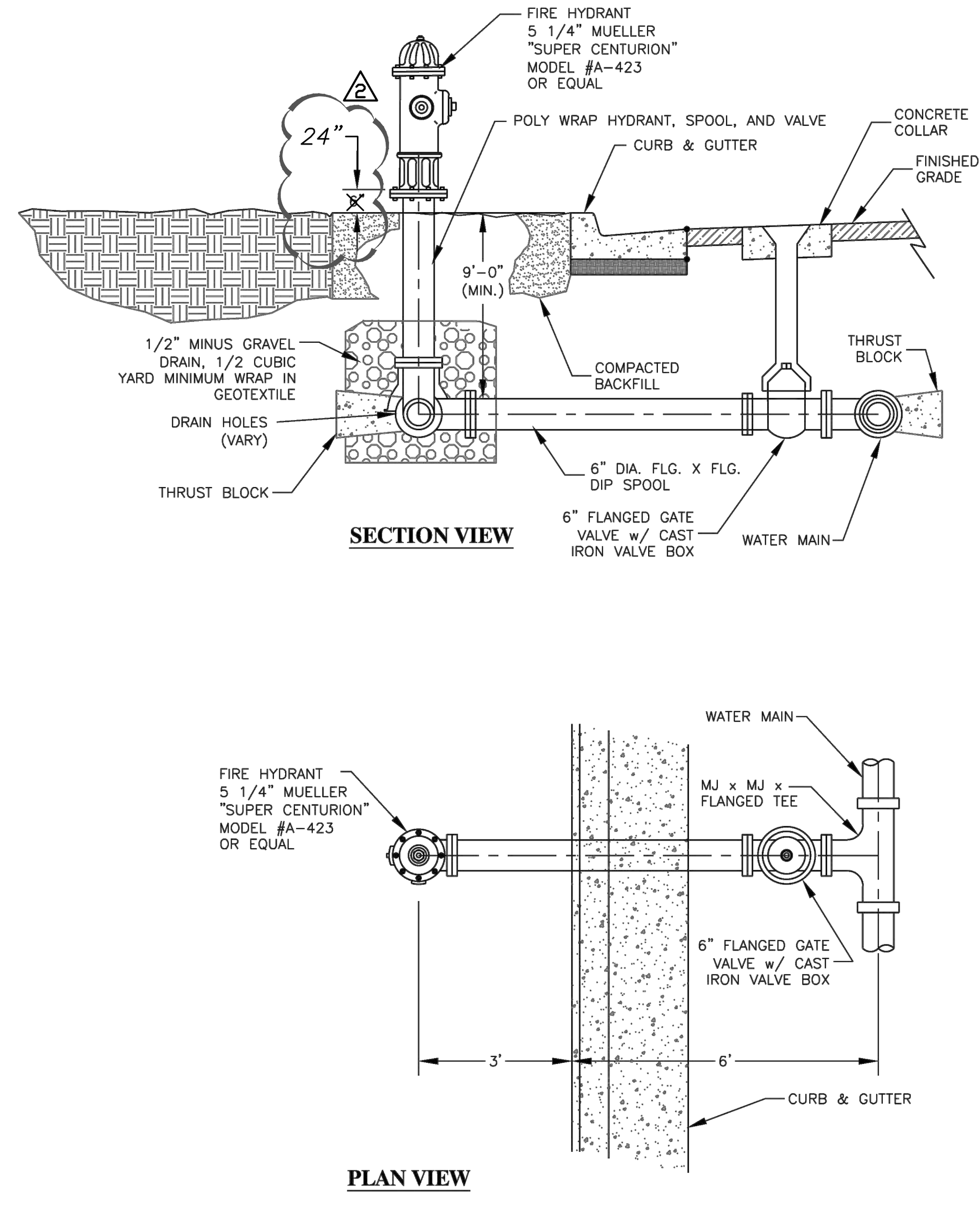
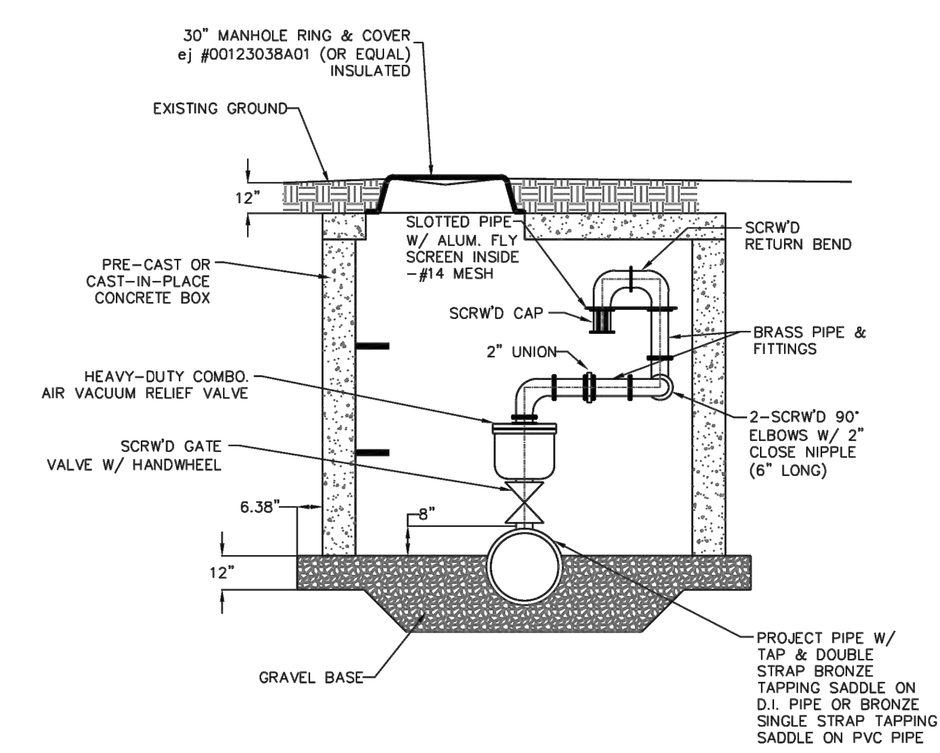


NOTES:

1. HYDRANT SHALL BE "TRAFFIC" TYPE WITH A REPLACEABLE BREAK-AWAY UNIT IMMEDIATELY ABOVE GROUND.

FIRE HYDRANT CONNECTION	DATE: APRIL 2021	GILSON ENGINEERING Consulting Engineers & Surveyors	POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT
	DRAWING NAME: DW-3	12401 SOUTH 450 EAST BUILDING C, UNIT 2, DRAPER, UT 84020	298 24th STREET, SUITE 150, OGDEN, UT 84401
	DRAWN BY: BP/JM	PHONE: (801) 571-9414 FAX: (801) 571-9449	PHONE: (801) 773-1191
	CHECKED: APPROVED:		WWW.PMWSID.ORG



NOTES:

1. SIZE OF AIR-VACUUM RELIEF VALVE & PIPING SHALL BE AS DETERMINED BY PROJECT ENGINEER; AND APPROVED BY DISTRICT ENGINEER.

2. INSPECTION: VAULT AND SERVICE LINE SHALL BE INSPECTED BY DISTRICT PRIOR TO BACKFILLING.

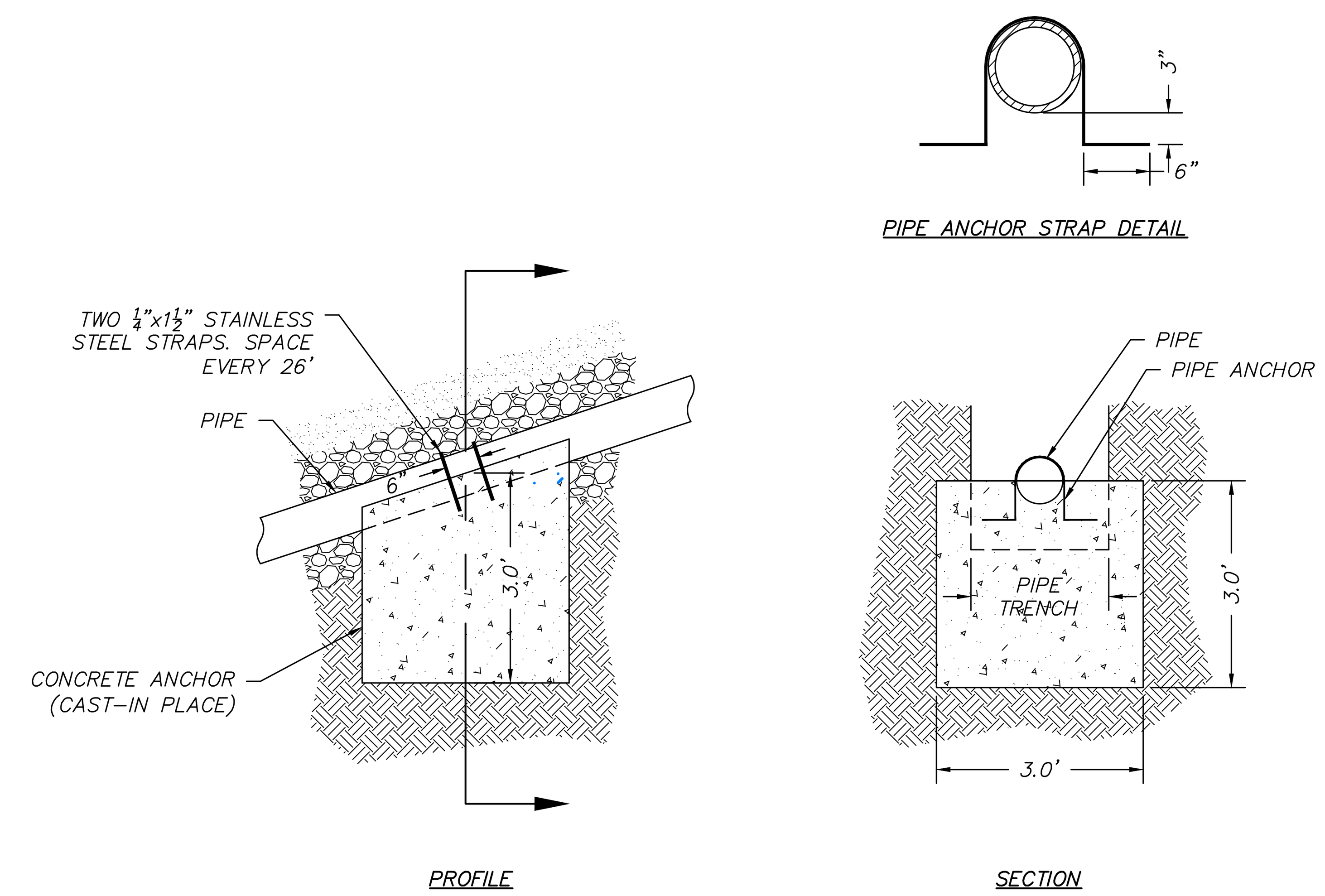
3. BACKFILL: INSTALL BACKFILL IN LIFTS NOT EXCEEDING 8" AFTER COMPACTION. COMPACT EACH LIFT TO AN AVERAGE DRY DENSITY OF 97% WITH NO DENSITY TEST RESULT LESS THAN 92%.

4. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED

5. FURNISH AND INSTALL CHROMALOX HORIZONTAL BLOW HEATER LUH-D-05-83-32-41-1 (OR EQUAL)

. FURNISH AND INSTALL WALL MOUNT VAPOR PROOF LUMINAIRE W/ JUNCTION, BOX GLOBE & GUARD AND INSTALL ELECTRICAL BOX W/ COVER PLATE.

AIR VACUUM RELIEF VALVE	DATE: APRIL 2021	GILSON ENGINEERING Consulting Engineers & Surveyors	POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT
	DRAWING NAME: DW-15	12401 SOUTH 450 EAST BUILDING C, UNIT 2, DRAPER, UT 84020	298 24th STREET, SUITE 150, OGDEN, UT 84401
	DRAWN BY: BP/JM	PHONE: (801) 571-9414 FAX: (801) 571-9449	PHONE: (801) 773-1191
	CHECKED: APPROVED:		WWW.PMWSID.ORG



A / - **PIPE ANCHOR DETAIL**

SCALE: 1" = N.T.S.

TALISMAN CIVIL CONSULTANTS

1588 SOUTH MAIN STREET
SUITE 200
SALT LAKE CITY, UT 84115
801.743.1300

NO.	BY	DATE	REVISIONS:
1	JRP	05/21/2022	UPDATE TO 2021 PMWSID STANDARDS
2	JRP	06/17/2022	REV 1 REVIEW COMMENTS, WTRWY ADD

OVERLOOK PH3 AT POWDER MTN

DETAILS

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

REGISTERED PROFESSIONAL ENGINEER No. 7899506 RYAN W. CATHEY 6/17/22 STATE OF UTAH

CALL 811 BEFORE YOU DIG — SAFE DIGGING PARTNER

SHEET NUMBER
704

DATE: 6/20/2022 3:39 PM

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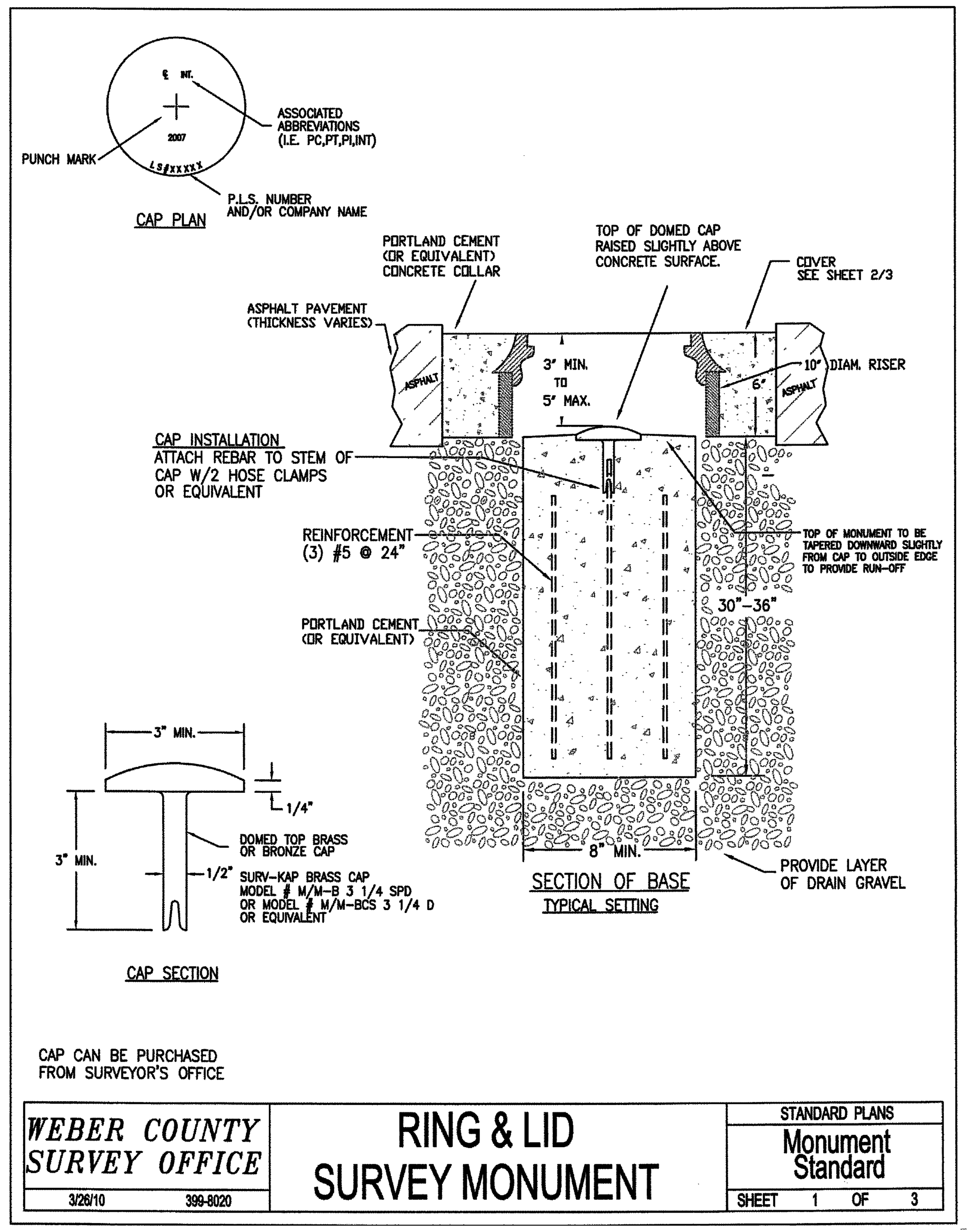
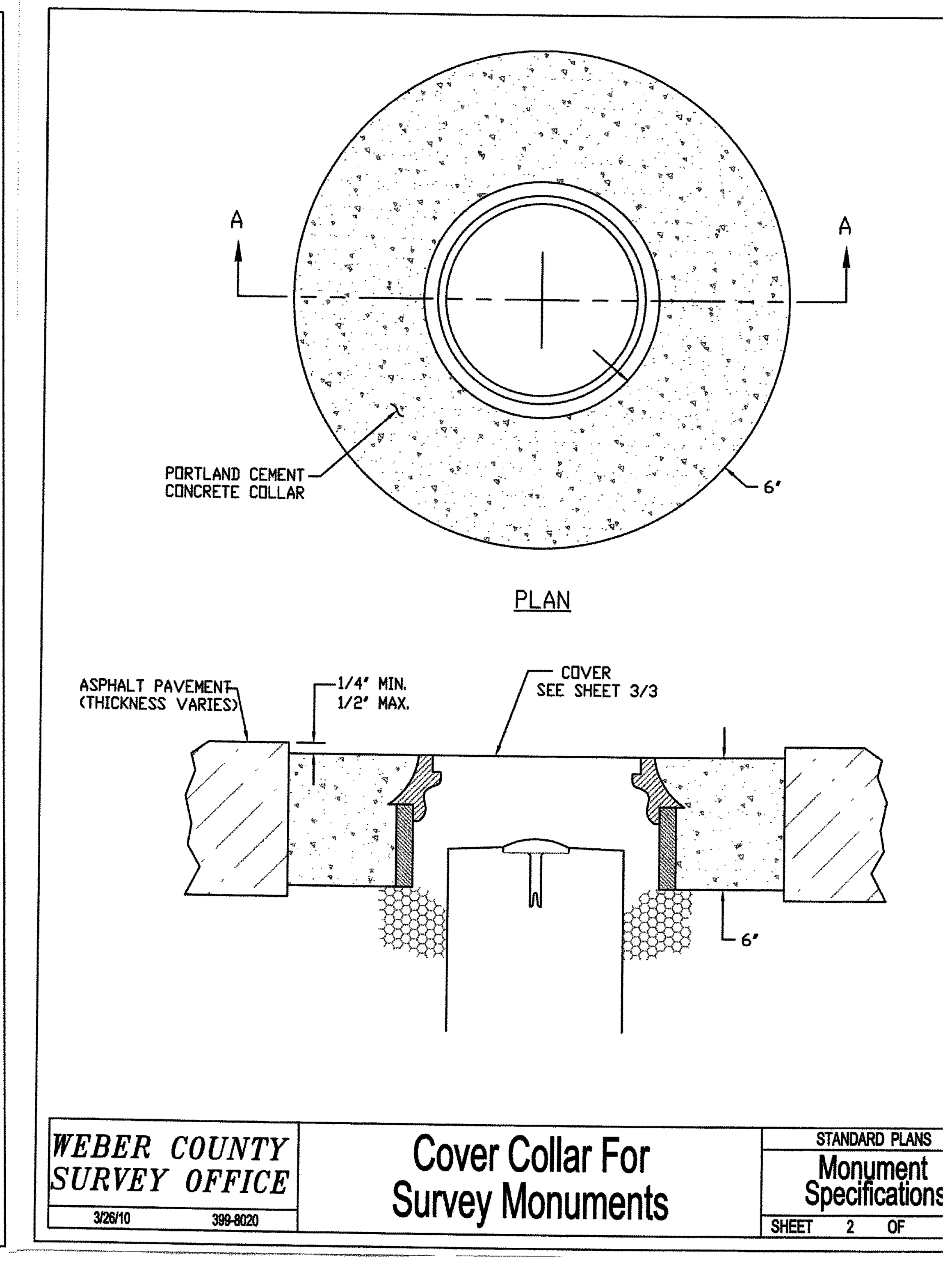
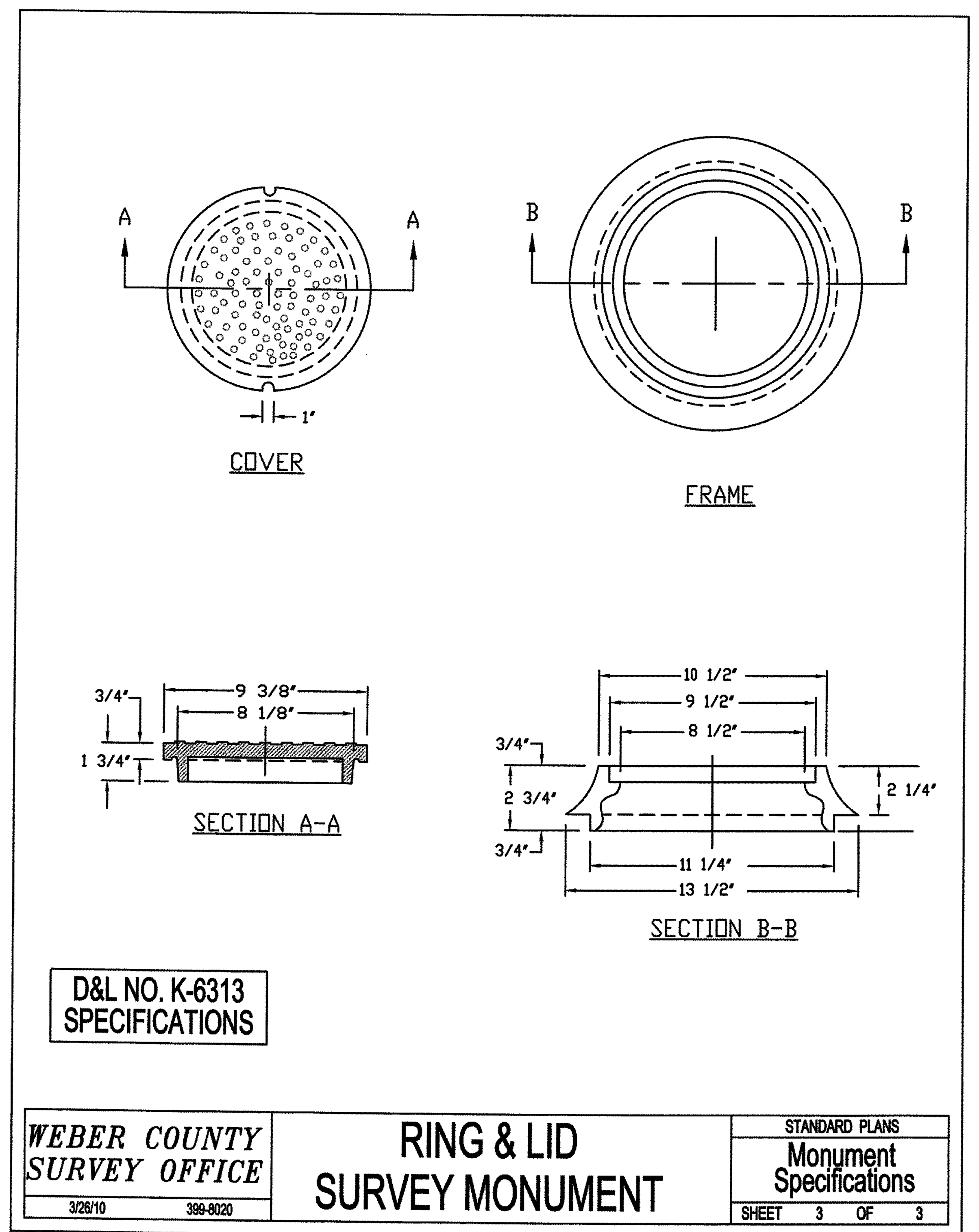






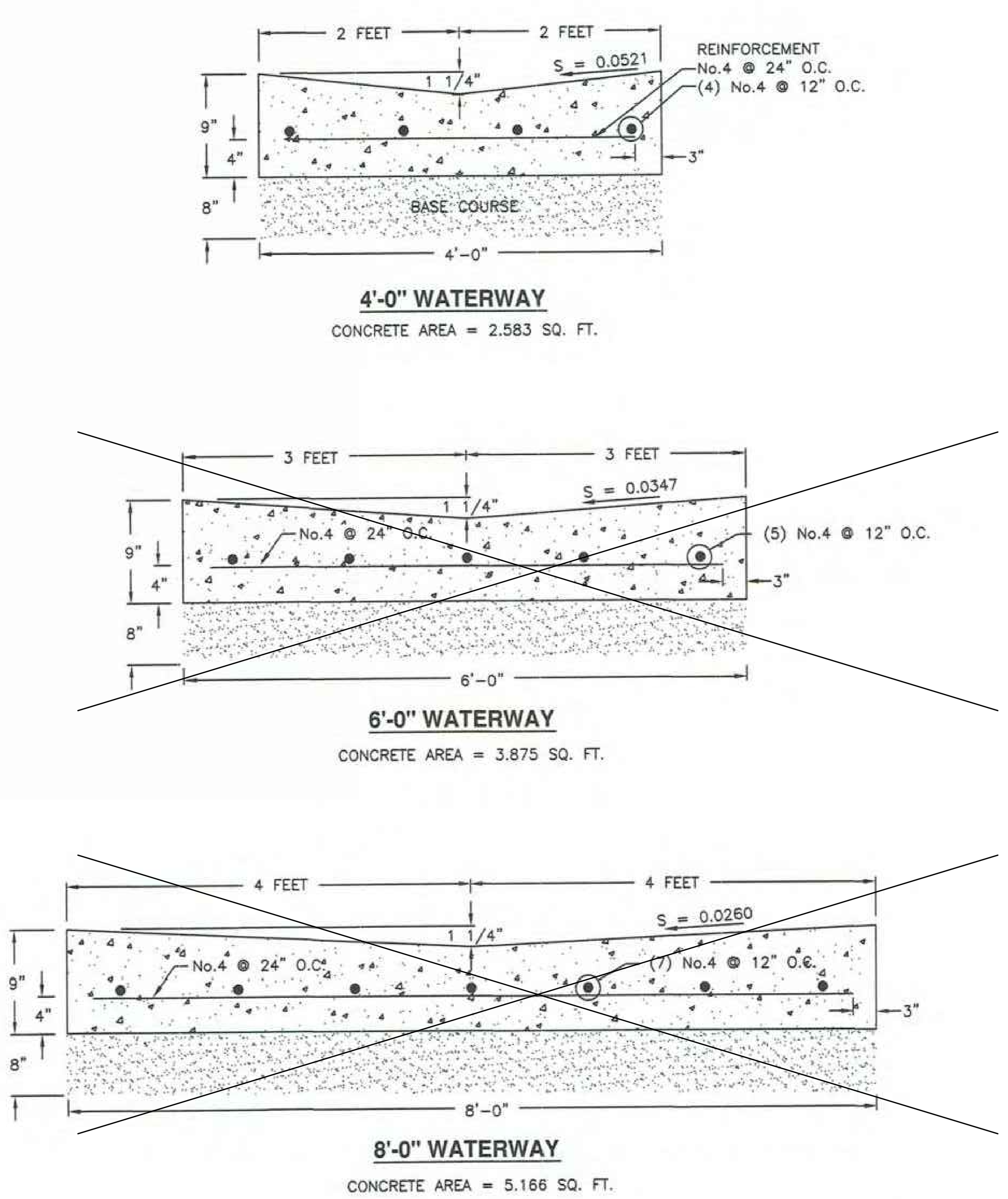
Waterway

1. **GENERAL**
   A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
   B. Unless indicated otherwise, width of waterway as follows.
      1) 4 feet for a residential street.
      2) 6 feet for a non-residential street.
      3) If wider than 6 feet, offset the flow line in the waterway to match (line up with) the curb and gutter flow line. Adjust cross slopes to match existing slopes.
   C. Additional requirements are specified in APWA Section 32 16 13.

2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
   C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
   D. Reinforcement: Galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
   E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. **EXECUTION**
   A. Base Course Placement: APWA Section 32 05 10. Thickness is 6-inches if flow-line grade is 0.5 percent (s=0.005) or greater. If slope is less, provide 8-inches. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Concrete Placement: APWA Section 03 30 10.
      1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Expansion joints are not required in concrete placement using slip-form construction.
      2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Match joint location in adjacent Portland-cement concrete roadway pavement.
      3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   C. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.

211



APWA Utah Chapter — *Waterway* — Plan 211, July 2011

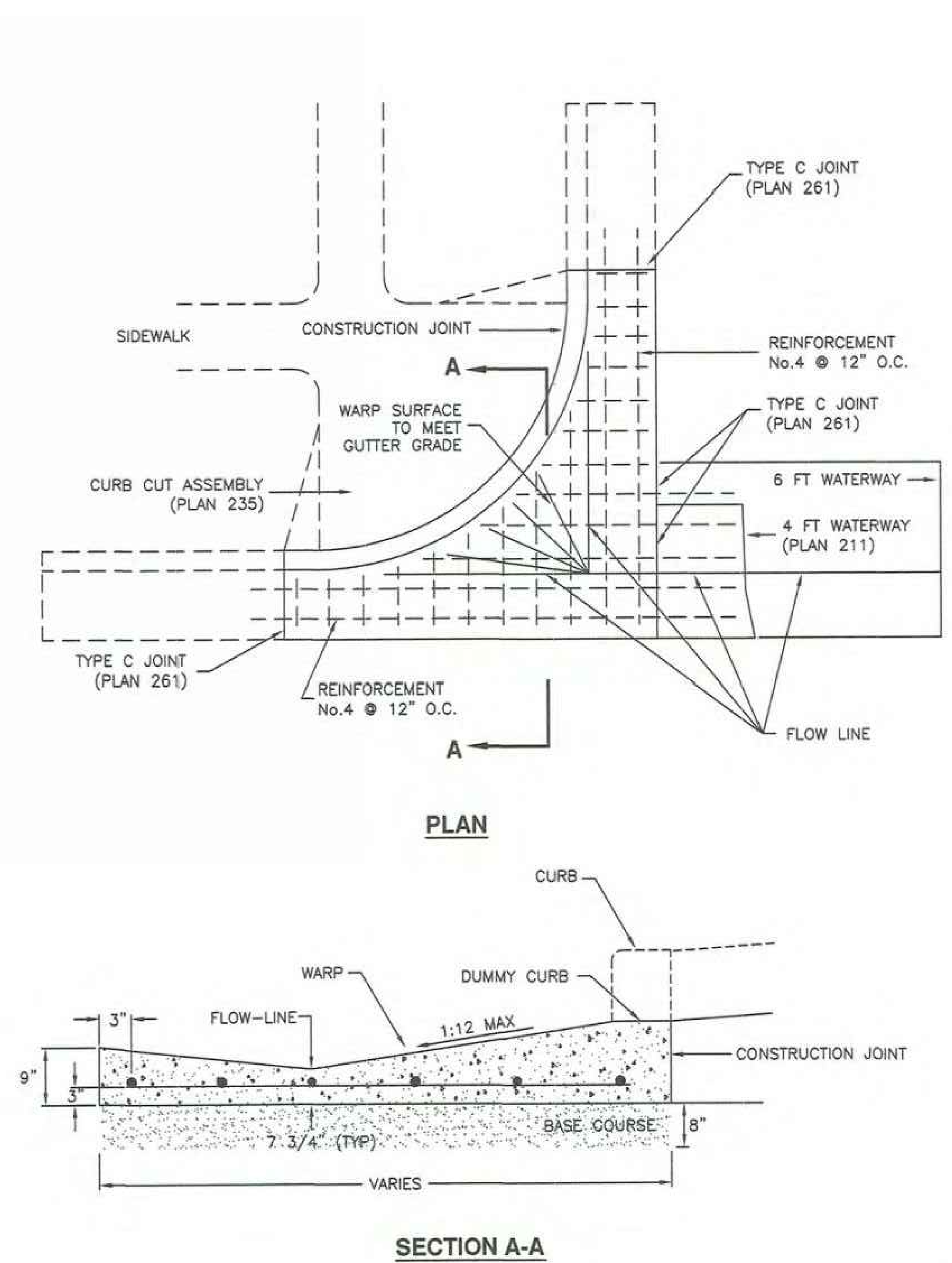
Waterway transition structure

1. **GENERAL**
   A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
   B. Additional requirements are specified in APWA Section 32 16 13..

2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73..
   C. Concrete. Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
   D. Reinforcement. Galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
   E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. **EXECUTION**
   A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Concrete Placement: APWA Section 03 30 10.
      1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Install at the start or end of a street intersection curb return. Expansion joints are not required in concrete placement using slip-form construction.
      2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Match joint location in adjacent Portland-cement concrete roadway pavement.
      3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   C. Protection and repair. Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.

213



APWA Utah Chapter — *Waterway transition structure* — Plan 213, May 2005

TALISMAN CIVIL CONSULTANTS
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OVERLOOK PH3 AT POWDER MTN
DETAILS

DATE SUBMITTED: 10/8/2019
TCC JOB NUMBER: 18-20.23

REVISIONS: 1 — 06/01/2022 — UPDATE TO 2021 POWDER STANDARDS; 2 — 06/17/2022 — REV'S REVIEW COMMENTS, WYMAY ADD

REGISTERED PROFESSIONAL ENGINEER No. 7899506 RYAN W. CATHEY STATE OF UTAH 6/17/22

SHEET NUMBER 705

DATE: 6/20/2022 3:39 PM
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DATE: 6/20/2022, 3:40 PM

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NO.	BY	DATE	REVISIONS:
1	JBP	05/13/2022	UPDATE TO 2021 PMWSS STANDARDS
2	JBP	06/17/2022	REV 1 REVIEW COMMENTS, RTRWY ADD

OVERLOOK PH3 AT POWDER MTN

OVERALL DRY UTILITY PLAN

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-20.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

SCALE
HORIZONTAL: 1" = 50'
0 12.5' 25' 50' 75'

SHEET NUMBER
800
18 OF 19

CALL 811 BEFORE YOU DIG
811
SAFE DIGGING PARTNER

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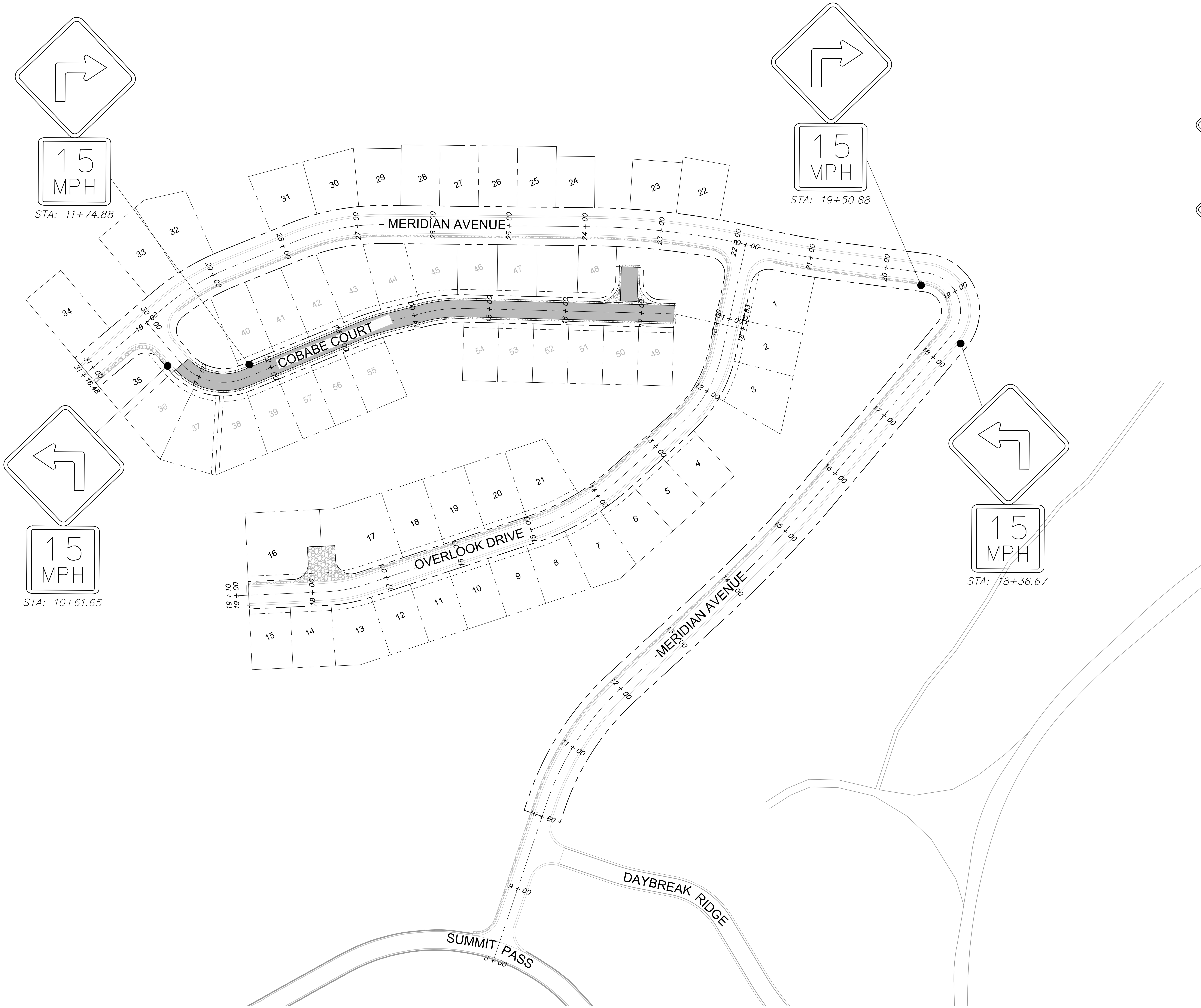

LEGEND

15 MPH — INSTALL POST MOUNTED SIGN W13-1 PER CURRENT M.U.T.C.D. GUIDELINES

INSTALL POST MOUNTED SIGN W1-1L PER CURRENT M.U.T.C.D. GUIDELINES

INSTALL POST MOUNTED SIGN W1-1R PER CURRENT M.U.T.C.D. GUIDELINES

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NO.	BY	DATE	REVISIONS:
1	JRP	05/13/2022	UPDATE TO 2021 PMWSID STANDARDS
2	JRP	06/17/2022	REV 1 REVIEW COMMENTS, WTRWY ADD

OVERLOOK PH3 AT POWDER MTN

SIGNAGE PLAN

DATE SUBMITTED: 10/8/2019

TCC JOB NUMBER: 18-200.23

REGISTERED PROFESSIONAL ENGINEER
No. 7899506
RYAN W. CATHEY
6/17/22
STATE OF UTAH

SCALE
HORIZONTAL: 1" = 60'
0 15' 30' 60' 90'

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SHEET NUMBER
900