

STORMWATER MANAGEMENT PLANS - REVISION NO. 1

EASTERN HILLS SOUTH 4-65 17-18 3AH, 3BH, 3CH, 3DH, 4AH, 4BH, 4CH, 4DH

OIL & GAS WELLS

SECTION 17, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF AURORA, ARAPAHOE COUNTY, STATE OF COLORADO

CITY OF AURORA SWMP NOTES:

STANDARD STATEMENT AND NOTES FOR SWMP DESIGN DRAWINGS *PURSUANT TO SECTIONS 138-440 AND 138-442 OF THE AURORA MUNICIPAL CODE, THE PERMITTEE SHALL LOCATE, INSTALL, AND MAINTAIN ALL BEST MANAGEMENT PRACTICES, INCLUDING, BUT NOT LIMITED TO, EROSION CONTROLS, SEDIMENT CONTROLS, DRAINAGE CONTROLS, AND WATER QUALITY BMPs AS INDICATED IN THE APPROVED STORMWATER MANAGEMENT PLAN (SWMP). THE FOLLOWING NOTES ARE A REQUIREMENT AND SHALL BE INCLUDED ON THE SWMP DESIGN DRAWINGS DEVELOPED FOR THIS PROJECT AND SUBMITTED FOR APPROVAL BY THE CITY. BMP INSTALLATIONS SHALL BE INSTALLED PER THE COA STANDARD DETAIL IN EFFECT AT THE TIME OF INSTALLATION OR PER THE APPROVED SWMP DESIGN DRAWING, A COA APPROVED VARIANCE, OR A COA APPROVED DESIGN DRAWING PLAN AMENDMENT.*

- THE PERMITTEE SHALL BE RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, STORM SEWERS, STORM SEWER APPURTENANCES, OTHER PROPERTIES, ETC., RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
- ADDITIONAL EROSION AND SEDIMENT CONTROL BMPs MAY BE REQUIRED DURING AND AFTER CONSTRUCTION AND SHALL BE EXECUTED AND COMPLETED BY THE PERMITTEE. THE PERMITTEE SHALL PLAN, INSTALL, AND MAINTAIN ALL EROSION, AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE AND WATER QUALITY BMPs AS INDICATED ON THIS PLAN AND AS NECESSARY TO REDUCE THE DISCHARGE OF POLLUTANTS TO THE MAXIMUM EXTENT PRACTICABLE ADVERSE IMPACTS, EROSION AND SEDIMENT DEPOSITION ONTO PAVED SECTIONS, INTO STORM SEWERS, STORM SEWER APPURTENANCES, RECEIVING WATERS, OR OFF THE PROJECT SITE.
- THE PERMITTEE SHALL TAKE APPROPRIATE PREVENTATIVE MEASURES TO MINIMIZE TO THE MAXIMUM EXTENT PRACTICABLE DIRT AND MUD FROM BEING TRACKED OR DEPOSITED ONTO PAVED SECTIONS VIA MULTIPLE BMPs. SEDIMENT, MUD, AND CONSTRUCTION DEBRIS THAT MAY BE TRACKED, DEPOSITED, OR ACCUMULATED ON PAVED SECTIONS, IN THE FLOW LINES, PRIVATE PROPERTY, AND/OR PUBLIC RIGHTS-OF-WAY OF THE CITY AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE CLEANED UP.
- AREAS REACHING SUBSTANTIAL COMPLETION OF GRADING AND TOPSOIL PLACEMENT OPERATIONS MUST BE DRILL SEEDED AND CRIMP MULCHED WITHIN 14 DAYS OF SUBSTANTIAL COMPLETION OF GRADING AND TOPSOIL OPERATIONS. IF AN INCOMPLETE AREA IS TO REMAIN INACTIVE FOR LONGER THAN 30 DAYS, IT MUST BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE LANDSCAPED WITHIN 14 DAYS FROM THE SUSPENSION OR COMPLETION OF LAND DISTURBANCE ACTIVITIES.
- THIS APPROVED SWMP DESIGN DRAWING, THE ASSOCIATED APPROVED SWMP NARRATIVE, A COPY OF THE STORMWATER QUALITY DISCHARGE PERMIT, AND THE RULES AND REGULATIONS REGARDING STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES MANUAL SHALL BE KEPT ON SITE AT ALL TIMES.
- ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED FROM A BMP (MAINTENANCE) WHEN THE SEDIMENT LEVEL OR DEBRIS ADVERSELY IMPACTS THE FUNCTIONING OF THE BMP OR AS DEFINED WITHIN THE RULES AND REGULATIONS REGARDING STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES MANUAL, WHICHEVER IS MORE RESTRICTIVE. IF MAINTENANCE OF THE BMP DOES NOT RESTORE THE INTENDED FUNCTION, THEN THE BMP MUST BE REPLACED.
- THE DISCHARGING OF CEMENT, CONCRETE, OR MORTAR FROM READY MIX DELIVERY TRUCKS, PUMP TRUCKS, BATCH PLANTS OR SMALL MECHANICAL MIXERS DIRECTLY ONTO PAVED SURFACES OR DISTURBED GROUND HAVING NO CONTAINMENT IS PROHIBITED. THE DISPOSAL OF ANY LIQUID WASTES OR WASH WATER FROM ANY OPERATIONS SUCH AS PAINTING, DRYWALL, OR TILE INSTALLATIONS DIRECTLY ONTO PAVED SURFACES OR THE GROUND WITHOUT CONTAINMENT IS PROHIBITED. THE PERMITTEE SHALL PROTECT ALL CURB FLOW LINES, ADJACENT WATERWAYS, WETLANDS, STORM SEWERS, STORM SEWER APPURTENANCES, OTHER PROPERTIES, ETC., ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATIONS INVOLVING WHEEL CUTTING, SAW CUTTING OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE.
- IT SHALL BE THE RESPONSIBILITY OF THE PERMITTEE TO RESOLVE CONSTRUCTION PROBLEMS DUE TO CHANGING CONDITIONS OR DESIGN ERRORS THEY MAY ENCOUNTER DURING THE PROGRESS OF ANY PORTION OF THE IF CONDITIONS IN THE FIELD REQUIRE CHANGES AND THE PROPOSED MODIFICATIONS TO THE APPROVED PLANS INVOLVE SIGNIFICANT CHANGES TO THE CHARACTER OF THE WORK OR TO FUTURE CONTIGUOUS PUBLIC OR PRIVATE IMPROVEMENTS, THE CONTRACTOR, THROUGH THE ENGINEER OF RECORD, SHALL BE RESPONSIBLE TO REVISE PLANS AND SUBMIT THEM TO THE CITY OF AURORA FOR APPROVAL PRIOR TO ANY FURTHER CONSTRUCTION RELATED TO THAT PORTION OF THE WORK. ANY CONTROLS, FEATURES OR IMPROVEMENTS NOT CONSTRUCTED IN ACCORDANCE WITH THE APPROVED SWMP, CITY OF AURORA STANDARD DETAIL DESIGNS, CITY OF AURORA APPROVED VARIANCES, OR AN APPROVED DESIGN DRAWING AMENDMENT SHALL BE REMOVED AND THE CONTROLS, FEATURES AND/OR IMPROVEMENTS SHALL BE RECONSTRUCTED.
- SECONDARY CONTAINMENT FEATURES SHALL BE IN PLACE FOR ANY BULK FUEL STORAGE, MIXERS, GENERATORS, OR ANY OTHER SPILL OR LEAK SOURCE THAT REMAINS ON-SITE FOR A PERIOD LONGER THAN 7 CALENDAR DAYS. A RECOVERY OR SALVAGE DRUM SHALL BE KEPT ON-SITE FOR STORAGE OF CONTAMINATED SOILS.
- STRAW BALES AND RECYCLED ASPHALT OR CONCRETE ARE NOT ACCEPTABLE FOR THE CONSTRUCTION OF BMPs WITHIN THE CITY OF AURORA AND MAY NOT BE USED.

GENERAL NOTES:

- ANY BMPs SHOWN THAT REQUIRE GRADING, E.G. SEDIMENT BASINS, SEDIMENT TRAPS, ETC., SHALL NOT BE PLACED UNTIL AFTER THE PRE-CONSTRUCTION MEETING. IN ADDITION, THE SEDIMENT TRAPS (OR OTHER BMP) SHALL NOT BE INSTALLED UNTIL AFTER THE SWMP PRE-CONSTRUCTION MEETING AND ISSUANCE OF THE SWMP PERMIT BUT MUST BE FULLY FUNCTIONAL PRIOR TO ANY LARGE SCALE GRADING.
- DASHED BMPs BE INSTALLED IN INITIAL/INTERIM SWMP PLAN AND, UNLESS OTHERWISE INDICATED, SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE COUNTY.
- SEEDING AND MULCHING OF DISTURBED AREAS MUST BE COMPLETED WITHIN 14 DAYS IF THE AREAS WILL REMAIN UNDISTURBED FOR A PERIOD GREATER THAN 30 DAYS.
- REMOVAL OF SEDIMENT TRAPS/BASINS ON SITE SHALL ONLY OCCUR AFTER ALL AREAS TRIBUTARY TO THE SEDIMENT TRAPS/BASINS HAVE BEEN FINAL LANDSCAPED AND ALL VEGETATION AS BEEN ESTABLISHED IN THE OPINION OF THE COUNTY.
- VEHICLE AND EQUIPMENT MAINTENANCE AND FUELING WILL OCCUR IN THE STAGING/STORAGE AREA. THE SWMP MANAGER SHALL DESIGNATE A SPECIFIC AREA WITHIN THE STAGING/STORAGE AREA FOR THIS ACTIVITY. THIS AREA SHALL BE PROTECTED WITH A ONE-FOOT (1') HIGH BERM TO FURTHER PROTECT THE SURROUNDING AREA FROM MIGRATION OF SPILLS, DRIPS, LEAKS, ETC. THAT OCCUR DURING ROUTINE OPERATIONS. IN THE EVENT IT IS NOT FEASIBLE OR PRACTICAL TO CONDUCT FUELING OR MAINTENANCE WITHIN THE CONFINES OF THIS DESIGNATED AREA, DRIP PANS SHALL BE USED TO CAPTURE VEHICLE/EQUIPMENT LIQUIDS. POLLUTANTS THAT COME INTO CONTACT WITH THE GROUND, SHALL BE REMOVED AND DISPOSED.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN GOOD HOUSEKEEPING PRACTICES ON THE CONSTRUCTION SITE. THIS INCLUDES THE FOLLOWING:
 - GARBAGE/TRASH/CONSTRUCTION DEBRIS SHALL BE REMOVED ON A REGULAR BASIS.
 - WASHING OF EQUIPMENT INTO EXISTING DRAINAGEWAYS IS PROHIBITED.
 - PROPER CLEANUP PROCEDURES SHALL BE USED FOR SPILLED MATERIALS.
 - CLEANUP OF DRIPS OR LEAKS FROM EQUIPMENT OR MACHINERY AT THE SITE.
 - MINIMIZING THE AMOUNT OF UNNEEDED MATERIALS STORED ON-SITE.
 - MARK LOCATIONS FOR SPILL CLEANUP EQUIPMENT AND MATERIALS.
 - FERTILIZERS AND OTHER CHEMICALS ARE APPLIED ONLY IN THE QUANTITY REQUIRED.
 - PORTABLE TOILET FACILITIES ARE PROPERLY MAINTAINED AND PROPERLY SECURED.
 - STORAGE CONTAINERS, DRUMS, AND BAGS SHALL BE STORED AWAY FROM DIRECT TRAFFIC ROUTES TO PREVENT ACCIDENTAL SPILLS.
 - CONTAINERS SHALL BE STORED ON PALLETS OR SIMILAR DEVICES TO PREVENT CORROSION OF THE CONTAINERS.
 - ALL CHEMICAL SUBSTANCES USED IN THE WORK PLACE SHALL BE LISTED WITH THE REPORTABLE QUANTITY OF EACH, AND THE MATERIAL SAFETY DATA SHEET (MSDS) OBTAINED FOR EACH. THE MSDS'S WILL BE READILY AVAILABLE FOR USE; I.E., POSTED AT THE LOCATIONS WHERE THE MATERIALS ARE STORED AND HANDLED. ALL CONTAINERS SHALL BE LABELED TO SHOW THE NAME AND TYPE OF SUBSTANCE, STOCK NUMBER, EXPIRATION DATE, HEALTH HAZARDS, INCLUDING REACTIVITY, CORROSIVITY, IGNITABILITY AND TOXICITY, SUGGESTIONS FOR HANDLING, AND FIRST AID INFORMATION. (THIS INFORMATION CAN USUALLY BE FOUND ON THE MSDS. UNLABELED CHEMICALS AND CHEMICALS WITH DETERIORATED LABELS ARE OFTEN DISPOSED OF UNNECESSARILY OR IMPROPERLY.) INSTRUCTIONS AND MATERIALS/EQUIPMENT FOR SPILL CLEANUP PROCEDURES SHALL BE READILY AVAILABLE ON THE CONSTRUCTION SITE. THIS INCLUDES NOTIFICATION OF THE APPROPRIATE AGENCY OR PARTMENT; I.E., DOWNSTREAM WATER USERS, SWMP MANAGER, COLORADO DEPARTMENT OF HEALTH, ETC.
- NO CONCRETE IS ANTICIPATED TO BE USED IN THE CONSTRUCTION OF THIS WELL SITE PAD SO NO WASHOUT AREA IS ANTICIPATED.
- THE STOCKPILE MUST BE A MINIMUM OF 100 FEET FROM ANY DRAINAGE WAY, WITH SIDE SLOPE 3:1 OR FLATTER. SOILS THAT WILL BE STOCKPILED FOR MORE THAN 30-DAYS SHALL BE SEEDD AND MULCHED WITHIN 14-DAYS OF STOCKPILE CONSTRUCTION.
- THE SWMP MUST REFLECT ACTUAL FIELD CONDITIONS. IT SHALL BE CONSIDERED A "LIVING DOCUMENT" THAT IS CONTINUOUSLY UPDATED AND REVISED TO REFLECT SEQUENCING OF CONSTRUCTION, REVISIONS TO DESIGN, RESPONSE TO ORIGINALLY PROPOSED BMP'S NOT FUNCTIONING AS INTENDED OR NOT MEETING CAPACITY EXPECTATIONS OR FIELD CONDITIONS EXPERIENCED ARE DIFFERENT THAN ANTICIPATED.
- IF THE SEEDING AND MULCHING APPLICATION DOES NOT PROVIDE ADEQUATE STABILIZATION FOR THE AREA WHERE SLOPES EXCEED 4:1, THEN MORE ROBUST BMP'S SHOULD BE UTILIZED.
- CAD FILES WILL BE PROVIDED TO THE SURVEYOR FOR CONSTRUCTION STAKING OF THE LIMITS OF CONSTRUCTION AND OTHER IMPROVEMENTS SHOWN HEREIN.
- ALL ROADS, CULVERTS, DITCHES AND SEDIMENT BASINS CONSTRUCTED BY THESE PLANS ARE PRIVATELY OWNED AND MAINTAINED.

THE **STORMWATER MANAGEMENT PLAN** HAS BEEN PLACED IN THE CITY AURORA FILE FOR THIS PROJECT AND HAS BEEN DETERMINED TO COMPLY WITH APPLICABLE CITY OF AURORA STORMWATER MANAGEMENT CRITERIA. ADDITIONAL STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE OWNER OR HIS/HER AGENTS, DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED.

REVIEW OF THIS PLAN BY THE CITY OF AURORA SHALL NOT IMPLY THAT IT HAS BEEN REVIEWED FOR COMPLIANCE WITH THE REQUIREMENTS SET FORTH BY THE STATE OF COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

SEE APPROVED OIL & GAS PERMIT DESIGN DRAWINGS (SITE PLAN) FOR SITE SPECIFIC BEST MANAGEMENT PRACTICES.

THE STORMWATER MANAGEMENT PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF AURORA RULES AND REGULATIONS REGARDING STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES MANUAL, AS AMENDED.

ALL ROADS, CULVERTS, DITCHES AND SEDIMENT BASINS CONSTRUCTED BY THESE PLANS ARE PRIVATELY OWNED AND MAINTAINED.

FACSIMILE

This electronic plan is a facsimile of the signed and sealed PDF set.

Michael L. Pool

DATE: 11/1/19

Michael L. Pool

PREPARED FOR:

CONOCOPHILLIPS COMPANY

SURVEY DATUM: HORIZONTAL = NAD83/2011, VERTICAL = NAVD88

CONTACTS

APPLICANT
CONOCOPHILLIPS COMPANY
34501 E. QUINCY AVE., BLDG. 1
WATKINS, CO 80137
(303) 268-3773

CONSULTANT
ASCENT GEOMATICS SOLUTIONS
8620 WOLFF COURT, WESTMINSTER, CO 80031
MICHAEL L. POOL, PE
(303) 928-7128

SWMP SHEET INDEX

SHEET	DESCRIPTION
1	COVER SHEET
2	INITIAL & INTERIM SWMP PLAN
3	INITIAL & INTERIM SWMP PLAN - ACCESS ROAD
4	FINAL SWMP PLAN
5	FINAL SWMP PLAN - ACCESS ROAD
6	SWMP STANDARD DETAILS

BENCHMARK
CITY OF AURORA BENCHMARK 458617SE002
OLD BENCHMARK ID: 23-060
LOCATED ON HAYESMOUNT RD EXTENDED
ELEVATION 5679.43 FEET (NAVD 88)

DIG SAFELY
BEFORE YOU DIG CALL:
1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

NOTES:

- SEE FIELD WIDE REPORT NOTES AND DETAILS (SHEET 1 OF 3) FOR LEGEND OF BMP NAMES AND SYMBOLS.
- A COMPLETE UTILITIES LOCATION IS RECOMMENDED BEFORE CONSTRUCTION.
- GEOGRAPHIC POSITIONS/COORDINATES SHOWN HEREON ARE IN NAD83 DATUM.
- EARTHWORK QUANTITIES ARE APPROXIMATE & FOR INFORMATION ONLY. 6" OF TOPSOIL HAS BEEN SUBTRACTED FROM EXISTING SURFACE PRIOR TO PERFORMING EARTHWORK CALCULATIONS.

CITY OF AURORA NOTES:

- 2.03.5.01 CITY OF AURORA PLAN REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH CITY OF AURORA DESIGN CRITERIA AND THE CITY CODE. THE CITY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND ELEVATIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE. THE CITY OF AURORA, THROUGH THE APPROVAL OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.
- 2.03.6.02 ALL ROADWAY CONSTRUCTION SHALL CONFORM TO CITY OF AURORA "ROADWAY DESIGN & CONSTRUCTION SPECIFICATIONS," LATEST EDITION.
- 2.03.6.03 ALL WATER DISTRIBUTION, SANITARY SEWER, AND STORM DRAINAGE CONSTRUCTION SHALL CONFORM TO CITY OF AURORA "STANDARDS AND SPECIFICATIONS REGARDING WATER, SANITARY SEWER AND STORM DRAINAGE INFRASTRUCTURE," LATEST REVISION.
- 2.03.6.04 ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE CITY. THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE CITY STANDARDS AND SPECIFICATIONS.
- 2.03.6.05 THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC IMPROVEMENT INSPECTIONS DIVISION, 303-739-7420, 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- 2.03.6.06 LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. FOR INFORMATION, CONTACT UTILITY NOTIFICATION CENTER OF COLORADO, 1-800-922-1987 OR 811.
- 2.03.6.07 THE CONTRACTOR SHALL HAVE ONE SIGNED COPY OF THE PLANS (APPROVED BY THE CITY OF AURORA), ONE COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED AT THE JOB SITE AT ALL TIMES.
- 2.03.6.08 IT IS THE CONSULTANT'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ON-SITE, AND OFF-SITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NEEDED DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS EITHER ON-SITE OR OFF-SITE, WHICH ARISE IN THE FIELD, WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY. THE COST TO RECTIFY ANY ADVERSE SITUATION TO MEET THE CITY STANDARDS AND SPECIFICATIONS AND CITY CODE SHALL BE BORNE SOLELY BY THE DEVELOPER.
- 2.03.6.09 THE OWNER/DEVELOPER MUST OBTAIN THE WRITTEN PERMISSION OF THE ADJACENT PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE GRADING OR CONSTRUCTION.
- 2.03.6.15 THE CITY OF AURORA SHALL NOT BE LIABLE FOR THE MAINTENANCE OF ROADS, CULVERTS, DITCHES, AND SEDIMENT BASINS. THESE FACILITIES MAY NOT MEET CITY STANDARDS AND SHALL REMAIN IN PRIVATE MAINTENANCE BY CONOCOPHILLIPS IN PERPETUITY. THESE PRIVATE FACILITIES INCLUDE, IF PROVIDED, ROADS, DITCHES, CULVERTS, SEDIMENT BASINS, AND THE PRIVATE UNDERDRAIN SYSTEM PLACE WITHIN THE PUBLIC RIGHT-OF-WAY.
- 2.03.6.18 THE OWNER/CONTRACTOR MUST OBTAIN A C.D.P.S. STORM WATER DISCHARGE PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, IF REQUIRED.
- 2.03.6.19 THE OWNER/CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE ARMY CORP OF ENGINEERS FOR WETLAND MITIGATION OR WORK WITHIN THE WATERS OF THE U.S., IF REQUIRED. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO PROVIDE A COPY OF THE ARMY CORP OF ENGINEER'S REQUIREMENTS TO THE CITY OF AURORA. IF THERE ARE NO REQUIREMENTS BY THE ARMY CORP OF ENGINEERS, THEN A WRITTEN NOTIFICATION FROM THE ARMY CORP OF ENGINEERS SHALL BE SUBMITTED TO THE CITY OF AURORA STATING SUCH. CITY APPROVAL OF THE CONSTRUCTION PLANS IS SUBJECT TO THE OWNER/CONTRACTOR OBTAINING A 404 PERMIT, IF APPLICABLE. A COPY OF THIS PERMIT SHALL BE SUBMITTED TO THE CITY OF AURORA PRIOR TO ANY PERMITS BEING ISSUED.

DEWATERING:

IF DEWATERING IS REQUIRED, A STATE CONSTRUCTION DEWATERING DISCHARGE PERMIT IS REQUIRED FOR DISCHARGES TO A STORM SEWER, CHANNEL, IRRIGATION DITCH, ANY STREET THAT IS TRIBUTARY TO THE MENTIONED FACILITIES, OR ANY WATER OF THE UNITED STATES.

PREPARED BY:



Ascent Geomatics Solutions
8620 Wolff Court
Westminster, CO 80031

PREPARED FOR:



CONOCOPHILLIPS COMPANY
34501 E. QUINCY AVE., BLDG #1
WATKINS, CO 80137

SHEET NAME:

EASTERN HILLS SOUTH 4-65 17-18 3AH, 3BH, 3CH, 3DH, 4AH, 4BH, 4CH, 4DH

COVER PAGE

SURFACE LOCATION:
SECTION 17, TOWNSHIP 4 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN
ARAPAHOE COUNTY, COLORADO

INT.

CJW

RMC

REVISION

DESCRIPTION

REVISIONS TO APPROVED PLANS

NO.

DATE:

02/08/19

11/07/19

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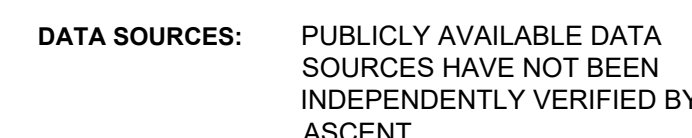
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SECTION 17, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL
MERIDIAN, CITY OF AURORA, ARAPAHOE COUNTY, STATE OF COLORADO

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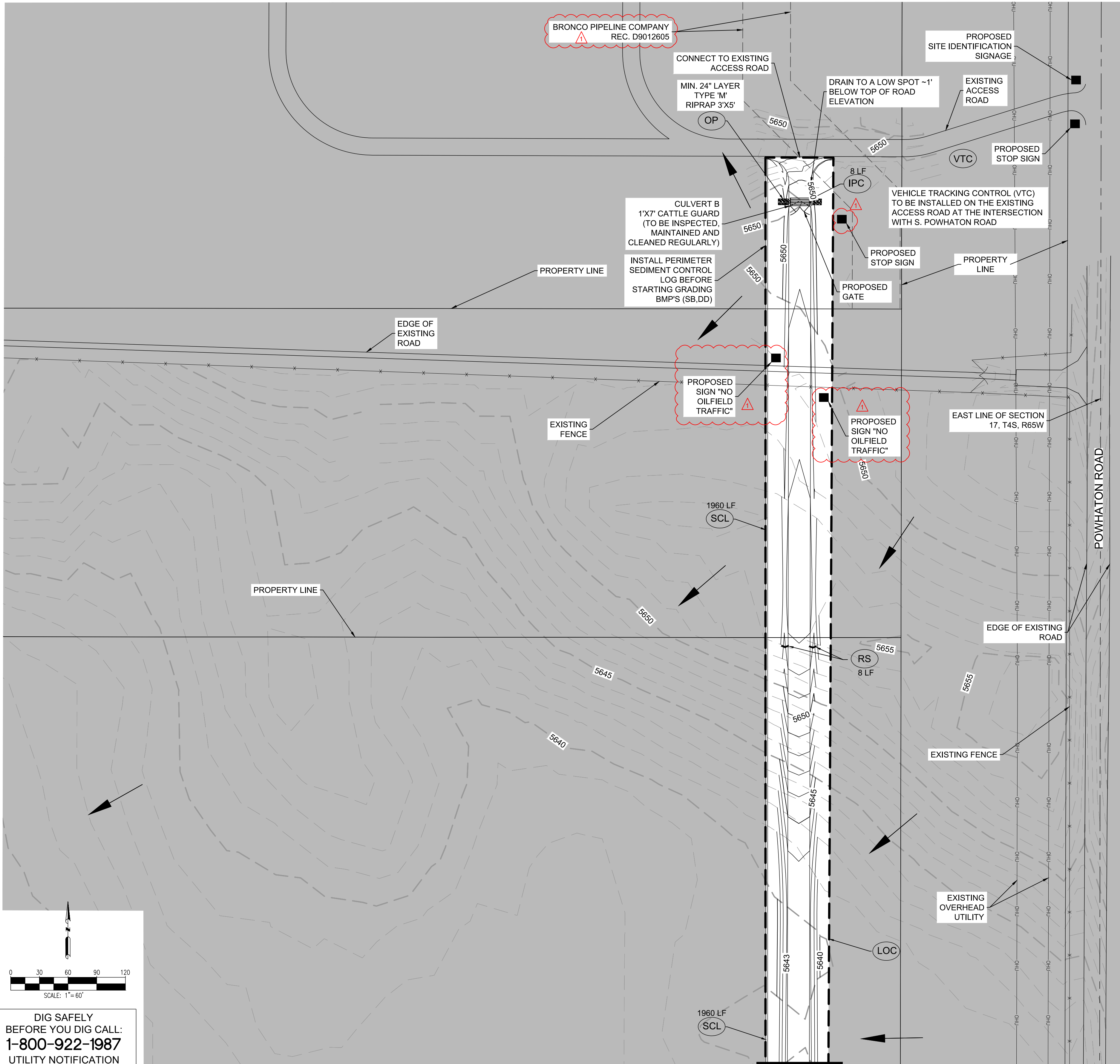


STORMWATER MANAGEMENT PLANS - REVISION NO. 1

EASTERN HILLS SOUTH 4-65 17-18 3AH, 3BH, 3CH, 3DH, 4AH, 4BH, 4CH, 4DH

OIL & GAS WELLS

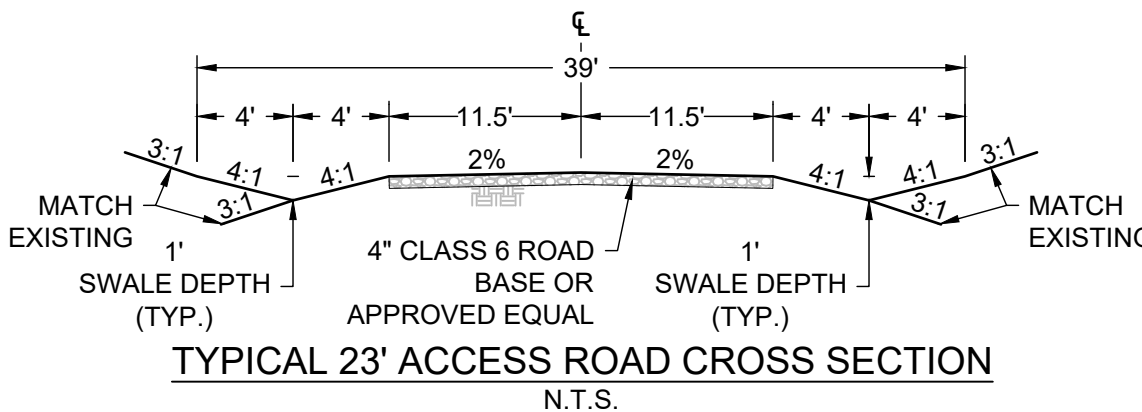
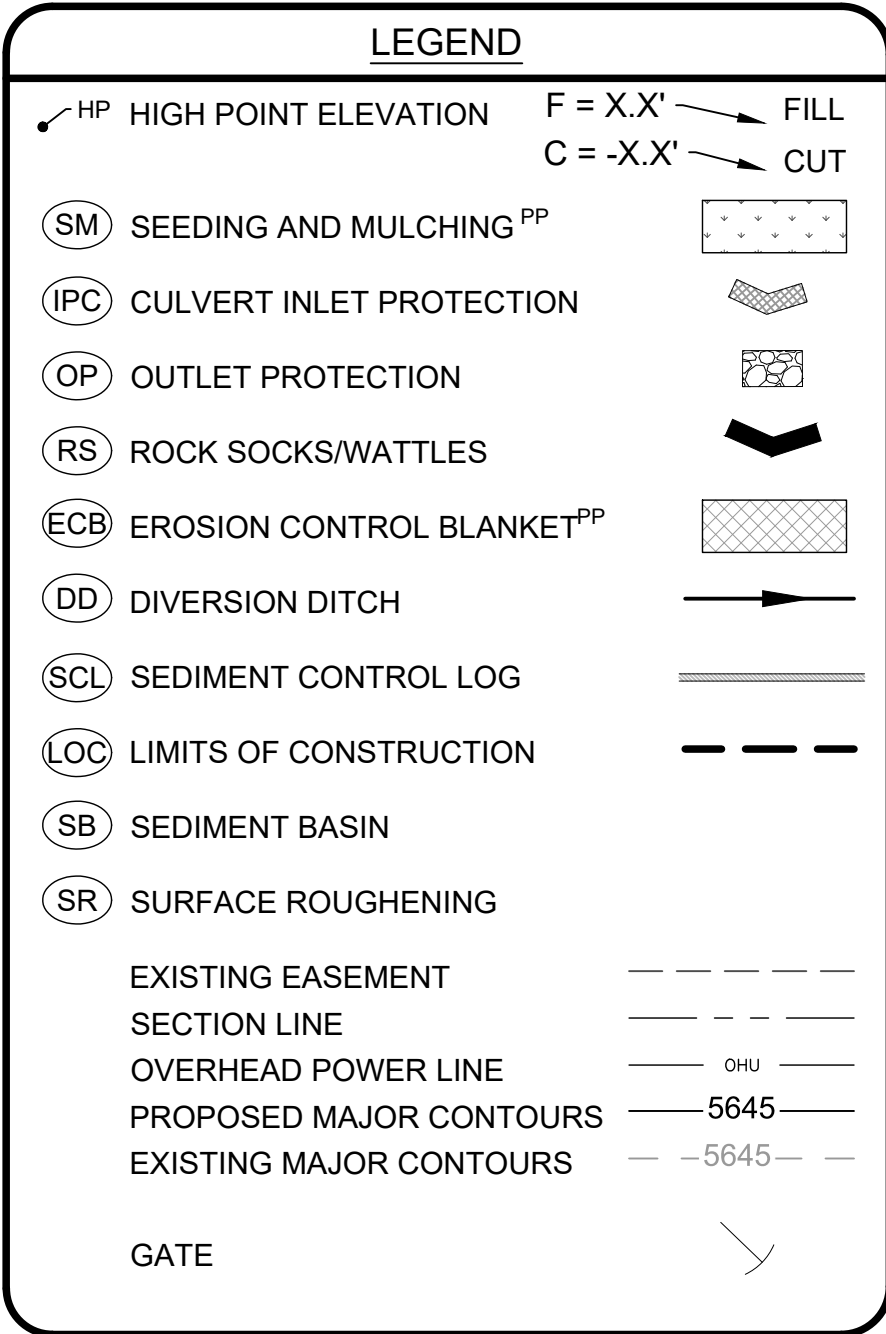
SECTION 17, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL
MERIDIAN, CITY OF AURORA, ARAPAHOE COUNTY, STATE OF COLORADO



MATCHLINE (SEE SHEET 2)

BENCHMARK
CITY OF AURORA BENCHMARK 4S6517SE002
OLD BENCHMARK ID: 23-060
LOCATED ON HAYESMOUNT RD EXTENDED
ELEVATION 5679.43 FEET (NAVD 88)

SURVEY DATUM: HORIZONTAL = NAD83/2011, VERTICAL = NAVD88



FACSIMILE
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Michael L. Pool

This plot does not represent a monumented land survey and should not be relied upon to determine boundary lines, property ownership or other property interests. Parcel lines, if depicted have not been field verified and may be based upon publicly available data that also has not been independently verified.

DATA SOURCES: PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY ASCENT.

PREPARED BY:



Ascent Geomatics Solutions
8620 Wolff Court
Westminster, CO 80031

PREPARED FOR

 ConocoPhillips

CONOCOPHILLIPS COMPANY
34501 E. QUINCY AVE., BLDG #1
WATKINS, CO 80137

EASTERN HILLS SOUTH 4-65 17-18 3AH, 3BH, 3CH,
 3DH, 4AH, 4BH, 4CH, 4DH
 INITIAL AND INTERIM SWMP - ACCESS ROAD
 SURFACE LOCATION:
 SECTION 17, TOWNSHIP 4 SOUTH, RANGE 65 WEST
 OF THE 6TH PRINCIPAL MERIDIAN

[illegible]

SECTION 17, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL
MERIDIAN, CITY OF AURORA, ARAPAHOE COUNTY, STATE OF COLORADO

Ascent Geomatics Solutions
8620 Wolff Court
Westminster, CO 80031



CONOCOPHILLIPS COMPANY
34501 E. QUINCY AVE., BLDG #1
WATKINS, CO 80137

EASTERN HILLS SOUTH 4-65 17-

EASTERN HILLS SOUTH 4-65 17-18 3AH, 3BH, 3CH,
SOUTH 4-65 17-18 3OH, 3DH

EASTERN HILLS SOUTH 4-65 17-18 3

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FIELD DATE:

02-15-2018

DRAWING DATE:

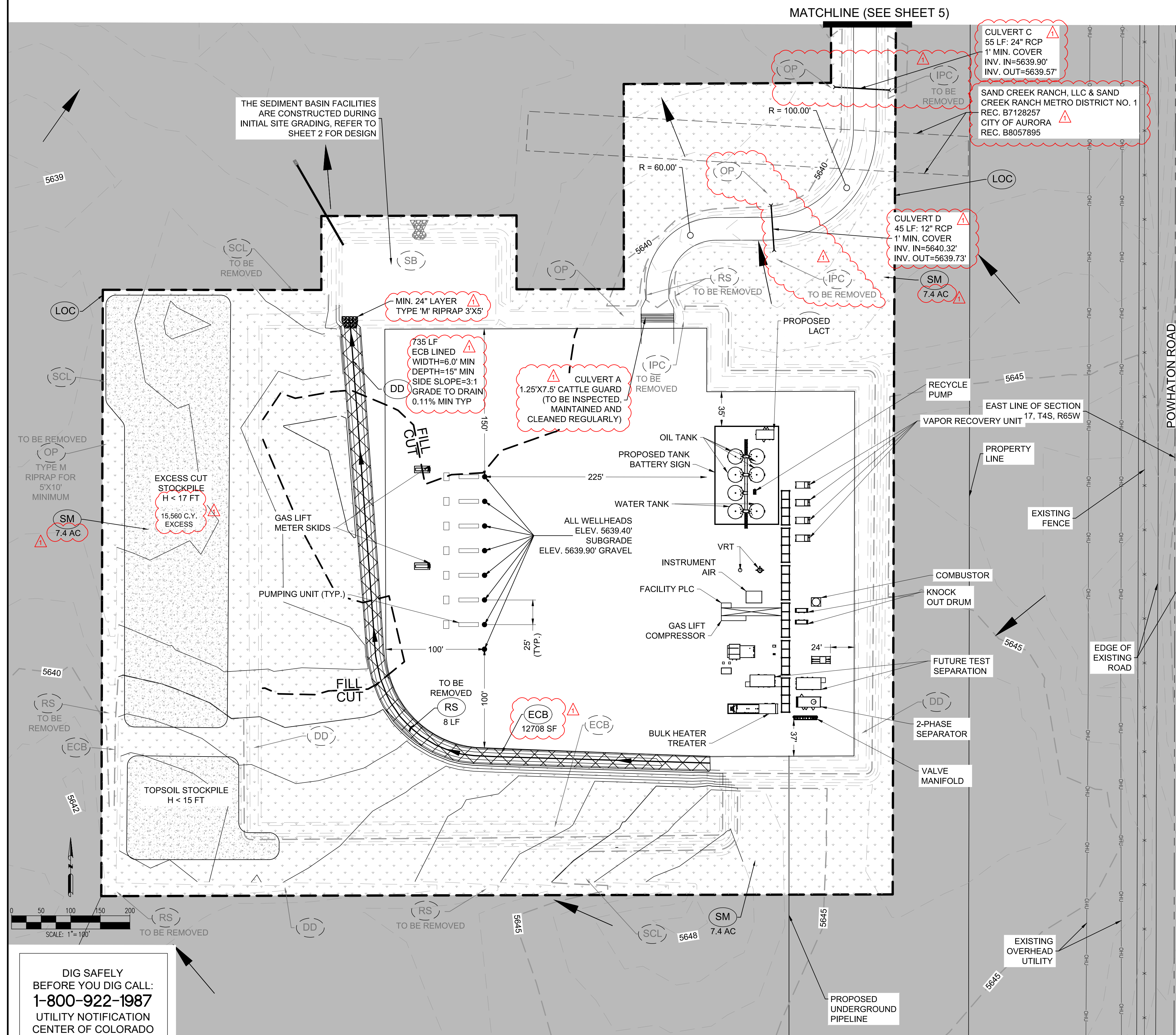
09-27-2019

RAFTED BY:

CJW

SHEET NO.

4



DIG SAFELY
BEFORE YOU DIG CALL:
1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

HP HIGH POINT ELEVATION $F = X.X'$ FILL
 C = -X.X' CUT

(SM)	SEEDING AND MULCHING ^{PP}	
(IPC)	CULVERT INLET PROTECTION	
(OP)	OUTLET PROTECTION	
(RS)	ROCK SOCKS/WATTLES	
(ECB)	EROSION CONTROL BLANKET ^{PP}	
(DD)	DIVERSION DITCH	
(SCL)	SEDIMENT CONTROL LOG	
(LOC)	LIMITS OF CONSTRUCTION	
(SB)	SEDIMENT BASIN	
(SR)	SURFACE ROUGHENING	

EXISTING EASEMENT	---
SECTION LINE	---
OVERHEAD POWER LINE	— OHU —
PROPOSED MAJOR CONTOURS	— 5645 —
EXISTING MAJOR CONTOURS	— -5645—

AREA OUTSIDE OF LIMITS OF CONSTRUCTION

(DD) BMP WAS INSTALLED IN DURING INTERIM GRADING

QUANTITIES

TOTAL CUT FOR RECLAIMED AREA
FILL FOR WELL PAD
10% FILL FACTOR
TOTAL FILL

REMAINING EXCESS CUT STOCKPILE

1,509 CY
5,299 CY
530 CY
4,320 CY

SIZE OF LOCATION AFTER INTERIM
RECLAMATION IN ACRES
(COGCC 2A REPORTABLE)

7.7 ACRES

ONSITE DIVERSION DITCH 1
CROSS SECTION
N.T.S.

ONSITE DIVERSION DITCH 2
CROSS SECTION
N.T.S.

FACSIMILE
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Michael L. Pool

BENCHMARK
CITY OF AURORA BENCHMARK 4S6517SE002
OLD BENCHMARK ID: 23-060
LOCATED ON HAYESMOUNT RD EXTENDED
ELEVATION 5679.43 FEET (NAVD 88)

SURVEY DATUM: HORIZONTAL = NAD83/2011, VERTICAL = NAVD88

OFFSITE DIVERSION DITCH
CROSS SECTION
N.T.S.

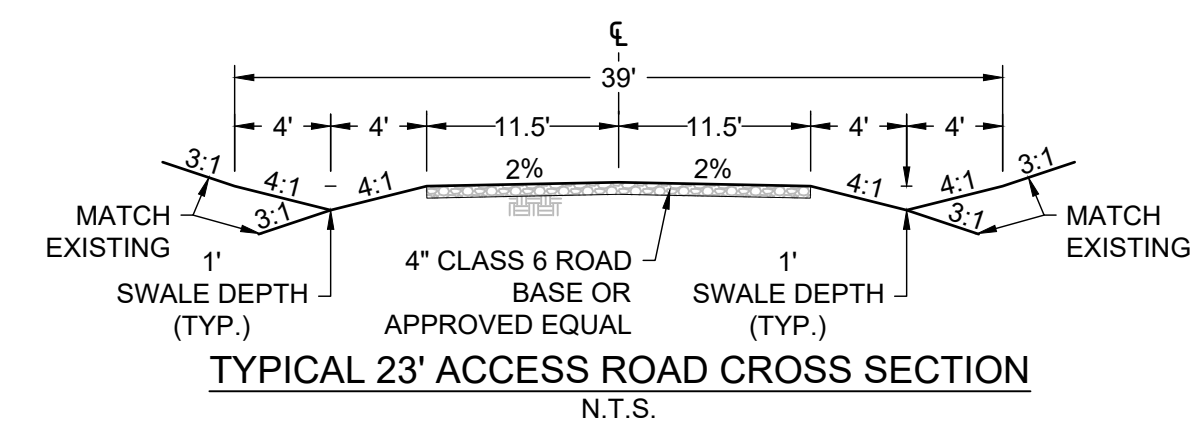
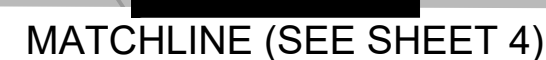
The diagram illustrates a cross-section of a 23-foot wide access road. The central portion is a 4-foot wide 'CLASS 6 ROAD BASE OR APPROVED EQUAL' with a 2% slope on both sides. This central section is flanked by 1-foot wide 'SWALE DEPTH (TYP.)' areas. The outermost sections, each 3 feet wide, are labeled 'MATCH EXISTING'. The total width is 23 feet. The diagram also shows a 39-foot wide section with a 2% slope, which is likely a typo for 23 feet. The diagram is labeled 'TYPICAL 23' ACCESS ROAD CROSS SECTION' and 'N.T.S.' (Not To Scale).

This plot does not represent a monumented land survey and should not be relied upon to determine boundary lines, property ownership or other property interests. Parcel lines, if depicted have not been field verified and may be based upon publicly available data that also has not been independently verified.

DATA SOURCES: PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY ASCENT.

DATE: 11/7/19

SECTION 17, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL
MERIDIAN, CITY OF AURORA, ARAPAHOE COUNTY, STATE OF COLORADO



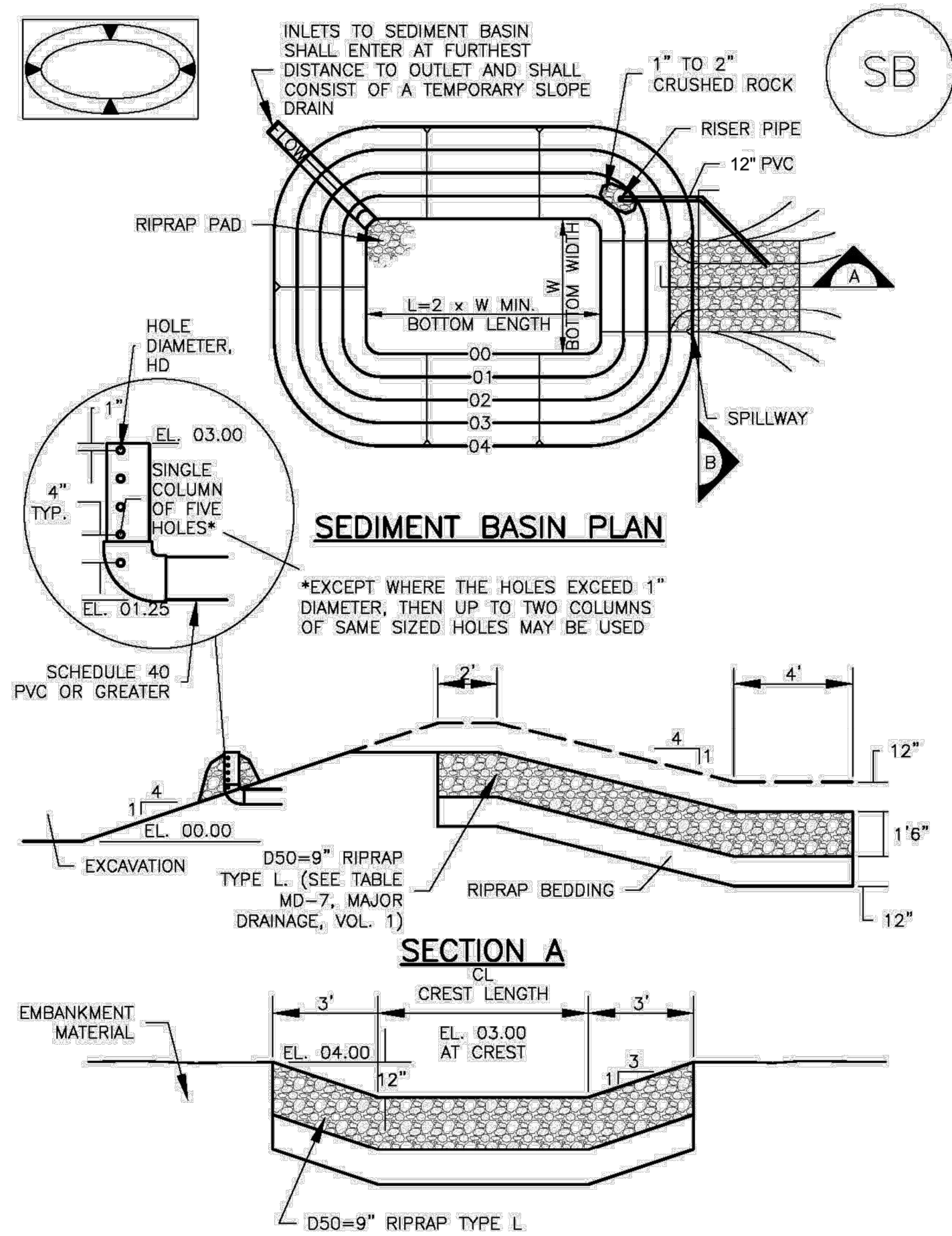
DATA SOURCES: PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY ASCENT.

STORMWATER MANAGEMENT PLANS - REVISION NO. 1
EASTERN HILLS SOUTH 4-65 17-18 3AH, 3BH, 3CH, 3DH, 4AH, 4BH, 4CH, 4DH
OIL & GAS WELLS

SECTION 17, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF AURORA, ARAPAHOE COUNTY, STATE OF COLORADO

Sediment Basin (SB)

SC-7



August 2013

Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

SB-5

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Sediment Basin (SB)

TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN			
Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 1/2	2	9/32
2	21	3	1 1/16
3	28	5	1/2
4	33 1/2	6	9/16
5	38 1/2	8	2 1/2
6	43	9	2 1/2
7	47 1/4	11	2 5/8
8	51	12	2 5/8
9	55	13	2 5/8
10	58 1/4	15	1 5/8
11	61	16	3 1/2
12	64	18	1
13	67 1/2	19	1 1/8
14	70 1/2	21	1 1/8
15	73 1/4	22	1 1/8

SEDIMENT BASIN INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF SEDIMENT BASIN.
 - TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
 - FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
 - FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.
- FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
- SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS A STORMWATER CONTROL.
- EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
- EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
- PIPE SCH 40 OR GREATER SHALL BE USED.
- THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

SB-6

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SEDIMENT BASIN MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).
 - SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.
 - WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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SB-7

DIG SAFELY
BEFORE YOU DIG CALL:
1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

FACSIMILE

This electronic plan is a facsimile of the signed and sealed PDF set.

Michael L. Pool

DATE: 11/7/19

PREPARED BY:



Ascent Geomatics Solutions
8620 Wolff Court
Westminster, CO 80031

PREPARED FOR:

ConocoPhillips

CONOCOPHILLIPS COMPANY
34501 E. QUINCY AVE. BLDG #1
WATKINS, CO 80137

SHEET NAME:
EASTERN HILLS SOUTH 4-65 17-18 3AH, 3BH, 3CH,
3DH, 4AH, 4BH, 4CH, 4DH
DETAILS
SURFACE LOCATION:
SECTION 17, TOWNSHIP 4 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN
ARAPAHOE COUNTY, COLORADO

NO.	DATE:	REVISION DESCRIPTION	INT.

FIELD DATE:

02-15-2018

DRAWING DATE:

09-27-2019

DRAFTED BY:

CJW

SHEET NO.

6